MIAMISBURG - OHIO CAT VEHICLE RENTAL FACILITY

490 BYERS ROAD
MIAMISBURG, OHIO 45342

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PROJECT DIRECTORY

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   20600 CHARGRIN BLVD, SUITE 500
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   PHONE: (216) 378-1490

PROJECT SUMMARY

A NEW CONSTRUCTION PREFABRICATED ENGINEERED METAL BUILDING TO SERVE AS A RENTAL FACILITY. THE BUILDING WILL INCLUDE OFFICES, RETAIL, STORAGE SPACES, AND SERVICE AREAS.

DEFERRED SUBMITTALS:
-PRE ENGINEERED METAL BUILDINGS
-FIRE SUPPRESSION DESIGN
-FIRE ALARM DESIGN

SYMBOL LEGEND

- XXX — DOOR TAG
- XX/XX — KEYED NOTE - REFER TO KEY NOTE LEGEND
- LT-XX — LIGHT FIXTURE TYPE TAG
- DX — DEMOLITION KEYED NOTE - REFER TO KEY NOTE LEGEND
- X — INTERIOR WALL TYPE - REFER TO LEGEND
- EW00 — EXTERIOR WALL TYPE - REFER TO LEGEND
- # — FLOOR TYPE - REFER TO LEGEND
- W-X — WINDOW TAG
- X / XX.XX — EXTERIOR ELEVATION SYMBOL; EXTERIOR ELEVATION NUMBER; SHEET ON WHICH EXTERIOR ELEVATION IS LOCATED
- X / XX.XX — WALL SECTION / DETAIL SYMBOL; SECTION / DETAIL NUMBER; SHEET ON WHICH SECTION / DETAIL IS LOCATED
- X / XX.XX — INTERIOR ELEVATION SYMBOL; INTERIOR ELEVATION NUMBER; SHEET ON WHICH INTERIOR ELEVATION IS LOCATED

LOCATION MAP

SITE LOCATION:

GENERAL NOTES

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 A117.1 ACCESSIBLE AND USABLE BUILDING AND FACILITIES. 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 OHIO UTILITY PROTECTION SERVICE AT 1-800-362-2764 OR 811 AS REQUIRED IN ADVANCE OF THE COMMENCEMENT OF UNDERGROUND UTILITIES WORK.

22. DO NOT SCALE DRAWINGS.

LDA ARCHITECTS
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REV	DATE	DESCRIPTION
	09.23.2026	Issued for Permit

STATE OF OHIO — DOMINICK DURANTE, JR. 7286 — REGISTERED ARCHITECT

DOMINICK DURANTE, JR.
LICENSE 07286
EXPIRATION 12/31/2027

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MIAMISBURG - CAT
RENTAL FACILITY
490 BYERS ROAD, MIAMISBURG, OHIO 45342

LDA Project No.2026.11

COVER SHEET

G0.01

CODE ANALYSIS

APPLICABLE CODES:
1. 2024 OHIO BUILDING CODE (OBC) WITH ALL CURRENT AMENDMENTS/UPDATES
2. 2021 INTERNATIONAL ENERGY CONSERVATION CODE AND ASHRAE STANDARD 90.1
3. ICC/ANSI A117.1-2017 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES
4. ALL APPLICABLE LOCAL BUILDING CODES AND REGULATIONS

CONSTRUCTION SUMMARY:
2 NEW BUILDINGS ON SAME LOT.

BUILDING 1: NEW CONSTRUCTION RENTAL AND REPAIR FACILITY. SALES OF PARTS, MERCHANDISE, NEW EQUIPMENT SALES, EQUIPMENT REPAIRS, ETC. BUILDING WILL BE CONSTRUCTED WITH CONVENTIONAL STEEL FRAMING AND PRE-ENGINEERED METAL BUILDING. - TO BE SPRINKLED

BUILDING 2: NEW CONSTRUCTION EQUIPMENT WASH BAY. FOR CLEANING AND MAINTAINING EQUIPMENT. BUILDING WILL BE CONSTRUCTED AS A PRE-ENGINEERED METAL BUILDING. - TO BE NON SPRINKLED.

BUILDING 1 - MAIN BUILDING

302.1-USE AND OCCUPANCY CLASSIFICATIONS:
PRIMARY USE:
-FACTORY GROUP (F-2)

SECONDARY USE:
-BUSINESS (B) - OFFICE SPACE
-MERCANTILE(M) - RETAIL
-STORAGE (S-1) - PARTS FACILITY

311.2 MODERATE-HAZARD STORAGE, GROUP S-1.
STORAGE GROUP S-1 OCCUPANCIES ARE BUILDINGS OCCUPIED FOR STORAGE USES THAT ARE NOT CLASSIFIED AS GROUP S-2, INCLUDING, BUT NOT LIMITED TO, STORAGE OF THE FOLLOWING: MOTOR VEHICLE REPAIR GARAGES

504.1-BUILDING HEIGHT:
ALLOWABLE BUILDING HEIGHT BASED ON OBC TABLE 504.3:

USE GROUP B,F,M,S (TYPE II-B)
ALLOWABLE HEIGHT: 3 STORIES / 75 FEET
PROPOSED HEIGHT: 2 STORIES / 27 FEET

506.1-BUILDING AREA:
ALLOWABLE BUILDING AREA PER STORY BASED ON OBC TABLE 506.2:

USE GROUP F-2 (TYPE II-B)
ALLOWABLE AREA: 69,000 SF
PROPOSED AREA: 17,008 SF

USE GROUP B (TYPE II-B)
ALLOWABLE AREA: 69,000 SF
PROPOSED AREA: 17,008 SF

USE GROUP M (TYPE II-B) MOST RESTRICTIVE
ALLOWABLE AREA: 37,500 SF
PROPOSED AREA: 17,008 SF

USE GROUP S-1 (TYPE II-B)
ALLOWABLE AREA: 78,000 SF
PROPOSED AREA: 17,008 SF

508.3.1 OCCUPANCY CLASSIFICATION
NONSEPARATED OCCUPANCIES SHALL BE INDIVIDUALLY CLASSIFIED IN ACCORDANCE WITH SECTION 302.1. THE REQUIREMENTS OF THIS CODE SHALL APPLY TO EACH PORTION OF THE BUILDING BASED ON THE OCCUPANCY CLASSIFICATION OF THAT SPACE. IN ADDITION, THE MOST RESTRICTIVE PROVISIONS OF CHAPTER 9 THAT APPLY TO THE NONSEPARATED OCCUPANCIES SHALL APPLY TO THE TOTAL NONSEPARATED OCCUPANCY AREA.

508.3.2 ALLOWABLE BUILDING AREA, HEIGHT AND NUMBER OF STORIES
THE ALLOWABLE BUILDING AREA, HEIGHT AND NUMBER OF STORIES OF THE BUILDING OR PORTION THEREOF SHALL BE BASED ON THE MOST RESTRICTIVE ALLOWANCES FOR THE OCCUPANCY GROUPS UNDER CONSIDERATION FOR THE TYPE OF CONSTRUCTION OF THE BUILDING IN ACCORDANCE WITH SECTION 503.1.

602.1-CONSTRUCTION CLASSIFICATION:
BASED ON TABLE 601 – FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS:
TYPE II-B
0 HR - PRIMARY STRUCTURAL FRAME
0 HR - EXTERIOR BEARING WALLS
0 HR - INTERIOR BEARING WALLS
0 HR - NONBEARING WALLS AND PARTITIONS
0 HR - FLOOR CONSTRUCTION AND SECONDARY MEMBERS
0 HR - ROOF CONSTRUCTION AND SECONDARY MEMBERS

TABLE 803.13-INTERIOR WALL AND CEILING FINISH REQUIREMENTS:
GROUP B,M (SPRINKLERED): (MOST RESTRICTIVE)
-EXIT ENCLOSURES AND EXIT PASSAGEWAYS: CLASS B
-CORRIDORS: CLASS C
-ROOMS AND ENCLOSED SPACES: CLASS C

1015.2 GUARDS WHERE REQUIRED.
GUARDS SHALL BE LOCATED ALONG OPEN-SIDED WALKING SURFACES, INCLUDING MEZZANINES, EQUIPMENT PLATFORMS, AISLES, STAIRS, RAMPS AND LANDINGS THAT ARE LOCATED MORE THAN 30 INCHES (762 MM) MEASURED VERTICALLY TO THE FLOOR OR GRADE BELOW AT ANY POINT WITHIN 36 INCHES (914 MM) HORIZONTALLY TO THE EDGE OF THE OPEN SIDE. GUARDS SHALL BE ADEQUATE IN STRENGTH AND ATTACHMENT IN ACCORDANCE WITH SECTION 1607.9.

1015.4 GUARD OPENING LIMITATIONS.
REQUIRED GUARDS SHALL NOT HAVE OPENINGS THAT ALLOW PASSAGE OF A SPHERE 4 INCHES (102 MM) IN DIAMETER FROM THE WALKING SURFACE TO THE REQUIRED GUARD HEIGHT.

EXCEPTIONS:
4. IN AREAS THAT ARE NOT OPEN TO THE PUBLIC WITHIN OCCUPANCIES IN GROUP I-3, F, H OR S, AND FOR ALTERNATING TREAD DEVICES AND SHIPS LADDERS, GUARDS SHALL NOT HAVE OPENINGS THAT ALLOW PASSAGE OF A SPHERE 21 INCHES (533 MM) IN DIAMETER.

1017.2 EXIT ACCESS TRAVEL DISTANCE LIMITATIONS
EXIT ACCESS TRAVEL DISTANCE SHALL NOT EXCEED THE VALUES GIVEN IN TABLE 1017.2.

TABLE 1017.2 EXIT ACCESS TRAVEL DISTANCE:

OCCUPANCY	WITH SPRINKLER SYSTEM
S-1	250'-0"
B	300'-0"
M	250'-0"
F-2	400'-0"

2902.2-PLUMBING FIXTURE REQUIREMENTS:

USE:	TYPE	REQUIRED		
STORAGE	WATER CLOSETS	1 PER 100	=	0.14
14 OCCUPANTS	LAVATORIES	1 PER 100	=	0.14
	FOUNTAINS	1 PER 400	=	0.035
	SERVICE SINKS	1	=	1
BUSINESS	WATER CLOSETS	1 PER 25	=	.72
18 OCCUPANTS	LAVATORIES	1 PER 40	=	0.45
	FOUNTAINS	1 PER 100	=	0.18
	SERVICE SINKS	1	=	1
MERCANTILE	WATER CLOSETS	1 PER 500	=	0.076
38 OCCUPANTS	LAVATORIES	1 PER 750	=	0.051
	FOUNTAINS	1 PER 1000	=	0.038
	SERVICE SINKS	1	=	1
FACTORY	WATER CLOSETS	1 PER 100	=	1.01
101 OCCUPANTS	LAVATORIES	1 PER 100	=	1.01
	FOUNTAINS	1 PER 400	=	0.253
	SERVICE SINKS	1	=	1

		TOTAL REQUIRED	TOTAL PROVIDED
171 OCCUPANTS	WATER CLOSETS	= 2	8 (2 URINALS)
	LAVATORIES	= 2	6
	FOUNTAINS	= 1	1
	SERVICE SINKS	= 1	1
		(FRESH WATER PROVIDED AT KITCHEN SINK)	

INTERNATIONAL ENERGY CONSERVATION CODE - 2021
C402.1.4 - OPAQUE THERMAL ENVELOPE ASSEMBLY MINIMUM R-VALUE/MAXIMUM U-VALUE:

CONVENTIONAL BUILDING:
ROOFS: ABOVE DECK: R-30 MINIMUM
METAL WALLS: R-19 + R-11 CONTINUOUS
WALL BELOW GRADE: R-7.5
S.O.G FLOORS: R-15 FOR 24"

METAL BUILDING:
ROOFS: LINER SYSTEM METHOD
R-11 LS (CONTINUOUS ABOVE DECK)
R-19 AVERAGE
WALLS: U-0.050 (LINEAR PANELS)
MASS WALLS: R-11.4
S.O.G FLOORS: R-15 FOR 24"

C402.1.1.1
SKYLIGHTS U-0.5
VERTICAL FENESTRATION: U-0.7

C402.1.1.1 TAPERED, ABOVE-DECK INSULATION BASED ON THICKNESS.
WHERE USED AS A COMPONENT OF A ROOF/CEILING ASSEMBLY R-VALUE CALCULATION, THE SLOPED ROOF INSULATION R-VALUE CONTRIBUTION TO THAT CALCULATION SHALL USE THE AVERAGE THICKNESS IN INCHES (MM) ALONG WITH THE MATERIAL R-VALUE-PER-INCH (PER-MM) SOLELY FOR R-VALUE COMPLIANCE AS PRESCRIBED IN SECTION 402.1.3.

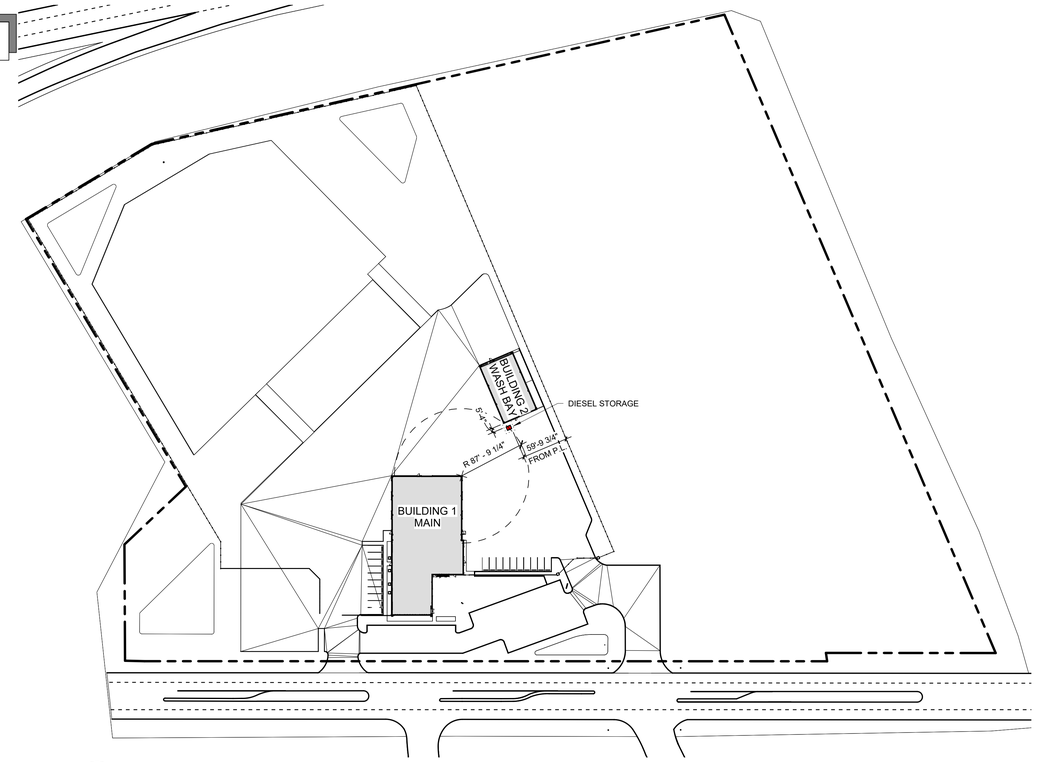
C402.2.1.2 MINIMUM THICKNESS, LOWEST POINT.
THE MINIMUM THICKNESS OF ABOVE-DECK ROOF INSULATION AT ITS LOWEST POINT, GUTTER EDGE, ROOF DRAIN OR SCUPPER, SHALL BE NOT LESS THAN 1 INCH (25 MM).

LP = 1" HP = 11.625" = 1+((11.625-1)/2) = 5.3125" * 5.77 (R-VALUE PER INCH) = R-30.65 AVERAGE

OHIO FIRE CODE:
2301.1 SCOPE.
AUTOMOTIVE MOTOR FUEL-DISPENSING FACILITIES, MARINE MOTOR FUEL-DISPENSING FACILITIES, FLEET VEHICLE MOTOR FUEL-DISPENSING FACILITIES, SERVICE STATIONS AT BULK PLANTS, AIRCRAFT MOTOR-VEHICLE FUEL-DISPENSING FACILITIES
AND REPAIR GARAGES SHALL BE IN ACCORDANCE WITH THIS CHAPTER, NFPA 30, NFPA 30A, THE INTERNATIONAL FUEL GAS CODES, THE BUILDING CODE, AND THE MECHANICAL CODE. SUCH OPERATIONS SHALL INCLUDE BOTH THOSE THAT ARE OPEN TO THE PUBLIC AND PRIVATE OPERATIONS.

2311.2.2 WASTE OIL,
MOTOR OIL AND OTHER CLASS IIIB LIQUIDS. WASTE OIL, MOTOR OIL AND OTHER CLASS IIIB LIQUIDS SHALL BE STORED IN TANKS OR CONTAINERS APPROVED IN ACCORDANCE WITH CHAPTER 57, WHICH ARE ALLOWED TO BE STORED AND DISPENSED FROM INSIDE REPAIR GARAGES.

5701.2 NONAPPLICABILITY.
THIS CHAPTER SHALL NOT APPLY TO LIQUIDS AS OTHERWISE PROVIDED IN OTHER LAWS OR REGULATIONS OR CHAPTERS OF THIS CODE, INCLUDING:
-SPECIFIC PROVISIONS FOR FLAMMABLE AND COMBUSTIBLE LIQUIDS IN MOTOR FUEL-DISPENSING FACILITIES, REPAIR GARAGES, AIRPORTS AND MARINAS IN CHAPTER 23



1 G0.02 SITE - LIFE SAFETY PLAN
SCALE: 1" = 80'-0"

BUILDING 2 - WASH BAY

302.1-USE AND OCCUPANCY CLASSIFICATIONS:
PRIMARY USE:
-BUSINESS (B) - CAR WASH

504.1-BUILDING HEIGHT:
ALLOWABLE BUILDING HEIGHT BASED ON OBC TABLE 504.3:

USE GROUP B (TYPE II-B)
ALLOWABLE HEIGHT: 2 STORIES / 55 FEET
PROPOSED HEIGHT: 1 STORIES / 20 FEET

505.2.1 MEZZANINE AREA LIMITATION.
THE AGGREGATE AREA OF A MEZZANINE OR MEZZANINES WITHIN A ROOM SHALL BE NOT GREATER THAN ONE-THIRD OF THE FLOOR AREA OF THAT ROOM OR SPACE IN WHICH THEY ARE LOCATED. THE ENCLOSED PORTION OF A ROOM SHALL NOT BE INCLUDED IN A DETERMINATION OF THE FLOOR AREA OF THE ROOM IN WHICH THE MEZZANINE IS LOCATED. IN DETERMINING THE ALLOWABLE MEZZANINE AREA, THE AREA OF THE MEZZANINE SHALL NOT BE INCLUDED IN THE FLOOR AREA OF THE ROOM.

EXCEPTIONS:
1.THE AGGREGATE AREA OF MEZZANINES IN BUILDINGS AND STRUCTURES OF TYPE I OR II CONSTRUCTION FOR SPECIAL INDUSTRIAL OCCUPANCIES IN ACCORDANCE WITH SECTION 503.1.1 SHALL BE NOT GREATER THAN TWO-THIRDS OF THE FLOOR AREA OF THE ROOM.

506.1-BUILDING AREA:
ALLOWABLE BUILDING AREA PER STORY BASED ON OBC TABLE 506.2:

USE GROUP B (TYPE II-B)
ALLOWABLE AREA: 40,250 SF
PROPOSED AREA: 3,788 SF

TABLE 506.2.2 FRONTAGE INCREASE FACTOR

PERCENTAGE OF OPEN SPACE	OPEN SPACE 30 FEET OR GREATER
75% TO 100%	.75

A = (23,000 + (23,000 * .75)) = 40,250 B

602.1-CONSTRUCTION CLASSIFICATION:
BASED ON TABLE 601 – FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS:
TYPE II-B
0 HR - PRIMARY STRUCTURAL FRAME
0 HR - EXTERIOR BEARING WALLS
0 HR - INTERIOR BEARING WALLS
0 HR - NONBEARING WALLS AND PARTITIONS
0 HR - FLOOR CONSTRUCTION AND SECONDARY MEMBERS
0 HR - ROOF CONSTRUCTION AND SECONDARY MEMBERS

TABLE 803.13-INTERIOR WALL AND CEILING FINISH REQUIREMENTS:
GROUP B,M (NON SPRINKLERED): (MOST RESTRICTIVE)
-EXIT ENCLOSURES AND EXIT PASSAGEWAYS: CLASS A
-CORRIDORS: CLASS B
-ROOMS AND ENCLOSED SPACES: CLASS C

1017.2 EXIT ACCESS TRAVEL DISTANCE LIMITATIONS
EXIT ACCESS TRAVEL DISTANCE SHALL NOT EXCEED THE VALUES GIVEN IN TABLE 1017.2.

TABLE 1017.2 EXIT ACCESS TRAVEL DISTANCE:

OCCUPANCY	WITHOUT SPRINKLER SYSTEM
B	200'-0"

2902.2-PLUMBING FIXTURE REQUIREMENTS:

		REQUIRED			PROPOSED
BUSINESS	WATER CLOSETS	1 PER 25	=	1	2
34 OCCUPANTS	LAVATORIES	1 PER 40	=	0.625	2
	FOUNTAINS	1 PER 100	=	0.25	(MAIN BLDG)
	SERVICE SINKS	1	=	1	(MAIN BLDG

BUILDING 2 - WASH BAY

INTERNATIONAL ENERGY CONSERVATION CODE - 2021
C402.1.4 - OPAQUE THERMAL ENVELOPE ASSEMBLY MINIMUM R-VALUE/MAXIMUM U-VALUE:

METAL BUILDING:
ROOFS: LINER SYSTEM METHOD
R-11 LS (CONTINUOUS ABOVE DECK)
R-19 AVERAGE
WALLS: U-0.050 (LINEAR PANELS)
S.O.G FLOORS: R-15 FOR 24"

C402.1.1.1
SKYLIGHTS U-0.5
VERTICAL FENESTRATION: U-0.7

OHIO FIRE CODE:
(C) 2306.2.3 ABOVE-GROUND TANKS LOCATED OUTSIDE, ABOVE GRADE. ABOVE-GROUND TANKS SHALL NOT BE USED FOR THE STORAGE OF CLASS I, II OR III MOTOR LIQUID FUELS EXCEPT AS PROVIDED. EXISTING ABOVEGROUND TANK INSTALLATIONS, EVEN IF PREVIOUSLY APPROVED, THAT ARE DETERMINED TO CONSTITUTE A HAZARD BY THE FIRE CODE OFFICIAL SHALL NOT BE CONTINUED IN SERVICE. UNSAFE TANKS SHALL BE REMOVED AS REQUIRED BY THE FIRE CODE OFFICIAL AND IN ACCORDANCE WITH THIS CODE.

(V)ABOVE-GROUND TANKS USED FOR OUTSIDE ABOVE-GRADE STORAGE OF CLASS IIIB LIQUID MOTOR FUEL SHALL BE LISTED AND LABELED IN ACCORDANCE WITH UL 142 AS LISTED IN RULE 1301:7-7-80 OF THE ADMINISTRATIVE CODE OR LISTED AND LABELED AS PROTECTED ABOVEGROUND TANKS IN ACCORDANCE WITH UL 2085 AS LISTED IN RULE 1301:7-7-80 OF THE ADMINISTRATIVE CODE AND SHALL BE INSTALLED IN ACCORDANCE WITH RULE 1301:7-7-57 OF THE ADMINISTRATIVE CODE. TANK LOCATIONS SHALL BE IN ACCORDANCE WITH TABLE 2306.2.3 OF THIS RULE.

TABLE 2306.2.3MINIMUM SEPARATION REQUIREMENTS FOR ABOVE-GROUND TANKS

CLASS OF LIQUID AND TANK TYPE
-IIIB

INDIVIDUAL TANK CAPACITY (GALLONS)
-520 GALLONS < 6,000 GALLONS

MINIMUM DISTANCE FROM NEAREST IMPORTANT BUILDING ON SAME PROPERTY (FEET)
-5'-0"

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

REV	DATE	DESCRIPTION
	09.23.2026	Issued for Permit

LEGEND
1 HOUR RATING
EGRESS PATH
FIRE CABINET LOCATION: 75'-0" RADIUS

STATE OF OHIO
DOMINICK DURANTE, JR.
7280
REGISTERED ARCHITECT

DOMINICK DURANTE, JR.
LICENSE 07280
EXPIRATION 12/31/2027

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MIAMISBURG - CAT
RENTAL FACILITY
490 BYERS ROAD, MIAMISBURG, OHIO 45342

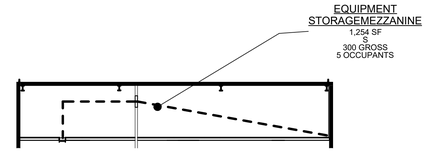
LDA Project No.2026.11

CODE DATA AND LIFE SAFETY

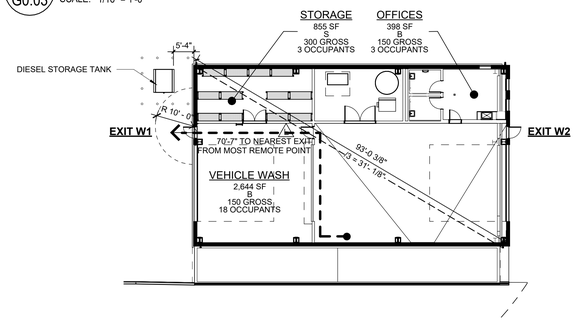
G0.02

BUILDING 2 TABLE 1004.1.1 - OCCUPANT LOAD - WASH BAY				
USE	AREA	OCCUPANCY		
		TYPE	LOAD FACTOR	LOAD
FIRST FLOOR				
VEHICLE WASH	2,644 SF	B	150	18
STORAGE	855 SF	S	300	3
OFFICES	398 SF	B	150	3
	3,898 SF			24
MEZZANINE				
EQUIPMENT STORAGEMEZZANINE	1,254 SF	S	300	5
	1,254 SF			5

EXIT CALCULATIONS - WASH BAY				
EXIT #	WIDTH FACTOR	OCCUPANT LOAD	REQUIRED	PROVIDED
EXIT W1	0.2	12	3"	34 1/2"
EXIT W2	0.2	12	2"	34 1/2"



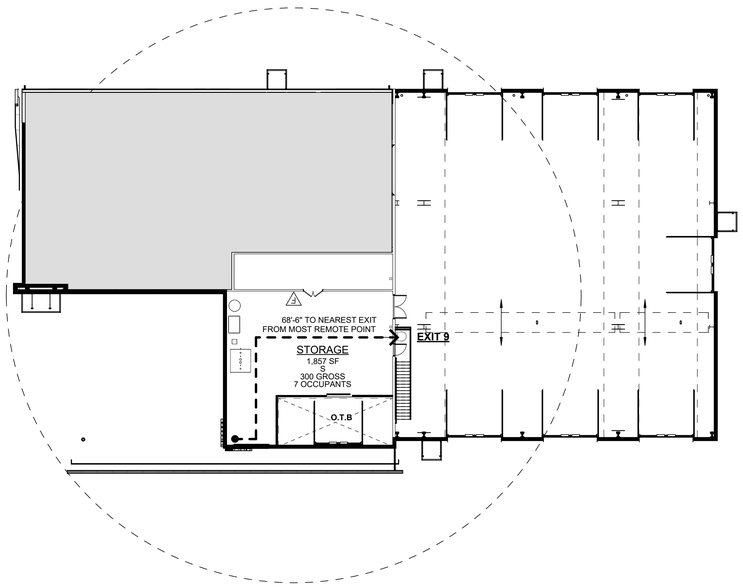
4 G0.03 WASH BAY MEZZANINE
SCALE: 1/16" = 1'-0"



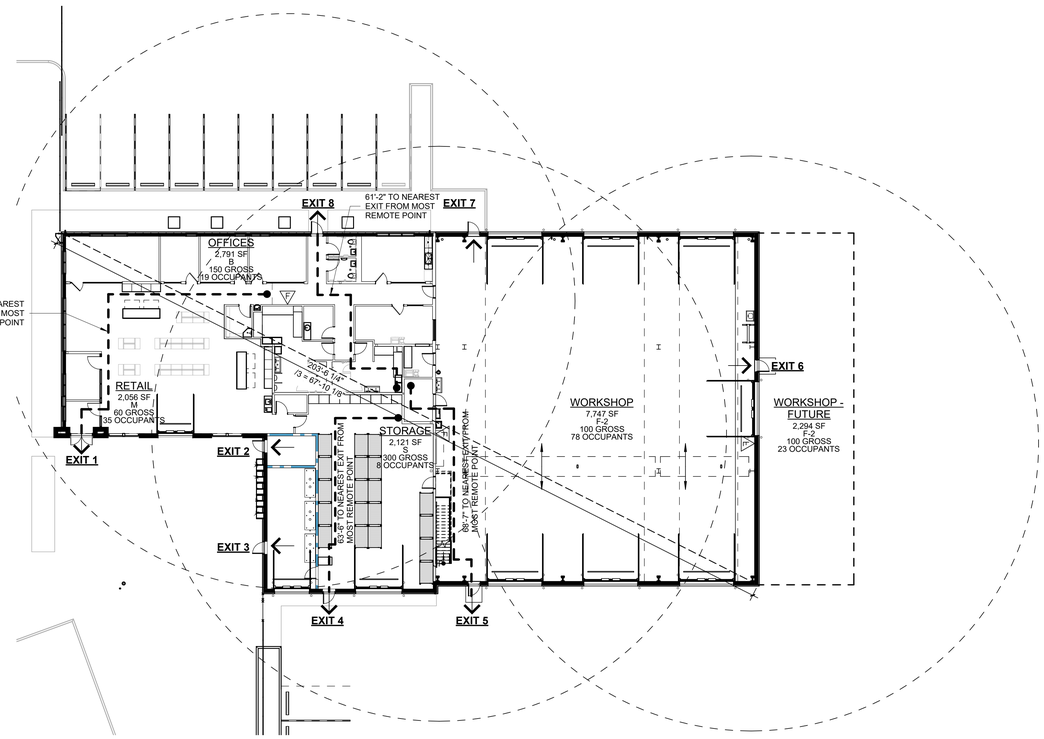
2 G0.03 FIRST FLOOR - LIFE SAFETY PLAN - WASH BAY
SCALE: 1/16" = 1'-0"

BUILDING 1 TABLE 1004.1.1 - OCCUPANT LOAD				
USE	AREA	OCCUPANCY		
		TYPE	LOAD FACTOR	LOAD
FIRST FLOOR				
RETAIL	2,056 SF	M	60	35
OFFICES	2,791 SF	B	150	19
STORAGE	2,121 SF	S	300	8
WORKSHOP	7,747 SF	F-2	100	78
WORKSHOP - FUTURE	2,294 SF	F-2	100	23
	17,008 SF			163
MEZZANINE				
STORAGE	1,857 SF	S	300	7
	1,857 SF			7

EXIT CALCULATIONS				
EXIT #	WIDTH FACTOR	OCCUPANT LOAD	REQUIRED	PROVIDED
EXIT #1	0.2	56	11 1/4"	65"
EXIT #2	0.2	7	1 1/2"	34 1/2"
EXIT #3	0.2	7	1 1/2"	34 1/2"
EXIT #4	0.2	7	1 1/2"	34 1/2"
EXIT #5'	0.2	26	5 1/4"	34 1/2"
EXIT #6	0.2	26	5 1/4"	34 1/2"
EXIT #7	0.2	26	5 1/4"	34 1/2"
EXIT #8	0.2	18	3 1/2"	34 1/2"
EXIT #9	0.3	7	2"	34 1/2"



3 G0.03 MEZZANINE - LIFE SAFETY PLAN
SCALE: 1/16" = 1'-0"



1 G0.03 FIRST FLOOR - LIFE SAFETY PLAN
SCALE: 1/16" = 1'-0"

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REV	DATE	DESCRIPTION
	09.23.2026	Issued for Permit

LEGEND

1 HOUR RATING

EGRESS PATH

FIRE CABINET LOCATION: 75'-0" RADIUS

STATE OF OHIO REGISTERED ARCHITECT DOMINICK DURANTE, JR. 7286

DOMINICK DURANTE, JR.
LICENSE 07286
EXPIRATION 12/31/2027

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MIAMISBURG - CAT
RENTAL FACILITY
490 BYERS ROAD, MIAMISBURG, OHIO 45342

LDA Project No.2026.11

LIFE SAFETY PLANS

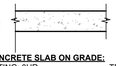
G0.03

ABBREVIATIONS (where not otherwise defined)

ABBRVS.	Abbreviations	F.D.	Floor Drain	O.C.	On Center
ABV.	Above	FDN.	Foundation	O.D.	Outside Diameter or Overflow Drain
ACOUS.	Acoustic(al)	FF. (FF)	Finish Face		
A.D.	Area Drain	FIN.	Finish	O.H.	Opposite Hand (Mirror Image)
ADJ.	Adjacent	FL.	Floor		
AFF	Above Finish Floor	FLASH.	Flashing	OPNG.	Opening
AGGR.	Aggregate	FLOUR.	Flourescent	OPP.	Opposite
AL. (AL)	Aluminum	F.O.	Face of		
A.P.	Access Panel	F.O.C.	Face of Concrete	PL.	Plate
A.P.N.	Assessor's Parcel Number	F.O.F.	Face of Finish	PLAS.	Plaster
		F.O.S.	Face of Stud	PLWD.	Plywood
APPROX.	Approximate	FS	Face of Stud	PNL.	Panel
ARCH.	Architect	FPRF.	Fireproof	PT.	Point
ASPH.	Asphalt	FRG.(FRG)	Framing	PR.	Pair
		FT.	Foot/Feet	PTD.	Painted
BD.	Board	FTG.	Footing	PTN.	Partition
BKG.	Backing	FURR.	Furring	P.T.	Pressure Treated
BLDG.	Building	FUT.	Future		
BLKG.	Blocking			R.	Riser or Radius
BM.	Beam	GA.	Gauge	REINF.	Reinforcing
B.O.	Bottom of	GALV.	Galvanized	R.D.	Roof Drain
B.U.R.	Built-up Roofing	G.B.	Grab Bar	REQ.	Required
		GDRL.	Guardrail	RESIL.	Resilient
CAB.	Cabinet	GL. (GL)	Grid Line	R.O.	Rough Opening
C.B.	Catch Basin	GLS.	Glass	RWL	Rainwater Leader
CEM.	Cement	GFCI	Ground Fault Circuit Interrupt		
CER.	Ceramic			S.	South
C.I.	Cast Iron	GND.	Ground	S.C. (SC)	Solid Core
C.J.	Control Joint	GR.	Grade	SCHED.	Schedule
CL	Centerline	GYP.	Gypsum	SH.	Shelf
CLG.	Ceiling	GWB	Gypsum Wall-board	SHR.	Shower
CLKG.	Caulking			SHT.	Sheet
CLO.	Closet	G.I.	Galvanized Iron	SIM.	Similar
CLR.	Clear			SPEC.	Specification
C.M.U.	Concrete Masonry Unit	H.B.	Hose Bib	SQ.	Square
		H.C. (HC)	Hollow Core	S.S.	Stainless Steel
CNTR.	Counter	HDWD.	Hardwood	S.S.D.	See Structural Drawings
C.O.	Clean Out	HDWR.	Hardware		
COL.	Column	HDRL.	Handrail	STD.	Standard
CONC.	Concrete	H.M. (HM)	Hollow Metal	STL.	Steel
CONT.	Continuous	HORIZ.	Horizontal	STOR.	Storage
CSWK.	Casework	H.P.	High Point	STRL.	Structural
C.R.	Cold Rolled	HR.	Hour	S.V.	Sheet Vinyl
C.T.	Ceramic Tile	HT.	Height	SYM.	Symmetrical
CTR.	Center				
CTSK.	Countersunk	I.D.	Inside Diameter	T.	Tread
		INFO.	Information	T.B.	Towel Bar
DBL.	Double	INSUL.	Insulation	TEL.	Telephone
DET.	Detail	INT.	Interior	TEMP.	Tempered
DIA.	Diameter			T&G	Toungue & Groove
DIM.	Dimension	JT.	Joint	TH.	Threshold
DN. (DN)	Down			THK.	Thick
D.O.	Door Opening	KIT.	Kitchen	T.O.	Top of
DR.	Door			T.O.W.	Top of Wall
DWR.	Drawer	LAM.	Laminate	T.P.D.	Toilet Paper Dispenser
D.S.	Downspout	LAV.	Lavatory		
DWG.	Drawing	L.P.	Low Point	T.V.	Television
		LT.	Light	T.S.	Tube Steel
(E)	Existing			TYP.	Typical
E.	East	MAX.	Maximum		
EA.	Each	M.C.	Medicine Cabinet	UNF.	Unfinished
E.B.	Expansion Bolt	MECH.	Mechanical	U.O.N.	Unless Otherwise Noted
E.J.	Expansion Joint	MEMB.	Membrane		
EL.	Elevation	MET.	Metal		
ELEC.	Electrical	MFR.	Manufacturer	VEN.	Veneer
ELEV.	Elevator	MNFR.	Manufacturer	VERT.	Vertical
ENCL.	Enclosure	MIN.	Minimum	VEST.	Vestibule
E.P.	Electrical Panel	MISC.	Miscellaneous	V.T.	Vinyl Tile
EQ.	Equal	MUL.	Mullion	V.I.F.	Verify in Field
EQUIP.	Equipment				
EXPO.	Exposed	(N)	New	W.	West
EXP.	Expansion	N.	North	W/	With
EXT.	Exterior	N.I.C.	Not in Contract	WD. (WD)	Wood
		NOM.	Nominal	W.O.	Where Occurs
		N.T.S.	Not to Scale	W/O	Without
				WP.	Waterproofing
				WR.	Water Resistant
				WT.	Weight

FLOOR TYPES:

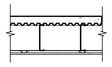
A



CONCRETE SLAB ON GRADE:
RATING: 0HR TESTING #: N/A
STC RATING: N/A ICC RATING: N/A

1. CONCRETE SLAB 6" - 10" THICK
   -REFER TO STRUCTURAL DRAWINGS
2. SUB BASE BY ENGINEER

B



3.5" COMPOSITE ELEVATED FLOOR :
RATING: N/A TESTING #: N/A
STC RATING: N/A ICC RATING: N/A

1. 3" CONCRETE COMPOSITE METAL DECK
2. 16" STEEL JOISTS.
3. 7/8" GALVANIZED HAT CHANNELS 24" O.C.
3. 5/8" GYPSUM WALL BOARD - TYPE C

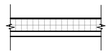
ROOF TYPES:

C

EXTERIOR CEILING ASSEMBLY :
RATING: N/A HR TESTING #: N/A
STC RATING: N/A ICC RATING: N/A

1. 3 5/8" METAL STUDS, 16" O.C MAX
2. ALUMINUM PANEL. REFER TO EXTERIOR ELEVATIONS FOR COLORS AND TEXTURES

D



TPO ROOF ON METAL DECK:
RATING: 0HR TESTING #: N/A
STC RATING: N/A ICC RATING: N/A

1. TPO ROOFING MEMBRANE - WHITE
   -20 YEAR MINIMUM WARRANTY
2. CONTINUOUS RIGID INSULATION
   -R-30 MINIMUM
4. 1.5" METAL DECKING BY PREFABRICATED METAL BUILDING MANF.
5. JOISTS, PERLINS, AND BEAMS BY PREFABRICATED METAL BUILDING MANF.

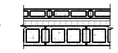
E

STANDING SEAM ROOF:
RATING: 0HR TESTING #: N/A
STC RATING: N/A ICC RATING: N/A

1. STANDING SEAM METAL PANEL
   -UNDERLAYMENT AS REQUIRED BY MANUFACTURER
2. (2) 2.5" RIGID INSULATION
   -R30 MINIMUM
3. 1.5" METAL DECKING.
4. METAL JOIST, REFER TO STRUCTURAL DRAWINGS.
   -EXPOSED PAINTED

EXTERIOR WALL TYPES:

EW01



CMU WATER TABLE EXTERIOR WALL:

EXTERIOR
1. 4X8X16 GROUND FACE CONCRETE MASONRY WALL REFER TO EXTERIOR ELEVATIONS
2. 3" CAVITY SPACE
   - 2" RIGID INSULATION R-11.4
4. 8X8X16 CONCRETE MASONRY UNIT GROUTED SOLID INTERIOR

EW02

ALUMINUM COMPOSITE WALL PANEL:
U-VALUE MAXIMUM: .050

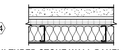
1. 3" COMPOSITE INSULATED ALUMINUM PANEL.
   -REFER TO EXTERIOR ELEVATIONS FOR COLORS AND TEXTURES.

EW03

ALUMINUM COMPOSITE WALL PANEL ON CMU:
U-VALUE MAXIMUM: .050

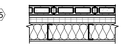
EXTERIOR
1. 3" COMPOSITE INSULATED ALUMINUM PANEL
   -REFER TO EXTERIOR ELEVATIONS FOR COLORS AND TEXTURES.
2. 8X8X16 CONCRETE MASONRY UNIT.
INTERIOR

EW04



CULTURED STONE WALL PANEL:
1. 3 5/8" STONE VENEER
2. 3" AIR CAVITY
   -2" RIGID INSULATION R-11
3. 5/8" DENSELEMENT SHEATHING
4. 6" METAL STUDS SPACED AT 16" O.C.
   -R-19 BATT INSULATION
5. 5/8" GYPSUM BOARD AT FINISH SIDE ONLY

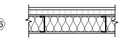
EW05



CMU WATER TABLE EXTERIOR WALL:

1. 4X8X16 GROUND FACE BLOCK
2. 3" CAVITY SPACE
   -2" RIGID INSULATION R-11
3. 5/8" DENSELEMENT SHEATHING
4. 6" METAL STUDS SPACED AT 16" O.C.
   -R-19 BATT INSULATION
5. 5/8" GYPSUM BOARD AT FINISH SIDE ONLY

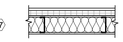
EW06



STANDING SEAM METAL WALL PANEL:

1. STANDING SEAM METAL PANEL CLADDING
2. 2" RIGID INSULATION
   -2" HORIZONTAL Z GRITS, 24" O.C.
3. 5/8" DENSELEMENT SHEATHING
4. 6" METAL STUDS SPACED AT 16" O.C.
   -R-19 INSULATION
5. 5/8" GYPSUM BOARD AT FINISH SIDE ONLY

EW07



ALUMINUM COMPOSITE WALL PANEL ON METAL STUDS:

1. ACM PANEL CLADDING.
2. 2" RIGID INSULATION
   -2" HORIZONTAL Z GRITS, 24" O.C.
3. 5/8" DENSELEMENT SHEATHING
4. 6" METAL STUDS SPACED AT 16" O.C.
   -R-19 INSULATION
5. 5/8" GYPSUM BOARD AT FINISH SIDE ONLY

EW08

CAST IN PLACE CONCRETE WALL:

1. 8" CAST IN PLACE CONCRETE WALL

INTERIOR WALL TYPES:

A

METAL HAT CHANNEL FURRING WALL:
RATING: 0HR TESTING #: N/A
STC RATING: N/A

1. 7/8" METAL HAT CHANNEL SPACED AT 16" O.C.
2. 5/8" GYPSUM BOARD AT FINISH SIDE ONLY

B

METAL STUD FURRING WALL:
RATING: 0HR TESTING #: N/A
STC RATING: N/A

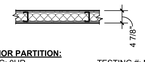
1. 1 5/8" METAL STUDS SPACED AT 16" O.C.
2. 5/8" GYPSUM BOARD AT FINISH SIDE ONLY

B1

METAL STUD FURRING/PLUMBING WALL:
RATING: 0HR TESTING #: N/A
STC RATING: N/A

1. 3 5/8" METAL STUDS SPACED AT 16" O.C.
2. 5/8" GYPSUM BOARD AT FINISH SIDE ONLY

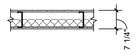
C



INTERIOR PARTITION:
RATING: 0HR TESTING #: N/A
STC RATING: N/A

1. 5/8" GYPSUM BOARD
2. 3 5/8" METAL STUDS SPACED AT 16" O.C.
   -3" ACOUSTICAL BATT INSULATION
3. 5/8" GYPSUM BOARD

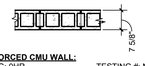
C6



INTERIOR PARTITION:
RATING: 0HR TESTING #: N/A
STC RATING: N/A

1. 5/8" GYPSUM BOARD
2. 6" METAL STUDS SPACED AT 16" O.C.
   -3" ACOUSTICAL BATT INSULATION
3. 5/8" GYPSUM BOARD

D



REINFORCED CMU WALL:
RATING: 0HR TESTING #: N/A

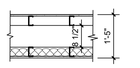
1. 8"X8"X16" CONCRETE MASONRY UNIT.
   -REFER TO STRUCTURAL DRAWINGS

D1

LOAD BEARING CMU WALL:
RATING: 1HR MIN. TESTING #: UL905

1. 8"X8"X16" CONCRETE MASONRY UNIT.
   -REFER TO STRUCTURAL DRAWINGS

E



INTERIOR PLUMBING WALL:
RATING: 0HR TESTING #: N/A
STC RATING: N/A

1. 5/8" GYPSUM BOARD
2. 3 5/8" METAL STUDS SPACED AT 16" O.C.
3. 8 1/2" AIR CAVITY
   -3" ACOUSTICAL INSULATION
4. 3 5/8" METAL STUDS SPACED AT 16" O.C.
5. 5/8" GYPSUM BOARD

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

REV	DATE	DESCRIPTION
	09.23.2026	Issued for Permit

STATE OF OHIO
DOMINICK DURANTE, JR.
7286
REGISTERED ARCHITECT

DOMINICK DURANTE, JR.
LICENSE 07286
EXPIRATION 12/31/2027

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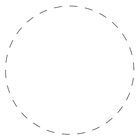
MIAMISBURG - CAT
RENTAL FACILITY
490 BYERS ROAD, MIAMISBURG, OHIO 45342

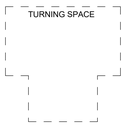
LDA Project No.2026.11

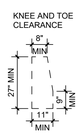
CONSTRUCTION TYPES & ASSEMBLIES

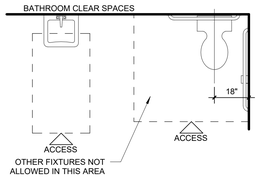
G1.01

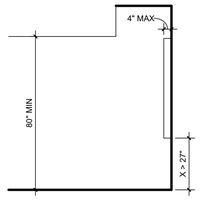


CLEAR FLOOR SPACE

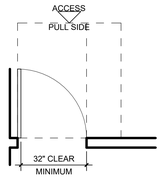


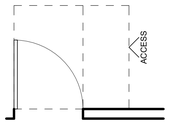




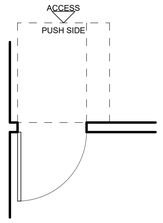


LIMITS OF PROTRUDING OBJECTS

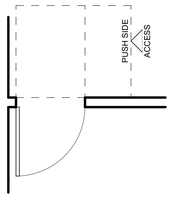




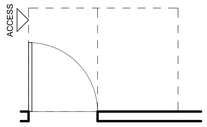
* 54" MIN IF CLOSER IS PROVIDED

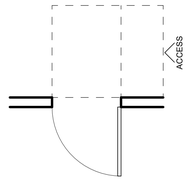


* IF BOTH LATCH AND CLOSER ARE PROVIDED

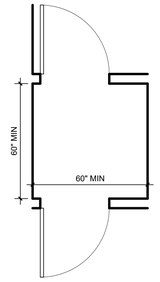


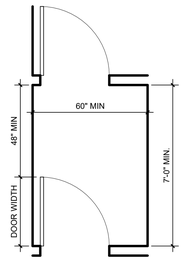
** 48" IF CLOSER IS PROVIDED

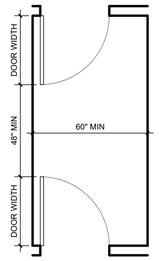




* IF BOTH CLOSER AND LATCH ARE PROVIDED
** 48 MIN (1220) IF BOTH CLOSER AND LATCH PROVIDED

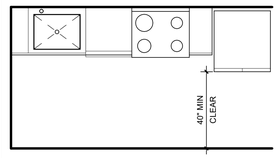






MINIMUM KITCHEN CLEARANCES IN TYPE A & TYPE B KITCHENS

NOTE: CLEARANCE DIMENSIONED SHALL APPLY TO ALL OPPOSING BASE CABINETS, COUNTERTOPS, APPLIANCES, OR WALLS WITHIN KITCHEN WORK AREAS.

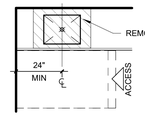


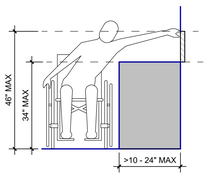
TYP SINK WITHIN TYPE A DWELLING UNIT BATHROOM & KITCHENS

NOTE: COORDINATE W/ *TYP. ACCESSIBLE SINK DETAIL* THIS SHEET.

FLOOR FINISH TO EXTEND UNDER REMOVABLE CABINETRY, TYP.

WALLS BEHIND & SURROUNDING THE REMOVABLE BASE CABINETRY SHALL BE FINISHED.

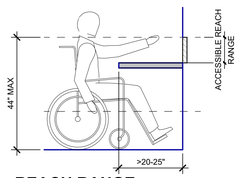




REACH RANGES: OBSTRUCTED HIGH SIDE REACH

SCALE: 3/4"=1'-0"

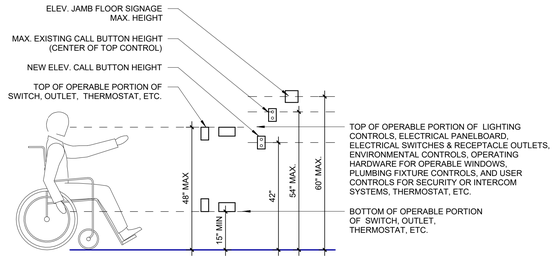
REF. FIG. 308.3.2, 308.3.1



REACH RANGE: OBSTRUCTED HIGH FORWARD

SCALE: 3/4"=1'-0"

REF. FIG. 308.2.2



REQUIRED MOUNTING RANGE FOR ALL ELEVATOR CONTROLS, RECEPTACLE, OUTLETS, SWITCHES, THERMOSTATS AND OTHER CONTROLS. ALL DEVICES IN ALL UNITS TO BE MOUNTED TO THESE REACH RANGES AND NOT JUST AT ACCESSIBLE UNITS

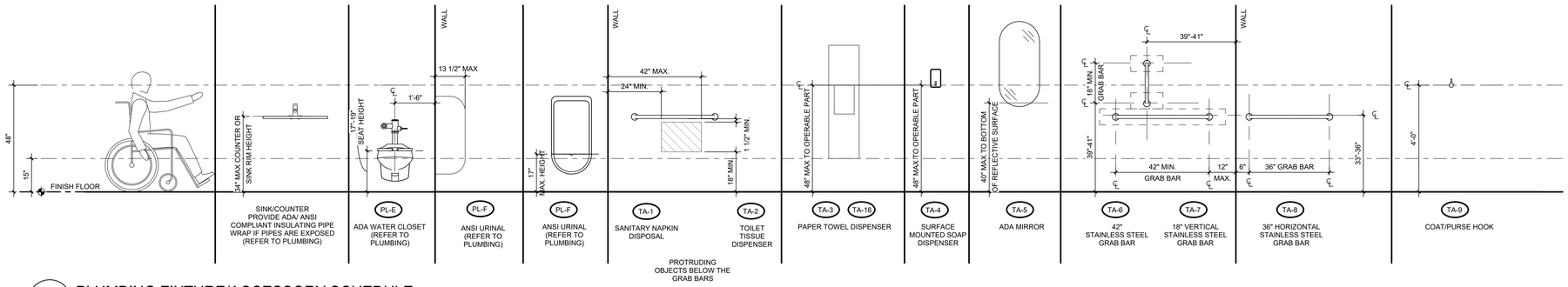
ACCESSIBILITY REACH RANGES

SCALE: 3/4"=1'-0"

APPLIES TO ALL APARTMENT UNITS AND PUBLIC SPACES

1 G2.01 ANSI REACH RANGES

SCALE: 1/2" = 1'-0"



PLUMBING FIXTURE/ACCESSORY SCHEDULE

SCALE: 1/2" = 1'-0"

LDA ARCHITECTS

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

REV	DATE	DESCRIPTION
	09.23.2026	Issued for Permit

STATE OF OHIO REGISTERED ARCHITECT DOMINICK DURANTE, JR. LICENSE 07286

DOMINICK DURANTE, JR.
LICENSE 07286
EXPIRATION 12/31/2027

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MIAMISBURG - CAT
RENTAL FACILITY
490 BYERS ROAD, MIAMISBURG, OHIO 45342

LDA Project No.2026.11

ACCESSIBILITY DIAGRAMS

G2.01

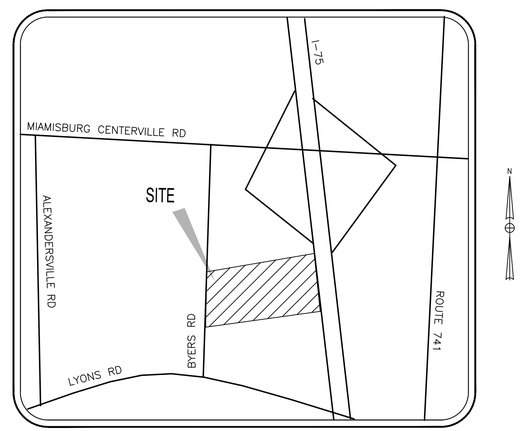
PRELIMINARY PLAN
FOR
OHIO CAT RENTAL SERVICE FACILITY

PREPARED FOR
OMCO BUILDING, LLC
3993 EAST ROYALTON RD
BROADVIEW HEIGHTS, OH 44147

PARCEL # K46 00718 0075
490 BYERS RD,
MIAMISBURG, OH 45342

ESTIMATED START DATE: WINTER 2026

ESTIMATED COMPLETION DATE: SUMMER 2027



VICINITY MAP
NOT TO SCALE

BENCHMARKS

BENCHMARK #1
BENCHMARK #100 SET ARROW
SYMBOL ON HYDRANT
ELEVATION = 1016.43'

BENCHMARK #2
BENCHMARK #101 SET ARROW SYMBOL
ON HYDRANT
ELEVATION = 1012.86'

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CONSTRUCTION DETAILS.....**C002-C008**
EXISTING CONDITIONS.....**C100**
SITE PLAN.....**C200**
GAS LINE CROSSING DETAILS.....**C201-C202**
UTILITY PLAN.....**C300**
UTILITY PROFILES.....**C301-C303**
GRADING PLAN.....**C400**
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SWPPP DETAILS.....**C501-C502**
POND DETAILS.....**C600-C602**
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LANDSCAPE PLAN.....**L100-L101**
LANDSCAPE NOTES AND DETAILS.....**L102**
SIGHT DISTANCE PLAN.....**L103**

UTILITY CONTACTS

SANITARY & STORM SEWERS
MONTGOMERY COUNTY ENVIRONMENTAL SERVICES
1850 SPAULDING ROAD,
KETTERING, OH, 45432

P: 937-781-2500

WATER SERVICE
MONTGOMERY COUNTY ENVIRONMENTAL SERVICES
1850 SPAULDING RD,
KETTERING, OH, 45342

P: 937-781-2500

GAS COMPANY
CENTERPOINT ENERGY OF OHIO
6500 CLYO RD,
DAYTON, OH, 45459

P: 1-800-227-1376

ELECTRIC COMPANY
AES
1900 DRYDEN RD,
MORAINE, OH, 45439

P: 1-800-433-8500

COMMUNICATIONS COMPANIES
ALTAFIBER (USIC)
221 E. FOURTH STREET
CINCINNATI, OH, 45202

P: 513-566-8130

LUMEN TECHNOLOGIES (LEVEL 3)
250 W. OLD WILSON BRIDGE RD., SUITE 130
WORTHINGTON. OH., 43085

P: 877-453-8353

AT&T - OHIO (USIC)
111 N. 4TH STREET
COLUMBUS, OH, 43215

P: 937-296-3929

CHARTER COMM (USIC)
3760 INTERCHANGE RD,
COLUMBUS, OH, 43204

P: 833-949-3929

OWNER:

DANIAL MCMANAMON
OMCO PROPERTIES, LLC
3993 EAST ROYALTON ROAD
BROADVIEW HEIGHTS, OH 44147
P:440-838-7289

DEVELOPER:

DANIAL MCMANAMON
OMCO BUILDING, LLC
3993 EAST ROYALTON ROAD
BROADVIEW HEIGHTS, OH 44147
P:440-838-7289

ZONING SUMMARY:

ZONING	HS-1
BUILDING SETBACK	15' (FRONT), 20' (SIDE)

2 WORKING DAYS
BEFORE YOU DIG
CALL TOLL FREE 800-362-2764
OHIO UTILITIES PROTECTION SERVICE
NON MEMBERS MUST BE CALLED DIRECTLY
OHIO OIL AND GAS PRODUCERS:
800-925-0988

W:\Projects\2025\800-999\2500964\CAD\SHTS\C000 Title Sheet.dwg - Last printed 9/23/2025 5:23 PM

NO.	DATE	BY	DESCRIPTION
1	09/15/2026	ECA	PLANNING COMMISSION SUBMISSION

PRELIMINARY
NOT FOR CONSTRUCTION

STATE OF OHIO
SAULIUS GRUZDYS
84063
REGISTERED
PROFESSIONAL ENGINEER

20600 CHAGRIN BLVD
SUITE 550, SHAKER
HEIGHTS, OH 44122
TEL: 216.378.1490
FAX: 216.378.1497

PROJECT DATE: 09/15/2026
PROJECT NO.: 2500964
DRAWN BY: ECA
CHECKED BY: SG

Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com

PREPARED FOR:
OMCO BUILDING, LLC
3993 EAST ROYALTON ROAD
BROADVIEW HEIGHTS, OH 44147

OHIO CAT
RENTAL SERVICE FACILITY
MIAMISBURG, OH

TITLE SHEET

C000

GENERAL CONSTRUCTION NOTES:

1. ALL CONSTRUCTION SHALL COMPLY WITH LOCAL MUNICIPALITY AND COUNTY CODES AND STANDARDS. ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE OSHA, FEDERAL, STATE AND LOCAL REGULATIONS.
2. ALL CONSTRUCTION WITHIN A DOT RIGHT OF WAY SHALL COMPLY WITH ALL DEPARTMENT OF TRANSPORTATION STANDARDS.
3. ALL WORK WITHIN RIGHT OF WAY TO INCLUDE TRAFFIC CONTROL IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFIC CONTROL DEVICES AND PER ALL CITY REQUIREMENTS. ROAD MUST REMAIN OPEN AT ALL TIMES. CONTRACTOR SHALL PREPARE A MAINTENANCE OF TRAFFIC PLAN AND SUBMIT TO THE CITY AND OWNER FOR APPROVAL PRIOR TO START OF CONSTRUCTION. CONTRACTOR TO COORDINATE ANY NECESSARY LANE CLOSURES WITH THE CITY.
4. THE CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS IN THE FIELD AND CONTACT THE OWNER IF THERE ARE ANY QUESTIONS OR CONFLICTS REGARDING THE CONSTRUCTION DOCUMENTS AND/OR FIELD CONDITIONS SO THAT APPROPRIATE REVISIONS CAN BE MADE PRIOR TO CONSTRUCTION. ANY CONFLICT BETWEEN DRAWINGS AND THE SPECIFICATIONS SHALL BE CONFIRMED WITH THE CONSTRUCTION MANAGER PRIOR TO BIDDING.
5. EXISTING CONDITIONS AS DEPICTED ON THESE PLANS ARE ILLUSTRATIVE IN NATURE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO EXAMINE THE SITE AND BE FAMILIAR WITH EXISTING CONDITIONS PRIOR TO BIDDING. IF CONDITIONS ENCOUNTERED ARE SIGNIFICANTLY DIFFERENT THAN THOSE SHOWN, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
6. SHOULD ANY UNCHARTED, OR INCORRECTLY CHARTED, EXISTING PIPING OR OTHER UTILITY BE UNCOVERED DURING EXCAVATION, CONSULT THE ENGINEER IMMEDIATELY BEFORE PROCEEDING FURTHER WITH THE WORK IN THIS AREA.
7. THE CONTRACTOR SHALL NOTIFY THE ENGINEER SHOULD ANY DISCREPANCY REGARDING THE PROPOSED WORK OR UNFORESEEN CONDITIONS ARISE PRIOR TO PROCEEDING FURTHER WITH THE AFFECTED WORK.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL DIMENSIONS FOR THE PROJECT AND NOTIFYING THE OWNER AND ENGINEER OF ANY CONFLICTS OR DISCREPANCIES PRIOR TO CONSTRUCTION.
9. DO NOT INTERRUPT EXISTING UTILITIES SERVICING FACILITIES OCCUPIED AND USED BY THE OWNER OR OTHERS DURING OCCUPIED HOURS EXCEPT WHEN SUCH INTERRUPTIONS HAVE BEEN AUTHORIZED IN WRITING BY THE OWNER, LOCAL MUNICIPALITY AND/OR UTILITY COMPANY. INTERRUPTIONS SHALL ONLY OCCUR AFTER ACCEPTABLE TEMPORARY OR PERMANENT SERVICE HAS BEEN PROVIDED.
10. CONTRACTOR TO COORDINATE TEMPORARY UTILITY OUTAGES WITH APPLICABLE UTILITY COMPANY AND CITY AND NOTIFY NEIGHBORING EFFECTED OWNERS NO LESS THAN 72 HOURS PRIOR TO PLANNED OUTAGE. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY CONSTRUCTION PERMITS REQUIRED TO PERFORM ALL THE WORK. THE CONTRACTOR SHALL POST ALL BONDS, PAY ALL FEES, PROVIDE PROOF OF INSURANCE AND PROVIDE TRAFFIC CONTROL NECESSARY FOR THIS WORK.
11. THE CONTRACTOR SHALL ABIDE BY ALL OSHA, FEDERAL, STATE AND LOCAL REGULATIONS WHEN OPERATING CRANES, BOOMS, HOISTS, ETC. IN CLOSE PROXIMITY TO OVERHEAD ELECTRIC LINES. IF CONTRACTOR MUST OPERATE EQUIPMENT CLOSE TO ELECTRIC LINES, CONTACT THE POWER COMPANY TO MAKE ARRANGEMENTS FOR PROPER SAFEGUARDS.
12. THE CONTRACTOR SHALL RESTORE ANY STRUCTURES, PIPE, UTILITY, PAVEMENT, CURBS, SIDEWALKS, LANDSCAPED AREAS, ETC. WITHIN THE SITE OR ADJOINING PROPERTIES DISTURBED DURING DEMOLITION OR CONSTRUCTION TO THEIR ORIGINAL CONDITION OR BETTER, AND TO THE SATISFACTION OF THE OWNER, LOCAL MUNICIPALITY, AND STATE.
13. THE CONTRACTOR SHALL BE RESPONSIBLE TO INSTALL AND MAINTAIN TRAFFIC DEVICES FOR PROTECTION OF PEDESTRIANS AND VEHICLES CONSISTING OF DRUMS, BARRIERS, SIGNS, LIGHTS, FENCES AND UNIFORMED TRAFFIC CONTROLLERS IN ACCORDANCE WITH ODOT REGULATIONS AND/OR AS REQUIRED OR DIRECTED BY THE SITE ENGINEER OR CONSTRUCTION MANAGER OR LOCAL GOVERNING AUTHORITIES. CONTRACTOR SHALL MAINTAIN ALL TRAFFIC LANES AND PEDESTRIAN WALKWAYS AT ALL TIMES UNLESS WRITTEN APPROVAL FROM ODOT, LOCAL MUNICIPALITY, COUNTY, OR OTHER GOVERNING AUTHORITY IS RECEIVED.
14. THE CONTRACTOR SHALL PROVIDE AS-BUILT RECORDS OF ALL CONSTRUCTION (INCLUDING UNDERGROUND UTILITIES) TO THE OWNER FOLLOWING COMPLETION OF CONSTRUCTION ACTIVITIES.
15. THE OWNER AT ITS DISCRETION RESERVES THE RIGHT TO MODIFY THE DETAILS AND STANDARDS OF CONSTRUCTION FOR ALL PRIVATE FACILITIES FROM THAT INDICATED ON THE APPROVED PLAN, PROVIDED THAT THE ALTERNATE STANDARD COMPLIES WITH LOCAL CODE AND/OR UTILITY COMPANY REQUIREMENTS AND THE GENERAL DESIGN INTENT OF THE PROJECT IS NOT COMPROMISED.
16. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL PRODUCTS, MATERIALS AND PLAN SPECIFICATIONS TO THE OWNER AND LOCAL UTILITY COMPANIES AS REQUIRED FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OR DELIVERY TO THE SITE. ALLOW A MINIMUM OF 15 WORKING DAYS FOR REVIEW.
17. INFORMATION ON EXISTING UTILITIES HAS BEEN COMPILED FROM AVAILABLE INFORMATION INCLUDING UTILITY COMPANY AND MUNICIPAL RECORD MAPS AND FIELD SURVEY AND IS NOT GUARANTEED CORRECT OR COMPLETE. UTILITIES ARE SHOWN TO ALERT THE CONTRACTOR TO THEIR PRESENCE AND THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING ACTUAL LOCATIONS AND ELEVATIONS OF ALL UTILITIES INCLUDING SERVICES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL CONTACT OHIO UTILITY PROTECTION SERVICE AT 1-800-362-2764 AT LEAST 72 HOURS BEFORE START OF WORK AND VERIFY ALL EXISTING UTILITY LOCATIONS.
18. ANY DEFECTS DISCOVERED IN NEW CONSTRUCTION, WORKMANSHIP, EQUIPMENT, OR MATERIALS SHALL BE REPAIRED, OR CORRECTED BY APPROVED METHODS AS DIRECTED BY AND AT NO ADDITIONAL COST TO THE OWNER.
19. ALL DISTURBANCE INCURRED TO CITY OR STATE PROPERTY DUE TO CONSTRUCTION SHALL BE RESTORED TO ITS PREVIOUS CONDITION OR BETTER, TO THE SATISFACTION OF THE CITY OF THE LOCAL AND/OR OHIO DOT.
20. THE LIMITS OF CLEARING AND GRADING SHALL BE FIELD STAKED 48 HOURS (2 WORKING DAYS) PRIOR TO THE PRE CONSTRUCTION MEETING. AREAS BEYOND THE LIMITS OF CLEARING AND GRADING SHALL NOT BE DISTURBED INCLUDING THE STOCKPILE OF ANY MATERIALS OR CONSTRUCTION TRAFFIC.
21. WHEREVER UNSTABLE SOIL CONDITIONS ARE ENCOUNTERED THAT ARE NOT INDICATED ON THE PLANS, THE WORK SHALL BE DISCONTINUED UNTIL THE PROJECT ENGINEER AND OWNER APPROVE THE METHOD AND MATERIALS TO BE INCORPORATED INTO THE WORK.
22. ALL ROAD SURFACES, EASEMENTS, OR RIGHT-OF-WAY DISTURBED BY THE CONSTRUCTION OF ANY PART OF THESE IMPROVEMENTS ARE TO BE RESTORED ACCORDING TO THE CITY REQUIREMENTS.
23. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER OR ITS REPRESENTATIVE IF SUSPECTED HAZARDOUS MATERIAL OR ANY OTHER MATERIAL THAT MAY CREATE A HEALTH RISK IS DISCOVERED ON SITE.
24. ANY TRAFFIC CONTROL REQUESTED OR REQUIRED BY THE CONTRACTOR WILL BE PROVIDED BY THE CONTRACTOR AT NO COST TO THE OWNER.
25. IF MUD, SOIL, OR OTHER DEBRIS IS DEPOSITED ON ADJACENT STREETS, ROADS, OR OTHER PROPERTY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF SUCH AT THE END OF EACH WORK DAY, OR AS REQUIRED DURING THE WORK DAY.
26. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING PLANT TICKETS FOR ALL MATERIALS DELIVERED TO THE SITE. PLANT TICKETS MUST SHOW NET QUANTITY OF DELIVERED MATERIAL. MATERIAL DELIVERED OR PLACED WITHOUT PLANT TICKETS SHALL BE REMOVED AND PROPERLY DISPOSED AT THE EXPENSE OF THE CONTRACTOR.
27. THE CONTRACTOR SHALL CONFINE HIS ACTIVITIES TO THE PROJECT SITE UNDER DEVELOPMENT, THE EXISTING RIGHT-OF-WAYS CONSTRUCTION AND PERMANENT EASEMENTS AND SHALL NOT TRESPASS UPON OTHER PROPERTY WITHOUT THE WRITTEN CONSENT OF THE OWNER.
28. WHERE CONFLICT ARISES BETWEEN ALL SPECIFICATIONS (BOOK OR PLAN BASED) INCLUDING CITY REQUIREMENTS, THE MORE STRINGENT SPECIFICATION SHALL PREVAIL.
29. FINAL CLEANUP: THE CONTRACTOR SHALL CLEAN-UP ALL DEBRIS AND MATERIALS RESULTING FROM CONSTRUCTION AND SHALL RESTORE ALL SURFACES, STRUCTURES, DITCHES AND PROPERTY TO ITS ORIGINAL CONDITION TO THE SATISFACTION OF THE OWNER AND ALL APPLICABLE GOVERNMENTAL AND REGULATORY AGENCIES.

OHIO EPA NOTES:

1. ROOF DRAINS, FOUNDATION DRAINS, AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER SYSTEM ARE PROHIBITED.
2. A TEN FOOT MINIMUM HORIZONTAL SEPARATION (OUT-TO-OUT, CLEAR) WILL BE MAINTAINED BETWEEN THE WATER LINE AND SANITARY SEWER.
3. AN 18 INCH MINIMUM VERTICAL SEPARATION (OUT-TO-OUT CLEAR) WILL BE MAINTAINED BETWEEN THE WATER LINE AND SANITARY SEWER AT ALL CROSSINGS.
4. A TEN FOOT MINIMUM HORIZONTAL SEPARATION (OUT-TO-OUT CLEAR) WILL BE MAINTAINED BETWEEN THE WATER LINE AND STORM SEWER.
5. AN 18 INCH MINIMUM VERTICAL SEPARATION (OUT-TO-OUT CLEAR) WILL BE MAINTAINED BETWEEN THE WATER LINE AND STORM SEWER AT ALL CROSSINGS. BOOSTER PUMPS ARE NOT PERMITTED ON SERVICE CONNECTIONS.

DEMOLITION NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL LOCAL AND STATE PERMITS REQUIRED FOR DEMOLITION WORK.
2. THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL AND DISPOSAL OF ALL RUBBISH, TRASH, DEBRIS, AND ORGANIC MATERIAL IN A LAWFUL MANNER
3. THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE ENGINEER AND OWNER FOR ANY AND ALL INJURIES AND/OR DAMAGES TO PERSONNEL, EQUIPMENT, AND/OR EXISTING FACILITIES OCCURRING IN THE COURSE OF THE DEMOLITION AND CONSTRUCTION DESCRIBED IN THE PLANS AND SPECIFICATIONS.
4. ALL UTILITY REMOVAL, RELOCATION, CUTTING, CAPPING, AND/OR ABATEMENT SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY COMPANY LISTED ON THE PLANS.
5. ALL DEMOLISHED MATERIALS SHALL BE TAKEN FROM THE SITE IMMEDIATELY (UNLESS OTHERWISE NOTED) AND DISPOSED OFF-SITE IN ACCORDANCE WITH ALL LAWS, REGULATIONS AND ORDINANCES. NO BURNING OF ANY MATERIALS WILL BE ALLOWED ON OR OFF SITE. NO CLEARED OR GRUBBED MATERIAL SHALL BE BURIED OR LEFT ON SITE.
6. MATERIALS NOTED ON THE PLANS TO BE SALVAGED TO OWNER SHALL BE STORED IN AREAS INDICATED ON THE PLANS, OR TO THE OWNERS SATISFACTION.
7. USE SUITABLE METHODS TO LIMIT DUST AND DIRT TO ADJACENT STRUCTURES OR PROPERTY. CONTRACTOR IS RESPONSIBLE FOR RETURNING ALL ADJACENT AREAS TO EXISTING CONDITIONS PRIOR TO THE START OF THE DEMOLITION WORK.
8. THE CONTRACTOR SHALL PROTECT TREES, LANDSCAPING, SITE IMPROVEMENTS, AND OTHER ITEMS NOT SCHEDULED FOR CLEARING, OR THAT MIGHT BE DAMAGED BY CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR REPAIRING OR REPLACING ANY ITEMS THAT ARE DAMAGED.
9. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TEMPORARY EROSION, POLLUTION, AND DUST CONTROL MEASURES THROUGHOUT THE ENTIRE CONSTRUCTION PROJECT. REFERENCE THE SWPPP PLAN, NOTES AND DETAILS.
10. THE BUILDING PAD AREA IS DEFINED AS THE AREA TWENTY (20) FEET OUTSIDE OF THE PROPOSED BUILDING FOOTPRINT, INCLUDING ATTACHED WALKWAYS, CANOPIES, SIDEWALKS, LOADING DOCKS, UTILITY PADS, AND ANY OTHER SUCH APPURTENANCES.
11. ANY AND ALL DAMAGE TO EXISTING PAVEMENT WITHIN THE LAYDOWN AREA SHALL BE REPAIRED.
12. ALL UTILITIES NOT MARKED FOR REMOVAL OR RELOCATION SHALL REMAIN INTACT. THE CONTRACTOR SHALL REPAIR ANY AND ALL DAMAGE TO EXISTING UTILITIES NOT MARKED FOR REMOVAL OR RELOCATION AT THEIR SOLE EXPENSE.
13. CONTRACTOR SHALL PERFORM ALL CLEARING, GRUBBING, REMOVAL OF TREES, STUMPS, VEGETATION, AND DEBRIS NECESSARY TO PERFORM THE WORK INDICATED HEREIN. THAT CONTRACTOR SHALL LIMIT LAND DISTURBANCE TO ONLY THAT REQUIRED TO COMPLETE THE PROPOSED IMPROVEMENTS. NO CLEARED OR GRUBBED MATERIAL SHALL BE BURIED OR LEFT ON SITE.

LAYOUT AND PAVING NOTES

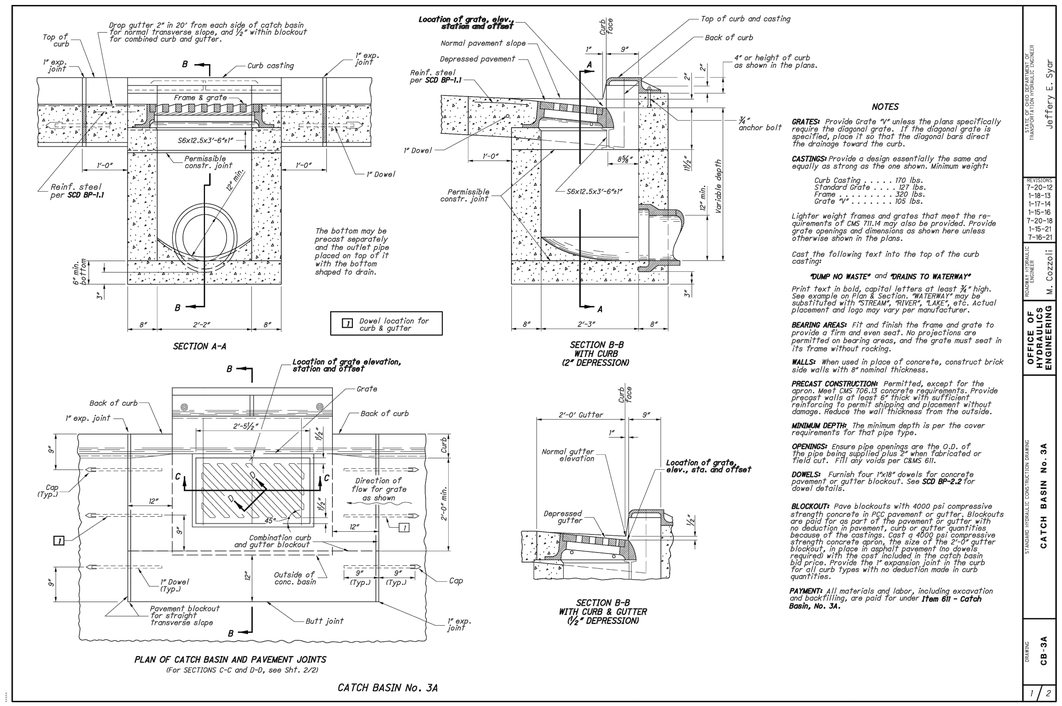
1. ALL SITE DIMENSIONS ARE REFERENCED TO THE FACE OF CURBS OR EDGE OF PAVING UNLESS OTHERWISE NOTED. ALL BUILDING DIMENSIONS ARE REFERENCED TO THE OUTSIDE FACE OF THE STRUCTURE UNLESS OTHERWISE NOTED.
2. ALL PAVING MATERIALS FURNISHED AND WORK COMPLETED SHALL BE IN STRICT ACCORDANCE WITH ODOT CONSTRUCTION AND MATERIALS SPECIFICATIONS UNLESS OTHERWISE SPECIFIED. THE CONTRACTOR SHALL SUBMIT A JOB-MIX FORMULA FOR THE BITUMINOUS PAVEMENT TO THE CONSTRUCTION MANAGER FOR REVIEW AND APPROVAL AT LEAST 14 DAYS PRIOR TO THE PLACEMENT OF BITUMINOUS PAVEMENTS.
3. ASPHALT SURFACE COURSE SHALL BE LAID WITH THE DIRECTION OF TRAFFIC FLOW IN ALL DRIVE LANES WITHIN PARKING FIELDS.
4. DO NOT PLACE MIX ON FROZEN OR WET SURFACES, OR WHEN PRECIPITATION IS OCCURRING.
5. DO NOT PLACE MIX WHEN AIR OR SURFACE TEMPERATURE IS BELOW THE FOLLOWING:
   - 5.1. BINDER COURSE AND WALKS 40 °F
   - 5.2. WEARING COURSE, ROADWAYS AND PARKING AREAS 50 °F
6. ANY MATERIAL DELIVERED TO THE SPREADER HAVING A TEMPERATURE LOWER THAN 250 °F SHALL NOT BE USED.
7. THE MINIMUM ROLLER WEIGHT FOR PAVEMENT SHALL BE TEN (10) TON. ALL COURSES SHALL BE COMPACTED TO A MINIMUM OF NINETY-THREE (93%) PERCENT OF THEORETICAL MAXIMUM DENSITY (TMD).
8. ALL PAVEMENT MARKINGS, SIGNS, AND OTHER TRAFFIC CONTROL DEVICES SHALL CONFORM TO AASHTO AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. ALL SIGNS SHALL BE CONSTRUCTED OF FLAT SHEET ALUMINUM IN ACCORDANCE WITH STATE HIGHWAY SPECIFICATIONS. STEEL SIGN POSTS SHALL BE USED AND CONFORM TO ASTM A36 OR ASTM A441 AND SHOULD BE GALVANIZED IN ACCORDANCE WITH AASHTO M111.
9. CONTRACTOR SHALL FURNISH AND INSTALL ALL PAVEMENT MARKINGS AS SHOWN ON THE PLANS. PAVEMENT MARKINGS SHALL BE APPLIED PER MANUFACTURER RECOMMENDATIONS. APPLY PAINT TO CLEAN, DRY SURFACES TO YIELD SHARP DEFINITION OF EDGES. AIR TEMPERATURE 50°F MINIMUM. APPLY TWO (2) COATS.
10. PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH ODOT CONSTRUCTION AND MATERIALS SPECIFICATIONS AND SHALL BE EITHER COLD LAID PLASTIC TAPE OR PAINTED AS DESIGNATED ON THE PLANS OR PAVEMENT MARKING DETAILS.
11. THE CONTRACTOR SHALL REMOVE CONFLICTING PAVEMENT MARKINGS IN A METHOD APPROVED BY ODOT CONSTRUCTION AND MATERIALS SPECIFICATIONS.
12. DIRECTIONAL TRAFFIC ARROWS SHALL BE PAINTED WHITE UNLESS OTHERWISE NOTED.
13. A MINIMUM CLEARANCE OF 2 FEET SHALL BE MAINTAINED FROM THE FACE OF CURB AND ANY PART OF A LIGHT POLE OR TRAFFIC SIGN.
14. CONTRACTOR SHALL SAW-CUT IN A NEAT, STRAIGHT LINE FOR SMOOTH TRANSITIONS AT TIE-INS TO EXISTING EDGES OF PAVEMENT AND AT COLD JOINTS OF RECENTLY PAVED PAVEMENT.
15. JOINTS OR SCORE MARKS ARE TO BE SHARP AND CLEAN WITHOUT SHOWING EDGES OF JOINTING TOOL.
16. CONTRACTOR SHALL SAWCUT TIE-INS AT EXISTING CURBS TO ENSURE SMOOTH TRANSITIONS. CONTRACTOR SHALL SAWCUT AND TRANSITION TO EXISTING PAVEMENT TO ENSURE POSITIVE DRAINAGE.
17. ALL CONCRETE SHALL BE 6% (+/-1½%) AIR ENTRAINED, 3/4" AGGREGATE AND CONFORM TO A 28 DAY STRENGTH OF 4,000 PSI MINIMUM AND SHALL HAVE A MAXIMUM W/C OF 0.50. ALL CONCRETE SHALL BE MADE WITH TYPE I OR TYPE II CEMENT UNLESS OTHERWISE SPECIFIED.
18. ALL SIDEWALKS SHALL HAVE A LIGHT BROOM FINISH. VERTICAL FACES SHALL BE FORMED.
19. BASE AND ASPHALT THICKNESS SPECIFIED ARE THE MINIMUM REQUIRED.
20. ALL CURB RADII ARE 4', UNLESS OTHERWISE NOTED. FOR CURBED ISLANDS SHOWN WITH ONE LABELED RADIUS, THE LABELED RADIUS SHALL APPLY TO ALL FOUR CORNERS OF THE ISLAND.
21. ALL CONCRETE FOR CURBS SHALL BE AIR ENTRAINED TO BE 6% (+/-1½%), MADE WITH SAND AND GRAVEL AGGREGATE AND SHALL CONFORM TO A TWENTY EIGHT (28) DAY STRENGTH OF 4,500 PSI MINIMUM, SHALL HAVE A MAXIMUM W/C OF 0.40 AND 130 LBS/L F.
22. CONTRACTOR SHALL INSTALL ALL CURBING IN A TRUE LINE AND PROPER GRADE IN ACCORDANCE WITH THE APPROVED SITE PLANS AND APPROPRIATE STATE DOT SPECIFICATIONS. CURVED CURB SECTIONS SHALL BE USED FOR RADII LESS THAN 30'. ALL CURBING SHALL BE BACKFILLED WITH CLEAN AGGREGATE.
23. CONTRACTOR SHALL REPAIR ANY CURB DAMAGED DURING CONSTRUCTION ACTIVITIES.
24. ALL CURBS SHALL BE FULL DEPTH CONCRETE CURB WITH 6" REVEAL, UNLESS OTHERWISE NOTED.
25. BUILDING FOOTPRINTS ARE SHOWN FOR INTENT ONLY. SEE STRUCTURAL AND ARCHITECTURAL PLANS FOR BUILDING FOUNDATION AND WALL DIMENSIONS.
26. CONTRACTOR TO COORDINATE TRANSFORMER AND GENERATOR PAD DIMENSIONS AND SPECIFICATIONS WITH MEP PLANS AND ELECTRIC PROVIDER PRIOR TO CONSTRUCTION.
27. SEE ARCHITECTURAL PLANS FOR FROST SLAB DETAILS AND SPECIFICATIONS.
28. CONTRACTOR TO INSTALL ALL UTILITY PIPING, SEWERS, CONDUIT PRIOR TO PAVING OPERATIONS. CONTRACTOR TO COORDINATE ALL SITE UTILITIES WITH UTILITY PLAN, AND MEP PLANS.

GENERAL GRADING & DRAINAGE NOTES:

1. TOPSOIL SHALL BE STRIPPED AND STOCKPILED FOR USE IN FINAL LANDSCAPING.
2. MANHOLE RIMS AND CATCH BASIN GRATES SHALL BE SET TO ELEVATIONS SHOWN. SET ALL EXISTING MANHOLE FRAMES AND COVERS, CATCH BASIN GRATES, VALVE BOXES, ETC., TO BE RAISED OR LOWERED, TO PROPOSED FINISHED GRADE, FLUSH WITH THE ADJACENT GRADE.
3. UNDERDRAINS MAY BE ADDED, IF DETERMINED NECESSARY BY THE ENGINEER OR CONSTRUCTION MANAGER, AFTER SUBGRADE IS ROUGH GRADED.
4. THE CONTRACTOR SHALL PRESERVE EXISTING VEGETATION WHERE POSSIBLE AND/OR AS NOTED ON DRAWINGS. REFER TO EROSION CONTROL PLAN FOR LIMIT OF DISTURBANCE AND NOTES.
5. THE CONTRACTOR SHALL COMPACT FILL IN 8" MAXIMUM LIFTS UNDER ALL PARKING, BUILDING, AND DRIVE AREAS TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D1557 (MODIFIED PROCTOR TEST), OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER.
6. THE CONTRACTOR SHALL BE ADVISED THAT ALL EXCAVATION IS CONSIDERED UNCLASSIFIED AND THAT IT SHALL BE RESPONSIBLE FOR ALL MEANS, METHODS, AND MATERIALS OF CONSTRUCTION TO COMPLETE CONSTRUCTION AS DESIGNED. ADDITIONALLY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE OFF-SITE DISPOSAL OF ANY AND ALL EXCESS OR UNSUITABLE MATERIAL UNABLE TO BE PLACED ON SITE AND THE IMPORTATION OF ANY BORROW MATERIAL NECESSARY TO COMPLETE THE JOB.
7. CLEAN HARD FILL MATERIAL SHALL MEET THE REQUIREMENTS OF OAC 3745-400-05 AND ALL REQUIREMENTS OF THE OHIO EPA. ANY PERSON USING CLEAN HARD FILL ON A SITE OTHER THAN THE SITE OF GENERATION MUST PROVIDE A WRITTEN NOTICE OF INTENT TO FILL TO THE LICENSING AUTHORITY(IES) WHERE THE CLEAN HARD FILL IS TO BE PLACED AT LEAST SEVEN DAYS PRIOR TO PLACING.
8. SITE GRADING SHALL BE PERFORMED TO PROVIDE POSITIVE DRAINAGE TO CATCH BASINS AND TO PRECLUDE THE PONDING OF WATER ON SITE.
9. VERIFY REQUIRED SPOT ELEVATIONS/GRADING IN THE VICINITY OF THE BUILDINGS WITH THE ARCHITECTURAL PLANS.
10. SPOT ELEVATIONS SHOWN DEPICT THE PROPOSED PAVEMENT OR GROUND SURFACE OR PAVEMENT ELEVATION AT FACE OF CURB, UNLESS OTHERWISE NOTED. TOP OF ALL CONCRETE CURBING IS 6-INCHES ABOVE SPOT ELEVATIONS NOTED.
11. IT IS THE CONTRACTORS OBLIGATION AND RESPONSIBILITY TO CONFIRM/CONCUR WITH THE EXISTING GRADES SHOWN HEREIN. THE CONTRACTOR MUST CONFIRM ALL EXISTING GRADES PRIOR TO ANY/ALL EXCAVATION.
12. THE CONTRACTOR MUST DOCUMENT EXISTING GRADE DISPUTES BY PROVISION OF A TOPOGRAPHIC SURVEY BY A STATE OF OHIO REGISTERED PROFESSIONAL SURVEYOR, PRIOR TO ANY EARTH DISTURBING ACTIVITIES. IN THE ABSENCE OF THE PROVISION OF TOPOGRAPHIC SURVEY BY THE CONTRACTOR, THE GRADES SHOWN HEREON WILL BE THE "TOPOGRAPHY OF RECORD" FOR ANY AND ALL SOIL VOLUME DISPUTES.
13. THE CONTRACTOR IS RESPONSIBLE FOR ALL SOIL IMPORT/EXPORT NECESSARY TO ACHIEVE THE PROPOSED GRADES.
14. ALL PROPOSED SLOPES 3:1 OR STEEPER AND ALL EARTHEN DRAINAGE WAYS SHALL RECEIVE JUTE OR EXCELSIOR MATTING AS PER ODOT 671 TYPE F.
15. ALL EXCAVATION UNDER OR NEAR EXISTING OR FUTURE PAVEMENT (INCLUDING SIDEWALKS), SUBJECT TO SETTLEMENT, WILL BE BACK FILLED WITH PREMIUM BACKFILL AS DEFINED HEREIN, AT QUESTIONABLE AREAS THE DECISION OF THE OF THE ENGINEER, OR HIS REPRESENTATIVE, WILL PREVAIL.
16. PAVEMENT EXCAVATION AND EMBANKMENT SHALL BE IN ACCORDANCE WITH ITEM 203.12 OF OHIO DEPARTMENT OF TRANSPORTATION SPECIFICATIONS. THE CONTRACTOR MAY BE REQUIRED TO MAKE COMPACTION TESTS. TESTS SHALL BE TAKEN BY A TESTING COMPANY APPROVED BY THE ENGINEER. THE COST OF THESE TESTS SHALL BE PAID BY THE CONTRACTOR. "PROOF" ROLLING WILL BE REQUIRED PRIOR TO PAVING AND SHALL BE CONDUCTED PRIOR TO PLACEMENT OF AGGREGATE BASE AND PERFORMED WITH THE OWNER'S INSPECTOR PRESENT AND PAID FOR BY THE CONTRACTOR.

GENERAL UTILITY NOTES:

1. PROPER COORDINATION WITH THE RESPECTIVE UTILITY COMPANIES SHALL BE PERFORMED BY THE CONTRACTOR TO INSURE THAT ALL UTILITY COMPANY, LOCAL MUNICIPALITY, AND LOCAL COUNTY STANDARDS FOR MATERIALS AND CONSTRUCTION METHODS ARE MET.
2. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING ACTUAL LOCATIONS AND ELEVATIONS OF ALL UTILITIES, INCLUDING SERVICES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL CONTACT OHIO UTILITY PROTECTION SERVICE AT 1-800-362-5191 AT LEAST 72 HOURS BEFORE START OF WORK AND VERIFY ALL EXISTING UTILITY LOCATIONS.
3. THE CONTRACTOR SHALL VISIT THE SITE AND VERIFY THE ELEVATION AND LOCATION OF ALL UTILITIES BY VARIOUS MEANS PRIOR TO BEGINNING ANY EXCAVATION. TEST PITS SHALL BE DUG AT ALL LOCATIONS WHERE SEWERS CROSS EXISTING UTILITIES, AND THE HORIZONTAL AND VERTICAL LOCATIONS OF THE UTILITIES SHALL BE DETERMINED. THE CONTRACTOR SHALL CONTACT THE CONSTRUCTION MANAGER IN THE EVENT OF ANY UNFORESEEN CONFLICTS BETWEEN EXISTING AND PROPOSED UTILITIES SO THAT AN APPROPRIATE MODIFICATION MAY BE MADE.
4. THE CONTRACTOR SHALL ARRANGE FOR AND COORDINATE WITH THE RESPECTIVE UTILITY COMPANIES FOR SERVICE INSTALLATIONS AND CONNECTIONS AND MAIN AND SERVICE RELOCATIONS. THE CONTRACTOR SHALL COORDINATE THE WORK TO BE PERFORMED BY THE VARIOUS UTILITY COMPANIES AND SHALL SECURE ALL PERMITS AND PAY ALL FEES FOR CONNECTIONS, DISCONNECTIONS, RELOCATIONS, INSPECTIONS, AND DEMOLITION, AS NECESSARY.
5. RELOCATION OF ANY UTILITY COMPANY FACILITIES TO BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE UTILITY COMPANY AND LOCAL MUNICIPALITY.
6. ALL WATER MAINS, WATER SERVICES AND SANITARY SEWER LATERALS SHALL CONFORM TO THE OHIO ENVIRONMENTAL PROTECTION AGENCY, APPLICABLE COUNTY AND LOCAL DEPARTMENTS, AND APPROPRIATE UTILITY COMPANY SPECIFICATIONS.
7. THE CONTRACTOR SHALL MAINTAIN ALL FLOWS AND UTILITY CONNECTIONS TO EXISTING BUILDINGS, ETC. WITHOUT INTERRUPTION UNLESS/UNTIL AUTHORIZED TO DISCONNECT BY THE OWNER, UTILITY COMPANIES, AND GOVERNING AUTHORITIES. THE CONTRACTOR SHALL INSTALL AS NECESSARY, TEMPORARY SITE LIGHTING, GAS, SANITARY, WATER, STORM, ELECTRIC, TELEPHONE, AND CABLE SERVICES TO SERVICE BUILDING(S) TO REMAIN OPEN.
8. ALL EXISTING PAVEMENT WHERE UTILITY PIPING IS TO BE INSTALLED SHALL BE SAW CUT AND REPLACED IN ACCORDANCE WITH THE PAVEMENT REPAIR REQUIREMENTS OF LOCAL MUNICIPALITY AND THE DETAILS CONTAINED HEREIN.
9. ALL PIPES SHALL BE LAID ON STRAIGHT ALIGNMENTS AND EVEN GRADES USING A PIPE LASER OR OTHER ACCURATE METHOD.
10. SANITARY LATERAL AND STORM SEWERS SHALL MAINTAIN 10-FOOT MIN. HORIZONTAL AND 1.5-FOOT MIN. VERTICAL SEPARATION DISTANCE FROM WATER LINES. A 1-FOOT MIN. CLEARANCE SHALL BE MAINTAINED BETWEEN WATER LINES AND OTHER UTILITIES INCLUDING GAS, ELECTRICAL AND TELEPHONE. ADDITIONAL PROTECTION MEASURES INCLUDING, BUT NOT LIMITED TO, CONCRETE PIPE ENCASEMENT MAY BE REQUIRED IF INDICATED CLEARANCES ARE NOT MET.
11. THE CONTRACTOR SHALL COMPACT PIPE BACKFILL IN MAX. 8" LOOSE LIFTS TO 95% OF THE MAXIMUM DRY DENSITY PER ASTM D1557, ACCORDING TO THE PIPE BEDDING DETAILS. TRENCH BOTTOM SHALL BE STABLE IN HIGH GROUNDWATER AREAS. A PIPE FOUNDATION SHALL BE USED IN AREAS OF ROCK EXCAVATION.
12. CONTRACTOR TO PROVIDE SLEEVES UNDER FOOTINGS OR THROUGH FOUNDATIONS FOR UTILITY CONNECTIONS.
13. CONTRACTOR SHALL PROVIDE ALL BENDS, FITTINGS, ADAPTERS, ETC. AS REQUIRED FOR PIPE CONNECTIONS TO BUILDING/CANOPY STUB-OUTS, INCLUDING ROOF/FOOTING DRAIN CONNECTIONS TO ROOF LEADERS AND TO STORM DRAINAGE SYSTEM.
14. UTILITY CONDUIT PIPE SHALL BE SCHEDULE 80 PVC AND/OR AS REQUIRED BY THE LOCAL UTILITY COMPANY. SERVICES MAY BE INSTALLED IN A COMMON TRENCH WITH 12" CLEAR SPACE BETWEEN SERVICES. MINIMUM COVER SHALL BE 36" ON ELECTRIC CONDUITS AND 24" ON TELEPHONE AND CABLE CONDUITS. SERVICES SHALL BE MARKED WITH MAGNETIC LOCATOR TAPE. GALVANIZED STEEL ELECTRICAL CONDUIT SHALL BE USED AT POLE AND TRANSFORMER LOCATIONS. INSTALL HAND HOLES AS REQUIRED.
15. ALL UTILITY CONSTRUCTION IS SUBJECT TO INSPECTION PRIOR TO APPROVAL FOR BACKFILL, IN ACCORDANCE WITH THE APPROPRIATE UTILITY COMPANY, LOCAL MUNICIPALITY, AND/OR LOCAL COUNTY REQUIREMENTS.
16. MANHOLE RIMS AND CATCH BASIN GRATES SHALL BE SET TO ELEVATIONS SHOWN. SET ALL EXISTING MANHOLE FRAMES AND COVERS, CATCH BASIN GRATES, VALVE BOXES, ETC., TO BE RAISED OR LOWERED, TO PROPOSED FINISHED GRADE, FLUSH WITH THE ADJACENT GRADE.
17. THE CONTRACTOR SHALL RESTORE ANY STRUCTURE, PIPE, UTILITY, PAVEMENT, CURBS, SIDEWALKS, LANDSCAPED AREAS, ETC. DISTURBED DURING CON



NOTES

GRATES: Provide Grate "V" unless the plans specifically require the diagonal grate. If the diagonal grate is specified, place it so that the diagonal bars direct the drainage toward the curb.

CASTINGS: Provide a design essentially the same and equally as strong as the one shown. Minimum weight:

Curb Casting . . . . . 170 lbs.
Standard Grate . . . . 127 lbs.
Frame . . . . . 320 lbs.
Grate "V" . . . . . 105 lbs.

Lighter weight frames and grates that meet the requirements of CMS 711.14 may also be provided. Provide grate openings and dimensions as shown here unless otherwise shown in the plans.

Cast the following text into the top of the curb castings:

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

Print text in bold, capital letters at least 3/4" high. See example on Plan & Section. "WATERWAY" may be substituted with "STREAM", "RIVER", "LAKE", etc. Actual placement and logo may vary per manufacturer.

BEARING AREAS: Fit and finish the frame and grate to provide a firm and even seat. No projections are permitted on bearing areas, and the grate must seat in its frame without rocking.

WALLS: When used in place of concrete, construct brick side walls with 8" nominal thickness.

PRECAST CONSTRUCTION: Permitted, except for the apron. Meet CMS 706.13 concrete requirements. Provide precast walls at least 8" thick with sufficient reinforcing to permit shipping and placement without damage. Reduce the wall thickness from the outside.

MINIMUM DEPTH: The minimum depth is per the cover requirements for that pipe type.

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

DOWELS: Furnish four 1"x18" dowels for concrete pavement or gutter blockout. See **SCD BP-2.2** for dowel details.

BLOCKOUT: Pave blockouts with 4000 psi compressive strength concrete in PCC pavement or gutter. Blockouts are paid for as part of the pavement or gutter with no deduction in pavement, curb or gutter quantities because of the castings. Cast a 4000 psi compressive strength concrete apron, the size of the 2'-0" gutter blockout, in place in asphalt pavement no dowels required with the cost included in the catch basin bid price. Provide the 1" expansion joint in the curb for all curb types with no deduction made in curb quantities.

PAYMENT: All materials and labor, including excavation and backfilling, are paid for under **Item 611 - Catch Basin, No. 3A.**

STATE OF OHIO DOCUMENT OF TRANSPORTATION HYDRAULIC ENGINEER
Jeffery E. Syar

REVISIONS
7-20-12
1-18-13
1-17-14
1-15-16
7-20-18
1-15-21
7-16-21

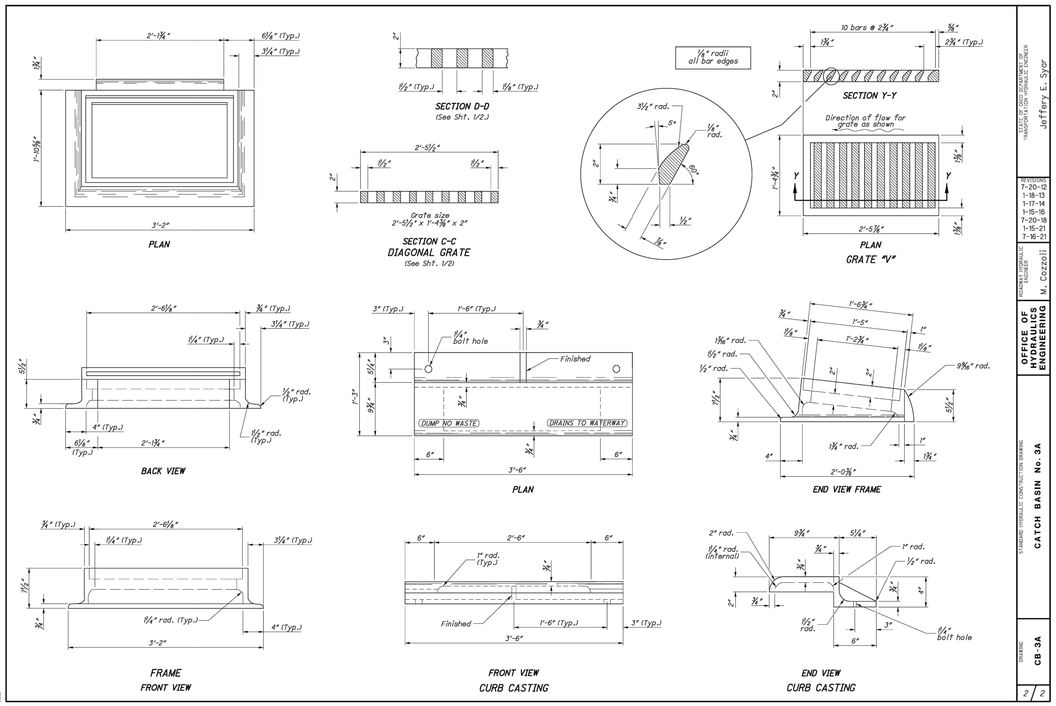
ROCHELL HYDRAULIC ENGINEER M. Cozzoli

OFFICE OF HYDRAULICS ENGINEERING

STANDARD HYDRAULIC CONSTRUCTION DRAWING
CATCH BASIN No. 3A

DRAWING CB-3A 1/2

CATCH BASIN No. 3A



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7-16-21

ROCHELL HYDRAULIC ENGINEER M. Cozzoli

OFFICE OF HYDRAULICS ENGINEERING

STANDARD HYDRAULIC CONSTRUCTION DRAWING
CATCH BASIN No. 3A

DRAWING CB-3A 2/2

NO.	DATE	BY	DESCRIPTION
1	09/15/2026	ECA	PLANNING COMMISSION SUBMISSION

PRELIMINARY
NOT FOR CONSTRUCTION

20600 CHAGRIN BLVD.
SUITE 500, SHAKER
HEIGHTS, OH 44122
TEL: 216.378.1490
FAX: 216.378.1497

TECHNICAL SKILL. CREATIVE SPIRIT.

PROJECT NO: 2500964
PROJECT DATE: 09/15/2026
DRAWN BY: ECA
CHECKED BY: SG

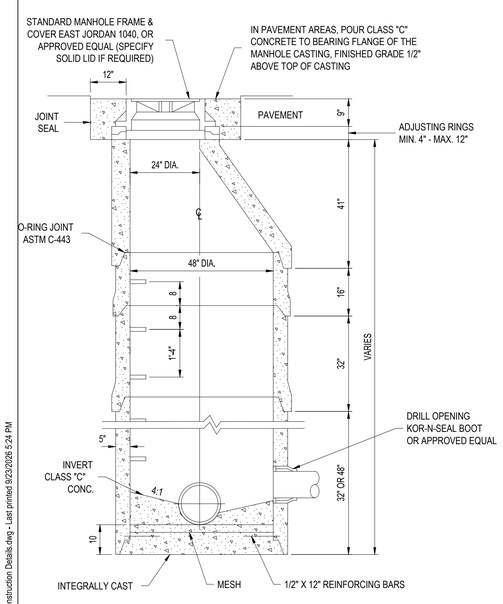
Mannik Smith GROUP
www.MannikSmithGroup.com

PREPARED FOR:
OMCO BUILDING, LLC
3993 EAST ROYALTON ROAD
BROADVIEW HEIGHTS, OH 44147

OHIO CAT
RENTAL SERVICE FACILITY
MIAMISBURG, OH

CONSTRUCTION DETAILS

C002

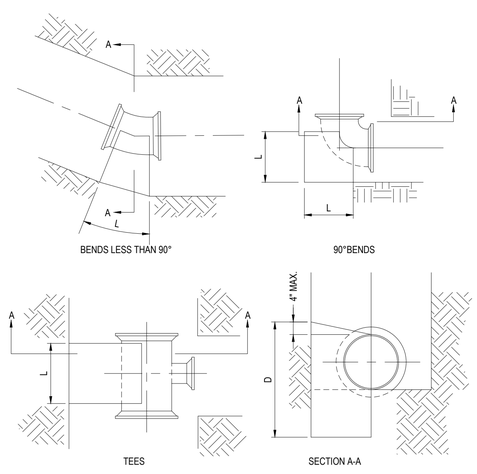


SANITARY SEWER MANHOLE DETAIL
48" DIAMETER "O" RING JOINT
ASTM C-478

NOTE:
MANHOLES TO HAVE CHIMNEY SEALS IN GRASS AREAS.

TYPE 2 STANDARD MANHOLE
NOT TO SCALE

SIZE OF PIPE	DEGREE OF BEND								RUN	BRANCH											
	11 1/4°		22 1/2°		45°		90°			6"		8"		12"		16"		20"		24"	
	L"	D"	L"	D"	L"	D"	L"	D"		L"	D"	L"	D"	L"	D"	L"	D"	L"	D"	L"	D"
6"	8	6	12	8	20	9	18	13	6"	18	13										
8"	9	9	16	10	24	13	25	16	8"	18	13	23	18								
12"	14	13	22	16	36	19	32	28	12"	18	13	23	18	38	24						
16"	18	18	32	20	36	34	41	39	16"	14	16	20	20	36	25	49	32				
20"	25	24	30	32	49	45	50	50	20"	11	21	18	22	35	26	46	34	60	42		



NOTES:
1. BACKING DESIGNED FOR 3000 POUNDS PER SQUARE FOOT SOIL BEARING AND 150 POUNDS PER SQUARE INCH INTERNAL PRESSURE
2. PROVIDE CONCRETE REINFORCEMENT AS DIRECTED BY THE ENGINEER.
3. BLOCKING FOR SIZES NOT SHOWN SHALL USE THE NEXT LARGER SIZE.

CONCRETE BACKING DETAIL
NOT TO SCALE

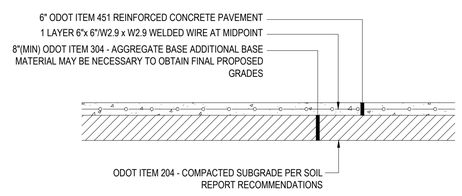
PAVEMENT JOINT NOTES:

1) CONTRACTOR SHALL INSTALL CONTROL AND EXPANSION JOINTS PER DETAIL.

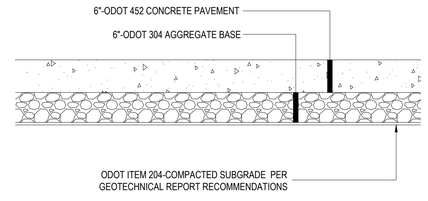
2) NO SLAB DIMENSION MEASURED ALONG JOINT SHALL EXCEED 15'.

3) NO JOINTS SHALL BE PLACED CLOSER THAN 6' FROM ANY OTHER PARALLEL JOINT OR OF PAVEMENT.

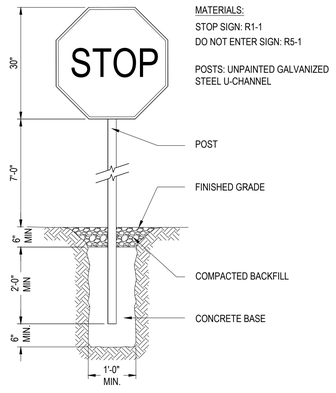
4) ALL JOINTS ENDING AT A CURB SHALL BE EXTENDED THROUGH CURB.



HEAVY DUTY CONCRETE PAVEMENT
NOT TO SCALE

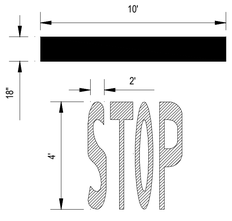


LIGHT DUTY CONCRETE PAVEMENT
NOT TO SCALE



1. CONSTRUCT SIGN IN ACCORDANCE WITH DOT SPECIFICATIONS.
2. SET POST IN 6" BOLLARD WHEN NOTED ON SITE PLAN.

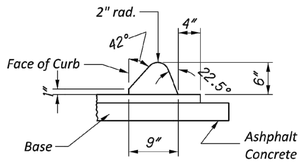
STOP SIGN DETAIL
NOT TO SCALE



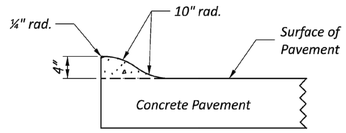
NOTE:
1. PAINT STOP BAR AND LETTERING WHITE.

STOP BAR AND LETTERING DETAIL
NOT TO SCALE

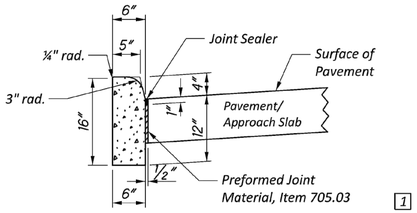
W:\Projects\2025\800-999\2500964\CAD\SHTS\C002-005 Construction Details.dwg - Last printed 9/23/2026 5:24 PM



TYPE 1



TYPE 3-A



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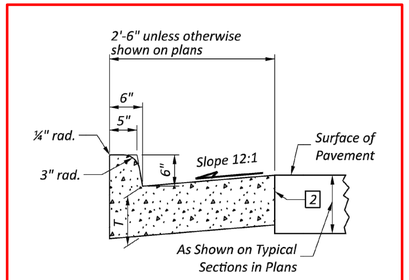
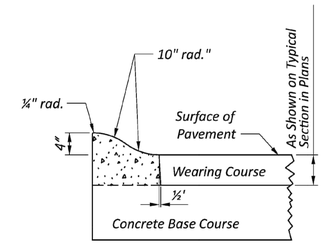
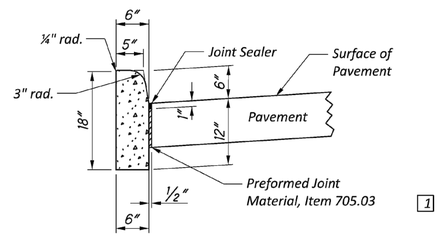


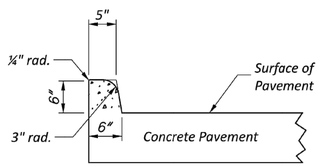
TYPE 2



TYPE 3-B



TYPE 6



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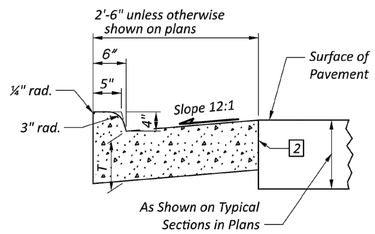
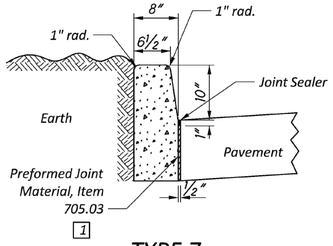


TYPE 4



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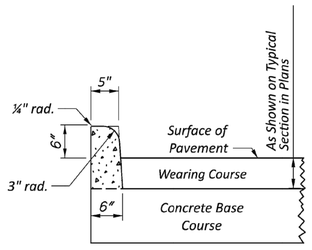
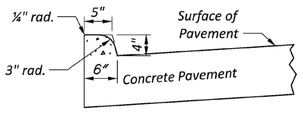


TYPE 2-B



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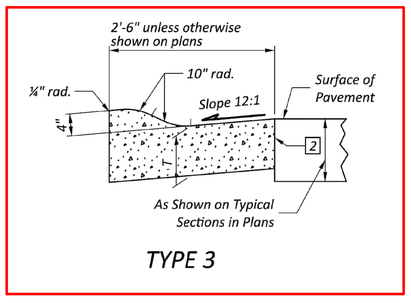

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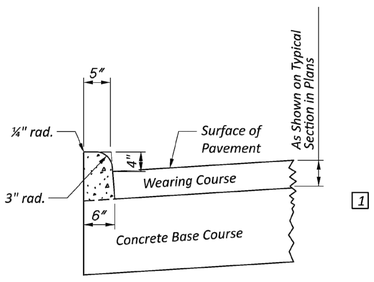

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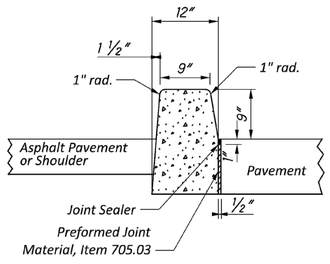

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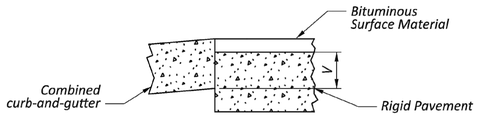
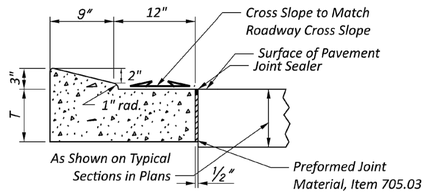
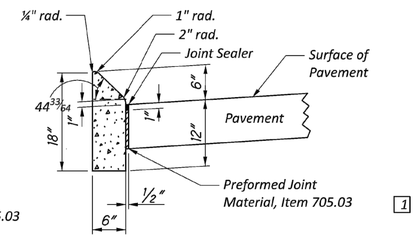
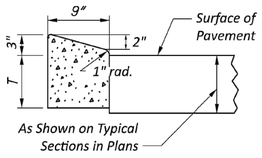




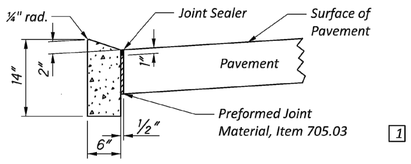
TYPE 9



TYPE 10-A



TYPE 10



TYPE 10-B

NOTES

GENERAL: This drawing shows alternate types of curb that may be used on various types of pavement. The typical section of the project shows the type to be used, also the thickness of the edge of the pavement or the edge of the curb and gutter section.

JOINTS: 1" expansion joints shall extend up to the top of the curb and shall be constructed in the curb and gutter section in such a manner that the joint seal will extend the full width of the gutter and into the curb face a sufficient distance to seal the joint to an elevation of at least 2" above the flow line of the gutter. Dowel bars shall be used in the curb and gutter section at expansion joints and to the surface of the pavement.

Transverse expansion joint material shall meet the requirements of Item 705.03.

GUTTER PLATE THICKNESS: Thickness of gutter plate "T" shall be 9" unless otherwise shown on the plans.

TOLERANCES: Dimensional tolerances are as follows:

Curbs: -1/32" to +¼".
Gutters: 0 to +½".

LEGEND

1 Expansion joint material and joint sealer are not required for the portion of the curb that is adjacent to a flexible pavement type. Both materials are required, as detailed, for the full height of rigid pavement and concrete bases.

2 Butt joints shall be provided between combined curb-and-gutter and new or existing rigid pavements, with tie bars or hook bolts provided at intervals of 5'. See SCD BP-2.1 for details of tie bars and hook bolts.

If the combined curb-and-gutter adjoins a new rigid base or an existing rigid base or pavement that is to be surfaced with asphalt concrete, a butt joint shall also be provided. However, tie bars or hook bolts shall be omitted when the vertical overlap ("V" in detail below) between the curb-and-gutter and rigid pavement is less than 7".

BP-5.1

OFFICE OF ROADWAY ENGINEERING

REVISIONS

1-21-2022
7-15-2022

STD'S ENGINEER
D.Fisher

STATE OF OHIO OFFICE OF ROADWAY ENGINEERING ADMINISTRATOR
Adam Koenig

STANDARD ROADWAY CONSTRUCTION DRAWING
CONCRETE CURBS AND
COMBINED CURB AND GUTTER

DESIGN AGENCY

SCD NUMBER
BP-5.1

SHEET P.1 TOTAL 1

NO.	DATE	BY	DESCRIPTION
1	09/15/2026	ECA	PLANNING COMMISSION SUBMISSION

PRELIMINARY
NOT FOR CONSTRUCTION

20600 CHAGRIN BLVD.
SUITE 500, SHAKER HEIGHTS, OH 44122
TEL: 216.378.1490
FAX: 216.378.1497

PROJECT DATE: 09/15/2026
PROJECT NO.: 2500984
DRAWN BY: ECA
CHECKED BY: SG

Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com

PREPARED FOR:
OMCO BUILDING, LLC
3993 EAST ROYALTON ROAD
BROADVIEW HEIGHTS, OH 44147

OHIO CAT
RENTAL SERVICE FACILITY
MIAMISBURG, OH

CONSTRUCTION DETAILS

C003

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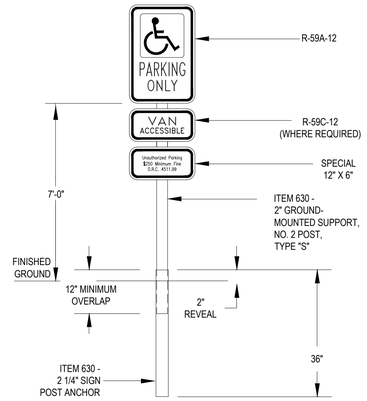
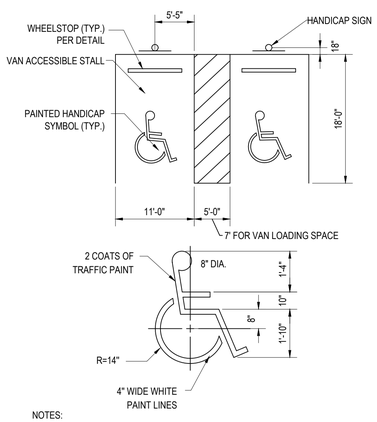


NOTE:
1. SIGNS PLACED IN PAVEMENT TO BE BOLLARD MOUNTED. ALL OTHER SIGNS TO BE STANDARD.

STANDARD HANDICAP PARKING SIGN

SCALE: N.T.S.

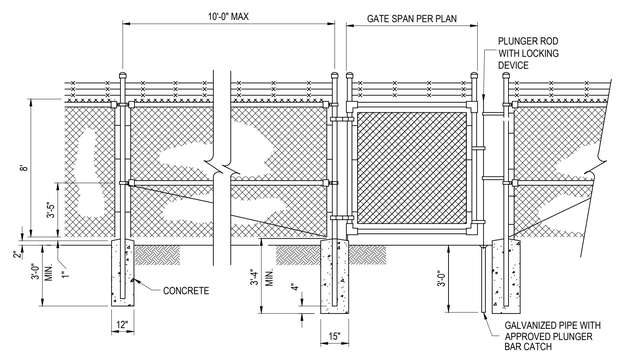


NOTES:

1. STRIPING TO BE 4 INCHES WIDE AND WHITE IN COLOR.
2. HANDICAP SIGNS TO BE PLACED IN THE NEAREST GRASS AREA ACROSS CONCRETE WALKS FOR SPACES THAT ABUT WALKS. HANDICAP SIGNS TO BE BOLLARD MOUNTED AND PLACED AT HEAD OF SPACE FOR SPACES THAT DO NOT ABUT WALKS.
3. STALL AND AISLE WIDTHS ARE TYPICAL UNLESS OTHERWISE STATED ON PLAN.
4. ALL STANDARD PARKING STALL STRIPING TO BE 4 INCHES WIDE AND WHITE IN COLOR.

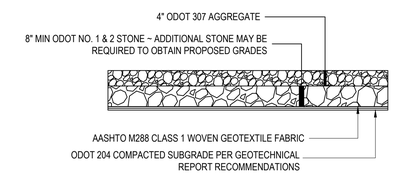
ADA ACCESSIBLE PARKING STRIPING DETAIL

NOT TO SCALE



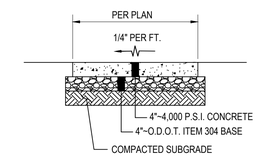
TYPICAL SINGLE GATE FENCE ASSEMBLY DETAIL

NOT TO SCALE



AGGREGATE LOT DETAIL

NOT TO SCALE



NOTE:
1. WALK TO BE DIVIDED INTO EQUALLY SPACED BLOCKS AT INTERVALS APROXIMATELY EQUAL TO THE WIDTH OF THE WALK. EXPANSION JOINT FILLER 1/2" THICK SHALL BE INSTALLED BETWEEN WALK AND ANY FIXED STRUCTURE EXTENDING FOR THE FULL DEPTH OF THE SIDEWALK. THE EXPANSION JOINT FILLER SHALL BE 1" THICK WHERE WALK IS INSTALLED AGAINST BACK OF CURB.

WALK DETAIL

NOT TO SCALE

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1	09/15/2026	ECA	PLANNING COMMISSION SUBMISSION

PRELIMINARY
NOT FOR CONSTRUCTION

20600 CHAGRIN BLVD
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BROADVIEW HEIGHTS, OH 44147

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MIAMISBURG, OH

CONSTRUCTION DETAILS

C004

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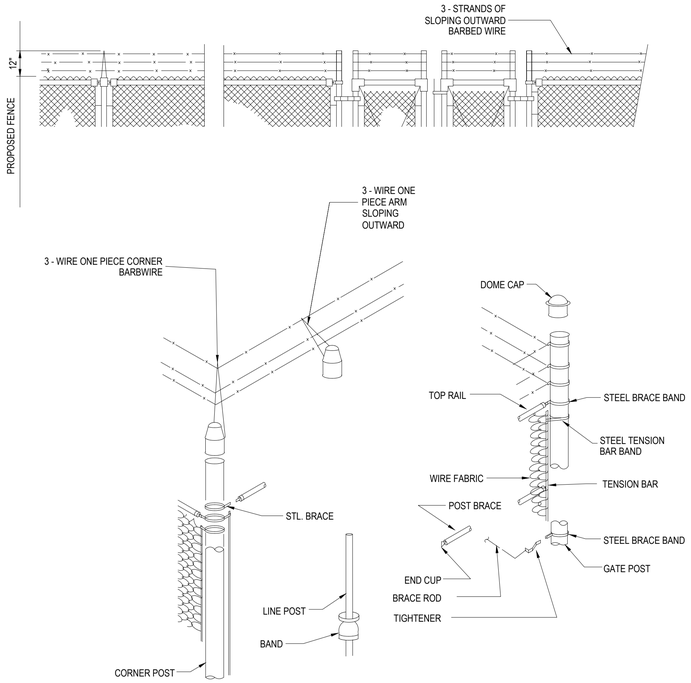
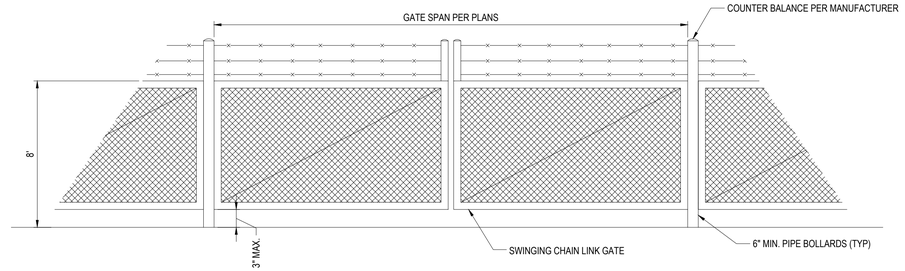


BARBED WIRE FENCE DETAIL

NOT TO SCALE

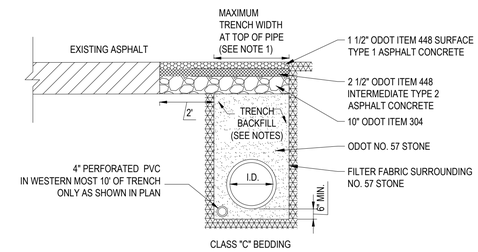


NOTE:

1. FENCE AND GATE STRUCTURE AND MATERIALS TO BE PER MANUFACTURER'S SPECIFICATIONS.

SWINGING CHAIN LINK DRIVE GATE

NOT TO SCALE

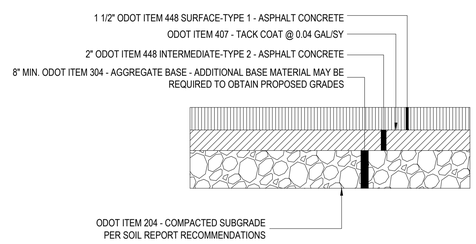


NOTES:

1. MAXIMUM TRENCH AT TOP OF PIPE SHALL BE O.D. + 24" FOR ALL PIPE SIZES UP TO AND INCLUDING 24" I.D. AND O.D. + 30" FOR PIPE LARGER THAN 24' I.D.
2. PIPE BACKFILL UNDER PAVEMENTS AND AROUND STRUCTURES SHALL BE ODOT NO. 57 STONE.
3. RECYCLED MATERIAL SHALL NOT BE USED FOR NO. 57 STONE. AGGREGATE SHALL BE LIMESTONE.
4. IN AREAS WHERE TRENCH IS OUTSIDE EXISTING PAVEMENT EDGE, TRENCH TO BE TOPPED WITH 4-INCHES OF TOP SOIL. NO. 57 IS TO BE EXTENDED TO BOTTOM OF TOP SOIL.
5. NO. 57 STONE TO DRAIN TO CATCH BASIN THROUGH A 4" UNDERDRAIN CONNECTION.
6. 4" UNDERDRAIN TO BE CONNECTED TO EXISTING CATCH BASIN PER PLAN.

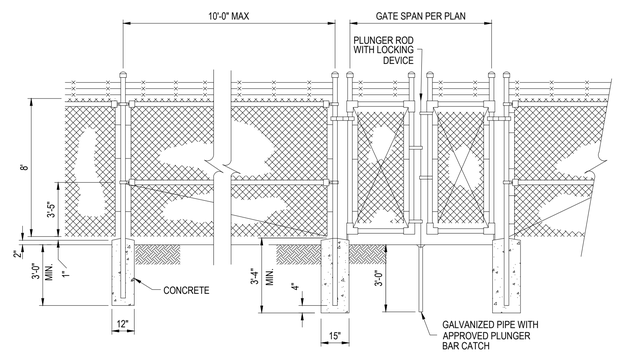
TRENCH & BEDDING DETAIL

NOT TO SCALE



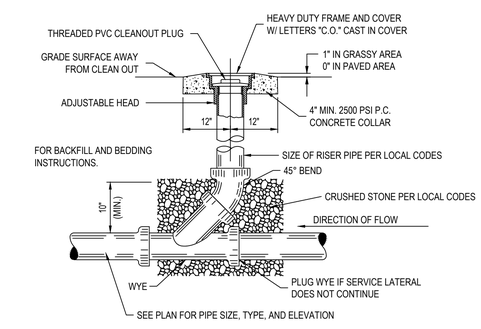
STANDARD DUTY ASPHALT PAVEMENT SECTION

SCALE: N.T.S.



TYPICAL DOUBLE GATE FENCE ASSEMBLY DETAIL

NOT TO SCALE



CLEANOUT DETAIL

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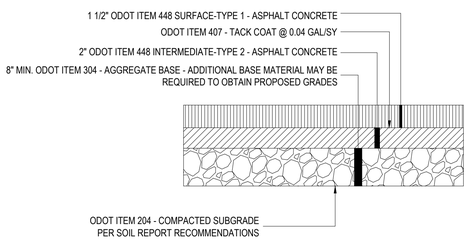

STANDARD DUTY ASPHALT PAVEMENT SECTION

SCALE: N.T.S.

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CONSTRUCTION DETAILS

C005

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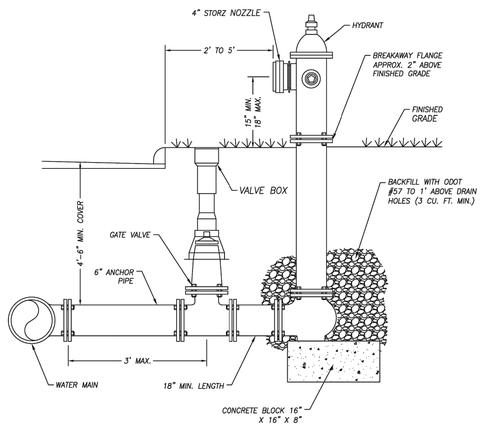
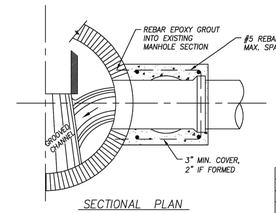
GENERAL NOTES

1. ALL SANITARY SEWERS AND/OR WATER LINES AND APPURTENANCES SHALL BE CONSTRUCTED ACCORDING TO MONTGOMERY COUNTY ENVIRONMENTAL SERVICES SPECIFICATIONS, DATED JANUARY, 2019, (EFFECTIVE NOVEMBER, 2019), OR LATEST REVISION THEREOF.
2. NO ADDITIONS, DELETIONS OR REVISIONS TO THE SANITARY SEWER AND/OR WATER FACILITIES ARE TO BE MADE WITHOUT PRIOR WRITTEN APPROVAL BY THE MONTGOMERY COUNTY ENVIRONMENTAL SERVICES.
3. NO CONSTRUCTION SHALL COMMENCE UNTIL MONTGOMERY COUNTY ENVIRONMENTAL SERVICES PERMITS HAVE BEEN ISSUED, AND TWO (2) WORKING DAYS NOTICE HAS BEEN GIVEN TO THE INSPECTION DIVISION (781–2650).
4. ALL UTILITY TRENCHES WITHIN THE EXISTING OR PROPOSED RIGHT–OF–WAY OR UNDER PAVED AREAS SHALL BE BACKFILLED WITH COMPACTED GRANULAR MATERIAL CONFORMING TO ODOT 703.11 TYPE 2 IN ACCORDANCE WITH THE MONTGOMERY COUNTY ENVIRONMENTAL SERVICES SPECIFICATIONS.
5. NO SANITARY SEWER AND/OR WATER MAIN LINE PERMITS SHALL BE ISSUED UNTIL PERMITS TO WORK IN THE PUBLIC ROAD RIGHT OF WAY (STREET CUT PERMITS) OR THE STATE OF OHIO HIGHWAY PERMIT HAS BEEN OBTAINED (AS APPLICABLE).
6. ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN IN THEIR APPROXIMATE LOCATIONS ACCORDING TO THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL NOTIFY THE MONTGOMERY COUNTY ENVIRONMENTAL SERVICES AT 1–800–362–2764 AND ALL OTHER UTILITY COMPANIES 48 HOURS PRIOR TO CONSTRUCTION TO OBTAIN FIELD LOCATIONS OF SAID EXISTING UNDERGROUND UTILITIES (811).
7. NO SERVICE CONNECTIONS SHALL BE MADE TO THE WATER MAIN OR SANITARY SEWER UNTIL THE MAIN LINE HAS BEEN INSPECTED, TESTED, DISINFECTED AND RELEASED FOR TAPS AND ON–PREMISE.
8. ROOF DRAINS, FOUNDATION DRAINS OR OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER SYSTEM ARE PROHIBITED.
9. SANITARY MANHOLES SHALL BE PRE–CAST CONFORMING TO ASTM C–478, OR MONOLITHIC CONSTRUCTED OF CLASS "A" 4200 PSI CONCRETE. MANHOLES SHALL BE VACUUM TESTED IN ACCORDANCE WITH ASTM C–1244. JOINTS BETWEEN PRE–CAST SANITARY MANHOLE SECTIONS SHALL CONFORM TO ASTM C–443. CHIMNEY SEALS SHALL BE PROVIDED BETWEEN THE CASTING AND CONE SECTION. ECCENTRIC CONES SHALL BE USED.
10. SANITARY MANHOLE BOTTOMS TO BE FULLY CHANNELED.
11. SANITARY SEWER PIPE AND FITTINGS SHALL BE PVC OR EXTRA STRENGTH VITRIFIED CLAY. PVC PIPE AND FITTINGS SHALL MEET OR EXCEED ALL THE REQUIREMENTS OF ASTM D–3034, SDR26 AND HAVE A MINIMUM PIPE STIFFNESS OF 115 PSI. EXTRA STRENGTH VITRIFIED CLAY PIPE AND FITTINGS SHALL MEET OR EXCEED ALL THE REQUIREMENTS OF ASTM C–700. THE CONTRACTOR MAY HAVE HIS CHOICE OF THESE MATERIALS (PRIOR TO ISSUANCE OF MAINLINE PERMITS) UNLESS OTHERWISE SPECIFIED IN THE PLANS AND SPECIFICATIONS. PVC PIPE SHALL MEET THE REQUIREMENTS FOR DEFLECTION TESTING PER MCES STANDARD SPECIFICATIONS.
12. SANITARY SEWER PIPE JOINTS SHALL CONFORM AS FOLLOWS: PVC PIPE JOINTS SHALL CONFORM TO ASTM D–3212 (ELASTOMERICALLY GASKETED). CLAY PIPE JOINTS SHALL CONFORM TO ASTM C – 425, O–RING GASKET .
13. THE CONTRACTOR SHALL NOT MAKE ANY PHYSICAL CONNECTION TO THE EXISTING SANITARY SEWER UNTIL THE REMAINING SEWER, EXCLUDING THE FIRST SPAN HAS BEEN INSPECTED, TESTED AND RELEASED.
14. THE INFILTRATION/EXFILTRATION TEST FOR THE SANITARY SEWER SHALL NOT EXCEED 50 GAL/IN.–DIA./MI./DAY.
15. THE WATER MAIN INSTALLATION WILL BE INSPECTED BY MONTGOMERY COUNTY ENVIRONMENTAL SERVICES, AREAS NORTH OF US–35 MAY BE INSPECTED BY THE CITY OF DAYTON, IF REQUIRED.
16. WATER MAINS, BENDS AND FITTING SHALL BE DUCTILE CAST IRON PIPE AND CONFORM TO ANSI A – 21.51 (AWWA C – 151), CLASS 51.
17. WATER MAINS SHALL HAVE 4'–6" MINIMUM COVER.
18. ONLY MONTGOMERY COUNTY ENVIRONMENTAL SERVICES PERSONNEL SHALL OPERATE MAIN LINE WATER VALVES.
19. FIRE HYDRANTS (CLOSEST POINT) SHALL BE LOCATED 2' FROM AND WITHIN 5' OF THE CURB OR EDGE OF PAVEMENT AND 4" STORZ OPENING TO FACE THE STREET.
20. WATER LINES CROSSING ANY AND ALL SEWERS SHALL HAVE A MINIMUM VERTICAL SEPARATION OF 18" BETWEEN THE OUTSIDES OF THE WATER MAIN PIPE AND THE SEWER PIPE. ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED AT THE POINT OF CROSSING SUCH THAT BOTH JOINTS WILL BE EQUIDISTANT AND AS FAR FROM THE SEWER AS POSSIBLE. IF WATER CROSSES BELOW SANITARY SEWERS, THE SEWER MUST BE WATER MAIN MATERIAL FOR THAT SPAN.
21. ALL GATE VALVES ARE TO BE LOCATED AT TEES OR CROSSES WITH A ONE FOOT, (3') MAXIMUM NIPPLE BETWEEN TEE OR CROSS AND VALVE. ALL PLUGS ARE TO BE CONNECTED TO VALVES EXCEPT WHERE SHOWN ON PLANS.
22. ANY CONSTRUCTION OF, OR CONNECTION TO PRE–STRESSED CONCRETE WATER MAINS WILL REQUIRE A MEETING WITH MONTGOMERY COUNTY ENVIRONMENTAL SERVICES BEFORE ORDERING THE PIPE FOR THE PROJECT.
23. ALL FIRE HYDRANTS AND/OR VALVES NOTED TO BE RELOCATED SHALL BE INSPECTED PRIOR TO BEING PLACED BACK INTO SERVICE. ONLY FIRE HYDRANTS MEETING THE CURRENT SPECIFICATIONS WILL BE PLACED BACK INTO SERVICE. ALL VALVES THAT ARE NOT RESTRAINED OR ANCHORED SHALL BE REPLACED.
24. ALL WATER SERVICES AND SANITARY SERVICES NOTED TO BE ABANDONED SHALL BE ABANDONED AT THE MAIN.



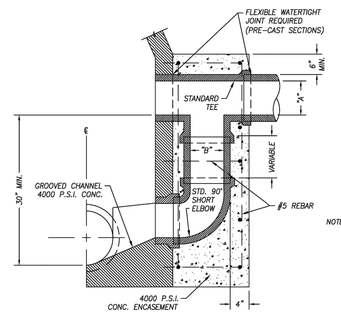
TYPICAL FIRE HYDRANT INSTALLATION



SECTIONAL PLAN

DROP CONNECTION SCHEDULE

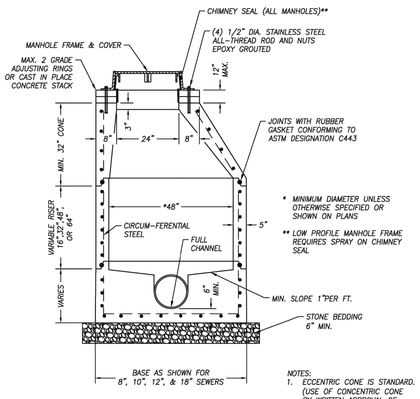
"A"	"B"
8" – 12"	8"
15" – 18"	10"
21" – 27"	12"
30" – 60"	½"A"



NOTE: DROP CONNECTION SHALL BE DUCTILE IRON OR REINFORCED CONCRETE. PVC PIPE MAY BE USED IF DROP IS INTEGRALLY CAST WITH THE MANHOLE AT THE FACTORY.

SECTIONAL ELEVATION

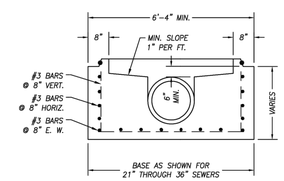
STANDARD MANHOLE DROP CONNECTION



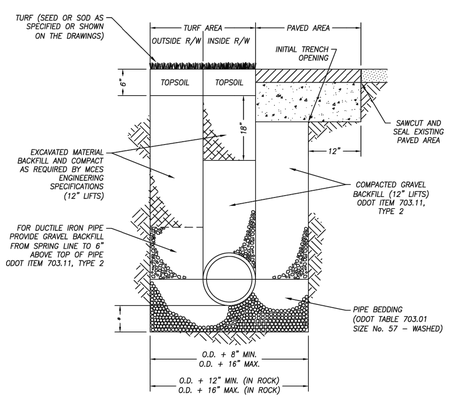
* MINIMUM DIAMETER UNLESS OTHERWISE SPECIFIED OR SHOWN ON PLANS

** LOW PROFILE MANHOLE FRAME REQUIRES SPRAY ON CHIMNEY SEAL

NOTES:
1. ECCENTRIC CONE IS STANDARD. (USE OF CONCENTRIC CONE BY WRITTEN APPROVAL OF ENGINEER ONLY.)
2. COAL TAR EPOXY INTERIOR COATING REQUIRED ON 5' DIAMETER AND LARGER MANHOLES
3. FLAT SLAB TOP SECTIONS REQUIRE ENGINEER APPROVAL



PRECAST MANHOLE



* 6" OR $\frac{\text{PIPE O.D.(INCHES)}}{2}$ WHICHEVER IS LARGER

** RIGID PIPE = DUCTILE IRON, CONCRETE PRESSURE PIPE, PVC COMPOSITE (TRUSS), VITRIFIED CLAY PIPE, OR REINFORCED CONCRETE PIPE

FOR RIGID PIPE**

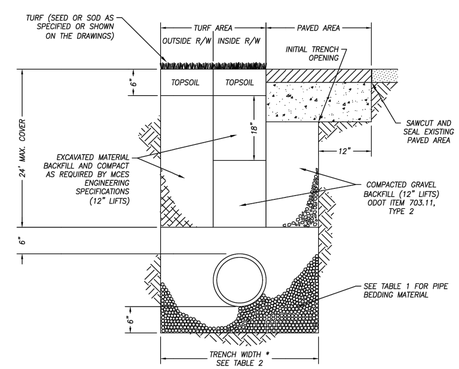


TABLE 1	
PIPE DIAMETER	ODOT TABLE 703.01 SIZE
LESS THAN 15"	#7 OR #8 – 100% CRUSHED
15"–30"	#67 – 100% CRUSHED
GREATER THAN 30"	#57 – 100% CRUSHED

TABLE 2	
PIPE DIAMETER	TRENCH WIDTH *
LESS THAN 15"	O.D. + 16"
GREATER THAN 15"	(O.D. x 1.25) + 12"

* TRENCH WIDTH MAY BE LESS IF APPROVED BY THE ENGINEER TRENCH WIDTH TO BE GREATER IN POOR OR UNSTABLE SOILS AS DETERMINED BY THE ENGINEER (REF. ASTM D 2321).

FOR THERMOPLASTIC PIPE

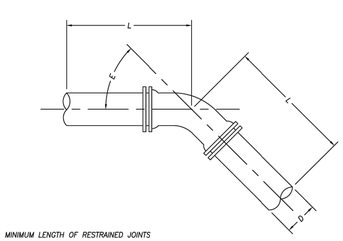
NOTES:
FOR PAVEMENT AND TURF RESTORATION SEE MONTGOMERY COUNTY ENVIRONMENTAL SERVICES DEPARTMENT STANDARD SPECIFICATIONS SECTION 02512

ALL RESTORATION MUST COMPLY WITH THE REQUIREMENTS OF THE LOCAL JURISDICTION

BEDDING DETAILS

MINIMUM LENGTH OF RESTRAINED JOINTS ("L")

		DIAMETER OF PIPE ("D")			
		6"	8"	12"	16"
DEGREE OF DEFLECTION ("E")	11 1/4°	6'	8'	12'	15'
	22 1/2°	13'	17'	24'	31
	45°	26'	35'	50'	65'
	90°	64'	84'	120'	156'



"L" = MINIMUM LENGTH OF RESTRAINED JOINTS
"D" = DIAMETER OF PIPE
"E" = DEGREE OF DEFLECTION

LENGTHS CALCULATED USING DIPRA THRUST RESTRAINT CALCULATOR WITH THE FOLLOWING ASSUMPTIONS:
VERTICAL BEND DOWN
POLYWRAPPED PIPE
PRESSURE = 150 PSI
SAFETY FACTOR = 1.5
SOIL TYPE = COHESIVE GRANULAR
DEPTH OF COVER = 4.5 FEET
LAYING CONDITIONS = TYPE 4 BEDDING

JOINT RESTRAINT FOR BENDS

MONTGOMERY COUNTY ENVIRONMENTAL SERVICES
1850 SPAULDING ROAD
KETTERING, OHIO 45432
TEL: (937) 781–2500

811 Know what's below. Call before you dig.

DESIGNED BY: TBD
CONSTRUCTED BY: TBD
START DATE: TBD
COMPLETION DATE: TBD

SUBMITTAL/REVISION RECORD

No.	DATE	DESCRIPTION	APPVD.	DATE:

GENERAL DETAILS

PROJECT No. 1300XX-XX
PROJECT TITLE

SHEET NO.
X OF N

20600 CHAGRIN BLVD.
SUITE 500, SHAKER HEIGHTS, OH 44122
TEL: 216.378.1490
FAX: 216.378.1497

PROJECT DATE: 09/15/2026
PROJECT NO: 2500964
DRAWN BY: ECA
CHECKED BY: SG

Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com

PREPARED FOR:
OMCO BUILDING, LLC
3993 EAST ROYALTON ROAD
BROADVIEW HEIGHTS, OH 44147

OHIO CAT
RENTAL SERVICE FACILITY
MIAMISBURG, OH

CONSTRUCTION DETAILS

C006

NO.	DATE	BY	DESCRIPTION
1	09/15/2026	ECA	PLANNING COMMISSION SUBMISSION

PRELIMINARY
NOT FOR CONSTRUCTION

FILE: M:\ENGINEERING\STANDARD DRAWINGS\PRIVATE DEVELOPMENT\MCES STANDARD TEMPLATE 7.14.2021 PRIVATE DEVELOPMENT.DWG
PLOT DATE: 7/16/2021 2:57 PM

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SPECIFICATIONS

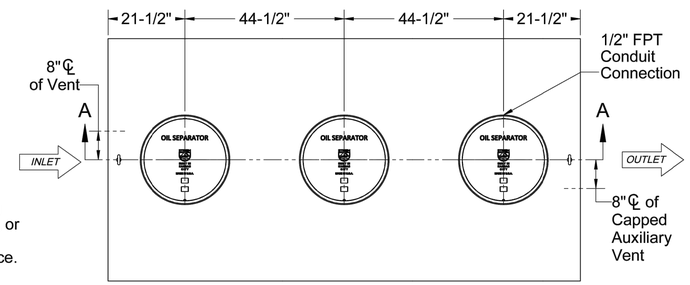
1. 6" Plain End inlet/outlet shown, 3" Plain End vents standard.
2. Max flow rate: 314 GPM.
3. Liquid capacity: 1500 Gallons (201 cu. ft.).
4. Oil capacity: 488 Gallons.
5. Solids capacity: 825 Gallons.
6. Unit weight: 1676 lbs.
7. Maximum operating temperature 140˚F continuous.
8. Slick Stick Oil Level Monitoring System (see page 2).

NOTES

1. For gravity drainage applications only.
2. Do not use for pressure applications.
3. Capped auxiliary vent provided to allow flexibility with vent piping and design. Provided cap can be moved to unused vent location, or discarded if two chamber vents are required per local code.
4. Cover placement allows full access to tank for proper maintenance.
5. Lifting lug set for easy install.
6. Maximum burial depth: 103" from standard cover height.

ENGINEER SPECIFICATION GUIDE

Striem oil separator model OT-1500-SS shall be lifetime guaranteed and made in the USA. Separator shall be constructed of polyethylene with 7/8" nominal wall thickness. Separator shall be manufactured for below-grade installation. Field-adjustable riser system is available as an option to bring manhole covers to grade. Separator flow rate shall be 314 GPM. Separator liquid holding capacity shall be 1500 gallons and oil capacity shall be 488 gallons. Solids capacity shall be 825 gallons. Covers shall be H20 traffic-rated pickable cast iron. Separator shall be certified to IAPMO IGC 183-2016 and carry a UPC listing.



TOP VIEW

OPTIONS

Connection Options (Plain End Only)

Inlet / Outlet

- ☐ 4"
- ☐ 6"
- ☐ 8"

SELECTION REQUIRED

Riser Options

From Factory: Up to 2"

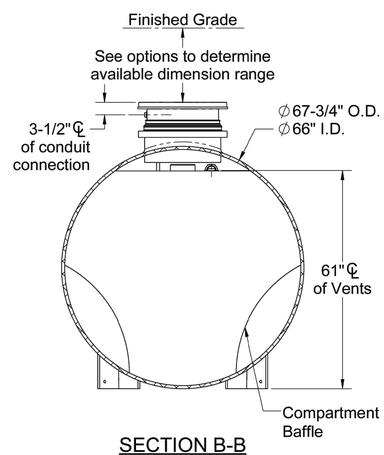
- ☐ Up to 21": **SR24** (3)
- ☐ Up to 36": **LR24** (3)
- ☐ Up to 40": **SR24** (6)
- ☐ Up to 55": **SR24** (3) + **LR24** (3)
- ☐ Up to 69": **LR24** (6)
- ☐ Up to 87": **SR24** (3) + **LR24** (6)
- ☐ Up to 103": **LR24** (9)

- OR -

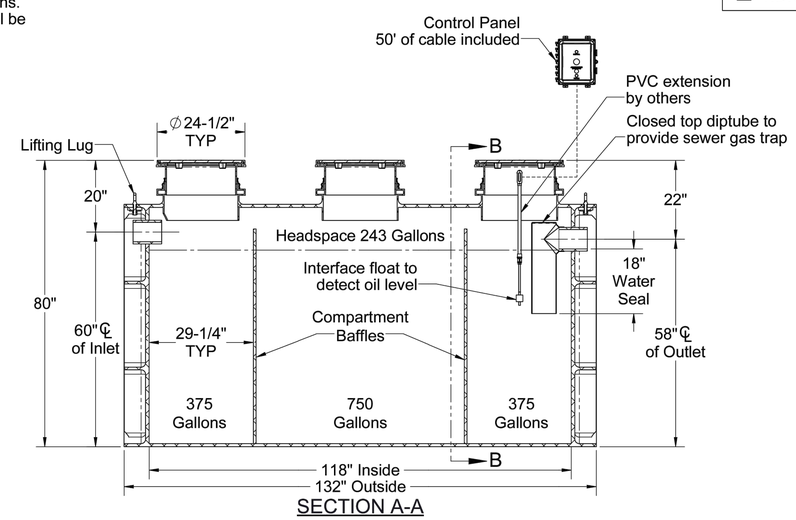
☐ **CPRK** (3): 11" - 103"
(see specification for more detail.)

Additional Options

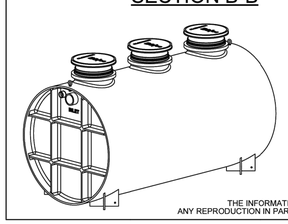
☐ **HDK-6**: High Water Table Hold Down Kit



SECTION B-B



SECTION A-A



UPC ®

PO IS NON-CANCELABLE ORDER IS NON-RETURNABLE

PROPRIETARY AND CONFIDENTIAL
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF **STRIEM, LLC.**
ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF **STRIEM, LLC.** IS PROHIBITED.

MODEL NUMBER:	OT-1500-SS		
DESCRIPTION:	OIL TANKER™ POLYETHYLENE OIL SEPARATOR WITH SLICK STICK™ OIL LEVEL MONITORING SYSTEM 1500 GALLON CAPACITY		
DWG BY: ENG	**DATE:** 5/8/2026	**REV:** 1	

SPECIFICATION SHEET

Striem
Kansas City, KS
Tel: 913-222-1500
orders@striemco.com
www.striemco.com

Made in the U.S.A

STRIEM

NO.	DATE	BY	DESCRIPTION
1	09/15/2026	ECA	PLANNING COMMISSION SUBMISSION

PRELIMINARY
NOT FOR CONSTRUCTION

20600 CHAGRIN BLVD
SUITE 500, SHAKER HEIGHTS, OH 44122
TEL: 216.378.1490
FAX: 216.378.1497

PROJECT DATE: 09/15/2026
PROJECT NO: 2500984
DRAWN BY: ECA
CHECKED BY: SG

Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com

PREPARED FOR:
OMCO BUILDING, LLC
3993 EAST ROYALTON ROAD
BROADVIEW HEIGHTS, OH 44147

OHIO CAT
RENTAL SERVICE FACILITY
MIAMISBURG, OH

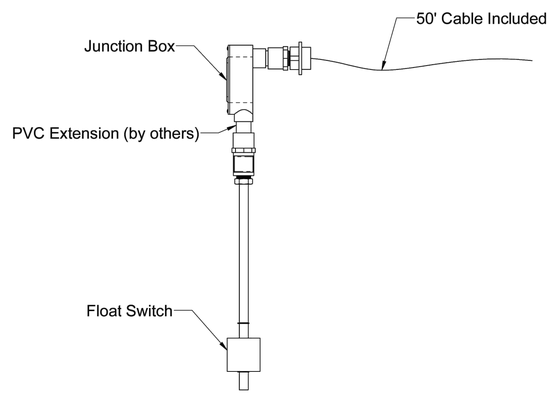
CONSTRUCTION DETAILS

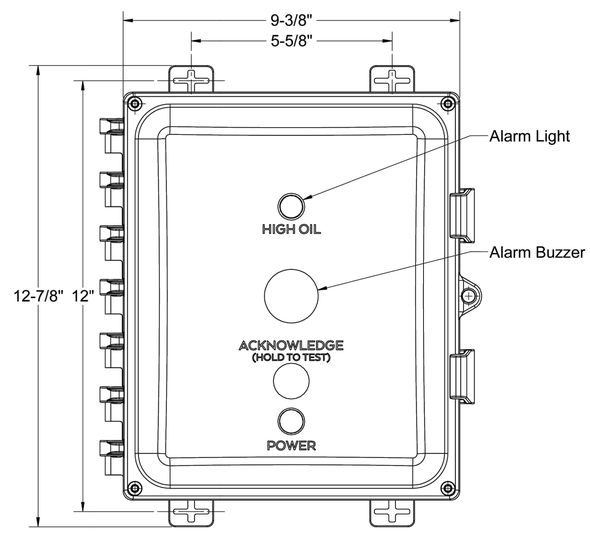
C007

W:\Projects\2025\500-999\2500984\CAD\SHTS\C002-005 Construction Details.dwg - Last printed 9/23/2026 5:24 PM

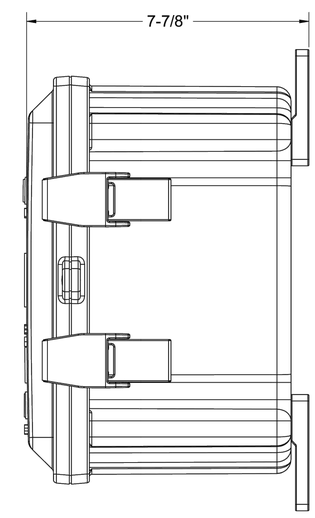
SPECIFICATIONS

1. UL/CUL Listed.
2. Provides warning of high oil level conditions with interface float.
3. Single phase, 120 volt, 60 hertz power required.
4. NEMA 4X fiberglass, corrosion resistant, weatherproof enclosure suitable for outdoor use and damp environments.
5. Audible Alarm Buzzer, 95dB pulsing horn with no timeout.
6. High Oil Light, indicates oil has accumulated below the oil interface float or the tank liquid level is below the High Oil Interface Float.
7. Power On light inside enclosure. Visible from the outside. Green light indicates the power is on.
8. Acknowledge button that silences the audible alarm when pressed, will test the system electronics when held
9. Locking clasp on door.
10. Alarm bell stays on until reset. Light stays on until reset, even if level goes down.
11. Unit comes supplied with extra dry contact for connection to a building alarm system.
12. 50' of 22 gauge cable included.

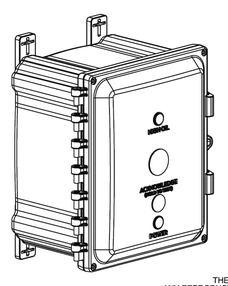




FRONT VIEW



SIDE VIEW



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ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF **STRIEM, LLC.** IS PROHIBITED.

MODEL NUMBER:	SS		
DESCRIPTION: SLICK STICK™ OIL LEVEL MONITORING SYSTEM			
DWG BY: ENG	**DATE:** 4/24/2026	**REV:** 1	

SPECIFICATION SHEET

Striem
Kansas City, KS
Tel: 913-222-1500
orders@striemco.com
www.striemco.com

Made in the U.S.A

STRIEM

NO.	DATE	BY	DESCRIPTION
1	09/15/2026	ECA	PLANNING COMMISSION SUBMISSION

PRELIMINARY
NOT FOR CONSTRUCTION

20600 CHAGRIN BLVD
SUITE 500, SHAKER
HEIGHTS, OH 44122
TEL: 216.378.1490
FAX: 216.378.1497

PROJECT DATE: 09/15/2026
PROJECT NO.: 2500984
DRAWN BY: ECA
CHECKED BY: SG

Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
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PREPARED FOR:
OMCO BUILDING, LLC
3893 EAST ROYALTON ROAD
BROADVIEW HEIGHTS, OH 44147

OHIO CAT
RENTAL SERVICE FACILITY
MIAMISBURG, OH

CONSTRUCTION DETAILS

C008

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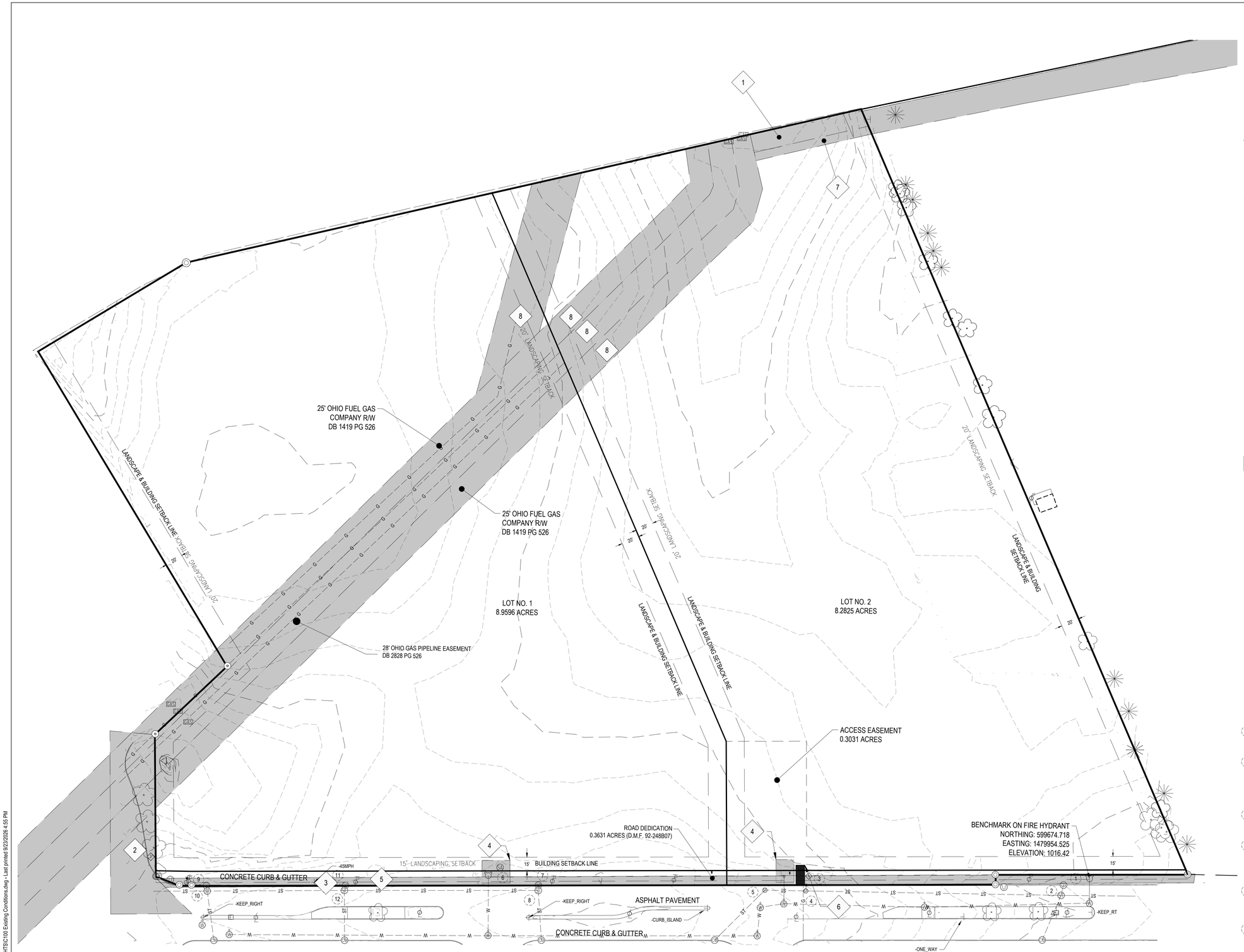

40 20 0 40 80
1"=40'

LEGEND

- EXISTING STORM SEWER
- EXISTING SANITARY SEWER
- EXISTING RIGHT OF WAY
- EXISTING WATER LINE
- EXISTING GAS LINE
- EXISTING CATCH BASIN
- EXISTING STORM MANHOLE
- EXISTING UNIDENTIFIED UTILITY
- EXISTING HYDRANT
- EXISTING GATE VALVE
- EXISTING GAS BOX
- EXISTING TRAFFIC LIGHT
- EXISTING SIGN
- EXISTING LIGHT POLE
- EXISTING POWER POLE
- EXISTING ELECTRIC BOX
- EXISTING TRANSFORMER
- EXISTING DECIDUOUS TREE
- EXISTING EVERGREEN TREE
- EXISTING EASEMENT

INDEX OF EASEMENTS

1. RIGHT OF WAY - DB. 2528 PG. 526
2. EASEMENT - D.M.F. 87-080B05
3. EASEMENT - D.M.F. 88-555A06
4. EASEMENT - D.M.F. 91-700A01
5. ELECTRIC RIGHT OF WAY - D.M.F. 92-753C04
6. PIPELINE RIGHT OF WAY - D.M.F. 94-398B04
7. PIPELINE EASEMENT - I.R. DEED 20-066930
8. PIPELINE EASEMENT - I.R. DEED 21-069392

STORM STRUCTURE TABLE

1. CURB INLET 31416
   ELEVATION: 1013.96
   INV.- 12" RCP= 1011.21 W
2. STORM MANHOLE 31417
   ELEVATION: 1014.36
   INV.- 12" RCP= 1011.06 NW
   INV.- 12" RCP= 1010.01 N
   INV.- 12" RCP= 1010.01 E
   INV.- 12" RCP= 1010.01 S
3. CURB INLET 31386
   ELEVATION: 1020.84
   INV.- 12" RCP= 1018.49 W
4. STORM MANHOLE 31387
   ELEVATION: 1021.24
   INV.- 12" RCP= 1017.19 N
   INV.- 12" RCP= 1017.19 S
   INV.- 12" RCP= 1017.19 E
5. STORM MANHOLE 31592
   ELEVATION: 1022.28
   INV.- 12" RCP= 1018.73 NW
   INV.- 12" RCP= 1018.73 S
6. SANITARY MANHOLE 31809
   ELEVATION: 1024.58
   INV.- 12" PVC= 1012.38
   NO FLOW
7. CURB INLET 31792
   ELEVATION: 1023.94
   INV.- 12" RCP= 1020.29 W
8. STORM MANHOLE 31793
   ELEVATION: 1024.14
   INV.- 12" RCP= 1020.19 W
   INV.- 12" RCP= 1020.19 E
   INV.- 12" RCP= 1020.19 N
9. CURB INLET 31797
   ELEVATION: 1021.18
   INV.- 12" RCP= 1016.38 W
10. STORM MANHOLE 31798
    ELEVATION: 1021.58
    INV.- 12" RCP= 1017.33 E
    INV.- 12" RCP= 1017.33 S
    INV.- 12" RCP= 1017.33 N
    INV.- 12" RCP= 1017.33 W
11. CURB INLET 31800
    ELEVATION: 1022.30
    INV.- 12" RCP= 1018.50
12. STORM MANHOLE 31801
    ELEVATION: 1022.71
    INV.- 12" RCP= 1018.31 E
    INV.- 12" RCP= 1018.31 S
    INV.- 12" RCP= 1018.31 N
    INV.- 12" RCP= 1018.31 W

NO.	DATE	BY	DESCRIPTION
1	09/15/2026	ECA	PLANNING COMMISSION SUBMISSION

PRELIMINARY
NOT FOR CONSTRUCTION

20600 CHAGRIN BLVD
SUITE 500, SHAKER HEIGHTS, OH 44122
TEL: 216.378.1490
FAX: 216.378.1497

PROJECT DATE: 09/15/2026
PROJECT NO.: 2500984
DRAWN BY: ECA
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Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com

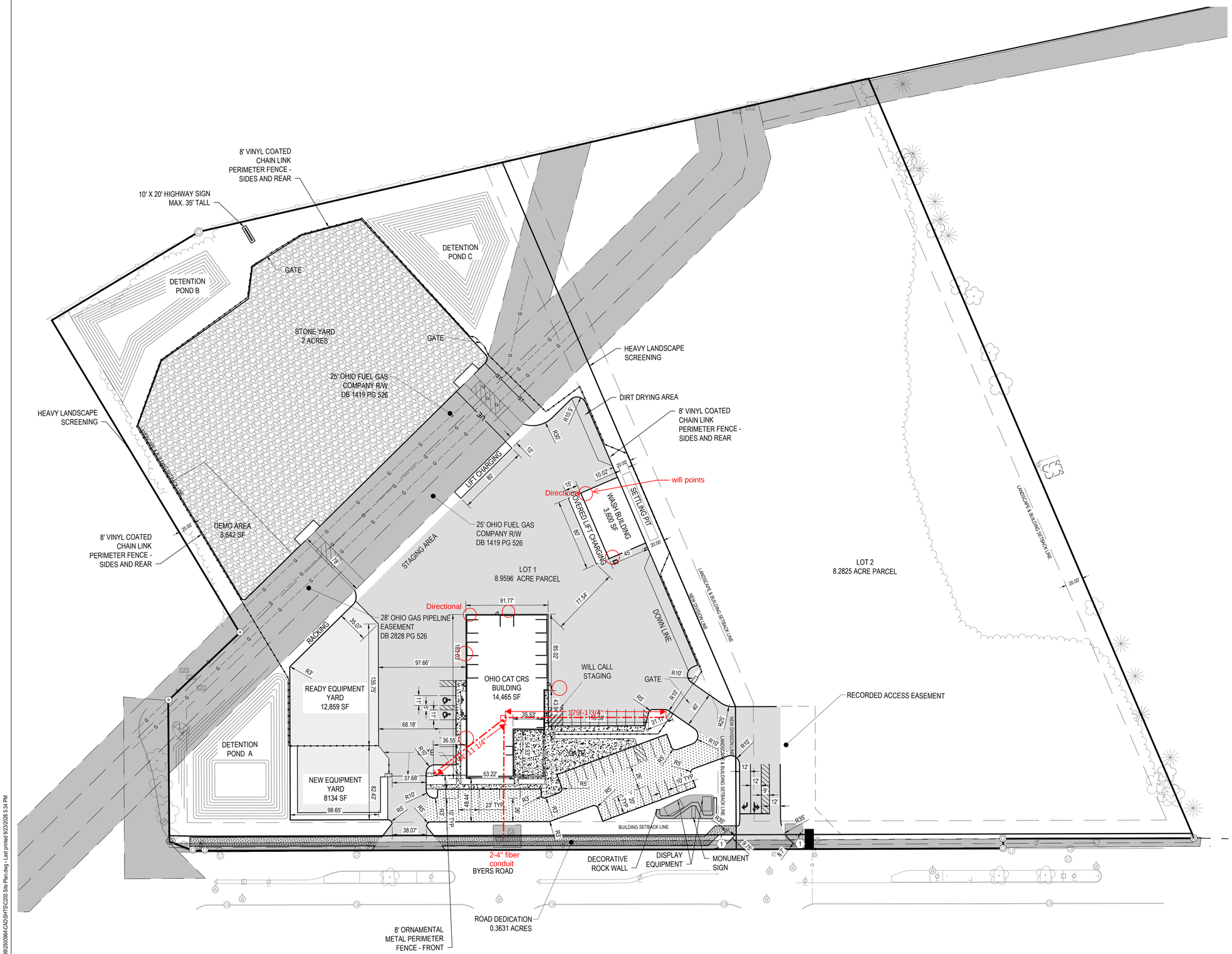
PREPARED FOR:
OMCO BUILDING, LLC
3893 EAST ROYALTON ROAD
BROADVIEW HEIGHTS, OH 44147

OHIO CAT RENTAL SERVICE FACILITY MIAMISBURG, OH

EXISTING CONDITIONS

C100

W:\Projects\2025\800-999\2500984\CAD\SHTS\C100 Existing Conditions.dwg - Last printed 9/23/2026 4:55 PM



50 25 0 50 100
1"=50'

LEGEND

- EASEMENT CROSSING (SEE DETAIL ON SHEET C005)
- CENTERPOINT ENERGY GAS EASEMENTS
- HEAVY DUTY CONCRETE PAVEMENT (SEE DETAIL ON SHEET C005)
- BASE: HEAVY DUTY CONCRETE PAVEMENT BID ALTERNATE: ROLLER-COMPACTED CONCRETE
- STANDARD DUTY ASPHALT PAVEMENT (SEE DETAIL ON SHEET C005)
- AGGREGATE STORAGE LOT (SEE DETAIL ON SHEET C005)
- 5' CONCRETE WALK (SEE DETAIL ON SHEET C005)
- PROPOSED MULTI-PURPOSE TRAIL
- CHAIN LINK FENCE
- DRIVE SLIDE GATE
- ACCESSIBLE PARKING SIGN
- LIGHT POLE WITH LUMINAIRE
- ADA PARKING SYMBOL

GENERAL NOTES

1. ALL DIMENSIONS SHOWN ARE PERPENDICULAR TO ITEMS BEING DIMENSIONED.
2. CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY ONSITE AND OFFSITE ITEMS DAMAGED DURING CONSTRUCTION IN THE SAME OR BETTER CONDITION THAN THEY WERE PRIOR TO CONSTRUCTION.
3. ALL PROPOSED CURB SHALL BE 4" MOUNTABLE CURB, UNLESS NOTED OTHERWISE.
4. PROPOSED GATES SHALL BE EQUIPPED WITH KEYCARD ACCESS READERS.
5. ALL FENCING FACING BYERS ROAD SHALL BE ORNAMENTAL METAL. VINYL-COATED CHAIN LINK IS LIMITED TO THE SIDES AND REAR.

SETBACKS TABLE		
BUILDING SETBACKS		
FRONT	SIDE	REAR
15'	20'	–
LANDSCAPE SETBACKS		
FRONT	SIDE	REAR
15'	20'	–

CODED NOTES:

1. EXISTING LIGHT POLES TO REMAIN. ADD ADDITIONAL SIGNALS FOR EGRESS TRAFFIC.

NO.	DATE	BY	DESCRIPTION
1	09/15/2026	ECA	PLANNING COMMISSION SUBMISSION

PRELIMINARY
NOT FOR CONSTRUCTION

20600 CHAGRIN BLVD
SUITE 500, SHAKER HEIGHTS, OH 44122
TEL: 216.378.1490
FAX: 216.378.1497

PROJECT DATE: 09/15/2026
PROJECT NO: 2500984
DRAWN BY: ECA
CHECKED BY: SG

TECHNICAL SKILL. CREATIVE SPIRIT.
Mannik Smith GROUP
www.MannikSmithGroup.com

PREPARED FOR:
OMCO BUILDING, LLC
3993 EAST ROYALTON ROAD
BROADVIEW HEIGHTS, OH 44147

OHIO CAT RENTAL SERVICE FACILITY MIAMISBURG, OH

SITE PLAN

C200

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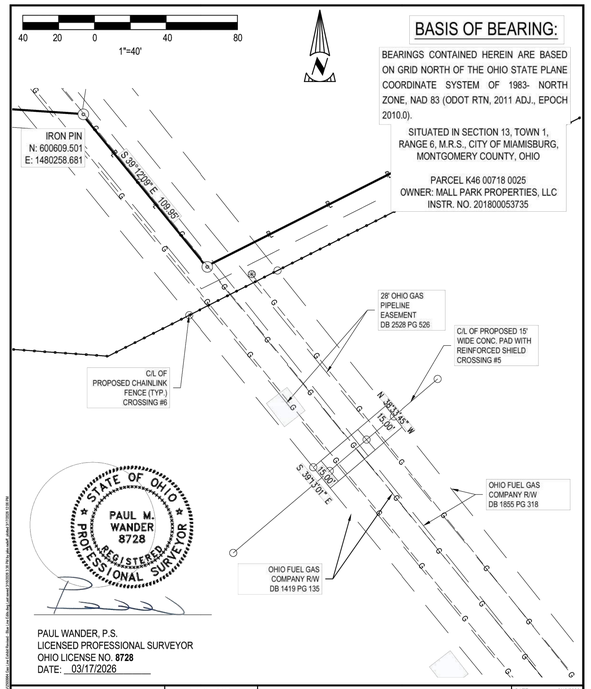

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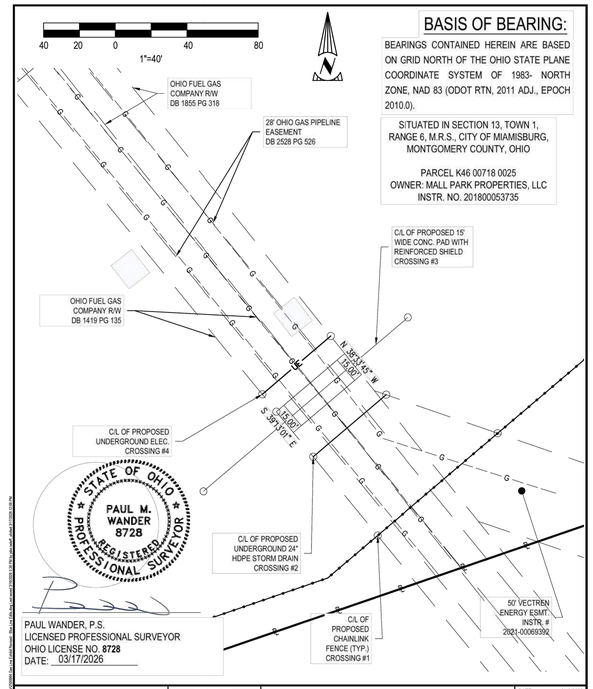
ENCROACHMENT EXHIBIT A FOR PROPOSED CROSSINGS

DATE: 3/10/2026 | PROJ. NO.: 2500964 | DRAWN BY: LKS | REVISION: 6

1 / 10



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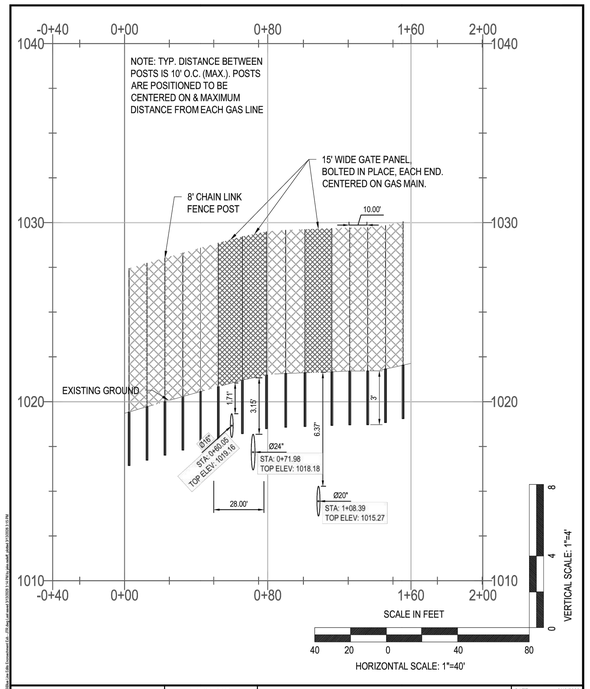
ENCROACHMENT EXHIBIT B FOR PROPOSED CROSSINGS

DATE: 3/10/2026 | PROJ. NO.: 2500964 | DRAWN BY: LKS | REVISION: 6

2 / 10



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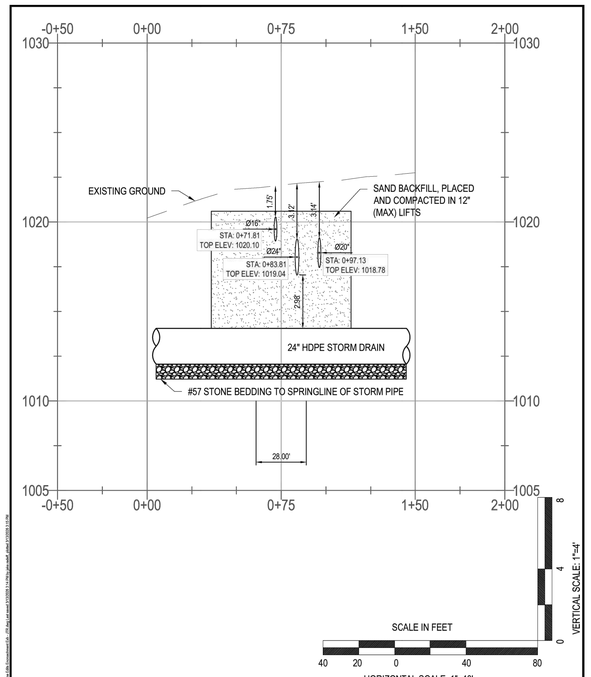
EASEMENT CROSSING #1

DATE: 3/13/2026 | PROJ. NO.: 2500964 | DRAWN BY: JTR | CHECKED BY: RAD

3 / 10



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EASEMENT CROSSING #2

DATE: 3/13/2026 | PROJ. NO.: 2500964 | DRAWN BY: JTR | CHECKED BY: RAD

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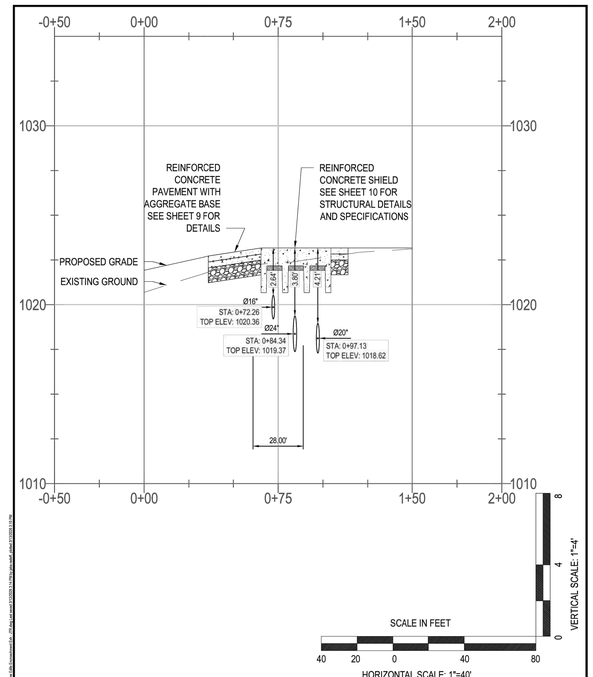

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EASEMENT CROSSING #3

DATE: 3/13/2026 | PROJ. NO.: 2500964 | DRAWN BY: JTR | CHECKED BY: RAD

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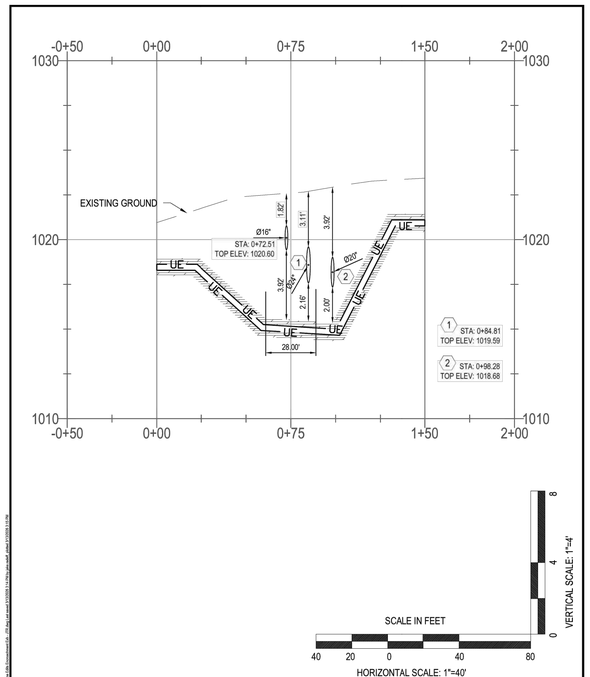

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EASEMENT CROSSING #4

DATE: 3/13/2026 | PROJ. NO.: 2500964 | DRAWN BY: JTR | CHECKED BY: RAD

6 / 10

NO.	DATE	BY	DESCRIPTION
1	09/15/2026	ECA	PLANNING COMMISSION SUBMISSION

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20600 CHAGRIN BLVD.
SUITE 500, SHAKER HEIGHTS, OH 44122
TEL: 216.378.1490
FAX: 216.378.1497

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PREPARED FOR:
OMCO BUILDING, LLC
3993 EAST ROYALTON ROAD
BROADVIEW HEIGHTS, OH 44147

OHIO CAT
RENTAL SERVICE FACILITY
MIAMISBURG, OH

GAS LINE CROSSING DETAILS

C201

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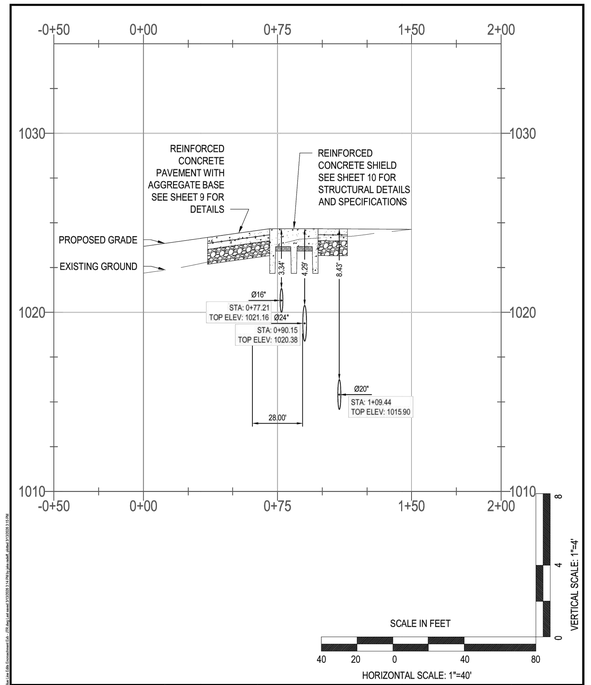

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EASEMENT CROSSING #5

DATE: 3/13/2026
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DRAWN BY: JTR
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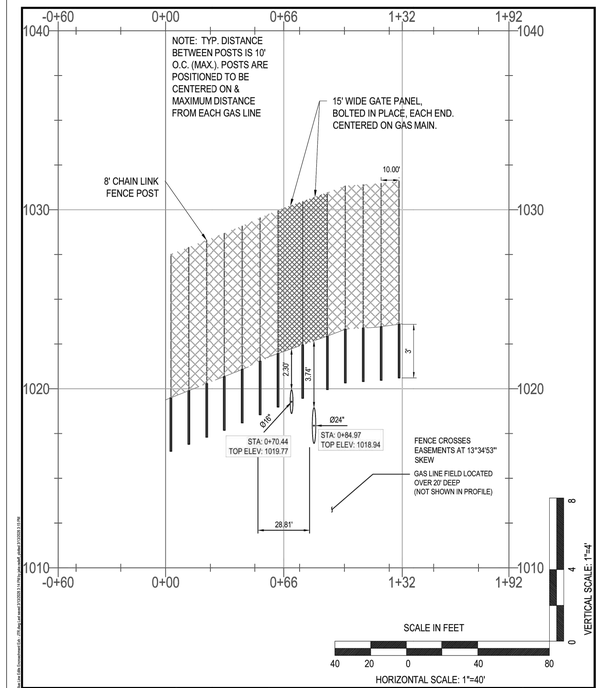
7 / 10



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EASEMENT CROSSING #6

DATE: 3/13/2026
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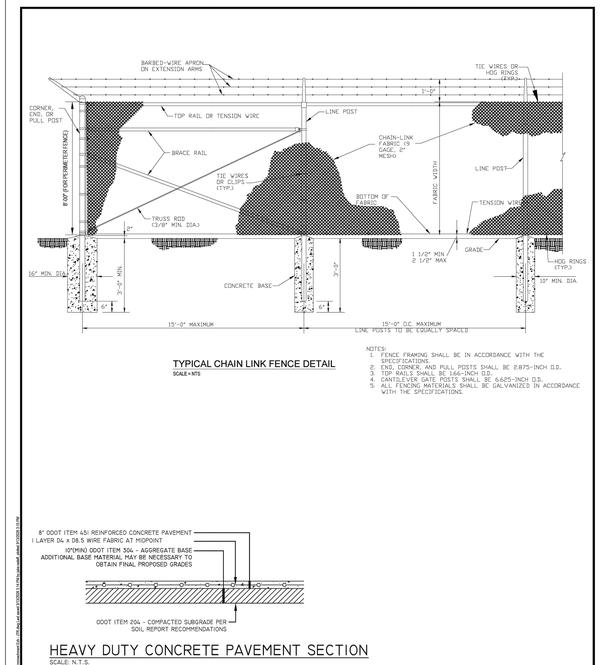

TYPICAL CHAIN LINK FENCE DETAIL
SCALE = NTS

NOTES:
1. FENCE FRAMING SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS.
2. END, CORNER, AND PULL POSTS SHALL BE 2.875-INCH O.D.
3. TOP RAILS SHALL BE 1.66-INCH O.D.
4. CANTILEVER GATE POSTS SHALL BE 6.625-INCH O.D.
5. ALL FENCING MATERIALS SHALL BE GALVANIZED IN ACCORDANCE WITH THE SPECIFICATIONS.

HEAVY DUTY CONCRETE PAVEMENT SECTION
SCALE: N.T.S.

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EASEMENT CROSSING DETAILS

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OHIO CAT
RENTAL SERVICE FACILITY
MIAMISBURG, OH

GAS LINE CROSSING DETAILS

C202

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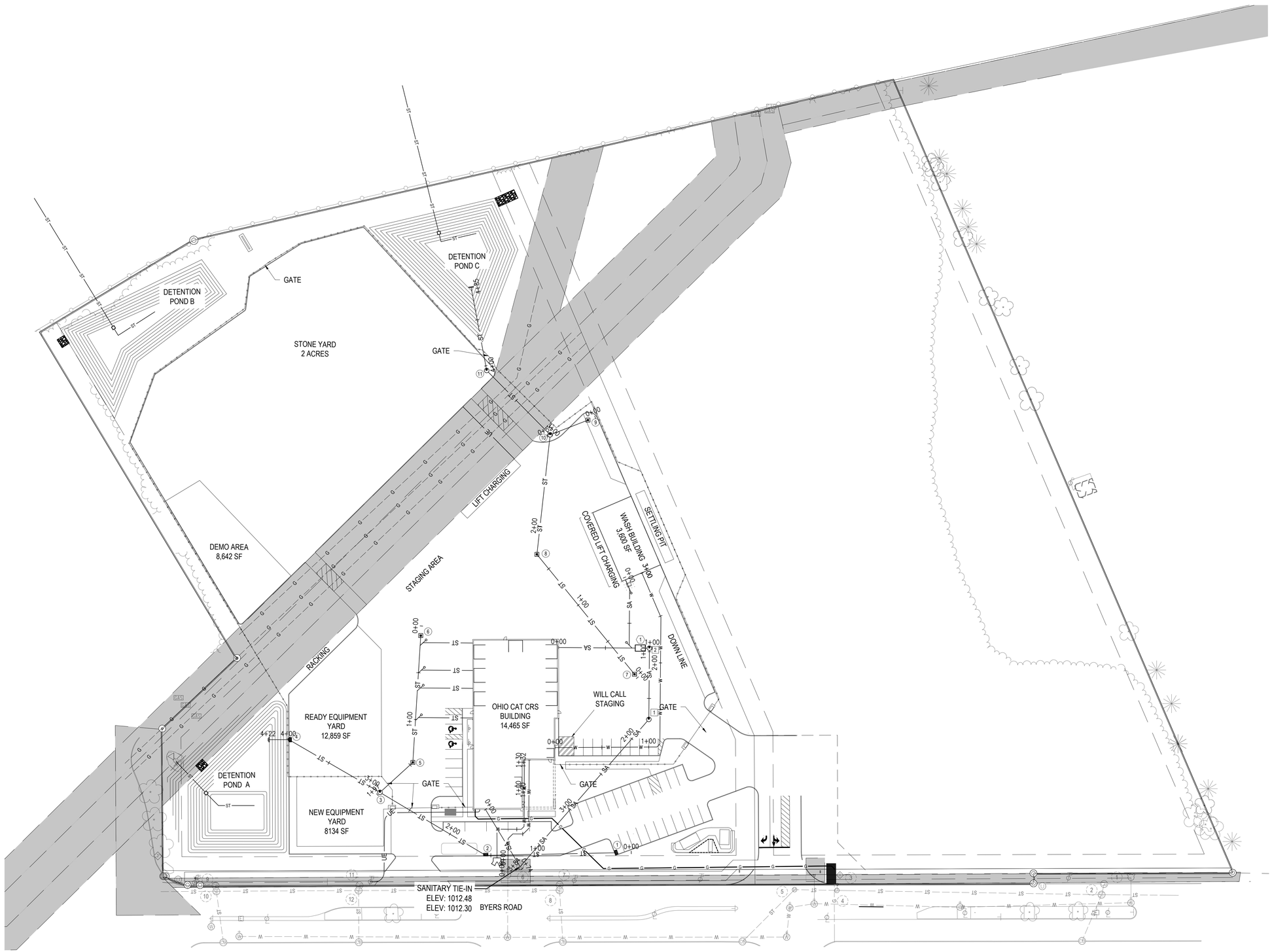

1"=50'

LEGEND

ST	PROPOSED STORM SEWER
SA	PROPOSED SANITARY SEWER
W	PROPOSED WATER LINE
UE	PROPOSED UNDERGROUND ELECTRIC LINE
G	PROPOSED GAS LINE
	MANHOLE
	CATCH BASIN
	CURB INLET
	FIRE HYDRANT
	WATER VALVE
	FIRE DEPARTMENT CONNECTION
	EMERGENCY SPILLWAY

CODED NOTES:

1. PROPOSED 1500 GALLON OIL/WATER SEPARATOR

GENERAL NOTES:

ALL ROOF DRAINS SHALL BE A MINIMUM 1% SLOPE.

PROPOSED STORM STRUCTURE TABLE

1. STORM CATCH BASIN
TYPE 3A
N 600222.46
E 1480021.38
RIM 1022.16
FL 1016.19 ~ 12" N

2. STORM CATCH BASIN
TYPE 3A
N 600360.22
E 1480028.46
RIM 1022.87
FL 1015.32 ~ 12" S
FL 1015.32 ~ 15" NE

3. STORM MANHOLE
TYPE 1
N 600467.91
E 1480104.17
RIM 1022.39
FL 1014.63 ~ 15" SW
FL 1014.63 ~ 18" NE
FL 1015.20 ~ 15" NW

4. STORM CATCH BASIN
TYPE 3A
N 600560.59
E 1480167.55
RIM 1020.60
FL 1014.00 ~ 18" SW
FL 1014.00 ~ 24" N

5. STORM CATCH BASIN
TYPE 3A
N 600430.57
E 1480133.57
RIM 1022.47
FL 1015.50 ~ 15" NW
FL 1015.80 ~ 12" E

6. STORM CATCH BASIN
TYPE 3A
N 600412.21
E 1480267.84
RIM 1023.25
FL 1017.41 ~ 12" W

7. STORM CATCH BASIN
TYPE 3A
N 600187.50
E 1480209.89
RIM 1022.40
FL 1013.58 ~ 15" NE

8. STORM CATCH BASIN
TYPE 3A
N 600282.05
E 1480345.37
RIM 1022.30
FL 1012.60 ~ 15" SW
FL 1012.43 ~ 18" E

9. STORM CATCH BASIN
TYPE 3A
N 600217.15
E 1480484.49
RIM 1022.40
FL 1016.00 ~ 12" N

10. STORM MANHOLE
TYPE 1
N 600258.50
E 1480471.80
RIM 1022.35
FL 1011.81 ~ 18" W
FL 1015.00 ~ 12" S
FL 1011.68 ~ 24" NE

11. STORM MANHOLE
TYPE 1
N 600321.02
E 1480545.41
RIM 1023.18
FL 1011.25 ~ 24" SW
FL 1011.25 ~ 24" E

PROPOSED SANITARY STRUCTURE TABLE

1. SANITARY MANHOLE
N 600175.77
E 1480160.84
RIM 1022.88
FL 1014.80 ~ 6" NW
FL 1014.80 ~ 6" E

2. SANITARY MANHOLE
N 600168.55
E 1480249.88
RIM 1022.79
FL 1015.64 ~ 6" W
FL 1015.70 ~ 6" NE

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HEIGHTS, OH 44122
TEL: 216.378.1490
FAX: 216.378.1497

PROJECT DATE: 09/15/2026
PROJECT NO.: 2500984
DRAWN BY: ECA
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Mannik Smith GROUP
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PREPARED FOR:
OMCO BUILDING, LLC
3993 EAST ROYALTON ROAD
BROADVIEW HEIGHTS, OH 44147

OHIO CAT RENTAL SERVICE FACILITY MIAMISBURG, OH

UTILITY PLAN

C300

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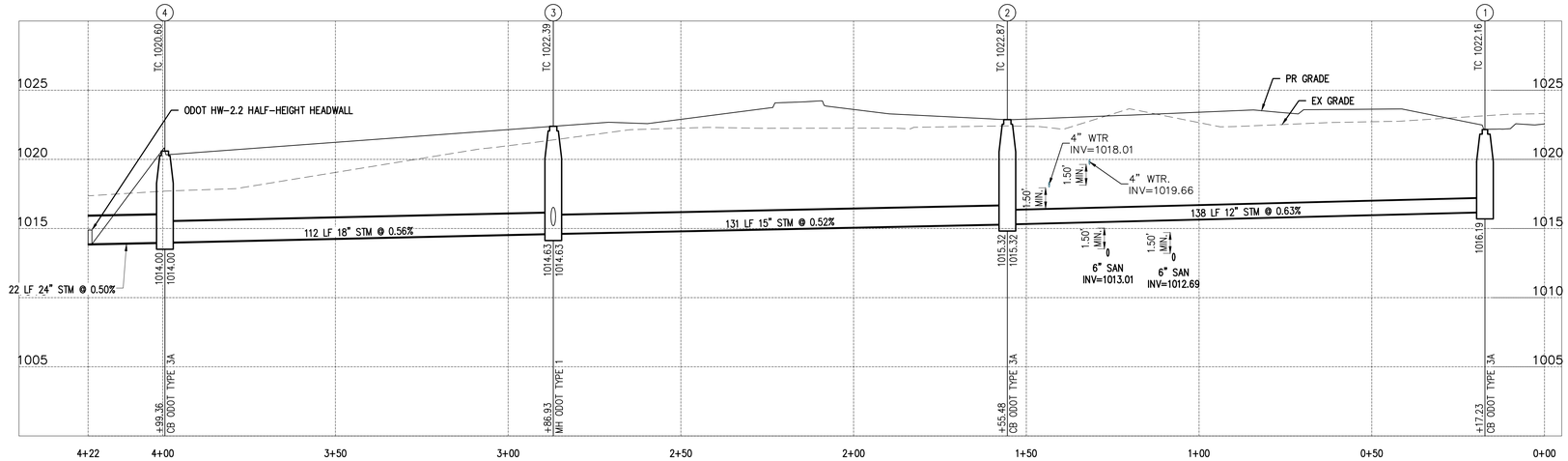

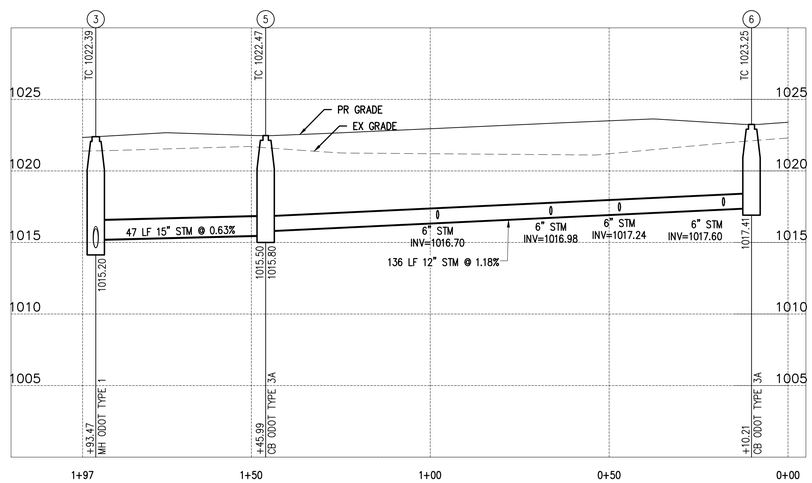

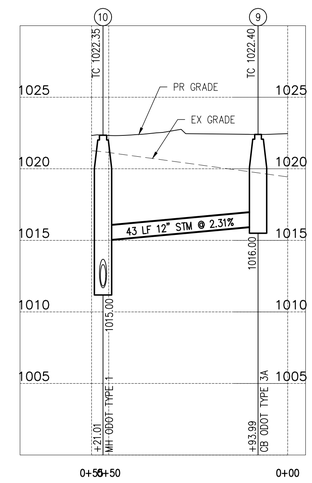

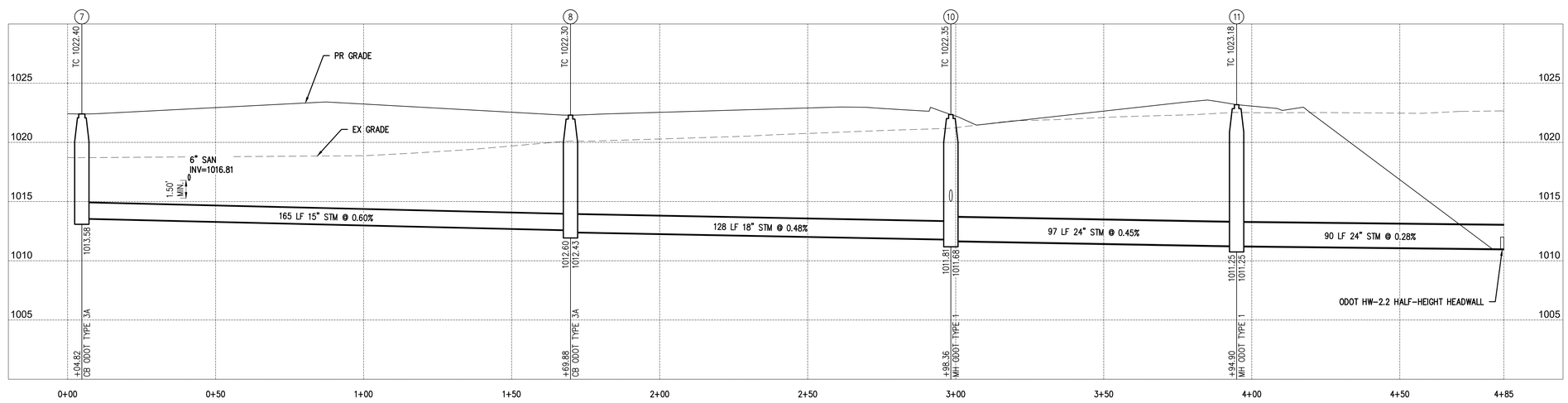

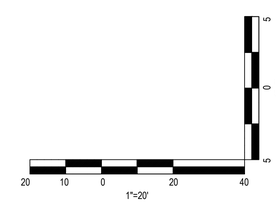

NO.	DATE	BY	DESCRIPTION
1	09/15/2026	ECA	PLANNING COMMISSION SUBMISSION

PRELIMINARY
NOT FOR CONSTRUCTION

20600 CHAGRIN BLVD
SUITE 500, SHAKER
HEIGHTS, OH 44122
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3993 EAST ROYALTON ROAD
BROADVIEW HEIGHTS, OH 44147

OHIO CAT
RENTAL SERVICE FACILITY
MIAMISBURG, OH

UTILITY PROFILES

C301

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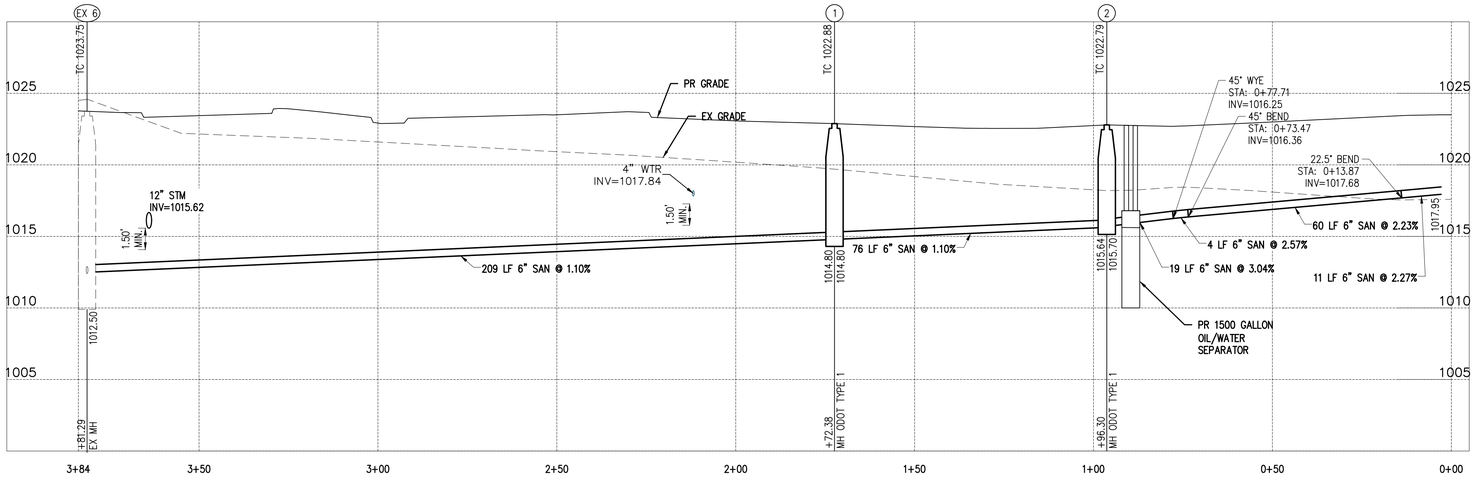
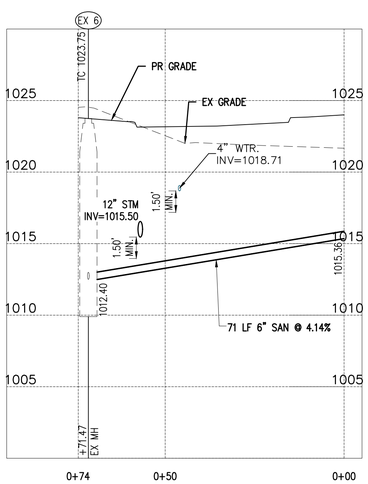
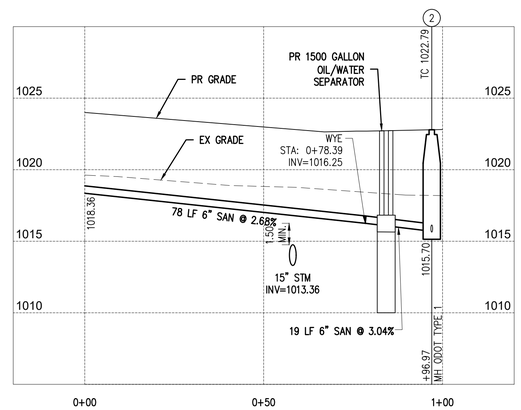


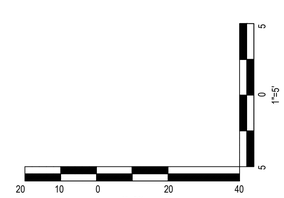
SANITARY LINE FROM SOUTH SIDE OF OHIO CAT CRS BUILDING



SANITARY LINE FROM WEST SIDE OF OHIO CAT CRS BUILDING



SANITARY LINE FROM WEST SIDE OF WASH BUILDING



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BROADVIEW HEIGHTS, OH 44147

OHIO CAT
RENTAL SERVICE FACILITY
MIAMISBURG, OH

UTILITY PROFILES

C302

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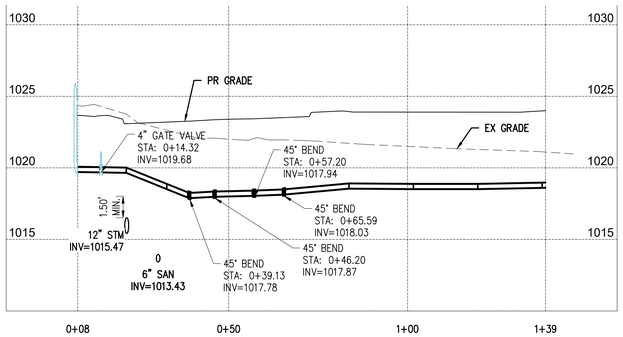
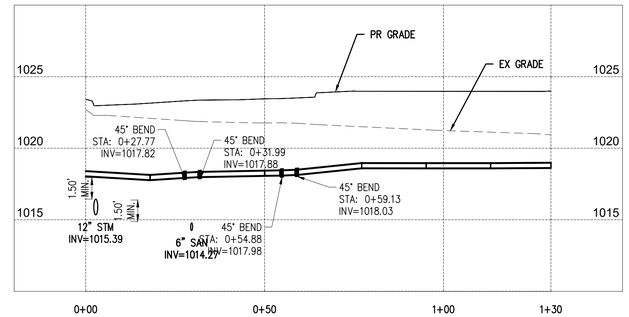
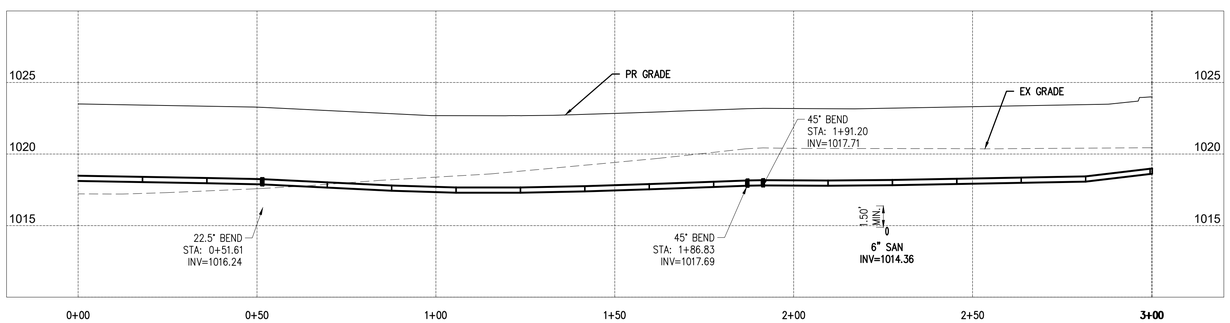


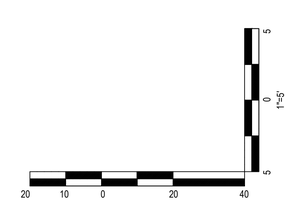
FIRE DEPARTMENT CONNECTION LINE



WATER SERVICE LINE



WASH BUILDING SERVICE LINE



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UTILITY PROFILES

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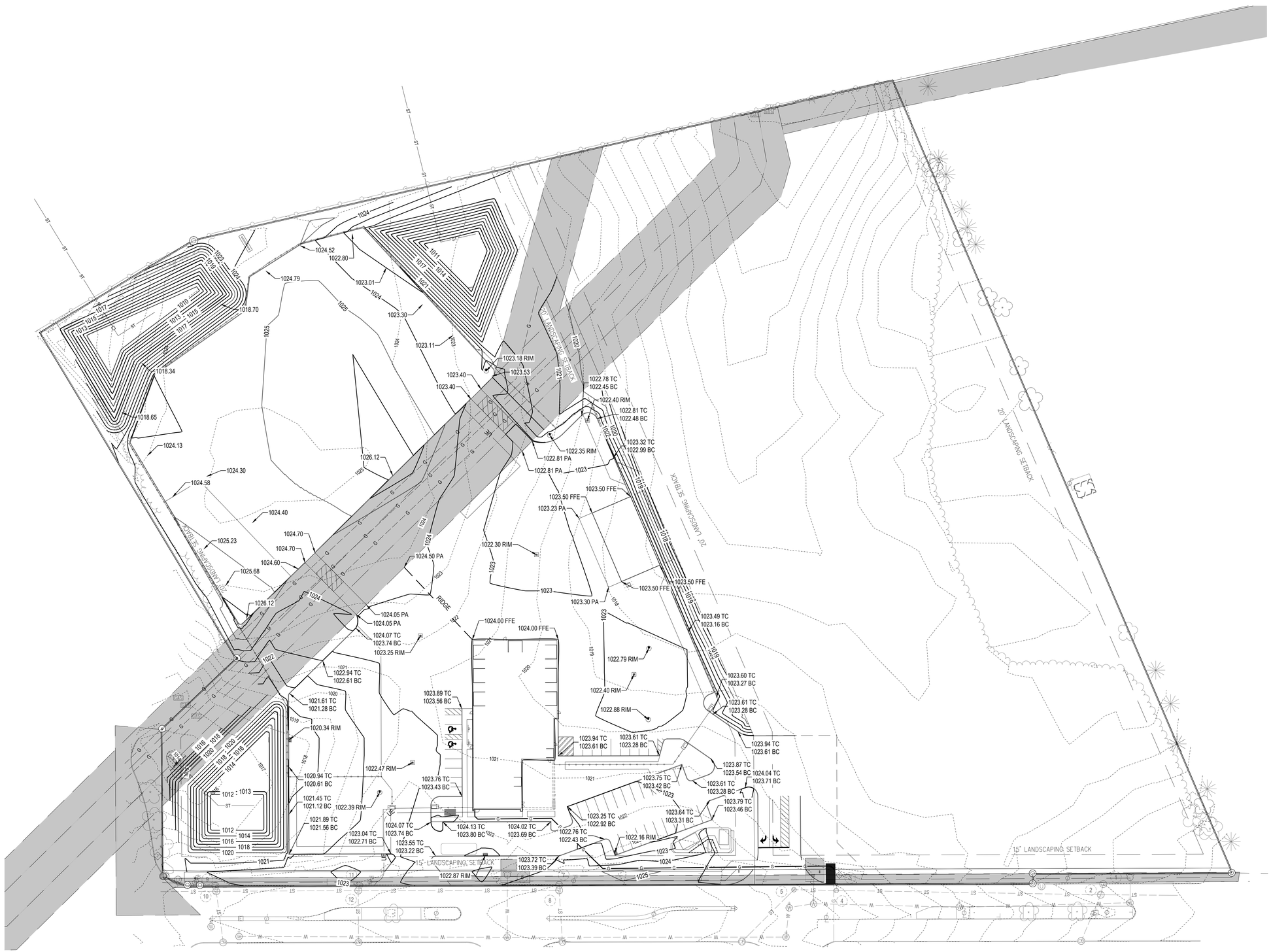

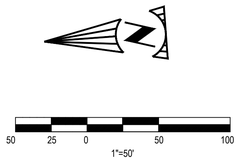

LEGEND

99	PROPOSED MINOR CONTOUR
100	PROPOSED MAJOR CONTOUR
99	EXISTING MINOR CONTOURS
100	EXISTING MAJOR CONTOURS
0.00%	SLOPE PERCENT
	RUNOFF FLOW DIRECTION
000.00	PROPOSED SPOT ELEVATION
TC	TOP OF CURB
BC	BOTTOM OF CURB
ME	MEET EXISTING PAVEMENT GRADE
W	WALK
PA	PAVEMENT
RIM	STRUCTURE RIM
FFE	FINISH FLOOR

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GRADING PLAN

C400

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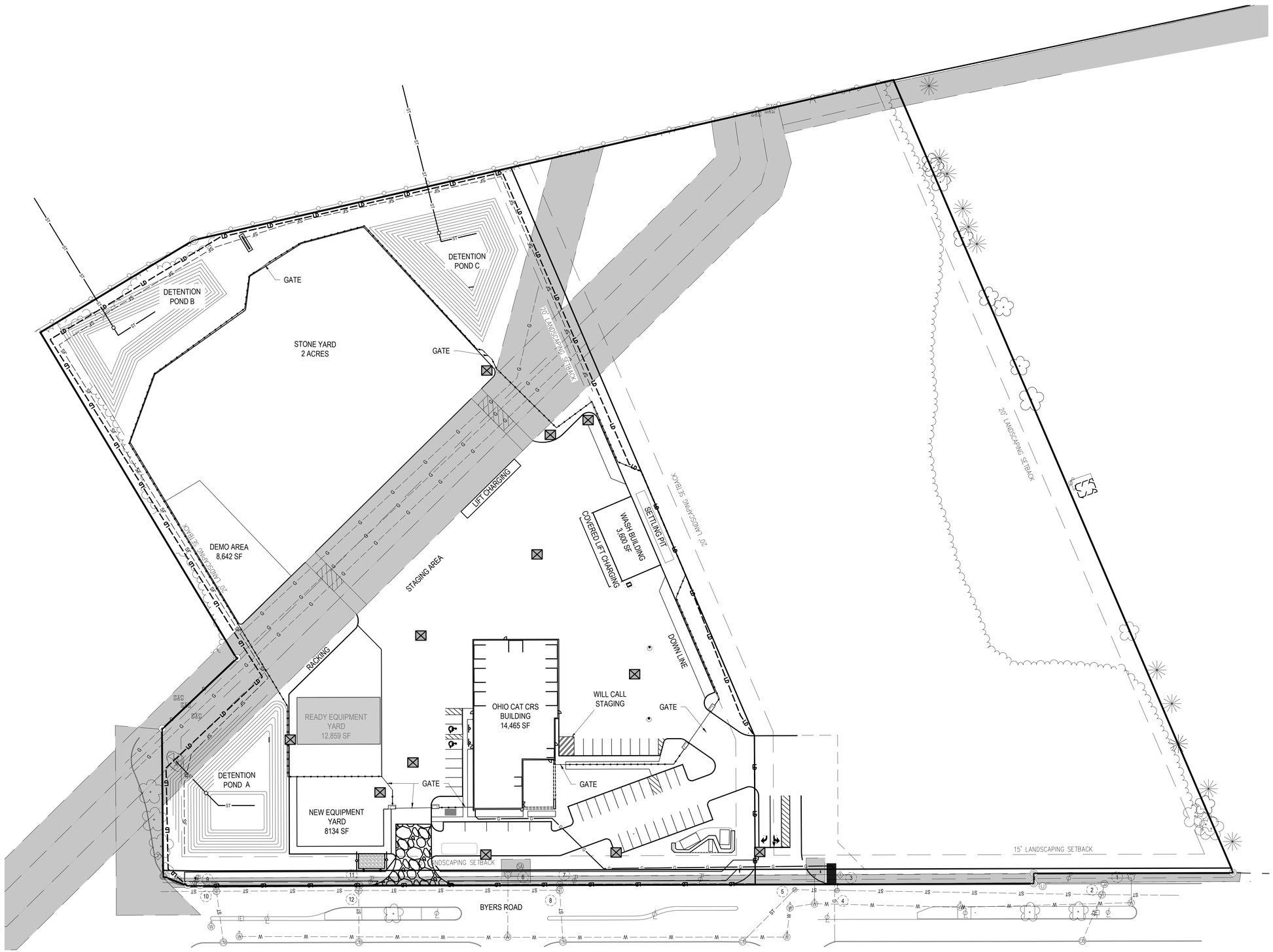

50 25 0 50 100

1"=50'

LEGEND

- GEOTEXTILE INLET PROTECTION. FOR INLET PROTECTION IN PAVED AREAS USE DANDY BAG INLET PROTECTION OR APPROVED EQUAL.
- CONCRETE WASHOUT PIT
- CONSTRUCTION ENTRANCE
- SF — PROPOSED SILT FENCE
- LD — DISTURBED LIMITS
- TEMPORARY STAGING AREA FOR FUELING, EQUIPMENT, AND DISPOSAL/STORAGE OF SOLID/SANITARY TOXIC WASTES

NO.	DATE	BY	DESCRIPTION
1	09/15/2026	ECA	PLANNING COMMISSION SUBMISSION

PRELIMINARY
NOT FOR CONSTRUCTION

20600 CHAGRIN BLVD
SUITE 500, SHAKER
HEIGHTS, OH 44122
TEL: 216.378.1490
FAX: 216.378.1497

PROJECT DATE: 09/15/2026
PROJECT NO: 2500984
DRAWN BY: ECA
CHECKED BY: SG

Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com

PREPARED FOR:
OMCO BUILDING, LLC
3993 EAST ROYALTON ROAD
BROADVIEW HEIGHTS, OH 44147

OHIO CAT
RENTAL SERVICE FACILITY
MIAMISBURG, OH

SWPPP PLAN

C500

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GENERAL NOTES FOR EROSION CONTROL SITE DATA

OWNER/DEVELOPER:	OHIO CAT OHIO, MIAMISBURG
PLAN DESIGNER:	MANNIK & SMITH GROUP, INC 20600 CHAGRIN BLVD STE 500 SHAKER HEIGHTS, OHIO 44122
SITE OPERATOR:	CONTRACTOR TBD
ESPC AUTHORIZER:	TBD
SITE LOCATION:	490 BYERS RD, MIAMISBURG, OH 45342
PRIOR LAND USE:	CULTIVATED FARMLAND
DEVELOPMENT TYPE:	COMMERCIAL ESTIMATED START DATE: WINTER 2026 ESTIMATED COMPLETION DATE: SUMMER 2027
SITE VEGETATION:	YES, PRIMARILY GRASS AND ROW CROPS.
ONSITE STREAMS:	N/A
ADJACENT AREAS:	THE EXISTING SITE WAS USED AS FARMLAND, SURROUNDED BY A HOTEL DEVELOPMENT TO THE NORTH, A HIGHWAY TO THE EAST, AND COMMERCIAL DEVELOPMENTS TO THE WEST.

MAINTENANCE NOTES:

THE OWNER'S REPRESENTATIVE WILL INSPECT ALL EROSION AND SEDIMENTATION CONTROL MEASURES WEEKLY AND WITHIN 24 HOURS AFTER EACH RAINFALL EVENT TO ASSURE THAT THE MEASURES ARE FUNCTIONING PROPERLY. THE OWNER/CONTRACTOR SHALL KEEP INSPECTION REPORTS, COPIES OF WHICH SHALL BE PROVIDED TO THE CITY OR OHIO EPA UPON REQUEST.

THE OWNER/DEVELOPER MUST MAINTAIN A DOCUMENT SIGNED BY ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED IN THE SWPPP IMPLEMENTATION. THE DOCUMENT MUST CERTIFY THAT THE CONTRACTOR(S) HAS READ AND UNDERSTANDS THE SWPPP. THE OWNER/DEVELOPER IS TO PROVIDE THE CITY OF MIAMISBURG WITH A COPY OF THIS DOCUMENT.

CONSTRUCTION ROAD/CONSTRUCTION ENTRANCE:

BOTH TEMPORARY AND PERMANENT ROADS AND PARKING AREAS MAY REQUIRE PERIODIC TOP DRESSING WITH NEW GRAVEL. SEEDED AREAS ADJACENT TO THE ROADS AND PARKING AREAS SHOULD BE CHECKED PERIODICALLY TO ENSURE THAT A VIGOROUS STAND OF VEGETATION IS MAINTAINED. ROADSIDE DITCHES AND OTHER DRAINAGE STRUCTURES SHOULD BE CHECKED REGULARLY TO ENSURE THAT THEY DO NOT BECOME CLOGGED WITH SILT OR OTHER DEBRIS.

FILTER FABRIC FENCE:

FILTER FABRIC FENCES AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.

SEDIMENT THAT IS COLLECTED WILL BE DISTRIBUTED ON THE PROTECTED PORTION OF THE SITE AND STABILIZED. ALL STOCKPILES OF EARTH AND TOPSOIL WILL BE PROTECTED WITH TEMPORARY SEEDING OR OTHER MEANS TO PREVENT EROSION.

SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER IS STILL NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.

SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF (1/2) THE HEIGHT OF THE BARRIER.

ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND SEEDED.

INLET PROTECTION:

ALL STORM SEWER INLETS SHALL BE PROTECTED BY SEDIMENT TRAPS (INLET PROTECTION), WHICH WILL BE MAINTAINED AND MODIFIED AS REQUIRED AS CONSTRUCTION PROGRESSES.

THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAINFALL AND REPAIRS MADE AS NEEDED.

SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF (1/2) THE DESIGN OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA IN SUCH A MANNER THAT IT WILL NOT ERODE.

ANY SEDIMENT BLOCKING DRAINAGE AT INLETS THAT CREATES STANDING WATER ON ROADWAYS AND/OR DRIVEWAYS SHALL BE REMOVED IMMEDIATELY.

INLET PROTECTION STRUCTURES SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

GENERAL LAND CONSERVATION NOTES:

ALL STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE PLACED PRIOR TO OR AS THE FIRST STEP IN GRADING FOR ALL SITES.

PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED ACCORDING TO THE FOLLOWING OHIO EPA CRITERIA:

1. ALL STORM SEWER, SANITARY SEWER, WATER MAIN AND SERVICE TRENCHES SHALL BE SEEDED AND MULCHED WITHIN 14 DAYS AFTER BACKFILL IF INSTALLATION IS THROUGH STABILIZED AREAS. NO MORE THAN 250 FEET OF TRENCH WILL BE OPEN AT ANY ONE TIME.
2. ELECTRICAL POWER, TELEPHONE, CABLE TELEVISION AND GAS SUPPLY TRENCHES SHALL BE COMPACTED, SEEDED AND MULCHED WITHIN 14 DAYS AFTER BACKFILL IF INSTALLATION IS THROUGH STABILIZED AREAS.
3. ALL TEMPORARY DIVERSIONS, SEDIMENT BASIN EMBANKMENTS AND EARTH STOCKPILES SHALL BE SEEDED AND MULCHED FOR TEMPORARY VEGETATIVE COVER WITHIN 7 DAYS AFTER GRADING.
4. ANY DISTURBED AREA NOT STABILIZED WITH SEEDING, SODDING, PAVING, OR BUILT UPON BY NOVEMBER 1ST, OR AREAS DISTURBED AFTER THAT DATE, SHALL BE MULCHED IMMEDIATELY WITH HYDRO MULCH AT THE RATE OF ONE (1) TON PER ACRE AND OVER-SEEDED BY APRIL 15TH.
5. ALL DENOTED AREAS SHALL BE STABILIZED AND TEMPORARY SEDIMENTATION & EROSION CONTROLS SHALL BE REMOVED ONCE THE SITE HAS BEEN STABILIZED AT THE COMPLETION OF CONSTRUCTION.

SEDIMENT AND EROSION CONTROL NOTES

1. THE STORMWATER POLLUTION PREVENTION PLAN AND DETAILS SHALL BE AVAILABLE FOR INSPECTION ON SITE DURING WORKING HOURS.
2. CONTRACTOR SHALL MAINTAIN A LOG DOCUMENTING GRADING AND STABILIZATION ACTIVITIES AS WELL AS AMENDMENTS TO THE SWPPP, WHICH OCCUR AFTER CONSTRUCTION ACTIVITIES COMMENCE.
3. MINIMIZE TRACKING OF SEDIMENTS BY VEHICLES BY UTILIZING THE CONSTRUCTION ENTRANCE AS THE ONLY ENTRANCE FOR VEHICLES. MAINTAIN THIS ENTRANCE WITH STONE AS NEEDED TO PREVENT DIRT AND MUD FROM TRACKING ONTO THE ROADWAY. REGULAR SWEEPING OF THE ROADWAY MAY BE NECESSARY TO ENSURE ROADWAY DOES NOT BUILD UP WITH SEDIMENTS.
4. THE SITE CONTRACTOR MUST PROVIDE REGULAR INSPECTION AND MAINTENANCE FOR ALL EROSION AND SEDIMENT CONTROL PRACTICES. PERMANENT RECORDS OF ALL MAINTENANCE AND INSPECTIONS MUST BE KEPT THROUGHOUT THE CONSTRUCTION PERIOD. INSPECTION MUST BE MADE A MINIMUM OF ONCE EVERY SEVEN (7) DAYS AND IMMEDIATELY AFTER STORM EVENTS GREATER THAN 0.5 INCHES OF RAIN WITHIN A 24-HOUR PERIOD. THE NAME OF CONTRACTOR'S DESIGNATED INSPECTOR, MAJOR OBSERVATIONS, DATE OF INSPECTIONS AND CORRECTIVE MEASURES TAKEN MUST BE NOTED ON ALL INSPECTIONS.
5. OTHER EROSION AND SEDIMENT CONTROL ITEMS MAY BE NECESSARY DUE TO ENVIRONMENTAL CONDITIONS AND MAY BE REQUIRED AT THE DISCRETION OF THE CITY AND/OR COUNTY SOIL AND WATER CONSERVATION DISTRICT OR ITS REPRESENTATIVES.
6. SEDIMENT/STORMWATER PONDS AND EROSION AND SEDIMENT CONTROLS SHALL BE IMPLEMENTED AS THE FIRST STEP OF GRADING AND WITHIN 7 DAYS FROM THE START OF GRUBBING. UPON COMPLETION OF CONSTRUCTION OF PONDS, SEEDING AND MULCHING SHALL IMMEDIATELY FOLLOW TO AID IN THE STABILIZATION AND MINIMIZE EROSION AND SEDIMENT TRANSPORT OF THE SOIL BEFORE WATER LEAVES THE POND. ALL EROSION AND SEDIMENT CONTROLS SHALL CONTINUE TO FUNCTION UNTIL DISTURBED AREAS ARE RESTABILIZED.
7. NO SOLID OR LIQUID WASTE SHALL BE DISCHARGED INTO STORM WATER RUNOFF. (THIS INCLUDES WASHING OUT OF CEMENT TRUCKS.) DESIGNATED WASH PIT AREAS ARE SHOWN ON THE PLANS AND ARE PRESET FOR THIS PURPOSE AWAY FROM AREAS OF STORM WATER RUNOFF.
8. WHERE VEGETATIVE STABILIZATION TECHNIQUES MAY CAUSE STRUCTURAL INSTABILITY OR ARE OTHERWISE UNOBTAINABLE, ALTERNATIVE STABILIZATION TECHNIQUES MUST BE EMPLOYED. THESE TECHNIQUES MAY INCLUDE MULCHING, EROSION MATTING, OR PLACEMENT OF STONE.
9. THE CONTRACTOR SHALL LIMIT THE SURFACE AREA OF ERODIBLE EARTH MATERIAL EXPOSED BY EXCAVATION, BORROW, AND FILL OPERATIONS AND PROVIDE IMMEDIATE PERMANENT OR TEMPORARY CONTROL MEASURES TO PREVENT CONTAMINATION OF ADJACENT STREAMS OR OTHER WATER COURSES, LAKES, PONDS, OR OTHER AREAS OF WATER IMPOUNDMENT.
10. THIS WORK SHALL CONSIST OF TEMPORARY CONTROL MEASURES AS DETAILED IN THE PLANS OR ORDERED BY THE ENGINEER DURING THE LIFE OF THE CONTRACT TO CONTROL SOIL EROSION AND SEDIMENTATION THROUGH USE OF BEST MANAGEMENT PRACTICES AS DETAILED IN THE OHIO RAINWATER AND LAND DEVELOPMENT MANUAL.
11. TEMPORARY EROSION AND SEDIMENT CONTROL ITEMS, THE LOCATION AND SIZE OF WHICH ARE DETAILED IN THE PLANS, SHALL BE INSTALLED BY THE CONTRACTOR UPON COMMENCEMENT OF ANY CLEARING OR EARTHWORK OPERATIONS. TEMPORARY CONTROL MEASURES WILL BE USED WHEN AND AS DIRECTED BY THE ENGINEER TO CORRECT CONDITIONS THAT DEVELOP DURING CONSTRUCTION THAT WERE NOT FORESEEN DURING THE DESIGN STAGE; THAT ARE NEEDED PRIOR TO INSTALLATION OF PERMANENT CONTROL FEATURES; OR THAT ARE NEEDED TEMPORARILY TO CONTROL EROSION THAT DEVELOPS DURING NORMAL CONSTRUCTION PRACTICES.
12. EXISTING VEGETATIVE GROWTH SHALL REMAIN UNDISTURBED AS LONG AS POSSIBLE. THE CONTRACTOR SHALL SEED AND MULCH ALL AREAS DISTURBED.
13. TEMPORARY EROSION CONTROL FEATURES SHALL BE ACCEPTABLY MAINTAINED AND SHALL SUBSEQUENTLY BE REMOVED OR REPLACED WHEN DIRECTED BY THE ENGINEER. TEMPORARY AND PERMANENT EROSION CONTROL FEATURES SHALL BE CHECKED AFTER EACH MEASURABLE RAINFALL AND RE-ESTABLISHED AS NECESSARY. REMOVED MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OFF THE SITE.
14. CONTRACTOR IS TO PROVIDE SPECIFIC LOCATIONS FOR THE PROPER CROSSING OF DIVERSION SWALES WITH VEHICLES AND EQUIPMENT. AT THESE LOCATIONS THE DIVERSION SWALES SHALL BE PROTECTED FROM INCURRING DAMAGE FROM THE VEHICLES AND EQUIPMENT. IF ANY DAMAGE IS TO OCCUR THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING SAID DAMAGE IMMEDIATELY, PRIOR TO CONTINUATION OF WORK ON SITE.
15. IF PROPER CONTROL OF SOIL EROSION AND SEDIMENTATION IS NOT BEING PROVIDED BY THE CONTRACTOR, THE ENGINEER MAY WITHHOLD PROGRESS PAYMENTS UNTIL PROPER CONTROL IS ACHIEVED.
16. IN THE EVENT THAT TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES ARE REQUIRED DUE TO THE CONTRACTOR'S NEGLIGENCE, CARELESSNESS, OR FAILURE TO INSTALL PERMANENT CONTROLS AS A PART OF THE WORK AS SCHEDULED, AND ARE ORDERED BY THE ENGINEER, SUCH TEMPORARY WORK SHALL BE PERFORMED BY THE CONTRACTOR AT HIS EXPENSE.
17. THE CONTRACTOR SHALL MAINTAIN ALL SEEDED, MULCHED AREAS UNTIL FINAL INSPECTION. MAINTENANCE SHALL ALSO INCLUDE REPAIRING ANY AREAS DAMAGED FOLLOWING THE SEEDING OR MULCHING OPERATION DUE TO WIND, WATER, FIRE, OR OTHER CAUSES. SUCH DAMAGED AREAS SHALL BE REPAIRED TO RE-ESTABLISH THE CONDITION OF THE GRADE OF THE AREA PRIOR TO SEEDING AND SHALL THEN BE RE-FERTILIZED RE-SEEDED, RE-MULCHED AS DIRECTED BY THE PROJECT ENGINEER.
18. INSTALL SILT FENCE, FILTER SOCK, OR COMBINATION BARRIERS AT LOCATIONS SO INDICATED ON THE SWPPP (SEE DETAIL).
19. SILT FENCE TO BE PLACED AROUND ALL YARD DRAINS TO MINIMIZE SILTING OF PIPE AND TRANSPORT OF SILT (SEE DETAIL).
20. INSTALL INLET PROTECTION FOR ALL RECEIVING CURB INLETS.
21. INSTALL TEMPORARY AGGREGATE PAD AT POINT OF INGRESS AND EGRESS FROM PROJECT TO PREVENT VEHICULAR TRACKING OFF-SITE. THE PAD SHALL BE CLEANED AND REPLENISHED, AS NECESSARY, DURING THE CONSTRUCTION PERIOD.
22. IF TRENCH OR GROUND WATER CONTAINS SEDIMENT, IT SHALL PASS THROUGH A SEDIMENT SETTLING POND 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.
23. TOPSOIL STOCKPILES SHALL RECEIVE TEMPORARY SEEDING AND MULCHING AS SOON AS STOCKPILING OPERATIONS ARE COMPLETED OR A SILT FENCE SHALL BE INSTALLED ALONG AND 20 FEET FROM THE TOE OF THE STOCKPILE. TOPSOIL SHALL BE REPLACED AS QUICKLY AS CONSTRUCTION PERMITS.
24. ADDITIONAL EROSION CONTROLS MAY BE MANDATED BY THOSE AGENCIES HAVING JURISDICTION.
25. ROUTINE INSPECTION WILL BE CONDUCTED ON ALL EROSION CONTROL PRACTICES FOR THIS PROJECT. THE CONTRACTOR WILL BE RESPONSIBLE FOR CORRECTING ALL DEFICIENCIES REVEALED BY THE INSPECTIONS.
26. ALL EROSION CONTROL PRACTICES SHALL MEET THE STANDARDS AND SPECIFICATIONS OF THE OHIO EPA GENERAL CONSTRUCTION PERMIT REQUIREMENTS.
27. THIS SITE IS COVERED UNDER OHIO EPA GENERAL PERMIT OHC000006 FOR STORM WATER POLLUTION ASSOCIATED WITH CONSTRUCTION.

EQUIPMENT FUELING AND MAINTENANCE:

28. LOCATION OF THE FUELING AND STAGING AREA IS SHOWN ON THE SWPPP. MODIFICATIONS TO THE LOCATION OF THE EQUIPMENT FUELING AREA SHALL BE SHOWN ON AN AMENDED SWPPP. THE FUELING AREA SHALL BE ESTABLISHED EITHER ON EXISTING PAVEMENT OR ON 12" OF GRANULAR AGGREGATE BASE. IF AN AGGREGATE BASE COURSE IS USED, THEN THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN THE STONE SUCH THAT IT IS REPLENISHED WHEN THE DEPTH IS LESS THAN 6" OR REMOVED AND REPLACED IF THE STONE BECOMES LADEN WITH MUD.
29. A SPILL PREVENTION CONTROL AND COUNTERMEASURES (SPCC) PLAN MUST BE DEVELOPED FOR SITES WITH ONE ABOVE GROUND STORAGE TANK (AST) OF 660 GALLONS OR MORE, TOTAL ABOVE GROUND TANK STORAGE OF 1330 GALLONS, OR BELOW GROUND STORAGE OF 42,000 GALLONS OF FUEL.

WASTE DISPOSAL:

30. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE A MINIMUM OF ONE SOLID WASTE DISPOSAL RECEPTACLE AND HAVE THIS RECEPTACLE EMPTIED BY A CONTRACT TRASH DISPOSAL SERVICE AND HAULED AWAY FROM THE SITE AS NECESSARY. NO SOLID MATERIALS, INCLUDING BUILDING MATERIALS ARE ALLOWED TO BE DISCHARGED FROM THE SITE WITH STORM WATER. ALL SOLID WASTE, INCLUDING DISPOSABLE MATERIALS INCIDENTAL TO THE MAJOR CONSTRUCTION ACTIVITIES, MUST BE COLLECTED AND PLACED IN THESE RECEPTACLES. THE LOCATION IS TO BE DETERMINED IN THE FIELD. ALL CONTAINERS MUST BE COVERED AND LEAK-PROOF.

SPILL REQUIREMENTS:

31. SHOULD AN ACCIDENTAL SPILL OCCUR, IMMEDIATE ACTION WILL BE UNDERTAKEN BY THE GENERAL CONTRACTOR TO CONTAIN AND REMOVE THE SPILLED MATERIAL IMMEDIATELY AND BE DISPOSED OF BY THE CONTRACTOR IN THE MANNER SPECIFIED BY LOCAL, STATE, AND FEDERAL REGULATIONS AND BY THE MANUFACTURER OF SUCH PRODUCTS, AS SOON AS POSSIBLE, ALL SPILLS >25 GALLONS SHALL BE REPORTED TO THE APPROPRIATE STATE AND LOCAL AGENCIES, THIS SHALL INCLUDE THE OHIO EPA AT 880-282-9378, THE LOCAL FIRE DEPARTMENT, THE NATIONAL RESPONSE CENTER AT 800-424-8802.
32. ALL CONTAMINATED SOILS MUST BE TREATED AND/OR DISPOSED IN OHIO EPA APPROVED SOLID WASTE MANAGEMENT FACILITIES OR HAZARDOUS WASTE TREATMENT, STORAGE OR DISPOSAL FACILITIES (TSDFS).

NON-SEDIMENT POLLUTION CONTROLS:

33. THE CONTRACTOR IS RESPONSIBLE FOR ALL NON-SEDIMENT POLLUTION CONTROLS AT THIS SITE, WHICH PROHIBIT NON-SEDIMENT POLLUTANTS FROM DISCHARGING INTO RUNOFF OR INTO THE GROUND AND MUST DISPOSE OF THEM IN A PROPER MANNER IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATORY AUTHORITIES. IT IS PROHIBITED TO BURN, BURY, OR POUR OUT ONTO THE GROUND, DITCH OR INTO A STORM SEWER-SOLVENTS, PAINTS, STAINS, GASOLINE, DIESEL FUEL, USED MOTOR OIL, HYDRAULIC FLUID, ANTIFREEZE, CEMENT, CURING COMPOUND AND OTHER SUCH TOXIC OR HAZARDOUS WASTE. STORAGE TANKS SHALL BE LOCATED IN DIKED AREAS AWAY FROM DRAINAGE CHANNELS AND THE DIKED AREA SHOULD HOLD A VOLUME OF 110% OF THE LARGEST TRUCK OR TANK, SHOULD THE CONTRACTOR FAIL TO PREVENT NON-SEDIMENT POLLUTION AT THIS SITE, HE MUST IMMEDIATELY REMEDIATE THE SITE TO LOCAL, STATE AND FEDERAL REGULATORY AUTHORITIES APPROVAL AT HIS OWN EXPENSE.
34. OPEN BURNING SHOULD BE DONE IN ACCORDANCE WITH OAC 3745-19. IF OPEN BURNING IS PERMITTED IT SHOULD BE DONE IN RESTRICTED AREAS FOR BARBECUES, HEATING, AND CERTAIN OCCUPATIONAL PURPOSES. OPEN BURNING IN AN UNRESTRICTED AREA IS LIMITED TO SCRAP LUMBER, WOODEN FENCE POSTS, AGRICULTURAL, LAND-CLEARING, OR LANDSCAPE WASTES.
35. CONTRACTOR MAY NOT USE OIL AS A DUST SUPPRESSANT.

CONSTRUCTION FILL, DEMOLITION DEBRIS & CHEMICAL COMPOUNDS:

36. THE CONTRACTOR IS RESPONSIBLE TO PREVENT DISCHARGE OF WASTE CONCRETE AND/OR WASH WATER FROM CONCRETE TRUCKS FROM MIXING WITH RUN-OFF AND LEAVING THE SITE. THE CONTRACTOR SHALL SIZE THE CONCRETE WASHOUT PIT TO HANDLE HIS PROPOSED CONCRETE OPERATIONS AND SHALL MAINTAIN THE PIT SUCH THAT ALL CONCRETE TRUCKS CAN USE IT TO WASHOUT. ALL CURED RESIDUE FROM THE PIT SHALL BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS. A GENERAL LOCATION FOR THE WASHOUT PIT IS SHOWN ON THE PLAN AND MAY BE MOVED TO BETTER FIT THE CONTRACTOR'S METHODS.
37. ALL CONSTRUCTION AND DEMOLITION DEBRIS (C&DD) WASTE WILL BE DISPOSED OF IN AN OHIO EPA APPROVED C&DD LANDFILL AS REQUIRED BY OHIO REVISED CODE. MATERIALS WHICH CONTAIN ASBESTOS MUST COMPLY WITH AIR POLLUTION REGULATIONS (SEE RULES 391-3-1, 391-3-4, AND 391-3-14).

INSPECTIONS:

38. THE STORM WATER POLLUTION PREVENTION PLAN AND DETAILS SHALL BE AVAILABLE FOR INSPECTION ON SITE DURING WORKING HOURS.
39. THE OWNER OF RECORD MUST PROVIDE REGULAR INSPECTION AND MAINTENANCE FOR ALL EROSION SEDIMENT CONTROL PRACTICES. OTHER EROSION AND SEDIMENT CONTROL ITEMS MAY BE NECESSARY DUE TO ENVIRONMENTAL CONDITIONS AND MAY BE REQUIRED AT THE DISCRETION OF THE VILLAGE AND/OR COUNTY SOIL AND WATER CONSERVATION DISTRICT OR ITS REPRESENTATIVES.
40. PERMANENT RECORDS OF ALL MAINTENANCE AND INSPECTIONS MUST BE KEPT THROUGHOUT THE CONSTRUCTION PERIOD. INSPECTION MUST BE MADE A MINIMUM OF ONCE EVERY SEVEN (7) DAYS AND IMMEDIATELY AFTER STORM EVENTS GREATER THAN 0.5 INCHES OF RAIN WITHIN A 24-HOUR PERIOD. THE NAME OF OWNER'S DESIGNATED INSPECTOR, MAJOR OBSERVATIONS, DATE OF INSPECTIONS AND CORRECTIVE MEASURES TAKEN MUST BE NOTED ON ALL INSPECTIONS. RECORDS SHALL BE KEPT FOR 3 YEARS AFTER TERMINATION OF CONSTRUCTION ACTIVITIES.
41. IF THE SITE WILL BE DORMANT FOR A LONG PERIOD, IT'S STABILIZED, AND LESS FREQUENT INSPECTIONS ARE DESIRED, A WAIVER REQUEST MAY BE SUBMITTED TO GEPD FOR A REDUCTION TO MONTHLY INSPECTION.
42. ALL INSPECTIONS SHALL BE CONDUCTED BY A QUALIFIED INSPECTION PERSONNEL.
43. AN INSPECTION CHECKLIST SHALL BE COMPLETED AND SIGNED BY THE INSPECTOR AFTER EVERY INSPECTION.
44. FOR BMP'S THAT HAVE BEEN DETERMINED NEED REPAIR OR MAINTENANCE, NON-SEDIMENT POND BMP'S SHALL BE REPAIRED WITHIN 3 DAYS OF INSPECTION AND SEDIMENT PONDS SHALL BE REPAIRED OR CLEANED OUT WITHIN 10 DAYS OF THE INSPECTION.
45. FOR BMP'S NOT MEETING THE INTENDED FUNCTION, THE BMP SHALL BE REPLACED WITH A NEW BMP AND INSTALLED WITHIN 10 DAYS OF INSPECTION.
46. FOR MISSING BMP'S REQUIRED FOR INSTALLATION BY THE ESPCP, THE BMP SHALL BE INSTALLED WITHIN 10 DAYS OF THE INSPECTION.

CERTIFICATION

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 WHO 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.

PERSON OF RESPONSIBLE CHARGE — DATE
AS DEFINED IN PART V.G.1 OF THE
OHIO EPA PERMIT NO. OHC000006

TEMPORARY SEEDING RATES

SEEDING DATES	SPECIES	SEEDING RATE (LBS./ACRE)	SEED DEPTH
MARCH 1 TO MAY 1 AUGUST 1 TO OCTOBER 1	ANNUAL RYE GRASS	100	½ INCH
MARCH 1 TO AUGUST 1	SPRING OATS	128	1 INCH
MARCH 1 TO NOVEMBER 1	WINTER RYE	100	1 INCH
JUNE 1 TO AUGUST 1	OATS SORGHUM SUDANGRASS	64 40	1 INCH ¼ INCH
JUNE 1 TO AUGUST 1	PEARL MILLET	20	¼ INCH
OCTOBER 1 TO NOVEMBER 1	WINTER WHEAT	100	1 INCH

SEED MUST BE LABELED ACCORDING TO OHIO DEPARTMENT OF AGRIGULTURE REGULATIONS AND OHIO REVISED CODE SECTION 907.03.

COMPLETE TEMPORARY SEEDING PRIOR TO NOVEMBER 1. BETWEEN NOVEMBER 1 AND MARCH 1 USE MULCH TEMPORARY STABILIZATION.

PERMANENT SEEDING RATES

MIX USE	SPECIES	SEEDING RATE (LBS./ACRE)	PERCENT OF MIX
MULTIPURPOSE LAWN	TURF TYPE FESCUE KENTUCKY BLUEGRASS PERENNIAL RYEGRASS	40 20 25	47 23 30
QUICK COVER	KENTUCKY BLUEGRASS CREEPING RED FESCUE ANNUAL RYEGRASS PERENNIAL RYEGRASS	15 16.5 1.5 19	41 27 2 30
SECONDARY WILDLIFE BENEFITS COVER	KENTUCKY BLUEGRASS ORCHARD GRASS ANNUAL RYEGRASS PERENNIAL RYEGRASS RED CLOVER	11 22.5 1.5 19 2	18 37 10 31 4
STEEP SLOPES	HARD FESCUE CREEPING RED FESCUE ANNUAL RYEGRASS	55 35 10	55 35 10
MEADOW / CONSERVATION AREA	NEW ENGLAND ASTER PARTRIDGE PEA PURPLE CONEFLOWER RATTLESNAKE MASTER OX-EYE SUNFLOWER BERGAMOT GREY-HEADED CONEFLOWER ORANGE CONEFLOWER PRAIRIE DOCK WHORLED ROSINWEED STIFF GOLDENROD (USE A MIX OF 5 TO 12 WITH NOT ONE EXCEEDING 5% OF MIX) BIG BLUE STEM LITTLE BLUE STEM INDIAN GRASS ANNUAL RYEGRASS	15 2 3 1 40	25 3 5 2 65
MARCH 15 TO JUNE 1	SWITCH GRASS	0.9 LBS	40 LBS

REFER TO CHAPTER 5.8 OF THE OHIO EPA RAINWATER AND LAND DEVELOPMENT MANUAL FOR ALL PERMANENT SEEDING REQUIREMENTS AND REGULATIONS.

CHECK PERMANENT SEEDING WITHIN FOUR TO SIX WEEKS FOLLOWING PLANTING.

NO.	DATE	BY	DESCRIPTION
1	09/15/2026	ECA	PLANNING COMMISSION SUBMISSION

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SWPPP NOTES

C501

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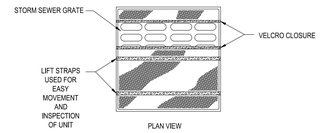
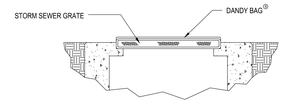




DANDY BAG®
SPECIFICATIONS

NOTE: THE DANDY BAG® WILL BE MANUFACTURED IN THE U.S.A. FROM A WOVEN MONOFILAMENT FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:

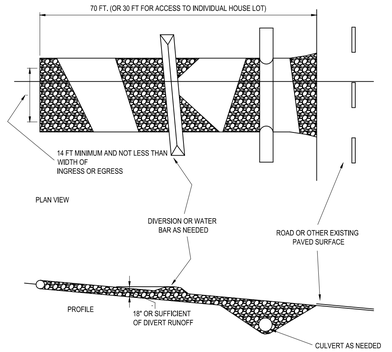
HI-FLOW DANDY BAG®(SAFETY ORANGE)

MECHANICAL PROPERTIES	TEST METHOD	UNITS	MARV
GRAB TENSILE STRENGTH	ASTM D 4632	KN (LBS)	1.62 (365) X 0.89 (200)
GRAB TENSILE ELONGATION	ASTM D 4632	%	24 X 10
PUNCTURE STRENGTH	ASTM D 4833	KN (LBS)	0.40 (90)
MULLEN BURST STRENGTH	ASTM D 3786	KPA (PSI)	3097 (450)
TRAPEZOID TEAR STRENGTH	ASTM D 4533	KN (LBS)	0.51 (115) X 0.33 (75)
UV RESISTENCE	ASTM D 4355	%	90
APPARENT OPENING SIZE	ASTM D 4751	MM (US STD SIEVE)	0.425 (40)
FLOW RATE	ASTM D 4491	1/MIN/M /SAL/MIN/FT)/	5907 (145)
PERMITTIVITY	ASTM D 4491	SEC -1	2.1

*NOTE: ALL DANDY BAGS ®CAN BE ORDERED WITH OUR OPTIONAL OIL ABSORBENT PILLOWS

DANDY BAG® INLET PROTECTION

NOT TO SCALE



NOTES:

1. STONE SIZE 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:

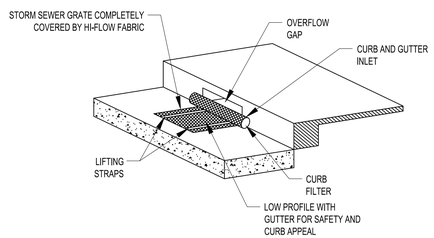
GEOTEXTILE SPECIFICATION FOR CONSTRUCTION ENTRANCE

MINIMUM TENSILE STRENGTH 200 IBS.
MINIMUM PUNCTURE STRENGTH 80 PSI.
MINIMUM TEAR STRENGTH 50 LBS.
MINIMUM BURST STRENGTH 320 PSI.
MINIMUM ELONGATION 20%
EQUIVALENT OPENING SIZE EOS<0.6MM.
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.

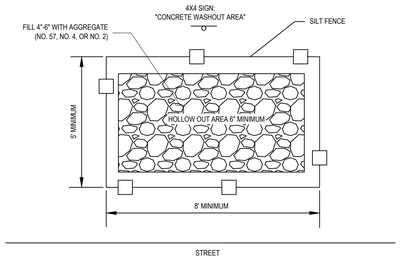
CONSTRUCTION ENTRANCE

NOT TO SCALE



CURB DANDY BAG

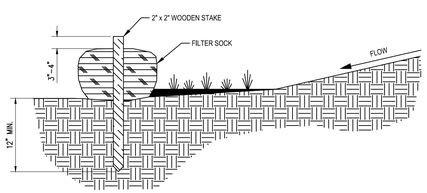
NOT TO SCALE



NOTE:
1. THE CONTRACTOR IS RESPONSIBLE TO PREVENT DISCHARGE OF WASTE CONCRETE AND/OR WASH WATER FROM CONCRETE TRUCKS FROM MIXING WITH RUN-OFF AND LEAVING THE SITE. THE CONTRACTOR SHALL SIZE THE CONCRETE WASHOUT PIT TO HANDLE HIS PROPOSED CONCRETE OPERATIONS AND SHALL MAINTAIN THE PIT SUCH THAT ALL CONCRETE TRUCKS CAN USE IT TO WASHOUT. ALL CURED RESIDUE FROM THE PIT SHALL BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS. A GENERAL LOCATION FOR THE WASHOUT PIT IS SHOWN ON THE PLAN AND MAY BE MOVED TO BETTER FIT THE CONTRACTOR'S METHODS.
2. LINE THE CONCRETE WASHOUT AREA WITH A NON-PERVIOUS LINER.

CONCRETE WASHOUT AREA

NOT TO SCALE



MAXIMUM DRAINAGE AREA (IN ACRES) TO 100 LF OF FILTER SOCK	RANGE IN SLOPE FOR A PARTICULAR DRAINAGE AREA (IN PERCENT)
0.5	< 2%
0.25	≥ 2% BUT < 20%
0.125	≥ 2% BUT < 50%

FILTER SOCK

NOT TO SCALE

NOTES:
1. MATERIALS - COMPOST USED FOR FILTER SOCKS SHALL BE WEED, PATHOGEN AND INSECT FREE AND FREE OF ANY REFUSE, CONTAMINANTS OR OTHER MATERIALS TOXIC TO PLANT GROWTH. THEY SHALL BE DERIVED FROM A WELL-DECOMPOSED SOURCE OF ORGANIC MATTER AND CONSIST OF A PARTICLES RANGING FROM 3/8" TO 2".
2. FILTER SOCKS SHALL BE 3 OR 5 MIL CONTINUOUS, TUBULAR, HDPE 3/8" KNITTED MESH NETTING MATERIAL, FILLED WITH COMPOST PASSING ABOVE SPECIFICATIONS FOR COMPOST PRODUCTS.

INSTALLATION:
1. FILTER SOCKS WILL BE PLACED ON A LEVEL LINE ACROSS SLOPES, GENERALLY PARALLEL TO THE BASE OF THE SLOPE OR OTHER AFFECTED AREA. ON SLOPES APPROACHING 2:1, ADDITIONAL SOCKS SHALL BE PROVIDED AT THE TOP AND AS NEEDED MID-SLOPE.
2. FILTER SOCKS ARE INTENDED TO BE LEFT AS A PERMANENT FILTER OR PART OF THE NATURAL LANDSCAPE, SHALL BE SEEDED AT THE TIME OF INSTALLATION FOR ESTABLISHMENT OF PERMANENT VEGETATION.
3. FILTER SOCKS ARE NOT TO BE USED IN CONCENTRATED FLOW SITUATIONS OR IN RUNOFF CHANNELS.

MAINTENANCE:
1. ROUTINELY INSPECT FILTER SOCKS AFTER EACH SIGNIFICANT RAIN, MAINTAINING FILTER SOCKS IN A FUNCTIONAL CONDITION AT ALL TIMES.
2. REMOVE SEDIMENTS COLLECTED AT THE BASE OF THE FILTER SOCKS WHEN THEY REACH 1/3 OF THE EXPOSED HEIGHT OF THE PRACTICE.
3. WHERE THE FILTER SOCK DETERIORATES OR FAILS, IT WILL BE REPAIRED OR REPLACED WITH A MORE EFFECTIVE ALTERNATIVE.
4. REMOVAL - FILTER SOCKS WILL BE DISPERSED ON SITE WHEN NO LONGER REQUIRED ON SUCH AS TO FACILITATE AND NOT OBSTRUCT SEEDINGS.

NO.	DATE	BY	DESCRIPTION
1	09/15/2026	ECA	PLANNING COMMISSION SUBMISSION

PRELIMINARY
NOT FOR CONSTRUCTION

20600 CHAGRIN BLVD
SUITE 500, SHAKER HEIGHTS, OH 44122
TEL: 216.378.1490
FAX: 216.378.1497

PROJECT DATE: 09/15/2026
PROJECT NO: 2500984
DRAWN BY: ECA
CHECKED BY: SG

Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com

PREPARED FOR:
OMCO BUILDING, LLC
3993 EAST ROYALTON ROAD
BROADVIEW HEIGHTS, OH 44147

OHIO CAT
RENTAL SERVICE FACILITY
MIAMISBURG, OH

SWPPP DETAILS

C502

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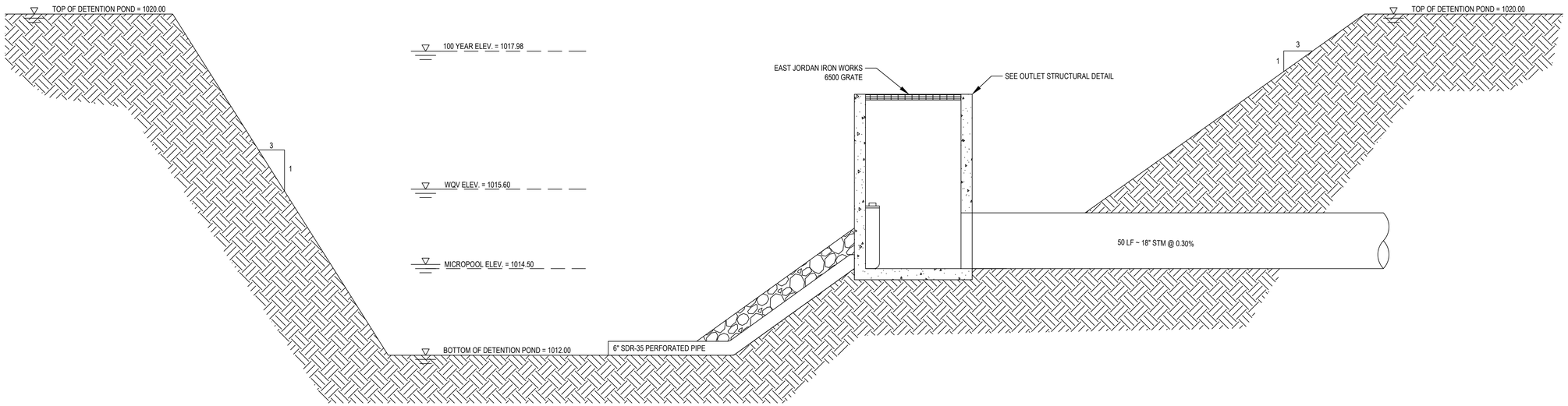

DETENTION POND A DETAIL

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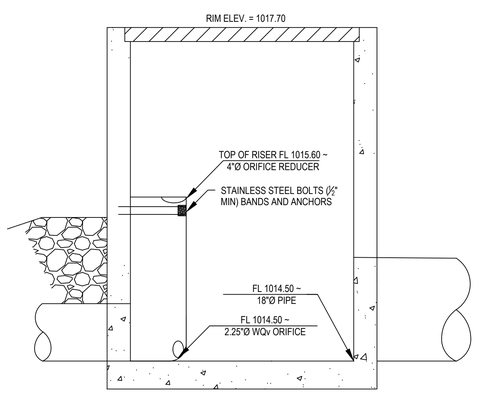

OUTLET STRUCTURE A DETAIL

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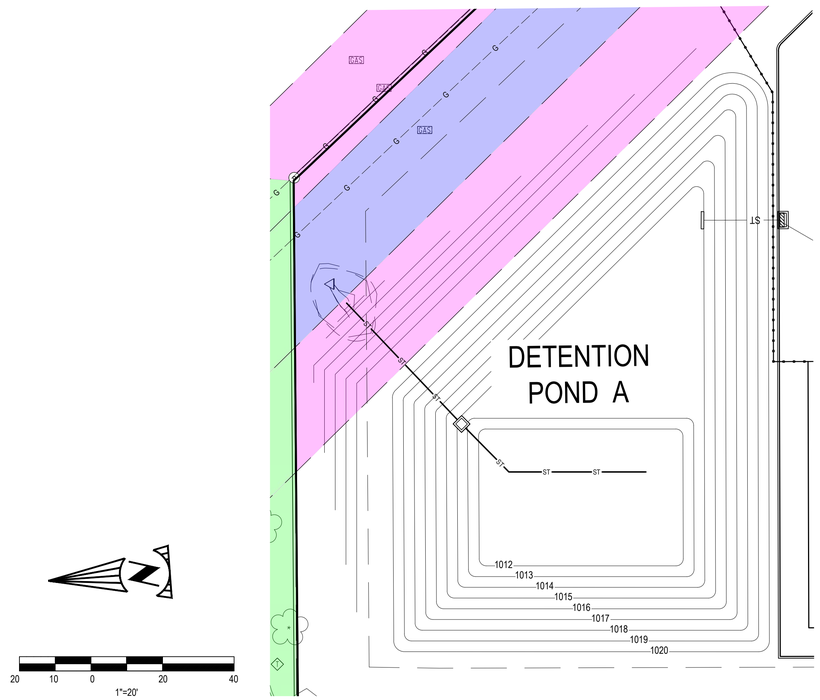

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POND DETAILS

C600

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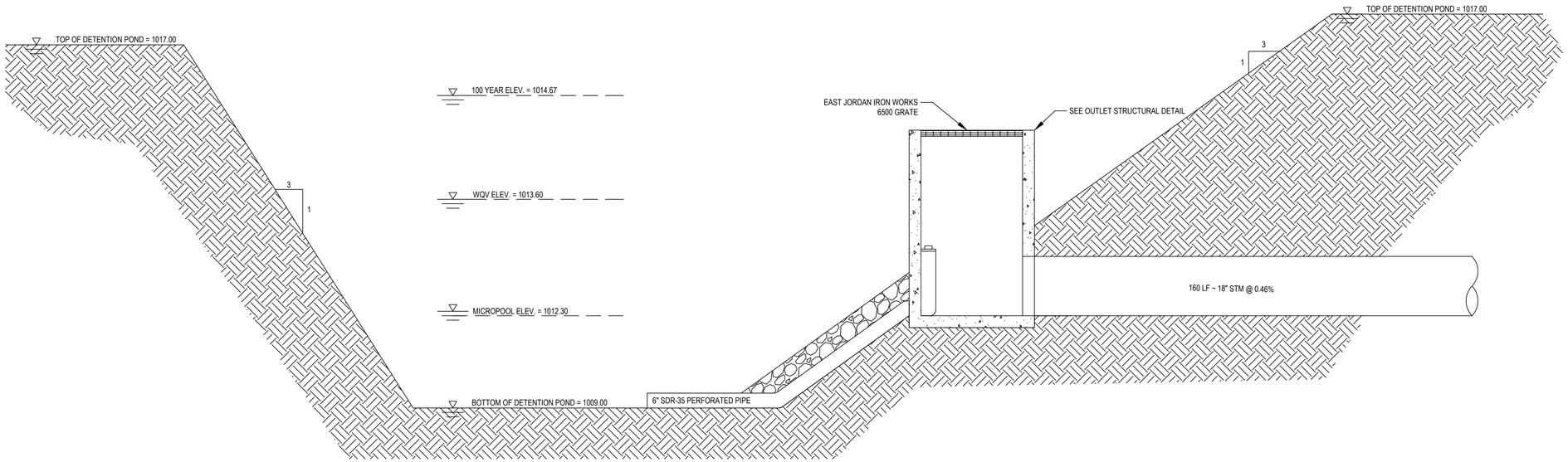

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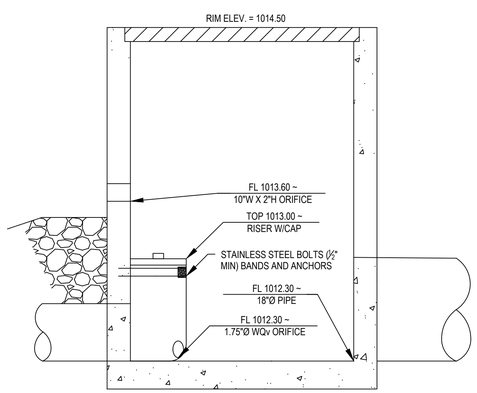

OUTLET STRUCTURE B DETAIL

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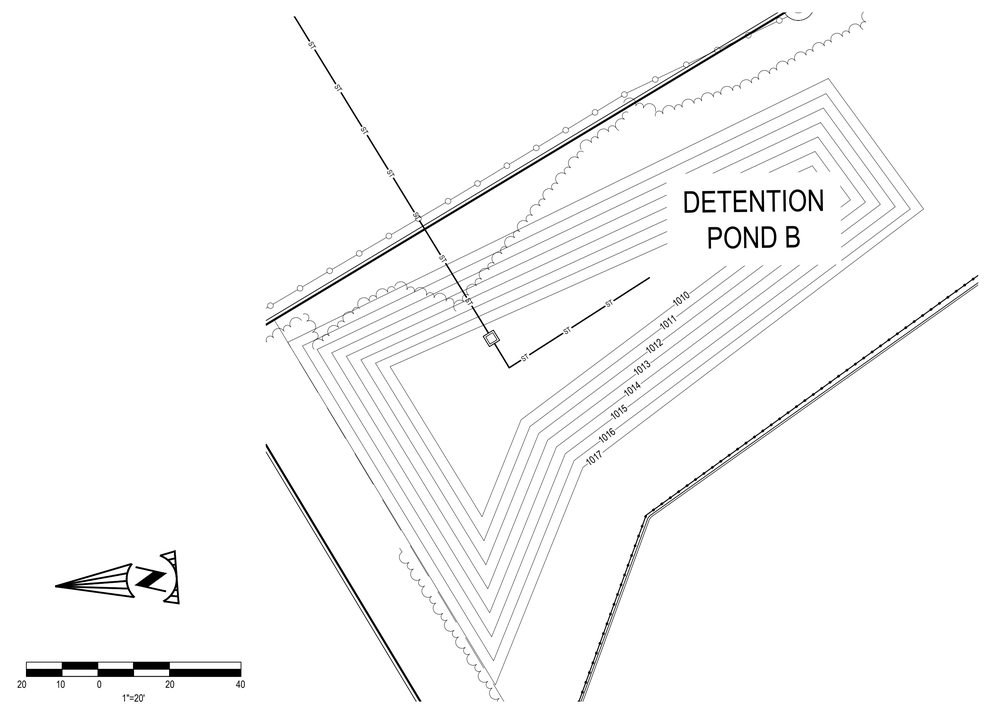

20 10 0 20 40

1"=20'

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POND DETAILS

C601

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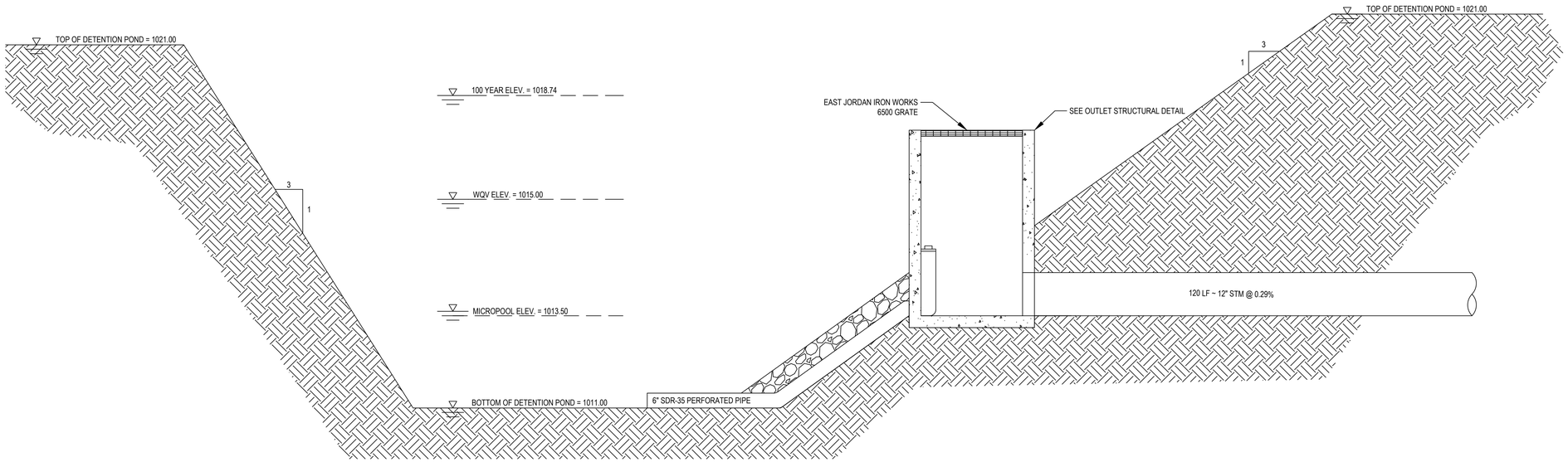

DETENTION POND C DETAIL

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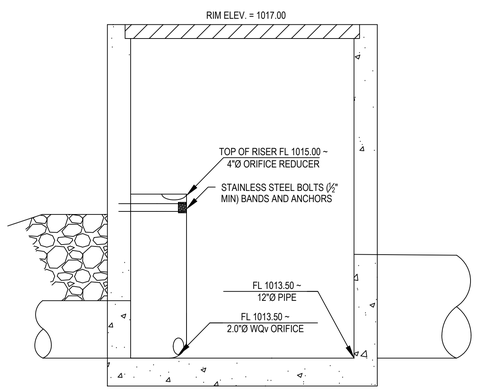

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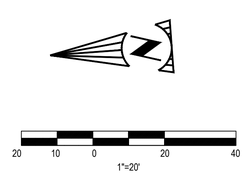

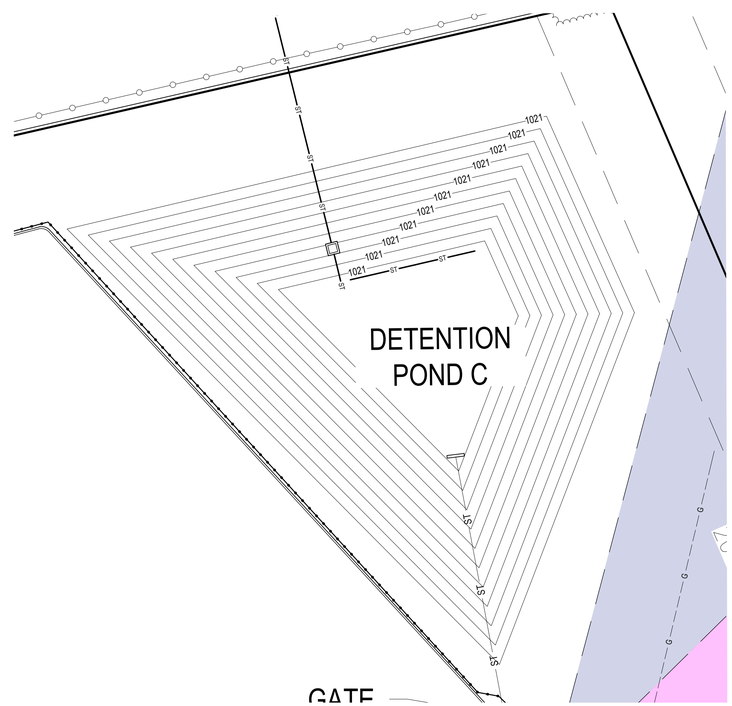

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POND DETAILS

C602

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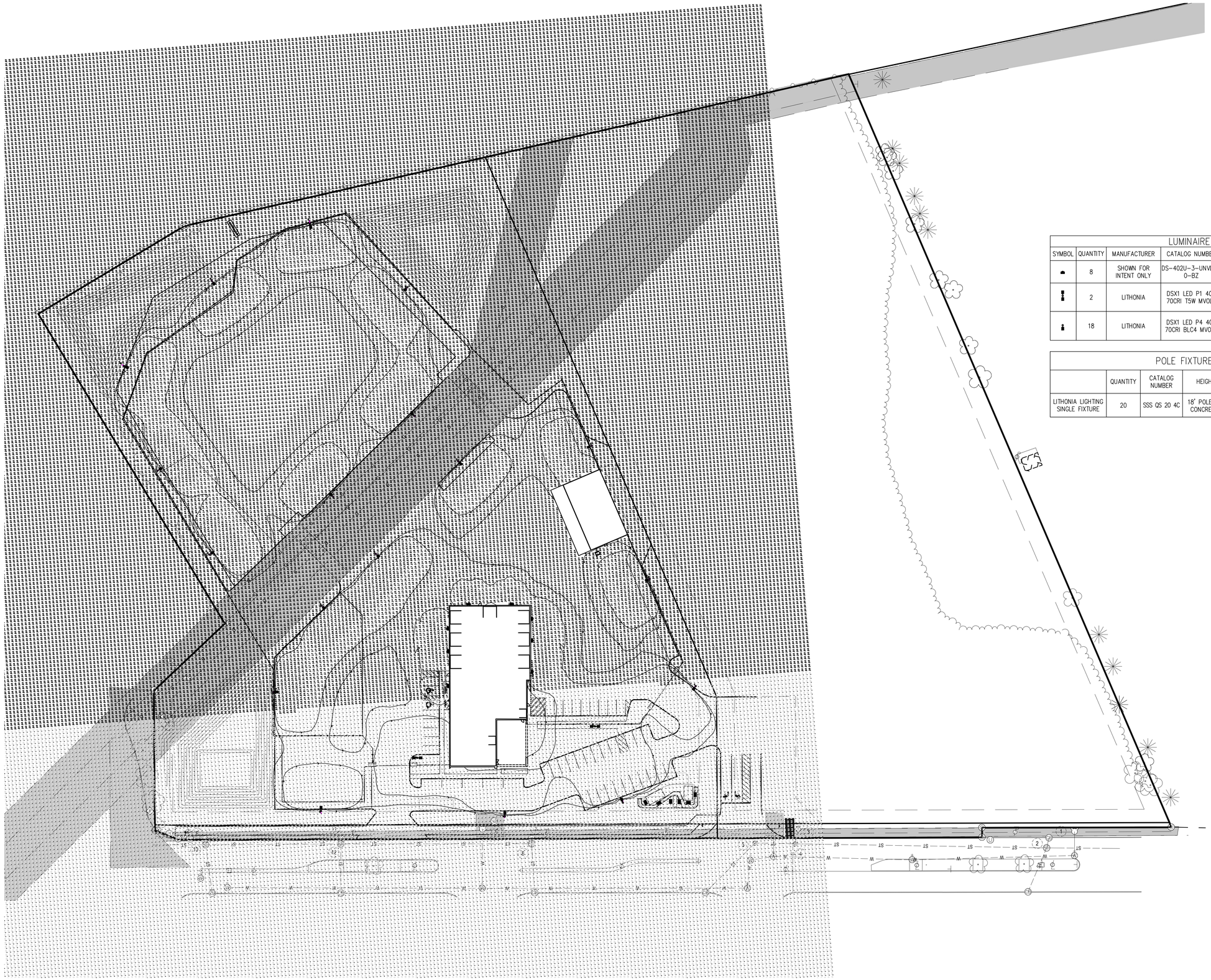

LEGEND

- WALL PACK BUILDING LIGHT
- DOUBLE POLE MOUNTED SITE LIGHT
- POLE MOUNTED SITE LIGHT
- DISPLAY LIGHTS (TO BE FULLY SHIELDED FROM ROAD)

LUMINAIRE SCHEDULE

SYMBOL	QUANTITY	MANUFACTURER	CATALOG NUMBER	DESCRIPTION	LUMENS PER LAMP	WATTAGE
	8	SHOWN FOR INTENT ONLY	DS-402U-3-UNVL-40-BZ	DS-402U GEN 3 WITH 4000K COLOR TEMPERATURE AND 960 MA WATTAGE	5170	39.9
	2	LITHONIA	DSX1 LED P1 40K 70CRI T5W MVOLT	DSX1 WITH 30 LEDS, 4000K COLOR TEMPERATURE AND MEDIUM FORWARD THROW OPTICS	ABSOLUTE	104
	18	LITHONIA	DSX1 LED P4 40K 70CRI BLC4 MVOLT	DSX1 WITH 30 LEDS, 4000K COLOR TEMPERATURE AND BACKLIT CONTROL THROW OPTICS	ABSOLUTE	124

POLE FIXTURE SCHEDULE

	QUANTITY	CATALOG NUMBER	HEIGHT (FT)	POLE SHAFT SIZE (INXFT)	WALL THICKNESS (IN)	DRILL MOUNTING	EPA
LITHONIA LIGHTING SINGLE FIXTURE	20	SSS QS 20 4C	18' POLE ON A 2' CONCRETE BASE	4X20	0.1196	DM19AS	1.3

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PHOTOMETRIC PLAN

C700

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HYDREL

CATALOG NUMBER

NOTES

TYPE

TPS2 SERIES

Yoke Mount
RGB LED Floodlight

HIGHLIGHTS

- "Taper Lock" Yoke infinitely adjust from 0 degrees to 90 degrees for precise aiming
- Copper Free aluminum housing to meet the most demanding lighting environments
- Integral photo cell option with protective aluminum housing
- DMX control/RDM

5 YEAR warranty

IP66

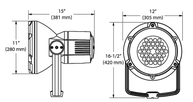
Architectural Outdoor Lighting

BAA

Specifications

EPA:	1.0 ft² (0.093 m²)
Length:	15" 381 mm
Width:	12" 305 mm
Height:	16-1/2" 420 mm
Height² :	11" 280 mm
Weight:	21 lbs

DIMENSIONS



LUMEN PACKAGES

	NSP	MFL	FL	WFL	HSP	HFL
Delivered Lumens	1,850	1,900	2,003	1,660	1,930	1,890
Watts	97	97	97	97	97	97
LPW	19	20	21	17	20	19

Note: Information based on all colors full on

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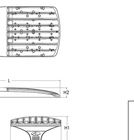
Phone: 800-705-SERV (7378) • www.hydrel.com

D-Series Size 1
LED Area Luminaire

d*series

Specifications

EPA:	0.69 ft² (0.06 m²)
Length:	32.71" (83.1 cm)
Width:	14.26" (36.2 cm)
Height H1:	7.88" (20.0 cm)
Height H2:	2.73" (6.9 cm)
Weight:	34 lbs (15.4 kg)



Catalog Number

Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

Introduction

The modern styling of the D-Series features a highly refined aesthetic that blends seamlessly with its environment. The D-Series offers the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire.

The photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. D-Series outstanding photometry aids in reducing the number of poles required in area lighting applications with typical energy savings of 65% and expected service life of over 100,000 hours.

ds design select

Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect.
*See ordering tree for details

ds Design Select options indicated by the color background.

Ordering Information

EXAMPLE: DSX1 LED P7 40K 70CRI T3M MVOLT SPA NLTAIR2 PIRHN DDBXD

DSX1 LED

Series	LEDs	Color temperature[1]	Color Rendering Index[1]	Distribution		Voltage	Mounting
DSX1 LED	**Forward optics** P1 P6 P2 P7 P3 P8 P4 P9 P5 **Rotated optics** P10[7] P12[7] P11[7] P13[7]	(this section 7CRI only) 30K 3000K 40K 4000K 50K 5000K (this section 80CRI only, extended lead times apply) 27K 2700K 30K 3000K 35K 3500K 40K 4000K 50K 5000K	70CRI 70CRI 70CRI 70CRI 80CRI 80CRI 80CRI 80CRI 80CRI	AFR Automotive front row T1S Type I short T2M Type II medium T3M Type III medium T3LG Type III low glare[2] T4M Type IV medium T4LG Type IV low glare[2] TFTM Forward throw medium		MVOLT (120V-277V)[3] HVOLT (347V-480V)[3] XVOLT (277V - 480V)[3,4] 120 [5,6] 208 [5,6] 240 [5,6] 277 [5,6] 347 [5,6] 480 [5,6]	**Shipped included** SPA Square pole mounting (#8 drilling) RPA Round pole mounting (#8 drilling) SPA5 Square pole mounting #5 drilling[8] RPA5 Round pole mounting #5 drilling[8] SPAWR Square narrow pole mounting (#8 drilling) WBA Wall bracket[9] MA Mast arm adapter (mounts on 2 3/8" OD horizontal tenon)

Control options			Other options		Finish (required)
Shipped installed NLTAIR2 PIRHN PIR PER PER5	nLight AIR gen 2 enabled with bi-level motion & ambient sensor, 8-40' mounting height, ambient sensor enabled at 3fc [10,11,12,13] High/low, motion/ambient sensor, 8-40'mounting height, ambient sensor enabled at 3fc [10,11,12] NEMA twist-lock receptacle only (controls ordered separately) [14] Five-pin receptacle only (controls ordered separately) [14,15]	PER7 Seven-pin receptacle only (controls ordered separately) [14,15] FAO Field adjustable output [16,17] BL30 Bi-level switched dimming, 30% [16,17] BL50 Bi-level switched dimming, 50% [16,17] DMG 0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately) [17] DS Dual switching [18,19]	**Shipped installed** SPD20KV 20KV surge protection HS Houseside shield (black finish standard) [20] L90 Left rotated optics [7] R90 Right rotated optics [7] CCE Coastal Construction [21] HA 50°C ambient operation [22] BAA Buy America(n) Act and/or Build America Buy America Qualified SF Single fuse (120, 277, 347V) [23] DF Double fuse (208, 240, 480V) [23] **Shipped separately** EGSR External Glare Shield (reversible, field install required, matches housing finish) BSDB Bird Spikes (field install required)	DDBXD Dark Bronze DBLXD Black DNAXD Natural Aluminum DWHXD White DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white

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LITHONIA LIGHTING

Catalog Number

Notes

Type

SSS QS

SQUARE STRAIGHT STEEL – QUICK SHIP

BAA BABA

FEATURES & SPECIFICATIONS

INTENDED USE — **Quick Ship orders ship in 17 days, to meet a maximum 21 day delivery time.**
Square Straight Steel is a general purpose light pole for up to 25-foot mounting heights. This pole provides a robust yet cost effective option for mounting area lights and floodlights.

CONSTRUCTION —
Pole Shaft: The pole shaft is of uniform dimension and wall thickness and is made of a weldable-grade, hot-rolled, commercial-quality steel tubing with ,minimum yield of 55KSI (11-gauge, .12"), or 50KSI (7-gauge, .18"). Shaft is one-piece with a full-length longitudinal high-frequency electric resistance weld. Uniformity is upset in cross-section with flat sides, small corner radii and excellent torsional qualities. Available shaft widths are 4" and 5".
Pole Top: Options include tenon top, drilled for side mount fixture, tenon with drilling (includes extra handhole) and open top. Side drilled and open top poles include a removable top cap.
Handhole: A reinforced handhole with grounding provision is provided at 18" from the base on side A. Every handhole includes a cover and cover attachment hardware. The handhole has a nominal dimension of 2.5" x 5".
Base Cover: A color matched durable ABS plastic two-piece full base cover, is provided with each pole assembly.
Anchor Base/Bolts: Anchor base is fabricated from steel that meets ASTM A36 standards. Anchor bolts are manufactured to ASTM F1554 Standards grade 55, 120 KSI minimum yield strength and tensile strength of 75-90 KSI. Top threaded portion (nominal 12") is hot-dipped galvanized per ASTM A-153.

HARDWARE — All structural fasteners are high-strength galvanized carbon steel. All non-structural fasteners are galvanized or zinc-plated carbon steel or stainless steel.

FINISH — Exterior parts are protected by a 7GC or Urethane polyester powder coat finish that provides superior resistance to corrosion and weathering. A lightly controlled multi-stage process ensures superior adhesion as well as a minimum finish thickness of 3 mils. Extra durable standard powder-coat finishes include Dark Bronze, Black and Natural Aluminum colors.

GOVERNMENT PROCUREMENT —
BAA – Buy America(n) Act: Product qualifies as a domestic end product under the Buy American Act as implemented in the FAR and DFARS. Product also qualifies as manufactured in the United States under DOT Buy America regulations.
BABA – Build America Buy America: Product qualifies as produced in the United States under the definitions of the Build America, Buy America Act.
Please refer to www.acuitybrands.com/buy-american for additional information.

INSTALLATION — **Do not** erect poles without having fixtures installed. Factory-supplied templates must be used when setting anchor bolts. Lithonia Lighting will not accept claim for incorrect anchorage placement due to failure to use Lithonia Lighting factory templates. If poles are stored outside, all protective wrapping must be removed immediately upon delivery to prevent finish damage. Lithonia Lighting is not responsible for the foundation design.

WARRANTY — 1-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

NOTE: Actual performance may differ as a result of end-user environment and application.
Specifications subject to change without notice.

ORDERING INFORMATION

Example: SSS QS 20 4C DM19AS DDBXD

SSS	QS						
Series	**Quick Ship**	**Pole Length (FT)**	**Nominal shaft size/wall thickness[1]**	**Mounting[2]**	**Finish**	**Options**	
SSS	QS	10 10' 12 12' 14 14' 16 16' 18 18' 20 20' 25 25'	4C 4" 11g (0.120") 4G 4" 7g (0.179") 5C 5" 11g (0.120") 5G 5" 7g (0.179") (See technical information table for complete ordering information.)	Tenon mounting PT Open top (includes top cap) T20 2-3/8" O.D. (2" NPS) DSX/RSX Drill mounting [3] DM19AS 1 at 90° DM28AS 2 at 180° DM29AS 2 at 90° DM39AS 3 at 90° DM49AS 4 at 90° ESX Drill mounting [3] DM19ESX 1 at 90° DM28ESX 2 at 180° DM29ESX 2 at 90° DM39ESX 3 at 90° DM49ESX 4 at 90°	DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum XA Original order#	LJAB Less anchor bolts (Include when anchor bolts are not needed) Match pole to prior order or project*	

Accessories: Order as separate catalog number.
PL DT20 Plugs for ESX drillings
PL DT8 Plugs for DSX/RSX drillings
FVD vxRT Field installed vibration damper (snake style)

PROGRAM RULES:
1. Only options listed in the ordering tree are valid for the Quick Ship program.
2. Nomenclature must include "QS" after "SSS" to be qualified for Quick Ship. *Example: SSS QS 20 4C DM19AS DDBXD*
3. Total order quantity cannot exceed 10 poles.
4. Anchor bolts will be shipped separately.
5. Quick Ship orders cannot have "Not Before Date" or "Ship Date".
6. Quick ship orders cannot have standard pole lines.
7. All pole orders must include "Call Before Number" to avoid delays.
8. Only customers in USA are eligible.

NOTES:
1. Wall thickness will be signified with a "C" (11 Gauge) or a "G" (7-Gauge) in nomenclature. "C" – 0.12" | "G" – 0.18".
2. PT open top poles include top cap. When ordering tenon mounting and drill mounting for the same pole, specify as drilling option/tenon option. The combination includes a required extra handhole. *Example: DM28ESX.*
3. Refer to the luminaire spec sheet for the correct drilling template pattern and orientation compatibility.
4. Must add original order number. Not for replacement parts or post sales issues, contact tech support or post sales teams. XA is used to ensure poles match in appearance exactly from order to order, on a single project site. A common use case would be a multi-phase project with multiple orders. *Example: 196910-36784*

OUTDOOR

POLE-SSS QUICK SHIP

TECHNICAL INFORMATION — EPA (ft²) with 1.3 gust

Catalog Number	Nominal Shaft Length (ft.)	Pole Shaft Size (Base in. x Top in. x ft.)	Wall thick (in.)	Gauge	EPA (ft²) with 1.3 gust 80 MPH	Max. weight	90 MPH	Max. weight	100 MPH	Max. weight	Approximate ship weight (lbs.)
SSS QS 10-4C	10	4.0 x 10.0	0.1196	11	30.6	765	23.8	595	18.9	473	75
SSS QS 12-4C	12	4.0 x 12.0	0.1196	11	24.4	610	18.8	470	14.8	370	90
SSS QS 14-4C	14	4.0 x 14.0	0.1196	11	19.9	498	15.1	378	11.7	293	100
SSS QS 16-4C	16	4.0 x 16.0	0.1196	11	15.9	398	11.8	295	8.9	223	115
SSS QS 18-4C	18	4.0 x 18.0	0.1196	11	12.6	315	9.2	230	6.7	168	125
SSS QS 20-4C	20	4.0 x 20.0	0.1196	11	9.6	240	6.7	167	4.5	150	140
SSS QS 20-4G	20	4.0 x 20.0	0.1793	7	14	350	11	275	8	200	198
SSS QS 20-5C	20	5.0 x 20.0	0.1196	11	17.7	443	12.7	343	9.4	235	185
SSS QS 20-5G	20	5.0 x 20.0	0.1793	7	28.1	703	21.4	535	16.2	405	265
SSS QS 25-4C	25	4.0 x 25.0	0.1196	11	4.8	150	2.6	100	1	50	170
SSS QS 25-4G	25	4.0 x 25.0	0.1793	7	10.8	270	7.7	188	5.4	135	245
SSS QS 25-5C	25	5.0 x 25.0	0.1196	11	9.8	245	6.3	157	3.7	150	225
SSS QS 25-5G	25	5.0 x 25.0	0.1793	7	18.5	463	13.3	333	9.5	238	360

NOTE: EPA values are based ASCE 7-93 wind map.
* For 1/2 ft increments, add -6 to the pole height. Ex: 20-6 equals 20ft 6in.

TECHNICAL INFORMATION — EPA (ft²) WITH 3-SECOND GUST PER AASHTO 2013

Series	Mounting Height (ft.)*	Shaft Base Size	90 MPH	Max. weight	100 MPH	Max. weight	110 MPH	Max. weight	120 MPH	Max. weight	130 MPH	Max. weight	140 MPH	Max. weight	150 MPH	Max. weight	Approximate ship weight (lbs.)
SSS	10	4C	20	500	16	400	11	325	10.5	263	8.5	213	7	175	6	150	75
SSS	12	4C	16	400	13	325	10	250	8	200	6.5	163	5	125	4	100	90
SSS	14	4C	13.5	338	10	250	7.5	188	6	150	4.5	113	3.5	88	2.5	63	100
SSS	16	4C	10.5	263	7.5	188	5.5	138	4	100	3	75	1.5	38	1	25	115
SSS	18	4C	8	200	5.5	138	4	100	2.5	63	1.5	38	0.5	13	-	-	125
SSS	18	4G	13	325	9.5	238	7	175	5	125	3.5	88	2.5	63	1.5	38	185
SSS	18	5C	13	325	9.5	238	6.5	163	4.5	113	3	75	1.5	38	.5	13	170
SSS	20	4C	6	150	4	100	2.5	63	1	25	-	-	-	-	-	-	140
SSS	20	4G	10.5	263	7.5	188	5.5	138	3.5	88	2	50	1	25	-	-	205
SSS	20	5C	10	250	7	175	4.5	113	2.5	63	1	25	-	-	-	-	185
SSS	20	5G	20	500	15	375	11.5	288	8.5	213	6	150	4.5	113	3	75	265
SSS	25	4C	2	50	0.5	13	-	-	-	-	-	-	-	-	-	-	170
SSS	25	4G	5.5	138	3	75	1.5	38	-	-	-	-	-	-	-	-	245
SSS	25	5C	4.5	113	2	50	-	-	-	-	-	-	-	-	-	-	225
SSS	25	5G	12	300	8.5	213	5.5	138	3	75	1.5	38	-	-	-	-	360
SSS	25	6G	19	475	13.5	338	9	225	5.5	138	3	75	1	25	-	-	445
SSS	30	4G	1.5	38	-	-	-	-	-	-	-	-	-	-	-	-	291
SSS	30	5C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	265
SSS	30	5G	6.5	163	3.5	88	1	25	-	-	-	-	-	-	-	-	380
SSS	30	6G	11	275	6	150	2.5	63	-	-	-	-	-	-	-	-	520
SSS	35	5G	2	50	-	-	-	-	-	-	-	-	-	-	-	-	440
SSS	35	6G	4	100	-	-	-	-	-	-	-	-	-	-	-	-	540
SSS	39	6G	-	-	-	-	-	-	-	-	-	-	-	-	-	-	605

NOTE: AASHTO 2013 design criteria is the most common EPA and uses wind map ASCE7-05. Please review the project Spec document to determine the correct design criteria for the poles on your jobsite.
*For 1/2 ft increments, add -6 to the pole height. Ex:

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USLED
Always the Right Choice!

QubePAK® Regal 3
Architectural Outdoor LED Wall Pack

Project	Date
Catalog Number	**Type**

10 YEAR

Product Performance Summary

Lumen Output	Up to 17,299 lumens
Efficacy	Up to 177 LPW
CRI	≥ 70 CRI
Available CCT	5000K
Warranty	Ten-Year Warranty

Product Overview

The QubePAK Regal 3 LED wall pack is designed to easily integrate into any existing architecture and provide superior illumination. With an adjustable design, the QubePAK Regal 3 provides a complete site-wide solution for commercial exterior applications. Its elegant aesthetics combined with first-class performance make it a popular choice with specifiers and lighting designers.

Product Applications

- Perimeter Areas
- Building Exteriors
- Security Lighting
- Wall Washing
- Parking Lots
- Educational Facilities
- Business Campuses
- Industrial Facilities
- Mall/Retail Exteriors
- General Lighting

Product Certifications

- UL Listed
- Complies with UL1598 and CSA C22.2
- DLC Listed
- Suitable for Wet Locations
- IP65 Rated Enclosure
- RoHS Compliant

Key Features

- Modern LED replacement for traditional fluorescent or HID fixtures.
- Adjustable, full-cutoff design with a tilt mechanism that allows for precise aiming.
- Night sky friendly: eliminates light pollution and minimizes glare.

Electrical

- 120-277VAC 0-10V dimming standard.
- System power factor >90% and THD <20%.
- Operating temperature: -40°C to 40°C (-40°F to 104°F).

Mounting

- Housing is configured for mounting directly over a standard 4" outlet box (by others) or surface wiring via any of the convenient 1/2" threaded conduit entries.

Construction

- Robust die-cast aluminum housing protects integral components from harsh environments and optimizes thermal management.
- Housing is protected by a corrosion resistant bronze powder coat finish.
- Impact-resistant polycarbonate lens.

Optics

- Type II optical distribution standard. Consult factory for other available distributions.[1]
- Industry-leading LEDs with 5000K CCT (minimum 70 CRI).
- Lumen Maintenance: 167,000 hours (L70).[2]

Warranty

- Backed by US LED's industry-leading Ten-Year Warranty.

Ordering Information

Example: WPR3-UNVL-32-2-50-BZ

WPR3					
Series	**Input Voltage**	**Power**	**Optics**	**CCT**	**Finish**
	UNVL 120-277V	**24** 24W **32** 32W **40** 40W **60** 60W **80** 80W **100** 100W	**2** Type 2	**50** 5000K	**BZ** Bronze

Accessories	
BB	Remote Battery Back Up
PC	Photocell
C	Casambi Enabled [3]

1. Additional IES distributions available (consult factory).
2. L85 LED product "Lifetimes" refer only to the LED light engine, not the power source, and are based on the Illuminating Engineering Society's TM21. Projected Lumen Maintenance methodology at a 25° C / 77° F ambient temperature. The lifetimes are solely meant to be a guide for expected LED degradation and not a warranty or predictive of their actual life, which can be affected by ambient temperatures and other factors.
3. Casambi Enabled option only available in models 60W and above.

ORDERING INFORMATION

EXAMPLE: TPS2 36LED RGB MVOLT NSP YM PAR4/18 RDM BL

Series*	Lamp type*	Color*	Voltage*	Distribution*		Mounting*	Mounting Accessories	
TPS2	**36LED**	**RGB**	**MVOLT** (120-277 volt)	**NSP** Narrow Spot **MFL** Medium Flood **FL** Flood **WFL** Wide Flood **HSP** Horizontal Spot **HFL** Horizontal Flood		**YM** Yoke Mount	**EWM_** Ext. Wall Mt available 12"-48" in 6" increments **PAR_/__** Pole Arm Round 4", 5", or 6" Pole 12", 18", or 24" length (i.e. PAR5/18) **PAS_/__** Pole Arm Square 4", 5", or 6" Pole 12", 18", or 24" length (i.e. PAS4/24) **PATR_/__*** 1 Pole Arm Twin Round 4", 5", or 6" Pole 12", 18", or 24" length (i.e. PATR6/12) **PATS_/__*** 1 Pole Arm Twin Square 4", 5", or 6" Pole 12", 18", or 24" length (i.e. PATS6/12)	

Mounting Accessories (Cont'd)		Control*	Accessories	Finish*	
PMT[1] Pole Mount Tee **PMSA** Pole Mt Splice Access Stan. **SMSA_** Mt Splice Access available 12"-48" in 6" increments **SMT12/24[1]** Stanchion Mt Tee, 12" height **SMT18/24[1]** Stanchion Mt Tee, 18" height **SMT24/24[1]** Stanchion Mt Tee, 24" height		**RDM** Remote device management *RDM = Field discoverable and field programmable DMX*	**Internal** **IHL** Internal honeycomb louver **External** **GS** Glare shield **FGS** Full glare shield *Note: External options are mutually exclusive, choose one.*	**BL** Black **BZ** Bronze **DDB** Dark bronze **DNA** Natural aluminum **GN** Green **GR** Gray	**SND** Sand **STG** Steel gray **TVG** Terra verde green **WH** White **CF** Custom **__2*** Circ undercoat (i.e. BLZ) **RALTBD** Ral Paint Finishes *Note: RALTBD for pricing only, replace with applicable RAL call out when ready to order. See the RALBROCHURE for available options. It is recommended that Hydrel products only use textured paint.*

* Required Field

Notes:
1 Requires two fixtures per mounting.
2 Add Zinc undercoat for harsh environments.

ELECTRICAL LOAD

Light Engines	Drive Current (mA)	System Watts	Current (A) 120	208	240	277
18 LED	750	97	0.81	0.47	0.40	0.35

PERFORMANCE DATA

LUMEN OUTPUT

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Actual performance may differ as a result of end-user environment and application. Contact factory for performance data on any configurations not shown here.

	Distribution	NEMA TYPE	Beam Angle (50%) H x V	Field Angle (10%) H x V	Watts	LPW	Delivered Lumens
All colors full on	NSP	1 X 1	6 X 7	17 X 17	97	19	1,850
	MFL	3 x 3	21 X 21	37 X 37	97	20	1,900
	FL	5 x 5	64 X 64	84 X 81	97	21	2,003
	WFL	6 X 6	109 X 93	128 X 123	97	17	1,660
	HSP	4 x 2	38 x 8	52 x 18	97	20	1,930
	HFL	2 x 4	8 x 38	18 x 52	97	19	1,890

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Ordering Information

Accessories

Ordered and shipped separately.

DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V) [6]
DLL347F 1.5 CEL JU	Photocell - SSL twist-lock (347V) [6]
DLL480F 1.5 CEL JU	Photocell - SSL twist-lock (480V) [6]
DSHORT SBK	Shorting cap [7]
DSHS/SV	House side shield (enter package number 1-5 in place of #)
DSDBXK (FINISH)	Round pole adapter (#8 drilling, specify finish)
DSSPA5 (FINISH)	Square pole adapter (#5 drilling (specify finish)
DSRPA5 (FINISH)	Round pole adapter (#5 drilling (specify finish)
DSSPAWR (FINISH)	Square pole adapter (#8 drilling (specify finish)
DSRPA5WR (FINISH)	Round pole adapter (#8 drilling (specify finish)
DSX1EGSR (FINISH)	External glare shield (specify finish)
DSX1BSDB (FINISH)	Bird spike deterrent bracket (specify finish)

NOTES
1 Rotated optics available with packages P10, P11, P12 and P13. Must be combined with option L90 or R90.
2 T3LG, T4LG and 50K available only with BLC, LCCO and RCCO distribution. Contact Technical Support for other possible combinations. T3LG, T4LG, BLC4, LCCO4, RCCO4 not available with 70CRI or 80CRI.
3 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
4 HVOLT driver operates on any line voltage from 347-480V (50/60 Hz).
5 HVOLT not available with package P1 and P10 when combined with option NLTAIR2 PIRHN or option PIR.
6 XVOLT operates with any voltage between 277V and 480V (50/60 Hz).
7 XVOLT not available in packages P1 or P10. XVOLT not available with fusing (SF or DF).
8 Not available with T1S, T2M, T3M, T4M, T4LG, T3LG, T3LG, BLC4, LCCO4, RCCO4.
10 WBA cannot be combined with Type 5 distributions plus photocell (PER).
11 NLTAIR2 and PIRHN must be ordered together. For more information on nLight AIR2 visit this link.
12 NLTAIR2 PIRHN not available with other controls including PIR, PER, PER5, PER7, FAO, BL30, BL50, DMG and DS. NLTAIR2 PIRHN not available with P1 and P10 using HVOLT. NLTAIR2 PIRHN not available with P1 and P10 using XVOLT.
13 PIR not available with NLTAIR2 PIRHN, PER, PER5, PER7, FAO, BL30, BL50, DMG and DS. PIR not available with P1 and P10 using HVOLT. PIR not available with P1 and P10 using XVOLT.
14 PER/PER5/PER7 not available with NLTAIR2 PIRHN, PIR, BL30, BL50, FAO, DMG and DS. Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Shorting Cap included.
15 FAO not available with other dimming control options NLTAIR2 PIRHN, PIR, PER5, PER7, BL30, BL50, DMG and DS.
16 BL30 and BL50 are not available with NLTAIR2 PIRHN, PIR, PER, PER5, PER7, FAO, DMG and DS. BL30 or BL50 must specify 120 or 277V.
17 DMG not available with NLTAIR2 PIRHN, PIR, PER, PER5, PER7, BL30, BL50, FAO and DS.
18 DS not available with NLTAIR2 PIRHN, PIR, PER, PER5, PER7, BL30, BL50, FAO and DMG.
19 DS requires 2 independent switched circuits. DS provides 50/50 fixture operation via (2) different sets of leads using (2) drivers. DS only available with packages P2, P3, P4, P7, P8, P9.
20 Reference Motion Sensor Default Settings table on page 6 to see functionality.
21 Reference Controls Options table on page 4.
22 HS not available with T1S,T1L, BLC2, BLC4, LCCO and RCCO distribution. Also available as a separate accessory; see Accessories information.
23 CCE option not available with option BS and ECSR. Contact Technical Support for availability.
24 Not available in combination with other options or packages P4, P5, P7, P8, P9 and P11.
25 Requires luminaire to be specified with PER, PER5 or PER7 option. See Controls Table on page 4.
26 Single fuse (SF) requires 120V, 277V, or 347V. Double fuse (DF) requires 208V, 240V or 480V. XVOLT not available with fusing (SF or DF).

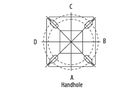
Shield Accessories

External Glare Shield (EGSR)

House Side Shield (HS)

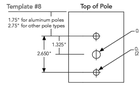
Drilling

HANDHOLE ORIENTATION



Template #8

Top of Pole



Tenon Mounting Slipfitter

Tenon O.D.	Mounting	Wall Thick	2 - 180	2 - 270	2 - 120	3 - 120	4 - 90
2-3/8"	RPA	.105	AS3-190	AS3-270	AS3-120	AS3-120	AS3-490
2-7/8"	RPA		AST25-190	AST25-280	AST25-290	AST25-390	AST25-420
4"	RPA		AST35-190	AST35-280	AST35-290	AST35-390	AST35-490

Mounting Option	Quickslip Template	Single	2 @ 180	2 @ 90	3 @ 90	3 @ 120	4 @ 90
Head Location		Side B	Side B & D	Side B & C	Side B, C & D	Round Pole Only	Side A, B, C & D
Drill Nomenclature	#8	DM19AS	DM28AS	DM29AS	DM39AS	DM33AS	DM49AS
Maximum Acceptable Outside Pole Dimension							
SPA	#8	3.5"	3.5"	3.5"	3.5"		3.5"
RPA	#8	3"	3"	3"	3"	3"	3"
SPA5	#5	3"	3"	3"	3"		3"
RPA5	#5	3"	3"	3"	3"	3"	3"
SPAWR	#8	3"	3"	3"	3"		3"

DSX1 Area Luminaire - EPA

*Includes luminaire and integral mounting arm. Other tenons, arms, brackets or other accessories are not included in this EPA data.

Tenon Diameter & Mounting Configuration	Single DM19	2 @ 180 DM28	2 @ 90 DM29	3 @ 90 DM39	3 @ 120 DM32	4 @ 90 DM49
Mounting Type						
DSX1 with SPA	0.69	1.38	1.23	1.54	---	1.58
DSX1 with SPA5, SPAWR	0.70	1.40	1.30	1.66	---	1.68
DSX1 with RPA, RPA5	0.70	1.40	1.30	1.66	1.60	1.68
DSX1 with WA	0.83	1.66	1.50	2.09	2.08	2.09

USLED
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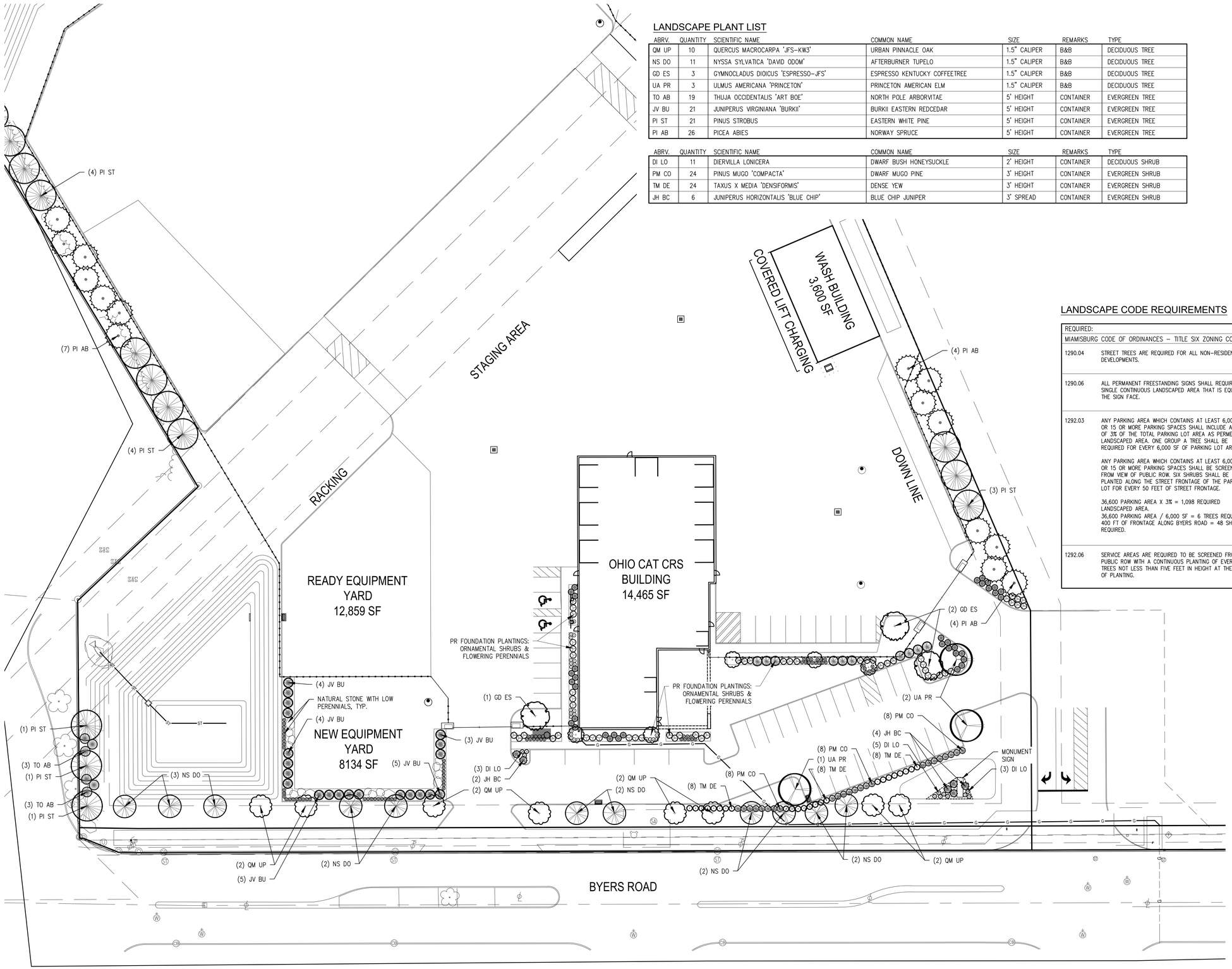
Qub



LANDSCAPE PLANT LIST

ABRV.	QUANTITY	SCIENTIFIC NAME	COMMON NAME	SIZE	REMARKS	TYPE
QM UP	10	QUERCUS MACROCARPA 'JFS-KW3'	URBAN PINNACLE OAK	1.5" CALIPER	B&B	DECIDUOUS TREE
NS DO	11	NYSSA SYLVATICA 'DAVID ODOM'	AFTERBURNER TUPELO	1.5" CALIPER	B&B	DECIDUOUS TREE
GD ES	3	GYMNOCLADUS DIOICUS 'ESPRESSO-JFS'	ESPRESSO KENTUCKY COFFEETREE	1.5" CALIPER	B&B	DECIDUOUS TREE
UA PR	3	ULMUS AMERICANA 'PRINCETON'	PRINCETON AMERICAN ELM	1.5" CALIPER	B&B	DECIDUOUS TREE
TO AB	19	THUJA OCCIDENTALIS 'ART BOE'	NORTH POLE ARBORVITAE	5' HEIGHT	CONTAINER	EVERGREEN TREE
JV BU	21	JUNIPERUS VIRGINIANA 'BURKII'	BURKII EASTERN REDCEDAR	5' HEIGHT	CONTAINER	EVERGREEN TREE
PI ST	21	PINUS STROBUS	EASTERN WHITE PINE	5' HEIGHT	CONTAINER	EVERGREEN TREE
PI AB	26	PICEA ABIES	NORWAY SPRUCE	5' HEIGHT	CONTAINER	EVERGREEN TREE

ABRV.	QUANTITY	SCIENTIFIC NAME	COMMON NAME	SIZE	REMARKS	TYPE
DI LO	11	DIERVILLA LONICERA	DWARF BUSH HONEYSUCKLE	2' HEIGHT	CONTAINER	DECIDUOUS SHRUB
PM CO	24	PINUS MUGO 'COMPACTA'	DWARF MUGO PINE	3' HEIGHT	CONTAINER	EVERGREEN SHRUB
TM DE	24	TAXUS X MEDIA 'DENSIFORMIS'	DENSE YEW	3' HEIGHT	CONTAINER	EVERGREEN SHRUB
JH BC	6	JUNIPERUS HORIZONTALIS 'BLUE CHIP'	BLUE CHIP JUNIPER	3' SPREAD	CONTAINER	EVERGREEN SHRUB

30 15 0 30 60
1"=30'

LEGEND

- PR DECIDUOUS TREE
- PR EVERGREEN TREE
- PR DECIDUOUS FLOWERING SHRUB
- PR EVERGREEN SHRUB
- PR FLOWERING PERENNIALS
- PR MULCH PLANTING BED LINE
- EXISTING TREE

LANDSCAPE CODE REQUIREMENTS

REQUIRED:		PROVIDED:
MIAMISBURG CODE OF ORDINANCES – TITLE SIX ZONING CODE		
1290.04	STREET TREES ARE REQUIRED FOR ALL NON-RESIDENTIAL DEVELOPMENTS.	STREET TREES PROVIDED ALONG BYERS ROAD AT 30 FEET ON CENTER DUE TO ADJACENT OVERHEAD UTILITIES.
1290.06	ALL PERMANENT FREESTANDING SIGNS SHALL REQUIRE A SINGLE CONTINUOUS LANDSCAPED AREA THAT IS EQUAL TO THE SIGN FACE.	200 SF LANDSCAPED AREA PROVIDED AROUND PROPOSED MONUMENT SIGN.
1292.03	ANY PARKING AREA WHICH CONTAINS AT LEAST 6,000 SF OR 15 OR MORE PARKING SPACES SHALL INCLUDE A MIN. OF 3% OF THE TOTAL PARKING LOT AREA AS PERMEABLE LANDSCAPED AREA. ONE GROUP A TREE SHALL BE REQUIRED FOR EVERY 6,000 SF OF PARKING LOT AREA. ANY PARKING AREA WHICH CONTAINS AT LEAST 6,000 SF OR 15 OR MORE PARKING SPACES SHALL BE SCREENED FROM VIEW OF PUBLIC ROW. SIX SHRUBS SHALL BE PLANTED ALONG THE STREET FRONTAGE OF THE PARKING LOT FOR EVERY 50 FEET OF STREET FRONTAGE. 36,600 PARKING AREA X 3% = 1,098 REQUIRED LANDSCAPED AREA. 36,600 PARKING AREA / 6,000 SF = 6 TREES REQUIRED. 400 FT OF FRONTAGE ALONG BYERS ROAD = 48 SHRUBS REQUIRED.	3,300 SF OF INTERIOR LANDSCAPED AREA PROVIDED. 6 INTERIOR PARKING LOT TREES PROVIDED. 48 SHRUBS PROVIDED ALONG BYERS ROAD.
1292.06	SERVICE AREAS ARE REQUIRED TO BE SCREENED FROM PUBLIC ROW WITH A CONTINUOUS PLANTING OF EVERGREEN TREES NOT LESS THAN FIVE FEET IN HEIGHT AT THE TIME OF PLANTING.	5' EVERGREEN TREES PROVIDED AROUND SERVICE AREA.

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20600 CHAGRIN BLVD
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PROJECT DATE: 09/15/2026
PROJECT NO: 2500964
DRAWN BY: ECA
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RENTAL SERVICE FACILITY
MIAMISBURG, OH

LANDSCAPE PLAN
FRONT

L100

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RENTAL SERVICE FACILITY
MIAMISBURG, OH

LANDSCAPE PLAN
REAR

L101

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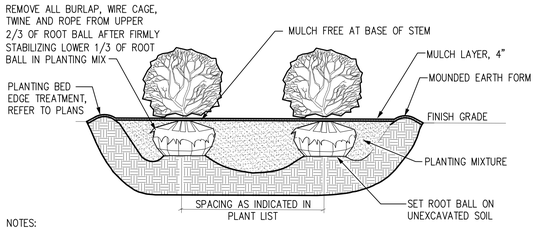


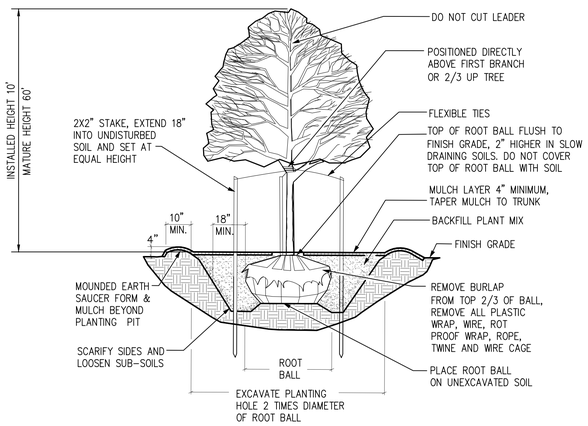
NOTES:

ALL SHRUBS PLANTED IN ROWS OR MASSES SHALL BE MATCHED IN SIZE AND FORM.

SHRUBS SHALL BEAR SAME RELATION TO FINISH GRADE AS THEY BORE TO EXISTING GRADE IN THE PREVIOUSLY PLANTED CONDITION.

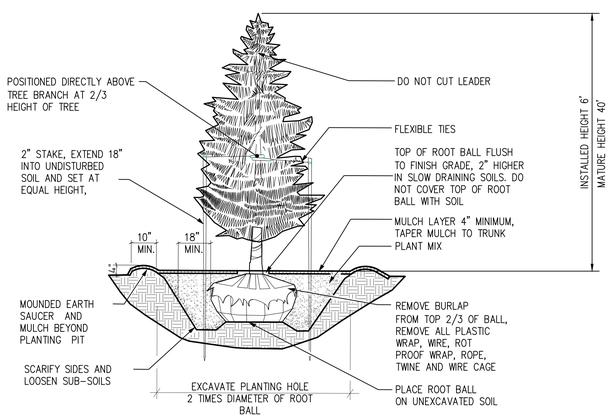
MASS SHRUB PLANTING DETAIL (B&B OR CONTAINER)

NO SCALE



DECIDUOUS TREE PLANTING DETAIL

NO SCALE



EVERGREEN TREE PLANTING DETAIL

NO SCALE

LANDSCAPE PLAN NOTES

1. THE CONTRACTOR SHALL PROVIDE A ONE YEAR WARRANTY ON ALL PLANTS AND VEGETATION PROPOSED ON THE LANDSCAPING PLAN. ANY TREES, SHRUBS, GROUND COVER OR OTHER VEGETATION PLANTED AS PART OF THIS PROJECT THAT DO NOT SURVIVE ONE YEAR FROM PLANTING SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING AND COORDINATING WITH ALL PERTINENT UTILITY COMPANIES THREE WORKING DAYS IN ADVANCE OF ANY DIGGING. THE CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR ANY COST INCURRED DUE TO DAMAGE OF ANY UTILITIES.

3. REFER TO THE LANDSCAPE PLAN FOR ADDITIONAL NOTES. LANDSCAPE IMPROVEMENTS SHALL CONFORM TO THE LATEST EDITION OF ODOT CONSTRUCTION SPECIFICATIONS.

4. ALL PLANTING MATERIALS: SHALL BE PLANTED PER ODOT SPECIFICATIONS. EXISTING TREES TO REMAIN SHALL BE PRUNED TO REMOVE BROKEN, LOW HANGING AND OTHER UNDESIRABLE GROWTH TO ENSURE HEALTHY AND SYMMETRICAL NEW GROWTH.

5. PLANTING BEDS. ONE MONTH BEFORE CULTIVATION AND AFTER DAYTIME TEMPERATURES HAVE WARMED TO 60° CONSISTENTLY, TREAT ALL PLANTING BEDS THAT ARE TO BE DEVELOPED IN AREAS OF EXISTING TURF WITH PRE-EMERGENT AND POST-EMERGENT TYPE HERBICIDES. USE A STATE-LICENSED PESTICIDE APPLICATOR TO APPLY THE HERBICIDE. REPEAT HERBICIDE APPLICATION TWO WEEKS LATER AND UNTIL ALL HERBACEOUS MATERIALS HAVE BEEN KILLED. BEFORE PLANTING. TOP DRESS ALL PLANTING BEDS WITH A MINIMUM OF 6 INCHES OF BACKFILL MIX, THEN CULTIVATE PLANTING AREA TO A DEPTH OF 6 INCHES USING A PLOW, DISC, OR ROTO-TILLER.

6. BACKFILL MIX. FOR ALL PLANTINGS, USE BACKFILL MIX CONSISTING OF THE FOLLOWING:
A. ONE PART EXCAVATED SOIL.
B. ONE PART TOPSOIL.
C. ONE PART EPA RATED CLASS IV COMPOST.
D. A SLOW RELEASE COMMERCIAL FERTILIZER (0-20-20 OR EQUAL) ADDED AT A RATE OF 5 POUNDS PER CUBIC YARD TO THE BACKFILL MIX.
E. IF SOIL AREAS ARE OF HIGH PH (GREATER THAN 6.5), APPLY 1.25 POUNDS OF ELEMENTAL SULFUR PER CUBIC YARD OF BACKFILL MIX.
NOTE: CONTRACTOR SHALL SUPPLY A DETAILED SOIL ANALYSIS PRIOR TO ALL PLANT BED PREPARATION. ANALYSIS SHALL INDICATE SOIL PH, TEXTURE, MAJOR NUTRIENTS, SALTS, ETC. SOIL ANALYSIS SHALL BE FROM A REPUTABLE, INDEPENDENT LAB. SOIL AMENDMENTS SHALL BE INCORPORATED INTO BACKFILL/PLANT MIX AS RECOMMENDED BY THE INDEPENDENT LAB.

7. MULCH. SMOOTH AND SHAPE THE BACKFILL MIX TO FORM A SHALLOW BASIN SLIGHTLY LARGER THAN THE PLANTING HOLE. MULCH ALL PLANTING AREAS WITH A LAYER OF FINELY SHREDDED HARDWOOD BARK OF UNIFORM TEXTURE & SIZE. PLANTS GROUPED IN MASSES SHALL HAVE THE ENTIRE CONTIGUOUS PLANTING BED OR ISLAND MULCHED. USE SHREDDED HARDWOOD BARK AGED MIN. ONE YEAR. RAKE AND SMOOTH THE ENTIRE AREA OF THE PLANTING BEDS, MULCH TO A DEPTH OF 3 INCHES. AFTER MULCHING AND BEFORE WATERING, ADD A SLOW RELEASE COMMERCIAL FERTILIZER (12-12-12 OR EQUAL), IN GRANULAR FORM, TO THE TOP OF THE MULCH AT A RATE OF 5 POUNDS PER 1000 SQUARE FEET. DO NOT ALLOW FERTILIZER TO CONTACT THE STEMS, BRANCHES, ROOTS OR LEAVES.

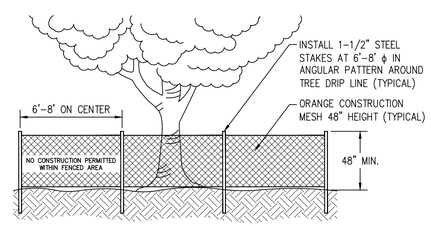
8. PERIOD OF ESTABLISHMENT. BEFORE FINAL INSPECTION, PLACE ALL PLANTS, SEED ALL LAWNS, AND CARE FOR THEM FOR A PERIOD OF ESTABLISHMENT. THE PERIOD OF ESTABLISHMENT BEGINS IMMEDIATELY UPON COMPLETION OF THE PLANTING OPERATIONS AND CONTINUES UNTIL OCTOBER 1. THE MINIMUM PERIOD OF ESTABLISHMENT IS ONE GROWING SEASON, JUNE 1 THROUGH OCTOBER 1. DURING THE PERIOD OF ESTABLISHMENT, FOLLOW STANDARD HORTICULTURAL PRACTICES TO ENSURE THE VIGOR AND GROWTH OF THE TRANSPLANTED MATERIAL. WATER, REMULCH, RESTAKE, GUY, AND CULTIVATE AS NECESSARY. PERFORM AT LEAST TWO WEEDING AND MOWING PROGRAMS (AROUND TREES, GUY STAKES, SHRUBS, AND BED EDGES) OF SUCH INTENSITY AS TO COMPLETELY RID THE PLANTED AND MULCHED AREAS OF WEEDS AND GRASSES. BEGIN THE FIRST PROGRAM ON OR ABOUT JUNE 15 AND THE SECOND APPROXIMATELY 8 WEEKS LATER. ON OR ABOUT AUGUST 15, THE ENGINEER WILL INSPECT THE PLANTING AND SUPPLY THE CONTRACTOR WITH A LIST OF MISSING AND DEAD PLANTS AND THOSE THAT HAVE DIED BACK BEYOND NORMAL PRUNING LINES. REPLANT AS REQUIRED ACCORDING TO THE SPECIFICATIONS OF THE ORIGINAL MATERIAL. REPLACEMENT PLANTS ARE SUBJECT TO A NEW PERIOD OF ESTABLISHMENT. IMMEDIATELY REPLACE PLANTS PLANTED INITIALLY IN THE FALL THAT HAVE DIED BEFORE THE SPRING PLANTING SEASON. CARE FOR THE REPLACEMENT PLANTS DURING THE NEW ESTABLISHMENT PERIOD.

9. RESTORATION OF DISTURBED AREAS FOR NEW LAWN:
ALL DISTURBED AREAS NOT COVERED BY BUILDING, PAVEMENT OR LANDSCAPE PLANTING BEDS SHALL BE PREPARED FOR GRASS SEED AND SEEDED. LOOSEN RUTS AND WORK THE SOIL AREAS TO A MINIMUM OF 6" DEEP PRIOR TO FINE GRADING AND SEEDING WORK. AREAS TO RECEIVE GRASS SEED SHALL HAVE A MIN. 4" TOPSOIL PLACED, SEEDED AND A STRAW/MULCH BLANKET COVER PLACED OVER THE SEEDED AREAS PER ODOT SPECIFICATIONS. FERTILIZE WITH ONE POUND OF ACTUAL NITROGEN PER 1000 SQUARE FEET WITH A SLOW RELEASE COMMERCIAL STARTER FERTILIZER (LESCO 18-24-12 OR EQUAL).

10. LANDSCAPE TREES, SHRUBS AND PERENNIAL WATERING:
THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, DELIVERING, APPLYING, MEASURING AND SCHEDULING A SUFFICIENT AMOUNT OF WATER NECESSARY TO KEEP EACH PLANT IN A HEALTHY GROWING CONDITION THROUGHOUT THE PERIOD OF ESTABLISHMENT. THE CONTRACTOR SHALL APPLY 1" OF WATER PER WEEK TO ALL NEW PLANTS. THE CONTRACTOR SHALL INSTALL & MAINTAIN SUPPLEMENTAL DRIP WATERING TREE BAGS (SUCH AS 20 GALLON TREE GATOR WATER BAG) TO PROVIDE ADEQUATE, SLOW RELEASE OF WATER. WATER BAGS SHALL BE REMOVED AT THE END OF THE SECOND GROWING SEASON.

11. TURF GROUNDCOVER (SODDING, SEEDING AND SEED MULCHING):
ALL SEEDING INSTALLATION SHALL CONFORM TO ODOT SPECIFICATIONS AND NOTE 9 ABOVE. SEED AT 6 LBS/1000 SF WITH THE FOLLOWING SEED MIXTURE:

TITAN TALL-TYPE TURF FESCUE	70%
SR 4100 PERENNIAL RYEGRASS	20%
MERIT KENTUCKY BLUEGRASS	10%



TREE PROTECTION DETAIL

NOT TO SCALE

TREE PROTECTION NOTES

1. TREE PROTECTION MEASURES SHALL BE INSTALLED PER THIS PLAN SHEET AT THE CRITICAL ROOT ZONE OF TREES TO BE PRESERVED PRIOR TO THE START OF ANY CLEARING, GRADING OR OTHER CONSTRUCTION ACTIVITY.

2. NO STORAGE OF ANY KIND IS PERMITTED WITHIN THE TREE PROTECTION ZONE. ANY ROOTS EXPOSED BY CONSTRUCTION ACTIVITY SHALL BE PRUNED FLUSH WITH THE SOIL AND BACKFILLED WITH TOPSOIL WITHIN THE SAME DAY.

3. ALL VEGETATION THAT IS NOT DESIGNATED ON THE PLANS TO BE REMOVED SHALL BE PROTECTED FROM DAMAGE. TREES THAT ARE DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

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20600 CHAGRIN BLVD
SUITE 500, SHAKER HEIGHTS, OH 44122
TEL: 216.378.1490
FAX: 216.378.1497

PROJECT DATE: 09/15/2026
PROJECT NO: 2500984
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LANDSCAPE NOTES & DETAILS

L102

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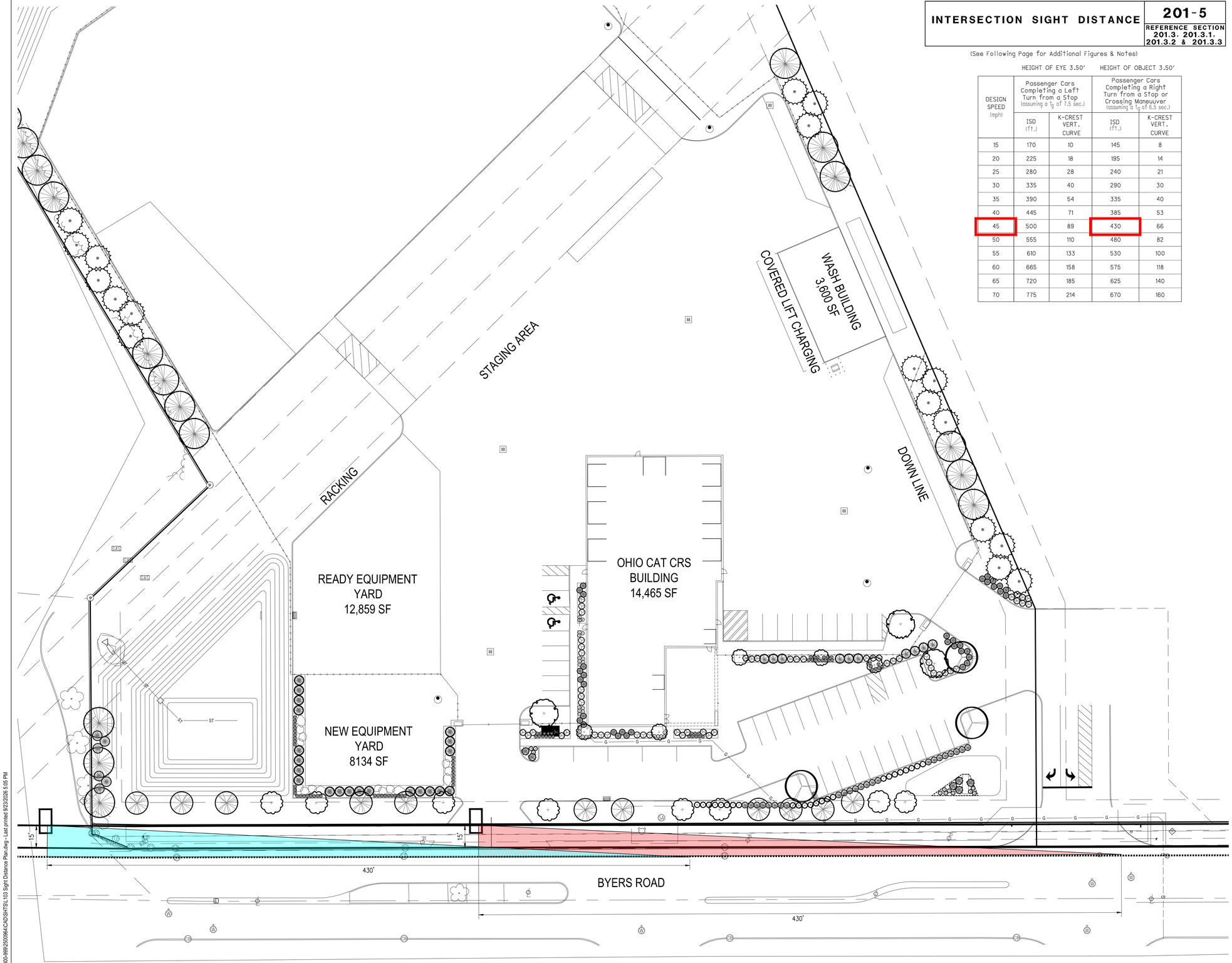

INTERSECTION SIGHT DISTANCE

201-5

REFERENCE SECTION 201.3, 201.3.1, 201.3.2 & 201.3.3

(See Following Page for Additional Figures & Notes)

HEIGHT OF EYE 3.50′ HEIGHT OF OBJECT 3.50′

DESIGN SPEED (mph)	Passenger Cars Completing a Left Turn from a Stop (assuming a t_g of 7.5 sec.)		Passenger Cars Completing a Right Turn from a Stop or Crossing Maneuver (assuming a t_g of 6.5 sec.)	
	ISD (ft.)	K-CREST VERT. CURVE	ISD (ft.)	K-CREST VERT. CURVE
15	170	10	145	8
20	225	18	195	14
25	280	28	240	21
30	335	40	290	30
35	390	54	335	40
40	445	71	385	53
45	500	89	430	66
50	555	110	480	82
55	610	133	530	100
60	665	158	575	118
65	720	185	625	140
70	775	214	670	160

30 15 0 30 60
1"=30'

LEGEND

- PR DECIDUOUS TREE
- PR EVERGREEN TREE
- PR DECIDUOUS FLOWERING SHRUB
- PR EVERGREEN SHRUB
- PR FLOWERING PERENNIALS
- PR MULCH PLANTING BED LINE
- EXISTING TREE

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SIGHT DISTANCE PLAN

L103

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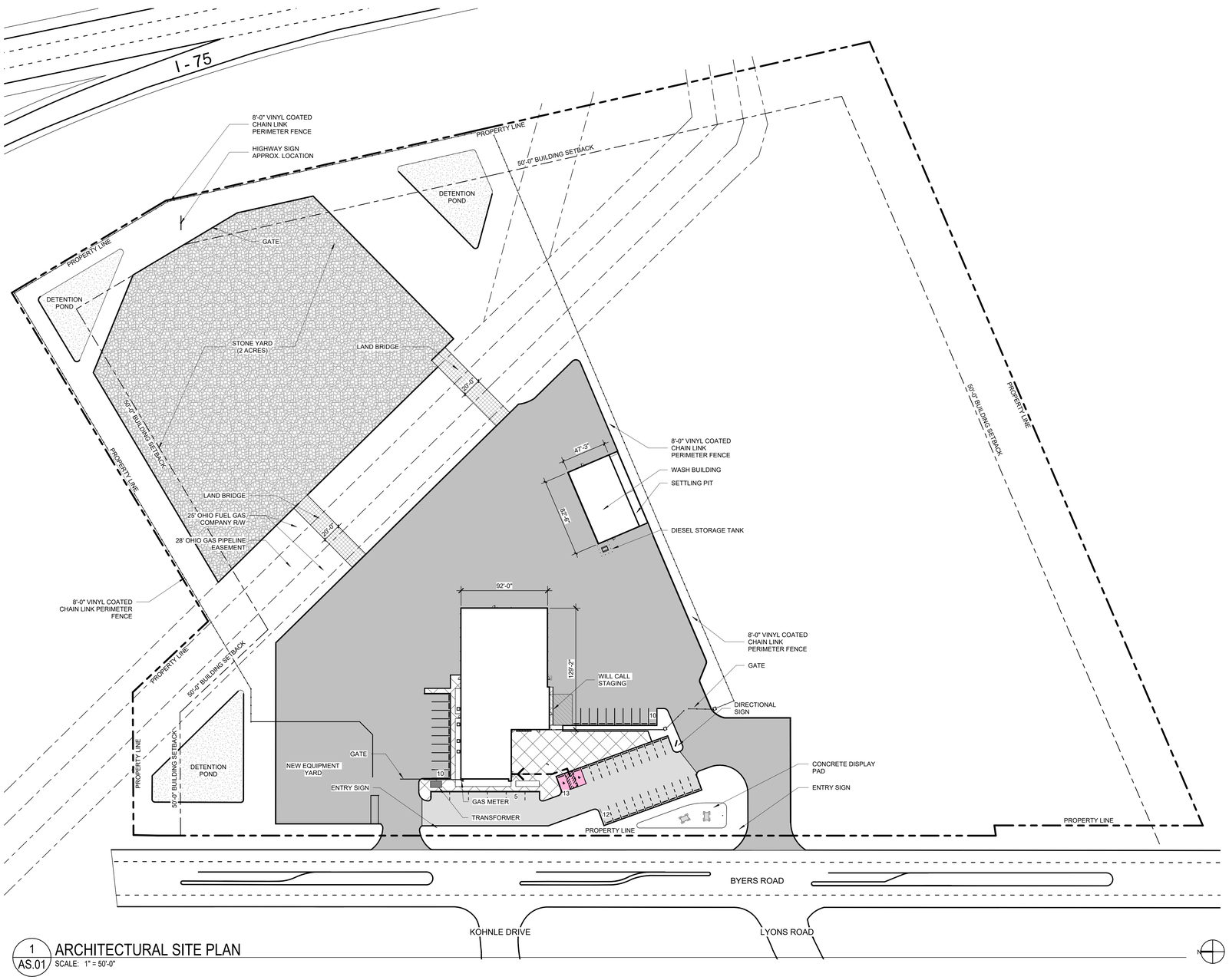

1 AS.01 ARCHITECTURAL SITE PLAN
SCALE: 1" = 50'-0"

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Cleveland, OH 44103
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NEW CONCRETE DRIVE. REFER TO CIVIL DRAWINGS

NEW ASPHALT DRIVE. REFER TO CIVIL DRAWING

LOCATION OF ACCESSIBLE PARKING SPACES. SPACES TO BE POURED CONCRETE AND MEET MAX. 1.5% SLOPE IN ALL DIRECTIONS

ACCESSIBLE ROUTE. SLOPE NOT TO EXCEED 5%, CROSS SLOPE NOT TO EXCEED 2%

STATE OF OHIO REGISTERED ARCHITECT DOMINICK DURANTE, JR. 7286

DOMINICK DURANTE, JR.
LICENSE 07286
EXPIRATION 12/31/2027

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MIAMISBURG - CAT
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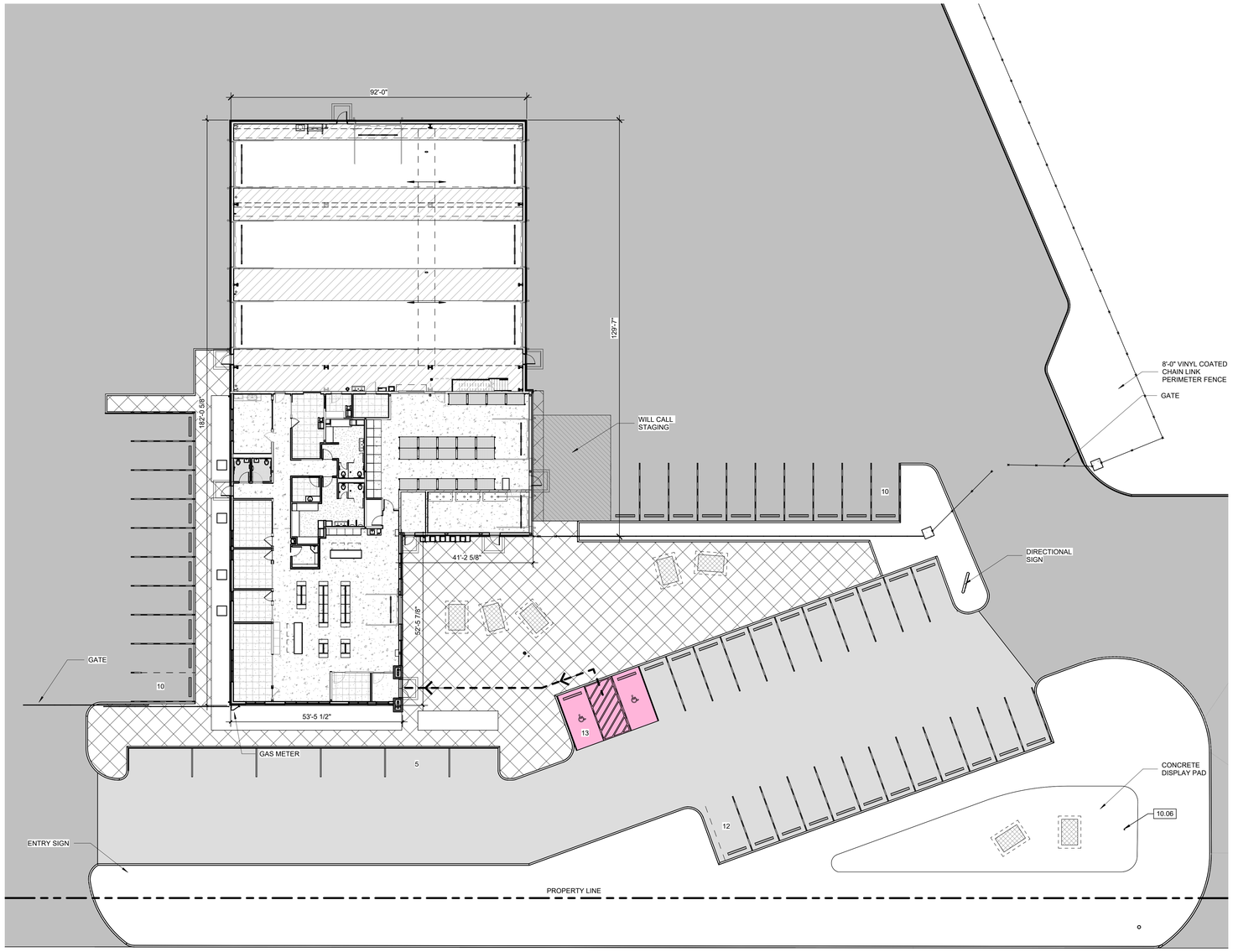
490 BYERS ROAD, MIAMISBURG, OHIO 45342

LDA Project No.2026.11

ARCHITECTURAL SITE PLAN

AS.01



1 AS.02 ENLARGED SITE PLAN
SCALE: 1/16" = 1'-0"

N

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NEW CONCRETE DRIVE. REFER TO CIVIL DRAWINGS

NEW ASPHALT DRIVE. REFER TO CIVIL DRAWING

LOCATION OF ACCESSIBLE PARKING SPACES. SPACES TO BE POURED CONCRETE AND MEET MAX. 1.5% SLOPE IN ALL DIRECTIONS

ACCESSIBLE ROUTE. SLOPE NOT TO EXCEED 5%. CROSS SLOPE NOT TO EXCEED 2%

KEYED NOTES SPECIFIC TO THIS SHEET

REFERENCED BY THE SYMBOL

TYPICAL UNLESS NOTED OTHERWISE

10.06 30' ALUMINUM FLAG POLE. BASIS OF DESIGN CONCORD AMERICAN FLAGPOLE - ESTATE SERIES ESS, CONE TAPERED SHAPE.

STATE OF OHIO DOMINICK DURANTE, JR. 7286 REGISTERED ARCHITECT

DOMINICK DURANTE, JR.
LICENSE 07286
EXPIRATION 12/31/2027

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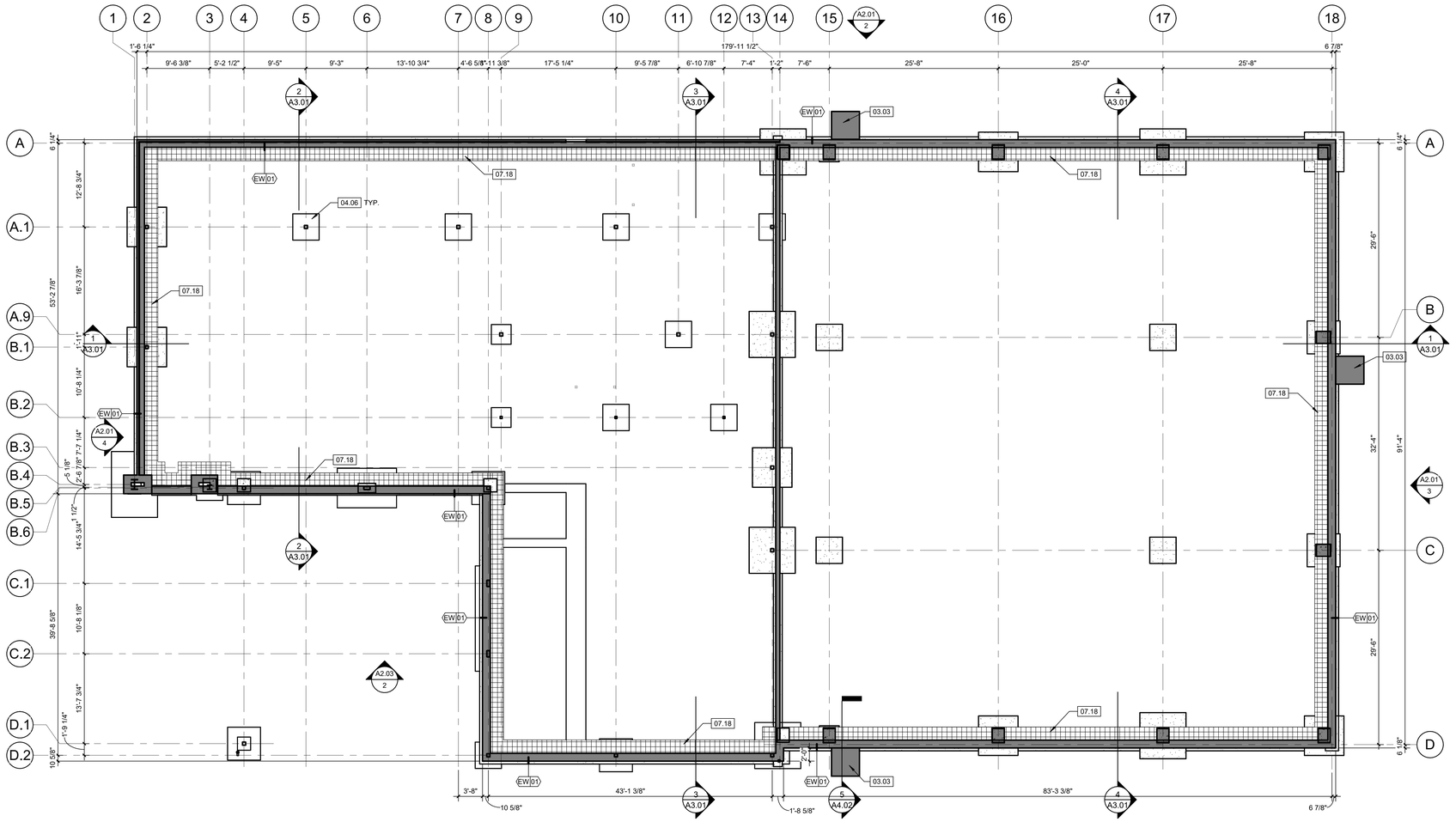
490 BYERS ROAD, MIAMISBURG, OHIO 45342

LDA Project No.2026.11

ENLARGED SITE PLAN

AS.02



1 / A1.00 OVERALL FOUNDATION PLAN

SCALE: 1/8" = 1'-0"

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GENERAL NOTES - FOUNDATION PLAN

1. MASONRY DIMENSIONS ARE TO FACE OF WALL AND EDGES OF OPENINGS UNLESS OTHERWISE NOTED.

2. PROVIDE CONCRETE JOINTS AT NO GREATER MAXIMUM SLAB AREA OF 400 SF.

3. WHERE FLOOR DRAINS OCCUR, SLOPE CONCRETE SLAB TO DRAINS AT 1%.

KEYED NOTES SPECIFIC TO THIS SHEET

REFERENCED BY THE SYMBOL

TYPICAL UNLESS NOTED OTHERWISE

03.03 REINFORCED CONCRETE SLAB ON GRADE. REFER TO STRUCTURAL DRAWINGS.

04.06 CONCRETE COLUMN SPREAD FOOTING WITH PIER. REFER TO STRUCTURAL DRAWINGS FOR DETAILS AND SIZES.

07.18 PROVIDE R7.5 VERTICAL INSULATION FROM TOP OF FOOTER TO UNDER SLAB. PROVIDE 24" OF R-15 HORIZONTAL.

STATE OF OHIO
DOMINICK DURANTE, JR.
LICENSE 07286
REGISTERED ARCHITECT

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EXPIRATION 12/31/2027

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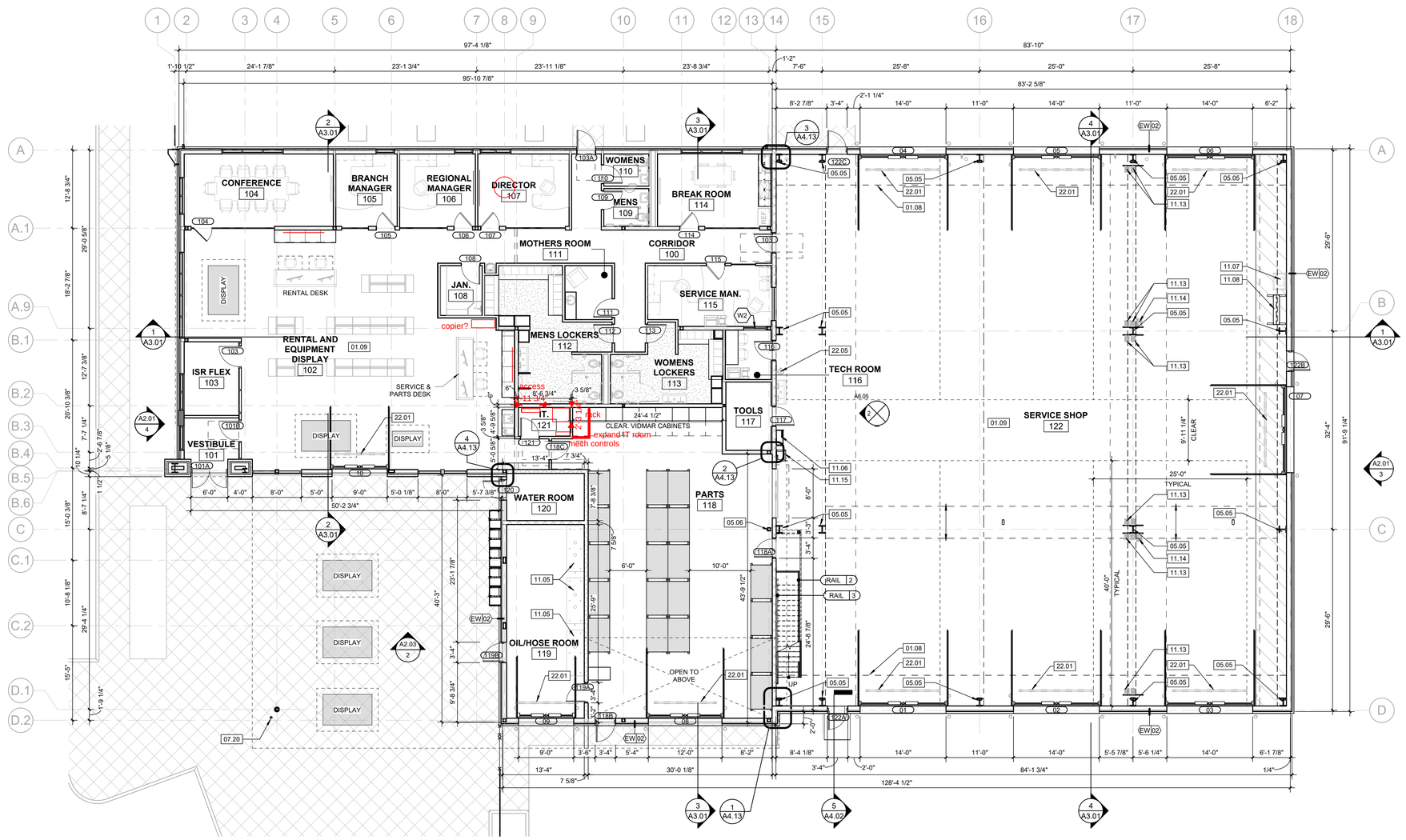
MIAMISBURG - CAT
RENTAL FACILITY
490 BYERS ROAD, MIAMISBURG, OHIO 45342

LDA Project No.2026.11

OVERALL FOUNDATION PLAN

A1.00



1 A1.01 OVERALL FIRST FLOOR PLAN

SCALE: 1/8" = 1'-0"

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Cleveland, OH 44103
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216.932.1890

REV	DATE	DESCRIPTION
	09.23.2026	Issued for Permit

GENERAL NOTES - FLOOR PLANS

1. ARCHITECTURAL FINISH FLOOR ELEVATION 0'-0" COORDINATE WITH CIVIL DRAWINGS

2. MASONRY DIMENSIONS ARE TO FACE OF WALL AND EDGES OF OPENINGS UNLESS OTHERWISE NOTED.

3. EXTERIOR WALL DIMENSIONS ARE FROM FACE INSULATED METAL PANEL OR CMU VENEER UNLESS OTHERWISE NOTED.

4. COORDINATE WITH CODE DATA & LIFE SAFETY SHEET G0.02-03, CONSTRUCTION TYPES AND ASSEMBLIES SHEET G1.01.

5. REFER TO STRUCTURAL DRAWINGS FOR ALL BEARING WALL LOCATIONS, DETAILS, FOUNDATION INFORMATION AND REQUIREMENTS. ARCHITECTURAL SHOWS GENERAL SIZES OF ALL STRUCTURAL ELEMENTS.

6. ALL CONTRACTORS TO ENSURE FIRE SEPARATION RATINGS AND FIRE STOPPING AS SPECIFIED BY CODE. WHERE EACH TRADE PENETRATES A SEPARATION WALL, THAT TRADE WILL BE RESPONSIBLE TO SEAL TIGHT OPENINGS WITH MATERIAL TO MATCH THE FIRE RESISTANCE RATING OF THE IN-PLACE CONSTRUCTION.

7. NOTES ON **ARCHITECTURAL DIMENSIONING**:
   A) ALL INTERIOR WALL DIMENSIONS ARE TO FACE OF STUDS, U.O.N. INSIDE FACE OF EXTERIOR METAL PANELS, OR FACE OF MASONRY.
   -IN STUD WALLS DIMENSIONS ARE TO CENTERLINE OF OPENING. IN MASONRY WALLS DIMENSION IS TO ROUGH OPENING. U.N.O.

   B) VERIFY ANY DIMENSIONAL DISCREPANCIES WITH ARCHITECT.

8. SEE SHEET G2.01 FOR ACCESSIBLE REQUIREMENTS.

9. ALL ROOFS TO SLOPE A MINIMUM 1/4" PER 1'-0".

10. ALL ROOFTOP EQUIPMENT TO BE LOCATED A MINIMUM OF 10'- 0" FROM THE ROOFS EDGE.

11. SHELVING IN PARTS ROOM, IS AT 8'-0" HIGH. INTERMEDIATE SPRINKLER HEADS MAY BE REQUIRED BETWEEN SHELVING ISLES. COORDINATE WITH FIRE SUPPRESSION SYSTEM DESIGN.

12. ALL EXPOSED CMU WALLS ARE TO BE PAINTED, REFER TO FINISH SCHEDULE.

KEYED NOTES SPECIFIC TO THIS SHEET

REFERENCED BY THE SYMBOL

TYPICAL UNLESS NOTED OTHERWISE

01.08 DASHED LINE INDICATES SLIGHT SLOPE TOWARD DRAIN.
01.09 OPEN VOLUME TO STRUCTURE ABOVE.
05.05 PRE-ENGINEERED METAL BUILDING STRUCTURE. REFER TO SHOP DRAWINGS.
05.06 PRE-MANUFACTURED STEEL STRUCTURE. REFER TO STRUCTURAL DRAWINGS.
07.20 PROVIDE 3" PREFINISHED ALUMINUM DOWNSPOUT.
11.05 FLAME SHIELD 500 GALLON, DOUBLE WALL, OIL STORAGE TANK. OIL VENDOR TO PROVIDE.
11.06 FILTER CRUSHER, OBERG P-100WM.
11.07 PARTS HAND WASHER, TO BE FURNISHED BY OWNER, INSTALLED BY CONTRACTOR.
11.08 PARTS CRUSHER, TO BE FURNISHED BY OWNER, INSTALLED BY CONTRACTOR.
11.13 PROVIDE OIL HOSE REEL. COORDINATE HEIGHT, POSITION, AND OIL TYPE WITH OWNER. PROVIDE UNI-STRUT FOR CONNECTION AS NEEDED.
11.14 PROVIDE AIR HOSE REEL. COORDINATE HEIGHT AND POSITION WITH OWNER. PROVIDE UNI-STRUT FOR CONNECTION AS NEEDED.
11.15 MYERS WASTE OIL FUNNEL SINK. OIL LINE VENDOR TO PROVIDE.
22.01 FLOOR TRENCH DRAIN. REFER TO PLUMBING DRAWINGS.
22.05 WALL MOUNTED, EMERGENCY EYE WASH STATION.

STATE OF OHIO REGISTERED ARCHITECT
DOMINICK DURANTE, JR. 7280

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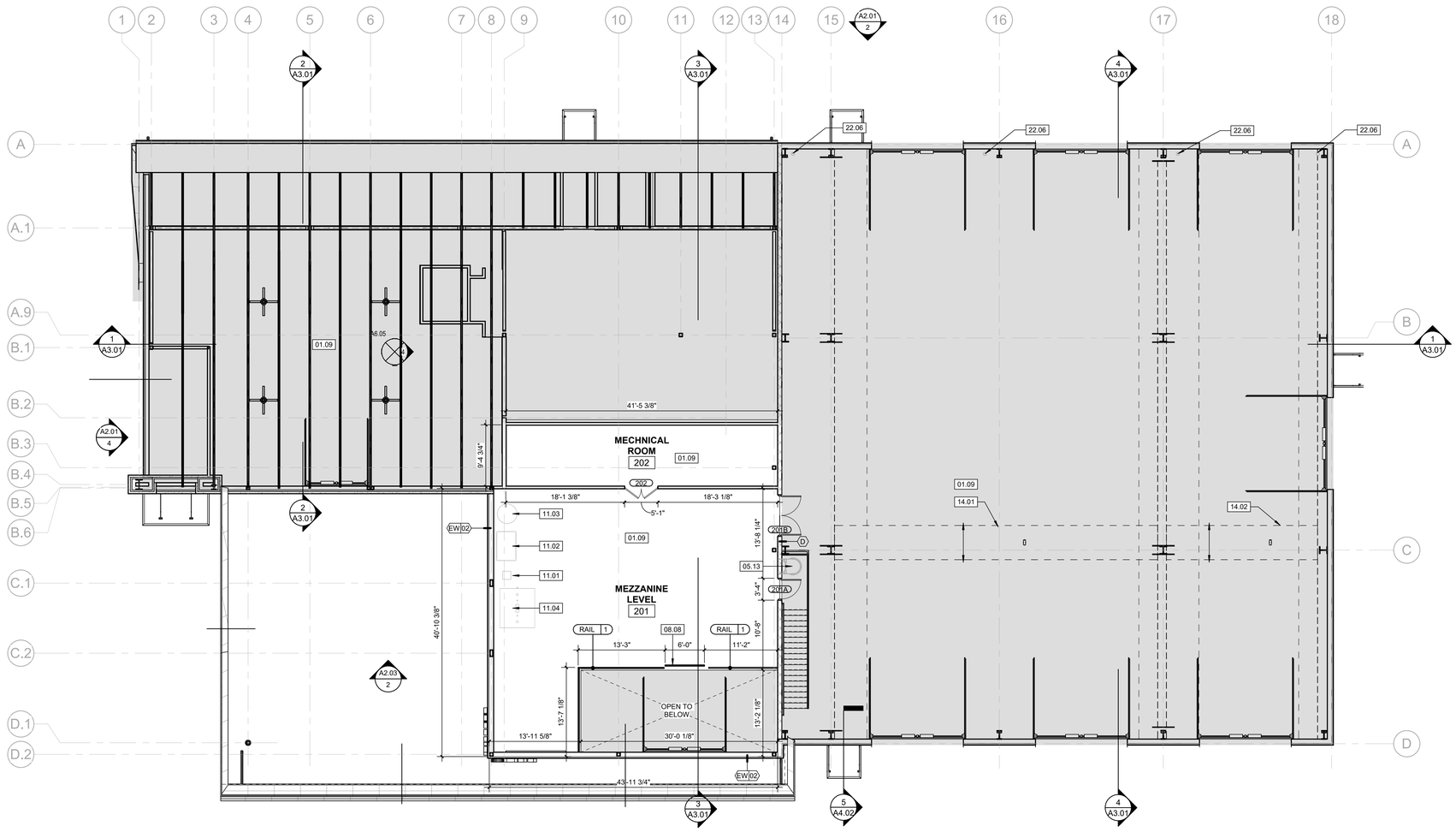
LDA Project No.2026.11

OVERALL FLOOR PLANS

A1.01



1 A1.02 OVERALL MEZZANINE PLAN

SCALE: 1/8" = 1'-0"

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GENERAL NOTES - FLOOR PLANS

1. ARCHITECTURAL FINISH FLOOR ELEVATION 0'-0" COORDINATE WITH CIVIL DRAWINGS

2. MASONRY DIMENSIONS ARE TO FACE OF WALL AND EDGES OF OPENINGS UNLESS OTHERWISE NOTED.

3. EXTERIOR WALL DIMENSIONS ARE FROM FACE INSULATED METAL PANEL OR CMU VENEER UNLESS OTHERWISE NOTED.

4. COORDINATE WITH CODE DATA & LIFE SAFETY SHEET G0.02-03, CONSTRUCTION TYPES AND ASSEMBLIES SHEET G1.01.

5. REFER TO STRUCTURAL DRAWINGS FOR ALL BEARING WALL LOCATIONS, DETAILS, FOUNDATION INFORMATION AND REQUIREMENTS. ARCHITECTURAL SHOWS GENERAL SIZES OF ALL STRUCTURAL ELEMENTS.

6. ALL CONTRACTORS TO ENSURE FIRE SEPARATION RATINGS AND FIRE STOPPING AS SPECIFIED BY CODE. WHERE EACH TRADE PENETRATES A SEPARATION WALL, THAT TRADE WILL BE RESPONSIBLE TO SEAL TIGHT OPENINGS WITH MATERIAL TO MATCH THE FIRE RESISTANCE RATING OF THE IN-PLACE CONSTRUCTION.

7. NOTES ON **ARCHITECTURAL DIMENSIONING**:
   A) ALL INTERIOR WALL DIMENSIONS ARE TO FACE OF STUDS, U.O.N. INSIDE FACE OF EXTERIOR METAL PANELS, OR FACE OF MASONRY.
   -IN STUD WALLS DIMENSIONS ARE TO CENTERLINE OF OPENING. IN MASONRY WALLS DIMENSION IS TO ROUGH OPENING. U.N.O.

   B) VERIFY ANY DIMENSIONAL DISCREPANCIES WITH ARCHITECT.

8. SEE SHEET G2.01 FOR ACCESSIBLE REQUIREMENTS.

9. ALL ROOFS TO SLOPE A MINIMUM 1/4" PER 1'-0".

10. ALL ROOFTOP EQUIPMENT TO BE LOCATED A MINIMUM OF 10'- 0" FROM THE ROOFS EDGE.

11. SHELVING IN PARTS ROOM, IS AT 8'-0" HIGH. INTERMEDIATE SPRINKLER HEADS MAY BE REQUIRED BETWEEN SHELVING ISLES. COORDINATE WITH FIRE SUPPRESSION SYSTEM DESIGN.

12. ALL EXPOSED CMU WALLS ARE TO BE PAINTED, REFER TO FINISH SCHEDULE.

KEYED NOTES SPECIFIC TO THIS SHEET

REFERENCED BY THE SYMBOL

TYPICAL UNLESS NOTED OTHERWISE

01.09	OPEN VOLUME TO STRUCTURE ABOVE.
05.13	NOT USED.
08.08	6' METAL HANDRAIL GATE.
11.01	OIL SEPARATOR FOR AIR COMPRESSOR SYSTEM.
11.02	ROTARY SCREW AIR COMPRESSOR, BASIS OF DESIGN, GARDNER DENVER L26 MODEL.
11.03	AIR RECEIVER FOR AIR COMPRESSOR SYSTEM. BASIS OF DESIGN DEARING 400 GALLON A10156X
11.04	FLAME SHIELD 500 GALLON WASTE OIL TANK. OIL VENDOR TO PROVIDE.
14.01	5 TON OVERHEAD CRANE. REFER TO STRUCTURAL DRAWINGS.
14.02	10 TON OVERHEAD CRANE. REFER TO STRUCTURAL DRAWINGS.
22.06	ROOF DRAIN LEADER LINES. KEEP TIGHT TO NEAREST WALL.

STATE OF OHIO
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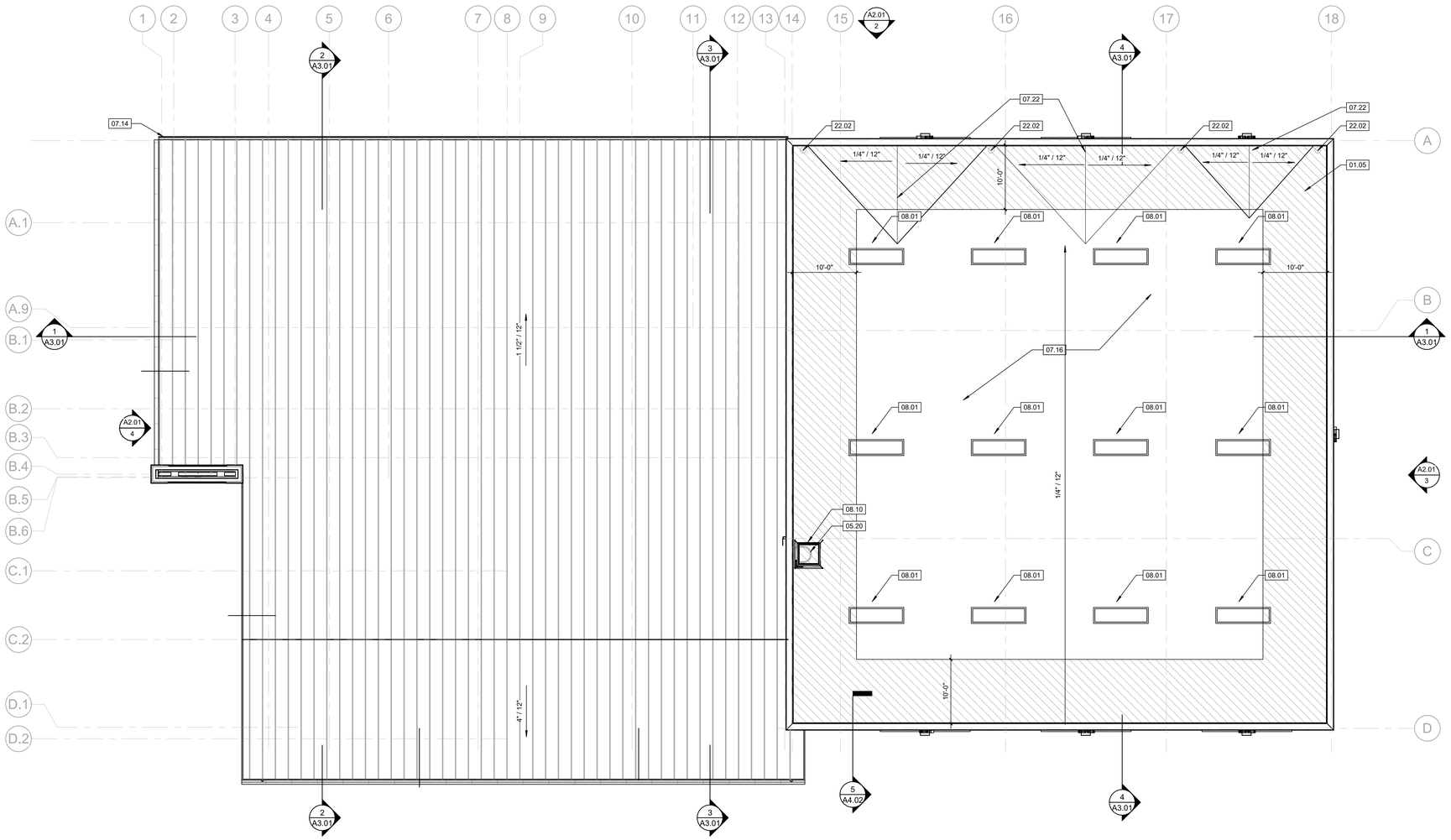
LDA Project No.2026.11

OVERALL FLOOR PLANS

A1.02



1 A1.03 OVERALL ROOF PLANS
SCALE: 1/8" = 1'-0"

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KEYED NOTES SPECIFIC TO THIS SHEET

REFERENCED BY THE SYMBOL

TYPICAL UNLESS NOTED OTHERWISE

01.05 DIAGONAL HATCH INDICATED 10'-0" PARAPET OFFSET IN WHICH NO ROOFTOP EQUIPMENT IS TO BE INSTALLED.
05.20 GALVANIZED STEEL WALL MOUNTED LADDER WITH SAFETY CAGE ENCLOSURE.
07.14 PROVIDE BEVELED 6" X 6" PREFINISHED ALUMINUM GUTTER.
07.16 CARLISLE TOP ROOFING MEMBRANE WITH 20 YEAR MINIMUM WARRANTY.
07.22 TAPERED ROOF CRICKET. SLOPE TOWARDS DRAIN.
08.01 UNITIZED SKYLIGHT ON RAISED CURB.
08.10 NYSTROM 36"X36" INSULATED ROOF HATCH. WITH INTEGRAL SAFETY RAILING.
22.02 ROOF DRAIN WITH BIRD CASE. TO CORDINATE WITH PLUMBING DRAWINGS.

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DOMINICK DURANTE, JR.
7289
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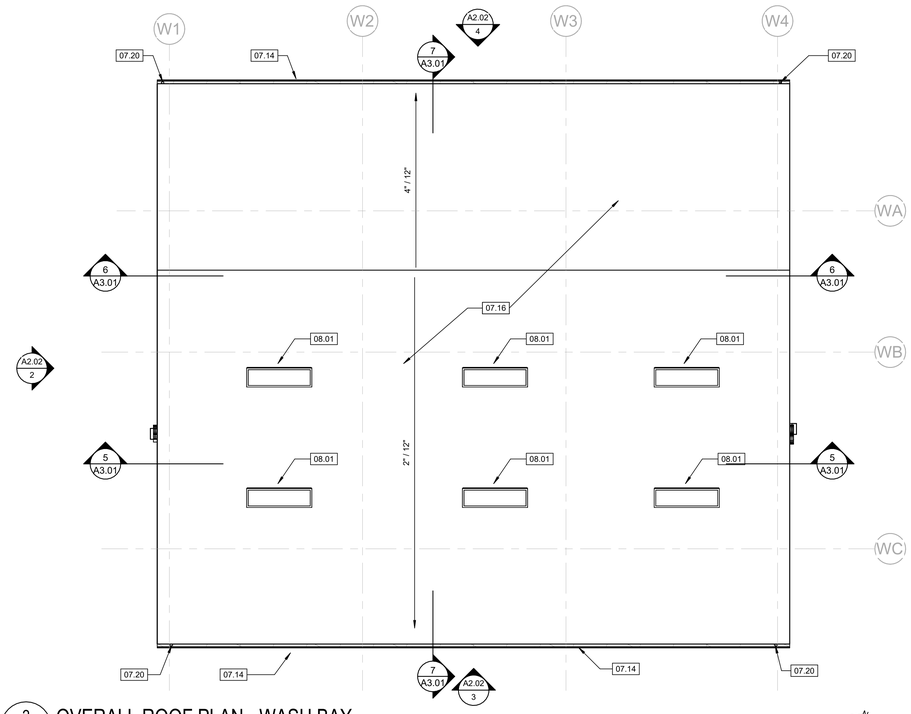
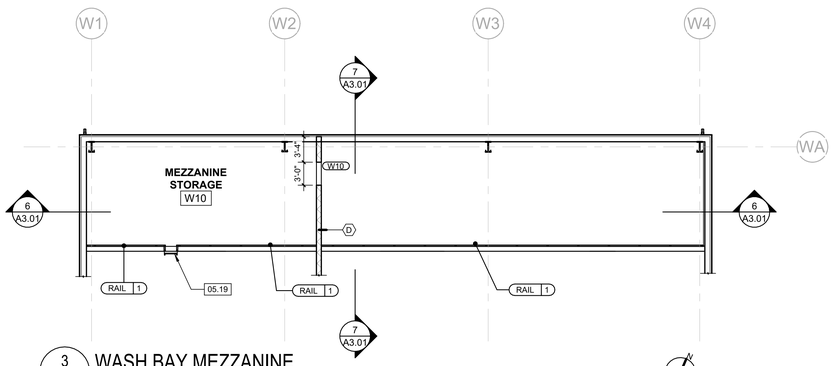
LDA Project No.2026.11

OVERALL ROOF PLAN

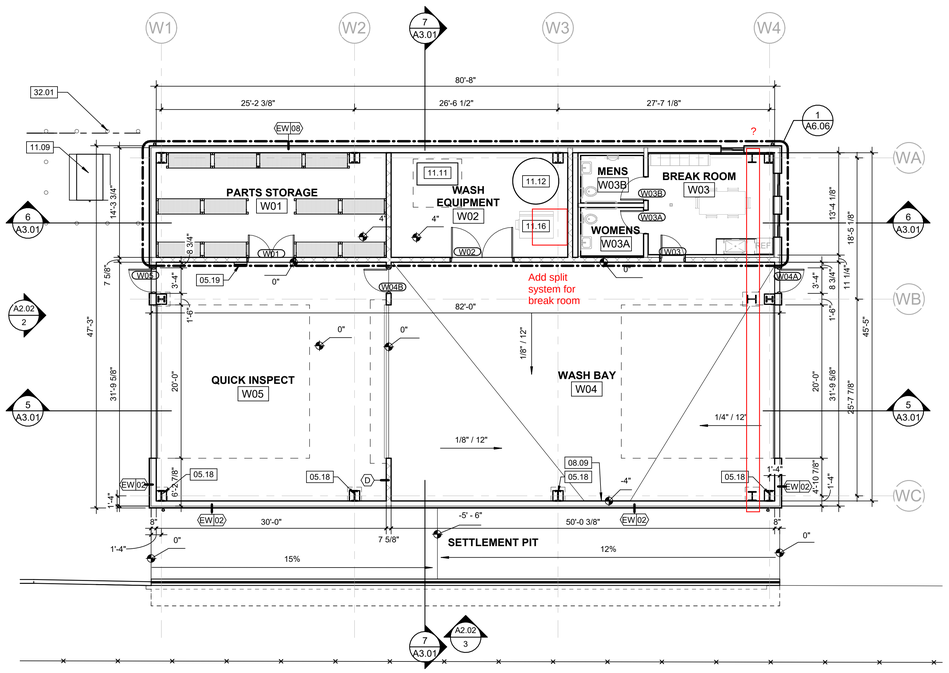
A1.03



2 A1.04 OVERALL ROOF PLAN - WASH BAY
SCALE: 1/8" = 1'-0"



3 A1.04 WASH BAY MEZZANINE
SCALE: 1/8" = 1'-0"



1 A1.04 OVERALL FIRST FLOOR PLAN - WASH BAY
SCALE: 1/8" = 1'-0"

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GENERAL NOTES - FLOOR PLANS

1. ARCHITECTURAL FINISH FLOOR ELEVATION 0'-0" COORDINATE WITH CIVIL DRAWINGS

2. MASONRY DIMENSIONS ARE TO FACE OF WALL AND EDGES OF OPENINGS UNLESS OTHERWISE NOTED.

3. EXTERIOR WALL DIMENSIONS ARE FROM FACE INSULATED METAL PANEL OR CMU VENEER UNLESS OTHERWISE NOTED.

4. COORDINATE WITH CODE DATA & LIFE SAFETY SHEET G0.02-03, CONSTRUCTION TYPES AND ASSEMBLIES SHEET G1.01.

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   B) VERIFY ANY DIMENSIONAL DISCREPANCIES WITH ARCHITECT.

8. SEE SHEET G2.01 FOR ACCESSIBLE REQUIREMENTS.

9. ALL ROOFS TO SLOPE A MINIMUM 1/4" PER 1'-0".

10. ALL ROOFTOP EQUIPMENT TO BE LOCATED A MINIMUM OF 10'- 0" FROM THE ROOFS EDGE.

11. SHELVING IN PARTS ROOM, IS AT 8'-0" HIGH. INTERMEDIATE SPRINKLER HEADS MAY BE REQUIRED BETWEEN SHELVING ISLES. COORDINATE WITH FIRE SUPPRESSION SYSTEM DESIGN.

12. ALL EXPOSED CMU WALLS ARE TO BE PAINTED, REFER TO FINISH SCHEDULE.

KEYED NOTES SPECIFIC TO THIS SHEET

REFERENCED BY THE SYMBOL

TYPICAL UNLESS NOTED OTHERWISE

05.18	PRE-MANUFACTURED STEEL STRUCTURE TO HAVE PROTECTIVE WRAPPING.
05.19	GALVANIZED STEEL WALL MOUNTED LADDER WITH SAFETY EXTENSIONS AT TOP.
07.14	PROVIDE BEVELED 6" X 6" PREFINISHED ALUMINUM GUTTER.
07.16	CARLISLE TOP ROOFING MEMBRANE WITH 20 YEAR MINIMUM WARRANTY.
07.20	PROVIDE 3" PREFINISHED ALUMINUM DOWNSPOUT.
08.01	UNITIZED SKYLIGHT ON RAISED CURB.
08.09	REMOVABLE COMPOSITE 1/2" PLASTIC PANEL. PROVIDE ALUMINUM J-CHANNEL TRACK ON BOTH SIDES. PROVIDE 2 STAINLESS STEEL HANDLES. R.O. OF 1'-0" X 6'-0"
11.09	FLAME SHIELD 500 GALLON DIESEL STORAGE TANK. WITH 5 GALLON TANK TOP SPILL CONTAINER, AND MUSHROOM VENT. OIL VENDOR TO PROVIDE.
11.11	WASH BAY EQUIPMENT. BASIS OF DESIGN LANDA ENG HOT WATER PRESSURE WASHER. OWNER TO FURNISH, CONTRACTOR TO INSTALL.
11.12	1050 GALLON WATER STORAGE TANK WITH STAND.
11.16	WATERMAZE DEMUCKING CANNON SERIES WATER BLASTER.
32.01	36" HIGH CONCRETE FILLED 9" DIAMETER BOLLARD. 40 STEEL PIPE WITH COVER TO MATCH OTHER EXTERIOR BOLLARDS.

STATE OF OHIO REGISTERED ARCHITECT DOMINICK DURANTE, JR. 7286

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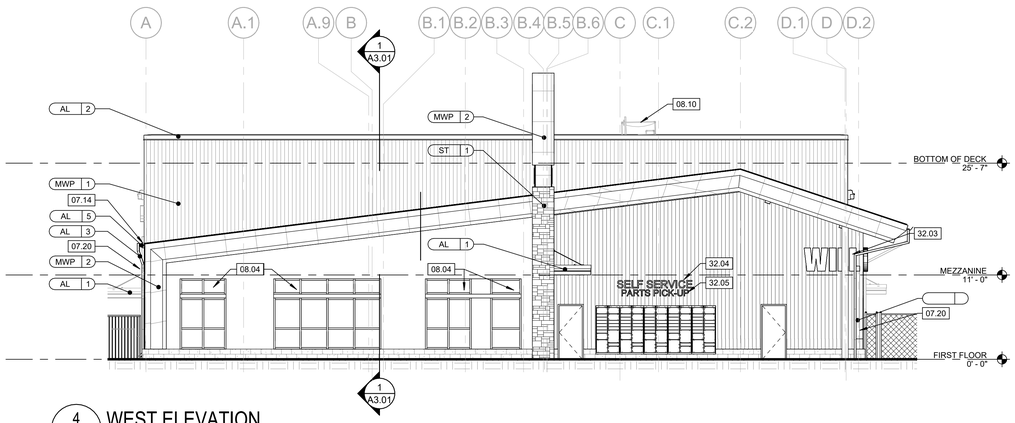
LDA Project No.2026.11

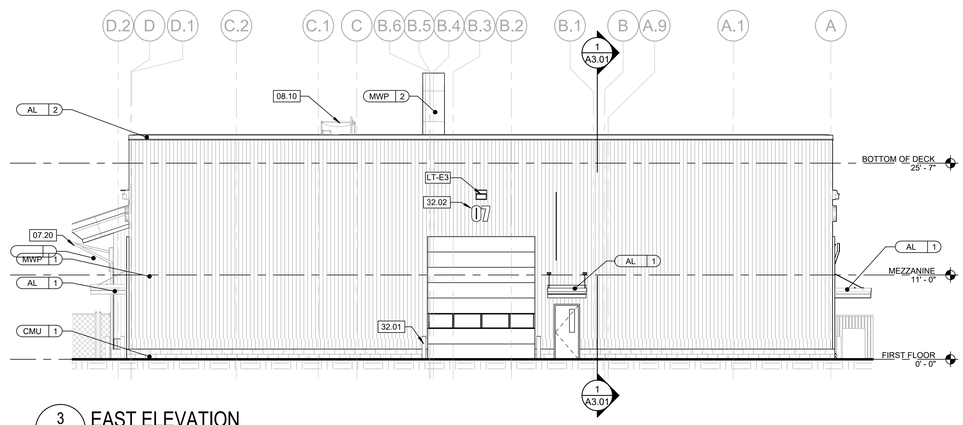
OVERALL FLOOR & ROOF PLANS - WASH BAY

A1.04

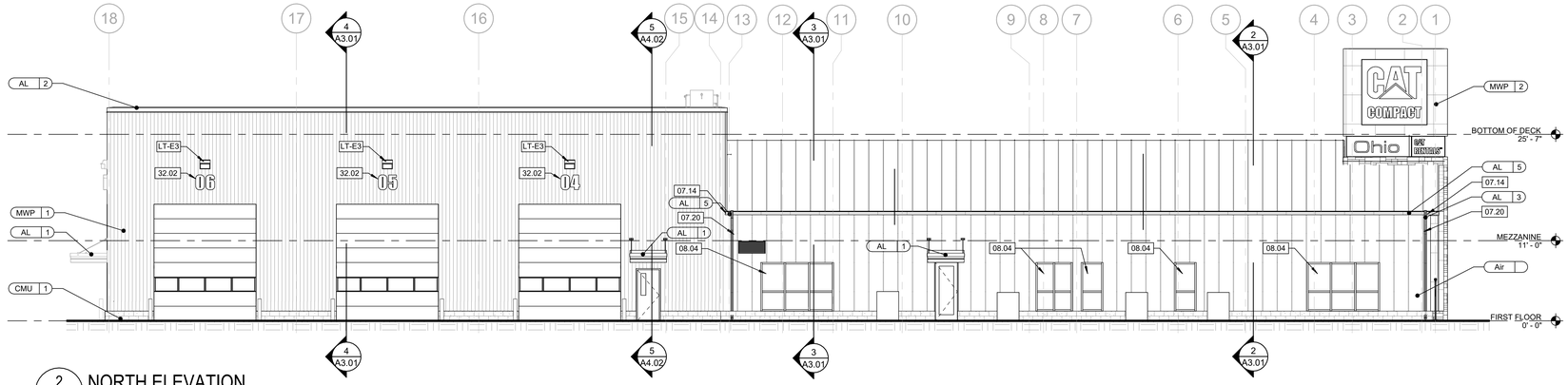
EXTERIOR FINISH SCHEDULE						
SYMBOL KEY	#	MATERIAL	MANUFACTURER	STYLE	COLOR	NOTES
AL	1	ALUMINUM	MAPES ARCHITECTURAL CANOPIES	PREFINISHED	RED	SUPER-LUMIDECK FLAT SOFFIT
AL	2	PREFINISHED ALUMINUM COPING	DMI	PREFINISHED	MATCH MWP 1	
AL	3	ALUMINUM GUTTERS AND DOWNSPOUTS	-	PREFINISHED	MATCH MWP 2	
AL	4	ALUMINUM GUTTERS AND DOWNSPOUTS	-	PREFINISHED	MATCH MWP 1	
AL	5	ALUMINUM GUTTERS AND DOWNSPOUTS	-	PREFINISHED	MATCH MWP 4	
CMU	1	CONCRETE MASONRY UNIT		GROUND FACE CMU		
CON	1	VARIES	VARIES	VARIES	VARIES	
MWP	1	VERTICAL PREFINISHED INSULATED PANEL	FALK	3" HFW-40 BOX RIB	WHITE	MAXIMUM U VAULE OF 0.05
MWP	2	VERTICAL PREFINISHED INSULATED PANEL	FALK	3" HFW-40 BOX RIB	GREY	MAXIMUM U VAULE OF 0.05
MWP	3	VERTICAL PREFINISHED INSULATED PANEL	FALK	3" HFW-40 BOX RIB	GREY	MAXIMUM U VAULE OF 0.05
ST	1	CULTURED STONE VENEER	ARRISCRAFT			



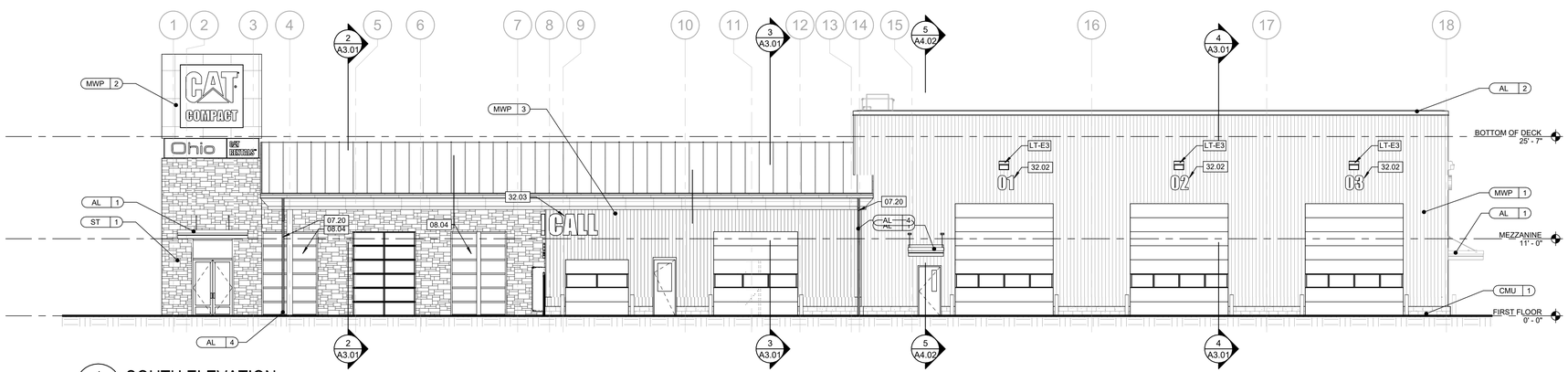
4 A2.01 WEST ELEVATION
SCALE: 1/8" = 1'-0"



3 A2.01 EAST ELEVATION
SCALE: 1/8" = 1'-0"



2 A2.01 NORTH ELEVATION
SCALE: 1/8" = 1'-0"



1 A2.01 SOUTH ELEVATION
SCALE: 1/8" = 1'-0"

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GENERAL NOTES - EXTERIOR ELEVATIONS

1. REFER TO SHEETS A2.01 THROUGH A2.03 FOR ELEVATIONS AND EXTERIOR MATERIAL FINISHES.

2. REFER TO FLOOR PLANS FOR DOOR SWING DIRECTION.

3. REFER TO SYMBOL LEGEND, SHEET G0.02.

4. CONTRACTOR TO PROVIDE PHYSICAL SAMPLES OF ALL INDICATED MATERIAL FOR APPROVAL BEFORE ORDERING.

5. PATTERNS INDICATED ON DRAWINGS ARE REPRESENATIONAL ONLY AND ARE NOT INTENDED TO REFLECT ACTURAL JOINTS AND PATTERNS IN THE VENEER.

6. CONTRACTOR TO PROVIDE CONTROL JOINTS IN THE CMU WALL. TO BE A MAXIMUM OF 25'-0" APART.
-ADJACENT TO CORNERS OF WALLS
-CONTROL JOINTS TO BE ABOVE GRADE ONLY

KEYED NOTES SPECIFIC TO THIS SHEET

REFERENCED BY THE SYMBOL

TYPICAL UNLESS NOTED OTHERWISE

07.14 PROVIDE BEVELED 6" X 6" PREFINISHED ALUMINUM GUTTER.

07.20 PROVIDE 3" PREFINISHED ALUMINUM DOWNSPOUT.

08.04 BASIS OF DESIGN, KAWNEER TRIFAB 451UT STOREFRONT GLAZING SYSTEM.

08.10 NYSTROM 36"X36" INSULATED ROOF HATCH. WITH INTEGRAL SAFETY RAILING.

32.01 36" HIGH CONCRETE FILLED 9" DIAMETER BOLLARD. 40 STEEL PIPE WITH COVER TO MATCH OTHER EXTERIOR BOLLARDS.

32.02 ALUMINUM BAY LETTERS, 24" HIGH x 0.125" THICK, PROVIDED BY TOLEDO SIGN CO.

32.03 ALUMINUM LETTERS, 36" HIGH X 0.125" THICK, PROVIDED BY TOLEDO SIGN CO.

32.04 ALUMINUM LETTERS, 12" HIGH X 0.125" THICK, PROVIDED BY TOLEDO SIGN CO.

32.05 ALUMINUM LETTERS, 10" HIGH X 0.125" THICK, PROVIDED BY TOLEDO SIGN CO.

STATE OF OHIO
DOMINICK DURANTE, JR.
7280
REGISTERED ARCHITECT

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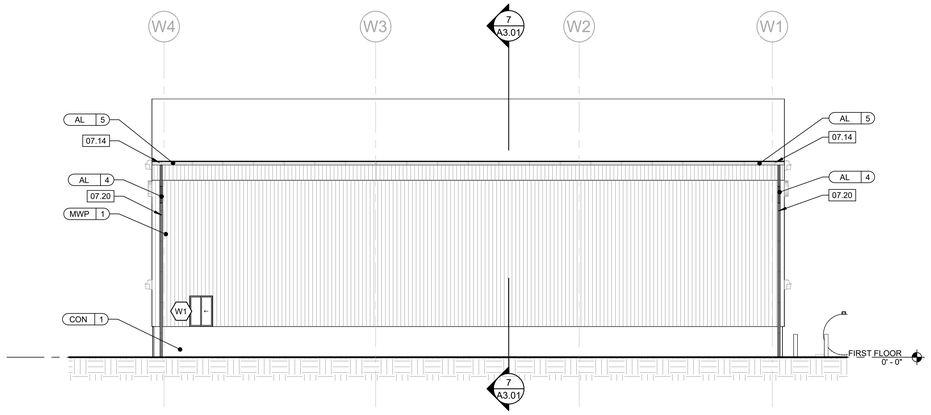
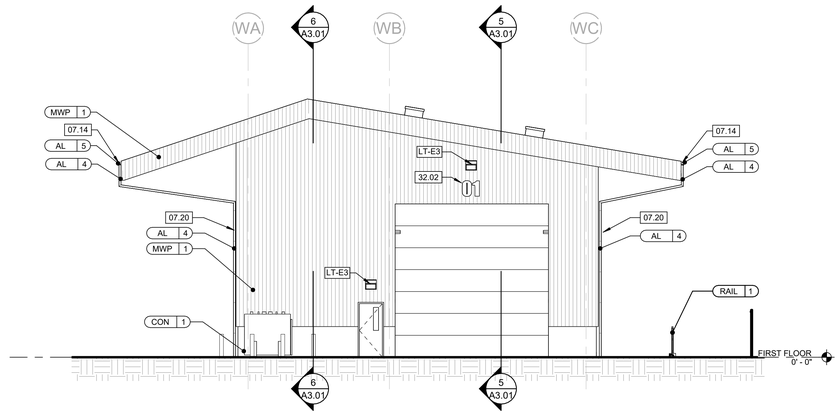
LDA Project No.2026.11

EXTERIOR ELEVATIONS

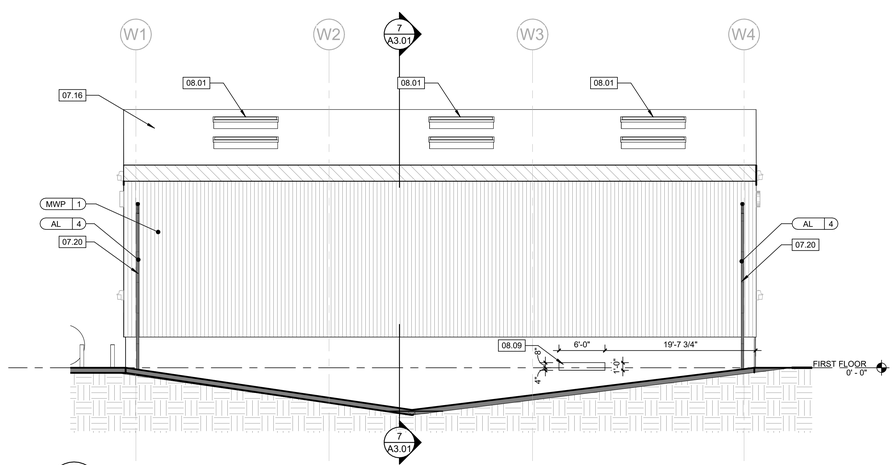
A2.01



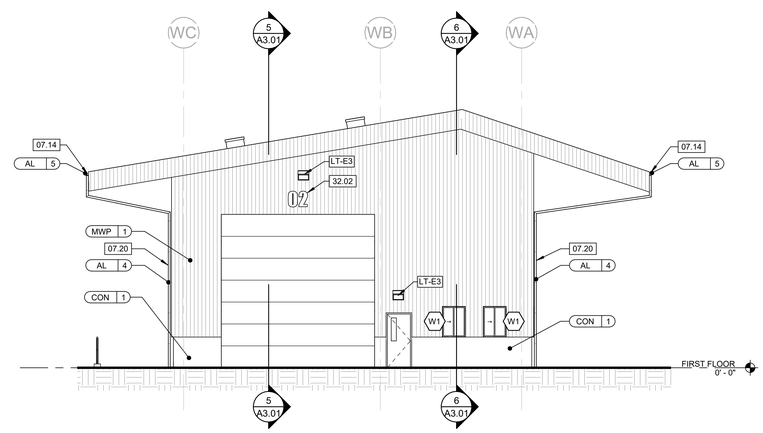
4 A2.02 NORTH ELEVATION - WASH BAY
SCALE: 1/8" = 1'-0"



2 A2.02 WEST ELEVATION - WASH BAY
SCALE: 1/8" = 1'-0"



3 A2.02 SOUTH ELEVATION - WASH BAY
SCALE: 1/8" = 1'-0"



1 A2.02 EAST ELEVATION - WASH BAY
SCALE: 1/8" = 1'-0"

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07.14 PROVIDE BEVELED 6" X 6" PREFINISHED ALUMINUM GUTTER.
07.16 CARLISLE TOP ROOFING MEMBRANE WITH 20 YEAR MINIMUM WARRANTY.
07.20 PROVIDE 3" PREFINISHED ALUMINUM DOWNSPOUT.
08.01 UNITIZED SKYLIGHT ON RAISED CURB.
08.09 REMOVABLE COMPOSITE 1/2" PLASTIC PANEL. PROVIDE ALUMINUM J-CHANNEL TRACK ON BOTH SIDES. PROVIDE 2 STAINLESS STEEL HANDLES. R.O. OF 1'-0" X 6'-0"
32.02 ALUMINUM BAY LETTERS, 24" HIGH x 0.125" THICK, PROVIDED BY TOLEDO SIGN CO.

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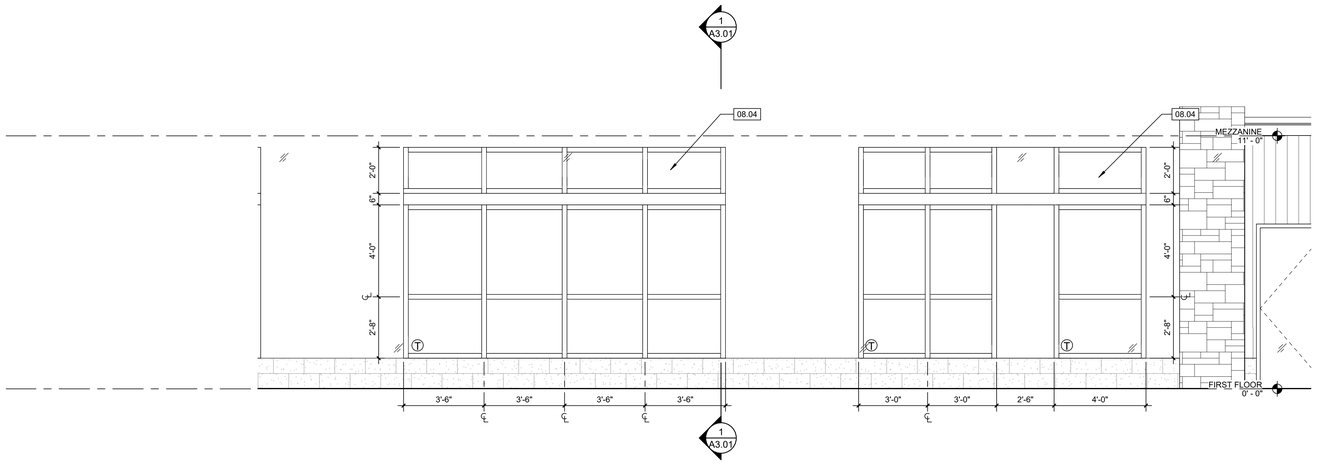
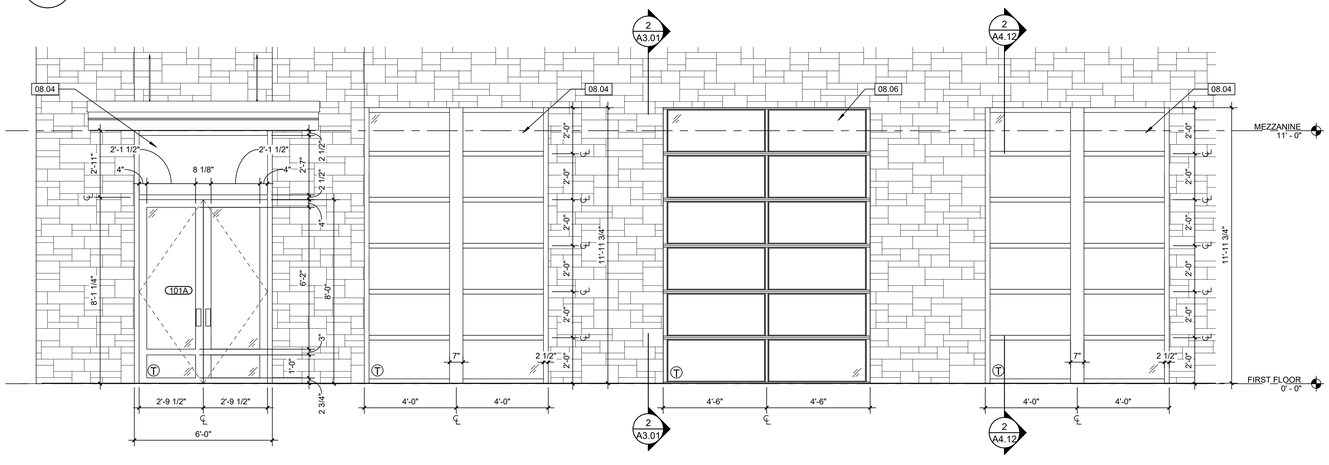
EXTERIOR ELEVATIONS - WASH BAY

A2.02

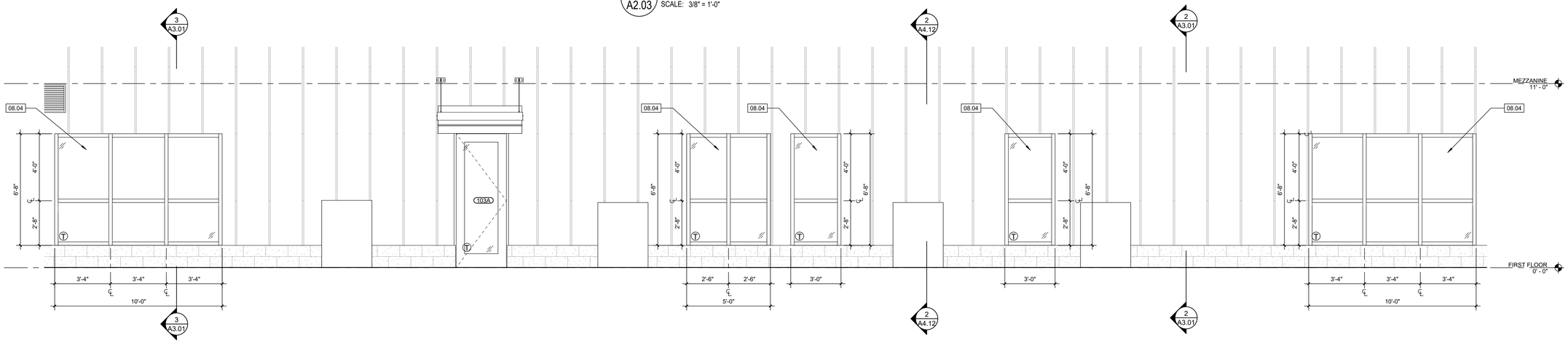
WINDOW SCHEDULE				
MARK	ROUGH WIDTH	ROUGH HEIGHT	FUNCTION	COMMENTS
W1	3' - 0"	4' - 0"	HORIZANTAL SLIDER	EXTERIOR
W1	3' - 0"	4' - 0"	HORIZANTAL SLIDER	EXTERIOR
W1	3' - 0"	4' - 0"	HORIZANTAL SLIDER	EXTERIOR
W2	3' - 8"	4' - 0"	HORIZANTAL SLIDER	INTERIOR



3 A2.03 WEST ELEVATION - ENLARGED STOREFRONT
SCALE: 3/8" = 1'-0"



2 A2.03 SOUTH ELEVATION - ENLARGED STOREFRONT
SCALE: 3/8" = 1'-0"



1 A2.03 NORTH ELEVATION - ENLARGED STOREFRONT
SCALE: 3/8" = 1'-0"

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08.04 BASIS OF DESIGN, KAWNEER TRIFAB 451UT STOREFRONT GLAZING SYSTEM.

08.06 FULL-VIEW GARAGE DOOR. REFER TO DOOR SCHEDULE.

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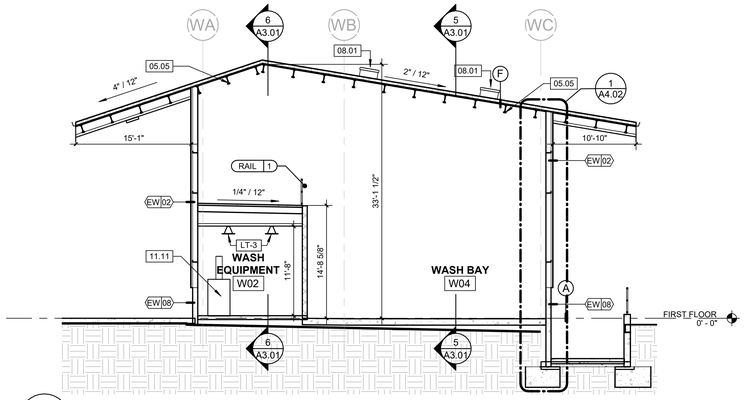
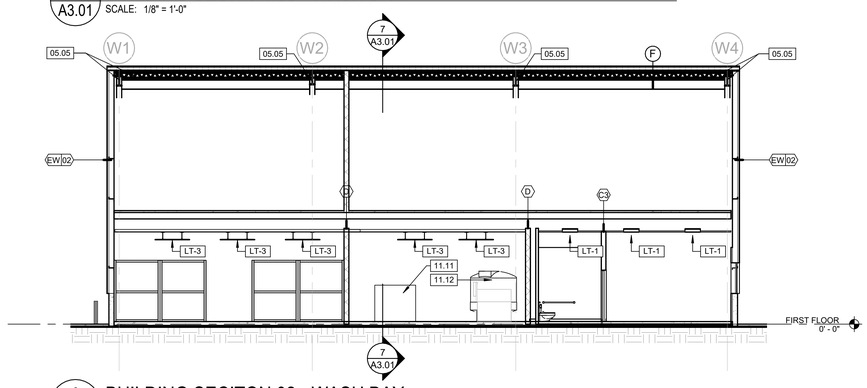
ENLARGED EXTERIOR ELEVATIONS

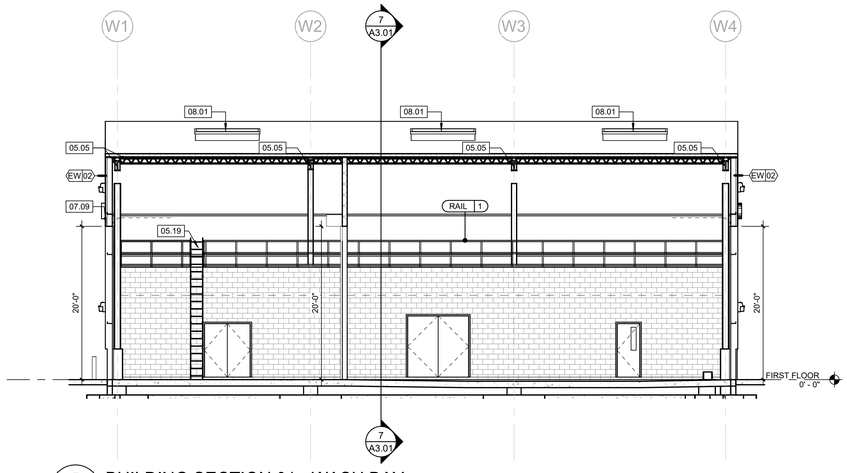
A2.03



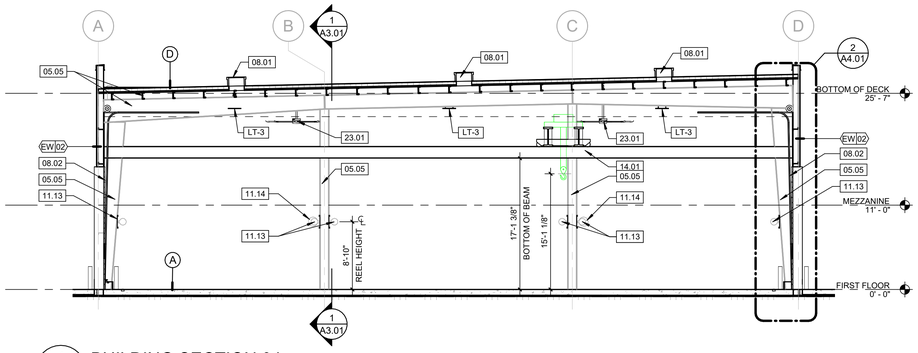
7 A3.01 BUILDING SECITON 03 - WASH BAY
SCALE: 1/8" = 1'-0"



6 A3.01 BUILDING SECITON 02 - WASH BAY
SCALE: 1/8" = 1'-0"



5 A3.01 BUILDING SECTION 01 - WASH BAY
SCALE: 1/8" = 1'-0"



4 A3.01 BUILDING SECTION 04
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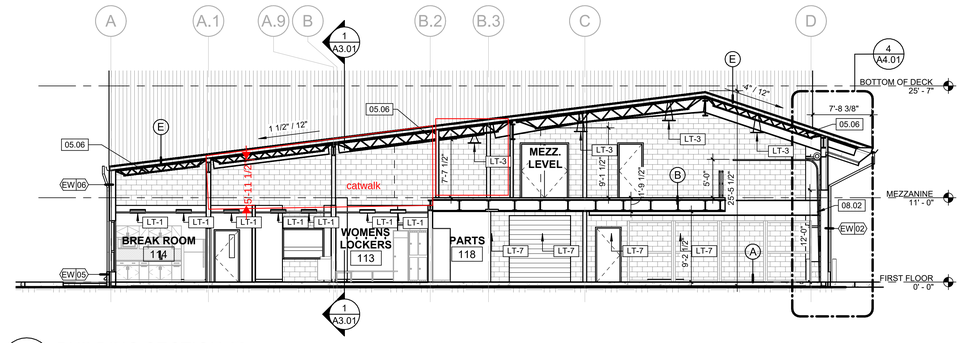

3 A3.01 BUILDING SECTION 03
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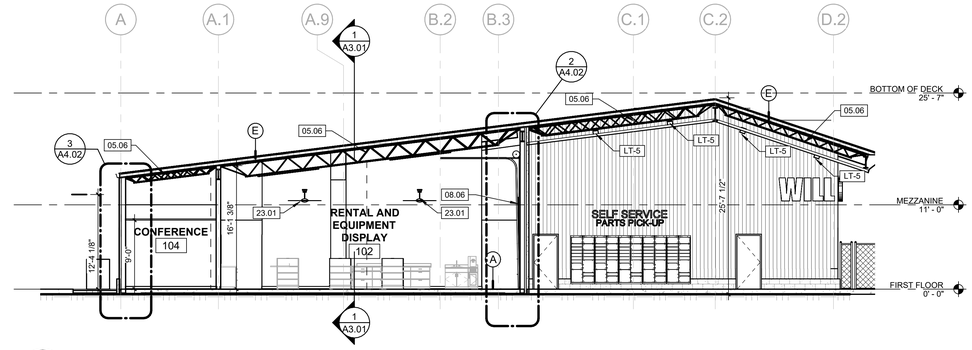

2 A3.01 BUILDING SECTION 02
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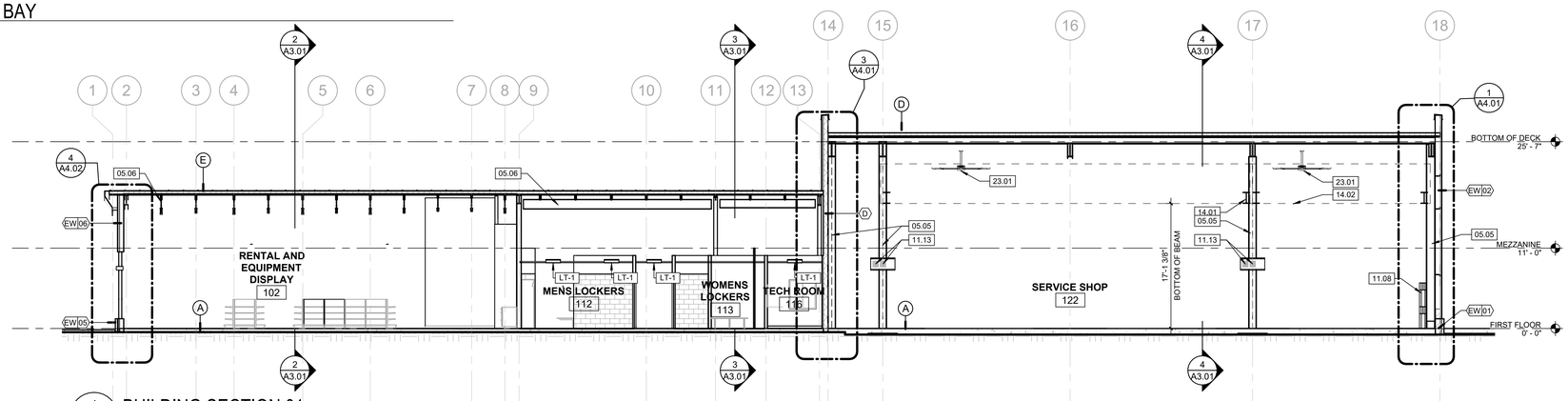

1 A3.01 BUILDING SECTION 01
SCALE: 1/8" = 1'-0"

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05.05 PRE-ENGINEERED METAL BUILDING STRUCTURE. REFER TO SHOP DRAWINGS.
05.06 PRE-MANUFACTURED STEEL STRUCTURE. REFER TO STRUCTURAL DRAWINGS.
05.19 GALVANIZED STEEL WALL MOUNTED LADDER WITH SAFETY EXTENSIONS AT TOP.
07.09 INSULATED ALUMINUM EXTERIOR PANEL. REFER TO EXTERIOR ELEVATIONS FOR STYLE AND COLOR.
08.01 UNITIZED SKYLIGHT ON RAISED CURB.
08.02 INSULATED SECTIONAL GARAGE DOOR WITH LITES. TO HAVE MECHANICAL OPENING. FLUSH PANELS. REFER TO DOOR SCHEDULE.
08.06 FULL-VIEW GARAGE DOOR. REFER TO DOOR SCHEDULE.
11.08 PARTS CRUSHER, TO BE FURNISHED BY OWNER, INSTALLED BY CONTRACTOR.
11.11 WASH BAY EQUIPMENT. BASIS OF DESIGN LANDA ENG HOT WATER PRESSURE WASHER. OWNER TO FURNISH, CONTRACTOR TO INSTALL.
11.12 1050 GALLON WATER STORAGE TANK WITH STAND.
11.13 PROVIDE OIL HOSE REEL. COORDINATE HEIGHT, POSITION, AND OIL TYPE WITH OWNER. PROVIDE UNI-STRUT FOR CONNECTION AS NEEDED.
11.14 PROVIDE AIR HOSE REEL. COORDINATE HEIGHT AND POSITION WITH OWNER. PROVIDE UNI-STRUT FOR CONNECTION AS NEEDED.
14.01 5 TON OVERHEAD CRANE. REFER TO STRUCTURAL DRAWINGS.
14.02 10 TON OVERHEAD CRANE. REFER TO STRUCTURAL DRAWINGS.
23.01 HIGH VOLUME LOW SPEED FAN. REFER TO MECHNICAL DRAWINGS.

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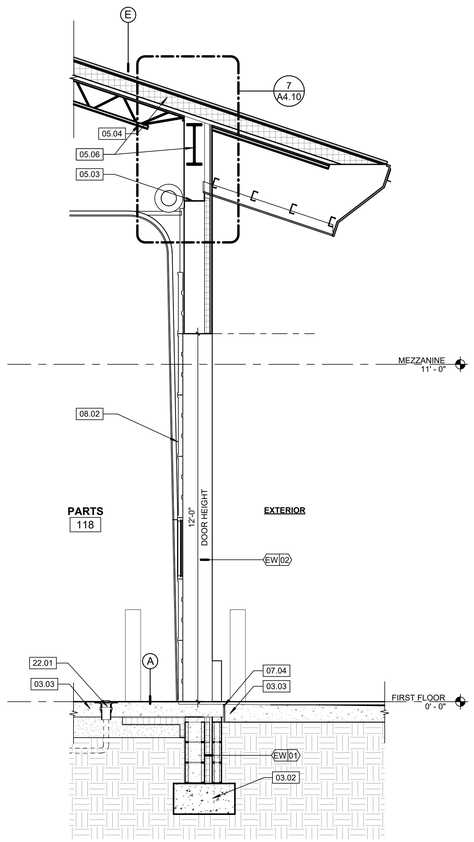
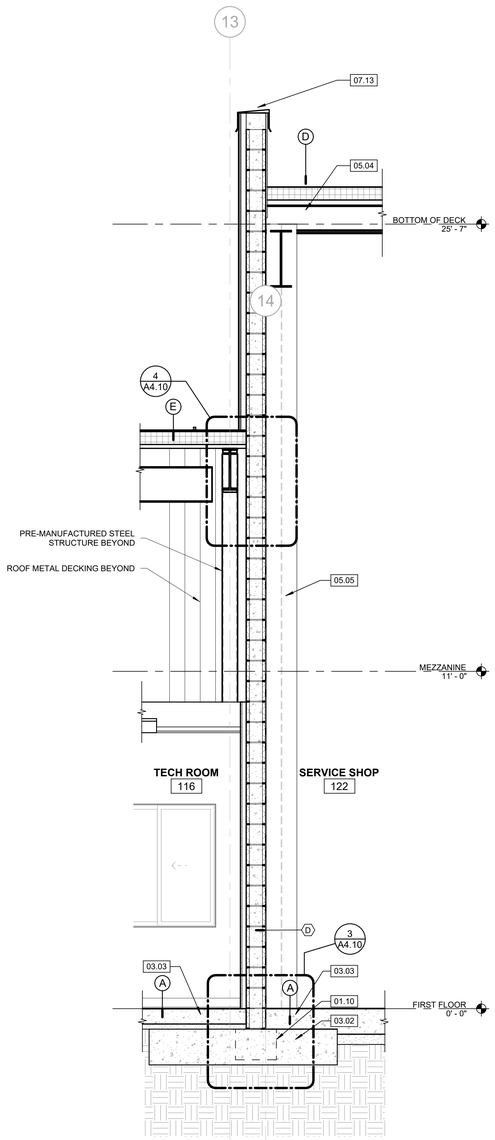
BUILDING SECTIONS

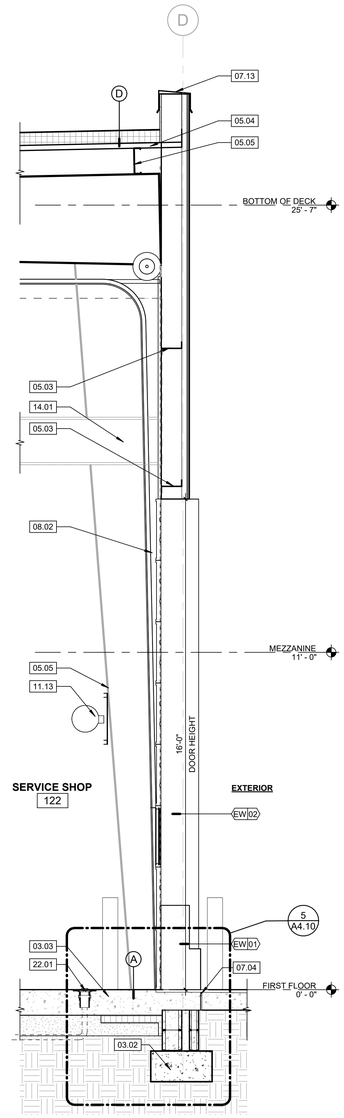
A3.01



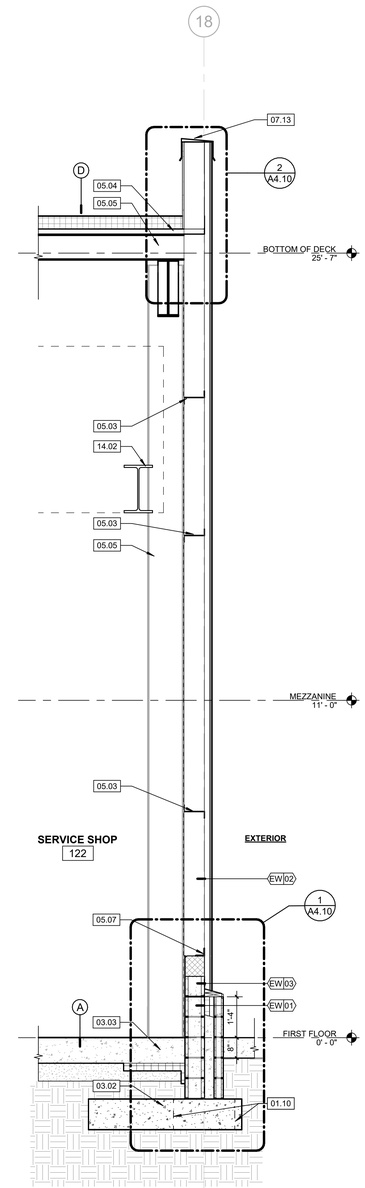
4 / A4.01 PARTS MEZZ WALL SECTION
SCALE: 1/2" = 1'-0"



3 / A4.01 DIVIDING CMU WALL SECTION
SCALE: 1/2" = 1'-0"



2 / A4.01 TYP. SERVICE GARAGE WALL SECTION
SCALE: 1/2" = 1'-0"



1 / A4.01 TYP. SERVICE AREA WALL SECTION
SCALE: 1/2" = 1'-0"

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01.10	HATCH INDICATES TYPICAL FOOTING BEYOND.
03.02	REINFORCED CONCRETE FOUNDATION. REFER TO STRUCTURAL DRAWINGS.
03.03	REINFORCED CONCRETE SLAB ON GRADE. REFER TO STRUCTURAL DRAWINGS.
05.03	GALVANIZED Z-GIRT FRAMING. BY PRE-FABRICATED STRUCTURE MANUFACTURER.
05.04	GALVANIZED METAL DECKING. REFER TO PRE-FABRICATED STRUCTURE MANUFACTURER.
05.05	PRE-ENGINEERED METAL BUILDING STRUCTURE. REFER TO SHOP DRAWINGS.
05.06	PRE-MANUFACTURED STEEL STRUCTURE. REFER TO STRUCTURAL DRAWINGS.
05.07	GALVANIZED STEEL ANGLE TO SUPPORT EXTERIOR METAL PANEL.
07.04	CONTINUOUS BACKER-ROD AND SEALANT.
07.13	CARLISLE SECURE EDGE PREFINISHED COPING. REFER TO MANUFACTURER FOR DETAILS.
08.02	INSULATED SECTIONAL GARAGE DOOR WITH LITES. TO HAVE MECHANICAL OPENING. FLUSH PANELS. REFER TO DOOR SCHEDULE.
11.13	PROVIDE OIL HOSE REEL. COORDINATE HEIGHT, POSITION, AND OIL TYPE WITH OWNER. PROVIDE UNI-STRUT FOR CONNECTION AS NEEDED.
14.01	5 TON OVERHEAD CRANE. REFER TO STRUCTURAL DRAWINGS.
14.02	10 TON OVERHEAD CRANE. REFER TO STRUCTURAL DRAWINGS.
22.01	FLOOR TRENCH DRAIN. REFER TO PLUMBING DRAWINGS.

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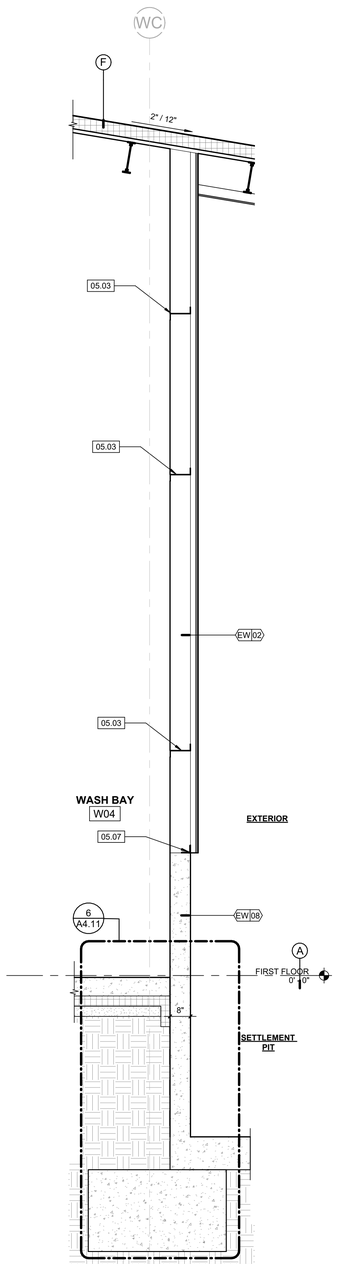
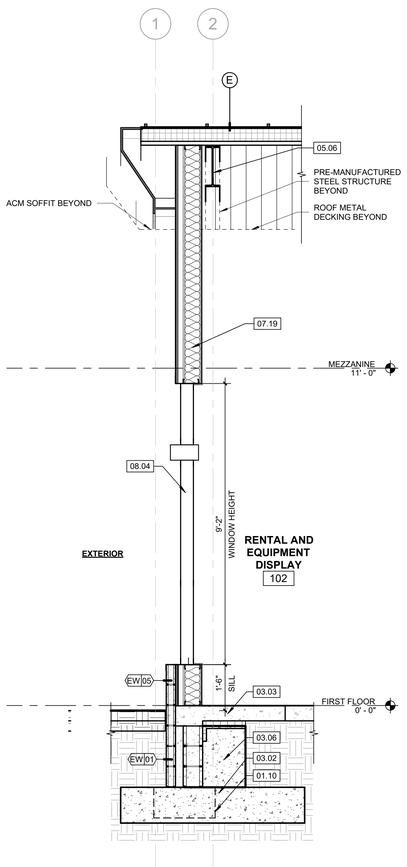
WALL SECTIONS

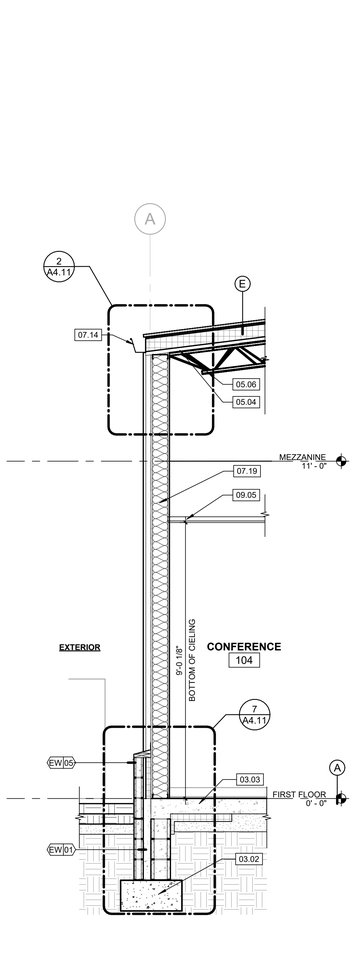
A4.01



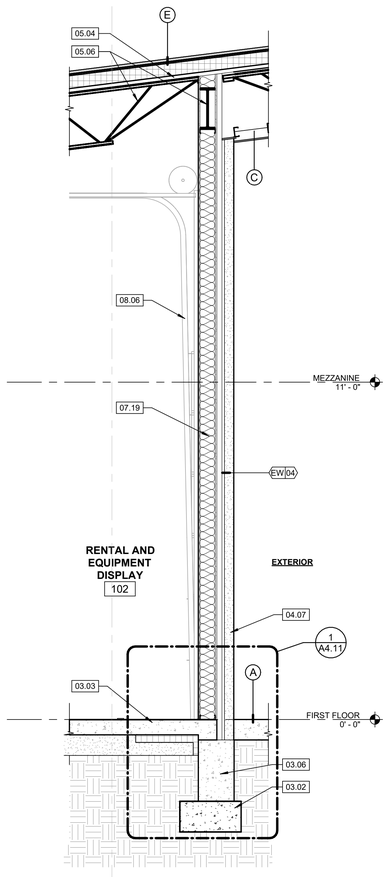
1 A4.02 TYP. WASH BAY WALL SECTION
SCALE: 1/2" = 1'-0"



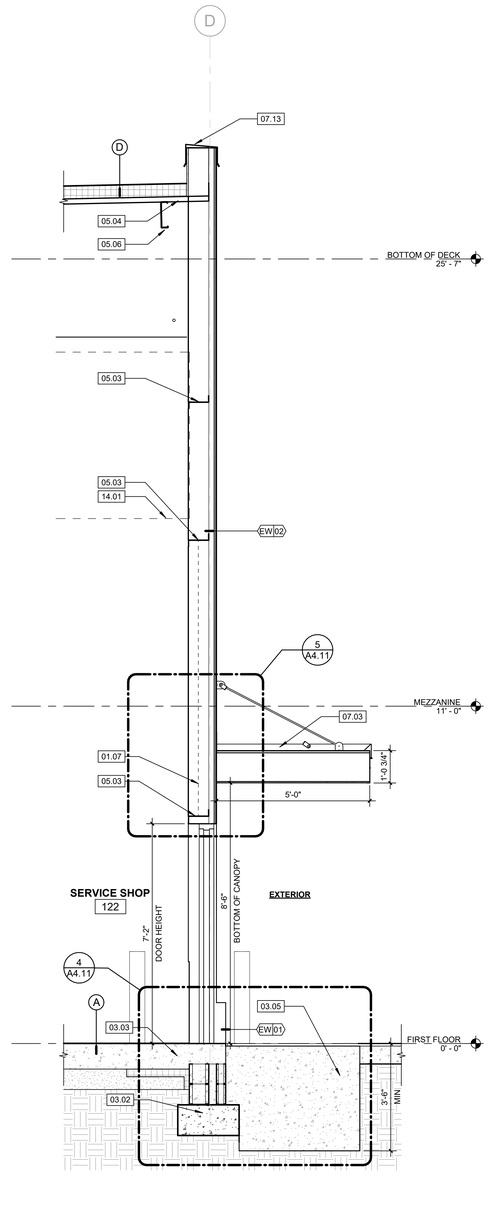
4 A4.02 TYP. RETAIL WALL SECTION
SCALE: 1/2" = 1'-0"



3 A4.02 OFFICE WALL SECTION
SCALE: 1/2" = 1'-0"



2 A4.02 TYP. RETAIL GARAGE DOOR SECTION
SCALE: 1/2" = 1'-0"



5 A4.02 TYP. CANOPY WALL SECTION
SCALE: 1/2" = 1'-0"

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01.07	DASHED LINE INDICATES VERTICAL METAL FRAMING WITHIN WALL FOR CANOPY ATTACHMENT.
01.10	HATCH INDICATES TYPICAL FOOTING BEYOND.
03.02	REINFORCED CONCRETE FOUNDATION. REFER TO STRUCTURAL DRAWINGS.
03.03	REINFORCED CONCRETE SLAB ON GRADE. REFER TO STRUCTURAL DRAWINGS.
03.05	REINFORCED CAST IN PLACE CONCRETE FROST SLAB. REFER TO STRUCTURAL DRAWINGS.
03.06	REINFORCED CAST IN PLACE CONCRETE.
04.07	4-UNIT STONE VENEER WITH BAGGED JOINTS. REFER TO ELEVATIONS FOR TYPE AND COLOR. FLEXIBLE WALL TIES LOCATED AT 16" MAX VERTICAL SPACING AND 14" MAX HORIZONTAL SPACING.
05.03	GALVANIZED Z-GIRT FRAMING. BY PRE-FABRICATED STRUCTURE MANUFACTURER.
05.04	GALVANIZED METAL DECKING. REFER TO PRE-FABRICATED STRUCTURE MANUFACTURER.
05.06	PRE-MANUFACTURED STEEL STRUCTURE. REFER TO STRUCTURAL DRAWINGS.
05.07	GALVANIZED STEEL ANGLE TO SUPPORT EXTERIOR METAL PANEL.
07.03	PREFINISHED CANTILEVERED CANOPY SYSTEM. BASIS OF DESIGN, MAPES SUPER LUMIDECK FLAT SOFFIT.
07.13	CARLISLE SECURE EDGE PREFINISHED COPING. REFER TO MANUFACTURER FOR DETAILS.
07.14	PROVIDE BEVELED 6" X 6" PREFINISHED ALUMINUM GUTTER.
07.19	R-19 BATT INSULATION.
08.04	BASIS OF DESIGN, KAWNEER TRIFAB 451UT STOREFRONT GLAZING SYSTEM.
08.06	FULL-VIEW GARAGE DOOR. REFER TO DOOR SCHEDULE.
09.05	PROVIDE AND INSTALL NEW ACOUSTICAL CEILING TILE ON 2X4 COMMERCIAL GRID THROUGHOUT.
14.01	5 TON OVERHEAD CRANE. REFER TO STRUCTURAL DRAWINGS.

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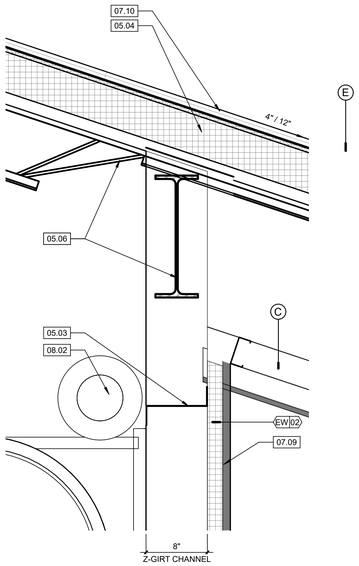
WALL SECTIONS

A4.02



7 A4.10 SHOP WALL ROOF CONNECTION DETAIL
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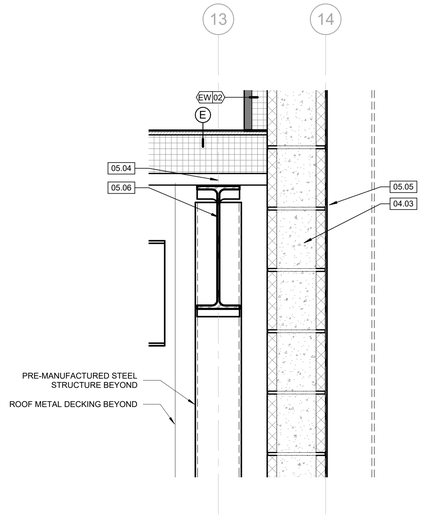
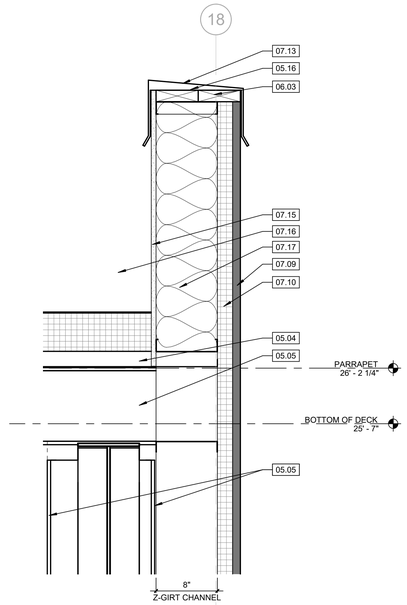
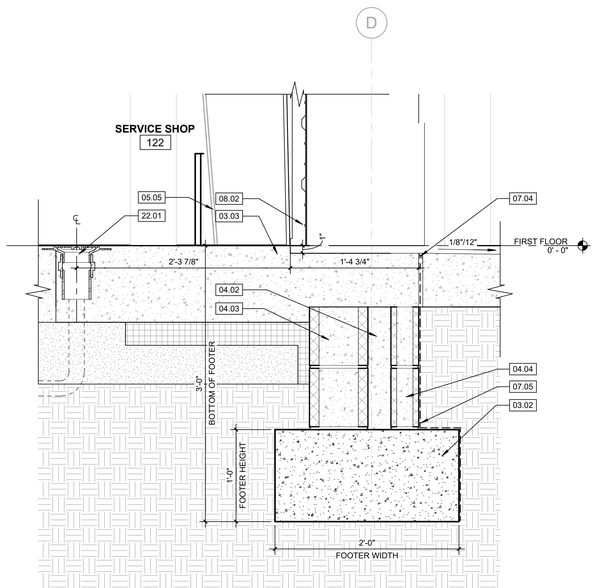


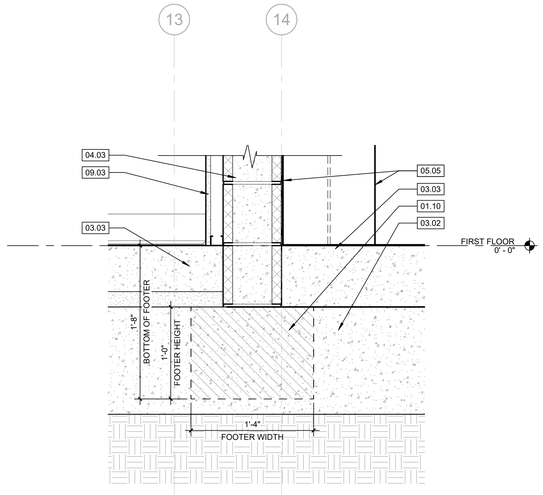
4 A4.10 DIVIDING CMU TO ROOF CONNECTION DETAIL
SCALE: 1 1/2" = 1'-0"



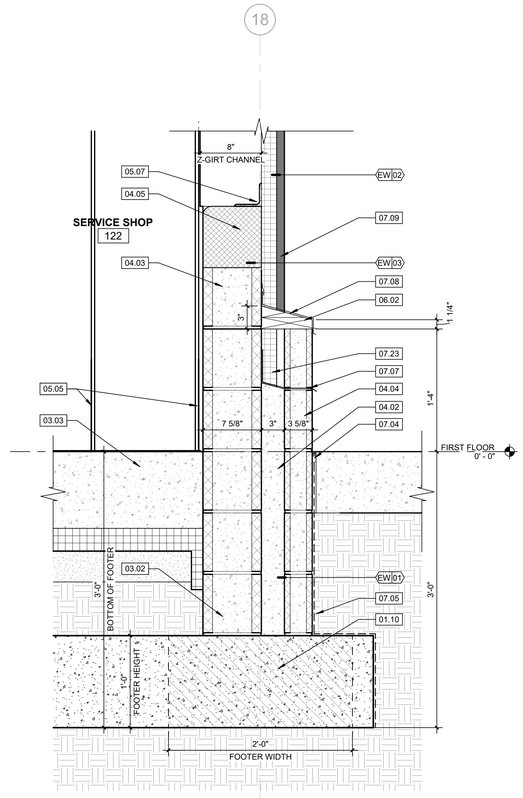
2 A4.10 TYP. PARAPET DETAIL
SCALE: 1 1/2" = 1'-0"



5 A4.10 TYP. SERVICE GARAGE DETAIL
SCALE: 1 1/2" = 1'-0"



3 A4.10 DIVIDING CMU BASE DETAIL
SCALE: 1 1/2" = 1'-0"



1 A4.10 TYP. SERVICE AREA BASE DETAIL
SCALE: 1 1/2" = 1'-0"

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01.04	DASHED LINE INDICATED EDGE OF COLUMN OF PRE-ENGINEERED STRUCTURE. REFER TO STRUCTURAL DRAWINGS.
01.10	HATCH INDICATES TYPICAL FOOTING BEYOND.
03.02	REINFORCED CONCRETE FOUNDATION. REFER TO STRUCTURAL DRAWINGS.
03.03	REINFORCED CONCRETE SLAB ON GRADE. REFER TO STRUCTURAL DRAWINGS.
04.02	GROUT SOLID.
04.03	8X8X16 CONCRETE MASONRY UNIT. TO BE PAINTED ON SHOP SIDE OF WALL.
04.04	4X8X16 GROUND FACE CONCRETE MASONRY UNIT. REFER TO EXTERIOR ELEVATIONS FOR FINISH.
04.05	PROVIDE SOLID CONCRETE MASONRY UNIT WITH BULL-NOSE EDGE. PAINTED.
05.03	GALVANIZED Z-GIRT FRAMING. BY PRE-FABRICATED STRUCTURE MANUFACTURER.
05.04	GALVANIZED METAL DECKING. REFER TO PRE-FABRICATED STRUCTURE MANUFACTURER.
05.05	PRE-ENGINEERED METAL BUILDING STRUCTURE. REFER TO SHOP DRAWINGS.
05.06	PRE-MANUFACTURED STEEL STRUCTURE. REFER TO STRUCTURAL DRAWINGS.
05.07	GALVANIZED STEEL ANGLE TO SUPPORT EXTERIOR METAL PANEL.
05.16	8" GALVANIZED METAL FRAMING. 16" O.C.
06.02	PRESSURE TREATED SLOPED BLOCKING. WRAP PRESSURE TREATED WOOD WITH SELF ADHERING FLEXIBLE FLASHING.
06.03	PRESSURE TREATED WOOD BLOCKING.
07.04	CONTINUOUS BACKER-ROD AND SEALANT.
07.05	CARLISLE "MIRASEAL" COLD FLUID APPLIED WATERPROOFING INSTALL WITH CARLISLE "MIRADRAIN 9000" DRAINAGE MAT, TYPICAL.
07.07	SELF ADHERING FLEXIBLE FLASHING WITH INTEGRAL S.S.DRIP EDGE. PROVIDE WEEPS 32" 0.C.
07.08	PREFINISHED ALUMINUM BRAKE METAL FLASHING.
07.09	INSULATED ALUMINUM EXTERIOR PANEL. REFER TO EXTERIOR ELEVATIONS FOR STYLE AND COLOR.
07.10	MIN R-30 CONTINUOUS RIGID INSULATION.
07.13	CARLISLE SECURE EDGE PREFINISHED COPING. REFER TO MANUFACTURER FOR DETAILS.
07.15	5/8" DENSGLASS SHEATHING.
07.16	CARLISLE TOP ROOFING MEMBRANE WITH 20 YEAR MINIMUM WARRANTY.
07.17	R-25 MINIMUM CONTINUOUS INSULATION.
07.23	MIN R-11 CONTINUOUS RIGID INSULATION.
08.02	INSULATED SECTIONAL GARAGE DOOR WITH LITES. TO HAVE MECHANICAL OPENING. FLUSH PANELS. REFER TO DOOR SCHEDULE.
09.03	5/8" GYPSUM BOARD. REFER TO WALL TYPES.
22.01	FLOOR TRENCH DRAIN. REFER TO PLUMBING DRAWINGS.

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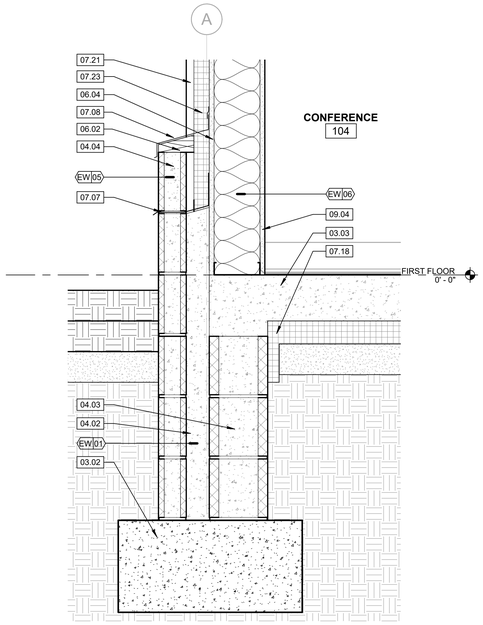
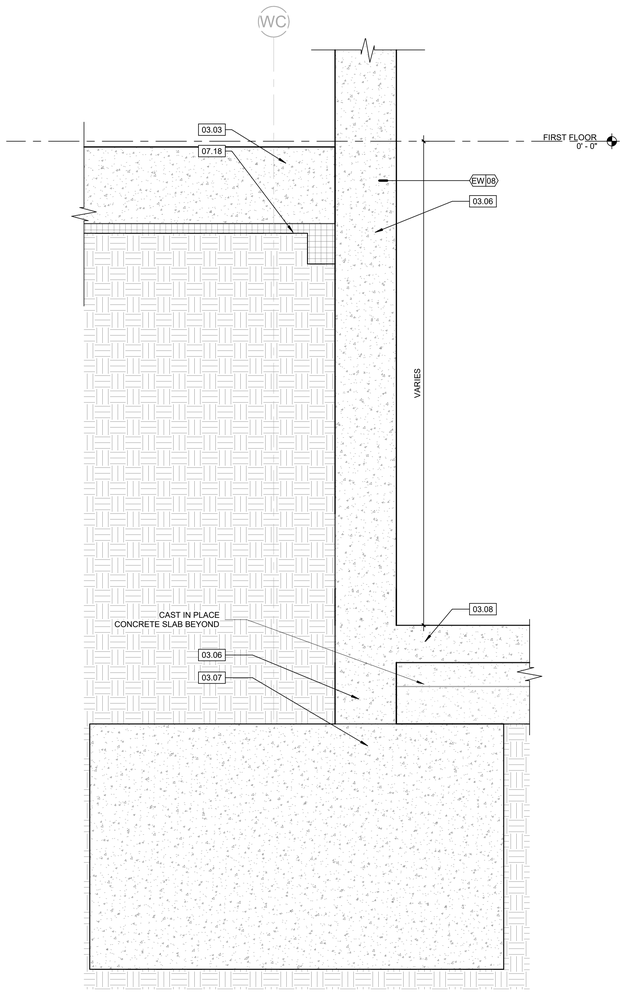
SECTION DETAILS

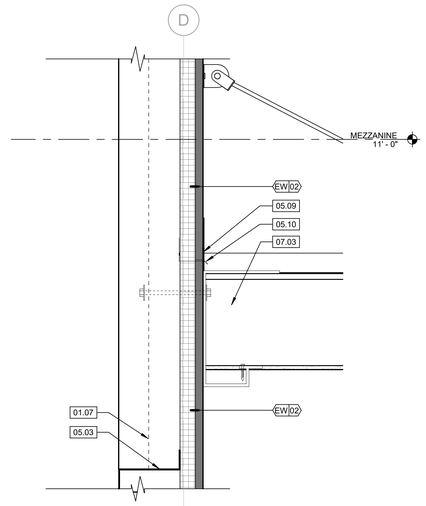
A4.10



7 A4.11 OFFICE WALL BASE DETAIL
SCALE: 1 1/2" = 1'-0"



6 A4.11 SETTLEMENT PIT DETAIL
SCALE: 1 1/2" = 1'-0"



5 A4.11 TYP. CANOPY CONNECTION DETAIL
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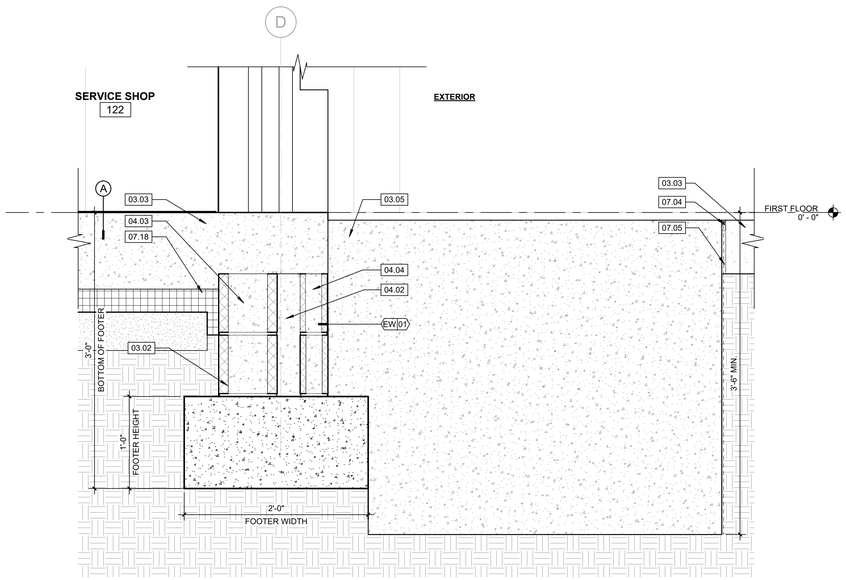

4 A4.11 TYP. FROST SLAB FOUNDATION DETAIL
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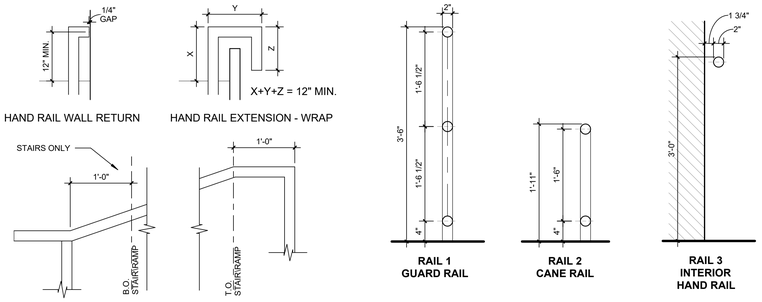
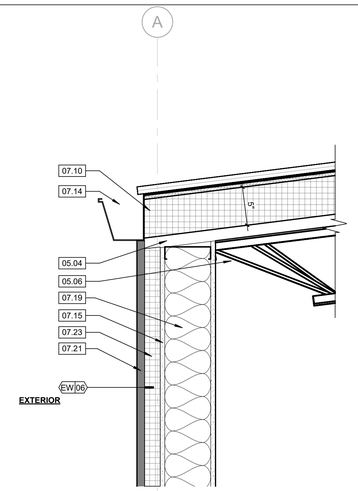
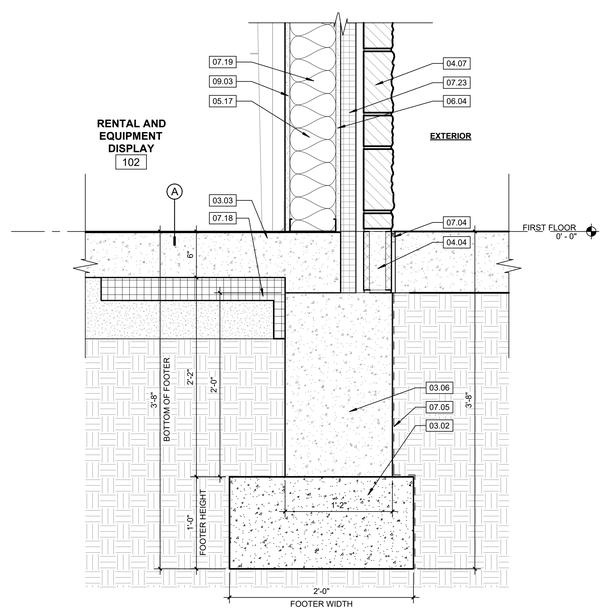


3 A4.11 RAILING TYPES
SCALE: 1" = 1'-0"



2 A4.11 STANDING SEAM WALL TO ROOF CONNECTION DETAIL
SCALE: 1 1/2" = 1'-0"



1 A4.11 RETAIL GARAGE DOOR BASE DETAIL
SCALE: 1 1/2" = 1'-0"

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01.07 DASHED LINE INDICATES VERTICAL METAL FRAMING WITHIN WALL FOR CANOPY ATTACHMENT.
03.02 REINFORCED CONCRETE FOUNDATION. REFER TO STRUCTURAL DRAWINGS.
03.03 REINFORCED CONCRETE SLAB ON GRADE. REFER TO STRUCTURAL DRAWINGS.
03.05 REINFORCED CAST IN PLACE CONCRETE FROST SLAB. REFER TO STRUCTURAL DRAWINGS.
03.06 REINFORCED CAST IN PLACE CONCRETE.
03.07 CONCRETE FOOTER. REFER TO STRUCTURAL STRUCTURAL DRAWINGS.
03.08 CONCRETE SETTLING PIT. REFER TO STRUCTURAL DRAWINGS.
04.02 GROUT SOLID.
04.03 8X8X16 CONCRETE MASONRY UNIT. TO BE PAINTED ON SHOP SIDE OF WALL.
04.04 4X8X16 GROUND FACE CONCRETE MASONRY UNIT. REFER TO EXTERIOR ELEVATIONS FOR FINISH.
04.07 4-UNIT STONE VENEER WITH BAGGED JOINTS. REFER TO ELEVATIONS FOR TYPE AND COLOR. FLEXIBLE WALL TIES LOCATED AT 16" MAX VERTICAL SPACING AND 14" MAX HORIZONTAL SPACING.
05.03 GALVANIZED Z-GIRT FRAMING. BY PRE-FABRICATED STRUCTURE MANUFACTURER.
05.04 GALVANIZED METAL DECKING. REFER TO PRE-FABRICATED STRUCTURE MANUFACTURER.
05.06 PRE-MANUFACTURED STEEL STRUCTURE. REFER TO STRUCTURAL DRAWINGS.
05.09 3 5/8" GALVANIZED METAL FRAMING. 16" O.C. REFER TO ROOF TYPES.
05.10 IMP METAL PANEL BASE TRIM.
05.17 6" GALVANIZED METAL FRAMING. 16" O.C. REFER TO WALL TYPES.
06.02 PRESSURE TREATED SLOPED BLOCKING. WRAP PRESSURE TREATED WOOD WITH SELF ADHERING FLEXIBLE FLASHING.
06.04 5/8" DENSELEMENT SHEATHING.
07.03 PREFINISHED CANTILEVERED CANOPY SYSTEM. BASIS OF DESIGN, MAPES SUPER LUMIDECK FLAT SOFFIT.
07.04 CONTINUOUS BACKER-ROD AND SEALANT.
07.05 CARLISLE "MIRASEAL" COLD FLUID APPLIED WATERPROOFING INSTALL WITH CARLISLE "MIRADRAIN 9000" DRAINAGE MAT, TYPICAL.
07.07 SELF ADHERING FLEXIBLE FLASHING WITH INTEGRAL S.S.DRIP EDGE. PROVIDE WEEPS 32" O.C.
07.08 PREFINISHED ALUMINUM BRAKE METAL FLASHING.
07.10 MIN R-30 CONTINUOUS RIGID INSULATION.
07.14 PROVIDE BEVELED 6" X 6" PREFINISHED ALUMINUM GUTTER.
07.15 5/8" DENSGLASS SHEATHING.
07.18 PROVIDE R7.5 VERTICAL INSULATION FROM TOP OF FOOTER TO UNDER SLAB. PROVIDE 24" OF R-15 HORIZONTAL.
07.19 R-19 BATT INSULATION.
07.21 PROVIDE ACM PANEL. REFER TO EXTERIOR ELEVATIONS FOR STYLE AND COLOR.
07.23 MIN R-11 CONTINUOUS RIGID INSULATION.
09.03 5/8" GYPSUM BOARD. REFER TO WALL TYPES.
09.04 5/8" GYPSUM BOARD.

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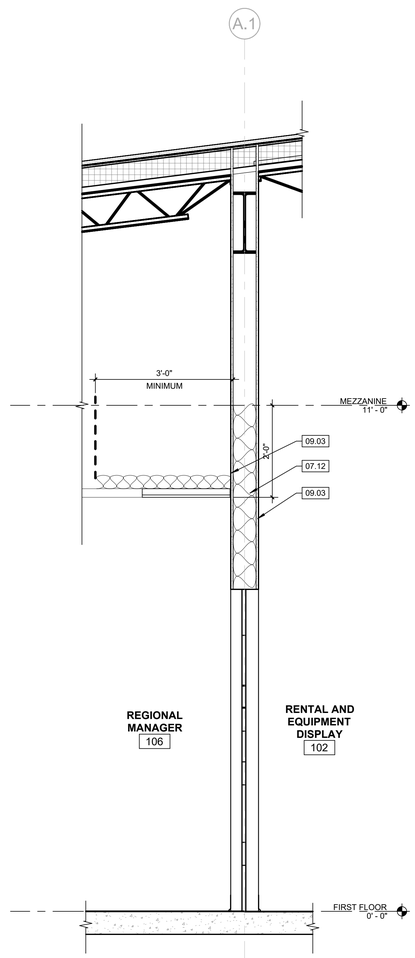
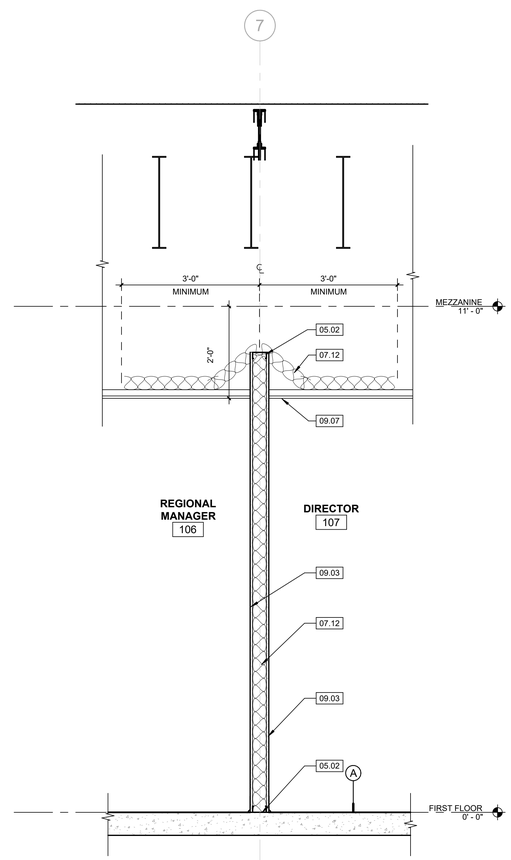
SECTION DETAILS & RAILING TYPES

A4.11



2 A4.12 TYPICAL OFFICE GLAZING WALL SECTION
SCALE: 3/4" = 1'-0"



1 A4.12 TYPICAL OFFICE PARTITION WALL SECTION
SCALE: 3/4" = 1'-0"

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05.02 GALVANIZED METAL FRAMING.
07.12 PROVIDE 3" MINIMUM ACOUSTICAL BATT INSULATION.
09.03 5/8" GYPSUM BOARD. REFER TO WALL TYPES.
09.07 2' X 2' SUSPENDED ACT GRID CEILING.

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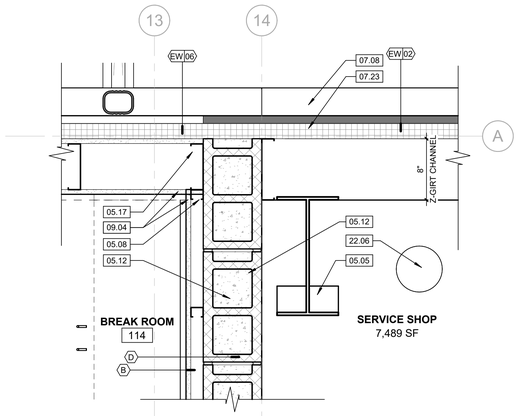
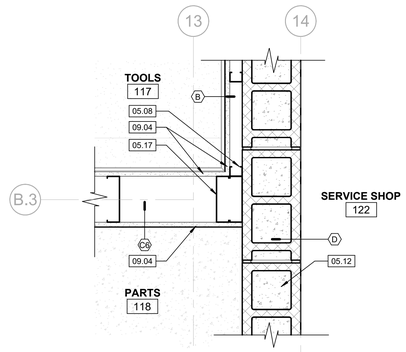
OFFICE WALL SECTION DETAILS

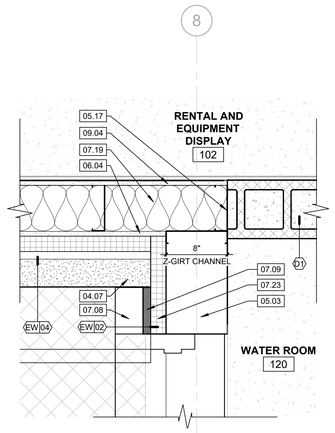
A4.12



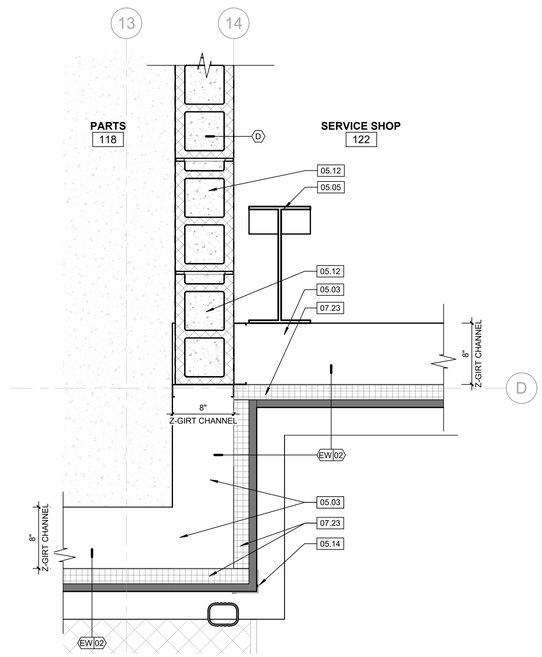
3 A4.13 NORTH DIVIDING CMU TRANSITION - PLAN DETAIL
SCALE: 1 1/2" = 1'-0"



2 A4.13 DIVIDING CMU TRASITION - PLAN DETAIL
SCALE: 1 1/2" = 1'-0"



4 A4.13 RETAIL TRANSITION - PLAN DETAIL
SCALE: 1 1/2" = 1'-0"



1 A4.13 SOUTH DIVIDING WALL TRANSITION - PLAN DETAIL
SCALE: 1 1/2" = 1'-0"

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04.07	4-UNIT STONE VENEER WITH BAGGED JOINTS. REFER TO ELEVATIONS FOR TYPE AND COLOR. FLEXIBLE WALL TIES LOCATED AT 16" MAX VERTICAL SPACING AND 14" MAX HORIZONTAL SPACING.
05.03	GALVANIZED Z-GIRT FRAMING. BY PRE-FABRICATED STRUCTURE MANUFACTURER.
05.05	PRE-ENGINEERED METAL BUILDING STRUCTURE. REFER TO SHOP DRAWINGS.
05.08	1-5/8" GALVANIZED METAL FRAMING. 16" O.C. REFER TO WALL TYPES.
05.12	CMU BLOCK TO BE CUT AT POINTS WHEN METAL Z-GIRTS ARE TO PASS THROUGH. ALL PENETRATIONS ARE TO BE SEALED MATCHING THE MOST STRICT WALL RATING REQUIREMENTS.
05.14	IMP METAL PANEL JAMB FLASHING TRIM.
05.17	6" GALVANIZED METAL FRAMING. 16" O.C. REFER TO WALL TYPES.
06.04	5/8" DENSELEMENT SHEATHING.
07.08	PREFINISHED ALUMINUM BRAKE METAL FLASHING.
07.09	INSULATED ALUMINUM EXTERIOR PANEL. REFER TO EXTERIOR ELEVATIONS FOR STYLE AND COLOR.
07.19	R-19 BATT INSULATION.
07.23	MIN R-11 CONTINUOUS RIGID INSULATION.
09.04	5/8" GYPSUM BOARD.
22.06	ROOF DRAIN LEADER LINES. KEEP TIGHT TO NEAREST WALL.

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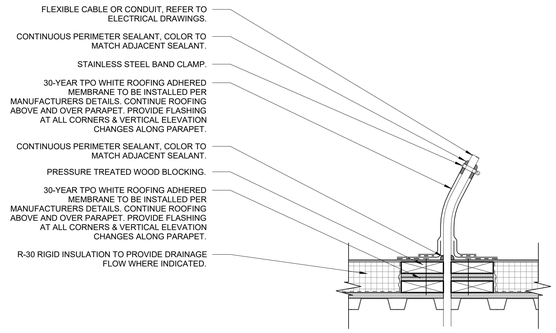
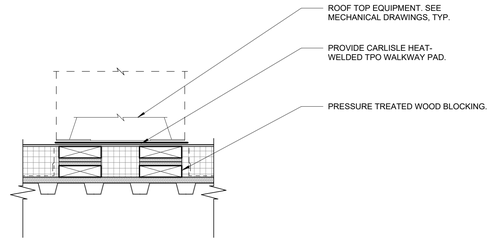
TYPICAL PLAN DETAILS

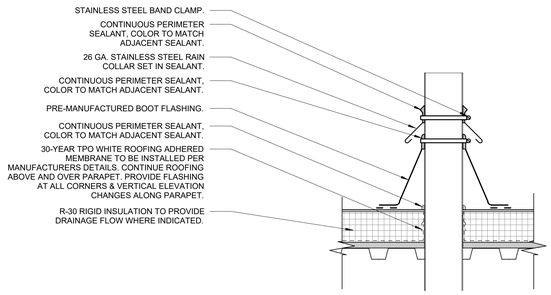
A4.13



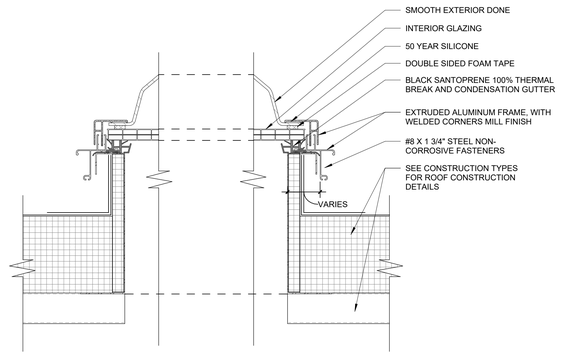
6 A4.14 ROOF CABLE DETAIL
SCALE: 1 1/2" = 1'-0"



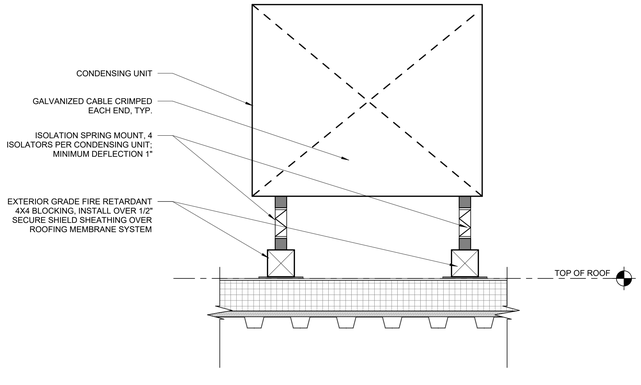
3 A4.14 ROOF EQUIPMENT DETAIL
SCALE: 1 1/2" = 1'-0"



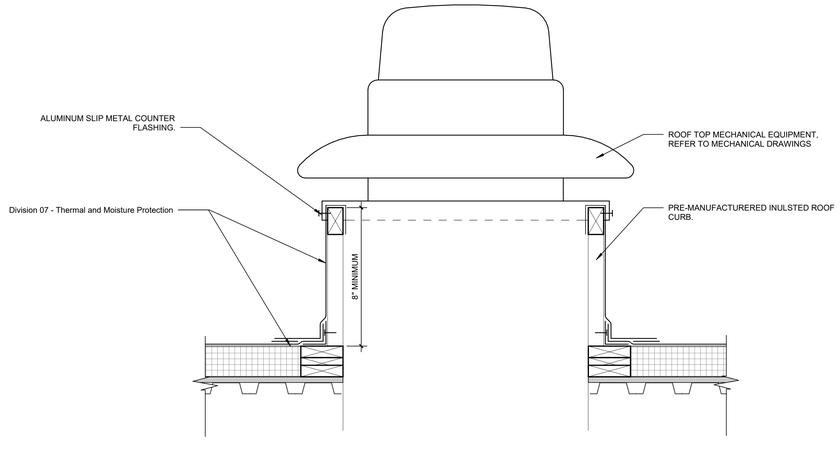
5 A4.14 ROOF VENT STACK DETAIL
SCALE: 1 1/2" = 1'-0"



2 A4.14 SKYLIGHT DETAIL
SCALE: 3" = 1'-0"



4 A4.14 ROOF TOP UNIT - TYP. DETAIL
SCALE: 1 1/2" = 1'-0"



1 A4.14 ROOF MECHANICAL VENT DETAIL
SCALE: 1 1/2" = 1'-0"

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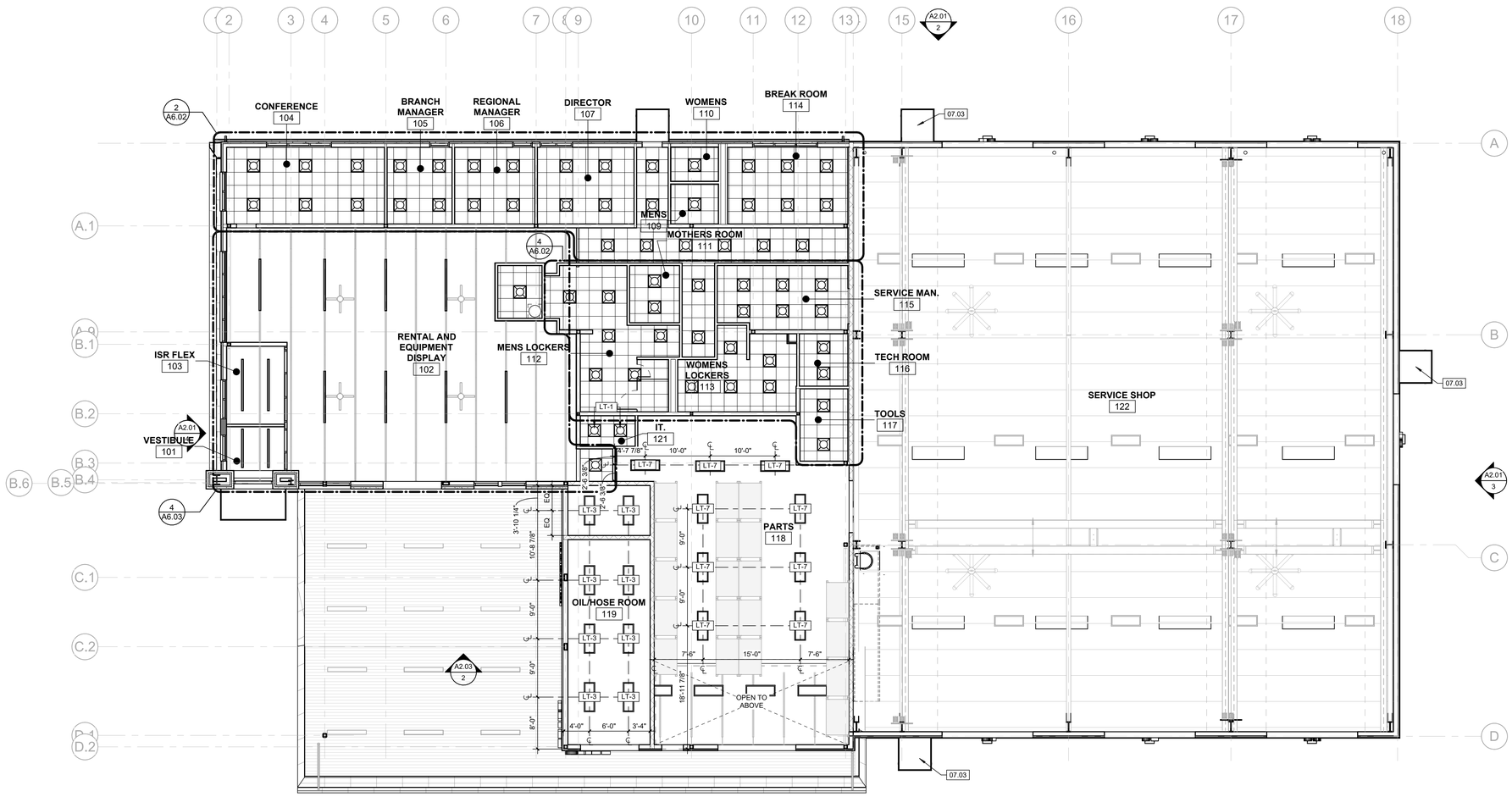
TYPICAL ROOF DETAILS

A4.14



1 A5.00 RCP - FIRST FLOOR OVERALL
SCALE: 1/8" = 1'-0"

A2.01 1

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07.03 PREFINISHED CANTILEVERED CANOPY SYSTEM. BASIS OF DESIGN, MAPES SUPER LUMIDECK FLAT SOFFIT.

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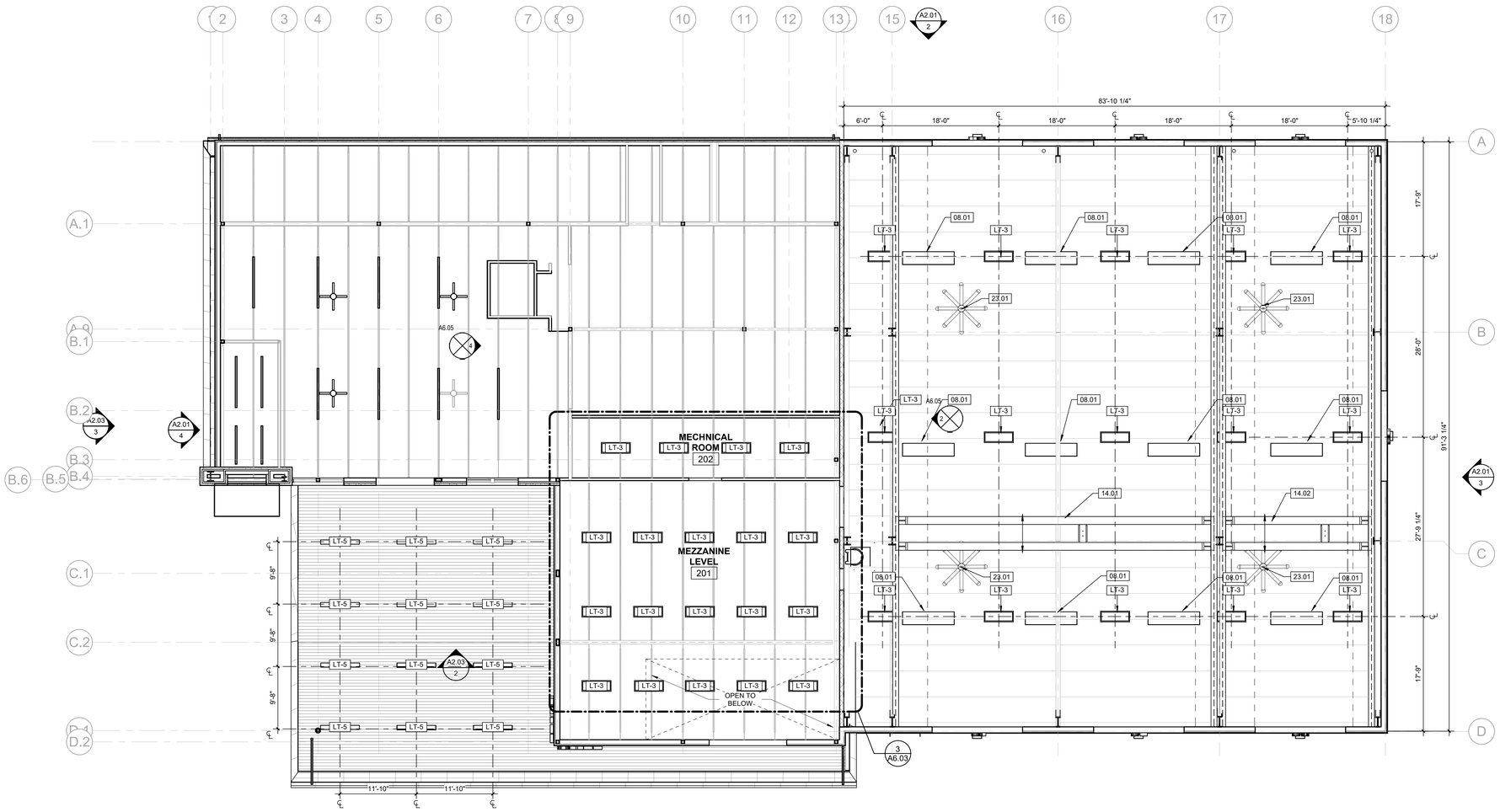
RCP - FIRST FLOOR OVERALL

A5.00



1 A5.01 RCP - MEZZANINE OVERALL
SCALE: 1/8" = 1'-0"

A2.01 1

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08.01 UNITIZED SKYLIGHT ON RAISED CURB.
14.01 5 TON OVERHEAD CRANE. REFER TO STRUCTURAL DRAWINGS.
14.02 10 TON OVERHEAD CRANE. REFER TO STRUCTURAL DRAWINGS.
23.01 HIGH VOLUME LOW SPEED FAN. REFER TO MECHNICAL DRAWINGS.

STATE OF OHIO
DOMINICK DURANTE, JR.
7286
REGISTERED ARCHITECT

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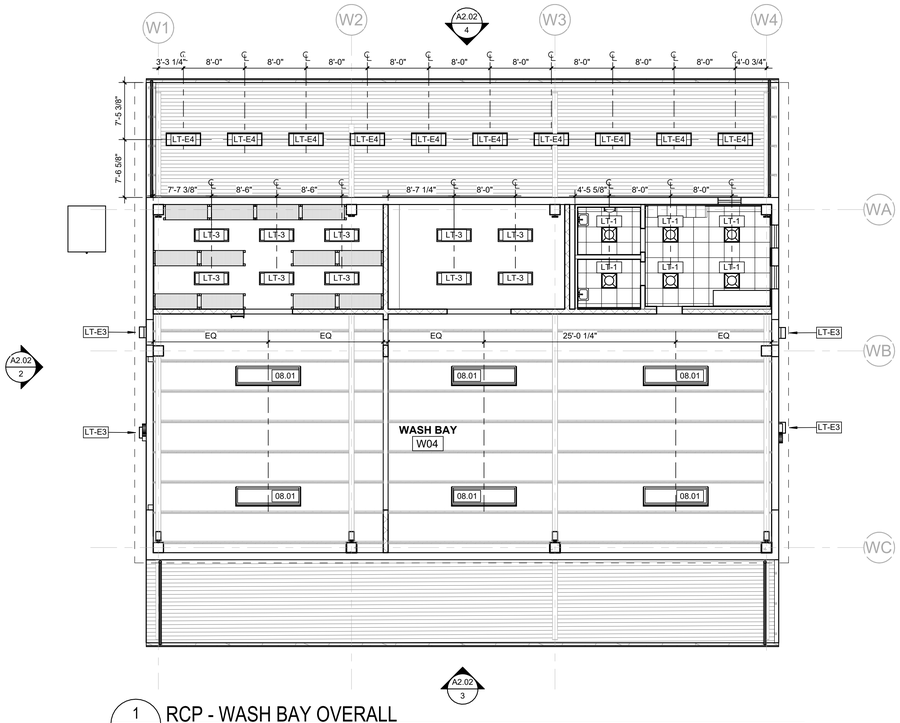
MIAMISBURG - CAT
RENTAL FACILITY
490 BYERS ROAD, MIAMISBURG, OHIO 45342

LDA Project No.2026.11

RCP - MEZZANINE OVERALL

A5.01



1 A5.02 RCP - WASH BAY OVERALL

SCALE: 1/8" = 1'-0"

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RCP - OVERALL - WASH BAY

A5.02

FINISH LEGEND

MATERIAL CODE	LOCATION	MANUFACTURER INFORMATION	COLLECTION	COLOR WAY	FINISH	DIMENSIONS	INSTALL METHOD	SELECTION	REMARKS	SALES REP INFO
ACT ACOUSTIC CEILING TILE										
ACT-1	OVERALL	USG	TILE: RADAR; GRID: DX	WHITE	-	24"X24"	-	OMC STANDARD		-
CAB CABINETS										
CAB-1	NOTED ON ELEVATIONS	WILSONART	ASIAN NIGHT 7949	-	PLASTIC-LAMINATED FACED ARCHITECTURAL CABINETS	-	-	OMC STANDARD	PROVIDE AND INSTAL BERENSON - STUDIO - STAINLESS STEEL PULL; USE SOFT CLOSE SLIDES	PIONITE SYSTEMS, C H BRIGGS 678.662.0919
CF CONCRETE FINISH										
CF-1	THROUGHOUT UNLESS NOTED OTHERWISE	PROVIDED BY CONTRACTOR	-		POLISHED					
CF-2	WASH BAY	PROVIDED BY CONTRACTOR	-		BURNISHED					
CPT CARPET										
CPT-1	VESTIBULE	ROPPE	ROP-CORD RECYCLED RUBBER TILE	EARTH TONE	-	12"X12"		LDA SELECTION OF COLOR		TED DILLENBURG, TED@ALLFLOORSUPPLIES.COM 412.719.7726
CPT-2	OFFICES, CONFERENCE ROOMS, MOTHERS ROOM	INTERFACE	CUBIC	CONSTRUCTION	-	24"X24"	-	OMC STANDARD		KEVIN BETTIS, SHAW CARPET 770.547.1374
GR GROUT										
GR-1	TO BE USED WITH TL-1	MAPEI	-	TO BE SELECTED BY OWNER	-	1/8" GROUT LINE	-	LDA SELECTION		MAURSHELL STOKES, MSTOKES@HAMILTONPARKER.COM 216.393.9195
LAM PLASTIC LAMINATE										
LAM-1	OFFICE WORK COUNTERS	WILSONART	WHITE TIGRIS 4783	-	LAMINATED 1.5" EXTERIOR GRADE PLYWOOD COUNTERS	-	-	LDA SELECTION		PIONITE SYSTEMS, C H BRIGGS 678.662.0919
PAR TOILET PARTITIONS										
PAR-1	LOCKER ROOMS	ASI	PARITIONS - SOLID PLASTIC HDPE, FLOOR ANCHORED, CEILING HUNG	CHARCOAL 9237	-	-	CEILING HUNG	OMC STANDARD		
PAR-2	MENS LOCKER ROOM	ASI	URINAL SCREENS	CHARCOAL 9237	-	-	WALL-MOUNTED	OMC STANDARD		
PT PAINT										
PT-1	CEILING	SHERWIN WILLIAMS	PRO MAR 200 ZERO VOC	BRIGHT WHITE SW7007	FLAT	-	-	PACCAR STANDARD	ALL WALLS UNLESS NOTED OTHERWISE	SHERWIN WILLIAMS 1.800.474.3794 OR VISIT LOCAL STORE
PT-2	WALLS	SHERWIN WILLIAMS	PRO MAR 200 ZERO VOC	PEARLY WHITE SW7009	EGGSHELL	-	-	PACCAR STANDARD	ALL DOORS UNLESS NOTED OTHERWISE	SHERWIN WILLIAMS 1.800.474.3794 OR VISIT LOCAL STORE
PT-3	SERVICE SHOP - LOWER 8' OF COLUMNS	SHERWIN WILLIAMS	PRO MAR 200 ZERO VOC	OHIO CAT YELLOW	FLAT	-	-	PACCAR STANDARD	ALL FRAME AND TRIM UNLESS NOTED OTHERWISE	SHERWIN WILLIAMS 1.800.474.3794 OR VISIT LOCAL STORE
PT-4	DOORS & FRAMES	SHERWIN WILLIAMS	PRO MAR 200 ZERO VOC	DOVETAIL SW7018	SEMI-GLOSS	-	-	PACCAR STANDARD	ALL CEILINGS UNLESS NOTED OTHERWISE	SHERWIN WILLIAMS 1.800.474.3794 OR VISIT LOCAL STORE
PT-5	SERVICE SHOP - LOWER BLOCK WALL	SHERWIN WILLIAMS	PRO MAR 200 ZERO VOC	WEB GRAY SW7075	EGGSHELL	-	-	PACCAR STANDARD	FLOOR TO 7'-4" A.F.F.	SHERWIN WILLIAMS 1.800.474.3794 OR VISIT LOCAL STORE
PT-6	SERVICE SHOP - STRIPE AND COLUMNS WITH FIRE EXTINGUISHERS	SHERWIN WILLIAMS	PRO MAR 200 ZERO VOC	REAL RED SW6868	EGGSHELL	-	-	PACCAR STANDARD	8" WIDE, BEGINS AT 7'-4" A.F.F.	SHERWIN WILLIAMS 1.800.474.3794 OR VISIT LOCAL STORE
PT-7	SERVICE SHOP - UPPER WALL TO CEILING	SHERWIN WILLIAMS	PRO MAR 200 ZERO VOC	ONLINE SW7072	EGGSHELL	-	-	PACCAR STANDARD	8'-0" A.F.F. TO CEILING	SHERWIN WILLIAMS 1.800.474.3794 OR VISIT LOCAL STORE
PT-8	SERVICE SHOP - DOORS AND TRIM	SHERWIN WILLIAMS	PRO MAR 200 ZERO VOC	CYBERSPACE GRAY SW7076	SEMI-GLOSS	-	-	PACCAR STANDARD	-	SHERWIN WILLIAMS 1.800.474.3794 OR VISIT LOCAL STORE
RBA RUBBER BASE										
RBA-1	OVERALL	TARKETT/JOHNSONITE	TRADITIONAL VINYL 1/8" (TYPE TV)	281 GRIZZLY	-	4" HIGH	-	OMC STANDARD	WITH TOE	LAURIE BAATZ, LAURIE.BAATZ@TARKETT.COM, 330.810.4731
RLS ROLLER SHADES										
RLS-1	OFFICES	MECHO SHADES	BASKETWEAVE	SILVER BIRCH	LIGHT FILTERING, WOVEN FABRIC	5% OPEN	MANUAL, EXPOSED HEADBOX	OMC STANDARD		-
RLS-2	RETAIL	MECHO SHADES	BASKETWEAVE	SILVER BIRCH	LIGHT FILTERING, WOVEN FABRIC	1% OPEN	POWERED, EXPOSED HEADBOX	OMC STANDARD		-
RSM RUBBER SURFACE MAT										
RSM-1	PARTS, SERVICES, SERVICE TECH COUNTERTOP COVER	PFR USA	CLASSIC	BR 004 BLACK	-	-	-	PACCAR STANDARD		-
SSC SOLID SURFACE										
SSC-1	ALL COUNTERTOPS UNLESS NOTED OTHERWISE	CORIAN	SOLID SURFACE	SAVANNAH	-	-	-	PACCAR STANDARD	4" BACK AND SIDESPLASH; EASED EDGE	PAUL STEVENS, C H BRIGGS 678.662.0919
SSC-2	WINDOW SILLS	CORIAN	SOLID SURFACE	CANVAS	-	-	-	OMC STANDARD	EASED EDGE	PAUL STEVENS, C H BRIGGS 678.662.0919
SSCG STAINLESS STEEL CORNER GUARDS										
SSCG-1	SERVICE SHOP, LOCKER ROOMS	INPRO	STAINLESS STEEL CORNER GUARD	STANDARD TYPE 430 IN STANDARD 16-GAUGE OR STANDARD TYPE 304 THAT MEETS NSF STANDARD 151 IN 16-GAUGE IF NEEDED	-	3 1/2", 2" OR 1 1/2" WING; OWNER TO DECIDE	-	LDA SELECTION		
STN STAIN										
STN-1	SERVICE SHOP	MINWAX	MINWAX WOOD FINISH WATER-BASED SEMI-TRANSPARENT STAIN	SPECIAL WALNUT MW224	SEMI-TRANSPARENT	-	-	LDA SELECTION		
STR STAIR TREADS										
STR-1	STAIRS	ROPPE	RUBBER TREAD	95 HAMMERED WITH RISER	HAMMERED TEXTURE	-	-	OMC STANDARD	INTEGRATED WITH NOSING	LAURIE BAATZ, LAURIE.BAATZ@TARKETT.COM, 330.810.4731
STS STAINLESS STEEL SHEET										
STS-1	RETAIL BASE	-	-	STAINLESS STEEL 4" WALL BASE	BRUSHED	4"	PROVIDE CLEAR SEALANT AT PERIMETER OF FLOOR	OMC STANDARD		
TL TILE										
TL-1	RESTROOM FLOORS & WALLS, LOCKER ROOM WALLS	DALTILE	FABRIQUE	GRIS LINEN		12"X24"	STACKED BOND	OMC STANDARD	USE 6X12 COVE BASE AND 4X12 SINGLE BULLNOSE AT THE TOPS AND BOTTOMS OF WALLS. USE TWO COATS OF HYDRAFLEX WATERPROOFING CRACK ISOLATION MEMBRANE FROM TEC IN SHOWER AREAS MARKED ON PLAN. IN LOCKER OOMS: TILE TO STOP AT HEIGHT OF LOCKERS (DO NOT INSTALL BEHIND LOCKERS)	NICOLE MILLER, NICOLE.MILLER@VIRGINATILE.COM, 614.214.7620
WPT WALL PROTECTION										
WPT-1	SERVICE SHOP	DIAMOND LIFE (BASIS OF DESIGN)	ALUMINUM DIAMOND PLATE	ANODIZED PLATINUM ICE	MILL	3/64" THICK	J CAP AND JOINER TRIM	LDA SELECTION		
WPT-2	BREAK ROOM BACKSPLASH	INPRO	NUTREE DIAMOND PLATE - MDPE	GRAY	-	4'-0" X 8'-0", 3/16" THICKNESS	-	LDA SELECTION		
WSV WELDED SHEET VINYL										
WSV-1	LOCKER ROOMS	MANNINGTON COMMERCIAL	BIOSPEC CHOICES SELECTION	BIOSPEC MD - FLINT 15384	-	6'-6" WIDTH	HEAT WELDED TOGETHER	OMC STANDARD	CONFIRM COLOR SPECIFICATION WITH CLIENT	NANCY KINNETT, NANCY.KINNETT@MANNINGTON.COM, 440.666.3896

LDA ARCHITECTS

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MIAMISBURG - CAT
RENTAL FACILITY
490 BYERS ROAD, MIAMISBURG, OHIO 45342

LDA Project No.2026.11

INTERIOR SCHEDULES

A6.00

ROOM FINISH SCHEDULE

LOCATION		FLOOR		TRIM		WALLS TYPICAL		CEILING		
NUMBER	ROOM NAME	FIELD	ACCENT	BASE	FINISH	MATERIAL	STYLE/COLOR	MATERIAL	STYLE/COLOR	REMARKS
FIRST FLOOR										
100	CORRIDOR	CF-1	-	RBA-1	-	GWB	PT-2	ACT-1	-	
101	VESTIBULE	CPT-1	-	RBA-1	-	GWB	PT-2	-	PT-1	
102	RENTAL AND EQUIPMENT DISPLAY	CF-1	-	RBA-1	-	GWB	PT-2	-	PT-1	
103	ISR FLEX	CPT-2	-	RBA-1	-	GWB	PT-2	-	PT-1	
104	CONFERENCE	CPT-2	-	RBA-1	-	GWB	PT-2	ACT-1	-	
105	BRANCH MANAGER	CPT-2	-	RBA-1	-	GWB	PT-2	ACT-1	-	
106	REGIONAL MANAGER	CPT-2	-	RBA-1	-	GWB	PT-2	ACT-1	-	
107	DIRECTOR	CPT-2	-	RBA-1	-	GWB	PT-2	ACT-1	-	
108	JAN.	CF-1	-	RBA-1	-	GWB	PT-2	ACT-1	-	
109	MENS	TL-1	-	TL-1	-	TL-1	-	ACT-1	-	
110	WOMENS	TL-1	-	TL-1		TL-1	-	ACT-1	-	
111	MOTHERS ROOM	CPT-2	-	RBA-1	-	GWB	PT-2	ACT-1	-	
112	MENS LOCKERS	WSV-1	-	TL-1	-	TL-1	-	ACT-1	-	
113	WOMENS LOCKERS	WSV-1	-	TL-1	-	TL-1	-	ACT-1	-	
114	BREAK ROOM	CF-1	-	RBA-1	-	GWB	PT-2	-	PT-1	
115	SERVICE MAN.	CPT-2	-	RBA-1	-	GWB	PT-2	ACT-1	-	
116	TECH ROOM	CF-1	-	RBA-1	-	GWB	PT-2	ACT-1	-	
117	TOOLS	CF-1	-	RBA-1	-	GWB	PT-2	ACT-1	-	
118	PARTS	CF-1	-	RBA-1	-	GWB	PT-2	-	PT-1	
119	OIL/HOSE ROOM	CF-1	-	RBA-1	-	GWB	PT-2	-	PT-1	
120	WATER ROOM	CF-1	-	RBA-1	-	GWB	PT-2	-	PT-1	
121	IT.	CF-1	-	RBA-1	-	GWB	PT-2	ACT-1	-	
122	SERVICE SHOP	CF-1	-	RBA-1	-	GWB	PT-2	-	PT-1	
301	SETTLEMENT PIT	CF-1	-	RBA-1	-	GWB	PT-2			
W01	PARTS STORAGE	CF-1	-	RBA-1	-	GWB	PT-2			
W02	WASH EQUIPMENT	CF-1	-	RBA-1	-	GWB	PT-2			
W03	BREAK ROOM	CF-1	-	RBA-1	-	GWB	PT-2			
W03A	WOMENS	TL-1	-	TL-1	-	TL-1	-			
W03B	MENS	TL-1	-	TL-1	-	TL-1	-			
W04	WASH BAY	CF-2	-	RBA-1	-	GWB	PT-2			
W05	QUICK INSPECT	CF-1	-	RBA-1	-	GWB	PT-2			
MEZZANINE										
201	MEZZANINE LEVEL	CF-1	-	RBA-1	-	GWB	PT-2	-	PT-1	
202	MECHNICAL ROOM	CF-1	-	RBA-1	-	GWB	PT-2	-	PT-1	
W10	MEZZANINE STORAGE									

EXTERIOR LIGHT FIXTURE SCHEDULE

TAG	TYPE	MANUFACTURER	NAME	MODEL	FINISH	COLOR TEMP	CRI	COMMENTS	STANDARD
LT-E3	WALL PACK	LITHONIA LIGHTING	WPX LED WALL PACKS	WPX2 LED 40K MVOLT DBLXD					
LT-E4									

LIGHT FIXTURE SCHEDULE

TAG	TYPE	MANUFACTURER	NAME	MODEL	FINISH	COLOR TEMP	CRI	COMMENTS	STANDARD
LT-1	2X2 FLAT PANEL	LITHONIA LIGHTING	EPANL LED	EPANL 2X2 3400L 80 CRI 3500K	-	3500K	80 CRI		OMC STANDARD
LT-2	NOT USED	-	-	-	-	-	-	-	-
LT-3	RECTANGULAR PENDANT LIGHT	METALUMEN	TRANSFORM TRA14	TRANSFORM TRA14 4FT 80 CRI 3500K	WHITE	3500K	80 CRI		LDA SELECTION
LT-4	8' SURFACE-MOUNTED LINEAR	LITHONIA LIGHTING	LED STRIP LIGHT	CSS 96" LED STRIP LIGHT	MATTE WHITE	3500K	80 CRI		LDA SELECTION
LT-5	6' SURFACE-MOUNTED LINEAR	GLOWBACK LED	LINEAR LED FIXTURE	LVLBPH 6FT	SATIN ALUMINUM	3500K	80 CRI		LDA SELECTION
LT-6	NOT USED	-	-	-	-	-	-	-	-
LT-7	SURFACE-MOUNTED FIXTURE	METALUMEN	SCENE SCE	SCENE SCE 1X4FT 80 CRI 3500K	WHITE	3500K	80 CRI		LDA SELECTION

ACCESSORIES SCHEDULE

TAG	TYPE	MANUFACTURER	NAME	MODEL	COLOR	STANDARD
TA-1	SANITARY NAPKIN DISPOSAL	ASI	SURFACE MOUNTED SANITARY NAPKIN DISPOSAL	0473-A	STAINLESS STEEL	OMC STANDARD
TA-2	TOILET PAPER DISPENSER	ASI	SURFACE MOUNTED TWIN HIDE-A-ROLL TOILET TISSUE DISPENSER	0030	STAINLESS STEEL	OMC STANDARD
TA-3	SURFACE-MOUNTED PAPER TOWEL DISPENSER					OMC STANDARD
TA-4	SOAP DISPENSER	ASI	SURFACE MOUNTED VERTICAL SOAP DISPENSER	0347	STAINLESS STEEL	OMC STANDARD
TA-5	MIRROR 18"X36"	ASI	CHANNEL FRAME MIRROR	0620	STAINLESS STEEL FRAME	OMC STANDARD
TA-6	48" GRAB BAR	ASI	48" STRAIGHT GRAB BAR	3401-48	STAINLESS STEEL	OMC STANDARD
TA-7	36" GRAB BAR	ASI	36" STRAIGHT GRAB BAR	3401-36	STAINLESS STEEL	OMC STANDARD
TA-8	24" GRAB BAR	ASI	24" STRAIGHT GRAB BAR	3401-24	STAINLESS STEEL	OMC STANDARD
TA-9	COAT/PURSE HOOK/ROBE HOOK	ASI	SINGLE ROBE HOOK	7340	SATIN #4 STAINLESS STEEL	OMC STANDARD

PLUMBING FIXTURE SCHEDULE

TAG	TYPE	MANUFACTURER	NAME	MODEL #	COLOR/FINISH	STANDARD
PL-A	WALL-MOUNTED TOILET					
PL-B	URINAL	AMERICAN STANDARD	ALLBROOK FLOWISE UNIVERSAL URINAL	6541	WHITE	VARIES
PL-C	WALL-MOUNTED SINK					
PL-D	HAND WASHING SINK	BEST SHEET METAL	2 STATION STAINLESS STEEL WITH ELECTRONIC FAUCETS	021E48208B	STAINLESS STEEL	VARIES
PL-E	KITCHEN SINK	ELKAY/BADGER	KITCHEN SINK/GARBAGE DISPOSAL	ELUHAD281645PD	STAINLESS STEEL	
PL-F	KITCHEN FAUCET	ZURN	KITCHEN FAUCET	Z831C4-XL-ICT	STAINLESS STEEL	
PL-G	MOP SINK	FIAT	MOLDED STONE MOP SERVICE BASINS	MSB2424; 24X24X10	STONE	OMC STANDARD
PL-G1	MOP SINK FAUCET	FIAT	SERVICE SINK FAUCET	830-AA	CHROME	OMC STANDARD
PL-H	COFFEE BAR SINK					

APPLIANCE SCHEDULE

TAG	LOCATION	TYPE	MANUFACTURER	NAME	MODEL #	FINISH	STANDARD
AP-1	BREAK ROOM	REFRIGERATOR - ADA	FRIGIDAIRE	17.6 CU. FT. TOP FREEZER REFRIGERATOR	FFHT1822UV	BRUSHED STEEL	LDA SELECTION
AP-2	BREAK ROOM	MICROWAVE	FRIGIDAIRE	2.2 CU. FT. BUILT-IN MICROWAVE	GMBS3068BF	STAINLESS STEEL	LDA SELECTION

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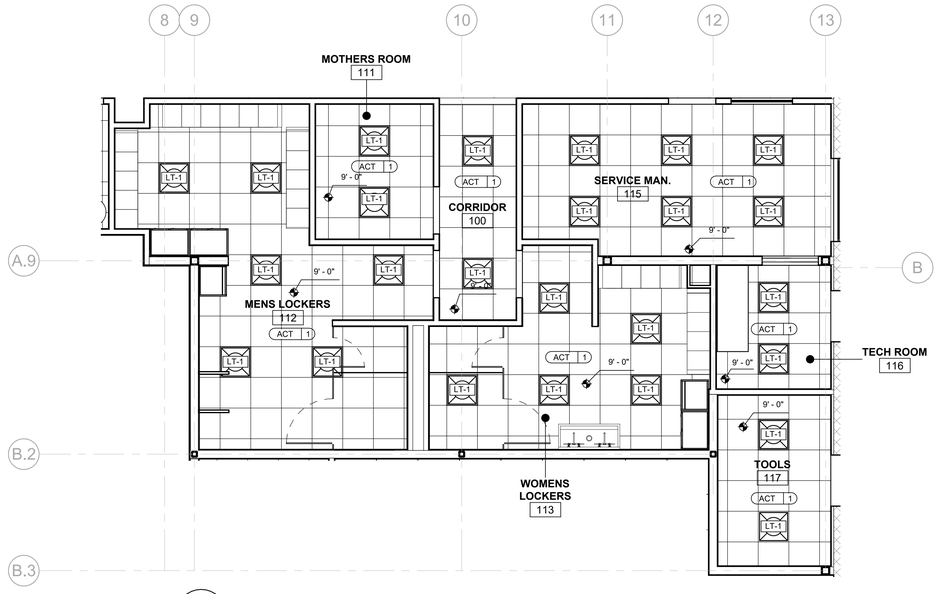
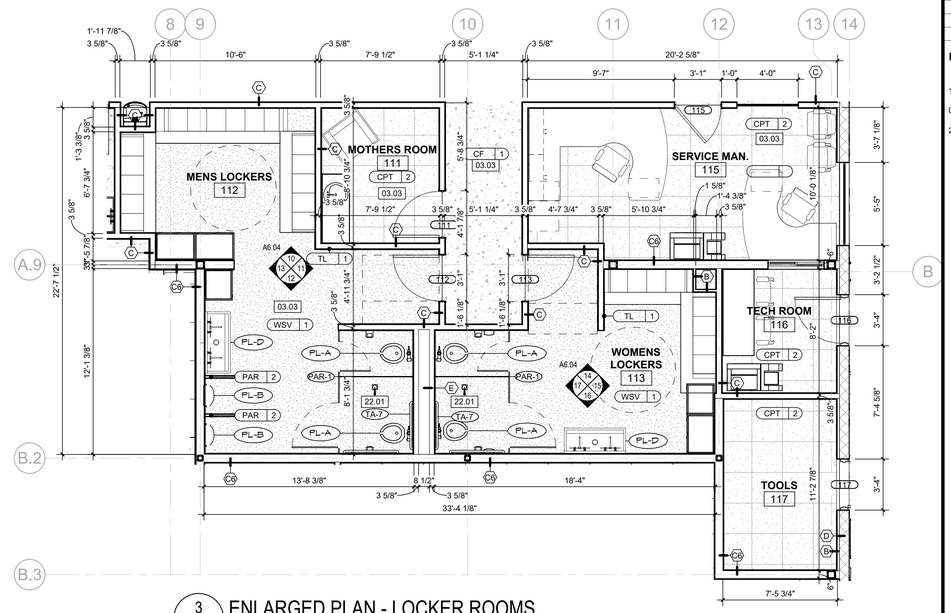
INTERIOR SCHEDULES

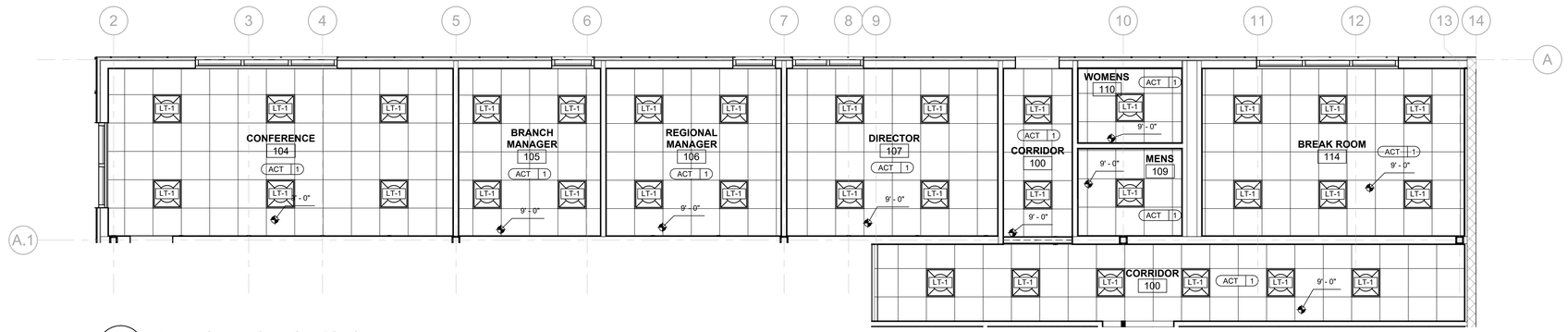
A6.01



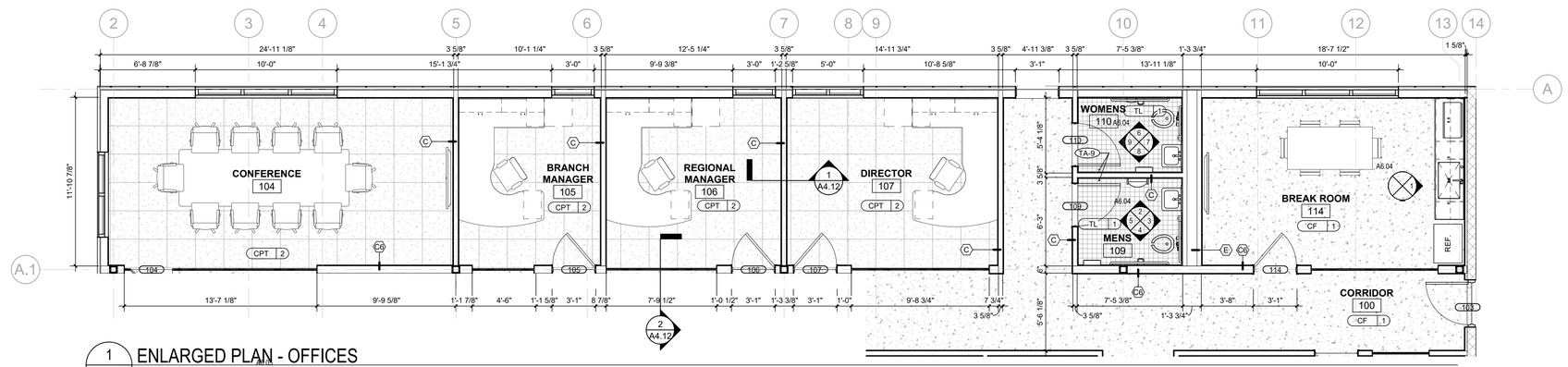
4 A6.02 ENLARGED RCP - LOCKER ROOMS
SCALE: 1/4" = 1'-0"



3 A6.02 ENLARGED PLAN - LOCKER ROOMS
SCALE: 1/4" = 1'-0"



2 A6.02 ENLARGED RCP - OFFICES
SCALE: 1/4" = 1'-0"



1 A6.02 ENLARGED PLAN - OFFICES
SCALE: 1/4" = 1'-0"

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03.03 REINFORCED CONCRETE SLAB ON GRADE. REFER TO STRUCTURAL DRAWINGS.

22.01 FLOOR TRENCH DRAIN. REFER TO PLUMBING DRAWINGS.

STATE OF OHIO REGISTERED ARCHITECT DOMINICK DURANTE, JR. LICENSE 07286 EXPIRATION 12/31/2027

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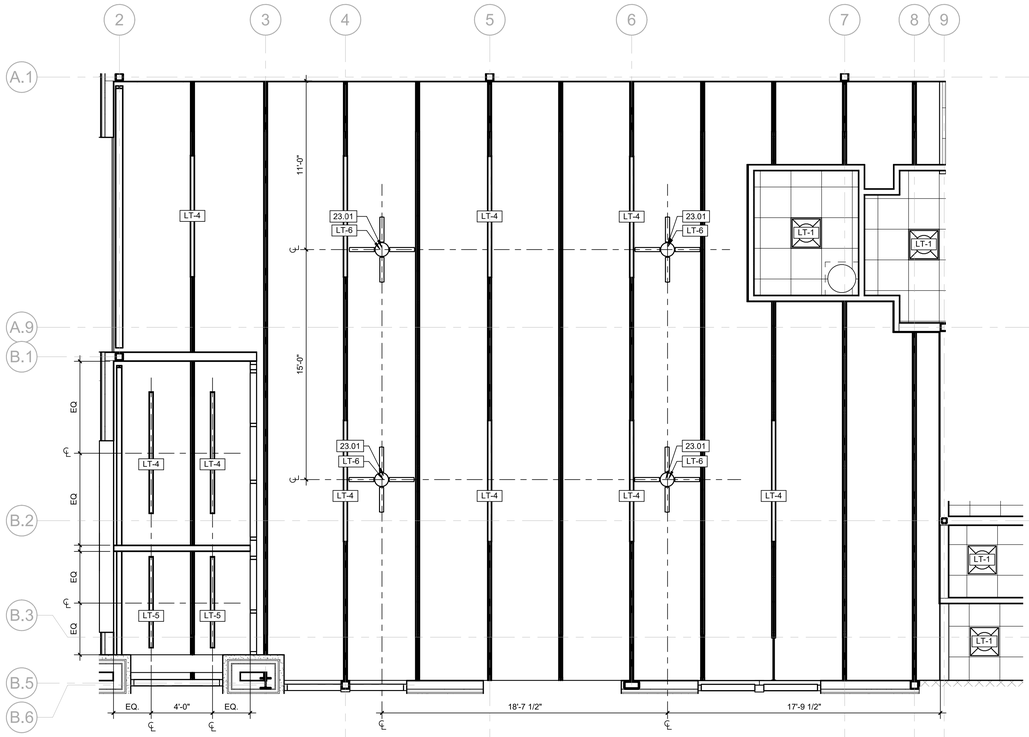
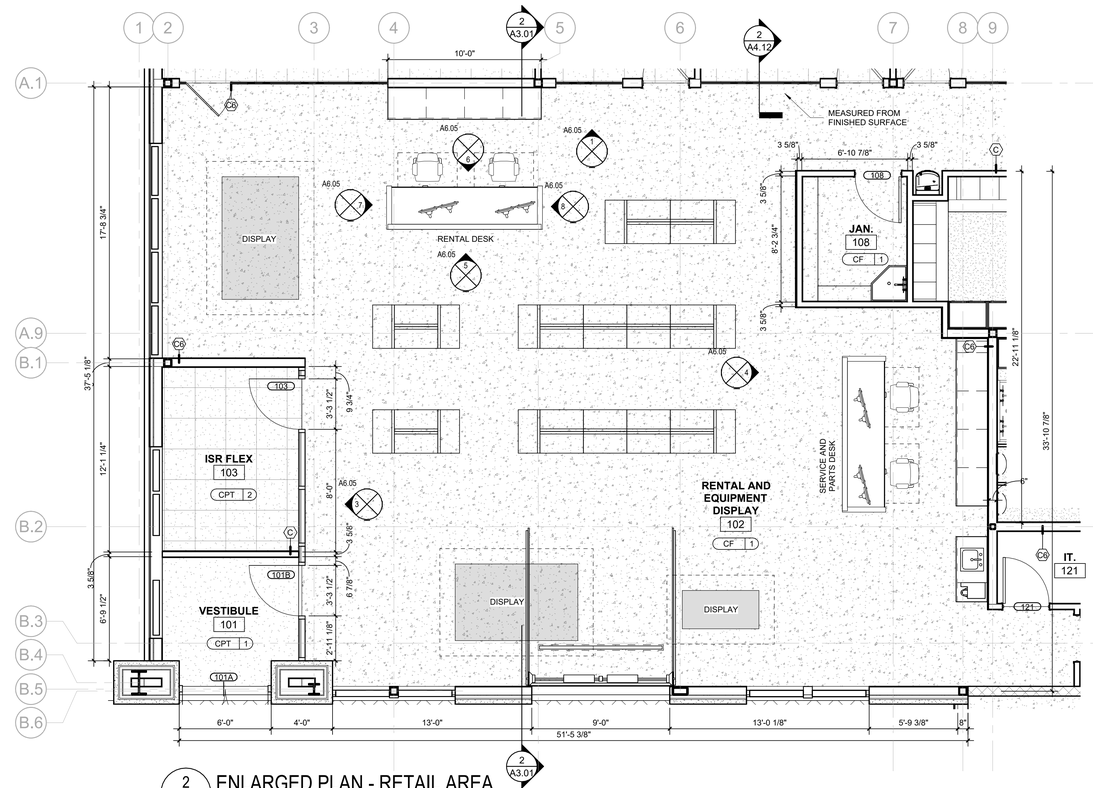
ENLARGED FLOOR PLANS

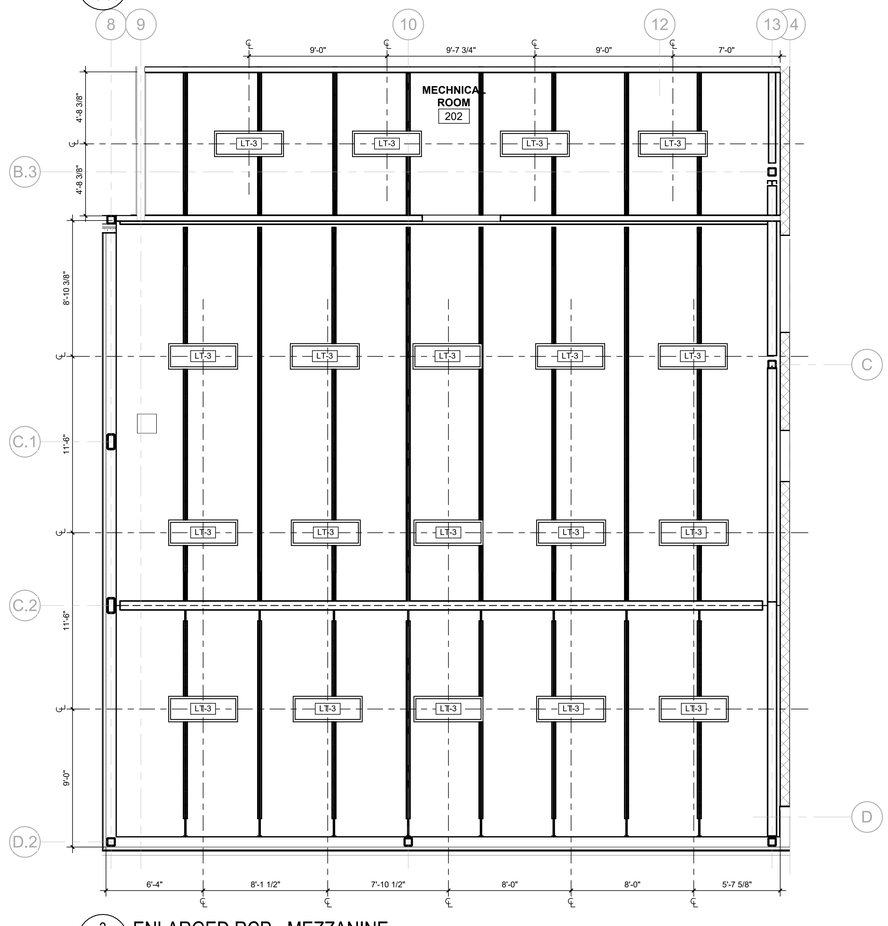
A6.02



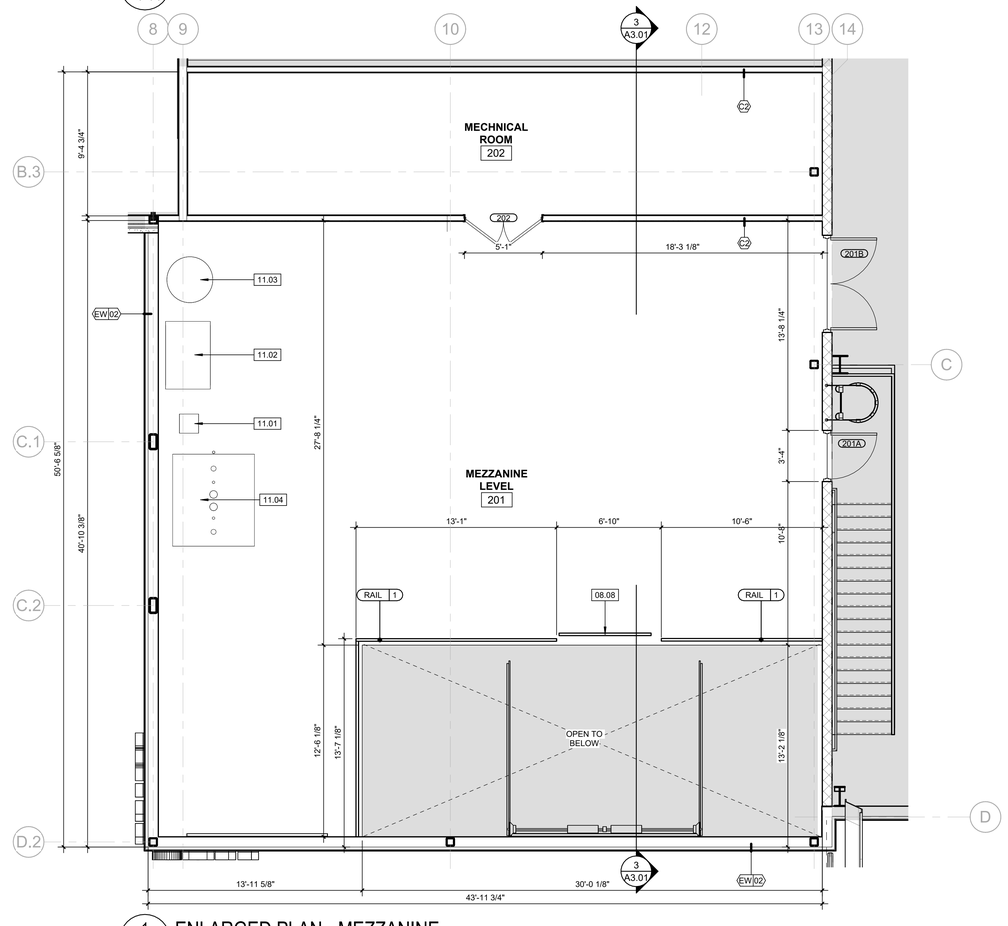
4 A6.03 ENLARGED RCP - RETAIL AREA
SCALE: 1/4" = 1'-0"



2 A6.03 ENLARGED PLAN - RETAIL AREA
SCALE: 1/4" = 1'-0"



3 A6.03 ENLARGED RCP - MEZZANINE
SCALE: 1/4" = 1'-0"



1 A6.03 ENLARGED PLAN - MEZZANINE
SCALE: 1/4" = 1'-0"

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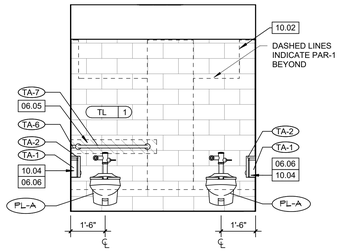
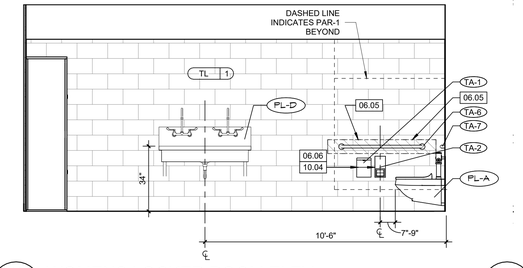
LDA Project No.2026.11

ENLARGED FLOOR PLANS

A6.03



17 A6.04 WOMENS LOCKER ROOM ELEV
SCALE: 3/8" = 1'-0"



16 A6.04 WOMENS LOCKER ROOM ELEV
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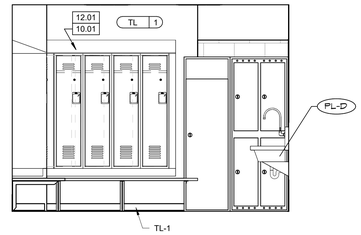

15 A6.04 WOMENS LOCKER ROOM ELEV
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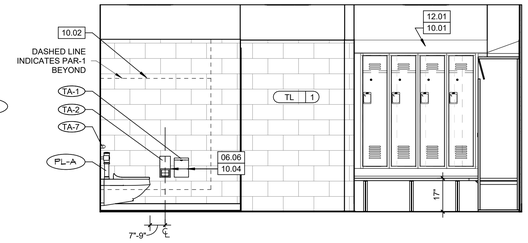
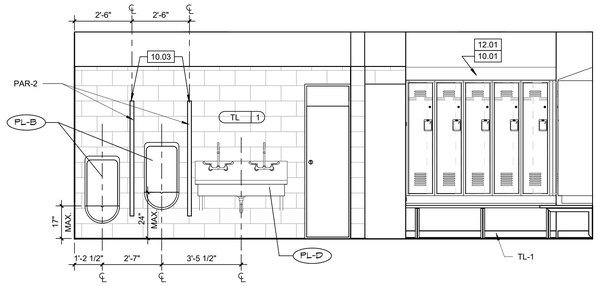
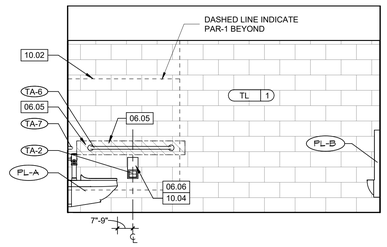


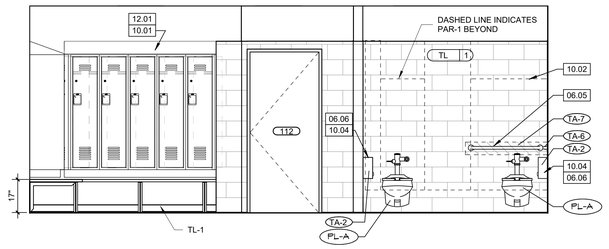
14 A6.04 WOMENS LOCKER ROOM ELEV
SCALE: 3/8" = 1'-0"



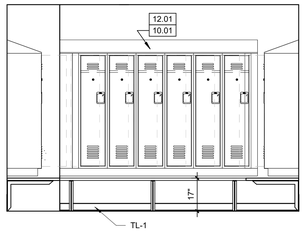
13 A6.04 MENS LOCKER ROOM ELEV
SCALE: 3/8" = 1'-0"



12 A6.04 MENS LOCKER ROOM ELEV
SCALE: 3/8" = 1'-0"



11 A6.04 MENS LOCKER ROOM ELEV
SCALE: 3/8" = 1'-0"



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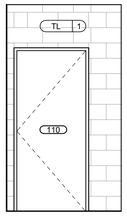
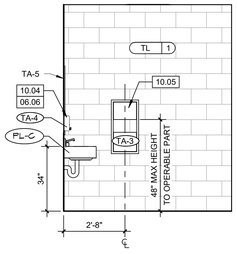


9 A6.04 WOMENS RESTROOM ELEV
SCALE: 3/8" = 1'-0"



8 A6.04 WOMENS RESTROOM ELEV
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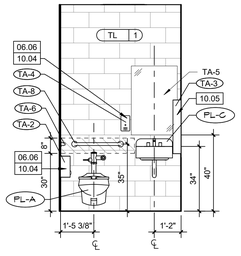

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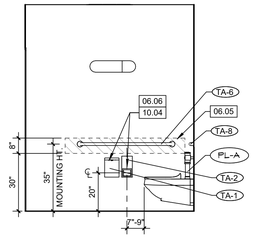
SCALE: 3/8" = 1'-0"



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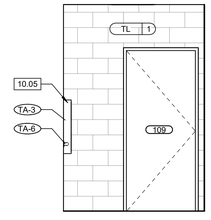
SCALE: 3/8" = 1'-0"



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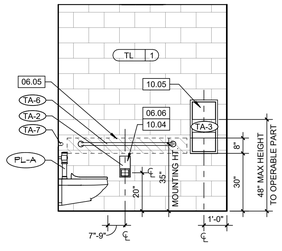

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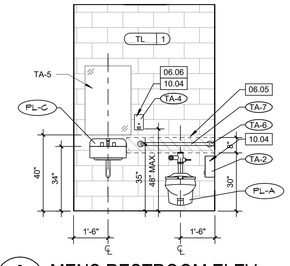
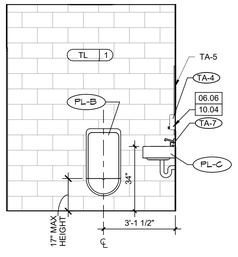
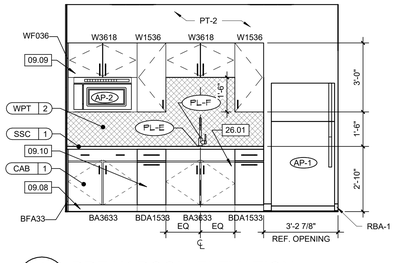


3 A6.04 MENS RESTROOM ELEV
SCALE: 3/8" = 1'-0"



2 A6.04 MENS RESTROOM ELEV
SCALE: 3/8" = 1'-0"



1 A6.04 BREAK ROOM ELEVATION
SCALE: 3/8" = 1'-0"

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KEYED NOTES SPECIFIC TO THIS SHEET

TYPICAL UNLESS NOTED OTHERWISE

06.05	PROVIDE BLOCKING FOR INSTALLATION OF GRAB BARS TO FULLY COMPLY WITH ANSI A117.1.
06.06	PROVIDE BLOCKING FOR RESTROOM ACCESSORY.
09.08	CABINET BASE TO MATCH CABINET FINISH.
09.09	MICROWAVE CABINET.
09.10	PULL-OUT WASTE CABINET.
10.01	PROVIDE NEW LOCKER SYSTEM. PROVIDE BLOCKING AND SECURE TO WALL.
10.02	PROVIDE NEW CEILING MOUNTED PRIVACY TOILET PARTITIONS. CONTRACTOR TO COORDINATE BLOCKING IN THE CEILING.
10.03	PROVIDE NEW WALL-MOUNTED URINAL PARTITION.
10.04	PROVIDE NEW RESTROOM ACCESSORY.
10.05	VENDOR INSTALLED RESTROOM ACCESSORY.
12.01	SUMMIT LOCKERS - PHENOLIC INTEGRAL BENCH CUBBY LOCKER. INTEGRAL BASE. SLOPED TOP, COLOR TBD. 15"W X 18"D X 60"H.
26.01	PROVIDE AND INSTALL GARBAGE DISPOSAL UNDER SINK. SWITCH TO BE ON BACK WALL FOR CONTROL.

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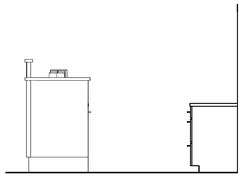
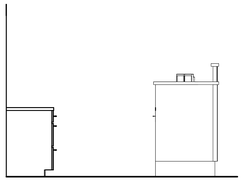
LDA Project No.2026.11

INTERIOR ELEVATIONS

A6.04



8 A6.05 RENTAL DESK - RIGHT
SCALE: 3/8" = 1'-0"



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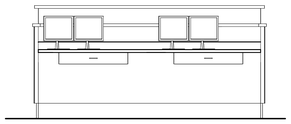

6 A6.05 RENTAL DESK - BACK
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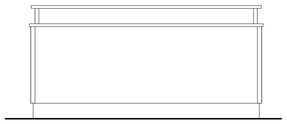

5 A6.05 RENTAL DESK - FRONT
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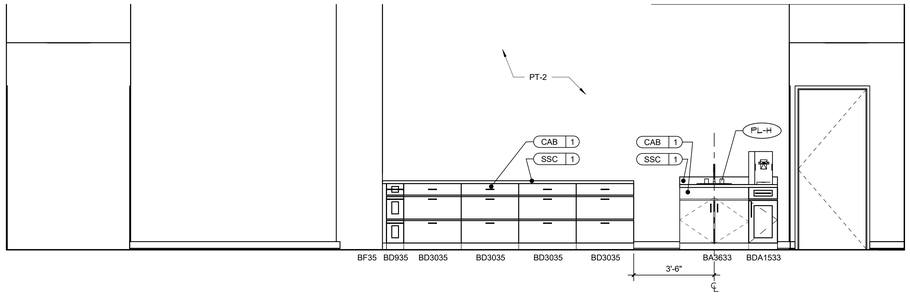
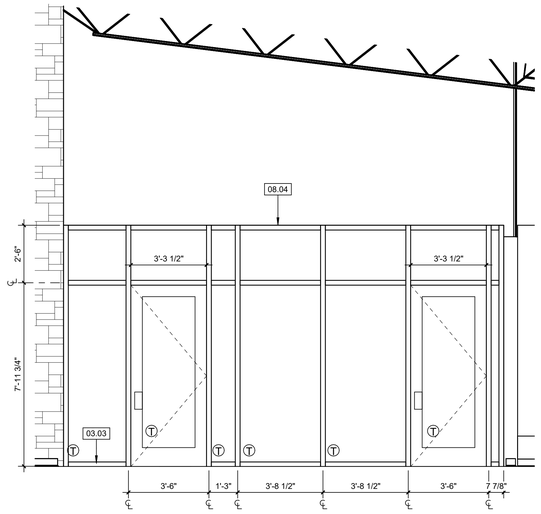
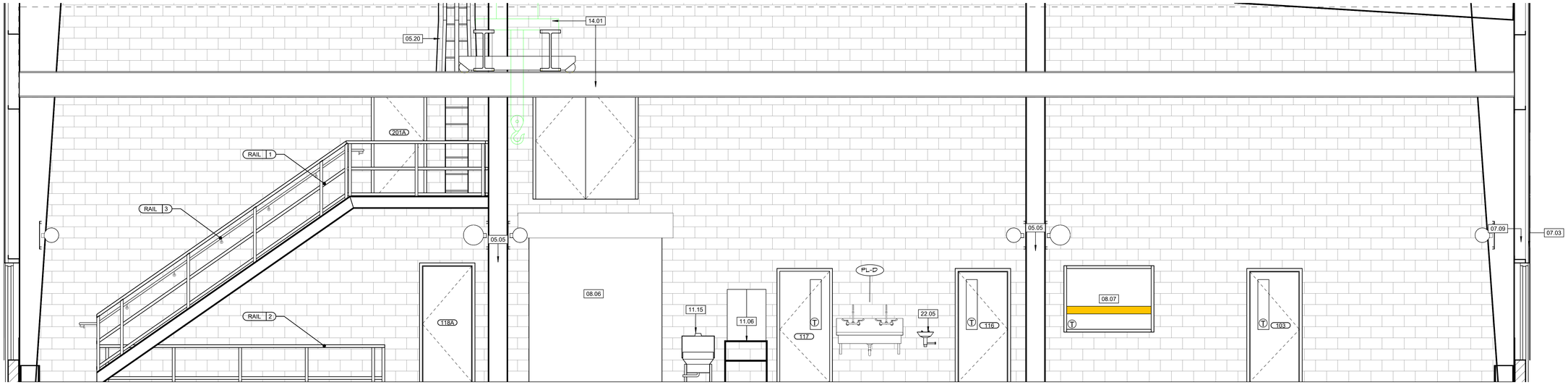


4 A6.05 RETAIL AREA - PLAN EAST
SCALE: 3/8" = 1'-0"



3 A6.05 INT. ENTRY ELEVATION - STOREFRONT
SCALE: 3/8" = 1'-0"



2 A6.05 CMU DIVIDING WALL INT. ELEVATION
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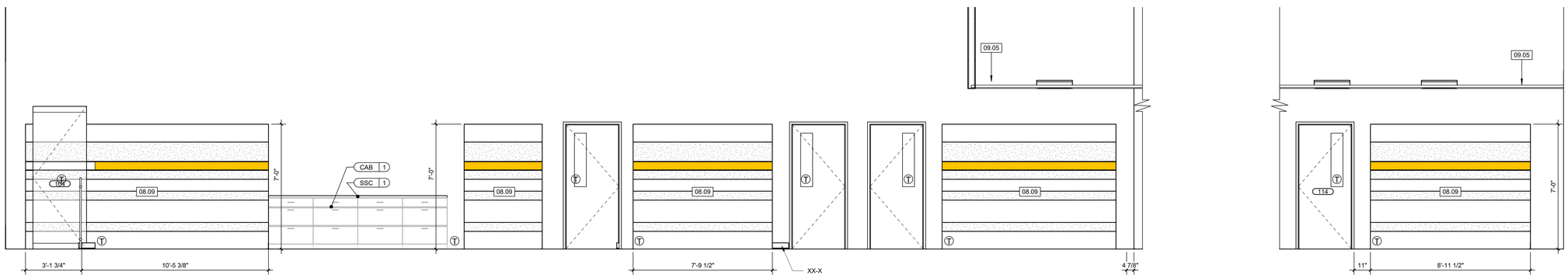

1 A6.05 INT. OFFICES - STOREFRONT
SCALE: 3/8" = 1'-0"

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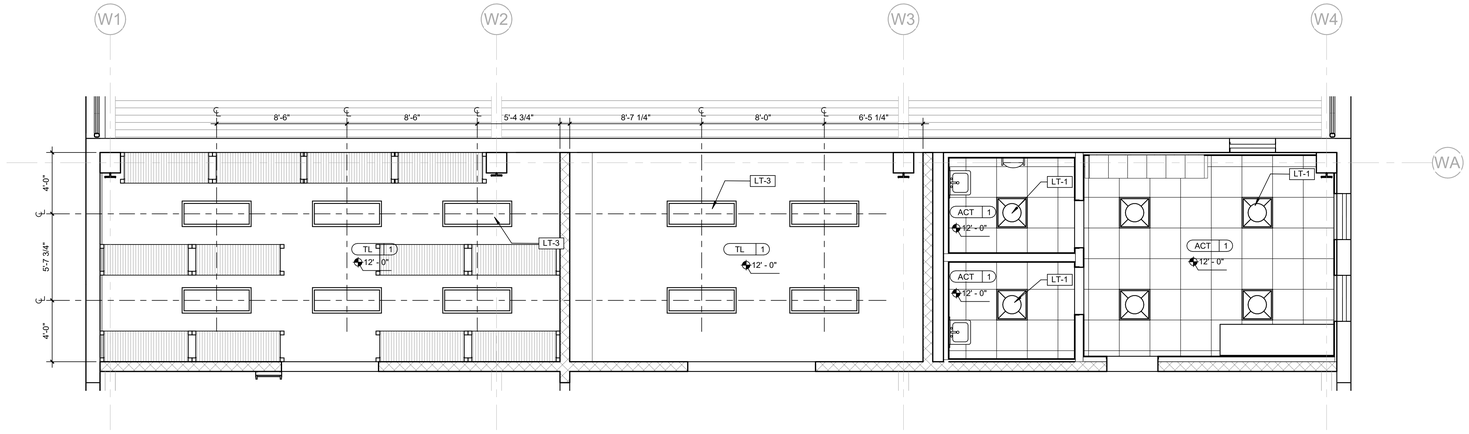
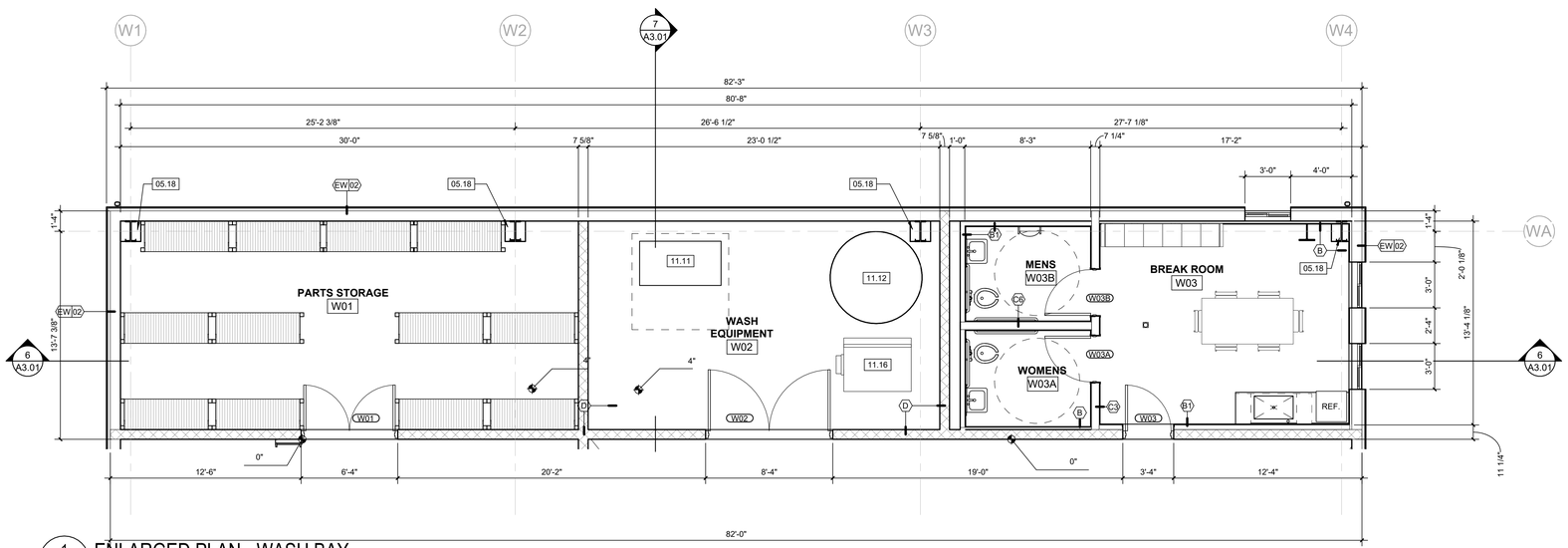
INTERIOR ELEVATIONS

A6.05



2 A6.06 ENLARGED RCP - WASH BAY

SCALE: 1/4" = 1'-0"



1 A6.06 ENLARGED PLAN - WASH BAY

SCALE: 1/4" = 1'-0"

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ENLARGED FLOOR PLANS & ELEVATIONS - WASH BAY

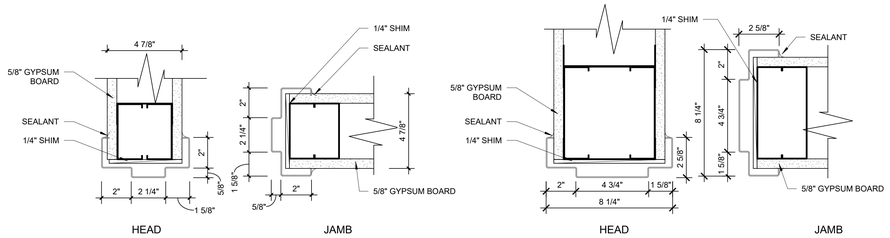
A6.06

DOOR SCHEDULE - WASH BAY

LOCATION		DESCRIPTION			SIZE			FRAME				FIRE		
NUMBER	ROOM NAME	TYPE	MATERIAL	FINISH	HEIGHT	WIDTH	THICKNESS	SIZE	TYPE	MATERIAL	FINISH	RATING	HW SET	REMARKS
FIRST FLOOR														
W01	QUICK INSPECT	D	HM	PNT	7' - 0"	6' - 0"	0' - 1 3/4"	0' - 5 3/4"	D	HM	PNT			
W02	WASH BAY	L	HM	PNT	8' - 0"	8' - 0"	0' - 1 3/4"	0' - 5 3/4"	D	HM	PNT			
W03	WASH BAY	D	HM	PNT	7' - 0"	3' - 0"	0' - 1 3/4"	0' - 5 3/4"	D	HM	PNT			
W04A	WASH BAY	D	FRP	PRE	7' - 0"	3' - 0"	0' - 1 3/4"	0' - 5 3/4"	F	IHM	PNT			
W04B	QUICK INSPECT	D	FRP	PRE	7' - 0"	3' - 0"	0' - 1 3/4"	0' - 5 3/4"	D	IHM	PNT			
W05	QUICK INSPECT	D	FRP	PRE	7' - 0"	3' - 0"	0' - 1 3/4"	0' - 5 3/4"	F	IHM	PNT			
W10	MEZZANINE STORAGE	X	-	-	7' - 0"	3' - 0"		0' - 7 5/8"	-	-	-			OPENING

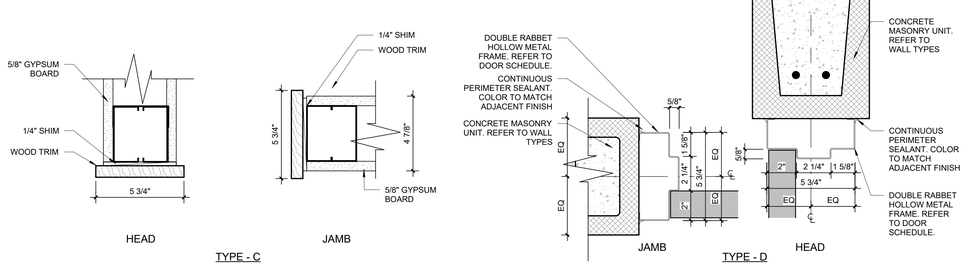
GARAGE DOOR SCHEDULE - WASH BAY

LOCATION		DESCRIPTION			SIZE			FRAME				THRESHOLD	FIRE		
NUMBER	ROOM NAME	TYPE	MATERIAL	FINISH	HEIGHT	WIDTH	THICKNESS	SIZE	TYPE	MATERIAL	FINISH	MATERIAL	RATING	HW SET	REMARKS
FIRST FLOOR															
GW1	QUICK INSPECT	G-3	INS	PRE	20' - 0"	20' - 0"	0' - 2"	0' - 8"							
GW2	WASH BAY	G-3	INS	PRE	20' - 0"	20' - 0"	0' - 2"	0' - 11"							
GW3	QUICK INSPECT	G-3	INS	PRE	20' - 0"	20' - 0"	0' - 3"								



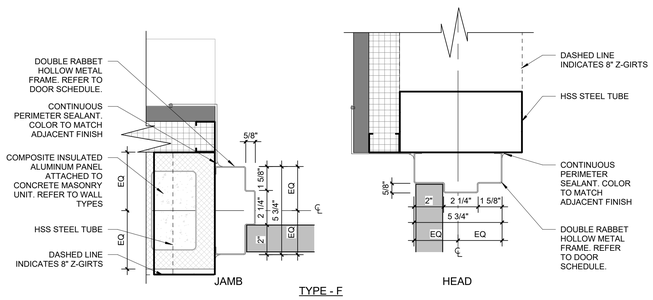
TYPE - A

TYPE - B



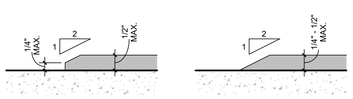
TYPE - C

TYPE - D



TYPE - F

DOOR DETAILS



LEVEL CHANGE REQUIREMENTS
*ALL THRESHOLDS TO COMPLY WITH DETAIL

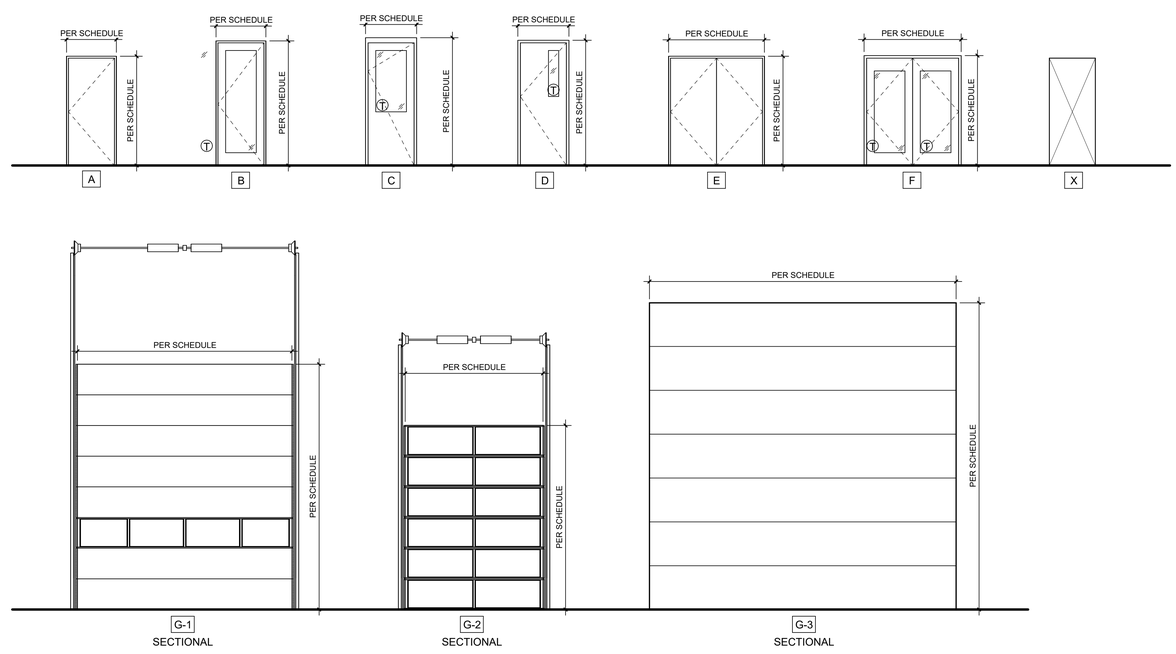
DOOR THRESHOLD

DOOR SCHEDULE

LOCATION		DESCRIPTION			SIZE			FRAME				FIRE		
NUMBER	ROOM NAME	TYPE	MATERIAL	FINISH	HEIGHT	WIDTH	THICKNESS	SIZE	TYPE	MATERIAL	FINISH	RATING	HW SET	REMARKS
FIRST FLOOR														
101A	VESTIBULE	F	AL	PRE	8' - 0"	5' - 7"	0' - 1 3/4"		--	AL	PRE			
101B	VESTIBULE	B	AL	PRE	7' - 10 3/4"	3' - 3 1/2"	0' - 1 3/4"		--	AL	PRE			
103	CORRIDOR	D	HM	PNT	6' - 8"	3' - 0"	0' - 1 3/4"	0' - 5 3/4"	D	HM	PNT			
103	ISR FLEX	B	AL	PRE	7' - 10 3/4"	3' - 3 1/2"	0' - 1 3/4"		A	AL	PRE			
103A	CORRIDOR	C	IHM	PNT	8' - 0"	3' - 0"	0' - 1 3/4"	0' - 11 1/4"	F	IHM	PNT			
104	CONFERENCE	K	WD	STN	8' - 0"	3' - 0"	0' - 1"		D	HM	PNT			
105	BRANCH MANAGER	D	WD	STN	7' - 0"	3' - 0"	0' - 1 3/4"	0' - 8 1/4"	D	HM	PNT			
106	REGIONAL MANAGER	D	WD	STN	7' - 0"	3' - 0"	0' - 1 3/4"	0' - 8 1/4"	D	HM	PNT			
107	DIRECTOR	D	WD	STN	7' - 0"	3' - 0"	0' - 1 3/4"	0' - 8 1/4"	D	HM	PNT			
108	JAN.	A	HM	PNT	7' - 0"	3' - 0"	0' - 1 3/4"	0' - 5 7/8"	A	HM	PNT			
109	MENS	A	WD	STN	7' - 0"	3' - 0"	0' - 1 3/4"	0' - 5 7/8"	A	HM	PNT			
110	WOMENS	A	WD	STN	7' - 0"	3' - 0"	0' - 1 3/4"	0' - 5 7/8"	A	HM	PNT			
111	MOTHERS ROOM	A	WD	STN	7' - 0"	3' - 0"	0' - 1 3/4"	0' - 5 7/8"	A	HM	PNT			
112	MENS LOCKERS	A	WD	STN	7' - 0"	3' - 0"	0' - 1 3/4"	0' - 5 7/8"	A	HM	PNT			
113	WOMENS LOCKERS	A	WD	STN	7' - 0"	3' - 0"	0' - 1 3/4"	0' - 5 7/8"	A	HM	PNT			
114	BREAK ROOM	D	WD	STN	7' - 0"	3' - 0"	0' - 1 3/4"	0' - 8 1/4"	D	HM	PNT			
115	SERVICE MAN.	D	WD	STN	7' - 0"	3' - 0"	0' - 1 3/4"	0' - 5 7/8"	D	HM	PNT			
116	TECH ROOM	D	HM	PNT	6' - 8"	3' - 0"	0' - 1 3/4"	0' - 5 3/4"	D	HM	PNT			
117	TOOLS	D	HM	PNT	6' - 8"	3' - 0"	0' - 1 3/4"	0' - 5 3/4"	D	HM	PNT			
118A	PARTS	A	HM	PNT	7' - 0"	3' - 0"	0' - 1 3/4"		D	HM	PNT			
118B	PARTS	C	IHM	PNT	8' - 0"	3' - 0"	0' - 1 3/4"	0' - 6 3/4"	F	IHM	PNT			
118C	RENTAL AND EQUIPMENT DISPLAY	A	WD	STN	7' - 0"	3' - 0"	0' - 1 3/4"	0' - 5 7/8"	A	HM	PNT			
119A	OIL/HOSE ROOM	D	HM	PNT	6' - 8"	3' - 0"	0' - 1 3/4"	0' - 5 3/4"	D	HM	PNT	45		
119B	OIL/HOSE ROOM	A	IHM	PNT	7' - 0"	3' - 0"	0' - 1 3/4"		F	IHM	PNT			
120	WATER ROOM	A	IHM	PNT	7' - 0"	3' - 0"	0' - 1 3/4"		F	IHM	PNT			
121	IT.	A	WD	STN	7' - 0"	3' - 0"	0' - 1 3/4"	0' - 5 7/8"	A	HM	PNT			
122A	SERVICE SHOP	D	FRP	PRE	7' - 0"	3' - 0"	0' - 1 3/4"	0' - 5 3/4"	F	IHM	PNT			
122B	SERVICE SHOP	D	FRP	PRE	7' - 0"	3' - 0"	0' - 1 3/4"	0' - 5 3/4"	F	IHM	PNT			
122C	SERVICE SHOP	D	FRP	PRE	7' - 0"	3' - 0"	0' - 1 3/4"	0' - 5 3/4"	F	IHM	PNT			
W03A	WOMENS	A	WD	STN	7' - 0"	3' - 0"	0' - 1 3/4"	0' - 8 1/4"	A	HM	PNT			
W03B	MENS	A	WD	STN	7' - 0"	3' - 0"	0' - 1 3/4"	0' - 8 1/4"	A	HM	PNT			
MEZZANINE														
201A	MEZZANINE LEVEL	A	HM	PNT	7' - 0"	3' - 0"	0' - 1 3/4"		A	HM	PNT			
201B	MEZZANINE LEVEL	D	HM	PNT	7' - 0"	6' - 0"	0' - 1 3/4"	0' - 5 3/4"	A	HM	PNT			
202	MECHNICAL ROOM	E	HM	PNT	7' - 0"	5' - 0"	0' - 1 3/4"	0' - 5 7/8"	D	HM	PNT			

GARAGE DOOR SCHEDULE

LOCATION		DESCRIPTION			SIZE			FIRE	
NUMBER	ROOM LOCATION - TYPE	TYPE	MATERIAL	FINISH	HEIGHT	WIDTH	THICKNESS	RATING	REMARKS
FIRST FLOOR									
01	SERVICE SHOP	G-1	INS	PRE	16' - 0"	14' - 0"	0' - 2"		
02	SERVICE SHOP	G-1	INS	PRE	16' - 0"	14' - 0"	0' - 2"		
03	SERVICE SHOP	G-1	INS	PRE	16' - 0"	14' - 0"	0' - 2"		
04	SERVICE SHOP	G-1	INS	PRE	16' - 0"	14' - 0"	0' - 2"		
05	SERVICE SHOP	G-1	INS	PRE	16' - 0"	14' - 0"	0' - 2"		
06	SERVICE SHOP	G-1	INS	PRE	16' - 0"	14' - 0"	0' - 2"		
07	SERVICE SHOP	G-1	INS	PRE	16' - 0"	14' - 0"	0' - 2"		
08	PARTS	H	INS	PRE	12' - 0"	12' - 0"	0' - 2"		
09	OIL/HOSE ROOM	G-1	INS	PRE	8' - 0"	9' - 0"	0' - 2"		
10	RENTAL AND EQUIPMENT DISPLAY	G-2	INS	PRE	12' - 0"	9' - 0"	0' - 2"		
15	SERVICE SHOP	G-3	INS	PRE	8' - 8"	8' - 0"	0' - 3"		



DOOR LEGEND

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GENERAL NOTES - DOOR SCHEDULE

1. ANSI 404.2.6: OPERABLE PARTS OF HARDWARE SHALL BE 34 INCHES MINIMUM AND 48 INCHES MAXIMUM ABOVE THE FLOOR.

2. ANSI 404.2.7: A) DOOR CLOSERS SHALL BE ADJUSTED SO THAT FORM AN OPEN POSITION OF 90 DEGREES, THE TIME REQUIRED TO MOVE THE DOOR TO AN OPEN POSITION OF 12 DEGREES SHALL BE 5 SECOND MINIMUM. B) DOOR SPRING HINGES SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 70 DEGREES, THE DOOR SHALL MOVE TO THE CLOSED POSITION IN 1.5 SECONDS MINIMUM.

3. ANSI 404.2.9: DOOR SURFACES WITHIN 10 INCHES OF THE FLOOR, MEASURED VERTICALLY, SHALL BE A SMOOTH SURFACE ON THE PUSH SIDE EXTENDING THE FULL WIDTH OF THE DOOR.

4. ANSI 404.2.10: DOOR AND SIDELITES ADJACENT TO DOORS CONTAINING ONE OR MORE GLAZING PANELS THAT PERMIT VIEWING THROUGH THE PANELS SHALL HAVE THE BOTTOM OF AT LEAST ONE PANEL ON EITHER THE DOOR OR AN ADJACENT SIDELITE 43 INCHES MAX. ABOVE THE FLOOR.

5. REFER TO ACCESSIBILITY STANDARD SHEETS (G2.01 SERIES) FOR ALL REQUIRED DOOR APPROACHES AND CLEARANCES REQUIRED.

7. DOOR ABBREVIATIONS:
AL: ALUMINUM
FRP: INSULATED FIBERGLASS
HM: HOLLOW METAL
INS: INSULATED STEEL
PNT: PAINT
PRE: PRE-FINISHED - OWNER TO SELECT
WD: 5-PLY WOOD DOOR WITH VENEER
T : TEMPERED SAFETY GLAZING
STN: STAINED FINISH BY MANUF.
STL: STEEL
STS: STAINLESS STEEL CORNER TRIM

8. DOOR HARDWARE. ALL DOORS TO BE ALLEGION/SCHLEGE PRODUCT FAMILES. SEE GENERAL NOTES IN SCHEDULE.

A. ALL HARDWARE TO COMPLY WITH ACCESSIBILITY GUIDELINES.
B. ALL DOOR HARDWARE TO BE LEVER HANDLE STYLE.
C. KEYING SHALL BE PER OWNER'S REQUIREMENTS AND KEY CONTROL SYSTEM.
D. HINGES AND BUTTS SHALL BE MORTISE TYPE.
E. PROVIDE WALL OR FLOOR MOUNTED DOOR STOPS, TYPICAL AT ALL DOORS.
F. KNOCK-DOWN HOLLOW METAL FRAMES SHALL BE 18 GA. FACTORY-PRIMED. PROVIDE DOOR SILENCERS AND PLASTER GUARDS.
G. ALL SIDELIGHTS AND WINDOWS WITHIN 24" OF A DOOR JAMB SHALL BE TEMPERED GLAZING.
H. PAINT ALL HOLLOW METAL FRAMES PER SPECIFICATIONS.

9. OBC 716.5.7.4: FIRE DOOR FRAMES SHALL BE LABELED SHOWING THE NAMES OF THE MANUFACTURERS AND THE THIRD-PARTY INSPECTION AGENCY.

10. OBC 716.5: DOOR VISION PANEL SIZE TO BE MAX. 100 SQ. IN. AT ALL DOORS RATED FOR 1-HR OR GREATER.

STATE OF OHIO
DOMINICK DURANTE, JR.
7286
REGISTERED ARCHITECT

DOMINICK DURANTE, JR.
LICENSE 07286
EXPIRATION 12/31/2027

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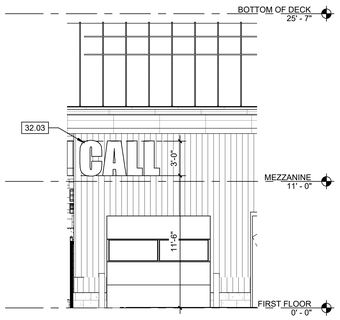
RENTAL FACILITY
490 BYERS ROAD, MIAMISBURG, OHIO 45342

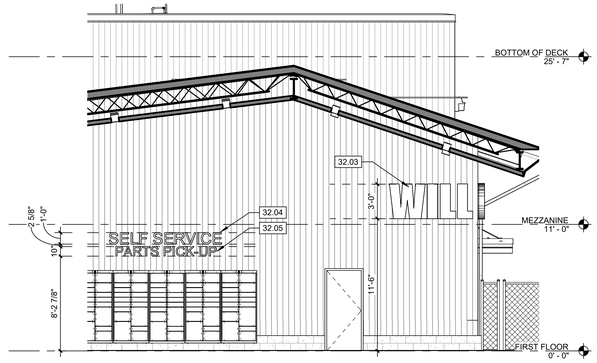
LDA Project No.2026.11

DOOR SCHEDULE & DETAILS

A7.00



6 A8.01 SOUTH ELEVATION - LETTER SIGNAGE 02
SCALE: 3/16" = 1'-0"



3 A8.01 WEST ELEVATION - LETTER SIGNAGE 01
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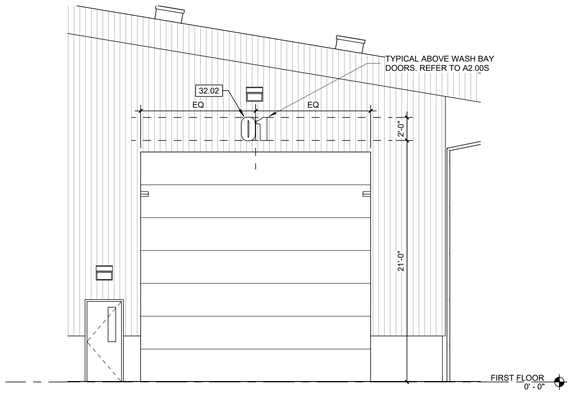
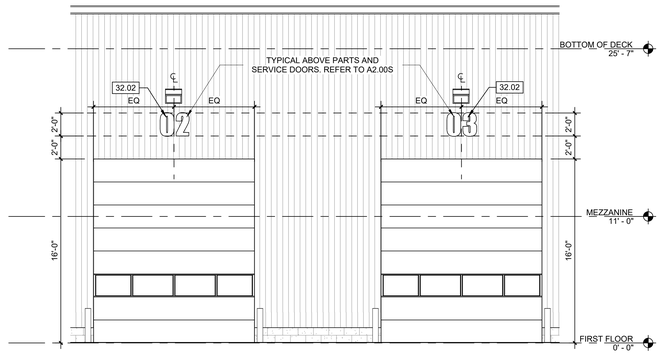


5 A8.01 TYP. GARAGE SIGNAGE - WASH BAY
SCALE: 3/16" = 1'-0"



2 A8.01 TYP. GARAGE SIGNAGE
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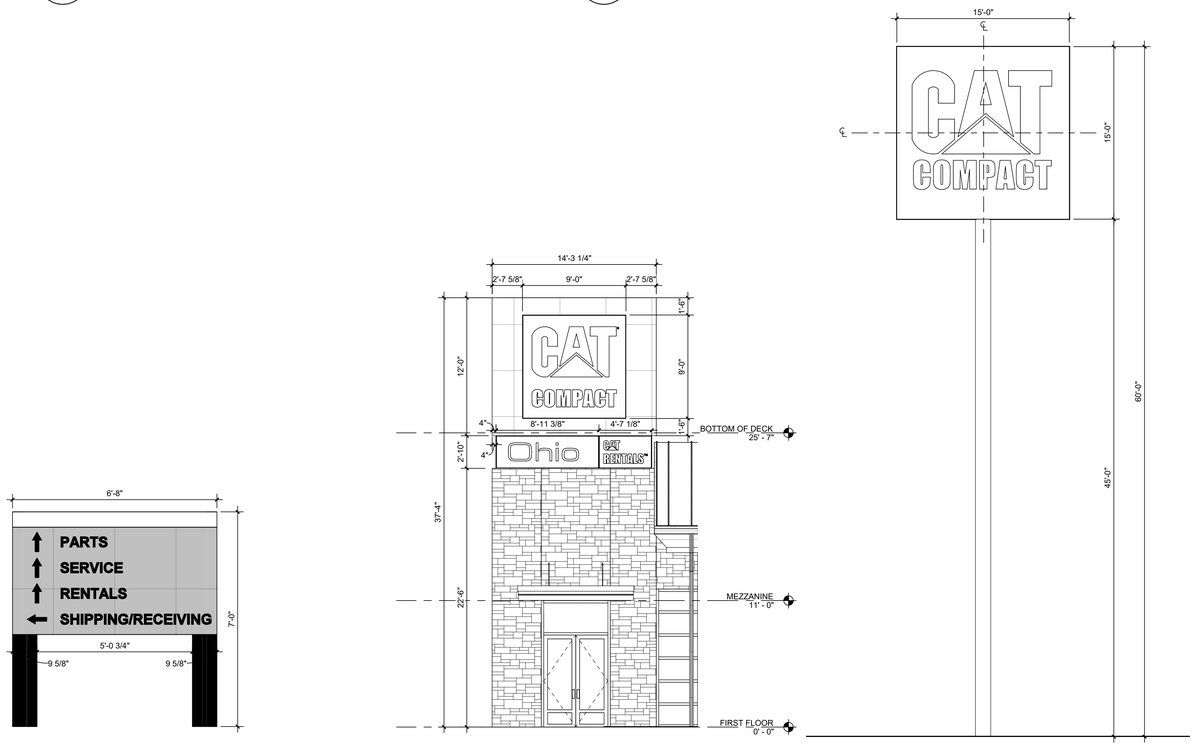

7 A8.01 TYP. WAYFINDING SIGNAGE
SCALE: 1/2" = 1'-0"

4 A8.01 RETAIL ENTRY SIGNAGE
SCALE: 3/16" = 1'-0"

1 A8.01 HIGHWAY SIGNAGE ELEVATION
SCALE: 3/16" = 1'-0"

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KEYED NOTES SPECIFIC TO THIS SHEET

REFERENCED BY THE SYMBOL

TYPICAL UNLESS NOTED OTHERWISE

32.02 ALUMINUM BAY LETTERS, 24" HIGH x 0.125" THICK, PROVIDED BY TOLEDO SIGN CO.
32.03 ALUMINUM LETTERS, 36" HIGH X 0.125" THICK, PROVIDED BY TOLEDO SIGN CO.
32.04 ALUMINUM LETTERS, 12" HIGH X 0.125" THICK, PROVIDED BY TOLEDO SIGN CO.
32.05 ALUMINUM LETTERS, 10" HIGH X 0.125" THICK, PROVIDED BY TOLEDO SIGN CO.

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EXPIRATION 12/31/2027

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MIAMISBURG - CAT
RENTAL FACILITY
490 BYERS ROAD, MIAMISBURG, OHIO 45342

LDA Project No.2026.11

EXTERIOR SIGNAGE DETAILS

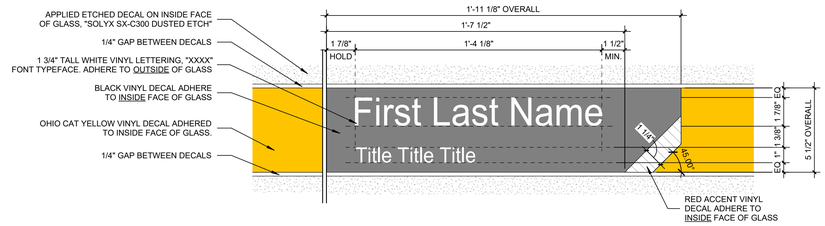
A8.01

ROOM SIGN SCHEDULE

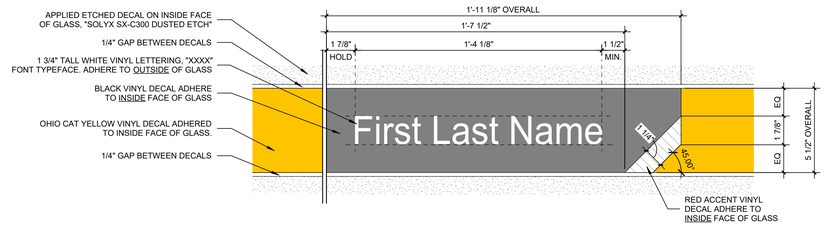
TYPE	Level	LOCATION: ROOM NUMBER	LOCATION: ROOM NAME	NOTES
	MEZZANINE	W10	MEZZANINE STORAGE	
A				
A	FIRST FLOOR	105	BRANCH MANAGER	
A	FIRST FLOOR	106	REGIONAL MANAGER	
A	FIRST FLOOR	107	DIRECTOR	
A	FIRST FLOOR	115	SERVICE MAN.	
B				
B	FIRST FLOOR	118	PARTS	
B	FIRST FLOOR	104	CONFERENCE	
B	FIRST FLOOR	114	BREAK ROOM	
B	Not Placed	112	MOTHERS RM.	
B	FIRST FLOOR	116	TECH ROOM	
B	FIRST FLOOR	117	TOOLS	
B	FIRST FLOOR	103	ISR FLEX	
B	MEZZANINE	202	MECHNICAL ROOM	
B	Not Placed	121	ELEC.	
B	FIRST FLOOR	121	IT.	
B	FIRST FLOOR	119	OIL/HOSE ROOM	
B	FIRST FLOOR	111	MOTHERS ROOM	
B	FIRST FLOOR	120	WATER ROOM	
B	FIRST FLOOR	108	JAN.	
C1				
C1	FIRST FLOOR	112	MENS LOCKERS	
C2				
C2	FIRST FLOOR	113	WOMENS LOCKERS	
D1				
D1	FIRST FLOOR	109	MENS	
D2				
D2	FIRST FLOOR	110	WOMENS	
H				
H	MEZZANINE	201	MEZZANINE LEVEL	

ROOM SIGN SCHEDULE - WASH BAY

TYPE	Level	LOCATION: ROOM NUMBER	LOCATION: ROOM NAME	NOTES
B				
B	FIRST FLOOR	W02	WASH EQUIPMENT	
B	FIRST FLOOR	W01	PARTS STORAGE	
B	FIRST FLOOR	W03	BREAK ROOM	
D1				
D1	FIRST FLOOR	W03A	WOMENS	
D2				
D2	FIRST FLOOR	W03B	MENS	

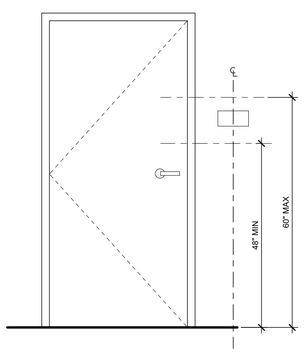


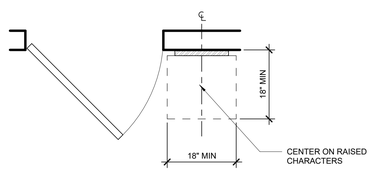
A NOTE: AT LONG NAMES, SCALE TEXT WIDTH TO FIT ON ONE LINE



A NOTE: AT LONG NAMES, SCALE TEXT WIDTH TO FIT ON ONE LINE

2 / A8.02 A-OFFICE SIGNAGE
SCALE: 3" = 1'-0"

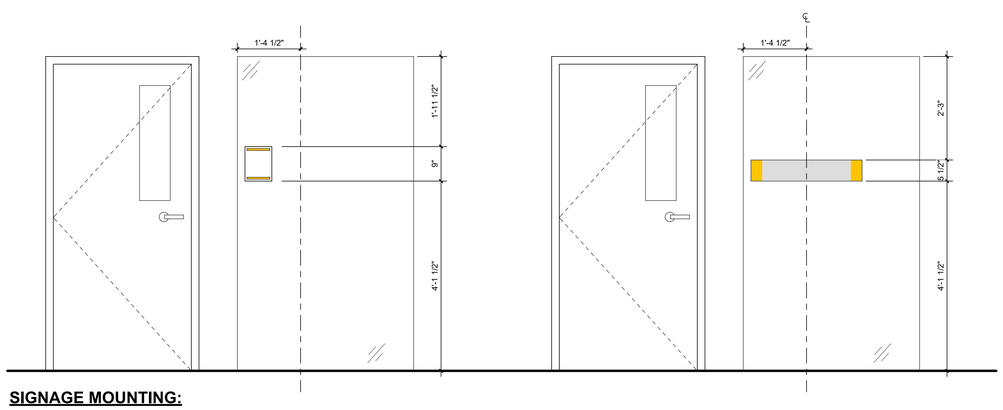




703.3.11 LOCATION
WHERE A SIGN CONTAINING RAISED CHARACTERS AND BRAILLE IS PROVIDED AT A DOOR, THE SIGN SHALL BE ALONGSIDE THE DOOR AT THE LATCH SIDE. WHERE A SIGN CONTAINING RAISED CHARACTERS AND BRAILLE IS PROVIDED AT DOUBLE DOORS WITH ONE ACTIVE LEAF, THE SIGN SHALL BE LOCATED ON THE INACTIVE LEAF. WHERE A SIGN CONTAINING RAISED CHARACTERS AND BRAILLE IS PROVIDED AT DOUBLE DOORS WITH TWO ACTIVE LEAVES, THE SIGN SHALL BE TO THE RIGHT OF THE RIGHT-HAND DOOR. WHERE THERE IS NO WALL SPACE ON THE LATCH SIDE OF A SINGLE DOOR, OR TO THE RIGHT SIDE OF DOUBLE DOORS, SIGNS SHALL BE ON THE NEAREST ADJACENT WALL. SIGNS CONTAINING RAISED CHARACTERS AND BRAILLE SHALL BE LOCATED SO THAT A CLEAR FLOOR AREA 18 INCHES (455 MM) MINIMUM BY 18 INCHES (455 MM) MINIMUM, CENTERED ON THE RAISED CHARACTERS IS PROVIDED BEYOND THE ARC OF ANY DOOR SWING BETWEEN THE CLOSED POSITION AND 45 DEGREE OPEN POSITION.

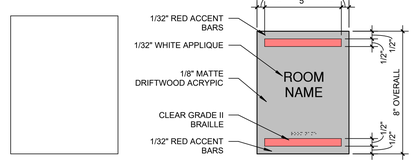
EXCEPTION: SIGNS CONTAINING RAISED CHARACTERS AND BRAILLE SHALL BE PERMITTED ON THE PUSH SIDE OF DOORS WITH CLOSERS AND WITHOUT HOLD-OPEN DEVICES.

703.4.5 MOUNTING HEIGHT
BRAILLE SHALL BE 48 INCHES (1220 MM) MINIMUM AND 60 INCHES (1525 MM) MAXIMUM ABOVE THE FLOOR, MEASURED TO THE BASELINE OF THE BRAILLE CELLS.



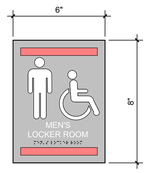
SIGNAGE MOUNTING:

SCALE: 3/4"=1'-0" REF. 404.2.3.2

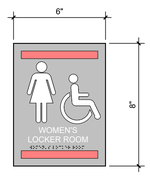


A
SEE "A-OFFICE SIGNAGE" DETAIL FOR MORE INFORMATION

B



C1
RESTROOM ID



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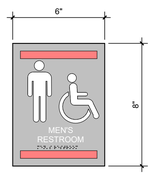
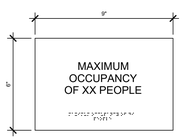


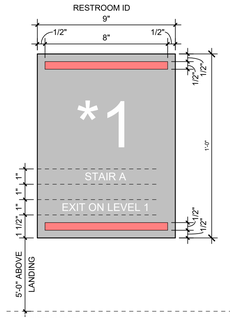
D1
RESTROOM ID

D2
RESTROOM ID

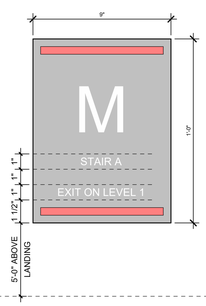
E
NO SMOKING SIGN



F
MAX OCCUPANCY SIGN



G
STAIRS



H
STAIRS

1 / A8.02 TYP. SIGNAGE
SCALE: 3" = 1'-0"

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INTERIOR GLASS PARTITION LEGEND

= CAT YELLOT VINYL ADHERED TO INSIDE OF GLASS.

= APPLIED ETCHED DECAL ADHERED TO INSIDE OF GLASS. SOLYX SX-C300 DUSTED ETCH

= CLEAR GLASS

(T) = TEMPERED GLAZING

1. DO NOT RUN DECALS OVER JOINTS IN GLASS. CUT AND TRIM AT JOINTS.

2. IT IS THE RESPONSIBILITY OF THE INTERIOR GLAZING INSTALLER TO VERIFY THE OVERALL DIMENSIONS AT EACH OPENING TO RECEIVE A GLAZING WALL PRIOR TO INSTALLATION OF THE GLAZING WALL SYSTEM.

3. ALL VERTICAL JOINTS BETWEEN GLAZING PANELS SHALL BE OF AS CONSISTENT WIDTH AS POSSIBLE AT EACH LOCATION. THERE SHALL BE NO UNEQUAL JOINTS WITHIN ANY SINGLE GLAZING WALL LOCATION - ANY MINOR VARIATION IN THE OVERALL DIMENSION SHOULD BE ACCOMODATED AT EACH END OF THE GLAZING WALL. IF A MAJOR VARIATION IS DISCOVERED, THE INTERIOR GLAZING INSTALLER SHALL NOTIFY THE ARCHITECT AND MANUFACTURER.

4. THE INTERIOR GLAZING INSTALLER SHALL COORDINATE WITH THE INTERIOR GLAZING MANUFACTURER TO DETERMINE THE MAXIMUM ALLOWABLE VERTICAL JOINT WIDTH.

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7280
REGISTERED ARCHITECT

DOMINICK DURANTE, JR.
LICENSE 07286
EXPIRATION 12/31/2027

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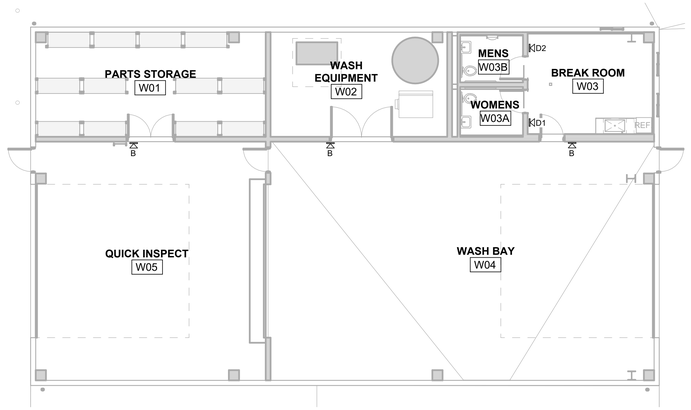
MIAMISBURG - CAT
RENTAL FACILITY
490 BYERS ROAD, MIAMISBURG, OHIO 45342

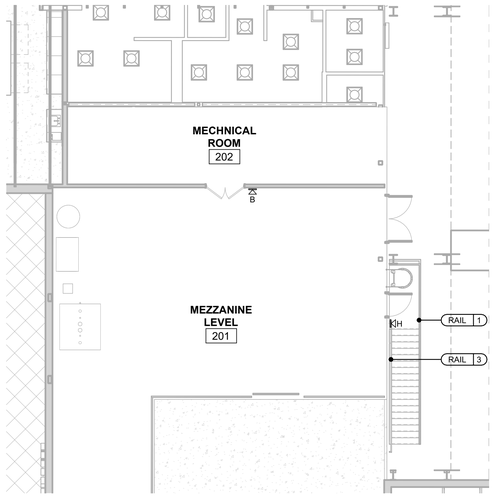
LDA Project No.2026.11

INTERIOR SIGNAGE DETAILS

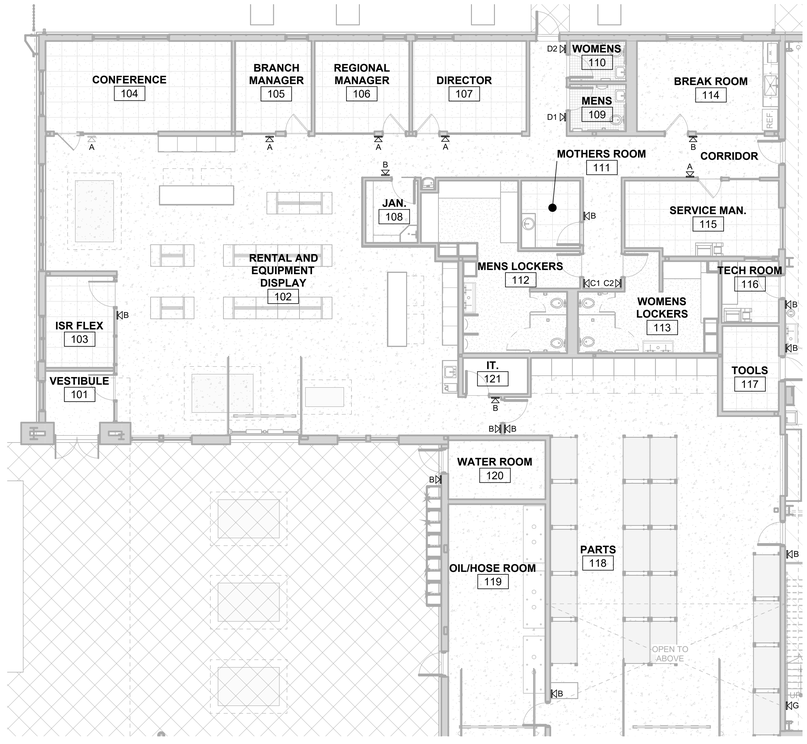
A8.02



2 A8.04 SIGNAGE PLAN - FIRST FLOOR OVERALL - WASH BAY
SCALE: 1/8" = 1'-0"



3 A8.04 SIGNAGE PLAN - MEZZANINE OVERALL
SCALE: 1/8" = 1'-0"



1 A8.04 SIGNAGE PLAN - FIRST FLOOR OVERALL
SCALE: 1/8" = 1'-0"

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REV	DATE	DESCRIPTION
	09.23.2026	Issued for Permit

STATE OF OHIO
DOMINICK DURANTE, JR.
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SIGNAGE PLANS

A8.04

GENERAL STRUCTURAL NOTES

GENERAL

1. THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE CONSTRUCTION IS FULLY COMPLETED. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE CONSTRUCTION PROCEDURE AND SEQUENCE AND TO ENSURE THE SAFETY OF THE BUILDING AND ITS COMPONENT PARTS DURING ERECTION. THIS INCLUDES THE ADDITION OF WHATEVER BRACING, SHEETING, TEMPORARY BRACING, GUYS, OR TIEDOWNS WHICH MIGHT BE NECESSARY. SUCH MATERIAL IS TO REMAIN THE CONTRACTOR'S PROPERTY AFTER COMPLETION OF THE PROJECT.
2. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION.
3. MECHANICAL EQUIPMENT LOADS, OPENINGS AND STRUCTURE IN ANY WAY RELATED TO MECHANICAL REQUIREMENTS ARE SHOWN FOR BIDDING PURPOSES ONLY. CONTRACTOR IS TO OBTAIN APPROVAL OF MECHANICAL AND OTHER TRADES BEFORE PROCEEDING WITH SUCH PORTION OF THE WORK. EXCESS COST RELATED TO VARIATION IN MECHANICAL REQUIREMENTS TO BE BORNE BY MECHANICAL CONTRACTOR.
4. DO NOT SCALE THE DRAWINGS WHERE DIMENSIONS ARE NOT SPECIFICALLY GIVEN. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS AND ELEVATIONS NOT SHOWN. COORDINATE ALL DIMENSIONS AND ELEVATIONS WITH THE ARCHITECTURAL DRAWINGS. ALL DIMENSIONS AND ELEVATIONS SHOWN ON THE STRUCTURAL DRAWINGS ARE NOT INTENDED TO AUGMENT, NOR SUPERSEDE THOSE SHOWN ON THE ARCHITECTURAL DRAWINGS.
5. FIELD VERIFY ALL DIMENSIONS AND CONDITIONS PRIOR TO CONSTRUCTION. NOTIFY THE ARCHITECT IMMEDIATELY WHERE CONFLICTS EXIST WITHIN THE DRAWINGS OR BETWEEN THE DRAWINGS AND FIELD CONDITIONS.
6. THROUGHOUT THESE PLANS, THE TERM "PROVIDE" IS DEFINED AS "SUPPLY AND INSTALL".
7. SHOP DRAWINGS ARE TO BE SUBMITTED BY COMPLETE ERECTION PHASE OR SEQUENCE. LIMITS OF EACH INDIVIDUAL ERECTION PHASE OR SEQUENCE ARE TO BE CLEARLY INDICATED ON THE PLANS. INCOMPLETE OR PIECEMEAL SHOP DRAWINGS WILL BE RETURNED PRIOR TO REVIEW. RESUBMITTALS ARE TO HAVE REVISIONS CLEARLY MARKED OR IDENTIFIED. THE CONTRACTOR SHALL REVIEW AND ACCEPT FULL RESPONSIBILITY FOR DIMENSIONAL CORRECTNESS. ALL SHOP DRAWINGS MUST BEAR THE APPROVAL STAMP OF THE CONTRACTOR PRIOR TO REVIEW BY THE ARCHITECT OR ENGINEER.
8. SHOULD ANY OF THE DETAILED INSTRUCTIONS SHOWN ON THE PLANS CONFLICT WITH THE GENERAL STRUCTURAL NOTES, THE SPECIFICATIONS OR WITH EACH OTHER, THE STRICTEST PROVISION WILL GOVERN.
9. CODE INFORMATION

- GOVERNING CODE:	2024 OHIO BUILDING CODE	
- BUILDING RISK CATEGORY:	CATEGORY II	
LOADING TYPE:	UNIFORM (PSF)	CONCENTRATED (LB)
FLOOR LIVE LOADS (WITH ALLOWABLE REDUCTIONS WHERE APPLICABLE):		
- STAIRS & EXITS	100 PSF	300 LB
- MEZZANINE	150 PSF	–
ROOF LIVE LOADS:		
- ORDINARY FLAT, PITCHED, AND CURVED ROOFS	20 PSF	–
- FABRIC AWNINGS AND CANOPIES	5 PSF	–
- FALL ARREST, LIFELINE, AND ROPE DESCENT SYSTEMS	–	3,100 # (ANY DIRECTION)
ROOF RAIN LOADS	PRIMARY	SECONDARY
- RAIN INTENSITY (i)	2.8 IN/HR	5.8 IN/HR
SNOW LOADS:		
- GROUND SNOW LOAD (Pg)	20 PSF	
- FLAT ROOF SNOW LOAD (Pf)	20 PSF	
- SNOW EXPOSURE FACTOR (Ce)	1.0	
- SNOW LOAD IMPORTANCE FACTOR (Is)	1.0	
- THERMAL FACTOR (Ct)	1.0	
- SNOW DRIFTING (RN) AND EXTENTS	INDICATED ON PLAN / SEE PEMB DWGS.	
WIND LOADS:		
- BASIC WIND SPEED (V)	107 MPH	
- BASIC ALLOWABLE WIND SPEED (V asd)	83 MPH	
- SITE EXPOSURE CATEGORY	C	
- INTERNAL PRESSURE COEFFICIENT	+/- 0.18	
- COMPONENT & CLADDING LOADS	REFER TO C&C CHART PROVIDED	
SEISMIC LOADS:		
- SEISMIC IMPORTANCE FACTOR (Ie)	1.0	
- MAPPED SPECTRAL RESPONSE ACCELERATION (Ss)	0.140	
- MAPPED SPECTRAL RESPONSE ACCELERATION (S1)	0.071	
- SEISMIC SITE CLASS	D	
- DESIGN SPECTRAL RESPONSE ACCELERATION (Sds)	0.149	
- DESIGN SPECTRAL RESPONSE ACCELERATION (Sd1)	0.114	
- SEISMIC DESIGN CATEGORY	B	
- RESPONSE MODIFICATION COEFFICIENT (R)	3.0 / SEE PEMB DWGS.	
- SEISMIC RESPONSE COEFFICIENT (Cs)	0.050 / SEE PEMB DWGS.	
- SEISMIC DESIGN BASE SHEAR (V)	XX.X K / SEE PEMB DWGS.	
- ANALYSIS PROCEDURE	EQUIVALENT LATERAL FORCE / SEE PEMB DWGS.	
- BASIC SEISMIC FORCE-RESISTING SYSTEM:	STEL SYSTEMS NOT SPECIFICALLY DETAILED / SEE PEMB DWGS.	
SPECIAL LOADS		
- INTERIOR WALLS & PARTITIONS	5 PSF HORIZONTAL (ALLOWABLE)	
- FIRE WALLS	5 PSF HORIZONTAL (ALLOWABLE)	
- HANDRAIL LOADS (ANY DIRECTION)	50 PLF	200 LB
GEOTECHNICAL:		
- GEOTECHNICAL ENGINEER:	MANNIK SMITH GROUP	
- REFERENCE REPORT I.D. OR NUMBER:	401.2500064.000	
- REFERENCE REPORT DATE:	08/27/2025	
- ALLOWABLE DESIGN BEARING PRESSURE:	2,000 PSF	
- FOUNDATION TYPE:	SHALLOW SPREAD FOOTING	

DELEGATED DESIGN ITEMS

1. PREFABRICATED ITEMS SHOWN ON THE STRUCTURAL DRAWINGS ARE REFERENCED FOR GENERAL COORDINATION PURPOSES ONLY. THESE SYSTEMS SHALL BE DESIGNED, FURNISHED, AND INSTALLED AS REQUIRED BY OTHER PORTIONS OF THE CONTRACT DOCUMENTS. JEZERINAC GEERS WILL REVIEW THE DESIGN METHODOLOGY, LOADS, AND INSTALLATION DETAILS AS PART OF THE SHOP DRAWING REVIEW PROCESS AND MAY REQUEST A SEALED CALCULATION PACKAGE FOR REVIEW. SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY THE ENGINEER RESPONSIBLE FOR THE DESIGN OF THE DESIGNED ITEMS. DELEGATED DESIGN ITEMS FOR THIS PROJECT INCLUDE THE FOLLOWING:
   A. DIVISION 5:
      1. STRUCTURAL STEEL CONNECTIONS (SEE STRUCTURAL STEEL SECTION/SPECIFICATIONS FOR FURTHER DETAIL)
      2. STEEL BAR JOIST AND JOIST GIRDERS
      3. COLD-FORMED METAL FRAMING AND THEIR CONNECTIONS
      4. STAIRS, HANDRAILS, AND THEIR CONNECTIONS
      5. CURTAIN WALLS AND STOREFRONT SYSTEMS
      6. PREFABRICATED CANOPIES, AWNINGS, AND THEIR CONNECTIONS

REINFORCED CONCRETE

1. SPECIFICATIONS: IN GENERAL, COMPLY WITH ACI-301-20, "SPECIFICATIONS FOR STRUCTURAL CONCRETE".
2. MATERIALS:
   A. STRUCTURAL CONCRETE:

MIX USAGE	f'c (PSI)	MAX w/cm	EXPOSURE CLASS	AIR CONTENT
FLOOR SLAB	4,000	0.45	F0	---
FOOTINGS & INTERIOR COLUMN PIERS	3,500	0.55	F0	---
EXTERIOR SLABS ON GRADE	3,500	0.50	F0	---
INTERIOR SLABS ON GRADE WHICH RECEIVE MOISTURE-SENSITIVE FLOOR COVERINGS	4,000	0.45	F0	---
EXTERIOR SLABS ON METAL DECK	3,500	0.45	F0	---
EXTERIOR CONCRETE	4,500	0.45	F2	5%-7%

   B. ALL DEFORMED REINFORCING BARS: FY = 60,000 PSI.
   C. CEMENT: PORTLAND CEMENT, ASTM C150: TYPE I OR TYPE II, ASTM C1157: TYPE LH OR GU; OR ASTM C595: TYPE IL. ALL CEMENT FOR CONCRETE EXPOSED TO VIEW IS TO BE FROM THE SAME MILL.
   D. AGGREGATES: ASTM C33, USE SIZE NO. 57 FOR ALL MIXES UNLESS NOTED OTHERWISE.
   E. ADMIXTURES:
      1. WATER-REDUCING, LOW AND MID RANGE: ASTM C494, TYPE A OR D.
      2. HIGH-RANGE WATER REDUCING, SUPERPLASTICIZER: ASTM C494, TYPE F OR G.
   F. AIR-ENTRAINING: ASTM C260.
   G. FLY-ASH: ASTM C618, TYPE C OR F.
   H. NON-CHLORIDE, NON-CORROSIVE ACCELERATOR: ASTM C494, TYPE C OR E.
   I. VAPOR RETARDER SHALL CONFORM TO ASTM E1745 "STANDARD SPECIFICATION FOR PLASTIC WATER VAPOR RETARDERS USED IN CONTACT WITH SOIL OR GRANULAR FILL UNDER CONCRETE SLABS ", CLASS A.
   J. VAPOR RETARDER SHALL BE INSTALLED IN ACCORDANCE WITH ASTM E1643 "STANDARD PRACTICE FOR INSTALLATION OF WATER VAPOR RETARDERS USED IN CONTACT WITH EARTH OR GRANULAR FILL UNDER CONCRETE SLABS. THE VAPOR RETARDER/BARRIER SHALL BE A MINIMUM OF 10 MILS THICK AND PLACED DIRECTLY ON THE GRANULAR FILL, BELOW THE CONCRETE FLOOR SLAB. LAP JOINTS A MINIMUM OF 6 INCHES AND SEAL WITH MANUFACTURER 'S RECOMMENDED TAPE OR ADHESIVE.
3. FIELD MANUAL: PROVIDE AT LEAST ONE COPY OF THE ACI FIELD REFERENCE MANUAL, MNL-15(20) IN THE FIELD OFFICE AT ALL TIMES.
4. SUBMITTALS:
   A. SUBMIT A MIX DESIGN FOR EACH MIXTURE USAGE REQUIRED FOR THE PROJECT. CONCRETE PROPORTIONS ARE TO BE ESTABLISHED ON THE BASIS OF PREVIOUS FIELD EXPERIENCE OR TRIAL MIXTURES.
   B. SUBMIT PLACING DRAWINGS FOR ALL REINFORCING. INDICATE STRENGTH, SIZE, AND DETAILS OF ALL BAR REINFORCING.
   C. SUBMIT PRODUCT LITERATURE FOR ADMIXTURES AND CURING COMPOUNDS PROPOSED FOR USE.
   D. SUBMIT REPORTS OF ALL REQUIRED TESTING AND INSPECTIONS.
5. CONTINGENCIES:
   A. PROVIDE 0.5 TON OF REINFORCING BARS TO BE USED AS DIRECTED BY THE ARCHITECT/ENGINEER. COLD BEND IN THE FIELD, IF REQUIRED.
   B. PROVIDE LEAN CONCRETE UNDER FOUNDATIONS FOR ACCIDENTAL OVER EXCAVATION, SOFT SPOTS, AND UTILITY TRENCHES.
6. OPENINGS:
   A. OPENINGS SHOWN ARE FOR BIDDING PURPOSES ONLY. RECONCILE THEIR EXACT SIZE AND LOCATION WITH ARCHITECTURAL, MECHANICAL, AND OTHER REQUIREMENTS BEFORE PROCEEDING WITH WORK.
   B. PROVIDE 2 NO. 5 BARS (PER CURTAIN) AROUND ALL WALL OPENINGS, EXTENDING TWO FEET BEYOND OPENING IN EVERY DIRECTION. OPENINGS IN WALLS NOT EXCEEDING 12" x 12" MAY BE SLEEVED AS REQUIRED BY WORKING THE REINFORCING STEEL AROUND THEM.
   C. IF ANY OPENING NOT SHOWN ON THE PLANS IS REQUIRED, SECURE APPROVAL OF THE STRUCTURAL ENGINEER BEFORE PROCEEDING.
7. FOOTINGS, PIERS, WALLS:
   A. DOWELS IN FOOTINGS TO MATCH VERTICAL PIER OR WALL REINFORCING.
   B. PROVIDE CORNER BARS AT WALL AND FOOTING CORNERS TO MATCH HORIZONTAL REINFORCING.
   C. LAP BARS AS INDICATED IN THE CONCRETE REINFORCING LAP SCHEDULE.
   D. DO NOT BACKFILL AGAINST BASEMENT WALLS UNTIL BOTH ADJACENT FLOOR SLABS ARE IN PLACE.
8. SPLICES:
   A. LAP SPLICE REINFORCING BARS AS SCHEDULED. MINIMUM LAP = 36 DIAMETERS.
9. CONSTRUCTION JOINTS:
   A. CONSTRUCTION JOINTS PERMITTED ONLY WHERE SHOWN OR AS APPROVED BY THE STRUCTURAL ENGINEER.
10. FINISHES:
   A. PER ACI 117, SURFACES OF INTERIOR SLABS ON GRADE ARE TO BE FINISHED TO THE FOLLOWING TOLERANCES: FLOOR FLATNESS F(f)=30 AND LEVELNESS F(l)=20 UNLESS NOTED OTHERWISE IN SPECIFICATIONS.
   B. TYPICAL INTERIOR FLOOR AREAS TO RECEIVE CARPET, RESILIENT FLOOR COVERING, OR TO REMAIN EXPOSED - TROWELED FINISH.
   C. INTERIOR FLOOR AREAS TO RECEIVE QUARRY TILE OR CERAMIC TILE - FLOATED FINISH.
   D. EXTERIOR SLABS - BROOM FINISH.
11. CURING:
   A. CURING IS TO COMMENCE IMMEDIATELY AFTER CONCRETE PLACEMENT AND CONTINUE FOR AT LEAST 7 DAYS. DO NOT ALLOW CURING TO BE DELAYED OVERNIGHT.
   B. INTERIOR SLABS TO RECEIVE QUARRY TILE OR CERAMIC TILE ARE TO BE MOIST-CURED WITHOUT THE USE OF A CURING COMPOUND.
   C. ALL OTHER SLABS MAY BE EITHER MOIST-CURED OR RECEIVE AN APPLICATION OF CURING COMPOUND.
12. FIELD QUALITY CONTROL:
   A. OBTAIN CONCRETE FOR REQUIRED TESTS AT POINT OF PLACEMENT. IF CONCRETE IS PUMPED, OBTAIN CONCRETE AT DISCHARGE END.
   B. FOR EACH CLASS OF CONCRETE, OTHER THAN LEAN CONCRETE, PERFORM ONE STRENGTH TEST FOR EACH 50 YARDS, OR FRACTION THEREOF, FOR ONE DAY PLACEMENT.
   C. DETERMINE SLUMP FOR EACH STRENGTH TEST.
   D. DETERMINE AIR CONTENT FOR EACH STRENGTH TEST OF EXTERIOR EXPOSED CONCRETE.
   E. MAINTAIN RECORDS OF ALL TESTS INDICATING EXACT LOCATION OF THE STRUCTURE REPRESENTED BY EACH TEST.

MASONRY

1. SPECIFICATIONS: IN GENERAL, COMPLY WITH TMS 602-2016, "SPECIFICATIONS FOR MASONRY STRUCTURES".
2. MATERIALS:
   A. CONCRETE BLOCK: ASTM C90 (HOLLOW AND SOLID), MINIMUM NET AREA COMPRESSIVE STRENGTH OF CONCRETE MASONRY UNITS = 2,000 PSI.
   B. MORTAR: ASTM 270 TYPE S, MINIMUM COMPRESSIVE STRENGTH = 1,800 PSI
   C. GROUT FOR BOND BEAM AND CORE FILL: ASTM C476, COARSE TYPE WITH 1 ½ = 2,500 PSI MIN.
   D. DESIGN COMPRESSIVE STRENGTH OF MASONRY SYSTEM: f 'm = 2,250 PSI
   E. ALL DEFORMED REINFORCING BARS: FY = 60,000 PSI. LAP BARS AS INDICATED IN THE CONCRETE MASONRY REINFORCING LAP SCHEDULE.
   F. HORIZONTAL JOINT REINFORCING: STANDARD LADDER TYPE. S-GA. HOT-DIPPED GALVANIZED FINISH. PROVIDE AT 8" O.C. BELOW GRADE, AND 16" O.C. ABOVE GRADE, UNLESS NOTED OTHERWISE.
3. SUBMITTALS:
   A. SUBMIT A MIX DESIGN FOR EACH MORTAR MIXTURE PROPOSED FOR THE PROJECT IN ACCORDANCE WITH ASTM C270. CONCRETE PROPORTIONS ARE TO BE ESTABLISHED ON THE BASIS OF PREVIOUS FIELD EXPERIENCE OR TRIAL MIXTURES.
   B. SUBMIT A MIX DESIGN FOR EACH GROUT MIXTURE PROPOSED FOR THE PROJECT IN ACCORDANCE WITH ASTM C476. CONCRETE PROPORTIONS ARE TO BE ESTABLISHED ON THE BASIS OF PREVIOUS FIELD EXPERIENCE OR TRIAL MIXTURES.
   C. MATERIAL CERTIFICATES IN LIEU OF LABORATORY TEST REPORTS: SPECIFICATIONS FOR CONCRETE MASONRY UNITS, MORTAR, GROUT, REINFORCING BARS, AND STRUCTURAL STEEL SHAPES, SHEETS, AND PLATES.
   D. SUBMIT PLACING DRAWINGS FOR ALL REINFORCING. INDICATE STRENGTH, SIZE, AND DETAILS OF ALL BAR REINFORCING.
   E. SUBMIT CONSTRUCTION PROCEDURES FOR HOT OR COLD WEATHER CONSTRUCTION.
   F. SUBMIT REPORTS OF ALL REQUIRED TESTING AND INSPECTIONS AS INDICATED IN THE SPECIAL INSPECTION REQUIREMENTS.
4. CONTROL JOINTS:
   A. PROVIDE CONTROL JOINTS IN ALL MASONRY WALLS AT A SPACING NOT TO EXCEED THREE TIMES THE WALL HEIGHT OR 24 FEET ON CENTER, WHICHEVER IS SMALLER. IN ADDITION, PROVIDE CONTROL JOINTS AT THE ABOVE LIMITS IN WALL HEIGHT, CHANGES IN WALL THICKNESS, WITHIN 2 FEET OF WALL CORNERS AND INTERSECTIONS, TRANSITIONS FROM INTERIOR WALLS TO EXTERIOR WALL, AND TRANSITIONS FROM WALL BEARING ON FOUNDATION TO WALL BEARING ON FLOOR SLAB.
5. MISCELLANEOUS:
   A. PROVIDE 100% SOLID CMU BEARING, MINIMUM 3 COURSES UNDER BEAMS, 2 COURSES UNDER JOISTS, UNLESS DETAILED OTHERWISE.
   B. PROVIDE SOLID OR GROUT-FILLED CMU FOR ALL BELOW-GRADE FOUNDATION WALLS.
   C. FILL CORE SOLID AROUND CAST-IN ANCHOR RODS.
   D. PROVIDE SOLID CMU OR SOLIDLY FILLED HOLLOW CMU AT ALL EPOXY ANCHOR AND WEDGE ANCHOR LOCATIONS. EXTEND SOLID CMU 12" MIN. BEYOND ANCHOR IN EACH DIRECTION FROM CENTER OF ANCHOR.
   E. SET WELD PLATES IN BEND BEAMS AFTER THE GROUT IS PLACED, BUT WHILE IT IS STILL PLASTIC.
   F. FILL ALL BEARING POCKETS AROUND BEAM AND JOIST SEATS WITH SOLID CMU.
   G. HOLLOW MASONRY UNITS TO BE FILLED WITH FULL MORTAR COVERAGE ON HORIZONTAL AND VERTICAL FACE SHELLS. WEBS ARE TO ALSO BE BEDDED IN ALL COURSES OF PIERS, PILASTERS, THE STARTING COURSE ON FOOTINGS, AND WHEN ADJACENT TO CELLS OR CAVITIES TO BE REINFORCED OR FILLED WITH CONCRETE OR GROUT. SOLID UNITS TO BE LAID WITH FULL HEAD AND BED JOINTS.
   H. PROVIDE APPROPRIATE MASONRY ANCHORS AT 16" O.C. MAX. TO TIE MASONRY TO ABUTTING STEEL COLUMNS, STEEL BEAM WEBS, AND ABUTTING CONCRETE SURFACES.
   I. WHERE HOLLOW MASONRY UNITS ARE USED ABOVE HOLLOW MASONRY UNITS OR A DIFFERENT THICKNESS, PROVIDE A CONTINUOUS COURSE OF SOLID MASONRY AT LEAST 8" HIGH BELOW THE TRANSITION.
   J. AT CORBELLED WALLS, USE SOLID CMU FOR THE FIRST COURSE BELOW THE FIRST CORBEL AND FOR EACH CORBELLED COURSE. MAXIMUM CORBEL PER COURSE = 1", UNLESS DETAILED OTHERWISE.
   K. LAP SPLICE REINFORCING BARS AS SCHEDULED.
   L. ALL GROUTING OF MASONRY WALLS IS TO BE BY THE LOW-LIFT GROUTING METHOD (MAXIMUM LIFT HEIGHT 5'-0"), UNLESS CLEAN-OUTS AND INSPECTIONS ARE PROVIDED.

STRUCTURAL STEEL

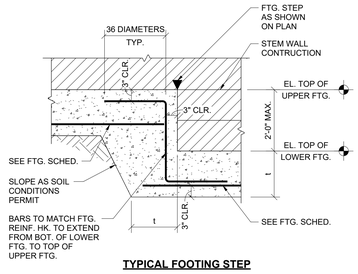
1. MATERIALS:
   A. STRUCTURAL STEEL WIDE FLANGE SHAPES: ASTM A992, Fy = 50 KSI
   B. STRUCTURAL STEEL CHANNELS, ANGLES, ETC.: ASTM A36, Fy = 36 KSI
   C. STRUCTURAL STEEL PLATES: UNLESS NOTED OTHERWISE - ASTM A36, Fy = 36 KSI; ASTM A529 OR A572, Fy = 50 KSI, WHERE NOTED
   D. HIGH STRENGTH BOLTS: ASTM A325 OR A490
   E. ANCHOR RODS: ASTM F1554, GRADE 36, UNLESS NOTED OTHERWISE
   F. ELECTRODES: SERIES E70
   G. RECTANGULAR HSS: ASTM A500, GRADE C, FY = 50 KSI
   H. SHEAR STUDS: ASTM A108, FY = 60 KSI
   I. DEFORMED BAR ANCHORS: ASTM A496, FY = 70 KSI
2. SPECIFICATIONS:
   A. WELDING PERSONNEL AND PROCEDURES ARE TO BE QUALIFIED PER AWS D1.1. UNLESS SPECIFICALLY SHOWN OTHERWISE, DESIGN, FABRICATION AND ERECTION TO BE GOVERNED BY THE LATEST REVISIONS OF:
      1. AISC SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.
      2. AISC CODE OF STANDARD PRACTICE.
      3. STRUCTURAL WELDING CODE, AWS D1.1 OF THE AMERICAN WELDING SOCIETY.
   B. SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS.
3. SUBMITTALS:
   A. SUBMIT SHOP DRAWINGS FOR REVIEW AND APPROVAL WHICH INCLUDE ERECTION PLANS, CONNECTION DETAILS, AND SHOP DETAILS INDICATING CUTS, COPES, CAMBERS, CONNECTIONS, HOLES, THREADED FASTENER TYPES AND SIZES, AND SIZES AND LENGTHS OF WELDS.
   B. INDICATE MATERIAL SPECIFICATIONS, STRENGTHS, AND FINISHES.
4. CONNECTIONS:
   A. FIELD CONNECTIONS ARE TO BE BOLTED, EXCEPT AS INDICATED OTHERWISE. SHOP CONNECTIONS MAY BE WELDED OR BOLTED.
   B. CONNECTIONS ARE TO BE DESIGNED BY THE FABRICATOR TO DEVELOP EITHER 100% OF THE FULL UNIFORM LOAD CAPACITY OF THE MEMBER, OR THE FORCES SHOWN ON THE PLANS. MINIMUM CONNECTION CAPACITY TO BE 15 KIPS. FOLLOW INSTRUCTIONS ON DRAWINGS FOR GENERAL ARRANGEMENT, OR PARTICULAR DETAILS.
   C. MISCELLANEOUS STEEL MEMBERS (ANGLES, CHANNELS, ETC.) SUPPORT DECK AROUND THE PERIMETER OF A FLOOR OR ROOF SHALL BE CONTINUOUS. WHERE SPLICES IN THESE MEMBERS MUST OCCUR TO FACILITATE ERECTION, PROVIDE PARTIAL PENETRATION SQUARE GROOVE WELD BUTT JOINT W/ 3/16" EFFECTIVE THROAT ON ONE SIDE, EACH LEG.
5. COATINGS:
   A. DO NOT PAINT STEEL OR ANCHOR RODS WHICH WILL BE ENCASED IN CONCRETE OR MASONRY, NOR ANY STEEL WHICH IS SCHEDULED TO RECEIVE SPRAY-APPLIED OR INTUMESCENT MASTIC FIREPROOFING.
   B. PAINT ALL INTERIOR EXPOSED STEEL (INCLUDING INTERIOR LINTELS) WITH TWO COATS OF RED-OXIDE PRIMER.
   C. HOT DIP GALVANIZE ALL EXTERIOR STEEL (INCLUDING LINTELS AND BRICK SHELF ANGLES).
   D. PROVIDE A FIELD-APPLIED COAT OF ASPHALT-MASTIC PAINT FOR ALL BELOW-GRADE STEEL (INCLUDING ANCHOR RODS, NUTS, WASHERS, BASE PLATES, AND THE BELOW-GRADE PORTION OF COLUMNS) WHICH IS NOT FULLY ENCASED IN CONCRETE.
   E. INTERIOR NON-EXPOSED STEEL NEED NOT BE PRIME PAINTED.
6. MISCELLANEOUS:
   A. PROVIDE HOLES FOR OTHERS. IF OPENING IS NOT SHOWN ON THE STRUCTURAL DRAWINGS, OBTAIN PRIOR APPROVAL.
   B. STEEL SUPPORTING OR CONNECTING TO MECHANICAL AND OTHER EQUIPMENT AND ROOF OPENINGS AS SHOWN ON ARCHITECTURAL, MECHANICAL AND/OR ON STRUCTURAL DRAWINGS IS SHOWN FOR BIDDING PURPOSES ONLY. CONTRACTOR IS TO RECONCILE EXACT SIZE AND LOCATION WITH MECHANICAL AND OTHER REQUIREMENTS BEFORE PROCEEDING WITH THIS WORK.
   C. GROUT UNDER BEARING PLATES TO BE NON-SHRINKING TYPE.
   D. STEEL BELOW GRADE TO BE PROTECTED BY A MINIMUM OF 3" OF CONCRETE, 4" OF SOLID MASONRY, OR A FIELD-APPLIED COAT OF ASPHALT-MASTIC PAINT.
   E. PROVIDE 1/8" THICK SETTING PLATES FOR ALL BEAMS AND BEAM LINTELS BEARING ON MASONRY OR CONCRETE WHICH DO NOT REQUIRE A THICKER BEARING PLATE.
   F. PROVIDE HEAVY PLATE WASHERS AT ALL ANCHOR RODS.
   G. FINISH ENDS OF ALL COLUMNS, STIFFENERS AND ALL OTHER MEMBERS IN DIRECT BEARING.
   H. PROVIDE BOLT HOLES FOR WOOD NAILERS AND JOISTS BOLTED TO BEAMS.
   I. PROVIDE ATTACHMENT FOR JOINING EXTENDED JOIST BOTTOM CHORDS.
   J. STEEL IN CONTACT WITH PRESSURE-TREATED LUMBER IS TO BE PROTECTED FROM CORROSION FROM PRESERVATIVE CHEMICALS WITH A 20 MIL (MIN.) VAPOR BARRIER. BOLTS AND SCREWS THROUGH PRESSURE TREATED LUMBER ARE TO BE HOT DIPPED GALVANIZED PER ASTM A153 WITH A MINIMUM G185 COATING OR STAINLESS STEEL WITH CHEMICAL COMPOSITION CONFORMING TO AISI 303/304 OR AISI 316.
   K. PROVIDE MISCELLANEOUS ANGLES OR CHANNELS TO SUPPORT DECK EDGES AROUND COLUMNS THAT EXTEND THROUGH THE DECK.
   L. PROVIDE ADDITIONAL SUPPORT FOR ALL DECK OPENINGS THAT ARE EQUAL TO OR GREATER THAN 12" IN WIDTH OR DIAMETER. NOT ALL DECK OPENINGS ARE SHOWN ON THE STRUCTURAL DRAWINGS. COORDINATE SIZE AND LOCATION WITH ARCHITECTURAL, MECHANICAL, PLUMBING AND OTHER TRADES.
   M. SEE ARCHITECTURAL SECTIONS AND DETAILS FOR ALL MISCELLANEOUS STRUCTURAL STEEL NOT OTHERWISE INDICATED IN THE STRUCTURAL DRAWINGS.
7. FIELD QUALITY CONTROL:
   A. INSPECTION AGENCY IS TO PERFORM INSPECTION OF BOLTED CONNECTIONS PER THE REQUIREMENTS OF AISC SPECIFICATION FOR STRUCTURAL JOINTS.
8. CONTINGENCY:
   A. PROVIDE AND ERECT 0.5 TONS OF STRUCTURAL AND/OR MISCELLANEOUS STEEL (STRUCTURAL SHAPES, ANGLES, PLATES, ETC.) TO BE USED AS DIRECTED BY THE ARCHITECT/ENGINEER. CONNECTIONS TO BE FIELD-WELDED IF REQUIRED.

STEEL JOISTS

1. SPECIFICATIONS:
   A. FABRICATION AND ERECTION TO BE PER SJI REQUIREMENTS.
   B. MANUFACTURER TO BE A MEMBER OF SJI.
2. SUBMITTALS:
   A. SUBMIT ERECTION PLANS AND CONNECTION DETAILS WHICH INDICATE MARK, QUANTITY, TYPE AND LOCATION OF ALL JOISTS AND BRIDGING. DETAILS TO INDICATE CONNECTIONS OF JOISTS AND BRIDGING.
   B. INDICATE PAINT TYPE AND ALL ACCESSORIES REQUIRED FOR A COMPLETE AND PROPER INSTALLATION.
3. BRIDGING:
   A. QUANTITY, LOCATION, AND SPACING IS TO COMPLY WITH THE REQUIREMENTS OF SJI AND IS TO BE PROVIDED AS REQUIRED FOR THE DESIGN WIND UPLIFT LOADS SPECIFIED. PROVIDE HORIZONTAL BRIDGING UNLESS DIAGONAL BRIDGING IS REQUIRED BY SJI FOR THE JOIST TYPE AND SPAN.
   B. DIAGONAL BRIDGING TO BE BOLTED TO THE JOISTS AND AT THEIR POINT OF INTERSECTION.
   C. END BAYS OF DIAGONAL BRIDGING TO BE ANCHORED WITH HORIZONTAL BRIDGING, UNLESS SHOWN OTHERWISE.
   D. HORIZONTAL BRIDGING MAY BE USED IN LIEU OF DIAGONAL BRIDGING IN NO MORE THAN 2 CONSECUTIVE BAYS TO PROVIDE PASSAGE FOR DUCTWORK.
   E. ANCHOR BRIDGING TO INTERSECTING STRUCTURAL STEEL OR MASONRY WALLS.
4. BEARING:
   A. WELD ALL JOISTS TO SUPPORTING STEEL PER SJI REQUIREMENTS. FIELD BOLT JOISTS AT COLUMN LINES. EXTEND AND STABILIZE THE BOTTOM CHORD OF JOISTS AT COLUMNS, BUT DO NOT BOLT OR WELD UNLESS DETAILED OTHERWISE.
   B. EXTEND ALL JOISTS 1" MINIMUM PAST CENTERLINE OF SUPPORTING MEMBER, WHERE POSSIBLE. BEARINGS TO BE PER DRAWINGS, OR WHERE SPECIAL INSTRUCTION IS NOT GIVEN, ACCORDING TO THE STANDARD SPECIFICATIONS OF SJI.
5. COATINGS:
   A. PAINT ALL JOISTS WITH ONE COAT OF FABRICATORS STANDARD PRIMER UNLESS NOTED OTHERWISE.
   B. DO NOT PAINT JOISTS WHICH ARE SCHEDULED TO RECEIVE SPRAY-APPLIED OR INTUMESCENT MASTIC FIREPROOFING.
6. MISCELLANEOUS:
   A. ADJACENT JOISTS OF THE SAME DEPTH ARE TO HAVE WEB MEMBERS IN LINE TO PERMIT PASSAGE OF MECHANICAL DUCTS.
   B. SEE DRAWINGS FOR SPECIAL BEARING SHOES, EXTENDED ENDS, ETC.
   C. UNLESS NOTED OTHERWISE, DESIGN JOIST TOP CHORD EXTENSIONS FOR THE SAME POUND-PER-LINEAR-FOOT LOAD AS THE MAIN SPAN. SEE PLAN AND DETAILS FOR ADDITIONAL LOADS TO BE APPLIED ON EXTENDED END OF JOIST.
   D. STANDARD JOIST SIZES SHOWN INCLUDE ALL COLLATERAL LOADS (SNOW DRIFT, MECHANICAL EQUIPMENT, ETC.) UNLESS SCHEDULED OR NOTED OTHERWISE.

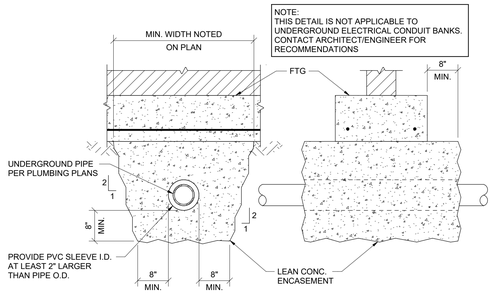
METAL DECK

1. MATERIALS:
   A. GALVANIZED SHEET STEEL: ASTM A653
   B. ROOF DECK: 1-1/2" DEEP, WIDE RIB, GALVANIZED.
   C. FLOOR DECK: 1" DEEP, CONFORM, GALVANIZED
2. BASIS OF DESIGN:
   A. FLOOR DECK: BEAM/JOIST SPACINGS SHOWN ON FRAMING PLANS INDICATE MAXIMUM SPACINGS FOR UNSHORED FLOOR CONSTRUCTION. GENERAL CONTRACTOR MUST VERIFY CHOSEN SUPPLIER 'S FLOOR DECK WILL SUPPORT THE CONCRETE THICKNESS INDICATED FOR UNSHORED CONSTRUCTION AT THESE SPACINGS.
   B. ROOF DECK: BEAM/JOIST SPACINGS SHOWN ON FRAMING PLANS INDICATE MAXIMUM SPACINGS TO SUPPORT ROOF LIVE, SNOW LOADS (INCLUDING DRIFTING), AND WIND LOADS. DECK MANUFACTURER TO SUPPLY DECK CAPABLE OF SUPPORTING MAXIMUM LOADING INDICATED AT BEAM/JOIST SPACINGS PROVIDED. SEE GENERAL STRUCTURAL NOTES, ROOF FRAMING PLAN NOTES, AND ROOF FRAMING PLAN OR SNOW DRIFT PLAN TO OBTAIN THESE VALUES.
3. SPECIFICATIONS:
   A. WELDING PERSONNEL AND PROCEDURES ARE TO BE QUALIFIED PER AWS. DESIGN, FABRICATION, AND ERECTION TO BE GOVERNED BY THE LATEST REVISIONS OF:
      1. AISI "SPECIFICATION OF THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS. "
      2. STRUCTURAL WELDING CODE, AWS D1.3 OF THE AMERICAN WELDING SOCIETY.
      3. SDI "DESIGN MANUAL FOR FLOOR DECK AND ROOF DECKS ".
4. CONNECTIONS:
   A. DECK TO STRUCTURAL STEEL OR JOISTS: 5/8" DIAMETER PUDDLE WELDS.
   B. CENTERING TO STEEL OR JOISTS: 1/2" DIA. FUSION WELDS WITH WELD WASHERS.
   C. DECK TO COLD-FORMED TRUSSES OR FRAMING:



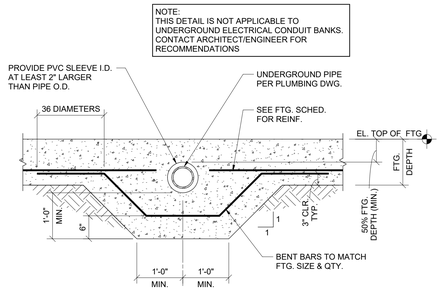
TYPICAL FOOTING STEP

SECTION 1
3/4" = 1'-0"



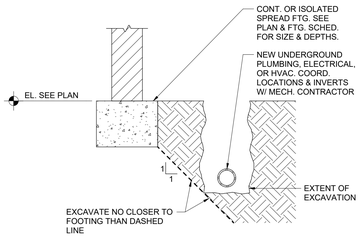
TYPICAL PIPE BELOW FOOTING

SECTION 2
3/4" = 1'-0"



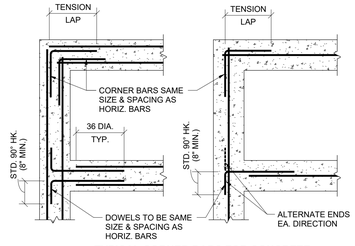
TYPICAL PIPE THROUGH FOOTING

SECTION 3
3/4" = 1'-0"



TYPICAL EXCAVATION CLEARANCE REQUIREMENTS AT NEW UNDERGROUND WORK

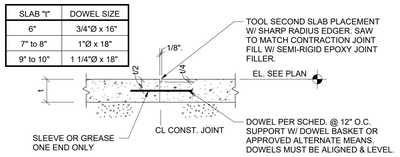
SECTION 4
3/4" = 1'-0"



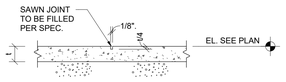
TYPICAL CORNER BARS FOR CONCRETE WALL AND FOOTING CONSTRUCTION

SECTION 5
3/4" = 1'-0"

SLAB "t"	DOWEL SIZE
6"	3/4"Ø x 16"
7" to 8"	1"Ø x 18"
9" to 10"	1 1/4"Ø x 18"

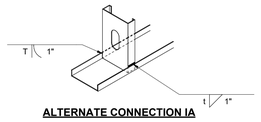


TYPICAL INDUSTRIAL FLOOR SLAB CONSTRUCTION JOINT

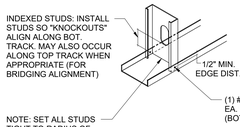


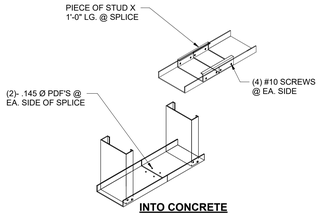
TYPICAL FLOOR CONTROL JOINT

SECTION 6
3/4" = 1'-0"

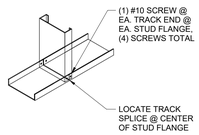


ALTERNATE CONNECTION IA





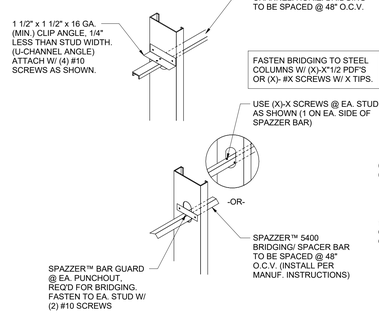
INTO CONCRETE

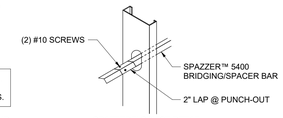


STUD-TO-TRACK CONNECTIONS

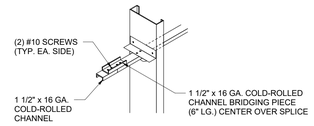
SECTION 7
1" = 1'-0"

TYPICAL NOTE:
-EACH END OF LATERAL BRIDGING MUST BE RIGIDLY FIXED OR OTHERWISE PREVENTED FROM HORIZONTAL MOVEMENT





SPAZZER™ SPLICE DETAIL

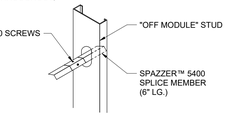


U-CHANNEL SPLICE DETAIL

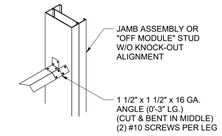
BRIDGING CONNECTION

DETAIL 8
1" = 1'-0"

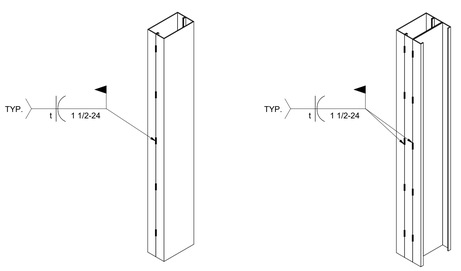
NOTE: BAR GUARD NOT SHOWN FOR CLARITY (BUT REQ'D THROUGHOUT)



SPAZZER™ @ "OFF MODULE" STUD



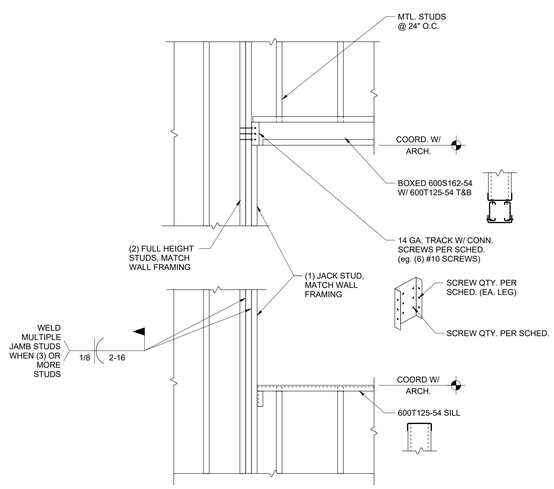
SPAZZER™ @ JAMB ASSEMBLIES W/O KNOCK-OUT ALIGNMENT OR ANY "OFF MODULE" STUDS



2 MEMBER **3 MEMBER**

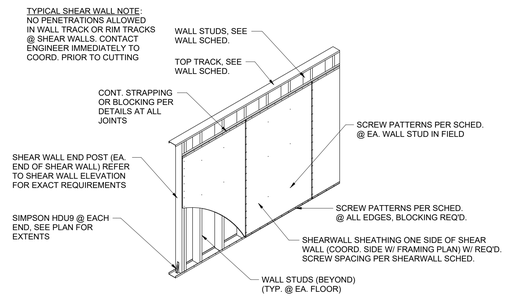
TYPICAL CONNECTION OF MULTIPLE MEMBERS

DETAIL 9
1" = 1'-0"



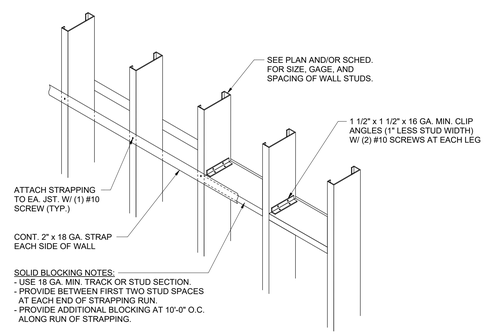
DETAIL 10
3/4" = 1'-0"

TYPICAL SHEAR WALL NOTE:
NO PENETRATIONS ALLOWED IN WALL TRACK OR RIM TRACKS @ SHEAR WALLS. CONTACT ENGINEER IMMEDIATELY TO COORD. PRIOR TO CUTTING



TYPICAL SHEARWALL CONNECTION REQUIREMENTS

DETAIL 11
3/4" = 1'-0"



TYPICAL STUD BRIDGING/BLOCKING (REQUIRED AT ALL HORIZ. SHEARWALL PANEL EDGES)

DETAIL 12
1" = 1'-0"

LDA ARCHITECTS
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LDAarchitecture.com
216.932.1890

REV	DATE	DESCRIPTION
	09.23.2026	Issued for Permit

PERMIT SET ONLY - 09/23/2026 - NOT FOR CONSTRUCTION

STATE OF OHIO
DARREN W. COOK
E-63292
REGISTERED
PROFESSIONAL ENGINEER

NOT FOR CONSTRUCTION

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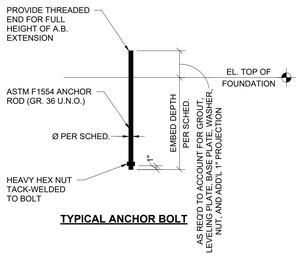
RENTAL FACILITY
252-488 BYERS ROAD, MIAMISBURG, OHIO 45342
LDA Project No.26.11

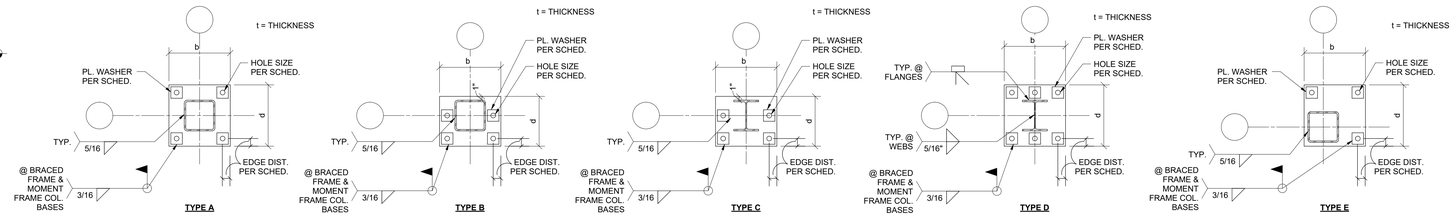
TYPICAL DETAILS

S0.01



TYPICAL ANCHOR BOLT

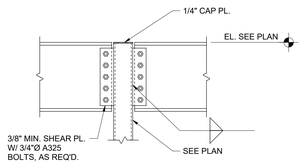
DETAIL 1
3/4" = 1'-0"



BASE PLATE DETAILS

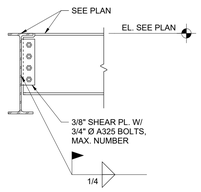
DETAIL 2
3/4" = 1'-0"

BASE PLATE DETAILING SCHEDULE			
BOLT SIZE	BASE PLATE HOLE SIZE	EDGE DISTANCE	PLATE WASHER
3/4"Ø	1-5/16"Ø	1-1/2"	1/4" x 2" SQ.
1"Ø	1-7/8"Ø	2"	3/8" x 3" SQ.
1-1/4"Ø	2-1/8"Ø	2"	1/2" x 3-1/2" SQ.
1-1/2"Ø	2-3/8"Ø	2-1/2"	1/2" x 4" SQ.
1-3/4"Ø	2-7/8"Ø	3"	5/8" x 4-1/2" SQ.
2"Ø	3-1/4"Ø	3-1/2"	3/4" x 5" SQ.

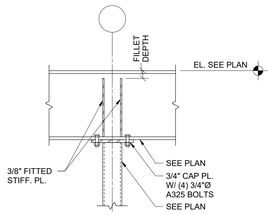


TYPICAL STEEL BEAM TO STEEL COLUMN CONNECTION

SECTION 3
3/4" = 1'-0"

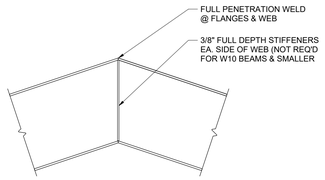


DETAIL 4
3/4" = 1'-0"



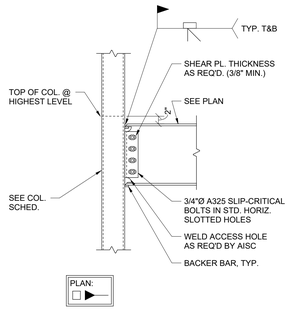
TYPICAL CANTILEVERED BEAM DETAIL

SECTION 5
3/4" = 1'-0"



TYPICAL BENT BEAM DETAIL

DETAIL 6
3/4" = 1'-0"



SECTION 7
3/4" = 1'-0"

Roof																										Roof
124'-2"																										124'-2"
Mezzanine T/ Steel																										Mezzanine T/ Steel
110'-8"	HSS8x6x1/2	HSS8x6x1/4	HSS8x6x1/4	HSS8x6x1/4	HSS6x6x5/16	HSS8x6x1/4	HSS8x6x1/4	HSS6x6x5/16	HSS8x6x1/2	HSS4x4x1/4	HSS4x4x1/4	HSS4x4x1/4	HSS6x6x5/16	W18x86	W8x40	HSS6x6x5/16	HSS12x6x5/8	HSS8x6x1/4	HSS8x6x1/4	HSS12x6x3/8	HSS12x6x3/8	HSS8x6x1/4	HSS6x6x1/4	HSS8x6x5/16	HSS6x6x5/16	110'-8"
Foundation																										Foundation
100'-0"																										100'-0"
Column Locations	A.1-2	A.1-5	A.1-7	A.1-10	A.1-13	A.9-9	A.9-11	A.9-13	B.1-2	B.2-9	B.2-10	B.2-12	B.3-13	B.4-1	B.5-3	B.6-4	B.6-6	B.6-8	C-13	C.1-8	C.2-8	D.1-4	D.2-8	D.2-10	D.2-13	
BASE PLATE TYPE	TYPE B	TYPE A	TYPE A	TYPE A	TYPE B	TYPE A	TYPE A	TYPE B	TYPE B	TYPE A	TYPE A	TYPE A	TYPE B	TYPE D	TYPE C	TYPE B	TYPE B	TYPE E	TYPE B	TYPE B	TYPE B	TYPE A	TYPE E	TYPE B	TYPE B	BASE PLATE TYPE
BASE PLATE SIZE (l x b x d)	1-1/2" x 18" x 14"	3/4" x 14" x 14"	3/4" x 14" x 14"	3/4" x 14" x 14"	1-1/4" x 14" x 14"	3/4" x 14" x 14"	3/4" x 14" x 14"	1-1/4" x 14" x 14"	1-1/2" x 18" x 14"	3/4" x 12" x 12"	3/4" x 12" x 12"	3/4" x 12" x 12"	1-1/4" x 14" x 14"	1-1/2" x 16" x 27"	1-1/4" x 16" x 16"	1-1/4" x 14" x 14"	1-1/2" x 20" x 14"	3/4" x 14" x 14"	3/4" x 14" x 14"	1-1/2" x 20" x 14"	1-1/2" x 20" x 14"	3/4" x 14" x 14"	3/4" x 14" x 14"	1-1/4" x 14" x 14"	1-1/4" x 14" x 14"	BASE PLATE SIZE (l x b x d)
ANCHOR BOLTS SIZE (Ø x EMBED DEPTH)	1-1/4"Ø x 22" LG. GR 105	3/4"Ø x 14" LG. GR 36	3/4"Ø x 14" LG. GR 36	3/4"Ø x 14" LG. GR 36	1"Ø x 18" LG. GR 36	3/4"Ø x 14" LG. GR 36	3/4"Ø x 14" LG. GR 36	1"Ø x 18" LG. GR 36	1-1/4"Ø x 22" LG. GR 105	3/4"Ø x 14" LG. GR 36	3/4"Ø x 14" LG. GR 36	3/4"Ø x 14" LG. GR 36	1"Ø x 18" LG. GR 36	1-1/4"Ø x 22" LG. GR 105	1"Ø x 18" LG. GR 36	1"Ø x 18" LG. GR 36	3/4"Ø x 14" LG. GR 36	3/4"Ø x 14" LG. GR 36	3/4"Ø x 14" LG. GR 36	3/4"Ø x 14" LG. GR 36	3/4"Ø x 14" LG. GR 36	3/4"Ø x 14" LG. GR 36	3/4"Ø x 14" LG. GR 36	1"Ø x 18" LG. GR 36	1"Ø x 18" LG. GR 36	ANCHOR BOLTS SIZE (Ø x EMBED DEPTH)

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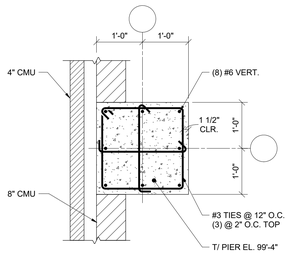
TYPICAL DETAILS

S0.02



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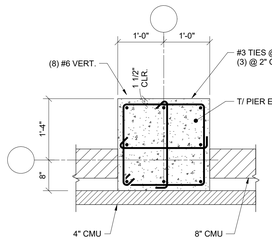

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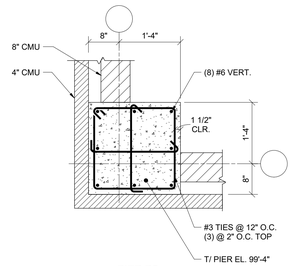

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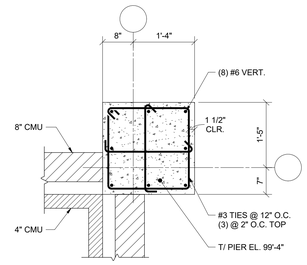

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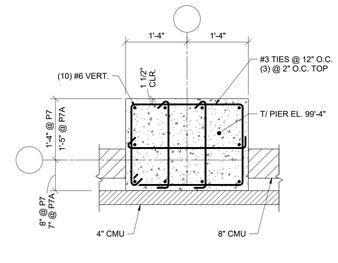
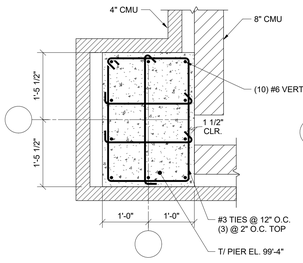


PIER P7, P7A



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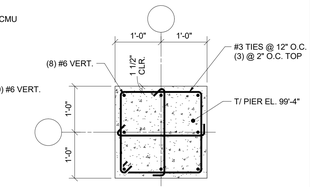

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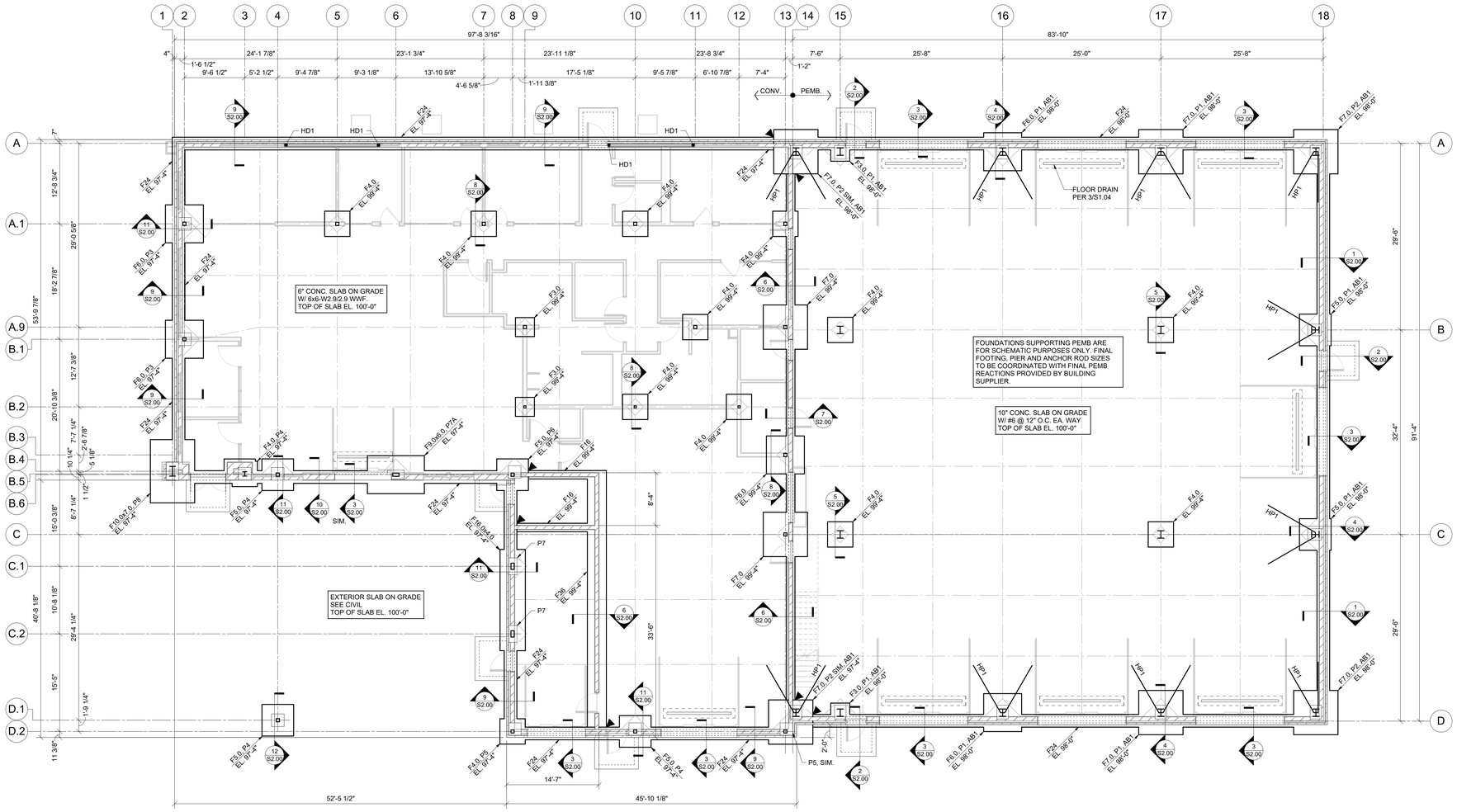
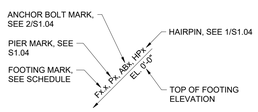


FOUNDATION PLAN

1/8" = 1'-0"

FOUNDATION NOTES

1. DESIGN SOIL BEARING PRESSURE = 2,000 PSF. SEE S0.00 FOR REFERENCE SOILS REPORT INFORMATION. REFERENCE THIS REPORT FOR ANY REQUIRED SITE BUILDING PAD PREPARATION PRIOR TO FOUNDATION AND/OR SLAB-ON-GRADE CONSTRUCTION. FOOTING EXCAVATIONS MAY BE REQUIRED TO EXTEND THROUGH EXISTING FILL REGIONS IN ORDER TO BEAR ON SUITABLE BEARING SOILS. FOOTING EXCAVATIONS ARE TO BE FILLED WITH LEAN CONCRETE UP TO THE PLANNED BOTTOM OF FOOTING ELEVATION. NOTIFY ENGINEER 24 HOURS PRIOR TO INSPECTION AND APPROVAL OF BEARING SURFACES BY SOILS ENGINEER.
2. FOUNDATIONS HAVE BEEN DESIGNED BASED UPON PRELIMINARY METAL BUILDING REACTIONS. FOUNDATION CONSTRUCTION IS NOT TO BEGIN UNTIL FINAL BUILDING REACTIONS HAVE BEEN RECEIVED, REVIEWED, AND FOUNDATION DESIGNS HAS BEEN VERIFIED. ANY VARIATION IN LOADING FROM PRELIMINARY BUILDING REACTIONS MAY REQUIRE REDESIGN OF FOUNDATIONS. ADDITIONAL COSTS ASSOCIATED WITH REDESIGN ARE TO BE THE RESPONSIBILITY OF THE CONTRACTOR.
3. KEEP FOUNDATIONS FREE OF WATER AT ALL TIMES. REPLACE WEAKENED SOIL WITH LEAN CONCRETE OR FLOWABLE FILL.
4. BOTTOM OF FOOTINGS ARE TO BE AT LEAST 32-INCHES BELOW THE ADJACENT EXTERIOR FINISHED GRADE FOR FROST PROTECTION.
5. ELEVATIONS SHOWN ON FOOTINGS INDICATE ELEVATION AT TOP OF FOOTING. REFERENCE ELEVATION/TOP OF CONCRETE SLAB ELEVATION AS NOTED ON PLANS. COORDINATE ABSOLUTE ELEVATION OF TOP OF SLAB WITH SITE DRAWINGS.
6. ▼ INDICATES FOOTING STEP PER SECTION 1/S0.01. STEP AT A RATIO NOT TO EXCEED ONE VERTICAL TO TWO HORIZONTAL.
7. COORDINATE THE LOCATION AND DEPTH OF ALL UNDERGROUND MECHANICAL, ELECTRICAL, PLUMBING, AND/OR CIVIL WORK PRIOR TO CONSTRUCTION. NOT ALL UNDERGROUND UTILITIES ARE SHOWN ON THE STRUCTURAL DRAWINGS. FOUNDATIONS BUILT PRIOR TO THE INSTALLATION OF UNDERGROUND UTILITIES ARE TO BE STEPPED OR DROPPED COMPLETELY BELOW THE UTILITY DEPTH PER SECTION 4/S0.01. IF UTILITIES ARE INSTALLED AFTER THE FOOTINGS ARE POUR TO FOUNDATION CONSTRUCTION, THEY ARE TO BE ENCASED PER SECTION 3/S0.01. SEE SECTION 4/S0.01 FOR TRENCH EXCAVATION AND UTILITY PLACEMENT REQUIREMENTS FOR WORK THAT IS LAID ADJACENT TO FOOTINGS.
8. Wx INDICATES VERTICAL MASONRY WALL REINFORCING PER SCHEDULE. ALL REINFORCING IS TO RUN FULL HEIGHT OF WALL UNLESS NOTED OTHERWISE. WHERE VERTICAL REINFORCING IS INTERRUPTED BY OPENING IN WALL (WINDOW, LOUVER, ETC.) PROVIDE ONE FULL-HEIGHT REINFORCING BAR AT EACH JAMB FOR EACH 6'-0" OF OPENING WIDTH. SEE SCHEDULE ON SHEET S0.00 FOR LENGTH OF LAP SPLICES.
9. SEE ELEVATION S0.00 FOR TYPICAL REINFORCED MASONRY WALL CONSTRUCTION.
10. PROVIDE CORNER BARS AT ALL FOOTING AND CONCRETE WALL INTERSECTIONS PER DETAIL 5/S0.01.
11. SEE SHEET S0.00 FOR GENERAL STRUCTURAL INFORMATION.



PEMB LEGEND

SEE SHEET S1.04 FOR PEMB PIERS, HAIRPINS. & ANCHOR RODS

CONT. WALL FOOTING SCHEDULE

MARK	SIZE	REINFORCING
F16	1'-4" x 1'-0" DP.	(2) #4 CONT. BOT.
F24	2'-0" x 1'-0" DP.	(2) #5 CONT. BOT.
F36	3'-0" x 1'-0" DP.	(3) #5 CONT. BOT.

SPREAD FOOTING SCHEDULE

MARK	SIZE	REINFORCING
F3.0	3'-0" x 3'-0" x 1'-0" DP.	(3) #5 EA. WAY TOP & BOT.
F4.0	4'-0" x 4'-0" x 1'-0" DP.	(4) #5 EA. WAY TOP & BOT.
F5.0	5'-0" x 5'-0" x 1'-0" DP.	(5) #5 EA. WAY TOP & BOT.
F6.0	6'-0" x 6'-0" x 1'-2" DP.	(6) #5 EA. WAY TOP & BOT.
F7.0	7'-0" x 7'-0" x 1'-2" DP.	(7) #5 EA. WAY TOP & BOT.
F9.0x6.0	9'-0" x 6'-0" x 1'-4" DP.	(7) #5 L.W. TOP & BOT. & (13) #5 S.W. TOP & BOT.
F10.0x7.0	10'-0" x 7'-0" x 1'-4" DP.	(8) #5 L.W. TOP & BOT. & (14) #5 S.W. TOP & BOT.
F16.0x4.0	16'-0" x 4'-0" x 1'-4" DP.	(5) #5 L.W. TOP & BOT. & (21) #5 S.W. TOP & BOT.

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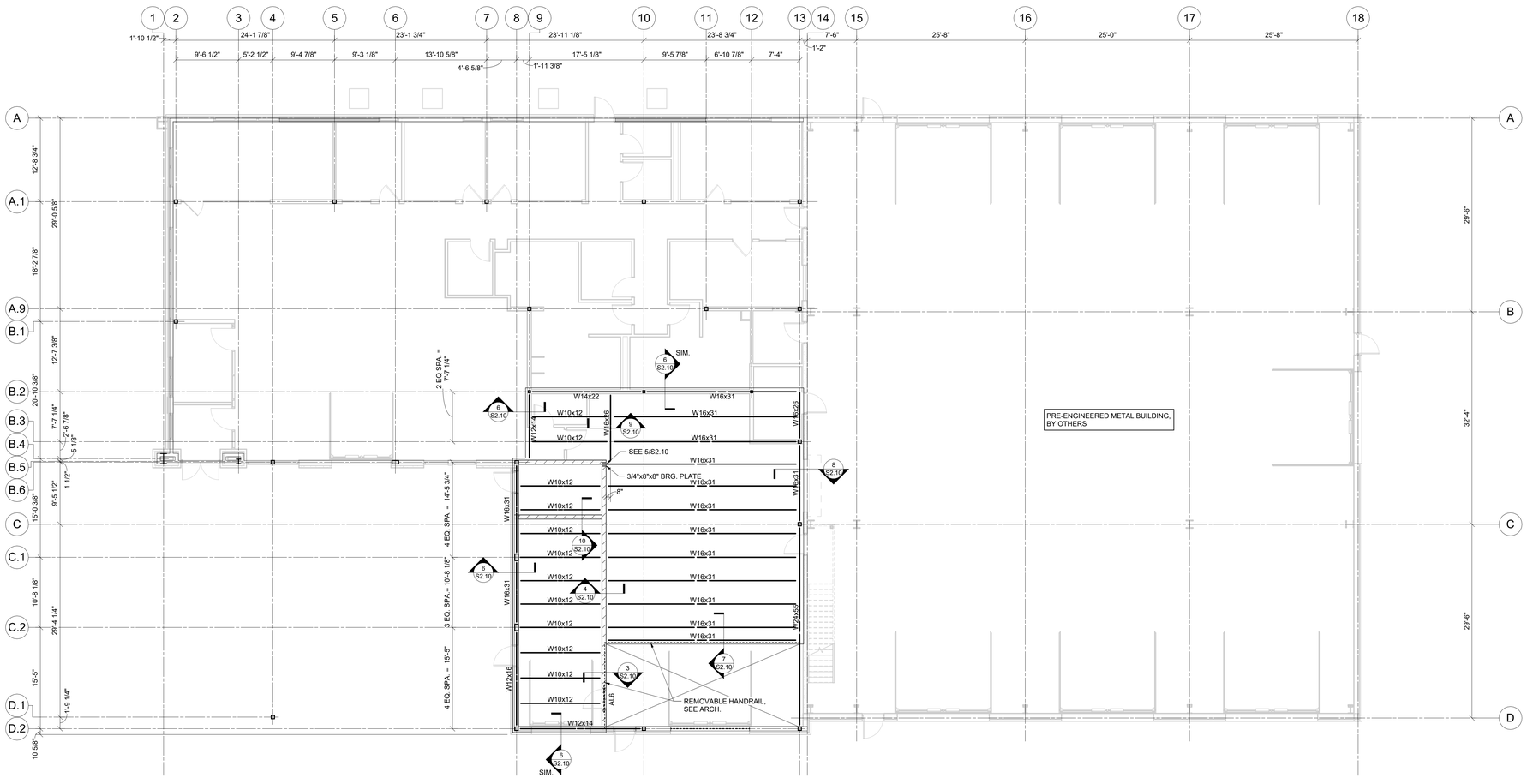
OFFICE & SHOP FOUNDATION PLAN

S1.01



MEZZANINE FRAMING PLAN

1/8" = 1'-0"

FLOOR FRAMING NOTES

1. DESIGN LIVE LOADS:

MEZZANINE	150 PSF
STAIRS AND EXITS	100 PSF

2. FLOOR CONSTRUCTION:

   4" (OVERALL) CONC. SLAB W/ 4x4-W2.9/W2.9 WWF ON 1 ½" x 22 GA. METAL DECK. MESH IS TO BE SUPPORTED DURING CONCRETE PLACEMENT ON CHAIRS OR BOLSTERS AT MID-DEPTH OF SLAB, HALF-WAY BETWEEN THE TOP OF DECK RIBS AND THE TOP OF SLAB. SEE SECTION 1/S2.10 FOR TYPICAL DECK ATTACHMENT TO SUPPORTING STRUCTURE. SEE SECTION 2/S2.10 FOR TYPICAL FLOOR OPENING BETWEEN FRAMING MEMBERS.

3. SLABS ON METAL DECK ARE TO BE FINISHED TO A THEORETICAL LEVEL. THICKNESSES GIVEN ARE APPLICABLE AT COLUMNS, BEARING WALLS, AND OTHER RIGID SUPPORTING ELEMENTS. SLABS MAY, THEREFORE, BE THICKER AT MID-SPAN OF SUPPORT DUE TO DEFLECTION UNDER WET CONCRETE.

4. TOP OF CONCRETE SLAB ON METAL DECK ELEVATION = EL. 111'-0" UNLESS NOTED OTHERWISE. REFERENCE ELEVATION 100'-0" = TOP OF FIRST FLOOR SLAB ON GRADE.

5. SEE SHEET S0.20 FOR TYPICAL STEEL FRAMING DETAILS.

6. X — INDICATES MASONRY BEARING LENGTH IN INCHES OR BEARING PLATE TYPE PER SCHEDULE. WHERE NO BEARING PLATE IS SPECIFICALLY INDICATED, PROVIDE 1/4" SETTING PLATE AND 3/4" ANCHOR BOLTS AS SHOWN IN SECTIONS 3, 4, & 5 ON S2.10.

7. ML# — INDICATES MASONRY LINTEL FOR WALL OPENINGS. SEE ARCHITECTURAL DRAWINGS FOR OPENING DIMENSIONS AND SHEET S0.00 FOR MASONRY LINTEL TYPES AND SCHEDULE.

8. H# — INDICATES HEADER FOR WALL OPENINGS. SEE ARCHITECTURAL DRAWINGS FOR OPENING SIZES AND DETAIL 10/S0.01 FOR STANDARD HEADER CONSTRUCTION.

9. SW# — INDICATES SHEARWALL PER DETAIL 11/S0.01.

10. SW# / HD# — INDICATES SHEARWALL HOLDOWN PER DETAIL 11 ON S0.01. HOLDOWNS INDICATED ARE TO BE INSTALLED AT THE BASE OF WALL FRAMING SUPPORTING THIS PLAN LEVELS STRUCTURE.

11. SEE SHEET S0.00 FOR GENERAL STRUCTURAL INFORMATION.

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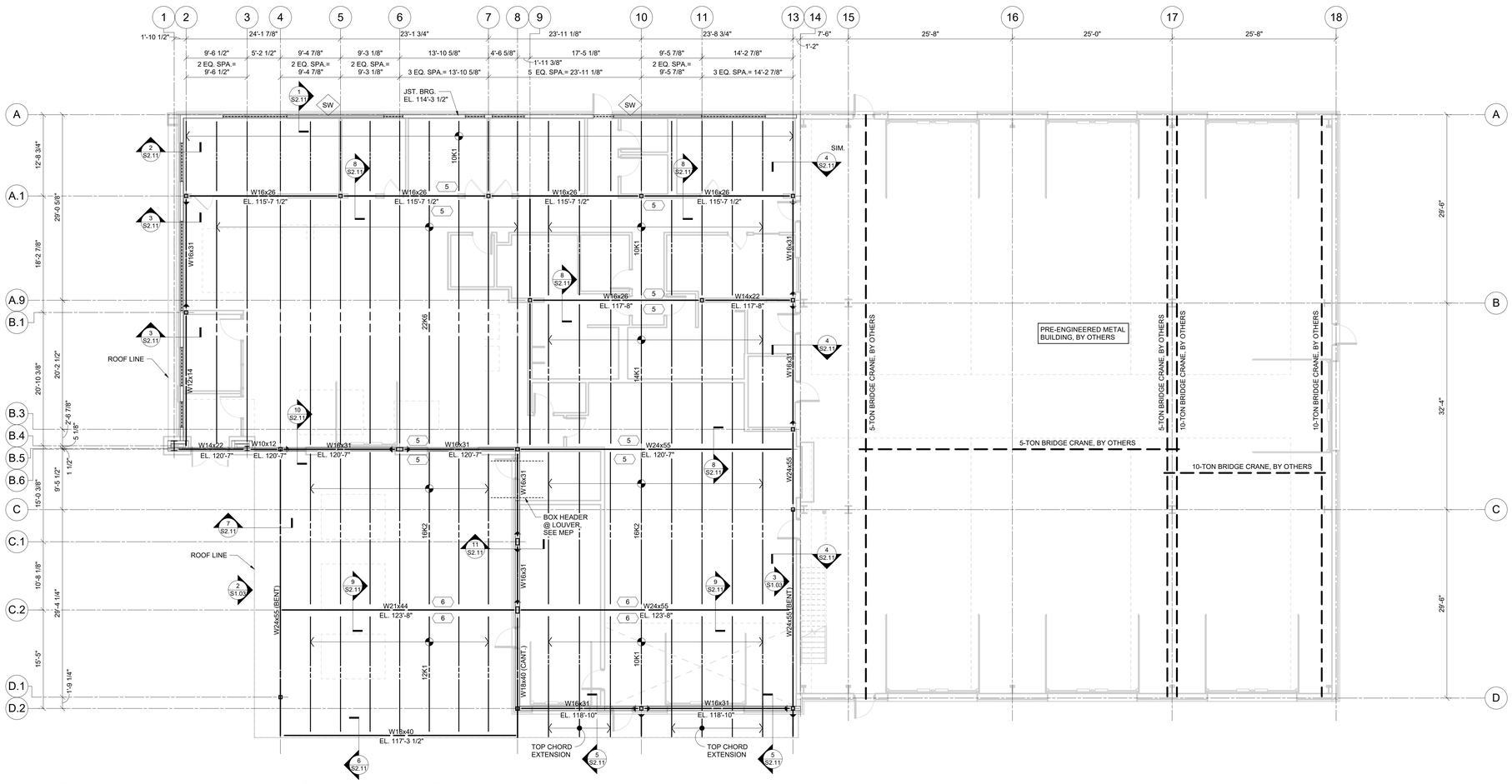
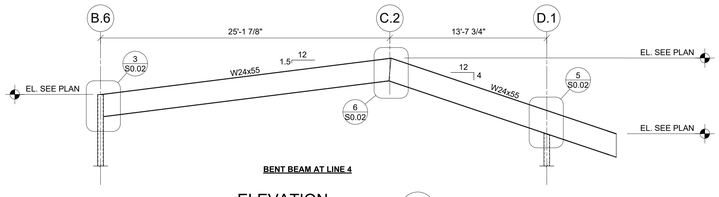
OFFICE & SHOP MEZZANINE PLAN

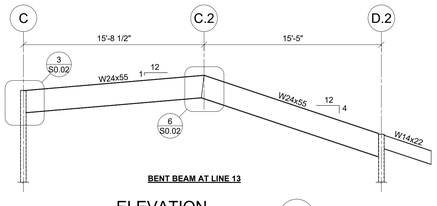
S1.02





BENT BEAM AT LINE 4

ELEVATION 2
3/16" = 1'-0"



BENT BEAM AT LINE 13

ELEVATION 3
3/16" = 1'-0"

ROOF FRAMING PLAN

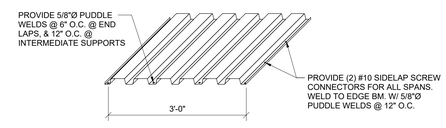
1/8" = 1'-0"

ROOF FRAMING NOTES

1. DESIGN LIVE LOADS:

FLAT ROOF LIVE	20 PSF
SLOPED ROOF LIVE	16 PSF
FLAT ROOF SNOW	20 PSF + DRIFT
SLOPED ROOF SNOW	15 PSF
WIND (ASD NET UPLIFT)	15 PSF

2. ROOF CONSTRUCTION:
   1-1/2" x 18 GA WIDE RIB METAL DECK. SEE SECTION 1/S1.03 FOR TYPICAL ATTACHMENT TO SUPPORTING STRUCTURE.
3. INDICATES SNOW DRIFT ROOF LOADING. JOISTS HAVE BEEN SIZED FOR THE LOAD SHOWN UNLESS NOTED OR SCHEDULED OTHERWISE.
4. TOP OF STEEL / JOIST BEARING ELEVATION = SEE PLAN UNLESS NOTED OTHERWISE. REFERENCE ELEVATION 100'-0" = TOP OF FIRST FLOOR SLAB ON GRADE.
5. #K — INDICATES NON-STANDARD JOIST SEAT DEPTH. SEE SECTIONS AND DETAILS FOR ADDITIONAL INFORMATION.
6. SEE SHEET S0.02 FOR TYPICAL STEEL FRAMING DETAILS.
7. ALL JOISTS ARE TO BE DESIGNED FOR NET UPLIFT AS DEFINED IN DESIGN LOADS ABOVE. PROVIDE BRIDGING IN ADDITION TO MINIMUM SJI REQUIREMENTS IF NEEDED.
8. SEE SHEET S0.02 FOR COLUMN SCHEDULE.
9. H# — INDICATES HEADER FOR WALL OPENINGS PER SHEET S0.01. SEE ARCHITECTURAL DRAWINGS FOR OPENING SIZES AND DETAIL 10/S0.01 FOR STANDARD HEADER CONSTRUCTION.
10. SW# — INDICATES SHEARWALL. SEE SHEET S0.01 FOR WOOD FRAMED SHEARWALL SCHEDULE AND TYPICAL DETAILS.
11. HD# — INDICATES SHEARWALL HOLDOWN. SEE SHEET S0.01 FOR HOLDOWN SCHEDULE. HOLDOWNS INDICATED ARE TO BE INSTALLED AT THE BASE OF WALL FRAMING SUPPORTING THIS PLAN LEVELS STRUCTURE.
12. SEE ARCHITECTURAL DRAWINGS FOR ANY DIMENSIONS NOT INDICATED HEREIN.
13. SEE SHEET S0.00 FOR GENERAL STRUCTURAL INFORMATION.



1 1/2" METAL DECK ATTACHMENT TO STEEL STRUCTURE
(36/4 - 2 PATTERN)

SECTION 1
3/4" = 1'-0"

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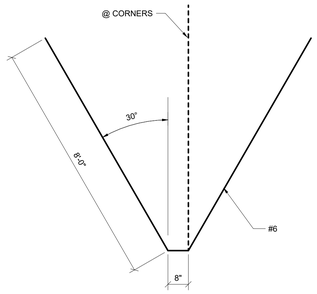
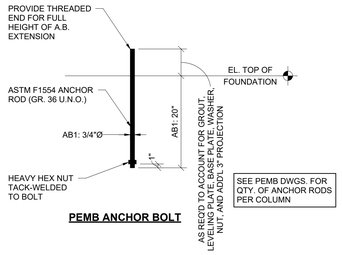
OFFICE & SHOP ROOF FRAMING PLAN

S1.03



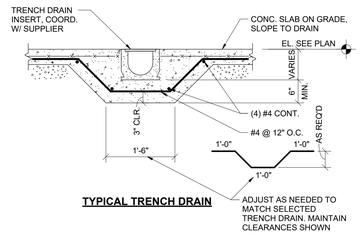
TYPICAL HAIRPIN HP1

DETAIL 1
1/2" = 1'-0"



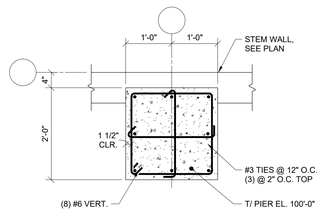
PEMB ANCHOR BOLT

DETAIL 2
3/4" = 1'-0"

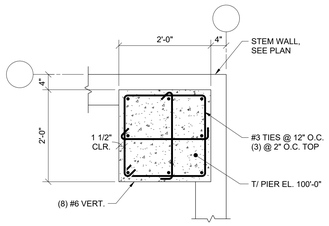


TYPICAL TRENCH DRAIN

SECTION 3
3/4" = 1'-0"



PIER P1



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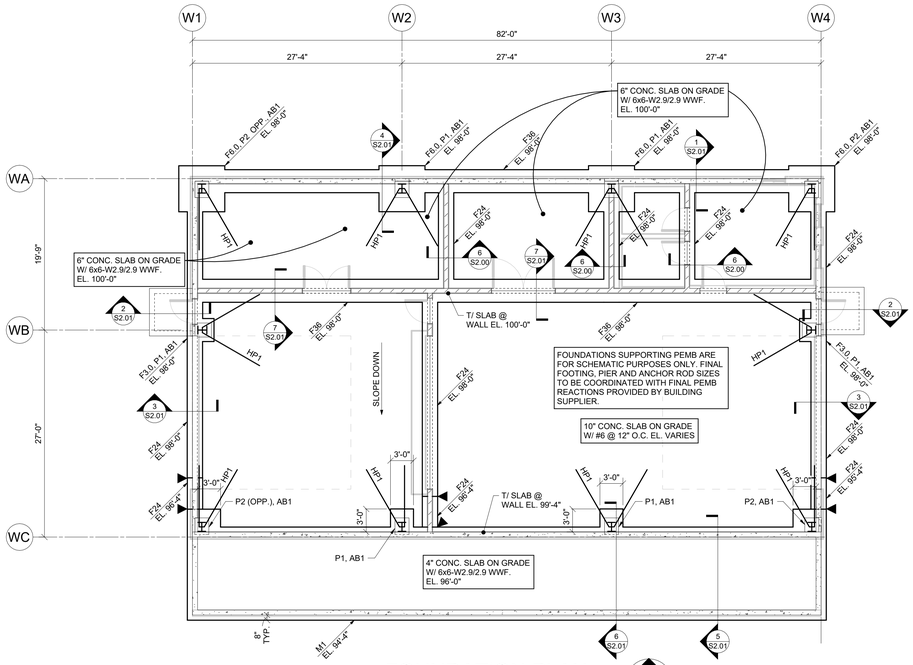
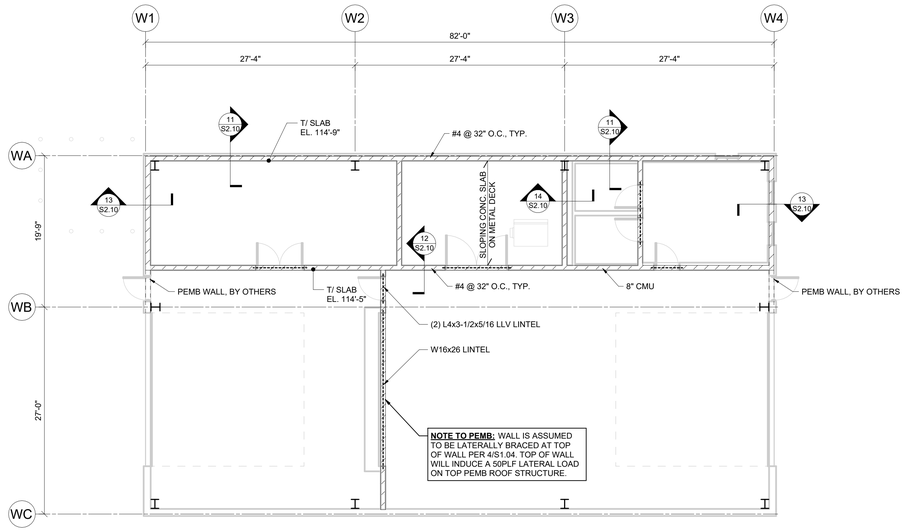


FOUNDATION PLAN

1/8" = 1'-0"

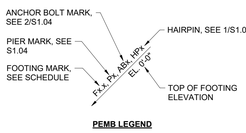


MEZZANINE FRAMING PLAN

1/8" = 1'-0"

FOUNDATION NOTES

1. DESIGN SOIL BEARING PRESSURE = 2,000 PSF. SEE S0.00 FOR REFERENCE SOILS REPORT INFORMATION. REFERENCE THIS REPORT FOR ADDITIONAL REQUIRED SITE BUILDING PAD PREPARATION PRIOR TO FOUNDATION AND/OR SLAB-ON-GRADE CONSTRUCTION. FOOTING EXCAVATIONS MAY BE REQUIRED TO EXTEND THROUGH EXISTING FILL REGIONS IN ORDER TO BEAR ON SUITABLE MATERIAL. OVER-EXCAVATIONS ARE TO BE FILLED WITH LEAN CONCRETE UP TO THE PLANNED BOTTOM OF FOOTING ELEVATION. PLACE NO CONCRETE PRIOR TO INSPECTION AND APPROVAL OF BEARING SURFACES BY SOILS ENGINEER.
2. FOUNDATIONS HAVE BEEN DESIGNED BASED UPON PRELIMINARY METAL BUILDING REACTIONS. FOUNDATION CONSTRUCTION IS NOT TO BEGIN UNTIL FINAL BUILDING REACTIONS HAVE BEEN RECEIVED, REVIEWED, AND FOUNDATION DESIGNS HAS BEEN VERIFIED. ANY VARIATION IN LOADING FROM PRELIMINARY BUILDING REACTIONS MAY REQUIRE REDESIGN OF FOUNDATIONS. ADDITIONAL COSTS ASSOCIATED WITH REDESIGN ARE TO BE THE RESPONSIBILITY OF THE CONTRACTOR.
3. KEEP FOUNDATIONS FREE OF WATER AT ALL TIMES. REPLACE WEAKENED SOIL WITH LEAN CONCRETE OR FLOWABLE FILL.
4. BOTTOM OF FOOTINGS ARE TO BE AT LEAST 32-INCHES BELOW THE ADJACENT EXTERIOR FINISHED GRADE FOR FROST PROTECTION.
5. ELEVATIONS SHOWN ON FOOTINGS INDICATE ELEVATION AT TOP OF FOOTING. REFERENCE ELEVATION/TOP OF CONCRETE SLAB ELEVATION AS NOTED ON PLANS. COORDINATE ABSOLUTE ELEVATION OF TOP OF SLAB WITH SITE DRAWINGS.
6. ▼ INDICATES FOOTING STEP PER SECTION 1/S0.01. STEP AT A RATIO NOT TO EXCEED ONE VERTICAL TO TWO HORIZONTAL.
7. COORDINATE THE LOCATION AND DEPTH OF ALL UNDERGROUND MECHANICAL, ELECTRICAL, PLUMBING, AND/OR CIVIL WORK PRIOR TO CONSTRUCTION. NOT ALL UNDERGROUND UTILITIES ARE SHOWN ON THE STRUCTURAL DRAWINGS. UNDERGROUND UTILITIES ARE TO BE PLACED IN THE FOOTING. UNDERGROUND UTILITIES ARE TO BE STEPPED OR DROPPED COMPLETELY BELOW THE UTILITY DEPTH PER SECTION 2/S0.01. WHERE UNDERGROUND UTILITIES ARE IN PLACE PRIOR TO FOUNDATION CONSTRUCTION, THEY ARE TO BE ENCASED PER SECTION 3/S0.01. SEE SECTION 4/S0.01 FOR TRENCH EXCAVATION AND UTILITY PLACEMENT REQUIREMENTS FOR WORK THAT IS LAID ADJACENT TO FOOTINGS.
8. Wx INDICATES VERTICAL MASONRY WALL REINFORCING PER SCHEDULE. ALL REINFORCING IS TO RUN FULL HEIGHT OF WALL UNLESS NOTED OTHERWISE. WHERE VERTICAL REINFORCING IS INTERRUPTED BY OPENING IN WALL (WINDOW, LOUVER, ETC.) PROVIDE ONE FULL-HEIGHT REINFORCING BAR AT EACH JAMB FOR EACH 24" OF OPENING WIDTH. SEE SCHEDULE ON SHEET S0.00 FOR LENGTH OF LAP SPLICES.
9. SEE ELEVATION S0.00 FOR TYPICAL REINFORCED MASONRY WALL CONSTRUCTION.
10. PROVIDE CORNER BARS AT ALL FOOTING AND CONCRETE WALL INTERSECTIONS PER DETAIL 5/S0.01.
11. SEE SHEET S0.00 FOR GENERAL STRUCTURAL INFORMATION.



PEMB LEGEND

SEE SHEET S1.04 FOR PEMB PIERS, HAIRPINS. & ANCHOR RODS

CONT. WALL FOOTING SCHEDULE

MARK	SIZE	REINFORCING
F16	1'-4" x 1'-0" DP.	(2) #4 CONT. BOT.
F24	2'-0" x 1'-0" DP.	(2) #5 CONT. BOT.
F36	3'-0" x 1'-0" DP.	(3) #5 CONT. BOT.

SPREAD FOOTING SCHEDULE

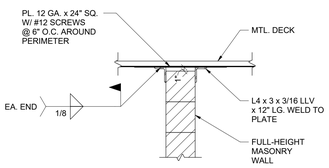
MARK	SIZE	REINFORCING
F3.0	3'-0" x 3'-0" x 1'-0" DP.	(3) #5 EA. WAY TOP & BOT.
F4.0	4'-0" x 4'-0" x 1'-0" DP.	(4) #5 EA. WAY TOP & BOT.
F5.0	5'-0" x 5'-0" x 1'-0" DP.	(5) #5 EA. WAY TOP & BOT.
F6.0	6'-0" x 6'-0" x 1'-2" DP.	(6) #5 EA. WAY TOP & BOT.
F7.0	7'-0" x 7'-0" x 1'-2" DP.	(7) #5 EA. WAY TOP & BOT.
F9.0x6.0	9'-0" x 6'-0" x 1'-4" DP.	(7) #5 L.W. TOP & BOT. & (13) #5 S.W. TOP & BOT.
F10.0x7.0	10'-0" x 7'-0" x 1'-4" DP.	(8) #5 L.W. TOP & BOT. & (14) #5 S.W. TOP & BOT.
F16.0x4.0	16'-0" x 4'-0" x 1'-4" DP.	(5) #5 L.W. TOP & BOT. & (21) #5 S.W. TOP & BOT.

MAT FOOTING SCHEDULE

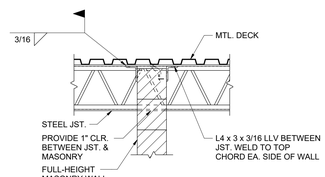
MARK	THICKNESS	REINFORCING
M1	1'-0"	#5 @ 12" O.C. EA. WAY TOP & BOT.

FLOOR FRAMING NOTES

1. DESIGN LIVE LOADS:
   LIGHT STORAGE 125 PSF
2. FLOOR CONSTRUCTION:
   6-1/2" (OVERALL) CONC. SLAB W/ 6x6-W2.9/W2.9 WWF ON 3 ᵃ x 18 GA. COMPOSITE METAL DECK. MESH IS TO BE SUPPORTED DURING CONCRETE PLACEMENT ON CHAIRS OR BOLSTERS AT MID-DEPTH OF SLAB, HALF-WAY BETWEEN THE TOP OF DECK RIBS AND THE TOP OF SLAB. PROVIDE (2) 1/4 "Ø TAPCON SCREWS AT 6" O.C. INTO TOP OF CMU WALLS. SLAB IS TO BE SHORED DURING CONSTRUCTION WITH A MAXIMUM UNSHORED SPAN OF 11'-0".
3. SLABS ON METAL DECK ARE TO BE FINISHED TO A THEORETICAL LEVEL. THICKNESSES GIVEN ARE APPLICABLE AT COLUMNS, BEARING WALLS, AND OTHER RIGID SUPPORTING ELEMENTS. SLABS MAY, THEREFORE, BE THICKER AT MID-SPAN OF SUPPORT DUE TO DEFLECTION UNDER WET CONCRETE.
4. REFERENCE ELEVATION IS 100'-0" = TOP OF FIRST FLOOR SLAB ON GRADE. TOP OF SLAB ELEVATION VARIES, SEE PLAN.
5. ML# INDICATES MASONRY LINTEL FOR WALL OPENINGS. SEE ARCHITECTURAL DRAWINGS FOR OPENING DIMENSIONS AND SHEET S0.00 FOR MASONRY LINTEL TYPES AND SCHEDULE.
6. SEE ARCHITECTURAL DRAWINGS FOR ANY DIMENSIONS NOT INDICATED HEREIN.
7. SEE SHEET S0.00 FOR GENERAL STRUCTURAL INFORMATION.



FULL HEIGHT-PARALLEL TO JOIST



FULL HEIGHT-PERPENDICULAR TO JOIST

SECTION 4
3/4" = 1'-0"

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REV	DATE	DESCRIPTION
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PERMIT SET ONLY - 09/23/2026 - NOT FOR CONSTRUCTION

STATE OF OHIO
DARREN M. COOK
E-63292
REGISTERED
PROFESSIONAL ENGINEER

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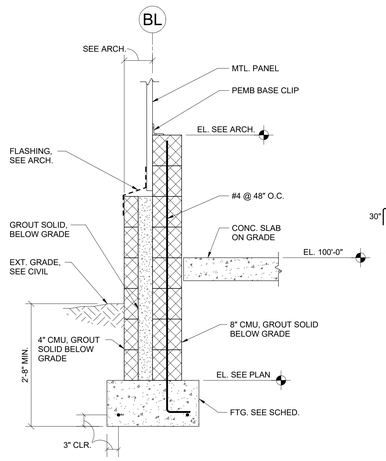
MIAMISBURG - CAT
RENTAL FACILITY
252-488 BYERS ROAD, MIAMISBURG, OHIO 45342
LDA Project No.26.11

WASH BLDG. FOUNDATION PLAN

S1.04



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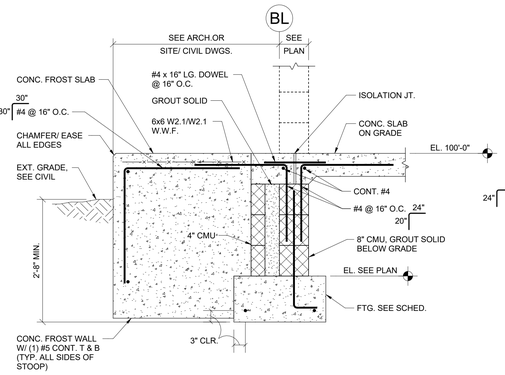

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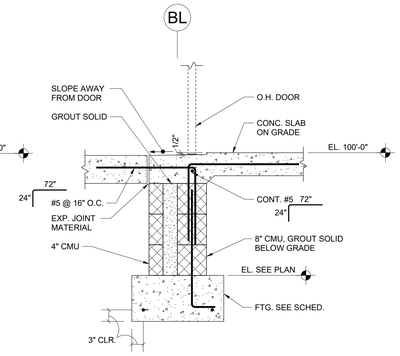

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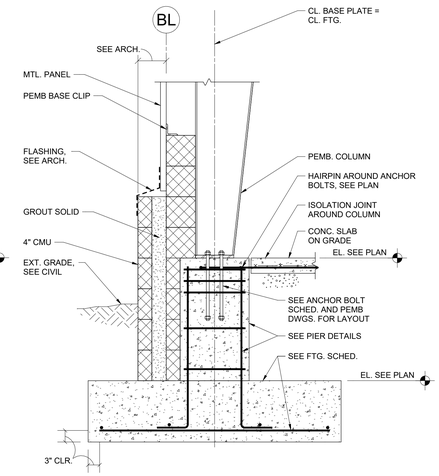

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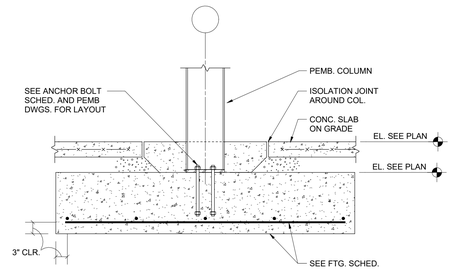

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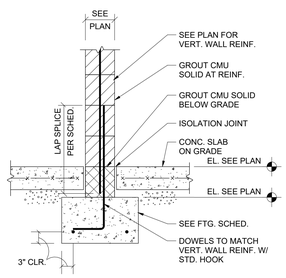

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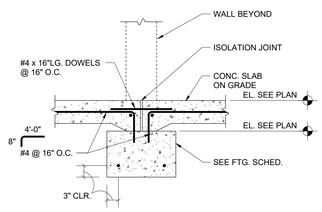

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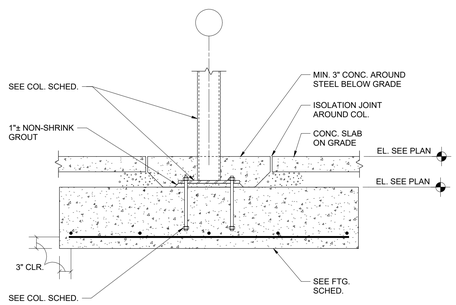

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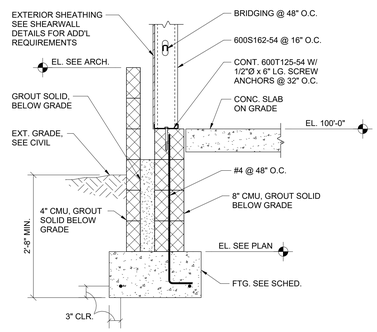

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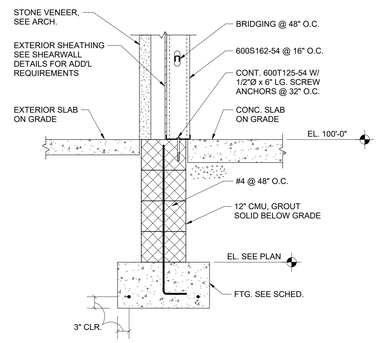

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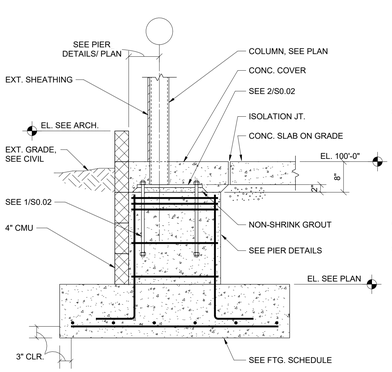

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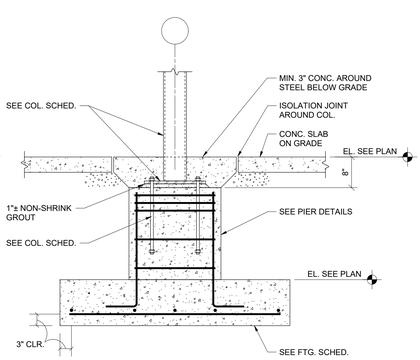

SECTION 12
3/4" = 1'-0"

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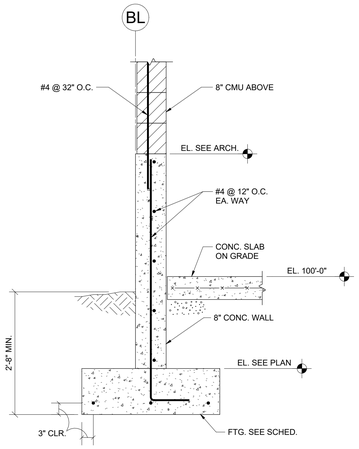
S2.00



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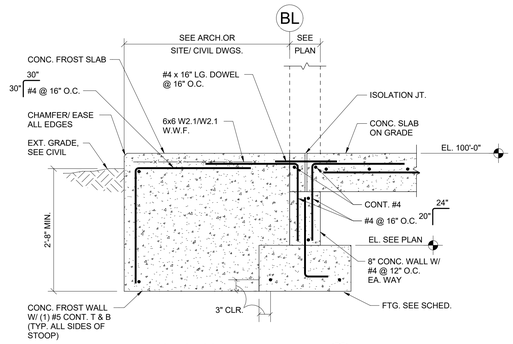

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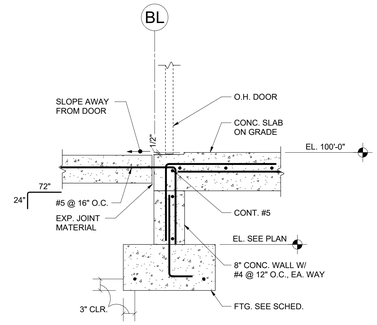

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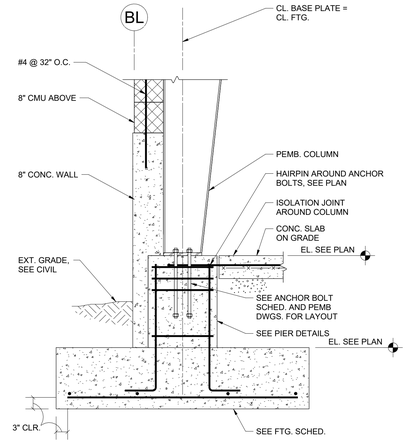

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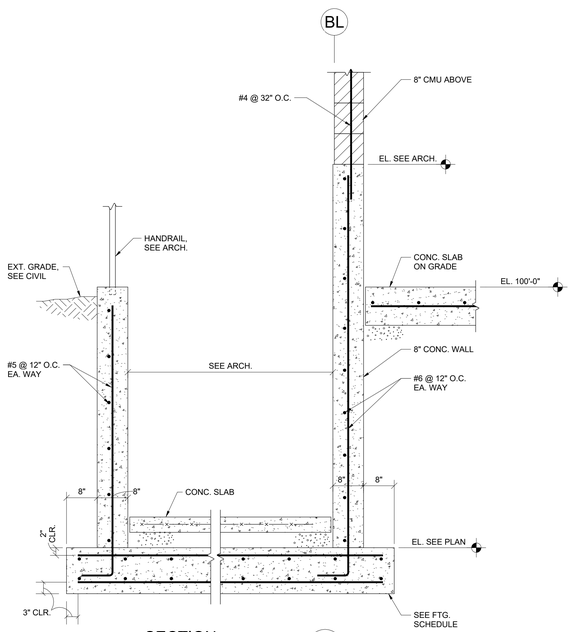

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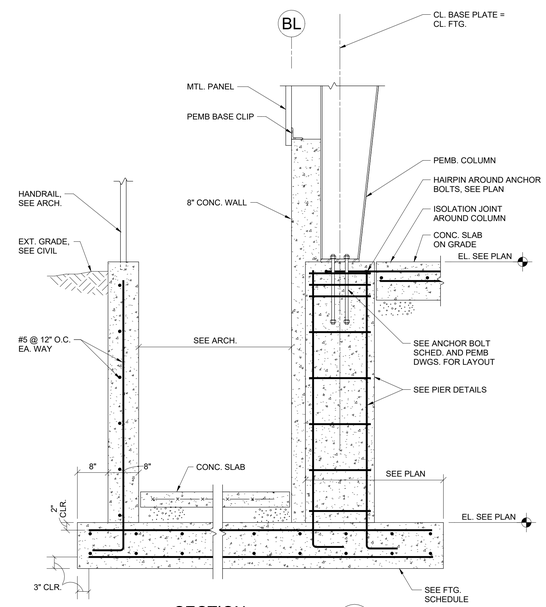

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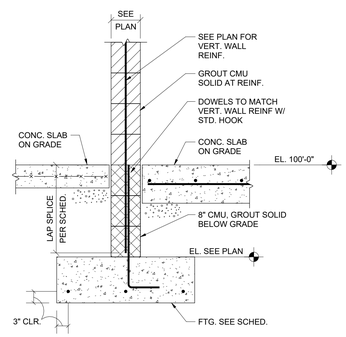

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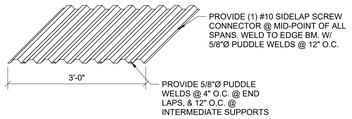

1" FORM DECK ATTACHMENT TO STEEL STRUCTURE
(36/4 - 1 PATTERN)

SECTION 1
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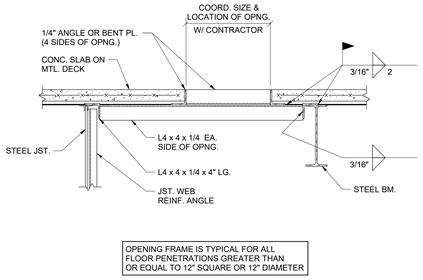

TYPICAL FLOOR OPENING FRAMING

SECTION 2
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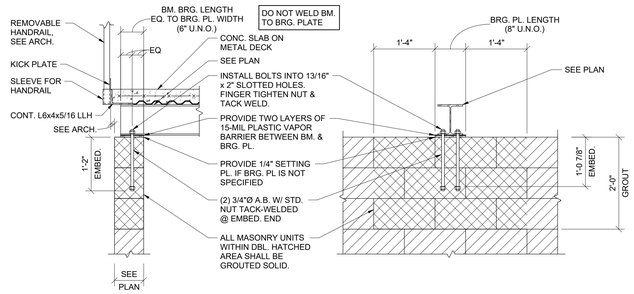

TYPICAL BEAM BEARING PERPENDICULAR TO MASONRY WALL

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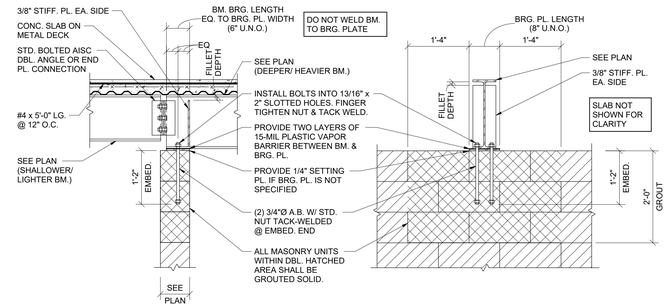

TYPICAL BEAM BEARING FROM EACH SIDE OF MASONRY WALL

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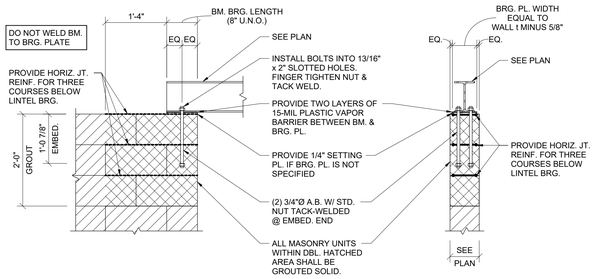

TYPICAL BEAM BEARING PARALLEL TO MASONRY WALL OR AT CORNER OF MASONRY WALL

SECTION 5
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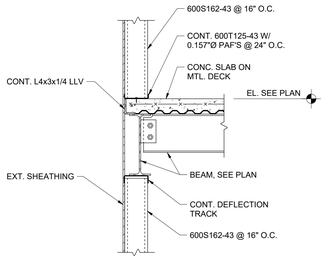

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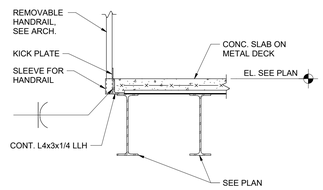

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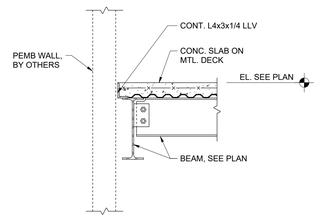

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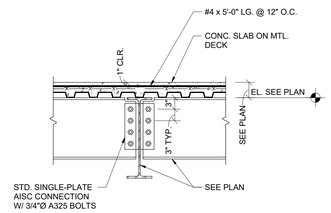
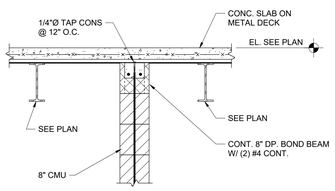


TYP AT ALL GIRDERS

SECTION 9
3/4" = 1'-0"



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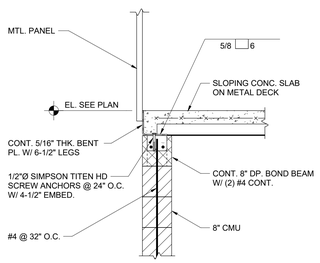

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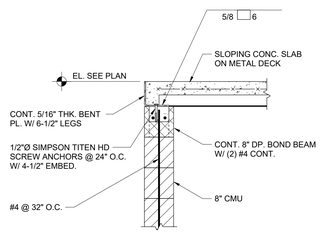
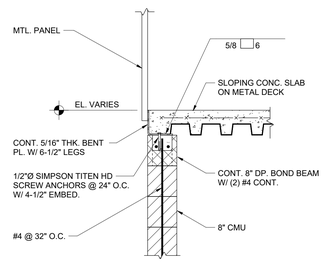


SECTION 12
3/4" = 1'-0"



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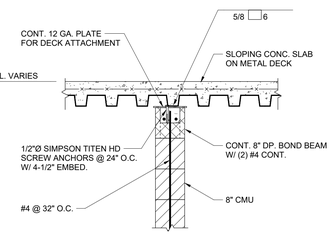

SECTION 14
3/4" = 1'-0"

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STATE OF OHIO
DARREN D. COOK
E-63292
REGISTERED
PROFESSIONAL ENGINEER

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252-488 BYERS ROAD, MIAMISBURG, OHIO 45342
LDA Project No.26.11

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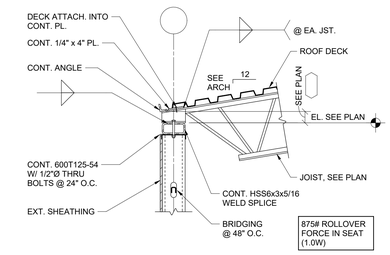
S2.10



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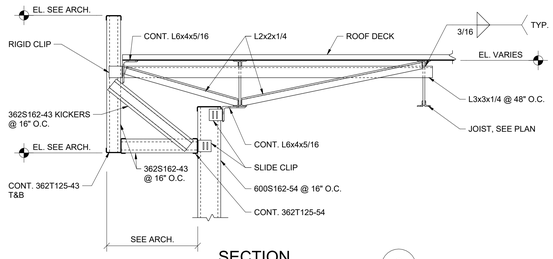

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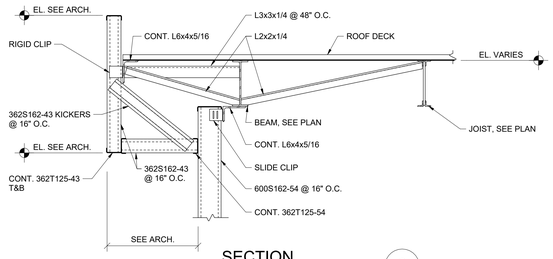

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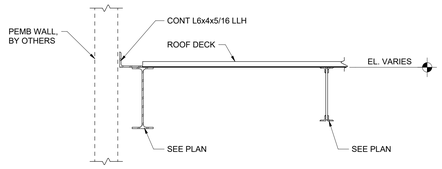

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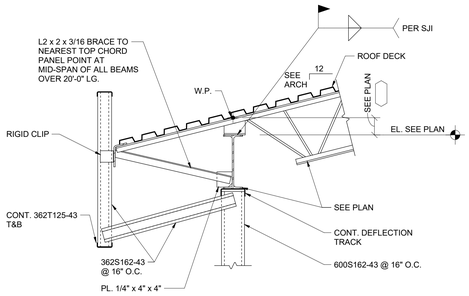

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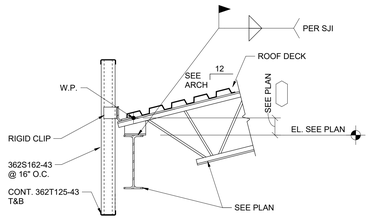
3/4" = 1'-0"



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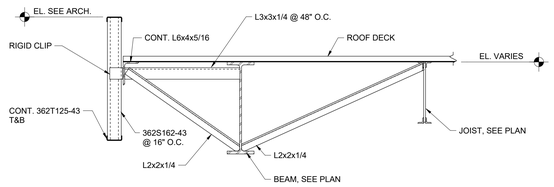

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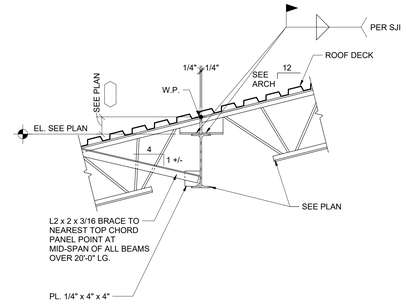

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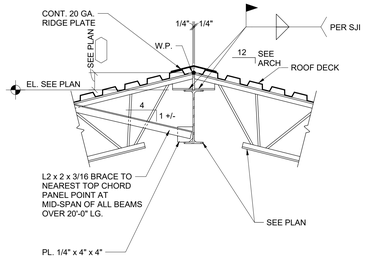

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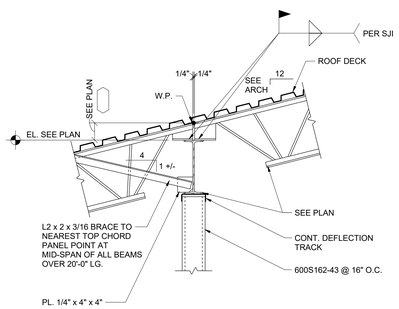

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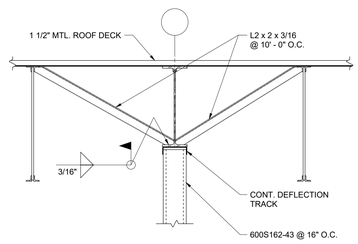

SECTION 11
3/4" = 1'-0"

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FRAMING DETAILS

S2.11

ABBREVIATIONS

(ALL ABBREVIATIONS SHOWN ARE NOT NECESSARILY USED ON DRAWINGS)

A	AMP, AMPERE
ABV	ABOVE
A/C	AIR CONDITIONER, AIR CONDITIONING, ABOVE CEILING
ACC	AIR COOLED CHILLER
ACCU	AIR COOLED CONDENSING UNIT
ADJ	ADJUSTABLE
AFC	ABOVE FINISHED CEILING
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AL	ACOUSTIC LINING
ANSI	AMERICAN NATL STANDARDS INSTITUTE
APD	AIR PRESSURE DROP
ARCH	ARCHITECT, ARCHITECTURAL
ARI	AIR CONDITIONING & REFRIG INSTITUTE
ASHRAE	AMERICAN SOCIETY OF HEATING, REFRIGERATION & AC ENGINEERS
ASME	AMERICAN SOCIETY OF MECHANICAL ENGRS
ASSY	ASSEMBLY
ASTM	AMERICAN SOCIETY OF TESTING & MATLS
AUX	AUXILIARY
AVG	AVERAGING
AWG	AMERICAN WIRE GAUGE
AWS	AMERICAN WELDING SOCIETY
AWWA	AMERICAN WATER WORKS ASSOC.
B/F	BELOW FLOOR
BAS	BUILDING AUTOMATION SYSTEM
BDD	BACKDRAFT DAMPER
BFW	BOILER FEED WATER
BLDG	BUILDING
BMS	BUILDING MANAGEMENT SYSTEM
BOD	BOTTOM OF DUCT
BOP	BOTTOM OF PIPE
BOS	BOTTOM OF STRUCTURE
BTU	BRITISH THERMAL UNIT
CA	COMBUSTION AIR
CC	CONCRETE
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
CHWR/CHWS	CHILLED WATER RETURN/SUPPLY
CIRC	CIRCULATING
CKT	CIRCUIT
CL	CENTERLINE
CLG	CEILING
CO	CLEANOUT
CONN	CONNECT, CONNECTION
COP	CLEANOUT PLUG
COL	COLUMN
CTE	CONNECT TO EXISTING
CW	DOMESTIC COLD WATER
CWR/CWS	CONDENSING WATER RETURN/SUPPLY
°C	DEGREES CELSIUS
D	DEPTH
DB	DRY BULB
dB	DECIBEL
DDC	DIRECT DIGITAL CONTROL
DEG	DEGREES
DIA (OR Ø)	DIAMETER
DIM	DIMENSION
DISC	DISCONNECT
DN	DOWN
DOM	DOMESTIC
DS	DOWNSPOUT
DWG	DRAWING
DX	DIRECT EXPANSION
EA	EACH
EAT	ENTERING AIR TEMPERATURE
EC	ELECTRICAL CONTRACTOR
EDB	ENTERING DRY BULB
ELEV	ELEVATION
ELEC	ELECTRICAL
ENCL	ENCLOSURE
EQUIP	EQUIPMENT
ESP	EXTERNAL STATIC PRESSURE
ETR	EXISTING TO REMAIN
EWB	ENTERING WET BULB
EWT	ENTERING WATER TEMPERATURE
EXH	EXHAUST
EX	EXISTING
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FCO	FLOOR CLEANOUT
FD	FIRE DAMPER
FF	FINISHED FLOOR
FLA	FULL LOAD AMPS
FLEX	FLEXIBLE
FP	FIRE PROTECTION
FPM	FEET PER MINUTE
FT	FOOT, FEET
FW	FILTERED WATER
°F	DEGREES FAHRENHEIT
G	GAS
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GFI, GFIC	GROUND FAULT INTERRUPTER
GPD	GALLONS PER DAY
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GRD	GROUND
GW	GREASE WASTE
H	HEIGHT
HD	HEAD, HUB DRAIN
HHWR/HHWS	HEATING HOT WATER RETURN/SUPPLY
HOA	HAND-OFF-AUTOMATIC
HP	HORSEPOWER, HEAT PUMP
HSTAT	HUMIDISTAT
HTG	HEATING
HTR	HEATER
HVAC	HEATING, VENTILATING & A/C
HW	DOMESTIC HOT WATER
HWR	DOMESTIC RECIRCULATED HOT WATER
HYD	HYDRANT
HZ	HERTZ
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IN	INCH, INCHES
IN WC	INCHES OF WATER COLUMN
KVA	KILOVOLT-AMPS
KW	KILOWATTS
KWH	KILOWATT-HOUR
L	INTERNALLY LINED
LAT	LEAVING AIR TEMPERATURE
LBS, #	POUNDS
LDB	LEAVING DRY BULB
LP	LOW PRESSURE
LRA	LOCKED ROTOR AMPS
LTG	LIGHTING
LWB	LEAVING WET BULB
LWT	LEAVING WATER TEMPERATURE
MAX	MAXIMUM
MBH	1000 BTU PER HOUR
MC	MECHANICAL CONTRACTOR
MCA	MINIMUM CIRCUIT AMPACITY
MCC	MOTOR CONTROL CENTER
MD	MOTORIZED DAMPER
MECH	MECHANICAL
MFR	MANUFACTURER
MH	MANHOLE, METAL HALIDE
MIN	MINIMUM
MOCP	MAXIMUM OVER CURRENT PROTECTION
MTD	MOUNTED
MUA	MAKE-UP AIR
N/A	NOT APPLICABLE
N.C.	NORMALLY CLOSED
NC	NOISE CRITERIA
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MFR'S ASSOC.
NFPA	NATIONAL FIRE PROTECTION ASSOC.
NIC	NOT IN CONTRACT
N.O.	NORMALLY OPEN
NTS	NOT TO SCALE
O/H	OVERHEAD
OA	OUTSIDE AIR (VENTILATION AIR)
OBD	OPPOSED BLADE DAMPER
OC	ON CENTER
OD	OVERFLOW DRAINAGE, OUTSIDE DIAMETER
OPNG	OPENING
ORD	OVERFLOW ROOF DRAIN
OS&Y	OUTSIDE STEM AND YOKE
OSHA	OCCUPATIONAL SAFETY &HEALTH ADMIN.
PB	PUSH BUTTON
PD	PRESSURE DROP
PH,	PHASE
PIV	POST INDICATOR VALVE
PLBG	PLUMBING
PSI	POUNDS PER SQUARE INCH
PRV	PRESSURE RELIEF VALVE
RA	RETURN AIR
RCP	REFLECTED CEILING PLAN
RD	ROOF DRAIN
RECIRC	RECIRCULATE
REINF	REINFORCING, REINFORCED
REL	RELOCATED
REQ	REQUIRED
REV	REVISION, REVISE
REX	REMOVE EXISTING
RH	RELATIVE HUMIDITY
RHG	REFRIGERANT HOT GAS
RL	REFRIGERANT LIQUID
RLA	RUNNING LOAD AMPS
RPM	REVOLUTIONS PER MINUTE
RR	REMOVE AND RELOCATE
RS	REFRIGERANT SUCTION
RWC	RAIN WATER CONDUCTOR
SA	SUPPLY AIR
SAN	SANITARY
SD	SMOKE DETECTOR, STORM DRAIN
SECT	SECTION
SF	SQUARE FEET, SQUARE FOOT
SHT	SHEET
SM	SHEET METAL
SMACNA	SHEET METAL & A/C CONT NAT'L ASSOC.
SP	STATIC PRESSURE
SPEC	SPECIFICATION
SQ	SQUARE
ST	STORM WATER
STD	STANDARD
SURF	SURFACE
SUSP	SUSPEND
TDH	TOTAL DYNAMIC HEAD
TE	TENANT EXHAUST (TOILET)
THRU	THROUGH
TP	TOTAL PRESSURE
TSP	TOTAL STATIC PRESSURE
TSTAT	THERMOSTAT
TWR/TWS	TOWER WATER RETURN/SUPPLY
TYP	TYPICAL
U/F	UNDERFLOOR
U/G	UNDERGROUND
U/S	UNDERSLAB
UL	UNDERWRITERS LABORATORIES, INC.
U/ON	UNLESS OTHERWISE NOTED
V	VOLT, VENT
VA	VOLT-AMPERE, VALVE
VAC	VACUUM
VAV	VARIABLE AIR VOLUME
VD	VOLUME DAMPER
VTR	VENT THROUGH ROOF
W	WATT, WIDTH
W/	WITH
W/O	WITHOUT
WB	WET BULB
WC	WATER COLUMN

HVAC SYMBOLS

(ALL SYMBOLS SHOWN ARE NOT NECESSARILY USED ON DRAWINGS)

	SUPPLY AIR DIFFUSER - SHADING INDICATES PATTERN. NO PATTERN SHOWN EQUALS 4-WAY OR AS NOTED
	RETURN OR EXHAUST AIR GRILLE
12"Ø	ROUND DUCTWORK. DIAMETER IN INCHES
20/12	RECTANGULAR DUCTWORK. SIZE IN INCHES, FIRST NUMBER IS SIDE SHOWN
XX/XXL	INTERNALLY LINED DUCT
	SUPPLY OR OUTSIDE AIR DUCT
	RETURN, RELIEF OR EXHAUST AIR DUCT
A — B / C; A / C / B	DIFFUSER/GRILLE LABEL: A - TYPE/DESIGNATION B - NECK SIZE (INCHES) C - AIRFLOW (CFM)
	90 DEGREE DUCTWORK ELBOW W/ TURNING VANES
	TURNING VANES
	RADIUS DUCTWORK ELBOW - ROUND OR RECTANGULAR
	RECTANGULAR DUCTWORK BRANCH TAKE-OFF WITH 45 DEGREE BRANCH INLET
	HIGH EFFICIENCY "BUCKLEY" TAP WITH DAMPER
	DUCTWORK SIZE TRANSITION
	SUPPLY OR OUTSIDE AIR DUCT UP
	SUPPLY OR OUTSIDE AIR DUCT DOWN
	RETURN OR EXHAUST AIR DUCT UP
	RETURN OR EXHAUST AIR DUCT DOWN
	IN-LINE 90 DEGREE RISE IN DUCT
	IN-LINE 90 DEGREE DROP IN DUCT
RISE	INCLINED RISE IN DUCT
	POINT OF CONNECTION - NEW TO EXISTING
	MANUAL VOLUME DAMPER
M	MOTORIZED DAMPER
F	FIRE DAMPER
T	THERMOSTAT
H	HUMIDISTAT
S	SENSOR
C	CARBON DIOXIDE SENSOR
SD	DUCT SMOKE DETECTOR
1	DRAWING NOTE REFERENCE
	ROUND
	OVAL OR FLAT OVAL

GENERAL SHEET NOTES

1. REFER TO DRAWINGS AND PROJECT SPECIFICATIONS OF OTHER DISCIPLINES FOR ADDITIONAL PROJECT INFORMATION AND REQUIREMENTS. NOTIFY ENGINEER OF ANY CONFLICTS BETWEEN THE INFORMATION PRESENTED AND FIELD CONDITIONS.
2. WHERE PIPE, DUCTWORK, INSULATION, FIXTURES OR EQUIPMENT TO REMAIN IS DAMAGED OR DISTURBED, REMOVE THE DAMAGED PORTIONS AND INSTALL NEW PRODUCTS OF EQUAL CAPACITY AND QUALITY. WHERE IDENTICAL MATERIALS ARE UNAVAILABLE OR CANNOT BE USED, USE MATERIALS WHOSE INSTALLED PERFORMANCE EQUALS OR SURPASSES THAT OF THE EXISTING MATERIALS.
3. MECHANICAL SYSTEMS INSTALLATION MUST MAINTAIN INTEGRITY OF WALLS, PARTITIONS AND FLOORS DESIGNATED AS EITHER FIRE RATED OR "SMOKE TIGHT". SEAL AROUND ALL PENETRATIONS THROUGH RATED OR SMOKE TIGHT ASSEMBLIES. COORDINATE W/ARCHITECTURAL PLANS AND GENERAL CONTRACTOR.
4. SPACE ABOVE CEILING IS INDICATED TO BE A RETURN AIR PLENUM. CONSTRUCTION MATERIALS ABOVE CEILING SHALL BE NONCOMBUSTIBLE, OR HAVE A MAXIMUM 25 FLAME SPREAD AND 50 SMOKE DEVELOPMENT FINISH RATING. WIRING SHALL BE LABELED PLENUM RATED PER NFPA 70.
5. LIMITED ABOVE CEILING CLEARANCES EXIST. COORDINATE LOCATION AND ELEVATION OF MECHANICAL WORK WITH ALL DUCTWORK, SPRINKLERS, LIGHT FIXTURES, AND OTHER CEILING BUILT-IN FIXTURES. CONTACT ENGINEER OR ARCHITECT IMMEDIATELY SHOULD ANY CONFLICT ARISE.
6. ALL ROOF PENETRATIONS, PATCHING AND FLASHING SHALL BE PERFORMED BY A LANDLORD APPROVED ROOFING CONTRACTOR AT THIS CONTRACTOR'S EXPENSE. COORDINATE ROOF PENETRATIONS AND ROOFTOP EQUIPMENT LOCATIONS WITH LANDLORD AND GENERAL CONTRACTOR.
7. NOTHING IS PERMITTED TO BE ATTACHED TO, SUSPENDED FROM, OR PENETRATE THE ROOF DECK. CONTRACTOR MAY ATTACH TO OR SUSPEND FROM THE TOP CHORD OF THE JOIST OR THE STRUCTURAL STEEL WHICH EXISTS ABOVE THE SPACE.
8. COORDINATE FINAL ROOFTOP UNIT LOCATIONS WITH STRUCTURAL ENGINEER. ROOF EQUIPMENT TO BE LOCATED WITHIN STRUCTURAL BAY. PROVIDE 10' CLEARANCE FROM UNIT OUTSIDE AIR INTAKE TO ANY EXHAUST/VENTS ON ROOF.
9. GENERAL CONTRACTOR TO LABEL ALL ROOFTOP EQUIPMENT WITH TENANT NAME, SPACE NUMBER AND EQUIPMENT IDENTIFICATION (RTU-1, ETC.), PER SPECIFICATIONS AND STANDARDS.
10. REFER TO OWNER CRITERIA FOR ANY ADDITIONAL STANDARDS AND REQUIREMENTS.
11. COORDINATE ALL THERMOSTAT AND SENSOR LOCATIONS WITH FURNITURE LAYOUT AND ARCHITECTURAL PLANS. DEVICES ARE TO BE INSTALLED AND WIRED BY THE HVAC CONTRACTOR. MOUNT PER ADA REQUIREMENTS.
12. ALL EXPOSED DUCTWORK TO BE PAINTED. REFER TO ARCHITECTURAL PLANS.
13. CHANGES IN DUCT SIZES SHALL BE MADE BY UNIFORM TAPER SECTION WITH A MAXIMUM INCLUDE ANGLE OF DIVERGENCE OF 15 DEGREE.
14. DUCT SIZES INDICATED REPRESENT EXTERNAL SHEET METAL DIMENSIONS EXCEPT FOR DOUBLE WALL DUCTWORK AND INCLUDE ALLOWANCE FOR INTERNAL INSULATION.
15. ALL SUPPLY AND MAKE-UP AIR DUCTWORK NOT EXPOSED SHALL BE EXTERNALLY INSULATED.
16. BRANCH DUCTS SERVING DIFFUSERS SHALL BE SIZED TO MATCH DIFFUSER NECK SIZE INDICATED UNLESS NOTED OTHERWISE.
17. PROVIDE A STRAIGHT INLET LENGTH TO THE VVT BOX OF A MINIMUM (4) DUCT DIAMETERS. REFER TO DETAIL FOR ADDITIONAL INFORMATION.
18. CONTRACTOR MUST REPLACE ALL AIR FILTERS IN ROOFTOP UNITS WITH NEW CLEAN FILTERS BEFORE AIR BALANCING AND PRIOR TO FINAL TURNOVER TO TENANT.
19. ALL DUCTWORK TO BE APPROVED BY THE CONSTRUCTION MANAGER PRIOR TO INSTALL. THE CONTRACTOR WILL COORDINATE A ROUGH IN MEETING WITH ALL MEP SUBS AND THE CONSTRUCTION MANAGER TO LAYOUT ALL DUCTWORK.
20. PROVIDE COMPLETE SHEET METAL SHOP DRAWINGS, DRAWN TO SCALE AND COORDINATED WITH OTHER TRADES. SHOP DRAWINGS SHALL INCLUDE ELEVATIONS, OFFSETS AND FITTINGS REQUIRED FOR COMPLETE INSTALLATION.

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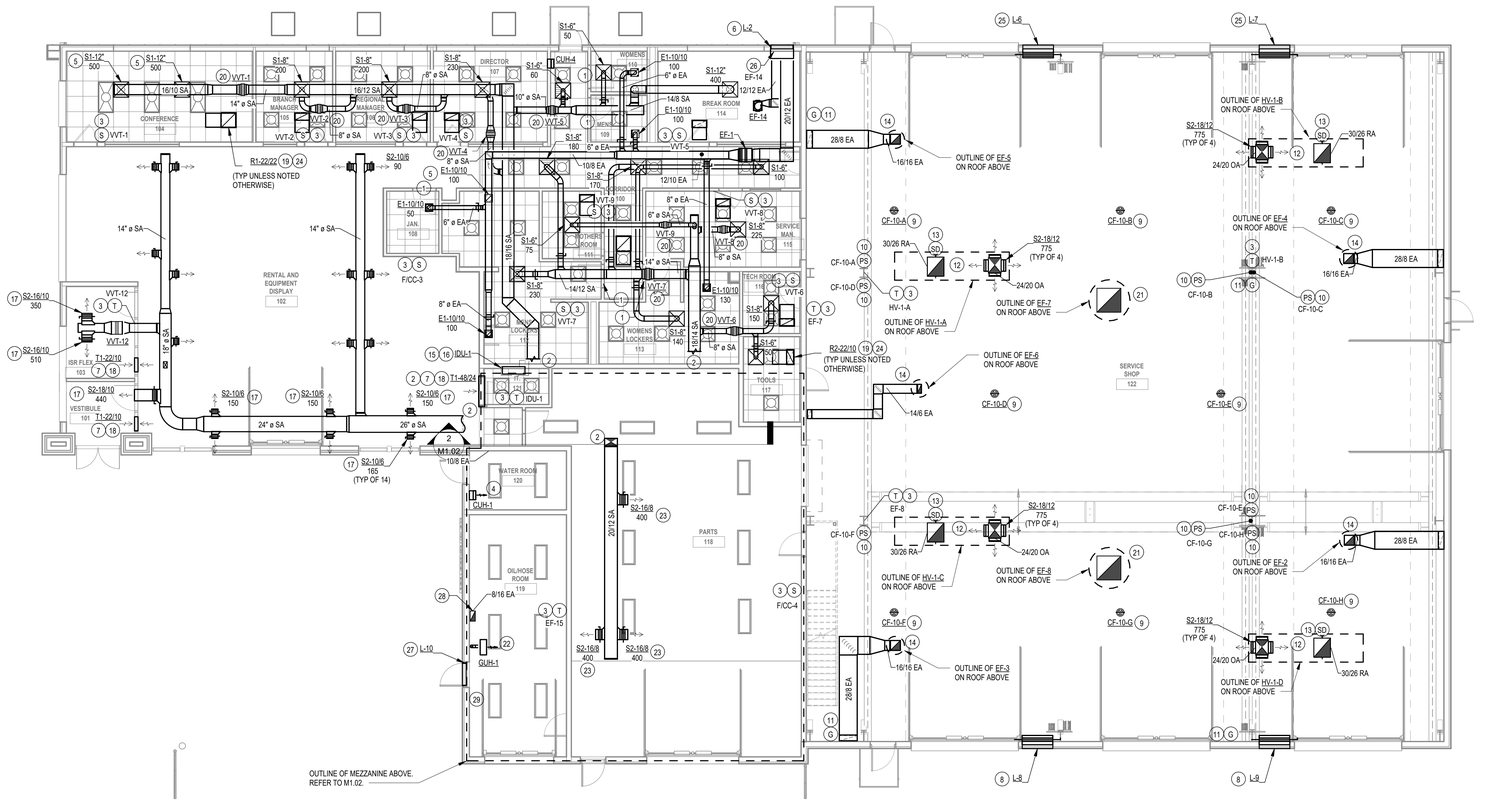
RENTAL FACILITY
490 BYERS ROAD, MIAMISBURG, OHIO 45342

LDA Project No.2026.11

MECHANICAL NOTES AND LEGEND

M0.01



1 M1.01 MECHANICAL PLAN
SCALE: 1/8" = 1'-0"

SHEET KEYNOTES

1. COORDINATE WITH GENERAL CONTRACTOR TO UNDERCUT DOOR BY 1".
2. REFER TO M1.02 FOR CONTINUATION OF DUCTWORK INTO MECHANICAL ROOM ON MEZZANINE LEVEL.
3. WALL MOUNTED THERMOSTAT / TEMPERATURE SENSOR / HUMIDITY SENSOR AT 48" AFF. COORDINATE SENSOR LOCATION WITH FURNITURE LAYOUT AND ARCHITECTURAL PLANS. DEVICES ARE TO BE INSTALLED AND WIRED BY MECHANICAL CONTRACTOR.
4. FIELD VERIFY EXACT MOUNTING LOCATION OF ELECTRIC UNIT HEATER ON WALL. (COORDINATE LOCATION WITH PLUMBING AND ELECTRICAL EQUIPMENT IN WATER ROOM.)
5. PROVIDE BALANCING DAMPER IN BRANCH DUCT DOWN TO DIFFUSER/GRILLE.
6. SEE LOUVER SCHEDULE. PROVIDE FULL SIZE DUCT EXTENSION FROM LOUVER INTO SPACE. FIRST 10 FEET OF DUCTWORK FROM LOUVER TO BE STAINLESS STEEL OR ALUMINUM. BOTTOM OF DUCT SHALL SLOPE TO LOUVER AT 2% SLOPE. REFER TO DETAILS ON SHEET M5.01 FOR ADDITIONAL INFORMATION.
7. TRANSFER SLEEVE IN WALL ABOVE CEILING. PROVIDE WALL MOUNTED GRILLE WHERE SLEEVE IS EXPOSED. CENTERLINE OF GRILLE TO BE MOUNTED AT 12'-0" AFF.
8. SEE LOUVER SCHEDULE. PROVIDE FULL SIZE DUCT EXTENSION FROM LOUVER INTO SPACE. EXTEND FULL SIZE DUCT INTO SPACE WITH MOTORIZED DAMPER. INTERLOCK DAMPER CONTROLS TO EF-8. REFER TO DETAIL FOR ADDITIONAL INFORMATION.
9. PROVIDE DESTRATIFICATION FAN MOUNTED FROM BUILDING STRUCTURE PER MANUFACTURER'S RECOMMENDATIONS. COORDINATE EXACT LOCATION AND HEIGHT IN FIELD TO AVOID CRANE.
10. DESTRATIFICATION FAN CONTROL POWER SWITCH MOUNTED 48" AFF ON COLUMN. COORDINATE CONTROLLER LOCATION WITH OWNER AND FURNITURE LAYOUT AND ARCHITECTURAL PLANS. DEVICE IS TO BE INSTALLED AND WIRED BY MECHANICAL CONTRACTOR. WIRE PER MANUFACTURER'S GUIDELINES AND REQUIREMENTS TO PROVIDE A FULLY OPERATIONAL SYSTEM.
11. CO/NO2/METHANE GAS DETECTION SENSOR MOUNTED 60" AFF ON COLUMN. FINAL LOCATION TO BE COORDINATED WITH OWNER. WIRE AND INTERLOCK GAS DETECTION TO OPERATE ALL VEHICLE EXHAUST FANS UPON GAS DETECTION ACTIVATION.
12. EXTEND SUPPLY AIR DUCTWORK DOWN FROM HEATING AND VENTILATION UNIT INTO SPACE. CONNECT TO FULL SIZE OF UNIT OPENINGS WITH FLEX CONNECTION AND TRANSITION AS REQUIRED. PROVIDE (4) SUPPLY GRILLES WITH BOOT CONNECTION TO DUCT MAIN AT 23'-6" AFF CENTERLINE OF GRILLE. EXTEND RETURN DUCT 12" INTO SPACE BELOW ROOF DECK WITH SMOKE DETECTOR AND TERMINATE WITH WELDED WIRE MESH.
13. SMOKE DETECTOR MOUNTED IN RETURN DUCT OF HEATING AND VENTILATION UNIT. DETECTOR SHALL BE PROVIDED AND WIRED BY ELECTRICAL CONTRACTOR, MOUNTED BY MECHANICAL CONTRACTOR. COORDINATE WITH GENERAL CONTRACTOR TO PROVIDE 24/24 ACCESS PANEL FOR DUCT MOUNTED SMOKE DETECTOR. ACCESS PANEL MAY BE OMITTED IF DETECTOR IS ACCESSIBLE THROUGH LAY-IN DIFFUSING, LAY-IN TILE, OR IF DETECTOR IS LOCATED IN AREA WITH NO CEILING.
14. EXTEND EXHAUST DUCT DOWN FROM EXHAUST FAN ON ROOF. CONNECT TO FULL SIZE OF UNIT OPENINGS WITH FLEX CONNECTION AND TRANSITION AS REQUIRED. PROVIDE RECTANGULAR ELBOW WITH DOUBLE THICKNESS TURNING VANES IN TRANSITION TO HORIZONTAL AT 23'-6" AFF. EXTEND DUCT TO WALL AND ROUTE DOWN TO 18" AFF WITH 1/2" X 1/2" WELDED WIRE MESH TERMINATION. FAN TO OPERATE BY HAND-OFF-AUTO STARTER PROVIDED BY EC. FAN SHALL OPERATE AUTOMATICALLY WHEN THERE IS NO CO/NO2 CONTROLS SIGNAL ACTIVATION TO STARTER.
15. REFER TO SHEET M1.04 FOR IDU CONDENSATE DRAIN AND REFRIGERANT PIPING SCOPE.
16. BOTTOM OF WALL MOUNTED INDOOR UNIT SHALL BE 6'-2" AFF. FIELD VERIFY EXACT LOCATION AND HEIGHT TO AVOID OBSTRUCTIONS AND MAINTAIN CODE REQUIRED, MANUFACTURER RECOMMENDED CLEARANCES.
17. CENTERLINE OF GRILLE TO BE LOCATED AT 12'-0" AFF.
18. WALL MOUNTED 35 DEGREE GRILLE/REGISTER SHALL HAVE IT'S BLADES ORIENTED UP TO THE CEILING TO BLOCK SIGHT UP INTO GRILLE/REGISTER.
19. CEILING MOUNTED 35 DEGREE GRILLE/REGISTER SHALL HAVE IT'S BLADES ORIENTED TOWARDS THE NEAREST WALL TO BLOCK SIGHT UP INTO GRILLE/REGISTER.
20. VVT BOX ON SIDE OF DUCT. MAINTAIN STRAIGHT INLET DUCT FOR 4 TIMES INLET DIAMETER PRIOR TO ENTERING VVT BOX.
21. EXTEND 36" X 38" EXHAUST DUCT DOWN FROM EXHAUST FAN ON ROOF. CONNECT TO FULL SIZE OF UNIT OPENINGS WITH FLEX CONNECTION AND TRANSITION AS REQUIRED. STUB INTO SPACE BELOW ROOF DECK AND PROVIDE WITH 1/2" X 1/2" WELDED WIRE MESH TERMINATION. COORDINATE EXACT HEIGHT IN FIELD TO AVOID CRANE.
22. PROVIDE GAS FIRED UNIT HEATER, SUPPORTED FROM STRUCTURE ABOVE. EXTEND AND ROUTE TYPE B-VENT FLUE FROM GUH UP THRU MEZZANINE TO ROOF ABOVE.
23. CENTERLINE OF GRILLE TO BE LOCATED AT 8'-3" AFF.
24. RETURN GRILLE WITH BOOT. REFER TO DETAIL ON M5.02 FOR ADDITIONAL INFORMATION.
25. SEE LOUVER SCHEDULE. PROVIDE FULL SIZE DUCT EXTENSION FROM LOUVER INTO SPACE. EXTEND FULL SIZE DUCT INTO SPACE WITH MOTORIZED DAMPER. INTERLOCK DAMPER CONTROLS TO EF-7. REFER TO DETAIL FOR ADDITIONAL INFORMATION.
26. BREAK ROOM FAN CONTROL POWER SWITCH MOUNTED 48" AFF ON WALL. COORDINATE CONTROLLER LOCATION WITH OWNER AND FURNITURE LAYOUT AND ARCHITECTURAL PLANS. DEVICE IS TO BE INSTALLED AND WIRED BY MECHANICAL CONTRACTOR. WIRE PER MANUFACTURER'S GUIDELINES AND REQUIREMENTS TO PROVIDE A FULLY OPERATIONAL SYSTEM.
27. PROVIDE MOTORIZED DAMPER IN COMBINATION LOUVER TO OPEN WITH EF ACTIVATION.
28. 6/8 EXHAUST AIR UP. PROVIDE FULL OPENING ON BOTTOM WITH WIRE MESH SCREEN. REFER TO M1.02 FOR CONTINUATION OF DUCTWORK.
29. EF STARTER SWITCH BY EC, WITH HAND/OFF/AUTO CONTROL.

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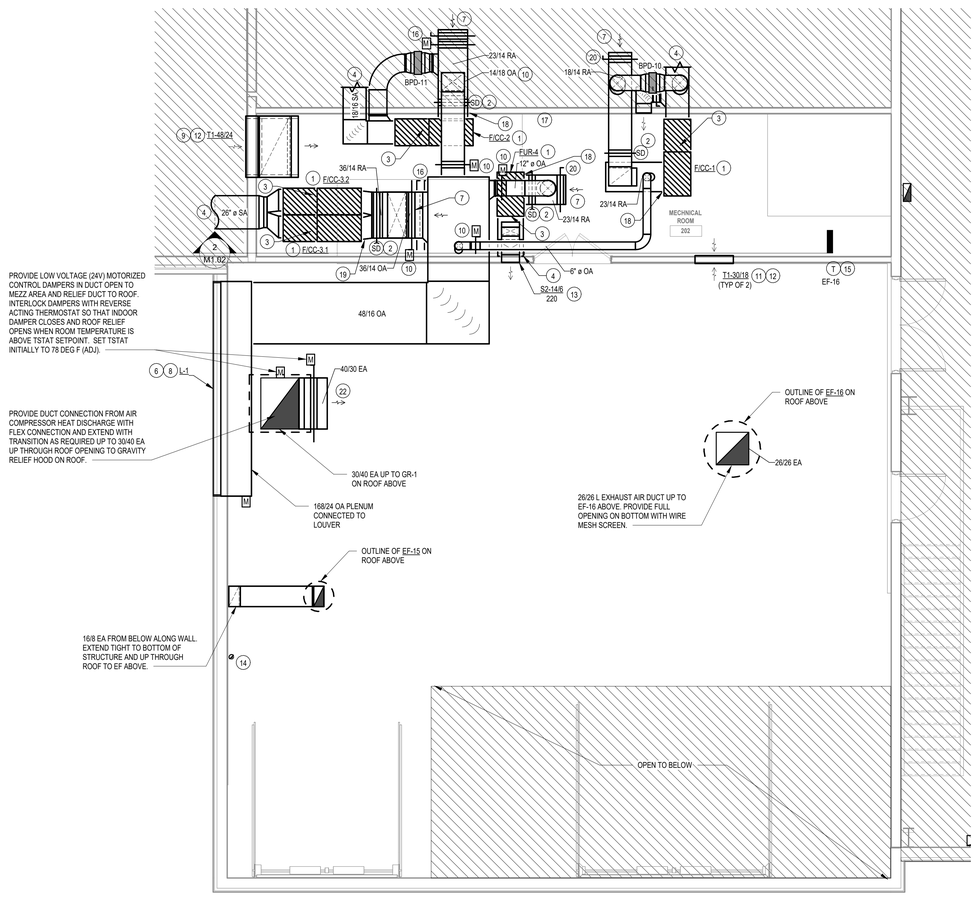
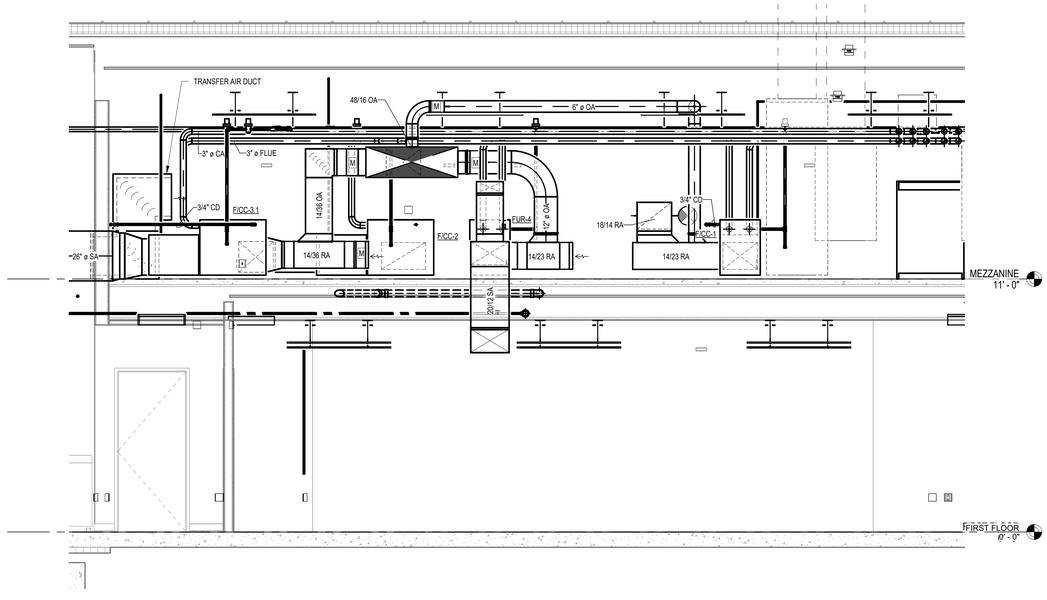
MECHANICAL PLAN

M1.01



1 M1.02 ENLARGED MECHANICAL MEZZANINE PLAN

SCALE: 1/4" = 1'-0"



2 M1.02 MEZZANINE SECTION VIEW

SCALE: 3/8" = 1'-0"

SHEET KEYNOTES

1 HORIZONTAL FURNACE WITH COOLING COIL UNIT MOUNTED ON MECHANICAL PLATFORM ON MEZZANINE LEVEL. CONNECT SUPPLY AND RETURN DUCTS TO FULL SIZE OF AIR HANDLING UNIT CONNECTIONS WITH FLEX CONNECTION AT UNIT. TRANSITION AS REQUIRED PER SPECIFICATIONS. SEE AIR HANDLING UNIT SCHEDULE ON SHEET M6.01 FOR TOTAL OPERATING WEIGHT. REFER TO MEZZANINE SECTION VIEW AND DETAIL SHEETS FOR ADDITIONAL INFORMATION. MAINTAIN ALL MANUFACTURER RECOMMENDED CLEARANCES.

2 SMOKE DETECTOR MOUNTED IN RETURN DUCT OF F/CC. DETECTOR SHALL BE PROVIDED AND WIRED BY ELECTRICAL CONTRACTOR, MOUNTED BY MECHANICAL CONTRACTOR. COORDINATE WITH GENERAL CONTRACTOR TO PROVIDE 24/24 ACCESS PANEL FOR DUCT MOUNTED SMOKE DETECTOR. ACCESS PANEL MAY BE OMITTED IF DETECTOR IS ACCESSIBLE THROUGH LAY-IN DIFFUSING, LAY-IN TILE, OR IF DETECTOR IS LOCATED IN AREA WITH NO CEILING.

3 REFER TO M1.04 FOR REFRIGERATION, CONDENSATE AND COMBUSTION/FLUE PIPING SCOPE.

4 REFER TO M1.01 FOR CONTINUATION OF DUCTWORK OUT OF MECHANICAL ROOM.

5 BOTTOM OF WALL MOUNTED INDOOR UNIT SHALL BE 7'-6" AFF. FIELD VERIFY EXACT LOCATION AND HEIGHT TO AVOID OBSTRUCTIONS AND MAINTAIN CODE REQUIRED, MANUFACTURER RECOMMENDED CLEARANCES.

6 SEE LOUVER SCHEDULE. PROVIDE FULL SIZE DUCT EXTENSION FROM LOUVER INTO SPACE. FIRST 10 FEET OF DUCTWORK FROM LOUVER TO BE STAINLESS STEEL OR ALUMINUM. BOTTOM OF DUCT SHALL SLOPE TO LOUVER AT 2% SLOPE. REFER TO DETAILS ON SHEET M5.01 FOR ADDITIONAL INFORMATION.

7 RETURN DUCT END OPEN TO RETURN AIR PLENUM ABOVE CEILING. PROVIDE WITH 1/2" X 1/2" WELDED WIRE MESH TERMINATION.

8 CENTERLINE OF LOUVER TO BE LOCATED AT 16'-8" AFF.

9 LINED TRANSFER SLEEVE IN WALL WITH (2) RECTANGULAR ELBOWS WITH DOUBLE THICKNESS TURNING VANES IN TRANSITION TO VERTICAL AND BACK TO HORIZONTAL. PROVIDE GRILLE ON EXPOSED SIDE OF WALL. CENTERLINE OF GRILLE TO BE LOCATED AT 12'-0" AFF.

10 2-POSITION MOTORIZED DAMPER MOUNTED IN OUTSIDE AIR DUCT. MOTORIZED DAMPER SHALL BE FULLY OPEN DURING OCCUPIED HOURS AND FULLY CLOSED DURING UNOCCUPIED HOURS. DAMPER SHALL CLOSE UPON LOSS IN POWER, OR UPON LOW MIXED AIR TEMPERATURE DETECTION.

11 CENTERLINE OF GRILLE TO BE LOCATED AT 6'-8" AFF.

12 WALL MOUNTED 35 DEGREE GRILLE/REGISTER SHALL HAVE IT'S BLADES ORIENTED UP TO THE CEILING TO BLOCK SIGHT UP INTO GRILLE/REGISTER.

13 CENTERLINE OF GRILLE TO BE LOCATED AT 4'-0" AFF.

14 EXTEND GUH TYPE B-VENT FLUE FROM BELOW AND UP ALONG WALL UP THROUGH ROOF. TERMINATE WITH MANUFACTURERS RECOMMENDED FLUE VENT CAP.

15 WALL MOUNTED THERMOSTAT AT 48" AFF. COORDINATE SENSOR LOCATION WITH FURNITURE LAYOUT AND ARCHITECTURAL PLANS. DEVICES ARE TO BE INSTALLED AND WIRED BY MECHANICAL CONTRACTOR.

16 OPPOSED BLADE MANUAL BALANCING DAMPER AND 2-POSITION MOTORIZED DAMPER MOUNTED IN RETURN AIR DUCT. SET MANUAL BALANCING DAMPER TO RETURN AIRFLOW LISTED FOR ASSOCIATED UNIT PER SHEET M6.01. MOTORIZED DAMPER SHALL BE INTERLOCKED TO ECONOMIZER CONTROLS.

17 WALL MOUNTED BANK OF FURNACE THERMOSTATS AT 48" AFF. PROVIDE VVT CONTROLLER FOR SYSTEMS WITH VVT'S. COORDINATE SENSOR LOCATION WITH FURNITURE LAYOUT AND ARCHITECTURAL PLANS. DEVICES ARE TO BE INSTALLED AND WIRED BY MECHANICAL CONTRACTOR.

18 SIDE RETURN AIR CONNECTION TO HORIZONTAL FURNACE.

19 BOTTOM RETURN AIR CONNECTION TO HORIZONTAL FURANCE.

20 OPPOSED BLADE MANUAL BALANCING DAMPER MOUNTED IN RETURN AIR DUCT. SET MANUAL BALANCING DAMPER TO RETURN AIRFLOW LISTED FOR ASSOCIATED UNIT PER SHEET M6.01.

21 PROVIDE MOTORIZED DAMPER AND INTERLOCK TO OPEN WITH EITHER SIGNAL FROM AIR COMPRESSOR RELIEF DAMPER OR EF-16. PROVIDE CONTROLS, WIRING, RELAYS, AND DEVICES FOR COMPLETE OPERATION.

22 RELIEF DUCT END OPEN TO MEZZANINE. PROVIDE WITH 1/2" X 1/2" WELDED WIRE MESH TERMINATION.

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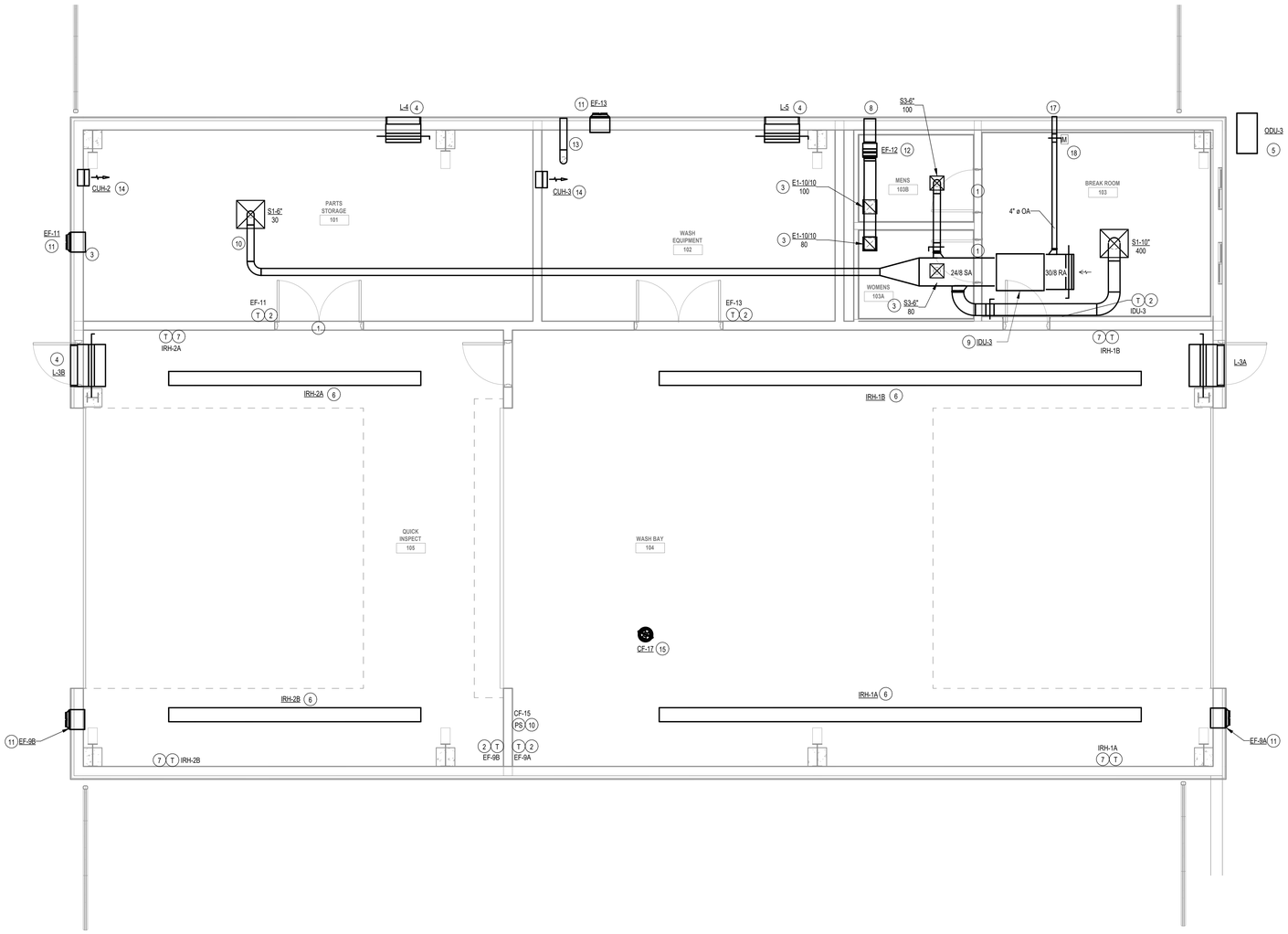
ENLARGED MECHANICAL MEZZANINE PLANS

M1.02



1 M1.03 MECHANICAL WASH BUILDING PLAN

SCALE: 1/4" = 1'-0"

N

SHEET KEYNOTES

1 COORDINATE WITH GENERAL CONTRACTOR TO UNDERCUT DOOR BY 1".

2 WALL MOUNTED THERMOSTAT AT 48" AFF. COORDINATE THERMOSTAT LOCATION WITH FURNITURE LAYOUT AND ARCHITECTURAL PLANS. DEVICES ARE TO BE INSTALLED AND WIRED BY MECHANICAL CONTRACTOR.

3 PROVIDE BALANCING DAMPER IN BRANCH DUCT DOWN TO DIFFUSER/GRILLE.

4 SEE LOUVER SCHEDULE. PROVIDE FULL SIZE DUCT EXTENSION FROM LOUVER INTO SPACE. EXTEND FULL SIZE DUCT INTO SPACE WITH COUNTERBALANCED DAMPER. REFER TO DETAIL FOR ADDITIONAL INFORMATION.

5 CONDENSING UNIT MOUNTED ON 4" HIGH CONCRETE EQUIPMENT PAD, REFER TO ARCHITECTURAL AND STRUCTURAL PLANS FOR ADDITIONAL INFORMATION. ROUTE REFRIGERANT PIPING FROM INDICATED INDOOR UNIT TO ASSOCIATED OUTDOOR UNIT ON GRADE. FIELD VERIFY EXACT ROUTING AND LOCATION. COORDINATE QUANTITY AND SIZE OF PIPING WITH MANUFACTURER. ROUTE AND INSTALL PER MANUFACTURER'S RECOMMENDATIONS. MECHANICAL CONTRACTOR SHALL COORDINATE FINISHED GRADE HEIGHT AT THE LOCATION OF THE UNIT WITH THE GENERAL CONTRACTOR PRIOR TO INSTALLATION.

6 GAS FIRED RADIANT HEATER SUSPENDED FROM STRUCTURE ABOVE. MOUNT REFLECTOR AT 45 DEGREE ANGLE TOWARD AREA BEING SERVED. ROUTE 4" FLUE THROUGH EXTERIOR WALL AND TERMINATE WITH MANUFACTURER PROVIDED WALL CAP. PROVIDE 1/2"X1/2" WELDED WIRE MESH OVER HEATER COMBUSTION AIR INLET. COMBUSTION AIR SHALL BE PROVIDED FROM THE EXTERIOR WALL WITH DOWNTURN AND 1/2" WIRE MESH. COORDINATE INSTALLATION AND CLEARANCE REQUIREMENTS WITH OVERHEAD WASH EQUIPMENT. EXTEND COMBUSTION AIR INTAKE AND FLUE VENT TO SIDEWALL CONCENTRIC TERMINATION. COORDINATE EXACT LOCATION WITH ARCHITECT AND GENERAL CONTRACTOR.

7 THERMOSTAT FOR RADIANT HEATERS AT 48" AFF. COORDINATE THERMOSTAT LOCATION WITH FURNITURE LAYOUT AND ARCHITECTURAL PLANS. DEVICES ARE TO BE INSTALLED AND WIRED BY MECHANICAL CONTRACTOR. NOTED UNITS TO BE CONTROLLED BY A SINGLE THERMOSTAT. COORDINATE WIRING REQUIREMENTS WITH MANUFACTURER TO PROVIDE A FULLY OPERATIONAL SYSTEM.

8 TERMINATE EXHAUST THROUGH WALL WITH SEIHO SFX-8 SIDEWALL VENT CAP.

9 PROVIDE APPROPRIATE TRAP FROM INDOOR UNIT AND PRIOR TO EXTENDING DRAIN. ROUTE CONDENSATE DRAIN CONCEALED ABOVE CEILING, DOWN IN WALL AND SAFEWASTE TO DRAIN TO CAR WASH DRAINS.

10 ROUTE REFRIGERANT PIPING FROM INDICATED INDOOR UNIT TO ASSOCIATED OUTDOOR UNIT ON GRADE. FIELD VERIFY EXACT ROUTING AND LOCATION. COORDINATE QUANTITY AND SIZE OF PIPING WITH MANUFACTURER. ROUTE AND INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

11 PROVIDE SIDEWALL EXHAUST FAN WITH MOTOR AND DISCHARGE COMPONENTS FROM MANUFACTURER.

12 PROVIDE INLINE FAN WITHIN CEILING SUPPORTED FROM STRUCTURE OVERHEAD. PROVIDE FLEXIBLE DUCT CONNECTIONS.

13 MC SHALL PROVIDE FLUE FROM PRESSURE WASHER HEATER. EXTEND AND TERMINATE THROUGH SIDEWALL WITH MANUFACTURER RECOMMENDED PREFAB FLUE VENT CAP.

14 FIELD VERIFY EXACT MOUNTING LOCATION OF ELECTRIC UNIT HEATER ON WALL. (COORDINATE LOCATION WITH OTHER DISCIPLINE EQUIPMENT IN ROOM.)

15 PROVIDE DESTRATIFICATION FAN MOUNTED FROM BUILDING STRUCTURE PER MANUFACTURER'S RECOMMENDATIONS. COORDINATE EXACT LOCATION AND HEIGHT IN FIELD.

16 DESTRATIFICATION FAN CONTROL POWER SWITCH MOUNTED 48" AFF ON WALL. COORDINATE CONTROLLER LOCATION WITH OWNER AND FURNITURE LAYOUT AND ARCHITECTURAL PLANS. DEVICE IS TO BE INSTALLED AND WIRED BY MECHANICAL CONTRACTOR. WIRE PER MANUFACTURER'S GUIDELINES AND REQUIREMENTS TO PROVIDE A FULLY OPERATIONAL SYSTEM.

17 TERMINATE OUTSIDE AIR THROUGH WALL WITH SEIHO SFX-4 SIDEWALL VENT CAP.

18 OPPOSED BLADE MANUAL BALANCING DAMPER IN RETURN DUCT AND 2-POSITION MOTORIZED DAMPER MOUNTED IN OUTSIDE AIR DUCT. SET MANUAL BALANCING DAMPER TO MINIMUM OUTSIDE AIRFLOW LISTED FOR ASSOCIATED UNIT PER SHEET M0.01. MOTORIZED DAMPER SHALL BE FULLY OPEN DURING OCCUPIED HOURS AND FULLY CLOSED DURING UNOCCUPIED HOURS. DAMPER SHALL CLOSE UPON LOSS IN POWER, OR UPON LOW MIXED AIR TEMPERATURE DETECTION.

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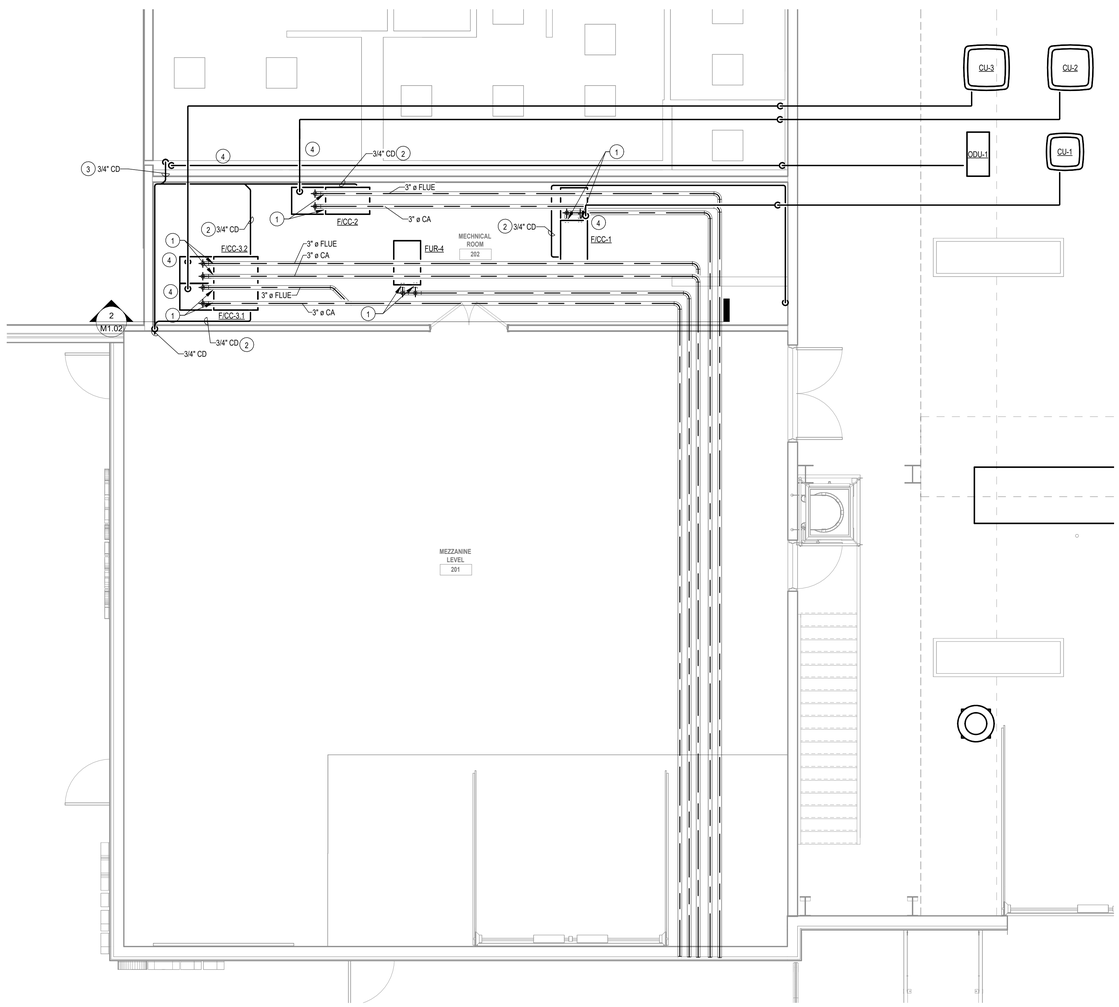
MECHANICAL WASH BUILDING PLAN

M1.03



1
M1.04

ENLARGED MECHANICAL PIPING PLAN

SCALE: 1/4" = 1'-0"

N

SHEET KEYNOTES

1. TWO-PIPE SEPARATED COMBUSTION SYSTEM. ROUTE FLUE / COMBUSTION AIR PIPE OUT FROM FURNACE AS SHOWN PER MANUFACTURER'S REQUIREMENTS. EXTEND 3" FLUE EXHAUST UP TO 17'-0" AFF AND ROUTE TO EXTERIOR WALL AS SHOWN. EXTEND 3" COMBUSTION AIR INTAKE UP TO 17'-5" AFF AND ROUTE TO EXTERIOR WALL AS SHOWN. COMBINE FLUE AND INTAKE AT CONCENTRIC TERMINATION AT WALL. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
2. PROVIDE APPROPRIATE TRAP FROM INDOOR UNIT AND PRIOR TO EXTENDING DRAIN. ROUTE CONDENSATE DRAIN TO FLOOR DRAIN AT INDICATED LOCATION WITH 2" AIR GAP. COORDINATE WITH PLUMBING CONTRACTOR.
3. PROVIDE APPROPRIATE TRAP AND EXTEND 3/4" CONDENSATE PIPING PUMPED UP IN WALL FROM IDU BELOW. EXTEND TO FLOOR DRAIN AND STUB PIPING OUT OF WALL ABOVE FLOOR DRAIN WITH ESCUTCHEON PLATE AND DRAIN INTO FLOOR DRAIN WITH 2" AIR GAP. COORDINATE WITH PLUMBING CONTRACTOR.
4. ROUTE REFRIGERANT PIPING FROM INDICATED INDOOR UNIT TO ASSOCIATED OUTDOOR UNIT ON ROOF. FIELD VERIFY EXACT ROUTING AND LOCATION. COORDINATE QUANTITY AND SIZE OF PIPING WITH MANUFACTURER. ROUTE AND INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

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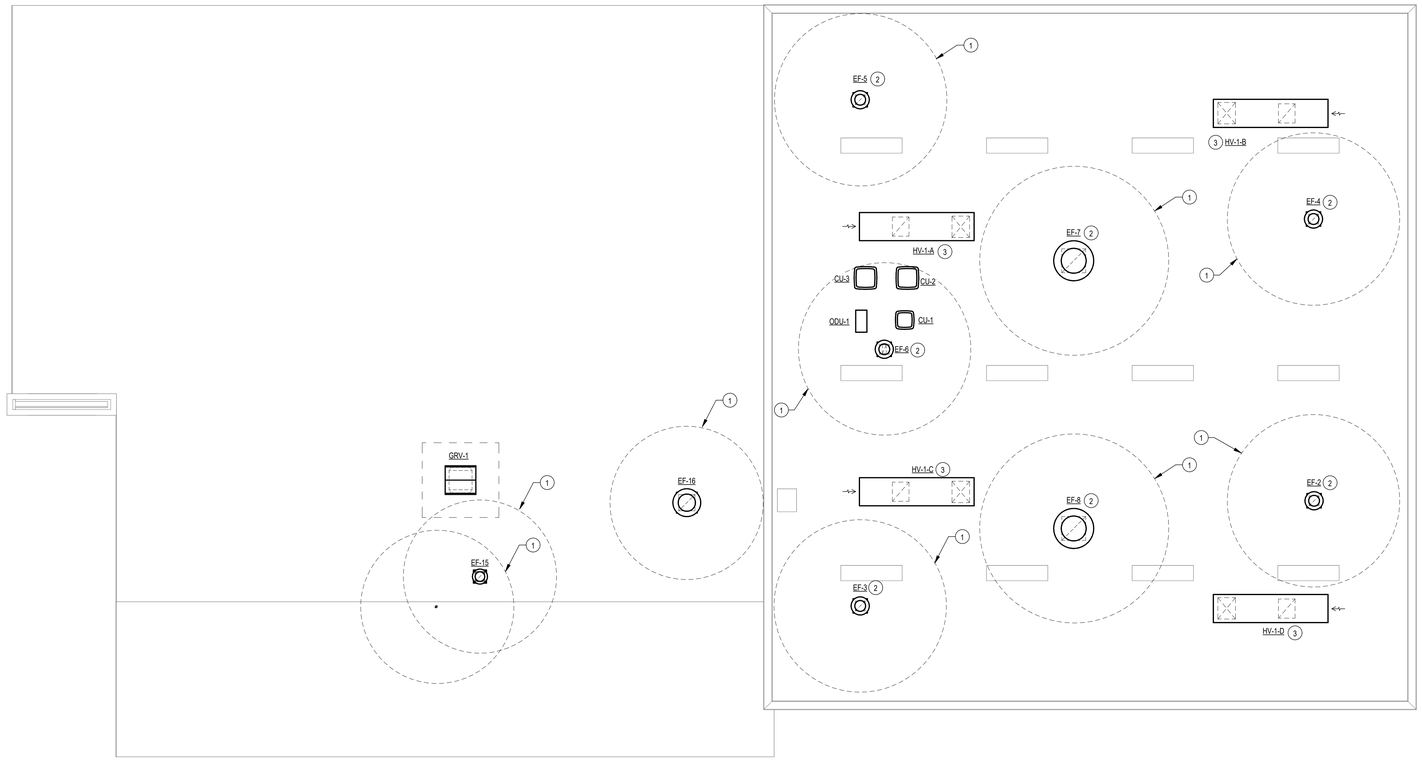
MECHANICAL PIPING PLAN

M1.04

#	SHEET KEYNOTES
1	PROVIDE 10'-0" MINIMUM CLEARANCE FROM ANY OUTSIDE AIR INTAKES. (TYP OF ALL)
2	REFER TO DETAIL SHEET M5.01 FOR EXHAUST FAN INSTALLATION DETAIL AND REQUIREMENTS.
3	HEATING AND VENTILATING UNIT WITH 24" ROOF CURB. EXTEND SUPPLY AND RETURN DUCTWORK DOWN THROUGH ROOF. CONNECT TO FULL SIZE OF OPENINGS WITH FLEX CONNECTIONS AND TRANSITION AS REQUIRED.



1 M2.01 MECHANICAL ROOF PLAN
SCALE: 1/8" = 1'-0"

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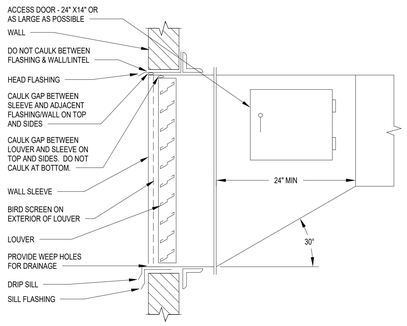
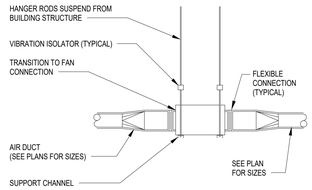
MECHANICAL ROOF PLAN
M2.01



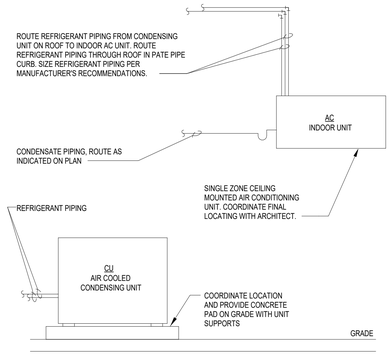
DETAIL NOTES

1. DO NOT ATTACH DUCT TO TOP OF LOWER LOUVER BLADE AS TYPICAL. THIS CREATES SEALING PROBLEMS AT MULLIANS AND OTHER VERTICAL MEMBERS.
2. CONSTRUCT SLEEVE AND DUCTWORK TO SUPPORT WEIGHT OF SERVICE TECHNICIAN.
3. SEAL JOINT BETWEEN DUCT AND SLEEVE WATER TIGHT ALL AROUND.
4. INSULATE DUCT AND SLEEVE AS SPECIFIED.

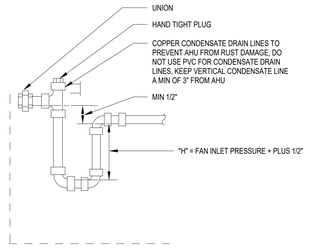
12 / M5.01 LOUVER DETAIL
SCALE: NONE



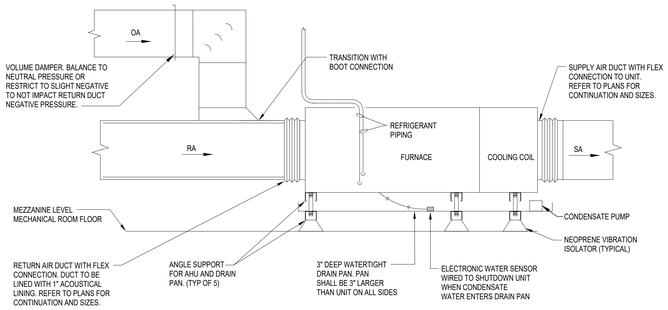
11 / M5.01 INLINE FAN DETAIL
SCALE: NONE



10 / M5.01 SPLIT SYSTEM DETAIL
SCALE: NONE



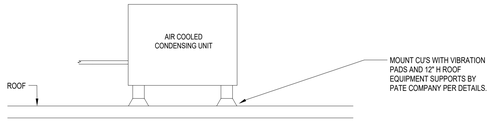
9 / M5.01 AHU CONDENSATE DETAIL
SCALE: NONE

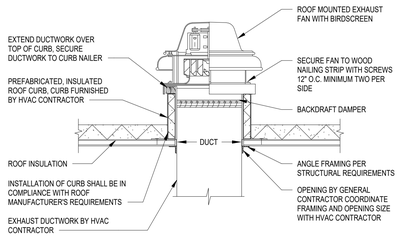


DETAIL NOTES

1. FURNACE SYSTEMS SHALL BE MOUNTED/SUPPORTED FROM MECHANICAL ROOM FLOOR.
2. MC SHALL LOCATE FURNACE TO MAINTAIN A MINIMUM 24" SERVICE CLEARANCE IN FRONT OF UNIT FOR MOTOR ACCESS PANEL FROM ANY EXISTING BUILDING STRUCTURE OR PIPING EXTENDING DOWN TO CEILING PER MANUFACTURERS RECOMMENDATIONS. MC SHALL COORDINATE WITH OTHER TRADES TO KEEP THIS SERVICE AREA CLEAR OF ANY NEW PIPING OR CONDUIT.

8 / M5.01 HORIZONTAL FURNACE DETAIL
SCALE: NONE

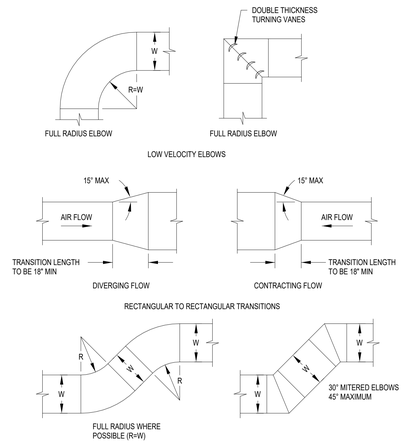




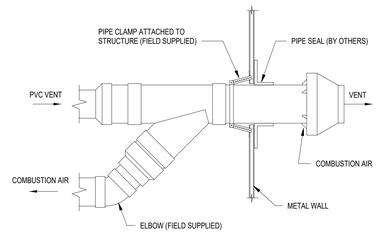
DETAIL NOTES

1. HVAC CONTRACTOR TO COORDINATE INSTALLATION WITH LANDLORD APPROVED ROOFING CONTRACTOR FOR PROPER SEQUENCE TO PERMIT FLASHING AND COUNTERFLASHING INSTALLATION.

7 / M5.01 ROOF MOUNTED EXHAUST FAN DETAIL
SCALE: NONE



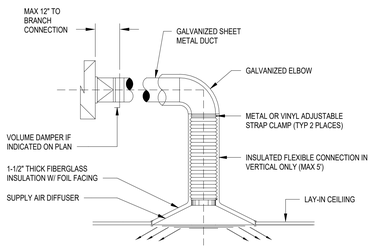
6 / M5.01 LOW VELOCITY TRANSITIONS AND OFFSETS
SCALE: NONE



DETAIL NOTES

1. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

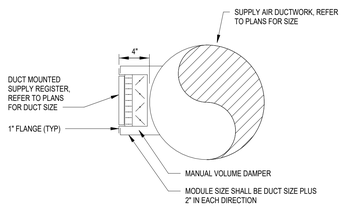
5 / M5.01 CONCENTRIC FLUE VENT DETAIL
SCALE: NONE



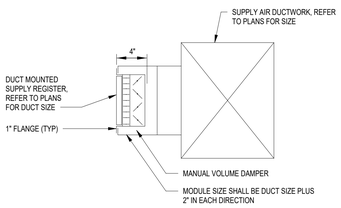
DETAIL NOTES

1. DO NOT LOCATE DAMPERS ABOVE DRYWALL/INACCESSIBLE CEILING LOCATIONS.

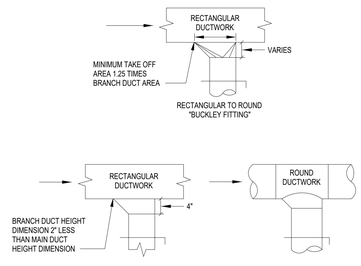
4 / M5.01 CEILING DIFFUSER MOUNTING DETAIL
SCALE: NONE



3 / M5.01 DUCT MOUNTED SUPPLY REGISTER DETAIL
SCALE: NONE



2 / M5.01 DUCT MOUNTED SUPPLY REGISTER DETAIL
SCALE: NONE



DETAIL NOTES

1. CLEANOUT SHALL BE USED FOR 8" SEWER AND LARGER.
2. SMALLER SIZE SEWERS AND LAMPHOLES SHALL BE SAME SIZE PIPE.
3. IF C.I. PIPE IS USED - CONCRETE ENCASEMENT IS NOT NECESSARY.

1 / M5.01 DUCT BRANCH TAKE-OFF DETAIL
SCALE: NONE

LDA ARCHITECTS
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REV	DATE	DESCRIPTION
	09.23.2026	Issued for Permit

STATE OF OHIO NICHOLAS D. GINGERICH E-77419 REGISTERED PROFESSIONAL ENGINEER
09/22/2026

DRAWN BY: OMG CHECKED BY: JRE

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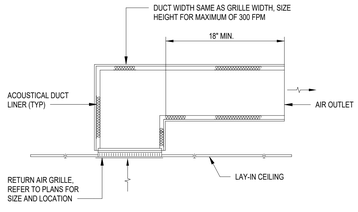
MIAMISBURG - CAT
RENTAL FACILITY
490 BYERS ROAD, MIAMISBURG, OHIO 45342

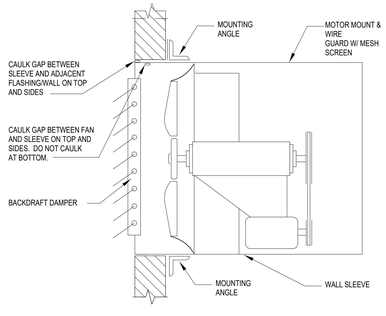
LDA Project No.2026.11

MECHANICAL DETAILS

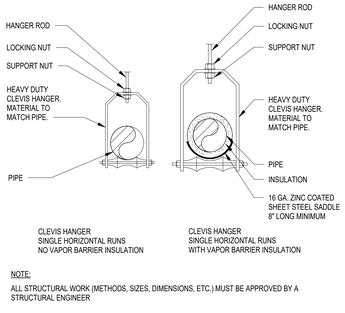
M5.01



3 M5.02 RETURN DUCT BOOT DETAIL
SCALE: NONE



2 M5.02 SIDEWALL FAN DETAIL
SCALE: NONE



NOTE:

ALL STRUCTURAL WORK (METHODS, SIZES, DIMENSIONS, ETC.) MUST BE APPROVED BY A STRUCTURAL ENGINEER

1 M5.02 PIPE HANGER DETAIL - ROLLERS DETAIL
SCALE: NONE

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STATE OF OHIO
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REGISTERED
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MIAMISBURG - CAT
RENTAL FACILITY
490 BYERS ROAD, MIAMISBURG, OHIO 45342

LDA Project No.2026.11

MECHANICAL DETAILS

M5.02

FURNACE SCHEDULE

TAG	SERVICE	MANUFACTURER	MODEL	NOMINAL TONS	TYPE	OUTSIDE AIR (CFM)	SUPPLY FAN DATA: SUPPLY AIR (CFM)	SUPPLY FAN DATA: ESP (IN WC)	SUPPLY FAN DATA: FAN MOTOR (HP)	COOLING COIL DATA: MANUFACTURER	COOLING COIL DATA: MODEL	COOLING COIL DATA: EAT DB/WB (F)	COOLING COIL DATA: LAT DB (F)	COOLING COIL DATA: COOLING SENSIBLE (MBH)	COOLING COIL DATA: COOLING TOTAL (MBH)	GAS HEATING DATA: HEATING EAT/LAT (F)	GAS HEATING DATA: INPUT (MBH)	GAS HEATING DATA: HEATING STAGES	ELECTRICAL: VOLTAGE	ELECTRICAL: PHASE	ELECTRICAL: FREQUENCY	MCA (A)	MOCP (A)	OPERATING WEIGHT (LBS)	NOTES/ ACCESSORIES
F/CC-1	OFFICES	DAIKIN	DR96TN0804CN	4	HORIZONTAL	120	1600 CFM	0.8	1/2	DAIKIN	CAPTA6030C3	73.0/60.7	50.0 °F	44.1	44.1	65.1/111.2	80.0	2	115 V	1	60 Hz	11.4	20	123	1,3-7
F/CC-2	OFFICES	DAIKIN	DR96TC1005CN	5	HORIZONTAL	190	1875 CFM	0.8	1	DAIKIN	CAPTA6030C3	74.0/63.1	53.0 °F	40.3	55.9	63.0/114.9	100.0	2	115 V	1	60 Hz	13.9	20	130	1-7
F/CC-3.1	RENTAL AND EQUIPMENT DISPLAY	DAIKIN	DR96TN1005CN	5	HORIZONTAL	310	1900 CFM	0.8	1	DAIKIN	CAPTA6030C3	75.0/64.2	53.0 °F	40.3	55.9	59.3/107.8	100.0	2	115 V	1	60 Hz	14.4	25	140	1-7
F/CC-3.2	RENTAL AND EQUIPMENT DISPLAY	DAIKIN	DR96TN1005CN	5	HORIZONTAL	310	1900 CFM	0.8	1	DAIKIN	CAPTA6030C3	75.0/64.2	53.0 °F	40.3	55.9	59.3/107.8	100.0	2	115 V	1	60 Hz	14.4	25	140	1-7
FUR-4	PARTS	DAIKIN	DR96TN0804CN	-	HORIZONTAL	420	1420 CFM	0.8	1/2	-	-	-	-	-	-	50.7/102.6	80.0	2	115 V	1	60 Hz	11.4	20	123	4-6,8

NOTES/ACCESSORIES
1. REFRIGERANT - R454-B / R-32 - PROVIDE UNIT WITH FACTORY INSTALLED REFRIGERANT DETECTION SYSTEM.
2. PROVIDE ACTUATORS AND MOTORIZED DAMPERS WITH MICROMETL ECONOMIZER CONTROLLER AND WIRED TO DAMPERS AND UNIT FOR ECONOMIZER OPERATION.
3. SIZE REFRIGERANT LINES PER MANUFACTURERS RECOMMENDATIONS.
4. PROGRAMMABLE AUTOCHANGEOVER THERMOSTAT WITH OCCUPIED/UNOCCUPIED MODE FOR VENTILATION CONTROL.
5. PROVIDE DRAIN PAN FOR FURNACE AND COIL PER DETAIL.
6. DISCONNECT BY E.C.
7. MC SHALL PROVIDE CONDENSATE PUMP AS REQUIRED TO REACH NEARBY DRAIN.
8. HEATING ONLY FURNACE UNIT

CONDENSING UNIT SCHEDULE

TAG	SERVICE	LOCATION	MANUFACTURER	MODEL	EER2/SEER2	NOMINAL TONS	ELECTRICAL: VOLTAGE	ELECTRICAL: PHASE	ELECTRICAL: FREQUENCY	ELECTRICAL: MCA	ELECTRICAL: MOCP	OPERATING WEIGHT (LBS)	NOTES/ ACCESSORIES
CU-1	F/CC-1	ON GRADE	DAIKIN	DC3SEA4840	11.0/13.4	4	480 V	3	60 Hz	8 A	10 A	188	1-18
CU-2	F/CC-2	ON GRADE	DAIKIN	DC3SEA6040	11.0/13.4	5	480 V	3	60 Hz	10 A	15 A	224	1-18
CU-3	F/CC-3.1,3.2	ON GRADE	DAIKIN	DC6TE12040	11.4/	10	480 V	3	60 Hz	21 A	25 A	350	1-18

NOTES/ACCESSORIES
1. UNIT CAPACITY SHALL BE BASED ON AHRI CONDITIONS
2. 100° CONDENSING TEMPERATURE
3. REFRIGERANT - R-32 - PROVIDE UNIT WITH FACTORY INSTALLED REFRIGERANT DETECTION SYSTEM.
4. DISCONNECT SWITCH BY EC.
5. HIGH AND LOW PRESSURE SWITCHES ON REFRIGERANT SYSTEM
6. SHORT CYCLE PROTECTION
7. THERMOSTATICALLY CONTROLLED CRANKCASE HEATER ON COMPRESSOR(S)
8. FILTER-DRYER ON REFRIGERANT SYSTEM
9. LIQUID LINE SOLENOID VALVE
10. LOW AMBIENT HEAD PRESSURE CONTROL DOWN TO 0/30°F
11. BACNET INTERFACE
12. WIND BAFFLES
13. HAILGUARD
14. EVAPORATOR DEFROST CONTROL.
15. HARD START KIT.
16. 1 YEAR PARTS & LABOR WARRANTY
17. 5 YEAR EXTENDED COMPRESSOR PARTS & LABOR WARRANTY.
18. APPROVED ALTERNATES: TRANE, CARRIER, LENNOX, AND YORK/JOHNSON CONTROLS

FAN SCHEDULE

TAG	MANUFACTURER	DESCRIPTION	MODEL	CFM	EXHAUST ESP	MOTOR HP	FAN RPM	ELECTRICAL: VOLTAGE	ELECTRICAL: PHASE	ELECTRICAL: FREQ	ELECTRICAL: FLA	ELECTRICAL: MCA	ELECTRICAL: MOCP	OPERATING WEIGHT (LBS)	NOTES/ ACCESSORIES
EF-1	GREENHECK	INLINE RESTROOM FAN	CSP-A710-VG	580 CFM	0.50 in-wg	1/4	1491	115 V	1	60 Hz	3.5 A	4 A	15 A	36	1-6,9,12
EF-2	GREENHECK	SERVICE SHOP VEHICLE ROOF EXHAUST FAN	CUE-140-VG	1325 CFM	0.38 in-wg	1/2	1300	277 V	1	60 Hz	3.2 A	4 A	15 A	69	1-5,7,9,12
EF-3	GREENHECK	SERVICE SHOP VEHICLE ROOF EXHAUST FAN	CUE-140-VG	1325 CFM	0.38 in-wg	1/2	1300	277 V	1	60 Hz	3.2 A	4 A	15 A	69	1-5,7,9,12
EF-4	GREENHECK	SERVICE SHOP VEHICLE ROOF EXHAUST FAN	CUE-140-VG	1325 CFM	0.38 in-wg	1/2	1300	277 V	1	60 Hz	3.2 A	4 A	15 A	69	1-5,7,9,12
EF-5	GREENHECK	SERVICE SHOP VEHICLE ROOF EXHAUST FAN	CUE-140-VG	1325 CFM	0.38 in-wg	1/2	1300	277 V	1	60 Hz	3.2 A	4 A	15 A	69	1-5,7,9,12
EF-6	GREENHECK	SERVICE SHOP VEHICLE ROOF EXHAUST FAN	CUE-090-VG	400 CFM	0.25 in-wg	1/10	1342	115 V	1	60 Hz	1.5 A	2 A	15 A	47	1-6,9,12
EF-7	GREENHECK	SERVICE SHOP ROOF EXHAUST FAN	CUBE-360-VG-20	10000 CFM	0.18 in-wg	2	1725	460 V	3	60 Hz	3.2 A	4 A	15 A	328	1-5,8,9,11,12
EF-8	GREENHECK	SERVICE SHOP ROOF EXHAUST FAN	CUBE-360-VG-20	10000 CFM	0.18 in-wg	2	1725	460 V	3	60 Hz	3.2 A	4 A	15 A	328	1-5,8,9,11,12
EF-9A	GREENHECK	WASH BAY SIDEWALL EXHAUST FAN	AER-20-VG	1900 CFM	0.25 in-wg	1/2	1725	115 V	1	60 Hz	6.4 A	-	-	184	1-5,8-10
EF-9B	GREENHECK	WASH BAY SIDEWALL EXHAUST FAN	AER-20-VG	1900 CFM	0.25 in-wg	1/2	1725	115 V	1	60 Hz	6.4 A	-	-	184	1-5,8-10
CF-10-A THRU H	AIRIUS	SERVICE SHOP CIRCULATION FAN	A-25-EC-STD-100-130	-	-	0.04	1640	115 V	1	60 Hz	0.5 A	-	-	9	3,6,9
EF-11	GREENHECK	EQUIPMENT ROOM SIDEWALL EXHAUST FAN	AER-20-VG	500 CFM	0.25 in-wg	1/4	1089	115 V	1	60 Hz	2.9 A	-	-	181	1-5,8-10
EF-12	GREENHECK	WASH BUILDING RR INLINE EXHAUST FAN	CSP-A390-VG	180 CFM	0.50 in-wg	1/15	1231	115 V	1	60 Hz	1.5 A	2 A	15 A	24	1-6,9
EF-13	GREENHECK	EQUIPMENT ROOM SIDEWALL EXHAUST FAN	AER-20-VG	500 CFM	0.25 in-wg	1/4	1089	115 V	1	60 Hz	2.9 A	-	-	181	1-5,8-10
EF-14	GREENHECK	BREAK ROOM CEILING EXHAUST FAN	CSP-A390-VG	130 CFM	0.30 in-wg	0.03	1800	277 V	1	60 Hz	0.8 A	1 A	15 A	24	1-3,9,13
EF-15	GREENHECK	OIL HOSE ROOM ROOF EXHAUST FAN	CUE-100-VG	700 CFM	0.30 in-wg	1/4	1085	115 V	1	60 Hz	3.8 A	5 A	15 A	69	1-5,8,9,11,12
EF-16	GREENHECK	MEZZANINE ROOF EXHAUST FAN	G-240-VG	4000 CFM	0.30 in-wg	2	546	208 V	1	60 Hz	12.5 A	16 A	25 A	167	1-5,8,9,11,12
CF-17	AIRIUS	WASH BUILDING CIRCULATION FAN	A-25-EC-STD-100-130	-	-	0.04	1640	115 V	1	60 Hz	0.5 A	-	-	9	3,6,9

NOTES/ACCESSORIES
1. ALTERNATE ACCEPTABLE MANUFACTURERS: LOREN COOK, TWIN CITY FANS
2. BACKDRAFT DAMPER
3. DISCONNECT SWITCH BY EC
4. ALUMINUM BIRD SCREEN
5. ALUMINUM CONSTRUCTION
6. PROVIDE TIMECLOCK AND SCHEDULE FOR OPERATION ALL OCCUPIED HOURS.
7. WIRE AND INTERLOCK GAS DETECTION TO OPERATE ALL VEHICLE EXHAUST FANS UPON GAS DETECTION ACTIVATION.
8. THERMOSTAT FOR REVERSE ACTING FAN CONTROL WITH REMOTE SPACE TEMP SENSOR.
9. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
10. SHORT WALL HOUSING AND EXTERNAL WEATHER HOOD
11. HAND ON-OFF AUTO STARTER SWITCH BY EC
12. 24" INSULATED ROOF CURB
13. CONTROL BY WALL SWITCH

INFRARED RADIANT HEATER SCHEDULE

TAG	TYPE	MANUFACTURER	MODEL	GAS HEAT DATA: HEATING INPUT (MBH)	LENGTH	ELECTRICAL: VOLTAGE	ELECTRICAL: PHASE	ELECTRICAL: FREQUENCY	ELECTRICAL: MCA	ELECTRICAL: MOCP	OPERATING WEIGHT (LBS)	NOTES/ ACCESSORIES
IRH-1A,1B	CEILING HUNG	RE-VERBER-RAY	CL3-30-85-SB	85	31'-3"	120 V	1	60 Hz	1 A	15 A	185	1-7
IRH-2A,2B	CEILING HUNG	RE-VERBER-RAY	HL2-30-85-SB	75	18'-0"	120 V	1	60 Hz	1 A	15 A	185	1-8

NOTES/ACCESSORIES
1. ACCEPTABLE MANUFACTURERS: ROBERTS GORDON
2. PROVIDE TWO-STAGE ADJUSTABLE THERMOSTAT.
3. PROVIDE WITH FRESH COMBUSTION AIR INLET ADAPTERS AND VENT KITS. SEE PLANS FOR MORE INFORMATION.
4. PROVIDE FACTORY HANGERS AND REFLECTORS.
5. MAINTAIN MINIMUM CLEARANCES IN FRONT, BEHIND ABOVE AND BELOW UNIT FROM ALL COMBUSTIBLES.
6. STAINLESS STEEL BURNER BOX AND ALUMINIZED COATED STEEL EMITTER TUBE.
7. MECHANICAL CONTRACTOR TO FURNISH DISCONNECT. ELECTRICAL CONTRACTOR TO INSTALL DISCONNECT.
8. U-TUBE CONFIGURATION

MINI-SPLIT UNIT SCHEDULE

TAG	SERVICE	MANUFACTURER	MODEL	TYPE	NOMINAL TONS	SUPPLY AIR (CFM)	EER2/SEER2	DX COOLING DATA: COOLING SENSIBLE (MBH)	DX COOLING DATA: COOLING TOTAL (MBH)	HEATING DATA: HEATING TYPE	HEATING DATA: HEATING TOTAL (MBH)	ELECTRICAL DATA: VOLTAGE	ELECTRICAL DATA: PHASE	ELECTRICAL DATA: FREQUENCY	ELECTRICAL DATA: MCA (A)	ELECTRICAL DATA: MOCP (A)	OPERATING WEIGHT (LBS)	NOTES/ ACCESSORIES
IDU/ODU-1	IT	DAIKIN	FTKF18BVJU9/RKF18BVJU9	WALL MOUNTED	1.5	565 CFM	12.0/21.0	14.6	18.0	COOLING ONLY	-	208 V	1	60 Hz	21.4	25	28/113	1-7
IDU/ODU-2	WASH BUILDING OFFICE	DAIKIN	FDMA24AVJU9/RXP24AVJU9	DUCTED	2	610 CFM	10.3/18.3	15.7	21.8	HEAT PUMP	24.0	208 V	1	60 Hz	21.6	25	88/127	1-7

NOTES/ACCESSORIES
1. ALTERNATE ACCEPTABLE MANUFACTURERS: LG, CARRIER
2. PROVIDE INDOOR UNIT WITH:
   -WIRED THERMOSTAT
   -CONDENSATE PUMP WITH OVERFLOW SAFETY
   -VIBRATION HANGERS
   -INDOOR UNIT POWERED BY OUTDOOR UNIT
3. PROVIDE OUTDOOR UNIT WITH:
   -LOW AMBIENT CONTROLS FOR 100% COOLING CAPACITY DOWN TO 30 F
   -WIND BAFFLES
   -HAIL GUARDS
   -24" EQUIPMENT SUPPORT RAILS WITH SPRING ISOLATORS
4. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS
5. REFRIGERANT - R-32 - PROVIDE UNIT WITH FACTORY INSTALLED REFRIGERANT DETECTION SYSTEM.
6. SIZE REFRIGERANT LINES PER MANUFACTURERS RECOMMENDATIONS.
7. DISCONNECT BY E.C.

GRILLE AND DIFFUSER SCHEDULE

MARK	MANUFACTURER	MODEL	MOUNTING	MODULE SIZE	DAMPER TYPE	NOTES/ ACCESSORIES
E1	TITUS	350RL	LAY-IN	NECK SIZE + 1-3/4"	-	2,3,4,5
R1	TITUS	350RL	CEILING	24" X 24"	-	2,3,4
R2	TITUS	350RL	CEILING	24" X 12"	-	2,3,4
S1	TITUS	OMNI	LAY-IN	24" X 24"	-	2,3,6
S2	TITUS	300RL	DUCT	NECK SIZE + 1-3/4"	AG-15	1,3
S3	TITUS	OMNI	LAY-IN	12" X 12"	-	2,3,4,6
T1	TITUS	350RL	SIDEWALL	NECK SIZE + 1-3/4"	-	1,2

NOTES/ACCESSORIES
1. FINISH - COLOR AS SELECTED BY ARCHITECT
2. PROVIDE MOUNTING TYPE AS REQUIRED PER LOCATION; DRYWALL, LAY-IN CEILING, DUCT MOUNTED.
3. FINISH COLOR: WHITE
4. RAPID MOUNT FRAME.
5. SQUARE TO ROUND ADAPTER
6. PROVIDE SECTORIZING BAFFLES IN DIFFUSER TO PROVIDE AIRFLOW PATTERN REQUIREMENTS NOTED ON THE PLANS.

GRAVITY RELIEF VENTILATOR SCHEDULE

TAG	MANUFACTURER	DESCRIPTION	MODEL	CFM	PRESSURE DROP (IN WG)	DIMENSION S	OPERATING WEIGHT (LBS)	NOTES/ ACCESSORIES
GRV-1	GREENHECK	COMPRESSOR ROOF MOUNTED RELIEF HOOD	FGR	7000 CFM	0.01 in-wg	30" X 40"	151	1-5

NOTES/ACCESSORIES
1. ALUMINUM CONSTRUCTION
2. ALUMINUM BIRD SCREEN
3. 24" MINIMUM SLOPED ROOF CURB WITH DAMPER TRAY
4. SPRING LOADED INTAKE BACKDRAFT DAMPER
5. BURGLER BARS

CONTROLS SCOPE OF WORK:

THE CONTRACTOR SHALL PROVIDE A COMPLETE, TURNKEY BUILDING AUTOMATION SYSTEM (BAS) FOR THE NEW CONSTRUCTION PROJECT, INCLUDING ALL ENGINEERING, PROGRAMMING, LOW-VOLTAGE CONTROL WIRING, HARDWARE INSTALLATION, AND COMMISSIONING.
THIS SCOPE COMPREHENSIVELY INCLUDES ALL NECESSARY DDC CONTROLLERS (NODES), BACNET COMMUNICATION CARDS, CONTROL TRANSFORMERS, RELAYS, SENSORS, AND HARDWIRED EQUIPMENT INTERLOCKS REQUIRED FOR A FULLY OPERATIONAL SYSTEM.
THE BAS WILL PROVIDE TIME-OF-DAY SCHEDULING (OCCUPIED/UNOCCUPIED MODES), REMOTE MONITORING, AND ALARM NOTIFICATIONS ACROSS ALL FACILITY EQUIPMENT-INCLUDING ROOF HEATING-VENTILATION UNITS, SPLIT-SYSTEM FURNACES, CONDENSING UNITS, EXHAUST FANS, AND SMALL UNIT HEATERS. ADDITIONALLY, THE BAS WILL INTEGRATE WITH THE STANDALONE GARAGE GAS CO/NO SYSTEM AND ITS HARDWIRED FANS TO MONITOR SYSTEM STATUS AND TRANSMIT CRITICAL SAFETY ALARMS TO THE CENTRAL WORKSTATION.
COORDINATE WITH EC FOR 120V AND TRANSFORMER CONNECTION POINTS.
BUILDING AUTOMATION SYSTEM CONTROLLERS, COMPONENTS, AND CONTROLS PROGRAMMING SHALL BE BY LANDLORD'S APPROVED CONTROLS SUPPLIER, CONTACT GARDINER BUILDING AUTOMATION, MATTHEW MONTGOMERY @ 440-478-6704 FOR PRICING AND ADDITIONAL INFORMATION.

CEILING SUSPENDED GAS FIRED UNIT HEATER SCHEDULE

TAG	MANUFACTURER	MODEL	GAS HEAT DATA: HEATING INPUT (MBH)	GAS HEAT DATA: HEAT OUTPUT (MBH)	ELECTRICAL: VOLTAGE	ELECTRICAL: PHASE	ELECTRICAL: FREQUENCY	ELECTRICAL: FLA	ELECTRICAL: MCA	ELECTRICAL: MOCP	OPERATING WEIGHT (LBS)	NOTES/ ACCESSORIES
GUH-1	MODINE	HDS-30	30.0	24.9	460 V	3	60 Hz	1 A	24 A	30 A	55	1-8

NOTES/ACCESSORIES
1. FACTORY DISCONNECT SWITCH
2. PROVIDE WITH PROGRAMMABLE THERMOSTAT FOR TIE-IN TO UNIT. PROVIDE WIRING AND 24V CONTROL CONNECTION.
3. LOUVERED DISCHARGE
4. SPARK IGNITION (GAS FIRED)
5. PREFAB ROOF FLUE VENT CAPS
6. POWER EXHAUST FLUE
7. HIGH LIMIT SWITCH
8. CEILING MOUNTED CO SENSOR ON CEILING BY EC

ELECTRIC UNIT HEATER SCHEDULE

TAG	MANUFACTURER	MODEL	HEAT OUTPUT (KW)	ELECTRICAL: VOLTAGE	ELECTRICAL: PHASE	ELECTRICAL: FREQUENCY	ELECTRICAL: FLA	OPERATING WEIGHT (LBS)	NOTES ACCESSORIES
CUH-1	QMARK	CWH1157	0.75	277 V	1	60 Hz	3 A	10	1-3
CUH-2	QMARK	CWH1157	0.75	277 V	1	60 Hz	3 A	10	1-3
CUH-3	QMARK	CWH1157	0.75	277 V	1	60 Hz	3 A	10	1-3
CUH-4	QMARK	CWH1157	1.5	277 V	1	60 Hz	6 A	10	1-2,4

NOTES/ACCESSORIES
1. INTEGRAL POWER DISCONNECT SWITCH
2. INTEGRAL LINE VOLTAGE THERMOSTAT
3. SURFACE MOUNTING FRAME
4. RECESSED MOUNTING

HEATING AND VENTILATING UNIT SCHEDULE

TAG	MARK	LOCATION	MANUFACTURER	MODEL	CONFIGURATION	SUPPLY AIR (CFM)	OUTSIDE AIRFLOW (CFM)	ESP (IN WC)	MBH INPUT	MBH OUTPUT	EAT (F)	LAT (F)	MOTOR HP	ELECTRICAL DATA: VOLTAGE	ELECTRICAL DATA: MCA	ELECTRICAL DATA: MOCP	OPERATING WEIGHT (LBS)	NOTES/ ACCESSORIES
HV	1-A THRU D	ROOF	GREENHECK	DGX-P115-H112-MF	DOWNFLOW WITH RETURN AIR	3100	1275	0.5	254.7	234.4	0	70.0	2	460-3-60	4.6	15	1000	1-6

NOTES/ACCESSORIES
1. INTERLOCK WITH VEHICLE GAS DETECTION SYSTEM AND FANS.
2. 2" MERV 8 FILTERS
3. PROVIDE WITH OUTSIDE AIR HOOD
4. MODULATING GAS HEAT WITH ROOM THERMOSTAT
5. SUPPLY FAN VFD FOR BALANCING. BALANCE SUPPLY FAN AND OUTSIDE AIR INTAKE TO EQUAL EXHAUST AIRFLOW IN SPACE TO PROVIDE SLIGHTLY NEGATIVE PRESSURE TO ADJACENT SPACES.
6. 24" INSULATED ROOF CURB

LOUVER SCHEDULE

TAG	SERVICE	MANUFACTURER	MODEL	AIRFLOW	PRESSURE DROP	DIMENSIONS	NOTES/ ACCESSORIES
L-1	INTAKE	RUSKIN	ESD-635	11000 CFM	0.1"	168" X 24"	1,2,3,4,5,6
L-2	EXHAUST	RUSKIN	GFL-800D	580 CFM	0.1"	30" X 12"	1,2,3,4,5,6
L-3A	EXHAUST	RUSKIN	GFL-800D	1900 CFM	0.1"	36" X 18"	1,2,3,4,5,6
L-3B	EXHAUST	RUSKIN	GFL-800D	1900 CFM	0.1"	36" X 18"	1,2,3,4,5,6
L-4	EXHAUST	RUSKIN	GFL-800D	500 CFM	0.1"	30" X 12"	1,2,3,4,5,6
L-5	EXHAUST	RUSKIN	GFL-800D	500 CFM	0.1"	30" X 12"	1,2,3,4,5,6
L-6	EXHAUST	RUSKIN	GFL-800D	5000 CFM	0.1"	48" X 72"	1,2,3,4,5,6
L-7	EXHAUST	RUSKIN	GFL-800D	5000 CFM	0.1"	48" X 72"	1,2,3,4,5,6
L-8	EXHAUST	RUSKIN	GFL-800D	5000 CFM	0.1"	48" X 72"	1,2,3,4,5,6
L-9	EXHAUST	RUSKIN	GFL-800D	5000 CFM	0.1"	48" X 72"	1,2,3,4,5,6
L-10	INTAKE	RUSKIN	ECD-401	700 CFM	0.01"	36" X 12"	1,2,3,4,5,6

NOTES/ACCESSORIES
1. BIRD SCREEN
2. INSTALLATION ANGLES
3. ALUMINUM CONSTRUCTION
4. FINISH: PRIMECOAT-COLOR AS SELECTED BY ARCHITECT
5. EXTENDED SILL
6. DRIP CAP

VVT SCHEDULE

TAG	MARK	AREA SERVED	MANUFACTURER	MODEL	INLET SIZE (IN)	CFM: MAX	CFM: MIN	NOTES/ACCESSORIES
VVT	1	CONFERENCE	PRICE	SDV	14	1000 CFM	200	1,2
VVT	2	BRANCH MANAGER	PRICE	SDV	8	200 CFM	40	1,2
VVT	3	REGIONAL MANAGER	PRICE	SDV	8	200 CFM	40	1,2
VVT	4	DIRECTOR	PRICE	SDV	8	230 CFM	50	1,2
VVT	5	BREAK ROOM	PRICE	SDV	10	510 CFM	105	1,2
VVT	6	TECH ROOM	PRICE	SDV	8	200 CFM	40	1,2
VVT	7	LOCKERS	PRICE	SDV	14	910 CFM	190	1,2
VVT	8	SERVICE MAN.	PRICE	SDV	8	225 CFM	50	1,2
VVT	9	MOTHERS ROOM	PRICE	SDV	6	75 CFM	25	1,2
BPD	10	F/CC-1 BYPASS	PRICE	PCV	16	1440 CFM	290	2,3
BPD	11	F/CC-2 BYPASS	PRICE	PCV	14	1230 CFM	250	2,3
VVT	12	ISR FLEX	PRICE	SDV	14	600 CFM	120	1,2

NOTES/ACCESSORIES
1. SINGLE STAND ALONE SYSTEM VVT CONTROLLER AT THE FURNACE. PROVIDE ALL WIRING BETWEEN DEVICES AND SENSORS. (1 PER SYSTEM)
2. VVT BOX CONTROLLER WITH REMOTE SPACE TEMPERATURE SENSOR FOR EACH BOX.
3. BYPASS DAMPER BOX CONTROLLER AND DUCT PRESSURE SENSOR FOR EACH BYPASS.
4. VVT SYSTEM DESIGN INCLUDES DIVERSITY. THE SUM OF SPECIFIED ZONE MAX CFM EXCEEDS THE TOTAL PRIMARY FAN CAPACITY. THE TESTING, ADJUSTING, AND BALANCING (TAB) CONTRACTOR SHALL BALANCE EACH VVT ZONE DAMPER INDEPENDENTLY AT 100% DAMPER OPEN POSITION. UTILIZE THE SYSTEM BYPASS DAMPER TO RELIEVE EXCESS PRESSURE DURING INDIVIDUAL ZONE BALANCING..

OUTSIDE AIR SCHEDULE

ZONE DATA: ZONE NAME	FLOOR AREA (SF)	REQUIRED OUTSIDE AIR (CFM/SF)	OCCUPANCY	REQUIRED OUTSIDE AIR (CFM/PERSON)	BREATHING ZONE OUTSIDE AIR (CFM)	ZONE AIR DISTRIBUTION EFFECTIVENESS	REQUIRED OUTSIDE AIR (CFM)	SUPPLY AIR (CFM)	OUTDOOR AIR FRACTION	SYSTEM DATA: SYSTEM NAME	SYSTEM VENTILATION EFFICIENCY	REQUIRED OUTSIDE AIR (CFM)	DELIVERED OUTSIDE AIR (CFM)
CORRIDOR	368	0.06	0	0.00	22.1	0.8	28	540	0.051	F/CC-1	0.870	119.2	120
ELEC	57	0.00	0	0.00	0.0	0.8	0	90	0.000				
JAN	54	0.00	0	0.00	0.0	0.8	0	0	0.000				
MENS LOCKERS	349	0.00	4	0.00	0.0	0.8	0	170	0.000				
MOTHERS ROOM	70	0.06	1	5.00	9.2	0.8	12	55	0.209				
SERV. MAN	134	0.12	0	5.00	16.1	0.8	20	105	0.192				
TECH ROOM	111	0.12	0	5.00	13.3	0.8	17	150	0.111				
TOOLS	95	0.12	0	5.00	11.4	0.8	14	50	0.286				
MECHANICAL ROOM	386	0.06	0	5.00	23.2	0.8	29	330	0.088				
BRANCH MANAGER	133	0.06	1	5.00	13.0	0.8	16	160	0.101	F/CC-2	1.000	189.8	190
BREAK ROOM	252	0.06	4	5.00	35.1	0.8	44	335	0.131				
CONFERENCE	313	0.06	10	5.00	68.8	0.8	86	800	0.108				
CORRIDOR (N)	66	0.06	0	0.00	4.0	0.8	5	60	0.083				
DIRECTOR	191	0.06	1	5.00	16.5	0.8	21	200	0.103				
REGIONAL MANAGER	158	0.06	1	5.00	14.5	0.8	18	170	0.106				
MEZZANINE	1,537	0.12	1	7.50	192.0	0.8	240	220	1.091	F/CC-4	0.580	389.7	390
PARTS	1,330	0.06	4	10.00	119.8	0.8	150	1,200	0.125				
ISR FLEX	122	0.12	2	7.50	28.2	0.8	35	510	0.069	F/CC-3	0.950	621.1	625
RENTAL AND EQUIPMENT DISPLAY	1,987	0.12	30	7.50	463.4	0.8	579	2,850	0.203				
VESTIBULE	87	0.06	0	5.00	5.2	0.8	7	440	0.015				
OFFICE	215	0.06	1	5.00	17.9	0.8	22	400	0.056	IDU-3	0.590	51.0	55
PARTS STORAGE	382	0.06	0	5.00	22.9	0.8	29	30	0.955				
WAREHOUSE	7,658	0.06	30	10.00	759.5	0.8	949	12,400	0.186	HV-1-A THRU D	0.960	949.4	5100

NOTES/ACCESSORIES
1. SPACE OUTSIDE AIR REQUIREMENTS BASED ON OHIO MECHANICAL CODE 2024

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REV	DATE	DESCRIPTION
	09.23.2026	Issued for Permit

STATE OF OHIO NICHOLAS D. GINGERICH E-77419 REGISTERED PROFESSIONAL ENGINEER
09/22/2026

DRAWN BY: OMG CHECKED BY: JRE

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DO NOT SCALE DRAWINGS

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MIAMISBURG - CAT
RENTAL FACILITY
490 BYERS ROAD, MIAMISBURG, OHIO 45342

LDA Project No.2026.11

MECHANICAL SCHEDULES

M6.01

MECHANICAL SPECIFICATIONS

1. GENERAL PROVISIONS

A. GENERAL CONDITIONS, CODES & STANDARDS

1. GENERAL CONDITIONS OF THE CONTRACT FOUND IN THE ARCHITECTURAL DRAWINGS, GENERAL AND SPECIAL CONDITIONS OF THE AMERICAN INSTITUTE OF ARCHITECTS (AIA) AND ANY OF THE OWNER'S GENERAL REQUIREMENTS SHALL APPLY UNLESS NOTED OTHERWISE.
2. REFER TO THE GENERAL CONDITIONS ON THE ARCHITECTURAL DOCUMENTS AND THE GENERAL AND SPECIAL CONDITIONS OF THE AIA FOR ADDITIONAL REQUIREMENTS REGARDING; SAFETY, COORDINATION & COOPERATION, WORKMANSHIP, PROTECTION, CUTTING AND PATCHING, DAMAGE TO OTHER WORK, PRELIMINARY OPERATIONS, STORAGE, ADJUSTMENTS, CLEANING, ETC.
3. ALL WORK SHALL BE IN CONFORMANCE WITH ALL LOCALLY ENFORCED, FEDERAL, STATE AND LOCAL CODES AND ORDINANCES INCLUDING ANY SPECIAL THE OWNER REQUIREMENTS IN ADDITION TO THOSE SPECIFIED.
4. CONTRACTOR SHALL PAY FOR AND OBTAIN ALL NECESSARY LICENSES, PERMITS AND INSPECTIONS REQUIRED TO PROCEED WITH THE WORK. THIS SHALL INCLUDE ALL REQUIRED COORDINATION WITH THE LOCAL UTILITY COMPANIES AND THEIR ASSOCIATED FEES OR COSTS.

B. SCOPE OF WORK

1. THIS CONTRACT SHALL INCLUDE THE FURNISHING, INSTALLING, CONNECTING, AND OPERATION OF ALL EQUIPMENT WHICH IS A PART OF THE MECHANICAL SYSTEMS AS SHOWN ON THE DRAWINGS AND AS REQUIRED BY SIMILAR INSTALLATIONS. ANY MATERIAL OR LABOR WHICH IS NEITHER SHOWN ON THE DRAWINGS NOR CALLED FOR IN THE SPECIFICATIONS, BUT WHICH IS OBVIOUSLY NECESSARY TO COMPLETE THE WORK AND WHICH IS USUALLY INCLUDED IN WORK OF A SIMILAR CHARACTER SHALL BE FURNISHED AND INSTALLED UNDER THIS CONTRACT AT NO ADDITIONAL COST TO THE OWNER. CONTRACTOR SHALL PROVIDE ALL LABOR AND MATERIALS REQUIRED TO PROVIDE THE OWNER A COMPLETE, CODE APPROVED AND OPERATIONAL MECHANICAL SYSTEM.
2. CAREFULLY READ SPECIFICATION FOR ALL PARTS OF THE WORK SO AS TO BECOME FAMILIAR WITH ALL TRADES' WORK SCOPE. CONSULT WITH OTHER TRADES TO ENSURE PROPER LOCATIONS AND AVOID INTERFERENCES. ANY CONFLICT SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER BEFORE WORK IS COMMENCED.
3. CONTRACTORS SHALL BE HELD TO HAVE EXAMINED THE PREMISES AND SITE SO AS TO COMPARE THEM WITH THE DRAWINGS AND SPECIFICATIONS, NOTE THE EXISTING CONDITIONS AND OTHER WORK THAT WILL BE REQUIRED, AND THE NATURE OF THE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED. NO ALLOWANCE SHALL BE MADE TO THE CONTRACTOR BY REASON OF THIS FAILURE TO HAVE MADE SUCH EXAMINATION OR OF ANY ERROR ON HIS PART.
4. ALL EXISTING UTILITY AND MECHANICAL SERVICES SHALL BE FIELD VERIFIED. CORRECTIONS TO THE DESIGN AND INSTALLATION SHALL BE MADE WITHOUT ADDITIONAL COST TO THE OWNER.
5. PROVIDE ALL CUTTING AND PATCHING REQUIRED FOR INSTALLATION OF HVAC WORK. ALL CORE DRILLING OR CUTTING OF FIRE RATED FLOORS, SHAFTS, AND WALLS SHALL BE FIRESTOPPED PRIOR TO FINISH PATCHING. ALL PENETRATIONS SHALL BE FIRE SEALED TO MATCH THE FIRE RATING OF THE FLOORS, SHAFTS, AND WALLS PENETRATED. THIS CONTRACTOR IS RESPONSIBLE TO COORDINATE OPENINGS IN WALLS AND FLOORS WITH THE GENERAL TRADES CONTRACTOR. THE FINAL LOCATIONS AND SIZES OF ALL DUCT, PIPE AND LOUVER OPENINGS SHALL BE PROVIDED BY THIS CONTRACTOR.
6. ALL WORK INCLUDING, BUT NOT LIMITED TO PARTS, MATERIAL, EQUIPMENT AND LABOR SHALL BE GUARANTEED FOR ONE YEAR AFTER ACCEPTANCE BY THE ENGINEER AND OWNER. WHERE AN EQUIPMENT MANUFACTURER HAS A WARRANTY THAT EXCEEDS ONE YEAR, THAT WARRANTY PERIOD SHALL APPLY TO THIS PROJECT.

C. DOCUMENTS

1. THE DRAWINGS ARE DIAGRAMMATIC, ALL WORK SHALL BE PERFORMED AS INDICATED ON THE DRAWINGS UNLESS EXISTING CONDITIONS OR COORDINATION ISSUES REQUIRE CHANGES. THESE CHANGES SHALL BE MADE WITH NO ADDITIONAL COST TO THE OWNER.
2. ANY INCIDENTAL ITEMS OR LABOR, ETC. NOT INCLUDED IN THE SPECIFICATIONS OR THE DRAWINGS BUT REASONABLY IMPLIED AS NECESSARY FOR THE COMPLETE INSTALLATION OF ALL APPARATUS SHALL BE INCLUDED IN BID.
3. THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO SUPPLEMENT EACH OTHER AND ANY MATERIAL OR LABOR CALLED FOR IN ONE SHALL BE FURNISHED EVEN THOUGH NOT MENTIONED IN BOTH.
4. IF ERRORS ARE FOUND IN THE DRAWINGS OR SPECIFICATIONS OR DISCREPANCIES OCCUR BETWEEN THE SAME, OR BETWEEN THE FIGURES ON THE DRAWINGS, AND THE SCALE OF SAME OR BETWEEN THE LARGER AND SMALLER DRAWINGS, OR IN THE DESCRIPTIVE MATTER ON THE DRAWINGS SHALL BE REFERRED TO THE OWNER FOR REVIEW AND FINAL DECISION PRIOR TO THE BID DUE DATE.
5. THE BIDDING OF THIS WORK WILL CONTEMPLATE THE USE OF EQUIPMENT AND MATERIALS EXACTLY AS SPECIFIED HEREIN. WHERE MORE THAN ONE MANUFACTURER IS MENTIONED, ANY ONE MAY BE UTILIZED. SUBSTITUTE MANUFACTURERS MAY BE OFFERED ONLY AS AN ALTERNATE TO THE SPECIFIED EQUIPMENT AND MATERIAL, AND MUST BE SUBMITTED AS SPECIFIED IN THE ARCHITECTURAL DOCUMENTS.
6. MISCELLANEOUS ITEMS NECESSARY TO COMPLETE THE SYSTEMS CAN BE OF ANY RECOGNIZED MANUFACTURE PROVIDED THESE ITEMS MEET MINIMUM STANDARDS AS SET IN THESE SPECIFICATIONS. REFER TO EACH SECTION FOR ANY SPECIFIC REQUIREMENTS.

D. COORDINATION

1. CONTRACTOR SHALL LOCATE, IDENTIFY AND PROTECT ANY EXISTING SERVICES WHICH ARE REQUIRED TO BE MAINTAINED OPERATIONAL AND SHALL EXERCISE EXTRA CAUTION IN THE PERFORMANCE OF ALL WORK TO AVOID DISTURBING SUCH FACILITIES. ALL COSTS FOR REPAIR OF DAMAGES TO SUCH SERVICES SHALL BE PAID BY THE CONTRACTOR CAUSING THE DAMAGE.
2. EACH CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ALL DAMAGE TO OTHER WORK CAUSED BY HIS WORK OR THROUGH THE NEGLECT OF HIS, OR HIS SUB-TRADE'S PERSONNEL. ALL PATCHING, REPAIRING, REPLACEMENT AND PAINTING, ETC. SHALL BE DONE AS DIRECTED BY THE OWNER BY THE CRAFTSMEN OF THE TRADES INVOLVED. THE COSTS OF SUCH WORK SHALL BE PAID BY THE CONTRACTOR CAUSING THE DAMAGE.

E. METHODS

1. EQUIPMENT, PIPING, DUCTWORK, ETC. SHALL NOT BE SUPPORTED FROM ANY CEILINGS, OTHER PIPING, CONDUIT OR DUCTWORK, ROOF DECK, OR JOIST BRIDGING. ITEMS SHALL BE SUPPORTED FROM ACCEPTABLE STRUCTURAL BUILDING COMPONENTS AS DETERMINED BY THE ARCHITECT AND STRUCTURAL ENGINEER.
2. ALL ROOF PENETRATIONS, FLASHINGS AND COUNTER FLASHINGS SHALL BE PERFORMED BY THE OWNER'S ROOFING CONTRACTOR AT THE REQUESTING CONTRACTOR 'S COST.

F. SUBMITTALS

1. SHOP DRAWINGS SHALL BE PROVIDED TO THE ARCHITECT OF ALL EQUIPMENT AND ACCESSORIES PROVIDED FOR THE PROJECT WHETHER SPECIFIED HERE-IN OR ON THE DRAWINGS. REVIEW OF THE SHOP DRAWINGS SHALL BE FOR GENERAL DESIGN CONCEPT AND ADHERENCE WITH THE SPECIFICATIONS. QUANTITY OF SHOP DRAWINGS SUBMITTED SHALL BE AS SPECIFIED BY THE ARCHITECT. SHOP DRAWINGS SHALL BE PREPARED BY THE CONTRACTOR SHOWING LOCATIONS AND MEASUREMENTS FROM COLUMNS OF ALL CONCEALED AND EXPOSED PIPING, DUCTWORK, CONDUIT, EQUIPMENT, ACCESSORIES, ETC., AND SUBMITTED PRIOR TO INSTALLATION. THE OWNER MAY MAKE REPRODUCIBLE COPIES OF THEIR DRAWINGS AVAILABLE FOR USE IN PREPARATION OF SHOP DRAWINGS, HOWEVER THE OWNER SHALL NOT BE HELD RESPONSIBLE FOR NOT CONFIRMING ALL INFORMATION ON THE DRAWINGS PRIOR TO FABRICATION AND/OR INSTALLATION.
2. PROJECT RECORD DOCUMENTS - MAINTAIN AT THE JOBSITE ONE COPY OF ALL CONTRACT DOCUMENTS CLEARLY MARKED AS "PROJECT RECORD COPY". THESE DRAWINGS ARE TO BE MAINTAINED IN GOOD CONDITION, UPDATED DAILY FOR CHANGES ENCOUNTERED AND AVAILABLE AT ALL TIMES FOR INSPECTION BY THE OWNER. DO NOT USE FOR FIELD CONSTRUCTION! PROJECT RECORD DOCUMENTS ARE TO BE KEPT CURRENT WITH EXACT DIMENSIONS OF ALL WORK, EQUIPMENT, PIPING, VALVES, DUCTWORK, ETC. MARK ALL INFORMATION IN RED LINES AND NOTES SO AS TO BE EASILY IDENTIFIED FROM THE BASE DRAWING. UPON COMPLETION OF THE WORK, ONE SET OF THESE DOCUMENTS SHALL BE TURNED OVER TO THE OWNER AS ONE QUALIFICATION FOR FINAL PAYMENT.
3. AFTER THE BALANCING AND ACCEPTANCE TESTS ARE COMPLETED AND ACCEPTED BY THE OWNER, THREE COMPLETE SETS OF AS-BUILT DOCUMENTATION SHALL BE PROVIDED. IT SHALL INCLUDE, BUT NOT BE LIMITED TO ACCURATE PLAN DRAWINGS, SYSTEM AND CONTROL SCHEMATICS, SEQUENCE OF OPERATION, WIRING DIAGRAMS AND OPERATION AND MAINTENANCE MANUALS.

II. INSULATION

A. GENERAL

1. INSTALLATION SHALL CONFORM TO THE MANUFACTURER'S RECOMMENDATIONS, AND IN ACCORDANCE WITH RECOGNIZED INDUSTRY PRACTICES.
2. CLEAN AND DRY SURFACES PRIOR TO INSULATING.
3. EXTEND INSULATION WITHOUT INTERRUPTION THROUGH WALLS, FLOORS, HANGERS AND SIMILAR PENETRATIONS.
4. INSULATION JACKET AND FITTING COVER MUST BE PLENUM RATED.
5. IT IS ESSENTIAL THAT THE INTEGRITY OF THE VAPOR-BARRIER BE MAINTAINED. SEAL ALL PENETRATIONS OF THE VAPOR BARRIER BY STAPLES, HANGERS OR WHERE OTHERWISE DAMAGED.
6. MAINTAIN ACCESS TO BALANCING DAMPERS AND VALVES.
7. INSULATION SHALL BE BY OWENS-CORNING, KNAUF, OR MANVILLE.

B. HVAC PIPING

1. PIPING SHALL BE INSULATED WITH FIBERGLASS PIPING INSULATION WITH AN ALL-SERVICE JACKET AND SELF SEALING LAP (ASJ/SSL).
   1. COOLING CONDENSATE WATER PIPING.
      1. 3/4 INCH PIPING = 1/2 INCH THICK (R-2 INSULATION)
      2. 1 INCH TO 4 INCH PIPING = 1 INCH THICK (R-5 INSULATION)
2. FITTINGS AND VALVES SHALL BE INSULATED WITH PRE-MOLDED FIBERGLASS FITTINGS AND COVERED WITH A PRE-FORMED PVC FITTING COVER.
3. REFRIGERATION PIPING SUCTION PIPE SHALL BE INSULATED WITH 1/2 INCH CLOSED CELL INSULATION AS MANUFACTURED BY ARMAFLEX OR EQUAL. COAT ALL EXTERIOR INSULATION WITH 2 COATS OF U.V. STABILIZED PAINT SPECIFICALLY DESIGNED FOR THE CLOSED CELL INSULATION.
4. EXTERIOR PIPING FIBERGLASS PIPING INSULATION WILL BE COMPLETELY COVERED WITH VENTURECLAD 1577CW JACKETING SYSTEM 'SKIN'. THE EXTERIOR COLOR OF THE SKIN SHALL BE WHITE. TRANSVERSE JOINTS SHALL BE KEPT TO A MINIMUM. LONGITUDINAL JOINTS SHALL BE MADE ON THE BOTTOM OF THE PIPNG. INSTALLATION SHALL BE COMPLETELY WATERTIGHT.

B. HVAC DUCTWORK

1. INTERNAL DUCT LINER SHALL BE PROVIDED FOR ALL DUCTWORK AS NOTED PER PLANS, NOTES, OR DETAILS. INTERNALLY INSULATE DUCTWORK WITH 1 INCH THICK, 1-1/2 PCF DENSITY, ACOUSTICAL INSULATION, AIRSIDE BLACK COLOR, LISTED FOR RESITANCE TO FUNGAL/MICROBIAL GROWTH, AND MEET NFPA REQUIREMENTS INCLUDING NON-COMBUSTIBLE & 25/50 FLAME/SMOKE UL LISTING). INTERNAL INSULATION SHALL BE INSTALLED PER THE REQUIREMENTS OF THE SMACNA GUIDE AND THE MANUFACTURER'S RECOMMENDATIONS. DUCT SIZES NOTED ON DRAWING ARE EXTERIOR SHEET METAL DIMENSIONS.
2. ALL SUPPLY AND OUTSIDE AIR DUCTWORK WITHIN CONDITIONED SPACES OR PLENUMS SHALL BE WRAPPED WITH A FLEXIBLE FIBERGLASS DUCT BLANKET INCLUDING A FACTORY APPLIED FSK FACING WITH A COMPOSITE 25/50 FLAME SPREAD UL RATING. INSULATION SHALL BE R-6; 2.2" OF 0.75 PCF AND COMPLY WITH ENERGY CODE REQUIREMENTS.
3. ALL CONCEALED RETURN AIR DUCTWORK IN A CONDITIONED BUILDING SHALL BE WRAPPED WITH A FLEXIBLE FIBERGLASS DUCT BLANKET INCLUDING A FACTORY APPLIED FSK FACING WITH A COMPOSITE 25/50 FLAME SPREAD UL RATING. INSULATION SHALL BE R-6; 2.2" OF 0.75 PCF AND COMPLY WITH ENERGY CODE REQUIREMENTS. RETURN AIR DUCTWORK EXPOSED WITHIN A CONDITIONED SPACE DOES NOT REQUIRE EXTERNAL DUCT INSULATION.
4. ALL SUPPLY, RETURN AND OUTSIDE AIR DUCTWORK IN AN UNCONDITIONED SPACE (ATTIC, ETC.) OUTSIDE OF THE THERMAL ENVELOPE SHALL BE WRAPPED WITH A FLEXIBLE FIBERGLASS DUCT BLANKET INCLUDING A FACTORY APPLIED FSK FACING WITH A COMPOSITE 25/50 FLAME SPREAD UL RATING. INSULATION SHALL COMPLY WITH ENERGY CODE REQUIREMENTS AND THE BELOW INSULATION VALUES:
   a. R-12 INSULATION, IN CLIMATE ZONES 5-8
5. VALVES SHALL BE AS MANUFACTURED BY MILWAUKEE OR EQUIVALENT. ALL ADDITIONAL STEAM SPECIALTY ITEMS (STEAM TRAPS, AIR VENTS, STRAINERS, ETC.) NOT SPECIFIED ON THE DRAWINGS TO BE AS MANUFACTURED BY SPIRAX-SARCO OR EQUIVALENT.
6. INDOOR CONDENSATE PIPING SHALL BE TYPE 'L' COPPER CONDENSATE DRAIN FOR THE INDOOR AIR HANDLING UNIT INSTALLED PER THE MANUFACTURERS REQUIREMENTS AND DETAILS. DRAIN SHALL DISCHARGE INTO AN EXISTING FLOOR DRAIN.
7. OUTDOOR CONDENSATE PIPING SHALL BE TYPE 'L' COPPER CONDENSATE DRAIN FOR THE ROOFTOP MOUNTED AIR CONDITIONING UNIT, INSTALLED PER THE MANUFACTURERS REQUIREMENTS AND DETAILS. DRAIN SHALL DISCHARGE INTO A ROOF DRAIN.
8. REFRIGERATION PIPING SHALL BE COPPER TYPE ACR WITH SILVER BRAZED JOINTS OR INDUSTRY STANDARD 'LINE SETS' SPECIFICALLY MANUFACTURED FOR THE APPLICATION. ROUTE PIPING THROUGH ROOF WITH PREFABRICATED PIPE CURBS. SEAL ROOF PENETRATIONS WEATHER TIGHT.
9. PIPE HANGERS SHALL BE ADJUSTABLE CLEVIS HANGERS WITH APPROPRIATE CLAMP (DEPENDING ON STRUCTURE). PROVIDE OVERSIZED HANGERS FOR PIPING SYSTEMS THAT ARE TO BE INSULATED. COORDINATE INSTALLATION WITH INSULATOR FOR RIGID INSULATION UNDER HANGERS.
10. ALL PIPING SHALL BE SUPPORTED ON A MAXIMUM OF 10' CENTERS EXCEPT COPPER PIPING 1-1/4" AND SMALLER SHALL BE SUPPORTED ON A MAXIMUM OF 6' CENTERS.
11. INSTALL AIR VENTS, WHERE INDICATED ON THE DRAWINGS, AND AT ALL HIGH POINTS IN THE PIPING SYSTEM FOR AIR REMOVAL.
12. INSTALL PIPING TAPS FOR CONTROLS DEVICES SUCH AS SENSOR WELLS, FLOW SWITCHES, PRESSURE SWITCHES, ETC. COORDINATE REQUIREMENTS AND EXACT LOCATION WITH THE CONTROLS CONTRACTOR.
13. INSTALL UNIONS IN PIPES 2 INCH AND SMALLER, ADJACENT TO EACH VALVE, AT FINAL CONNECTIONS TO EQUIPMENT AND ELSEWHERE AS INDICATED ON PLANS.
14. FIRE STOPPING - FOR INSULATED PIPES THROUGH RATED MASONRY WALL AND FLOOR ASSEMBLIES, PROVIDE A UL APPROVED THROUGH-PENETRATION 3M INTUMESCENT FIRE STOP SYSTEM-FC-AJ-1175. FOR RATED GYPSUM BOARD ASSEMBLIES PROVIDE A UL APPROVED THROUGH-PENETRATION FIRE STOP SYSTEM NUMBER W-L-1003. OTHER PRODUCTS BY NATIONALLY APPROVED MANUFACTURERS AS USG AND HILTI.
15. SPECIALTIES
   a. Y-PATTERN STRAINERS, UNIONS, DRAIN VALVES, THERMOMETERS, PRESSURE GAUGES, ETC. SHALL BE PROVIDED WHERE INDICATED AND AS REQUIRED IN SIMILAR INSTALLATIONS.
   b. PRESSURE GAGES SHALL HAVE A 4 1/2" FACE WITH OPERATING RANGE AT HALFWAY POINT AS MANUFACTURED BY WEKSLER MODEL EA14 OR OTHER NATIONALLY RECOGNIZED MANUFACTURER. PROVIDE WITH GAUGE COCK AND SNUBBER.
   c. THERMOMETERS WILL BE 9 INCH ADJUSTABLE MERCURY COMPLETE WITH WELL SIZED FOR 2/3 INSERTION INTO PIPE AS MANUFACTURED BY WEKSLER MODEL ASS OR OTHER NATIONALLY RECOGNIZED MANUFACTURER. PROVIDE WITH BRONZE (STAINLESS STEEL) WELL.
   d. MANUAL AIR VENTS, SHALL BE 150 PSIG, BRONZE BODY WITH SCREWDRIVER OR THUMBSCREW OPERATION AND HAVING 1/8" DISCHARGE AND 1/2" INLET CONNECTIONS. INSTALL VENT ON ALL HIGH POINTS IN THE SYSTEM, COILS AND ELSEWHERE AS REQUIRED FOR SYSTEM AIR VENTING.

B. DUCTWORK AND AIR DISTRIBUTION

1. DUCTWORK (ROUND OR RECTANGULAR OR SPIRAL) SHALL BE OF G-60 GALVANIZED STEEL CONSTRUCTION AND SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE SMACNA "HVAC DUCT CONSTRUCTION STANDARDS METAL AND FLEXIBLE" MANUAL AND THE FOLLOWING PRESSURE / SEAL SCHEDULE:
   a. DUCTWORK BETWEEN AHU AND VAV AND FPVAV TERMINALS - 3" W.G. POSITIVE PRESSURE, SEAL CLASS A.
   b. OTHER SUPPLY AIR DUCTWORK – 2" W.G. POSITIVE PRESSURE, SEAL CLASS B.
   c. RETURN DUCTWORK – 2" W.G. NEGATIVE PRESSURE, SEAL CLASS B.
   d. EXHAUST DUCTWORK – 2" W.G. NEGATIVE PRESSURE, SEAL CLASS A.
2. ROUND DUCT ELBOWS SHALL BE LONG SWEEP, 1-1/2 TIMES THE CENTERLINE RADIUS UNLESS CLEARANCE IS NOT AVAILABLE AT WHICH TIME MITERED ELBOWS WITH TURNING VANES SHALL BE UTILIZED.
3. SPIRAL DUCT AND FITTINGS SHALL BE MANUFACTURED FROM G-60 GALVANIZED STEEL MEETING ASTM-A924 AND A653 REQUIREMENTS.
   a. CONSTRUCTION
      1. BRANCH CONNECTIONS SHALL BE MADE WITH 90 CONICAL AND 45 STRAIGHT TAPS AS SHOWN ON THE DRAWINGS. BRANCH CONNECTIONS SHALL BE MADE AS A SEPARATE FITTING. FACTORY OR FIELD INSTALLATION OF TAPS INTO SPIRAL DUCT SHALL NOT BE ALLOWED WITHOUT WRITTEN APPROVAL OF THE ENGINEER.
      2. ELBOWS SHALL BE FABRICATED WITH A CENTERLINE RADIUS OF 1.5 TIMES THE DIAMETER. 90 AND 45 ELBOWS IN DIAMETERS 3 INCH ROUND THROUGH 12 INCH ROUND SHALL BE STAMPED OR PLEATED ELBOWS. OTHER ELBOWS SHALL BE OF THE GORED TYPE. CIRCUMFERENTIAL AND LONGITUDINAL SEAMS OF ALL FITTINGS SHALL BE A CONTINUOUS WELD OR SPOT WELDED AND SEALED WITH MASTIC. ALL WELDS SHALL BE PAINTED TO PREVENT CORROSION.
      3. FIELD JOINTS FOR ROUND DUCTS UP TO AND INCLUDING 36 INCH DIAMETER AND OVAL DUCTS UP TO AND INCLUDING 41 INCH MAJOR AXIS SHALL BE MADE WITH A 2 INCH SLIP-FIT OR SLIP COUPLING. DIAMETERS 38 INCH ROUND AND LARGER SHALL BE PROVIDED WITH A FLANGED CONNECTION. FLANGED CONNECTIONS MAY ALSO BE USED IN LIEU OF SLIP CONNECTIONS ON SMALLER SIZES. ACCESS DOORS SHALL BE SUPPLIED BY THE DUCT MANUFACTURER AT ALL FIRE AND/OR SMOKE DAMPERS. ALL FLANGES AND ACCESS DOORS SHALL BE FACTORY INSTALLED. SHIPMENTS OF LOOSE FLANGES, ACCESS DOORS, OR TAPS FOR FIELD INSTALLATION INTO SPIRAL DUCT WILL NOT BE ALLOWED.
      4. FLAT OVAL DUCT SHALL BE REINFORCED WITH TRAPEZE TYPE REINFORCEMENT, AS RECOMMENDED BY THE MANUFACTURER, TO LIMIT WALL DEFLECTION TO 3/4" AND REINFORCEMENT DEFLECTION TO 1/4".
4. RECTANGULAR ELBOWS SHALL BE FURNISHED WITH DOUBLE THICKNESS TURNING VANES. TURNING VANES SHALL BE FASTENED WITH A DOUBLE ROW OF SCREWS.
5. PROVIDE FLEXIBLE CONNECTIONS AT THE INLET AND OUTLET OF AHU'S, RTU'S AND CENTRIFUGAL FANS. INSTALL FLEXIBLE CONNECTIONS WITH 3" WIDE DOUBLE NEOPRENE COATED FLAME RETARDANT, NFPA 90A APPROVED, FIBERGLASS FLEXIBLE CONNECTION. FLEXIBLE CONNECTION TO HAVE A MINIMUM OF 24 GAGE, 3" WIDE SHEET METAL COLLARS PERMANENTLY ATTACHED TO EACH SIDE.
6. MITERED OFFSETS GREATER THAN 30 DEGREES IN EITHER DIRECTION SHALL NOT BE PERMITTED.
7. CHANGES IN DUCT SIZES SHALL BE MADE BY UNIFORM TAPER SECTION WITH A MAXIMUM INCLUDE ANGLE OF DIVERGENCE OF 15 DEGREES.
8. RECTANGULAR BALANCING DAMPERS - RUSKIN MD25 SHALL BE SINGLE BLADE UP TO 6" IN HEIGHT AND 36" IN WIDTH, AND RUSKIN MD35 MULTI-BLADE FOR LARGER SIZES. ALL ROUND BALANCING DAMPERS SHALL BE COMMERCIAL GRADE SINGLE BLADE UP TO 16" IN DIAMETER SHALL INCORPORATE LOCKING TYPE INDICATING ADJUSTMENT. BALANCING DAMPERS SHALL BE INSTALLED IN ALL BRANCH DUCTS OFF MAIN AND ON ALL TAPS OFF DUCTS TO DIFFUSERS UNLESS OTHERWISE NOTED ON DRAWINGS.
9. FINAL CONNECTIONS TO DIFFUSERS MAY BE MADE WITH FLEXIBLE AIR DUCTWORK BUT ITS USE IS LIMITED TO STRAIGHT VERTICAL RUNS. ALL CHANGES OF DIRECTION IN A DUCT SYSTEM (GALVANIZED OR FLEXIBLE) SHALL BE MADE WITH AN APPROPRIATE GALVANIZED ELBOW. MAXIMUM LENGTH OF ANY FLEXIBLE AIR DUCT IS 5'-0".
10. FLEXIBLE AIR DUCTS TO DIFFUSERS SHALL BE ATCO RUBBER PRODUCTS, INC. MODEL UPC #070, INSULATED (R=4.2), U.L. 181 RATED AND CLASS 1 AIR CONNECTOR. MAXIMUM LENGTH OF FLEXIBLE AIR DUCT TO DIFFUSER TO BE 5'-0".
11. FLEXIBLE CONNECTOR DUCTS AT THE INLETS OF THE NEW VAV BOXES SHALL BE ATCO RUBBER PRODUCTS, INC. MODEL UPC #050, UNI-INSULATED, U.L. 181 RATED AND CLASS 1 AIR CONNECTOR. MAXIMUM LENGTH OF FLEXIBLE DUCT AT BOX INLET TO BE 3'-0".
12. CONTROL DAMPERS SHALL BE RUSKIN OR GREENHECK, LOW LEAKAGE CONTROL DAMPER WITH CONCEALED LINKAGE, AND SEALS AT BLADE EDGE AND JAMB. DAMPER SHALL HAVE MAX 10CFM/SQ FT LEAKAGE AT 4" WC. PROVIDE WITH ACTUATOR AND CONTROLS OPERATION PER PLANS.
13. FIRE DAMPERS SHALL BE RUSKIN AND SHALL BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS AND SMACNA REQUIREMENTS FOR A U.L. APPROVED INSTALLATION. FIRE DAMPERS SHALL BE TYPE "B" (BLADES AND FRAME COMPLETELY OUT OF THE AIRSTREAM) FOR ALL WALL ASSEMBLIES AND SHALL BE INSTALLED WITH THE APPROPRIATE WALL SLEEVE AND ANGLES PER UL 555. FIRE DAMPERS SHALL BE INSTALLED IN ALL FIRE-RATED WALLS. VERIFY FIRE RATED WALL LOCATIONS AND RATINGS ON THE ARCHITECTURAL DOCUMENTS. FOR ALL FLOOR PENETRATIONS PROVIDE RUSKIN TYPE "LR" FIRE DAMPERS. SEE DETAILS ON DRAWINGS FOR ADDITIONAL INSTALLATION REQUIREMENTS.
14. DOUBLE THICKNESS INSULATED ACCESS DOORS SHALL BE PROVIDED AT ALL FIRE DAMPERS FOR ACCESS TO FUSIBLE LINK. DOOR SHALL BE SIZED TO ALLOW FOR EASY SERVICE AND ACCESSIBILITY. ACCESS DOORS SHALL BE A MINIMUM OF 24" IN THE LONGEST DIMENSION.
15. PROVIDE 3"x3"x1/4" ANGLE FRAMING AROUND THE ROOF OPENINGS FOR THE SUPPLY AND RETURN AIR DUCTWORK.
16. SUPPORT ALL SHEET METAL AND EQUIPMENT FROM ANGLE IRON CONNECTED TO STRUCTURAL STEEL. DO NOT SUSPEND DUCT OR EQUIPMENT FROM METAL DECK OR JOIST BRIDGING.
17. CONTRACTOR SHALL DELIVER, STORE, HANDLE, AND INSTALL ALL DUCTWORK WITH ENDS PROTECTED, SEALED, AND COVERED TO PREVENT DIRT AND MOISTURE INTRUSION. IN ACCORDANCE WITH CURRENT SMACNA DUCT CLEANLINESS AND CONSTRUCTION/IAQ GUIDELINES. REMOVE TEMPORARY SEALS ONLY WHEN MAKING FINAL CONNECTIONS AND PRIOR TO SYSTEM START-UP.
18. CONDENSING BURNER EQUIPMENT (FURNACES, UNIT HEATERS, ETC.), CATEGORY II OR IV, SHALL HAVE COMBUSTION AIR AND FLUE VENT PIPING LISTED AND LABELED BY UL 1738.
   a. FLUE PIPING SHALL BE UL 1738 TESTED AND LISTED CPVC PIPING AND SOCKET FITINGS WITH THE UL 1738 LISTING LABELED ON PIPE WALL AND FITTINGS.
   b. SEAL WITH UL 1738 LISTED PRIMER AND CEMENT.
19. HEATER FLUE AND FITTINGS SHALL BE SELKIRK MODEL SAF-T VENT CI PLUS.
   a. TESTED AND LISTED AS 'BUILDING HEATING APPLIANCE CHIMNEY" IN ACCORDANCE WITH U.L. STANDARD 1738/ULC S636.
   b. DOUBLE WALL CONSTRUCTION WITH AN OUTER JACKET OF 430 STAINLESS STEEL AND AN INNER LINER OF TYPE AL29-4C STAINLESS STEEL SEPARATED BY A 1" AIR SPACE.
   c. CONTRACTOR SHALL INSTALL TOPS A MINIMUM OF 2'-0" ABOVE ROOF OR HIGHER IF REQUIRED BY CODE. CONTRACTOR TO PROVIDE ROOF FLASHING CONE AND MISCELLANEOUS EQUIPMENT OR COMPONENTS REQUIRED FOR A COMPLETE INSTALLATION.
   d. SIZING AND INSTALLATION OF FLUES SHALL BE PER BOILER MANUFACTURER RECOMMENDATIONS AND REQUIREMENTS.

IV. HVAC EQUIPMENT

A. GENERAL

1. INSTALLATION OF ALL EQUIPMENT SHALL COMPLY WITH THE MANUFACTURER'S INSTALLATION INFORMATION AND INSTRUCTIONS, REQUIREMENTS AND ANY ADDITIONAL GUIDELINES. CONTRACTOR SHALL PROVIDE ALL ADDITIONAL REQUIRED ACCESSORIES REQUIRED TO COMPLETE THE INSTALLATIONS.
2. HVAC EQUIPMENT SHALL BE "STARTED UP" BY A FACTORY TRAINED AND AUTHORIZED SERVICE TECHNICIAN.
3. ALL FACTORY STARTUP FORMS SHALL BE COMPLETED AND TURNED OVER TO THE OWNER WITH ALL COMPLETED WARRANTY CARDS PRIOR TO FINAL APPROVAL.

B. PACKAGED HEATING AND VENTILATING UNITS

1. SEE DRAWING FOR INDIVIDUAL UNIT PERFORMANCE REQUIREMENTS.
2. UNIT SHALL BE OF ONE-PIECE PACKAGED CONSTRUCTION COMPLETELY ASSEMBLED, WIRED AND FACTORY TESTED.
3. WIRING SHALL COMPLY WITH LATEST EDITION OF THE NEC AND SHALL INCORPORATE 3-LEG OVERLOAD PROTECTION FOR THE COMPRESSOR(S).
4. UNIT SHALL BE COMPLETE WITH PRESSURE SAFETY CONTROLS AND CONTROLS

C. AIR COOLED CONDENSING UNITS

1. SEE DRAWINGS FOR INDIVIDUAL UNIT PERFORMANCE REQUIREMENTS.
2. UNIT SHALL BE COMPLETE WITH FACTORY INSTALLED REFRIGERANT DETECTION SYSTEM.
3. FURNISH AND INSTALL INSULATED REFRIGERATION TUBING BETWEEN EVAPORATOR COILS AND CONDENSING UNITS PER MANUFACTURERS RECOMMENDATIONS. CONTRACTOR MAY UTILIZE REFRIGERANT LINE SETS AS FURNISHED BY THE CONDENSER MANUFACTURER.
4. REFRIGERANT LINE SET PENETRATIONS THROUGH THE ROOF SHALL BE PER THE BUILDING OWNER AND ARCHITECT 'S REQUIREMENTS. SEE PLANS FOR DETAILS.

D. SHUTOFF TERMINAL BOXES

1. SEE DRAWING FOR INDIVIDUAL UNIT PERFORMANCE REQUIREMENTS.

E. GAS-FIRED HORIZONTAL FURNACE

1. SEE DRAWING FOR INDIVIDUAL UNIT PERFORMANCE REQUIREMENTS.
2. UNIT SHALL BE OF SHIPPED FACTORY ASSEMBLED AND PRETESTED WITH ALL CONTROLS INSTALLED AND WIRED.

F. GAS FIRED RADIANT HEATERS -

1. SEE DRAWING FOR INDIVIDUAL UNIT PERFORMANCE.
2. FURNISH WITH ALL STANDARD OPTIONS AND ANY ADDITIONAL OPTIONS REQUIRED TO HANG THE UNITS.
3. HEATER SHALL BE SUSPENDED FROM THE STRUCTURE PER THE HEATER MANUFACTURER'S REQUIREMENTS.

V. CONTROLS

A. CONTROL WIRING SHALL BE PLENUM RATED CABLE WITH COLOR CODED 18 AWG WIRES (MINIMUM).
B. CONTRACTOR SHALL PROVIDE ALL WIRING BETWEEN THERMOSTAT AND EQUIPMENT (AIR HANDLER, ROOFTOP UNIT, CONDENSING UNIT, ETC.).
C. THERMOSTATS

1. FURNISH AND INSTALL A HVAC UNIT MANUFACTURER'S RECOMMENDED 7 DAY PROGRAMMABLE HEATING/COOLING THERMOSTAT AND CLEAR LOCKABLE COVER WITH APPROPRIATE CONTROL WIRING BETWEEN THERMOSTAT, (FURNACE AND CONDENSING UNIT) (ROOFTOP) AS REQUIRED TO PROVIDE A COMPLETE OPERATING SYSTEM. WIRING SHALL BE MINIMUM 18 AWG.
2. THERMOSTATS SHALL BE MOUNTED WHERE INDICATED ON THE DOCUMENTS.
3. CONTRACTOR SHALL PROGRAM TH

COM*check* Software Version COMcheckWeb

Mechanical Compliance Certificate

Project Information

Energy Code:	2021 IECC
Project Title:	LDA CAT OHIO MIAMISBURG
Location:	Miamisburg, Ohio
Climate Zone:	5a
Project Type:	New Construction

Construction Site:
252-488 Byers Road
Miamisburg, Ohio 45342

Owner/Agent:
Ohio

Designer/Contractor:
T/E/S Engineering
25760 First Street
Cleveland, Ohio 44145
440-871-2410

Additional Efficiency Package(s)

Credits: 10.0 Required 0.0 Proposed

Mechanical Systems List

Quantity System Type & Description

2 F/CC-1,4 (Single Zone):
Heating: 1 each - Central Furnace, Gas, Capacity = 80 kBtu/h
Proposed Efficiency = 96.00% Et, Required Efficiency: 80.00 % Et or 80% AFUE
Cooling: 1 each - Split System, Capacity = 44 kBtu/h, Air-Cooled Condenser, Unknown Economizer
Proposed Efficiency = 13.40 SEER2, Required Efficiency = 13.40 SEER2
Proposed Part Load Efficiency = 0.00 , Required Part Load Efficiency = 0.00

3 F/CC-2,3.1,3.2 (Single Zone):
Heating: 1 each - Central Furnace, Gas, Capacity = 100 kBtu/h
Proposed Efficiency = 96.00% Et, Required Efficiency: 80.00 % Et or 80% AFUE
Cooling: 1 each - Split System, Capacity = 55 kBtu/h, Air-Cooled Condenser, Air Economizer
Proposed Efficiency = 13.40 SEER2, Required Efficiency = 13.40 SEER2
Proposed Part Load Efficiency = 0.00 , Required Part Load Efficiency = 0.00

1 IDU-1 (Single Zone):
Split System Heat Pump
Heating Mode: Capacity = 34 kBtu/h,
Proposed Efficiency = 8.10 HSPF2, Required Efficiency = 7.50 HSPF2
Cooling Mode: Capacity = 31 kBtu/h,
Proposed Efficiency = 19.00 SEER2, Required Efficiency = 14.30 SEER2
Proposed Part Load Efficiency = 0.00 , Required Part Load Efficiency = 0.00

2 IDU-2,4 (Single Zone):
Cooling: 1 each - Split System, Capacity = 18 kBtu/h, Air-Cooled Condenser, Unknown Economizer
Proposed Efficiency = 21.00 SEER2, Required Efficiency = 13.40 SEER2
Proposed Part Load Efficiency = 0.00 , Required Part Load Efficiency = 0.00

1 IDU-3 (Single Zone):
Split System Heat Pump
Heating Mode: Capacity = 24 kBtu/h,
Proposed Efficiency = 8.10 HSPF2, Required Efficiency = 7.50 HSPF2
Cooling Mode: Capacity = 21 kBtu/h,
Proposed Efficiency = 18.30 SEER2, Required Efficiency = 14.30 SEER2
Proposed Part Load Efficiency = 0.00 , Required Part Load Efficiency = 0.00

4 HV-1-A THRU D (Single Zone):
Heating: 1 each - Central Furnace, Gas, Capacity = 255 kBtu/h
Proposed Efficiency = 92.00% Et, Required Efficiency: 81.00 % Et

Mechanical Compliance Statement

Compliance Statement: The proposed mechanical design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 2021 IECC requirements in COM*check* Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Owen Gannon	Owen Gannon	9/10/2026
Name - Title	Signature	Date

COM*check* Software Version COMcheckWeb

Inspection Checklist

Energy Code: 2021 IECC

Requirements: 100.0% were addressed directly in the COM*check* software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
C103.2 [PR2][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the mechanical and service water heating systems and document where exceptions to the standard are claimed. Load calculations per acceptable engineering standards and handbooks. Hot water system sized per manufacturer's sizing guide.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C406 [PR9][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the additional energy efficiency package options.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

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216.932.1890

REV	DATE	DESCRIPTION
	09.23.2026	Issued for Permit

STATE OF OHIO
NICHOLAS D. GINGERICH
E-77419
REGISTERED
PROFESSIONAL ENGINEER
09/22/2026

DRAWN BY: OMG CHECKED BY: JRE

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MIAMISBURG - CAT
RENTAL FACILITY
490 BYERS ROAD, MIAMISBURG, OHIO 45342

LDA Project No.2026.11

MECHANICAL COMPLIANCE

M7.02

PLUMBING ABBREVIATIONS

(ALL ABBREVIATIONS SHOWN ARE NOT NECESSARILY USED ON DRAWINGS)

ABV	ABOVE
ADJ	ADJUSTABLE
AFC	ABOVE FINISHED CEILING
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
ANSI	AMERICAN NATL STANDARDS INSTITUTE
ARCH	ARCHITECT, ARCHITECTURAL
ASME	AMERICAN SOCIETY OF MECHANICAL ENGRS
ASSY	ASSEMBLY
ASTM	AMERICAN SOCIETY OF TESTING & MATLS
AUX	AUXILIARY
AWS	AMERICAN WELDING SOCIETY
AWWA	AMERICAN WATER WORKS ASSOC.
B/F	BELOW FLOOR
BAS	BUILDING AUTOMATION SYSTEM
BLDG	BUILDING
BMS	BUILDING MANAGEMENT SYSTEM
BOP	BOTTOM OF PIPE
BOS	BOTTOM OF STRUCTURE
BTU	BRITISH THERMAL UNIT
CC	CONCRETE
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
CL	CENTERLINE
CLG	CEILING
CO	CLEANOUT
CONN	CONNECT, CONNECTION
COP	CLEANOUT PLUG
COL	COLUMN
CTE	CONNECT TO EXISTING
CW	DOMESTIC COLD WATER
CWV	COMBINATION WASTE AND VENT
D	DEPTH
DEG	DEGREES
DIA (OR Ø)	DIAMETER
DIM	DIMENSION
DN	DOWN
DOM	DOMESTIC
DS	DOWNSPOUT
DWG	DRAWING
EA	EACH
EC	ELECTRICAL CONTRACTOR
ELEV	ELEVATION
ELEC	ELECTRICAL
ENCL	ENCLOSURE
EQUIP	EQUIPMENT
ESP	EXTERNAL STATIC PRESSURE
ETR	EXISTING TO REMAIN
EXH	EXHAUST
EX	EXISTING
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FFE	FINISHED FLOOR ELEVATION
FS	FLOOR SINK
FLEX	FLEXIBLE
FP	FIRE PROTECTION
FPM	FEET PER MINUTE
FT	FOOT, FEET
FW	FILTERED WATER
°F	DEGREES FAHRENHEIT
G	GAS
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GI	GREASE INTERCEPTOR
GPD	GALLONS PER DAY
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GRD	GROUND
GW	GREASE WASTE
H	HEIGHT
HD	HEAD, HUB DRAIN
HP	HORSEPOWER
HVAC	HEATING, VENTILATING & A/C
HW	DOMESTIC HOT WATER
HYD	HYDRANT
HZ	HERTZ
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IN	INCH, INCHES
IN w.c	INCHES OF WATER COLUMN (GAS)
INV. EL:	INVERT ELEVATION
KEC	KITCHEN EQUIPMENT CONTRACTOR
LBS, #	POUNDS
LP	LOW PRESSURE
MAX	MAXIMUM
MBH	1000 BTU PER HOUR
MC	MECHANICAL CONTRACTOR
MECH	MECHANICAL
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MTD	MOUNTED
MUA	MAKE-UP AIR
N/A	NOT APPLICABLE
N.C.	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MFR'S ASSOC.
NFPA	NATIONAL FIRE PROTECTION ASSOC.
NIC	NOT IN CONTRACT.
N.O.	NORMALLY OPEN
NTS	NOT TO SCALE
O/H	OVERHEAD
OC	ON CENTER
OD	OVERFLOW DRAINAGE
OPNG	OPENING
ORD	OVERFLOW ROOF DRAIN
OS&Y	OUTSIDE STEM AND YOKE
OSHA	OCCUPATIONAL SAFETY & HEALTH ADMIN.
PB	PUSH BUTTON
PD	PRESSURE DROP
PH, Ø	PHASE
PIV	POST INDICATOR VALVE
PLBG	PLUMBING
PSI	POUNDS PER SQUARE INCH
PRV	PRESSURE RELIEF VALVE
RCP	REFLECTED CEILING PLAN
RD	ROOF DRAIN
REINF	REINFORCING, REINFORCED
REL	RELOCATED
REQ	REQUIRED
REV	REVISION, REVISE
REX	REMOVE EXISTING
RHW	RECIRCULATING HOT WATER
RPM	REVOLUTIONS PER MINUTE
RR	REMOVE AND RELOCATE
RWC	RAIN WATER CONDUCTOR
SAN	SANITARY
SECT	SECTION
SF	SQUARE FEET, SQUARE FOOT
SHT	SHEET
SPEC	SPECIFICATION
SQ	SQUARE
ST	STORM WATER
STD	STANDARD
SURF	SURFACE
SUSP	SUSPEND
TDH	TOTAL DYNAMIC HEAD
THRU	THROUGH
TP	TOTAL PRESSURE
TSP	TOTAL STATIC PRESSURE
TMV	THERMOSTATIC MIXING VALVE
TYP	TYPICAL
U/F	UNDERFLOOR
U/G	UNDERGROUND
U/S	UNDERSLAB
UL	UNDERWRITERS LABORATORIES, INC.
UON	UNLESS OTHERWISE NOTED
V	VENT
VAC	VACUUM
VTR	VENT THROUGH ROOF
W/	WITH
W/O	WITHOUT
WC	WATER COLUMN

PLUMBING SYMBOLS

NOTE: THIS IS A MASTER LEGEND AND NOT ALL SYMBOLS, ABBREVIATIONS, ETC. ARE NECESSARILY USED ON THE DRAWINGS.

ANNOTATION

1	PLUMBING PLAN NOTE CALLOUT
TAG / TAG-#	PLUMBING FIXTURE/EQUIPMENT DESIGNATION. (CONTRACTOR FURNISHED AND INSTALLED). REFER TO PLUMBING FIXTURE OR EQUIPMENT SCHEDULES
1	FIXTURE/EQUIPMENT DESIGNATION (OWNER FURNISHED, CONTRACTOR INSTALLED)
CU / 1	MECHANICAL EQUIPMENT DESIGNATION (CONTRACTOR FURNISHED AND INSTALLED UNLESS NOTED OTHERWISE)
1 / M1	DETAIL REFERENCE UPPER NUMBER INDICATES DETAIL NUMBER LOWER NUMBER INDICATES SHEET NUMBER
1 / M1	SECTION CUT DESIGNATION

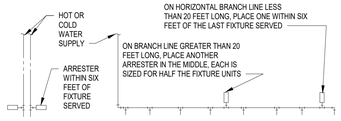
STANDARD MOUNTING HEIGHTS

PLUMBING (AFF, AFG, UNLESS NOTED OTHERWISE)

REFER TO THE ARCHITECTURAL DRAWINGS FOR PLUMBING FIXTURE MOUNTING HEIGHTS. UNO, INSTALL PLUMBING FIXTURES WITH THE MOUNTING HEIGHTS AS LISTED BELOW WITH FINAL APPROVAL BY THE ARCHITECT.

ADA ACCESSIBLE DRINKING FOUNTAIN	17" FLOOR TO RIM
ADA ACCESSIBLE LAVATORIES	34" FLOOR TO RIM
ADA ACCESSIBLE SHOWER VALVES	38" MINIMUM TO 48" MAXIMUM FLOOR TO CENTERLINE
ADA ACCESSIBLE TUB VALVES	CENTER BETWEEN GRAB BAR AND TUB RIM
ADA ACCESSIBLE URINALS	17" FLOOR TO RIM
ADA ACCESSIBLE WATER CLOSET	17" TO 19" FLOOR TO TOP OF SEAT
ADA ACCESSIBLE WATER COOLER	35" FLOOR TO RIM
ADULT STANDARD DRINKING FOUNTAIN	40" FLOOR TO RIM
ADULT STANDARD WATER COOLER	30" FLOOR TO RIM
CHILD STANDARD DRINKING FOUNTAIN	30" FLOOR TO RIM
CHILD STANDARD WATER COOLER	14" FLOOR TO RIM
CHILD URINAL	14" FLOOR TO RIM
CLINIC SERVICE SINKS	30" FLOOR TO RIM
JANITOR'S SINK FAUCET FITTINGS	42" FLOOR TO CENTERLINE
HOSE BIBBS	36" AFF TO CENTERLINE
ICE MAKER OUTLET BOXES	24" FLOOR TO CENTER OF BOX
LAVATORY OR SINK	31" FLOOR TO RIM
NON FREEZE HYDRANT	18" AFG TO CENTERLINE
SHOWER HEADS	6'-0" MEN & 5'-6" WOMEN FLOOR TO CENTERLINE
SHOWER VALVES	48" MEN & 42" WOMEN FLOOR TO CENTERLINE
STANDARD URINALS	22" FLOOR TO RIM
SURGEON'S SCRUB-UP SINKS	35" FLOOR TO FRONT RIM
TUB VALVES	32" FLOOR TO CENTELINE
WASHING MACHINE OUTLET BOXES	42" FLOOR TO RIM
WATER CLOSET	15" FLOOR TO RIM

WATER HAMMER ARRESTOR DESIGN



SINGLE FIXTURE

PDI SIZE	FIXTURE UNIT LOAD
AA	1-3
A	4-11
B	12-32
C	33-60
D	61-113
E	114-154

MULTIPLE FIXTURES

FIXTURE UNIT TABULATION

FIXTURE	COLD	HOT
FLUSH VALVE WATER CLOSET	8	-
FLUSH TANK WATER CLOSET	5	-
URINAL	4	-
LAVATORY / SINK	1.5	1.5
MOP BASIN / WASHING MACHINE	3	3
DRINKING FOUNTAIN	0.5	-

PC TO PROVIDE WATER HAMMER ARRESTERS BY SIOUX CHIEF, PRECISION PLUMBING PRODUCTS, WATTS OR APPROVED EQUIVALENT WITH PISTON AND O-RING CONSTRUCTION, HAVING PDI #WH-201, ASSE #1010 OR ANSI #A112.26.IM CERTIFICATION. SIZE AND INSTALL PER PDI #WH-201 STANDARD OR MANUFACTURER'S INSTRUCTION. THE TABLES ABOVE ARE BASED ON THE SIOUX CHIEF PRODUCT LINE. IF PRESSURE IS IN EXCESS OF 65 PSIG THEN UPSIZE THE ARRESTER BY ONE (EXAMPLE: AN "A" ARRESTER WOULD BECOME A "B" ARRESTER.)

PIPING

- CW — DOMESTIC COLD WATER
- SCW — SOFTENED COLD WATER
- HW — DOMESTIC HOT WATER
- RHW — DOMESTIC RECIRCULATING HOT WATER
- GW — GREASE WASTE
- ST — STORM DRAIN
- OST — OVERFLOW STORM DRAIN
- CD — CONDENSATE DRAIN
- PD — SUMP OR SEWAGE PUMP DISCHARGE
- G — NATURAL GAS
- FPD — FIRE PROTECTION DRY
- SPR — SPRINKLER
- PA — PROCESS AIR
- V — VENT PIPING
- OW — OIL WASTE
- SAN — SANITARY
- BC — BEVERAGE CONDUIT
- CWR — CHILLED WATER RETURN
- CWS — CHILLED WATER SUPPLY
- HWR — HEATING HOT WATER RETURN
- HWS — HEATING HOT WATER SUPPLY
- 140 HW — 140 DOMESTIC HOT WATER
- 140 RHW — 140 RECIRCULATED HOT WATER
- EXH — COMBUSTION AIR EXHAUST
- INT — COMBUSTION AIR INTAKE
- CA — COMPRESSED AIR
- SCW — DOMESTIC SOFTENED COLD WATER
- SHW — DOMESTIC SOFTENED HOT WATER
- FCW — FILTERED DOMESTIC COLD WATER
- FHW — FILTERED DOMESTIC HOT WATER
- FRHW — FILTERED RECIRCULATED HOT WATER
- RO — REVERSE OSMOSIS WATER
- TW — TEMPERED WATER
- TPF — TRAP PRIMER FEED
- EXISTING PIPING OR EQUIPMENT TO BE REMOVED
- EXISTING PIPING OR EQUIPMENT TO REMAIN
- NEW PIPING OR EQUIPMENT
- PIPING ABOVE FLOOR
- PIPING BELOW FLOOR
- SQUARE FLOOR DRAIN (FS), SIZE & TYPE
- ROUND FLOOR DRAIN (FD), SIZE & TYPE
- ROOF DRAIN (RD), SIZE & TYPE
- BALL VALVE
- CONTROL VALVE
- SHUTOFF VALVE
- CHECK VALVE
- BALANCING VALVE WITH PRESSURE PORTS
- WATER METER
- STRAINER
- STRAINER WITH BLOWOFF
- S — RELIEF/SAFETY VALVE
- SOLENOID VALVE
- PRESSURE REDUCING VALVE
- THERMOSTATIC MIXING VALVE
- PA — PIPE ANCHOR
- EJ — EXPANSION JOINT
- BACKFLOW PREVENTER
- PRESSURE GAUGE
- THERMOMETER
- UNION
- FLANGE CONNECTION
- HOSE BIBB(HB)
- NONFREEZE WALL HYDRANT (NW)
- MANUAL / AUTOMATIC AIR VENT OR VACUUM RELIEF VALVE
- CLEANOUT
- CAP
- WALL CLEANOUT (WCO)
- FLOOR CLEANOUT (FCO)
- EXTERIOR CLEANOUT (ECO)
- CONNECT TO EXISTING (CTE)
- LIMIT OF DEMOLITION
- ELBOW UP
- ELBOW DOWN
- TEE UP
- TEE DOWN
- ELBOW UP WITH SHUT-OFF VALVE (SOV)
- ELBOW DOWN WITH SHUT-OFF VALVE (SOV)
- TEE UP WITH SHUT-OFF VALVE (SOV)
- TEE DOWN WITH SHUT-OFF VALVE (SOV)
- "A" — WATER HAMMER ARRESTER (WHA) WITH PDI SIZES, (A, B, C, D, & E)
- RECIRCULATION PUMP
- P-TRAP
- GAS COCK
- TRAP PRIMER
- TRAP PRIMER WITH DISTRIBUTION UNIT

GENERAL PROJECT NOTES

1. THE DRAWINGS ARE GENERALLY DIAGRAMMATIC AND REPRESENT A GEOMETRIC RELATIONSHIP BETWEEN PIPING, EQUIPMENT, FIXTURES, AND COMPONENTS; THEY DO NOT NECESSARILY SHOW EVERY FITTING, OFFSET, DROP AND RISE OF RUNS AND DETAIL. THE PLUMBING CONTRACTOR IS RESPONSIBLE FOR FINAL FIELD COORDINATION OF THE PLUMBING SYSTEM WITH ALL OTHER CONTRACTORS. DO NOT SCALE DRAWINGS.
2. THE PLUMBING CONTRACTOR IS RESPONSIBLE FOR PROVIDING PRODUCTS, MATERIALS, AND INSTALLATION PER THESE CONTRACT DOCUMENTS FOR ALL PRODUCTS, MATERIALS, AND COMPONENTS LISTED. PROVIDING LESSER QUALITY PRODUCTS OR MATERIALS FROM WHAT IS LISTED WITHIN THESE CONTRACT DOCUMENTS WILL NOT BE APPROVED. PROVIDING EQUIPMENT OF LESSER CAPACITY THAN WHAT IS LISTED WITHIN THESE CONTRACT DOCUMENTS WILL NOT BE APPROVED.
3. EXISTING PLUMBING INFORMATION IS BASED ON LIMITED EXISTING BUILDING DRAWINGS AND FIELD WORK. THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING CONDITIONS FOR ACCURACY. CONTRACTOR SHALL NOTIFY OWNER, ARCHITECT AND ENGINEER OF ANY SITUATIONS THAT MODIFY OR INCREASE THE SCOPE OF WORK FROM THAT IS DESCRIBED IN THE DOCUMENTS.
4. ANYTHING NOT NOTED AS EXISTING IS TO BE FURNISHED AND INSTALLED AS PART OF THIS PROJECT.
5. REFER TO DRAWINGS AND PROJECT SPECIFICATIONS OF OTHER DISCPLINES FOR ADDITIONAL PROJECT INFORMATION AND REQUIREMENTS. NOTIFY ENGINEER OF ANY CONFLICTS BETWEEN THE INFORMATION PRESENTED AND FIELD CONDITIONS.
6. PRIOR TO ANY ISOLATION OF SYSTEMS, SHUTDOWNS OR DEMOLITION THE CONTRACTOR SHALL PROVIDE NECESSARY INVESTIGATION AND NOTIFY THE FACILITIES ENGINEERING/MAINTENANCE PERSONNEL OF WORK TO BE PERFORMED SO AS TO AVOID ANY DETRIMENTAL SHUTDOWN OF SYSTEMS TO ADJACENT SPACES.
7. PROTECT EQUIPMENT, FIXTURES, PIPING, DUCTWORK, ETC. INDICATED TO REMAIN AGAINST DAMAGE AND SOILING DURING SELECTIVE DEMOLITION. WHEN PERMITTED BY THE ARCHITECT, ITEMS MAY BE REMOVED TO A SUITABLE, PROTECTED STORAGE LOCATION DURING SELECTIVE DEMOLITION AND THEN CLEANED AND REINSTALLED IN THEIR ORIGINAL LOCATIONS.
8. WHERE PIPE, DUCTWORK, INSULATION, FIXTURES OR EQUIPMENT TO REMAIN IS DAMAGED OR DISTURBED, REMOVE THE DAMAGED PORTIONS AND INSTALL NEW PRODUCTS OF EQUAL CAPACITY AND QUALITY. WHERE IDENTICAL MATERIALS ARE UNAVAILABLE OR CANNOT BE USED, USE MATERIALS WHOSE INSTALLED PERFORMANCE EQUALS OR SURPASSES THAT OF THE EXISTING MATERIALS.
9. MAINTAIN AND RESTORE, IF INTERRUPTED BY DEMOLITION OR IN THE PATH OF NEW CONSTRUCTION, ALL UTILITIES PASSING THROUGH AND SERVING OUTSIDE OF DEMOLITION AREA.
10. PLUMBING SYSTEMS INSTALLATION MUST MAINTAIN INTEGRITY OF WALLS, PARTITIONS AND FLOORS DESIGNATED AS EITHER FIRE RATED OR "SMOKE TIGHT". SEAL AROUND ALL PENETRATIONS THROUGH RATED OR SMOKE TIGHT ASSEMBLIES. COORDINATE W/ARCHITECTURAL PLANS AND GENERAL CONTRACTOR.
11. WHERE SPACE ABOVE CEILING IS INDICATED TO BE A RETURN AIR PLENUM ON THE MECHANICAL HVAC DRAWINGS, CONSTRUCTION MATERIALS ABOVE CEILING SHALL BE NONCOMBUSTIBLE, OR HAVE A MAXIMUM 25 FLAME SPREAD AND 50 SMOKE DEVELOPMENT FINISH RATING. WIRING SHALL BE LABELED PLENUM RATED PER NFPA 70. PVC SHALL NOT BE INSTALLED IN A RETURN AIR PLENUM.
12. PROVIDE QUARTER-TURN STOP VALVES AT EVERY FIXTURE ON BOTH HOT AND COLD WATER SUPPLY LINES. VALVES, escutcheons, FITTINGS, ETC. MUST BE CHROME PLATED. WHERE EXPOSED, CHROME PLATED PIPE IS TO BE USED.
13. ALL SANITARY PIPING 3" AND LARGER SHALL BE SLOPED AT 1/8" PER FOOT AND SANITARY PIPING SMALLER THAN 3" SHALL BE SLOPED AT 1/4" PER FOOT.
14. ALL VENT PIPING SHALL BE GRADED DOWN TO DRAIN BY GRAVITY BACK TO THE DRAINAGE SYSTEM IT SERVES.
15. ALL STORM AND OVERFLOW STORM PIPING SHALL BE SLOPED AT 1/8" PER FOOT UNLESS OTHERWISE NOTED ON THE PLANS.
16. ALL WATER HEATER FLUE PIPING SHALL BE UL 1738 OR ULC S636 LISTED AND SLOPED AT 1/4" PER FOOT BACK TO THE WATER HEATER. FLUE PIPING SHALL BE INSTALLED PER THE WATER HEATER'S INSTALLATION INSTRUCTIONS USING THE MATERIALS LISTED WITHIN THESE CONTRACT DOCUMENTS.
17. ALL OVERHEAD PIPING IS TO BE ROUTED TIGHT TO BUILDING STRUCTURE.
18. PIPING IS NOT PERMITTED IN DEMISING WALLS.
19. ALL EXPOSED, EXTERIOR PIPING SHALL BE PAINTED WITH RUST INHIBITIVE PRIMER, COLOR CODED FINISH, AND IDENTIFICATION LABELS.
20. VERIFY NATURAL GAS AVAILABILITY AND CAPACITY. COORDINATE PRESSURE, SERVICE CONNECTION, AND METER INSTALLATION WITH THE LANDLORD AND LOCAL UTILITY COMPANY.
21. PROVIDE GAS PIPE SUPPORTS ON ROOF FOR ALL GAS PIPING INCLUDING ALL CHANGES OF DIRECTION. GAS PIPE SUPPORTS TO BE PROVIDED PER THE SPECIFICATIONS AND THE CURRENT IFGC TABLE 415.1.
22. DO NOT ROUTE ANY WATER CONVEYING PIPING OVER ELECTRICAL EQUIPMENT.
23. ALL ACCESSIBLE P-TRAPS MUST BE PROVIDED WITH BOTTOM CLEANOUT PLUGS.
24. INSULATE EXPOSED P-TRAPS, HOT AND COLD VALVES AND PIPING SERVING HANDICAPPED LAVATORIES.
25. ALL PIPING TO POINTS 5'-0" OUTSIDE THE BUILDING IS BY THE PLUMBING CONTRACTOR.
26. PROVIDE A WALL CLEANOUT AT THE BASE OF ALL VERTICAL STORM AND SANITARY RISERS 1'-0" AFF.
27. ALL STORM PIPING OUTSIDE THE PERIMETER OF THE BUILDING REQUIRES COORDINATION WITH THE STRUCTURAL FOOTERS TO AVOID TRENCHING AND PIPE PLACEMENT WITHIN THE FOOTING ANGLE OF REPOSE.
28. NOTHING IS PERMITTED TO BE ATTACHED TO, SUSPENDED FROM, OR PENETRATE THE ROOF DECK. CONTRACTOR MAY ATTACH TO OR SUSPEND FROM THE TOP CHORD OF THE JOIST OR THE STRUCTURAL STEEL WHICH EXISTS ABOVE THE SPACE.
29. ALL CONCEALED PIPING SHALL BE TESTED AND PROVEN LEAK PROOF AND FREE FROM DEFECTS PRIOR TO CONCEALMENT.
30. ALL FLOOR DRAINS AND CLEANOUTS ARE TO BE INSTALLED FLUSH WITH THE FINISHED FLOOR. ALL STRAINERS AND COVERS SHALL BE CLEANED AND POLISHED PRIOR TO CONSTRUCTION CLOSEOUT.
31. ALL FLOOR SINKS ARE TO BE INSTALLED EITHER FLUSH WITH FINISHED FLOOR, OR RAISED PER LOCAL CODE REQUIREMENTS. FLOOR SINK GRATES SHALL BE FACTORY COATED, FIELD PAINTING IS NOT APPROVED.

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09/22/2026

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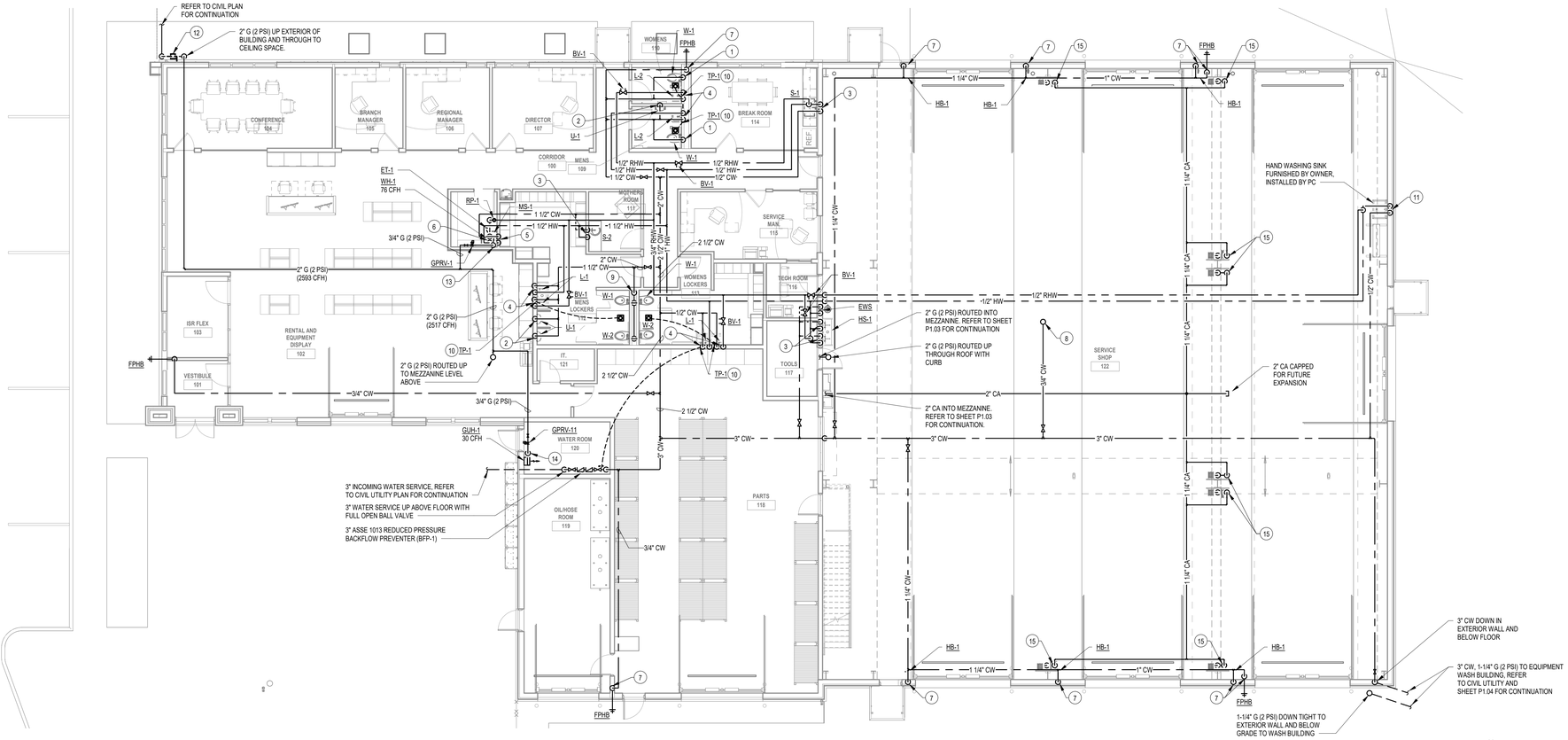
PLUMBING NOTES AND LEGEND

P0.01

#	SHEET KEYNOTES
1	1-1/4" CW DOWN TO WATER CLOSET.
2	3/4" CW DOWN TO URINAL.
3	1/2" HW/CW DOWN TO SINK.
4	1/2" CW DOWN TO LAVATORY FAUCETS. ROUTE 1/2" HW DOWN AND HORIZONTALLY THROUGH WALL TO SERVE LAVTORY FAUCETS. ROUTE 1/2" RHW DOWN IN WALL TO SERVE 1/2" HW LINE TO CREATED A RECIRCULATING HW LOOP.
5	3/4" HW/CW DOWN IN WALL TO MOP SINK.
6	1-1/2" HW DOWN TO WATER HEATER MOUNTED ON SHELF ABOVE MOP SINK. 1-1/2" CW UP FROM WATER HEATER MOUNTED ON SHELF ABOVE MOP SINK AT LEAST 7'-0" AFF.
7	3/4" CW DOWN WITH SHUT-OFF VALVE IN VERTICAL PIPING TO HOSE BIBB.
8	3/4" CW UP TO ROOF HYDRANT.
9	2" CW DOWN IN WALL AND ROUTE HORIZONTALLY TO SERVE WATER CLOSETS. PROVIDE 1-1/4" CW STUBS FROM 2" CW MAIN TO SERVE EACH WATER CLOSET.
10	1/2" CW DOWN BELOW FLOOR FROM UNDER-LAV TRAP PRIMER TO FLOOR DRAIN TRAP PRIMER CONNECTION.
11	1/2" HW/CW DOWN TO SINK WITH SHUT-OFF VALVE AND ASSE 1056 BACKFLOW PREVENTER.
12	CONTRACTOR TO COORDINATE WITH GAS UTILITY PROVIDER FOR NEW 2 PSI GAS METER AND BUILDING SERVICE PRESSURE AS REQUIRED BY CONNECTED LOAD. 2593 CFH CONNECTED LOAD, 800 FT LONGEST EQUIVALENT LENGTH, SIZED FOR 1 PSI PRESSURE DROP ACROSS THE ENTIRE BUILDING GAS SYSTEM.
13	3/4" G DOWN WITH SHUT-OFF VALVE, DIRT LEG, AND UNION TO WATER HEATER.
14	3/4" G DOWN WITH SHUT-OFF VALVE, DIRT LEG, AND UNION TO GAS UNIT HEATER.
15	3/4" CA DOWN TO VALVE AND REGULATOR ASSEMBLY AND BACK UP TO HOSE REEL. REFER TO DETAIL 10 ON SHEET P5.02 FOR ADDITIONAL INFORMATION.



1 / P1.01 PLUMBING DOMESTIC WATER AND GAS PLAN

SCALE: 1/8" = 1'-0"

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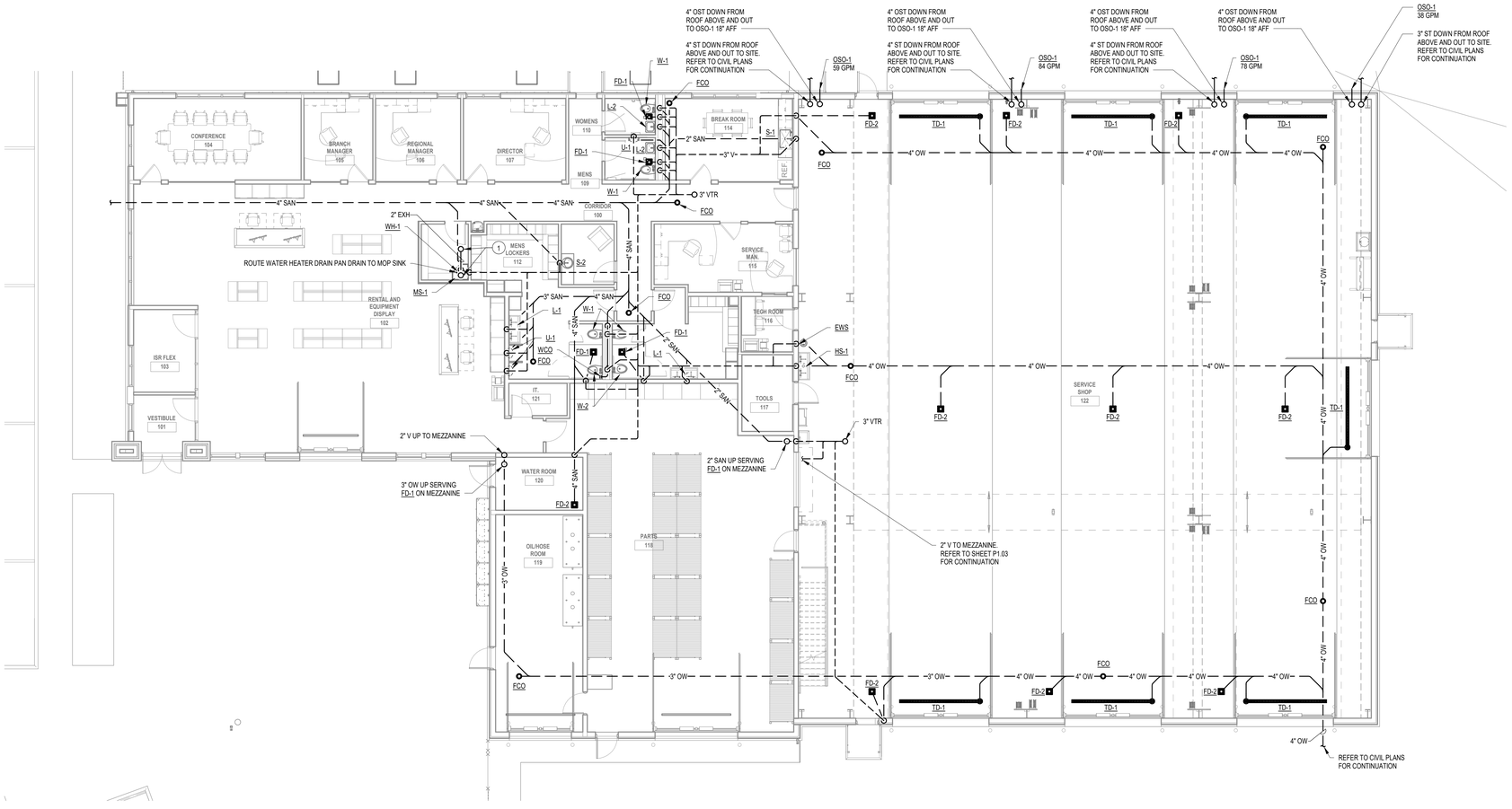
PLUMBING DOMESTIC WATER AND GAS PLAN

P1.01

SHEET KEYNOTES

1 2" WATER HEATER INTAKE AND EXHAUST UP THROUGH ROOF WITH CURBS. TERMINATE WITH ELBOW DOWN AND BIRDSCREEN A MINIMUM OF 4'-0" ABOVE THE ROOF MEMBRANE AND A MINIMUM OF 5'-0" APART. EXHAUST TERMINATION SHALL BE A MINIMUM OF 10'-0" FROM HVAC OUTSIDE AIR INTAKES. INSTALLATION SHALL BE PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.



1 P1.02 PLUMBING SANITARY PLAN
SCALE: 1/8" = 1'-0"

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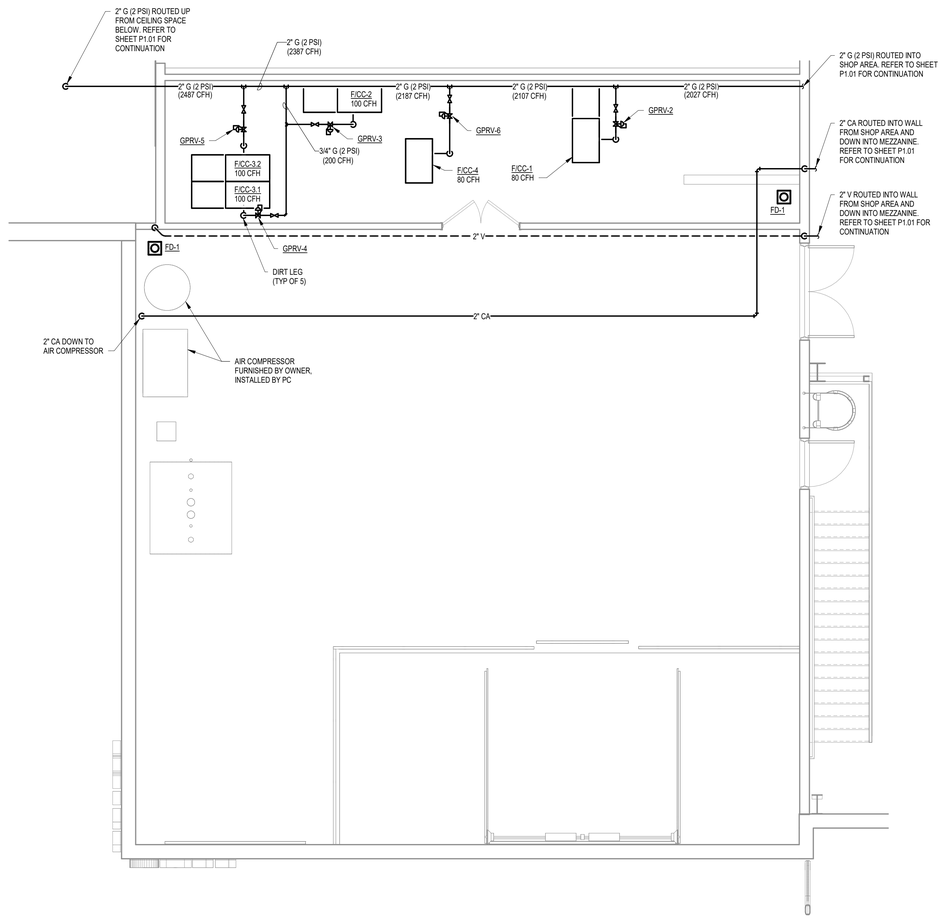
PLUMBING SANITARY PLAN

P1.02



1
P1.03
PLUMBING MEZZANINE PLAN
SCALE: 1/4" = 1'-0"

N

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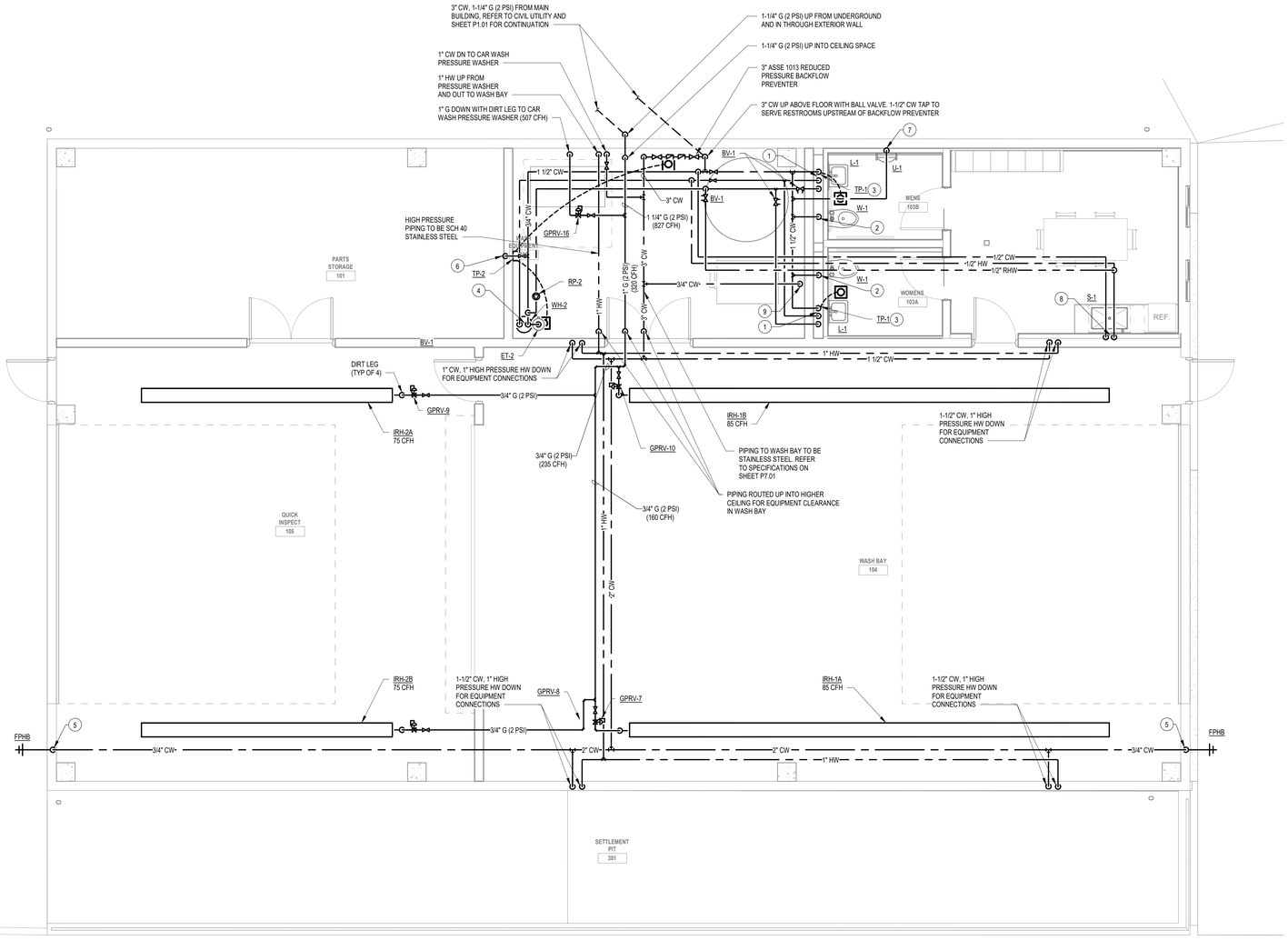
PLUMBING MEZZANINE PLAN

P1.03

#	SHEET KEYNOTES
1	1/2" HW/CW/RHW DOWN TO LAVATORY.
2	1-1/4" CW DOWN TO WATER CLOSET.
3	1/2" CW DOWN BELOW FLOOR FROM TRAP PRIMER TO FLOOR DRAIN TRAP PRIMER CONNECTION.
4	1-1/2" HW DOWN TO WATER HEATER. 1-1/2" CW UP FROM WATER HEATER.
5	3/4" CW DOWN WITH SHUT-OFF VALVE IN VERTICAL PIPING TO HOSE BIBB.
6	1/2" CW DOWN TO ELECTRONIC TYPE TRAP PRIMER. ROUTE 1/2" CW FROM DISTRIBUTION UNIT DOWN BELOW FLOOR TO FLOOR DRAIN TRAP PRIMER CONNECTION.
7	3/4" CW DOWN TO URINAL.
8	1/2" HW/CW DOWN TO SINK.
9	3/4" CW DOWN TO WATER BLASTER.



1 / P1.04 PLUMBING WASH BUILDING WATER AND GAS PLAN

SCALE: 1/4" = 1'-0"

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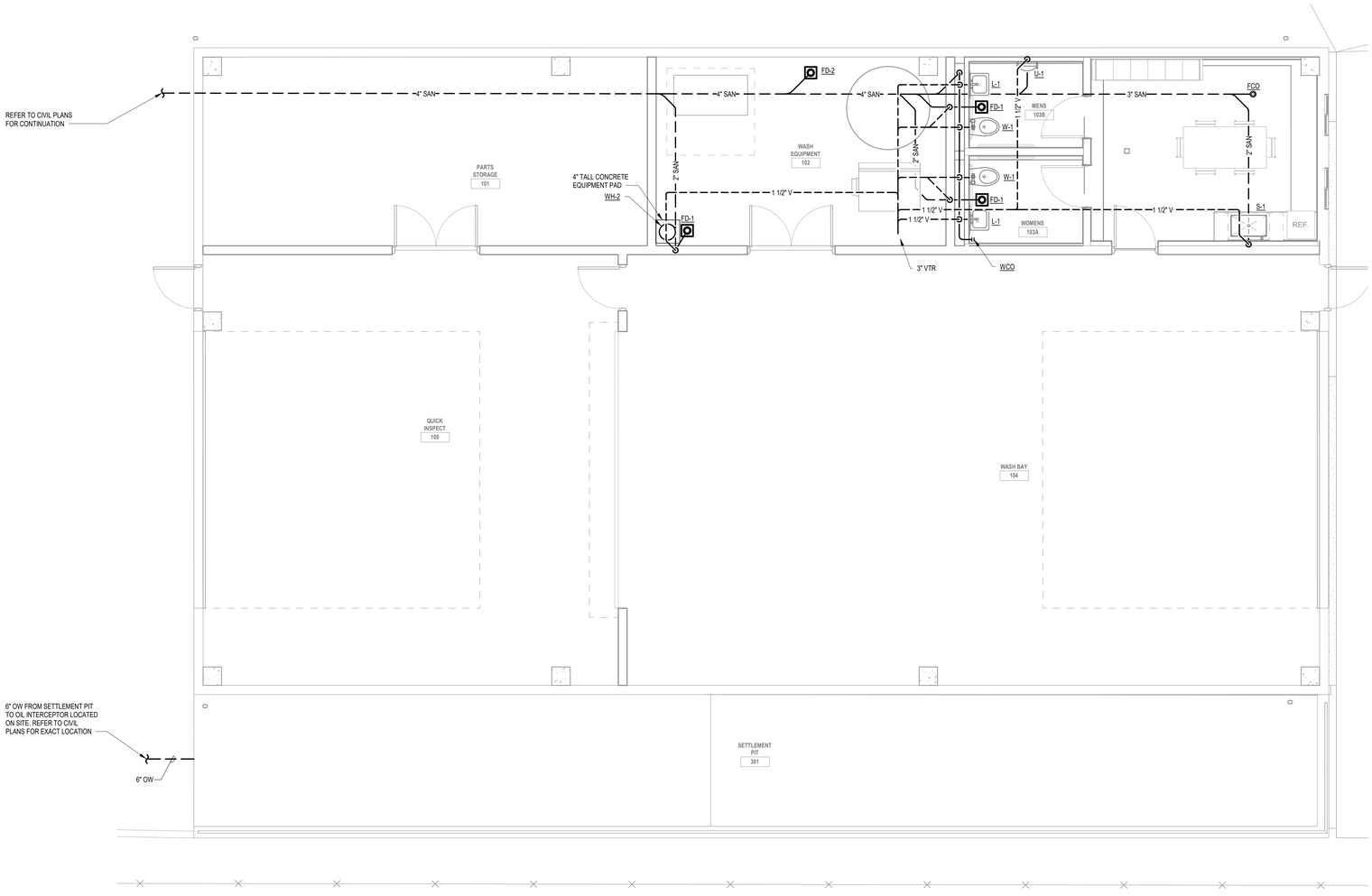
PLUMBING WASH BUILDING WATER AND GAS PLAN

P1.04



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P1.05

PLUMBING WASH BUILDING SANITARY PLAN

SCALE: 1/4" = 1'-0"

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NICHOLAS D. GINGERICH
E-77419
REGISTERED
PROFESSIONAL ENGINEER

09/22/2026

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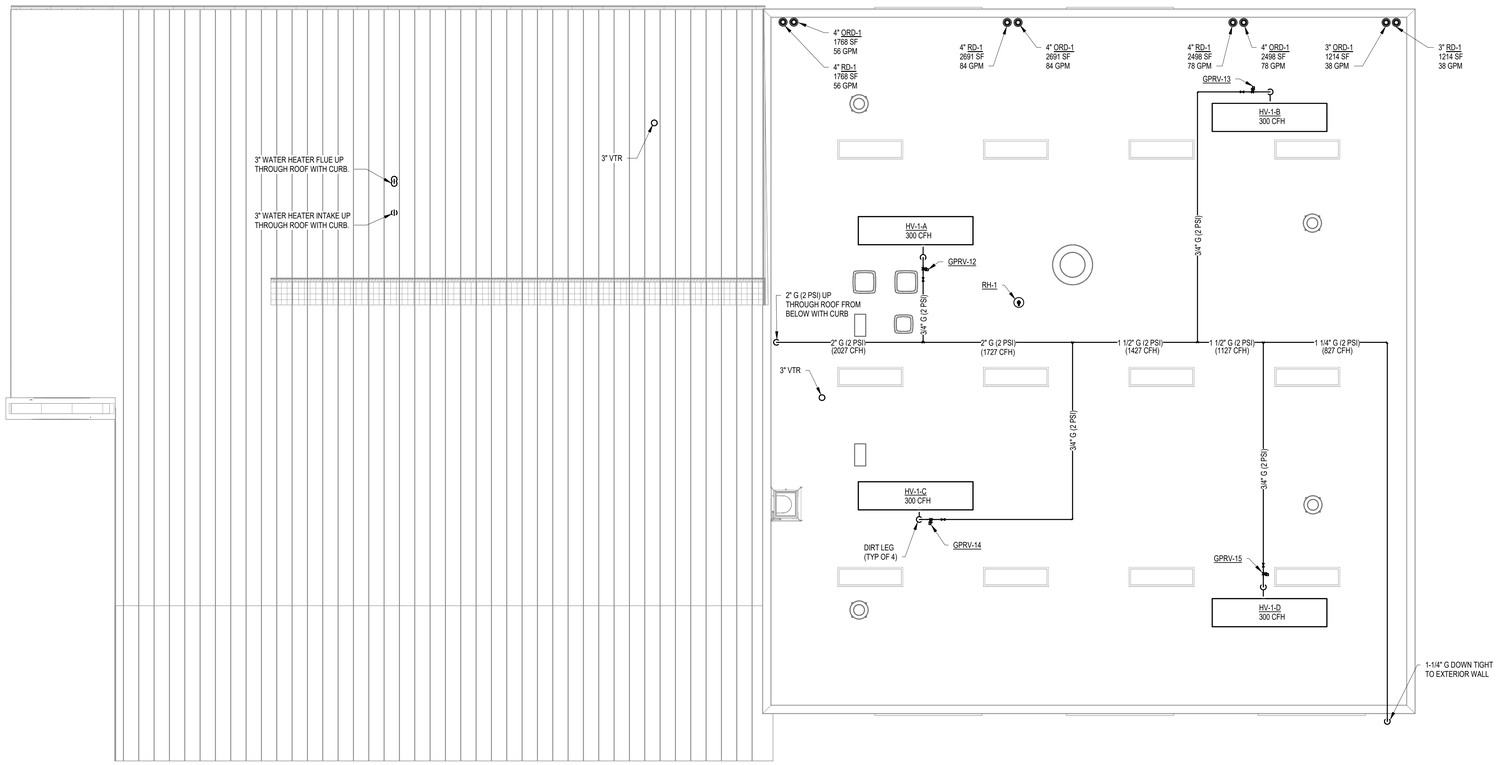
MIAMISBURG - CAT
RENTAL FACILITY
490 BYERS ROAD, MIAMISBURG, OHIO 45342

LDA Project No.2026.11

PLUMBING WASH BUILDING SANITARY PLAN

P1.05



1
P2.01
PLUMBING ROOF PLAN
SCALE: 1/8" = 1'-0"

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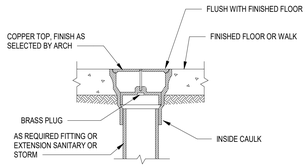
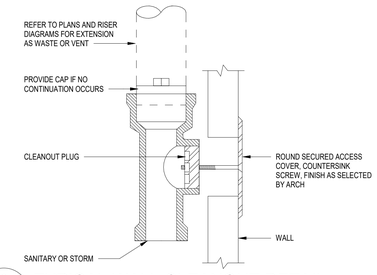
LDA Project No.2026.11

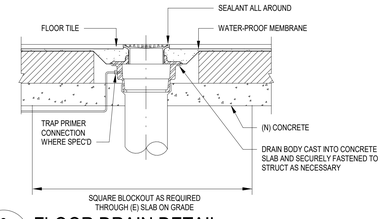
PLUMBING ROOF PLAN
P2.01



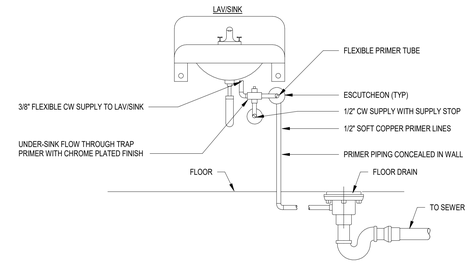
1 P5.01 FLOOR CLEANOUT DETAIL
SCALE: NONE



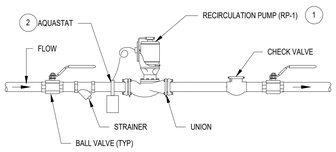
2 P5.01 TYPICAL WALL CLEANOUT DETAIL
SCALE: NONE



3 P5.01 FLOOR DRAIN DETAIL
SCALE: NONE

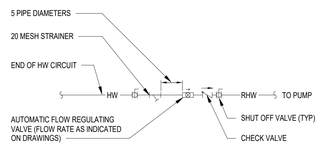


4 P5.01 TRAP PRIMER DETAIL - SINK SUPPLY CONNECTION
SCALE: NONE

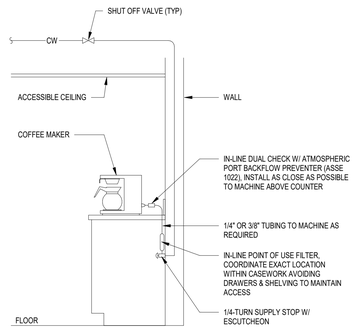


DETAIL KEYNOTES
1. REFER TO RECIRCULATION PUMP SCHEDULE FOR ADDITIONAL INFORMATION.
2. AQUASTAT SET TO 135 DEG F. TIME CLOCK SET TO OWNER PREFERRED SCHEDULE.

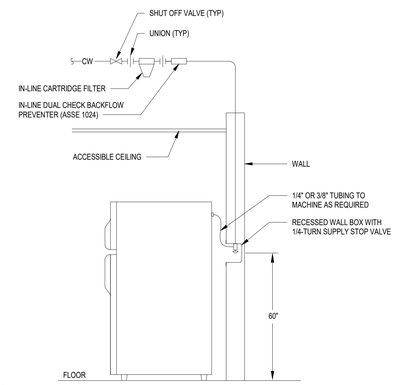
5 P5.01 RECIRCULATING PUMP DETAIL
SCALE: NONE



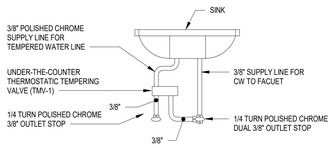
6 P5.01 HOT WATER CIRCUIT VALVING DETAIL
SCALE: NONE



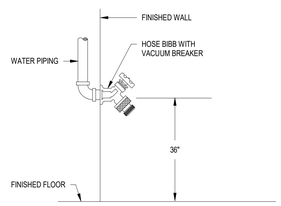
7 P5.01 COUNTERTOP COFFEE MAKER PIPING DIAGRAM
SCALE: NONE



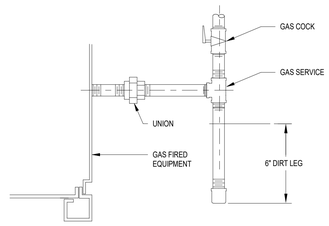
8 P5.01 REFRIGERATOR WITH ICE MAKER PIPING DIAGRAM
SCALE: NONE



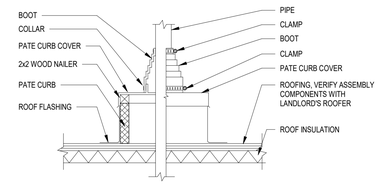
9 P5.01 UNDER SINK TMV DETAIL
SCALE: NONE



10 P5.01 HOSE BIBB DETAIL
SCALE: NONE

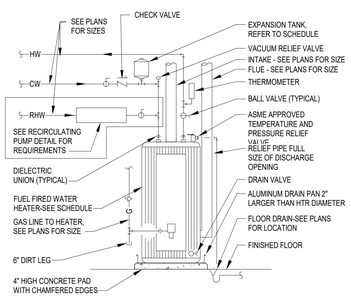


11 P5.01 GAS CONNECTION DETAIL
SCALE: NONE

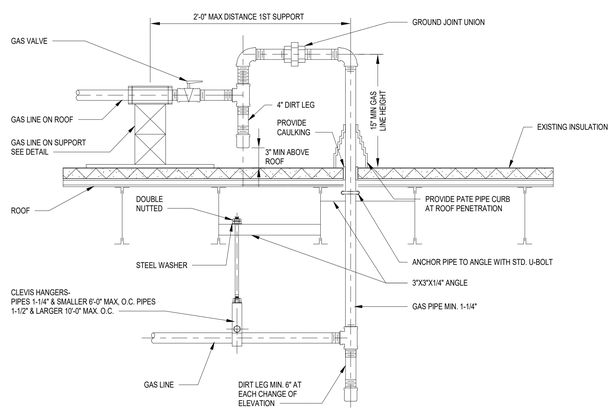


DETAIL NOTES
1. REFER TO MANUFACTURERS INSTALLATION REQUIREMENTS.
2. ROOFING TO BE INSTALLED AND FLASHING-IN BY LANDLORD ROOFER AT TENANT'S EXPENSE W/ MATERIALS TO MATCH EXISTING. INSTALL MATERIALS PER MANUFACTURERS REQUIREMENTS.

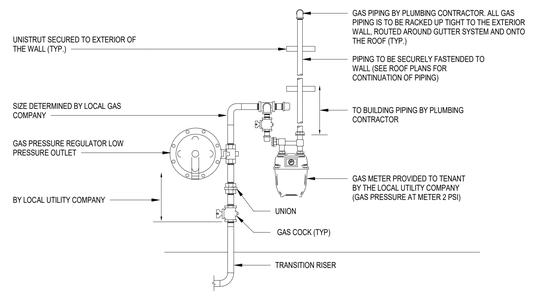
12 P5.01 PIPE THROUGH ROOF DETAIL
SCALE: NONE



13 P5.01 FUEL FIRED WATER HEATER DETAIL
SCALE: NONE



14 P5.01 GAS PIPE THROUGH ROOF DETAIL
SCALE: NONE



DETAIL NOTES
1. GAS METER SHOWN IS FOR CONCEPTUAL REFERENCE ONLY. REFER TO THE GAS SCHEDULES ON THE BUILDING DRAWINGS FOR THE QUANTITIES AND CONNECTED LOADS OF TENANT SPACES.
2. CONTRACTOR TO ROUTE ALL GAS PIPING UP THE SIDE OF THE EXTERIOR BUILDING AS TIGHT TO THE WALL AS POSSIBLE. COORDINATE ALL MOUNTING AND ROUTING LOCATIONS WITH THE OWNER'S REPRESENTITIVE PRIOR TO ANY WORK.
3. SUPPORT ALL PIPING PER UTILITY COMPANY RECOMMENDATION.

15 P5.01 GAS METER DETAIL
SCALE: NONE

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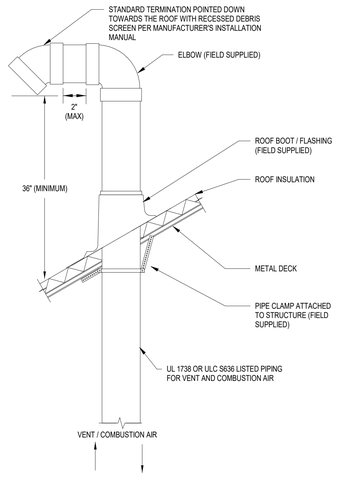
LDA Project No.2026.11

PLUMBING DETAILS
P5.01



DETAIL NOTES

1. REFER TO THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. PROVIDE 5'-0" OF SEPARATION BETWEEN INTAKE AND FLUE, AND A MINIMUM OF 10'-0" FROM OUTSIDE AIR INTAKES. INTAKE AND FLUE SHALL EXTEND A MINIMUM OF 12" ABOVE THE ANTICIPATED SNOW ACCUMULATION HEIGHT AND TERMINATE WITH GOOSENECK DOWN AND BIRD SCREEN.

1 / P5.02 WATER HEATER FLUE AND INTAKE DETAIL
SCALE: NONE

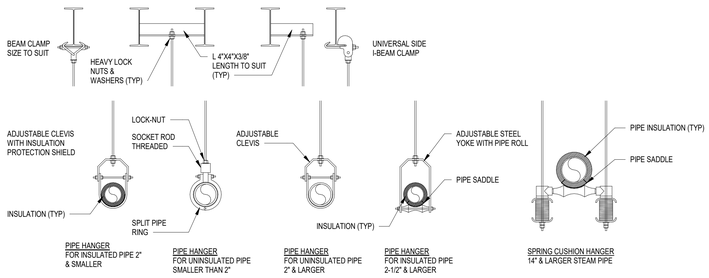
PIPE DIA "A"	SUPPORT PIPE DIA "B"
2"	1-1/2"
2-1/2"	1-1/2"
3"	1-1/2"
4"	2-1/2"
6"	2-1/2"
8"	3"
10"	4"
12"	6"
14"	6"
16"	6"
18"	6"

PIPE SUPPORT SCHEDULE

ROD DIAMETER SCHEDULE		
	ROD	
PIPE SIZE	DIAMETER	MAX. LOAD
2" & SMALLER	3/8"	610#
3"	1/2"	1130#
4"	5/8"	1810#
6"	3/4"	2710#
8", 10", &12"	7/8"	3770#
14" & 16"	1"	4960#
18"	1-1/4"	6230#
20"	1-1/4"	8000#
24"	1-1/2"	11630#

TABLE OF HORIZONTAL PIPE SUPPORT SPACINGS AND LOADINGS FOR FIELD FABRICATION FROM RANDOM MATERIAL				
PIPE SIZE	MAX. SPAN (FT)*	SINGLE PIPE LOAD		MINIMUM ROD SIZE
		WT. PER FT.	TOTAL	
3/4" & UNDER	5	2.0	10	3/8"
1"	7	2.6	19	3/8"
1-1/4"	8	3.6	29	3/8"
1-1/2"	9	4.5	41	3/8"
2"	10	6.1	61	3/8"
2-1/2"	11	9.7	107	1/2"
3"	12	12.9	155	1/2"
4"	14	18.9	265	5/8"
5"	16	27.6	442	5/8"
6"	17	36.4	620	3/4"
8"	19	56.3	1070	7/8"
10"	22	78.5	1726	7/8"
12"	23	109.4	2520	7/8"

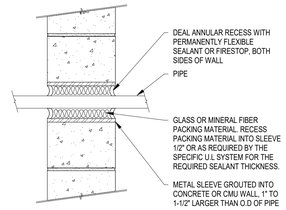
*REFER TO SPECIFICATIONS FOR SPECIFIC PIPE MATERIAL HANGER SPACING



DETAIL NOTES

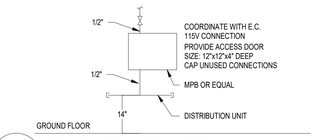
1. WEIGHTS ARE BASED UPON STANDARD STEEL PIPE, INSULATED AND FULL OF WATER.
2. REFER TO THE PIPE SUPPORT DETAIL FOR SUPPORT LOCATIONS.
3. ALL ADDITIONAL SUPPORTS NOT SHOWN SHALL BE LOCATED NEAR VALVES OR OTHER LARGE CONCENTRATED LOADS.
4. THE SPACING AND LOADING TABLE SHOWN ON THIS SHEET SHALL BE USED TO DETERMINE HANGER SPANS SO THAT THE SUM OF THE LONGITUDINAL STRESS IN PIPE CUASED BY PIPE WEIGHT AND INTERNAL PRESSURE DOES NOT EXCEED ALLOWABLE WORKING STRESS OF PIPE MATERIAL AT OPERATING TEMPERATURE.
5. CHECK ALL SUPPORTS UNDER OPERATING CONDITIONS DURNING INITIAL PERIODS OF OPERATION. MAKE ALL CHANGES AND ADJUSTMENTS AND ADD SUCH ADDITIONAL SUPPORTS, GUIDES AND BRACES REQUIRED TO PROVIDE INSTALLATION SATISFACTORY TO THE ENGINEER.
6. PROVIDE LOCK NUT AT ALL POINTS WHERE HANGER RODS ARE THREADED INTO TOP ATTACHMENTS, TURNBUCKLES, HANGERS, ETC.
7. FIGURE NUMBERS AS SHOWN PER ITT GRINNELL
8. ALL STRUCTURAL STEEL SHOWN ON THIS DRAWING OR ANY ADDITIONAL STEEL SUPPORTS, SHALL BE PROVIDED BY MECHANICAL CONTRACTOR.

2 / P5.02 PIPING SUPPORTS
SCALE: NONE

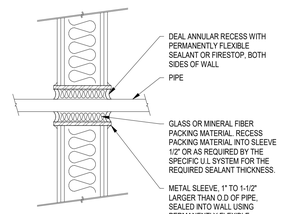


NOTES:
1. PIPE SHALL PENETRATE PERPENDICULARLY AT ACOUSTICALLY SENSITIVE ROOMS AND NOISE PRODUCING ROOMS.

3 / P5.02 PIPE THROUGH BLOCK WALL
SCALE: NONE

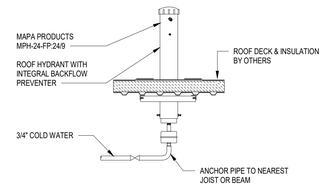


4 / P5.02 TRAP PRIMER DETAIL
SCALE: NONE



NOTES:
1. PIPE SHALL PENETRATE PERPENDICULARLY AT ACOUSTICALLY SENSITIVE ROOMS AND NOISE PRODUCING ROOMS.

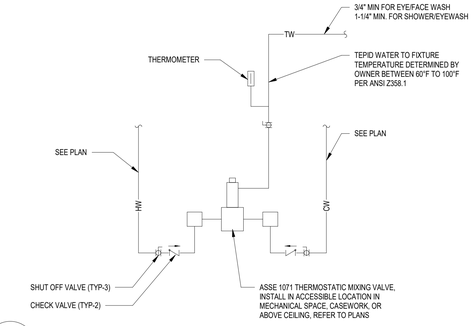
5 / P5.02 PIPE THROUGH FRAMED WALL
SCALE: NONE



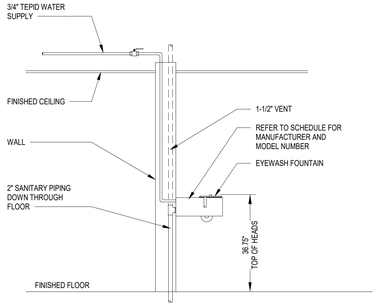
DETAIL NOTES

1. PRE-MOLDED PIPE SEAL CANNOT BE CUT VERTICALLY TO BE INSTALLED.
2. PRE-MOLDED PIPE SEAL MUST HAVE INTACT RIB AT THE TOP EDGE REGARDLESS OF PIPE DIAMETER.
3. WHEN PRE-MOLDED PIPE SEAL CANNOT BE INSTALLED, USE FIELD FABRICATED PIPE SEAL.
4. FOR BALLAST SYSTEMS, REPLACE BALLAST AFTER WORK IS COMPLETED.
5. FLANGE MUST BE SET BY ROOFER. COORDINATE WITH ROOFING CONTRACTOR.
6. NO DRAIN NECESSARY FOR MODEL.

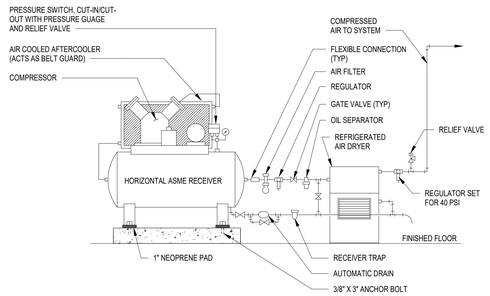
6 / P5.02 ROOF HYDRANT DETAIL
SCALE: NONE



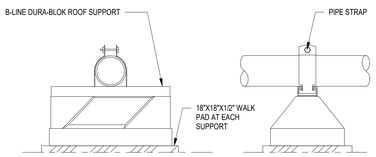
7 / P5.02 EMERGENCY FIXTURE TMV DIAGRAM
SCALE: NONE



8 / P5.02 EMERGENCY EYEWASH PIPING DETAIL
SCALE: NONE



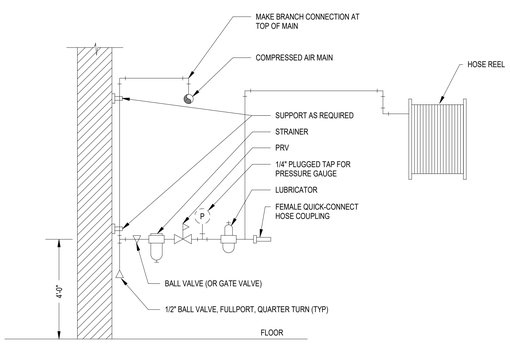
9 / P5.02 AIR COMPRESSOR DETAIL WITH AIR DRYER
SCALE: NONE



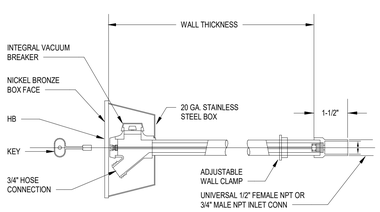
DETAIL NOTES

1. INSTALLATION SHALL BE PER MANUFACTURERS RECOMMENDATIONS.
2. WOOD BLOCK SUPPORTS ARE NOT ACCEPTABLE.
3. BLACK IRON PIPING SHALL BE PAINTED. (PAINTING OF GALVANIZED PIPING IS NOT REQ'D)

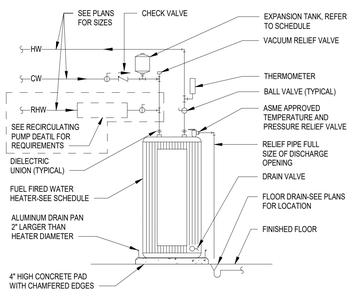
10 / P5.02 GAS PIPE ON ROOF SUPPORT DETAIL
SCALE: NONE



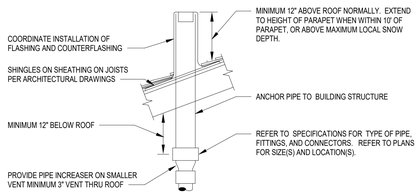
11 / P5.02 TYPICAL AIR COMPRESSED TOOL STATION
SCALE: NONE



12 / P5.02 HOSE BIBB DETAIL
SCALE: NONE



13 / P5.02 ELECTRICAL WATER HEATER DETAIL
SCALE: NONE



DETAIL NOTES

1. LOCATE VTR MINIMUM THREE FEET FROM PROPERTY LINE, TEN FEET FROM ANY BUILDING OPENING OR FRESH AIR INTAKE AND ONE FOOT FROM ANY VERTICAL SURFACE. REFER TO CODES FOR OTHER VENT TERMINATION REQUIREMENTS. LOCATE VTR MINIMUM 18" FROM ADJACENT WALL, ROOF PEAK, GUTTER, EXPANSION JOINT, EQUIPMENT CURB, OR OTHER ROOF FEATURE. OFFSET IN CEILING SPACE WHERE REQUIRED TO MEET THESE CONDITIONS. INSULATE LAST SIX FEET OF VENT PIPE INSIDE BUILDING PER SPECIFICATIONS.

14 / P5.02 VENT THROUGH SLOPED ROOF DETAIL
SCALE: NONE

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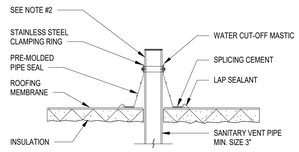
PLUMBING DETAILS

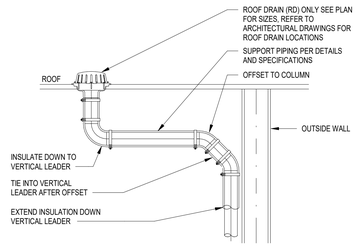
P5.02



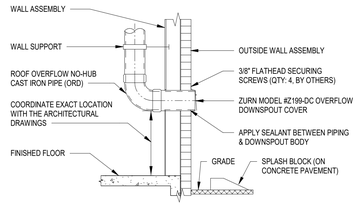
DETAIL NOTES

1. PRE-MOLDED PIPE SEAL CANNOT BE CUT VERTICALLY TO BE INSTALLED.
2. PRE-MOLDED PIPE SEAL MUST HAVE INTACT RIB AT THE TOP EDGE, REGARDLESS OF THE PIPE DIAMETER.
3. WHEN PRE-MOLDED PIPE SEAL CANNOT BE INSTALLED, USE FIELD FABRICATED PIPE SEAL.
4. FOR BALLAST SYSTEMS, REPLACE BALLAST AFTER WORK IS COMPLETED.
5. FLANGE MUST BE SET BY ROOFER. COORDINATE WITH ROOFING CONTRACTOR.
6. VENTS SHALL BE A MINIMUM OF 15'-0" FROM OUTSIDE AIT INTAKES.
7. DO NOT TRIM DECK FLANGE.

1 / P5.03 VENT THROUGH ROOF DETAIL
SCALE: NONE



2 / P5.03 ROOF & OVERFLOW DRAIN DETAIL
SCALE: NONE



3 / P5.03 STORM OVERFLOW OUTLET DETAIL
SCALE: NONE

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REV	DATE	DESCRIPTION
	09.23.2026	Issued for Permit

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E-77419
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LDA Project No.2026.11

PLUMBING DETAILS

P5.03

PLUMBING FIXTURE AND EQUIPMENT SCHEDULE

TAG	FIXTURE TYPE	STORM	SAN	VENT	HW	CW	MFR	MODEL No.	DESCRIPTION
BV-1	BALANCE VALVE (AUTOMATIC TYPE)	-	-	-	1/2"	-	CALEFFI	116441A(C)	THERMOSTATICALLY CONTROLLED ADJUSTABLE BALANCING VALVE SET TO 135 DEG F WITH INTEGRAL OUTLET THERMOMETER. LEAD FREE BRASS CONSTRUCTION. OTHER APPROVED MANUFACTURERS: THERMOMEGATECH, KEMPER.
FCO	FLOOR CLEANOUT	-	SEE PLANS	-	-	-	WADE	8000 SERIES	ADJUSTABLE CLEANOUT, DURA COATED CAST IRON BODY, ANCHOR FLANGE WITH FLASHING CLAMP, BRONZE PLUG, IF FLOORS ARE TILED OR TERRAZZO PROVIDE WITH EITHER NICKEL BRONZE OR CHROME FINISH, IF FLOORS ARE CARPETED PROVIDE WITH RECESSED TOP. CLEANOUTS ARE TO BE FLUSH WITH FINISHED FLOOR. OTHER APPROVED MANUFACTURERS: JOSAM, J.R. SMITH, MIFAB, SIOUX CHIEF, ZURN
EWS	EMERGENCY EYE WASH STATION	-	-	-	3/4"	3/4"	BRADLEY CORP.	S19224	EYE/FACE WASH, STAINLESS STEEL BOWL, PUSH LEVER ACTIVATION. ANSI/ISEA Z358.1 COMPLIANT, INSTALL UNIT PER THE MANUFACTURER'S REQUIREMENTS. PROVIDE WITH ASSE 1071 TMV, BRADLEY MODEL S19-2000 EFX8, BRONZE FINISH, SET TO 85 DEG F OUTLET TEMPERATURE (PC SHALL CONFIRM WITH OWNER'S SAFETY REPRESENTATIVE AND ADJUST AS REQUIRED. OTHER APPROVED MANUFACTURERS: HAWS, GUARDIAN, SPEAKMAN.
FD-1	FLOOR DRAIN (GENERAL SERVICE)	-	SEE PLANS	SEE PLANS	-	1/2"	WADE	1000-DC	FURNISH WITH DUCO CAST IRON BODY, SECURED NICKEL BRONZE STRAINER, SEDIMENT BUCKET. COORDINATE WITH THE ARCHITECT FOR SQUARE OR ROUND TYPE TOP. PROVIDE WITH TRAP PRIMER CONNECTION. OTHER APPROVED MANUFACTURERS: JOSAM, J.R. SMITH, MIFAB, SIOUX CHIEF, ZURN
FD-2	FLOOR DRAIN (HEAVY DUTY)	-	SEE PLANS	SEE PLANS	-	-	ZURN	Z675	FURNISH WITH DUCO CAST IRON BODY, SEEPAGE PAN, VERTICALLY ADJUSTABLE FOUR POSITION FRAME FOR FOR DURESIST EXTRA HEAVY-DUTY LOOSE SLOTTED GRATE WITH SUSPENDED SEDIMENT BUCKET. OTHER APPROVED MANUFACTURERS: JOSAM, J.R. SMITH, MIFAB, SIOUX CHIEF, WADE
FPHB	NON-FREEZE HOSE BIBB WITH BOX	-	-	-	-	3/4"	WADE	8701	NON-FREEZE HOSE BIBB WITH INTEGRAL VACUUM BREAKER AND STAINLESS STEEL RECESSED BOX WITH KEYED LOCKING MECHANISM. CONTRACTOR TO ORDER PROPER LENGTH HYDRANT REQUIRED BASED ON WALL THICKNESS. COORDINATE BOX FACE FINISH WITH ARCHITECT. OTHER APPROVED MANUFACTURERS: J.R. SMITH, PRIER, WOODFORD, ZURN
HS-1	HAND SINK	-	1-1/2"	1-1/2"	1/2"	1/2"	ELKAY	EWMA4820	48"X20"X8" WALL HUNG MULTIPLE STATION HAND WASH SINK 14 GAUGE 304 STAINLESS STEEL, CENTER DRAIN PLACEMENT. (2) FAUCETS SHALL BE ELKAY MODEL LKB722C COMMERCIAL ELECTRONIC SENSOR SCRUB/HANDWASH BATTERY POWERED WALL MOUNT FAUCET, CHROME CONSTRUCTION, 1.5 GPM. PROVIDE WITH ASSE 1070 BELOW DECK
HB	HOSE BIBB	-	-	-	-	3/4"	WADE	8605	INTERIOR/MILD CLIMATE HOSE BIBB WITH INTEGRAL VACUUM BREAKER AND KEYED LOCKING MECHANISM ON HANDLE, BRONZE AND STAINLESS STEEL BODY WITH CHROME PLATED FINISH. 125 PSI PRESSURE RATING AND 140 DEG F TEMPERATURE RATING. OTHER APPROVED MANUFACTURERS: J.R. SMITH, PRIER, WOODFORD, ZURN
L-1	UNDER-MOUNT LAVATORY	-	1-1/2"	1-1/2"	1/2"	1/2"	AMERICAN STANDARD	9482.000	"OVALYN" UNDER MOUNT, VITREOUS CHINA, OVAL LAVATORY WITH UNGLAZED RIM, 19-1/4" X 15-3/4", WHITE FINISH. CHROME-PLATED SUPPLY ASSEMBLIES WITH LOOSE KEY STOPS. BRASS TAILPIECE WITH CHROME-PLATED GRID STRAINER, BRASS P-TRAP AND TRAP ARM ASSEMBLY. FAUCET SHALL BE ZURN MODEL ZG6950-N, HYDROPOWERED BATTERY OPERATED, GEAR DRIVEN SENSOR FAUCET, 0.5 GPM FLOW RATE, CHROME PLATED FINISH. PROVIDE TRAP AND SUPPLY PROTECTIVE INSULATOR BROCAR 500R VANDAL RESISTANT PVC. PROVIDE WITH TMV-1 SET TO 105 DEG F OUTLET TEMPERATURE. OTHER APPROVED LAVATORY MANUFACTURERS: KOHLER. OTHER APPROVED FAUCET MANUFACTURERS: SLOAN, TOTO
L-2	WALL HUNG LAVATORY (STANDARD)	-	1-1/2"	1-1/2"	1/2"	1/2"	AMERICAN STANDARD	0356.421	"LUCERNE" WALL HUNG VITREOUS CHINA LAVATORY, 20-1/2" x 18-1/4", WHITE FINISH, SINGLE FAUCET HOLE. CHROME-PLATED SUPPLY ASSEMBLIES WITH LOOSE KEY STOPS. BRASS TAILPIECE WITH CHROME-PLATED GRID STRAINER, BRASS P-TRAP AND TRAP ARM ASSEMBLY. FAUCET SHALL BE ZURN MODEL Z6950-XL-S, BATTERY POWERED SENSOR FAUCET, 0.5 GPM SPRAY OUTLET, CHROME PLATED FINISH. PROVIDE TRAP AND SUPPLY PROTECTIVE INSULATOR BROCAR 500R VANDAL RESISTANT PVC. PROVIDE WITH TMV-1 SET TO 105 DEG F OUTLET TEMPERATURE. PROVIDE WITH ZURN MODEL Z1231EZ WALL CARRIER. REFER TO ARCHITECTURAL DRAWINGS FOR INSTALLATION HEIGHT. OTHER APPROVED LAVATORY MANUFACTURERS: KOHLER. OTHER APPROVED FAUCET MANUFACTURERS: SLOAN, TOTO.
IMB	ICE MAKER OUTLET BOX	-	-	-	-	1/2"	OATEY	38608	ICE MAKER OUTLET BOX WITH 1/4 TURN MIP VALVE AND MOUNTED WATER HAMMER ARRESTOR.
MS-1	MOP SINK	-	3"	1-1/2"	1/2"	1/2"	FIAT	MSB2424	24" X 24" X 10" HIGH, MOLDED STONE MOP SINK WITH VINYL BUMPER GUARDS E-77-AA ON ALL CURBS. PROVIDE MOP SINK WITH 832-AA HOSE AND HOSE BRACKET AND 889-CC MOP HANGER. FAUCET SHALL BE CHICAGO FAUCET 897 WITH BACK SUPPLIES ON ADJUSTABLE CENTERS, INTEGRAL VACUUM BREAKER, AND A POLISHED CHROME FINISH.
ORD-1 & RD-1	OVERFLOW AND PRIMARY ROOF DRAIN ON DECK PLATE	SEE PLANS	-	-	-	-	WADE	3041	16-3/8" DIAMETER ROOF AND OVERFLOW DRAIN ON DECK PLATE, DUCO CAST IRON BODY WITH NO HUB OUTLET AND ADJUSTABLE EXTENSION SLEEVE, REVERSIBLE COLLAR, COMBINED FLASHING CLAMP AND GRAVEL STOP, SUMP RECEIVER, 2" WATER DAM ON OVERFLOW DRAIN, UNDERDECK CLAMP AND ALUMINUM DOME. OTHER APPROVED MANUFACTURERS: JOSAM, J.R. SMITH, ZURN
OSO-1	OVERFLOW STORM OUTLET NOZZLE (SQUARE WITH HINGED COVER)	SEE PLANS	-	-	-	-	WADE	3942	SQUARE DOWNSPOUT NOZZLE WITH SLOTTED HINGED GRATE COVER, STAINLESS STEEL CONSTRUCTION AND FINISH. PIPE CONNECTION SIZE SHALL BE SAME SIZE AS OVERFLOW PIPING SHOWN ON DRAWINGS. OTHER APPROVED MANUFACTURERS: JOSAM, J.R. SMITH, ZURN
RH-1	ROOF HYDRANT	-	-	-	-	3/4"	MAPA	MPH-24FP	COLD CLIMATE DRAINLESS ROOF HYDRANT, STAINLESS STEEL FINISH, VANDAL PROOF OPERATION, VACUUM BREAKER, 125 PSI MAX PRESSURE, AND 3/4" HOSE CONNECTION.
S-1	SINGLE BOWL SINK	SEE PLANS	1-1/2"	1-1/2"	1/2"	1/2"	ELKAY	LR1720	"LUSTERTONE", 17" x 20", 18 GAUGE-TYPE 302 STAINLESS STEEL SINGLE COMPARTMENT SINK WITH A SINGLE FAUCET HOLE, 14" X 14" X 7-5/8" DEEP COMPARTMENT WITH A 3-1/2" DRAIN OPENING. FAUCET SHALL BE ELKAY LKD2223 FAUCET AND LK-35 STRAINER/DRAIN FITTING. PROVIDE CHROME SUPPLIES, SERVICE STOPS AND 1-1/2" P-TRAP WITH CLEANOUT. PROTECT TRAP AND SUPPLIES WITH A TRAP WRAP KIT 500R AS MANUFACTURED BY BROCAR PRODUCTS INC. PROVIDE WITH TMV-1 SET TO 110°F OUTLET TEMPERATURE. OTHER APPROVED SINK BOWL MANUFACTURERS: JUST, AMERICAN STANDARD.
S-2	SINGLE BOWL SINK	-	1-1/2"	1-1/2"	1/2"	1/2"	ELKAY	LR1720	"LUSTERTONE", 17" x 20", 18 GAUGE-TYPE 302 STAINLESS STEEL SINGLE COMPARTMENT SINK WITH A SINGLE FAUCET HOLE, 14" X 14" X 7-5/8" DEEP COMPARTMENT WITH A 3-1/2" DRAIN OPENING. FAUCET SHALL BE *ELKAY LKD2223 FAUCET AND LK-35 STRAINER/DRAIN FITTING*. PROVIDE CHROME SUPPLIES, SERVICE STOPS AND 1-1/2" P-TRAP WITH CLEANOUT. PROTECT TRAP AND SUPPLIES WITH A TRAP WRAP KIT 500R AS MANUFACTURED BY BROCAR PRODUCTS INC. PROVIDE WITH TMV-1 SET TO 110°F OUTLET TEMPERATURE. OTHER APPROVED SINK BOWL MANUFACTURERS: JUST, AMERICAN STANDARD.
TD-1	TRENCH DRAIN	-	SEE PLANS	SEE PLANS	-	-	ZURN	Z886-8606-HD-DGE	TRENCH DRAIN, ZURN PERMA TRENCH SYSTEM, 6-3/4 INCH WIDE HIGH DENSITY POLYETHYLENE (HDPE) PRE-SLOPED MODULAR CHANNELS, 144 INCH WITH RADIUSED BUTTOM, 6-3/4" WIDE DUCTILE IRON FRAME AND SLOTTED GRATE (LOAD CLASS E), INTEGRAL REBAR CLIPS.
TP-1	TRAP PRIMER (UNDER LAV FLOW THROUGH ACTIVATED)	-	-	-	-	1/2"	PPP INC	PRO1-ULP500	UNDER-LAV AUTOMATIC TRAP PRIMER, CHROME PLATED FINISH, 1/2" INLET, 1/2" OUTLET TO FLOOR DRAIN WITH ESCUTCHEON, 3/8" OUTLET TO LAV COLD WATER SUPPLY. ASSE 1018 CERTIFIED.
TP-2	TRAP PRIMER (ELECTRONIC TYPE)	-	-	-	-	1/2"	PPP INC	MPB-500-115	ELECTRONIC TYPE AUTOMATIC TRAP PRIMER, 120V/1PH POWER INPUT, PLASTIC BOX ENCLOSURE, BRASS CONSTRUCTION, 1/2" INLET, 1/2" OUTLET TO FLOOR DRAIN. ASSE 1044 CERTIFIED.
TMV-1	THERMOSTATIC MIXING VALVE	-	-	-	1/2"	1/2"	CASH ACME	HG135	POINT OF USE ASSE 1070 RATED THERMOSTATIC MIXING VALVE, OUTLET TEMPERATURE: 110°F AT NON-PUBLIC BACK OF HOUSE HANDSINKS AND 105 DEG F AT PUBLIC LAVS AND 110° F AT SINKS, 3/8" COMPRESSION RINGS, NICKEL PLATED. INSTALLED AT ALL SINGLE COMPARTMENT BAR SINKS, DUMP SINKS, HANDWASH SINKS AND LAVS. OTHER APPROVED MANUFACTURERS: BRADLEY CORPORATION, CALEFFI, WATTS, LAWLER, LEONARD, ZURN, POWERS.
U-1	WALL MOUNTED URINAL WITH BATTERY POWERED SENSOR FLUSH VALVE	-	2"	1-1/2"	-	3/4"	ZURN	Z5755-U	"ECOVANTAGE" WALL HUNG, TOP SPUD, VITREOUS CHINA 0.125 GPF - 1.0 GPF WASHOUT URINAL, WHITE FINISH, ASYMMETRIC BACKWALL. FLUSHOMETER SHALL BE ZURN MODEL ZTR8203-EWS, BATTERY POWERED SENSOR OPERATED, 0.5 GPF, CHROME PLATED, WITH MANUAL OVERRIDE BUTTON. PROVIDE APPROPRIATE URINAL CARRIER AND ALL REQUIRED HARDWARE. MOUNTING HEIGHT AS DETAILED ON THE ARCHITECTURAL DRAWINGS. OTHER APPROVED URINAL MANUFACTURERS: AMERICAN STANDARD, KOHLER, GERBER, SLOAN, TOTO. OTHER APPROVED FLUSH VALVE MANUFACTURERS: AMERICAN STANDARD, SLOAN, TOTO, DELANEY.
W-1	WALL MOUNTED SENSOR FLUSH VALVE WATER CLOSET	-	3"	2"	-	1"	AMERICAN STANDARD	2257.103	"AFWALL" 1.6 ELONGATED FLUSH VALVE TOILET" SEAT SHALL BE WHITE OPEN FRONT SEAT WITH STAINLESS STEEL POSTS AND SLOW CLOSE OPERATION. FLUSH VALVE SHALL BE ZURN MODEL ZTR6200-WS1, 1.6 GPF, CHROME PLATED, BATTERY OPERATED SENSOR ACTIVATED. PROVIDE APPROPRIATE WATER CLOSET CARRIER WITH ALL REQUIRED HARDWARE. MOUNTING HEIGHT SHALL BE STANDARD HEIGHT AS SHOWN ON ARCHITECTURAL RESTROOM DETAILS. OTHER APPROVED WATER CLOSET MANUFACTURERS: KOHLER, GERBER, SLOAN, TOTO, ZURN. OTHER APPROVED FLUSH VALVE MANUFACTURERS: AMERICAN STANDARD, HYDROTEK, SLOAN, TOTO.
W-2	WALL MOUNTED SENSOR FLUSH VALVE WATER CLOSET (ADA)	-	3"	2"	-	1"	AMERICAN STANDARD	2257.103	"AFWALL" 1.6 ELONGATED FLUSH VALVE TOILET" SEAT SHALL BE WHITE OPEN FRONT SEAT WITH STAINLESS STEEL POSTS AND SLOW CLOSE OPERATION. FLUSH VALVE SHALL BE ZURN MODEL ZTR6200-WS1, 1.6 GPF, CHROME PLATED, BATTERY OPERATED SENSOR ACTIVATED. PROVIDE APPROPRIATE WATER CLOSET CARRIER WITH ALL REQUIRED HARDWARE. MOUNTING HEIGHT SHALL BE ADA HEIGHT AS SHOWN ON ARCHITECTURAL RESTROOM DETAILS. OTHER APPROVED WATER CLOSET MANUFACTURERS: KOHLER, GERBER, SLOAN, TOTO, ZURN. OTHER APPROVED FLUSH VALVE MANUFACTURERS: AMERICAN STANDARD, HYDROTEK, SLOAN, TOTO.
WCO	WALL CLEAN OUT	-	SEE PLANS	-	-	-	J.R. SMITH	4400 SERIES	THREADED CLEANOUT PLUG WITH FERRULE AND ROUND ACCESS COVER WITH EITHER NICKEL BRONZE OR CHROME FINISH. OTHER APPROVED MANUFACTURERS: JOSAM, MIFAB, WADE, ZURN.

BUILDING GAS LAD SUMMARY

TAG	LOAD (CFH)
WH-1	76
F/CC-1	80
F/CC-2	100
F/CC-3.1	100
F/CC-3.2	100
F/CC-4	80
IRH-1A	85
IRH-1B	85
IRH-2A	75
IRH-2B	75
GUH-1	30
HV-1-A	300
HV-1-B	300
HV-1-C	300
HV-1-D	300
PRESSURE WASHER	507
TOTAL	2593

REMARKS:
BUILDING GAS SYSTEM DESIGNED TO BE 2 PSI DESIGNED FOR 1 PSI PRESSURE DROP ACROSS ENTIRE SYSTEM USING LONGEST LENGTH SIZING METHOD. LONGEST LENGTH IS 800 FT. GAS PIPING SIZED PER THE 2021 OHIO FUEL GAS CODE, TABLE 402.4(5) AND TABLE 402.4(2) DOWNSTREAM OF PRESSURE REGULATORS.

GAS PRESSURE REDUCING VALVE SCHEDULE

TAG	LOCATION	SERVICE	PIPE SIZE (IN)	CONNECTED LOAD (CFH)	INLET PRESSURE (PSIG)	OUTLET PRESSURE (" WC)	BASIS OF DESIGN		REMARKS
							MANUFACTURER	MODEL	
GPRV-1	JANITOR CLOSET	WH-1	3/4"	76	2	7	MAXITROL	325-3L	1, 3
GPRV-2	MEZZANINE	F/CC-1	3/4"	80	2	7	MAXITROL	325-3L	1, 3
GPRV-3	MEZZANINE	F/CC-2	3/4"	100	2	7	MAXITROL	325-3L	1, 3
GPRV-4	MEZZANINE	F/CC-3.1	3/4"	100	2	7	MAXITROL	325-3L	1, 3
GPRV-5	MEZZANINE	F/CC-3.2	3/4"	100	2	7	MAXITROL	325-3L	1, 3
GPRV-6	MEZZANINE	F/CC-4	3/4"	80	2	7	MAXITROL	325-3L	1, 3
GPRV-7	WASH BUILDING	IRH-1A	3/4"	75	2	7	MAXITROL	325-3L	1, 3
GPRV-8	WASH BUILDING	IRH-1B	3/4"	75	2	7	MAXITROL	325-3L	1, 3
GPRV-9	WASH BUILDING	IRH-1C	3/4"	75	2	7	MAXITROL	325-3L	1, 3
GPRV-10	WASH BUILDING	IRH-1D	3/4"	75	2	7	MAXITROL	325-3L	1, 3
GPRV-11	WATER ROOM	GUH-1	3/4"	30	2	7	MAXITROL	325-3L	1, 3
GPRV-12	MAIN BUILDING ROOF	HV-1-A	3/4"	300	2	7	MAXITROL	325-5L	2, 3
GPRV-13	MAIN BUILDING ROOF	HV-1-B	3/4"	300	2	7	MAXITROL	325-5L	2, 3
GPRV-14	MAIN BUILDING ROOF	HV-1-C	3/4"	300	2	7	MAXITROL	325-5L	2, 3
GPRV-15	MAIN BUILDING ROOF	HV-1-D	3/4"	300	2	7	MAXITROL	325-5L	2, 3
GPRV-16	WASH BUILDING	PRESSURE WASHER	1"	507	2	7	MAXITROL	325-7AL	1, 3

REMARKS:
1. PROVIDE WITH VENT LIMITER DEVICE.
2. PROVIDE WITH VENT PROTECTOR DEVICE.
3. OTHER APPROVED MANUFACTURERS: FISHER, EMERSON, PIETRO FIORENTINI, SENSUS

BACKFLOW PREVENTER SCHEDULE

TAG	TYPE	LOCATION	SERVICE	ASSE NUMBER	SIZE (IN)	BASIS OF DESIGN		REMARKS
						MANUFACTURER	MODEL	
BFP-1	REDUCED PRESSURE ZONE	WATER ROOM	WATER SERVICE	1013	3	WATTS	4000SS	1, 2
BFP-2	DUAL CHECK	BREAK ROOM	BEVERAGE APPLIANCES	1022	3/8	WATTS	SD3	1
BFP-3	PRESSURE VACUUM BREAKER	SERVICE SHOP	HAND WASHING SINK	1056	1/2	WATTS	LF008PCQT	1

REMARKS:
1. PROVIDE WITH LEAD FREE BODY.
2. PROVIDE WITH RELIEF PORT INDIRECT WASTE FITTING PIPED INDIRECTLY TO FLOOR DRAIN.

GAS FIRED DOMESTIC WATER HEATER SCHEDULE

TAG	LOCATION	TYPE	FUEL TYPE	INLET WATER TEMPERATURE (°F)	STORAGE TEMPERATURE SETPOINT (°F)	INPUT (MBH)	OPERATING GAS PRESSURE / RANGE ("WC)	RECOVERY AT 100°F TEMPERATURE RISE (GPH)	EFFICIENCY %	TANK VOLUME (GAL)	DRY WEIGHT (LBS)	MAXIMUM WORKING PRESSURE (PSI)	ELECTRICAL		BASIS OF DESIGN		REMARKS
													V/PH	FLA	MANUFACTURER	MODEL	
WH-1	JANITOR CLOSET	STORAGE	NATURAL GAS	45	140	76,000	3.5-10	80	80	50	290	150	120	15	BRADFORD WHITE	LC2PDV50H763N	1-4

REMARKS:
1. PROVIDE WITH CONDENSATE NEUTRALIZATION KIT.
2. PROVIDE WITH UL 1738 OR ULC S636 LISTED CONCENTRIC VENT KIT.
3. FLUE PIPE MATERIAL SHALL BE UL 1738 OR ULC S636 LISTED.
4. APPROVED MANUFACTURERS: A.O. SMITH, AMERICAN, STATE, RHEEM, LOCHINVAR

EXPANSION TANK SCHEDULE

TAG	LOCATION	SERVICE	APPROXIMATE SYSTEM VOLUME (GAL)	TANK VOLUME - GROSS (GAL)	ACCEPTANCE VOLUME - NET (GAL)	MAXIMUM PRESSURE (PSIG)	SHIPPING WEIGHT (LBS)	BASIS OF DESIGN		REMARKS
								MANUFACTURER	MODEL	
ET-1	JANITORY CLOSET	WH-1	75	6.4	3.2	150	26	AMTROL	ST-12C-DD	1,2,3
ET-2	JANITORY CLOSET	WH-2	45	6.4	3.2	150	26	AMTROL	ST-12C-DD	1,2,3

REMARKS:
1. CONTRACTOR SHALL MEASURE THE PRESSURE IN THE SYSTEM AT THE POINT OF INSTALLATION AND ADJUST THE TANK CHARGE PRESSURE TO MATCH THE MEASURED PRESSURE IN THE SYSTEM.
2. TANK SHALL BE ASME RATED.
3. OTHER APPROVED MANUFACTURERS: BELL & GOSSETT, ELBI, TACO, WESSELS

ELECTRIC DOMESTIC WATER HEATER SCHEDULE

TAG	LOCATION	TYPE	INLET WATER TEMPERATURE (°F)	STORAGE TEMPERATURE SETPOINT (°F)	INPUT PER ELEMENT (KW)	NUMBER OF ELEMENTS	RECOVERY AT 100°F TEMPERATURE RISE (GPH)	OUTLET TEMPERATURE (°F)	TANK VOLUME (GAL)	DRY WEIGHT (LBS)	MAXIMUM WORKING PRESSURE (PSI)	ELECTRICAL		BASIS OF DESIGN		REMARKS
												V/PH	FLA	MANUFACTURER	MODEL	
WH-2	WASH BUILDING	STORAGE	45	140	4.5	2	36	140	30	109	150	480/3	10.8	BRADFORD WHITE	LE330S3-3	1,2,3

REMARKS:
1. PROVIDE DRAIN PAN BELOW WATER HEATER.
2. UNIT TO BE PROVIDED WITH (2) 4.5 KW HEATING ELEMENTS, WHICH WILL OPERATE SIMULTANEOUSLY.
3. APPROVED MANUFACTURERS: A.O. SMITH, AMERICAN, STATE, RHEEM, LOCHINVAR

PUMP SCHEDULE

TAG	LOCATION	SERVICE	TYPE	RPM	FLUID TEMPERATURE (°F)	CONNECTION SIZE (IN)	FLOW (GPM)	HEAD (FT)	MOTOR	ELECTRICAL DATA		BASIS OF DESIGN		REMARKS
									WATTS	V / PH	FLA	MANUFACTURER	MODEL	
RP-1	JANITOR CLOSET	DOM. HOT WATER	CIRCULATOR	3300	140	1	5	28	270	120 / 1	2.3	BELL & GOSSETT	NBF-36	1,2,3
RP-2	JANITOR CLOSET	DOM. HOT WATER	CIRCULATOR	2950	140	1	2	17	125	120 / 1	1.1	BELL & GOSSETT	NBF-25	1,2,3

REMARKS:
1. PROVIDE LEAD FREE BRONZE BODY.
2. PROVIDE WITH AQUASTAT SET TO 135 DEG F AND TIME CLOCK SET TO OWNER'S PREFERRED HOURS OF OPERATION.
3. OTHER APPROVED MANUFACTURERS: TACO, GRUNDFOS, WILO

INTERCEPTOR SCHEDULE

TAG	LOCATION	SERVICE	FLOOR AREA DRAINED (SF)	TOTAL LIQUID VOLUME (GAL)	FLOW RATE (GPM)	INSTALLATION TYPE	INLET / OUTLET SIZE (IN)	DIMENSIONS L x W x H (IN)	MATERIAL	BASIS OF DESIGN		REMARKS
										MANUFACTURER	MODEL	
OI-1	OUTSIDE	WASH BUILDING	13600	1500	314	BURIED	6	132 X 67-3/4 X 90	POLYETHYLENE	STRIEM	OT-1500-SS	1

REMARKS:
1. OTHER APPROVED MANUFACTURERS: ZURN

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REV	DATE	DESCRIPTION
	09.23.2026	Issued for Permit

STATE OF OHIO
NICHOLAS D. GINGERICH
E-77419
REGISTERED
PROFESSIONAL ENGINEER
09/22/2026

DRAWN BY: JAD CHECKED BY: MPW

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DO NOT SCALE DRAWINGS

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MIAMISBURG - CAT
RENTAL FACILITY
490 BYERS ROAD, MIAMISBURG, OHIO 45342

LDA Project No.2026.11

PLUMBING SCHEDULES

P6.01

PLUMBING SPECIFICATIONS

1. GENERAL PROVISIONS

A. GENERAL CONDITIONS, CODES & STANDARDS

1. THE PLUMBING CONTRACTOR IS RESPONSIBLE FOR PROVIDING PRODUCTS, MATERIALS, AND INSTALLATION PER THESE SPECIFICATIONS FOR ALL PRODUCTS, MATERIALS, AND COMPONENTS LISTED. PROVIDING LESSER QUALITY PRODUCTS OR MATERIALS FROM WHAT IS LISTED WITHIN THESE SPECIFICATIONS AND CONTRACT DOCUMENTS WILL NOT BE APPROVED.
2. MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED AGAINST DEFECTS FOR A PERIOD OF ONE YEAR STARTING FROM THE MUTUALLY AGREED UPON DATE OF SUBSTANTIAL COMPLETION.
3. REFER TO ALL OTHER DRAWINGS AND SPECIFICATIONS AND BE RESPONSIBLE FOR ALL APPLICABLE PROVISIONS THEREIN. FURNISH AND INSTALL ALL NECESSARY LABOR AND MATERIALS FOR A COMPLETE SYSTEM. ANY APPLIANCES OR MATERIALS OBVIOUSLY A PART OF THE SYSTEM AND NECESSARY FOR ITS PROPER OPERATION, ALTHOUGH NOT SPECIFICALLY MENTIONED HEREIN, SHALL BE FURNISHED AND INSTALLED AS IF CALLED FOR IN DETAIL.
4. ALL WORK SHALL BE IN CONFORMANCE WITH ALL FEDERAL, STATE AND LOCAL CODES AND ORDINANCES INCLUDING THE BUILDING CODE AND ANY SPECIAL OWNER REQUIREMENTS IN ADDITION TO THOSE SPECIFIED. ATTAIN AND PAY FOR ALL REQUIRED PERMITS AND FEES. EQUIPMENT AND MATERIALS SHALL BE NEW, UNLESS OTHERWISE SPECIFIED.
   APPLICABLE CODES AND STANDARDS:
   a. OHIO BUILDING CODE, 2024 EDITION.
   b. OHIO PLUMBING CODE, 2024 EDITION.
   c. INTERNATIONAL FUEL GAS CODE, 2021 EDITION.
   d. INTERNATIONAL ENERGY CONSERVATION CODE, 2021 EDITION.
   e. ALL OTHER ADOPTED FEDERAL, STATE AND LOCAL CODES OR ORDINANCES.
1. DRAWINGS ARE GENERALLY DIAGRAMMATIC AND REPRESENT A GEOMETRIC RELATIONSHIP BETWEEN PIPING, EQUIPMENT, FIXTURES, AND COMPONENTS; THEY DO NOT NECESSARILY SHOW EVERY FITTING, OFFSET, DROP AND RISE OR RUNS AND DETAIL. THE PLUMBING CONTRACTOR IS RESPONSIBLE FOR FINAL FIELD COORDINATION OF THE PLUMBING SYSTEM WITH ALL OTHER CONTRACTORS. DO NOT SCALE DRAWINGS.
2. INSTALL EQUIPMENT AND CONTROLS IN A NEAT, WORKMANLIKE MANNER AND IN ACCORDANCE WITH GOOD PRACTICE FOR A COMPLETE, WORKABLE INSTALLATION. AVOID CONFLICT WITH LOCATIONS OF FIXTURES, APPARATUS, DUCTWORK AND PIPING, AND WHILE THESE DRAWINGS ARE TO BE FOLLOWED AS CLOSELY AS POSSIBLE, IF IT IS NECESSARY TO CHANGE THE LOCATION OF SAME TO ACCOMMODATE BUILDING CONDITIONS, MAKE CHANGES WITHOUT ADDITIONAL COST TO THE OWNER AND AS APPROVED BY THE ARCHITECT.
3. PROVIDE ADEQUATE ACCESS TO THE EQUIPMENT AND APPARATUS REQUIRING OPERATION, SERVICE OR MAINTENANCE WITHIN THE LIFE OF THE EQUIPMENT AND THE SYSTEM. ALL BACKFLOW PREVENTION DEVICES SHALL BE INSTALLED AT AN ACCESSIBLE AND SERVICEABLE ELEVATION AND NOT ABOVE CEILINGS.
4. DO NOT RUN PIPING OR LOCATE EQUIPMENT (WITH RESPECT TO SWITCHBOARDS, PANEL BOARDS, POWER PANELS, MOTOR CONTROL CENTERS OR DRY TYPE TRANSFORMERS) WITHIN 42 INCHES OF FRONT OF EQUIPMENT, OVER EQUIPMENT, OR WITHIN 36 INCHES HORIZONTALLY OF THAT SAME SPACE.
5. PLUMBING CONTRACTOR SHALL PROVIDE START-UP OF ALL SYTEMS AND EQUIPMENT AND TRAIN OWNER'S REPRESENTATIVE ON OPERATION OF SYSTEMS AND EQUIPMENT. THE PLUMBING CONTRACTOR SHALL ENGAGE A FACTORY AUTHORIZED REPRESENTATIVE TO PERFORM START-UP OF ALL MAJOR EQUIPMENT SUCH HAS WATER HEATERS WITH STORAGE CAPACITY OVER 40 GALLONS OR GAS INPUT OVER 100,000 BTUH. START-UP REPORTS OF EQUIPMENT AND SYSTEMS SHALL BE PROVIDED TO OWNER BEFORE CONSTRUCTION CLOSE-OUT.
6. SEAL AROUND ALL PIPES PENETRATING FIRE WALLS, SMOKE WALLS OR FLOORS IN ACCORDANCE WITH THE GENERAL TRADE'S SPECIFICATIONS.
7. PROVIDE WATER HAMMER ARRESTERS ON HOT AND COLD WATER PIPING IN ACCORDANCE WITH PLUMBING AND DRAINAGE INSTITUTE (PDI) STANDARD PDI-WH-201. REFER TO PLUMBING SYMBOL LEGEND FOR ADDITIONAL DETAILS.
8. PROVIDE QUARTER-TURN BRASS SUPPLY STOP SHUT-OFF VALVES AT EACH PLUMBING FIXTURE.
9. PROVIDE CORROGATED STAINLESS STEEL FLEXIBLE HOSES FROM SUPPLY STOP SHUT-OFF VALVES TO EACH PLUMBING FIXTURE UNLESS NOTED OTHERWISE.
10. PROVIDE CHROME PLATED BRASS TAILPIECE AND P-TRAP
11. FITTINGS FOR ALL LAVS AND SINKS WITH ADA COVERS AS REQUIRED AT EACH LOCATION.

B. DOCUMENTS

1. THE CONTRACT DOCUMENTS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENTS OR GEOMETRICAL RELATIONSHIPS OF EQUIPMENT AND SERVICES. THEY ARE NOT INTENDED TO SPECIFY OR SHOW EVERY OFFSET, SEQUENCE, DEVICE, OPTION, FITTING, OR COMPONENT. DO NOT SCALE CONTRACT DRAWINGS. ALL WORK SHALL BE PERFORMED AS INDICATED ON THE DRAWINGS UNLESS EXISTING CONDITIONS OR COORDINATION ISSUES REQUIRE CHANGES. THESE CHANGES SHALL BE MADE WITH NO ADDITIONAL COST TO THE OWNER.
2. ANY INCIDENTAL ITEMS OR LABOR, ETC. NOT INCLUDED IN THE SPECIFICATIONS OR THE DRAWINGS BUT REASONABLY IMPLIED AS NECESSARY FOR THE COMPLETE INSTALLATION OF ALL APPARATUS SHALL BE INCLUDED IN BID.
3. THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO SUPPLEMENT EACH OTHER AND ANY MATERIAL OR LABOR CALLED FOR IN ONE SHALL BE FURNISHED EVEN THOUGH NOT MENTIONED IN BOTH.
4. IF ERRORS ARE FOUND IN THE DRAWINGS OR SPECIFICATIONS OR DISCREPANCIES OCCUR BETWEEN THE SAME, OR BETWEEN THE FIGURES ON THE DRAWINGS, AND THE SCALE OF SAME OR BETWEEN THE LARGER AND SMALLER DRAWINGS, OR IN THE DESCRIPTIVE MATTER ON THE DRAWINGS SHALL BE REFERRED TO THE OWNER FOR REVIEW AND FINAL DECISION PRIOR TO THE BID DUE DATE.
5. THE BIDDING OF THIS WORK WILL CONTEMPLATE THE USE OF EQUIPMENT AND MATERIALS EXACTLY AS SPECIFIED HEREIN. WHERE MORE THAN ONE MANUFACTURER IS MENTIONED, ANY ONE MAY BE UTILIZED. SUBSTITUTE MANUFACTURERS MAY BE OFFERED ONLY AS AN ALTERNATE TO THE SPECIFIED EQUIPMENT AND MATERIAL AND MUST BE SUBMITTED AS SPECIFIED IN THE ARCHITECTURAL DOCUMENTS.
6. MISCELLANEOUS ITEMS NECESSARY TO COMPLETE THE SYSTEMS CAN BE OF ANY RECOGNIZED MANUFACTURE PROVIDED. THESE ITEMS MEET MINIMUM STANDARDS AS SET IN THESE SPECIFICATIONS. REFER TO EACH SECTION FOR ANY SPECIFIC REQUIREMENTS.

C. SUBMITTALS

1. PREPARE SHOP DRAWINGS AND PRODUCT DATA FOR PLUMBING EQUIPMENT WITH ADEQUATE DETAILS AND SCALES AS NECESSARY TO CLEARLY SHOW CONSTRUCTION. INDICATE THE OPERATING CHARACTERISTICS AND DESIGN CONDITIONS FOR EACH REQUIRED ITEM. CLEARLY IDENTIFY EACH ITEM ON THE DRAWINGS AS TO MARK, LOCATION, AND USE.
2. THE SUBMITTALS WILL BE REVIEWED ONLY FOR GENERAL COMPLIANCE AND NOT FOR DIMENSIONS, QUANTITIES, ETC. THE SUBMITTALS THAT ARE RETURNED SHALL BE USED FOR PROCUREMENT. THE RESPONSIBILITY OF CORRECT PROCUREMENT REMAINS SOLELY WITH THE CONTRACTOR.
3. REVIEW OF SUBMITTALS SHALL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR ERRORS OR OMISSIONS AND DEVIATIONS FROM THE CONTRACT REQUIREMENTS.
4. AFTER THE SUBMITTAL HAS BEEN REVIEWED, IT IS UNDERSTOOD THAT THE CONTRACTOR WILL PROVIDE THE PRODUCTS, MATERIALS, AND MANUFACTURER THAT WAS SUBMITTED. THE ENGINEER WILL NOT REVIEW ANY ADDITONAL ATTEMPTS TO RESUBMIT PRODUCT DATA AFTER A SUBMITTAL HAS BEEN REVIEWED AND APPROVED.
5. EACH SUBCONTRACTOR SHALL KEEP ONE SET OF DRAWINGS ON-SITE ON WHICH THEY SHALL RECORD ANY DEVIATIONS OR CHANGES FROM SUCH CONTRACT DRAWINGS MADE DURING CONSTRUCTION. RECORD DRAWINGS SHALL BE KEPT CLEAN AND UNDAMAGED. UPON COMPLETION OF THE PROJECT, THE RECORD DRAWINGS SHALL BE DELIVERED TO THE OWNER.
6. PROVIDE PRODUCT SUBMITTALS FOR THE FOLLOWING ITEMS:
   a. PIPES, FITTINGS, VALVES, INSULATION, AND ACCESSORIES
   b. METERS AND GAGES
   c. FLOOR DRAINS AND FLOOR SINKS
   d. STORM DRAINS
   e. TRAP PRIMERS
   f. SLEEVES
   g. ESCUTCHEONS
   h. LAVATORIES, SINKS, AND FAUCETS
   i. URINALS AND FLUSH VALVES
   j. WATER CLOSETS AND FLUSH VALVES
   k. ELECTRIC WATER COOLERS
   l. EMERGENCY PLUMBING FIXTURES
   m. THERMOSTATIC MIXING VALVES
   n. BACKFLOW PREVENTER DEVICES
   o. PIPE HANGERS AND SUPPORTS
   p. FIXTURE SUPPORTS
   q. WATER HEATERS AND ACCESSORIES
   r. PUMPS AND ACCESSORIES
   s. INTERCEPTORS
   t. OUTLET BOXES
   u. PRESSURE REGULATING VALVES

D. COORDINATION

1. COORDINATE ALL WORK UNDER THIS DIVISION WITH WORK UNDER OTHER DIVISIONS. PROVIDE ADJUSTMENTS AS NECESSARY TO EQUIPMENT, APPARATUS, PIPING, ETC. THAT WAS INSTALLED WITHOUT REGARD FOR THE SPACE REQUIREMENTS OF OTHER TRADES. THESE CONFLICTS WILL BE REWORKED AT THE EXPENSE OF THE INSTALLING SUB-CONTRACTOR IF IT CREATES AN UNNECESSARY HINDRANCE TO THE INSTALLATION OF ANOTHER TRADES WORK. ALL ITEMS MOUNTED AT OR BELOW THE CEILING AND ANY ITEM PENETRATING THE CEILING SHALL BE COORDINATED WITH THE ARCHITECTURAL REFLECTED CEILING PLANS.
2. COORDINATE PLACEMENT OF ALL PLUMBING RELATED EQUIPMENT AND DEVICES WITH OTHER TRADES. DO NOT POSITION OR INSTALL ANY PLUMBING EQUIPMENT OR DEVICES IN ANY SYSTEM IN SUCH A WAY THAT IT WILL BE INACCESSIBLE OR UN-MAINTAINABLE AFTER CONSTRUCTION IS COMPLETED.
3. NO OTHER TRADES ARE ALLOWED TO BE SUPPORTED FROM MATERIALS, EQUIPMENT OR DEVICES INSTALLED BY THE PLUMBING TRADES. LIKEWISE, ALL WORK INSTALLED BY THE PLUMBING TRADES MUST BE SUPPORTED FROM THE STRUCTURE ABOVE, FROM WALLS OR FROM THE FLOOR
4. UNLESS OTHERWISE INDICATED.
5. RESTORE ROADS, GROUNDS, TUNNELS, INSULATION, PIPING, BUILDING, ETC., TO THEIR ORIGINAL CONDITION WHENEVER THIS WORK CAUSES DAMAGE.
6. PROVIDE TO OWNER AFTER ALL EQUIPMENT IS IN OPERATION AND AT AN AGREEABLE TIME, COMPETENT INSTRUCTORS FOR THE PURPOSE OF TRAINING PERSONNEL IN ALL PHASES OF OPERATION AND MAINTENANCE OF EQUIPMENT AND SYSTEMS.

E. PROTECTION OF WORK DURING CONSTRUCTION

1. PROVIDE PROTECTIVE COVERS, SKIDS, PLUGS OR CAPS TO PROTECT EQUIPMENT AND MATERIALS FROM DAMAGE AND DETERIORATION DURING CONSTRUCTION. WATER PIPING ENDS SHALL BE COVERED DURING CONSTRUCTION WHEN WORK IS NOT BEING PERFORMED AT THAT PIPE. CONTRACTOR SHALL TAKE PRECAUTIONS AGAINST DAMAGING OR DISRUPTING ALL BUILDING SYSTEMS INCLUDING, WIRING, CONTROLS, ETC. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTORS' COST USING THE SAME QUALITY OF MATERIAL AS THE EXISTING SYSTEMS THAT WERE DAMAGED.

II. PIPING

A. GENERAL

1. PIPING SHALL BE COMPLETE WITH PIPE FITTINGS, VALVES, COUPLING, STRAINERS, HANGER RODS, HANGERS, SUPPORTS, GUIDES, SLEEVES AND ACCESSORIES IN CONFORMANCE WITH THE LATEST CODES AND ASME, ANSI, ASTM AND MSS STANDARDS.
2. PROVIDE FITTINGS FOR CHANGE IN PIPE SIZE AND FOR FINAL CONNECTION AT EQUIPMENT, AS REQUIRED.
3. PROVIDE UNION CONNECTIONS AT EACH PIECE OF EQUIPMENT AND ON EACH SIDE OF ALL VALVES AND IN-LINE EQUIPMENT.
4. PROVIDE VALVED AND CAPPED CONNECTIONS AT ALL POINTS IN PIPING SYSTEMS REQUIRED FOR DRAINING SYSTEMS.
5. PROVIDE SLEEVES AT ALL WALL AND FLOOR PENETRATIONS:
   a. ALL PIPING PENETRATING WALLS, PARTITIONS, AND FLOORS SHALL BE SLEEVED WITH GALVANIZED STEEL PIPE SLEEVE. ASTM A 53/A 53M, TYPE E, GRADE B, SCHEDULE 40, GALVANIZED, PLAIN ENDS. SEAL ANNULAR RECESS WITH PERMANENTLY FLEXIBLE SEALANT OR FIRESTOP (AT FIRE WALLS), BOTH SIDES OF WALL. REFER TO DETAIL ON DETAILS SHEET.
6. PROVIDE ESCUTCHEONS ON ALL PIPING THROUGH WALLS AND CEILINGS:
   a. ONE-PIECE, CAST-BRASS TYPE: WITH POLISHED, CHROME-PLATED FINISH AND SETSCREW FASTENER. INSTALL ESCUTCHEONS FOR PIPING PENETRATIONS OF WALLS AND CEILINGS. INSTALL ESCUTCHEONS WITH INSIDE DIAMETER TO CLOSELY FIT AROUND PIPE, TUBE, AND INSULATION OF PIPING AND WITH OUTSIDE DIAMETER THAT COMPLETELY COVERS OPENING
7. ALL BELOW GRADE PIPING SHALL BE INSTALLED PER THE APPLICABLE STANDARD INDICATED IN THE PLUMBING CODE AND PER THE INSTALLATION INSTRUCTIONS BY THE MANUFACTURER AND STANDARDS INDUSTRY ASSOCIATED WITH THE MATERIAL. PVC PIPING SHALL NOT BE DIRECT BURIED WITH NATIVE SOILS ONLY, THE PROPER TRENCH BEDDING AND BACKFILL MATERIALS PER ASTM SHALL BE UTILIZED.
8. PRESSURE TEST ALL SYSTEMS PER THE REQUIREMENTS OF THE LOCALLY ADOPTED CODE AND AHJ REQUIREMENTS. GRAVITY DRAIN SYSTEMS SHALL BE WATER TESTED ONLY, AIR TESTS ARE NOT ALLOWED FOR GRAVITY DRAIN SYSTEMS.

B. DOMESTIC WATER DISINFECTION

1. POTABLE WATER SYSTEMS SHALL BE PURGED OF DELETERIOUS MATTER AND DISINFECTED PRIOR TO UTILIZATION. THE METHOD TO BE FOLLOWED SHALL BE THAT PRESCRIBED BY THE HEALTH AUTHORITY OR WATER PURVEYOR HAVING JURISDICTION OR, IN THE ABSENCE OF A PRESCRIBED METHOD, THE PROCEDURE DESCRIBED IN EITHER AWWA C651 OR AWWA C652, OR AS DESCRIBED IN THIS SECTION. THIS REQUIREMENT SHALL APPLY TO "ON-SITE" OR "INPLANT" FABRICATION OF A SYSTEM OR TO A MODULAR PORTION OF A SYSTEM.
2. THE PIPE SYSTEM SHALL BE FLUSHED WITH CLEAN, POTABLE WATER UNTIL DIRTY WATER DOES NOT APPEAR AT THE POINTS OF OUTLET.
3. THE SYSTEM OR PART THEREOF SHALL BE FILLED WITH A WATER/ CHLORINE SOLUTION CONTAINING NOT LESS THAN 50 PARTS PER MILLION (50 MG/L) OF CHLORINE, AND THE SYSTEM OR PART THEREOF SHALL BE VALVED OFF AND ALLOWED TO STAND FOR 24 HOURS; OR THE SYSTEM OR PART THEREOF SHALL BE FILLED WITH A WATER/CHLORINE SOLUTION CONTAINING NOT LESS THAN 200 PARTS PER MILLION (200 MG/L) OF CHLORINE AND ALLOWED TO STAND FOR 3 HOURS.
4. FOLLOWING THE REQUIRED STANDING TIME, THE SYSTEM SHALL BE FLUSHED WITH CLEAN POTABLE WATER UNTIL THE CHLORINE IS PURGED FROM THE SYSTEM.
5. THE PROCEDURE SHALL BE REPEATED WHERE SHOWN BY A BACTERIOLOGICAL EXAMINATION THAT CONTAMINATION REMAINS PRESENT IN THE SYSTEM.

C. PIPE AND FITTING MATERIALS

PROVIDE THE FOLLOWING PIPING FOR THE SYSTEMS AS LISTED:

1. SANITARY, OIL WASTE, VENT, AND STORM PIPING ABOVE AND BELOW GRADE: SCHEDULE 40 SOLID WALL PVC PER ASTM D 2665 DRAIN, WASTE AND VENT.
2. SANITARY, VENT, AND STORM PIPING ABOVE GRADE: HUBLESS CAST IRON PER ASTM A 888 OR CISPI 301 AND BEARING THE COLLECTIVE TRADEMARK OF THE CAST IRON SOIL PIPE INSTITUTE AND LISTED BY NSF INTERNATIONAL.
   a. APPROVED MANUFACTURERS: AB&I FOUNDRY, TYLER PIPE AND COUPLING, CHARLOTTE PIPE AND FOUNDRY.
3. SANITARY AND OIL WASTE PIPING BELOW GRADE: HUB AND SPIGOT CAST IRON PIPE PER ASTM A 74 BEARING THE COLLECTIVE TRADEMARK OF THE CAST IRON SOIL PIPE INSTITUTE AND LISTED BY NSF INTERNATIONAL.
   a. APPROVED MANUFACTURERS: AB&I FOUNDRY, TYLER PIPE AND COUPLING, CHARLOTTE PIPE AND FOUNDRY.
4. GAS FIRED WATER HEATER FLUE PIPING: UL 1738 OR ULC S636 TESTED AND LISTED CPVC WITH UL 1738 OR ULC S636 LISTING LABELED ON PIPE WALL, ASTM E84 LISTED AND APPROVED FOR USE IN RETURN AIR PLENUMS.
5. GAS FIRED WATER HEATER FLUE PIPING: UL 1738 OR ULC S636 TESTED AND LISTED POLYPROPYLENE WITH UL 1738 OR ULC S636 LISTING LABELED ON PIPE WALL, ASTM E84 LISTED AND APPROVED FOR USE IN RETURN AIR PLENUMS.
   a. APPROVED MANUFACTURERS: IPEX
6. GAS FIRED WATER HEATER FLUE PIPING: UL 1738 OR ULC S636 TESTED AND LISTED PVC PER ASTM B88, MANUFACTURED IN THE USA OR CANADA.
7. DOMESTIC WATER PIPING BELOW GRADE 3" AND LARGER: DUCTILE IRON WATER SERVICE PIPING PER AWWA C151/A21.51; AWWA C115/A21.15, CEMENT MORTAR LINED IN ACCORDANCE WITH AWWA C104/A21.4.
8. DOMESTIC WATER PIPING ABOVE GRADE 4" AND SMALLER: HARD COPPER TUBE, TYPE L PER ASTM B88, MANUFACTURED IN THE USA OR CANADA.
9. PROCESS WATER PIPING ABOVE GRADE: SCHEDULE 10 STAINLESS STEEL TUBE PER ASTM A312/A312M.
10. HIGH PRESSURE PROCESS WATER PIPING ABOVE GRADE: SCHEDULE 40 STAINLESS STEEL TUBE PER ASTM A312/A312M.
11. CONDENSATE DRAIN AND INDIRECT WASTE PIPING ABOVE GRADE: HARD COPPER TUBE, TYPE DWV PER ASTM B306, MANUFACTURED IN THE USA OR CANADA.
12. NATURAL GAS PIPING ABOVE GRADE: SCHEDULE 40 BLACK STEEL PIPE PER ASTM A 53/A 53M, TYPE E OR S, GRADE B WITH THREADED OR WELDED JOINTS.
13. COMPRESSED AIR PIPING: SCHEDULE 40 BLACK STEEL PIPE PER ASTM A 53/A 53M, WITH THREADED OR WELDED JOINTS.

D. PIPE COUPLINGS

PROVIDE THE FOLLOWING COUPLINGS/FITTINGS FOR THE PIPE SYSTEMS AS LISTED:

1. PVC WASTE AND VENT PIPING: SOCKET FITTINGS PER ASTM D 2665, MADE TO ASTM D 3311 DRAIN, WASTE, AND VENT PATTERNS AND TO FIT SCHEDULE 40 PIPE WITH SOLVENT JOINTS.
2. CAST IRON HUBLESS WASTE AND VENT PIPING ABOVE GRADE: HEAVY DUTY COUPLINGS PER ASTM C 1277 AND ASTM C 1540. MANUFACTURED IN THE USA, ASSEMBLED IN THE USA, WITH PRODUCTS SOURCED FROM THE USA.
   a. APPROVED MANUFACTURERS: ANACO-HUSKY, MISSION RUBBER COMPANY, MG COUPLING, CLAMP-ALL.
3. GAS FIRED WATER HEATER FLUE PIPING: UL 1738 OR ULC S636 TESTED AND LISTED CPVC SOCKET FITTINGS WITH UL 1738 OR ULC S636 LISTING LABELED ON FITTING AND UL 1738 OR ULC S636 LISTED PRIMER AND CEMENT. ASTM E84 LISTED AND APPROVED FOR USE IN RETURN AIR PLENUMS.
   a. APPROVED MANUFACTURERS: IPEX
4. GAS FIRED WATER HEATER FLUE PIPING: UL 1738 OR ULC S636 TESTED AND LISTED POLYPROPYLENE GASKET STYLE SOCKET FITTINGS WITH UL 1738 OR ULC S636 LISTING LABELED ON FITTING. ASTM E84 LISTED AND APPROVED FOR USE IN RETURN AIR PLENUMS.
   a. APPROVED MANUFACTURERS: CENTROTHERM, DURAVENT
5. COPPER DOMESTIC WATER PIPE ABOVE GRADE: PER ASME B16.18, CAST BRONZE OR ASME B16.22, WROUGHT COPPER AND BRONZE, MANUFACTURED IN THE USA OR CANADA. JOINTS SHALL BE PER ASTM B32, SOLDER, GRADE 95TA OR PRESSURE-SEAL-JOINTS PROVIDED WITH MANUFACTURER 50 YEAR LEAK FREE WARRANTY.
   a. APPROVED MANUFACTURERS: APOLLO, MUELLER STREAMLINE, NIBCO, OR VIEGA.
6. SCHEDULE 10 STAINLESS STEEL WATER PIPING ABOVE GRADE: PER ASTM A815/A815M, AWWA C606, GROOVED FITTINGS WITH APPROVED ROLL GROOVE DEVICE BY SHURJOINT, VICTAULIC, OR ANVIL. OR PRESSURE-SEAL-JOINTS PROVIDED WITH MANUFACTURER 50 YEAR LEAK FREE WARRANTY.
   a. APPROVED MANUFACTURERS: VIEGA, NIBCO, OR APOLLO
7. SCHEDULE 40 STAINLESS STEEL WATER PIPING ABOVE GRADE: PER ASTM A182, FORGED OR ROLLED STAINLESS STEEL PIPE FLANGES, THREADED, OR SOCKET-WELD FITTINGS.
8. DUCTILE IRON BELOW GRADE: FLANGED FITTINGS PER AWWA C110/A21.10, CEMENT MORTAR LINED IN ACCORDANCE WITH AWWA C104/A21.4.
9. COPPER DWV PIPE ABOVE AND BELOW GRADE: PER ASME B16.23, CAST BRONZE OR ASME B16.29, WROUGHT COPPER AND BRONZE, MANUFACTERED IN THE USA OR CANADA. JOINTS SHALL BE PER ASTM B32, SOLDER, GRADE 95TA.
10. BLACK STEEL NATURAL GAS PIPING ABOVE GRADE: THREADED FITTINGS PER ASME B16.3, CLASS 150, STANDARD PATTERN. WROUGHT-STEEL WELDING FITTINGS PER ASTM A 234/A 234M FOR BUTT WELDING AND SOCKET WELDING.
11. BLACK STEEL COMPRESSED AIR PIPING: THREADED FITTINGS PER ASME B16.3, CLASS 150/300 AS REQUIRED FOR WORKING PRESSURE OF SYSTEM, STANDARD PATTERN. WROUGHT-STEEL WELDING FITTINGS PER ASTM A 234/A 234M FOR BUTT WELDING AND SOCKET WELDING.

E. PIPE SUPPORTS

PROVIDE PIPING SUPPORTS ON ALL PIPING SYSTEMS PER THE FOLLOWING REQUIREMENTS:

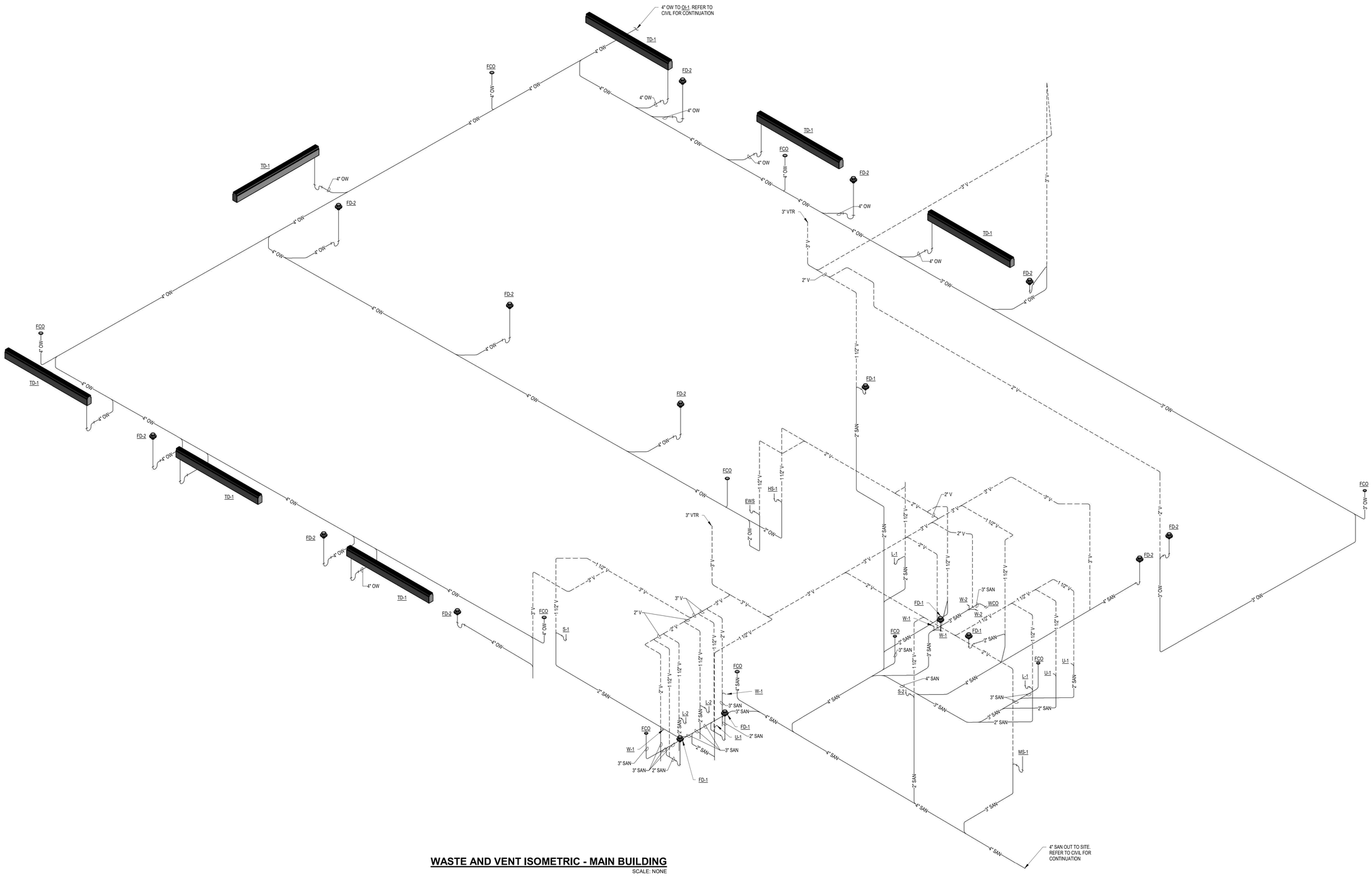
1. HORIZONTAL PIPE HANGERS SHALL BE CARBON STEEL, ADJUSTABLE CLEVIS TYPE FOR GENERAL SERVICE APPLICATIONS, COPPER PLATED WHEN IN CONTACT WITH COPPER PIPING, AND RUBBER/PLASTIC COATED WHEN IN CONTACT WITH PLASTIC PIPING. PROVIDE THERMAL HANGER SHIELD INSERTS FOR ALL INSULATED PIPING AND HANGER SHIELD FOR PLASTIC PIPING PER THE PIPE MANUFACTURER'S RECOMMENDED INSTALLATION INSTRUCTIONS. HANGER RODS AND SPACING SHALL BE PER THE LOCAL CODE REQUIREMENTS.
2. GAS PIPE SUPPORTS SHALL ABSORB THERMAL EXPANSION AND CONTRACTION OF PIPES TO PREVENT DAMAGE TO ROOFING MEMBRANES USING NON-CORROSIVE BASES THAT REST ON ROOFING MEMBRANES. PIPE SUPPORTS SHALL BE BLOCK PIPE, ROLLER OR STRUT TYPE SUPPORTS. INSTALLATION SHALL BE PER THE MANUFACTURER'S REQUIREMENTS AND INCLUDE PIPE GUIDES, SPACERS, CLAMPS, SUPPORT PADS, TWO-SIDED TAPE AND OTHER RECOMMENDED ACCESSORIES.
3. PIPES SHALL NOT BE SUPPORTED FROM OTHER PIPES, CONDUIT, DUCTWORK, OR EQUIPMENT. PIPES SHALL BE SUPPORTED DIRECTLY FROM THE STRUCTURE, CONCRETE DECK ABOVE, COLUMN, OR WALL EXCEPT FOR ROOF MOUNTED PIPE WHICH SHALL BE SUPPORTED FROM THE ROOF MEMBRANE.
   a. COPPER PIPE HORIZONTAL HANGER SPACING:
      1. 1-1/4" AND SMALLER: 6 FEET CENTERS MAX
      2. 1-1/2" AND LARGER: 10 FEET CENTERS MAX
   b. PVC DWV PIPE HORIZONTAL HANGER SPACING:
      1. ALL PIPE SIZES: 4 FEET CENTERS MAX
   c. CPVC FLUE GAS PIPE HORIZONTAL HANGER SPACING:
      1. ALL PIPE SIZES: 4 FEET CENTERS MAX
   d. POLYPROPYLENE FLUE GAS PIPE HORIZONTAL HANGER SPACING:
      1. ALL PIPE SIZES: 4 FEET CENTERS MAX
   e. CAST IRON PIPE HORIZONTAL HANGER SPACING:
      1. ALL PIPE SIZES: 10 FEET CENTERS FOR 10 FEET PIPE LENGTHS
      2. ALL PIPE SIZES: 5 FEET CENTERS FOR LESS THAN 10 FEET PIPE LENGTHS
      3. ALL PIPE SIZES: ON EACH SIDE OF A FITTING
   f. SCHEDULE 40 BLACK STEEL PIPE SUPPORT SPACING:
      1. 3/4" TO 1": 8 FEET CENTERS MAX
      2. 1-1/4" AND LARGER: 10 FEET CENTERS MAX
   g. STAINLESS STEEL PIPE SUPPORT SPACING:
      1. ALL PIPE SIZES: 10 FEET CENTERS MAX

F. PIPE INSULATION

1. TYPE:
   a. TYPE 1:
      1. DESCRIPTION: FIBERGLASS, MINIMUM 4 POUNDS PER CUBIC FOOT (P.C.F.) DENSITY, K FACTOR 0.23 MAXIMUM AT 75 DEGREE F MEAN, WITH FACTORY-APPLIED ALL-SERVICE JACKET (ASJ) COMPOSED OF REINFORCED KRAFT AND ALUMINUM FOIL LAMINATE. JACKET SHALL HAVE SELF-SEALING LAP TO FACILITATE CLOSING LONGITUDINAL AND END JOINTS.
      2. STANDARD: ASTM C547, CLASS 1 (-20 DEGREE F TO 500 DEGREE F).
      3. APPROVED MANUFACTURERS: JOHNS MANVILLE, KNAUF, OWENS CORNING, MANSON
   b. TYPE 2:
      1. DESCRIPTION: FLEXIBLE, CLOSED CELL ELASTOMERIC, NOMINAL 6 PCF DENSITY, K FACTOR 0.27 MAXIMUM AT 75 DEGREE F MEAN.
      2. STANDARD: ASTM C534 (-40 DEGREE F TO 220 DEGREE F).
      3. APPROVED MANUFACTURERS: AEROFLEX, ARMACELL
   c. INSTALLATION:
      1. ALL PIPING SYSTEMS LISTED IN THE FOLLOWING SECTIONS SHALL BE PROVIDED WITH INSULATION PER THIS SPECIFICATION.
      2. INSTALL INSULATION ON PIPE SYSTEMS SUBSEQUENT TO TESTING AND ACCEPTANCE OF TEST.
      3. MAINTAIN INTEGRITY OF VAPOR-BARRIER JACKETS ON PIPE INSULATION AND PROTECT TO PREVENT PUNCTURE OR OTHER DAMAGE. SEAL OPEN ENDS OF INSULATION WITH MASTIC. SECTIONALLY SEAL ALL BUTT ENDS OF ALL COLD WATER PIPING INSULATION AT FITTINGS WITH WHITE VAPOR BARRIER COATING.
      4. COVER VALVES, FLANGES, FITTINGS AND SIMILAR ITEMS IN EACH PIPING SYSTEM WITH EQUIVALENT THICKNESS AND COMPOSITION OF INSULATION AS APPLIED TO ADJOINING PIPE RUN. INSTALL FACTORY MOLDED, PRECUT OR JOB FABRICATED UNITS (AT INSTALLERS OPTION) AS NECESSARY. FINISH COLD PIPE FITTINGS WITH WHITE VAPOR BARRIER COATING AND HOT PIPING WITH WHITE VINYL ACRYLIC MASTIC, BOTH REINFORCED WITH GLASS CLOTH.
      5. PIPE INSULATION SHALL BE CONTINUOUS ACROSS ALL PORTIONS OF THE PIPING WITHOUT EXCEPTION. EXTEND PIPING INSULATION WITHOUT INTERRUPTION THROUGH WALLS, FLOORS, HANGERS, AND SIMILAR PIPING PENETRATIONS EXCEPT WHERE OTHERWISE INDICATED.
      6. INSTALL PROTECTIVE METAL SHIELDS AND FOAM GLASS INSERTS WHERE PIPE HANGERS BEAR ON OUTSIDE OF INSULATION.
      7. INSTALL INSULATION PER THE MICA MANUAL AND ALL REQUIREMENTS LISTED IN THE MANUFACTURER'S INSTALLATION MANUAL.
   d. INSULATION SCHEDULE:
      PROVIDE INSULATION ON THE FOLLOWING PIPING SYSTEMS:
      a. DOMESTIC COLD WATER PIPING ABOVE GRADE SMALLER THAN 1-1/2":
         1. TYPE 1: FIBERGLASS, 1/2 INCH THICKNESS
         2. TYPE 2:FLEXIBLE, CLOSED CELL ELASTOMERIC, 1/2 INCH THICKNESS
      b. DOMESTIC COLD WATER PIPING ABOVE GRADE 1-1/2" TO SMALLER THAN 4":
         1. TYPE 1: FIBERGLASS, 1 INCH THICKNESS
         2. TYPE 2: FLEXIBLE, CLOSED CELL ELASTOMERIC, 1 INCH THICKNESS
      c. DOMESTIC COLD WATER AND TRAP PRIMER PIPING BELOW GRADE:
         1. TYPE 2: FLEXIBLE, CLOSED CELL ELASTOMERIC, 1/2 INCH THICKNESS
      d. DOMESTIC HOT WATER AND HOT WATER RECIRCULATION PIPING ABOVE GRADE SMALLER THAN 1-1/2":
         1. TYPE 1: FIBERGLASS, 1 INCH THICKNESS
         2. TYPE 2: FLEXIBLE, CLOSED CELL ELASTOMERIC, 1 INCH THICKNESS
      e. PROCESS HOT WATER PIPING ABOVE GRADE SMALLER THAN 1-1/2":
         1. TYPE 2: FLEXIBLE, CLOSED CELL ELASTOMERIC, 1 INCH THICKNESS
      f. DOMESTIC HOT WATER AND HOT WATER RECIRCULATION PIPING ABOVE GRADE 1-1/2" TO SMALLER THAN 4":
         1. TYPE 1:FIBERGLASS, 1-1/2 INCH THICKNESS
         2. TYPE 2:FLEXIBLE, CLOSED CELL ELASTOMERIC, 1-1/2 INCH THICKNESS
      g. DOMESTIC HOT WATER AND HOT WATER RECIRCULATION PIPING BELOW GRADE SMALLER THAN 1-1/2":
         1. TYPE 2: FLEXIBLE, CLOSED CELL ELASTOMERIC, 1 INCH THICKNESS
      h. STORM WATER PIPING ABOVE GRADE:
         1. TYPE 1: FIBERGLASS, 1 INCH THICKNESS
         2. TYPE 2: FLEXIBLE, CLOSED CELL ELASTOMERIC, 1 INCH THICKNESS
      i. CONDENSATE DRAIN PIPING ABOVE GRADE:
         1. TYPE 1: FIBERGLASS, 1-1/2 INCH THICKNESS
         2. TYPE 2: FLEXIBLE, CLOSED CELL ELASTOMERIC, 1 INCH THICKNESS

G. PVC JACKET

1. ALL EXPOSED PIPE THAT IS INSULATED SHALL BE COVERED WITH A SMOOTH 20 MILS THICK PVC JACKET WITH



WASTE AND VENT ISOMETRIC - MAIN BUILDING

SCALE: NONE

LDA ARCHITECTS

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REV	DATE	DESCRIPTION
	09.23.2026	Issued for Permit

STATE OF OHIO
NICHOLAS D. GINGERICH
E-77419
REGISTERED
PROFESSIONAL ENGINEER

09/22/2026

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MIAMISBURG - CAT
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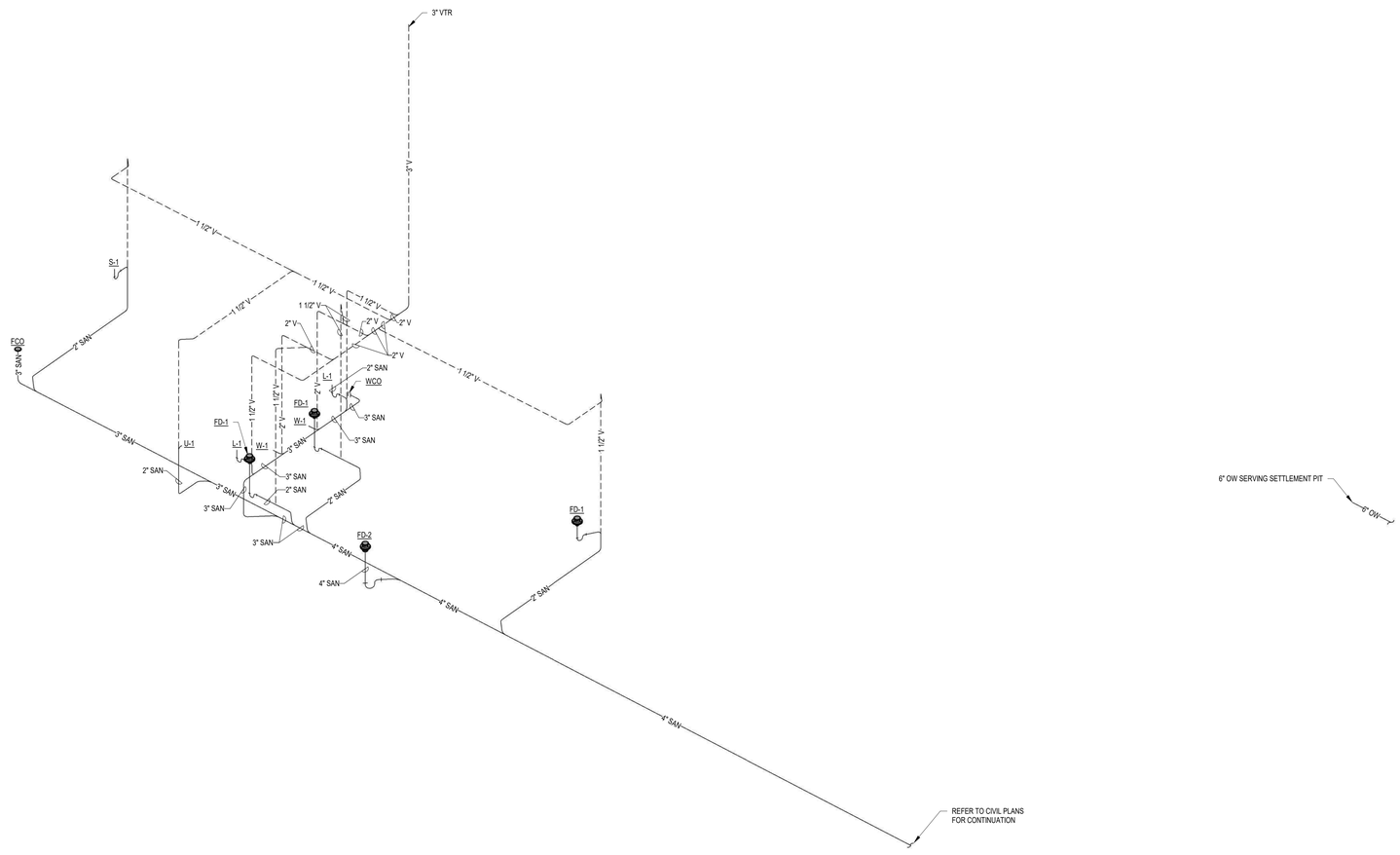
490 BYERS ROAD, MIAMISBURG, OHIO 45342

LDA Project No.2026.11

PLUMBING ISOMETRIC DIAGRAMS

P9.01



WASTE AND VENT ISOMETRIC - WASH BUILDING

SCALE: NONE

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PLUMBING ISOMETRIC DIAGRAMS

P9.02

ABBREVIATIONS

A	AMP, AMPERES
ADA	AMERICANS WITH DISABILITIES ACT
AFC	ABOVE FINISHED CEILING
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHJ	AUTHORITY HAVING JURISDICTION
ANSI	AMERICAN NAT'L STANDARDS INSTITUTE
ARCH	ARCHITECT, ARCHITECTURAL
AUX	AUXILIARY
AWG	AMERICAN WIRE GAUGE
A/V	AUDIO/VISUAL
BAS	BUILDING AUTOMATION SYSTEM
BKR	BREAKER
BLDG	BUILDING
BMS	BUILDING MANAGEMENT SYSTEM
C	CONDUIT
CATV	CABLE TELEVISION SYSTEM
C/B	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CFM	CUBIC FEET PER MINUTE
CKT	CIRCUIT
CLG	CEILING
CT	CURRENT TRANSFORMER
CW	COLD WATER
D	DEEP, DEPTH
DACT	DIGITAL ALARM COMMUNICATING TRANSMITTER
dB	DECIBEL
DDC	DIRECT DIGITAL CONTROL
Δ	DELTA
DIA	DIAMETER
DISC	DISCONNECT
DN	DOWN
DWG	DRAWING
EC	ELECTRICAL CONTRACTOR
EF	EXHAUST FAN
ETR	EXISTING TO REMAIN
EMT	ELECTRICAL METALLIC TUBING
EOR	ENGINEER OF RECORD
EWC	ELECTRICAL WATER COOLER
EXH	EXHAUST
EX, EXIST	EXISTING
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FARA	FIRE ALARM REMOTE ANNUNCIATOR
FLA	FULL LOAD AMPS
FPC	FIRE PROTECTION CONTRACTOR
FT	FOOT, FEET
G,GRD	GROUND
GC	GENERAL CONTRACTOR
GFI,GFCI	GROUND FAULT INTERRUPTER
HID	HIGH INTENSITY DISCHARGE
HTR	HEATER
HVAC	HEATING, VENTILATING & A/C
IBC	INTERNATIONAL BUILDING CODE
IN	INCH, INCHES
KVA	KILOVOLT-AMPS
KW	KILOWATTS
KWH	KILOWATT-HOUR
L	LENGTH
LED	LIGHT EMITTING DIODE
LRA	LOCKED ROTOR AMPS
LTG	LIGHTING
MAX	MAXIMUM
MC	MECHANICAL CONTRACTOR
MCA	MINIMUM CIRCUIT AMPACITY
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MECH	MECHANICAL
MH	METAL HALIDE
MIN	MINIMUM
MLO	MAIN LUGS ONLY
MOCP	MAXIMUM OVER CURRENT PROTECTION
MUA	MAKE UP AIR
MTD	MOUNTED
N/A	NOT APPLICABLE
N.C.	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MFR'S ASSOC.
NFPA	NATIONAL FIRE PROTECTION ASSOC.
NIC	NOT IN CONTRACT
N.O.	NORMALLY OPEN
NTS	NOT TO SCALE
OC	ON CENTER
OCPD	OVERCURRENT PROTECTION DEVICE
O/H	OVERHEAD
OSHA	OCCUPATIONAL SAFETY & HEALTH ADMIN.
P	POLE
PB	PUSH BUTTON
PC	PLUMBING CONTRACTOR
PF	POWER FACTOR
PH	PHASE
PVC	POLYVINYL CHLORIDE
RCP	REFLECTED CEILING PLAN
REV	REVISION
REX	REMOVE EXISTING
RGS	RIGID GALVANIZED STEEL
RLA	RUNNING LOAD AMPS
RM	ROOM
RR	REMOVE AND RELOCATE
RTU	ROOF TOP UNIT
SE	SERVICE ENTRANCE
SF	SQUARE FEET, SQUARE FOOT
SPG	SURGE PROTECTION DEVICE
T/C	TIME CLOCK
THRU	THROUGH
TRANS	TRANSFORMER
TYP	TYPICAL
UG	UNDERGROUND
UL	UNDERWRITERS LABORATORIES, INC.
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLT
VA	VOLT-AMPERE
W	WATT, WIDTH
W/	WITH
WP	WEATHERPROOF
XFMR	TRANSFORMER
Y	WYE

ELECTRICAL SYMBOLS

(ALL SYMBOLS SHOWN ARE NOT NECESSARILY USED ON THE DRAWINGS)

- 1,3,5 → A — HOMERUN TO PANEL "A", CIRCUIT #1,3,5 (VIA 20A-1P CIRCUIT BREAKERS). TWO #12 CONDUCTORS (MINIMUM SIZE). UON. A GROUNDING CONDUCTOR SHALL BE PROVIDED IN ALL CONDUITS. REFER TO SPECIFICATIONS FOR ADDITIONAL GROUNDING REQUIREMENTS.
- INFLOOR/UNDERFLOOR CONDUIT/WIRE
- CIRCUITRY TURNING UP
- PANELBOARD - 208Y/120 VOLT, 3Ø, 4 WIRE
- PANELBOARD - 480Y/277 VOLT, 3Ø, 4 WIRE
- DRY TYPE TRANSFORMER, REFER TO PLANS FOR SIZE/VOLTAGE
- JUNCTION BOX - CEILING OR WALL MOUNTED
- DISCONNECT SWITCH UNFUSED: "AS" - INDICATES SWITCH SIZE (AMPS).
- DISCONNECT SWITCH FUSED: "AS" - INDICATES SWITCH SIZE (AMPS). "AF" - INDICATES FUSE SIZE (AMPS).
- COMBINATION MOTOR STARTER/DISCONNECT SWITCH
- TOGGLE SWITCH DISCONNECT, 120/277V, 20A, 1-HP RATED UON
- MOTOR
- SINGLE RECEPTACLE

RECEPTACLE NOTES (APPLICABLE FOR ALL TYPES):
- RATED 125V, 20A UON
- MOUNTED AT 18" AFF UON
- "+54" INDICATES MOUNTED AT 54" AFF
- "WP" INDICATES WEATHERPROOF WHILE IN USE COVER
- "GFI" AND WEATHER RESISTANT GFCI TYPE RECEPTACLE
- "IG" INDICATES ISOLATED GROUND TYPE
- REFER TO SPECIFICATIONS FOR DEVICE AND COVERPLATE FINISHES

- DUPLEX RECEPTACLE
- DOUBLE DUPLEX RECEPTACLE
- CONTROLLED DUPLEX OR DOUBLE DUPLEX RECEPTACLE
- GFCI DUPLEX OR DOUBLE DUPLEX RECEPTACLE
- DUPLEX OR DOUBLE DUPLEX RECEPTACLE PROTECTED VIA GFCI BREAKER, PROVIDE LABELING AS REQUIRED BY NEC
- DUPLEX OR DOUBLE DUPLEX RECEPTACLE MOUNTED AT 8" ABOVE COUNTER UON
- CONTROLLED DUPLEX OR DOUBLE DUPLEX RECEPTACLE MOUNTED AT 8" ABOVE COUNTER UON
- GFCI DUPLEX OR DOUBLE DUPLEX RECEPTACLE MOUNTED AT 8" ABOVE COUNTER UON
- DUPLEX OR DOUBLE DUPLEX RECEPTACLE MOUNTED AT 8" ABOVE COUNTER UON AND PROTECTED VIA GFCI BREAKER, PROVIDE LABELING AS REQUIRED BY NEC
- DUPLEX OR DOUBLE DUPLEX RECEPTACLE, MOUNTED IN CEILING
- DUPLEX OR DOUBLE DUPLEX RECEPTACLE, MOUNTED IN FLOOR BOX
- COMBINATION DUPLEX OR DOUBLE DUPLEX RECEPTACLE AND VOICE/DATA OUTLET, MOUNTED IN FLOOR BOX
- DUPLEX RECEPTACLE, MOUNTED IN FIRE RATED POKE - THROUGH DEVICE
- COMBINATION DUPLEX RECEPTACLE AND VOICE/DATA OUTLET, MOUNTED IN FIRE RATED POKE-THROUGH DEVICE
- SPECIAL PURPOSE RECEPTACLE

SPECIAL PURPOSE RECEPTACLE NOTES:
- REFER TO PLANS FOR AMPERAGE AND NEMA CONFIGURATION
- "L" INDICATED TWIST LOCK RECEPTACLE
- "+54" INDICATES MOUNTED AT 54" AFF
- "WP" INDICATES WEATHERPROOF WHILE IN USE COVER
- "GFI" INDICATES GFCI RECEPTACLE
- "IG" INDICATES ISOLATED GROUND TYPE
- "A" INDICATES APPLIANCE RECEPTACLE, VERIFY WITH APPLIANCE MANUFACTURER REQUIREMENTS

- SPECIAL PURPOSE RECEPTACLE PROTECTED VIA GFCI BREAKER
- COMBINATION DUPLEX RECEPTACLE AND CATV DEVICE FOR TV
- COMBINATION DUPLEX RECEPTACLE AND CATV DEVICE, FOR TV CEILING MOUNTED
- COMBINATION DUPLEX RECEPTACLE AND DUAL USB DEVICE
- LIGHT/RECEPTACLE MOUNTED ON MECHANICAL UNIT
- JUNCTION BOX AND DISCONNECT SWITCH FOR SIGNAGE "WP INDICATES WEATHER PROOF"
- DOOR BELL, REFER TO PLANS FOR SPECIFICATIONS
- LOW VOLTAGE TRANSFORMER, REFER TO PLANS FOR SPECIFICATIONS
- LOW VOLTAGE PUSHBUTTON - REFER TO PLANS FOR SPECIFICATIONS.
- POWER POLE, REFER TO PLANS FOR TYPE AND AMPERAGE.
- P,T — POWER/COMMUNICATIONS FURNITURE FEED, CEILING OR WALL MOUNTED
- P,T — POWER/COMMUNICATIONS FURNITURE FEED, IN FIRE RATED POKE-THROUGH DEVICE
- T — THERMOSTAT, PROVIDE SINGLE GANG BOX WITH PLASTER RING AND 3/4" CONDUIT TO ABOVE THE ACCESSIBLE CEILING. REFER TO MECHANICAL PLANS FOR LOCATIONS.

LIGHTING SYMBOLS

(ALL SYMBOLS SHOWN ARE NOT NECESSARILY USED ON THE DRAWINGS)

- 1,3,5 → A — HOMERUN TO PANEL "A", CIRCUIT #1,3,5 (VIA 20A-1P CIRCUIT BREAKERS). TWO #12 CONDUCTORS (MINIMUM SIZE). UON. A GROUNDING CONDUCTOR SHALL BE PROVIDED IN ALL CONDUITS. REFER TO SPECIFICATIONS FOR ADDITIONAL GROUNDING REQUIREMENTS.
- INFLOOR/UNDERFLOOR CONDUIT/WIRE
- CIRCUITRY TURNING UP
- a / A L-13 — LIGHT FIXTURE: "A" INDICATES FIXTURE TYPE, "L-13" INDICATES CIRCUIT NUMBER, "a" INDICATES SWITCH CONTROL. REFER TO LUMINAIRE SCHEDULE FOR DESCRIPTION.
- NL — NIGHT LIGHT FIXTURE WIRED AHEAD OF SWITCHES AND TIME CLOCK
- A / NL — EMERGENCY LIGHT FIXTURE PROVIDED WITH INTEGRAL BATTERY OR WIRED TO EMERGENCY LIGHTING CIRCUIT
- ILLUMINATED "EXIT" SIGN, WALL MOUNTED. PROVIDE DIRECTIONAL ARROWS AS INDICATED ON FLOOR PLANS.
- ILLUMINATED "EXIT" SIGN, CEILING MOUNTED/SUSPENDED. PROVIDE DIRECTIONAL ARROWS AS INDICATED ON FLOOR PLANS.
- ILLUMINATED "EXIT" SIGN, DUAL HEADS, WALL MOUNTED. PROVIDE DIRECTIONAL ARROWS AS INDICATED ON FLOOR PLANS.
- ILLUMINATED "EXIT" SIGN, DUAL HEADS, CEILING MOUNTED/SUSPENDED MOUNTED. PROVIDE DIRECTIONAL ARROWS AS INDICATED ON FLOOR PLANS.
- EXTERIOR EMERGENCY EGRESS FIXTURE WITH DUAL HEADS, WEATHERPROOF
- EMERGENCY LIGHTING BATTERY UNIT WITH HEADS, WALL MOUNTED
- EMERGENCY LIGHTING BATTERY UNIT WITH HEADS, CEILING MOUNTED/SUSPENDED
- SWITCH - SINGLE POLE TOGGLE TYPE - 120/277V, 20A, 1-HP RATED, MOUNTED AT 48" AFF UNLESS OTHERWISE NOTED.

SWITCH NOTES (APPLICABLE FOR ALL TYPES):
- "3" INDICATES THREE WAY SWITCH, "4" INDICATES FOUR WAY SWITCH
- "+54" INDICATES MOUNTED 54" ABOVE FINISHED FLOOR
- "C" INDICATES SWITCH MOUNTED 8" ABOVE COUNTER
- "a" INDICATES SWITCHED FIXTURE CONTROL
- "OS" INDICATES DUAL TECHNOLOGY OCCUPANCY SENSOR SWITCH
- "VS" INDICATES DUAL TECHNOLOGY VACANCY SENSOR SWITCH
- "D" INDICATES DIMMER SWITCH - TYPE AS INDICATED ON PLANS
- REFER TO SPECIFICATIONS FOR DEVICE AND COVERPLATE FINISHES

- OS — HARDWIRED DUAL TECHNOLOGY, ULTRASONIC / PIR, OCCUPANCY SENSOR, CEILING MOUNTED. TYPICAL OF WATTSTOPPER DT-300 OR EQUAL, 30' X 30' AREA OF COVERAGE. PROVIDE ALL REQUIRED ACCESSORIES AND POWER PACKS.
- VS — HARDWIRED DUAL TECHNOLOGY, ULTRASONIC / PIR, VACANCY SENSOR, CEILING MOUNTED. TYPICAL OF WATTSTOPPER DT-300 OR EQUAL, 30' X 30' AREA OF COVERAGE. PROVIDE ALL REQUIRED ACCESSORIES AND POWER PACKS.
- DS — INTERIOR DAYLIGHT SENSOR, CEILING MOUNTED
- PS — EXTERIOR PHOTOCELL SENSOR, ROOF MOUNTED. AIM AWAY FROM ARTIFICIAL LIGHT SOURCES, VERIFY LOCATION PRIOR TO ROUGH-IN.
- LIGHTING CONTROL EQUIPMENT:
  LCP = LIGHTING CONTROL PANEL
  TC = TIME CLOCK
  LC = LIGHTING CONTACTOR

TECHNOLOGY SYMBOLS

(ALL SYMBOLS SHOWN ARE NOT NECESSARILY USED ON THE DRAWINGS)

- HOMERUN TO EQUIPMENT INDICATED. REFER TO PLANS AND SPECIFICATIONS FOR ALL REQUIREMENTS.
- INFLOOR/UNDERFLOOR CONDUIT/WIRE
- CIRCUITRY TURNING UP
- TELEPHONE FIRE RATED PLYWOOD BACKBOARD - SIZE INDICATED ON PLAN
- JUNCTION BOX - CEILING OR WALL MOUNTED
- DATA ONLY DEVICE, REFER TO DEVICE NOTES

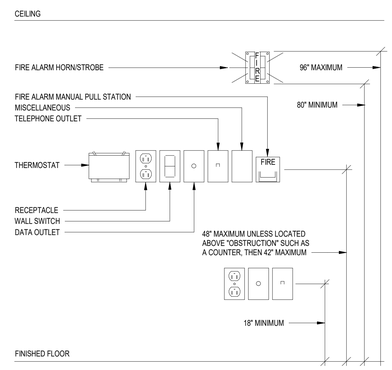
TECHNOLOGY DEVICE NOTES (APPLICABLE FOR ALL TYPES):
- MOUNTED AT 18" AFF UON
- PROVIDE SINGLE GANG BOX WITH PLASTER RING AND 3/4" CONDUIT TO ABOVE THE ACCESSIBLE CEILING UON
- "+54" INDICATES WALL MOUNTED AT 54" AFF
- "C" INDICATES MOUNTED 8" ABOVE COUNTER
- REFER TO SPECIFICATIONS FOR DEVICE AND COVERPLATE FINISHES

- VOICE ONLY DEVICE, REFER TO DEVICE NOTES
- COMBINATION VOICE/DATA DEVICE
- COMBINATION DUPLEX RECEPTACLE AND CATV DEVICE
- COMBINATION DUPLEX RECEPTACLE AND CATV DEVICE, MOUNTED IN CEILING
- COMBINATION VOICE/DATA DEVICE, MOUNTED IN CEILING
- COMBINATION DUPLEX OR DOUBLE DUPLEX RECEPTACLE AND VOICE/DATA OUTLET, MOUNTED IN FLOOR BOX
- COMBINATION DUPLEX RECEPTACLE AND VOICE/DATA OUTLET, MOUNTED IN FIRE RATED POKE-THROUGH DEVICE
- P,T — POWER/COMMUNICATIONS FURNITURE FEED, CEILING OR WALL MOUNTED
- P,T — POWER/COMMUNICATIONS FURNITURE FEED, IN FIRE RATED POKE-THROUGH DEVICE
- SECURITY CAMERA, REFER TO PLANS FOR REQUIREMENTS
- AP — WIRELESS ACCESS POINT
- KP — KEYPAD, REFER TO PLANS FOR REQUIREMENTS
- GB — GLASS BREAK, REFER TO PLANS FOR REQUIREMENTS
- DC — DOOR CONTACT, REFER TO PLANS FOR REQUIREMENTS
- MS — MOTION SENSOR, REFER TO PLANS FOR REQUIREMENTS
- ES — ELECTRIC STRIKE, REFER TO PLANS FOR REQUIREMENTS
- ML — MAGNETIC DOOR LOCK, REFER TO PLANS FOR REQUIREMENTS

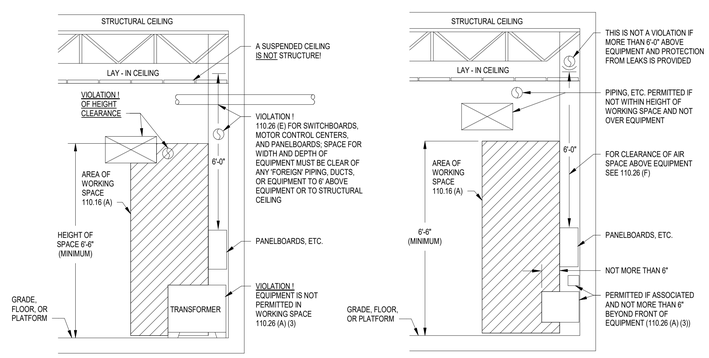
FIRE ALARM SYMBOLS

(ALL SYMBOLS SHOWN ARE NOT NECESSARILY USED ON THE DRAWINGS)

- FIRE ALARM PANEL:
  - FACP = FIRE ALARM CONTROL PANEL
  - FAEP = FIRE ALARM EXTENDER PANEL
  - FAAP = FIRE ALARM ANNUNCIATOR PANEL
  - FACU = FIRE ALARM CONTROL UNIT
- F — FIRE ALARM MANUAL PULL STATION, MOUNTED AT 48" AFF
- F — FIRE ALARM BELL ONLY ALARM SIGNAL, WALL MOUNTED AT 80" AFF
- FIRE ALARM BELL ONLY ALARM SIGNAL, CEILING MOUNTED/SUSPENDED
- F — FIRE ALARM HORN ONLY ALARM SIGNAL, WALL MOUNTED AT 80" AFF
- FIRE ALARM HORN ONLY ALARM SIGNAL, CEILING MOUNTED/SUSPENDED
- FIRE ALARM HORN/STROBE ALARM SIGNAL, WALL MOUNTED AT 80" AFF
- FIRE ALARM HORN/STROBE ALARM SIGNAL, CEILING MOUNTED/SUSPENDED
- FIRE ALARM VISUAL ONLY ALARM SIGNAL, WALL MOUNTED AT 80" AFF
- FIRE ALARM VISUAL ONLY ALARM SIGNAL, CEILING MOUNTED/SUSPENDED
- S — FIRE ALARM SPEAKER/STROBE ALARM SIGNAL, WALL MOUNTED AT 80" AFF
- S — FIRE ALARM SPEAKER/STROBE ALARM SIGNAL, CEILING MOUNTED/SUSPENDED
- SD — PHOTOMETRIC SMOKE DETECTOR, CEILING MOUNTED/SUSPENDED
- DUCT MOUNTED PHOTOELECTRIC SMOKE DETECTOR WITH SAMPLING TUBE. FURNISHED AND WIRED BY E.C. MOUNTED BY MC. EC SHALL PROVIDE REMOTE INDICATOR LIGHT/AUDIBLE ALARM LOCATED IN OCCUPIED SPACE.
- SD — HD — FIXED TEMPERATURE HEAT DETECTOR, CEILING MOUNTED/SUSPENDED
- CO — CARBON MONOXIDE DETECTOR, CEILING MOUNTED/SUSPENDED
- TS — VALVE SUPERVISORY SWITCH
- FS — WATER FLOW DETECTOR SWITCH



1 TYPICAL MOUNTING HEIGHTS
NONE



2 NEC 110.26 CLEARANCE REQUIREMENT DETAL
NONE

GENERAL ELECTRICAL NOTES

GENERAL SHEET NOTES

A. INSTALL ALL EXPOSED RACEWAYS PARALLEL OR PERPENDICULAR TO WALLS OR STRUCTURAL MEMBERS. CONDUITS SHALL BE RUN SO THAT THE STRUCTURAL SURFACE (INCLUDING ALL RADIUSES AND CONTOURS) AND SHALL BE INSTALLED SUCH THAT THEY DO NOT OBSTRUCT PASSAGEWAYS OR ACCESS TO EQUIPMENT. ALL VISIBLE CONDUITS SHALL BE INSTALLED IN A NEAT AND ORDERLY FASHION AND MULTIPLE RACEWAYS SHALL BE INSTALLED AND GROUPED TOGETHER WHERE POSSIBLE. ALL RACEWAYS VISIBLE TO THE PUBLIC SHALL BE APPROVED BY THE ARCHITECT, OWNER, AND GENERAL CONTRACTOR PRIOR TO ROUGH-IN. PROVIDE CLEAR AND LEGIBLE CONDUIT ROUTING PLANS TO THE ARCHITECT AND GENERAL CONTRACTOR FOR REVIEW TWO WEEKS PRIOR TO SCHEDULED WORK.

B. ENSURE THAT ALL MECHANICAL EQUIPMENT DISCONNECTING MEANS ARE READILY ACCESSIBLE AND PROVIDED WITH NEC REQUIRED CLEARANCES. COORDINATE EXACT LOCATION OF ALL MECHANICAL EQUIPMENT WITH MECHANICAL CONTRACTOR AND GENERAL CONTRACTOR PRIOR TO ROUGH-IN.

C. COORDINATE ALL CEILING MOUNTED DEVICES AND LIGHT FIXTURES AND ALL FLOOR MOUNTED DEVICES AND EQUIPMENT WITH THE STRUCTURAL ENGINEERING PLANS, ARCHITECTURAL PLANS, AND THE GENERAL CONTRACTOR IN THE FIELD PRIOR TO ROUGH-IN. ALL ELECTRICAL CONNECTIONS SHALL MEET LOCAL, STATE, AND NATIONAL CODE REQUIREMENTS.

D. PROVIDE A 4" HOUSEKEEPING PAD FOR ALL FLOOR MOUNTED SWITCHGEAR, SWITCHBOARDS, AND TRANSFORMERS UNLESS OTHERWISE NOTED. COORDINATE HOUSEKEEPING PAD WITH THE ARCHITECT AND GENERAL CONTRACTOR PRIOR TO INSTALLATION.

E. PROVIDE FINAL CONNECTION TO ALL ELECTRICALLY POWERED EQUIPMENT UNLESS OTHERWISE NOTED. COORDINATE SCOPE OF WORK WITH GENERAL, MECHANICAL, PLUMBING, FIRE PROTECTION CONTRACTORS. COORDINATE ALL WORK BETWEEN TRADES AND FIELD CONDITIONS.

F. PROVIDE ALL REQUIRED MISCELLANEOUS SUPPORTS FOR A COMPLETE AND FUNCTIONAL ELECTRICAL INSTALLATION, INCLUDING BUT NOT LIMITED TO: MISCELLANEOUS STEEL, UNI-STRUT, ALL-THREAD, AIRCRAFT CABLE. ETC. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

G. REFER TO THE "MEP" SERIES OF DRAWINGS FOR ALL MECHANICAL AND PLUMBING EQUIPMENT CONNECTION REQUIREMENTS. COORDINATE FINAL SCOPE OF WORK IN THE FIELD. VERIFY ALL EQUIPMENT CHANGES WITH MECHANICAL OR PLUMBING CONTRACTOR AND MAKE ADJUSTMENTS AS NECESSARY TO CIRCUIT BREAKERS, FEEDERS, PANEL SCHEDULES, ETC. NOTE ALL CHANGES ON AS-BUILT PLANS.

H. VERIFY DIRECTION OF DOOR SWING PRIOR TO ROUGH-IN OF ALL LIGHTING CONTROL DEVICES. DEVICES SHALL BE READILY ACCESSIBLE AND NOT LOCATED BEHIND OPEN DOORS, WALL MOUNTED SHELVING, OR OTHER EQUIPMENT. COORDINATE WITH GENERAL CONTRACTOR AND FIELD CONDITIONS.

I. REFER TO ARCHITECTURAL CEILING PLANS FOR ALL FIXTURE LOCATIONS WITHIN A CEILING OR CEILING GRID. IN AREAS WITHOUT CEILINGS, FIXTURES SHALL BE CENTERED, ALIGNED, OR SPACED BETWEEN ARCHITECTURAL OR STRUCTURAL ELEMENTS. COORDINATE EXACT LAYOUT IN THE FIELD, VERIFY LOCATIONS WITH ARCHITECT AND GENERAL CONTRACTOR PRIOR TO ROUGH-IN.

J. LIGHTING CONTROL VENDOR SHALL PROVIDE FINAL LIGHTING CONTROL DRAWINGS DURING CONSTRUCTION SUBMITTAL PHASE. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL SYSTEM REQUIREMENTS FOR A FULLY FUNCTIONAL SYSTEM. E.C. SHALL PROVIDE ALL REQUIRED LOW VOLTAGE LIGHTING CONTROL WIRING.

K. EXIT SIGNS SHALL BE LOCATED SO THAT THEY ARE NOT BLOCKED FROM VIEW BY LIGHT FIXTURES, ARCHITECTURAL ELEMENTS, EQUIPMENT, SHELVING, ETC. EXIT SIGNS AT EGRESS DOORWAYS SHALL BE CENTERED ABOVE DOOR UNLESS OTHERWISE NOTED. DIRECTIONAL INDICATORS SHALL BE VERIFIED WITH THE EGRESS PATHWAYS AS INDICATED ON THE LIFE SAFETY PLAN. COORDINATE ALL EXIT SIGN LOCATIONS WITH ARCHITECT AND GENERAL CONTRACTOR PRIOR TO ROUGH-IN.

L. PROVIDE GFCI PROTECTION FOR ALL RECEPTACLES AS REQUIRED PER NEC 210.8. GFCI RECEPTACLES SHALL BE READILY ACCESSIBLE. IN LOCATIONS WHERE THE RECEPTACLE IS NOT READILY ACCESSIBLE, PROVIDE A GFCI CIRCUIT BREAKER FOR PROTECTION. DO NOT INSTALL GFCI RECEPTACLES POWERED FROM GFCI CIRCUIT BREAKERS.

M. INSTALL ALL LUMINAIRES PER NEC 410.10. ALL WET LOCATION FIXTURES, INCLUDING BUT NOT LIMITED TO: IN-GRADE, EXTERIOR CANOPY, WALL MOUNTED, ETC. SHALL BE PROTECTED FROM WATER PENETRATION. ALL FIXTURES AND COMPONENTS SHALL BE LISTED FOR INTENDED USE.

N. ALL SYSTEMS AND COMPONENTS, INCLUDED BUT NOT LIMITED TO: POWER WIRING, LOW VOLTAGE WIRING, SECURING METHODS, ETC., INSTALLED WITHIN PLENUMS SHALL BE PLENUM RATED.

O. CONDUITS SHALL BE INSTALLED 1-1/2" BELOW UNDERSIDE OF ROOF DECK PER NEC 300.4

P. ALL LOW VOLTAGE LIGHTING CONTROL WIRING, INCLUDING BUT NOT LIMITED TO: 0-10V WIRING, DMX WIRING, ETC., SHALL BE PLENUM RATED OR SHALL BE INSTALLED WITHIN CONDUIT. LOW VOLTAGE CONDUCTORS SHALL NOT BE ROUTED WITHIN THE SAME CONDUIT AS POWER CONDUCTORS. CONTROL WIRING SHALL BE INSTALLED AS REQUIRED BY MANUFACTURER AND NEC REQUIREMENTS..

Q. ELECTRICAL CONTRACTOR SHALL COORDINATE ALL UTILITY CONNECTION REQUIREMENTS WITH LOCAL UTILITY COMPANY UPON COMMENCING WORK.

R. ALL TELEPHONE AND COMMUNICATION CABLING ENTERING THE BUILDING SHALL BE PROTECTED VIA SURGE SUPPRESSION DEVICE. COORDINATE ALL REQUIREMENTS IN FIELD WITH UTILITY COMPANY, INSTALL ALL REQUIRED COMPONENTS.

S. ALL POWER AND CONTROL WIRING FOR FIRE ALARM SYSTEMS, SMOKE CONTROL SYSTEMS, SECURITY SYSTEMS, ETC. (REGARDLESS OF VOLTAGE) SHALL BE INSTALLED WITHIN CONDUIT. COORDINATE ALL REQUIREMENTS WITH ARCHITECT AND ELECTRICAL ENGINEER PRIOR TO ROUGH-IN.

LIGHTING PLAN NOTES

GENERAL SHEET NOTES

A. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING INCREASED WIRE SIZES DUE TO FIELD CONDITIONS RESULTING IN EXTENDING CONDUIT PATHS. GROUND WIRE SIZES ARE REQUIRED TO BE ADJUSTED PER ARTICLE 250 OF THE NEC WHEN WIRES ARE INCREASED FOR VOLTAGE DROP.

B. ELECTRICAL CONTRACTOR TO REFER TO ARCHITECTURAL DRAWINGS FOR ALL LIGHT FIXTURE LOCATIONS.

C. ALL LINEAR FLUORESCENT LIGHT FIXTURES SHALL BE INSTALLED TO MEET THE REQUIREMENTS OF NEC 410.130(G) REGARDING LOCAL DISCONNECTING MEANS.

D. ALL BRANCH CIRCUIT WIRING SHALL BE #12 AWG UNLESS OTHERWISE NOTED AND IN CONDUIT/EMT. EACH BRANCH CIRCUIT SHALL HAVE A SEPARATE NEUTRAL CONDUCTOR.

E. PROVIDE ALL LOW VOLTAGE CONTROL WIRING AS REQUIRED TO MATCH EACH DIMMING TYPE: 0-10V, DALI, PHASE DIMMING, DMX ETC. VERIFY ALL CONTROL WIRING TYPES.

EXIT/EMERGENCY LIGHTING SHEET NOTES

A. EVERY DOORWAY LEADING TO THE MALL OR AN EXIT CORRIDOR MUST BE EQUIPPED WITH EMERGENCY BATTERY PACK EXIT LIGHTS.

B. IN ADDITION TO THE EXIT IDENTIFICATION LIGHTS, SPACE MUST BE EQUIPPED WITH EMERGENCY ILLUMINATION. ALL EMERGENCY LIGHTS MUST BE UL APPROVED AND HAVE A CONVENIENCE TEST FEATURE. DURATION AND LIGHT LEVELS TO BE SPECIFIED BY FIRE AND BUILDING CODES.

C. WIRE ALL NIGHT LIGHTING, EXIT SIGNS, EMERGENCY FIXTURES AHEAD OF LOCAL SWITCHING, UNLESS OTHERWISE NOTED.

D. ALL EXIT SIGNS AND EGRESS FIXTURES LOCATED IN OPEN CEILING AREAS SHALL BE MOUNTED AT 1' BELOW DUCT WORK.

POWER PLAN NOTES

GENERAL SHEET NOTES

A. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING INCREASED WIRE SIZES DUE TO FIELD CONDITIONS RESULTING IN EXTENDING CONDUIT PATHS. GROUND WIRE SIZES ARE REQUIRED TO BE ADJUSTED PER ARTICLE 250 OF THE NEC WHEN WIRES ARE INCREASED FOR VOLTAGE DROP.

B. ALL BRANCH CIRCUIT WIRING SHALL BE #12 AWG UNLESS OTHERWISE NOTED AND IN CONDUIT/EMT. EACH BRANCH CIRCUIT SHALL HAVE A SEPARATE NEUTRAL CONDUCTOR.

C. SHOW WINDOW RECEPTACLE COVERPLATE COLOR SHALL MATCH ADJACENT CEILING COLOR.

D. ALL FIRE ALARM DEVICES LOCATED IN OPEN CEILING AREAS SHALL BE MOUNTED AT 15'-0" AFF.

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	09.23.2026	Issued for Permit

STATE OF OHIO — RACHEL SPAUDIE E-83432 — REGISTERED PROFESSIONAL ENGINEER — 09/22/2026

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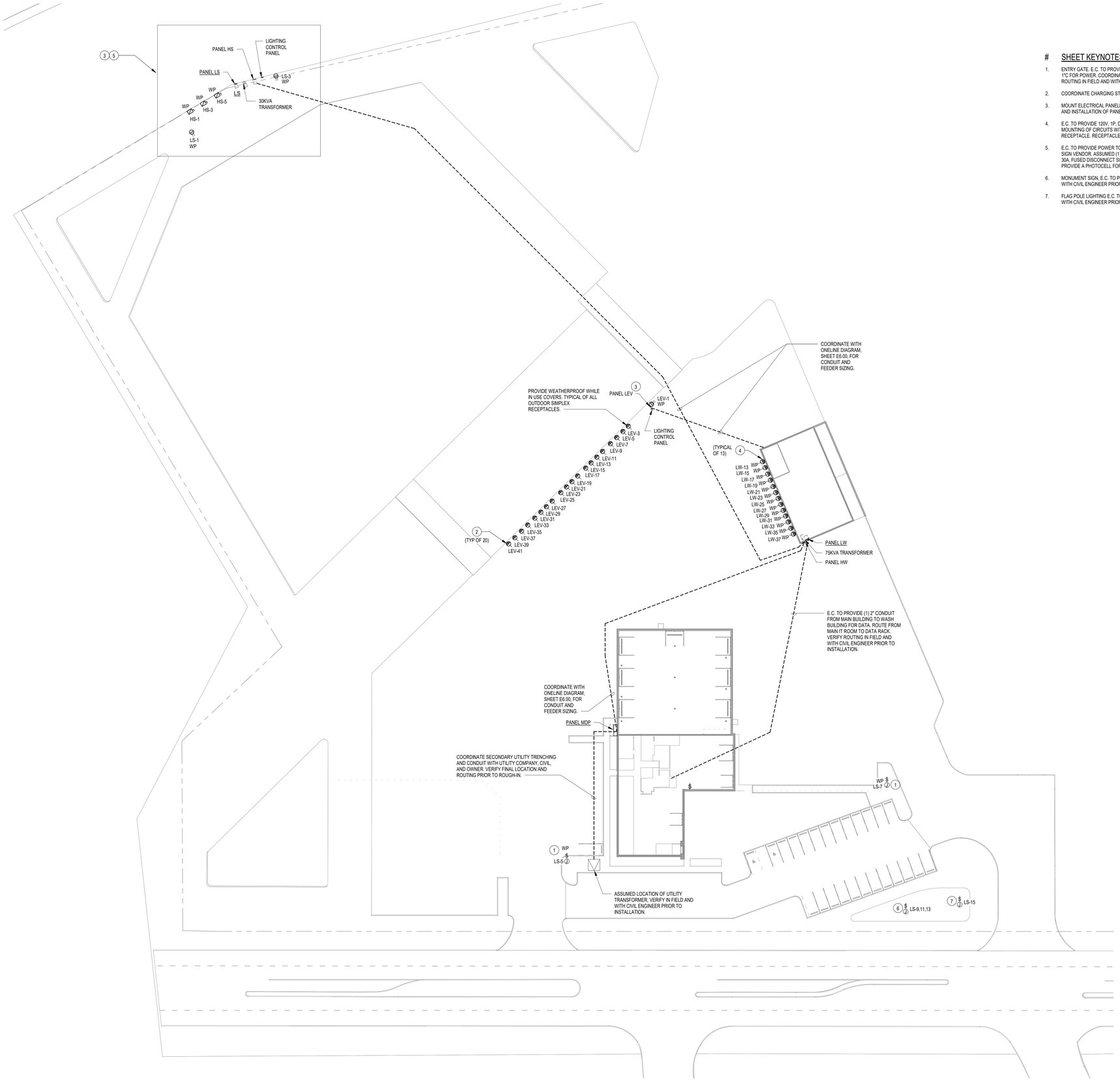
ELECTRICAL NOTES AND LEGEND

E0.01



1 E1.01 ELECTRICAL SITE PLAN

SCALE: 1/32" = 1'-0"

SHEET KEYNOTES

1. ENTRY GATE. E.C. TO PROVIDE (1) 1"C WITH PULLSTRING FOR DATA, AND (2)#10, 1#10GND IN 1"C FOR POWER. COORDINATE EXACT TERMINATION LOCATION WITH OWNER. VERIFY ROUTING IN FIELD AND WITH CIVIL ENGINEER PRIOR TO ROUGH-IN.
2. COORDINATE CHARGING STATIONS FINAL MOUNTING HEIGHT AND LOCATION WITH OWNER.
3. MOUNT ELECTRICAL PANELBOARD, EQUIPMENT, ETC. ON UNISTRUT. VERIFY FINAL LOCATION AND INSTALLATION OF PANELBOARDS IN FIELD AND WITH GC.
4. E.C. TO PROVIDE 120V, 1P, DEDICATED RECEPTACLES. VERIFY FINAL LOCATION AND MOUNTING OF CIRCUITS WITH OWNER PROR TO ROUGH-IN. VERIFY NEMA RATING OF RECEPTACLE. RECEPTACLE TO BE GFCI WITH WEATHERPROOF WHILE IN USE COVER.
5. E.C. TO PROVIDE POWER TO HIGHWAY SIGN. VERIFY FINAL POWER REQUIREMENTS WITH SIGN VENDOR. ASSUMED (1) DEDICATED 277V CIRCUIT PER SIGN. PROVIDE LOCAL NEMA 3R, 30A, FUSED DISCONNECT SWITCHES FOR SIGN CIRCUITS. PROVIDE UNINSTRUT MOUNTING. PROVIDE A PHOTOCELL FOR EACH SIGN FOR CONTROL.
6. MONUMENT SIGN, E.C. TO PROVIDE 3#10, 1#10 GND IN 1"C. VERIFY ROUTING IN FIELD AND WITH CIVIL ENGINEER PRIOR TO INSTALLATION.
7. FLAG POLE LIGHTING E.C. TO PROVIDE 2#10, 1#10 GND IN 1"C. VERIFY ROUTING IN FIELD AND WITH CIVIL ENGINEER PRIOR TO INSTALLATION.

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LDA Project No.2026.11

ELECTRICAL SITE PLAN

E1.01

MECHANICAL/PLUMBING EQUIPMENT COORDINATION SCHEDULE MAIN BUILDING

NAME	VOLTAGE	PHASE	MCA	MOCP	APPARENT LOAD	CONDUIT/WIRING	PANEL	CIRCUIT #	NOTES
CUH-1	277 V	1	3 A	15 A	831 VA	2#12+1#12GND-3/4"C	HM	36	1
CUH-4	277 V	1	6 A	20 A	1662 VA	2#12+1#12GND-3/4"C	HM	66	1
EF-1	277 V	1	1 A	15 A	300 VA	2#12+1#12GND-3/4"C	HM	83	2,3
EF-14	277 V	1	6 A	20 A	1662 VA	2#12+1#12GND-3/4"C	HM	33	2,5
GUH-1	480 V	3	1 A	15 A	830 VA	3#12+1#12GND-3/4"C	HM	38,40,42	1
IDU-2	208 V	1	1 A	15 A	830 VA	2#10+1#10GND-3/4"C			2,4
IDU-4	208 V	1	22 A	25 A	4576 VA	2#10+1#10GND-3/4"C			2,4
RP-1	120 V	1	19 A	25 A	500 VA	2#10+1#10GND-3/4"C	LMR	20	2
WH-1	120 V	1	19 A	25 A	2280 VA	2#10+1#10GND-3/4"C	LM1	32	2

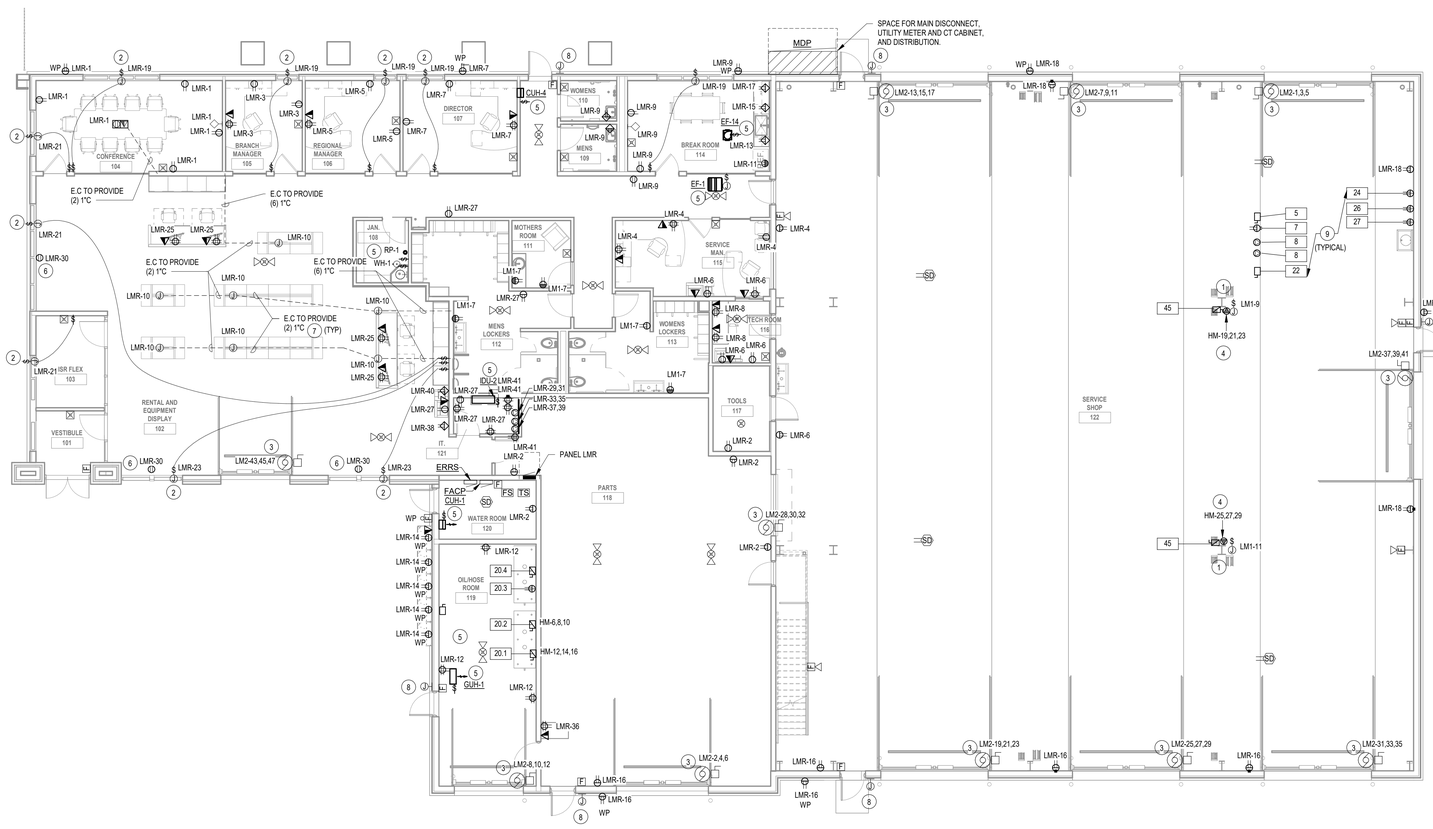
NOTES:
1. EQUIPMENT PROVIDED WITH DISCONNECT SWITCH.
2. EC TO PROVIDE CODE SIZED DISCONNECT. PROVIDE NEMA 3R IF EXTERIOR DISCONNECT SWITCH IS REQUIRED.
3. E.C. TO PROVIDE TIMECLOCK AND SCHEDULE FOR OPERATION ALL OCCUPIED HOURS. COORDINATE WITH MC FOR INSTALLATION AND SCOPE OF WORK.
4. OUTDOOR UNIT TO BE POWERED BY INDOOR UNIT
5. EXHAUST FAN TO BE CONTROLLED VIA LOCAL AREA ROOM LIGHT SWITCH. PROVIDE ADDITIONAL POWER PACKS AS REQUIRED.

EQUIPMENT ELECTRICAL CONNECTION SCHEDULE MAIN BUILDING

ITEM #	DESCRIPTION	VOLTAGE	PHASE	LOAD	MCA	MOCP	CONNECTION	CIRCUIT	FEEDER SIZE	COMMENTS
5	STINGRAY PARTS WASHER	480 V	3	43181 VA	52 A	90 A	DISCONNECT SWITCH	HM-18,20,22	3#2+1#8GND-1 1/4"C	COORDINATE FINAL LOCATION AND INSTALLATION WITH MANUFACTURER AND OWNER PRIOR TO ROUGH-IN
7	FILTER CRUSHER P-300	120 V	1	1800 VA	15 A	20 A	NEMA 5-20R	LM1-2	2#12+1#12GND-3/4"C	COORDINATE FINAL LOCATION AND INSTALLATION WITH MANUFACTURER AND OWNER PRIOR TO ROUGH-IN
8	FILTER CRUSHER P-200	208 V	1	1560 VA	8 A	20 A	NEMA 6-20R	LM1-35,37	2#12+1#12GND-3/4"C	COORDINATE FINAL LOCATION AND INSTALLATION WITH MANUFACTURER AND OWNER PRIOR TO ROUGH-IN
8	FILTER CRUSHER P-100WM	208 V	1	1560 VA	8 A	20 A	NEMA 6-20R	LM1-39,41	2#12+1#12GND-3/4"C	COORDINATE FINAL LOCATION AND INSTALLATION WITH MANUFACTURER AND OWNER PRIOR TO ROUGH-IN
20.1	TRAP BURNER	480 V	3	9965 VA	12 A	20 A	DISCONNECT SWITCH	HM-12,14,16	3#12+1#12GND-3/4"C	COORDINATE FINAL LOCATION AND INSTALLATION WITH MANUFACTURER AND OWNER PRIOR TO ROUGH-IN
20.2	SOOTSUCKER	480 V	3	4152 VA	5 A	20 A	DISCONNECT SWITCH	HM-6,8,10	3#12+1#12GND-3/4"C	COORDINATE FINAL LOCATION AND INSTALLATION WITH MANUFACTURER AND OWNER PRIOR TO ROUGH-IN
20.3	TRAP BLASTER	120 V	1	900 VA	8 A	20 A	NEMA 6-20R	LM1-33	2#12+1#12GND-3/4"C	COORDINATE FINAL LOCATION AND INSTALLATION WITH MANUFACTURER AND OWNER PRIOR TO ROUGH-IN
20.4	TRAP TESTER	480 V	3	2200 VA	3 A	20 A	DISCONNECT SWITCH	HM-24,26,28	3#12+1#12GND-3/4"C	COORDINATE FINAL LOCATION AND INSTALLATION WITH MANUFACTURER AND OWNER PRIOR TO ROUGH-IN
22	FLYWHEEL GRINDER	208 V	3	3750 VA	10 A	20 A	DISCONNECT SWITCH	LM1-34,36,38	3#12+1#12GND-3/4"C	COORDINATE FINAL LOCATION AND INSTALLATION WITH MANUFACTURER AND OWNER PRIOR TO ROUGH-IN
24	SAND BLASTER	120 V	1	960 VA	8 A	20 A	NEMA 5-20R	LM1-4	2#12+1#12GND-3/4"C	COORDINATE FINAL LOCATION AND INSTALLATION WITH MANUFACTURER AND OWNER PRIOR TO ROUGH-IN
26	PARTS CRUSHER	120 V	1	960 VA	8 A	20 A	NEMA 5-20R	LM1-6	2#12+1#12GND-3/4"C	COORDINATE FINAL LOCATION AND INSTALLATION WITH MANUFACTURER AND OWNER PRIOR TO ROUGH-IN
27	DRILL PRESS	120 V	1	960 VA	8 A	20 A	NEMA 5-20R	LM1-40	2#12+1#12GND-3/4"C	COORDINATE FINAL LOCATION AND INSTALLATION WITH MANUFACTURER AND OWNER PRIOR TO ROUGH-IN
45	CRANE	480 V	3	12677 VA	15 A	20 A	DISCONNECT SWITCH	HM-7,9,11	3#12+1#12GND-3/4"C	COORDINATE FINAL LOCATION AND INSTALLATION WITH MANUFACTURER AND OWNER PRIOR TO ROUGH-IN
45	CRANE	480 V	3	12677 VA	15 A	20 A	DISCONNECT SWITCH	HM-13,15,17	3#12+1#12GND-3/4"C	COORDINATE FINAL LOCATION AND INSTALLATION WITH MANUFACTURER AND OWNER PRIOR TO ROUGH-IN

SHEET KEYNOTES

1. E.C. TO PROVIDE POWER FOR CRANE, PROVIDE 480V, 3PH, 20A CIRCUIT IN CEILING FOR MAIN CRANE POWER. PROVIDE ADDITIONAL 120V CIRCUIT FOR CONTROLS. SEE ELECTRICAL EQUIPMENT CONNECTION SCHEDULE ON THIS SHEET FOR ADDITIONAL INFORMATION.
2. PROVIDE POWER AND CONTROLS FOR MOTORIZED ROLLER SHADE. COORDINATE CONTROL LOCATION WITH OWNER PRIOR TO ROUGH-IN.
3. E.C. TO PROVIDE POWER TO OVERHEAD DOORS, ASSUME 208V/3PH, PROVIDE 3#12, 1# 12 GND IN 3/4"C. VERIFY FINAL MOUNTING AND LOCATION OF MOTOR, PROVIDE WITH LOCAL DISCONNECT SWITCH. PROVIDE WITH DOOR OPENER AND ADDITIONAL CONTROLS. VERIFY DOOR CONTROL LOCATION WITH OWNER AND DOOR MANUFACTURER.
4. POWER FOR WELDER, VERIFY PRIOR TO INSTALLATION.
5. SEE MECHANICAL/PLUMBING CONNECTION SCHEDULE THIS SHEET FOR MORE INFORMATION.
6. PROVIDE RECEPTACLES WITHIN 18" OF THE TOP OF EACH SHOW WINDOW PER NEC 210.62. ROUTE VIA LIGHTING CONTROL PANEL.
7. COORDINATE UNDERGROUND CONDUIT ROUTING IN FIELD AND WITH MILLWORK VENDOR AND ARCHITECT PRIOR TO STUB UP.
8. PROVIDE JUNCTION BOX, CONDUIT WITH PULLSTRING, AND INFRASTRUCTURE FOR CARD READER. SEE DETAIL ON SHEET E5.02 FOR ADDITIONAL INFORMATION. COORDINATE WITH OWNER FOR FINAL INSTALLATION INSTRUCTIONS AND CARD READER MANUFACTURER INSTRUCTIONS. CIRCUIT TO CLOSEST GENERAL RECEPTACLE .
9. SEE EQUIPMENT ELECTRICAL CONNECTION SCHEDULE ON THIS SHEET FOR ADDITIONAL INFORMATION.



1 E2.01 ELECTRICAL POWER PLAN
SCALE: 1/8" = 1'-0"

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ELECTRICAL POWER PLAN

E2.01

SHEET KEYNOTES

1. SEE MECHANICAL/PLUMBING CONNECTION SCHEDULE THIS SHEET FOR MORE INFORMATION.
2. E.C. TO PROVIDE POWER TO MOTORIZED DAMPER. COORDINATE FINAL INSTALLATION AND CONNECTION DETAILS WITH MC PRIOR TO ROUGH-IN.
3. SEE EQUIPMENT ELECTRICAL CONNECTION SCHEDULE ON THIS SHEET FOR ADDITIONAL INFORMATION.

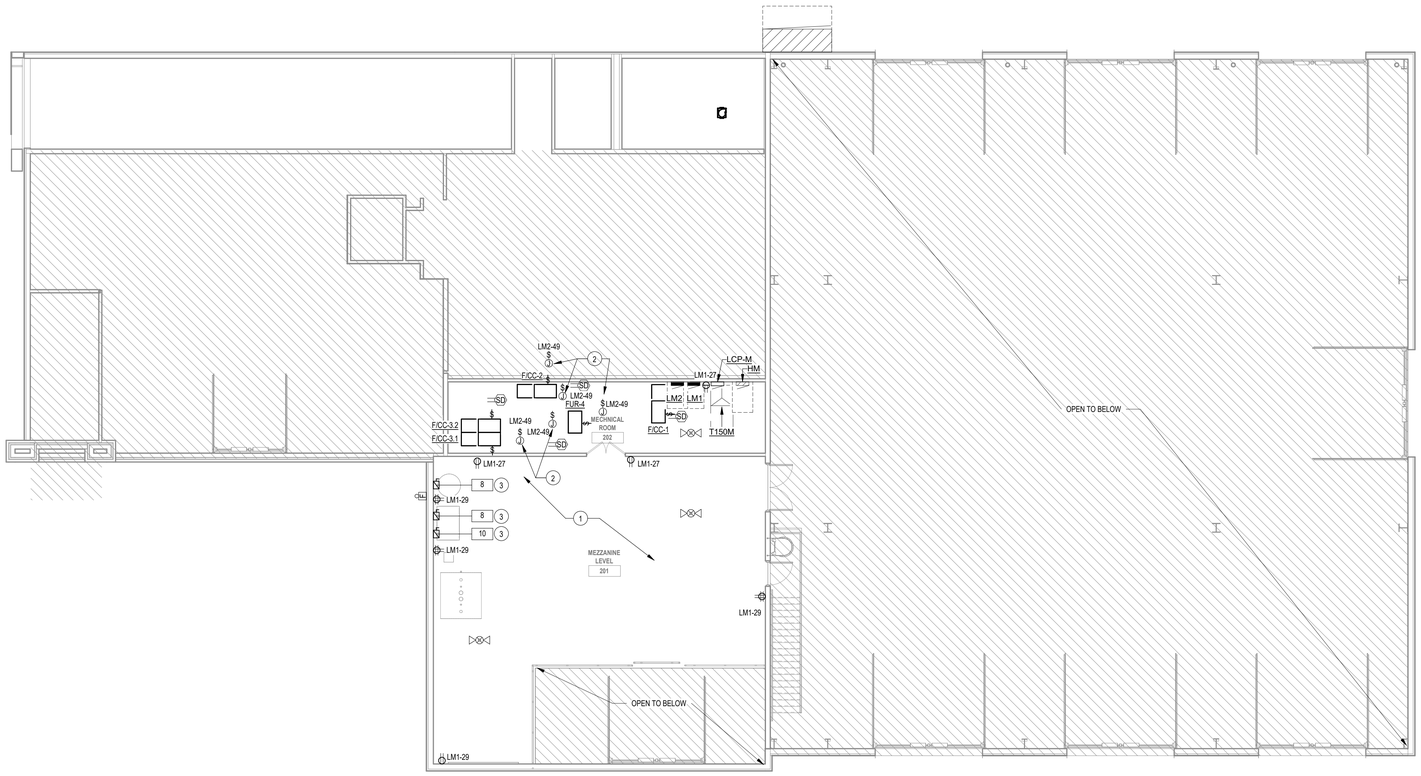
MECHANICAL/PLUMBING EQUIPMENT COORDINATION SCHEDULE MAIN BUILDING MEZZANINE

NAME	VOLTAGE	PHASE	MCA	MOCP	APPARENT LOAD	CONDUIT/WIRING	PANEL	CIRCUIT #	NOTES
F/CC-1	120 V	1	11 A	20 A	1320 VA	2#12+1#12GND-3/4"C	LM1	16	1
F/CC-2	120 V	1	14 A	20 A	1680 VA	2#12+1#12GND-3/4"C	LM1	8	1
F/CC-3.1	120 V	1	14 A	25 A	1680 VA	2#10+1#10GND-3/4"C	LM1	12	1
F/CC-3.2	120 V	1	14 A	25 A	1680 VA	2#10+1#10GND-3/4"C	LM1	10	1
FUR-4	120 V	1	11 A	20 A	1320 VA	2#12+1#12GND-3/4"C	LM1	14	1

NOTES:
1. EC TO PROVIDE CODE SIZED DISCONNECT. PROVIDE NEMA 3R IF EXTERIOR DISCONNECT SWITCH IS REQUIRED.
2. INDOOR UNIT POWERED FROM OUTDOOR UNIT. COORDINATE WITH MECHANICAL CONTRACTOR AND MANUFACTURER FOR FINAL INSTALLATION.

EQUIPMENT ELECTRICAL CONNECTION SCHEDULE MEZZANINE

ITEM #	DESCRIPTION	VOLTAGE	NUMBER OF POLES	PHASE	LOAD	MCA	MOCP	CONNECTION	CIRCUIT	FEEDER SIZE	COMMENTS
8	ROTARY SCREW AIR COMPRESSOR	480 V	3	3	39075 VA	47 A	60 A	DISCONNECT SWITCH	HM-44,46,48	3#4+1#8GND-1 1/4"C	COORDINATE FINAL LOCATION AND INSTALLATION WITH MANUFACTURER AND OWNER PRIOR TO ROUGH-IN
8	ROTARY SCREW AIR COMPRESSOR	480 V	3	3	39075 VA	47 A	60 A	DISCONNECT SWITCH	HM-50,52,54	3#4+1#8GND-1 1/4"C	COORDINATE FINAL LOCATION AND INSTALLATION WITH MANUFACTURER AND OWNER PRIOR TO ROUGH-IN
10	AIR DRYER	480 V	3	3	2000 VA	2 A	15 A	DISCONNECT SWITCH	HM-56,58,60	3#12+1#12GND-3/4"C	COORDINATE FINAL LOCATION AND INSTALLATION WITH MANUFACTURER AND OWNER PRIOR TO ROUGH-IN



1 / E2.02 ELECTRICAL MEZZANINE POWER PLAN
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MIAMISBURG - CAT
RENTAL FACILITY
490 BYERS ROAD, MIAMISBURG, OHIO 45342

LDA Project No.2026.11

ELECTRICAL MEZZANINE POWER PLAN
E2.02

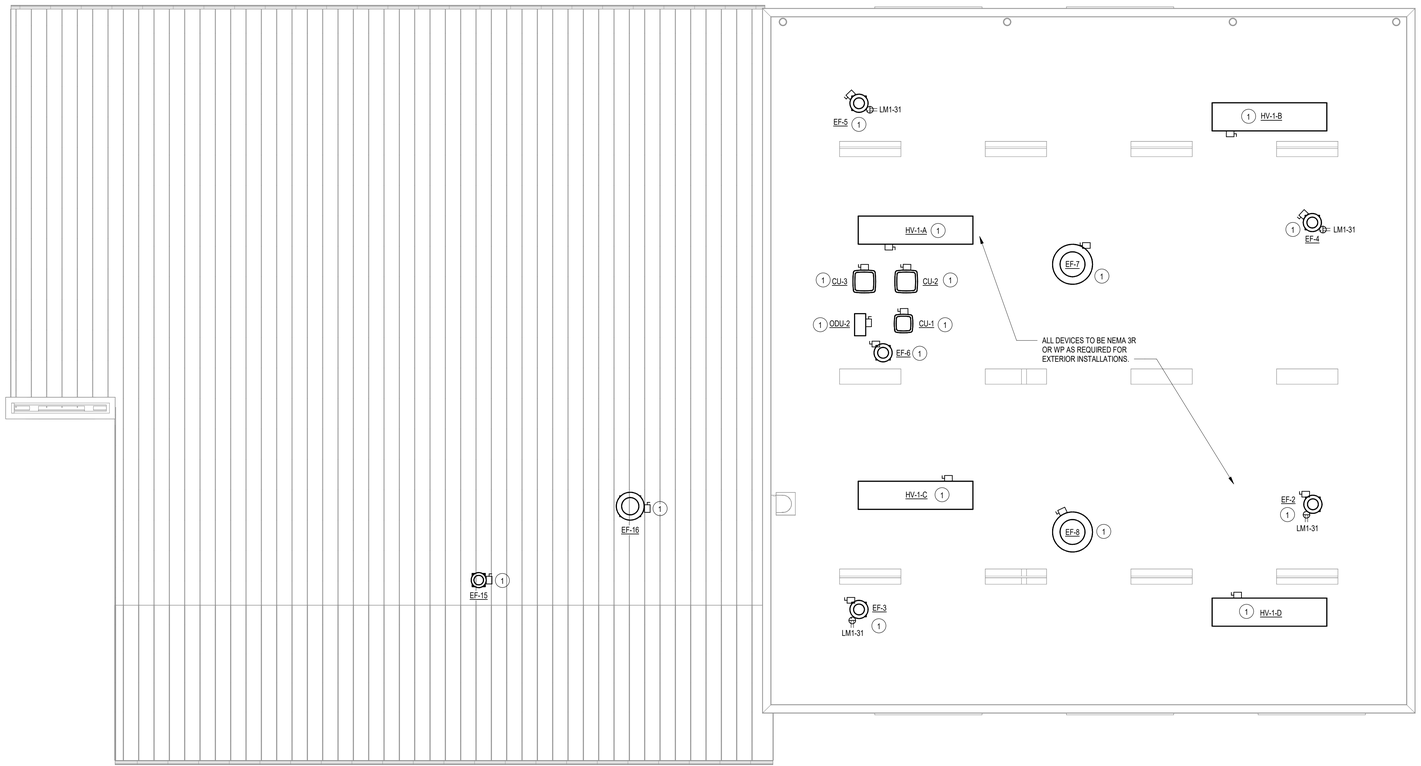
MECHANICAL/PLUMBING EQUIPMENT COORDINATION SCHEDULE MAIN BUILDING...

NAME	VOLTAGE	PHASE	MCA	MOCP	CONDUIT/WIRING	PANEL	CIRCUIT #	NOTES
CU-1	480 V	3	8 A	10 A	3#12+1#12GND-3/4"C	MDP	19,21,23	3
CU-2	480 V	3	10 A	15 A	3#12+1#12GND-3/4"C	MDP	25,27,29	3
CU-3	480 V	3	21 A	25 A	3#10+1#10GND-3/4"C	MDP	31,33,35	3
EF-2	277 V	1	4 A	15 A	2#12+1#12GND-3/4"C	HM	47	1
EF-3	277 V	1	4 A	15 A	2#12+1#12GND-3/4"C	HM	49	1
EF-4	277 V	1	4 A	15 A	2#12+1#12GND-3/4"C	HM	45	1
EF-5	277 V	1	4 A	15 A	2#12+1#12GND-3/4"C	HM	43	1
EF-6	277 V	1	4 A	15 A	2#12+1#12GND-3/4"C	HM	57	1
EF-7	480 V	3	4 A	15 A	3#12+1#12GND-3/4"C	HM	59,61,63	1
EF-8	480 V	3	4 A	15 A	3#12+1#12GND-3/4"C	HM	51,53,55	1
EF-15	277 V	1	5 A	15 A	2#12+1#12GND-3/4"C	HM	68	3,4
EF-16	277 V	1	5 A	15 A	2#12+1#12GND-3/4"C	HM	70	3,4
HV-1-A	480 V	3	5 A	15 A	3#12+1#12GND-3/4"C	HM	65,67,69	1
HV-1-B	480 V	3	5 A	15 A	3#12+1#12GND-3/4"C	HM	71,73,75	1
HV-1-C	480 V	3	5 A	15 A	3#12+1#12GND-3/4"C	HM	77,79,81	1
HV-1-D	480 V	3	5 A	15 A	3#12+1#12GND-3/4"C	HM	30,32,34	1
ODU-2	208 V	1	22 A	25 A	2#10+1#10GND-3/4"C	LM1	22,24	1,2

NOTES:
1. EC TO PROVIDE CODE SIZED DISCONNECT. PROVIDE NEMA 3R IF EXTERIOR DISCONNECT SWITCH IS REQUIRED.
2. OUTDOOR UNIT TO BE POWERED BY INDOOR UNIT.
3. E.C. TO PROVIDE NEMA 3R FUSED DISCONNECT SWITCH WITH RK5 FUSES TO LIMIT FAULT CURRENT TO 5KAIC.
4. E.C. TO PROVIDE H-O-A FOR ASSOCIATED E.F. IN SPACE SERVED BY FAN FOR ADDITIONAL CONTROLS

SHEET KEYNOTES

1. SEE MECHANICAL/PLUMBING CONNECTION SCHEDULE THIS SHEET FOR MORE INFORMATION.



1 / E2.03 ELECTRICAL ROOF POWER PLAN
SCALE: 1/8" = 1'-0"

N

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RENTAL FACILITY
490 BYERS ROAD, MIAMISBURG, OHIO 45342

LDA Project No.2026.11

ELECTRICAL ROOF POWER PLAN
E2.03

SHEET KEYNOTES

1. SEE MECHANICAL/PLUMBING CONNECTION SCHEDULE THIS SHEET FOR MORE INFORMATION.
2. E.C. TO PROVIDE POWER TO OVERHEAD DOORS. ASSUME 208V/3PH. PROVIDE 3#12, 1#12 GND IN 3/4"C. VERIFY FINAL MOUNTING AND LOCATION OF MOTOR. PROVIDE WITH LOCAL DISCONNECT SWITCH. PROVIDE WITH DOOR OPENER AND ADDITIONAL CONTROLS. VERIFY DOOR CONTROL LOCATION WITH OWNER AND DOOR MANUFACTURER.
3. E.C. TO PROVIDE 4'X4'X3/4" FIRE RATED PLYWOOD BACKBOARD FOR NETWORK RACK. PROVIDE WITH #6 GND. SEE SITE PLAN FOR CONDUIT AND ROUTING/CONNECTION TO MAIN BUILDING.
4. SEE EQUIPMENT ELECTRICAL CONNECTION SCHEDULE ON THIS SHEET FOR ADDITIONAL INFORMATION.

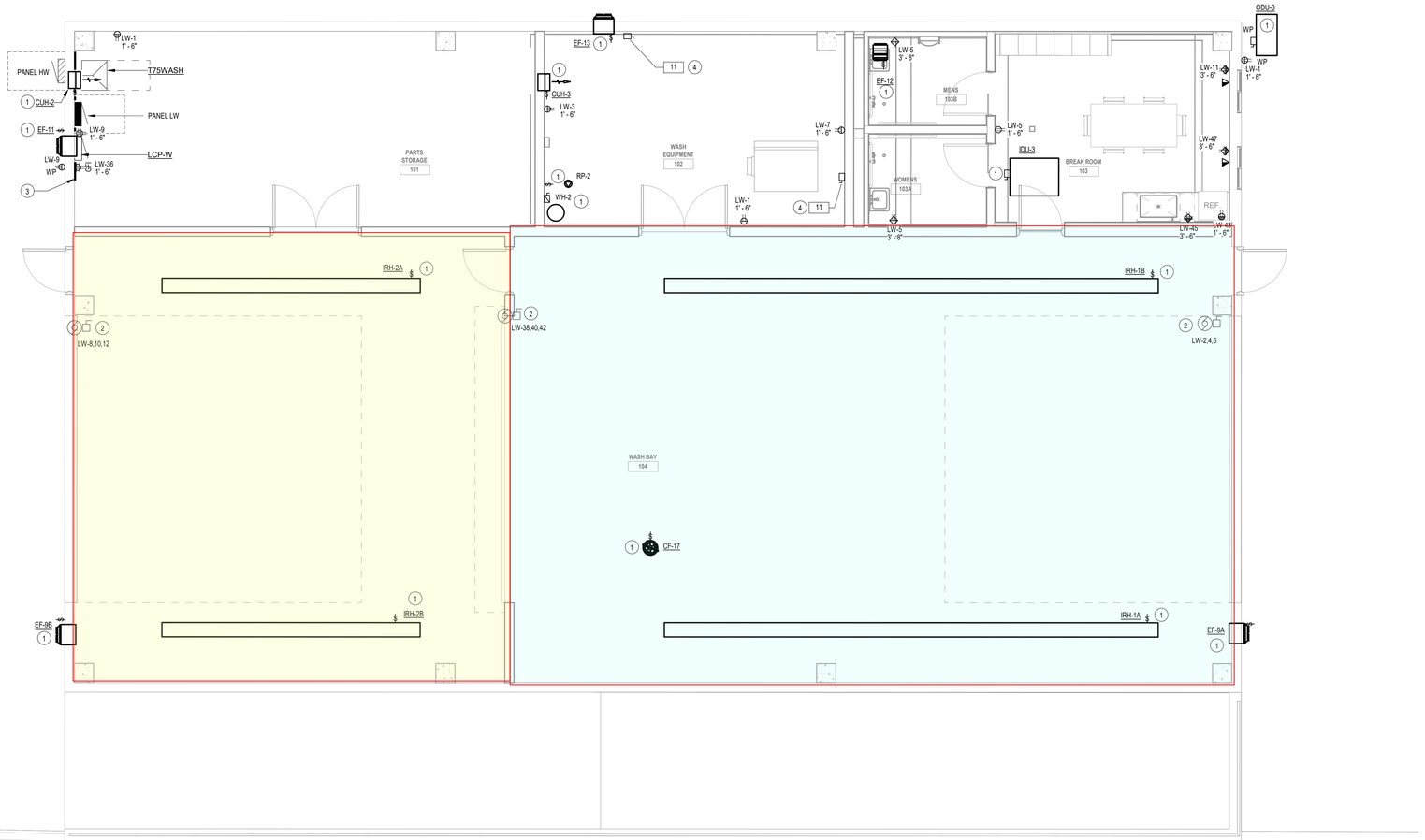
MECHANICAL/PLUMBING EQUIPMENT COORDINATION SCHEDULE WASH BUILDING

NAME	VOLTAGE	Phase	MCA	MOCP	Apparent Load	CONDUIT/WIRING	PANEL	CIRCUIT #	NOTES
CF-15	120 V	1	1 A	15 A	120 VA	2#12, 1#12 GND IN 3/4"C	LW	49	2,4,6
CUH-2	277 V	1	4 A	15 A	1108 VA	2#12+1#12GND-3/4"C	HW	13	1
CUH-3	277 V	1	4 A	15 A	1108 VA	2#12+1#12GND-3/4"C	HW	11	1
EF-9	120 V	1	6 A	15 A	720 VA	2#12+1#12GND-3/4"C	LW	46	2
EF-9B	120 V	1	7 A	15 A	840 VA	2#12, 1#12 GND IN 3/4"C	LW	51	2
EF-11	120 V	1	3 A	15 A	360 VA	2#12+1#12GND-3/4"C	LW	41	2
EF-12	120 V	1	2 A	15 A	240 VA	2#12+1#12GND-3/4"C	LW	24	2
EF-13	120 V	1	3 A	15 A	360 VA	2#12+1#12GND-3/4"C	LW	22	2
IDU-3	208 V	1	22 A	25 A	4576 VA	2#10+1#10GND-3/4"C			2,3
IRH-1A	120 V	1	1 A	15 A	120 VA	2#12, 1#12 GND IN 3/4"C	LW	39	4,5
IRH-1B	120 V	1	1 A	15 A	120 VA	2#12, 1#12 GND IN 3/4"C	LW	39	4,5
IRH-1C	120 V	1	1 A	15 A	120 VA	2#12, 1#12 GND IN 3/4"C	LW	39	4,5
IRH-1D	120 V	1	1 A	15 A	120 VA	2#12, 1#12 GND IN 3/4"C	LW	39	4,5
ODU-3	208 V	1	22 A	25 A	4576 VA	2#10+1#10GND-3/4"C	LW	14,16	2,3
RP-2	120 V	1	4 A	15 A	1108 VA	2#12+1#12GND-3/4"C	LW	44	2
WH-2	480 V	3	12 A	20 A	4576 VA	3#12+1#12GND-3/4"C	HW	2,4,6	2

NOTES:
1. EQUIPMENT PROVIDED WITH INTEGRAL DISCONNECT SWITCH.
2. E.C. TO PROVIDE CODE SIZED DISCONNECT. PROVIDE NEMA 3R IF EXTERIOR DISCONNECT SWITCH IS REQUIRED.
3. INDOOR UNIT POWERED FROM OUTDOOR UNIT. COORDINATE WITH MECHANICAL CONTRACTOR AND MANUFACTURER FOR FINAL INSTALLATION.
4. COORDINATE WITH MC FOR INSTALLATION.
5. MECHANICAL CONTRACTOR TO FURNISH DISCONNECT. E.C. TO INSTALL.
6. E.C. TO ROUTE CIRCUIT THRU LCP-W FOR CONTROL OF CF.

EQUIPMENT ELECTRICAL CONNECTION SCHEDULE WASH BUILDING

ITEM #	DESCRIPTION	VOLTAGE	PHASE	LOAD	HP	MCA	MOCP	CONNECTION	CIRCUIT	FEEDER SIZE	COMMENTS
11	HOT WATER PRESSURE WASHER	480 V	3	15796 VA		19 A	25 A	DISCONNECT SWITCH	HW-23,25,27	3#10+1#10GND-3/4"C	COORDINATE FINAL LOCATION AND INSTALLATION WITH MANUFACTURER AND OWNER PRIOR TO ROUGH-IN
11	HOT WATER PRESSURE WASHER	480 V	3	15796 VA		19 A	25 A	DISCONNECT SWITCH	HW-29,31,33	3#10+1#10GND-3/4"C	COORDINATE FINAL LOCATION AND INSTALLATION WITH MANUFACTURER AND OWNER PRIOR TO ROUGH-IN



1 E2.04 ELECTRICAL WASH BUILDING POWER PLAN
SCALE: 1/4" = 1'-0"

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LDA Project No.2026.11

ELECTRICAL WASH BUILDING POWER PLAN
E2.04

LIGHTING FIXTURE SCHEDULE

TYPE	LAMP	WATTAGE	DESCRIPTION	COLOR TEMP.	CRI	LUMENS	DIMMING TYPE	MANUFACTURER	MODEL	VOLTAGE	REMARKS
EX1	LED	3 VA	EXIT SIGN - WALL MOUNTED	--	--	--	--			277 V	
EX2	LED	3 VA	EXIT SIGN - CEILING MOUNTED	<varies>	<varies>	<varies>	<varies>			277 V	
LT-1	LED	30 VA	2X2 LED EDGE-LIT FLAT PANEL	3500K	80CRI	3400LM	0-10V	LITHONIA LIGHTING	EPANL 2X2 3400L 80 CRI 3500K	120 V	
LT-1 EM	LED	30 VA	2X2 LED EDGE-LIT FLAT PANEL W BACKUP BATTERY	3500K	80 CRI	3400LM	0-10V			120 V	
LT-2	LED	29 VA	2X4 LED EDGE-LIT FLAT PANEL	3500K	80 CRI	3000LM	0-10V	LITHONIA LIGHTING	EPANL 2X4 3000LM 80 CRI 3500K	120 V	
LT-2 EM	LED	29 VA	2X4 LED EDGE-LIT FLAT PANEL W BACKUP BATTERY	3500K	80 CRI	3000LM	0-10V			120 V	
LT-3	LED	114 VA	I-BEAM LED HIGH-BAY, AISLE FLOOD, WHITE	4000K	80 CRI	18000LM	0-10V	LITHONIA LIGHTING	IBG 18000LM SEF AFL GND MVOLT GZ10 40K 80CRI DWH	277 V	
LT-3 EM	LED	114 VA	I-BEAM LED HIGH-BAY, AISLE FLOOD, WHITE W BACKUP BATTERY	4000K	80 CRI	18000LM	0-10V	LITHONIA LIGHTING	IBG 18000LM SEF AFL GND MVOLT GZ10 40K 80CRI DWH	277 V	
LT-4	LED	48 VA	Z-SERIES LED STRIPLIGHT, TANDEM 8 FT, FROSTED, WHITE	4000K	80 CRI	6000LM	0-10V	LITHONIA LIGHTING	TZL1N L96 6000LM FST MVOLT 40K 80CRI WH	277 V	
LT-4 EM	LED	48 VA	Z-SERIES LED STRIPLIGHT, TANDEM 8 FT, FROSTED, WHITE W BACKUP BATTERY	4000K	80 CRI	6000LM	0-10V	LITHONIA LIGHTING	TZL1N L96 6000LM FST MVOLT 40K 80CRI WH	277 V	
LT-5	LED	100 VA	LINEAR RECESSED LIGHT							277 V	
LT-5 EM	LED	100 VA	LINEAR RECESSED LIGHT							277 V	
LT-6	LED	250 VA	CEILING FAN WITH LIGHT							120 V	
LT-7	LED	250 VA	LED HIGH BAY TBD. ASSUMED 250VA.	--	--	--	--	TBD	TBD	277 V	
LT-7 EM	LED	250 VA	LED HIGH BAY TBD. ASSUMED 250VA.	--	--	--	--	TBD	TBD	277 V	
LT-8	LED	80 VA	LED CANOPY LIGHT							277 V	
SW	LED	78 VA	D-SERIES SIZE 2 LED FLOOD, MEDIUM FLOOD, DARK-BRONZE	<varies>	<varies>	<varies>	<varies>	LITHONIA LIGHTING	DSXF2 LED P2 40K MFL MVOLT THK DDBXD	<varies>	
SW EM	LED	78 VA	D-SERIES SIZE 2 LED FLOOD, MEDIUM FLOOD, DARK-BRONZE W BACKUP BATTERY	4000K	70 CRI	10169LM	0-10V	LITHONIA LIGHTING	DSXF2 LED P2 40K MFL MVOLT THK DDBXD	120 V	

NOTES:
1. PROVIDE ALL COMPONENTS FOR A COMPLETE WORKING LIGHT SYSTEM.
2. COORDINATE MOUNTING HEIGHTS, CEILING TYPES, FINISHES, AND LOCATIONS WITH ARCHITECT.
3. CONTRACTOR SHALL VERIFY ALL FIELD DIMENSIONS AND MODIFY LIGHT FIXTURE DIMENSIONS AS NECESSARY PRIOR TO PURCHASING FIXTURE PACKAGE TO MEET THE ARCHITECTURAL DESIGN INTENT. REFER TO ARCHITECTURAL PLANS FOR REQUIRED DIMENSIONS.
4. PROVIDE ADDITIONAL CONTROLS, I.E. DMX CONTROLLERS, AS REQUIRED PER FIXTURE SPECIFICATIONS. COORDINATE ALL CONTROL REQUIREMENTS WITH MANUFACTURER SPECIFICATIONS PRIOR TO ROUGH-IN.
5. PROVIDE ALL LOW VOLTAGE CONTROL WIRING AS REQUIRED TO MATCH EACH DIMMING TYPE, 0-10V ETC. VERIFY ALL CONTROL WIRING TYPES WITH MANUFACTURER PRIOR TO ROUGH-IN.

SHEET KEYNOTES

1. E.C. TO PROVIDE POWER FOR SIGNAGE. VERIFY FINAL MOUNTING HEIGHT AND LOCATION WITH SIGNAGE VENDOR. PROVIDE WP LOCAL DISCONNECT SWITCH.
2. LOCATE ALL LOCAL LIGHTING CONTROL SWITCHES ADJACENT TO THE SOLAR SHADE SWITCH LOCATION. REFER TO THE POWER PLAN AND COORDINATE FINAL SWITCH LOCATIONS IN THE FIELD.
3. PROVIDE A DEDICATED CONTROL FOR EACH FAN WITHIN THE RETAIL AREA. LOCATE FAN CONTROLS ADJACENT TO THE LIGHTING CONTROLS AND SOLAR SHADE SWITCH BANK.

1 E3.01 ELECTRICAL LIGHTING PLAN
SCALE: 1/8" = 1'-0"

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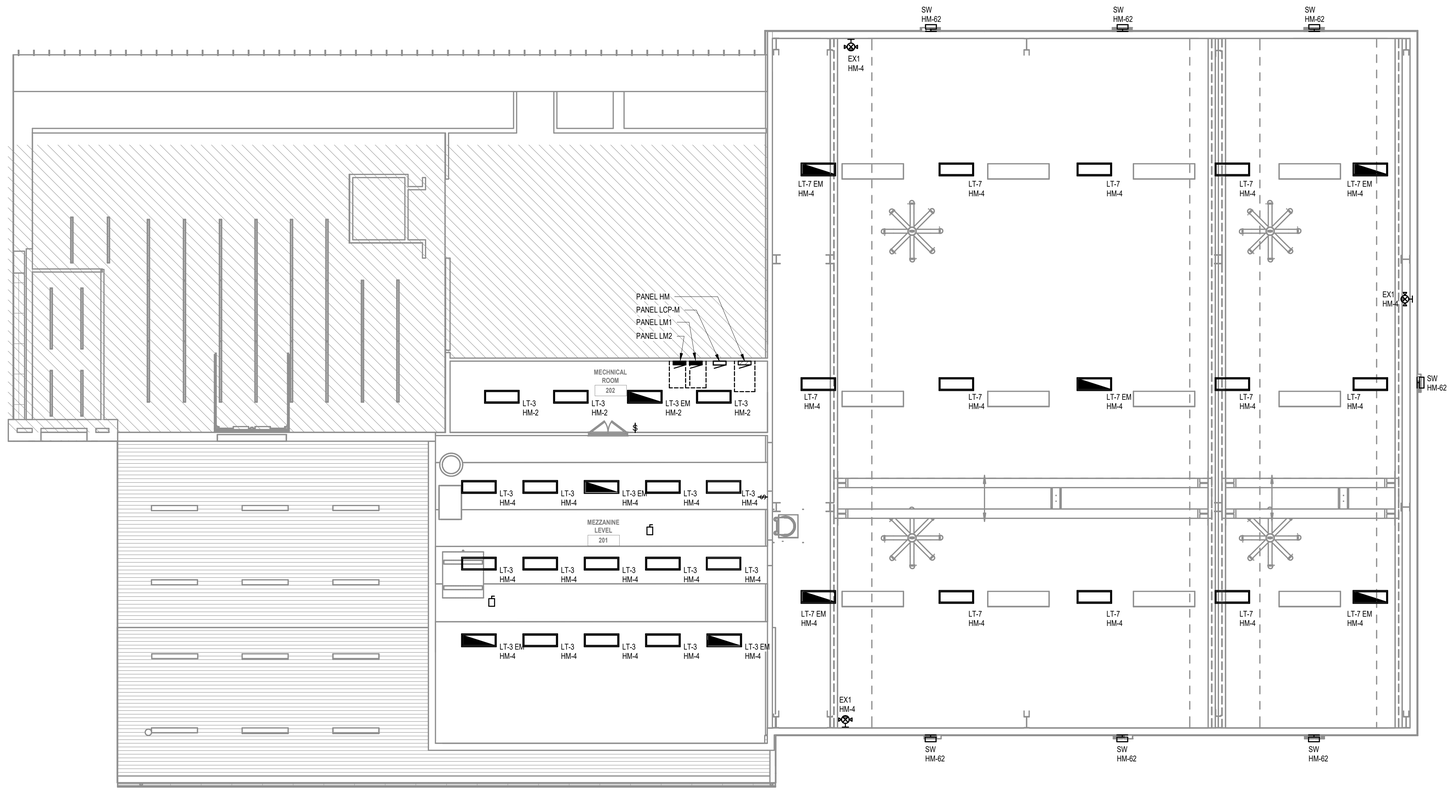
LDA Project No.2026.11

ELECTRICAL LIGHTING PLAN

E3.01



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E3.02
ELECTRICAL MEZZANINE LIGHTING PLAN
SCALE: 1/8" = 1'-0"

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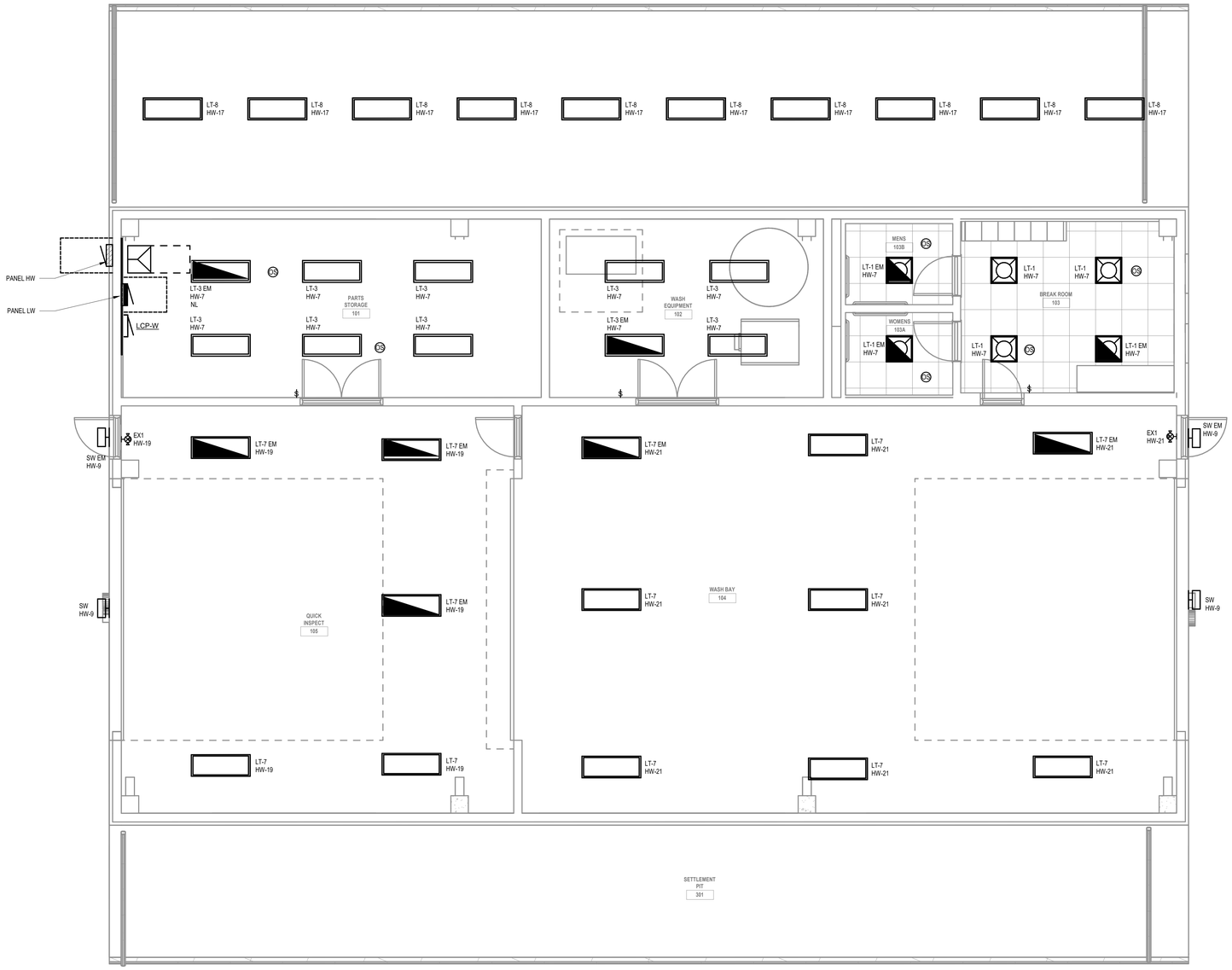
ELECTRICAL MEZZANINE
LIGHTING PLAN
E3.02



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E3.03
ELECTRICAL WASH BUILDING LIGHTING PLAN
SCALE: 1/4" = 1'-0"

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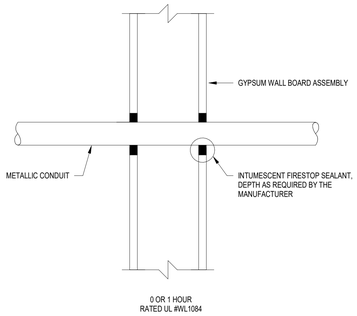
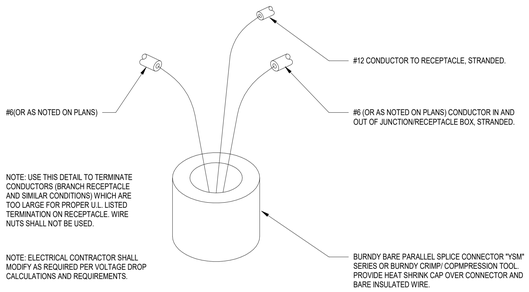
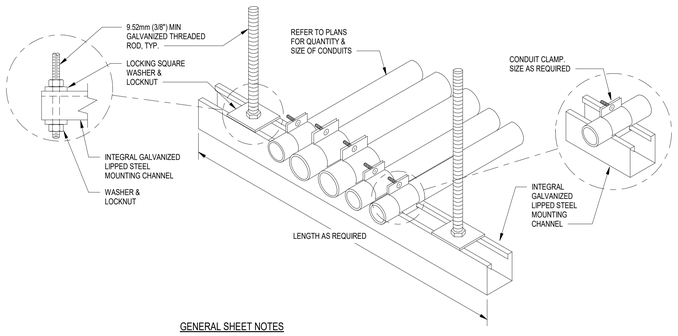
ELECTRICAL WASH BUILDING LIGHTING PLAN
E3.03



1 E5.01 1HR FIRESTOP - METALLIC CONDUIT THROUGH GYPSUM
SCALE: NONE



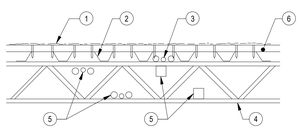
2 E5.01 BRANCH CIRCUIT OVERSIZE CONDUCTOR TERMINATION
SCALE: NONE



GENERAL SHEET NOTES

1. INTEGRAL GALVANIZED LIPPED STEEL MOUNTING CHANNEL LONGER THAN 36" SHALL BE INSTALLED WITH A CENTER SUPPORT ROD.
2. FASTEN THREADED ROD TO STRUCTURE BY APPROVED METHOD PER SPECIFICATION 26.05 33. RACEWAY AND BOXES FOR ELECTRICAL SYSTEMS. FIELD VERIFY EXACT CONDITIONS.
3. FOR TRAPEZE INSTALLATIONS IN SEISMIC AREAS REFER TO SPECIFICATION SECTION 13 05 41, SEISMIC RESTRAINT REQUIREMENTS FOR NON-STRUCTURAL COMPONENTS.

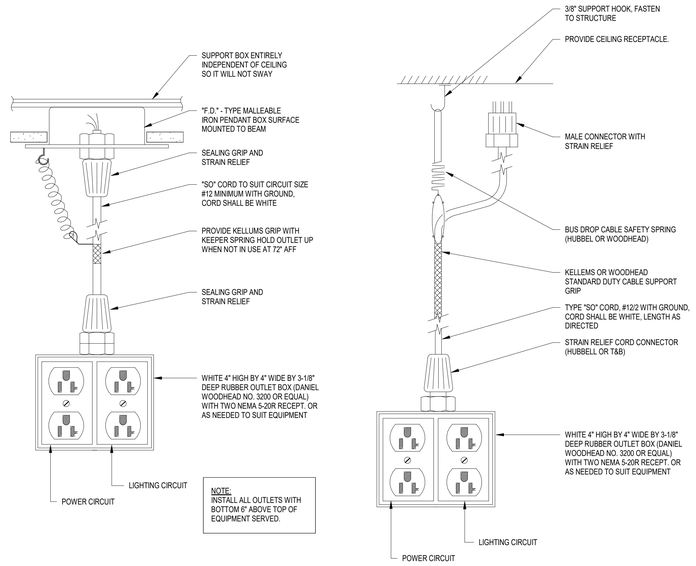
3 E5.01 CONDUIT TRAPEZE MOUNTING DETAIL
SCALE: NONE



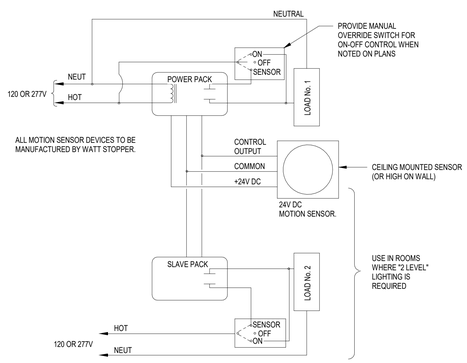
DETAIL KEYNOTES

1. ROOFING MATERIAL.
2. METAL-CORRUGATED ROOF DECKING.
3. ONLY BMC AND IMC PERMITTED WITHIN 1-1/2" OF ROOF DECKING.
4. STEEL OR WOOD JOISTS.
5. ANY WIRING METHOD OR BOX PERMITTED WITHIN OR BELOW THE ROOF FRAMING WHERE INSTALLED NOT LESS THAN 1-1/2" BELOW THE NEAREST POINT OF THE ROOF DECKING.
6. RIGID INSULATION

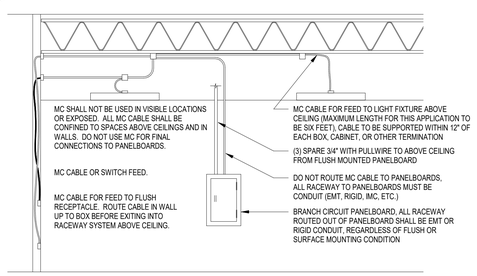
4 E5.01 CABLES & RACEWAYS UNDER ROOF MOUNTING DETAIL
SCALE: NONE



5 E5.01 SO CORD DETAIL
SCALE: NONE



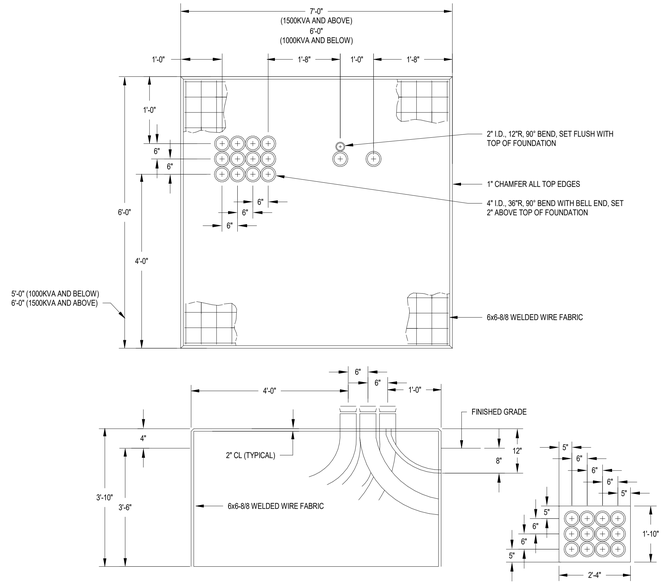
6 E5.01 OCCUPANCY SENSOR WIRING DIAGRAM
SCALE: NONE



GENERAL DETAIL NOTES

1. MC CABLE SHALL ONLY BE USED AS A FINAL CONNECTION TO LIGHT FIXTURE AND WIRING DEVICES. DO NOT LOOP MC CABLE BETWEEN FIXTURES OR WIRING DEVICES.
2. ALL MC CABLE SHALL BE AS MANUFACTURED BY AFC OR OTHER APPROVED VENDOR. CONDUCTORS SHALL BE COPPER, INCLUDING FULL SIZE INSULATED GROUND, THHN INSULATION WITH AN OVERALL GALVANIZED INTERLOCKED ARMOR JACKET, #12, #10 OR #8, SIZE AS PER DRAWINGS AND SPECIFICATIONS, 600V RATED.
3. MC SHALL ONLY BE USED IN VERTICAL SPACES WHICH ARE ENCLOSED, SUCH AS WALLS. MC SHALL NOT BE ROUTED FROM A WALL CAVITY INTO A SPACE ABOVE A CEILING. DO NOT INSTALL IN DEMISING WALL. MAXIMUM LENGTH FOR THIS APPLICATION TO BE 12 FEET.
4. MC SHALL NOT BE ROUTED DIRECTLY FROM A WALL CAVITY INTO A CONCEALED CEILING SPACE. USE BOX FOR TRANSITION FROM WALL TO CEILING SPACE.

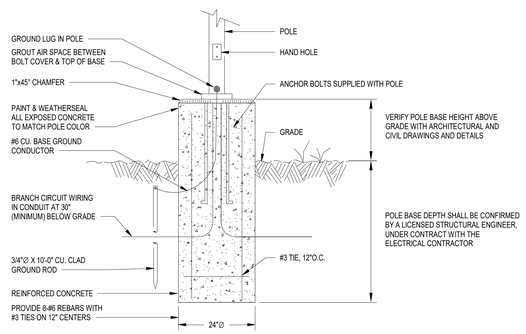
7 E5.01 MC CABLE INSTALLATION DETAIL
SCALE: NONE



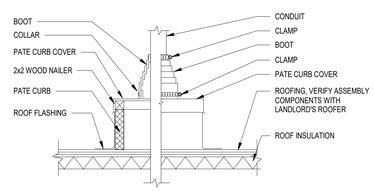
DETAIL NOTES

1. MINIMUM COMPRESSIVE STRENGTH CONCRETE AT AGE 28 DAYS SHALL BE 3000 PSI.
2. APPROXIMATELY 6.2 CUBIC YARDS OF CONCRETE SHALL BE REQUIRED FOR THE FOUNDATION.
3. ALL DUCTS SHALL BE PVC, TYPE EB.
4. BELL ENDS ARE REQUIRED FOR ALL DUCTS WHICH TERMINATE AT THE FOUNDATION, BUILDING FLOOR, AND WITHIN THE PRIMARY TRENCH.
5. ALL DUCTS WITH BELL ENDS SHALL TERMINATE 2" ABOVE CONCRETE FOUNDATION AND BUILDING FLOOR.
6. ALL DUCTS SHALL BE PLUGGED BEFORE POURING CONCRETE TO PREVENT DEBRIS OR FOREIGN MATTER FROM ENTERING.
7. FOUNDATION SHALL BE REINFORCED WITH 6x6x8/8 WELDED WIRE FABRIC. APPROXIMATELY 28 LINEAR FEET ARE REQUIRED.
8. TOP OF FOUNDATION SHALL BE SMOOTH AND LEVEL.
9. FOUNDATION SHALL BE CONSTRUCTED TO SUPPORT A 17,000 LB. TRANSFORMER.
10. VERIFY ALL GROUND REQUIREMENTS WITH UTILITY COMPANY PRIOR TO START OF ANY WORK.

8 E5.01 UTILITY CO. TRANSFORMER PAD
SCALE: NONE



9 E5.01 SITE POLE BASE DETAIL- ABOVE GRADE
SCALE: NONE



DETAIL NOTES

1. REFER TO MANUFACTURERS INSTALLATION REQUIREMENTS.
2. NEW INSULATION TO MATCH EXISTING INSULATION HEIGHT AND OF THE SAME OR GREATER THERMAL RESISTANCE VALVE.
3. ROOFING TO BE INSTALLED AND FLASHING-IN BY LANDLORD ROOFER AT TENANT'S EXPENSE W/ MATERIALS TO MATCH EXISTING. INSTALL MATERIALS PER MANUFACTURERS REQUIREMENTS.
4. COORDINATE WITH MECHANICAL TRADES FOR COMBINATION CONDUIT/PIPE CURB COVERS.

10 E5.01 CONDUIT THROUGH ROOF DETAIL
SCALE: NONE

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STATE OF OHIO
RACHEL SPAUDIE
E-83432
REGISTERED
PROFESSIONAL ENGINEER
09/22/2026

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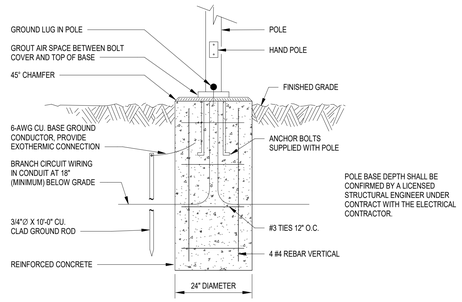
490 BYERS ROAD, MIAMISBURG, OHIO 45342

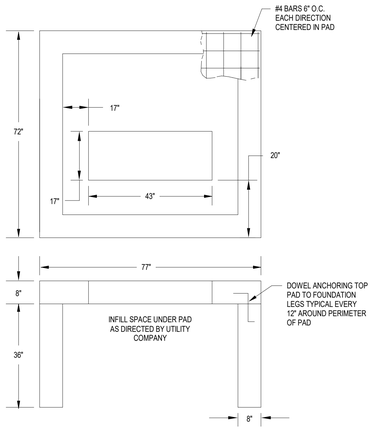
LDA Project No.2026.11

ELECTRICAL DETAILS

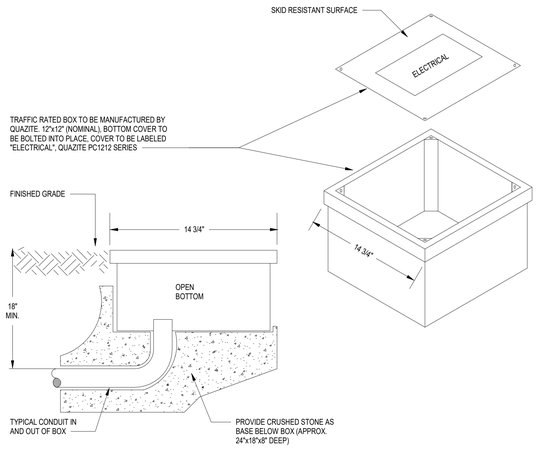
E5.01



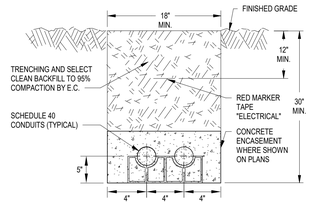
1 E5.02 SITE POLE BASE DETAIL - AT GRADE
SCALE: NONE



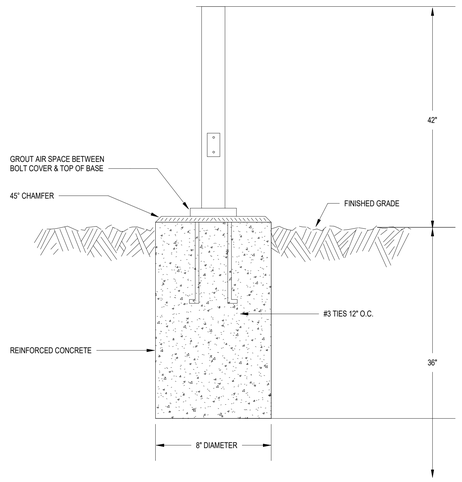
2 E5.02 FORMED CONCRETE TRANSFORMER PAD DETAIL
SCALE: NONE



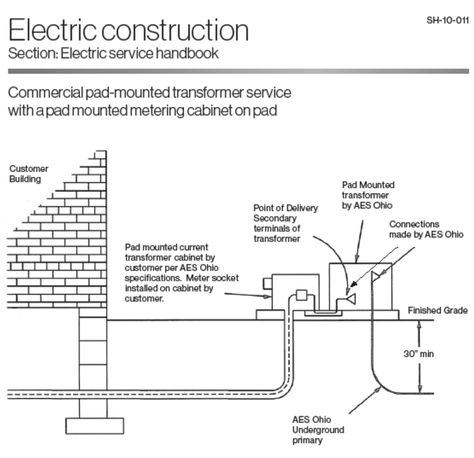
3 E5.02 EXTERIOR HANDHOLE
SCALE: NONE

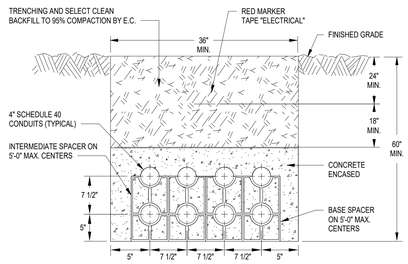


4 E5.02 UNDERGROUND ENCASED CONDUIT DETAIL
SCALE: NONE

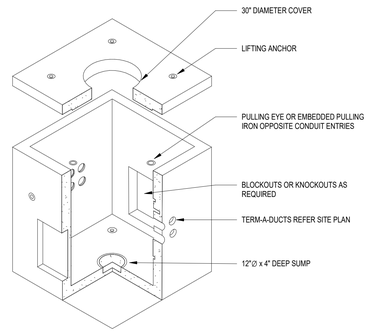


5 E5.02 GATE CONTROL KEYPAD MOUNTING DETAIL
SCALE: NONE





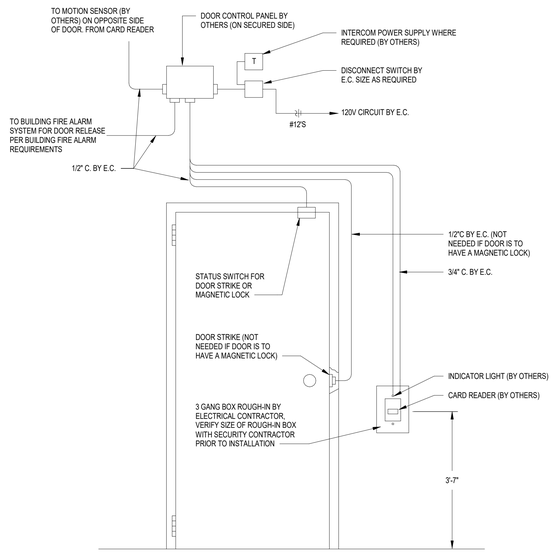
6 E5.02 SECONDARY POWER ENCASED DUCT DETAIL
SCALE: NONE



GENERAL DETAIL NOTES

1. REFER TO SITE PLAN FOR ADDITIONAL REQUIREMENTS.
2. MANHOLE COVER STRUCTURE SHALL BE DESIGNED FOR TRUCKLOADS.
3. PROVIDE 12" BASE OF CRUSHED STONE BELOW MANHOLE.

7 E5.02 EXTERIOR MANHOLE
SCALE: NONE



8 E5.02 SINGLE DOOR CARD READER DIAGRAM
SCALE: NONE

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LDA Project No.2026.11

ELECTRICAL DETAILS

E5.02

TRANSFORMER SCHEDULE
(480V DELTA TO 208/120V-3Ø-4W)

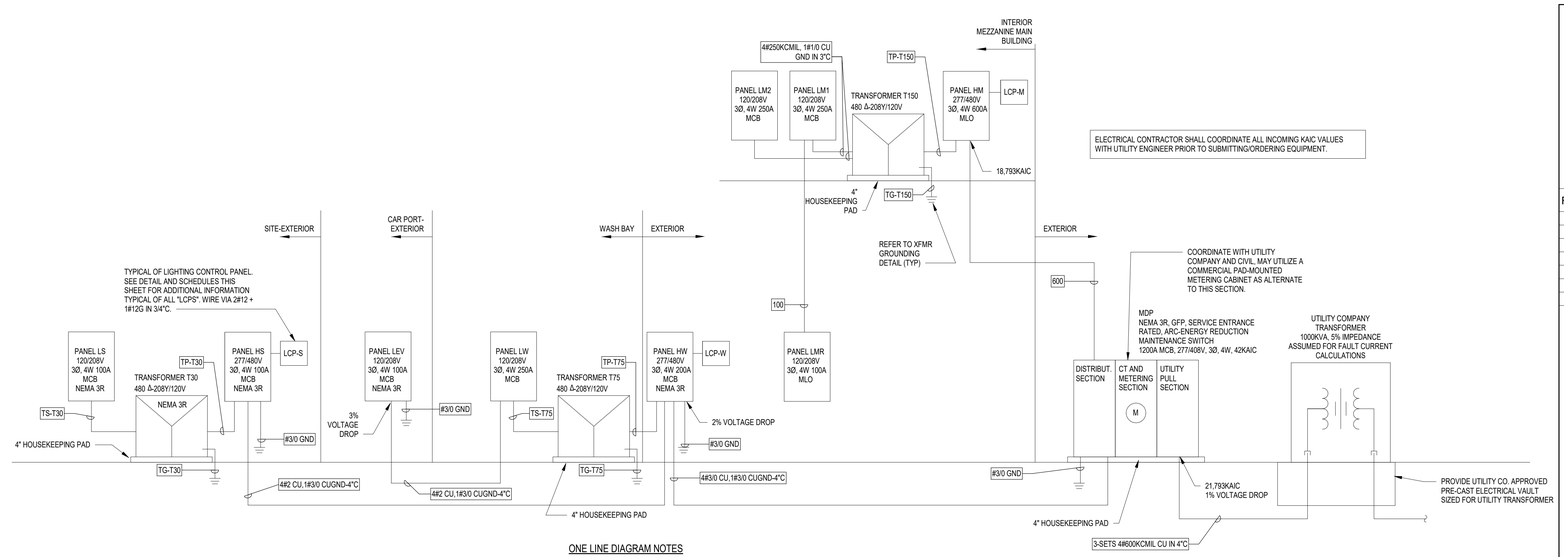
XFMR DESIGNATION	KVA	480V OVERCURRENT	XFMR PRIMARY (TP-TXX)	208/120V OVERCURRENT	XFMR SECONDARY (TS-TXX)	GROUND WIRE SIZE (TG-TXX)	WEIGHT (LBS)	DIMENSIONS (H x W x D)
T9	9	20A/3P	3#12 1#12GND 3/4"C	40A/3P	4#6 1#6GND 3/4"C	#8	166	15"x19"x12"
T15	15	30A/3P	3#10 1#10GND 3/4"C	60A/3P	4#6 1#8GND 1"C	#8	250	28"x22"x18"
T30	30	50A/3P	3#6 1#10GND 3/4"C	100A/3P	4#2 1#6GND 1-1/4"C	#8	415	37"x25"x21"
T45	45	70A/3P	3#4 1#8GND 1"C	150A/3P	4#1/0 1#6GND 2"C	#6	478	37"x25"x21"
T75	75	125/3P	3#2 1#6GND 1-1/4"C	250A/3P	4#4/0 1#2GND 2 1/2"C	#2	676	43"x31"x24"
T112.5	112.5	200A/3P	3#3/0 1#6GND 2"C	400A/3P	4#500KCMIL 1#1/0GND 4"C	#1/0	1263	51"x35"x32"
T150	150	250A/3P	3#250KCMIL 1#4GND 3"C	500A/3P	2 RUNS OF: 4# 250KCMIL 1# 1/0GND 3"C	#1/0	1410	51"x35"x32"

NOTES:
1. ALL TRANSFORMER SIZES LISTED MAY NOT BE USED IN PROJECT RISER DIAGRAM.
2. PHYSICAL DIMENSIONS AND WEIGHTS OF TRANSFORMERS MAY VARY DEPENDING ON MANUFACTURER. VERIFY SIZE WITH MANUFACTURER PRIOR TO PURCHASE.
3. "IG" TAG INDICATES CONTRACTOR TO PROVIDE ADDITIONAL IG WIRE (SIZED THE SAME AS THE NORMAL GROUND WIRE) WITHIN THE CONDUIT INDICATED.

FEEDER SCHEDULE

FUSE OR C/B SIZE	TAG*	COPPER WIRE	ALUMINUM WIRE*
20/3	20	4#12,1#12GND-3/4"C	-
25/3	25	4#10,1#10GND-3/4"C	-
30/3	30	4#10,1#10GND-3/4"C	-
35/3	35	4#8,1#10GND-3/4"C	-
40/3	40	4#8,1#10GND-3/4"C	-
45/3	45	4#6,1#10GND-1"C	-
50/3	50	4#6,1#10GND-1"C	-
60/3	60	4#4,1#8GND-1 1/4"C	-
70/3	70	4#4,1#8GND-1 1/4"C	-
80/3	80	4#3,1#8GND-1 1/4"C	-
90/3	90	4#2,1#8GND-1 1/4"C	-
100/3	100	4#2,1#8GND-1 1/4"C	4#1,1#8GND-1 1/4"C
110/3	110	4#2,1#6GND-1 1/4"C	4#1/0,1#6GND-2"C
125/3	125	4#1,1#6GND-1 1/2"C	4#2/0,1#6GND-2"C
150/3	150	4#1/0,1#6GND-2"C	4#3/0,1#6GND-3"C
175/3	175	4#2/0,1#6GND-2"C	4#4/0,1#6GND-3"C
200/3	200	4#3/0,1#6GND-3"C	4#250KCMIL,1#6GND-3"C
225/3	225	4#4/0,1#4GND-3"C	4#300KCMIL,1#4GND-2 1/2"C
250/3	250	4#250KCMIL,1#4GND-3"C	4#350KCMIL,1#4GND-3"C
300/3	300	4#350KCMIL,1#4GND-3"C	4#500KCMIL,1#4GND-4"C
350/3	350	4#500KCMIL,1#3GND-4"C	4#700KCMIL,1#3GND-4"C
400/3	400	4#500KCMIL,1#3GND-4"C	4#750KCMIL,1#3GND-4"C

NOTES:
1. ALL FEEDER SIZES LISTED MY NOT BE USED IN PROJECT RISER DIAGRAM
2. IF WIRE TYPES OTHER THAN THOSE LISTED ABOVE ARE USED, ELECTRICAL CONTRACTOR SHALL VERIFY CONDUIT SIZE REQUIRED WITH THE APPLICABLE VERSION OF THE NATIONAL ELECTRICAL CODE.
3. IF CONDUIT OTHER THAN "EMT" IS REQUIRED, BASE BID ON NEXT TRADE SIZE ABOVE THAT INDICATED..
4. "IG" TAG INDICATES CONTRACTOR TO PROVIDE ADDITIONAL IG WIRE (SIZED THE SAME AS THE NORMAL GROUND WIRE) WITHIN THE CONDUIT INDICATED.
5. ALL GROUND WIRES SHALL BE COPPER.
6. ALL COPPER WIRING 100A AND BELOW SHALL BE 60°C RATED, ALL WIRING ABOVE 100A SHALL BE 75°C RATED.
7. ALUMINUM WIRING SHALL ONLY BE USED FOR FEEDERS 110A AND LARGER. ALL ALUMINUM WIRING SHALL BE 75°C RATED.



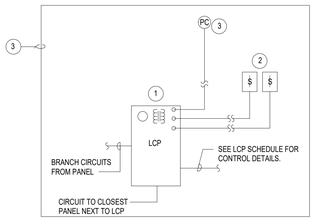
TRANSFORMER LOAD SCHEDULE

DESIGNATION	kVA	TOTAL CONNECTED KVA
T30S	30	4.4 kVA
T75WASH	75	62.9 kVA
T150M	150	110.5 kVA

ONE LINE DIAGRAM NOTES

A. REFER TO SPECIFICATIONS AND NEC FOR ELECTRICAL SYSTEM LABELING REQUIREMENTS.
B. COLOR CODING FOR PHASE AND VOLTAGE LEVEL IDENTIFICATIONS, 600V OR LESS: USE COLORS LISTED BELOW FOR UNGROUNDED SERVICE. FEEDER AND BRANCH CIRCUIT CONDUCTORS.
   1. COLOR SHALL BE FACTORY APPLIED OR FIELD APPLIED FOR SIZES LARGER THAN NO 8 AWG IF AUTHORITIES HAVING JURISDICTION PERMIT.
   2. COLORS FOR 208/120V CIRCUIT - PHASE A: BLACK, PHASE B: RED, PHASE C: BLUE, NEUTRAL: WHITE.
   3. COLORS FOR 480/277V CIRCUIT - PHASE A: BROWN, PHASE B: ORANGE, PHASE C: YELLOW, NEUTRAL: WHITE.
   4. NEUTRAL: WHITE, EQUIPMENT GROUND: GREEN, ISOLATED GROUND: GREEN TWO OR MORE YELLOW STRIPES.
C. EC SHALL COORDINATE KAIC RATING REQUIREMENTS WITH UTILITY PRIOR TO COMMENCING WORK.
D. MAXIMUM VOLTAGE DROP ACROSS ELECTRICAL SYSTEM SHALL BE NO GREATER THAN 5% FROM UTILITY SERVICE POINT. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING INCREASED WIRE SIZES DUE TO FIELD CONDITIONS.
E. CU INDICATES COPPER CONDUCTOR MATERIAL WHERE NOTED. AL INDICATES ALUMINUM CONDUCTOR MATERIAL WERE NOTED.
F. CONTRACTOR SHALL VERIFY ALL EXISTING EQUIPMENT PRIOR TO BIDDING. NOTIFY ENGINEER IN WRITING OF FIELD DISCREPANCIES PRIOR TO COMMENCING WORK. COORDINATE REQUIREMENTS WITH GENERAL CONTRACTOR.
G. PANELBOARDS SHALL BE FULLY RATED. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

1 / E6.00 ONE LINE DIAGRAM
SCALE: NONE



LIGHTING RELAY PANEL LCP-S SCHEDULE

RELAY		CONTROL	LOAD		
NO.	TYPE**	ZONE	VAC	CIRCUIT #	CIRCUIT NAME
1	DM	ZONE #2	277	HS-1	HIGHWAY SIGN
2	DM	ZONE #2	277	HS-3	HIGHWAY SIGN
3	DM	ZONE #2	277	HS-5	HIGHWAY SIGN
4	DM	ZONE #1	277	-	SPARE
5	SM	ZONE #4	120	-	SPARE
6	SM	ZONE #4	120	-	SPARE
7	SM	ZONE #4	120	-	SPARE
8	SM	ZONE #4	120	-	SPARE

LIGHTING RELAY PANEL LCP-W SCHEDULE

RELAY		CONTROL	LOAD		
NO.	TYPE**	ZONE	VAC	CIRCUIT #	CIRCUIT NAME
1	DM	ZONE #1	277	HW-7	LIGHTING
2	DM	ZONE #4	277	HW-9	EXTERIOR LIGHTING
3	DM	ZONE #1	120	LW-49	CF-1
4	DM	ZONE #1	277	HW-19	QUICK INSPECT LIGHTING
5	SM	ZONE #1	277	HW-21	WASH BAY LIGHTING
6	SM	ZONE #4	277	HW-17	CANOPY LIGHTING
7	SM	ZONE #1	120	-	SPARE
8	SM	ZONE #1	120	-	SPARE

LIGHTING RELAY PANEL LCP-M SCHEDULE

RELAY		CONTROL	LOAD		
NO.	TYPE**	ZONE	VAC	CIRCUIT #	CIRCUIT NAME
1	DM	ZONE #5	277	HM-4	SHOP AND MEZZANINE LIGHTS
2	DM	ZONE #1	277	HM-35	RETAIL LIGHTING
3	DM	ZONE #4	277	HM-41	EXTERIOR CANOPY LIGHTING
4	DM	ZONE #1	277	HM-39	CORRIDOR LIGHTING
5	SM	ZONE #6	120	LM1-21	SIGN
6	SM	ZONE #6	120	LM1-19	SIGN
7	SM	ZONE #6	120	LM1-17	SIGN
8	SM	ZONE #6	120	LM1-25	SIGN
9	SM	ZONE #6	120	LM1-13	SIGN
10	SM	ZONE #6	120	LM1-23	SIGN
11	SM	ZONE #4	120	HM-62	BUILDING MOUNTED LIGHTS

LIGHTING ZONE NOTE:

LIGHTING ZONES HAVE BEEN ASSIGNED AS FOLLOWS:

ZONE 1 - INTERIOR LIGHTING
ZONE 2 - HIGHWAY SIGN
ZONE 3 - EXTERIOR SITE LIGHTING
ZONE 4 - EXTERIOR BUILDING MOUNTED LIGHTS
ZONE 5 - WAREHOUSE LIGHTING
ZONE 6 - SIGNS
VERIFY ZONING AND SCHEDULE WITH OWNER.

SM=SWITCHING MODULE, DM=DIMMING MODULE. REFER TO DETAIL FOR EQUIPMENT CATALOG INFORMATION.

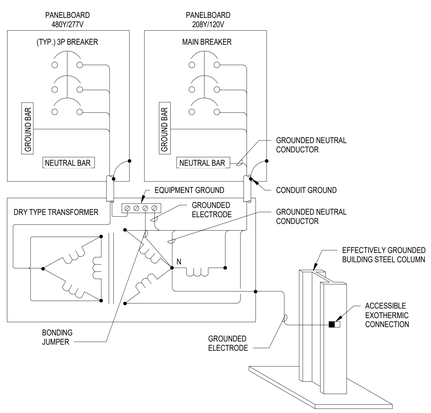
ALL LIGHTING SHOWN IN AREAS WITH LOCAL OCCUPANCY SENSOR CONTROL TO BE A STAND ALONE SYSTEM NOT ON RELAY PANELS.

RELAY PANEL IS AN ASTRONOMICAL TIMECLOCK AND NO PHTOTCELL IS NEEDED.

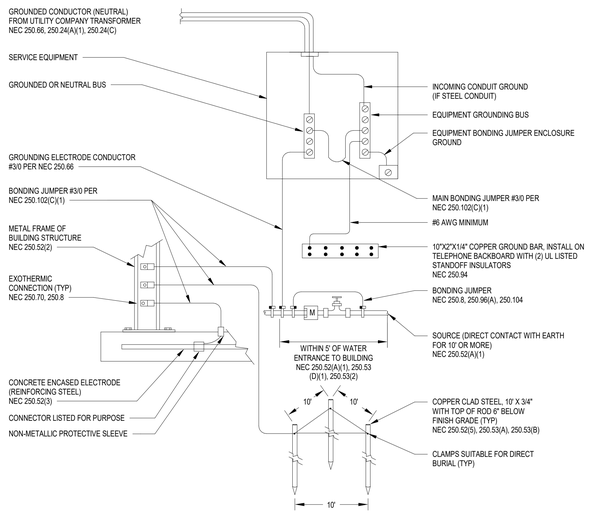
DETAIL KEYNOTES

1. 24-HOUR, 7-DAY TIMECLOCK, HUBBELL CX-XX-2-S-XX-3L-M. PROVIDE MASTER AND SLAVE PANELS AS REQUIRED FOR RELAYS EXCEEDING 24 SPACES. PROVIDE DIMMING CARD CXDIMCONTBRD IF DIMMING MODULE IS NOTED.
2. PROVIDE (2) MANUAL OVERRIDE SWITCHES, WEATHERPROOF, IN LOCKABLE ENCLOSURE. LABEL SWITCH "INTERIOR LIGHTING OVERRIDE" AND "SIGN OVERRIDE". COORDINATE EXACT SWITCH LOCATION WITH OWNER.
3. COORDINATE ALL WIRING WITH EQUIPMENT MANUFACTURER PRIOR TO ROUGH IN.

CONTRACTOR IS TO HOMERUN 18/4 WIRE BACK TO THE RELAY PANEL FROM EACH OVERRIDE LOCATION. THE E.C. IS RESPONSIBLE FOR ANY CAT5 CABLING REQUIRED FOR SYSTEM



2 / E6.00 DRY TYPE TRANSFORMER GROUNDING DETAIL
SCALE: NONE



3 / E6.00 SERVICE GROUNDING AND BONDING DETAIL
SCALE: NONE

4 / E6.00 LIGHTING CONTROL RELAY PANEL DETAIL
SCALE: NONE

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LDA Project No.2026.11

ELECTRICAL ONE LINE DIAGRAM & SCHEDULES

E6.00

Lighting and Appliance Panelboard: HM

Location: MECHNICAL ROOM 202
Supply From: MDP
Mounting: Surface
Enclosure:

Volts: 480/277 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 22KAIC
Mains Type: MLO
Bus Rating: 600 A
MCB Rating: 600 A
BUS Material: COPPER

Notes:
NEMA 1

CKT	Circuit Description	Load Type	Trip Amps	Poles	Notes	A		B		C		Notes	Poles	Trip Amps	Load Type	Circuit Description	CKT
1	PANEL LM1 & LM2 VIA T150M	L; M; X; R	250	3		39230	456						1	20	L	MEZZANINE LIGHTING	2
3								39538	5469				1	20	L	WAREHOUSE LIGHTING	4
5										31718	1384						6
7	45 - CRANE	M	20	3		4226	1384						3	20	M	20.2 - SOOTSUCKER	8
9								4226	1384								10
11										4226	3322						12
13	45 - CRANE	M	20	3		4226	3322						3	20	M	20.1 - TRAP BURNER	14
15								4226	3322								16
17										4226	14394						18
19	WELDER	R	20	3		1667	14394						3	90	M	5 - STINGRAY PARTS WASHER	20
21								1667	14394								22
23										1667	733						24
25	WELDER	R	20	3		1667	733						3	20	M	20.4 - TRAP TESTER	26
27								1667	733								28
29										1667	2767						30
31	OFFICES/CONFERENCE LTG	L	20	1		452	2767						3	15	M	HV-1-D	32
33	LOCKS/TECH/TOOL/RR/...	L; M	20	1				2928	2767								34
35	RETAIL AREA LTG	L	20	1						1641	831		1	15	M	CUH-1	36
37	PARTS/OIL/HOUSE LTG	L	20	1		1976	277						3	15	M	GUH-1	38
39	CORRIDOR LTG	L	20	1				309	277								40
41	EXTERIOR LTG	L	20	1						1200	277						42
43	EF-5	M	15	1		1108	13025						3	60	M	8 - ROTARY SCREW AIR COMPRESSOR	44
45	EF-4	M	15	1				1108	13025								46
47	EF-2	M	15	1						1108	13025						48
49	EF-3	M	15	1		1108	13025						3	60	M	8 - ROTARY SCREW AIR COMPRESSOR	50
51	EF-8	M	15	3				60	13025								52
53										60	13025						54
55						60	667										56
57	EF-6	M	15	1				1108	667				3	15	M	10 - AIR DRYER	58
59										1108	667						60
61	EF-7	M	15	3		1108	420					CC	1	20	L	SERVICE STOP EXT LIGHTS	62
63								1108	100			L	1	20	L	LCP-M	64
65										2767	1662		1	20	H	CUH-4	66
67	HV-1-A	M	15	3		2767	1385						1	15	M	EF-15	68
69								2767	1385				1	15	M	EF-16	70
71										2767	0		1	20	--	SPARE	72
73	HV-1-B	M	15	3		2767	0						1	20	--	SPARE	74
75								2767	0				1	20	--	SPARE	76
77										2767	0		1	20	--	SPARE	78
79	HV-1-C	M	15	3		2767	0						1	20	--	SPARE	80
81								2767	0				1	20	--	SPARE	82
83	EF-1	M	15	1						300	0		1	20	--	SPARE	84
					Total Load:	116.9 kW		122.8 kW		109.2 kW							
					Total Amp:	426 A		447 A		394 A							

Legend:

CC=CONTROLLED CIRCUIT, EX=EXISITNG LOAD TO REMAIN, ML=MODIFIED LOAD ON EXISTING BREAKER, CL=CIRCUIT WIRED THROUGH CURRENT LIMITER, A=AFCI, S=SHUNT TRIP, H=HACR G=GFCI, L= C/B LOCK, HT=HANDLE TIE NB=NEW CIRCUIT BREAKER, IG=ISOLATED GROUND.

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Heating "H"	1662 VA	100.00%	1662 VA		
Misc "X"	3900 VA	100.00%	3900 VA	**Total Conn. Load:**	349.0 kW
Receptacle "R"	52100 VA	59.60%	31050 VA	**Total Est. Demand:**	333.5 kW
MISC.	2400 VA	100.00%	2400 VA	**Total Conn.:**	420 A
Lighting "L"	22588 VA	125.00%	28235 VA	**Total Est. Demand:**	401 A
Motor "M"	266325 VA	100.00%	266325 VA		

Lighting and Appliance Panelboard: HS

Location:
Supply From: MDP
Mounting: Surface
Enclosure:

Volts: 480/277 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 22KAIC
Mains Type: MCB
Bus Rating: 100 A
MCB Rating: 100 A
BUS Material: COPPER

Notes:
NEMA 3R

CKT	Circuit Description	Load Type	Trip Amps	Poles	Notes	A		B		C		Notes	Poles	Trip Amps	Load Type	Circuit Description	CKT
1	HIGHWAY SIGN	L	20	1	CC	2000	0						1	20	--	SPARE	2
3	HIGHWAY SIGN	L	20	1	CC			2000	0				1	20	--	SPARE	4
5	HIGHWAY SIGN	L	20	1	CC					2000	0		1	20	--	SPARE	6
7	SPARE	--	20	1		0	0						1	20	--	SPARE	8
9	SPARE	--	20	1				0	0				1	20	--	SPARE	10
11	SPARE	--	20	1						0	0		1	20	--	SPARE	12
13	PANEL LS VIA T30	X; R	50	3		1847	0						1	20	--	SPARE	14
15								847	0				1	20	--	SPARE	16
17										1667	0		1	20	--	SPARE	18
19	LCP-S	L	20	1	L	100	0						1	20	--	SPARE	20
21	SPARE	--	20	1				0	0				1	20	--	SPARE	22
23	SPARE	--	20	1						0	0		1	20	--	SPARE	24
25	SPARE	--	20	1		0	0						1	20	--	SPARE	26
27	SPARE	--	20	1				0	0				1	20	--	SPARE	28
29	SPARE	--	20	1						0	0		1	20	--	SPARE	30
31	SPARE	--	20	1		0	0						1	20	--	SPARE	32
33	SPARE	--	20	1				0	0				1	20	--	SPARE	34
35	SPARE	--	20	1						0	0		1	20	--	SPARE	36
37	SPARE	--	20	1		0	0						1	20	--	SPARE	38
39	SPARE	--	20	1				0	0				1	20	--	SPARE	40
41	SPARE	--	20	1						0	0		1	20	--	SPARE	42
					Total Load:	3.9 kW		2.8 kW		3.7 kW							
					Total Amp:	15 A		10 A		14 A							

Legend:

CC=CONTROLLED CIRCUIT, EX=EXISITNG LOAD TO REMAIN, ML=MODIFIED LOAD ON EXISTING BREAKER, CL=CIRCUIT WIRED THROUGH CURRENT LIMITER, A=AFCI, S=SHUNT TRIP, H=HACR G=GFCI, L= C/B LOCK, HT=HANDLE TIE NB=NEW CIRCUIT BREAKER, IG=ISOLATED GROUND.

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Misc "X"	4000 VA	100.00%	4000 VA		
Receptacle "R"	360 VA	100.00%	360 VA	**Total Conn. Load:**	10.5 kW
Lighting "L"	6100 VA	125.00%	7625 VA	**Total Est. Demand:**	12.0 kW
				Total Conn.:	13 A
				Total Est. Demand:	14 A

Lighting and Appliance Panelboard: HW

Location:
Supply From: MDP
Mounting: Surface
Enclosure:

Volts: 480/277 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 22KAIC
Mains Type: MCB
Bus Rating: 200 A
MCB Rating: 200 A
BUS Material: COPPER

Notes:
NEMA 3R

CKT	Circuit Description	Load Type	Trip Amps	Poles	Notes	A		B		C		Notes	Poles	Trip Amps	Load Type	Circuit Description	CKT
1	PANEL LW FEW VIA 75 KVA XFMR	M; R	125	3		22376	1525						3	20	M	WH-2	2
3								22928	1525								4
5										17640	1525						6
7	LIGHTING	L	20	1		1312	0						1	20	--	SPARE	8
9	LIGHTING EXTERIOR	L	20	1				240	0				1	20	--	SPARE	10
11	CUH-3	M	15	1						1108	0		1	20	--	SPARE	12
13	CUH-2	M	15	1		1108	0						1	20	--	SPARE	14
15	LCP-W	L	20	1	L			100	0				1	20	--	SPARE	16
17	WASH CANOPY LIGHTING	L	20	1						800	0		1	20	--	SPARE	18
19	WASH HIGH BAY LIGHTING	L	20	1		1253	0						1	20	--	SPARE	20
21	WASH HIGH BAY LIGHTING	L	20	1				2003	0				1	20	--	SPARE	22
23	11 - HOT WATER PRESSURE WASHER	M	25	3						5265	0		1	20	--	SPARE	24
25						5265	0						1	20	--	SPARE	26
27								5265	0				1	20	--	SPARE	28
29	11 - HOT WATER PRESSURE WASHER	M	25	3						5265	0		1	20	--	SPARE	30
31						5265	0						1	20	--	SPARE	32
33								5265	0				1	20	--	SPARE	34
35	SPARE	--	20	1						0	0		1	20	--	SPARE	36
37	SPARE	--	20	1		0	0						1	20	--	SPARE	38
39	SPARE	--	20	1				0	0				1	20	--	SPARE	40
41	SPARE	--	20	1						0	0		1	20	--	SPARE	42
					Total Load:	38.1 kW		37.3 kW		31.6 kW							
					Total Amp:	141 A		138 A		114 A							

Legend:

CC=CONTROLLED CIRCUIT, EX=EXISITNG LOAD TO REMAIN, ML=MODIFIED LOAD ON EXISTING BREAKER, CL=CIRCUIT WIRED THROUGH CURRENT LIMITER, A=AFCI, S=SHUNT TRIP, H=HACR G=GFCI, L= C/B LOCK, HT=HANDLE TIE NB=NEW CIRCUIT BREAKER, IG=ISOLATED GROUND.

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Receptacle "R"	45140 VA	61.08%	27570 VA		
Lighting "L"	5697 VA	125.00%	7121 VA	**Total Conn. Load:**	107.0 kW
Motor "M"	56188 VA	100.00%	56188 VA	**Total Est. Demand:**	90.9 kW
				Total Conn.:	129 A
				Total Est. Demand:	109 A

Lighting and Appliance Panelboard: MDP

Location:
Supply From:
Mounting: Surface
Enclosure:

Volts: 480/277 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 42KAIC
Mains Type: MCB
Bus Rating: 1200 A
MCB Rating: 1200
BUS Material: COPPER

Notes:
NEMA 3R, SERVICE ENTRANCE RATEC, ARC ENERGY REDUCTION MAINTENENCE SWITCH, GROUND FAULT PROTECTION, SPD

CKT	Circuit Description	Load Type	Trip Amps	Poles	Notes	A		B		C		Notes	Poles	Trip Amps	Load Type	Circuit Description	CKT
1	PANEL HS	L; X; R	100	3		3947	0						1	20	--	SPARE	2
3								2847	0				1	20	--	SPARE	4
5										3667	0		1	20	--	SPARE	6
7	PANEL HM	L; M; X; R; H	600	3		116945	0						1	20	--	SPARE	8
9								1227...	0				1	20	--	SPARE	10
11										109246	0		1	20	--	SPARE	12
13	PANEL HW	L; M; R	200	3		38104	0						1	20	--	SPARE	14
15								37315	0				1	20	--	SPARE	16
17										31604	0		1	20	--	SPARE	18
19	CU-1	M	10	3		2216	0						1	20	--	SPARE	20
21								2216	0				1	20	--	SPARE	22
23										2216	0		1	20	--	SPARE	24
25	CU-2	M	15	3		2771	0						1	20	--	SPARE	26
27								2771	0				1	20	--	SPARE	28
29										2771	0		1	20	--	SPARE	30
31	CU-3	M	25	3		6925	0						1	20	--	SPARE	32
33								6925	0				1	20	--	SPARE	34
35										6925	0		1	20	--	SPARE	36
37	SPARE	--	10	3		0	0						3	30	--	SPACE FOR SPD	38
39								0	0								40
41										0	0						42
					Total Load:	170.9 kW		174.8 kW		156.4 kW							
					Total Amp:	625 A		639 A		565 A							

Legend:

CC=CONTROLLED CIRCUIT, EX=EXISITNG LOAD TO REMAIN, ML=MODIFIED LOAD ON EXISTING BREAKER, CL=CIRCUIT WIRED THROUGH CURRENT LIMITER, A=AFCI, S=SHUNT TRIP, H=HACR G=GFCI, L= C/B LOCK, HT=HANDLE TIE NB=NEW CIRCUIT BREAKER, IG=ISOLATED GROUND.

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Heating "H"	1662 VA	100.00%	1662 VA		
Misc "X"	7900 VA	100.00%	7900 VA	**Total Conn. Load:**	502.2 kW
Receptacle "R"	97600 VA	55.12%	53800 VA	**Total Est. Demand:**	467.0 kW
MISC.	2400 VA	100.00%	2400 VA	**Total Conn.:**	604 A
Lighting "L"	34380 VA	125.00%	42974 VA	**Total Est. Demand:**	562 A
Motor "M"	358250 VA	100.00%	358250 VA		

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REV	DATE	DESCRIPTION
	09.23.2026	Issued for Permit

STATE OF OHIO
RACHEL SPAUDIE
E-83432
REGISTERED
PROFESSIONAL ENGINEER
09/22/2026

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MIAMISBURG - CAT
RENTAL FACILITY
490 BYERS ROAD, MIAMISBURG, OHIO 45342

LDA Project No.2026.11

ELECTRICAL PANEL SCHEDULES

E6.01

Lighting and Appliance Panelboard: LM2

Location: MECHNICAL ROOM 202
Supply From: T150M
Mounting: Surface
Enclosure:
Volts: 120/208 Wye
Phases: 3
Wires: 4
A.I.C. Rating: 10KAIC
Mains Type: MCB
Bus Rating: 250 A
MCB Rating: 250
BUS Material: COPPER

Notes:
NEMA 1

CKT	Circuit Description	Load Type	Trip Amps	Poles	Notes	A		B		C		Notes	Poles	Trip Amps	Load Type	Circuit Description	CKT
1	GARAGE DOOR OPENER	M	20	3		1000	1000						3	20	M	GARAGE DOOR OPENER	2
3								1000	1000								4
5										1000	1000						6
7	GARAGE DOOR OPENER	M	20	3		1000	1000						3	20	M	GARAGE DOOR OPENER	8
9								1000	1000								10
11										1000	1000						12
13	GARAGE DOOR OPENER	M	20	3		1000	0						1	20	--	SPARE	14
15								1000	0				1	20	--	SPARE	16
17										1000	0		1	20	--	SPARE	18
19	GARAGE DOOR OPENER	M	20	3		1000	0						1	20	--	SPARE	20
21								1000	0				1	20	--	SPARE	22
23										1000	0		1	20	--	SPARE	24
25	GARAGE DOOR OPENER	M	20	3		1000	0						1	20	--	SPARE	26
27								1000	1000								28
29										1000	1000		3	20	M	GARAGE DOOR OPENER	30
31	GARAGE DOOR OPENER	M	20	3		1000	1000										32
33								1000	0				1	20	--	SPARE	34
35										1000	0		1	20	--	SPARE	36
37	GARAGE DOOR OPENER	M	20	3		1000	0						1	20	--	SPARE	38
39								1000	0				1	20	--	SPARE	40
41										1000	0		1	20	--	SPARE	42
43	GARAGE DOOR OPENER	M	20	3		1000	0						1	20	--	SPARE	44
45								1000	0				1	20	--	SPARE	46
47										1000	0		1	20	--	SPARE	48
49	MOTORIZED DAMPERS	X	20	1		500	0						1	20	--	SPARE	50
51	SPARE	--	20	1				0	0				1	20	--	SPARE	52
53	SPARE	--	20	1						0	0		1	20	--	SPARE	54
55	SPARE	--	20	1		0	0						1	20	--	SPARE	56
57	SPARE	--	20	1				0	0				1	20	--	SPARE	58
59	SPARE	--	20	1						0	0		1	20	--	SPARE	60
				Total Load:		11.5 kW		11.0 kW		11.0 kW							
				Total Amp:		96 A		92 A		92 A							

Legend:
CC=CONTROLLED CIRCUIT, EX=EXISITNG LOAD TO REMAIN, ML=MODIFIED LOAD ON EXISTING BREAKER, CL=CIRCUIT WIRED THROUGH CURRENT LIMITER, A=AFCI, S=SHUNT TRIP, H=HACR G=GFCI, L= C/B LOCK, HT=HANDLE TIE NB=NEW CIRCUIT BREAKER, IG=ISOLATED GROUND.

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Misc "X"	500 VA	100.00%	500 VA		
Motor "M"	33000 VA	100.00%	33000 VA	**Total Conn. Load:**	33.5 kW
				Total Est. Demand:	33.5 kW
				Total Conn.:	93 A
				Total Est. Demand:	93 A

Lighting and Appliance Panelboard: LM1

Location: MECHNICAL ROOM 202
Supply From: T150M
Mounting: Surface
Enclosure:
Volts: 120/208 Wye
Phases: 3
Wires: 4
A.I.C. Rating: 10KAIC
Mains Type: MCB
Bus Rating: 250 A
MCB Rating: 250
BUS Material: COPPER

Notes:
NEMA 1

CKT	Circuit Description	Load Type	Trip Amps	Poles	Notes	A		B		C		Notes	Poles	Trip Amps	Load Type	Circuit Description	CKT
1	LMR	L; M; X; R	100	3		13400	1800						1	20	R	7 - FILTER CRUSHER P-300	2
3								14260	960				1	20	R	24 - SAND BLASTER	4
5										10520	960		1	20	R	26 - PARTS CRUSHER	6
7	JANITOR/LOCKER RECEPTS	R	20	1		900	1680						1	20	M	F/CC-2	8
9	CRANE 120V FEED	X	20	1				0	1680				1	25	M	F/CC-3.2	10
11	CRANE 120V FEED	X	20	1						0	1680		1	25	M	F/CC-3.1	12
13	SIGN	L	20	1	CC	1200	1320						1	20	M	FUR-4	14
15	SIGN	L	20	1	CC			2400	1320				1	20	M	F/CC-1	16
17	SPARE	--	20	1	CC					0	0		2	25	--	SPARE	18
19	SIGN	L	20	1	CC	1200	0										20
21	SIGN	L	20	1	CC			1200	2288				2	25	M	ODU-2	22
23	SIGN	L	20	1	CC					1200	2288						24
25	SIGN	L	20	1	CC	1200	0						1	25	--	SPARE	26
27	MEZZ RECEPTS	R	20	1				540	0				2	25	--	SPARE	28
29	MEZZ RECEPTS	R	20	1						1260	0						30
31	ROOFTOP EF RECEPTS	R	20	1		720	2280						1	25	M	WH-1	32
33	20.3 - TRAP BLASTER	M	20	1				900	1250								34
35	8 - FILTER CRUSHER P-200	R	20	2						780	1250		3	20	M	22 - FLYWHEEL GRINDER	36
37						780	1250										38
39	8 - FILTER CRUSHER P-100WM	R	20	2				780	960				1	20	R	27 - DRILL PRESS	40
41										780	0		1	20	--	SPARE	42
				Total Load:		27.7 kW		28.5 kW		20.7 kW							
				Total Amp:		240 A		247 A		173 A							

Legend:
CC=CONTROLLED CIRCUIT, EX=EXISITNG LOAD TO REMAIN, ML=MODIFIED LOAD ON EXISTING BREAKER, CL=CIRCUIT WIRED THROUGH CURRENT LIMITER, A=AFCI, S=SHUNT TRIP, H=HACR G=GFCI, L= C/B LOCK, HT=HANDLE TIE NB=NEW CIRCUIT BREAKER, IG=ISOLATED GROUND.

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Misc "X"	3400 VA	100.00%	3400 VA		
Receptacle "R"	42100 VA	61.88%	26050 VA	**Total Conn. Load:**	77.0 kW
MISC.	2400 VA	100.00%	2400 VA	**Total Est. Demand:**	63.3 kW
Lighting "L"	9400 VA	125.00%	11750 VA	**Total Conn.:**	214 A
Motor "M"	19686 VA	100.00%	19686 VA	**Total Est. Demand:**	176 A

Lighting and Appliance Panelboard: LW

Location: PARTS STORAGE 101
Supply From: T75WASH
Mounting: Surface
Enclosure:
Volts: 120/208 Wye
Phases: 3
Wires: 4
A.I.C. Rating: 10KAIC
Mains Type: MCB
Bus Rating: 250 A
MCB Rating: 250A
BUS Material: COPPER

Notes:
NEMA 1

CKT	Circuit Description	Load Type	Trip Amps	Poles	Notes	A		B		C		Notes	Poles	Trip Amps	Load Type	Circuit Description	CKT
1	SERVICE RECEPTACLE	R	20	1		540	1000						3	20	M	MOTORIZED DOOR	2
3	PARTS STORAGE RECEPTACLE	R	20	1				180	1000								4
5	RESTROOM RECEPTACLE	R	20	1						540	1000						6
7	OFFICE GENERAL REC.	R	20	1		180	1000						3	20	M	MOTORIZED DOOR	8
9	GENERAL RECEPTACLE	R	20	1				540	1000								10
11	BREAK ROOM RECEPTACLE	R	20	1	G					360	1000						12
13	EXTERIOR WASH REC.	R	20	1	G	180	2288						2	25	M	ODU-3	14
15	EXTERIOR WASH REC.	R	20	1	G			180	2288								16
17	EXTERIOR WASH REC.	R	20	1	G					180	0		2	0	--	SPARE	18
19	EXTERIOR WASH REC.	R	20	1	G	180	0										20
21	EXTERIOR WASH REC.	R	20	1	G			180	360				1	0	M	EF-13	22
23	EXTERIOR WASH REC.	R	20	1	G					180	240		1	0	M	EF-12	24
25	EXTERIOR WASH REC.	R	20	1	G	180	0						2	25	--	SPARE	26
27	EXTERIOR WASH REC.	R	20	1	G			180	0								28
29	EXTERIOR WASH REC.	R	20	1	G					180	11700		3	100	R	PANEL LEV	30
31	EXTERIOR WASH REC.	R	20	1	G	180	13440										32
33	EXTERIOR WASH REC.	R	20	1	G			180	13440								34
35	EXTERIOR WASH REC.	R	20	1	G					180	360		1	20	R	TELEPHONE BOARD...	36
37	EXTERIOR WASH REC.	R	20	1	G	180	1000						3	20	M	MOTORIZED DOOR	38
39	IRH-1 (4)	M	20	1				480	1000								40
41	EF-11	M	0	1						360	1000						42
43	REFRIGERATOR	R	20	1	G	800	1108						1	20	M	RP-2	44
45	BREAK ROOM RECEPTACLE	R	20	1	G			360	720				1	20	M	EF-9	46
47	BREAK ROOM RECEPTACLE	R	20	1	G					360	0		1	20	--	SPARE	48
49	CF-1	M	15	1	CC	120	0						1	20	--	SPARE	50
51	EF-9B	M	15	1				840	0				1	20	--	SPARE	52
53	SPARE	--	20	1						0	0		1	20	--	SPARE	54
55	SPARE	--	20	1		0	0						1	20	--	SPARE	56
57	SPARE	--	20	1				0	0				1	20	--	SPARE	58
59	SPARE	--	20	1						0	0		1	20	--	SPARE	60
				Total Load:		22.4 kW		22.9 kW		17.6 kW							
				Total Amp:		193 A		197 A		147 A							

Legend:
CC=CONTROLLED CIRCUIT, EX=EXISITNG LOAD TO REMAIN, ML=MODIFIED LOAD ON EXISTING BREAKER, CL=CIRCUIT WIRED THROUGH CURRENT LIMITER, A=AFCI, S=SHUNT TRIP, H=HACR G=GFCI, L= C/B LOCK, HT=HANDLE TIE NB=NEW CIRCUIT BREAKER, IG=ISOLATED GROUND.

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Receptacle "R"	45140 VA	61.08%	27570 VA		
Motor "M"	17804 VA	100.00%	17804 VA	**Total Conn. Load:**	62.9 kW
				Total Est. Demand:	45.4 kW
				Total Conn.:	175 A
				Total Est. Demand:	126 A

Lighting and Appliance Panelboard: LEV

Location:
Supply From: LW
Mounting: Surface
Enclosure:
Volts: 120/208 Wye
Phases: 3
Wires: 4
A.I.C. Rating: 10KAIC
Mains Type: MCB
Bus Rating: 100 A
MCB Rating: 100
BUS Material: COPPER

Notes:
NEMA 3R

CKT	Circuit Description	Load Type	Trip Amps	Poles	Notes	A		B		C		Notes	Poles	Trip Amps	Load Type	Circuit Description	CKT
1	GENERAL RECEPTACLE	R	20	1		180	0						1	20	--	SPARE	2
3	SINGLE CHARGERS	R	20	1	G			1920	0				1	20	--	SPARE	4
5	SINGLE CHARGERS	R	20	1	G					1920	0		1	20	--	SPARE	6
7	SINGLE CHARGERS	R	20	1	G	1920	0						1	20	--	SPARE	8
9	SINGLE CHARGERS	R	20	1	G			1920	0				1	20	--	SPARE	10
11	SINGLE CHARGERS	R	20	1	G					1920	0		1	20	--	SPARE	12
13	SINGLE CHARGERS	R	20	1	G	1920	0						1	20	--	SPARE	14
15	SINGLE CHARGERS	R	20	1	G			1920	0				1	20	--	SPARE	16
17	SINGLE CHARGERS	R	20	1	G					1920	0		1	20	--	SPARE	18
19	SINGLE CHARGERS	R	20	1	G	1920	0						1	20	--	SPARE	20
21	SINGLE CHARGERS	R	20	1	G			1920	0				1	20	--	SPARE	22
23	SINGLE CHARGERS	R	20	1	G					1920	0		1	20	--	SPARE	24
25	SINGLE CHARGERS	R	20	1	G	1920	0						1	20	--	SPARE	26
27	SINGLE CHARGERS	R	20	1	G			1920	0				1	20	--	SPARE	28
29	SINGLE CHARGERS	R	20	1	G					1920	0		1	20	--	SPARE	30
31	SINGLE CHARGERS	R	20	1	G	1920	0						1	20	--	SPARE	32
33	SINGLE CHARGERS	R	20	1	G			1920	0				1	20	--	SPARE	34
35	SINGLE CHARGERS	R	20	1	G					1920	0		1	20	--	SPARE	36
37	SINGLE CHARGERS	R	20	1	G	1920	0						1	20	--	SPARE	38
39	SINGLE CHARGERS	R	20	1	G			1920	0				1	20	--	SPARE	40
41	SINGLE CHARGERS	R	20	1	G					1920	0		1	20	--	SPARE	42
				Total Load:		11.7 kW		13.4 kW		13.4 kW							
				Total Amp:		98 A		114 A		114 A							

Legend:
CC=CONTROLLED CIRCUIT, EX=EXISITNG LOAD TO REMAIN, ML=MODIFIED LOAD ON EXISTING BREAKER, CL=CIRCUIT WIRED THROUGH CURRENT LIMITER, A=AFCI, S=SHUNT TRIP, H=HACR G=GFCI, L= C/B LOCK, HT=HANDLE TIE NB=NEW CIRCUIT BREAKER, IG=ISOLATED GROUND.

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Receptacle "R"	38580 VA	62.96%	24290 VA		
				Total Conn. Load:	38.6 kW
				Total Est. Demand:	24.3 kW
				Total Conn.:	107 A
				Total Est. Demand:	67 A

Lighting and Appliance Panelboard: LMR

Location: PARTS 118
Supply From: LM1
Mounting: FLUSH
Enclosure:
Volts: 120/208 Wye
Phases: 3
Wires: 4
A.I.C. Rating: 10KAIC
Mains Type: MLO
Bus Rating: 100 A
MCB Rating: 100 A
BUS Material: COPPER

Notes:
NEMA 1

CKT	Circuit Description	Load Type	Trip Amps	Poles	Notes	A		B		C		Notes	Poles	Trip Amps	Load Type	Circuit Description	CKT
1	CONFERENCE 104 REC.	R	20	1		1380	900						1	20	R	TOOLS/ PARTS/ WATER RMR...	2
3	BRANCH MANAGER 105 REC.	R	20	1				720	1080				1	20	R	SERVICE MAIN 111 REC.	4
5	REGIONAL MANAGER 106 REC.	R	20	1						720	1080		1	20	R	SERVICE 111/ TECH 116 COPIE...	6
7	DIRECTOR 107/MOTHERS...	R	20	1		900	720						1	20	R	TECH ROOM 116 RECEPTACLE	8
9	RESTROOM AND BREAK REC.	R	20	1				1380	1400				1	20	X	FLOOR DISPLAY POWER	10
11	BREAKROOM FRIDGE	R	20	1	G					180	1080		1	20	R	OIL/HOSE ROOM RECEPTS	12
13	BREAKROOM COUNTER REC.	R	20	1		180	1000						1	20	R	CANOPY OUTSIDE RECEPTS	14
15	BREAKROOM COUNTER REC.	R	20	1				180	1080				1	20	R	PARTS ROOM RECEPTS	16
17	BREAKROOM COUNTER REC.	R	20	1						180	900		1	20	R	OUTSIDE RECEPTS	18
19	MOTOR SHADES	X	20	1		1000	500						1	20	M	Motor "M"	20
21	MOTOR SHADES	X	20	1				600	1000				1	20	L	MAIN BUILDING CEILING FANS	22
23	MOTOR SHADES	X	20	1						400	0						24
25	RENTAL/EQUIPMENT...	R	20	1		1440	0						3	20	--	SPARE	26
27	JAN 126/COPIER 103/IT 122 REC.	R	20	1				1440	0								28
29	DATA RACK	R	30	2						2000	540	CC	1	20	R	SHOW WINDOWS	30
31						2000	1200					L	1	20		ERRS	32
33	DATA RACK	R	30	2				2000	1200			L	1	20		FACP	34
35										2000	360		1	20	R	PARTS DESK	36
37	DATA RACK	R	30	2		2000	180						1	20	R	COFFEE BAR	38
39								2000	180				1	20	R	COFFEE BAR	40
41	IT 122 TELE/DATA REC.	R	20	1						1080	--		1	--	--	SPACE	42
43	SPARE	--	20	1		0	--						1	--	--	SPACE	44
45	SPARE	--	20	1				0	--				1	--	--	SPACE	46
47	SPARE	--	20	1						0	--		1	--	--	SPACE	48
49	SPARE	--	20	1		0	--						1	--	--	SPACE	50
51	SPARE	--	20	1				0	--				1	--	--	SPACE	52
53	SPARE	--	20	1						0	--		1	--	--	SPACE	54
55	SPARE	--	20	1		0	--						1	--	--	SPACE	56
57	SPARE	--	20	1				0	--				1	--	--	SPACE	58
59	SPARE	--	20	1						0	--		1	--	--	SPACE	60
				Total Load:		13.4 kW		14.3 kW		10.5 kW							
				Total Amp:		115 A		123 A		88 A							

Legend:
CC=CONTROLLED CIRCUIT, EX=EXISITNG LOAD TO REMAIN, ML=MODIFIED LOAD ON EXISTING BREAKER, CL=CIRCUIT WIRED THROUGH CURRENT LIMITER, A=AFCI, S=SHUNT TRIP, H=HACR G=GFCI, L= C/B LOCK, HT=HANDLE TIE NB=NEW CIRCUIT BREAKER, IG=ISOLATED GROUND.

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Misc "X"	3400 VA	100.00%	3400 VA		
Receptacle "R"	30880 VA	66.19%	20440 VA	**Total Conn. Load:**	38.2 kW
MISC.	2400 VA	100.00%	2400 VA	**Total Est. Demand:**	28.0 kW
Lighting "L"	1000 VA	125.00%	1250 VA	**Total Conn.:**	106 A
Motor "M"	500 VA	100.00%	500 VA	**Total Est. Demand:**	78 A

Lighting and Appliance Panelboard: LS

Location:
Supply From: T30S
Mounting: Surface
Enclosure:
Volts: 120/208 Wye
Phases: 3
Wires: 4
A.I.C. Rating: 10KAIC
Mains Type: MCB
Bus Rating: 100 A
MCB Rating: 100 A
BUS Material: COPPER

Notes:
NEMA 3R

CKT	Circuit Description	Load Type	Trip Amps	Poles	Notes	A		B		C		Notes	Poles	Trip Amps	Load Type	Circuit Description	CKT
1	HIGHWAY SIGN RECEPTS	R	20	1		180	0						1	20	--	SPARE	2
3	OUTDOOR PANEL BOARD...	R	20	1				180	0				1	20	--	SPARE	4
5	GATE	X	20	1						1000	0		1	20	--	SPARE	6
7	GATE	X	20	1		1000	0						1	20	--	SPARE	8
9	ENTRY GATE	X	20	3				667	0				1	20	--	SPARE	10
11										667	0		1	20	--	SPARE	12
13						667	0						1	20	--	SPARE	14
15	GATE	X	20	1				0	0				1	20	--	SPARE	16
17	SPARE	--	20	1						0	0		1	20	--	SPARE	18
19	SPARE	--	20	1		0	0						1	20	--	SPARE	20
21	SPARE	--	20	1				0	0				1	20	--	SPARE	22
23	SPARE	--	20	1						0	0		1	20	--	SPARE	24
25	SPARE	--	20	1		0	0						1	20	--	SPARE	26
27	SPARE	--	20	1				0	0				1	20	--	SPARE	28
29	SPARE	--	20	1						0	0		1	20	--	SPARE	30
31	SPARE	--	20	1		0	0						1	20	--	SPARE	32
33	SPARE	--	20	1				0	0				1	20	--	SPARE	34
35	SPARE	--	20	1						0	0		1	20	--	SPARE	36
37	SPARE	--	20	1		0	0						1	20	--	SPARE	38
39	SPARE	--	20	1				0	0				1	20	--	SPARE	40
41	SPARE	--	20	1						0	0		1	20	--	SPARE	42
				Total Load:		1.8 kW		0.8 kW		1.7 kW							
				Total Amp:		16 A		7 A		15 A							

Legend:
CC=CONTROLLED CIRCUIT, EX=EXISITNG LOAD TO REMAIN, ML=MODIFIED LOAD ON EXISTING BREAKER, CL=CIRCUIT WIRED THROUGH CURRENT LIMITER, A=AFCI, S=SHUNT TRIP, H=HACR G=GFCI, L= C/B LOCK, HT=HANDLE TIE NB=NEW CIRCUIT BREAKER, IG=ISOLATED GROUND.

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Misc "X"	4000 VA	100.00%	4000 VA		
Receptacle "R"	360 VA	100.00%	360 VA	**Total Conn. Load:**	4.4 kW
				Total Est. Demand:	4.4 kW
				Total Conn.:	12 A
				Total Est. Demand:	12 A

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REV	DATE	DESCRIPTION
	09.23.2026	Issued for Permit

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MIAMISBURG - CAT
RENTAL FACILITY
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LDA Project No.2026.11

ELECTRICAL PANEL SCHEDULES

E6.02

ELECTRICAL SPECIFICATIONS

DIVISION 26 - ELECTRICAL

I. GENERAL PROVISIONS

A. GENERAL CONDITIONS, CODES & STANDARDS

1. GENERAL CONDITIONS OF THE CONTRACT FOUND IN THE ARCHITECTURAL DRAWINGS, GENERAL AND SPECIAL CONDITIONS OF THE AMERICAN INSTITUTE OF ARCHITECTS (AIA) AND ANY OF THE OWNER'S GENERAL REQUIREMENTS SHALL APPLY UNLESS NOTED OTHERWISE.
2. REFER TO THE GENERAL CONDITIONS ON THE ARCHITECTURAL DOCUMENTS AND THE GENERAL AND SPECIAL CONDITIONS OF THE AIA FOR ADDITIONAL REQUIREMENTS REGARDING; SAFETY, COORDINATION & COOPERATION, WORKMANSHIP, PROTECTION, CUTTING AND PATCHING, DAMAGE TO OTHER WORK, PRELIMINARY OPERATIONS, STORAGE, ADJUSTMENTS, CLEANING, ETC.
3. ALL WORK SHALL BE IN CONFORMANCE WITH ALL LOCALLY ENFORCED, FEDERAL, STATE, AND LOCAL CODES AND ORDINANCES INCLUDING ANY SPECIAL OWNER REQUIREMENTS IN ADDITION TO THOSE SPECIFIED.
4. CONTRACTOR SHALL PAY FOR AND OBTAIN ALL NECESSARY LICENSES, PERMITS AND INSPECTIONS REQUIRED TO PROCEED WITH THE WORK. THIS SHALL INCLUDE ALL REQUIRED COORDINATION WITH THE LOCAL UTILITY COMPANIES AND THEIR ASSOCIATED FEES OR COSTS.
5. ALL EQUIPMENT AND MATERIALS USED SHALL BE NEW AND UL LISTED FOR THE APPLICATION, AND SHALL BEAR AN APPROPRIATE UL LABEL.

B. SCOPE OF WORK

1. THIS CONTRACT SHALL INCLUDE THE FURNISHING, INSTALLING, CONNECTING, AND OPERATION OF ALL EQUIPMENT WHICH IS A PART OF THE ELECTRICAL SYSTEMS AS SHOWN ON THE DRAWINGS AND AS REQUIRED BY SIMILAR INSTALLATIONS. ANY MATERIAL OR LABOR WHICH IS NEITHER SHOWN ON THE DRAWINGS NOR CALLED FOR IN THE SPECIFICATIONS, BUT WHICH IS OBVIOUSLY NECESSARY TO COMPLETE THE WORK AND WHICH IS USUALLY INCLUDED IN WORK OF A SIMILAR CHARACTER SHALL BE FURNISHED AND INSTALLED UNDER THIS CONTRACT AT NO ADDITIONAL COST TO THE OWNER. CONTRACTOR SHALL PROVIDE ALL LABOR AND MATERIALS REQUIRED TO PROVIDE THE OWNER A COMPLETE, CODE APPROVED AND OPERATIONAL ELECTRICAL SYSTEM.
2. CAREFULLY READ SPECIFICATION FOR ALL PARTS OF THE WORK SO AS TO BECOME FAMILIAR WITH ALL TRADES' WORK SCOPE. CONSULT WITH OTHER TRADES TO INSURE PROPER LOCATIONS AND AVOID INTERFERENCES. ANY CONFLICT SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER BEFORE WORK IS COMMENCED.
3. CONTRACTORS SHALL BE HELD TO HAVE EXAMINED THE PREMISES AND SITE SO AS TO COMPARE THEM WITH THE DRAWINGS AND SPECIFICATIONS, NOTE THE EXISTING CONDITIONS AND OTHER WORK THAT WILL BE REQUIRED, AND THE NATURE OF THE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED. NO ALLOWANCE SHALL BE MADE TO THE CONTRACTOR BY REASON OF THIS FAILURE TO HAVE MADE SUCH EXAMINATION OR OF ANY ERROR ON HIS PART.
4. ALL EXISTING UTILITY AND ELECTRICAL SERVICES SHALL BE FIELD VERIFIED. CORRECTIONS TO THE DESIGN AND INSTALLATION SHALL BE MADE WITHOUT ADDITIONAL COST TO THE OWNER.
5. PROVIDE ALL CUTTING AND PATCHING REQUIRED FOR INSTALLATION OF ELECTRICAL WORK. ALL CORE DRILLING OR CUTTING OF FIRE RATED FLOORS, SHAFTS, AND WALLS SHALL BE FIRESTOPPED PRIOR TO FINISH PATCHING. ALL PENETRATIONS SHALL BE FIRE SEALED TO MATCH THE FIRE RATING OF THE FLOORS, SHAFTS, AND WALLS PENETRATED.
6. TEMPORARY ELECTRICAL SERVICE, LIGHTING, AND RELATED WIRING SHALL BE PROVIDED TO OSHA REQUIREMENTS FOR THE USE OF ALL TRADES DURING CONSTRUCTION.
7. TEMPERATURE AND INTERLOCK CONTROL COMPONENTS AND ALL RELATED WIRING AND CONDUIT SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
8. THE GENERAL CONTRACTOR SHALL VERIFY SITE LIGHTING BASE DETAILS WITH STRUCTURAL ENGINEER TO VERIFY APPLICABILITY OF POLE/FIXTURE BASE WITH LOCAL SOIL CONDITIONS.
9. ALL WORK INCLUDING, BUT NOT LIMITED TO PARTS, MATERIAL, EQUIPMENT AND LABOR SHALL BE GUARANTEED FOR ONE YEAR AFTER ACCEPTANCE BY THE ENGINEER AND OWNER. WHERE AN EQUIPMENT MANUFACTURER HAS A WARRANTY THAT EXCEEDS ONE YEAR, THAT WARRANTY PERIOD SHALL APPLY TO THIS PROJECT.

C. DOCUMENTS

1. THE DRAWINGS ARE DIAGRAMMATIC; ALL WORK SHALL BE PERFORMED AS INDICATED ON THE DRAWINGS UNLESS EXISTING CONDITIONS OR COORDINATION ISSUES REQUIRE CHANGES. THESE CHANGES SHALL BE MADE WITH NO ADDITIONAL COST TO THE OWNER.
2. ANY INCIDENTAL ITEMS OR LABOR, ETC. NOT INCLUDED IN THE SPECIFICATIONS OR THE DRAWINGS BUT REASONABLY IMPLIED AS NECESSARY FOR THE COMPLETE INSTALLATION OF ALL APPARATUS SHALL BE INCLUDING IN BID.
3. THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO SUPPLEMENT EACH OTHER AND ANY MATERIAL OR LABOR CALLED FOR IN ONE SHALL BE FURNISHED EVEN THOUGH NOT MENTIONED IN BOTH.
4. IF ERRORS ARE FOUND IN THE DRAWINGS OR SPECIFICATIONS, OR DISCREPANCIES OCCUR BETWEEN THE SAME, OR BETWEEN THE FIGURES ON THE DRAWINGS AND THE SCALE OF SAME, OR BETWEEN THE LARGER AND SMALLER DRAWINGS, OR IN THE DESCRIPTIVE MATTER ON THE DRAWINGS, SUCH ERRORS SHALL BE REFERRED TO THE OWNER FOR REVIEW AND FINAL DECISION PRIOR TO THE BID DUE DATE.
5. THE BIDDING OF THIS WORK WILL CONTEMPLATE THE USE OF EQUIPMENT AND MATERIALS EXACTLY AS SPECIFIED HEREIN. WHERE MORE THAN ONE MANUFACTURER IS MENTIONED ANY ONE MAY BE UTILIZED. SUBSTITUTE MANUFACTURERS MAY BE OFFERED ONLY AS AN ALTERNATE TO THE SPECIFIED EQUIPMENT AND MATERIAL AND MUST BE SUBMITTED AS SPECIFIED IN THE ARCHITECTURAL DOCUMENTS.
6. MISCELLANEOUS ITEMS NECESSARY TO COMPLETE THE SYSTEMS CAN BE OF ANY RECOGNIZED MANUFACTURE PROVIDED THESE ITEMS MEET MINIMUM STANDARDS AS SET IN THESE SPECIFICATIONS. REFER TO EACH SECTION FOR ANY SPECIFIC REQUIREMENTS.

D. COORDINATION

1. CONTRACTOR SHALL LOCATE, IDENTIFY AND PROTECT ANY EXISTING SERVICES WHICH ARE REQUIRED TO BE MAINTAINED OPERATIONAL AND SHALL EXERCISE EXTRA CAUTION IN THE PERFORMANCE OF ALL WORK TO AVOID DISTURBING SUCH FACILITIES. ALL COSTS FOR REPAIR OF DAMAGES TO SUCH SERVICES SHALL BE PAID BY THE CONTRACTOR CAUSING THE DAMAGE.
2. EACH CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ALL DAMAGE TO OTHER WORK CAUSED BY HIS WORK OR THROUGH THE NEGLECT OF HIS, OR HIS SUB-TRADE'S PERSONNEL. ALL PATCHING, REPAIRING, REPLACEMENT AND PAINTING, ETC. SHALL BE DONE AS DIRECTED BY THE OWNER BY THE CRAFTSMEN OF THE TRADES INVOLVED. THE COSTS OF SUCH WORK SHALL BE PAID BY THE CONTRACTOR CAUSING THE DAMAGE.
3. IT IS ESSENTIAL THAT ALL WORK AT THE PROJECT BE DONE AT SUCH TIME AND IN SUCH MANNER AS NOT TO INTERFERE WITH THE OPERATIONS OF THE SPACE, ADJACENT SPACES, OR FACILITY. A WORK SCHEDULE SHALL BE ARRANGED WITH THE OWNER, INCLUDING PREMIUM TIME WORK TO FACILITATE WORK WITH A MINIMUM OF INTERFERENCE TO THE OWNER'S OPERATIONS.
4. ELECTRICAL CONTRACTOR TO REVIEW SUBMITTALS PROVIDED BY OTHER DISCIPLINES & TRADES FOR ALL ELECTRICAL CONNECTION REQUIREMENTS.

E. METHODS

1. EXCAVATIONS SHALL BE MADE IN OPEN TRENCHES. FLOORS SHALL BE SAW CUT. CONDUIT SHALL BE LAID ON AN APPROPRIATELY GRADED 6" BED OF CLEAN AND DRY SAND. ENGINEERED FILL SHALL BE USED TO BACKFILL TO 6" ABOVE THE CONDUIT. BACKFILL THE REMAINDER OF THE TRENCH UTILIZING THE EXCAVATED MATERIAL IF APPROVED BY THE ARCHITECT OR THE OWNER. IF THE EXCAVATED MATERIALS ARE NOT ACCEPTABLE, ENGINEERED FILL ACCEPTABLE TO THE ARCHITECT SHALL BE UTILIZED TO BACKFILL THE REMAINDER OF THE TRENCH. BACKFILL SHALL BE ACCOMPLISHED IN 9" LIFTS WITH ALL LIFTS COMPACTED TO 95% PROCTOR. PATCH FLOOR TO MATCH EXISTING.
2. EQUIPMENT, CONDUIT, ETC. SHALL NOT BE SUPPORTED FROM ANY CEILINGS, OTHER PIPING, OTHER CONDUIT OR DUCTWORK, ROOF DECK, OR JOIST BRIDGING. ITEMS SHALL BE SUPPORTED FROM ACCEPTABLE STRUCTURAL BUILDING COMPONENTS AS DETERMINED BY THE ARCHITECT AND STRUCTURAL ENGINEER.
3. ALL ROOF PENETRATIONS, FLASHINGS AND COUNTER FLASHINGS SHALL BE PERFORMED BY THE OWNER'S ROOFING CONTRACTOR AT THE REQUESTING CONTRACTORS COST.

F. SUBMITTALS

1. SHOP DRAWINGS SHALL BE PROVIDED TO THE ARCHITECT OF ALL EQUIPMENT AND ACCESSORIES PROVIDED FOR THE PROJECT WHETHER SPECIFIED HERE-IN OR ON THE DRAWINGS. REVIEW OF THE SHOP DRAWINGS SHALL BE FOR GENERAL DESIGN CONCEPT AND ADHERENCE WITH THE SPECIFICATIONS. QUANTITY OF SHOP DRAWINGS SUBMITTED SHALL BE AS SPECIFIED BY THE ARCHITECT. SHOP DRAWINGS SHALL BE PREPARED BY THE CONTRACTOR SHOWING LOCATIONS AND MEASUREMENTS FROM COLUMNS OF ALL CONCEALED AND EXPOSED PIPING, DUCTWORK, CONDUIT, EQUIPMENT, ACCESSORIES, ETC., AND SUBMITTED PRIOR TO INSTALLATION. THE OWNER MAY MAKE REPRODUCIBLE COPIES OF THEIR DRAWINGS AVAILABLE FOR USE IN PREPARATION OF SHOP DRAWINGS, HOWEVER THE OWNER SHALL NOT BE HELD RESPONSIBLE FOR NOT CONFIRMING ALL INFORMATION ON THE DRAWINGS PRIOR TO FABRICATION AND/OR INSTALLATION.
2. PROJECT RECORD DOCUMENTS - MAINTAIN AT THE JOBSITE ONE COPY OF ALL CONTRACT DOCUMENTS CLEARLY MARKED AS "PROJECT RECORD COPY". THESE DRAWINGS ARE TO BE MAINTAINED IN GOOD CONDITION, UPDATED DAILY FOR CHANGES ENCOUNTERED AND AVAILABLE AT ALL TIMES FOR INSPECTION BY THE OWNER. DO NOT USE FOR FIELD CONSTRUCTION. PROJECT RECORD DOCUMENTS ARE TO BE KEPT CURRENT WITH EXACT DIMENSIONS OF ALL WORK, EQUIPMENT, DISTRIBUTION CONDUIT, CIRCUITS, ETC. MARK ALL INFORMATION IN RED LINES AND NOTES SO AS TO BE EASILY IDENTIFIED FROM THE BASE DRAWING. UPON COMPLETION OF THE WORK, ONE SET OF THESE DOCUMENTS SHALL BE TURNED OVER TO THE OWNER AS ONE QUALIFICATION FOR FINAL PAYMENT.
3. THREE COMPLETE SETS OF AS-BUILT DOCUMENTATION SHALL BE PROVIDED. IT SHALL INCLUDE, BUT NOT BE LIMITED TO ACCURATE PLAN DRAWINGS, WIRING DIAGRAMS AND OPERATION AND MAINTENANCE MANUALS.

H. PRODUCTS

A. CONDUIT

1. CONDUIT SHALL BE HEAVY WALL RIGID GALVANIZED STEEL WHERE EXPOSED AND SUBJECT TO DAMAGE, 8'-0" AFF AND BELOW, AND IN WET LOCATIONS WHERE INDICATED ON THE DRAWINGS. UNDERGROUND CONDUIT SHALL BE SCHEDULE 40 PVC AND SHALL BE CONCRETE ENCASED (3" MINIMUM) WHERE INDICATED ON THE DRAWINGS. A TRANSITION SHALL BE MADE TO HEAVY WALL RIGID GALVANIZED STEEL BEFORE PVC CONDUITS PENETRATE THE FLOOR SLAB. INTERIOR CONDUITS SHALL BE ELECTRICAL METALLIC TUBING (EMT). METAL CLAD (MC) CABLE MAY BE USED IF APPROVED BY THE OWNER, AND INSTALLED IN LOCATIONS PERMITTED BY CODE.
2. FLEXIBLE METAL CONDUIT SHALL BE USED FROM OUTLET BOX TO INDIVIDUAL RECESSED LIGHT FIXTURES, AND FOR FINAL CONNECTIONS TO MOTORS, TRANSFORMERS AND OTHER DEVICES SUBJECT TO VIBRATION.

B. CONDUIT FITTINGS AND BOXES

1. INTERIOR OUTLET BOXES SHALL BE STANDARD GALVANIZED SHEET STEEL TYPE, NOT LESS THAN 14 GAUGE IN THICKNESS, WITH KNOCKOUT OPENINGS, EXTENSIONS, PLASTER RINGS AND COVER PLATES TO ACCOMMODATE THE DEVICES INSTALLED. COVER PLATES SHALL BE SMOOTH PLASTIC TO MATCH DEVICE COLOR. USE STEEL PLATES WITH ROUNDED CORNERS FOR SURFACE BOXES. OUTDOOR (WET LOCATION) OUTLET BOXES SHALL BE CAST ALUMINUM TYPE WITH DEVICE COVERS TO SUIT.
2. OUTLET BOXES SHALL NOT BE LESS THAN 4 INCHES SQUARE, 1-1/2 INCHES DEEP.
3. ISOLATED GROUND RECEPTACLES FOR EMT SHALL BE DIE CAST ZINC OR STEEL. BUSHING SHALL BE GROUNDING TYPE WITH INSULATING PLASTIC INSERT.
4. FLOOR BOXES SHALL BE FLUSH SERVICE TYPE , RECTANGULAR CAST METAL CONSTRUCTION GANGABLE ADJUSTABLE WITH BRASS COVER AND TRIMFLANGE AS REQUIRED. COVER TYPE SHALL BE AS INDICATED ON LEGEND.

C. WIRE AND CABLE

1. CONDUCTORS FOR POWER AND LIGHTING SHALL BE NEW 600-VOLT, 90°C, TYPE XHHW, THHW, THHN, OR THWN INSULATION, MINIMUM SIZE #12-AWG, EXCEPT FOR CONTROL WIRING WHICH MAY BE #14-AWG. OTHER SIZES SHALL BE AS NOTED ON THE DRAWINGS. CONDUCTORS SHALL BE COPPER, UNLESS OTHERWISE APPROVED BY THE OWNER. CONDUCTORS SHALL BE UTILIZED WHERE SUITABLE AND REQUIRED BY NEC.
2. BRANCH CIRCUIT RUNS EXCEEDING 100 FEET IN TOTAL LENGTH FROM THE PANELBOARD TO THE LAST DEVICE, SHALL BE #10-AWG CONDUCTORS UNLESS OTHERWISE NOTED.
3. COMPRESSION TYPE LUGS AND CONNECTORS SHALL BE USED FOR ALL TERMINATIONS AND SPLICES.
4. CONDUCTORS ROUTED ON ROOFTOP, EXPOSED TO DIRECT SUNLIGHT SHALL BE 90°C TYPE XHHW-2 PER NEC 310.15(B)(3)(C).
5. ALL LOW VOLTAGE COMMUNICATIONS, FIRE ALARM, DATA, SECURITY, TELEPHONE AND ALL OTHER MISCELLANEOUS LOW VOLTAGE WIRING INSTALLED IN CEILING SHALL BE PLENUM RATED.

D. WIRING DEVICES

1. DUPLEX RECEPTACLES SHALL BE GROUNDING TYPE, NEMA 5-20R, RATED FOR 20 AMPS, 125 VOLTS, WITH PROVISIONS FOR BACK AND SIDE WIRING.
2. GFI TYPE RECEPTACLES SHALL BE READILY ACCESSIBLE AS REQUIRED PER NEC. COORDINATE INSTALLATION WITH FIELD CONDITIONS.
3. ISOLATED GROUND RECEPTACLES SHALL BE IDENTIFIED BY AN ORANGE TRIANGLE ON THE FACE OF THE RECEPTACLE.
4. COORDINATE APPLIANCE RECEPTACLE REQUIREMENTS WITH APPLIANCE MANUFACTURER. ENSURE PROPER APPLIANCE GROUNDING IS PROVIDED AS REQUIRED.
5. SWITCHES SHALL BE TOGGLE OPERATED, QUIET TYPE, RATED FOR 20 AMPS, 120/277 VOLTS, WITH PROVISIONS FOR BACK AND SIDE WIRING. THREE WAY AND FOUR WAY SWITCHES SHALL BE PROVIDED WHERE INDICATED.
6. DIMMERS SHALL BE LUTRON "NOVA T-STAR" SERIES, OF A RATING, VOLTAGE AND WATTAGE SUITABLE FOR LOAD SERVED, OR APPROVED EQUAL.
7. COLORS OF DEVICES SHALL BE SELECTED BY ARCHITECT.
8. WIRING DEVICES SHALL BE SPECIFICATION GRADE, AS MANUFACTURED BY HUBBELL, PASS & SEYMOUR, ARROW HART, LEVITON AND GENERAL ELECTRIC.

E. LIGHTING AND RECEPTACLE PANELBOARDS

1. BRANCH CIRCUIT PANELBOARDS SHALL BE DEAD FRONT TYPE, WITH MAIN LUGS OR MAIN OVERCURRENT DEVICE AS INDICATED, BRANCH OVERCURRENT DEVICES AS NOTED AND AN EQUIPMENT GROUND BAR (CU), ALL IN A SURFACE OR FLUSH MOUNTED SHEET STEEL ENCLOSURE. PANELBOARDS SHALL BE FULLY RATED. MINIMUM SHORT CIRCUIT CAPACITY SHALL BE 10,000 AMPS SYMMETRICAL FOR 120/208V, AND 18,000 AMPS SYMMETRICAL FOR 277/480V APPLICATION UNLESS NOTED OTHERWISE.
2. ELECTRICAL PANELS MOUNTED ON INTERIOR OF BUILDING SHALL BE NEMA 1 UNLESS OTHERWISE INDICATED ON THE DRAWINGS. ELECTRICAL PANELS MOUNTED ON EXTERIOR OF BUILDING SHALL BE NEMA 3R UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
3. CIRCUIT BREAKERS SHALL BE BOLT ON TYPE; WITH MOLDED PLASTIC CASE; 1, 2, OR 3 POLE AS INDICATED; QUICK-MAKE, QUICK-BREAK; AND THERMAL-MAGNETIC TRIP DEVICE.
4. ALL BREAKERS FEEDING HVAC EQUIPMENT SHALL BE HACR RATED, UNLESS OTHERWISE NOTED.
5. ALL CIRCUIT BREAKERS 1200A OR LARGER SHALL BE EQUIPPED WITH ARC ENERGY REDUCTION, INDICATOR LIGHT AND SELECTOR SWITCH AS REQUIRED PER NEC 240.87.
6. ALL EQUIPMENT RATED 100A OR LESS SHALL HAVE 60 DEGREE C MINIMUM TERMINATIONS. ALL EQUIPMENT RATED OVER 100A SHALL HAVE 75 DEGREE MINIMUM TERMINATIONS.
7. INDIVIDUAL SINGLE POLE CIRCUIT BREAKERS, WITH IDENTIFIED TIES, OR 2/3 POLE BREAKERS SHALL BE PROVIDED FOR EACH UNGROUNDED CONDUCTOR IN ALL MULTI-WIRE BRANCH CIRCUITS.
8. NEW CIRCUIT BREAKERS INSTALLED IN EXISTING PANELBOARD EQUIPMENT SHALL MATCH EXISTING MANUFACTURER, TYPE, STYLE AND KAIC RATING.
9. CONTRACTOR SHALL CONFIRM AVAILABLE UTILITY FAULT CURRENT WITH UTILITY ENGINEER PRIOR TO COMMENCING WORK.
10. PANELBOARDS SHALL BE AS MANUFACTURED BY SQUARE D, GENERAL ELECTRIC, SIEMENS, AND EATON.

F. DISTRIBUTION TRANSFORMERS

1. TRANSFORMERS SHALL BE ENERGY SAVING TYPE, DRY TYPE, 220 DEGREE C INSULATION, 115 DEGREE C RISE WITH 2 TAPS ABOVE AND 4 TAPS BELOW NORMAL VOLTAGE. TRANSFORMERS SHALL BE AS MANUFACTURED BY SQUARE D, GENERAL ELECTRIC, SIEMENS, EATON, AND ACME. TRANSFORMERS SHALL MEET DOE 2016 STANDARDS.
2. REFER TO NEC 240.21(B)(3) AND 450.14 FOR TRANSFORMER DISCONNECTING MEANS REQUIREMENTS. WHEN TRANSFORMERS ARE NOT WITHIN LINE OF SITE, OR EXCEED 25' OF COMBINED DISTANCE OF SECONDARY AND PRIMARY FEEDERS, A DISCONNECTING MEANS SHALL BE LOCATED WITHIN REQUIRED NEC DISTANCES. CONTRACTOR SHALL VERIFY LENGTHS OF PRIMARY AND SECONDARY FEEDERS IN THE FIELD AND ARE RESPONSIBLE FOR MEETING THE REQUIREMENTS OF THE NEC CODE SECTIONS LISTED ABOVE.

G. SAFETY SWITCHES AND MOTOR STARTERS

1. SAFETY SWITCHES SHALL BE FUSIBLE OR NON-FUSIBLE AS INDICATED ON THE DRAWINGS. SWITCHES SHALL BE QUICKMAKE, QUICKBREAK, HEAVY DUTY VISIBLE BLADE TYPE. ENCLOSURES SHALL BE RATED FOR INSTALLATION IN DESIGNATED AREA AS INDICATED ON PLANS. INTERIOR ENCLOSURES SHALL BE NEMA 1 UNLESS OTHERWISE INDICATED ON THE DRAWINGS. EXTERIOR ENCLOSURES SHALL BE NEMA 3R UNLESS OTHERWISE INDICATED ON THE DRAWINGS. FUSES SHALL BE DUAL ELEMENT - TIME DELAY TYPE.
2. MAGNETIC MOTOR STARTERS SHALL BE COMBINATION TYPE WITH THERMAL OVERLOAD, INTEGRAL FUSED SAFETY SWITCH, H-O-A SELECTOR SWITCH, CONTROL TRANSFORMER, RUNNING PILOT LIGHT, NEMA TYPE 1 ENCLOSURE, AND (2) NORMALLY OPEN AND (2) NORMALLY CLOSED AUXILIARY CONTACTS.
3. ALL MOTORS OVER 1/8 HP SHALL BE PROVIDED WITH THERMAL OVERLOAD PROTECTION. OVERLOAD PROTECTION SHALL BE PROVIDED INTEGRAL WITH THE MOTOR WINDINGS AND/OR MOTOR CONTROLLER (PROVIDED BY OTHERS) UNLESS OTHERWISE INDICATED ON DRAWINGS.
4. ALL EQUIPMENT RATED 100A OR LESS SHALL HAVE 60 DEGREE C MINIMUM TERMINATIONS. ALL EQUIPMENT RATED OVER 100A SHALL HAVE 75 DEGREE MINIMUM TERMINATIONS.
5. SWITCHES SHALL BE RATED TO WITHSTAND INCOMING KAIC VALUES. COORDINATE INCOMING KAIC VALUES WITH UTILITY ENGINEER AS REQUIRED.
6. ALL FUSED SWITCHES 1200A OR LARGER SHALL BE EQUIPPED WITH ARC ENERGY REDUCTION, AS REQUIRED PER NEC 240.67. CONTRACTOR MAY OPT TO PROVIDE ENCLOSED CIRCUIT BREAKER IN LIEU OF FUSED SWITCH PER AVAILABILITY.

H. LUMINAIRES AND LAMPS

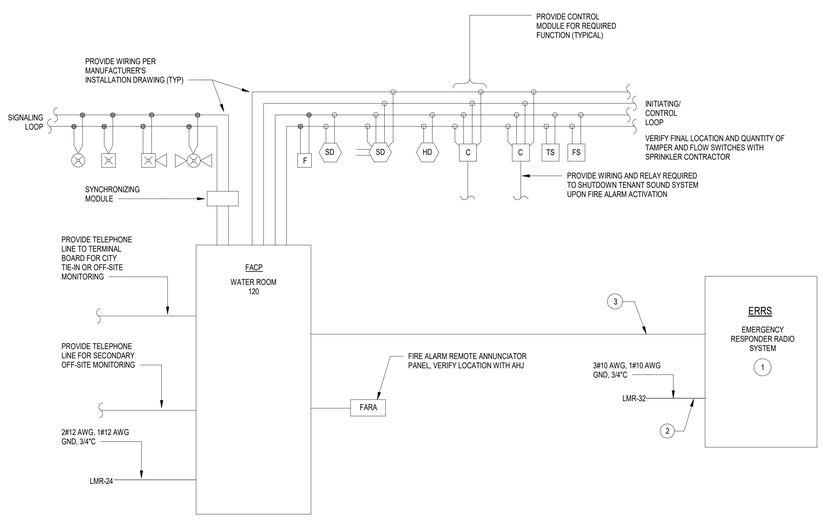
1. ALL LUMINAIRES SHALL BE SPECIFIED ON THE LUMINAIRE SCHEDULE.
2. PROVIDE ALL REQUIRED TRIMS AND ACCESSORIES FOR INSTALLATION IN DESIGNATED CEILING TYPE, REFER TO ARCHITECTURAL CEILING PLANS.
3. INTERIOR LED LIGHTING SHALL BE MINIMUM 80 CRI. EXTERIOR LED LIGHTING SHALL BE MINIMUM 70 CRI.
4. EMERGENCY LIGHTING AS INDICATED, SHALL PROVIDE A MINIMUM OF ONE FOOTCANDLE ALONG THE PATH OF EGRESS. EMERGENCY FIXTURE SUPPLIER SHALL PROVIDE FOOTCANDLE PRINTOUT TO VERIFY EMERGENCY LIGHT LEVELS.
5. ALL LUMINAIRES SHALL BE COMPATIBLE WITH LIGHTING CONTROLS, VERIFY COMPATIBILITY PRIOR TO PURCHASE.

FIRE ALARM SPECIFICATIONS

1. A COMPLETE FIRE ALARM SYSTEM SHALL BE PROVIDED AS DESCRIBED ON THE DRAWINGS. ALL DEVICES, WIRING, BACKBOXES, PROGRAMMING, START-UP, INSTRUCTION AND TESTING REQUIRED FOR A COMPLETE OPERATING SYSTEM SHALL BE PROVIDED.
2. THE ELECTRICAL CONTRACTOR SHALL FURNISH SHOP DRAWINGS, COMPLETE WITH EQUIPMENT CUTS AND FLOOR PLANS (WITH WIRING INDICATED), AS WELL AS BATTERY CALCULATIONS, AND VOLTAGE DROP CALCULATIONS FOR REVIEW AND APPROVAL BY THE ARCHITECT, ENGINEER, AND ALL AUTHORITIES HAVING JURISDICTION. FLOOR PLAN DRAWINGS SHALL BE STAMPED BY A PROFESSIONAL ENGINEER RETAINED BY THE CONTRACTOR AND/OR SUPPLIER. NICET 4 CERTIFICATION AND STAMP IS ACCEPTABLE, IF APPROVED BY THE AUTHORITY HAVING JURISDICTION.
3. THE ELECTRICAL CONTRACTOR SHALL FURNISH FIRE ALARM DRAWINGS, CALCULATIONS, AND EQUIPMENT INFORMATION FOR ALL REQUIRED LOCAL MUNICIPALITY, OR STATE PERMITS. THE ELECTRICAL CONTRACTOR SHALL ARRANGE AND COORDINATE ALL REQUIRED TESTING AND INSPECTIONS REQUIRED BY THE LOCAL MUNICIPALITY FIRE DEPARTMENT. THE ELECTRICAL CONTRACTOR SHALL INCLUDE FIRE DEPARTMENT COSTS IN BID.
4. ALL HVAC UNITS OR GROUP OF HVAC UNITS WITH A COMMON PLENUM AND A DESIGN CAPACITY GREATER THAN 2000 CFM SHALL AUTOMATICALLY SHUT DOWN ASSOCIATED HVAC UNIT OR UNITS. WHERE A DUCT SMOKE DETECTOR IS NOT VISIBLE OR ACCESSIBLE FROM THE FLOOR, REMOTE AUDIBLE/VISUAL ALARM INDICATOR/TEST SWITCHES SHALL BE PROVIDED IN AN APPROVED LOCATION, AT A HEIGHT ACCESSIBLE AND VISIBLE FROM THE FLOOR. HVAC DUCT DETECTORS SHALL BE CONNECTED TO A CENTRAL STATION MONITORING SYSTEM UNDER SEPARATE CONTRACT WITH THE OWNER.
5. FIRE ALARM SIGNAL SHALL INITIATE THE FOLLOWING ACTIONS:
   a. CONTINUOUSLY OPERATE ALARM NOTIFICATION APPLIANCES.
   b. IDENTIFY ALARM AND SPECIFIC INITIATION DEVICE AT FIRE CONTROL PANEL.
   c. TRANSMIT ALARM SIGNAL TO REMOTE RECEIVING STATION.
   d. INTERRUPT TENANT SOUND SYSTEM.
   e. UNLOCK ELECTRIC DOORS IN EGRESS PATHS.
   f. SHUT DOWN AIR HANDLING SYSTEMS.
   g. ACTIVATE EMERGENCY GAS AND HOOD EQUIPMENT SHUTOFFS.
   h. SWITCH HVAC EQUIPMENT CONTROLS TO FIRE ALARM MODE.
6. ALL FIRE ALARM VISIBLE DEVICES SHALL BE ADA COMPLIANT. STROBE INTENSITIES AS DELEGATED DESIGN BY SYSTEM VENDOR. CEILING MOUNTED DEVICES SHALL HAVE A RATING WITH THE LISTED REQUIREMENTS FOR A SPECIFIC CEILING HEIGHT.
7. ALL WALL MOUNTED STROBES, SPEAKER-STROBES, OR HORN STROBES SHALL BE MOUNTED SUCH THAT THE LENS IS NOT LESS THAN 80 INCHES AND NOT MORE THAN 96 INCHES ABOVE THE FINISHED FLOOR.
8. ALL AUDIBLE NOTIFICATION APPLIANCES SHALL BE SET TO ACHIEVE A SOUND PRESSURE AT LEAST 15dB ABOVE THE AVERAGE AMBIENT SOUND LEVEL.
9. CARBON MONOXIDE DETECTION SYSTEM SHALL COMPLY WITH NFPA 720. CARBON MONOXIDE SENSORS SHALL BE LISTED PER UL 2075 (NY STATE & NJ ONLY).
10. ALL CABLES FOR THE FIRE ALARM SYSTEM SHALL BE RATED FOR THE INTENDED USE.
11. FIRE ALARM SYSTEM MONITORING SHALL BE BY OTHERS UNDER SEPARATE CONTRACT WITH THE OWNER.
12. PROVIDE A SEPARATE LINE ITEM COST FOR A (1), (3), (5) YEAR MAINTENANCE, TESTING AND MONITORING AGREEMENT. AGREEMENT TO INCLUDE MONITORING TO A UL LISTED CENTRAL STATION PER NFPA 72 REQUIREMENTS, ALL CODE REQUIRED TESTING OF THE FIRE ALARM SYSTEM PER NFPA 72 AND OBC (MONTHLY VISUAL INSPECTION SHALL BE BY THE OWNER), CLEANING OF DEVICES SHALL BE DONE UPON SYSTEM REQUEST, AND ALL COST ASSOCIATED WITH MAINTENANCE OF THE SYSTEM SHALL BE PROVIDED (DUE TO DEFECTIVE EQUIPMENT ONLY). PROVIDE A YEARLY REPORT TO THE OWNER.
13. FIRE ALARM SYSTEM SHALL BE BY SIMPLEX, NOTIFIER, FCI, SIEMENS OR GAMEWELL.

FIRE ALARM NOTES

1. PRINCIPAL OCCUPANCY CLASSIFICATION IS GROUP (A)(B)(E)(F)(I)(R)(M)(S). CONFIRM WITH ARCHITECT
2. SPACE IN PROVIDED WITH FULL SPRINKLER COVERAGE.
3. OCCUPANT LOAD IS (XXX). (LESS THAN 300). (LESS THAN 500). MODIFY FOR EACH PROJECT. CONFIRM WITH ARCHITECT.
4. A FIRE ALARM SYSTEM IS REQUIRED.
5. AIR HANDLING SYSTEMS WITH AN AGGREGATE CAPACITY OVER 2,000 CFM REQUIRE DUCT SMOKE DETECTORS WITH LOCAL VISIBLE AND AUDIBLE SUPERVISORY SIGNAL MOUNTED IN AN APPROVED LOCATION. DUCT SMOKE DETECTOR MONITORING SHALL BE BY OTHERS UNDER SEPARATE CONTRACT WITH THE OWNER.
6. FIRE ALARM SYSTEM INSTALLED OR MODIFIED BY THIS CONTRACTOR IS TO BE VERIFIED AND CERTIFIED BY AHJ AT THIS CONTRACTOR'S EXPENSE.
7. PROVIDE REQUIRED CONNECTIONS TO EMERGENCY RADIO RESPONDER SYSTEM COMPONENTS.



DETAIL NOTES

1. THIS DIAGRAM REPRESENTS A TYPICAL SYSTEM AND IS NOT INTENDED FOR INSTALLATION. SYSTEM SUPPLIER SHALL PROVIDE INSTALLATION DRAWINGS AND SCHEMATIC WIRING DIAGRAMS. EXACT SYSTEM REQUIREMENTS SHALL BE COORDINATED WITH THE SYSTEM SUPPLIER. SYSTEM INSTALLER SHALL BE NICET CERTIFIED, IF REQUIRED BY LOCAL AUTHORITY HAVING JURISDICTION.
2. SYSTEM SUPPLIER SHALL SUPERVISE INSTALLATION, PROGRAM AND TEST SYSTEM AND INSTRUCT OWNER ON SYSTEM OPERATION.
3. ALL FIRE ALARM WIRING SHALL BE PLENUM RATED. EXPOSED FIRE ALARM WIRING, 10'-0" AFF AND BELOW, SHALL BE INSTALLED IN CONDUIT TO ABOVE ACCESSIBLE CEILING SPACE OR STRUCTURE.
4. ALL CONTROL CABINETS SHALL BE GROUNDED PER NEC REQUIREMENTS AND PER SPECIFICATIONS.
5. COORDINATE CITY TIE-IN REQUIREMENTS WITH LOCAL AUTHORITY.
6. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. REFER TO DRAWINGS FOR DEVICE QUANTITY AND LOCATIONS.
7. FIRE ALARM SYSTEM SHALL BE BY SIMPLEX, NOTIFIER, FCI, SIEMENS OR GAMEWELL.
8. PROVIDE ALL COMPONENTS FOR A FULLY OPERATION

COM*check* Software Version COMcheckWeb

Interior Lighting Compliance Certificate

Project Information

Energy Code: 2021 IECC
Project Title: CAT OHIO MIAMISBURG
Project Type: New Construction

Construction Site:
252-488 Byers Road
Miamisburg, Ohio 45342

Owner/Agent:
Ohio

Designer/Contractor:
T/E/S Engineering
25760 First Street
Cleveland, Ohio 44145
440-871-2410

Additional Efficiency Package(s)

Credits: 10.0 Required 0.0 Proposed

Allowed Interior Lighting Power

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts
1-VESTIBULE (Common Space Types:Corridor/Transition >=8 ft wide)	113	0.41	46
2-ISR FLEX (Common Space Types:Conference/Meeting/Multipurpose)	148	0.97	144
3-RENTAL AND EQUIPMENT DISPLAY (Common Space Types:Sales Area)	1946	1.05	2043
4-CONFERENCE (Common Space Types:Conference/Meeting/Multipurpose)	363	0.97	352
5-BRANCH MANAGER (Common Space Types:Office - Enclosed)	134	0.74	99
6-REGIONAL MANAGER (Common Space Types:Office - Enclosed)	172	0.74	127
7-DIRECTOR (Common Space Types:Office - Enclosed)	205	0.74	152
8-CORRIDOR (Common Space Types:Corridor/Transition <8 ft wide)	389	0.41	159
9-MENS/WOMENS RESTROOMS (Common Space Types:Restrooms)	101	0.63	64
10-BREAK ROOM (Common Space Types:Lounge/Breakroom)	268	0.59	158
11-SERVICE MANAGEMENT (Common Space Types:Office - Enclosed)	136	0.74	145
12-SERVICE TECH (Common Space Types:Storage >=50 - <=1000 sq.ft.)	68	0.38	26
13-SERVICE TOOLS (Common Space Types:Storage >=50 - <=1000 sq.ft.)	91	0.38	35
14-WOMENS LOCKERS (Common Space Types:Locker Room)	201	0.52	105
15-MENS LOCKERS (Common Space Types:Locker Room)	317	0.52	165
16-MOTHERS ROOM (Common Space Types:Lounge/Breakroom)	50	0.59	30
17-JANITORS CLOSET (Common Space Types:Storage >=50 - <=1000 sq.ft.)	73	0.38	28
18-IT ROOM (Common Space Types:Electrical/Mechanical)	60	0.43	26
19-PARTS (Common Space Types:Storage >=1000 sq.ft.)	1560	0.38	593
20-OIL/HOSE ROOM (Common Space Types:Storage >=50 - <=1000 sq.ft.)	571	0.38	217
21-MEZANINE LEVEL (Common Space Types:Storage >=1000 sq.ft.)	1508	0.38	573
22-MECHANICAL ROOM (Common Space Types:Electrical/Mechanical)	430	0.43	185
23-SERVICE AREA (Automotive:Vehicular Maintenance Area)	7775	0.60	4665
24-WASH BAY (Automotive:Vehicular Maintenance Area)	2590	0.60	1554
25-EQUIPMENT (Common Space Types:Storage >=50 - <=1000 sq.ft.)	316	0.38	120
26-PARTS STORAGE (Common Space Types:Storage >=50 - <=1000 sq.ft.)	392	0.38	149
27-HALLWAY (Common Space Types:Corridor/Transition <8 ft wide)	83	0.41	34
28-WASH BAY RESTROOMS (Common Space Types:Restrooms)	169	0.63	106
29-WASH BAY OFFICES (Common Space Types:Office - Enclosed)	223	0.74	165
		Total Allowed Watts =	12264

Proposed Interior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixture	D Fixture Watt.	E (C X D)
1-VESTIBULE (Common Space Types:Corridor/Transition >=8 ft wide)				
LED: LT-4a7: Other:	1	2	48	96
2-ISR FLEX (Common Space Types:Conference/Meeting/Multipurpose)				
LED: LT-4: LED STRIPLIGHT: Other:	1	2	48	96
3-RENTAL AND EQUIPMENT DISPLAY (Common Space Types:Sales Area)				
LED: LT-4: LED STRIPLIGHT: Other:	1	32	48	1536
LED: LT-6: CEILING FAN: Other:	1	4	300	1200
LED: EM1: EMERGENCY UNIT: Other:	1	5	3	15
LED: EX1: EMERGENCY EXIT SIGN: Other:	1	1	3	3
4-CONFERENCE (Common Space Types:Conference/Meeting/Multipurpose)				
LED: LT-2: 2X4 LED PANEL: Other:	1	3	29	87
LED: EM1: EMERGENCY UNIT: Other:	1	1	3	3
LED: EX1: EMERGENCY EXIT SIGN: Other:	1	1	3	3
5-BRANCH MANAGER (Common Space Types:Office - Enclosed)				
LED: LT-1: 2X2 LED PANEL: Other:	1	4	30	120
LED: EM1: EMERGENCY UNIT: Other:	1	1	3	3
6-REGIONAL MANAGER (Common Space Types:Office - Enclosed)				
LED: LT-1: 2X2 LED PANEL: Other:	1	4	30	120
LED: EM1: EMERGENCY UNIT: Other:	1	1	3	3
7-DIRECTOR (Common Space Types:Office - Enclosed)				
LED: LT-1: 2X2 LED PANEL: Other:	1	4	30	120
LED: EM1: EMERGENCY UNIT: Other:	1	1	3	3
8-CORRIDOR (Common Space Types:Corridor/Transition <8 ft wide)				
LED: LT-1: 2X2 LED PANEL: Other:	1	10	30	300
LED: EM1: EMERGENCY UNIT: Other:	1	3	3	9
LED: EX1: EMERGENCY EXIT SIGN: Other:	1	1	3	3
LED: EX2: EXIT SIGN - CEILING MOUNTED: Other:	1	2	3	6
9-MENS/WOMENS RESTROOMS (Common Space Types:Restrooms)				
LED: LT-1: 2X2 LED PANEL: Other:	1	2	30	60
LED: EM1: EMERGENCY UNIT: Other:	1	2	3	6
10-BREAK ROOM (Common Space Types:Lounge/Breakroom)				
LED: LT-3: I-BEAM LED: Other:	1	4	114	456
LED: EM1: EMERGENCY UNIT: Other:	1	1	3	3
LED: EX1: EMERGENCY EXIT SIGN: Other:	1	1	3	3
11-SERVICE MANAGEMENT (Common Space Types:Office - Enclosed)				
LED: LT-1: 2X2 LED PANEL: Other:	1	6	30	180
LED: EM1: EMERGENCY UNIT: Other:	1	1	3	3
12-SERVICE TECH (Common Space Types:Storage >=50 - <=1000 sq.ft.)				
LED: LT-1: 2X2 LED PANEL: Other:	1	2	30	60
LED: EM1: EMERGENCY UNIT: Other:	1	1	3	3
13-SERVICE TOOLS (Common Space Types:Storage >=50 - <=1000 sq.ft.)				
LED: LT-1: 2X2 LED PANEL: Other:	1	2	30	60
LED: EM1: EMERGENCY UNIT: Other:	1	1	3	3
14-WOMENS LOCKERS (Common Space Types:Locker Room)				
LED: LT-1: 2X2 LED PANEL: Other:	1	5	30	150
LED: EM1: EMERGENCY UNIT: Other:	1	1	3	3
15-MENS LOCKERS (Common Space Types:Locker Room)				
LED: LT-1: 2X2 LED PANEL: Other:	1	7	30	210
LED: EM1: EMERGENCY UNIT: Other:	1	2	3	6
16-MOTHERS ROOM (Common Space Types:Lounge/Breakroom)				
LED: LT-1: 2X2 LED PANEL: Other:	1	1	30	30
17-JANITORS CLOSET (Common Space Types:Storage >=50 - <=1000 sq.ft.)				

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixture	D Fixture Watt.	E (C X D)
LED: LT-1: 2X2 LED PANEL: Other:	1	1	30	30
18-IT ROOM (Common Space Types:Electrical/Mechanical)				
LED: LT-1: 2X2 LED PANEL: Other:	1	2	30	60
LED: EM1: EMERGENCY UNIT: Other:	1	1	3	3
19-PARTS (Common Space Types:Storage >=1000 sq.ft.)				
LED: LT-1: 2X2 LED PANEL: Other:	1	1	30	30
LED: LT-3: I-BEAM LED: Other:	1	9	114	1026
LED: EM1: EMERGENCY UNIT: Other:	1	3	3	9
LED: EX1: EMERGENCY EXIT SIGN: Other:	1	3	3	9
20-OIL/HOSE ROOM (Common Space Types:Storage >=50 - <=1000 sq.ft.)				
LED: LT-3: I-BEAM LED: Other:	1	8	114	912
LED: EX1: EMERGENCY EXIT SIGN: Other:	1	1	3	3
21-MEZANINE LEVEL (Common Space Types:Storage >=1000 sq.ft.)				
LED: LT-3: I-BEAM LED: Other:	1	13	114	1482
22-MECHANICAL ROOM (Common Space Types:Electrical/Mechanical)				
LED: LT-3: I-BEAM LED: Other:	1	4	114	456
23-SERVICE AREA (Automotive:Vehicular Maintenance Area)				
LED: LT-3: I-BEAM LED: Other:	1	15	114	1710
LED: EX1: EMERGENCY EXIT SIGN: Other:	1	3	3	9
24-WASH BAY (Automotive:Vehicular Maintenance Area)				
25-EQUIPMENT (Common Space Types:Storage >=50 - <=1000 sq.ft.)				
LED: LT-3: I-BEAM LED: Other:	1	4	114	456
26-PARTS STORAGE (Common Space Types:Storage >=50 - <=1000 sq.ft.)				
LED: LT-3: I-BEAM LED: Other:	1	6	114	684
27-HALLWAY (Common Space Types:Corridor/Transition <8 ft wide)				
28-WASH BAY RESTROOMS (Common Space Types:Restrooms)				
LED: LT-1: 2X2 LED PANEL: Other:	1	4	30	120
29-WASH BAY OFFICES (Common Space Types:Office - Enclosed)				
LED: LT-1: 2X2 LED PANEL: Other:	1	4	30	120
			Total Proposed Watts =	12081

Interior Lighting PASSES: Design 1% better than code

Interior Lighting Compliance Statement

Compliance Statement: The proposed interior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2021 IECC requirements in COMcheck Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Jacob Smith — Name - Title
Jacob Smith — Signature
8/24/2026 — Date

COM*check* Software Version COMcheckWeb

Exterior Lighting Compliance Certificate

Project Information

Energy Code: 2021 IECC
Project Title: CAT OHIO MIAMISBURG
Project Type: New Construction
Exterior Lighting Zone 2 (Light industrial area with limited nighttime use (LZ2))

Construction Site:
252-488 Byers Road
Miamisburg, Ohio 45342

Owner/Agent:
Ohio

Designer/Contractor:
T/E/S Engineering
25760 First Street
Cleveland, Ohio 44145
440-871-2410

Allowed Exterior Lighting Power

A Area/Surface Category	B Quantity	C Allowed Watts /	D Tradable Wattage	E Allowed Watts (B X C)
ENTRY CANOPY (Free standing/attached sales canopy)	2650 ft2	0.4	Yes	1060
GARAGE DOOR/ENTRY DOOR (Pedestrian and vehicular entrances and exits)	48 ft of	14	Yes	672
			Total Tradable Watts (a) =	1732
			Total Allowed Watts =	1732
			Total Allowed Supplemental Watts (b) =	400

(a) Wattage tradeoffs are only allowed between tradable areas/surfaces.
(b) A supplemental allowance equal to 400 watts may be applied toward compliance of both non-tradable and tradable areas/surfaces.

Proposed Exterior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixture	D Fixture Watt.	E (C X D)
ENTRY CANOPY (Free standing/attached sales canopy, 2650 ft2): Tradable Wattage				
LED: LT-5: Other:	1	16	100	1600
GARAGE DOOR/ENTRY DOOR (Pedestrian and vehicular entrances and exits, 48 ft of door width): Tradable Wattage				
LED: SW: MEDIUM FLOOD LIGHT: Other:	1	4	78	312
			Total Tradable Proposed Watts =	1912

Exterior Lighting PASSES: Design 10% better than code

Exterior Lighting Compliance Statement

Compliance Statement: The proposed exterior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed exterior lighting systems have been designed to meet the 2021 IECC requirements in COMcheck Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Jacob Smith — Name - Title
Jacob Smith — Signature
8/24/2026 — Date

COM*check* Software Version COMcheckWeb

Inspection Checklist

Energy Code: 2021 IECC

Requirements: 100.0% were addressed directly in the COM*check* software
Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
C103.2 [PR4]^{1}	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the interior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include interior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C103.2 [PR8]^{1}	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the exterior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include exterior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C406 [PR9]^{1}	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the additional energy efficiency package options.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3)

Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.2.3.1 [EL22]^{1}	Spaces required to have light-reduction controls have a manual control that allows the occupant to reduce the connected lighting load in a reasonably uniform illumination pattern >= 50 percent.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.2.1.1 [EL18]^{1}	Occupancy sensors installed in classrooms/lecture/training rooms, conference/meeting/multipurpose rooms, copy/print rooms, lounges/breakrooms, enclosed offices, open plan office areas, restrooms, storage rooms, locker rooms, corridors, warehouse storage areas, and other spaces <= 300 sqft that are enclosed by floor-to-ceiling height partitions. Reference section language C405.2.1.2 for control function in warehouses and section C405.2.1.3 for open plan office spaces.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.2.1.2 [EL19]^{1}	Occupancy sensors control function in warehouses: In warehouses, the lighting in aisleways and open areas is controlled with occupant sensors that automatically reduce lighting power by 50% or more within 20 minutes of when the areas are unoccupied. The occupant sensors control lighting in each aisleway independently and do not control lighting beyond the aisleway being controlled by the sensor. Lights not turned off by occupant sensors is done so by time-switch.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.2.1.3 [EL20]^{1}	Occupant sensor control function in open plan office areas: Occupant sensor controls in open office spaces >= 300 sq.ft. have controls 1) configured so that general lighting can be controlled separately in control zones with floor areas <= 600 sq.ft. within the space, 2) general lighting in each zone permitted to turn on upon occupancy in control zone, 3) automatically turn off general lighting in all control zones within 20 minutes after all occupants have left the space, 4) are configured so that general lighting power in each control zone is reduced by >= 80% of the full zone general lighting power within 20 minutes of all occupants leaving that control zone.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.2.2.1 [EL21]^{1}	Each area not served by occupancy sensors (per C405.2.1.1) have time-switch controls and functions detailed in sections C405.2.2.1.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3)

Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.2.4.1, C405.2.4.2 [EL23]^{1}	Daylight zones provided with individual controls that control the lights independent of general area lighting. See code section C405.2.3 Daylight-responsive controls for applicable spaces, C405.2.3.1 Daylight responsive control function and section C405.2.3.2 Sidelit zone.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.2.5 [EL27]^{1}	Additional interior lighting power allowed for special functions per the approved lighting plans and is automatically controlled and separated from general lighting.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.2.7 [EL28]^{1}	Automatic lighting controls for exterior lighting installed. Controls will be daylight controlled, set based on business operation time-of-day, or reduce connected lighting > 30%.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.7 [EL26]^{2}	Low-voltage dry-type distribution electric transformers meet the minimum efficiency requirements of Table C405.6.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.8 [EL27]^{2}	Electric motors meet the minimum efficiency requirements of Tables C405.7(1) through C405.7(4). Efficiency verified through certification under an approved certification program or the equipment efficiency ratings shall be provided by motor manufacturer (where certification programs do not exist).	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.9.1, C405.9.2 [EL28]^{2}	Escalators and moving walks comply with ASME A17.1/CSA B44 and have automatic controls configured to reduce speed to the minimum permitted speed in accordance with ASME A17.1/CSA B44 or applicable local code when not conveying passengers.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C405.10 [EL29]^{2}	Total voltage drop across the combination of feeders and branch circuits <= 5%.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.1.1 [EL30]^{2}	At least 90% of dwelling unit permanently installed lighting shall have lamp efficacy >= 65 lm/W or luminaires with efficacy >= 45 lm/W or comply with C405.2.4 or C405.3.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C405.11, C405.11.1 [EL31]^{2}	50% of 15/20 amp receptacles installed in enclosed offices, conference rooms, copy rooms, break rooms, classrooms and workstations and > 25% of branch circuit feeders for modular furniture will have automatic receptacle control in accordance with C405.11.1.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3)

Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C303.2, C408.2.5.2 [FI17]^{3}	Furnished O&M instructions for systems and equipment to the building owner or designated representative.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.5.1 [FI19]^{3}	Exterior lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Exterior Lighting fixture schedule for values.*
C408.1.1 [FI57]^{3}	Building operations and maintenance documents will be provided to the owner. Documents will cover manufacturers' information, specifications, programming procedures and means of illustrating to owner how building, equipment and systems are intended to be installed, maintained, and operated.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C408.2.5 [FI16]^{3}	Furnished as-built drawings for electric power systems within 90 days of system acceptance.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C408.3 [FI33]^{3}	Lighting systems have been tested to ensure proper calibration, adjustment, programming, and operation.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3)

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REV	DATE	DESCRIPTION
	09.23.2026	Issued for Permit

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E-83432
REGISTERED
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09/22/2026

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LDA Project No.2026.11

ENERGY COMPLIANCE

E7.02