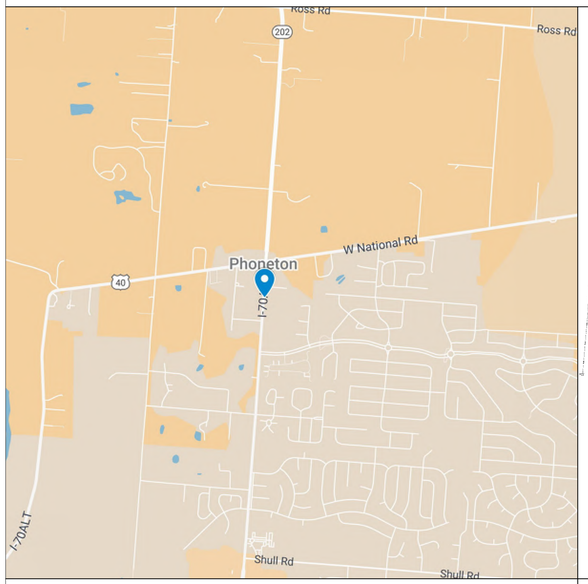
CHURCHES OF CHRIST - DISASTER RESPONSE TEAM
NEW WAREHOUSE
9315 STATE ROUTE 202
TIPP CITY, OHIO 45371



VICINITY MAP

SCALE: NTS



GENERAL SITE PLAN

SCALE: NTS



AERIAL MAP

SCALE: NTS

PROJECT TEAM

OWNER'S REPRESENTATIVE:
FULL NAME
CHURCHES OF CHRIST DRT
9285 SOUTH STATE ROUTE 202
TIPP CITY, OHIO 45371
(937) 308-7593
Churchesofchrist@gmail.com
www.chirchofchristdrt.org

ELECTRICAL ENGINEER:
ROBERT R. RUDOLPH, PE
PE SERVICES ON BEHALF OF GARBER ELECTRIC
9 NORTH BROADWAY
LEBANON, OHIO 45036
(513) 836-3810
Robert@pe-services.com
www.pe-services.com

MECHANICAL ENGINEER:
JEFF WETZEL, PE
L2 ENGINEERING ON BEHALF OF WATKEM
7949 WASHINGTON WOODS DRIVE
DAYTON, OHIO 45459
(937) 361-6731
EMAIL ADDRESS
www.ltwoe.com

STRUCTURAL ENGINEER:
ADAM M. KNOUS, PE
SAFETY THROUGH ENGINEERING
9363 DETRICK JORDAN PIKE
NEW CARLISLE, OHIO 45344
(937) 964-1900
adamknous@ste4u.com
www.ste4u.com

CIVIL ENGINEER:
MICHAEL W. COZATT, PE
COZATT ENGINEERING COMPANY
1100 WAYNE STREET SUITE 1140
TROY, OHIO 45373
(937) 339-2921
cozattengineering@gmail.com
...

GENERAL CONTRACTOR:
B.J. ENRSTHAUSEN, VP OF PROJECT MGMT.
BRUNS GENERAL CONTRACTING
3050 TIPP-COWLESVILLE ROAD
TIPP CITY, OHIO 45371
(937) 339-2300
BJErnsthausen@brunsgc.com
www.brunsgc.com

PROJECT DESCRIPTION

THE SCOPE OF THIS PROJECT INCLUDES THE CONSTRUCTION OF A NEW BUILDING FOR THE USE OF STORAGE AND RECORDS. GOODS TO BE STORED WILL BE HOME GOODS, CLOTHING, AND NONPERISHABLE FOOD ITEMS. NO HAZARDOUS MATERIALS IN ANY SIGNIFICANT QUANTITY IS ANTICIPATED.

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G-002	BUILDING CODE INFORMATION	FOR PERMIT	04/17/2025
G-101	OCCUPANCY OVERVIEW PLAN	FOR PERMIT	04/17/2025
G-102	LIFE SAFETY PLAN	FOR PERMIT	04/17/2025
100 - CIVIL & SITE			
1 OF 4	TITLE SHEET	FOR PERMIT	04/17/2025
2 OF 4	EXISTING CONDITIONS	FOR PERMIT	04/17/2025
3 OF 4	SITE VISIT	FOR PERMIT	04/17/2025
4 OF 4	DETAIL SHEET	FOR PERMIT	04/17/2025
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S-301	STRUCTURAL SECTIONS	FOR PERMIT	04/17/2025
S-501	STRUCTURAL DETAILS	FOR CONSTRUCTION	05/29/2025
S-701	PEMB BUILDING DRAWINGS	FOR CONSTRUCTION	05/29/2025
S-702	PEMB BUILDING DRAWINGS	FOR CONSTRUCTION	05/29/2025
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WAT-KEM MECHANICAL
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2755 SOUTH COUNTY ROAD 25A
TROY, OHIO 45373
www.watkem.com
(937) 573-3072

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GARBER ELECTRICAL CONTRACTORS, INC.
100 ROCKRIDGE ROAD
ENGLEWOOD, OHIO 45322
www.garberelectric.com
(877) 771-5202

Churches of Christ Disaster Response Team

CHURCHES OF CHRIST - DRT
NEW WAREHOUSE
9315 STATE ROUTE 202
TIPP CITY, OHIO 45371

NO.	REVISION	DATE
1	FOR PERMIT	04/17/2025

SEALED BY:

STATE OF OHIO
ADAM M. KNOUS
PE.82894
REGISTERED PROFESSIONAL ENGINEER

04/17/2025

DRAWN BY:	AMK
CHECKED BY:	JTD
DESIGNED BY:	AMK
APPROVED BY:	Approver
A/E JOB NO.:	6359A
CLIENT JOB NO.:	

SHEET DESCRIPTION:

TITLE SHEET

SHEET NO.:

G-001

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BUILDING CODE REVIEW

OHIO BUILDING CODE 2024:

CHAPTER 1: SCOPE AND ADMINISTRATION

1. PROJECT IS LOCATED IN MIAMI COUNTY AND FALLS UNDER THE AUTHORITY OF THE MIAMI COUNTY BUILDING DEPARTMENT.
2. PER SECTION 104.11 - "ALTERNATIVE MATERIALS, DESIGN AND METHODS OF CONSTRUCTION AND EQUIPMENT": WHERE THE ALTERNATIVE MATERIAL, DESIGN OR METHOD OF CONSTRUCTION IS NOT APPROVED, THE BUILDING OFFICIAL SHALL RESPOND IN WRITING, STATING THE REASONS WHY THE ALTERNATIVE WAS NOT APPROVED.
3. PER SECTION 107.3.4 - "DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE": FOR THIS PARTICULAR PROJECT THE STRUCTURAL ENGINEER IS THE ACTING REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE (RDPRC). THE RDPRC IS RESPONSIBLE FOR REVIEWING AND COORDINATING SUBMITTAL DOCUMENTS PREPARED BY OTHERS INCLUDING PHASED AND DEFERRED SUBMITTALS, FOR COMPATIBILITY WITH THE DESIGN OF THE BUILDING.
4. SECTION 109 - "FEES": ARE THE RESPONSIBILITY OF THE APPLICANT. FOR THIS PARTICULAR PROJECT THE GENERAL CONTRACOTR IS THE ACTING APPLICANT.

CHAPTER 3: USE AND OCCUPANCY CLASSIFICATION

1. SECTION 302 - "CLASSIFICATION":
   - NEW: B [3,147 S.F.] & F-1 [11,228 S.F.] MIXED-USE
2. CLASSIFICATION DESCRIPTION:
   - B (BUSINESS) = OFFICE AND RECORDS
   - S-1 (MODERATE-HAZARD STORAGE) = CLOTHING, CARDBOARD, & BOOTS AND SHOES

CHAPTER 4: SPECIAL DETAILED REQUIREMENTS BASED ON USE AND OCCUPANCY

1. NO APPLICABLE REQUIREMENTS.

CHAPTER 5: GENERAL BUILDING HEIGHTS AND AREAS

1. PER TABLE 504.3 - "ALLOWABLE BUILDING HEIGHT IN FEET ABOVE GRADE PLANE":

OCCUPANCY	REQUIREMENTS	ACTUAL
B & S	55 FT	21 FT

2. PER TABLE 504.4 - "ALLOWABLE NUMBER OF STORIES ABOVE GRADE PLANE":

OCCUPANCY	REQUIREMENTS	ACTUAL
B	3 STORIES	1 STORY
S-1	2 STORIES	

3. PER TABLE 506.2 - "ALLOWABLE AREA IN SQUARE FEET":

OCCUPANCY	REQUIREMENTS	ACTUAL
B	23,000 S.F.	14,375 S.F.
S-1	17,500 S.F.	

CHAPTER 6: TYPES OF CONSTRUCTION

1. PER SECTION 602 - "CONSTRUCTION CLASSIFICATION":
   - TYPE IIB - UNPROTECTED NONCOMBUSTIBLE MATERIALS EXCEPT AS PERMITTED BY SECTION 603.
2. PER TABLE 601 - "FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (HOURS)

BUILDING ELEMENT	RATING
PRIMARY STRUCTURAL FRAME[f]	0[c]
BEARING WALLS - EXTERIOR[e,f]	0
BEARING WALLS - INTERIOR	0
NONBEARING WALLS AND PARTITIONS - INTERIOR[f]	0
FLOOR CONSTRUCTION & STRUCTURAL MEMBERS	0
ROOF CONSTRUCTION & STRUCTURAL MEMBERS	0

   a. NOTE c: IN ALL OCCUPANCIES, HEAVY TIMBER COMPLYING WITH SECTION 2304.11 SHALL BE ALLOWED IN ROOF CONSTRUCTION, INCLUDING PRIMARY STRUCTURAL FRAME MEMBERS WHERE A 1-HOUR OR LESS FIRE-RESISTANCE RATING IS REQUIRED.
   b. NOTE e: NOT LESS THAN THE FIRE RESISTANCE RATING BASED ON THE FIRE SEPERATION DISTANCE (SEE TABLE 705.5).
   c. NOTE f: NOT LESS THAN THE FIRE RESISTANCE RATING AS REFERENCED IN SECTION 704.10.

CHAPTER 7: FIRE AND SMOKE PROTECTION FEATURES

1. PER SECTION 704.10 - "EXTERIOR STRUCTURAL MEMBERS": LOAD-BEARING STRUCTURAL MEMBERS LOCATED WITHIN THE EXTERIOR WALLS OR ON THE OUTSIDE OF A BUILDING OR STRUCTURE SHALL BE PROVIDED WITH THE HIGHEST FIRE-RESISTANCE RATING AS DETERMINED IN ACCORDANCE WITH THE FOLLOWING:
   - AS REQUIRED BY TABLE 601 FOR THE TYPE OF BUILDING ELEMENT BASED ON THE TYPE OF CONSTRUCTION OF THE BUILDING.
   - AS REQUIRED BY TABLE 601 FOR EXTERIOR BEARING WALLS BASED ON THE TYPE OF CONSTRUCTION.
   - AS REQUIRED BY TABLE 705.5 FOR EXTERIOR WALLS BASED ONT HE FIRE SEPARATION DISTANCE.
2. PER TABLE 705.5 - "FIRE-RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE[a,d,g]":

FIRE SEPARATION DIST.	RATING (HOURS)	APPLICABLE
X < 5 FT[c]	1 (B) | 2 (S-1)	NO | NO
5 <= X <10 FT	1 (B & S-1)	NO
10 <= X < 30 FT	0 (B & S-1)	YES
30 <= X	0 (B & S-1)	YES

   a. NOTE a: LOAD-BEARING EXTERIOR WALLS SHALL ALSO COMPLY WITH THE FIRE-RESISTANCE RATING REQUIREMENTS OF TABLE 601.
   b. NOTE b: SEE SECTION 706.1.1 FOR PARTY WALLS.
   c. NOTE d: THE FIRE-RESISTANCE RATING OF AN EXTERIOR WALL IS DETERMINED BASED UPON THE FIRE SEPARATION OF THE EXTERIOR WALL AND THE STORY IN WHICH THE WALL IS LOCATED.
   d. NOTE g: WHERE TABLE 705.8 PERMIT NONBEARING EXTERIOR WALLS WITH UNLIMITED AREA OF UNPROTECTED OPENINGS, THE REQUIRED FIRE-RESISTANCE RATING FOR THE EXTERIOR WALL IS 0 HOURS.
3. PER SECTION 706 - "FIRE WALLS": NOT APPLICABLE TO THIS PROJECT.
4. PER SECTION 707 - "FIRE BARRIERS": FIRE BARRIERS INSTALLED AS REQUIRED ELSEWHERE IN THIS CODE OR THE OHIO FIRE CODE SHALL COMPLY WITH THIS SECTION.
   - PER SECTION 707.3.10 - "FIRE AREAS": THE FIRE BARRIERS, FIRE WALLS, HORIZONTAL ASSEMBLIES OR COMBINATIONS THEREOF SEPARATING A SINGLE OCCUPANCY INTO DIFFERENT FIRE AREAS SHALL HAVE A FIRE-RESISTANCE RATING OF NOT LESS THAN THAT INDICATED IN TABLE 707.3.10. THE FIRE BARRIERS, FIRE WALLS, HORIZONTAL ASSEMBLIES OR COMBINATIONS THEREOF SEPARATING FIRE AREAS OF MIXED OCCUPANCIES SHALL HAVE A FIRE-RESISTANCE RATING OF NOT LESS THAN THE HIGHEST VALUE INDICATED IN TABLE 707.3.10 FOR THE OCCUPANCIES UNDER CONSIDERATION.
   - PER TABLE 707.3.10 - "FIRE-RESISTANCE RATING REQUIREMENTS FOR FIRE BARRIERS, FIRE WALLS OR HORIZONTAL ASSEMBLIES BETWEEN FIRE AREAS":

	OCCUPANCY GROUP	RATING (HOURS)
a.	S-1	3 <- CONTROLS
c.	B	2

   - PER SECTION 707.5 - "CONTINUITY": FIRE BARRIERS SHALL EXTEND FROM THE TOP OF THE FOUNDATION OR FLOOR/CEILING ASSEMBLY BELOW TO THE UNDERSIDE OF THER FLOOR OR ROOF SHEATHING, SLAB OR DECK ABOVE AND SHALL BE SECURELY ATTACHED THERETO. SUCH FIRE BARRIERS SHALL BE CONTINUOUS THROUGH CONCEALED SPACE, SUCH AS THE SPACE ABOVE A SUSPENDED CEILING. JOINTS AND VOIDS AT INTERSECTIONS SHALL COMPLY WITH SECTION 707.8 AND 707.9.
   - PER SECTION 707.6 - "OPENINGS": OPENINGS IN A FIRE BARRIER SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 716. OPENINGS SHALL BE LIMITED TO A MAXIMUM AGGREGATE WIDTH OF 25 PERCENT OF THE LENGTH OF THE WALL, AND THE MAXIMUM AREA OF ANY SINGLE OPENING SHALL NOT EXCEED 156 SQUARE FEET. OPENINGS IN ENCLOSURES FOR EXIT ACCESS STAIRWAYS AND RAMPS, INTERIOR EXIT STAIRWAYS AND RAMPS AND EXIT PASSAGEWAYS SHALL ALSO COMPLY WITH SECTION 1019, 1023.4, AND 1024.5 RESPECTIVELY. THE AGGREGATE OPENING WIDTH IS 3 FT OF THE 125'-6 5/8" WALL (~2.4%). THE MAXIMUM AREA OF ANY OPENING IN THE WALL IS 21 SQUARE FEET.
5. PER SECTION 708 - "FIRE PARTITIONS": CORRIDOR WALLS AS REQUIRED BY SECTION 1020.3.
   - PER SECTION 708.3 - "FIRE-RESISTANCE RATINGS": FIRE PARTITIONS SHALL HAVE A FIRE-RESISTANCE RATING OF NOT LESS THAN 1-HOUR.
   - PER SECTION 708.4 - "CONTINUITY": FIRE PARTITIONS SHALL EXTEND FROM THE TOP OF THE FOUNDATION OR FLOOR/CEILING ASSMBLY BELOW AND BE SECURELY ATTACHED TO ONE OF THE FOLLOWING:
     a. THE UNDERSIDE OF THE FLOOR OR ROOF SHEATHING, DECK OR SLAB ABOVE.
     b. THE UNDERSIDE OF A FLOOR/CEILING OR ROOF/CEILING ASSEMBLY HAVING A FIRE RESISTANCE RATING OF THE FIRE PARTITION.
   - PER SECTION 708.6 - "OPENINGS": OPENINGS IN A FIRE PARTITION SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 716.
6. PER TABLE 716.1(2) - "OPENING FIRE PROTECTION ASSEMBLIES, RATINGS AND MARKINGS":

ASSEMBLY	WALL RATING	FIRE DOOR	GLAZING RATING
FIRE BARRIER	3 HOUR	3 HOUR	3 HOUR
FIRE PARTITION	1 HOUR	20 MIN	45 MIN

CHAPTER 8: INTERIOR FINISHES

1. PER TABLE 803.13 - "INTERIOR WALL AND CEILING FINISH REQUIREMENTS BY OCCUPANCY":

AREA	CLASS (OCCUPANCY)
INTERIOR EXIT STAIRWAY, RAMPS & PASSAGEWAYS	A (B) | B (S)
CORRIDORS AND ENCLOSURES FOR EXIT ACCESS	B (B) | B (S)
ROOMS AND ENCLOSED SPACES	C (B) | C (S)

BUILDING CODE REVIEW (CONT'D)

OHIO BUILDING CODE 2024:

CHAPTER 9: FIRE PROTECTION AND LIFE SAFETY SYSTEMS

1. PER SECTION 903.2.9 - "AUTOMATIC SPRINKLER SYSTEMS - GROUP S-1": AN AUTOMATIC SPRINKLER SYSTEM SHALL BE PROVIDED THROUGHOUT ALL BUILDINGS CONTAINING A GROUP S-1 OCCUPANCY WHERE ONE OF THE FOLLOWING CONDITIONS EXIST:
   - A GROUP S-1 FIRE AREA EXCEEDS 12,000 S.F. - NO
   - A GROUP S-1 FIRE AREA IS LOCATED MORE THAN THREE STORIES ABOVE GRADE PLAN. - NOT APPLICABLE
   - THE COMBINED AREA OF ALL GROUP S-1 FIRE AREAS ON ALL FLOORS, INCLUDING ANY MEZZANINES, EXCEEDS 24,000 S.F. - NO
   - AN AUTOMATIC SPRINKLER SYSTEM IS NOT REQUIRED PER SECTION 903.2.9.
2. PER SECTION 903.2.11 - "SPECIFIC BUILDING AREAS AND HAZARDS": IN ALL OCCUPANCIES OTHER THAN GROUP U, AN AUTOMATIC SPRINKLER SYSTEM SHALL BE INSTALLED FOR BUILDINGS DESIGN OR HAZARDS IN THE LOCATIONS SET FORTH IN SECTION 903.2.11.1 THROUGH 903.2.11.6.
   - PER SECTION 903.2.11.1 - "STORIES WITHOUT OPENINGS": AN AUTOMATIC SPRINKLER SYSTEM SHALL BE INSTALLED THROUGHOUT ALL STORIES, INCLUDING BASEMENTS, OF ALL BUILDINGS WHERE THE FLOOR AREA EXCEEDS 1,500 SQUARE FEET AND WHERE THE STORY DOES NOT COMPLY WITH THE FOLLOWING CRITERIA FOR EXTERIOR WALL OPENINGS:
     a. OPENINGS BELOW GRADE THAT LEAD DIRECTLY TO GROUND LEVEL BY AN EXTERIOR STAIRWAY COMPLYING WITH SECTION 1011 OR AN OUTSIDE RAMP COMPLYING WITH SECTION 1012. OPENINGS SHALL BE LOCATED IN EACH 50 LINEAR FEET, OR FRACTION THEREOF, OF EXTERIOR WALL IN THE STORY ON NOT FEWER THAN ONE SIDE. THE REQUIRED OPENINGS SHALL BE DISTRIBUTED SUCH THAT THE LINEAL DISTANCE BETWEEN ADJACENT OPENINGS DOES NOT EXCEED 50 FEET. - NOT APPLICABLE AS NO BELOW GRADE STORY EXISTS.
     b. OPENINGS ENTIRELY ABOVE THE ADJOINING GROUND LEVEL TOTALING NOT LESS THAN 20 SQUARE FEET IN EACH 50 LINEAR FEET, OR FRACTION THEREOF, OF EXTERIOR WALL IN THE STORY ON NOT FEWER THAN ONE SIDE. THE REQUIRED OPENINGS SHALL BE DISTRIBUTED SUCH THAT THE LINEAL DISTANCE BETWEEN ADJACENT OPENINGS DOES NOT EXCEED 50 FEET. THE HEIGHT OF THE BOTTOM OF THE CLEAR OPENING SHALL NOT EXCEED 44 INCHES MEASURED FROM THE FLOOR. - APPLICABLE, OPENINGS NOT LESS THAN 20 SQUARE FEET AND SPACED AT 50 LINEAL FEET OR LESS HAVE BEEN PROVIDED ON AT LEAST ONE SIDE, WEST ELEVATION.
   - PER SECTION 903.2.11.1.1 - "OPENING DIMENSIONS AND ACCESS": OPENINGS SHALL HAVE A MINIMUM DIMENSION OF NOT LESS THAN 30 INCHES. ACCESS TO SUCH OPENINGS SHALL BE PROVIDED FOR THE FIRE DEPARTMENT FROM EXTERIOR AND SHALL NOT BE ONSTRUCTED IN A MANNER SUCH THAT FIRE FIGHTING OR RESCUE CANNOT BE ACCOMPLISHED FROM THE EXTERIOR. - ALL OPENING ALONG THE EXTERIOR EXCEED THE MINIMUM 30 INCH THRESHOLD AS REQUIRED.
   - PER SECTION 903.2.11.1.2 - "OPENINGS ON ONE SIDE ONLY": WHERE OPENINGS IN A STORY ARE PROVIDED ON ONE SIDE ONLY AND THE OPPOSITE WALL OF SUCH STORY IS MORE THAN 75 FEET FROM SUCH OPENING, THE STORY SHALL BE EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM, OR OPENING SHALL BE PROVIDED ON NOT FEWER THAN TWO SIDES OF THE STORY. - OPENINGS HAVE BEEN PROVIDED ON ALL SIDES OF THE STORY.
   - 903.2.11.1.3 - "BASEMENTS": WHERE ANY PORTION OF A BASEMENT IS LOCATED MORE THAN 75 FEET FROM OPENINGS REQUIRED BY SECTION 903.2.11.1 OR WHERE WALLS, PARTITIONS OR OTHER OBSTRUCTIONS ARE INSTALLED THAT RESTRICT THE APPLICATION OF WATER FROM HOSE STREAMS, THE BASEMENT SHALL BE EQUIPPED THROUGHOUT WITH AN APPROVED AUTOMATIC SPRINKLER SYSTEM. - BUILDING DOES NOT HAVE A BASEMENT STORY.
   - AN AUTOMATIC SPRINKLER SYSTEM IS NOT REQUIRED PER SECTION 903.2.11.
3. PER SECTION 906 - "PORTABLE FIRE EXTINGUISHERS": PORTABLE FIRE EXTINGUISHERS SHALL BE INSTALLED AS REQUIRED PER NFPA 10, REFER TO LIFE SAFETY PLAN FOR ADDITIONAL INFORMATION REGARDING INSTALLATION. THE OWNER SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLATION OF PORTABLE FIRE EXTINGUISHERS AS REQUIRED.
4. PER SECTION 907 - "FIRE ALARM AND DETECTION SYSTEMS": THIS SECTION COVERS THE APPLICATION, INSTALLATION, PERFORMANCE AND MAINTENANCE OF FIRE ALARM SYSTEMS AND THEIR COMPONENTS.
   - PER SECTION 907.2.2 - "GROUP B": A MANUAL FIRE ALARM SYSTEM, WHICH ACTIVATES THE OCCUPANT NOTIFICATION SYSTEM IN ACCORDANCE WITH SECTION 907.5, SHALL BE INSTALLED IN GROUP B OCCUPANCIES WHERE ONE OF THE FOLLOWING CONDITIONS EXISTS:
     a. THE COMBINED GROUP B OCCUPANT LOAD OF ALL FLOORS IS 500 OR MORE. - NO
     b. THE GROUP B OCCUPANT LOAD IS MORE THAN 100 PERSONS ABOVE OR BELOW THE LOWEST LEVEL OF EXIT DISCHARGE. - NOT APPLICABLE
     c. THE FIRE AREA CONTAINS AN AMBULATORY CARE FACILITY. - NO
     d. A FIRE ALARM AND DETECTION SYSTEM IS NOT REQUIRED PER SECTION 907.2.2.
5. PER SECTION 910 - "SMOKE AND HEAT REMOVAL": WHERE REQUIRED BY THIS CODE, SMOKE AND HEAT VENTS OR MECHANICAL SMOKE REMOVAL SYSTEMS SHALL CONFORM TO THE REQUIREMENTS OF THIS SECTION.
   - PER SECTION 910.2.1 - "GROUP F-1 OR S-1" SMOKE AND HEAT VENTS INSTALLED IN ACCORDANCE WITH SECTION 910.3 OR A MECHANICAL SMOKE REMOVAL SYSTEM INSTALLED IN ACCORDANCE WITH SECTION 910.4 SHALL BE INSTALLED IN BUILDINGS AND PORTIONS THEREOF USED AS A GROUP F-1 OR S-1 OCCUPANCY HAVING MORE THAN 50,000 SQUARE FEET OF UNDIVIDED AREA. - S-1 AREA DOES NOT MEET THIS REQUIREMENT THEREFORE SMOKE AND HEAT REMOVAL NOT REQUIRED.

CHAPTER 10: MEANS OF EGRESS

1. PER TABLE 1004.5 - "MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT":

MAX FLOOR AREA ALLOWANCE	FACTOR	OCCUPANTS
ACCESSORY STORAGE, MECH AND EQUIP =	300 GROSS =	2 (652 S.F.)
ASSEMBLY UNCONCENTRATED (TABLES & CHAIRS) =	15 NET =	67 (1,002 S.F.)
BUSINESS AREAS	150 GROSS =	7(1,089 S.F.)
KITCHENS, COMMERCIAL	200 GROSS =	2 (403 S.F.)
WAREHOUSES =	500 GROSS	22 (11,228 S.F)
TOTAL		100

2. PER SECTION 1005.3 - "MEANS OF EGRESS SIZING - REQUIRED CAPACITY BASED ON OCCUPANT LOAD":

COMPONENT	REQUIRED	PROVIDED
STAIRWAYS	0.3" X 101 = 30.3 IN.	N/A
OTHER EGRESS COMPONENTS	0.2" X 101 = 20.2 IN.	300 IN.

3. PER TABLE 1006.3.3 - "MINIMUM NUMBER OF EXITS OR ACCESS TO EXITS PER STORY":

OCCUPANT LOAD PER STORY	REQUIRED	APPLICABLE
1-500	2	YES, 7 PROVIDED
501-1,000	3	N/A
MORE THAN 1,000	4	N/A

4. PER TABLE 1017.2 - "EXIT ACCESS TRAVEL DISTANCE":

OCCUPANCY	REQUIRED	ACTUAL
B	200 FT.	50 FT.
S-1	200 FT.	127 FT.

5. PER TABLE 1020.2 - CORRIDOR FIRE-RESISTANCE RATING":

OCCUPANCY	LOAD SERVED	RATING (HR)
B	X>30	1

6. PER TABLE 1020.3 - "MINIMUM CORRIDOR WIDTH":

OCCUPANCY	MINIMUMN WIDTH	PROVIDED
ANY FACILITY NOT LISTED IN THIS TABLE	44 IN.	72 IN. MIN.

CHAPTER 11: ACCESSIBILITY

1. PER SECTION 1102 - "COMPLIANCE": BUILDINGS AND FACILITIES SHALL BE DESIGNED AND CONSTRUCTED TO BE ACCESSIBLE IN ACCORDANCE WITH THIS CODE AND ICC A117.1. THIS BUILDING HAS BEEN REVIEWED IN ACCORDANCE WITH CHAPTER 11 OF THE OHIO BUILDING CODE AS WELL AS ICC A117.1 - ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES. REFERENCE DETAILS AS REQUIRED BY THESE CODES HAVE BEEN INCORPORATED BOTH IN ACCESSIBLE DETAILS AND WITHIN THE FLOOR PLAN.
2. PER TABLE 1106.2 - "ACCESSIBLE PARKING SPACES":

TOTAL SPACES PROVIDED	REQ. ACCESSIBLE SPACES
1 TO 25	1
26 TO 50	2
51 TO 75	3
76 TO 100	4
101 TO 150	5
151 TO 200	6
201 TO 300	7
301 TO 400	8
401 TO 500	9
501 TO 1,000	2% OF TOTAL
1,001 AND OVER	20 + 1 X [(N-1000)/100]

   - PARKING SPACES SHALL BE PROVIDED AS REQUIRED ABOVE UNLESS OTHER SPECIFIC REQUIREMENTS ARE NOTED BY THE AUTHORITY HAVING JURISDICTION OVER ZONING.
3. PER SECTION 1106.6 - "VAN SPACES": FOR EVERY SIX OR FRACTION OF SIX ACCESSIBLE PARKING SPACES, AT LEAST ONE SHALL BE A VAN-ACCESSIBLE PARKING SPACES. THIS REQUIREMENT SHALL BE MET UNLESS OTHER SPCECIFIC REQUIREMENTS ARE NOTED BY THE AUTHORITY HAVE JURISDICTION OVER ZONING.

CHAPTER 16: STRUCTURAL DESIGN

1. PER TABLE 1604.5 - "RISK CATEGORY OF BUILDING AND OTHER STRUCTURES":
   - THIS BUILDING AND RELATED OTHER STRUCTURES HAS BEEN DESIGNED IN ACCORDANCE WITH RISK CATEGORY II.
2. FOR DESIGN CRITERIA AND INFORMATION REQUIRED ON CONSTRUCTION DOCUMENTS AS NOTED FOR SECTION 1603 REFER TO DRAWING S-001. PRE-ENGINEERED METAL BUILDINGS, INCLUDING BUT NOT LIMITED TO, NUCOR BUILDING SYSTEMS/AMERICAN BUILDINGS/BUTLER MANUFACTURING/ETC. REFER TO DEFERRED SUBMITTAL WITH REQUIRED DESIGN RELATED INFORMATION. AS REQUIRED, THIS INFORMATION HAS BEEN COORDINATED AS REQUIRED BY CODE FOR THE MINIMUM DESIGN CRITERIA SET FORTH BY THE ADOPTED CODE.

BUILDING CODE REVIEW (CONT'D)

OHIO BUILDING CODE 2024:

CHAPTER 17: SPECIAL INSPECTIONS AND TESTS

1. PER SECTION 1704.3 - "STATEMENT OF SPECIAL INSPECTIONS": WHERE SPECIAL INSPECTIONS OR TESTS ARE REQUIRED BY SECTION 1705, THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE SHALL PREPARE A STATEMENT OF SPECIAL INSPECTIONS IN ACCORDANCE WITH SECTION 1704.3.1 FOR SUBMITTAL BY THE APPLICANT IN ACCORDANCE WITH SECTION 1704.2.3.
2. PER SECTION 1704.2.1 - "SPECIAL INSPECTOR QUALIFICATIONS": PRIOR TO THE START OF THE CONSTRUCTION, THE APPROVED AGENCIES SHALL PROVIDE WRITTEN DOCUMENTATION TO THE BUILDING OFFICIAL DEMONSTRATING THE COMPETENCE AND RELEVANT EXPERIENCE OR TRAINING OF THE SPEICIAL INSPECTOR WHO WILL PERFORM THE SPECIAL INSPECTIONS AND TESTS DURING CONSTRUCTION. EXPERIENCE OR TRAINING SHALL BE CONSIDERED TO BE RELEVANT WHERE THE DOCUMENTED EXPERIENCE OR TRAINING IS RELATED IN COMPLEXITY TO THE SAME TYPE OF SPECIAL INSPECTION OR TESTING ACTIVITIES FOR THE PROJECTS OF SIMILAR COMPLEXITY AND MATERIAL QUALITIES. THESE QUALIFICATIONS ARE IN ADDITION TO QUALIFICATIONS SPECIFIED IN OTHER SECTIONS OF THIS CODE.
   - SPECIAL INSPECTOR QUALIFICIATIONS ARE TO BE SUBMITTED BY THE APPLICANT OR OWNER'S REPSENTATIVE.
3. PER SECTION 1704.3.1 - "CONTENT OF STATEMENT OF SPECIAL INSPECTIONS":
   - THE MATERIALS, SYSTEMS, COMPONENTS AND WORK REQUIRED TO HAVE SPECIAL INSPECTIONS OR TESTS BY THE BUILDING OFFICIAL OR BY THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE FOR EACH PORTION OF THE WORK.
   - THE TYPE AND EXTENT OF EACH SPECIAL INSPECTION.
   - THE TYPE AND EXTENT OF EACH TEST.
   - ADDITIONAL REQUIREMENTS FOR SPECIAL INSPECTION OR TESTS FOR SEISMIC OR WIND RESISTANCE AS SPECIFIED IN SECTIONS 1705.12, 1705.13, AND 1705.14.
   - FOR EACH TYPE OF SPECIAL INSPECTION, IDENTIFICATION AS TO WHETHER IT WILL BE CONTINUOUS SPECIAL INSPECTION, PERIODIC SPECIAL INSPECTION OR PERFORMED IN ACCORDANCE WITH THE NOTATION USED IN THE REFERENCED STANDARD WHERE THE INSPECTIONS ARE DEFINED.
   - AS REQUIRED, THE SPECIAL INSPECTIONS INCLUDING TYPE, EXTENT, AND FREQUENCY ARE PROVIDED ON DRAWING S-001.

CHAPTER 18: SOILS AND FOUNDATIONS

1. THIS PROJECT DID NOT INCLUDE A GEOTECHNICAL INVESTIGATION. CODE MINIMUM WILL BE USED IN THE DESIGN OF THE FOUNDATION AS NOTED IN THE DESIGN CRITERIA.

CHAPTER 29: PLUMBING SYSTEMS

1. PER TABLE 2902.1 - "MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES": BASED ON 100 OCCUPANTS, 50 MALE AND 50 FEMALE:

FIXTURE	REQUIRED	PROVIDED
WATER CLOSET - MALE	2	4
WATER CLOSET - FEMALE	2	2
WATER CLOSET - UNISEX	-*1	1
LAVATORIES - MALE	2	2
LAVATORIES - FEMALE	2	2
LAVATORIES - UNISEX	-*1	1
DRINKING FOUNTAINS	1	1
OTHER - SERVICE SINK	1	1
BATHTUBS/SHOWERS	4	4

   - NOTE 1: UNISEX WATER CLOSETS AND LAVATORIES, IF APPLICABLE, ARE TO SERVICE EITHER SEX AS REQUIRED AND SHALL SUPPLEMENT THE PROVIDED NUMBER IF DESIGNATED WATER CLOSET AND/OR LAVATORY DOES NOT MEET THE REQUIRED.

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TIPP CITY, OHIO 45371

NO.	REVISION	DATE
1	FOR PERMIT	04/17/2025

SEALED BY:

STATE OF OHIO
ADAM M. KNOUS
PE.82894
REGISTERED PROFESSIONAL ENGINEER

04/17/2025

DRAWN BY:	AMK
CHECKED BY:	JTD
DESIGNED BY:	AMK
APPROVED BY:	Approver
A/E JOB NO.:	6359A
CLIENT JOB NO.:	

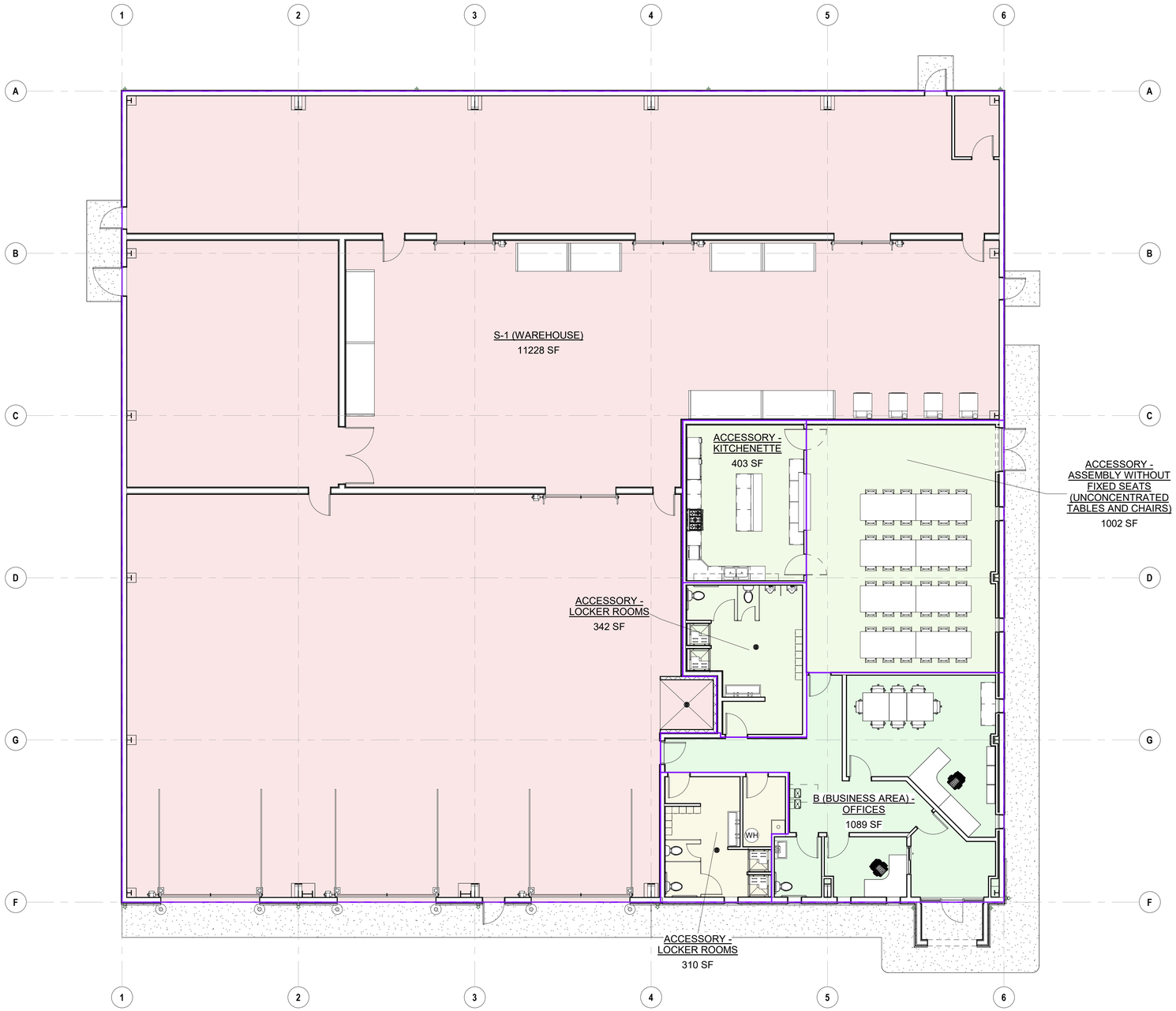
SHEET DESCRIPTION:

BUILDING CODE INFORMATION

SHEET NO.:

G-002

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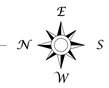


Occupancy Types

- ACCESSORY - TO MAIN OCCUPANCY
- ACCESSORY TO MAIN OCCUPANCY
- BUSINESS AREAS
- WAREHOUSE AREA

OCCUPANCY AREA PLAN

1/8" = 1'-0"



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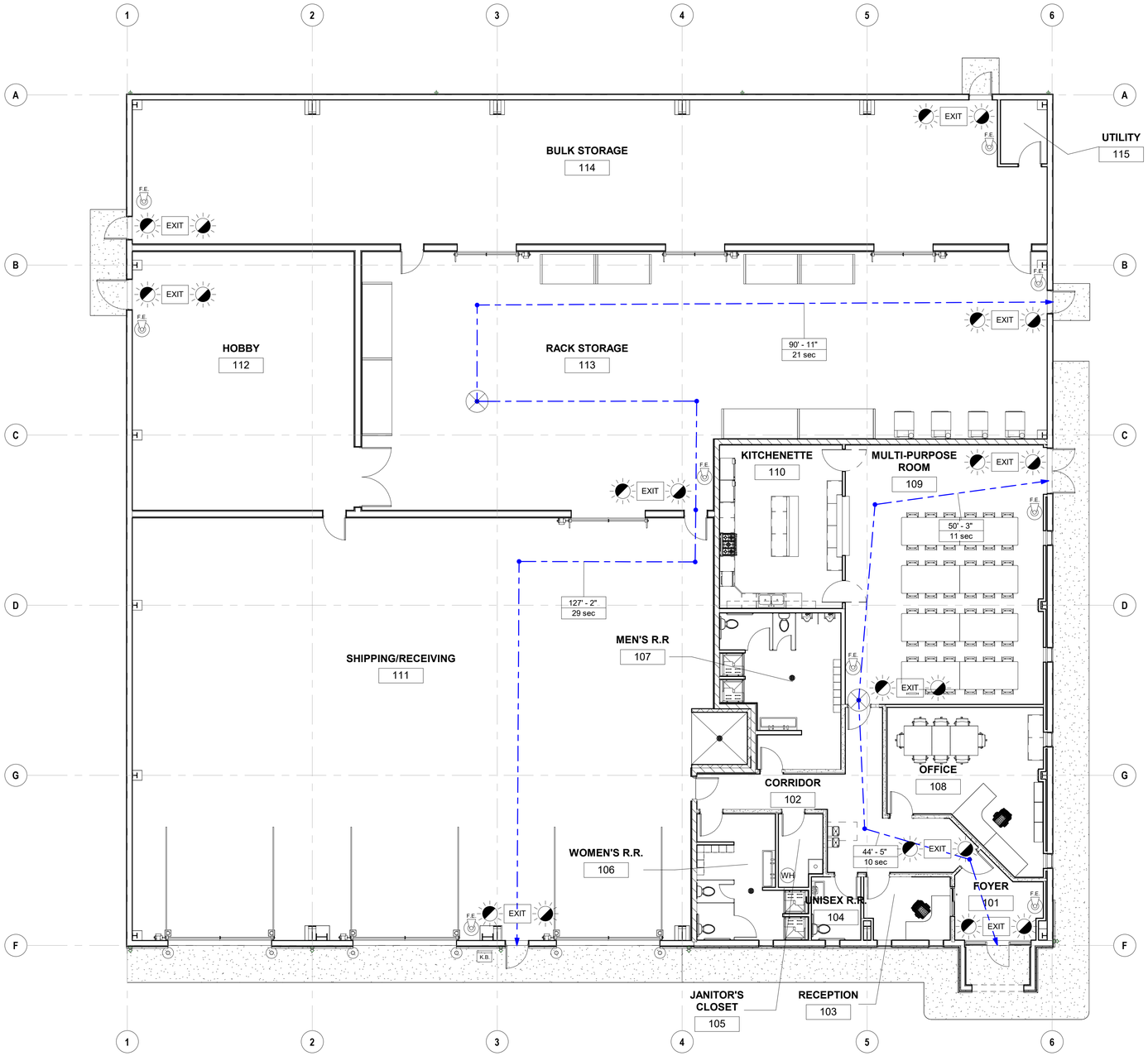
SHEET DESCRIPTION:

OCCUPANCY OVERVIEW PLAN

SHEET NO.:

G-101

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LIFE SAFETY PLAN

1/8" = 1'-0"

WALL LEGEND

- 3 HR FIRE BARRIER - UL 419
- 1 HR FIRE PARTITION - UL 419

REFER TO SHEET A-002 FOR MIN UL LISTING REQUIREMENTS. ADDITIONAL FINISHES MAY BE APPLICABLE, REFER TO WALL SECTIONS ON A-301.

LIFE SAFETY LEGEND

- EXIT — EMERGANCY EXIT SIGN
- F.E. — FIRE EXTINGUISHER
- K.B. — KNOX/LOCK BOX

FIRE EXTINGUISHER NOTES

1. FIRE EXTINGUISHERS SHALL BE CLASSIFIED IN ONE OF THE FOLLOWING CATEGORIES: CLASS A, B, C, D OR K. THOSE CLASSIFIED IN CLASSES A OR B SHALL HAVE A RATING NUMBER FOLLOWED BY THE CLASS LETTER. THOSE CLASSIFIED IN CLASSES C, D, OR K ARE NOT REQUIRED TO HAVE A RATING NUMBER BUT SHALL HAVE A CLASS LETTER INDICATED.
2. FIRE EXTINGUISHERS SHALL BE PLACED ACCORDING TO THE TYPE AND SIZE OF FIRE MOST LIKELY TO OCCUR:
   - CLASS A : ORDINARY COMBUSTIBLE MATERIALS SUCH AS WOOD, CLOTH, PAPER, RUBBER, AND MANY PLASTICS
   - CLASS B : FLAMMABLE AND COMBUSTIBLE LIQUIDS SUCH AS PETROLEUM GREASES, TAR, OILS, OIL-BASED PAINTS, SOLVENTS, LACQUERS, ALCOHOLS, AND FLAMMABLE GASES
   - CLASS C : ENERGIZED ELECTRICAL EQUIPMENT
   - CLASS D : COMBUSTIBLE METALS SUCH AS MAGNESIUM, TITANIUM, ZIRCONIUM, SODIUM, LITHIUM, AND POTASSIUM
   - CLASS K : COOKING APPLIANCES THAT INVOLVE COMBUSTIBLE COOKING MEDIA SUCH AS VEGETABLE OR ANIMAL OILS AND FATS
3. FIRE EXTINGUISHERS FOR CLASS A OR CLASS B SHALL BE CLASSIFIED BY LEVEL OF OCCUPANCY HAZARD:
   - LIGHT (LOW) HAZARD: FIRES WITH LOW RATES OF HEAT RELEASE ARE EXPECTED, QUANTITY AND COMBUSTIBILITY IS LOW - LESS THAN 1 GALLON REQUIRED
   - ORDINARY (MODERATE) HAZARDS: FIRE WITH MODERATE RATES OF HEAT RELEASE ARE EXPECTED, QUANTITIES AND COMBUSTIBILITY IS MODERATE - BETWEEN 1 AND 5 GALLON(S) REQUIRED
   - EXTRA (HIGH) HAZARDS: FIRE WITH HIGH RATES OF HEAT RELEASE ARE EXPECTED, QUANTITIES AND COMBUSTIBILITY IS HIGH - MORE THAN 5 GALLONS REQUIRED
4. FIRE EXTINGUISHERS WITH A GROSS WEIGHT NOT EXCEEDING 40 LBS SHALL BE INSTALLED SO THE TOP DOES NOT EXCEED 5 FEET ABOVE FINISHED FLOOR. FIRE EXTINGUISHERS WITH A GROSS WEIGHT GREATER THAN 40 LBS SHALL BE INSTALLED SO THE TOP DOES NOT EXCEED 31/2 FEET ABOVE FINISH FLOOR. IN NO CASE SHALL THE CLEARANCE BETWEEN THE BOTTOM AND FINISH FLOOR BE LESS THAN 4 IN.
5. FIRE EXTINGUISHERS SIZE AND PLACEMENT FOR CLASS A HAZARDS:

CRITERIA	LOW	MODERATE	HIGH
MINIMUM RATED (1) EXTINGUISHER	2-A	2-A	4-A
MAX FLOOR ARE PER UNIT OF A	3,000 S.F.	1,500 S.F.	1,000 S.F.
MAX FLOOR AREA FOR EXTINGUISHER	11,250 FT	11,250 FT	11,250 FT
MAX TRAVEL DISTANCE TO EXTINGUISHER	75 FT	75 FT	75 FT

6. FIRE EXTINGUISHERS SIZE AND PLACEMENT FOR CLASS B HAZARDS:

HAZARD TYPE	MIN. EXTINGUISHER RATING	MAX TRAVEL DISTANCE
LIGHT (LOW)	5-B / 10-B	30 FT / 50 FT
ORDINARY (MODERATE)	10-B / 20-B	30 FT / 50 FT
EXTRA (HIGH)	40-B / 80-B	30 FT / 50 FT

7. FIRE EXTINGUISHERS FOR CLASS C FIRES SHALL BE SIZED AND PLACED IN A SIMILAR COORDINATED FASHION AS CLASS A AND CLASS B PENDING THE LEVEL OF HAZARD ASSOCIATED WITH THE AREA SERVED.
8. FIRE EXTINGUISHERS FOR CLASS D FIRES SHALL BE PLACED NOT MORE THAN 75 FT OF TRAVEL DISTANCE FROM POINT OF HAZARD. SIZE OF EXTINGUISHER SHALL BE DETERMINED BY THE RECOMMENDATION OF THE MANUFACTURER BASED ON HAZARD AND QUANTITY.
9. REFER TO NFPA 10 - STANDARD FOR PORTABLE FIRE EXTINGUISHERS FOR ADDITIONAL REQUIREMENTS.

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NO.	REVISION	DATE
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SEALED BY:

STATE OF OHIO
ADAM M. KNOUS
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REGISTERED PROFESSIONAL ENGINEER

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DRAWN BY:	AMK
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SHEET DESCRIPTION:

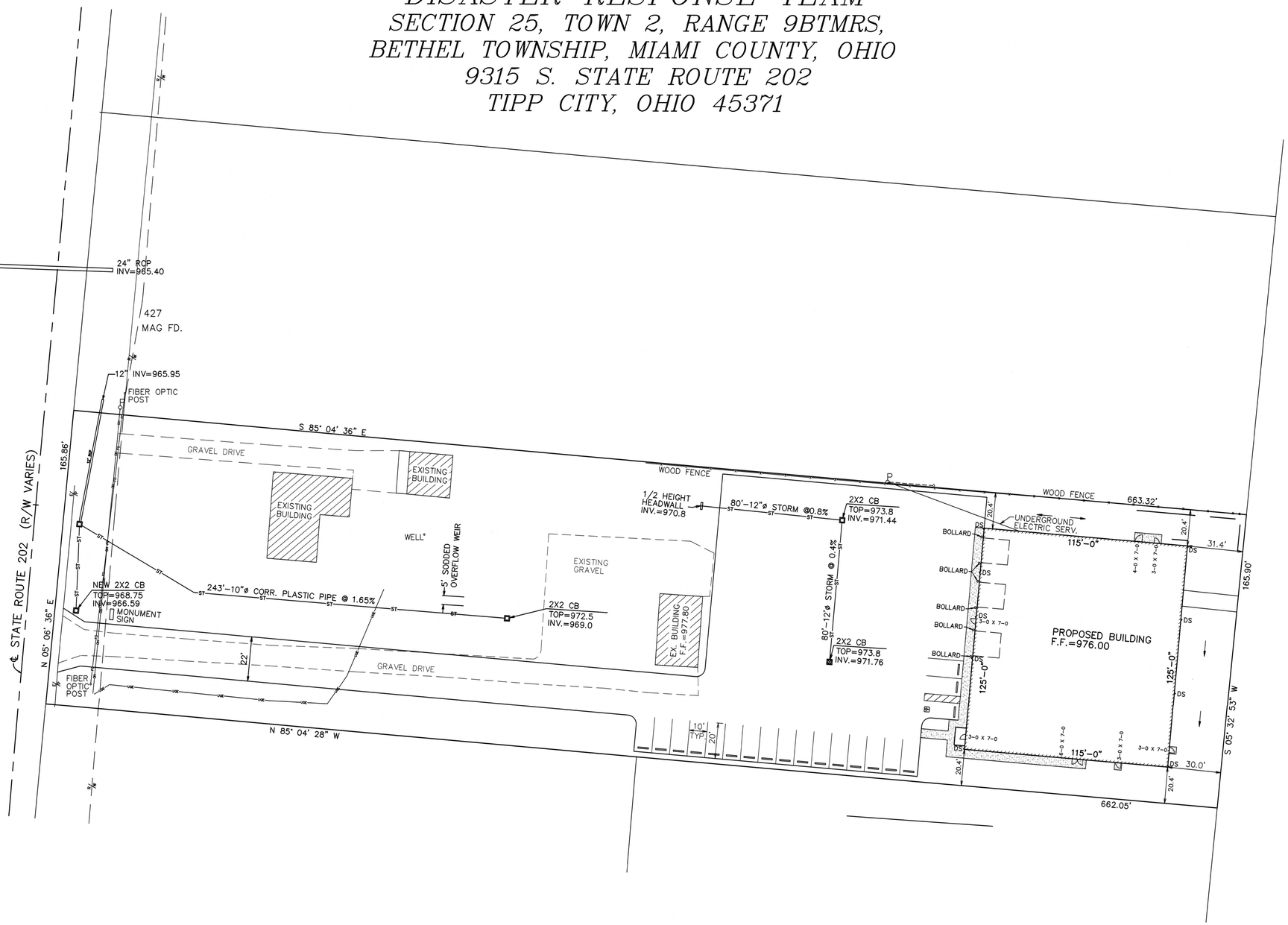
LIFE SAFETY PLAN

SHEET NO.:

G-102

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CHURCHES OF CHRIST
DISASTER RESPONSE TEAM
SECTION 25, TOWN 2, RANGE 9BTMRS,
BETHEL TOWNSHIP, MIAMI COUNTY, OHIO
9315 S. STATE ROUTE 202
TIPP CITY, OHIO 45371



SHEET INDEX	
TITLE SHEET	1
EXISTING CONDITIONS	2
SITE PLAN	3
DRIVEWAY PLAN	4
DETAIL SHEET	5

LEGEND

- POLE
- POLE W/ GUY WIRE
- CONCRETE
- ASPHALT
- PARKING BLOCK
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXIST. SPOT ELEVATION
- PROP. SPOT ELEVATION

NOTE:

BEFORE DIGGING IN THE AREA OF THE UNDERGROUND FIBE ROPTIC LINE CALL AT&T AT (937) 562-1975

PARKING SPACES

THE NUMBER OF PARKING SPACES WAS DETERMINED BY THE GROSS USABLE FLOOR AREA (SECTION 35.05)

$\frac{14375}{800} = 17.97 = 18$ SPACES

UNDERGROUND UTILITIES
CALL TWO WORKING DAYS BEFORE YOU DIG
CALL 1-800-362-2764 (TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS MUST BE CALL DIRECTLY

REVISIONS

No.	DATE	CHARACTER	BY
1	6/8/25	C.O. & 12" Stone in R/W	MC

TITLE SHEET
CHURCHES OF CHRIST
DISASTER RESPONSE TEAM
9315 S. STATE ROUTE 202
TIPP CITY, OHIO 45371

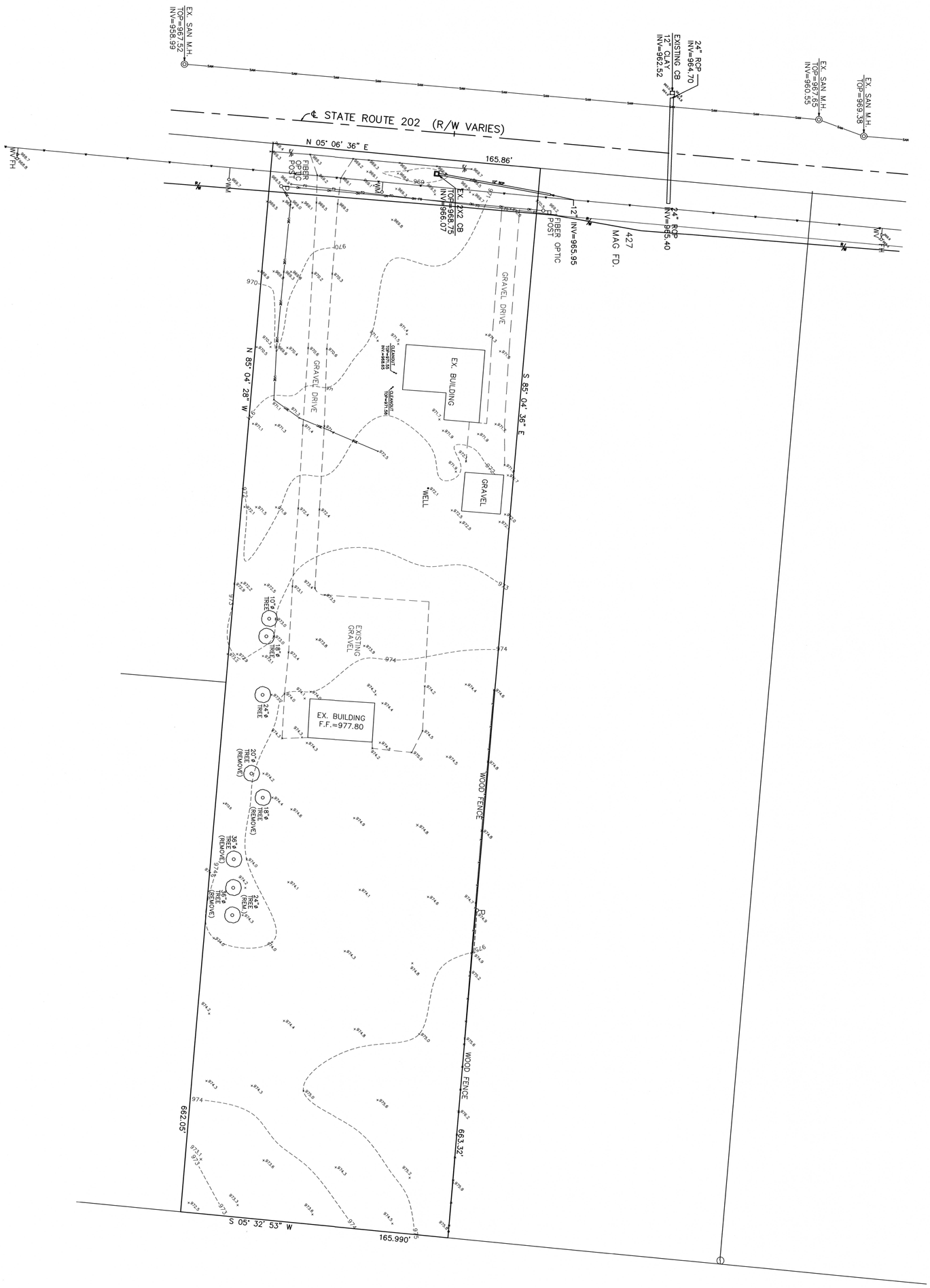
STATE OF OHIO
MICHAEL W. COZATT
36325
REGISTERED PROFESSIONAL ENGINEER

Michael W. Cozatt 6/27/25
MICHAEL W. COZATT DATE
P.E. 36325, P.S. 6001

COZATT ENGINEERING COMPANY
CIVIL ENGINEER
1100 WAYNE STREET, STE. 1140, TROY, OHIO
JOB NO. 22724-30SC TELE. (937) 339-2921

DES. M.W.C.
DR. J.A.B.
CKD. M.W.C.

SHEET 1/5



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(TOLL FREE)
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Scale: 1"=30'
0 15 30 45 60
N

DES.	M.W.C.
DR.	J.A.B.
CKD.	M.W.C.
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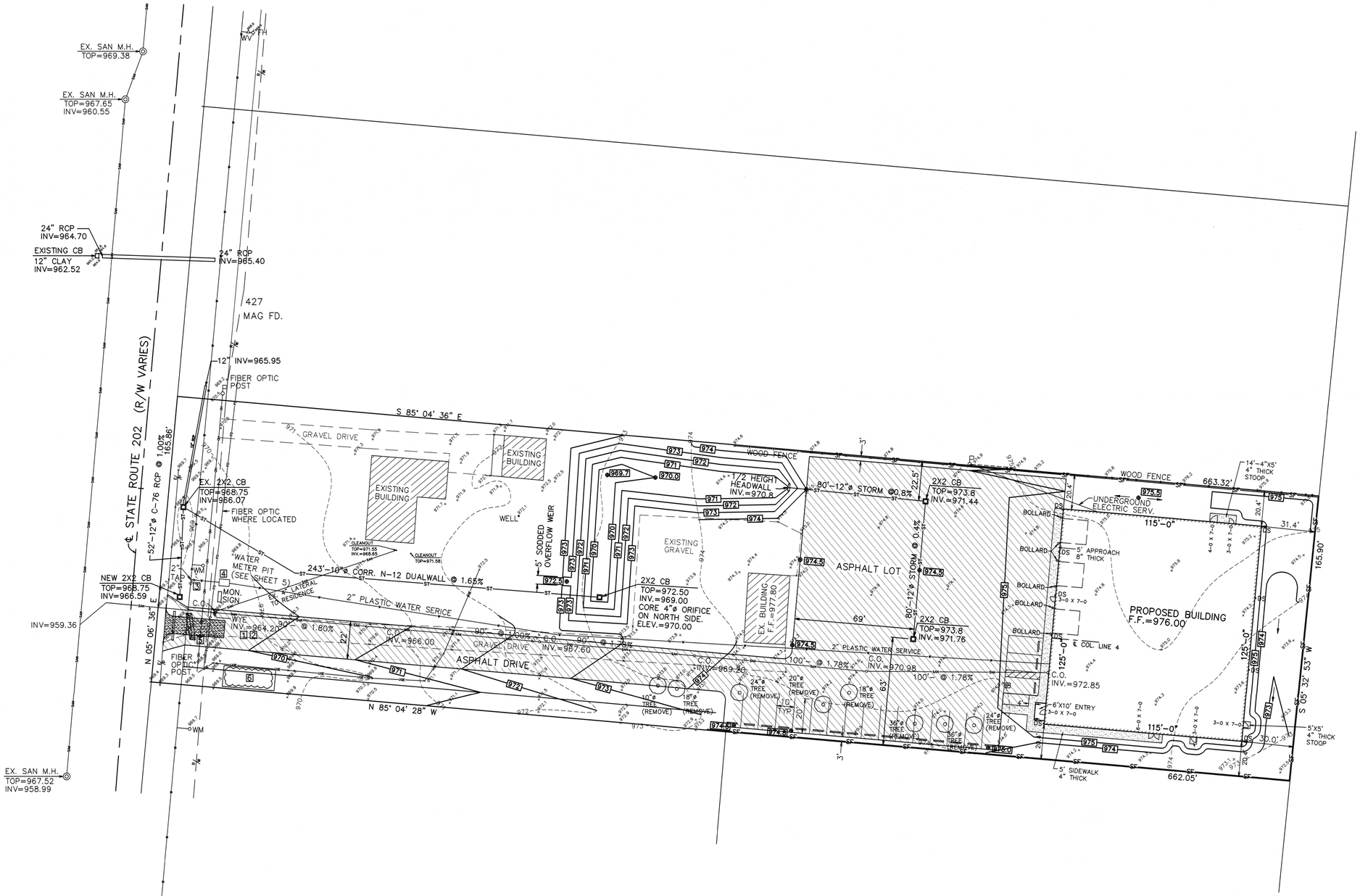
MICHAEL W. COZATT — DATE 10/3/25
P.E. 36325, P.S. 6001

STATE OF OHIO
MICHAEL W. COZATT
36325
REGISTERED
PROFESSIONAL ENGINEER

EXISTING CONDITIONS
CHURCHES OF CHRIST
DISASTER RESPONSE TEAM
9315 S. STATE ROUTE 202
TIPP CITY, OHIO 45371

REVISIONS

No.	DATE	CHARACTER	BY



Scale: 1"=30'

0 15 30 45 60

NOTES:

1. CONTRACTOR TO EXCAVATE EXIST. 4" LATERAL TO DETERMINE INVERT ELEVATION
2. INSET 4" WYETO CONNECT 4" LATERAL AND PROPOSED 4" LATERAL. PLACE NEW 4" IN PROPOSED 4" LATERAL (EAST).
3. 2" TAP TO EXISTING 12" – C900 PLASTIC WATER SERVICE
4. PRECAST WATER METER PIT (SEE SHEET 5)
5. CONSTRUCTION ENTRANCE (SEE SHEET 5)
6. CONCRETE WASHOUT AREA (SEE SHEET 5)

FIBER OPTIC NOTE:

BEFORE DIGGING IN THE AREA OF THE UNDERGROUND FIBER OPTIC LINE CALL AT&T AT (937) 562-1975

LEGEND

- POLE
- POLE W/ GUY WIRE
- CONCRETE
- ASPHALT PAVING
- PARKING BLOCK

PARKING SPACES

THE NUMBER OF PARKING SPACES WAS DETERMINED BY THE GROSS USABLE FLOOR AREA (SECTION 35.05)

$\frac{14375}{800}$ =17.97=18 SPACES

REVISIONS

No.	DATE	CHARACTER	BY
1	6/9/25	Access drive	MC
2	"	Canopy & entrance	"
3	"	52'-12" Storm	"
4	"	Sanitary Lateral	"
5	"	Water Meter pit	"
6	"	2" Plastic service	"

NEW BUILDING SITE PLAN
CHURCHES OF CHRIST
DISASTER RESPONSE TEAM
9315 S. STATE ROUTE 202
TIPP CITY, OHIO 45371

STATE OF OHIO
MICHAEL W. COZATT
36325
REGISTERED PROFESSIONAL ENGINEER

6/9/25
MICHAEL W. COZATT DATE
P.E. 36325, P.S. 6001

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CKD. M.W.C.

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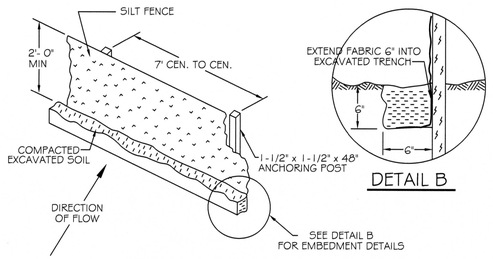
Michael W. Cozatt 6/03/05
MICHAEL W. COZATT DATE
P.E. 36325, P.S. 6001

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NEW BUILDING SITE PLAN
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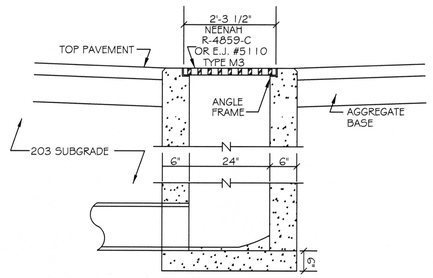
REVISIONS

No.	DATE	CHARACTER	BY
1-6	6/03/05	SEE SHEET 3 OF 5	MC



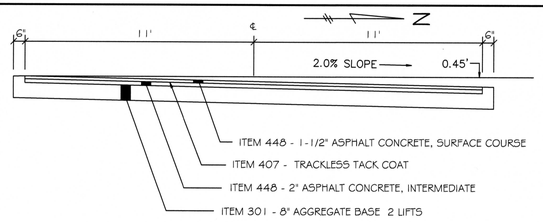
SILT FENCE DETAIL

NOT TO SCALE



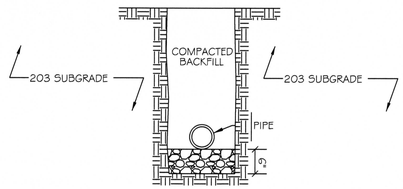
CATCH BASIN DETAIL

PAVED AREA



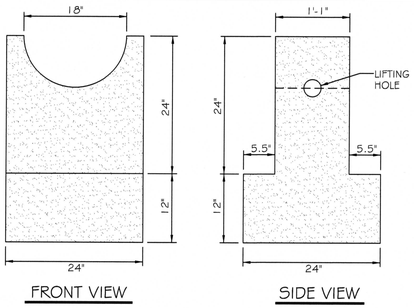
DRIVEWAY DETAIL

NOT TO SCALE



TRENCH DETAIL

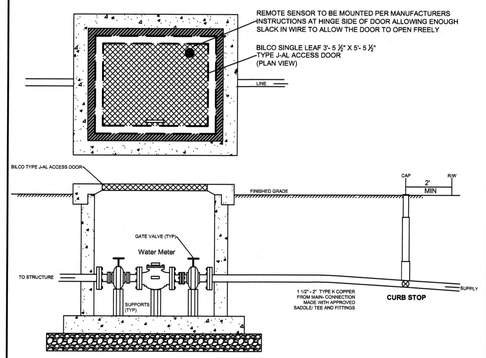
NOT TO SCALE



FRONT VIEW SIDE VIEW

1/2 HEIGHT HEADWALL

NOT TO SCALE



NOTE

PRECAST CONCRETE PIT TO BE 4'X6'X6' PER ENGINEER APPROVAL - USE PRECAST MANUFACTURES STANDARD DIMENSIONS.

BILCO ALUMINUM HATCH TYPE J-AL ACCESS SINGLE LEAF DOOR (OR EQUAL) AS SPECIFIED BY MANUFACTURER. PRECAST LID INSTALLATION.

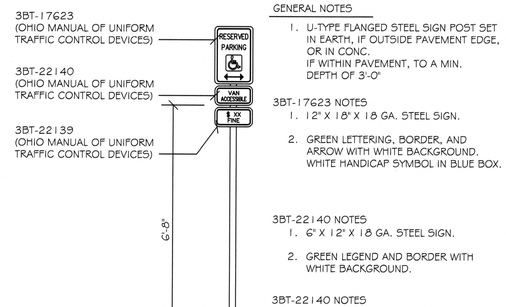
WATER METER AND GATE VALVES (2) TO BE FLANGE CONNECTED

TOP OF LID TO SIT 6" ABOVE GRADE WHERE ALLOWABLE.

NOT TO BE INSTALLED WHERE TRAFFIC IS EXPECTED. IN SUCH CASE, A TRAFFIC RATED LID WILL NEED TO BE SPECIFIED AND DESIGNED WITH ENGINEER APPROVAL.

2" METER PIT DETAIL

NOT TO SCALE



GENERAL NOTES

1. U-TYPE FLANGED STEEL SIGN POST SET IN EARTH, IF OUTSIDE PAVEMENT EDGE, OR IN CONC. IF WITHIN PAVEMENT, TO A MIN. DEPTH OF 3'-0"

3BT-17623 NOTES
1. 12" X 18" X 18 GA. STEEL SIGN.
2. GREEN LETTERING, BORDER, AND ARROW WITH WHITE BACKGROUND. WHITE HANDICAP SYMBOL IN BLUE BOX.

3BT-22140 NOTES
1. 6" X 12" X 18 GA. STEEL SIGN.
2. GREEN LEGEND AND BORDER WITH WHITE BACKGROUND.

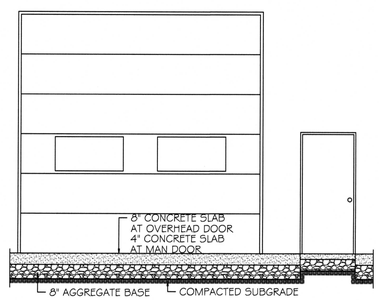
3BT-22140 NOTES
1. 6" X 12" X 18 GA. STEEL SIGN.
2. FINE PER LOCAL REQUIREMENTS

GENERAL NOTES

SIGNS ARE AS MANUFACTURED BY LAB SAFETY SUPPLY INC. - JANESVILLE, WISCONSIN (OR EQUAL)

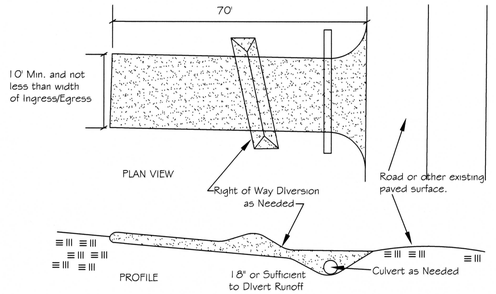
ACCESSIBLE PARKING SIGN DETAIL

N.T.S.



CONCRETE APPROACH SLAB DETAIL

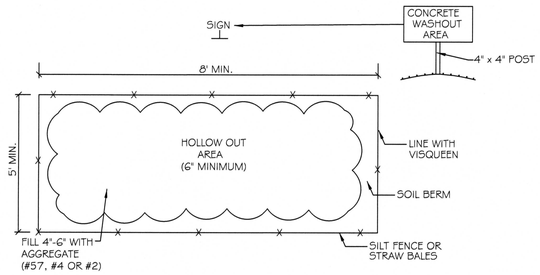
NOT TO SCALE



1. STONE SIZE - TWO-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'.
3. THICKNESS- THE STONE LAYER SHALL BE AT LEAST 6" THICK.
4. WIDTH - THE ENTRANCE SHALL BE AT LEAST 10' WIDE, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
5. BEDDING- IF SUBGRADE IS SOFT A GEOTEXTILE SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING STONE. IT SHALL HAVE A GRAB TENSILE STRENGTH OF AT LEAST 200 lb. AND A MULLEN BURST STRENGTH OF AT LEAST 190 lb.
6. CULVERT- A PIPE OR CULVERT SHALL BE CONSTRUCTED UNDER THE ENTRANCE IF NEEDED TO PREVENT SURFACE WATER FLOWING ACROSS THE ENTRANCE FROM BEING DIRECTED OUT ONTO PAVED SURFACES.
7. 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.
8. 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.
9. 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.

Construction Entrance

N.T.S.



CONCRETE WASHOUT AREA

N.T.S.

REVISIONS

No.	DATE	CHARACTER	BY
1	6/9/25	Access Pave Park etc	MC

DETAIL SHEET
CHURCHES OF CHRIST
DISASTER RESPONSE TEAM
9315 S. STATE ROUTE 202
TIPP CITY, OHIO 45371

STATE OF OHIO · MICHAEL W. COZATT · 36325 · REGISTERED PROFESSIONAL ENGINEER

Michael W. Cozatt 6/9/25
MICHAEL W. COZATT DATE
P.E. 36325, P.S. 6001

COZATT ENGINEERING COMPANY
CIVIL ENGINEER
1100 WAYNE STREET, STE. 1140, TROY, OHIO
JOB NO. 22724-DET TELE. (937) 339-2921

DES. M.W.C.
DR. J.A.B.
CKD. M.W.C.

SHEET 5/5

DESIGN CRITERIA

1. CODE STANDARDS
   2024 OHIO BUILDING CODE
   ASCE 7-10
   ACI 318-14 (LRFD)

2. FLOOR LIVE LOADS:

LIGHT STORAGE:	125 PSF
OFFICE LOBBIES:	100 PSF
OFFICES:	50 PSF

3. SOIL INFORMATION:

ALLOWABLE NET BEARING PRESSURE:	1,500 PSF
UNIT WEIGHT OF SOIL:	125 PCF

STRUCTURAL GENERAL NOTES

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE 2024 OHIO BUILDING CODE.

2. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL, STATE, AND LOCAL SAFETY REQUIREMENTS AS WELL AS ADDITIONAL OWNER SPECIFIC SAFETY REQUIREMENTS. THE CONTRACTOR SHALL EXERCISE PRECAUTION ALWAYS FOR THE PROTECTION OF PERSONS (INCLUDING EMPLOYEES) AND PROPERTY. IT SHALL ALSO BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INITIATE, MAINTAIN, AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS, AND PROGRAMS IN CONNECTION WITH THE WORK INCLUDING THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970.

3. THE STRUCTURE HAS BEEN DESIGNED FOR THE IN-SERVICES LOADS ONLY. THE SHORING AND TEMPORARY BRACING SHALL BE DESIGNED BY A QUALIFIED PERSON AND IS THE COMPLETE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE AND MAINTAIN THE SHORING AND TEMPORARY BRACING. THE TEMPORARY SHORING SHALL INCLUDE BUT NOT LIMITED TO WALLS, COLUMNS, SLABS, BEAMS, GIRDERS, AND TRUSSES TO PREVENT EXCESSIVE STRESSES AND HOLD STRUCTURAL ELEMENTS TRUE AND IN PLACE DURING CONSTRUCTION. THESE PROVISIONS SHALL REMAIN IN PLACE AT ALL STAGES OF CONSTRUCTION UNTIL SUFFICIENT PERMANENT MEMBERS ARE CONSTRUCTED TO INSURE THE SAFETY, STABILITY, AND INTEGRITY OF THE STRUCTURE.

4. ALL WORK SHALL BE PERFORMED WITHOUT ANY DAMAGE TO ADJACENT RETAINED WORK. ADEQUATE PROTECTION OF AREAS NEARBY WORK AGAINST DUST, DIRT, AND DEBRIS ACCUMULATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE MAINTAINED AT ALL TIME DURING CONSTRUCTION.

5. THE CONTRACTOR SHALL SUBMIT PRODUCT DATA FOR PROPRIETARY MATERIALS AND ITEMS, INCLUDING FORMING ACCESSORIES, ADMIXTURES, PATCHING COMPOUNDS, WATERSTOPS, JOINT SYSTEMS, CURING COMPOUNDS, AND OTHER WHEN REQUESTED BY THE ARCHITECT OR STRUCTURAL ENGINEER.

6. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS WITH THE ARCHITECTURAL AND STRUCTURAL PLANS BEFORE STARTING WORK.

7. ALL EXISTING DIMENSIONS AND ELEVATIONS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO STARTING WORK.

8. SEE ARCHITECTURAL AND STRUCTURAL PLANS FOR EXACT DIMENSIONS FOR OPENINGS IN WALLS AND IN ROOF AND FLOOR SYSTEMS, AND EXACT DIMENSIONS AND LOCATIONS FOR ANY RECESSED SLAB AREAS. ALL DISCREPANCIES SHALL BE REVIEWED AND VERIFIED BY THE ARCHITECT AND STRUCTURAL ENGINEER.

9. OPENINGS IN THE STRUCTURE ARE INDICATED ON THE ON THE CONTRACT DOCUMENTS. REFER TO THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING DRAWING SLEEVES, CURBS, INSERTS, ETC. NOT INDICATED ON THE STRUCTURAL DOCUMENTS. OPENINGS IN SLABS WITH A MAXIMUM SIDE DIMENSION OR DIAMETER OF 10 INCHES OR LESS SHALL NOT REQUIRE ADDITIONAL FRAMING OR REINFORCEMENT, UNLESS NOTED OTHERWISE. THE LOCATION OF SLEEVES OR OPENINGS IN STRUCTURAL MEMBERS SHALL BE APPROVED BY THE STRUCTURAL ENGINEER.

10. THE CONTRACTOR SHALL RELOCATE ALL MECHANICAL PIPING, DUCTS, EQUIPMENT, ELECTRICAL CONDUITS, WIRING, AND PLUMBING AS INDICATED WHICH INTERFERE WITH PROPOSED CONSTRUCTION. SERVICE SHALL BE MAINTAINED TO ALL EQUIPMENT THAT IS SERVED BY MECHANICAL, ELECTRICAL, OR PLUMBING CONDUIT BEING RELOCATED.

11. VERIFY ALL MECHANICAL OPENING SIZES, LOCATIONS, AND UNIT WEIGHTS WITH MECHANICAL CONTRACTOR. THE MECHANICAL CONTRACTOR SHALL NOTIFY THE STRUCTURAL ENGINEER OF ANY MECHANICAL UNIT SUPPORTED BY THE STRUCTURE WITH UNIT WEIGHT GREATER THAN WHAT IS SHOWN ON THE STRUCTURAL DRAWINGS AND FOR ANY OTHER UNIT NOT SHOWN ON THE STRUCTURAL DRAWINGS WHOSE UNIT WEIGHT IS GREATER THAN 250 POUNDS.

12. THE MECHANICAL CONTRACTOR SHALL NOTIFY THE STRUCTURAL ENGINEER OF ANY MECHANICAL UNITS SUPPORTED BY THE STEEL FRAMING ARE CAPABLE OF SPANNING THE DISTANCE BETWEEN FRAMING SUPPORTS ARE CAPABLE OF SPANNING THE DISTANCE BETWEEN FRAMING SUPPORTS AS SHOWN ON THE STRUCTURAL DRAWINGS. THE MECHANICAL CONTRACTOR SHALL PROVIDE ANY ADDITIONAL FRAMING SUPPORT AS REQUIRED FOR EACH SPECIFIC UNIT.

13. THE GENERAL CONTRACTOR SHALL VERIFY ALL MECHANICAL OPENING SIZES AND LOCATIONS AND UNIT WEIGHTS WITH MECHANICAL CONTRACTOR. ADDITIONALLY, THE GENERAL CONTRACTOR SHALL VERIFY ALL HANGERS AND OTHER SUPPORTS FOR MECHANICAL ELECTRICAL, OR PLUMBING SYSTEMS, ON STEEL JOISTS, ARE LOCATED AT THE INTERSECTION OF THE CHORD AND WEB MEMBERS. CONCENTRATED LOADS IN EXCESS OF 250 POUNDS MUST BE APPROVED BY THE STRUCTURAL ENGINEER.

14. THE GENERAL CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE REMOVAL OF CONSTRUCTION WASTE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.

CONCRETE NOTES

1. REFERENCE STANDARDS
   A. ALL CONCRETE DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH ACI 301 - SPECIFICATIONS FOR STRUCTURAL CONCRETE, ACI 305 - GUIDE TO HOT WEATHER CONCRETING, ACI 306 - GUIDE TO COLD WEATHER CONCRETING, ACI 315 - GUIDE TO PRESENTING REINFORCING STEEL DESIGN DETAILS, ACI 318 - BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE, CRSI MANUAL OF OF STANDARD PRACTICE.

2. MATERIALS

A.	ALL DEFORMED REINFORCING BAR:	ASTM A615, GRADE 60
	ALL WELDED WIRE FABRIC (PLAIN):	ASTM A1064, GRADE 80
	PORTLAND CEMENT:	ASTM C150, TYPES I, II OR III
	WATER:	POTABLE
	AGGREGATES:	ASTM C33, SIZE 57
	FLYASH (% CEMENTITUOUS MAT'L):	15-25%
	WATER-REDUCER ADMIXTURE:	ASTM C494, TYPE A OR D
	SUPERPLASTICIZER:	ASTM C494, TYPE F OR G
	SHRINKAGE-REDUCER ADMIXTURE:	ASTM C494, TYPE S
B.	NON-SHRINK, NON-METALLIC GROUT:	ASTM C1107
	BONDING AGENT:	ASTM C1059, TYPE II
	SEALER:	ASTM C309, TYPE I CLASS A

   C. CALCIUM CHLORIDE CONTENT IS NOT PERMITTED

   D. CURING COMPOUNDS ARE NOT PERMITTED, USE WATER CURE FOR ALL CONCRETE.

   E. FOR ALL ADMIXTURES, PROVIDE MANUFACTURER'S CERTIFICATION THAT ADMIXTURE DOES NOT CONTAIN MORE THAN 0.1% WATER-SOLUBLE CHLORIDE IONS BY MASS OF CEMENTITIOUS MATERIAL, AND THAT ADMIXTURE IS COMPATIBLE WITH OTHER ADMIXTURES AND CEMENTITIOUS MATERIALS.

3. CONCRETE MIXES
   A. CONCRETE SHALL DEVELOP THE FOLLOWING 28-DAY COMPRESSIVE STRENGTH (f'_c) UNLESS NOTED OTHERWISE:

i.	SHALLOW FOUNDATIONS	3,000 PSI
ii.	SLAB-ON-GRADE	4,000 PSI

   B. CONCRETE FOR THE FOLLOWING ELEMENTS SHALL MEET THE FOLLOWING REQUIREMENTS FOR EXPOSURE CATEGORIES AND CLASSES AS FOLLOWS, UNLESS NOTED OTHERWISE:

i.	SHALLOW FOUNDATIONS	F0/S1/W1/C1
ii.	SLAB-ON-GRADE	F0/S0/W0/C0

   C. LIGHTWEIGHT CONCRETE, AS SPECIFIED, SHALL HAVE A DENSITY OF 115 LB/FT^3. THE COMPOSITION OF AGGREGATES SHALL MEET THE REQUIREMENT OF ALL-LIGHTWEIGHT - FINE AND COARSE MEETING ASTM C330.

   D. DESIGN CONCRETE MIXES FOR A MAXIMUM SLUMP OF 4 INCHES, UNLESS A SUPERPLASTICIZER IS TO BE USED. IF A SUPERPLASTICIZER IS TO BE USED, DESIGN MIXES FOR A SLUMP OF 2 TO 3 INCHES BEFORE ITS ADDITION. MAXIMUM SLUMP PERMITTED AFTER ITS ADDITION IS 8 INCHES.

   E. DESIGN MIXES FOR PUMPABILITY IF PUMPING IS TO BE USED.

4. REINFORCING AND EMBEDDED ITEM PLACEMENT
   A. WELDING OF ALL NON-PRESTRESSED BARS SHALL CONFORM TO THE REQUIREMENTS OF AWS D1.4 LATEST EDITION.

   B. HOOK TOP REINFORCING BARS AT DISCONTINUOUS EDGES OF SUPPORTED SLABS AND BEAMS.

   C. REINFORCING STEEL SHALL BE CONTINUOUS ACROSS CONSTRUCTION JOINTS OF SUPPORTED SLABS AND BEAMS.

5. DELIVERY AND PLACEMENT
   A. REMOVE ALL DEBRIS FROM THE POUR AREA. CLEAN STEEL OF GREASE, OIL, OTHER DELETERIOUS SUBSTANCES.

   B. CONFORM TO ASTM C94 AND ACI 304 - GUIDE FOR MEASURING, MIXING, TRANSPORTING, AND PLACING CONCRETE.

6. FINISHING
   A. PROVIDE SMOOTH FORM FINISH ON EXPOSED CONCRETE AND PROVIDE ¾" X 45 DEGREE BEVELED EDGES ON EXPOSED CORNERS.

   B. ANCHOR BOLT AND SETTING PLANS SHALL BE FURNISHED BY THE STRUCTURAL STEEL FABRICATOR. ANCHOR BOLTS SHALL BE SET PLUMB AND VERTICAL WITH TEMPLATES BY THE CONTRACTOR FOR FOUNDATIONS. TOP OF PIERS OR FOOTINGS SHALL BE CLEANED FOR THE CONTRACTOR FOR FOUNDATIONS.

7. OPENINGS, PITS, AND TRENCHES
   A. OPENINGS, PITS, AND TRENCHES SHOWN ARE BASED ON THE LATEST AVAILABLE INFORMATION AT THE TIME OF SLAB DESIGN. RECONCILE AND COORDINATE THEIR EXACT SIZES AND LOCATIONS WITH THE EQUIPMENT MANUFACTURER BEFORE PROCEEDING WITH WORK.

   B. IF ANY OPENING, PIT OR TRENCH NOT SHOWN ON THE DRAWING IS REQUIRED, SECURE APPROVAL OF THE STRUCTURAL ENGINEER BEFORE PROCEEDING.

   C. PRIOR TO PLACING CONCRETE, REFER TO OTHER TRADE DRAWINGS AND COORDINATE THE LOCATION AND SIZE OF ITEMS SUCH AS, BUT NOT LIMITED TO, OPENING, EQUIPMENT PADS, PIPING, CONDUIT, DRAINS, SLEEVES, DEPRESSED FLOORS, DOOR HOLDDOWNS IN GRADE WALLS, AND EMBEDDED ITEMS

8. CONCRETE COVER AND LAP SPLICES
   A. UNLESS NOTED OTHERWISE, DETAIL REINFORCING TO PROVIDE A MINIMUM CONCRETE COVER AS FOLLOWS:

i.	FOUNDATIONS:	3"
ii.	RETAINING WALLS:	2"
iii.	OTHER:	1-1/2"

   B. UNLESS NOTED OTHERWISE THE DEVELOPMENT LENGTH FOR THE REINFORCEMENT SHALL MEET THE REQUIREMENTS SET FORTH BY ACI 318 TABLE 25.4.2.3. PROVIDED CLEAR SPACING OF BARS BEING DEVELOPED OR LAP SPLICED NOT LESS THAN THE DIAMETER OF BAR, CLEAR COVER AT LEAST THE DIAMETER OF BAR, AND STIRRUPS OR TIES THROUGHOUT THE DEVELOPEMENT LENGTH NOT LESS THAN THE CODE MINIMUM OR CLEAR SPACING OF BARS BEING DEVELOPED OR LAP SPLICED AT LEAST 2 TIME THE DIAMETER OF BAR AND CLEAR COVER AT LEAST THE DIAMTER OF BAR. THIS RESULTS IN A DEVELOPMENT LENGTH OF AT LEAST 38 TIMES THE DIAMETER FOR BAR SIZES UP TO #6 AND 48 TIMES THE DIAMTER FOR BAR SIZES #7 OR LARGER. FOR OTHER CASES THE DEVELOPMENT LENGTH SHALL BE 57 TIMES THE DIAMETER FOR BAR SIZES UP TO #6 AND 71 TIMES THE DIAMETER FOR BAR SIZES #7 OR LARGER.

9. MISCELLANEOUS
   A. ALL CONCRETE SHALL BE MAINTAINED AT A TEMPERATURE OF AT LEAST 50˚ F AND IN MOIST CONDITION FOR AT LEAST THE FIRST 7 DAYS AFTER PLACEMENT UNLESS INDICATED AS HIGH-EARLY STRENGTH CONCRETE WHICH SHALL BE MAINTAINED AS A TEMPERATURE OF AT LEAST 50˚ F AND IN A MOIST CONDITION FOR AT LEAST THE FIRST 3 DAYS AFTER PLACEMENT. ACCELERATED CURING IS PROHIBITED UNLESS APPROVED BY THE STRUCTURAL ENGINEER.

   B. CONTRACTOR SHALL PROTECT ALL CONCRETE CONSTRUCTION SUCH AS, BUT NOT LIMITED TO, SLABS, GRADE WALLS, OTHER WALLS, AND FOUNDATIONS FROM DAMAGE DUE TO FROST HEAVE. FURTHERMORE, ALL CONCRETE CONSTRUCTION SHALL MEET ANY SPECIFIED LIMITS IN THE CONSTRUCTION DOCUMENTS AS WELL AS LIMITATIONS AS INDICATED IN ASTM C94, ACI 306R, ACI 301, AND 305R FOR CONCRETING IN COLD AND HOT WEATHER.

STRUCTURAL COLD-FORMED STEEL NOTES

1. ALL COLD-FORMED STEEL DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF AISI S100, AISI D100, AISI S200, AISI 202, AISI S240, AISI 400, AND AWS D1.3.

2. REFER TO DESIGN DATA FOR LIVE LOAD AND OTHER LOADS USED IN DESIGN OF COLD-FORMED STEEL.

3. MATERIALS:
   - STUD/TRACK/FURRING 54, 68, 97 AND 118-MIL SECTIONS ASTM A1003 ST50H GR. 50
   - STUD/TRACK/FURRING 33 AND 43-MIL SECTIONS ASTM A1003 ST33H GR. 33
   - CEE/ZEE GIRTS/PURLINS ASTM A653 GR. 55
   - SHEET METAL SCREWS ASTM C1513 #10 U.N.O.
   - FASTENERS TO STEEL HILTI X-U POWER-ACTUATED FASTENER
   - FASTENERS TO CONCRETE HILTI X-U POWER-ACTUATED FASTENER
   - WELDING ELECTRODES AWS D1.3, E60XX

4. COLD-FORMED STEEL FRAMING MEMBER SHALL BE AS SPECIFIED IN THE STEEL STUD MANUFACTURER'S ASSOCIATION ICC EVALUATION REPORT ESR-3064P AND OF THE SIZE AND PROFILE AS SHOWN ON THE DRAWINGS. ALTERNATE MEMBERS EQUIVALENT IN SHAPE, SIZE, AND STRENGTH BY MANUFACTURERS OT MEMBERS OF THE STEEL STUD MANUFACTURER'S ASSOCIATION SHALL BE SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT/ENGINEER.

5. CONNECTORS SHALL BE INSTALLED PER THE MANUFACTURER'S SPECIFICATIONS AND INSTRUCTIONS. ALL FASTENERS SHALL BE SNUG WITH THE STEEL SURFACE AND SHALL PENETRATE INTO STEEL STUDS BY A MINIMUM OF THREE EXPOSED THREADS. CONNECTIONS SHALL NOT BE STRIPPED, IN THE VENT OF A STRIPPED CONNECTION ALL EFFECTED COMPONENTS SHALL BE REPLACED. FASTENERS SHALL BE INSTALLED A MINIMUM OF 3/8" FROM STEEL EDGES AND WITH NO LESS THAN 3/4" O.C. SPACING.

6. WHEN FASTENING TO STEEL, ALL POWER-ACTUATED FASTENERS SHALL BE INSTALLED A MINIMUM OF 1/2" FROM STEEL EDGES AND WITH NO LESS THAN 1" O.C. SPACING. WHEN FASTENING TO CONCRETE, ALL POWER-ACTUATED FASTENERS SHALL BE INSTALLED A MINIMUM OF 3" FROM CONCRETE EDGES AND WITH NO LESS THAN 4" O.C. SPACING.

7. FULL HEIGHT STUD WALLS SHALL BE ATTACHED TO METAL DECK ABOVE WITH DEFLECTION TRACK TO ALLOW FOR DIFFERENTIAL VERTICAL FLOOR DEFLECTIONS UNDER LIVE LOADS. MAINTAIN 3/4" GAP BETWEEN TOP OF STUDS AND DECK UNLESS NOTED OTHERWISE ON PLAN.

8. ALL STRUCTURAL COLD-FORMED FRAMING MEMBERS MUST BE IN GOOD CONDITION. DAMAGED MEMBERS, MEMBERS WITH CRACKING IN THE STEEL AT THE BEND RADIUS LOCATIONS, AND MEMBERS WITH SIGNIFICANT RED RUSTING OR SCALING OF PROTECTIVE COATING ARE UNACCEPTABLE AND MUST BE REPLACED, UNLESS APPROVED BY THE SER. MEMBER NOT MEETING TOLERANCES LISTED BELOW SHALL BE REPLACED PRIOR TO LOADING.

9. COLD-FORMED STEEL FRAMING SHALL BE ERECTED TRUE AND PLUMB PER THE REQUIREMENTS AND WITHIN THE SPECIFIED TOLERANCES BELOW. FOR PURPOSES OF THIS SECTION, CAMBER IS DEFINED AS THE DEVIATION FROM STRAIGHTNESS OF A MEMBER OF ANY PORTION OF A MEMBER WITH RESPECT TO ITS MAJOR AXIS, AND SWEEP IS DEFINED AS THE DEVIATION FROM STRAIGHTNESS OF A MEMBER OR ANY PORTION OF A MEMBER WITH RESPECT TO ITS MINOR AXIS.
   - FOR JOISTS, TRACK, AND AXIAL LOAD BEARING STUDS, OUT OF PLUMBNESS AND OUT OF STRAIGHTNESS (CAMBER AND SWEEP) SHALL NOT EXCEED 1/1000TH/ OF THE MEMBER LEGNTH (1/8" OVER 10'-0")
   - ERECT FRAMING IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
   - STUDS SHALL SEAT INTO TOP AND BOTTOM TRACKS. THE GAP BETWEEN THE END OF THE STUD AND WEB OF THE TRACK SHALL NOT EXCEED 1/16" FOR AXAIL LOAD BEARING STUDS.
   - JOISTS AND END STIFFENERS SHALL BE LOCATED DIRECTLY OVER STUDS. THE USE OF A WALL TOP TRACK AS A LOAD DISTRIBUTION MEMBER IS NOT PERMITTED.

10. FIELD CUTS AND NOTCHES OF ANY KIND, INCLUDING WIDENING PRE-PUNCHED HOLES, ARE PROHIBITED IN ANY COLD-FORMED STEEL MEMBER WITHOUT PRIOR APPROVAL FROM THE SER.

SPECIAL INSPECTION GENERAL NOTES

1. SPECIAL INSPECTIONS ARE REQUIRED AS INDICATED IN THE OHIO BUILDING CODE 2024 FOR ALL APPLICABLE MATERIALS USED IN THE CONSTRUCTION OF THE STRUCTURE.

2. AS REQUIRED BY THE OHIO BUILDING CODE UNLESS ALLOWED BY THE AUTHORITY HAVING JURISDICTION THE OWNER OR OWNER'S AUTHORIZED AGENT, OTHER THAN THE CONTRACTOR, SHALL EMPLOY ONE OR MORE APPROVED AGENCIES TO PROVIDE SPECIAL INSPECTIONS AND TESTS DURING CONSTRUCTION.

3. PRIOR TO THE START OF CONSTRUCTION, THE APPROVED AGENCIES SHALL PROVIDE WRITTEN DOCUMENTATION TO THE BUILDING OFFICIAL AND THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE (RDPRC) DEMONSTRATING THE COMPETENCE AND RELEVANT EXPERIENCE OR TRAINING OF THE SPECIAL INSPECTORS WHO WILL PERFORM THE SPECIAL INSPECTIONS AND TESTS DURING CONSTRUCTION.

4. ACCORDING TO THE INSPECTION TABLES PROVIDED EACH TASK SHALL BE INSPECTED EITHER "CONTINUOUSLY" OR "PERIODICALLY". INSPECTIONS MARKED AS "CONTINUOUS" SHALL BE PERFORMED DURING EACH TASK FROM START TO FINISH, NO TASK SHALL BE PERFORMED WITHOUT AN INSPECTOR ONSITE WITHOUT WRITTEN AUTHORIZATION FROM THE OWNER AND/OR ENGINEER-OF-RECORD. REFER TO TABLE FOOTNOTES AS APPLICABLE FOR DEVIATION FROM CONTINUOUS INSPECTIONS. INSPECTIONS MARKED AS "PERIODIC" SHALL BE PERFORMED AT VARIOUS INTERVALS DURING TASK EITHER START TO FINISH AND/OR AFTER THE TASK IS COMPLETE, THESE TASKS MAY BE PERFORMED WITH OR WITHOUT AN INSPECTOR ONSITE.

5. APPROVED AGENCIES SHALL KEEP RECORDS OF SPECIAL INSPECTIONS AND TESTS WHICH SHALL BE SUBMITTED IN REPORT FORM TO THE BUILDING OFFICIAL AND RDPRC. REPORTS SHALL INDICATE THAT WORK INSPECTED OR TESTED WAS OR WAS NOT COMPLETED IN CONFORMANCE TO APPROVED CONSTRUCTION DOCUMENTS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE BUILDING OFFICIAL AND RDPRC PRIOR TO THE COMPLETION OF THAT PHASE OF WORK. AT THE COMPLETION OF WORK WHICH REQUIRES SPECIAL INSPECTIONS AND TESTS A FINAL REPORT DOCUMENTING REQUIRED SPECIAL INSPECTIONS AND TESTS, AND CORRECTION OF ANY DISCREPANCIES NOTED IN THE INSPECTIONS OR TESTS SHALL BE SUBMITTED WITHIN THREE (3) WEEKS OR FIFTEEN (15) BUSINESS DAYS TO THE BUILDING OFFICIAL AND RDPRC.

TABLE 1705.3 - REQUIRED SPECIAL INSPECTIONS AND TESTS OF CONCRETE CONSTRUCTION

TYPE	CONTINUOUS	PERIODIC
1. INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT		X
2. REINFORCING BAR WELDING		
a. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706;		X
b. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16"; AND	X	
c. INSPECT ALL OTHER WELDS		X
3. INSPECT ANCHORS CAST IN CONCRETE		X
4. INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS		
a. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS	X	
b. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4.a.		X
5. VERIFY USE OF REQUIRED DESIGN MIX		
6. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X[1]	
7. INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X[2]	
8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.		X
9. INSPECT PRESTRESSED CONCRETE FOR:		
a. APPLICATION OF PRESTRESSING FORCES; AND	X	
b. GROUTING OF BONDED PRESTRESSING TENDONS	X	
10. INSPECT ERECTION OF PRECAST CONCRETE MEMBERS.		X
11. FOR PRECAST CONCRETE DIAPHRAGM CONNECTIONS OF REINFORCEMENT AT JOISTS CLASSIFIED AS MODERATE OR HIGH DEFORMABILITY ELEMENTS (MDE OR HDE) IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY C, D, E OR F, INSPECT SUCH CONNECTIONS AND REINFORCEMENT IN THE FIELD FOR:		
a. INSTALLATION OF THE EMBEDDED PARTS	X	
b. COMPLETION OF THE CONTINUITY OF REINFORCEMENT ACROSS JOINTS	X	
c. COMPLETION OF CONNECTIONS IN THE FIELD	X	
12. INSPECT INSTALLATION TOLERANCES OF PRECAST CONCRETE DIAPHRAGM CONNECTIONS FOR COMPLIANCE WITH ACI 550.5.		X
13. VERIFY IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.		X
14. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED		X

NOTES:
1. CONTINUOUS INSPECTION APPLIES TO THE LESSER OF 150 CU. YD. OF CONCRETE POURED OR ONCE PER SHIFT.
2. CONTINUOUS INSPECTION APPLIES ONLY TO THE STRUCTURAL LOAD-BEARING ELEMENTS SUCH AS FOOTERS, WALLS & PIERS BUT EXCLUDES FLOOR SLABS.

TABLE 1705.6 - REQUIRED SPECIAL INSPECTIONS AND TESTS OF SOILS

TYPE	CONTINUOUS	PERIODIC
1. VERIFY MATERIALS BELOW *SHALLOW FOUNDATIONS* ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY		X[1]
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DPETH AND HAVE REACHED PROPER MATERIAL		X[2]
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS		X[3]
4. DURING FILL PLACEMENT, VERIFY USE OF PROPER MATERIALS AND PROCEDURES IN ACCORDANCE WITH THE PROVISIONS OF THE APPROVED GEOTECHNICAL REPORT. VERIFY DENSITIES AND LIFT THICKNESS DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	X	
5. PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY		X

NOTES:
1. BEARING CAPACITY SHALL BE VERIFIED FOR EVERY 40 LINEAL FEET OF WALL FOOTING AND 33% OF COMBINED INTERIOR AND EXTERIOR COLUMN FOUNDATIONS.
2. VERIFICATION OF FOOTING DEPTHS SHALL BE VERIFIED FOR EVERY 40 LINEAL FEET OF WALL AND FNTS AT 33% OF EXTERIOR COLUMN FOUNDATIONS.
3. CLASSIFICATIONS AND TESTING OF COMPACTED FILLS SHALL BE CONDUCTED FOR EVERY 2,500 S.F. OF SLAB AREA. FOR AREAS OF LESS THAN 2,500 S.F. TWO (2) TESTS SHALL BE PERFORMED.

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NO.	REVISION	DATE
1	FOR PERMIT	04/17/2025

SEALED BY:

STATE OF OHIO
ADAM M. KNOUS
PE.82894
REGISTERED
PROFESSIONAL ENGINEER

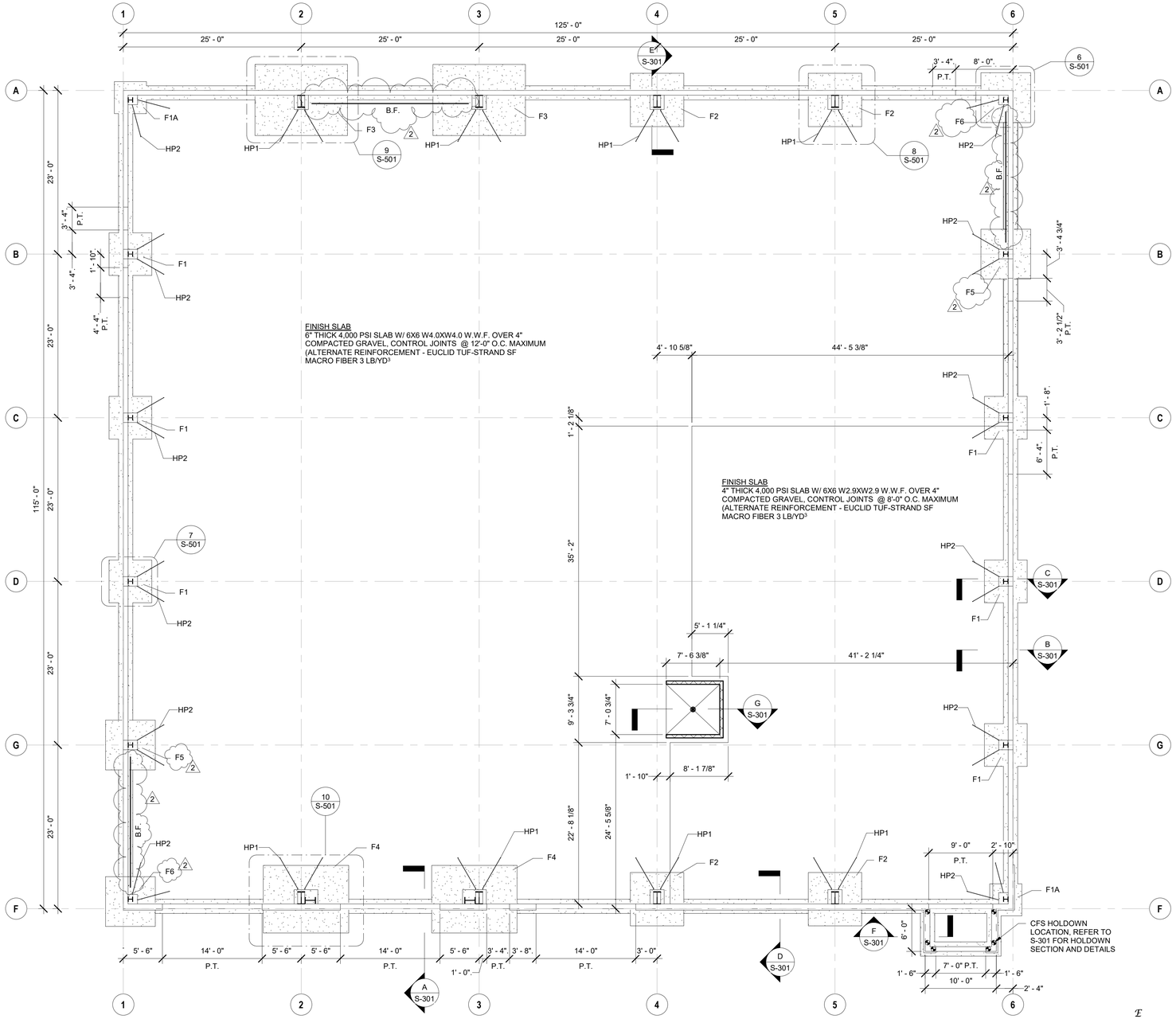
04/17/2025

DRAWN BY:	AMK
CHECKED BY:	JTD
DESIGNED BY:	AMK
APPROVED BY:	Approver
A/E JOB NO.:	6359A
CLIENT JOB NO.:	

SHEET DESCRIPTION:
STRUCTURAL NOTES

SHEET NO.:
S-001

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FOUNDATION PLAN

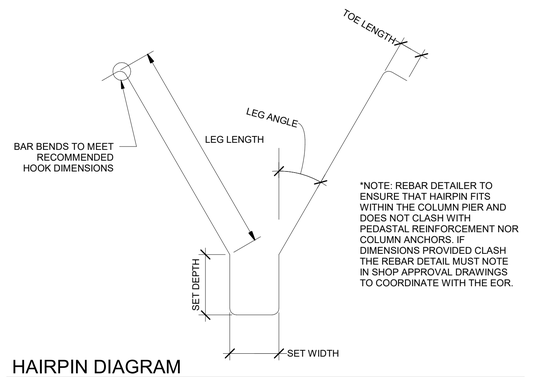
1/8" = 1'-0"

FOUNDATION NOTES

1. THE FINISH FLOOR ELEVATION IS 100'-0", THIS ELEVATION SHALL BE COORDINATED WITH THE CIVIL/SITE DOCUMENTS AS REQUIRED FOR FINAL GRADE ELEVATIONS AND EXTERIOR PAVEMENT(S). DOOR APRONS ARE PROVIDED AS REQUIRED FOR DOOR EGRESS AND ACCESS, ANY OTHER EXTERIOR PAVEMENT(S) (IF SHOWN) IS CONCEPTUAL. THE CIVIL ENGINEER IS RESPONSIBLE FOR EXTERIOR PAVEMENT(S).
2. UNLESS SPECIFIED OTHERWISE IN THE CONSTRUCTION DRAWINGS, A MINIMUM 10 MIL VAPOR BARRIER SHALL BE INSTALLED OVER A MINIMUM OF 4" COMPACTED GRAVEL FOR THE SLAB-ON-GRADE. THE SPECIAL INSPECTOR SHALL PERFORM A PLATE LOAD TEST EVERY 1,600 S.F. (40' X 40') TO VERIFY THAT THE MINIMUM SUBGRADE MODULUS IS 150 PCI OR GREATER.
3. PROVIDE VERTICAL DOWELS FROM FOOTINGS TO PIERS/PEDASTALS AND FROM WALL FOUNDATIONS TO WALLS OF THE SAME SIZE AND SPACING AS VERTICAL REINFORCING AND OFFSET FOR SPLICE AS REQUIRED UNLESS NOTED OTHERWISE.
4. "PT" DENOTES POUR-THRU, CONCRETE/CMU FOUNDATION WALL TO BE HELD DOWN FOR NEW SLAB AT DOOR OPENING(S).
5. IF AVAILABLE, SEE GEOTECHNICAL REPORT FOR ALL REQUIREMENTS FOR UNDER SLAB PREPERATIONS INCLUDED BUT NOT LIMITED TO UNDERCUTTING, BACKFILLING, AND STRUCTURAL COMPACTED FILL REQUIREMENTS. IF NO GEOTECHNICAL REPORT IS AVAILABLE CODE MINIMUMS SHALL BE USED, FOUNDATIONS SHALL BEAR ON STIFF NATURAL SOILS OR STRUCTURAL COMPACTED FILL AS REQUIRED.
6. FLOOR DRAINS, TRENCHES, PUMPS, AND EQUIPMENT INCLUDING ANCHORING SYSTEMS AND HOUSEKEEPING CONCRETE PADS (IF SHOWN) SHALL BE COORDINATED WITH THE MECHANICAL AND ELECTRICAL DRAWINGS. THE FINAL POSITIONING SHALL BE VERIFIED WITH BOTH THE CONSTRUCTION DOCUMENTS AND THE FIELD, THE SUBCONTRACTOR RESPONSIBLE SHALL DOCUMENT THE LOCATION IF IT OFFSETS THE DRAWINGS BY MORE THAN 2'-0".
7. CONSULT OWNER'S REPRESENTATIVE FOR APPROVAL OF EXCAVATIONS WHEN CONDITIONS SUCH AS, BUT NOT LIMITED TO, POOR SOIL, WATER, OBSTRUCTION, PIPING, AND ADJACENT SEWERS.
8. "B.F." DENOTES BRACED FRAME (X-BRACE BAY) IN THE STRUCTURE, REFER TO PEMB DRAWINGS.

HAIRPIN SCHEDULE

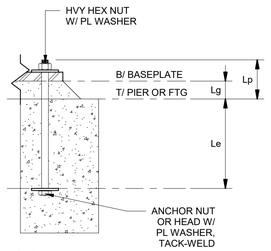
MARK	QTY	BAR SIZE	SET WIDTH	SET DEPTH	LEG LENGTH	LEG ANGLE	TOE LENGTH
HP1	8	5	1' - 0"	2' - 0"	5' - 0"	30.00°	6"
HP2	12	5	8"	8"	5' - 0"	30.00°	6"



*NOTE: REBAR DETAILER TO ENSURE THAT HAIRPIN FITS WITHIN THE COLUMN PIER AND DOES NOT CLASH WITH PEDASTAL REINFORCEMENT NOR COLUMN ANCHORS. IF DIMENSIONS PROVIDED CLASH THE REBAR DETAIL MUST NOTE IN SHOP APPROVAL DRAWINGS TO COORDINATE WITH THE EOR.

HAIRPIN DIAGRAM

SCALE: NOT TO SCALE



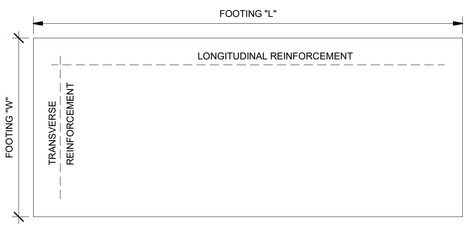
ANCHOR BOLT SCHEDULE

DIAMETER (IN.)	L_e (IN.)	L_g (IN.) W/O GROUT	L_g (IN.) W/ GROUT	L_p (IN.)	PL WASHER (T X L X W)
3/4"	12"	3"	5"	2"	1/4" X 2" X 2"
7/8"	14"	3-1/2"	5-1/2"	2"	5/16" X 2-1/2" X 2-1/2"
1"	16"	4"	6"	2"	3/8" X 3" X 3"
1-1/8"	18"	4-1/4"	6-3/4"	2-1/2"	3/8" X 3-1/4" X 3-1/4"
1-1/4"	20"	4-1/2"	7"	2-1/2"	1/2" X 3-1/2" X 3-1/2"

*NOTE:
1. MINIMUM EMBEDMENT DEPTH SHALL BE AS LISTED UNLESS SPECIFICALLY NOTED OTHERWISE.
2. MINIMUM GROUT THICKNESS SHALL BE PROVIDED UNLESS SPECIFICALLY NOTED OTHERWISE. FOR PRE-ENGINEERED METAL BUILDING STRUCTURES, COORDINATION IS REQUIRED BETWEEN THE CONTRACTOR AND PEMB ENGINEER IF GROUT IS REQUIRED.
3. PROJECTIONS AS PROVIDED ARE FOR REFERENCE AND/OR COORDINATION OF BIDDING. FINAL PROJECTIONS OF THE ANCHOR BOLTS SHALL BE DETERMINED BY THE STEEL DETAILER.
4. REPAIR AND/OR ALTERNATE ANCHORAGE DETAILS REQUIRED DUE TO SHORT PROJECTIONS, INCORRECT EMBEDMENTS, INCORRECT ANCHOR SIZES, ETC. WILL BE SUBJECT TO ADDITIONAL DESIGN FEES WHICH MUST BE APPROVED PRIOR TO RELEASE OF ANY REPAIR AND/OR ALTERNATE ANCHORAGE DETAILS.
5. CONTRACTOR TO USE STRAIGHT ANCHOR BOLTS UNLESS ALLOWED AND NOTED IN THE COLUMN SCHEDULE. VERIFY W/ EOR FOR APPROVAL. ANCHOR RODS TO BE ASTM A1554 GR. 36 UNLESS SPECIFIED OTHERWISE.

SHALLOW FOOTING SCHEDULE

MARK	QTY	FOOTING LENGTH	FOOTING WIDTH	FOOTING THICKNESS	FOOTING REINFORCEMENT	FOOTING DIRECTION	FOOTING MAT(S)	PEDESTAL LENGTH	PEDESTAL WIDTH	PEDESTAL DEPTH	PEDESTAL VERTICAL BARS	PEDESTAL TIES	REMARKS
F1	6	6' - 0"	6' - 0"	1' - 0"	(7) #6 BARS @ 11" O.C.	EACH WAY	TOP AND BOTTOM	2' - 0"	1' - 4"	2' - 6"	#3 TIES @ 4"	(14) #6 BARS	
F1A	2	4' - 6"	4' - 6"	1' - 0"	(5) #6 BARS @ 12" O.C.	EACH WAY	TOP AND BOTTOM	2' - 0"	2' - 0"	2' - 6"	#3 TIES @ 4"	(18) #6 BARS	
F2	4	7' - 6"	7' - 6"	1' - 6"	(7) #6 BARS @ 14" O.C.	EACH WAY	TOP AND BOTTOM	2' - 8"	2' - 0"	2' - 6"	#4 TIES @ 4"	(18) #6 BARS	
F3	2	10' - 0"	13' - 0"	2' - 0"	(12) #6 BARS @ 10" O.C. (16) #6 BARS @ 10" O.C.	LONGITUDINAL TRANSVERSE	TOP AND BOTTOM	2' - 8"	2' - 0"	2' - 6"	#4 TIES @ 4"	(16) #6 BARS	
F4	2	9' - 6"	12' - 0"	2' - 0"	(12) #6 BARS @ 9.5" O.C. (15) #6 BARS @ 9.5" O.C.	LONGITUDINAL TRANSVERSE	TOP AND BOTTOM	2' - 8"	3' - 4"	2' - 6"	#4 TIES @ 4"	(16) #6 BARS	
F5	2	7' - 0"	7' - 0"	1' - 6"	(7) #6 BARS @ 13" O.C.	EACH WAY	TOP AND BOTTOM	2' - 0"	1' - 4"	2' - 6"	#3 TIES @ 4"	(14) #6 BARS	
F6	2	7' - 0"	7' - 0"	1' - 6"	(7) #6 BARS @ 13" O.C.	EACH WAY	TOP AND BOTTOM	2' - 0"	2' - 0"	2' - 6"	#3 TIES @ 4"	(18) #6 BARS	



PAD FOOTING DIAGRAM

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1	FOR PERMIT	04/17/2025
2	FOR CONSTRUCTION	05/29/2025

SEALED BY:



05/29/2025

DRAWN BY:	AMK
CHECKED BY:	JTD
DESIGNED BY:	AMK
APPROVED BY:	Approver
A/E JOB NO.:	6359A
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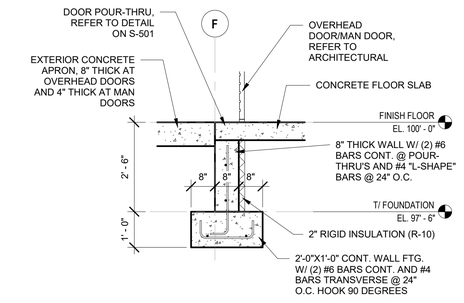
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FOUNDATION PLAN

SHEET NO.:

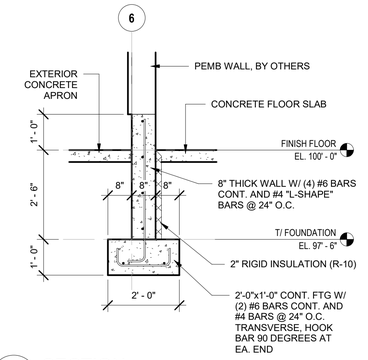
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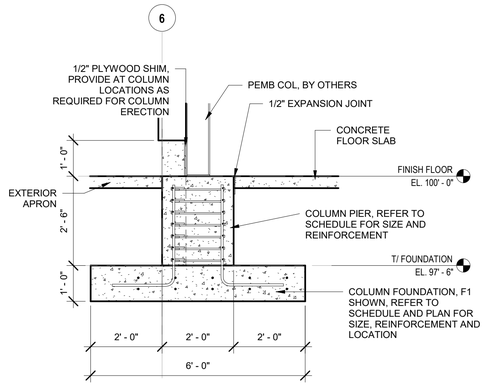
A S-101 SECTION

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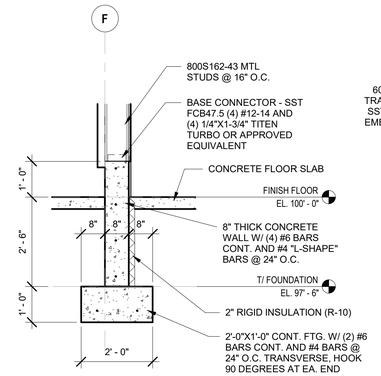
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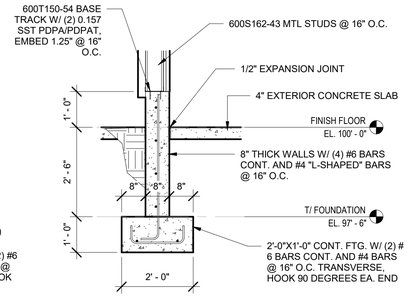
C S-101 SECTION

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D S-101 SECTION

1/2" = 1'-0"



F S-101 SECTION

1/2" = 1'-0"

E S-101 SECTION

1/2" = 1'-0"

G S-101 SECTION

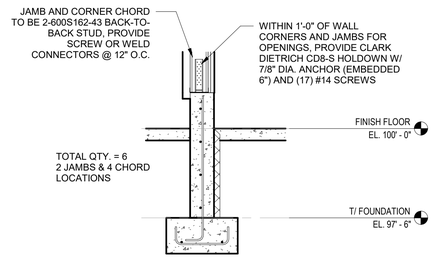
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H S-501 SECTION

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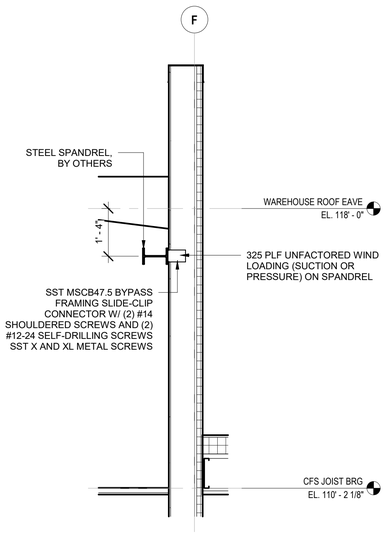
J S-501 Section 8

1/2" = 1'-0"



SECTION - ENTRY CANOPY HOLDOWNS

SCALE: NOT TO SCALE



K S-501 SECTION

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NO.	REVISION	DATE
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SEALED BY:

STATE OF OHIO ADAM M. KNOUS PE.82894 REGISTERED PROFESSIONAL ENGINEER

04/17/2025

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CHECKED BY:	JTD
DESIGNED BY:	AMK
APPROVED BY:	Approver
A/E JOB NO.:	6359A
CLIENT JOB NO.:	

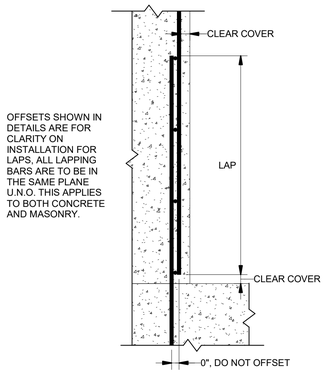
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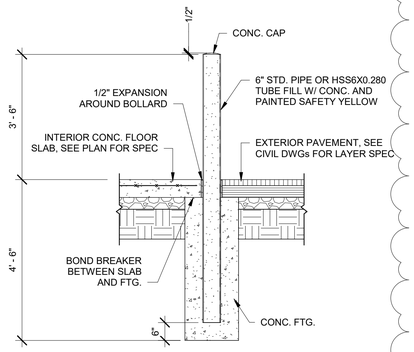
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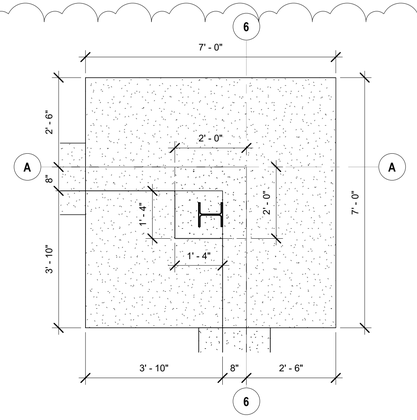
REBAR LAP DETAIL

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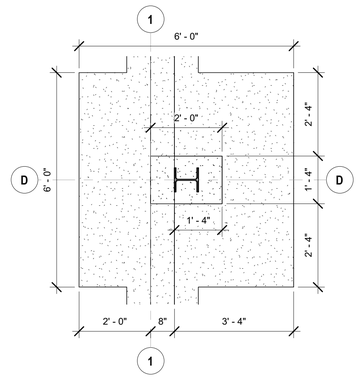
TYPICAL EXTERIOR BOLLARD DETAIL

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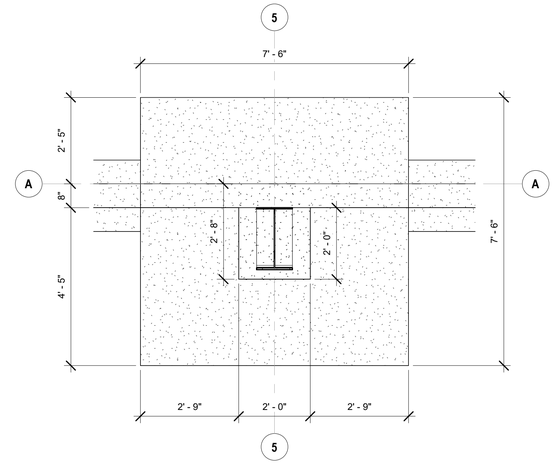
6 S-101 DETAIL

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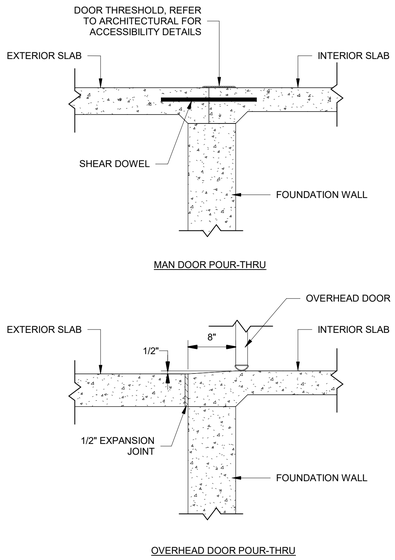
7 S-101 DETAIL

1/2" = 1'-0"



8 S-101 DETAIL

1/2" = 1'-0"

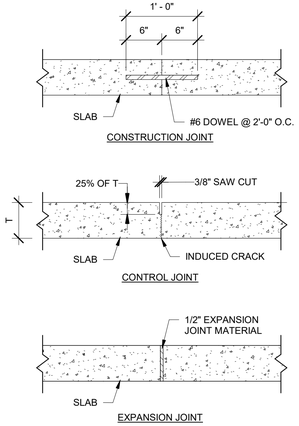


MAN DOOR POUR-THRU

OVERHEAD DOOR POUR-THRU

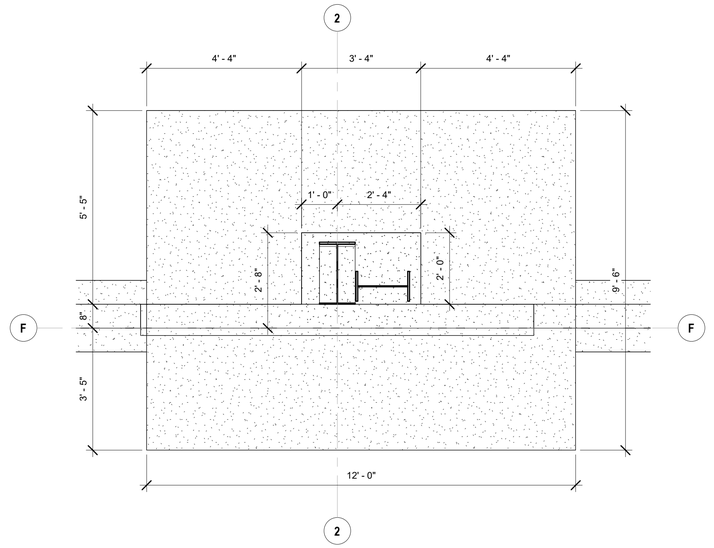
TYPICAL POUR-THRU DETAILS

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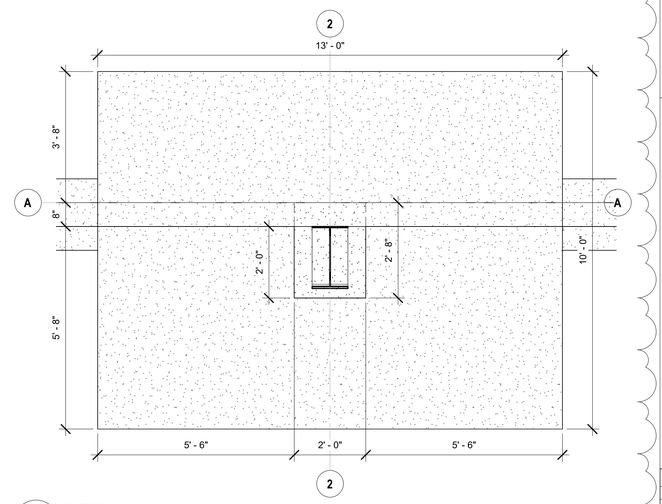
TYPICAL SLAB JOINT DETAILS

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10 S-101 DETAIL

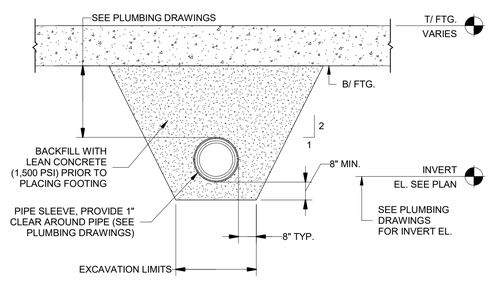
1/2" = 1'-0"



9 S-101 DETAIL

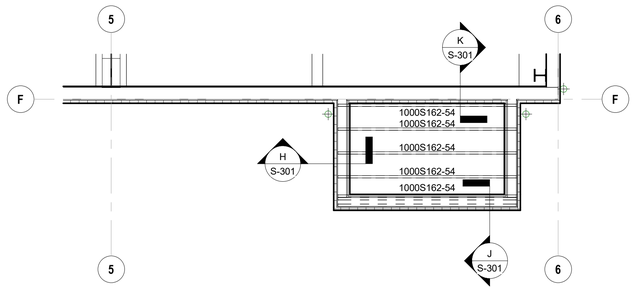
1/2" = 1'-0"

2



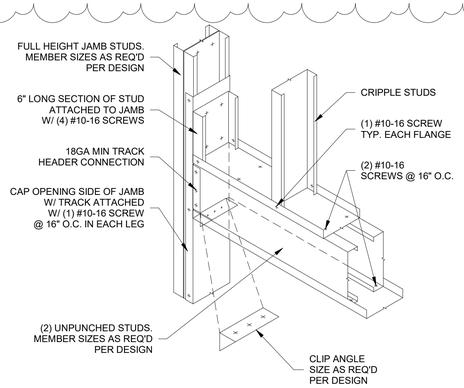
TYPICAL PIPE BACKFILL AT FOOTING

SCALE: NOT TO SCALE



ENTRY CANOPY CFS FRAMING PLAN

1/4" = 1'-0"



BOXHEADER CXN DETAIL 1

SCALE: NOT TO SCALE

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NEW WAREHOUSE
9315 STATE ROUTE 202
TIPP CITY, OHIO 45371

NO.	REVISION	DATE
1	FOR PERMIT	04/17/2025
2	FOR CONSTRUCTION	05/29/2025

SEALED BY:

STATE OF OHIO
ADAM M. KNOUS
PE.82894
REGISTERED PROFESSIONAL ENGINEER

05/29/2025

DRAWN BY:	AMK
CHECKED BY:	JTD
DESIGNED BY:	AMK
APPROVED BY:	Approver
A/E JOB NO.:	6359A
CLIENT JOB NO.:	

SHEET DESCRIPTION:

STRUCTURAL DETAILS

SHEET NO.:

S-501

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NUCOR BUILDING SYSTEMS a NUCOR company
305 Industrial Pkwy Phone: (260) 837-7891
Waterloo, IN 46793

Version: 1.6.13.0 (PROD)

Wednesday, May 14, 2025

Bruns General Contracting, Inc.
3050 Tipp-Cowlesville Rd
Tipp City, OH 45371
Attn.: Jacob Bushnell
Project Location: Tipp City, OH 45371
Project Number: W25H0282A

Project Name: COC
Buildings: A->115'-0"x125'-0"x18'-0"(RCG, 1.5:12)

This Letter of Design Certification ensures that the materials furnished by the metal building supplier are designed in accordance with the information specified to the metal building supplier on the order documents and summarized by the loading information listed below. The Project Engineer of Record (not the metal building supplier) is responsible for verifying that the building code and design loads meet any and all applicable local requirements.

The Professional Engineer whose seal appears on this Letter of Certification is employed by the metal building manufacturer, a Member of MBMA, and does not serve as or represent the Engineer of Record for this project and shall not be construed as such.

DESIGN LOAD CRITERIA:

Structural Loads Applied in General Accordance with: Ohio 2024 (IBC 2021)
Risk Category: II - Standard Buildings

PROJECT-WIDE LOADING INFORMATION:

Ground Snow Load: 20.00 psf — Snow Exposure Factor,Ce: 1.00 — Snow Imp. Factor,Is: 1.00
Roof Live Load: 20.00 psf — Reducible as per code — Rainfall Intensity: 5.58 in/hr
Basic Wind Speed: 107 mph — Allowable Stress Design Wind Speed: 83 mph — ***C&C Wind:24psf / -32psf
UL90 Rated: No — Wind Exposure: C
Seismic Criteria: Ss:0.160 S1:0.070 — *No ground snow included in seismic calculations.
Design Sds / Sd1: 0.171 / 0.112 — Analysis Procedure: Equivalent Lateral Force Procedure
Seis. Imp. Factor,Ie: 1.00 — Long. SFRS: Not Detailed For Seismic
Seis. Design Category: B — Site Class: D — Lat. SFRS: Not Detailed For Seismic

BUILDING-SPECIFIC LOADING INFORMATION:

	Roof Dead	Collateral Dead	Snow Coefficient		Snow Load (psf)		Wind			Seismic		
Bldg	(psf)*	Pri (psf)	Sec (psf)	Ct	Cs	Ps (psf)	**Pm (psf)	Enclosure	Gc,pi	R	Cs	V (kips)
A	3.50	5.00	5.00	1.00	1.00	14.00	20.00	Enclosed	±0.18	3.00	0.057	22.50

*Primary Structural Not Included
**Pm is based on the minimum roof snow load calculated per building code or the contract-specified roof snow load, whichever is greater. This value, Pm, is only applied in combination with Dead and Collateral Loads. Roof Snow in other loading conditions is determined per the specified Building Code.
***Design wind pressures to be used for wall exterior component and cladding materials not provided by Metal Building Supplier

Mezzanine Information:
Floor Dead Load: N/A — Floor Collateral Load: N/A — Floor Live Load: N/A

Crane Information:
No cranes on building.

Roof-Top Unit Information:
No roof-top units on building.

The design of structural members supporting roof gravity loads is controlled by the more critical effect of roof live load or roof snow applied in accordance with the governing building code.

DESIGN STANDARDS REFERENCED:
- AISC Specification for Structural Steel Buildings - Steel Construction Manual, 15th Edition, ©2017.
- AISI North-American Spec. for the Design of Cold-Formed Steel Structures, ©2016 Edition.
- IBC codes are designed in accordance with ASCE7-16 Edition.
- MBMA Metal Building Systems Manual, Latest Edition.
- AWS Latest Edition of Structural Welding Code.
- No buyout structural components provided on this project.

STATE OF OHIO
DANIELLE N MILES-SCHWABEROW
E-88181
REGISTERED PROFESSIONAL ENGINEER
05/22/2025
Professional Seal

MBMA
IAS ACCREDITED Metal Building Systems

NUCOR BUILDING SYSTEMS a NUCOR company
305 Industrial Pkwy Phone: (260) 837-7891
Waterloo, IN 46793

Version: 1.6.13.0 (PROD)

Page: R1 of R8
Date: 5/13/2025

GENERAL INFORMATION FOR COLUMN BASE PLATE REACTIONS

○ FOR REVIEW ◉ FOR CONSTRUCTION

Project Name: COC
Project Number: W25H0282A
Customer: Bruns General Contracting, Inc.
Design Engineer: Muehlfeld, Aidan (NBSIN)

Column base reactions are included in this packet for a building designed by the metal building manufacturer. These reactions result from frame analysis done by a qualified Engineer for this specific job. They reflect all loading to which the building may be subject, per the appropriate building code and loading information provided to the metal building manufacturer at the date of design. Reaction packets marked "FOR REVIEW" are subject to change and are usually provided at the request of the customer, although the Engineer believes he/she is working with undefined, incomplete or assumed information.

Reactions are provided by load case in order to aid the foundation engineer in determining the appropriate load factors and combinations to be used with either Working Stress or Ultimate Strength design methods. Wind load cases are given for each primary wind direction.

Anchor bolt diameter, grade, location and projection is provided on the Anchor Bolt Plan. Anchor bolt embedment lengths and types are not provided by the metal building manufacturer. This information is closely related to the complete foundation design which should be done by a Registered Professional Engineer familiar with the local site conditions and construction practices.

MBMA

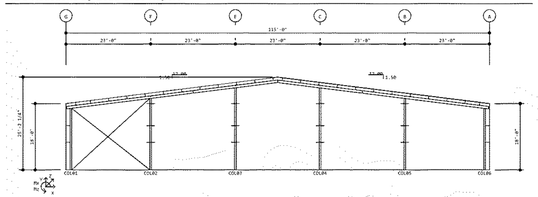
Excellence from the ground up

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NUCOR BUILDINGS GROUP

Job # : W25H0282A — Job Name : COC — Frame : EMG @ LINE 1
File : E11-1.nfr — Designer : ALM — Unbraced Bays : LINE 1
App Version: : 2.4.28.0 — Date : 5/13/2025

NBG Reactions By Load Case Report

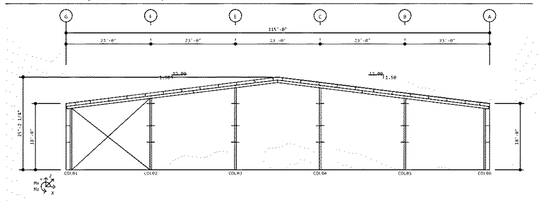


Member	X (kips)	Y (kips)	Z (kips)	In Plane Bending Mz (kip-ft)	Out of Plane Bending Mx (kip-ft)
LOAD CASE 1 - DEAD					
COL01	0	1	0	0	0
COL02	0	3	0	0	0
COL03	0	2	0	0	0
COL04	0	2	0	0	0
COL05	0	3	0	0	0
COL06	0	1	0	0	0
LOAD CASE 2 - COLLATERAL					
COL01	0	1	0	0	0
COL02	0	2	0	0	0
COL03	0	2	0	0	0
COL04	0	2	0	0	0
COL05	0	2	0	0	0
COL06	0	1	0	0	0
LOAD CASE 3 - ROOF LIVE					
COL01	0	3	0	0	0
COL02	0	7	0	0	0
COL03	0	7	0	0	0
COL04	0	7	0	0	0
COL05	0	7	0	0	0
COL06	0	3	0	0	0
LOAD CASE 4 - SNOW					
COL01	0	5	0	0	0
COL02	0	6	0	0	0
COL03	0	5	0	0	0
COL04	0	5	0	0	0
COL05	0	5	0	0	0
COL06	0	2	0	0	0
LOAD CASE 5 - MINIMUM ROOF SNOW					
COL01	0	3	0	0	0
COL02	0	7	0	0	0
COL03	0	7	0	0	0
COL04	0	7	0	0	0
COL05	0	7	0	0	0
COL06	0	3	0	0	0
LOAD CASE 6 - WIND CASE 1 TO RIGHT					
COL01	0	-3	0	0	0
COL02	0	-7	0	0	0
COL03	0	-6	0	0	0
COL04	0	-3	0	0	0
COL05	-3	-5	0	0	0
COL06	0	1	0	0	0
LOAD CASE 7 - WIND CASE 1 TO LEFT					
COL01	0	-6	0	0	0
COL02	0	-9	0	0	0
COL03	0	-8	0	0	0
COL04	0	-5	0	0	0
COL05	0	-6	0	0	0
COL06	0	-3	0	0	0
LOAD CASE 8 - WIND CASE 2 TO RIGHT					
COL01	-3	-6	0	0	0
COL02	0	-9	0	0	0
COL03	0	-8	0	0	0
COL04	0	-5	0	0	0
COL05	0	-6	0	0	0
COL06	0	-3	0	0	0
LOAD CASE 9 - WIND CASE 2 TO LEFT					
COL01	0	-1	0	0	0
COL02	3	-8	0	0	0
COL03	0	-6	0	0	0
COL04	0	-9	0	0	0
COL05	0	-10	0	0	0
COL06	0	-4	0	0	0
LOAD CASE 10 - LONG. WIND 1 TO BACK					
COL01	0	-4	-2	0	0
COL02	0	-10	-3	0	0
COL03	0	-8	-4	0	0
COL04	0	-8	-4	0	0
COL05	0	-10	-3	0	0
COL06	0	-4	-2	0	0

NUCOR BUILDINGS GROUP

Job # : W25H0282A — Job Name : COC — Frame : EMG @ LINE 1
File : E11-1.nfr — Designer : ALM — Unbraced Bays : LINE 1
App Version: : 2.4.28.0 — Date : 5/12/2025

NBG Reactions By Load Case Report

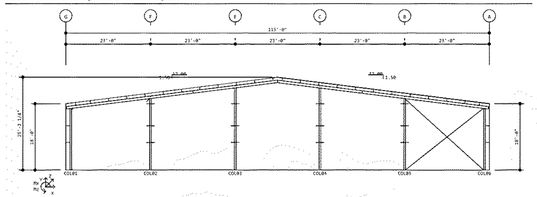


Member	X (kips)	Y (kips)	Z (kips)	In Plane Bending Mz (kip-ft)	Out of Plane Bending Mx (kip-ft)
LOAD CASE 11 - LONG. WIND 1 TO FRONT					
COL01	0	-4	2	0	0
COL02	0	-10	3	0	0
COL03	0	-8	4	0	0
COL04	0	-8	4	0	0
COL05	0	-10	3	0	0
COL06	0	-4	2	0	0
LOAD CASE 12 - SEISMIC TO RIGHT					
COL01	0	1	0	0	0
COL02	0	1	0	0	0
COL03	0	-1	0	0	0
COL04	0	-1	0	0	0
COL05	-3	-2	0	0	0
COL06	0	2	0	0	0
LOAD CASE 13 - SEISMIC TO LEFT					
COL01	0	-1	0	0	0
COL02	0	-1	0	0	0
COL03	0	1	0	0	0
COL04	0	1	0	0	0
COL05	0	2	0	0	0
COL06	3	-2	0	0	0
LOAD CASE 14 - ALTERNATE SNOW 1					
COL01	0	2	0	0	0
COL02	0	5	0	0	0
COL03	0	8	0	0	0
COL04	0	3	0	0	0
COL05	0	2	0	0	0
COL06	0	1	0	0	0
LOAD CASE 15 - ALTERNATE SNOW 2					
COL01	0	1	0	0	0
COL02	0	2	0	0	0
COL03	0	3	0	0	0
COL04	0	8	0	0	0
COL05	0	5	0	0	0
COL06	0	2	0	0	0

NUCOR BUILDINGS GROUP

Job # : W25H0282A — Job Name : COC — Frame : EMG @ LINE 6
File : E11-1.nfr — Designer : ALM — Unbraced Bays : LINE 6
App Version: : 2.4.28.0 — Date : 5/13/2025

NBG Reactions By Load Case Report

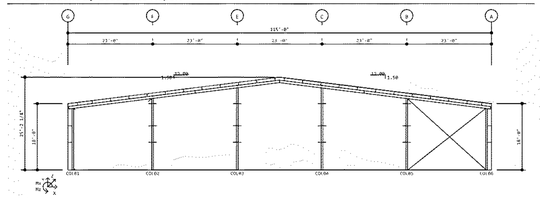


Member	X (kips)	Y (kips)	Z (kips)	In Plane Bending Mz (kip-ft)	Out of Plane Bending Mx (kip-ft)
LOAD CASE 1 - DEAD					
COL01	0	-4	2	0	0
COL02	0	-10	3	0	0
COL03	0	-8	4	0	0
COL04	0	-8	4	0	0
COL05	0	-10	3	0	0
COL06	0	-4	2	0	0
LOAD CASE 2 - COLLATERAL					
COL01	0	1	0	0	0
COL02	0	2	0	0	0
COL03	0	2	0	0	0
COL04	0	2	0	0	0
COL05	0	2	0	0	0
COL06	0	1	0	0	0
LOAD CASE 3 - ROOF LIVE					
COL01	0	3	0	0	0
COL02	0	7	0	0	0
COL03	0	7	0	0	0
COL04	0	7	0	0	0
COL05	0	7	0	0	0
COL06	0	3	0	0	0
LOAD CASE 4 - SNOW					
COL01	0	5	0	0	0
COL02	0	6	0	0	0
COL03	0	5	0	0	0
COL04	0	5	0	0	0
COL05	0	5	0	0	0
COL06	0	2	0	0	0
LOAD CASE 5 - MINIMUM ROOF SNOW					
COL01	0	3	0	0	0
COL02	0	7	0	0	0
COL03	0	7	0	0	0
COL04	0	7	0	0	0
COL05	0	7	0	0	0
COL06	0	3	0	0	0
LOAD CASE 6 - WIND CASE 1 TO RIGHT					
COL01	-3	-5	0	0	0
COL02	0	-6	0	0	0
COL03	0	-6	0	0	0
COL04	0	-3	0	0	0
COL05	0	-5	0	0	0
COL06	0	-2	0	0	0
LOAD CASE 7 - WIND CASE 1 TO LEFT					
COL01	0	1	0	0	0
COL02	3	-5	0	0	0
COL03	0	-3	0	0	0
COL04	0	-6	0	0	0
COL05	0	-7	0	0	0
COL06	0	-3	0	0	0
LOAD CASE 8 - WIND CASE 2 TO RIGHT					
COL01	0	-4	-2	0	0
COL02	0	-10	-3	0	0
COL03	0	-8	-4	0	0
COL04	0	-8	-4	0	0
COL05	0	-10	-3	0	0
COL06	0	-4	-2	0	0
LOAD CASE 9 - WIND CASE 2 TO LEFT					
COL01	0	-3	0	0	0
COL02	0	-6	0	0	0
COL03	0	-5	0	0	0
COL04	0	-8	0	0	0
COL05	0	-9	0	0	0
COL06	3	-6	0	0	0
LOAD CASE 10 - LONG. WIND 1 TO BACK					
COL01	0	-4	-2	0	0
COL02	0	-6	0	0	0
COL03	0	-5	0	0	0
COL04	0	-8	0	0	0
COL05	0	-9	0	0	0
COL06	3	-6	0	0	0

NUCOR BUILDINGS GROUP

Job # : W25H0282A — Job Name : COC — Frame : EMG @ LINE 6
File : E11-1.nfr — Designer : ALM — Unbraced Bays : LINE 6
App Version: : 2.4.28.0 — Date : 5/13/2025

NBG Reactions By Load Case Report

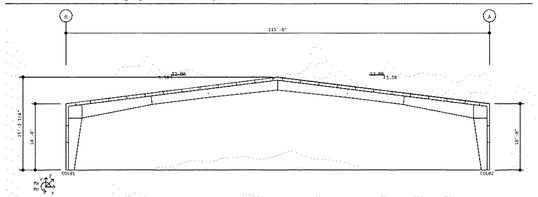


Member	X (kips)	Y (kips)	Z (kips)	In Plane Bending Mz (kip-ft)	Out of Plane Bending Mx (kip-ft)
LOAD CASE 11 - LONG. WIND 1 TO FRONT					
COL01	0	-4	2	0	0
COL02	0	-10	3	0	0
COL03	0	-8	4	0	0
COL04	0	-8	4	0	0
COL05	0	-10	3	0	0
COL06	0	-4	2	0	0
LOAD CASE 12 - SEISMIC TO RIGHT					
COL01	0	1	0	0	0
COL02	0	1	0	0	0
COL03	0	-1	0	0	0
COL04	0	-1	0	0	0
COL05	-3	-2	0	0	0
COL06	0	2	0	0	0
LOAD CASE 13 - SEISMIC TO LEFT					
COL01	0	-1	0	0	0
COL02	0	-1	0	0	0
COL03	0	1	0	0	0
COL04	0	1	0	0	0
COL05	0	2	0	0	0
COL06	3	-2	0	0	0
LOAD CASE 14 - ALTERNATE SNOW 1					
COL01	0	2	0	0	0
COL02	0	5	0	0	0
COL03	0	8	0	0	0
COL04	0	3	0	0	0
COL05	0	2	0	0	0
COL06	0	1	0	0	0
LOAD CASE 15 - ALTERNATE SNOW 2					
COL01	0	1	0	0	0
COL02	0	2	0	0	0
COL03	0	3	0	0	0
COL04	0	8	0	0	0
COL05	0	5	0	0	0
COL06	0	2	0	0	0

NUCOR BUILDINGS GROUP

Job # : W25H0282A — Job Name : COC — Frame : RCG @ Line(s) 2-5
File : F12-1.nfr — Designer : ALM — Braced Bays : Line(s) 2,3
App Version: : 2.4.28.0 — Date : 5/13/2025

NBG Reactions W/Bracing By Load Case Report

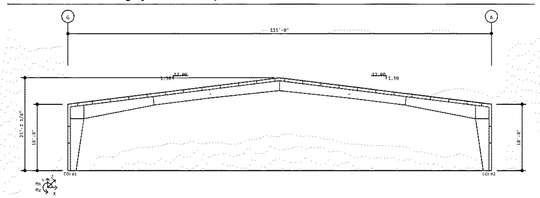


Member	X (kips)	Y (kips)	Z (kips)	In Plane Bending Mz (kip-ft)	Out of Plane Bending Mx (kip-ft)
LOAD CASE 1 - DEAD					
COL01	8	9	0	0	0
COL02	-8	9	0	0	0
LOAD CASE 2 - COLLATERAL					
COL01	8	8	0	0	0
COL02	-8	8	0	0	0
LOAD CASE 3 - ROOF LIVE					
COL01	32	31	0	0	0
COL02	-32	31	0	0	0
LOAD CASE 4 - SNOW					
COL01	23	27	0	0	0
COL02	-23	22	0	0	0
LOAD CASE 5 - MINIMUM ROOF SNOW					
COL01	32	31	0	0	0
COL02	-32	31	0	0	0
LOAD CASE 6 - WIND CASE 1 TO RIGHT					
COL01	-18	-16	0	0	0
COL02	10	-9	0	0	0
LOAD CASE 7 - WIND CASE 1 TO LEFT					
COL01	-10	-9	0	0	0
COL02	17	-16	0	0	0
LOAD CASE 8 - WIND CASE 2 TO RIGHT					
COL01	-29	-28	0	0	0
COL02	20	-21	0	0	0
LOAD CASE 9 - WIND CASE 2 TO LEFT					
COL01	-21	-21	0	0	0
COL02	28	-28	0	0	0
LOAD CASE 10 - LONG. WIND 1 TO BACK					
COL01	-9	-14	0	0	0
COL02	13	-10	0	0	0
LOAD CASE 11 - LONG. WIND 1 TO FRONT					
COL01	-11	-9	0	0	0
COL02	12	-15	0	0	0
LOAD CASE 12 - LONG. WIND 2 TO BACK					
COL01	-20	-26	0	0	0
COL02	24	-22	0	0	0
LOAD CASE 13 - LONG. WIND 2 TO FRONT					
COL01	-22	-21	0	0	0
COL02	23	-27	0	0	0
LOAD CASE 14 - SEISMIC TO RIGHT					
COL01	-2	-1	0	0	0
COL02	2	1	0	0	0
LOAD CASE 15 - SEISMIC TO LEFT					
COL01	2	1	0	0	0
COL02	2	-1	0	0	0
LOAD CASE 16 - ALTERNATE SNOW 1					
COL01	20	22	0	0	0
COL02	-20	13	0	0	0
LOAD CASE 17 - ALTERNATE SNOW 2					
COL01	20	13	0	0	0
COL02	-20	22	0	0	0
LOAD CASE 18 - BRACING WIND UPLIFT					
COL01	-1	0	0	0	0
COL02	1	-8	11	0	0
LOAD CASE 19 - BRACING WIND COMPRESSION					
COL01	1	1	0	0	0
COL02	-1	8	-11	0	0
LOAD CASE 20 - BRACING SEISMIC TO BACK					
COL01	1	1	0	0	0
COL02	-1	8	-11	0	0

NUCOR BUILDINGS GROUP

Job # : W25H0282A — Job Name : COC — Frame : RCG @ Line(s) 2-5
File : F12-1.nfr — Designer : ALM — Braced Bays : Line(s) 2,3
App Version: : 2.4.28.0 — Date : 5/13/2025

NBG Reactions W/Bracing By Load Case Report

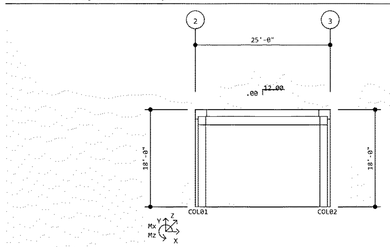


Member	X (kips)	Y (kips)	Z (kips)	In Plane Bending Mz (kip-ft)	Out of Plane Bending Mx (kip-ft)
LOAD CASE 21 - BRACING SEISMIC TO FRONT					
COL01	0	0	0	0	0
COL02	0	-8	11	0	0

NUCOR BUILDINGS GROUP

Job # : W25H0282A — Job Name : COC — Frame : PF @ LINE G
File : F91-1.nfr — Designer : ALM — Unbraced Bays :
App Version: : 2.4.28.0 — Date : 5/12/2025

NBG Reactions By Load Case Report



Member	X (kips)	Y (kips)	Z (kips)	In Plane Bending Mz (kip-ft)	Out of Plane Bending Mx (kip-ft)
LOAD CASE 1 - DEAD					
COL01	1	1	0	0	0
COL02	-1	1	0	0	0
LOAD CASE 2 - COLLATERAL					
COL01	0	0	0	0	0
COL02	0	0	0	0	0
LOAD CASE 3 - ROOF LIVE					
COL01	0	0	0	0	0
COL02	0	0	0	0	0
LOAD CASE 4 - SNOW					
COL01	0	0	0	0	0
COL02	0	0	0	0	0
LOAD CASE 5 - MINIMUM ROOF SNOW					
COL01	0	0	0	0	0
COL02	0	0	0	0	0
LOAD CASE 6 - WIND CASE 1 TO RIGHT					
COL01	-6	-9	0	0	0
COL02	-6	9	0	0	0
LOAD CASE 7 - WIND CASE 1 TO LEFT					
COL01	6	9	0	0	0
COL02	6	-9	0	0	0
LOAD CASE 8 - WIND CASE 2 TO RIGHT					
COL01	-6	-9	0	0	0
COL02	-6	9	0	0	0
LOAD CASE 9 - WIND CASE 2 TO LEFT					
COL01	6	9	0	0	0
COL02	6	-9	0	0	0
LOAD CASE 10 - LONG. WIND 1 TO BACK					
COL01	0	0	0	0	0
COL02	0	0	0	0	0
LOAD CASE 11 - LONG. WIND 1 TO FRONT					
COL01	0	0	0	0	0
COL02	0	0	0	0	0
LOAD CASE 12 - LONG. WIND 2 TO BACK					
COL01	0	0	0	0	0
COL02	0	0	0	0	0
LOAD CASE 13 - LONG. WIND 2 TO FRONT					
COL01	0	0	0	0	0
COL02	0	0	0	0	0
LOAD CASE 14 - SEISMIC TO RIGHT					
COL01	-5	-8	0	0	0
COL02	-6	8	0	0	0
LOAD CASE 15 - SEISMIC TO LEFT					
COL01	6	8	0	0	0
COL02	5	-8	0	0	0

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Churches of Christ Disaster Response Team

CHURCHES OF CHRIST - DRT

NEW WAREHOUSE
9315 STATE ROUTE 202
TIPP CITY, OHIO 45371

NO.	REVISION	DATE
1	FOR CONSTRUCTION	05/29/2025

SEALED BY:

05/29/2025

DRAWN BY:	Author
CHECKED BY:	Checker
DESIGNED BY:	Designer
APPROVED BY:	Approver
A/E JOB NO.:	6359A
CLIENT JOB NO.:	
SHEET DESCRIPTION:	PEMB BUILDING DRAWINGS
SHEET NO.:	S-701

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NUCOR BUILDING SYSTEMS

JOB NUMBER
W25H0282A
PROJECT NAME
COC
COUNTY:
MIAMI

DRAWING INDEX	
DRAWING TITLE	SHEET NUMBER
COVERSHEETS	C1-C3
ANCHOR ROD PLANS AND DETAILS	F1-F2
PLANS AND ELEVATIONS	E1-E8

NUCOR BUILDING SYSTEMS
ADDRESS: 1960 MIAMI COUNTY TIPP CITY, OH 45371
PHONE: (260) 837-7894
FAX: (260) 837-7384

JOB NUMBER	ADDRESS	DRAWING
W25H0282A	MIAMI COUNTY	COVERSHEET
PROJECT NAME	TIPP CITY, OH 45371	SHEET
COC		C1
BRUNS GENERAL CONTRACTING, INC.		
FOR CONSTRUCTION		

#	RELEASE / REVISION	DWN / CHK	ENG	DATE
0	ANCHOR RODS	MSM / MP	ALM	05/22/2025
1	PERMITS	MSM / NDO	ALM	05/29/2025

GENERAL NOTES:

1. MATERIALS

	ASTM DESCRIPTION	MATERIALS	ASTM DESCRIPTION
STRUCTURAL STEEL PLATE	A529 / A572 / A1011	ROOF AND WALL SHEETING	A653 / A792
HOT ROLLED MILLS SHAPES	A36 / A529 / A572 / A50	BOLTS	A307 / A325 / A490
HSS ROUND	A500	CABLE	A475
HSS RECTANGULAR	A500	RODS	A529 / A572
COLD FORM SHAPES	A653 / A1011		

2. STRUCTURAL PRIMER NOTE:
SHOP COAT PRIMER IS INTENDED TO PROTECT THE STEEL FRAMING FOR A SHORT PERIOD OF TIME. STORAGE IN EXTREME COLD TEMPERATURES OR WINTER SNOW CONDITIONS, INCLUDING TRANSPORTATION ON SALTED OR CHEMICALLY TREATED ROADS WILL ADVERSELY AFFECT THE DURABILITY AND/OR PERFORMANCE OF THE PRIMER. THE PRIMER COATING DOES NOT PROVIDE SUFFICIENT LONG TERM OF GOVERNANCE TO PREVENT RUSTING AND CORROSION WITHOUT A FIELD APPLIED FINISH COAT OF PAINT OVER A SHOP PRIMER. MINOR ABRASIONS TO THE SHOP COAT PRIMER CAUSED BY HANDLING, LOADING, SHIPPING, UNLOADING AND ERECTION ARE UNAVOIDABLE AND ARE NOT THE RESPONSIBILITY OF THE METAL BUILDING MANUFACTURER. THE METAL BUILDING MANUFACTURER IS NOT RESPONSIBLE FOR THE PERFORMANCE OF THE PRIMER OR CORROSION THAT MAY RESULT FROM ATMOSPHERIC AND ENVIRONMENTAL CONDITIONS NOR THE COMPATIBILITY OF THE PRIMER TO ANY FIELD APPLIED COATING.

3. BUILDING ERECTION NOTES:
THE GENERAL CONTRACTOR AND/OR ERECTOR IS RESPONSIBLE TO SAFELY AND PROPERLY ERECT THE METAL BUILDING SYSTEM IN CONFORMANCE WITH THESE DRAWINGS, OSHA REGULATIONS, AND ALL APPLICABLE LOCAL CODES. THE ERECTOR IS RESPONSIBLE FOR ERECTION, TEMPORARY SUPPORTS SUCH AS GUYS, BRACES, FALSEWORK, CRIBBING OR OTHER ELEMENTS FOR ERECTION ARE TO BE DETERMINED, FURNISHED AND INSTALLED BY THE ERECTOR. THESE SUPPORTS MUST SECURE THE STEEL FRAMING, OR PARTLY ASSEMBLED STEEL FRAMING AGAINST LOADS COMPARABLE IN INTENSITY TO THOSE FOR WHICH THE STRUCTURE WAS DESIGNED, PLUS LOADS THAT ARE APPLIED DURING ERECTION AND OPERATION. SECONDARY WALL AND ROOF FRAMING (PURLINS, GIRTS AND/OR ZGIST) ARE NOT DESIGNED TO FUNCTION AS A WORKING PLATFORM OR TO PROVIDE AS AN ANCHORAGE POINT FOR A FALL ARREST SAFETY TIE OFF.

4. SPECIAL INSPECTION:
SPECIAL INSPECTIONS AND TESTING THAT MAY BE REQUIRED BY GOVERNMENTAL OR OTHER AUTHORITY DURING CONSTRUCTION AND/OR STEEL FABRICATION (COLLECTIVELY, "INSPECTIONS") ARE NOT THE RESPONSIBILITY OF NBG, AND TO THE EXTENT REQUIRED IT SHALL BE THE RESPONSIBILITY OF THE BUILDER AND/OR OWNER. IN THE EVENT THE INSPECTIONS ARE REQUIRED, THEY SHALL BE PERFORMED BY AN INDEPENDENT INSPECTION AND QUALITY ASSURANCE TESTING AGENCY APPROVED BY THE RELEVANT AUTHORITY. IF SUCH REQUIREMENTS ARE NOT SPECIFICALLY INCLUDED IN NBG SALES DOCUMENTS, NO INSPECTIONS BY NBG OR AT ANY NBG FACILITY SHALL BE MADE. ALL NBG FACILITIES ARE ACCREDITED BY IAS AC472.

5. A325 & A490 BOLT TIGHTENING REQUIREMENTS :
IT IS THE RESPONSIBILITY OF THE ERECTOR TO ENSURE PROPER BOLT TIGHTNESS IN ACCORDANCE WITH APPLICABLE REGULATIONS. FOR PROJECTS IN THE UNITED STATES SEE THE RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING A325 OR A490 BOLTS OR FOR PROJECTS IN CANADA, SEE THE CAN/CSA S16 LIMIT STATES DESIGN OF STEEL STRUCTURES FOR MORE INFORMATION.

THE FOLLOWING CRITERIA MAY BE USED TO DETERMINE THE BOLT TIGHTNESS (I.E., "SNUG-TIGHT" OR "FULLY-PRETENSIONED"), UNLESS REQUIRED OTHERWISE BY LOCAL JURISDICTION OR CONTRACT REQUIREMENTS:
A) ALL A490 BOLTS SHALL BE "FULLY-PRETENSIONED".
B) ALL A325 BOLTS IN PRIMARY FRAMING(ROOF PURLINS AND BRACING) MAY BE "SNUG-TIGHT", EXCEPT FOR THE FOLLOWING WHICH SHALL BE FULLY-PRETENSIONED:
b) BUILDING SUPPORTS A CRANE SYSTEM WITH A CAPACITY GREATER THAN 5 TONS.
b) BUILDING SUPPORTS MACHINERY THAT CREATES VIBRATION, IMPACT OR STRESS-REVERSALS ON THE CONNECTIONS. THE ENGINEER-OF-RECORD FOR THE BUILDING SHALL DESIGN THE CONNECTIONS FOR THESE EFFECTS.
c) THE PROJECT SITE IS LOCATED IN A HIGH SEISMIC AREA. FOR NBG-BASED CODES, "HIGH SEISMIC AREA" IS DEFINED AS "SEISMIC DESIGN CATEGORY" OF "D", "E", OR "F". SEE THE "BUILDING LOADS" SECTION OF THIS PAGE FOR THE DEFINED SEISMIC DESIGN CATEGORY FOR THIS PROJECT.
d) CONNECTIONS DESIGNATED AS "SLIP-CRITICAL" ON THE ERECTION DRAWINGS AS "A325-SC". SLIP-CRITICAL (SC) CONNECTIONS MUST BE FREE OF PAINT, OIL, OR OTHER MATERIALS THAT REDUCE FRICTION AT CONTACT SURFACES. GALVANIZED OR LIGHTLY RUSTED SURFACES ARE ACCEPTABLE.
C) IN CANADA, ALL A325 AND A490 BOLTS SHALL BE "FULLY PRE-TENSIONED", EXCEPT FOR SECONDARY MEMBERS (PURLINS, GIRTS, OPENING FRAMING, ETC.) AND FLANGE BRACES.
SECONDARY MEMBERS (PURLINS, GIRTS, OPENING FRAMING, ETC.) AND FLANGE BRACE CONNECTIONS MAY ALWAYS BE "SNUG-TIGHT", UNLESS INDICATED OTHERWISE IN THESE DRAWINGS.

6. GENERAL DESIGN NOTES :
1) ALL STRUCTURAL STEEL SECTIONS AND WELDED PLATE MEMBERS ARE DESIGNED IN ACCORDANCE WITH THE LATEST SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS, "STEEL CANCSA S16 "LIMIT STATES DESIGN OF STEEL STRUCTURES", AS REQUIRED BY THE SPECIFIED BUILDING CODE.
2) ALL WELDING OF STRUCTURAL STEEL IS BASED ON EITHER AWS D1.1 "STRUCTURAL WELDING CODE - STEEL" OR CAN/CSA W59 "WELDED STEEL CONSTRUCTION (METAL ARC WELDING)", AS REQUIRED BY THE SPECIFIED BUILDING CODE.
3) ALL COLD FORMED MEMBERS ARE DESIGNED IN ACCORDANCE WITH ANSI/AISI S100 OR THE CAN/CSA S136 "SPECIFICATIONS FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS", AS REQUIRED BY THE SPECIFIED BUILDING CODE.
4) ALL WELDING OF COLD FORMED STEEL IS BASED ON AWS D1.3 "STRUCTURAL WELDING CODE – SHEET STEEL" OR CAN/CSA W59 "WELDED STEEL CONSTRUCTION (METAL ARC WELDING)", AS REQUIRED BY THE SPECIFIED BUILDING CODE.
5) ALL NUCOR BUILDING GROUP FACILITIES ARE IAS AC-472 ACCREDITED FOR DESIGN AND FABRICATION OF METAL BUILDING SYSTEMS. FOR PROJECTS IN CANADA, DESIGN AND FABRICATION ARE DONE ONLY IN FACILITIES THAT ARE ALSO CAN/CSA A660 AND W47.1 CERTIFIED.
6) IF JOISTS ARE INCLUDED WITH THIS PROJECT, THEY ARE SUPPLIED AS A PART OF THE METAL BUILDING SYSTEM AND ARE DESIGNED AND FABRICATED IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 1926.757 OF OSHA SAFETY STANDARDS FOR STEEL ERECTION, DATED JANUARY 18, 2001.
7) COLUMN BASE PLATES ARE DESIGNED NOT TO EXCEED THE ALLOWABLE BEARING STRESS OF CONCRETE THAT HAS A MINIMUM COMPRESSIVE STRENGTH OF 3000 P.S.I. AT 28 DAYS.

7. GLOSSARY OF ABBREVIATIONS :

APL = A-PANEL FOR THE UNDER	F.S = FAR SIDE	MBS = METAL BUILDING SUPPLIER
APS = A-PANEL FOR THE SOFFIT	GA. = GAUGE	MIN = MINIMUM
A.W. = ANCHOR FOR THE WALL	HT = HEIGHT	N.A. = NOT APPLICABLE
A.R. = ANCHOR FOR THE ROOF	HTB = HIGH STRENGTH BOLTS	NC = NOT IN CONTRACT
BB = BOTH SIDES	LLV = LONG LEG VERTICAL	N.S. = NEAR SIDE
BLK = BLOCK	LSB = LOW SEAM SNAP-LOCK ROOF PANELS	O.A.L. = OVERALL LENGTH
BUR = BURIED FASTENED ROOF PANEL	LSB = LOW SEAM SNAP-LOCK ROOF PANELS	O.C. = ON CENTER
DIA = DIAMETER	MAX = MAXIMUM	PL = PLATE
FLG = FLANGE	M.B. = MACHINE BOLTS	REQ'D = REQUIRED

?? = PART MARK TO BE DETERMINED AND WILL BE UPDATED ON CONSTRUCTION DRAWINGS

REV. = REVISION	SLV = SHORT LEG VERTICAL
RPL = R-PANEL FOR THE LINER	SIM = SIMILAR
RPS = R-PANEL FOR THE SOFFIT	SS1 = STANDING SEAM II ROOF PANEL
RPW = R-PANEL FOR THE WALL	SS3 = STANDING SEAM 360 ROOF PANEL
RSB = REVERSE R-PANEL FOR THE LINER	TBD = TO BE DETERMINED
RSS = REVERSE R-PANEL FOR THE SOFFIT	TYP = TYPICAL
RRW = REVERSE R-PANEL FOR THE WALL	U.N.O. = UNLESS NOTED OTHERWISE
SL = STEEL LINE	

CHURCH

PRIMARY AND SECONDARY STEEL PRIMER COLOR
GRAY

ROOF SHEETING
TYPE: CFR, 24 GAGE, FINISH: GALVALUME PLUS
ROOF PANEL CLIP TYPE: SUPER TALL SLIDING
THERMAL BLOCKS: YES EPS FOAM SPACERS: NO
ROOF INSULATION(NOT BY NBS). THICKNESS: 1'-0"
ROOF LINE TRIM. COLOR: BRITE RED
GUTTERS. COLOR: BRITE RED
DOWNSPOUTS. COLOR: FOX GRAY

WALL SHEETING
TYPE: REVERSE R-PANEL, 26 GAGE, FINISH: FOX GRAY
WALL CORNER TRIM. COLOR: FOX GRAY
WALL BASE TRIM. COLOR: FOX GRAY
WALL FRAMED OPENINGS. TRIM COLOR: FOX GRAY
WALL FRAMED OPENINGS. COVER TRIM COLOR: FOX GRAY
WALL INSULATION(NOT BY NBS). THICKNESS: 3" CAVITY FILLED: 8"

BUILDING OPTIONS
(2) 1/4" - 5" PIPE JACKS

PARTITION
TYPE: R-PANEL, 28 GAGE, FINISH: POLAR WHITE
BUILDING LINE TRIM COLOR: POLAR WHITE

STRUCTURAL PARAPET
TOP OF PARAPET: 22'-0"
BACK PANEL. TYPE: FLAT STOCK, 26 GAGE, FINISH: GALVALUME PLUS
CAP TRIM COLOR: NA

Building Loads:

Design Code:	OHIO 2024 (IBC 2021)
MBMA Occupancy Class:	II - Standard Buildings
Roof Live Load: REDUCIBLE PER CODE	20.00 PSF
Ground Snow Load:	20.00 PSF
Snow Exposure Factor, Ce:	1.00
Snow Importance Factor, Is:	1.00
Rainfall Intensity:	5.58 in/hr
Seismic Information:	Ss: 0.160 S1: 0.070 (S.111) / (0.112)
Seismic Site/Soil:	D
Site Class:	D
Seismic Imp. Factor Ie:	1.00
Seismic Design Category:	B
Analysis Procedure:	Equivalent Lateral Force Procedure
LONG & LAT SFRS:	NOT DETAILED FOR SEISMIC
Wind (MPH) (Vult) / (Vasd):	(107) (83)
***C & C Pressures (PSF):	(26) / (-32)
Exposure:	C
UL90:	No

Name	CHURCH
Roof Dead (PSF):	3.50
Primary Collateral (PSF):	5.00
Secondary Collateral (PSF):	5.00
Snow Ct:	1.00
Snow Cs:	1.00
Roof Snow Pb (PSF):	14.00
Roof Snow **Pm (PSF):	20.00
Wind Enclosure:	Enclosed
GCpi:	+/- 0.18
Seismic R:	3.00
Seismic Cs:	0.057
Base Shear (KIPS):	22.50

*Primary Structural Not Included
***Design wind pressures to be used for wall exterior component and cladding materials not provided by Nucor Building Systems.

THE DRAWINGS AND THE METAL BUILDING THEY REPRESENT ARE THE PRODUCT OF THE METAL BUILDING MANUFACTURER, THE REGISTERED PROFESSIONAL ENGINEER'S SEAL PERTAINS ONLY TO THE REQUIREMENTS LISTED HEREIN FOR THE MATERIALS DESIGNED AND SUPPLIED BY THE METAL BUILDING MANUFACTURER. THE REGISTERED PROFESSIONAL ENGINEER OF RECORD FOR THE PROJECT IS EMPLOYED BY THE OWNER OR CONTRACTED BY THE METAL BUILDING MANUFACTURER AND DOES NOT SERVE AS OR REPRESENT THE PROJECT ENGINEER OF RECORD AND SHALL NOT BE CONSTRUED AS SUCH.

Project Notes:

1) Collateral dead loads, unless otherwise noted, are assumed to be uniformly distributed. When suspended sprinkler systems, lighting, HVAC equipment, ceilings, etc., are suspended from roof members, consult the M.B.S. If these concentrated loads exceed 500 pounds (using the web mount detail) or 200 lbs (using the flange mount detail), or if individual members are loaded significantly more than others.

2) The design of structural members supporting gravity loads is controlled by the more critical effect of roof live load or roof snow load, as determined by the applicable code.

3) **Pm is based on the minimum roof snow load calculated per building code or the contract specified roof snow load, whichever is greater. This value, Pm, is only applied in combination with the dead and collateral loads. Roof snow in other loading conditions is determined per the specified building code.

RD=ROD BRACING CA=CABLE BRACING	
CODE	DIAMETER
02	1/4"
03	3/8"
04	1/2"
05	5/8"
06	3/4"
07	7/8"
08	1"
09	1 1/8"
10	1 1/4"

STATE OF OHIO
DANIELLE N MILES-SCHWABEROW
E-88181
PROFESSIONAL ENGINEER
05/22/2025

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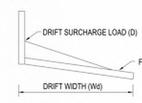
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BUILDING CODE ANALYSIS	
FOR OCCUPANCY (RISK) CATEGORY I OR II, IBC PROVISIONS INDICATE THAT SINGLE-STORY BUILDINGS SHALL HAVE "NO DRIFT LIMIT" PROVIDED THAT INTERIOR WALLS, PARTITIONS, CEILINGS, AND EXTERIOR WALL SYSTEMS HAVE BEEN DESIGNED TO ACCOMMODATE THE SEISMIC STORY DRIFTS. INTERIOR WALLS, PARTITIONS, CEILINGS, OR EXTERIOR WALL SYSTEMS NOT PROVIDED BY THE METAL BUILDING MANUFACTURER SHALL BE DESIGNED AND DETAILED BY OTHERS TO ACCOMMODATE THE SEISMIC STORY DRIFTS. SEISMIC DRIFT VALUES MAY BE OBTAINED FROM THE METAL BUILDING MANUFACTURER.	BCL-3
THIS BUILDING SYSTEM DESIGN IS BASED ON UNIFORMLY APPLYING THE CONTRACT-SPECIFIED LIVE, SNOW, WIND, SEISMIC, COLLATERAL AND AUXILIARY LOADS. IN ADDITION, THE DESIGN IS BASED ON APPLYING A CODE-DEFINED LIVE LOAD (INCLUDING APPLICABLE REDUCTIONS) AND A CODE-DEFINED SNOW LOAD (BASED ON CONTRACT-SPECIFIED GROUND SNOW) FOR ALL PARTIAL LOADING AND UNBALANCED SNOW LOAD CONDITIONS.	BCL-4
THE WALL SYSTEM BY OTHERS MUST WEIGH NO MORE THAN 55 PSF.	BCI-1
THE SPANDREL BEAMS AND/OR SPANDREL CHANNELS SUPPORTING THE TOP OF THE MASONRY WALLS MUST BE ATTACHED TO THE WALLS WITH A SPACING NOT TO EXCEED 4'-0" O.C. (MAX.). THE SPANDRELS MUST ALSO BE RIGIDLY ATTACHED TO THE WALL NO MORE THAN 6" AWAY FROM EACH PAIR OF INTERMEDIATE STIFFENERS. THIS ATTACHMENT IS DESIGNED AND PROVIDED BY OTHERS (NOT BY THE METAL BUILDING MANUFACTURER). FIELD DRILLING OF THE SPANDRELS FOR A BOLTED CONNECTION (IF USED) WILL BE REQUIRED.	BCI-3
IF SNOW GUARDS OR OTHER DEVICES INTENDED TO HOLD SNOW AND/OR ICE ACCUMULATION ON THE ROOF SYSTEM ARE TO BE USED ON THIS PROJECT, THEY MUST BE INSTALLED UNDER THE GUIDANCE OF THE PROJECT "ENGINEER OF RECORD" (EOR), NOT THE METAL BUILDING MANUFACTURER, SO AS NOT TO EXCEED THE DESIGN ROOF SNOW LOAD ON THIS PROJECT.	BCL-5

THE BUILDING CODE REQUIRES CONSIDERATION OF SNOW SURCHARGES FOR ANY LOWER ROOF OF A STRUCTURE LOCATED WITHIN 20 ft. OF A HIGHER STRUCTURE. INFORMATION PROVIDED TO THE METAL BUILDING MANUFACTURER INDICATES SNOW SURCHARGES MUST BE CONSIDERED IN THE METAL BUILDING DESIGN AS SHOWN BELOW.



THE CONDITIONS AT THE FOLLOWING LOCATIONS PRODUCE DRIFT SURCHARGE LOADS:

1. LOCATION: FSW PARAPET, LINES 4-6 D(psf): 42.25 Pf(psf): 14.00 Wd(ft): 10.18

ACCESSORIES (DOORS, WINDOWS, ETC.) NOT PROVIDED BY THE METAL BUILDING MANUFACTURER MUST BE DESIGNED AS "COMPONENTS AND CLADDING" IN ACCORDANCE WITH THE SPECIFIC WIND PROVISIONS OF THE REFERENCED BUILDING CODE DISPLAYED ON THE COVER PAGE OF THIS DRAWING PACKET.	WCR
FRAMED OPENINGS HAVE BEEN DESIGNED TO SUPPORT WIND LOAD NORMAL TO THE WALL BASED ON THE STANDARD BUILDING CODE CRITERIA. FRAMED OPENINGS HAVE NOT BEEN DESIGNED FOR ANY ADDITIONAL MOMENT OR CATENARY FORCES FROM THE DOOR. ANY CHANGE TO THE INFORMATION SHOWN HERE WILL REQUIRE AN ENGINEERING INVESTIGATION AND POSSIBLE BUILDING REINFORCEMENT.	WOE
THE DESIGN OF THE PARAPET/FACADE IS NOT BY THE METAL BUILDING MANUFACTURER. THE FACADE MUST BE DESIGNED TO ADEQUATELY CARRY AND TRANSFER THE PROPER CODE-REQUIRED LOADS TO THE FRAMES AND MUST NOT ALLOW RAINFALL ACCUMULATION.	WEF

PART TAG:
Point Rating System - Statics: 3L PH:(260) 837-7891
Job: W20XXXXXXA
Part: 95Z-15-P
Desc: 9 1/2" - Z
Weight: 64.07 Length: 201.5 LOC: R01, R03, R03, R04
(P = PURLIN, G = GIRT, J = JAMB, H = HEADER) Plane ID

BUNDLE TAG:
Point Rating System - Statics: 3L PH:(260) 837-7891
Job Number: W20XXXXXXA Tag: 1 of 1
Job Name: XXXXXXXXX Weight:1942.4
Bundle #: PBXX-XXXX Fin: RP

Type: 9 1/2" - "Z"

Part	Qty	Length	LOC1	LOC2
95Z-15	4	325.00	P	R01,R02,R03,R04
95Z-25	4	325.00	G	W01,W02W03,W04
95C-10	4	325.00	J	W01,W02,W03,W04
95C-15	4	325.00	H	R01,R02,R03,R04

(P = PURLIN, G = GIRT, J = JAMB, H = HEADER) Plane ID

COLUMN, RAFTER, AND BEAM MARK NUMBER KEY:
RCB-1 — COUNTER
E = ENDWALL
R = RIGID FRAME
M = MISCELLANEOUS
C = CRANE
P = PORTAL
C = COLUMN
R = RAFTER
B = BEAM
P = PART
B = BUILT UP
W = WIDE FLANGE
T = TUBE
P = PIPE
H = HOT ROLLED
C = COLD FORM

SECONDARY MARK NUMBER KEY:
802-1 — COUNTER
DEPTH: 80 = 8"
10 = 9 1/2"
12 = 12"
PROFILE:
Z = Z SIZE
S = STRUCTURAL CEE

EAVE STRUT MARK NUMBER KEY:
80E-1-1 — COUNTER
DEPTH: 80 = 8"
10 = 9 1/2"
12 = 12"
E = EAVE STRUT
ROOF SLOPE

STATE OF OHIO
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E-88181
PROFESSIONAL ENGINEER
05/22/2025

ANCHOR ROD PLAN GENERAL NOTES

ANI: THE SPECIFIED ANCHOR ROD DIAMETER ASSUMES F1554 GRADE 36 UNLESS NOTED OTHERWISE. ANCHOR ROD MATERIAL OF EQUAL DIAMETER MEETING OR EXCEEDING THE STRENGTH REQUIREMENTS SET FORTH ON THESE DRAWINGS MAY BE UTILIZED AT THE DISCRETION OF THE FOUNDATION DESIGN ENGINEER. ANCHOR ROD EMBEDMENT LENGTH SHALL BE DETERMINED BY THE FOUNDATION ENGINEER.

AN2: METAL BUILDING MANUFACTURER IS NOT RESPONSIBLE FOR PROJECT FOUNDATION DESIGN. THE FOUNDATION DESIGN IS THE RESPONSIBILITY OF A REGISTERED PROFESSIONAL ENGINEER, FAMILIAR WITH LOCAL SITE CONDITIONS

AN3: ANCHOR RODS, NUTS, FLAT WASHERS FOR ANCHOR RODS, EXPANSION BOLTS AND CONCRETE / MASONRY EMBEDMENT PLATES ARE NOT BY THE METAL BUILDING MANUFACTURER.

AN4: THE ANCHOR ROD LOCATIONS PROVIDED BY THE METAL BUILDING MANUFACTURER SATISFY THE PROVIDED REQUIREMENTS FOR THE DESIGN OF THE MATERIALS SUPPLIED BY THE METAL BUILDING MANUFACTURER. IT IS THE RESPONSIBILITY OF THE FOUNDATION ENGINEER TO MAKE CERTAIN THAT SUFFICIENT EDGE DISTANCE IS PROVIDED FOR ALL ANCHOR RODS IN THE DETAILS OF THE FOUNDATION DESIGN.

AN5: DRAWINGS ARE NOT TO SCALE. SEE DETAILS FOR COLUMN ORIENTATION.

AN6: THE ANCHOR ROD PLAN INDICATES WHERE THE ANCHOR RODS ARE TO BE PLACED AS WELL AS THE FOOTPRINT OF THE METAL BUILDING. IT IS ESSENTIAL THAT THESE ANCHOR ROD PATTERNS BE FOLLOWED. IF THESE SETTINGS DIFFER FROM THE ARCHITECTURAL FOUNDATION PLANS, THE BUILDING MANUFACTURER MUST BE CONTACTED IMMEDIATELY - BEFORE CONCRETE IS PLACED.

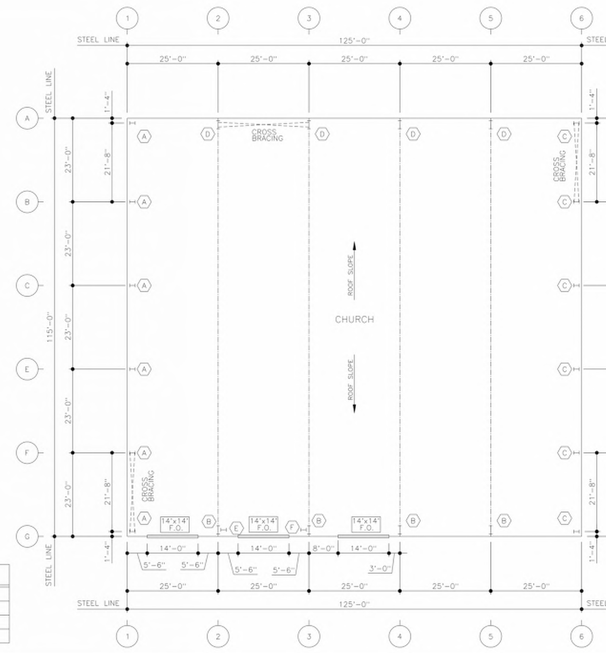
AN7: SINGLE "CEE" COLUMNS SHALL BE ORIENTED WITH THE "TOES" TOWARD THE LOW EAVE UNLESS NOTED OTHERWISE.

AN8: ALL DIMENSIONS ARE OUT TO OUT OF STEEL. IF A CONCRETE NOTCH IS REQUIRED THEN THE REQUIRED DIMENSION SHOULD BE ADDED TO OBTAIN THE OUT TO OUT OF CONCRETE DIMENSIONS.

TYPICAL BASEPLATE ELEVATION
FINISHED FLOOR = 100'-0"
BOTTOM OF BASEPLATE ELEVATION = 100'-0"
(AT FINISHED FLOOR U.N.O.)

ANCHOR ROD SCHEDULE

QUANTITY	SIZE	MATERIAL	PROJECTION
48	3/4"	F1554 GR 36	3" FROM BOTTOM OF BASE PLATE
8	1"	F1554 GR 36	3" FROM BOTTOM OF BASE PLATE
48	1 1/4"	F1554 GR 36	3" FROM BOTTOM OF BASE PLATE



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05/22/2025

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TIPP CITY, OHIO 45371

NO.	REVISION	DATE
1	FOR CONSTRUCTION	05/29/2025

SEALED BY:

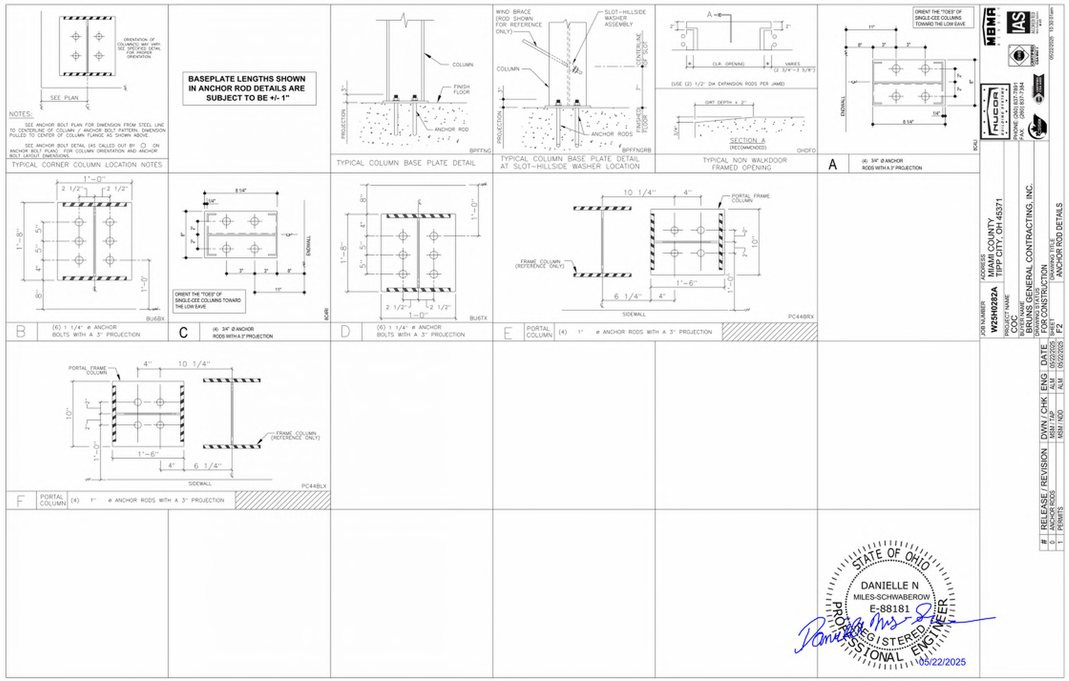
05/29/2025

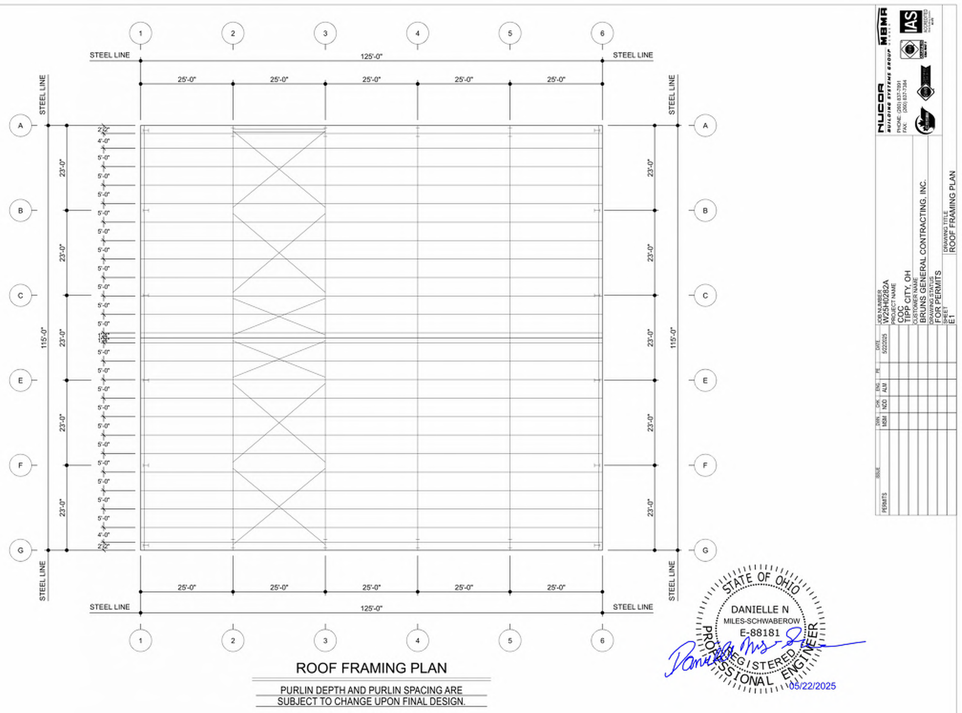
DRAWN BY:	Author
CHECKED BY:	Checker
DESIGNED BY:	Designer
APPROVED BY:	Approver
A/E JOB NO.:	6359A
CLIENT JOB NO.:	

SHEET DESCRIPTION:
PEMB BUILDING DRAWINGS

SHEET NO.:
S-702

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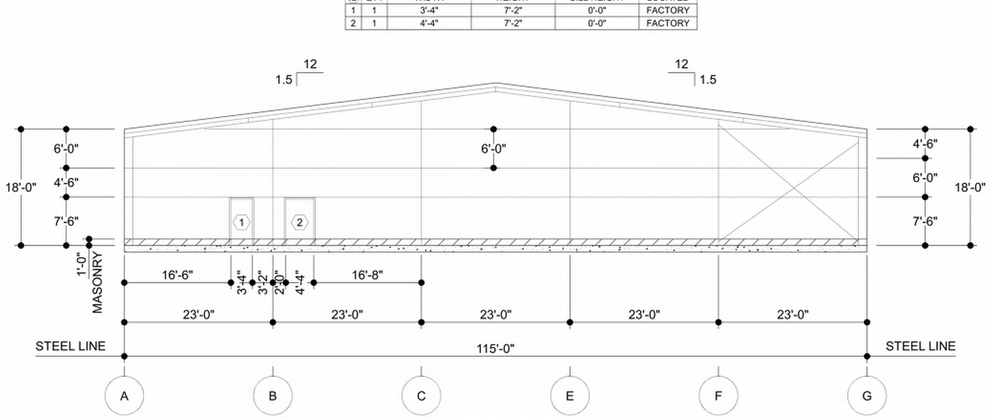


ROOF FRAMING PLAN

PURLIN DEPTH AND PURLIN SPACING ARE SUBJECT TO CHANGE UPON FINAL DESIGN.

FRAMED OPENING SCHEDULE

ID	QTY	WIDTH	HEIGHT	SILL HEIGHT	LOCATED
1	1	3'-4"	7'-2"	0'-0"	FACTORY
2	1	4'-4"	7'-2"	0'-0"	FACTORY

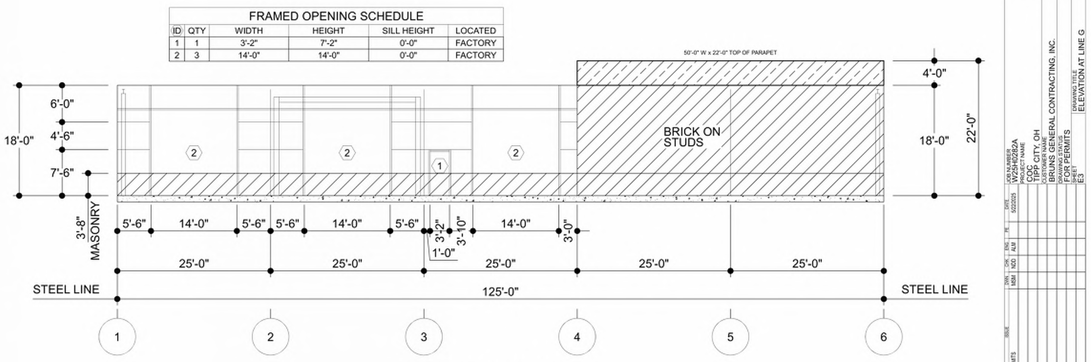


ELEVATION AT LINE 1

GIRT ELEVATIONS ARE SUBJECT TO CHANGE UPON FINAL DESIGN.

FRAMED OPENING SCHEDULE

ID	QTY	WIDTH	HEIGHT	SILL HEIGHT	LOCATED
1	1	3'-2"	7'-2"	0'-0"	FACTORY
2	3	14'-0"	14'-0"	0'-0"	FACTORY



ELEVATION AT LINE G

GIRT ELEVATIONS ARE SUBJECT TO CHANGE UPON FINAL DESIGN.

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Churches of Christ
Disaster Response Team

CHURCHES OF CHRIST - DRT
NEW WAREHOUSE
9315 STATE ROUTE 202
TIPP CITY, OHIO 45371

NO.	REVISION	DATE
1	FOR CONSTRUCTION	05/29/2025

SEALED BY:

05/29/2025

DRAWN BY:	Author
CHECKED BY:	Checker
DESIGNED BY:	Designer
APPROVED BY:	Approver
A/E JOB NO.:	6359A
CLIENT JOB NO.:	

SHEET DESCRIPTION:

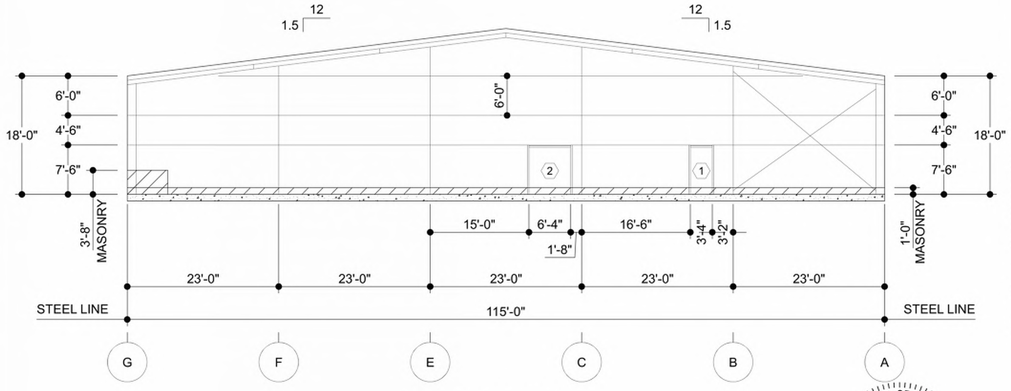
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FRAMED OPENING SCHEDULE					
ID	QTY	WIDTH	HEIGHT	SILL HEIGHT	LOCATED
1	1	3'-4"	7'-2"	0'-0"	FACTORY
2	1	6'-4"	7'-2"	0'-0"	FACTORY



ELEVATION AT LINE 6

GIRT ELEVATIONS ARE SUBJECT TO CHANGE UPON FINAL DESIGN.

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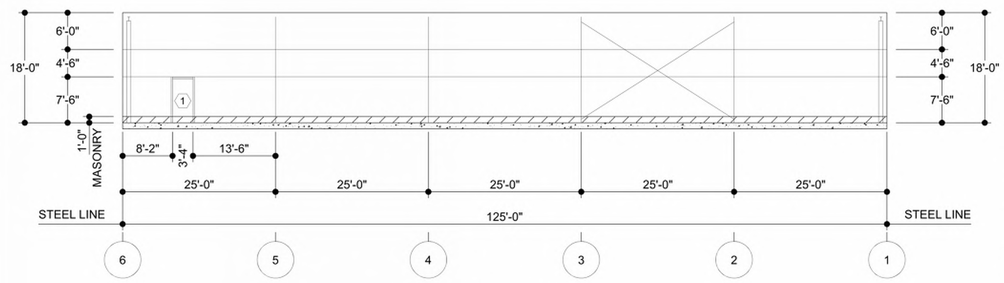
NUCOR BUILDING SYSTEMS
PHONE: (386) 837-7591
FAX: (386) 837-7594

DRAWING TITLE: ELEVATION AT LINE 6

DRN:	MDS	
CHK:	NDO	
APP:	ALM	
DATE:	5/2/2025	
ITEM & MARK:	W25465282A	
PROJECT NAME:	TIPP CITY, OH	
CUSTOMER NAME:	BRUNS GENERAL CONTRACTING, INC.	
ISSUE:	FOR PERMITS	
SHEET:	E4	

ISSUE	BY	CHK	APP	DATE
PERMITS	MDS	NDO	ALM	5/2/2025

FRAMED OPENING SCHEDULE					
ID	QTY	WIDTH	HEIGHT	SILL HEIGHT	LOCATED
1	1	3'-4"	7'-2"	0'-0"	FACTORY



ELEVATION AT LINE A

GIRT ELEVATIONS ARE SUBJECT TO CHANGE UPON FINAL DESIGN.

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PROFESSIONAL ENGINEER
05/22/2025

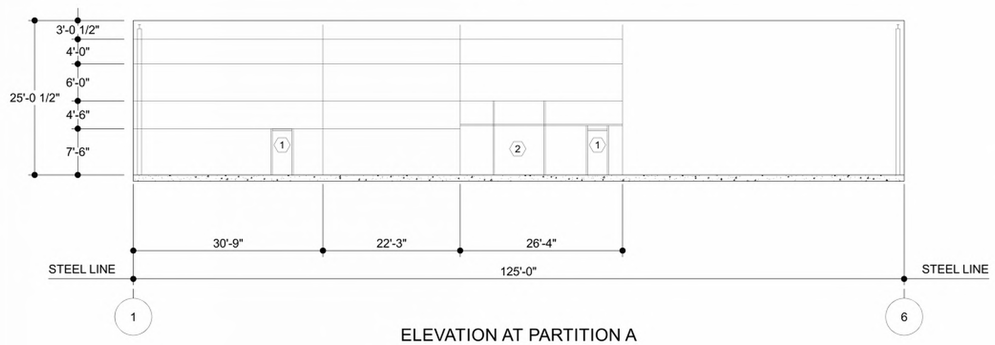
NUCOR BUILDING SYSTEMS
PHONE: (386) 837-7591
FAX: (386) 837-7594

DRAWING TITLE: ELEVATION AT LINE A

DRN:	MDS	
CHK:	NDO	
APP:	ALM	
DATE:	5/2/2025	
ITEM & MARK:	W25465282A	
PROJECT NAME:	TIPP CITY, OH	
CUSTOMER NAME:	BRUNS GENERAL CONTRACTING, INC.	
ISSUE:	FOR PERMITS	
SHEET:	E5	

ISSUE	BY	CHK	APP	DATE
PERMITS	MDS	NDO	ALM	5/2/2025

FRAMED OPENING SCHEDULE					
ID	QTY	WIDTH	HEIGHT	SILL HEIGHT	LOCATED
1	2	3'-2"	7'-2"	0'-0"	FIELD
2	1	8'-0"	8'-0"	0'-0"	FEILD



ELEVATION AT PARTITION A

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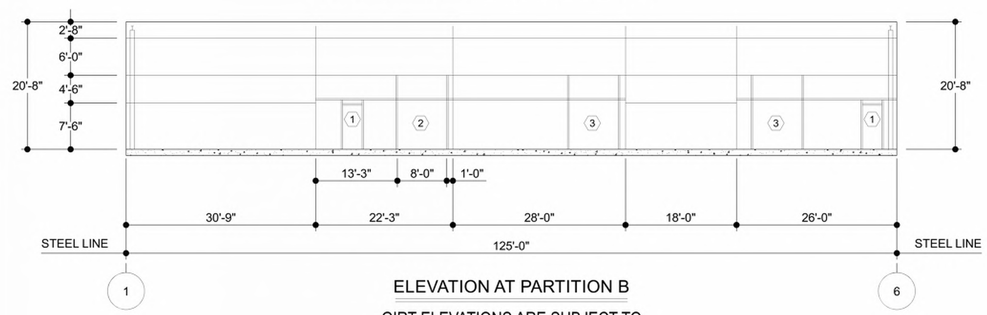
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FAX: (386) 837-7594

DRAWING TITLE: ELEVATION AT PARTITION A

DRN:	MDS	
CHK:	NDO	
APP:	ALM	
DATE:	5/2/2025	
ITEM & MARK:	W25465282A	
PROJECT NAME:	TIPP CITY, OH	
CUSTOMER NAME:	BRUNS GENERAL CONTRACTING, INC.	
ISSUE:	FOR PERMITS	
SHEET:	E6	

ISSUE	BY	CHK	APP	DATE
PERMITS	MDS	NDO	ALM	5/2/2025

FRAMED OPENING SCHEDULE					
ID	QTY	WIDTH	HEIGHT	SILL HEIGHT	LOCATED
1	2	3'-2"	7'-2"	0'-0"	FIELD
2	1	8'-0"	8'-0"	0'-0"	FACTORY
3	2	8'-0"	8'-0"	0'-0"	FIELD



ELEVATION AT PARTITION B

GIRT ELEVATIONS ARE SUBJECT TO CHANGE UPON FINAL DESIGN.

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E-88181
PROFESSIONAL ENGINEER
05/22/2025

NUCOR BUILDING SYSTEMS
PHONE: (386) 837-7591
FAX: (386) 837-7594

DRAWING TITLE: ELEVATION AT PARTITION B

DRN:	MDS	
CHK:	NDO	
APP:	ALM	
DATE:	5/2/2025	
ITEM & MARK:	W25465282A	
PROJECT NAME:	TIPP CITY, OH	
CUSTOMER NAME:	BRUNS GENERAL CONTRACTING, INC.	
ISSUE:	FOR PERMITS	
SHEET:	E7	

ISSUE	BY	CHK	APP	DATE
PERMITS	MDS	NDO	ALM	5/2/2025

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Churches of Christ Disaster Response Team

CHURCHES OF CHRIST - DRT
NEW WAREHOUSE
9315 STATE ROUTE 202
TIPP CITY, OHIO 45371

NO.	REVISION	DATE
1	FOR CONSTRUCTION	05/29/2025

SEALED BY:

05/29/2025

DRAWN BY:	Author
CHECKED BY:	Checker
DESIGNED BY:	Designer
APPROVED BY:	Approver
A/E JOB NO.:	6359A
CLIENT JOB NO.:	

SHEET DESCRIPTION:

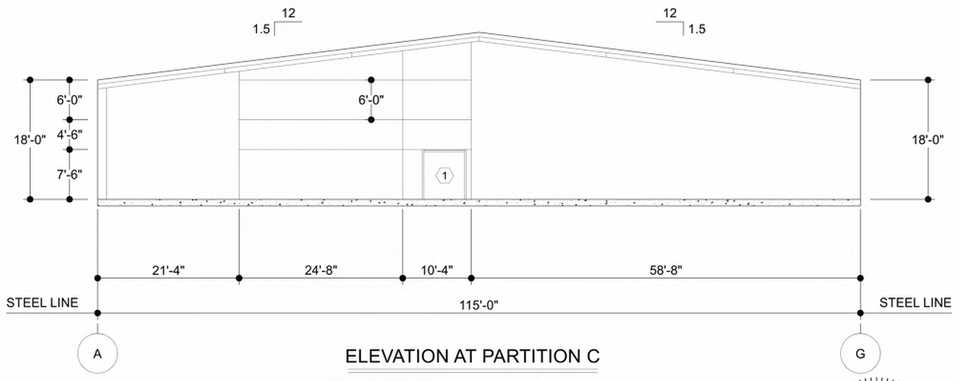
PEMB BUILDING DRAWINGS

SHEET NO.:

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FRAMED OPENING SCHEDULE					
ID	QTY	WIDTH	HEIGHT	SILL HEIGHT	LOCATED
1	1	6'-2"	7'-2"	0'-0"	FIELD



ELEVATION AT PARTITION C

GIRT ELEVATIONS ARE SUBJECT TO CHANGE UPON FINAL DESIGN.

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REGISTERED PROFESSIONAL ENGINEER
05/22/2025

NUCOR BUILDING SYSTEMS
MBMA
MS

BY	CHK	APP	NO.	REMARKS	DATE
MBS	MDS	DLS		PERMITS	05/22/2025

PROJECT NUMBER: 6359A/6359A
PROJECT NAME: TIPP CITY, OH
PROJECT ADDRESS:
BRUNS GENERAL CONTRACTING, INC.
FOR PERMITS
SHEET: E8
DRAWING TITLE: ELEVATION AT PARTITION C

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Churches of Christ Disaster Response Team

CHURCHES OF CHRIST - DRT
NEW WAREHOUSE
9315 STATE ROUTE 202
TIPP CITY, OHIO 45371

NO.	REVISION	DATE
1	FOR CONSTRUCTION	05/29/2025

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05/29/2025

DRAWN BY:	Author
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DESIGNED BY:	Designer
APPROVED BY:	Approver
A/E JOB NO.:	6359A
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SHEET DESCRIPTION:
PEMB BUILDING DRAWINGS

SHEET NO.:
S-705

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COMcheck Software Version COMcheckWeb
Envelope Compliance Certificate

Project Information

Energy Code:	90.1 (2019) Standard
Project Title:	6359A_Churches of Christ Warehouse and Office
Location:	Tipp City, Ohio
Climate Zone:	5a
Project Type:	New Construction
Vertical Glazing / Wall Area:	2%
Performance Sim. Specs:	EnergyPlus 8.1.0.009 (EPW: USA_OH_Dayton.Intl.AP.724290_TMY3.epw)

Construction Site:
9285 STATE ROUTE 202
TIPP CITY, Ohio 45371

Owner/Agent:
CHURCHES OF CHRIST DISASTER RESPONSE TEAM
9285 SOUTH STATE ROUTE 202
TIPP CITY, Ohio 45371
937-308-7593
CHURCHESOFCHRISTDRT@GMAIL.COM

Designer/Contractor:
ADAM M. KNOUS
SAFETY THROUGH ENGINEERING, INC.
9363 DETRICK JORDAN PIKE
NEW CARLISLE, Ohio 45344
937-964-1900
ADAMKNOUS@STE4U.COM

Building Area	Floor Area
1-Warehouse : Semiheated	11228
2-Office : Nonresidential	3147

Envelope Assemblies

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U-Factor[a]
Roof: Other Metal Building Roof, [Bldg. Use 1 - Warehouse] (b)	11228	---	---	0.042	0.082
Roof: Other Metal Building Roof, [Bldg. Use 2 - Office] (b)	3147	---	---	0.042	0.037
Floor: Unheated Slab-On-Grade, Vertical 3 ft., [Bldg. Use 1 - Warehouse] (c)	361	---	10.0	0.510	0.510
Floor: Unheated Slab-On-Grade, Vertical 3 ft., [Bldg. Use 2 - Office] (c)	119	---	10.0	0.510	0.520
NORTH					
Ext. Wall: Metal Building Wall, Double Layer Mineral Fiber (outer layer compressed at girt), [Bldg. Use 1 - Warehouse]	2444	36.0	0.0	0.046	0.094
Door #18: Insulated Metal, Swinging, [Bldg. Use 1 - Warehouse]	21	---	---	0.136	0.370
Door #17: Insulated Metal, Swinging, [Bldg. Use 1 - Warehouse]	28	---	---	0.136	0.370
Int. Wall: Steel-Framed, 24in. o.c., [Bldg. Use 2 - Office]	1302	19.0	0.0	0.091	0.084
EAST					
Ext. Wall: Metal Building Wall, Double Layer Mineral Fiber (outer layer compressed at girt), [Bldg. Use 1 - Warehouse]	2250	36.0	0.0	0.046	0.094
Door #23: Insulated Metal, Swinging, [Bldg. Use 1 - Warehouse]	21	---	---	0.136	0.370
Int. Wall: Steel-Framed, 24in. o.c., [Bldg. Use 2 - Office]	785	19.0	0.0	0.091	0.084
SOUTH					
Ext. Wall: Metal Building Wall, Double Layer Mineral Fiber (outer layer compressed at girt), [Bldg. Use 1 - Warehouse]	844	36.0	0.0	0.046	0.094
Door #21: Insulated Metal, Swinging, [Bldg. Use 1 -	21	---	---	0.136	0.370

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U-Factor[a]
Warehouse]					
Ext. Wall: Metal Building Wall, Double Layer Mineral Fiber (outer layer compressed at girt), [Bldg. Use 2 - Office]	1600	36.0	0.0	0.046	0.050
Door #12: Insulated Metal, Swinging, [Bldg. Use 2 - Office]	42	---	---	0.136	0.370
Window: Metal Frame: Fixed, Perf. Type: Energy code default, Double Pane with Low-E, Tinted , SHGC 0.50, VT 0.40, [Bldg. Use 2 - Office]	8	---	---	0.900	0.360
Window: Metal Frame: Fixed, Perf. Type: Energy code default, Double Pane with Low-E, Tinted , SHGC 0.50, VT 0.40, [Bldg. Use 2 - Office]	8	---	---	0.900	0.360
Window: Metal Frame: Fixed, Perf. Type: Energy code default, Double Pane with Low-E, Tinted , SHGC 0.50, VT 0.40, [Bldg. Use 2 - Office]	8	---	---	0.900	0.360
Window: Metal Frame: Fixed, Perf. Type: Energy code default, Double Pane with Low-E, Tinted , SHGC 0.50, VT 0.40, [Bldg. Use 2 - Office]	8	---	---	0.900	0.360
WEST					
Ext. Wall: Metal Building Wall, Double Layer Mineral Fiber (outer layer compressed at girt), [Bldg. Use 1 - Warehouse]	1350	36.0	0.0	0.046	0.094
Door #24: Insulated Metal, Non-Swinging, [Bldg. Use 1 - Warehouse]	196	---	---	0.136	0.360
Door #25: Insulated Metal, Non-Swinging, [Bldg. Use 1 - Warehouse]	196	---	---	0.136	0.360
Door #13: Insulated Metal, Swinging, [Bldg. Use 1 - Warehouse]	21	---	---	0.136	0.370
Door #26: Insulated Metal, Non-Swinging, [Bldg. Use 1 - Warehouse]	196	---	---	0.136	0.360
Ext. Wall: Steel-Framed, 24in. o.c., [Bldg. Use 2 - Office]	900	21.0	10.0	0.048	0.055
Door: Glass (over 50% glazing): Metal Frame, Entrance Door, Perf. Type: Energy code default, Double Pane with Low-E, Tinted , SHGC 0.50, VT 0.40, [Bldg. Use 2 - Office]	21	---	---	0.900	0.630
Window: Metal Frame: Fixed, Perf. Type: Energy code default, Double Pane with Low-E, Tinted , SHGC 0.50, VT 0.40, [Bldg. Use 2 - Office]	8	---	---	0.900	0.360
Window: Metal Frame: Fixed, Perf. Type: Energy code default, Double Pane with Low-E, Tinted , SHGC 0.50, VT 0.40, [Bldg. Use 2 - Office]	8	---	---	0.900	0.360
Window: Metal Frame: Fixed, Perf. Type: Energy code default, Double Pane with Low-E, Tinted , SHGC 0.50, VT 0.40, [Bldg. Use 2 - Office]	8	---	---	0.900	0.360
Window: Metal Frame: Fixed, Perf. Type: Energy code default, Double Pane with Low-E, Tinted , SHGC 0.50, VT 0.40, [Bldg. Use 2 - Office]	8	---	---	0.900	0.360
Window - Storefront: Metal Frame: Fixed, Perf. Type: Energy code default, Double Pane with Low-E, Tinted , SHGC 0.50, VT 0.40, [Bldg. Use 2 - Office]	69	---	---	0.900	0.360

(a) Budget U-factors are used for software baseline calculations ONLY, and are not code requirements.
(b) 'Other' components require supporting documentation for proposed U-factors.
(c) Slab-On-Grade proposed and budget U-factors shown in table are F-factors.

Envelope PASSES: Design 6% better than code

Envelope Compliance Statement

Compliance Statement: The proposed envelope design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed envelope systems have been designed to meet the 90.1 (2019) Standard requirements in COM*check* Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Adam M. Knous - Principal Engineer
Name - Title

Adam M. Knous
Signature

April 11, 2025
Date

Section # & Req.ID	Framing / Rough-In Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
5.4.3.2 [FR1][1]	Factory-built and site-assembled fenestration and doors are labeled or certified as meeting air leakage requirements.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
5.5.4.3a [FR8][1]	Vertical fenestration U-Factor.	U-____	U-____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
5.5.4.3b [FR9][1]	Skylight fenestration U-Factor.	U-____	U-____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
5.5.4.4.1 [FR10][1]	Vertical fenestration SHGC value.	SHGC:____	SHGC:____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
5.5.4.4.2 [FR11][1]	Skylight SHGC value.	SHGC:____	SHGC:____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
5.8.2.1, 5.8.2.3, 5.8.2.4, 5.8.2.5 [FR12][2]	Fenestration products rated (U-factor, SHGC, and VT) in accordance with NFRC or energy code defaults are used.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
5.8.2.2 [FR13][1]	Fenestration and door products are labeled, or a signed and dated certificate listing the U-factor, SHGC, VT, and air leakage rate has been provided by the manufacturer.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
5.5.3.6 [FR14][2]	U-factor of opaque doors associated with the building thermal envelope meets requirements.	U-____ ☐ Swinging ☐ Nonswinging	U-____ ☐ Swinging ☐ Nonswinging	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
5.4.3.1 [FR15][1]	Continuous air barrier is wrapped, sealed, caulked, gasketed, and/or taped in an approved manner, except in semiheated spaces in climate zones 1-6.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

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
8.4.2 [EL10][2]	At least 50% of all 125 volt 15- and 20-Amp receptacles are controlled by an automatic control device.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
8.4.3 [EL11][2]	New buildings have electrical energy use measurement devices installed. Where tenant spaces exist, each tenant is monitored separately. In buildings with a digital control system the energy use is transmitted to to control system and displayed graphically.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

COMcheck Software Version COMcheckWeb
Inspection Checklist

Energy Code: 90.1 (2019) Standard

Requirements: 0.0% 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
4.2.2, 5.4.3.1.1, 5.7 [PR1][1]	Plans and/or specifications provide all information with which compliance can be determined for the building envelope and document where exceptions to the standard are claimed.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
4.2.2, 8.4.1.1, 8.4.1.2, 8.7 [PR6][2]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the electrical systems and equipment and document where exceptions are claimed. Feeder connectors sized in accordance with approved plans and branch circuits sized for maximum drop of 3%.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
5.5.4.2.3 [PR7][2]	In buildings > 2,500 ft2, any enclosed spaces directly under a roof with ceiling heights > 15 ft. and used as an office, lobby, atrium, concourse, corridor, storage (including nonrefrigerated warehouse), gymnasium, fitness/exercise area, playing area, gymnasium seating area, convention exhibit/event space, courtroom, automotive service, fire station engine room, manufacturing corridor/transition and bay areas, retail, library reading and stack areas, distribution/sorting area, transportation baggage and seating areas, or workshop, the following requirements apply: The daylight zone under skylights is >= half the floor area and (a) the skylight area to daylight zone is >= 3 percent with a skylight VT >= 0.40 or (b) the minimum skylight effective aperture >= 1 percent. The skylights have a measured haze value > 90 percent.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Insulation Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
4.2.4 [IN2][1]	Installed roof insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports. For some ceiling systems, verification may need to occur during Framing Inspection.	R-____ ☐ Above deck ☐ Metal ☐ Attic	R-____ ☐ Above deck ☐ Metal ☐ Attic	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
5.8.1.2, 5.8.1.3 [IN3][1]	Roof insulation installed per manufacturer's instructions. Blown or poured loose-fill insulation is installed only where the ceiling slope is <= 3:12.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
4.2.4 [IN6][1]	Installed above-grade wall insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports.	R-____ ☐ Mass ☐ Metal ☐ Steel ☐ Wood	R-____ ☐ Mass ☐ Metal ☐ Steel ☐ Wood	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
5.8.1.2 [IN7][1]	Above-grade wall insulation installed per manufacturer's instructions.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
4.2.4 [IN8][2]	Installed floor insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports.	R-____ ☐ Mass ☐ Steel ☐ Wood	R-____ ☐ Mass ☐ Steel ☐ Wood	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
5.8.1.1 [IN10][2]	Building envelope insulation is labeled with R-value or insulation certificate has been provided listing R-value and other relevant data.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
5.8.1.9 [IN18][2]	Building envelope insulation extends over the full area of the component at the proposed rated R or U value.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
5.8.1.4 [IN11][2]	Eaves are baffled to deflect air to above the insulation.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
5.8.1.5 [IN12][2]	Insulation is installed in substantial contact with the inside surface separating conditioned space from unconditional space.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
5.8.1.6 [IN13][2]	Recessed equipment installed in building envelope assemblies does not compress the adjacent insulation.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
5.8.1.7.1 [IN15][2]	Attics and mechanical rooms have insulation protected where adjacent to attic or equipment access.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Footing / Foundation Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
4.2.4 [FO1][2]	Installed below-grade wall insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports.	R-____	R-____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
4.2.4 [FO3][2]	Installed slab-on-grade insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports.	R-____ ☐ Unheated ☐ Heated	R-____ ☐ Unheated ☐ Heated	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
5.8.1.2 [FO4][2]	Slab edge insulation installed per manufacturer's instructions.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
5.5.3.5 [FO5][2]	Slab edge insulation depth/length.	____ ft	____ ft	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
5.8.1.7 [FO6][1]	Exterior insulation protected against damage, sunlight, moisture, wind, landscaping and equipment maintenance activities.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
5.8.1.7.3 [FO7][1]	Insulation in contact with the ground has <=0.3% water absorption rate per ASTM C272.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
6.4.4.1.5 [FO11][2]	Bottom surface of floor structures incorporating radiant heating insulated to >=R-3.5.	R-____	R-____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Insulation Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
5.8.1.7.2 [IN16][2]	Foundation vents do not interfere with insulation.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
5.8.1.8 [IN17][1]	Insulation intended to meet the roof insulation requirements cannot be installed on top of a suspended ceiling. Mark this requirement compliant if insulation is installed accordingly.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
5.4.3.3 [FI1][1]	Weatherseals installed on all loading dock cargo doors in Climate Zones 4-8.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

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NO.	REVISION	DATE
1	FOR PERMIT	04/17/2025

SEALED BY:

04/17/2025

DRAWN BY:	AMK
CHECKED BY:	JTD
DESIGNED BY:	AMK
APPROVED BY:	Approver
A/E JOB NO.:	6359A
CLIENT JOB NO.:	

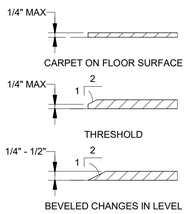
SHEET DESCRIPTION:
ENVELOPE ENERGY ANALYSIS

SHEET NO.:
A-001

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ACCESSIBILITY DIAGRAM NOTES

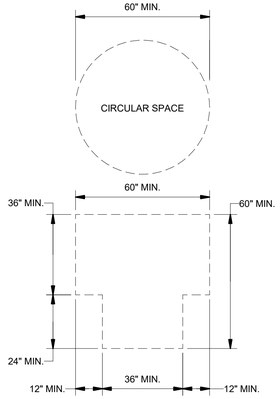
1. AS REQUIRED PER THE BUILDING CODE, BUILDING AND FACILITIES SHALL BE PROVIDED WITH ACCESSIBLE ELEMENTS WHERE PUBLIC ACCESS FOR INDIVIDUALS WITH DISABILITIES HAVE ACCESS. THE FOLLOWING FIGURES ARE RECREATIONS OF DESIGN ELEMENTS MOST COMMONLY FOUND WITH NEW CONSTRUCTION AND SHALL BE IMPLEMENTED. ANY FIGURES NOT APPLICABLE TO THE CONSTRUCTION WITHIN SPECIFIC AREAS AND/OR THE PROJECT SHOULD BE DISREGARDED WITH APPROVAL OF THE REGISTERED DESIGN PROFESSIONAL, BUILDING OFFICIAL, AND/OR INSPECTOR. FOR CLARIFICATION ON ANY ACCESSIBLE ELEMENT CONTACT SAFETY THROUGH ENGINEERING.



CHANGES IN LEVEL

SCALE: 3" = 1'-0"

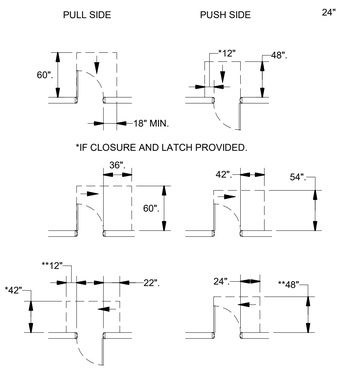
NOTE: CHANGES IN LEVEL SHALL MEET THE DETAIL REQUIREMENTS AS SHOWN AND AS INDICATED IN ICC A117.1 SECTION 303.



TURNING SPACE

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

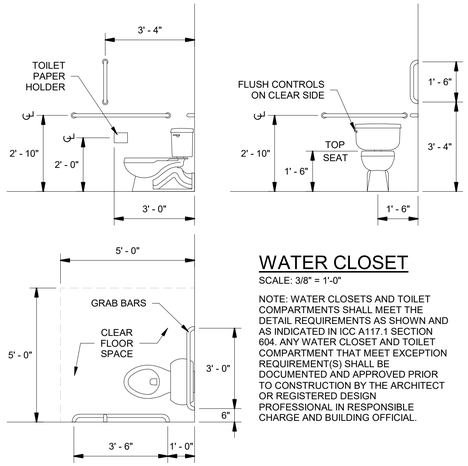
NOTE: TURNING SPACE SHALL MEET THE DETAIL REQUIREMENTS AS SHOWN AND AS INDICATED IN ICC A117.1 SECTION 304.



MANEUVERING CLEARANCE

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

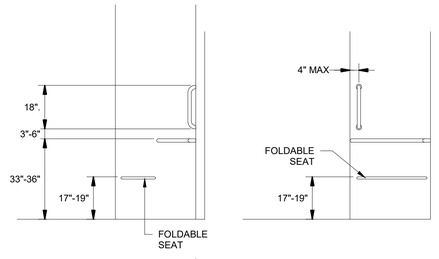
NOTE: MANEUVERING CLEARANCES SHALL MEET THE DETAIL REQUIREMENTS AS SHOWN AND AS INDICATED IN ICC A117.1 SECTION 404.2.3.

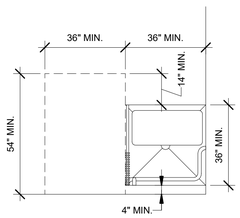


WATER CLOSET

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

NOTE: WATER CLOSETS AND TOILET COMPARTMENTS SHALL MEET THE DETAIL REQUIREMENTS AS SHOWN AND AS INDICATED IN ICC A117.1 SECTION 604. ANY WATER CLOSET AND TOILET COMPARTMENT THAT MEET EXCEPTION REQUIREMENT(S) SHALL BE DOCUMENTED AND APPROVED PRIOR TO CONSTRUCTION BY THE ARCHITECT OR REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE AND BUILDING OFFICIAL.

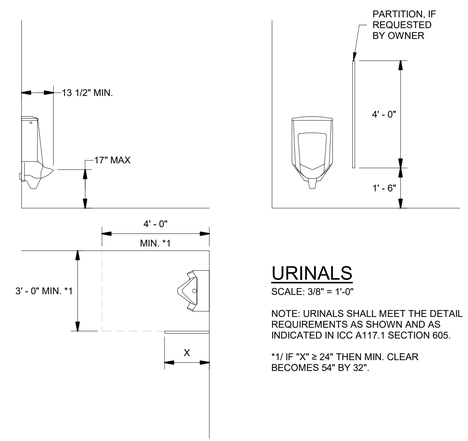




SHOWER COMPARTMENTS

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

SHOWERS SHALL MEET THE DETAIL REQUIREMENTS AS SHOWN AND AS INDICATED IN ICC A117.1 SECTION 608. SHOWER COMPARTMENTS THAT MEET EXCEPTION REQUIREMENT(S) SHALL BE DOCUMENTED AND APPROVED PRIOR TO CONSTRUCTION BY THE ARCHITECT OR REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE AND BUILDING OFFICIAL.

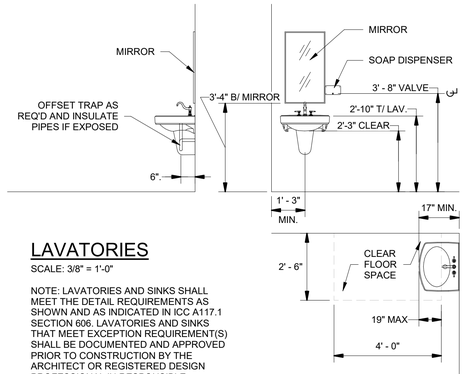


URINALS

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

NOTE: URINALS SHALL MEET THE DETAIL REQUIREMENTS AS SHOWN AND AS INDICATED IN ICC A117.1 SECTION 605.

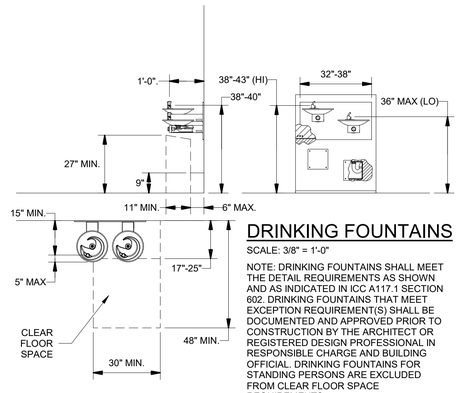
*1/ IF "X" ≥ 24" THEN MIN. CLEAR BECOMES 54" BY 32".



LAVATORIES

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

NOTE: LAVATORIES AND SINKS SHALL MEET THE DETAIL REQUIREMENTS AS SHOWN AND AS INDICATED IN ICC A117.1 SECTION 606. LAVATORIES AND SINKS THAT MEET EXCEPTION REQUIREMENT(S) SHALL BE DOCUMENTED AND APPROVED PRIOR TO CONSTRUCTION BY THE ARCHITECT OR REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE AND BUILDING OFFICIAL.



DRINKING FOUNTAINS

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

NOTE: DRINKING FOUNTAINS SHALL MEET THE DETAIL REQUIREMENTS AS SHOWN AND AS INDICATED IN ICC A117.1 SECTION 602. DRINKING FOUNTAINS THAT MEET EXCEPTION REQUIREMENT(S) SHALL BE DOCUMENTED AND APPROVED PRIOR TO CONSTRUCTION BY THE ARCHITECT OR REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE AND BUILDING OFFICIAL. DRINKING FOUNTAINS FOR STANDING PERSONS ARE EXCLUDED FROM CLEAR FLOOR SPACE REQUIREMENTS

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NO.	REVISION	DATE
1	FOR PERMIT	04/17/2025

SEALED BY:

STATE OF OHIO
ADAM M. KNOUS
PE.82894
REGISTERED
PROFESSIONAL ENGINEER

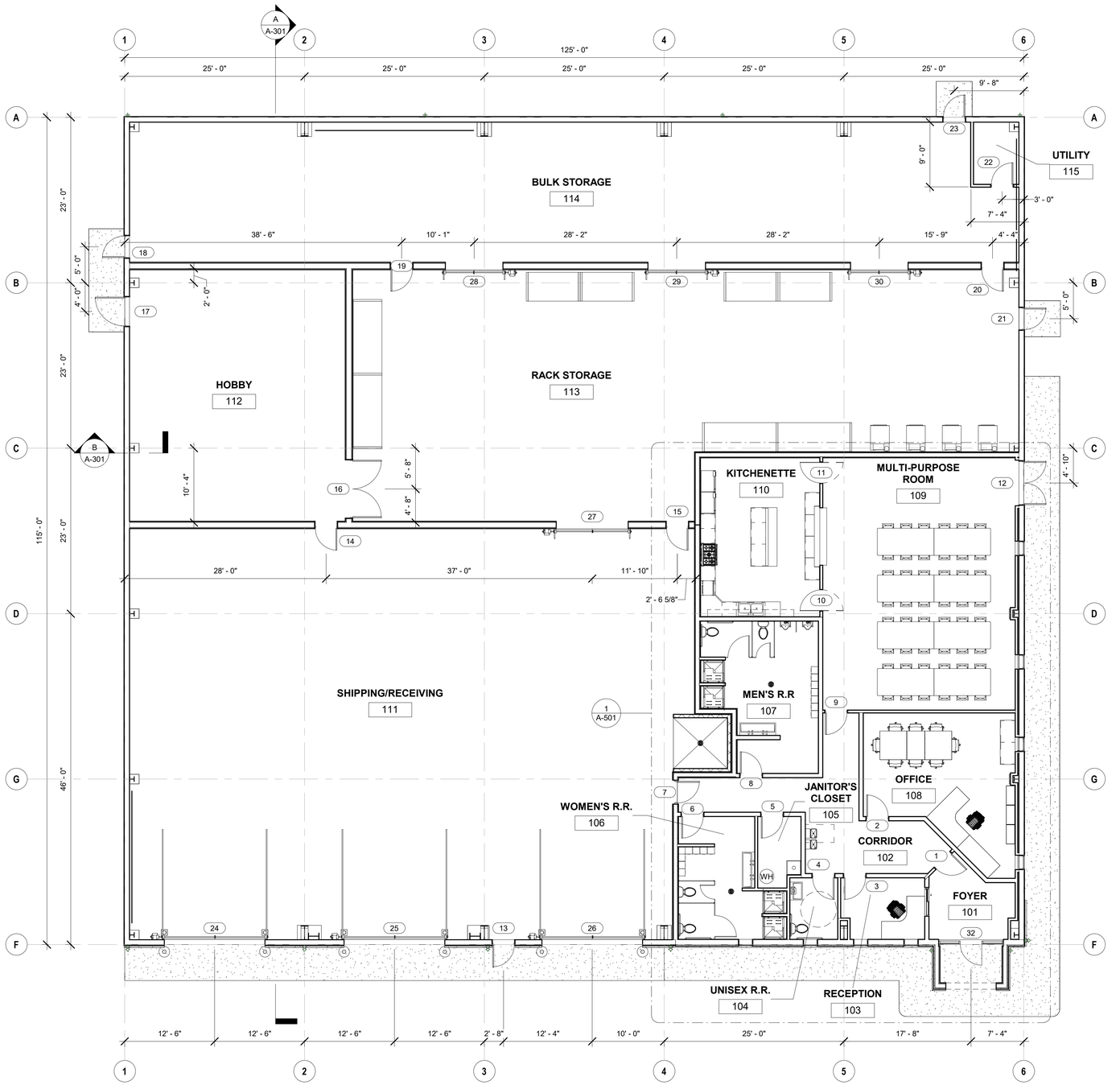
04/17/2025

DRAWN BY:	AMK
CHECKED BY:	JTD
DESIGNED BY:	AMK
APPROVED BY:	Approver
A/E JOB NO.:	6359A
CLIENT JOB NO.:	

SHEET DESCRIPTION:
ACCESSIBILITY DETAILS

SHEET NO.:
A-002

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FINISH FLOOR

1/8" = 1'-0"

FLOOR PLAN NOTES

1. ALL EGRESS DOORS SHALL BE READILY OPENABLE FROM THE DIRECTION OF EGRESS WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT.
2. DOOR HANDLES, PULLS, LATCHES, LOCKS, AND OTHER OPERATING DEVICES SHALL BE AT A MAXIMUM OF 48" ABOVE FINISH FLOOR. THE OPERATING DEVICES SHALL BE CAPABLE OF OPERATION WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, TIGHT PINCHING, OR TWISTING OF THE WRIST TO OPERATE.
3. THE FLOOR SURFACES ON BOTH SIDES OF ALL DOORS SHALL BE LEVEL AND AT THE SAME ELEVATION. DOOR THRESHOLDS SHALL NOT EXCEED 1/2" IN HEIGHT PER SECTION 1010.1.6 OF OBC 2017.
4. ANY INTERIOR FINISHES SHALL COMPLY WITH CHAPTER 8 OF THE OHIO BUILDING CODE AS INDICATED IN THE BUILDING CODE REVIEW.
5. ALL GLAZING IN HIGH IMPACT AREAS (I.E. DOORS, SIDELITES, ETC.) SHALL COMPLY WITH CHAPTER 24 OF THE OHIO BUILDING CODE.
6. FIRE-RATED DOORS (WHEN SPECIFIED) SHALL HAVE CLOSERS.
7. INSULATING BATTS, BLANKETS, AND FILLS, WHERE CONCEALED OR EXPOSED, SHALL HAVE A FLAME SPREAD RATING OF 25 OR LESS AND A SMOKE-DEVELOPED RATING OF 450 OR LESS WHEN TESTING IN ACCORDANCE WITH ASTM E84. ALL VAPOR BARRIERS ON INSULATION SHALL BE INSTALLED ON THE WARM SIDE OF THE BUILDING ELEMENT AND SHALL HAVE A PERMEANCE NOT EXCEEDING 1 PERM.
8. ALL DOOR HARDWARE SHALL COMPLY WITH SPECIFIED HARDWARE UNLESS APPROVED OTHERWISE.
9. ALL DIMENSIONS ARE TO THE FACE OF STUDS EXCEPT EXTERIOR WALLS WHICH ARE TO THE FACE OF SHEATHING BOARD AND/OR CONCRETE.
10. THE MAXIMUM FORCE REQUIRED FOR PUSHING AND PULLING AN INTERIOR DOOR, NOT REQUIRED TO BE A FIRE DOOR ASSEMBLY, SHALL BE 5 LBF.
11. EXIT SIGNAGE (IF SHOWN) AT DOORS SHOWN FOR REFERENCE ONLY. SEE ELECTRICAL DRAWINGS FOR FINAL DETAILS.
12. FLOOR FINISHES IN ALL MEANS OF EGRESS AREAS ARE NON-SLIP PER SECTION 1003.4 OF OBC 2017.
13. HOT WATER AND DRAIN PIPES UNDER ACCESSIBLE LAVATORIES SHALL BE INSULATED OR OTHERWISE CONFIGURE TO PROTECT AGAINST CONTACT, AND THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORIES PER ICC A117.1 SECTION 606.6.
14. ACCESSIBLE WATER CLOSET AND SINK SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO GREATER THAN 5 LBF PER ICC A117.1 SECTION 309.4.
15. ANY AND ALL EQUIPMENT OR FURNISHINGS SHOWN ARE FOR REFERENCE ONLY. IT IS THE OWNERS RESPONSIBILITY TO PROVIDE ANY EQUIPMENT AND/OR FURNISHING AS WELL AS THE ACTUAL LAYOUT OF THE EQUIPMENT OR FURNISHINGS.
16. ALL NON-LOAD BEARING PARTITION WALLS HAVE BEEN DESIGNED FOR A MINIMUM LATERAL PRESSURE OF 5 PSF.

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NO.	REVISION	DATE
1	FOR PERMIT	04/17/2025

SEALED BY:

STATE OF OHIO
ADAM M. KNOUS
PE.82894
REGISTERED PROFESSIONAL ENGINEER

04/17/2025

DRAWN BY:	AMK
CHECKED BY:	JTD
DESIGNED BY:	AMK
APPROVED BY:	Approver
A/E JOB NO.:	6359A
CLIENT JOB NO.:	

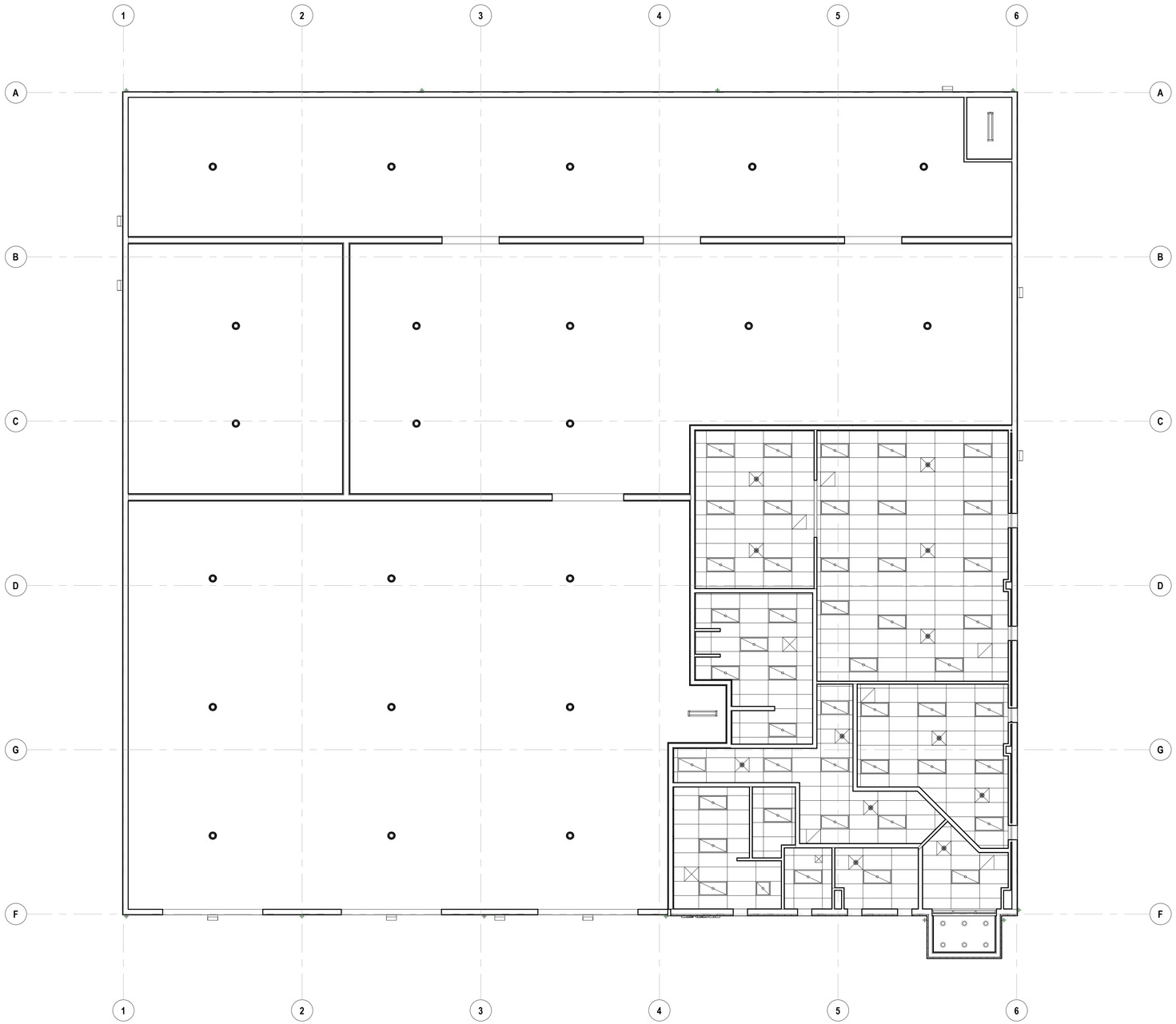
SHEET DESCRIPTION:

FLOOR PLAN

SHEET NO.:

A-101

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FINISH FLOOR

1/8" = 1'-0"

CEILING LEGEND

- RECESSED CAN LIGHT
- LED HIGH BAY LIGHTING
- 4' LG. PENDANT LIGHT
- 2'X4' LAY-IN LED LIGHTING PANEL
- 2'X2' AIR DIFFUSER
- 2'X2' PLENUM RETURN VENT
- EXHAUST VENT

*NOTE: REFLECTED CEILING PLAN HAVE BEEN PROVIDED AS A GENERIC LAYOUT OF THE CEILING FIXTURES, COORDINATE W/ ELECTRICAL, FIRE PROTECTION, AND MECHANICAL FOR ACTUAL FIXTURES AND EXACT LOCATIONS.

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CHURCHES OF CHRIST - DRT
NEW WAREHOUSE
9315 STATE ROUTE 202
TIPP CITY, OHIO 45371

NO.	REVISION	DATE
1	FOR PERMIT	04/17/2025

SEALED BY:

STATE OF OHIO
ADAM M. KNOUS
PE.82894
REGISTERED
PROFESSIONAL ENGINEER

04/17/2025

DRAWN BY:	AMK
CHECKED BY:	JTD
DESIGNED BY:	AMK
APPROVED BY:	Approver
A/E JOB NO.:	6359A
CLIENT JOB NO.:	

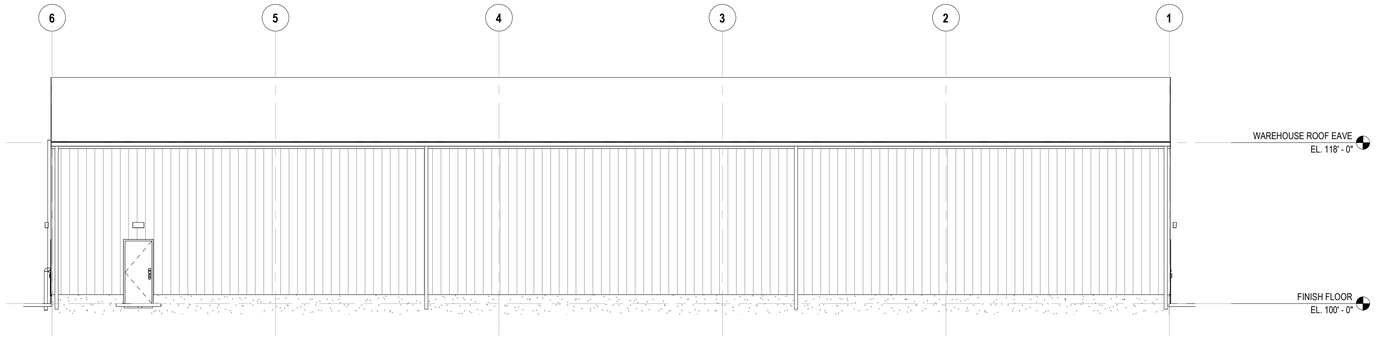
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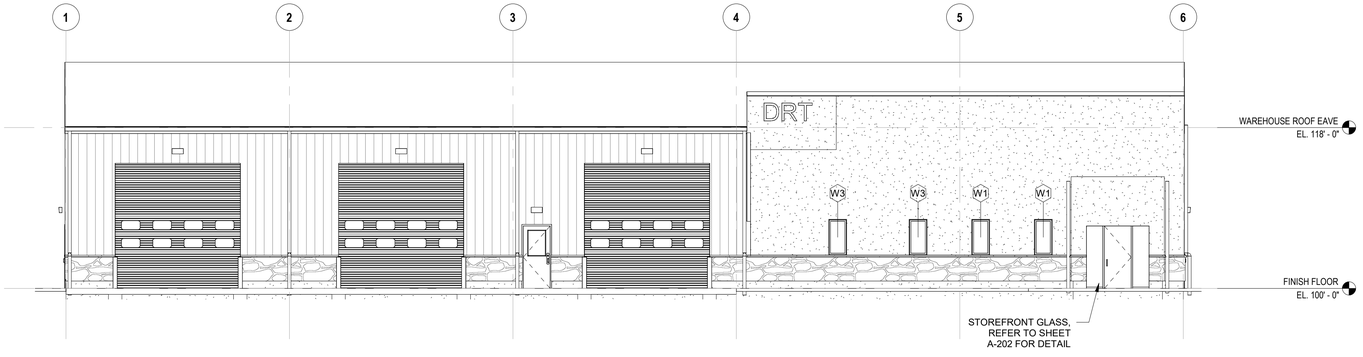
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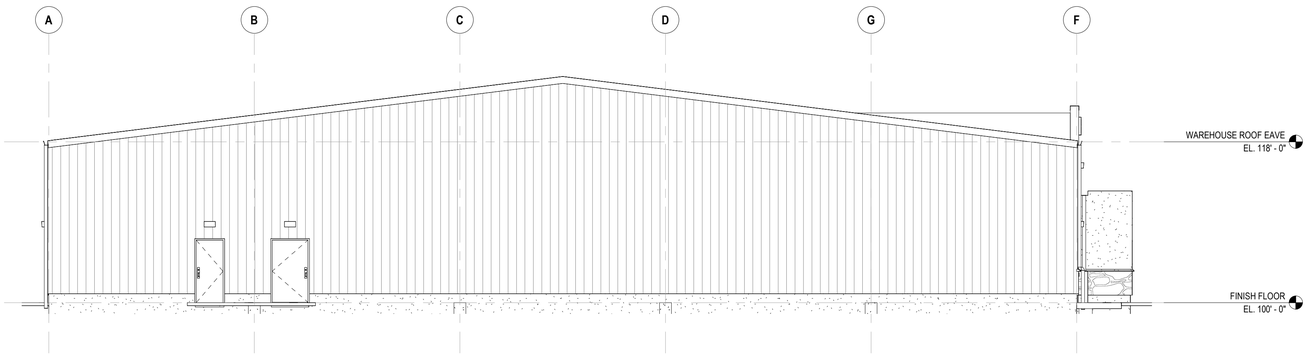
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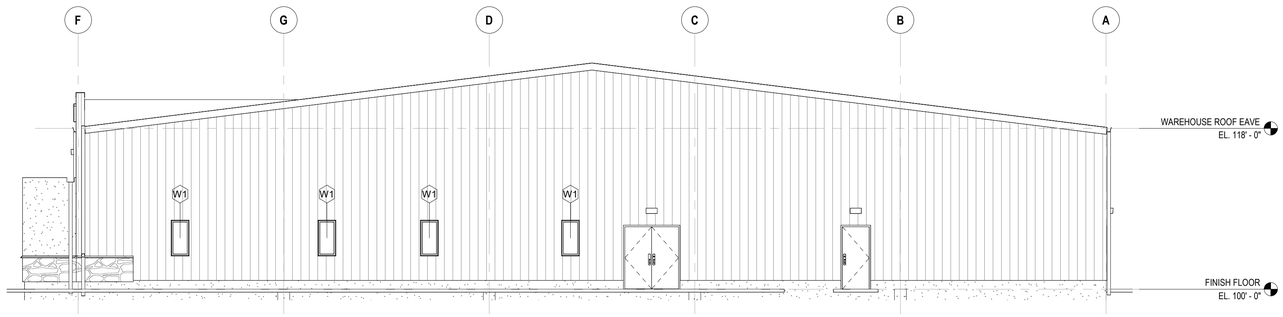
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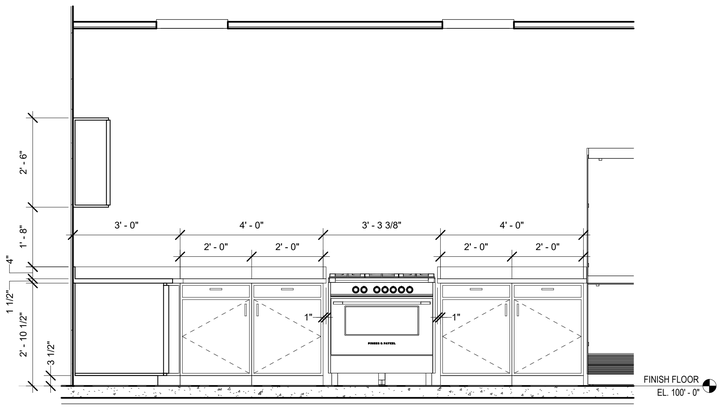
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BUILDING ELEVATIONS

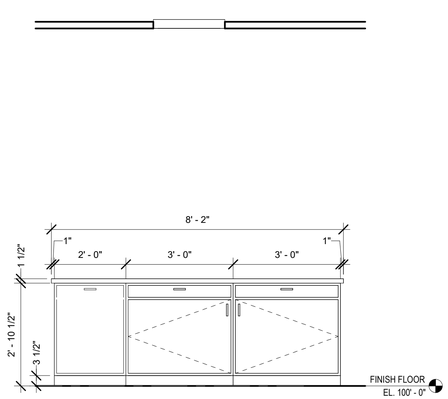
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A-201

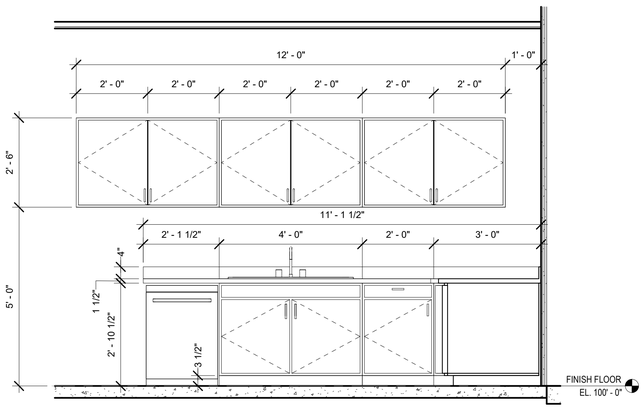
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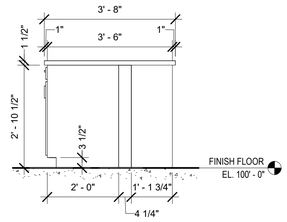
A 1 / A-501 INTERIOR ELEVATION
1/2" = 1'-0"



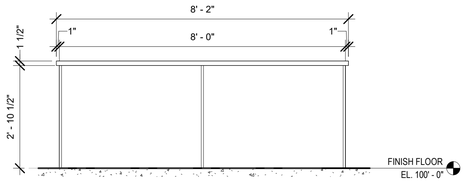
A 2 / A-501 INTERIOR ELEVATION
1/2" = 1'-0"



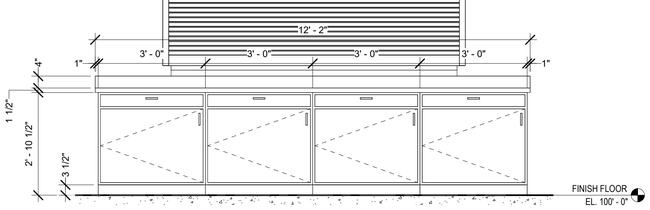
B 3 / A-501 INTERIOR ELEVATION
1/2" = 1'-0"



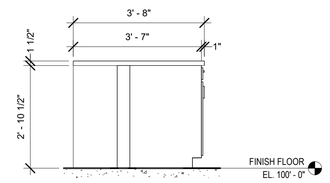
B 4 / A-501 INTERIOR ELEVATION
1/2" = 1'-0"



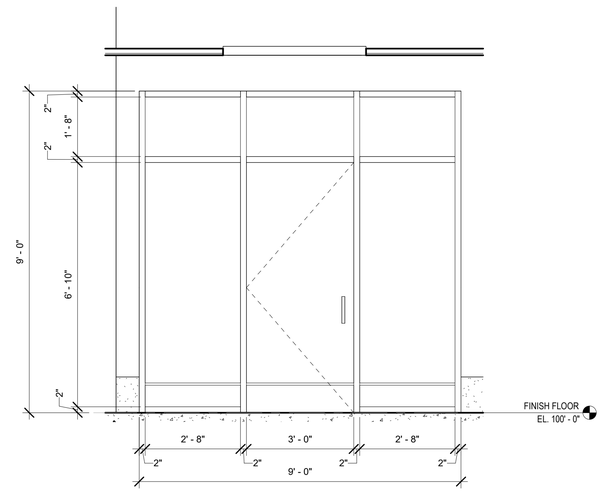
C 5 / A-501 INTERIOR ELEVATION
1/2" = 1'-0"



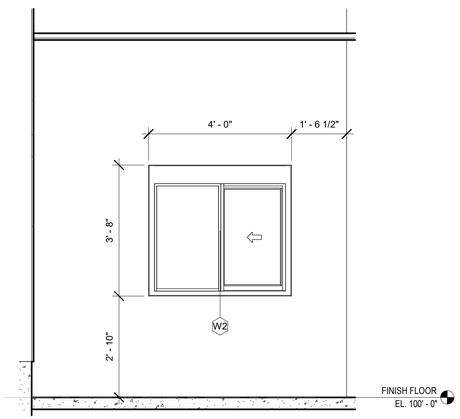
C 6 / A-501 INTERIOR ELEVATION
1/2" = 1'-0"



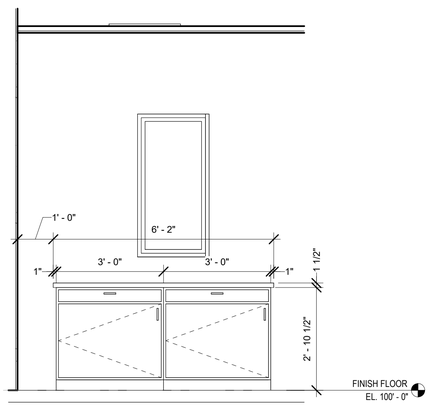
D 7 / A-501 INTERIOR ELEVATION
1/2" = 1'-0"



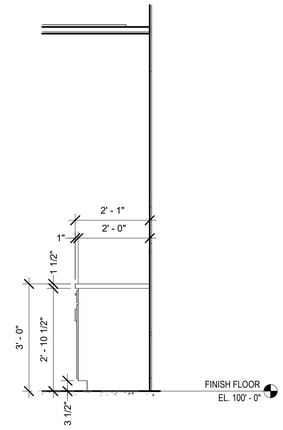
E 8 / A-501 INTERIOR ELEVATION
1/2" = 1'-0"



E 9 / A-501 INTERIOR ELEVATION
1/2" = 1'-0"



F 10 / A-501 INTERIOR ELEVATION
1/2" = 1'-0"



G 11 / A-501 INTERIOR ELEVATION
1/2" = 1'-0"

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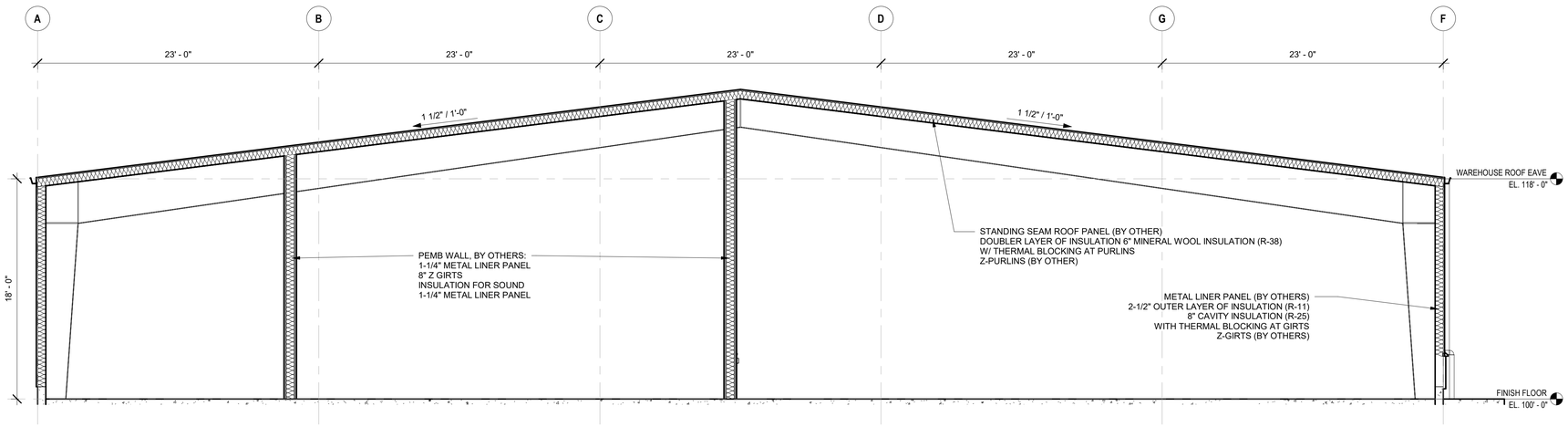
04/17/2025

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CHECKED BY:	JTD
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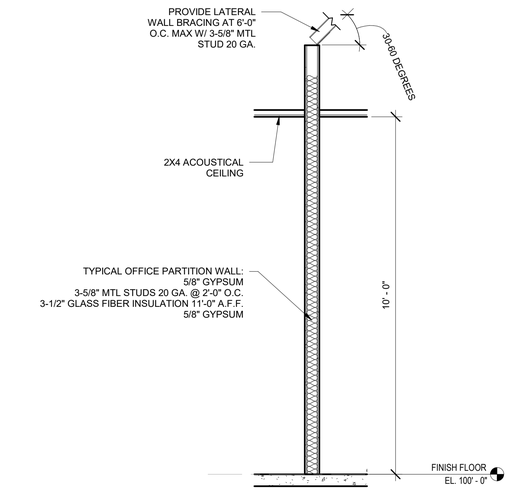
SHEET DESCRIPTION:
INTERIOR ELEVATIONS

SHEET NO.:
A-202

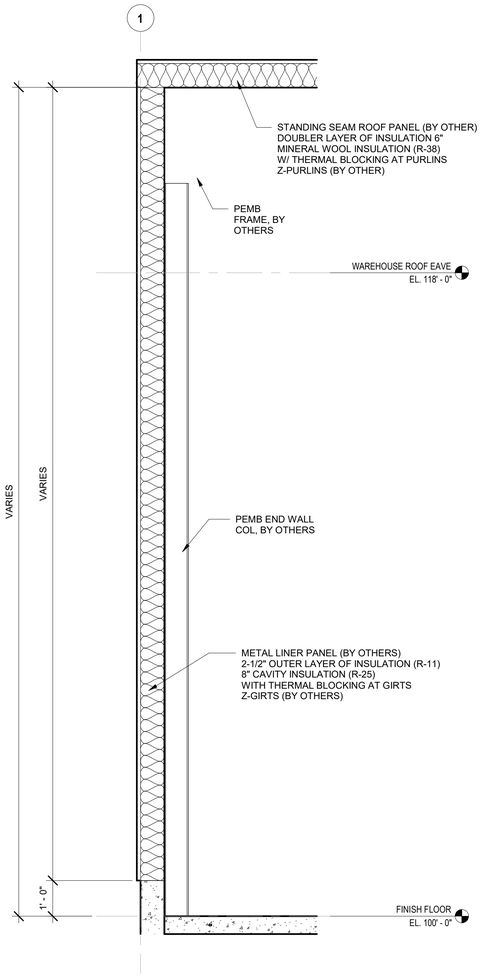
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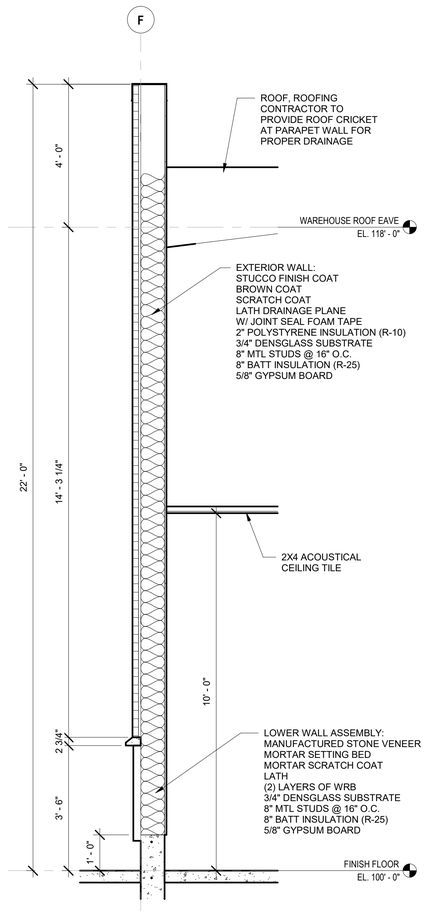
A A-101 **SECTION**
3/16" = 1'-0"



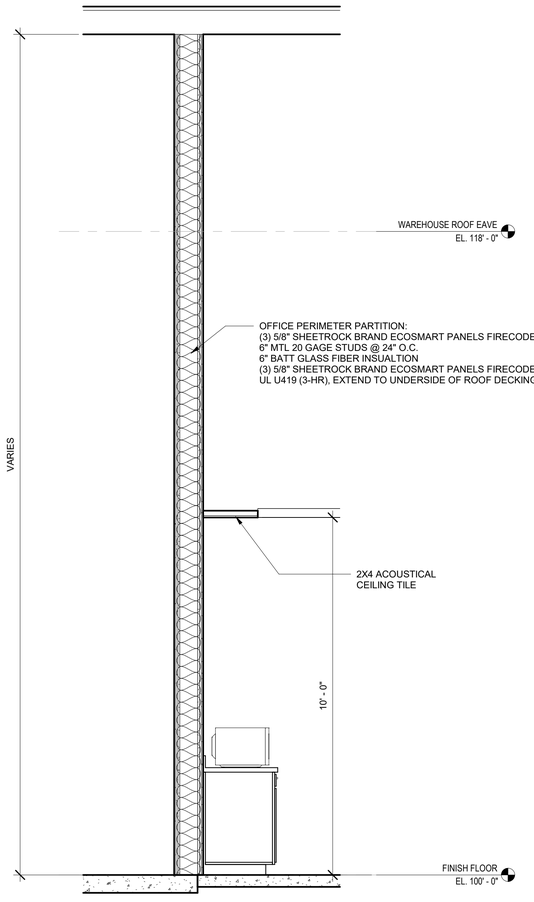
F A-501 **SECTION**
1/2" = 1'-0"



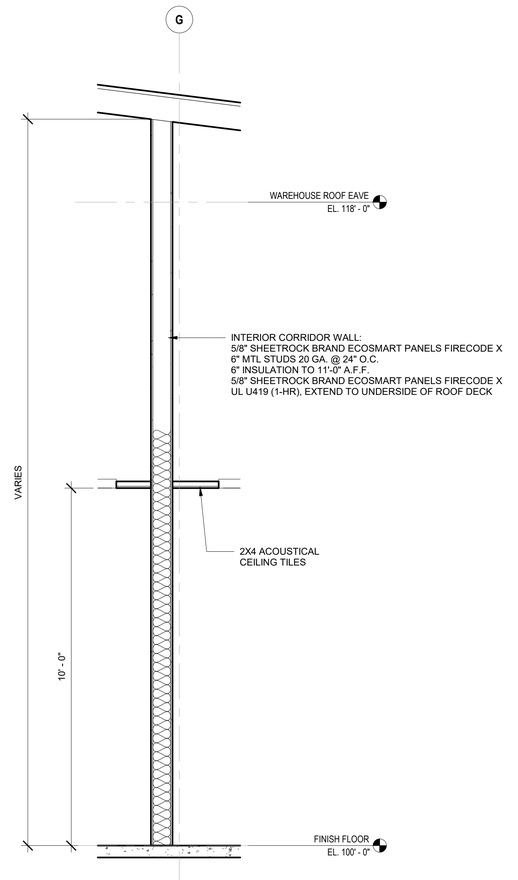
B A-101 **SECTION**
1/2" = 1'-0"



C A-501 **SECTION**
1/2" = 1'-0"



D A-501 **SECTION**
1/2" = 1'-0"



E A-501 **SECTION**
1/2" = 1'-0"

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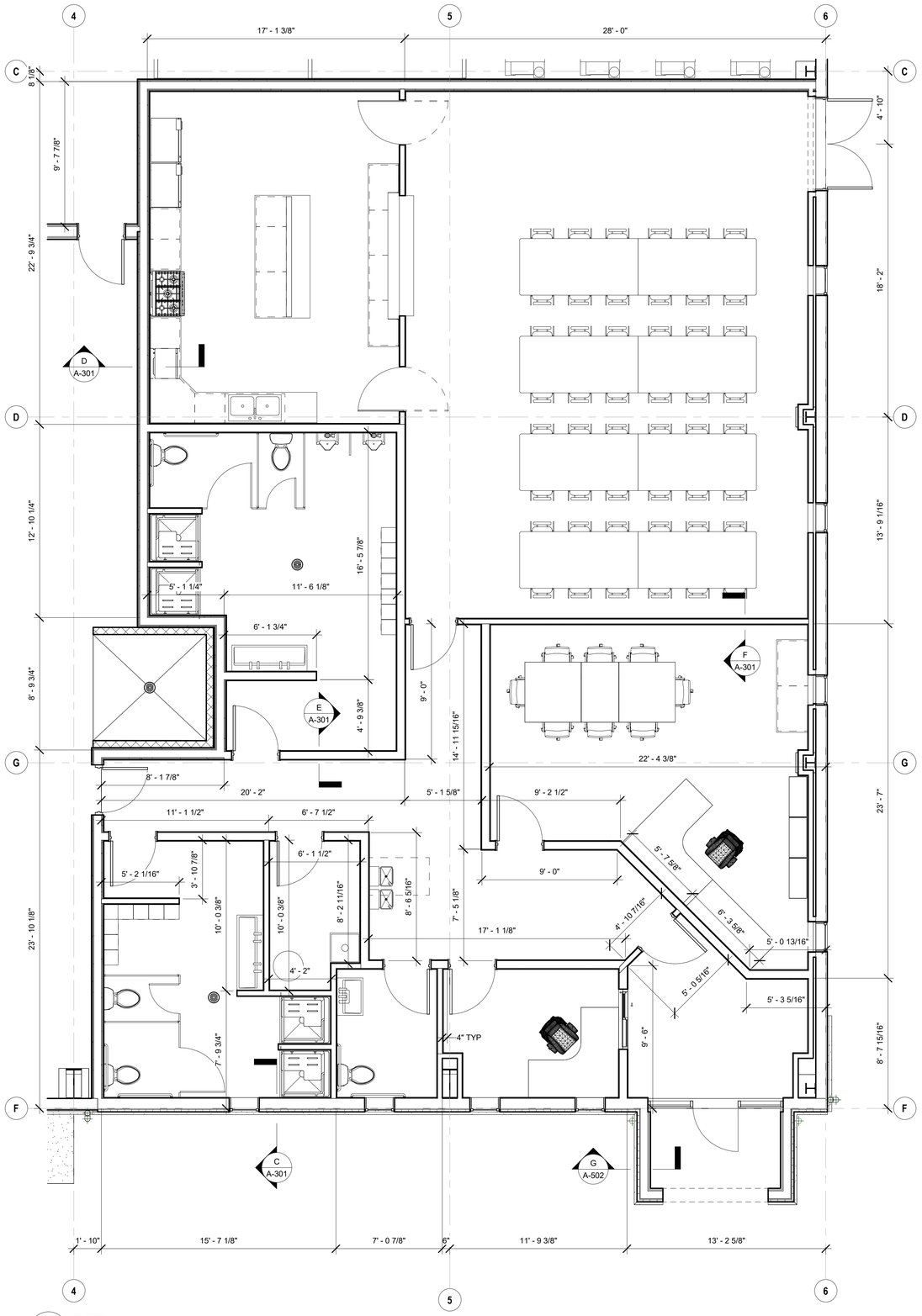
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PE.82894
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04/17/2025

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CHECKED BY:	JTD
DESIGNED BY:	AMK
APPROVED BY:	Approver
A/E JOB NO.:	6359A
CLIENT JOB NO.:	

SHEET DESCRIPTION:
BUILDING SECTIONS

SHEET NO.:
A-301

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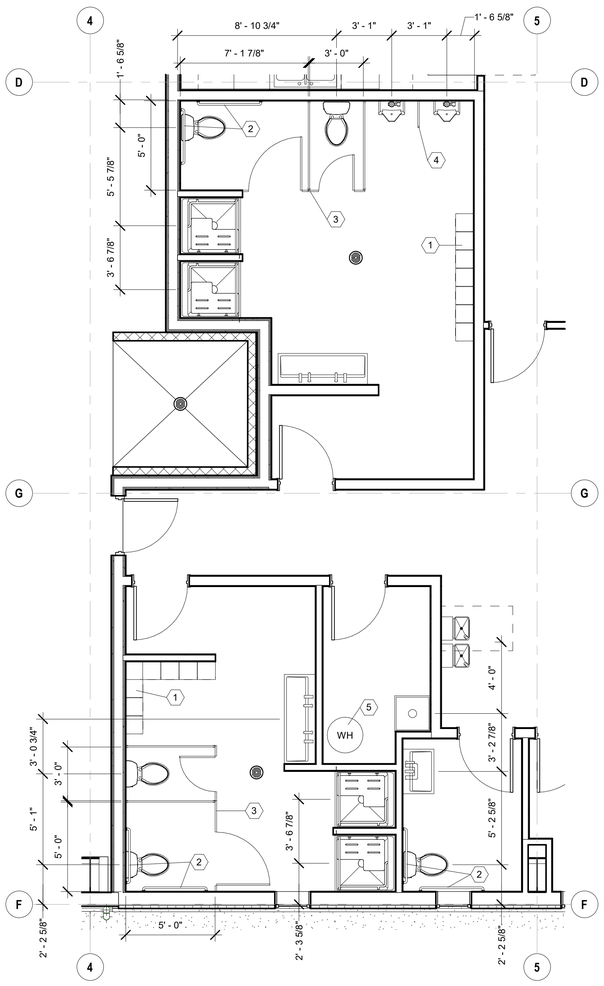
1 A-101

DETAIL

1/4" = 1'-0"

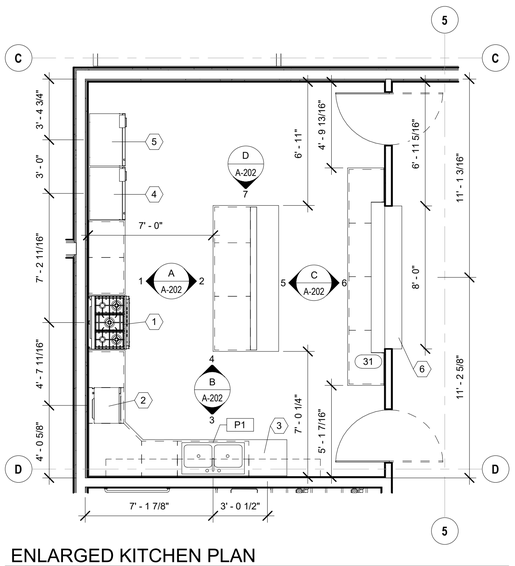
CONSTRUCTION NOTES - KITCHEN

#	NOTE DESCRIPTION
1	ELECTRIC RANGE AND OVEN, FOR WARMING USE ONLY. OWNER TO PROVIDE.
2	MICROWAVE OVEN, OWNER TO PROVIDE.
3	DISHWASHER BELOW COUNTER, OWNER TO COORDINATE W/ PLUMBING CONTRACTOR.
4	REFRIGERATOR, OWNER TO PROVIDE.
5	FREEZER, OWNER TO PROVIDE.
6	12" BUILT-IN COUNTER TOP.



ENLARGED RESTROOM PLAN

1/4" = 1'-0"

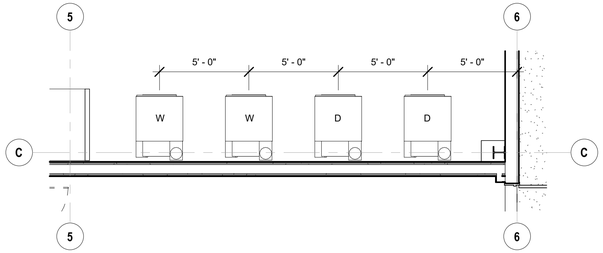


ENLARGED KITCHEN PLAN

1/4" = 1'-0"

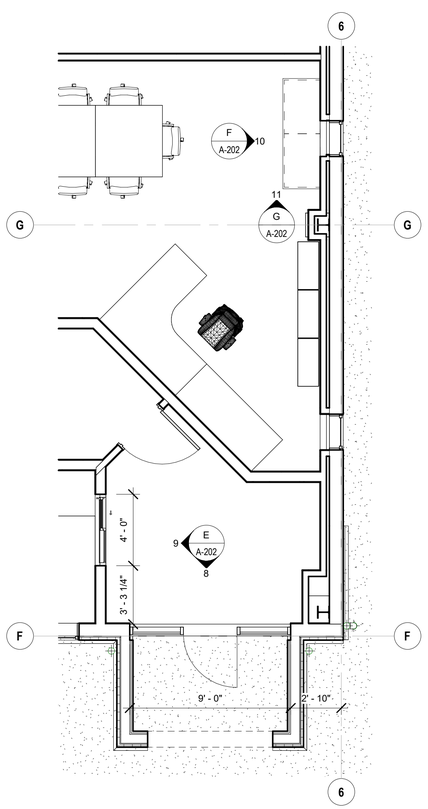
CONSTRUCTION NOTES - RESTROOM

#	NOTE DESCRIPTION
1	LOCKERS, OWNER, OWNER TO PROVIDE UNLESS COORDINATED W/ CONTRACTOR.
2	ACCESSIBLE GRAB RAIL, REFER TO ACCESSIBILITY DETAILS. PROVIDE WALL BLOCKING AS REQUIRED FOR ATTACHMENT.
3	FLOOR-MOUNTED OVERHEAD-BRACED STEEL TOILET PARTITIONS, 96" TALL. COORDINATE COLOR FINISH W/ OWNER.
4	URINAL SCREEN, REFER TO ACCESSIBILITY DETAIL.
5	WATERHEATER, REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR SPECIFICATIONS AND POWER SUPPLY.



ENLARGED LAUNDRY PLAN

1/4" = 1'-0"



ENLARGED FOYER PLAN

1/4" = 1'-0"

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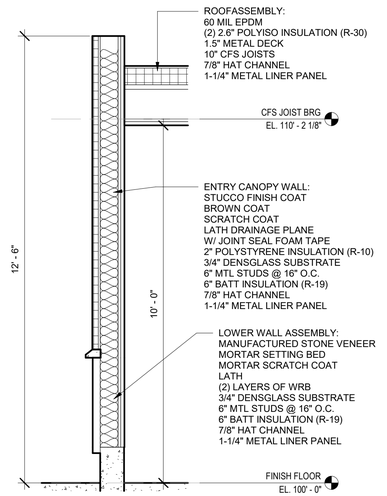
SHEET DESCRIPTION:

ARCHITECTURAL DETAILS

SHEET NO.:

A-501

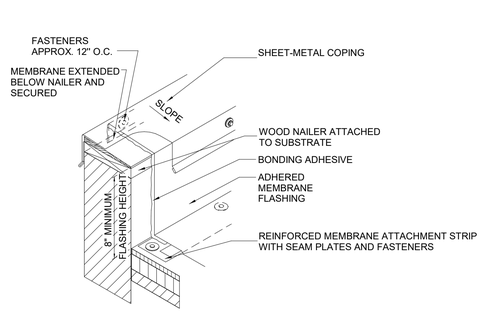
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A-501

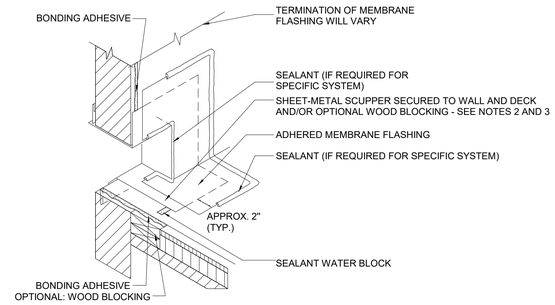
SECTION

1/2" = 1'-0"



EPDM - BASE FLASHING AT PARAPET WALL WITH METAL COPING

1 1/2" = 1'-0"



EPDM - BASE FLASHING AT THROUGH-WALL SCUPPER

1 1/2" = 1'-0"

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SHEET DESCRIPTION:

ARCHITECTURAL
DETAILS

SHEET NO.:

A-502

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ROOM FINISH SCHEDULE

MARK	ROOM NAME	FLOOR	BASE	WALL FINISH				CEILING		REMARKS
				NORTH	EAST	SOUTH	WEST	FINISH	HT	
101	FOYER	LVP	RUB	GYP	GYP	GYP	GYP	ACT	10' - 0"	
102	CORRIDOR	PC	RUB	GYP	GYP	GYP	GYP	ACT	10' - 0"	
103	RECEPTION	CC-T	RUB	GYP	GYP	GYP	GYP	ACT	10' - 0"	
104	UNISEX R.R.	PC	RUB	GYP	GYP	GYP	GYP	ACT	10' - 0"	GYPSUM TO BE MOISTURE RESISTANT UP TO 4'-0" A.F.F.
105	JANITOR'S CLOSET	PC	RUB	GYP	GYP	GYP	GYP	ACT	10' - 0"	
106	WOMEN'S R.R.	PC	RUB	GYP	GYP	GYP	GYP	ACT	10' - 0"	GYPSUM TO BE MOISTURE RESISTANT UP TO 4'-0" A.F.F.
107	MEN'S R.R	PC	RUB	GYP	GYP	GYP	GYP	ACT	10' - 0"	GYPSUM TO BE MOISTURE RESISTANT UP TO 4'-0" A.F.F.
108	OFFICE	CC-T	RUB	GYP	GYP	GYP	GYP	ACT	10' - 0"	
109	MULTI-PURPOSE ROOM	PC	RUB	GYP	GYP	GYP	GYP	ACT	10' - 0"	GYPSUM TO BE MOISTURE RESISTANT UP TO 4'-0" A.F.F.
110	KITCHENETTE	PC	RUB	GYP	GYP	GYP	GYP	ACT	10' - 0"	WARMING KITCHEN ONLY, GYPSUM TO BE MOISTURE RESISTANT UP TO 4'-0" A.F.F.
111	SHIPPING/RECEIVING	TC	VARIES	EXPS	MLP	GYP	EXPS	EXPS	20' - 11"	CEILING HEIGHT VARIES, HT INDICATED IS AVERAGE HEIGHT FROM FINISH FLOOR TO UNDERSIDE OF DECK.
112	HOBBY	TC	VARIES	EXPS	MLP	MLP	MLP	EXPS	22' - 2"	CEILING HEIGHT VARIES, HT INDICATED IS AVERAGE HEIGHT FROM FINISH FLOOR TO UNDERSIDE OF DECK.
113	RACK STORAGE	TC	VARIES	MLP	MLP	EXPS/GYP	MLP/GYP	EXPS	22' - 2"	CEILING HEIGHT VARIES, HT INDICATED IS AVERAGE HEIGHT FROM FINISH FLOOR TO UNDERSIDE OF DECK.
114	BULK STORAGE	TC	VARIES	EXPS	EXPS	EXPS/GYP	MLP	EXPS	18' - 7"	CEILING HEIGHT VARIES, HT INDICATED IS AVERAGE HEIGHT FROM FINISH FLOOR TO UNDERSIDE OF DECK.
115	UTILITY	TC	VARIES	GYP	EXPS	EXPS	GYP	EXPS	17' - 4"	CEILING HEIGHT VARIES, HT INDICATED IS AVERAGE HEIGHT FROM FINISH FLOOR TO UNDERSIDE OF DECK.

ROOM FINISH SCHEDULE

FLOOR FINISHES
WD - WOOD FLOOR (RES - RESILIENT)
CT - CERAMIC TILE
QT - QUARRY TILE
ST - STONE TILE/PAVER
CC - COMMERCIAL CARPET (T - TILE TYPE)
VCT - VINYL COMPOSITE TILE
RUB - RUBBER FLOORING
EC - EPOXIED CONCRETE
SPG - STEEL PLATE AND/OR GRATING
MT - MARBLE TILE
LVT - LUXURY VINYL TILE
LVP - LUXURY VINYL PLANK
PC - POLISHED CONCRETE
TC - TROWELED CONCRETE

BASE FINISH
WD (X") - WOOD TRIM (TRIM HT)
RUB - 4" HIGH COVE (6" AT R.R.)
TL (X") - TILE (TRIM HT)
NA - NO BASE FINISH
SS (X") - STAINLESS STEEL - 304 (TRIM HT)

WALL FINISHES
WP - WOOD PANELING
CT - CERAMIC TILE
SP - STONE PANELS
GYP - GYPSUM BOARD
PLR - PLASTER
MLP - METAL LINER PANELING
FRP - FIBERGLASS REINFORCED PLASTIC
SS - STAINLESS STEEL - 304 (20 GA)
EXPS - EXPOSED STRUCTURAL

CEILING FINISHES
ACT - ACOUSTICAL PANELING
WD - WOOD PLANKING
PLR - PLASTER
GYP - GYPSUM BOARD
MLP - METAL LINER PANELING
SV - STONE VENEER
FRP - FIBERGLASS REINFORCED PLASTIC
EXPS - EXPOSED STRUCTURAL

DOOR, FRAME, AND HARDWARE SCHEDULE

MARK	UL RATING (MIN)	FRAMES		PANEL			DOOR OPENING		HARDWARE					REMARKS
		MAT'L	ELEV.	MAT'L	ELEV.	TK	WIDTH	HEIGHT	HDWE. GROUP NO.	THRESHOLD	LOCK	CLOSURE	WEATHER STRIPPING	
1	20 MIN	HM	SF	HM	F	1 3/4"	3' - 0"	7' - 0"	3	No	Yes	Yes	No	ALTERNATE: PANEL TYPE N W/ 45 MIN RATED GLAZING
2	20 MIN	HM	SF	HM	F	1 3/4"	3' - 0"	7' - 0"	2	No	Yes	No	No	ALTERNATE: PANEL TYPE N W/ 45 MIN RATED GLAZING
3	20 MIN	HM	SF	HM	F	1 3/4"	3' - 0"	7' - 0"	2	No	Yes	No	No	ALTERNATE: PANEL TYPE N W/ 45 MIN RATED GLAZING
4	20 MIN	HM	SF	HM	F	1 3/4"	3' - 0"	7' - 0"	4	No	Yes	No	No	
5	20 MIN	HM	SF	HM	F	1 3/4"	3' - 0"	7' - 0"	8	No	Yes	No	No	
6	20 MIN	HM	SF	HM	F	1 3/4"	3' - 0"	7' - 0"	1	No	No	Yes	No	
7	180 MIN	HM	SF	HM	F	1 3/4"	3' - 0"	7' - 0"	7	No	No	Yes	No	ALTERNATE: PANEL TYPE N W/ 180 MIN RATED GLAZING
8	20 MIN	HM	SF	HM	F	1 3/4"	3' - 0"	7' - 0"	1	No	No	Yes	No	
9	20 MIN	HM	SF	HM	F	1 3/4"	3' - 0"	7' - 0"	12	No	No	Yes	No	ALTERNATE: TYPE G PANEL W/ 45 MIN RATED GLAZING
10		HM	SF	HM	G	1 3/4"	3' - 0"	7' - 0"	6	No	No	Yes	No	
11		HM	SF	HM	G	1 3/4"	3' - 0"	7' - 0"	6	No	No	Yes	No	
12		HM-G	SF	HM-G	F	1 3/4"	6' - 0"	7' - 0"	11	Yes	Yes	Yes	Yes	
13		HM-G	SF	HM-G	G	1 3/4"	3' - 0"	7' - 0"	9	Yes	Yes	Yes	Yes	
14		HM	SF	HM	G	1 3/4"	3' - 0"	7' - 0"	7	No	No	Yes	No	
15		HM	SF	HM	G	1 3/4"	3' - 0"	7' - 0"	7	No	No	Yes	No	
16		HM	SF	HM	F	1 3/4"	8' - 0"	7' - 0"	10	No	No	Yes	No	
17		HM-G	SF	HM-G	F	1 3/4"	4' - 0"	7' - 0"	9	Yes	Yes	Yes	Yes	
18		HM-G	SF	HM-G	F	1 3/4"	3' - 0"	7' - 0"	5	Yes	Yes	Yes	Yes	
19		HM	SF	HM	N	1 3/4"	3' - 0"	7' - 0"	7	No	No	Yes	No	
20		HM	SF	HM	N	1 3/4"	3' - 0"	7' - 0"	7	No	No	Yes	No	
21		HM-G	SF	HM-G	F	1 3/4"	3' - 0"	7' - 0"	5	Yes	Yes	Yes	Yes	
22		HM	SF	HM	F	1 3/4"	3' - 0"	7' - 0"	8	No	Yes	No	No	
23		HM-G	SF	HM-G	F	1 3/4"	3' - 0"	7' - 0"	5	Yes	Yes	Yes	Yes	
24		HM-G	OF	HM-G	A	2"	14' - 0"	14' - 0"					Yes	ALTERNATE - PANEL TYPE = S (4)
25		HM-G	OF	HM-G	A	2"	14' - 0"	14' - 0"					Yes	ALTERNATE - PANEL TYPE = S (4)
26		HM-G	OF	HM-G	A	2"	14' - 0"	14' - 0"					Yes	ALTERNATE - PANEL TYPE = S (4)
27		HM	OF	HM	S	2"	10' - 0"	10' - 0"						
28		HM	OF	HM	S	2"	8' - 0"	8' - 0"						
29		HM	OF	HM	S	2"	8' - 0"	8' - 0"						
30		HM	OF	HM	S	2"	8' - 0"	8' - 0"						
31		HM	OF	HM	R	2"	8' - 0"	4' - 0"						
32		AL	OF	GLS	FG	1 3/4"	3' - 0"	7' - 0"	13	Yes	Yes	Yes	Yes	REFER TO INTERIOR ELEVATION E-8 ON A-202.

DOOR SCHEDULE NOTES

FRAME MATERIAL
AL - ALUMINUM
HM - HOLLOW METAL (G - GALVANIZED)
SS - STAINLESS STEEL
FG - FIBERGLASS
WD - WOOD

DOOR MATERIAL
GLS - GLASS
AL - ALUMINUM
HM - HOLLOW METAL (G - GALVANIZED)
SS - STAINLESS STEEL
FG - FIBERGLASS
WD - WOOD
LM - LAMINATE

DOOR HARDWARE SETS

SET NO. 1:
HINGES (3) HEAVY WEIGHT — HAGER BB1168
CYLINDRICAL LOCK, PASSAGE FUNCTION — HAGER 2510 (WTN LEVER)
CLOSER — HAGER 5300 REGULAR MOUNT
KICKPLATE — KS

SET NO 2:
HINGES (3) STANDARD WEIGHT — HAGER BB1191
CYLINDRICAL LOCK, OFFICE FUNCTION — HAGER 2550 (WTN LEVER)

SET NO 3:
HINGES (3) HEAVY WEIGHT — HAGER BB1168NRP
EXIT DEVICE, CLASSROOM FUNCTION — HAGER 4747KE (RIM & WTN LEVER)
CLOSER — HAGER 5300 PARALLEL ARM MOUNT
KICKPLATE — KS

SET NO. 4:
HINGES (3) STANDARD WEIGHT — HAGER BB1191
CYLINDRICAL LOCK, PRIVACY FUNCTION — HAGER 2540 (WTN LEVER)

SET NO. 5:
HINGES (3) HEAVY WEIGHT — HAGER BB1168NRP
EXIT DEVICE, PASSAGE FUNCTION — HAGER 4747BE (RIM & NO EXTERIOR TRIM)
CLOSER — HAGER 5300 PARALLEL ARM MOUNT
KICK PLATE — KS
WEATHERSTRIPPING AND THRESHOLD BY DOOR/FRAME MANUFACTURER

SET NO. 6:
HINGES (3), DOUBLE ACTING — HAGER 1303-5
PUSH / PUSH TRIM — HAGER 40R / 40R
KICK PLATE — PS

SET NO. 7:
HINGES (3), HEAVY WEIGHT — HAGER BB1168
CYLINDRICAL LOCK, PASSAGE FUNCTION — HAGER 2510 (WTN LEVER)
CLOSER — HAGER 5300 REGULAR MOUNT
KICKPLATE — KS

SET NO. 8:
HINGES (3), STANDARD WEIGHT — HAGER BB1191
CYLINDRICAL LOCK, STOREROOM FUNCTION — HAGER 2580 (WTN LEVER)

SET NO. 9:
HINGES (3), HEAVY WEIGHT — HAGER BB1168NRP
EXIT DEVICE, CLASSROOM FUNCTION — HAGER 4747CE (RIM & WTN LEVER)
CLOSER — HAGER 5300 PARALLEL ARM MOUNT
KICKPLATE — KS
WEATHERSTRIPPING AND THRESHOLD BY DOOR/FRAME MANUFACTURER

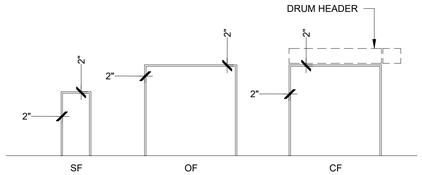
SET NO. 10:
HINGES (3) HEAVY WEIGHT — HAGER BB1168
EXIT DEVICE, PASSAGE FUNCTION — HAGER 4747BT (SVR & WTN LEVER)
CLOSER — HAGER 5300 REGULAR MOUNT
KICKPLATE — KS

SET NO. 11:
HINGES (3) HEAVY WEIGHT — HAGER BB1168NRP
EXIT DEVICE, CLASSROOM FUNCTION — HAGER 4747KE (RIM, WTN LEVER, & MULLION)
CLOSER — HAGER 5300 PARALLEL ARM MOUNT
KICKPLATE — KS
WEATHERSTRIPPING AND THRESHOLD BY DOOR/FRAME MANUFACTURER

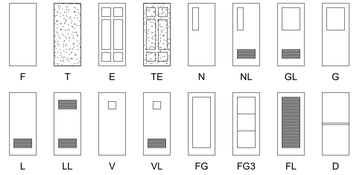
SET NO. 12:
HINGES (3) HEAVY WEIGHT — HAGER BB1168
EXIT DEVICE, PASSGE FUNCTION — HAGER 4747BT (RIM & WTN LEVER)
CLOSER — HAGER 5300 REGULAR MOUNT
KICKPLATE — KS

SET NO. 13:
HARDWARE BY STOREFRONT MANUFACTURER, PROVIDE CYLINDER LOCK, PUSH BAR, PULL TRIM, CLOSER, THRESHOLD, AND WEATHERSTRIPPING.





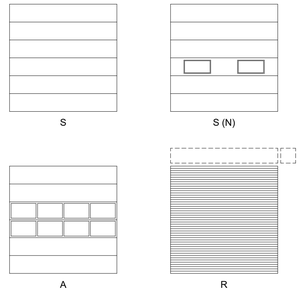
DOOR FRAME TYPES



MAN DOOR PANEL TYPE



KICKPLATE/PROTECTION PLATE TYPE



OVERHEAD DOOR PANEL TYPE

S - SECTIONAL
S (N) - SECTIONAL (# GLAZED PANELS)
A - ALUMINUM W/ GLAZING OPTIONAL
R - ROLL-UP

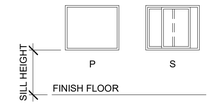
WINDOW SCHEDULE

MARK	QTY.	UL RATING	CONSTRUCTION				SIZE & REFERENCE			OTHER			REMARKS
			FIRE SHITTER	FR MAT'L	GLASS TYPE	NO. OF PANES	WIDTH	HEIGHT	SILL HEIGHT	ELEV. TYPE	MIRROR FINISH	TINT FINISH	
W1	6			AL	T & N	2	2' - 0"	4' - 0"	3' - 8 3/4"	P		Yes	
W2	1			SL	L	2	3' - 11 1/2"	3' - 7 1/2"	2' - 10"	S			
W3	2			AL	T & N	2	2' - 0"	4' - 0"	3' - 8 3/4"	P		Yes	SPANDREL GLASS

WINDOW SCHEDULE NOTES

FRAME MATERIAL
FG - FIBERGLASS
AL - ALUMINUM
WC - WOOD CLAD/COMPOSITE
VL - VINYL
WD - WOOD
SL - STEEL
UC - UPVC

GLASS TYPE
T - TEMPERED GLASS
L - LAMINATED GLASS
H - HURRICANE/IMPACT RESISTANT
N - INSULATED GLASS



P - PICTURE
S - SLIDING

WINDOW TYPE

ARCHITECTURAL SCHEDULE NOTES

1. ANY "NAMED" FIXTURE/MANUFACTURED ITEMS SPECIFIED IN THE SCHEDULE MUST BE VERIFIED BY THE CONTRACTOR FOR AVAILABILITY. IF ANY ITEM HAS BEEN DISCONTINUED/NO LONGER BEING MANUFACTURED IT IS THE CONTRACTOR'S RESPONSIBILITY TO BRING THIS TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE AND ARCHITECT/ARCHITECTURAL ENGINEER FOR AN ALTERNATIVE PRODUCT. IF BIDDING THIS PROJECT AND NO NOTIFICATION IS BROUGHT TO THE ATTENTION OF THE SPECIFIED PARTIES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COST DIFFERENCE IN SUBSTITUTE FIXTURE/MANUFACTURED ITEMS.
2. ALTERNATE PRODUCTS ARE ONLY PERMITTED IF WRITTEN APPROVAL AND ACCEPTANCE IS OBTAINED BY THE OWNER'S REPRESENTATIVE. SUFFICIENT TECHNICAL DOCUMENTATION MUST BE PROVIDED FOR SUFFICIENT REVIEW.
3. ANY EQUIPMENT/FURNISHING NOT LABELED OR NOTED IN THE SPECIFICATION, IF APPLICABLE, SHALL BE DETERMINED BY EITHER THE OWNER'S REPRESENTATIVE OR TENANT.
4. THE CONTRACTOR SHALL REVIEW AND VERIFY DOOR HARDWARE WITH THE OWNER'S REPRESENTATIVE. ANY MODIFICATION TO THE DOOR HARDWARE SHALL BE APPROVED BY THE ARCHITECT/ARCHITECTURAL ENGINEER AND THE OWNER'S REPRESENTATIVE PRIOR TO SUBSTITUTION.
5. ROOM FINISHES SPECIFIED SHALL BE COORDINATED WITH THE SPECIFICATIONS, IF APPLICABLE, OR THE OWNER'S REPRESENTATIVE. THIS SHALL INCLUDE BUT NOT LIMITED TO COLOR, TEXTURE, TRIM, ETC.
6. OPENING SILL, JAMB, AND/OR HEAD DETAILS AS PROVIDED IN THE CONSTRUCTION DOCUMENTS ARE GENERAL REFERENCE DETAILS AND SHALL BE CONFIRMED BY THE GENERAL CONTRACTOR, MANUFACTURER AND/OR SUPPLIER FOR ACTUAL INSTALLATION DETAILS. INSTALLATION DETAILS THAT VARY FROM WHAT IS SHOWN ON THE CONSTRUCTION DOCUMENTS SHALL BE PROVIDED TO THE ARCHITECT/ARCHITECTURAL ENGINEER FOR REVIEW AND APPROVAL.
7. THE ARCHITECTURAL DRAWINGS HAVE BEEN PREPARED BASED ON AVAILABLE INFORMATION FROM THE MANUFACTURER'S WEBSITE AND TECHNICAL DOCUMENT AVAILABLE. STE HAS MADE EVERY EFFORT TO ACCOMMODATE THE PRE-MANUFACTURED FINISHES INCLUDING, BUT NOT LIMITED TO, DOORS, WINDOWS, SIDING, ROOFING, FIXTURES, ETC. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND THE DESIGN PROFESSIONAL RESPONSIBLE FOR THE PRE-MANUFACTURED FINISH TO IDENTIFY ANY ISSUE WITH THE STRUCTURE THAT WILL REQUIRE ADDITIONAL DETAILING. ANY COSTS ASSOCIATED WITH THESE ISSUES ARE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

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Churches of Christ Disaster Response Team

CHURCHES OF CHRIST - DRT
NEW WAREHOUSE
9315 STATE ROUTE 202
TIPP CITY, OHIO 45371

NO.	REVISION	DATE
1	FOR PERMIT	04/17/2025
2	FOR CONSTRUCTION	05/29/2025

SEALED BY:



05/29/2025

DRAWN BY:	AMK
CHECKED BY:	JTD
DESIGNED BY:	AMK
APPROVED BY:	Approver
A/E JOB NO.:	6359A
CLIENT JOB NO.:	

SHEET DESCRIPTION:
ARCHITECTURAL SCHEDULES

SHEET NO.:
A-601

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GENERAL NOTES

A. DO NOT SCALE DRAWINGS. IF DIMENSIONS CANNOT BE DETERMINED OR DOCUMENTS ARE IN CONFLICT (WITH THEMSELVES OR FIELD CONDITIONS), THE CONTRACTOR MUST OBTAIN CLARIFICATION FROM THE ARCHITECT PRIOR TO CONTINUATION OF WORK.

B. CONTRACTOR(S) SHALL VISIT THE SITE TO ACQUAINT THEMSELVES WITH THE EXISTING OR NEWLY INSTALLED CONDITIONS. CONTRACTOR(S) SHALL FIELD VERIFY ALL DIMENSIONS, ELEVATIONS, UTILITIES, AND EXISTING OR NEWLY INSTALLED CONDITIONS PRIOR TO CONSTRUCTION.

C. THE CONSTRUCTION DOCUMENTS AND DRAWING NOTES / SPECIFICATIONS ARE INTENDED TO DESCRIBE AND PROVIDE FOR A FINISHED PIECE OF WORK. THE WORK SHALL BE COMPLETED IN EVERY DETAIL EVEN THOUGH EVERY ITEM NECESSARILY INVOLVED IS NOT PARTICULARLY MENTIONED OR SPECIFIED. ALL WORK SHALL BE INSTALLED AS SHOWN ON THE DRAWINGS AND / OR MANUFACTURER'S SPECIFICATIONS AND INSTALLATION INSTRUCTIONS. IF ANY CONTRACTOR IS IN DOUBT AS TO THE TRUE MEANING OF ANY PART OF THE DOCUMENTS, OR FINDS DISCREPANCIES IN OR OMISSIONS FROM ANY PART OF THE DOCUMENTS, HE MUST CONTACT THE ARCHITECT FOR CLARIFICATION.

D. ALL DIMENSIONS ARE TO FACE OF STUD, CONCRETE, MASONRY, OR CENTERLINE OF COLUMN, UNLESS NOTED OTHERWISE. WHEN EXISTING CONDITIONS ARE SHOWN, DIMENSIONS ARE TO FACE OF EXISTING FINISH, UNLESS NOTED OTHERWISE

E. FINISH FLOOR ELEVATIONS ARE FOR GENERAL REFERENCE. REFER TO CIVIL SHEETS FOR ACTUAL FINISH FLOOR ELEVATIONS.

F. EQUIPMENT AND FURNITURE SHOWN IS FOR REFERENCE ONLY, EQUIPMENT AND FURNITURE PROVIDED BY OWNER (UNLESS NOTED OTHERWISE). COORDINATE EQUIPMENT AND FURNITURE INSTALLATION AND UTILITY CONNECTIONS WITH OWNER AND OWNER'S SUPPLIER.

G. **DEFINITIONS:**
NECESSARY: WORK NEEDED TO COMPLETE THE WORK TO "MAKE IT OPERATIONAL".

REQUIRED: WORK NEEDED TO BE IN COMPLIANCE WITH BUILDING CODE, GOVERNING CODE, OR JURISDICTION HAVING AUTHORITY.

PROVIDE: RESPONSIBLE FOR PURCHASE, DELIVERY, RECEIVING, INSPECTION, STORAGE, PREPARATION, AND INSTALLATION OF ITEM(S).

FURNISH: RESPONSIBLE FOR PURCHASE AND DELIVERY OF ITEM(S).

INSTALL: RESPONSIBLE FOR RECEIVING, INSPECTION, STORAGE, PREPARATION, AND INSTALLATION OF ITEM(S).

BASIS OF DESIGN: AN ACCEPTABLE MANUFACTURER OR PRODUCT, DESIGNATED BY THE DESIGN PROFESSIONAL, WHICH EXHIBITS THE INTENDED STANDARDS AND DESIGN CRITERIA THAT MUST BE MET FOR PERFORMANCE. THE ITEM(S) INDICATED MAY BE PROVIDED OR AN ITEM OF EQUIVALENT APPEARANCE, AESTHETIC, QUALITY, MATERIAL, CONSTRUCTION, AND PERFORMANCE MAY BE SUBSTITUTED SUBJECT TO THE ARCHITECT'S OR DESIGN PROFESSIONAL'S APPROVAL. (REFER TO THE "SUBSTITUTIONS" SPECIFICATION FOR ADDITIONAL INFORMATION)

OR EQUAL: MAY FOLLOW A "BASIS OF DESIGN" OR OTHER SPECIFIED MANUFACTURER OR PRODUCT AND INDICATES THAT AN ITEM OF EQUIVALENT APPEARANCE, AESTHETIC, QUALITY, MATERIAL, CONSTRUCTION, AND PERFORMANCE MAY BE SUBSTITUTED SUBJECT TO THE ARCHITECT'S OR DESIGN PROFESSIONAL'S APPROVAL. (REFER TO THE "SUBSTITUTIONS" SPECIFICATION FOR ADDITIONAL INFORMATION)

HVAC GENERAL SPECIFICATIONS

A. UPON COMPLETION OF ALL HVAC WORK, THE CONTRACTOR SHALL SUBMIT (2) COPIES OF THE MANUFACTURER'S OPERATION AND MAINTENANCE MANUALS FOR ALL EQUIPMENT TO THE OWNER. THE CONTRACTOR SHALL PROVIDE TO THE ARCHITECT A COMPLETE SET OF RECORD DRAWINGS WITH ANY AND ALL CHANGES OR MODIFICATIONS TO THE DESIGN, CONSTRUCTION, SYSTEMS, OR EQUIPMENT CLEARLY INDICATED; SHOP DRAWINGS; INFORMATION ON THE THERMOSTATS, CONTROL WIRING DIAGRAMS, AND OTHER PERTINENT INFORMATION.

B. **HVAC EQUIPMENT:** ALL EQUIPMENT SHALL BE COMPLETE IN EVERY RESPECT WITH ALL DEVICES, APPURTENANCES, AND ACCESSORIES PROVIDED TO MEET THE DESIGN INTENT AND OPERATION OF THE SYSTEMS SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN. EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. ALL AIR CONDITIONING EQUIPMENT MUST HAVE A CONDENSATE DRAIN AND BE TRAPPED IN ACCORDANCE WITH MANUFACTURER'S DATA. ALL COMPRESSORS ARE TO INCLUDE A 5-YEAR EXTENDED WARRANTY.

C. **GAS PIPING:** EXTERIOR NATURAL GAS SERVICE PIPING: PIPING SHALL BE AS APPROVED BY THE LOCAL GAS COMPANY. PIPING SHALL BE POLYETHYLENE PLASTIC, PE 2306 OR 2406, TYPE II, GRADE 3, OR PE3406 OR 3408, TYPE III, GRADE 3, CONFORMING TO ASTM D2513. FITTINGS SHALL BE MOLDED POLYETHYLENE AND JOINTS SHALL BE BUTT HEAT-FUSION TYPE CONFORMING TO ASTM D2513 AND D2683. UNDERGROUND VALVES SHALL BE PLASTIC BALL VALVE, 125 PSI, EQUAL TO NORDSTROM POLYVALVE. PROVIDE A VALVE BOX AND COVER AT GRADE. ABOVE GROUND VALVES SHALL BE IRON BODY LUBRICATED PLUG VALVE, 200 PSI, EQUAL TO NORDSTROM #142 AND #143. PROVIDE MINIMUM 30" OF BURIAL DEPTH AND A COPPER TRACER WIRE. VERIFY WITH THE GAS COMPANY THE LOCATION OF CONNECTION TO SOURCE, AVAILABLE GAS PRESSURE, SERVICE SIZE, METER AND REGULATOR SETTING REQUIREMENTS, ETC. BEFORE INSTALLING ANY WORK. CONTRACTOR SHALL BE A FULLY QUALIFIED INSTALLER TO PERFORM COVERED TASKS AS REQUIRED BY THE DOT AND PUCO OPERATOR QUALIFICATION RULE AND SHALL BE LISTED AS A QUALIFIED CONTRACTOR OF THE SERVICING GAS COMPANY.

INTERIOR NATURAL GAS PIPING: PIPING SHALL BE SCHEDULE 40 BLACK STEEL, ASTM A53, TYPE E OR F. FITTINGS SHALL BE STEEL WELDING TYPE OR THREADED MALLEABLE IRON TYPE, CONSISTENT WITH JOINT REQUIREMENTS. VALVES, UNIONS, AND THREADED JOINTS ARE NOT PERMITTED IN INACCESSIBLE CONCEALED LOCATIONS. SHUTOFF VALVES 2" AND SMALLER SHALL BE TWO-PIECE FORGED BRASS BALL VALVE, 600 PSI NON-SHOCK WOG, SCREWED ENDS, EQUAL TO HAMMOND 8901. SHUTOFF VALVES 2.5" AND LARGER SHALL BE IRON BODY LUBRICATED PLUG VALVE, 200 PSI, FLANGED ENDS, EQUAL TO NORDSTROM #143. MATERIALS AND INSTALLATION SHALL CONFORM TO THE INTERNATIONAL FUEL GAS CODE AND NFPA 54 NATIONAL FUEL GAS CODE. VENT PIPING SHALL BE EXTENDED INDIVIDUALLY FROM EACH GAS VENTING DEVICE TO OUTSIDE THE BUILDING.

D. **REFRIGERANT LINE SET**: HVAC CONTRACTOR TO SIZE REFRIGERANT LINE SET SIZES PER MANUFACTURER'S RECOMMENDATIONS AND FIELD CONDITIONS - **ARCHITECT/ENGINEER TO REVIEW AND APPROVE LINE SET SIZES PRIOR TO INSTALLATION.** LINES EXCEEDING 150 FEET IN LENGTH REQUIRE A PUMP (SIZED AND PROVIDED BY THE HVAC CONTRACTOR).

E. **NOISE AND VIBRATION:** MECHANICAL AND ELECTRICAL EQUIPMENT IS TO OPERATE WITHOUT OBJECTIONABLE NOISE OR VIBRATION. ALL MOTOR OPERATED OR ROTATING EQUIPMENT IS TO BE VIBRATION ISOLATED OR FREE FROM ALL BEAMS, COLUMNS, FLOORS, CEILINGS, JOISTS, WALLS, AND OTHER PARTS OF THE BUILDING STRUCTURE. HANGER RODS FOR ALL PIPING, EQUIPMENT, AND DUCTWORK CONNECTED TO MOTOR OPERATED OR ROTATING EQUIPMENT IS TO BE PROVIDED WITH KINETICS OR APPROVED EQUAL FIBERGLASS ISOLATOR HANGERS. PROVIDE FLEXIBLE COLLARS IN ALL CONNECTIONS BETWEEN VIBRATING EQUIPMENT (FANS, ROOFTOP UNITS, ETC.) AND DUCTS. THE FLEXIBLE CONNECTION IS TO BE RATED FOR THE OPERATING PRESSURE OF THE SYSTEM.

F. **CURBS AND STEEL FRAMING FOR SUPPORT:** PROVIDE ALL NECESSARY CURBS AND STEEL FRAMING REQUIRED TO INSTALL ALL HVAC EQUIPMENT AS DESCRIBED OR IMPLIED ON THE DRAWINGS. CURBS SHALL BE OF THE SAME MANUFACTURER OF THE EQUIPMENT SUPPORTED. INSULATE UNDER THE COMPRESSOR SECTION TO PREVENT CONDENSATION. ALL CURBS MUST BE INSTALLED SO THAT TOP OF CURBS ARE LEVEL.

G. **DUCTWORK:** DUCTWORK IS TO BE FABRICATED WITH GALVANIZED SHEET STEEL (NO FIBERGLASS ALLOWED) IN ACCORDANCE WITH SMACNA "HVAC DUCT CONSTRUCTION STANDARDS-METAL AND FLEXIBLE" AND NAIMA "FIBROUS GLASS DUCT CONSTRUCTION STANDARDS," LATEST EDITIONS; CONFORMING TO THE REQUIREMENTS IN THE REFERENCED STANDARD FOR METAL THICKNESS, REINFORCING TYPES AND INTERVALS, TIE ROD APPLICATIONS, AND JOINT TYPES AND INTERVALS. ALL JOINTS, SEAMS, AND CONNECTIONS MUST BE SECURELY FASTENED AND SEALED AIRTIGHT IN COMPLIANCE WITH THE INTERNATIONAL ENERGY CONSERVATION CODE AND OHIO MECHANICAL CODE.

H. **BRANCH DUCTWORK:** ALL DUCT BRANCHES TO DIFFUSERS ARE TO BE RECTANGULAR OR ROUND RIGID DUCT. ALL BRANCH TAKEOFFS FROM RECTANGULAR MAINS TO BE CONNECTED TO SPIN COLLARS WITH SCOOPS AND QUADRANT DAMPERS.

I. **FLEXIBLE DUCTWORK:** FLEX DUCTWORK IS TO BE NFPA 90 AND 90A APPROVED INDICATING NO VINYL, TESTED IN ACCORDANCE WITH UL 181, AND LISTED AND LABELED AS CLASS 0 OR CLASS 1 DUCT. NO FLEX DUCT RUN TO EXCEED **5'-0" MAXIMUM** TOTAL LENGTH AT ANY ONE LOCATION. ALL FLEX CONNECTIONS TO BE TAPED AND STRAPPED PER MANUFACTURER'S INSTRUCTIONS. FLEXIBLE AIR DUCT MAY ONLY BE USED IN VERTICAL APPLICATIONS WITH PRIOR APPROVAL FROM THE ARCHITECT. **FLEXIBLE DUCTWORK IS NOT PERMITTED TO BE USED FOR RETURN DUCTWORK.**

J. **DUCTWORK INSULATION:** INSTALL INSULATION PRODUCTS IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS AND IN ACCORDANCE WITH RECOGNIZED INDUSTRY PRACTICES. INSULATION MUST COMPLY WITH NFPA 90A. DUCT SIZES SHOWN ON DRAWINGS ARE INSIDE CLEAR DIMENSIONS. INSULATE DUCTWORK PER THE DUCT CONSTRUCTION SCHEDULE. PROVIDE DUCTWORK INSULATION WITHOUT INTERRUPTION THROUGH WALLS, FLOORS, AND SIMILAR PENETRATIONS. ALL INSULATION SHALL HAVE A FLAME SPREAD RATING OF NOT MORE THAN 25 AND A SMOKE DEVELOPED RATING OF NO HIGHER THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM C411, OR AS REQUIRED BY LOCAL CODES.

K. WHERE ROUND DUCTWORK IS INDICATED ON PLANS, PROVIDE RECTANGULAR DUCTWORK, IF ROUND DUCTWORK CANNOT BE INSTALLED BECAUSE OF OBSTRUCTIONS, INSUFFICIENT CLEARANCES OR OTHER CAUSES DUE TO FIELD CONDITIONS. CONTRACTOR'S OPTION TO INSTALL RECTANGULAR DUCTWORK IN LIEU OF INDICATED ROUND DUCTWORK AT OTHER LOCATIONS. SIZE ALL RECTANGULAR DUCTWORK CONVERSIONS COMPARABLE TO INDICATED DUCTWORK SIZE PER SMACNA "HVAC DUCT CONSTRUCTION STANDARDS-METAL AND FLEXIBLE," LATEST EDITION. SHOULD THE CONTRACTOR BE IN DOUBT OF THE REQUIREMENTS UNDER THIS SECTION, DUCTWORK SIZING, OR SHOULD ANY DISCREPANCY BE REVEALED BASED ON FIELD CONDITIONS, IMMEDIATELY CONTACT THE ARCHITECT FOR CLARIFICATION.

L. PROVIDE A FLEXIBLE CONNECTION BETWEEN BONNET AND RIGID DUCT ON ALL SUPPLY AND RETURN DUCTWORK.

M. **DIFFUSERS, GRILLES, REGISTERS, AND DAMPERS:** PROVIDE DIFFUSERS, GRILLES, AND REGISTERS AS SCHEDULED. DEVICES TO BE COMPLETE WITH BALANCING DAMPERS, FRAMES, AND ALL ACCESSORIES, FINISH AS INDICATED. PROVIDE UL LISTED (UL555) FIRE RATED DAMPERS AT ALL FIRE PARTITION OR FIRE BARRIER PENETRATIONS, WHETHER SHOWN OR NOT SHOWN ON THE PLANS. ALL GRAVITY DAMPERS REQUIRE SEALS.

N. **SUPPORT AND BRACING:** INSTALL RIGID ROUND AND RECTANGULAR METAL DUCTWORK WITH APPROVED SUPPORT SYSTEMS INDICATED IN SMACNA STANDARDS AND STATE BUILDING CODE. SUPPORT HORIZONTAL DUCTS AT A MAXIMUM INTERVAL OF 10 FEET AND WITHIN 2 FEET OF EACH ELBOW AND WITHIN 4 FEET OF EACH BRANCH INTERSECTION USING DOUBLE STRAP HANGERS ON EACH SIDE OF FITTING. SUPPORT VERTICAL DUCTS AT A MAXIMUM INTERVAL OF 10 FEET AND AT EACH FLOOR. FLEXIBLE AND OTHER FACTORY MADE DUCTS SHALL BE SUPPORTED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. NO WOOD SHALL BE USED TO SUPPORT OR BRACE DUCTS. PROVIDE SWAY AND SEISMIC BRACING AS REQUIRED BY STATE AND LOCAL CODES. PROVIDE FIXED ANCHORS AT EACH MECHANICAL DIFFUSER OR GRILLE TO CEILING GRID. CEILING GRID CONTRACTOR TO PROVIDE SUPPORT WIRES AT OPPOSITE CORNERS OF LIGHT FIXTURES, MECHANICAL DIFFUSERS, AND GRILLES TO STRUCTURE ABOVE.

HVAC GENERAL SPECIFICATIONS CONT'D

O. **CONTROLS:** EACH UNIT TO BE CONTROLLED BY THERMOSTAT WITH PROPER STAGES OF HEATING AND COOLING - MOUNTED AT 48" AFF (REFER TO MECHANICAL SHEETS FOR MODEL NO. AND LOCATION). CONTROL WIRING IS TO BE FURNISHED AND INSTALLED BY THE HVAC CONTRACTOR. POWER WIRING IS TO BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR. THERMOSTAT SHALL BE 7-DAY PROGRAMMABLE AND SHALL BE SETUP TO INCLUDE 5 DEGREE DEADBAND, TEMPERATURE OVERLAP RESTRICTION AND TEMPERATURE SETBACK DURING UNOCCUPIED HOURS.

P. **POWER AND CONTROL WIRING:** ELECTRICAL CONTRACTOR TO PROVIDE ALL NECESSARY POWER WIRING FOR HVAC EQUIPMENT FROM SUITABLE FUSED DISCONNECT SOURCE TO UNIT WITH FUSED DISCONNECT TO MEET NATIONAL ELECTRIC CODE (NEC), STATE AND LOCAL CODES. HVAC CONTRACTOR TO PROVIDE 24 VOLT OR LESS CONTROL WIRING.

Q. **STARTUP:** HVAC CONTRACTOR TO PROVIDE STARTUP PER MANUFACTURER'S WRITTEN RECOMMENDATIONS.

R. **AIRFLOW AND TESTING:** ALL DUCT AS PER SMACNA GUIDELINES. THE SYSTEM TO BE BALANCED AND TESTED BY AN INDEPENDENT, "NEBB" CERTIFIED, BALANCING CONTRACTOR PER "NEBB"

S. PROCEDURES. THE HVAC CONTRACTOR SHALL INCLUDE THE COST OF THE BALANCING AND TESTING IN HIS BID. THE BALANCING CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, TRANSPORTATION, AND EQUIPMENT NECESSARY TO COMPLETELY BALANCE THE AIR FLOW FOR THE HVAC SYSTEMS AS SHOWN ON THE DRAWINGS. HVAC CONTRACTOR SHALL INSTALL NEW FILTERS IN ALL UNITS PRIOR TO THE AIR BALANCE. THE COMPLETE AIR BALANCE SHALL TAKE PLACE WITH OUTSIDE AIR DAMPERS IN MINIMUM POSITION. BALANCE THE SYSTEM TO WITHIN +-5 PERCENT OF THE DESIGN REQUIREMENTS. THE HVAC CONTRACTOR AT NO ADDITIONAL COST SHALL PERFORM ANY REQUIRED CHANGES RINTUIRE INSTALLATION AND ADJUSTMENT TASKS AS REQUIRED BY THE DOT AND PUCO OPERATOR QUALIFICATION RULE AND SHALL BE LISTED AS A QUALIFIED CONTRACTOR OF THE SERVICING GAS COMPANY. ALL CONTROL SEQUENCES SHALL BE TESTED (INTERLOCKED EQUIPMENT, SMOKE DETECTORS, SMOKE EVACUATION, ECONOMIZER, CO2 SENSORS, ETC.) AND OPERATING STATUS RECORDED IN THE REPORT. A DIGITAL OR THREE (3) PRINTED COPIES OF THE BALANCE AND TESTING REPORT SHALL BE PROVIDED TO THE OWNER, OWNER'S REPRESENTATIVE, OR ARCHITECT BEFORE PROJECT CLOSE OUT FOR REVIEW. THE BALANCING CONTRACTOR SHALL RECHECK ANY ITEMS THAT THE OWNER OR ARCHITECT DEEMS REASONABLY NECESSARY AT NO ADDITIONAL COST TO THE OWNER.

T. VENTILATION AND COMBUSTION AIR INTAKE: PROVIDE OUTSIDE VENTILATION AIR BY NATURAL VENTILATION OR MECHANICAL EQUIPMENT AS REQUIRED BY THE MECHANICAL CODE (REFER TO OUTSIDE AIR VENTILATION SCHEDULE). IF GAS-FIRED EQUIPMENT IS USED, VERIFY THAT THE MECHANICAL ROOM AND / OR MECHANICAL EQUIPMENT ARE PROVIDED WITH ADEQUATE COMBUSTION AND DILUTION AIR IN COMPLIANCE WITH THE MECHANICAL CODE, PROVIDE ADDITIONAL AIR AS REQUIRED. PROVIDE A VENT DESIGNED FOR THE TYPE OF APPLIANCE BEING VENTED FOR ALL GAS-FIRED EQUIPMENT TO THE EXTERIOR. PROVIDE VENTS DIRECTLY TO THE EXTERIOR FOR ALL EXHAUST FANS. ALL EXHAUST AND INTAKE OPENINGS MUST BE LOCATED A MINIMUM OF 10 FEET FROM LIT LINES OR BUILDINGS ON THE SAME LOT.

U. PROVIDE A SMOKE DETECTOR IN RETURN AIR SYSTEMS WITH A DESIGN CAPACITY GREATER THAN 2,000 CFM IN THE RETURN AIR DUCT OR PLENUM UPSTREAM OF ANY FILTERS, EXHAUST AIR CONNECTIONS, OUTDOOR AIR CONNECTIONS, OR DECONTAMINATION EQUIPMENT AND APPLIANCES (PER OMC SECTION 606.2.1). WHERE TWO OR MORE UNITS SHARE THE SAME RETURN, THE COMBINED AMOUNT OF CFM SHALL BE USED IN DETERMINING WHETHER A DUCT SMOKE DETECTOR IS REQUIRED. COORDINATE THESE REQUIREMENTS BETWEEN THE HVAC AND THE ELECTRICAL OR FIRE ALARM CONTRACTORS.

V. PROVIDE ACCESS TO ALL DAMPERS, CONTROLS, AND OTHER ITEMS IN DUCTWORK THAT REQUIRE SERVICE OR INSPECTION. IF THE ACCESS PANEL LOCATION IS EXPOSED, THE OWNER OR THE ARCHITECT MUST APPROVE IT PRIOR TO INSTALLATION. ACCESS PANELS ARE NOT REQUIRED ABOVE LAY-IN GRID TYPE CEILINGS.

W. ALL HVAC EVAPORATORS AND COOLING COILS REQUIRE A CONDENSATE DRAIN, WHICH IS CONVEYED TO AN APPROPRIATE PLACE OF DISPOSAL (TYPICALLY INDIRECTLY INTO A FLOOR DRAIN). A SECONDARY DRAIN OR AUXILIARY DRAIN PAN [WITH A SEPARATE DRAIN OR A WATER LEVEL DETECTION DEVICE CONFORMING TO UL 508 THAT WILL SHUT OFF THE EQUIPMENT SERVED PRIOR TO OVERFLOW OF THE AUXILIARY DRAIN PAN] IS REQUIRED FOR ANY EQUIPMENT THAT PRODUCES CONDENSATE AND WHERE DAMAGE MAY OCCUR AS A RESULT OF OVERFLOW FROM THE EQUIPMENT DRAIN PAN OR STOPPAGE IN THE CONDENSATE DRAIN (PER OMC SECTION 307.2.3). COORDINATE THESE REQUIREMENTS BETWEEN THE HVAC AND PLUMBING CONTRACTORS AND THE ARCHITECT.

X. ALL ROOF AND/OR EXTERIOR WALL PENETRATIONS ARE TO BE SEALED AIR AND WATER TIGHT, COORDINATE WITH THE GENERAL CONTRACTOR AND OTHER SUB-CONTRACTORS. ALL EQUIPMENT, PIPES, DUCTS, ETC. ARE TO BE INSTALLED CONCEALED ABOVE THE CEILING UNLESS SHOWN OTHERWISE.

Y. VERIFY ALL SUSPENDED MECHANICAL LOADS WITH ARCHITECT PRIOR TO ORDERING NEW MECHANICAL EQUIPMENT.

Z. HVAC CONTRACTOR TO COORDINATE ROUTING AND LOCATION OF ALL DEVICES WITH BUILDING STRUCTURE AND OTHER CEILING MOUNTED DEVICES.

AA. HVAC CONTRACTOR TO REVIEW DRAWINGS FOR COMPLIANCE WITH LOCAL CODES AND WITH AUTHORITIES HAVING JURISDICTION OVER THIS PROJECT. CONTACT ARCHITECT WITH ANY QUESTIONS OR CONCERNS.

DUCTWORK SYMBOL LEGEND

SUPPLY OR OUTSIDE AIR DUCT UP	RADIUS RECTANGULAR ELBOW
RETURN OR EXHAUST AIR DUCT UP	SUPPLY OR OUTSIDE AIR ROUND DUCT UP
SUPPLY OR OUTSIDE AIR DUCT DOWN	RETURN OR EXHAUST AIR ROUND DUCT UP
RETURN OR EXHAUST AIR DUCT DOWN	ROUND DUCT DOWN
SUPPLY OR OUTSIDE AIR DUCT OFFSET	ROUND OFFSET
RETURN AIR DUCT OFFSET	ROUND ELBOW
MANUAL BALANCING DAMPER	ROUND WYE
MOTORIZED DAMPER	RECTANGULAR BRANCH TAKEOFF
FIREDAMPER	RECTANGULAR DUCT TERMINATION
RECTANGULAR TO ROUND TRANSITION	ROUND DUCT TERMINATION
RECTANGULAR TRANSITION	
STANDARD RECTANGULAR ELBOW	

ANNOTATION SYMBOL LEGEND

T THERMOSTAT OR TEMP. SENSOR	4 / H-100 SECTION SYMBOL
H HUMIDISTAT	
S SWITCH	RTU / 12 EQUIPMENT PLAN MARK
(10) KEYED NOTE SYMBOL	
CONNECT TO EXISTING	1 / H-100 DETAIL SYMBOL
1-01 VAV TERMINAL UNIT MARK	
AHU-1 EQUIPMENT MARK	
A-8"ø 250 / A-24x12 250 AIR DEVICE MARK - NECK SIZE / AIRFLOW	
8"ø ROUND DUCT SIZE	
24x12 RECTANGULAR DUCT SIZE	

AIR DEVICE AND DUCT ACCESS. LEGEND

RETURN AIR GRILLE	SUPPLY AIR DIFFUSER (HARD CONNECTION)
SUPPLY AIR DIFFUSER WITH FLEXIBLE RUNOUT AND DAMPER	RETURN OR EXH. GRILLE (HARD CONNECTION)
SIDEWALL DIFFUSER	14X14 TRANSFER OPENING IN WALL
SUPPLY AIR DIFFUSER (HARD CONNECTION)	TRANSFER OPENING IN WALL
RETURN OR EXH. GRILLE (HARD CONNECTION)	

PIPE SYMBOL LEGEND

C	PIPE DOWN
	PIPE UP
	TEE DOWN
	TEE UP
	PIPE BREAK (FOR CLARITY)
E	CAPPED PIPE
RS	REFRIGERANT SUCTION PIPE
RHG	REFRIGERANT HOT GAS PIPE

HVAC INDEX OF DRAWINGS

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H1.2	GAS PIPING PLAN
H1.3	GAS ISOMETRIC

WAT-KEM MECHANICAL
2755 SOUTH COUNTY RD 25 A, TROY, OH 45373
OFFICE: (937)-573-3072

L2 ENGINEERING
7945 WASHINGTON WOODS DRIVE
DAYTON, OH 45459

CHURCHES OF CHRIST
- NEW WAREHOUSE
9285 STATE ROUTE 202
TIPP CITY, OHIO 45371

HVAC LEGEND AND GENERAL NOTES

ENGINEER'S STAMP

STATE OF OHIO — JEFFREY J. METZEL — PE - 76572 — REGISTERED PROFESSIONAL ENGINEER

DRAWING ISSUE

1	03/28/2025	FOR PERMIT

PERMIT DATE: 03.28.2025	*DRAWN BY:* JLW
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JOB NUMBER: 2025053	

SHEET NUMBER

H0.1

OF

5/2/2025 9:37:46 AM

GAS PIPE SIZING

PIPE SIZE (BLACK STEEL)	MAX MBH
0.5"	35
0.75"	80
1"	145
1.25"	300
1.5"	450
2"	870
2.5"	1,390
3"	2,450

GENERAL NOTES:
1. SIZING BASED ON LOW PRESSURE PROPANE GAS.
2. TOTAL DEVELOPED LENGTH = 300 FT.

GAS FIRED UNIT HEATER SCHEDULE

PLAN MARK	TYPE	BASIS OF DESIGN		SUPPLY FAN			PERFORMANCE			ELECTRICAL		DIMENSIONS			NOTES
		MANUF.	MODEL	CFM	ESP ("WC)	HP	INPUT MBH	OUTPUT MBH	TEMP RISE (°F)	V/PH	MCA	LENGTH	HEIGHT	DEPTH	
UH-1	SUSP. BLOWER	STERLING	GG SERIES	370	-	1/14	30	24.9	60	115/1	3.2	30"	13"	26"	1,2
UH-2	SUSP. BLOWER	STERLING	GG SERIES	370	-	1/14	30	24.9	60	115/1	3.2	30"	13"	26"	1,2
UH-3	SUSP. BLOWER	STERLING	GG SERIES	920	-	1/14	75	61.5	60	115/1	4.1	30"	16"	26"	1,2
UH-4	SUSP. BLOWER	STERLING	GG SERIES	370	-	1/14	30	24.9	60	115/1	3.2	30"	13"	26"	1,2
UH-5	SUSP. BLOWER	STERLING	GG SERIES	380	-	1/10	75	61.5	60	115/1	4.1	30"	16"	26"	1,2

GENERAL NOTES:
A. ALTERNATE MANUFACTURER BY ENGINEER APPROVAL.

NOTES:
1. PROVIDE DISCONNECT SWITCH, INTEGRAL 24V CONTROL TRANSFORMER, REMOTE MOUNTED LOW VOLTAGE THERMOSTAT.
2. UNIT SHALL BE CONFIGURED FOR OPERATION ON LP GAS.

FURNACE SCHEDULE

PLAN MARK	BASIS OF DESIGN			VENT. AIR (CFM)	E.S.P. (IN.WC)	HEATING		NOM. COOL CAPACITY (TONS)	DIMENSION			ELECTRICAL				NOTES
	MANUFACTURER	MODEL	CFM			INPUT (BTUH)	OUTPUT (BTUH)		WIDTH	LENGTH	HEIGHT	VOLTAGE	PHASE	MCA	MOCP	
FUR-1	CARRIER	59SC2	1200	80	0.5	60,000	56,000	3	29.5"	17.5"	35"	120 V	1	9.9 A	15 A	1,2,3,4,5
FUR-2	CARRIER	59SC2	2000	250	0.5	100,000	93,000	5	29.5"	21"	35"	120 V	1	17.0 A	20 A	1,2,3,4,5,6

GENERAL NOTES:
A. ALTERNATE MANUFACTURER BY ENGINEER APPROVAL.
B. REFRIGERANT PIPING TO BE SIZED BY MANUFACTURER.
C. FURNACE SHALL BE FITTED FOR LP GAS OPERATION.

NOTES:
1. PROVIDE WITH NON-FUSED DISCONNECT SWITCH.
2. PROVIDE MATCHED EVAPORATOR COIL AND CONDENSING UNIT.
3. PROVIDE WITH FILTER RACK AND 1" PLEATED SPARE SET OF FILTERS.
4. PROVIDE CONCENTRIC VENT KIT AND NEUTRALIZING KIT.
5. PROVIDE WITH 7-DAY PROGRAMMABLE THERMOSTAT WITH AUTO CHANGEOVER FROM HEATING TO COOLING.
6. UNIT SHALL UTILIZE EITHER BOTTOM OR TWO-SIDE RETURN CONNECTION LOCATIONS PER MANUFACTURER GUIDELINES.

AIR CONDITIONING UNIT SCHEDULE

PLAN MARK	ASSOCIATED INDOOR UNIT	BASIS OF DESIGN		NOM. COOL CAPACITY (TONS)	MIN. SEER	DIMENSION			ELECTRICAL					NOTES
		MANUFACTURER	MODEL			WIDTH	LENGTH	HEIGHT	VOLTAGE	PHASE	MCA	MOCP		
CU-1	FUR-1	CARRIER	24ACC4	3	14	31"	31"	26"	208 V	1	18.1 A	30 A		
CU-2	FUR-2	CARRIER	24ACC4	5	14	36"	36"	36"	208 V	1	27.5 A	40 A		

GENERAL NOTES:
A. ALTERNATE MANUFACTURER BY ENGINEER APPROVAL.
B. CAPACITIES LISTED ARE BASED ON AHRI CONDITIONS.

NOTES:
1. .

ELECTRIC UNIT HEATER SCHEDULE

PLAN MARK	TYPE	BASIS OF DESIGN		KW	VOLT	PHASE	DIMENSIONS				NOTES
		MANUF.	MODEL				LENGTH	HEIGHT	DEPTH	RECESS	
EH-1	WALL HEATER	MARKEL	3320	3.0	208	1	15"	19"	4"	-	1

GENERAL NOTES:
A. ALTERNATE MANUFACTURER BY ENGINEER APPROVAL.

NOTES:
1. PROVIDE DISCONNECT SWITCH/CIRCUIT BREAKER AND INTEGRAL THERMOSTAT.

AIR INLETS AND OUTLETS SCHEDULE

PLAN MARK	DESCRIPTION	BASIS OF DESIGN		MOUNTING	FINISH	MATERIAL	ACCESSORIES	NOTES
		MANUF.	MODEL					
A1	SQUARE FACE CEILING DIFFUSER, 24x24 FACE	TITUS	TMS	LAY-IN	WHITE	STEEL	-	
A3	SQUARE FACE CEILING DIFFUSER, 12x12 FACE	TITUS	TMS	LAY-IN	WHITE	STEEL	-	
B1	EGGCRATE RETURN GRILLE	TITUS	50F	LAY-IN	WHITE	STEEL	-	
L1	EXTRUDED DRAINABLE LOUVER	RUSKIN	ELF375DX	<varies>	<varies>	ALUM.	BIRDSCREEN	

GENERAL NOTES:
A. LAY-IN AIR DEVICES SHALL BE DESIGNED TO INSTALL INTO A 24"x24" OR 24"x48" ACT CEILING SYSTEM
B. ALTERNATE MANUFACTURERS BY ENGINEER APPROVAL.
C. PROVIDE AUXILIARY MOUNTING FRAME FOR DEVICES INSTALLED WITHIN GYPSUM, PLASTER, TILE OR OTHER SIMILAR SURFACE
D. UNLESS OTHERWISE DESIGNATED ON PLANS, SUPPLY DIFFUSERS SHALL BE 4-WAY DIRECTIONAL DISCHARGE.

NOTES:
1. .

FAN SCHEDULE

PLAN MARK	DESCRIPTION	BASIS OF DESIGN		CFM	E.S.P. (IN.WC)	DRIVE	ELECTRICAL			APPROX. ROOF/ WALL OPENING (IN.)	NOTES
		MANUF.	MODEL				HP	VOLTAGE	PHASE		
EF-1	SIDEWALL PROPELLER FAN	GREENHECK	SE1-8-426	160	0.1	DIRECT	0.1	120 V	1	11"x11"	1,2,5
EF-2	SIDEWALL PROPELLER FAN	GREENHECK	SE1-8-440	75	0.1	DIRECT	0.1	120 V	1	11"x11"	1,2,5
EF-3	SIDEWALL PROPELLER FAN	GREENHECK	SE1-8-440	200	0.1	DIRECT	0.1	120 V	1	11"x11"	1,2,5
EF-4	SIDEWALL PROPELLER FAN	GREENHECK	SE1-18-424	3400	0.1	DIRECT	0.5	120 V	1	21"x21"	1,2,5
EF-5	CEILING EXHAUST	GREENHECK	SPB-110	100	0.2	DIRECT	0.1	120 V	1		3,4,5
EF-6	CEILING EXHAUST	GREENHECK	SPA-510	400	0.2	DIRECT	0.1	120 V	1		3,4,5
EF-7	CEILING EXHAUST	GREENHECK	SPA-700	500	0.2	DIRECT	0.15	120 V	1		3,4,5

GENERAL NOTES:
A. ALTERNATE MANUFACTURERS BY ENGINEER APPROVAL.

NOTES:
1. PROVIDE WITH WALL SLEEVE, EXTERIOR LOUVER, MOTOR GUARD AND BIRDSCREEN.
2. FAN SHALL BE CONTROLLED BY WALL SWITCH.
3. PROVIDE WITH BACKDRAFT DAMPER, SOLID STATE SPEED CONTROLLER AND INTEGRAL DISCONNECT SWITCH.
4. FAN CONTROLLED BY OCCUPANCY SENSOR/WALL SWITCH.
5. FANS TO HAVE INTEGRATED MOTOR STARTERS OR TO BE PROVIDED BY OTHERS.

DUCTWORK CONSTRUCTION SCHEDULE

DUCT SYSTEM	SHAPE	PRESS. CLASS W.G.	MATERIAL	LINER			INSULATION				NOTES
				THK.	TYPE	D	THK.	TYPE	D	JACKET	
CONCEALED SUPPLY	RND/RECT	-/+2"	GS	-	-	-	1.5"	FGW	-	FFJ	2
CONCEALED RETURN	RND/RECT	-/+2"	GS	-	-	-	1.5"	FGW	-	FFJ	
CONCEALED RETURN IN PLENUMS	RND/RECT	-/+2"	GS	-	-	-	-	-	-	-	
CONCEALED SUPPLY AIR DEVICE RUNOUT	RND	+1"	IFD	-	-	-	1.5"	IFD	-	FFJ	1
OUTSIDE AIR	RND/RECT	-1"	GS	-	-	-	1.5"	FGW	-	FFJ	
EXHAUST	RND/RECT	-1"	GS	-	-	-	-	-	-	-	
EXPOSED SPIRAL SUPPLY	RND	+2"	GS	1"	PFL	-	-	-	-	-	
EXPOSED SUPPLY & RETURN	RND/RECT	-/+2"	GS	-	-	-	-	-	-	-	

GENERAL NOTES:
A ALL PAINTING BY GENERAL CONTRACTOR.

B ALL DUCT JOINTS AND SEAMS SHALL BE SEALED PER OMC CHAPTER 5.

C ALL RECTANGULAR SUPPLY AND RETURN DUCTS TO BE LINED.

D ALL ROUND SUPPLY AND RETURN DUCTS TO BE WRAPPED.

SCHEDULE NOTES:
1. ROUND RUNOUTS TO AIR DEVICES SHALL BE EXTERNALLY INSULATED.
2. INCLUDES DUCTWORK ROUTED IN ABOVE CEILING PLENUM SPACES.

ABBREVIATIONS:

AIFD	ACOUSTICAL INSULATED FLEX-DUCT	FFJ	FOIL FACED JACKET	PGGS	PAINTGRIP GALVANIZED STEEL
ALUM	ALUMINUM	FGW	FIBERGLASS WRAP	PVCGS	PVC COATED GALVANIZED STEEL
ABA	ADHESIVE BACKED ALUMINUM	FPW	FIRE WRAP	RECT	RECTANGULAR
ASJ	ALL SERVICE JACKET	GS	GALVANIZED STEEL	RND	ROUND
CS	CARBON STEEL	GSSP	GALVANIZED STEEL SPIRAL PIPE	SS	STAINLESS STEEL
D	DENSITY (PCF)	IFD	INSULATED FLEXIBLE DUCT	TH	THICKNESS
DWI	DOUBLEWALL INSULATED	MFF	MATT FACED FIBERGLASS	UFD	UNINSULATED FLEXIBLE DUCT
ETPS	EXTRUDED POLYSTYRENE	PFD	PERFORATED FABRIC DUCT		
FB	FIBERGLASS BOARD	PFL	PREFORMED LINER		

VENTILATION SCHEDULE

ROOM NUMBER	ROOM NAME	OCCUPANCY TYPE	AREA (SF)	OCCUPANT DENSITY (#/1000SF)	PEOPLE AIR RATE (CFM/PERSON)	AREA AIR RATE (CFM/SF)	NUMBER OF PEOPLE	MINIMUM OA AIRFLOW (CFM)
101	FOYER	ENTRANCE LOBBY	105	10	5	0.06	2	16
102	CORRIDOR	CORRIDOR	322	0	0	0.06	0	19
103	RECEPTION	OFFICE	93	5	5	0.06	1	11
104	UNISEX RR		54					
105	JANITOR		56					
106	WOMENS RR		184					
107	MENS RR		272					
108	OFFICE	OFFICE	382	5	5	0.06	2	33
109	EMPLOYEE LOUNGE	BREAK	942	25	5	0.06	24	176
110	KITCHENETTE	KITCHENETTE	372					
111	SHIPPING/RECEIVING	SHIPPING	4405	2	10	0.12	9	619
112	HOBBY	WAREHOUSE	1049	0	10	0.06	0	63
113	RACK STORAGE	WAREHOUSE	2813	0	10	0.06	0	169
114	BULK STORAGE	WAREHOUSE	2349	0	10	0.06	0	141
			13397					1247

HVAC DESIGN CRITERIA

GENERAL DESIGN INFORMATION

BUILDING LOCATION: DAYTON, OHIO

OUTDOOR DESIGN INFORMATION

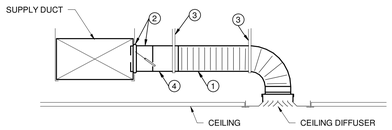
SUMMER DRY BULB:	90.3°F	(ASHRAE 0.4%)
SUMMER WET BULB:	73.6°F	(ASHRAE 0.4%)
WINTER DRY BULB:	0.6°F	(ASHRAE 99.6%)

INDOOR DESIGN INFORMATION

INDOOR SUMMER DRY BULB:	75°F
INDOOR SUMMER RH%:	60% MAX.
INDOOR WINTER DRY BULB:	70°F
INDOOR WINTER RH%:	AMBIENT

APPLICABLE CODES

MECHANICAL:	OHIO MECHANICAL CODE 2024
PLUMBING:	OHIO PLUMBING CODE 2024
ENERGY:	ASHRAE 90.1-2019
VENTILATION:	ASHRAE 62.1-2019



○ NOTES

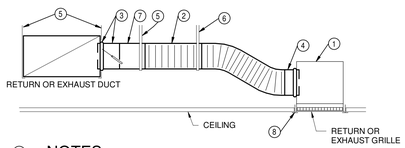
1 INSULATED FLEXIBLE DUCT SAME DIAMETER AS BRANCH DUCT, 6 FT. MAXIMUM TOTAL LENGTH PER AIR DEVICE. STRETCH FLEXIBLE DUCT TO AT LEAST 90% OF FULLY EXTENDED LENGTH.

2 SPIN-IN BRANCH TAP FITTING, STRAIGHT SIDE WITH MANUAL DAMPER. DAMPER SHAFT IN HORIZONTAL. INTEGRAL INSULATION GUARD SLEEVE REQUIRED FOR TAP FITTING TO MAIN DUCT WITH INTERNAL INSULATION, AND EXTENDED DAMPER SHAFT AND HANDLE WITH STAND-OFF TO ACCOMMODATE EXTERNAL INSULATION.

3 DUCT STRAP HANGER. ATTACH TO STRUCTURE.

4 ROUND SHEET METAL BRANCH DUCT, SAME SIZE AS DIFFUSER INLET UNLESS NOTED OTHERWISE.

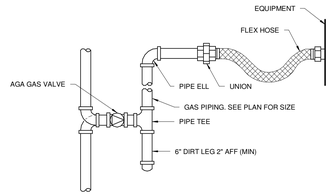
① CEILING DIFFUSER CONNECTION
NTS



○ NOTES

1. SHEET METAL PLENUM, FULL SIZE OF GRILLE NECK, MINIMUM 4" TALLER THAN DUCT RUNOUT SIZE, WITH SAME INTERNAL OR EXTERNAL INSULATION AS RETURN OR EXHAUST DUCT, CONNECT TO GRILLE.
2. FLEXIBLE DUCT, SAME DIAMETER AS BRANCH DUCT, 7 FT. MAXIMUM TOTAL LENGTH PER AIR DEVICE. STRETCH FLEXIBLE DUCT TO AT LEAST 90% OF FULLY EXTENDED LENGTH.
3. SPIN-IN BRANCH TAP FITTING, STRAIGHT SIDE WITH MANUAL DAMPER. DAMPER SHAFT IN HORIZONTAL. INTEGRAL INSULATION GUARD SLEEVE REQUIRED FOR TAP FITTING TO MAIN DUCT WITH INTERNAL INSULATION. EXTENDED DAMPER SHAFT AND HANDLE WITH STAND-OFF REQUIRED FOR EXTERNALLY INSULATED DUCTWORK.
4. SPIN-IN TAP FITTING, NO DAMPER.
5. DUCT STRAP HANGER. ATTACH TO STRUCTURE.
6. STRAP HANGER REQUIRED IF LENGTH OF FLEXIBLE DUCT IS LONGER THAN 4 FT.
7. ROUND SHEET METAL BRANCH DUCT, SIZE AS INDICATED IN ADJACENT SCHEDULE UNLESS NOTED OTHERWISE ON PLANS.
8. CEILING T-BAR SUPPORT (FOR LAY-IN APPLICATIONS). COORDINATE AND VERIFY T-BAR TYPE FOR COMPATIBILITY WITH GRILLE.

② RETURN/EXHAUST GRILLE DUCTED CONNECTION
NTS



③ GAS EQUIPMENT CONNECTION DETAIL
NTS

WAT-KEM MECHANICAL
2755 SOUTH COUNTY RD 25 A, TROY, OH 45373
OFFICE: (937)-573-3072

L2 ENGINEERING
7945 WASHINGTON WOODS DRIVE
DAYTON, OH 45459

CHURCHES OF CHRIST
- NEW WAREHOUSE
9285 STATE ROUTE 202
TIPP CITY, OHIO 45371

HVAC SCHEDULES & DETAILS

ENGINEER'S STAMP

STATE OF OHIO
JEFFREY J. METZEL
PE - 76572
REGISTERED PROFESSIONAL ENGINEER

DRAWING ISSUE

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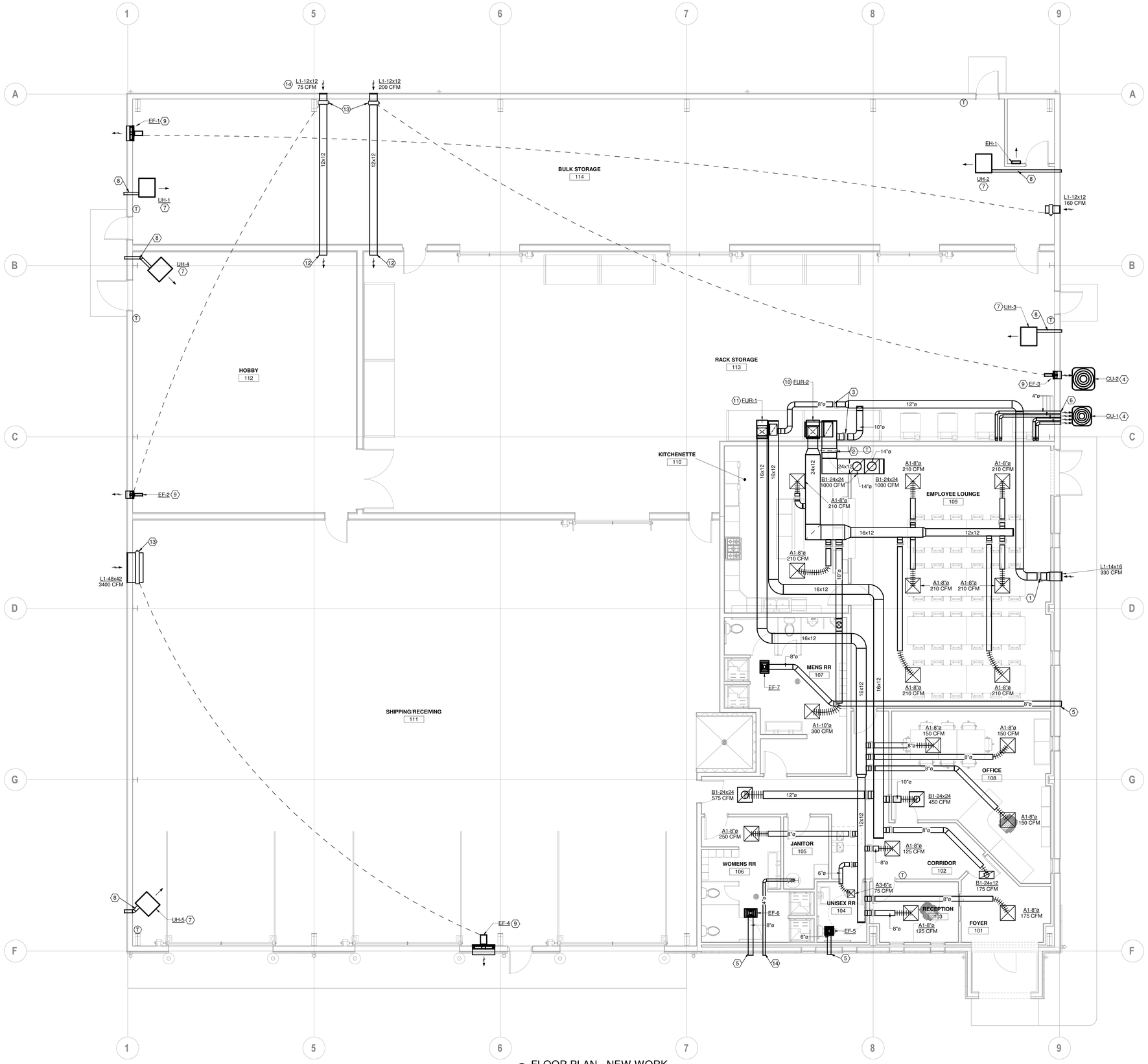
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1 FLOOR PLAN - NEW WORK
3/16" = 1'-0"

DRAWING NOTES

1. PROVIDE GRAVITY BACKDRAFT DAMPER IN VENTILATION AIR DUCT.
2. PROVIDE DUCT MOUNTED SMOKE DETECTOR IN RETURN MAIN. DETECTOR SHALL BE LOCATED UPSTREAM OF OUTSIDE AIR CONNECTION.
3. VENTILATION AIR DUCT TO FURNACE RETURN AIR MAIN. PROVIDE WITH MANUAL BALANCE DAMPER. BALANCE FURNACE VENTILATION AIR INTAKE TO AIRFLOW INDICATED IN EQUIPMENT SCHEDULE.
4. PROVIDE NEW AIR CONDITIONER MOUNTED ON CONCRETE PAD.
5. ROUTE EXHAUST FAN DISCHARGE THROUGH EXTERIOR WALL AND TERMINATE WITH WALL VENT CAP WITH BIRDSCREEN.
6. ROUTE DRYER VENT THROUGH EXTERIOR WALL AND TERMINATE WITH WALL VENT CAP. TERMINATIONS SHALL BE MINIMUM 36" FROM BUILDING ENTRANCES.
7. PROVIDE GAS-FIRED UNIT HEATER SUSPENDED FROM STRUCTURE. COORDINATE MOUNTING HEIGHT IN FIELD.
8. ROUTE 4" DIAMETER UNIT HEATER VENT PIPING THROUGH EXTERIOR WALL AND TERMINATE PER MANUFACTURER GUIDELINES.
9. PROVIDE THRU-WALL PROPELLER VENTILATION FAN. FAN SHALL BE CONTROLLED BY WALL SWITCH.
10. PROVIDE GAS FURNACE. FURNACE SHALL UTILIZE FULLSIZE BOTTOM RETURN CONNECTION AND STRUCTURAL SUPPORT PLENUM WITH 1" FILTER RACK.
11. PROVIDE GAS FURNACE. FURNACE SHALL UTILIZE FULLSIZE SIDE RETURN CONNECTION WITH 1" FILTER RACK.
12. DUCT OPEN TO SPACE. PROVIDE 0.5" BIRDSCREEN OVER OPENING.
13. PROVIDE 120V CONTROL DAMPER INTERLOCKED TO FAN OPERATION. DAMPER SHALL OPEN WHEN FAN STARTS.
14. ROUTE 4" DIAMETER WATER HEATER VENT TO EXTERIOR AND TERMINATE WITH WALL VENT CAP. REFER TO MANUFACTURER INSTALLATION GUIDELINES FOR APPROVED MATERIALS.

WAT-KEM MECHANICAL
2755 SOUTH COUNTY RD 25 A, TROY, OH 45373
OFFICE: (937)-573-3072

L2 ENGINEERING
7945 WASHINGTON WOODS DRIVE
DAYTON, OH 45459

CHURCHES OF CHRIST - NEW WAREHOUSE
9285 STATE ROUTE 202
TIPP CITY, OHIO 45371

HVAC FLOOR PLAN

ENGINEER'S STAMP

STATE OF OHIO
JEFFREY J. FETZER
PE - 76872
REGISTERED
PROFESSIONAL ENGINEER

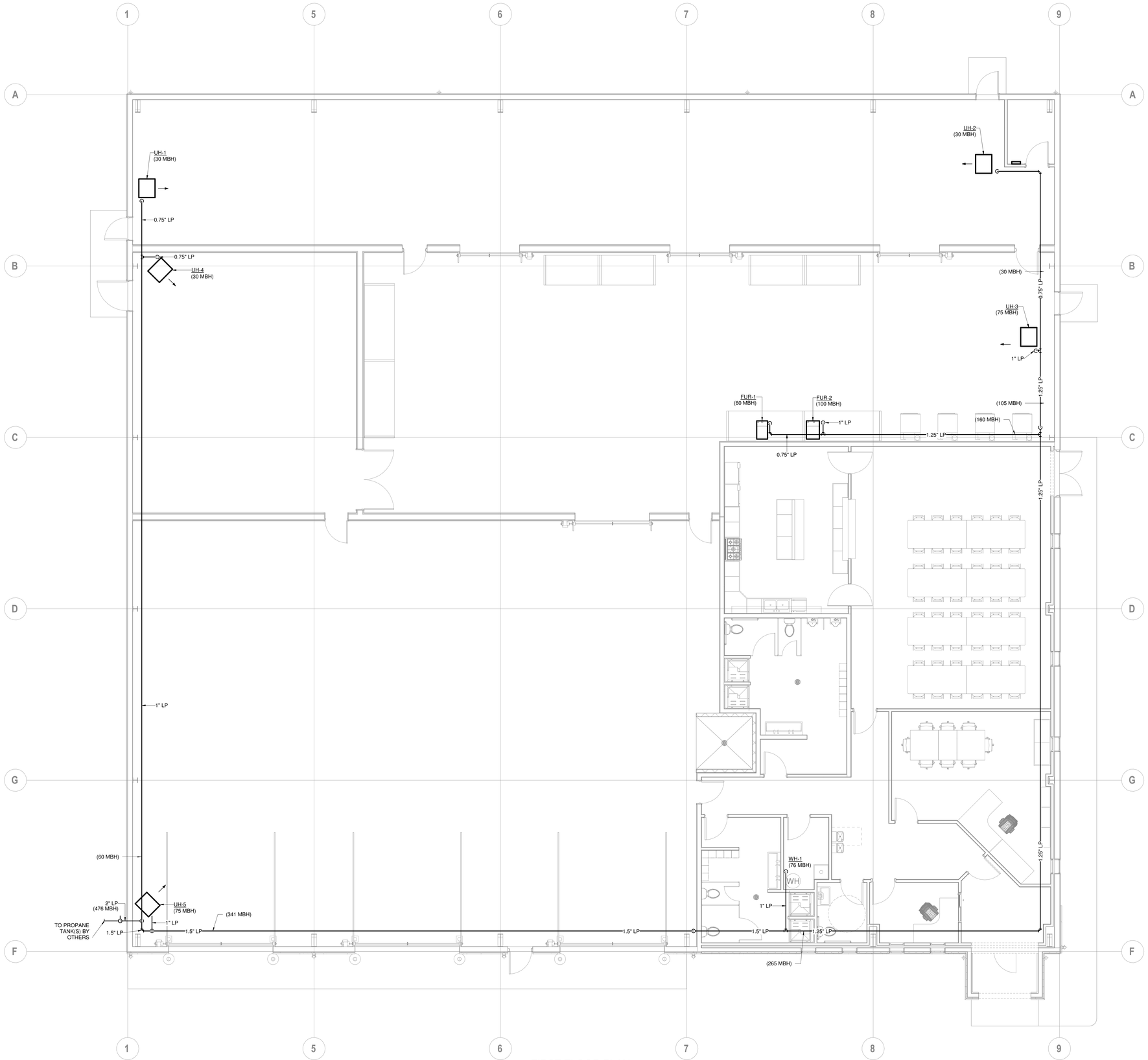
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1 FIRST FLOOR PLAN
3/16" = 1'-0"

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- NEW WAREHOUSE
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TIPP CITY, OHIO 45371

GAS PIPING PLAN

ENGINEER'S STAMP

STATE OF OHIO
JEFFREY L. WETZEL
PE - 76372
REGISTERED
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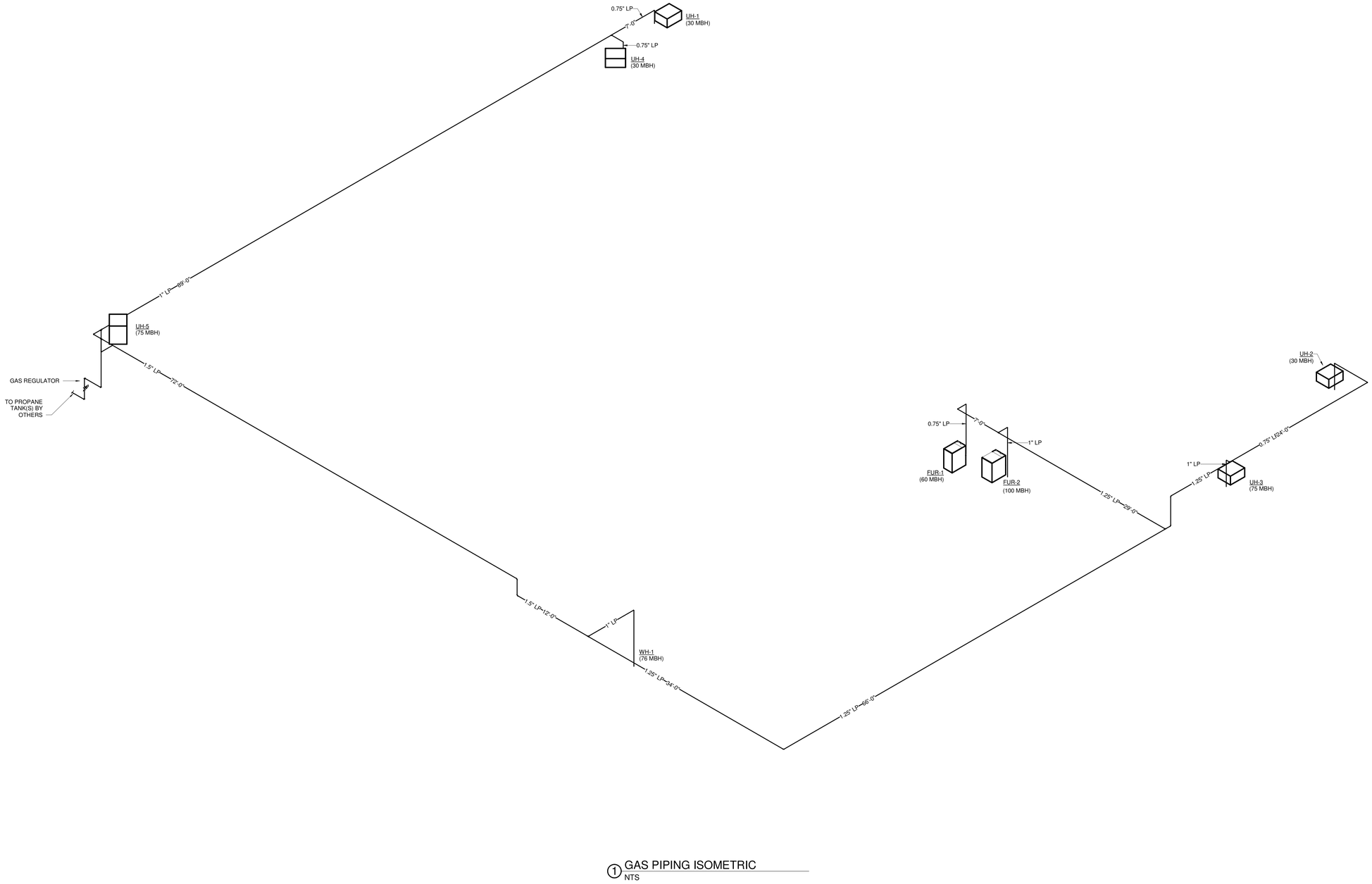
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OF



1 GAS PIPING ISOMETRIC
NTS

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2755 SOUTH COUNTY RD 25 A, TROY, OH 45373
OFFICE: (937)-573-3072

L2 ENGINEERING
7945 WASHINGTON WOODS DRIVE
DAYTON, OH 45459

CHURCHES OF CHRIST
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GAS ISOMETRIC

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PLUMBING SPECIFICATIONS

A. GENERAL CONDITIONS

1. WORK UNDER THIS CONTRACT SHALL CONSIST OF, BUT NOT LIMITED TO; FURNISHINGS, INSTALLATION, TESTING, AND WARRANTY OF PLUMBING AS INDICATED ON THE DRAWINGS AND AS SPECIFIED HEREIN.
2. PLUMBING SHALL BE INSTALLED BY A LICENSED CONTRACTOR. WARRANTY SHALL BE FOR ONE YEAR FROM DATE OF FINAL ACCEPTANCE.
3. THE WORD "PROVIDE" SHALL BE DEFINED TO MEAN "FURNISH AND INSTALL, COMPLETE, AND OPERATING."
4. WHERE THE WORD "EQUAL TO" IS USED THE CONTRACTOR SHALL HAVE THE OPTION OF SELECTING BETWEEN ON OF THE ADDITIONAL NAMES OR MANUFACTURERS LISTED OR MAY SUBMIT PRODUCTS SUBJECT TO ENGINEER'S APPROVAL.
5. ALL PERMIT AND INSPECTION FEES ARE TO BE INCLUDED IN CONTRACTOR'S SCOPE.
6. PROVIDE THE OWNER CERTIFICATES OF APPROVAL FROM INSPECTION AGENCIES.
7. WORK MUST CONFORM TO ALL APPLICABLE LOCAL, STATE, AND FEDERAL LAWS; ORDINANCES; AND REGULATIONS.

B. INSTALLATIONS

1. INSPECT THE EXISTING FACILITY AND VERIFY LOCATIONS OF ALL EXISTING UTILITIES.
2. DRAWINGS INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS. HOWEVER, MAKE FIELD ADJUSTMENTS TO INSURE CORRECT FIT.
3. PIPING SHALL NOT BE INSTALLED ABOVE ELECTRICAL EQUIPMENT OR ABOVE ACCESS TO SAME PER "NEC" GUIDELINES.
4. WORK SHALL BE PLANNED AND EXECUTED TO PROVIDE REASONABLY CONTINUOUS SERVICE OF EXISTING FACILITIES.
5. PROVIDE WALL OR CEILING ACCESS PANELS WHERE REQUIRED FOR ACCESS TO CONCEALED VALVES, EQUIPMENT, ETC. PANELS SHALL BE MINIMUM 18"x18" OR LARGER AS REQUIRED AND SHALL BE COMPATIBLE WITH THE AREA IN WHICH THEY ARE INSTALLED. PANELS IN FIRE RATED BUILDING ELEMENTS SHALL BE LABELED IN COMPLIANCE WITH THE RATING OF THE BUILDING ELEMENT.
6. PROVIDE ALL CUTTING AND PATCHING NECESSARY TO INSTALL THE WORK. SAW CUT OR DRILL OPENINGS.
7. ALL FERROUS METAL WHICH IS NOT FACTORY, SHOP PAINTED, GALVANIZED WHICH WILL BE EXPOSED IN FINISHED AREAS OR OUTSIDE THE BUILDING SHALL BE PRIME COATED.
8. PROVIDE PIPE SLEEVES AT PENETRATIONS OF BUILDING ELEMENTS. SLEEVES MAY BE GALVANIZED SHEET METAL OR STEEL PIPE. FIRE STOPPING SHALL BE PROVIDED AT ALL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES. FIRE STOPPING SHALL BE UL LISTED AND PROVIDE A FIRE RATING EQUAL TO THAT OF THE CONSTRUCTION BEING PENETRATED.
9. ALL WELDERS SHALL BE FULLY CERTIFIED IN ACCORDANCE WITH ASME QUALIFICATIONS.
10. PROVIDE PIPE LABELING AND VALVE TAGGING USING MANUFACTURED LABELS; TAGS IN COMPLIANCE WITH ANSI A13.1.
11. FLUSH NEW PIPING SYSTEM PRIOR TO OPERATION. PROVIDE SERVICES OF A FIRM REGULARLY ENGAGED IN DISINFECTION SERVICES TO DISINFECT THE DOMESTIC WATER SYSTEM IN ACCORDANCE WITH AWWA GUIDELINES.
12. BALANCE DOMESTIC HOT WATER RECIRCULATION SYSTEM TO FLOW RATES INDICATED ON THE DRAWINGS.
13. PREPARE TEST AND INSPECTION REPORTS.
14. TEST AND CERTIFY BACKFLOW PREVENTERS AND PRESSURE VACUUM BREAKERS ACCORDING TO CODE AND STANDARD PER AUTHORITY HAVING JURISDICTION.
15. REPLACE DEFECTIVE PRODUCTS AND / OR MATERIALS WITH NEW.
16. PROVIDE ATMOSPHERIC VENT DRAIN CONNECTION ON BACKFLOW PREVENTERS AND EXTEND PIPING TO FLOOR DRAIN FOR INDIRECT DISCHARGE WITH MINIMUM 2" AIR GAP.
17. INSTALLED PLUMBING PIPE, FITTINGS, VALVES, TRIM AND ETC. IN CONTACT WITH POTABLE WATER, SHALL BE MADE OF LEAD FREE MATERIALS IN COMPLIANCE WITH NSF / ANSI 61, SECTION 8 AND NSF / ANSI 372, IN CONFORMANCE WITH PUBLIC LAW 111-380 (S3874) ALSO KNOWN AS THE " REDUCTION IN LEAD IN DRINKING WATER ACT" EFFECTIVE JANUARY 4, 2014.

C. SUBMITTALS

1. BEFORE CONSTRUCTION OR INSTALLATION OF MATERIALS OR EQUIPMENT; CONTRACTOR SHALL SUBMIT AN ELECTRONIC COPY OF SHOP DRAWINGS TO BE REVIEWED BY THE ENGINEER.
2. SHOP DRAWINGS SHALL INDICATE INDIVIDUAL COMPONENTS, MODEL NUMBERS, AND ELECTRICAL INFORMATION.
3. SHOP DRAWINGS FOR THE FOLLOWING SHALL BE SUBMITTED.
   - A. PIPE AND PIPE FITTINGS
   - B. VALVES
   - C. WATER HEATERS
   - D. PUMPS
   - E. FIRE DEPARTMENT COMPONENTS
   - F. SPRINKLER DRAWINGS
   - G. HANGERS
   - H. ENGINEER STAMPED SEISMIC DRAWINGS
   - I. PLUMBING FIXTURES
   - J. INSULATION
   - K. MEDICAL GASES SYSTEM COMPONENTS
   - L. DRAINS, CLEANOUTS, AND CARRIERS

D. TESTING

1. ALL PIPING PROVIDED SHALL BE PRESSURE TESTED.
   - A. DOMESTIC WATER: HYDROSTATIC AT 125 PSI FOR 1.5 TIMES MAXIMUM OPERATING PRESSURE FOR 6 HOURS.
   - B. UNDERGROUND WATER: HYDROSTATIC AT 125 PSI FOR 6 HOURS AND/OR IN CONFORMANCE WITH AWWA PROCEDURES.
   - C. SOIL, WASTE, VENT, AND STORM: IN CONFORMANCE WITH GOVERNING PLUMBING CODE.
   - D. INTERIOR NATURAL GAS: 50 PSI COMPRESSED AIR FOR 6 HOURS.

E. EXCAVATION

1. EXCAVATE FOR ALL UNDERGROUND PIPING. BACKFILL AND COMPACT TO FINISH GRADE OR TO LEVELS CONSISTENT WITH THE GENERAL CONTRACTOR'S ACTIVITIES. PROVIDE COMPACTED BACKFILL OF GRADED PEA GRAVEL, GRADED COURSE SAND, OR CRUSHED LIMESTONE (MAXIMUM 0.75" SIZE) UNDER ANY PAVED OR OTHER HARD SURFACED AREAS. EXCAVATION, TRENCH WALL SUPPORTING AND OPEN TRENCH BARRICADING, AND SIGNAGE SHALL BE PER OSHA AND LOCAL REQUIREMENTS. A UTILITY LOCATOR SERVICE SHALL BE PROVIDED TO IDENTIFY AND / OR VERIFY THE LOCATION OF EXISTING PRIVATE UTILITIES WITHIN THE EXCAVATION AREA.

F. HANGERS

1. ALL INTERIOR ABOVE GRADE PIPING SHALL BE SUPPORTED BY ATTACHMENT TO THE BUILDING STRUCTURAL ELEMENTS. HANGER ROD SIZES AND HANGER / SUPPORT SPACING SHALL BE PER THE FOLLOWING SCHEDULES.

PIPE SIZE	MINIMUM HANGER ROD DIAMETER
≤ 1"	0.25"
1.25" - 3"	0.375"
4" - 6"	0.5"

PIPE MATERIAL SIZE	MAXIMUM HANGER / SUPPORT SPACING
VERTICAL	
STEEL	BASE AND 15'
COPPER	BASE AND 10'
CAST IRON	BASE AND EACH FLOOR LEVEL
PLASTIC	PER MANUFACTURER
HORIZONTAL	
STEEL/ ≤ 2"	8'
STEEL/ 2.5" - 6"	10'
STEEL/ > 6"	12'
COPPER/ ≤ 1.25"	6'
COPPER/ ≤ 1.5" - 2"	8'
COPPER/ > 2"	10'
CAST IRON	10' AND EACH FITTING / JOINT
PLASTIC	PER MANUFACTURER

G. INSULATION

1. PROVIDE INSULATION ON ALL NEW DOMESTIC WATER AND INTERIOR HORIZONTAL STORM DRAINAGE PIPING (INCLUDING HORIZONTAL OVERFLOW DRAINAGE PIPING AND THE UNDERSIDE OF ALL ROOF DRAIN SUMPS) WITH FIBERGLASS / TUBULAR CLOSED CELL PIPE INSULATION IN COMPLIANCE WITH ASHRAE 90.1. FIBERGLASS INSULATION SHALL BE FACTORY MOLDED TUBULAR FIBERGLASS WITH ALL SERVICE JACKET, INTEGRAL VAPOR BARRIER, AND FACTORY ADHESIVE OVERLAPPING JOINTS. PROVIDE FACTORY MOLDED PVC COVERS AND INSULATION FOR FITTINGS, VALVES, AND DEVICES. TUBULAR CLOSED CELL INSULATION SHALL BE FOAM PLASTIC TYPE WITH PRESSURE-SENSITIVE ADHESIVE TAPE CLOSURE SYSTEM AND / OR VAPOR SEALING ADHESIVE. COMPOSITE INSULATING SYSTEMS SHALL NOT EXCEED A MAXIMUM FLAME SPREAD OF 25 AND SMOKE DEVELOPMENT OF 50 AS ESTABLISHED BY NFPA TEST METHODS. FIBERGLASS INSULATION MANUFACTURERS: OWENS-CORENING, JOHNS MANVILLE, MASON, OR KNAUFF. TUBULAR CLOSED CELL INSULATION SHALL BE EQUAL TO ARMSTRONG ARMACELL ARMAFLEX 2000. INSULATION THICKNESS SHALL COMPLY WITH THE FOLLOWING SCHEDULE:

PIPE SYSTEM	RUNOUTS <12'	≤ 1"	1.25"- 2"	2.5" - 4"	5" - 6"	≥ 6"
DOMESTIC COLD WATER	0.5"	0.5"	0.5"	1.0"	1.0"	1.0"
DOMESTIC HOT WATER	0.5"	1.0"	1.0"	1.5"	1.5"	1.5"
DOMESTIC HOT RETURN	0.5"	1.0"	1.0"	1.5"	1.5"	1.5"
STORM (INCLUDING OVERFLOW)	-	-	-	1.0"	1.0"	1.0"

H. PLUMBING FIXTURES

1. PROVIDE PLUMBING FIXTURES COMPLETE WITH SUPPORTS, CARRIERS, AND SUPPLY AND WASTE TRIM. SUPPLIES TO EACH FIXTURE SHALL BE INDIVIDUALLY VALVED. ALL WASTE AND SUPPLY TRIM SHALL BE CHROME PLATED BRASS. FIXTURES SHALL BE WHITE UNLESS OTHERWISE SPECIFIED. SEAL JOINTS AROUND EACH FIXTURE AT THE WALL, FLOOR, AND ANY ADJACENT CONSTRUCTION. JOINT SEALANT SHALL BE ONE PART, MILDEW RESISTANT SILICONE, ASTM C920, TYPE S, GRADE NS, CLASS 25 WITH FUNGICIDE, EQUAL TO PECORA 898.

I. VALVES

1. VALVES SHALL BE TWO-PIECE, BRONZE BODY, BALL TYPE, 150 WSP, EQUAL TO NIBCO T-580-80-LF AND / OR T-585-80-LF. CHECK VALVES SHALL BE BRONZE, SWING TYPE, 125 WSP, EQUAL TO NIBCO T-413-Y-LF. BALANCING-SHUTOFF VALVES SHALL BE GLOBE TYPE, POSITIVE SHUTOFF DESIGN, 125 PSI, WITH MEMORY STOP, GAUGE PORTS, AND PORTABLE GAUGE KIT, EQUAL TO ARMSTRONG CBV SERIES.

J. PIPING

1. INTERIOR DOMESTIC WATER: PIPING ABOVE GRADE SHALL BE TYPE L SEAMLESS HARD DRAWN COPPER TUBING WITH WROUGHT COPPER OR CAST BRONZE FITTINGS AND SOLDERED JOINTS OR ASTM F876, NSF/ANSI 14 APPROVED PEX TUBING WITH CRIMPED, THREADED AND / OR PUSH-FIT TYPE FITTINGS. SOLDER SHALL BE LEAD-FREE TIN ALLOY, 95-5 TIN-ANTIMONY, OR SILVER BEARING TIN. UNDER FLOOR BURIED PIPING SHALL BE TYPE K SOFT COPPER TUBING WITH SILVER BRAZED JOINTS. PIPE NIPPLES EXTENDING OUT OF THE WALL TO SERVE FIXTURES SHALL BE CHROME PLATED BRASS WITH SCREWED ENDS.
2. INTERIOR SOIL, WASTE, AND VENT: PIPING IN GRADE BELOW THE FLOOR SLAB, SHALL BE SCHEDULE 40 PVC, ASTM D2665, JOINTS SHALL BE SOLVENT WELDED. PIPING LOCATED ABOVE GRADE SHALL BE SCHEDULE 40 PVC, ASTM D2665 OR NO-HUB CAST IRON, ASTM A-74, CISPI 301, FITTINGS SHALL BE SOLVENT WELDED FOR PVC OR NEOPRENE SLEEVES WITH HEAVY DUTY BOLTED STAINLESS STEEL COMPRESSION BAND FOR CAST IRON. CAST IRON PIPE SHALL BE PROVIDED IN PLENUM RATED SPACES. FITTINGS SHALL BE DRAINAGE TYPE. FLOOR DRAIN TRAPS SHALL BE THE SAME MATERIAL AS THE CONNECTING PIPING. PROVIDE CLEANOUTS WHERE SHOWN ON THE DRAWINGS AND WHERE REQUIRED BY THE GOVERNING PLUMBING CODE.
3. EXTERIOR NATURAL GAS SERVICE PIPING: PIPING SHALL BE AS APPROVED BY THE LOCAL GAS COMPANY. PIPING SHALL BE POLYETHYLENE PLASTIC, PE 2306 OR 2406, TYPE II, GRADE 3, OR PE3406 OR 3408, TYPE III, GRADE 3, CONFORMING TO ASTM D2513. FITTINGS SHALL BE MOLDED POLYETHYLENE AND JOINTS SHALL BE BUTT HEAT-FUSION TYPE CONFORMING TO ASTM D2513 AND D2683. UNDERGROUND VALVES SHALL BE PLASTIC BALL VALVE, 125 PSI, EQUAL TO NORDSTROM POLYVALVE. PROVIDE A VALVE BOX AND COVER AT GRADE. ABOVE GROUND VALVES SHALL BE IRON BODY LUBRICATED PLUG VALVE, 200 PSI, EQUAL TO NORDSTROM #142 AND #143. PROVIDE MINIMUM 30" OF BURIAL DEPTH AND A COPPER TRACER WIRE. VERIFY WITH THE GAS COMPANY THE LOCATION OF CONNECTION TO SOURCE, AVAILABLE GAS PRESSURE, SERVICE SIZE, METER AND REGULATOR SETTING REQUIREMENTS, ETC. BEFORE INSTALLING ANY WORK. CONTRACTOR SHALL BE A FULLY QUALIFIED INSTALLER TO PERFORM COVERED TASKS AS REQUIRED BY THE DOT AND PUCO OPERATOR QUALIFICATION RULE AND SHALL BE LISTED AS A QUALIFIED CONTRACTOR OF THE SERVICING GAS COMPANY.
4. INTERIOR NATURAL GAS PIPING: PIPING SHALL BE SCHEDULE 40 BLACK STEEL, ASTM A53, TYPE E OR F. FITTINGS SHALL BE STEEL WELDING TYPE AND THREADED MALLEABLE IRON TYPE, CONSISTENT WITH JOINT REQUIREMENTS. JOINTS SHALL BE WELDED, EXCEPT THAT THREADED JOINTS MAY BE USED ON THREADED VALVES AND UNIONS, AT FINAL CONNECTIONS TO EQUIPMENT. VALVES, UNIONS, AND THREADED JOINTS ARE NOT PERMITTED IN INACCESSIBLE CONCEALED LOCATIONS. SHUTOFF VALVES 2" AND SMALLER SHALL BE TWO-PIECE FORGED BRASS BALL VALVE, 600 PSI NON-SHOCK WOG, SCREWED ENDS, EQUAL TO HAMMOND 8901. SHUTOFF VALVES 2.5" AND LARGER SHALL BE IRON BODY LUBRICATED PLUG VALVE, 200 PSI, FLANGED ENDS, EQUAL TO NORDSTROM #143. MATERIALS AND INSTALLATION SHALL CONFORM TO THE INTERNATIONAL FUEL GAS CODE AND NFPA 54 NATIONAL FUEL GAS CODE. VENT PIPING SHALL BE EXTENDED INDIVIDUALLY FROM EACH GAS VENTING DEVICE TO OUTSIDE THE BUILDING.

PLUMBING GENERAL NOTES

GENERAL PLUMBING NOTES:

1. ALL MANUFACTURERS AND MODEL NUMBERS LISTED IN THE DRAWING SET ARE LISTED AS A BASIS OF DESIGN TO SET A LEVEL OF QUALITY AND STANDARD. OTHER MANUFACTURER AND MODEL NUMBERS "EQUAL TO" MAKE AND MODEL NUMBERS LISTED MAY BE ACCEPTABLE.
2. REFER TO ARCHITECTURAL DRAWINGS FOR PLUMBING FIXTURE HEIGHTS AND LOCATIONS.
3. CONTRACTOR SHALL COORDINATE SCOPE OF WORK WITH ALL OTHER DISCIPLINES INVOLVED IN PROJECT, (ARCHITECT, CIVIL, ELECTRICAL, MECHANICAL, SPRINKLER, STRUCTURAL, ETC.), FOR ADDITIONAL INFORMATION, COORDINATION AND INSTALLATION REQUIREMENTS.
4. WHERE DESIGN INFORMATION IS IN-ADEQUATE OR INCOMPLETE WITH REGARD TO PROJECT SCOPE OR CODE / ORDINANCE COMPLIANCE IN ORDER TO PROVIDE A COMPLETE PROJECT BID OR PRICE, THE PLUMBING CONTRACTOR SHALL BRING SUCH ITEM / ITEMS TO THE ATTENTION OF THE ARCHITECT OR ENGINEER PRIOR TO BIDDING OR PRICING THE PROJECT. IMPLICIT IN SUBMISSION OF A BID OR PRICE TO PERFORM THE WORK INDICATED IN THIS DRAWING SET IS THE STATEMENT THAT THE PROJECT SCOPE AS SHOWN ON THE PLANS WILL BE COMPLETE, OPERATIONAL, AND IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS.

GENERAL PLUMBING DEMOLITION NOTES:

1. AREAS OF DEMOLITION ARE BASED ON EXISTING RECORD DRAWINGS AND ALL NOTED DEMOLITION IS ASSUMED TO BE WITHIN THE DESIGNATED AREAS SHOWN. PROVIDE ALL NECESSARY DEMOLITION AS REQUIRED TO COMPLY WITH THE DESIGN INTENT OF THESE DOCUMENTS WHETHER SPECIFICALLY FOUND IN AREA SHOWN OR IN ADJACENT SPACES, AND AS REQUIRED TO MEET LOCAL CODE REQUIREMENTS. PLUMBING SYSTEMS (DOMESTIC WATER SUPPLY, NATURAL GAS, SANITARY WASTE AND VENT AND STORM, ETC.) IN ALL OTHER EXISTING AREAS ARE TO REMAIN OPERATIONAL UNLESS NOTED OTHERWISE. NOTIFY OWNER PRIOR TO INTERRUPTING BUILDING SERVICES.
2. THE CONTRACTOR SHALL MAKE ALL PROVISIONS TO PROTECT THE PREMISES FROM DAMAGE DURING DEMOLITION WORK.
3. THIS CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING THE QUANTITY, LOCATION AND ROUTING OF ALL EXISTING PLUMBING RELATED DEVICES, FIXTURES, PIPING SYSTEMS, DRAINS AND APPURTENANCES PRIOR TO BIDDING PROJECT.
4. PLUMBING DEMOLITION IS TO INCLUDE THE REMOVAL OF ALL UNUSED PLUMBING RELATED DEVICES, PIPE, HANGERS, SUPPORTS, INSULATION, ETC. AS WELL AS ANY PREVIOUSLY ABANDONED PLUMBING PIPING SYSTEMS AND ALL MISCELLANEOUS ITEMS ASSOCIATED WITH THE CURRENTLY DEMOLISHED PLUMBING SYSTEMS NOT REMOVED UNDER THE GENERAL DEMOLITION WORK NOTED ON THE ARCHITECTURAL DRAWINGS, AS REQUIRED TO COMPLY WITH THE DESIGN INTENT OF THESE DOCUMENTS, WHETHER SPECIFICALLY NOTED OR NOT, AND AS REQUIRED TO MEET LOCAL CODE REQUIREMENTS.
5. COORDINATE THE TEMPORARY SHUT OFF OF THE EXISTING PLUMBING SYSTEMS TO THIS FACILITY, WHEN NECESSARY, WITH THE OWNER PRIOR TO BEGINNING WORK. LOCATE AND IDENTIFY THE ACTIVE AND THE "TO BE DEMOLISHED" PLUMBING SYSTEMS, PRIOR TO STARTING ANY DEMOLITION WORK. WHERE PORTIONS OF THE EXISTING PIPING SYSTEMS ARE TO BE RETAINED AND REUSED, DEMOLISH PIPING AS INDICATED AND CAP ENDS OF INACTIVE SYSTEMS BRANCHES WITHIN 12" OF THE ACTIVE SYSTEM, TO AVOID A DEAD-END CONDITION.
6. PRIOR TO ANY CORE DRILLING OR DESTRUCTIVE REMOVAL OF EXISTING FLOOR AREAS, PLUMBING CONTRACTOR SHALL ELECTRONICALLY SCAN FLOOR FOR POSSIBLE CONDUIT, PIPING OR ANCILLARY MATERIALS WHICH MAY BE ENCOUNTERED AND BRING POTENTIAL CONFLICTS TO THE ATTENTION OF THE CONSTRUCTION MANAGER WHERE IN CONFLICT WITH NEW PLUMBING INSTALLATIONS. REPAIR OF DAMAGED ITEMS DUE TO INADEQUATE IDENTIFICATION WILL BE THE RESPONSIBILITY OF THE RESPONSIBLE CONTRACTOR.
7. IT IS THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR TO LEGALLY DISPOSE OF ALL PLUMBING RELATED EQUIPMENT, FIXTURES, PIPING, FITTINGS, HANGERS, DRAINS, APPURTENANCES, DEBRIS, ETC. DEMOLISHED AS PART OF THIS SCOPE OF WORK.

GENERAL PLUMBING FOOD SERVICE NOTES:

1. REFER TO KITCHEN EQUIPMENT / FOOD SERVICE DRAWINGS FOR ADDITIONAL INFORMATION.
2. CONTRACTOR SHALL PROVIDE AND INSTALL ALL FIXTURE ROUGH-INS, SUPPLY AND WASTE FITTINGS, AND TRIM FOR FOOD SERVICE EQUIPMENT AND MAKE FINAL CONNECTIONS UNLESS SPECIFICALLY NOTED OTHERWISE ON FOOD SERVICE DRAWINGS. REFER TO "APPROVED" FOOD SERVICE SHOP DRAWINGS FOR ADDITIONAL INFORMATION. PIPING ROUGH-IN INSTALLATIONS SHALL NOT COMMENCE PRIOR TO RECEIVING "APPROVED" FOOD SERVICE SHOP DRAWINGS.
3. UTILITY PIPING EXTENDING THRU FLOOR SHALL BE PROVIDED WITH SLEEVE COLLARS EXTENDING 2" ABOVE FINISHED FLOOR AND SHALL BE SEALED VERMIN-PROOF AND WATER TIGHT.
4. CONTRACTOR SHALL PROVIDE GAS SERVICES AND FINAL CONNECTION FOR THE FOOD SERVICE EQUIPMENT AND FIXTURES, INCLUDING BUT NOT LIMITED TO, ALL PIPE, FITTINGS, SOLENOID VALVES, SERVICE VALVES, UNIONS, ETC. AS NECESSARY TO ACCOMMODATE THE FOOD SERVICE EQUIPMENT, FIXTURES AND FIRE SUPPRESSION SYSTEM, UNLESS NOTED OTHERWISE ON FOOD SERVICE DRAWINGS. CONTRACTOR SHALL ALSO INSTALL ALL FOOD SERVICE CONTRACTOR PROVIDED TRIM AND APPURTENANCES RELATED TO THE CONNECTION OF THE GAS FIRED EQUIPMENT.

PLUMBING LEGEND

SYMBOL	DESCRIPTION
—V—	VENT PIPING
—SAN—	SANITARY PIPING
—GW—	GREASE WASTE PIPING
—LP—	NATURAL GAS PIPING
——	DOMESTIC COLD WATER PIPING
— —	DOMESTIC HOT WATER PIPING
— — —	DOMESTIC HOT WATER RETURN PIPING
—FW—	DOMESTIC FILTERED WATER PIPING
	BALL VALVE
	CHECK VALVE
	BALANCING VALVE
	BACKFLOW PREVENTER
	HOT WATER RETURN RECIRCULATION PUMP
	PIPE CAP
	PIPE UP
	PIPE DOWN
	EXISTING PIPING TO REMAIN
	EXISTING PIPING TO BE DEMOLISHED
	NEW PIPING
	FLOW ARROW
	PIPE CONTINUATION / BREAK SYMBOL
	CONNECT TO EXITING
##	KEYNOTE DESIGNATION
XX#	PLUMBING FIXTURE "UP TO" DESIGNATION
K##	KITCHEN EQUIPMENT DESIGNATION
1 / P1.1	NUMBER OF DETAIL ON SHEET / NUMBER ON SHEET WHERE DETAIL APPEARS

ABBREVIATIONS	
ADA	AMERICAN WITH DISABILITIES ACT
AGA	AMERICAN GAS ASSOCIATION
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
BFP	BACKFLOW PREVENTER
CFH	CUBIC FEET PER HOUR
CO	CLEANOUT
CW	DOMESTIC COLD WATER
DS	DOWNSPOUT
DW	DISHWASHER
ET	EXPANSION TANK
EX	EXISTING
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FS	FLOOR SINK
FU	FIXTURE UNIT
FSEC	FOOD SERVICE EQUIPMENT CONTRACTOR
GMR	GAS METER / REGULATOR
GS	GAS SERVICE
GT	GREASE TRAP OR KITCHEN WASTE
HB	HOSE BIBB
HD	HUB DRAIN
HW	DOMESTIC HOT WATER
HWR	DOMESTIC HOT WATER RETURN
IFGC	INTERNATIONAL FUEL GAS CODE
IND	INDIRECT WASTE
INV	INVERT ELEVATION
IPC	INTERNATIONAL PLUMBING CODE
LBS	POUNDS
LV	LAVATORY
MB	MOP BASIN
MIN	MINIMUM
NG	NATURAL GAS
N/C	NORMALLY CLOSED
N/O	NORMALLY OPEN
NP	NON POTABLE WATER
NTS	NOT TO SCALE
OD	OVERFLOW STORM DRAIN
ODS	OVERFLOW DOWNSPOUT
_PC	"STATE" PLUMBING CODE
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH GAUGE
RD	ROOF DRAIN
RPZ	REDUCED PRESSURE BACKFLOW PREVENTER
RR	RETURN RISER
SAN	SANITARY
SD	STORM DRAIN
SK	SINK
SR	SUPPLY RISER
TD	TRENCH DRAIN
TOT	TOTAL
TP	TRAP PRIMER
TYP	TYPICAL
UR	URINAL
VR	VENT RISER
VS	VENT STACK
VTR	VENT THRU ROOF
WC	WATER CLOSET OR WATER COLUMN
WCO	WALL CLEANOUT
WH	WATER HEATER
WS	WATER SERVICE
WTC	WATER COOLER
YCO	YARD CLEANOUT

NOTE

THE SYMBOLS AND ABBREVIATIONS INDICATED ON THIS SHEET MAY OR MAY NOT BE USED IN THIS SET OF DRAWINGS.

PLUMBING INDEX OF DRAWINGS

SHEET NUMBER	SHEET NAME
P0.1	PLUMBING LEGEND AND GENERAL NOTES
P0.2	PLUMBING SCHEDULES
P1.1	PLUMBING FLOOR PLAN
P1.2	PLUMBING ENLARGED PLANS

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OFFICE: (937)-573-3072

L2 ENGINEERING
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- NEW WAREHOUSE
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PLUMBING LEGEND AND GENERAL NOTES

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STATE OF OHIO — JEFFREY L. WETZEL — P.E. - 76572 — REGISTERED PROFESSIONAL ENGINEER

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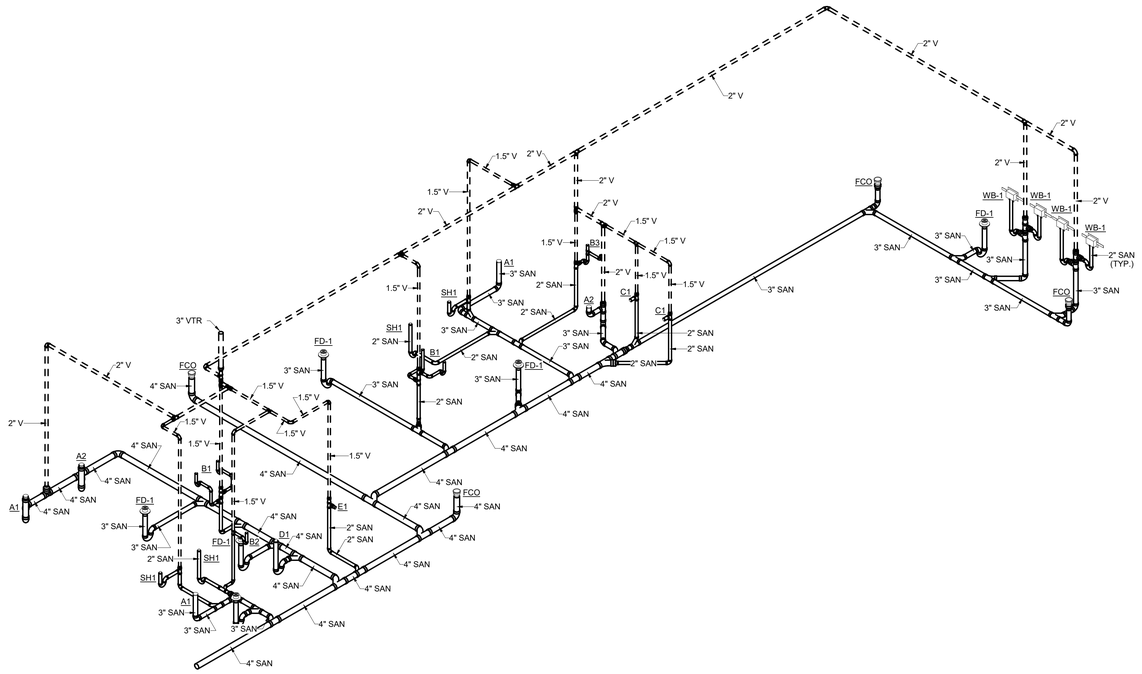
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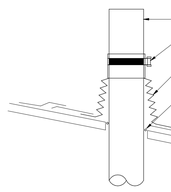
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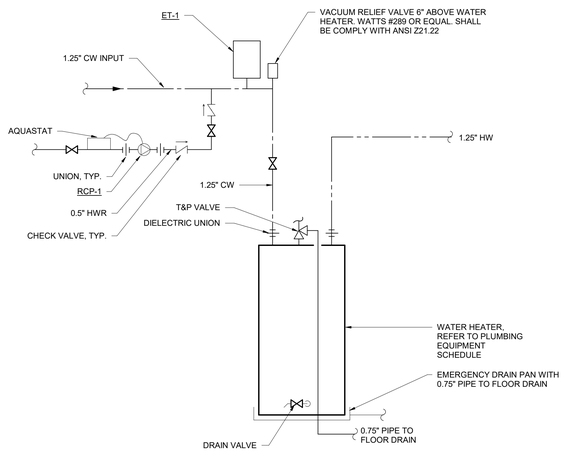
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③ SANITARY & VENT ISOMETRIC
NTS



① PLUMBING VENT THROUGH SLOPED ROOF
NTS



② WATER HEATER DETAIL
NTS

PLUMBING FIXTURE SCHEDULE

PLAN MARK	FIXTURE TYPE	DESCRIPTION	CONNECTION SIZE (IN.)				NOTES
			SAN	VENT	CW	HW	
A1	WATER CLOSET ADA	AMERICAN STANDARD MODEL #3483.001.020 WHITE ELONGATED ADA BOWL, WITH PRESSURE ASSIST; AMERICAN STANDARD #4142.016.020 TANK WITH LEFT HAND LEVER AND PRESSURE ASSIST; # 5901.100.020 ELONGATED SEAT.	3	1.5	1.0	-	-
A2	WATER CLOSET	AMERICAN STANDARD MODEL #3481.001.020 WHITE ELONGATED BOWL, WITH PRESSURE ASSIST; AMERICAN STANDARD #4142.016.020 TANK WITH LEFT HAND LEVER AND PRESSURE ASSIST; #5901.100.020 ELONGATED SEAT.	3	1.5	1.0	-	-
B1	LAVATORY	ELKAY #EWMA4820 WALL HUNG LAVATORY WITH (2) SETS OF 4" CENTER SET FAUCET HOLES; (2) T&S #B-1115-LN NOZZLE; (2) T&S #059X SPOUT; ZURN #Z8739-PC FLAT GRID STRAINER; (2) #ZW3870XLT-4P MIXING VALVE; ZURN #Z8946-1-NT TRAP WRAP KIT.	1.5	1.5	0.5	0.5	-
B2	LAVATORY	AMERICAN STANDARD #0355.012.020 WALL HUNG LAVATORY; #7385.004.002 CHROME LAV FAUCET; #Z8743-PC GRID STRAINER; #ZW3870XLT-4P MIXING VALVE; ZURN #Z8946-1-NT TRAP WRAP KIT.	1.5	1.5	0.5	0.5	-
B3	SINK	ELKAY #D-23322-3 STAINLESS STEEL SINK; (2) DEARBORN #14 BASKET STRAINER; MOEN ARBOR #7594C FAUCET.	1.5	1.5	0.5	0.5	-
B4	WASHDOWN AREA FAUCET	CHICAGO #835-RCF FAUCET.	FD	-	0.5	0.5	-
C1	URINAL	AMERICAN STANDARD #6590.001.020 WASHBROOK URINAL; #Z6003-WS1-YB-YC FLUSH VALVE.	2	1.5	0.75	-	1
D1	MOP/UTILITY SINK	MUSTEE PRECAST MODEL #63M (24"x24"x10"); AMERICAN STANDARD FAUCET MODEL #8344.212 CHROME PLATED WITH VACCUM BREAKER, INTEGRAL STOPS, ADJUSTABLE WALL BRACE, PAIL HOOK AND 3/4" HOSE THREAD ON SPOUT; FIAT HOSE AND HOSE BRACKET MODEL #832-AA, 30" LONG FLEXIBLE, HEAVY DUTY 5/8" RUBBER HOSE, CLOTH REINFORCED WITH 3/4" BRASS COUPLING AT ONE END.	3	-	0.5	0.5	-
E1	DRINKING FOUNTAIN	ELKAY MODEL #EZSTL8WSLK, BI-LEVEL, ADA WITH BOTTLE FILLER.	1.5	-	0.5	-	-
SH1	SHOWER	#1363BFSD SHOWER WITH LEFT HAND SEAT AND GRAB BAR; #9600-X-PLR TUB/SHOWER SYSTEM; SYMMONS #HS521 SLIDE BAR AND DROP ELL; SIOUX #827-2B BRASS SHOWER DRAIN.	2	1.5	0.5	0.5	-

NOTES:
1. SEE ARCH. DETAILS FOR MOUNTING HEIGHT.

PLUMBING EQUIPMENT SCHEDULE

PLAN MARK	DESCRIPTION	COLD WATER	HOT WATER (120°F)	HOT WATER (140°F)	NATURAL GAS	NON POTABLE	WASTE	INDIRECT	FLOOR DRAIN	NOTES
ET-1	EXPANSION TANK - DOMESTIC WATER SYSTEM - #EXPT4, 4.8 GALLON.	0.75"								
RCP-1	HOT WATER RECIRCULATION PUMP - EQUAL TO BELL & GOSSETT e34V/BTPRC			0.75"						
RPZ-1	REDUCED PRESSURE BACKFLOW ASSEMBLY - EQUAL TO WATTS SERIES 009	1"								
WH-1	GAS WATER HEATER - BRADFORD WHITE #RG275H6N-475-264, 75 GALLON, 76 MBH, W/ #87121 WATER HEATER PAN.	1"		1"						
WB-1	WASHER BOX -EQUAL TO OATEY QUADTRO 1/4 TURN W/ HAMMER ARRESTORS WASHING MACHINE OUTLET BOX.	0.5"		0.5"			2"			

NOTES:

DRAIN AND CLEANOUT SCHEDULE

PLAN MARK	APPROVED SUPPLIERS - J.R. SMITH, JOSAM, WATTS, ZURN ZURN CATALOG NO.	TYPE				BODY				OUTLET			STRAINER/GRATE								TOP FINISH				ADDITIONAL FEATURES								SEE NOTE
		FLOOR	ROOF	WALL	DECK	CAST IRON	BRASS	ACID RESIST.	STAINLESS STEEL	SIZE	BOTTOM	SIDE	SIZE	ADJUSTABLE	FLAT	DOME	RECESSED	FUNNEL	HINGED	1/2 GRATE	NICKEL-BRONZE	CAST IRON	POLYETHYLENE	STAINLESS STEEL	ANCHOR FLANGE	FLASHING CLAMP	DBL. DRAINAGE	SED. BUCKET	AUX. STRAINER	GRAVELSTOP	U/DECK CLAMP	TRAP PRIMER	
FD-1	ZN415-BZ1	X				X				3"	X		6"	X							X					X	X	X					1
FCO	ZN1400-B	X				X				6"	X		7-7/8"	X							X												

NOTES:
1. PROVIDE TRAP SEAL PROTECTION DEVICE EQUAL TO Z1072.

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PLUMBING SCHEDULES

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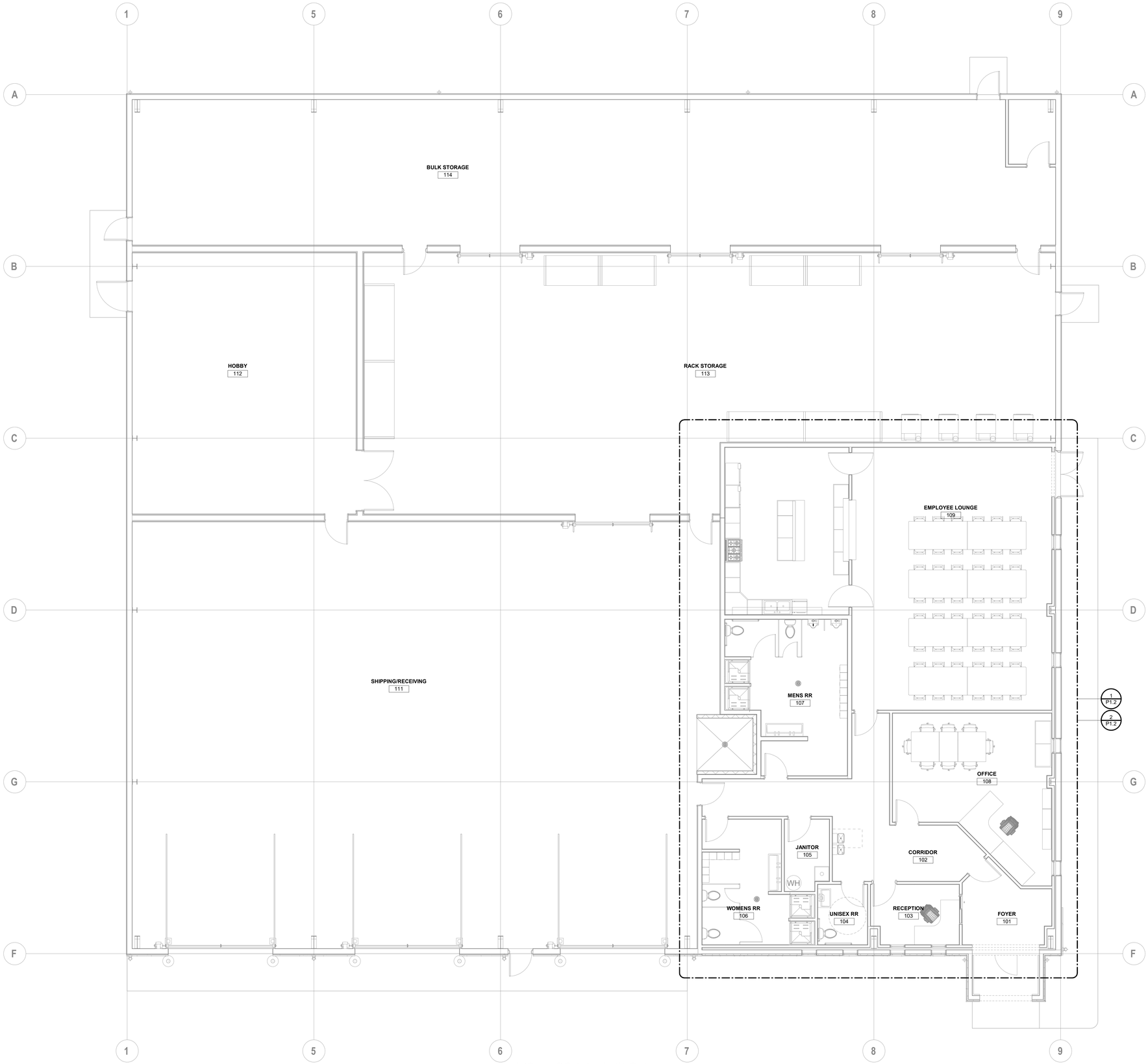


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1 FIRST FLOOR PLUMBING PLAN
3/16" = 1'-0"

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PLUMBING FLOOR PLAN

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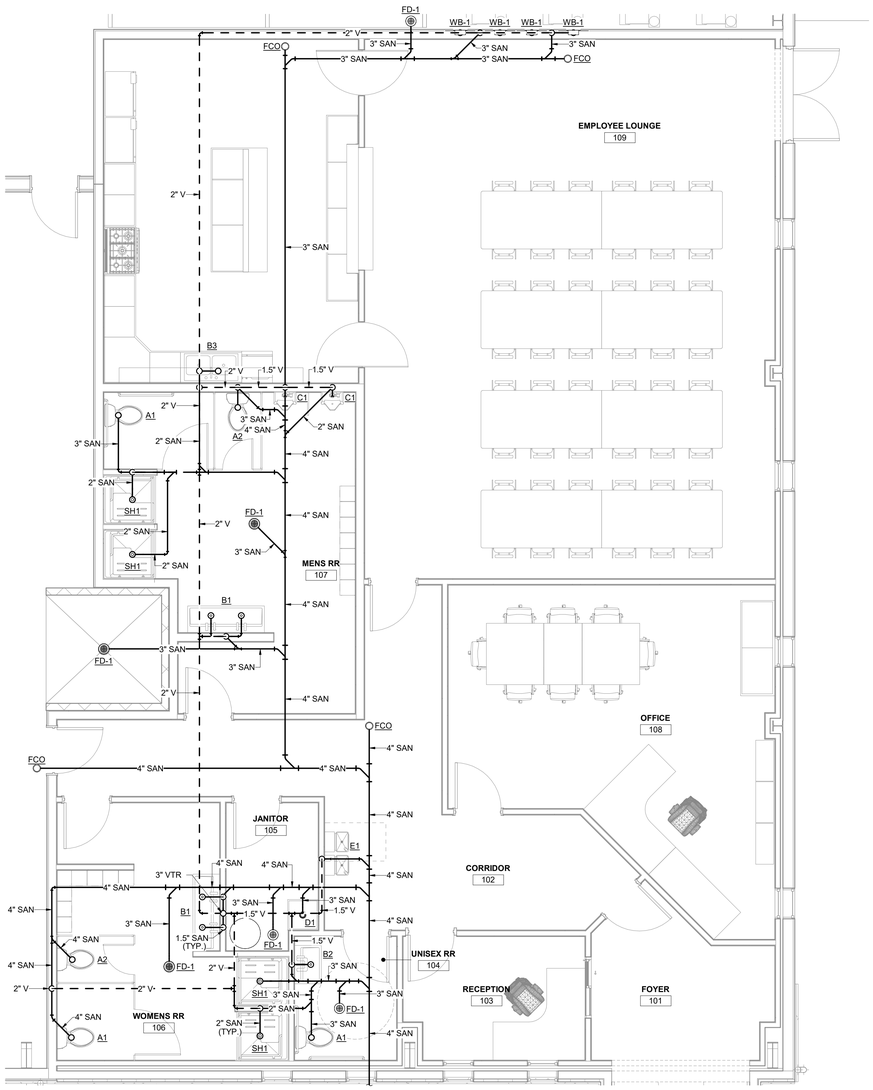
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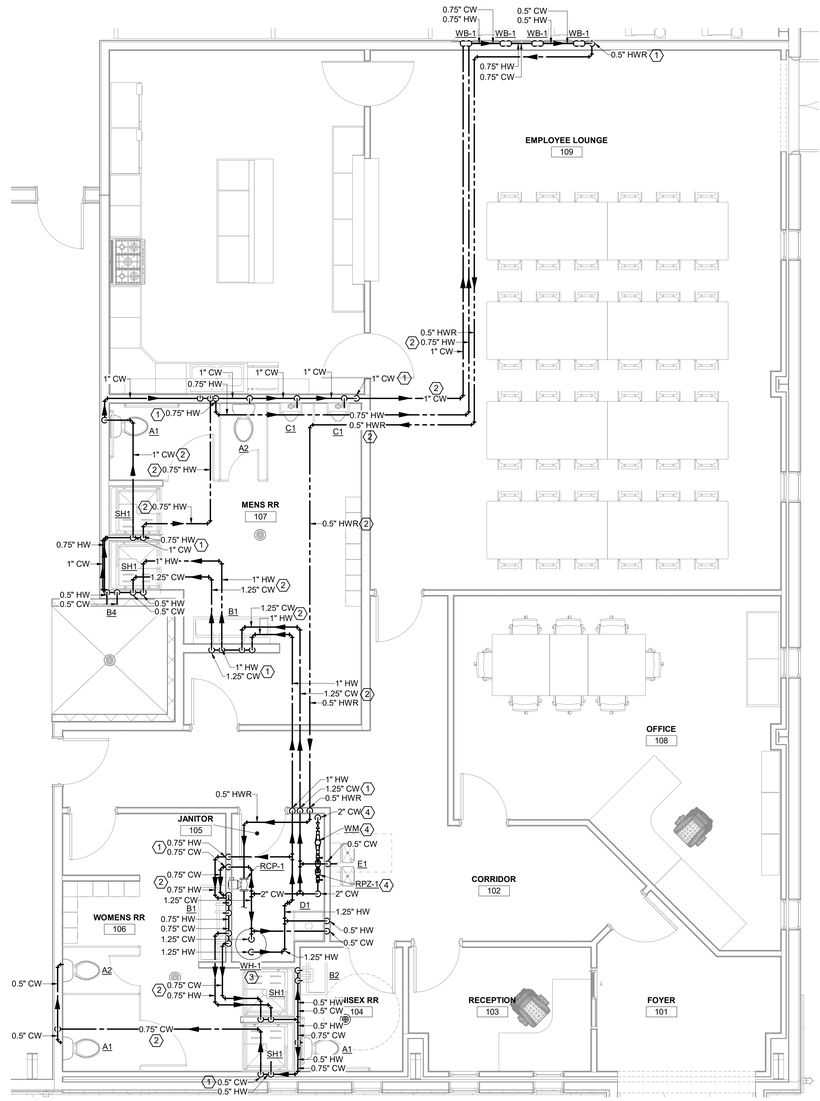
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DRAWING NOTES

1. DOMESTIC PIPING ROUTED DOWN WALL CAVITY TO BELOW SLAB.
2. DOMESTIC WATER PIPING LOCATED BELOW SLAB.
3. FLOOR SET WATER HEATER. EXPANSION TANK MOUNTED ON WALL USING WALL BRACKET EQUAL TO HOLD-RITE MODEL QS-U. TANK SHALL NOT BE SUPPORTED BY PIPING. REFER TO WATER HEATER PIPING DETAIL FOR ADDITIONAL INFORMATION.
4. PROVIDE WATER SERVICE ENTRY ASSEMBLY PER AHJ REQUIREMENTS.



1 ENLARGED PLUMBING PLAN (SANITARY)
1/4" = 1'-0"



2 ENLARGED PLUMBING PLAN (SUPPLY)
1/4" = 1'-0"

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PLUMBING
ENLARGED PLANS

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STATE OF OHIO
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BRANCH CIRCUITRY WIRE SIZE SCHEDULE

BREAKER RATING	COPPER		ALUMINUM		BREAKER RATING
	Ø & N	GND	Ø & N	GND	
15	#12	#12	-	-	15
20	#12	#12	-	-	20
25	#10	#10	-	-	25
30	#10	#10	-	-	30
35	#8	#10	-	-	35
40	#8	#10	-	-	40
45	#8	#10	#6	#8	45
50	#8	#10	#6	#8	50
60	#6	#10	#4	#8	60
70	#4	#8	#3	#6	70
80	#4	#8	#2	#6	80
90	#3	#8	#2	#6	90
100	#3	#8	#1	#6	100

VOLTAGE DROP ADJUSTMENTS

0'-100' - WIRE SIZES AS INDICATED ABOVE

101'-200' - UPSIZE PHASE, NEUTRAL AND GROUND (1) TRADE SIZE

201'-300' - UPSIZE PHASE, NEUTRAL AND GROUND (2) TRADE SIZES

301'-400' - UPSIZE PHASE, NEUTRAL AND GROUND (3) TRADE SIZES

SCHEDULE NOTES:

THE ABOVE BRANCH CIRCUITRY SCHEDULE IS A SCHEDULE OF TYPICAL BRANCH CIRCUIT SIZES, SOME SIZES MAY NOT BE UTILIZED.

CONDUCTOR AMPACITIES ARE BASED ON TABLE 310.16 OF THE 2020 NATIONAL ELECTRICAL CODE FOR COPPER AND ALUMINUM CONDUCTORS AT 75 DEGREES CENTIGRADE TEMPERATURE RATING.

THE ABOVE BRANCH CIRCUITRY TABLE IS BASED ON NOT MORE THAN (3) CURRENT CARRYING CONDUCTORS IN A CONDUIT.

APPLY AMPERE ADJUSTMENT FACTORS ACCORDINGLY FOR CONDUITS CONTAINING MORE THAN (3) CURRENT CARRYING CONDUCTORS, CONDUITS RUNNING THRU AREAS WITH HIGHER AMBIENT TEMPERATURES, AND CONDUITS INSTALLED WHERE EXPOSED TO SUNLIGHT AND/OR ABOVE ROOFS.

ACUITY LIGHTING CONTROLS LEGEND

$OS
$OS
WSXA MWO PDT XX
Wall Switch Sensor, Muli-way Option,
Passive Dual Technology

$VSD
$VSD
WSXA MWO PDT D SA XX
Wall Switch Sensor, Muli-way Option,
Passive Dual Technology, Dimming,
Vacancy (default) or Auto-On

L$3
L$3
SPODMA 3X XX
Wall Switch, Multi-Way

L$3D
L$3D
SPODMA D 3X XX
Wall Switch, Dimming, Multi-Way

L$D
L$D
SPODMA D XX
Wall Switch, Dimming

n$
n$
NPODMA XX

OS-10
OS-10r
CM PDT 10 R
Ceiling Mount Sensor, Passive Dual Technology,
Large Motion / Extended Range 360° Lens
Isolated Low Voltage Relay

PP20
PP20
PP20
Power Pack

ARP4
ARP4
ARP INTENC08 NLT 4FCR MVOLT HILK SM DTC
Acuity Relay Panel, Include INT and ENC,
8-Size, nLight, 4-field configurable relays,
120-277V, Screw Cover, Surface Mount

NOTE: ALL SYMBOLS MAY NOT APPLY (TYPICAL FOR ALL SYMBOL LEGENDS)

ELECTRICAL SYMBOL LEGEND

XX	CODED PLAN NOTE	XX / XXX	DETAIL # / SHEET # — REFERENCE TAG
XX	EQUIPMENT DESIGNATION		
MDP-22	CIRCUIT DESIGNATION / PANEL DESIGNATION - CIRCUIT NUMBER		
K	ELECTRIC UTILITY KEY BOX	$3 / $a	WALL SWITCH-NUMBER INDICATES 2 POLE, 3 OR 4 WAY (NO NUMBER FOR SINGLE POLE) LOWER CASE LETTER INDICATES FIXTURE(S) TO BE CONTROLLED BY SWITCH
L	FAN/LIGHT COMBINATION FIXTURE		
	EXHAUST FAN	$D	DIMMER SWITCH
J	JUNCTION BOX	$F	CEILING FAN SPEED CONTROL SWITCH
	NON-FUSED DISCONNECT SWITCH	$K	KEY-OPERATED SWITCH
	FUSED DISCONNECT SWITCH	$M	MOTOR RATED DISCONNECT SWITCH
	MOTOR	$OS	OCCUPANCY SENSOR WALL SWITCH
	PUSH BUTTON	$OR	OVERRIDE SWITCH
B	BUZZER/BELL	$PL	SWITCH WITH PILOT LIGHT
LVT	LOW VOLTAGE TRANSFORMER	$T	TIMER SWITCH
	SINGLE RECEPTACLE 20A, 120V	OS	WALL MOUNT OCCUPANCY SENSOR
	SPECIAL RECEPTACLE	OS	CEILING MOUNT OCCUPANCY SENSOR
	DUPLEX RECEPTACLE 20A, 120V	SP	SWITCH PACK FOR OCCUPANCY SENSOR
	QUADRUPLEX RECEPTACLE 20A, 120V	Pc	PHOTOCELL
	GFCI DUPLEX RECEPTACLE 20A, 120V	TC	TIMECLOCK
	GFCI QUADRUPLEX RECEPTACLE 20A, 120V	#A	CURRENT LIMITING DEVICE - NUMBER INDICATES MAX AMPERAGE OF DEVICE
	IG DUPLEX RECEPTACLE 20A, 120V	W	½" CONDUIT STUB AND BOX FOR WALL PHONE WIRING BY OTHERS
	IG QUADRUPLEX RECEPTACLE 20A, 120V		½" CONDUIT STUB AND BOX FOR PHONE WIRING BY OTHERS
	SPLIT WIRED DUPLEX RECEPTACLE 20A, 120V		½" CONDUIT STUB AND BOX FOR DATA WIRING BY OTHERS
	SPLIT WIRED QUADRUPLEX RECEPTACLE 20A, 120V		½" CONDUIT STUB AND BOX FOR DATA/PHONE WIRING BY OTHERS
TL	TWISTLOCK RECEPTACLE	TV	TELEVISION OUTLET
	FLUSH MTD AS INDICATED BY BOX AROUND DEVICE, FLR=FLOOR, CLG=CEILING	WA	WIRELESS ACCESS
	SURFACE MOUNT PANELBOARD/LOADCENTER	MB	MEDIA BOX DEMARC LOCATION
	FLUSH MOUNT PANELBOARD/LOADCENTER	CO	120V CARBON MONOXIDE ALARM WITH SOUNDER BASE AND BATTERY BACK-UP
M	UTILITY SERVICE METER	SA	120V SMOKE ALARM WITH SOUNDER BASE AND BATTERY BACK-UP
	PLUGMOLD - SEE PLAN VIEW FOR SPECIFIC LENGTHS	SA CO	120V COMBINATION SMOKE ALARM / CARBON MONOXIDE ALARM WITH SOUNDER BASE AND BATTERY BACK-UP
ANNC	GENERATOR ANNUNCIATOR		
PP	POWER POLE		
UPS	UNINTERRUPTIBLE POWER SUPPLY		

ELECTRICAL NOTATIONS

AC	ABOVE COUNTER	LV	LOW VOLTAGE
AFF	ABOVE FINISHED FLOOR	MBJ	MAIN BONDING JUMPER
AFG	ABOVE FINISHED GRADE	MC	MECHANICAL CONTRACTOR
BPS	BOLTED PRESSURE SWITCH	MTD	MOUNTED
CLG	CEILING MOUNTED	NTS	NOT TO SCALE
CKT	CIRCUIT	(PART)	INDICATES CIRCUIT USED ELSEWHERE
EC	ELECTRICAL CONTRACTOR	PC	PLUMBING CONTRACTOR
EM	EMERGENCY	SSBJ	SUPPLY-SIDE BONDING JUMPER
ETR	EXISTING TO REMAIN	SUC	SITE UTILITY CONTRACTOR
FLR	FLOOR MOUNTED	TYP	TYPICAL
FSC	FIRE SUPPRESSION CONTRACTOR	UG	UNDERGROUND
GC	GENERAL CONTRACTOR	UNO	UNLESS NOTED OTHERWISE
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	WP	WEATHERPROOF
GFEP	GROUND FAULT EQUIPMENT PROTECTION	WG	WIRE GUARD
GND	GROUND	WR	WEATHER RESISTANT
HC	HVAC CONTRACTOR	XX"	DIMENSIONED HEIGHT
IG	ISOLATED GROUND		

ELECTRICAL LINETYPE LEGEND

- GENERAL DEMO
- GENERAL EXISTING
- SWITCH LEG
- UGE — UNDERGROUND ELECTRIC
- (AB)UGE — UNDERGROUND ELECTRIC (ABANDONED)
- (D)UGE — UNDERGROUND ELECTRIC (DEMO)
- (E)UGE — UNDERGROUND ELECTRIC (EXISTING)
- LV — LOW VOLTAGE
- (AB)LV — LOW VOLTAGE (ABANDONED)
- (D)LV — LOW VOLTAGE (DEMO)
- (E)LV — LOW VOLTAGE (EXISTING)
- UGLV — UNDERGROUND LOW VOLTAGE
- (AB)UGLV — UNDERGROUND LOW VOLTAGE (ABANDONED)
- (D)UGLV — UNDERGROUND LOW VOLTAGE (DEMO)
- (E)UGLV — UNDERGROUND LOW VOLTAGE (EXISTING)

MAIN ELECTRICAL GENERAL NOTES:

A. ALL ELECTRICAL INSTALLATIONS MUST COMPLY WITH THE NATIONAL ELECTRICAL CODE (NEC) AND ALL STATE AND LOCAL CODES.

B. INSTALL A SEPARATE EQUIPMENT GROUNDING CONDUCTOR SIZED PER NEC TABLE 250.122 FOR ALL BRANCH CIRCUITS INSTALLED IN NON-METALLIC CONDUITS. METALLIC CONDUITS MAY BE USED AS EQUIPMENT GROUNDING CONDUCTORS PER NEC.

C. VERIFY ALL WIRE SIZING DUE TO VOLTAGE DROP CAUSED BY IN-FIELD ROUTING / INSTALLATION DISTANCES.

D. LABEL ALL PANELS, DISCONNECTS, LIGHTING CONTROLLERS, ETC., AND ALL CIRCUIT BREAKERS IN THE DISTRIBUTION PANELS PRIOR TO PROJECT COMPLETION. PROVIDE A TYPED DIRECTORY OF ALL CIRCUITS.

E. PROVIDE ALL NEC REQUIRED EQUIPMENT DISCONNECTS (NOT ALL DISCONNECTS MAY BE SHOWN ON THE DRAWINGS). VERIFY ALL DISCONNECT SIZING WITH EACH EQUIPMENT NAMEPLATE RATING.

F. PROVIDE ALL EQUIPMENT IN NEW CONDITION AND U.L. LISTED UNLESS NOTED OTHERWISE.

G. COORDINATE ALL ELECTRICAL WORK WITH OTHER TRADES AND ARCHITECTURAL DRAWINGS TO ELIMINATE CONFLICTS.

H. PRIOR TO CONSTRUCTION START, SUBMIT SHOP DRAWINGS AND OPERATION MANUALS FOR ALL EQUIPMENT AND ACCESSORIES FOR OWNER APPROVAL.

I. PERFORM ALL WORK IN A NEAT AND PROFESSIONAL MANNER.

J. PROVIDE FLEXIBLE CONDUIT FOR ALL VIBRATING EQUIPMENT.

K. VERIFY ELECTRICAL REQUIREMENTS OF EQUIPMENT WITH MANUFACTURERS LITERATURE AND EQUIPMENT NAME PLATE. PROVIDE ANY ADDITIONAL ELECTRICAL CONNECTIONS OR SERVICES TO EQUIPMENT WHICH ARE NOT SHOWN ON DRAWINGS.

L. ALL PENETRATIONS OF WALL, ROOF, AND CEILINGS TO BE SEALED AS REQUIRED WITH U.L. APPROVED FIRE SEALANT TO MAINTAIN FIRE RATING AS REQUIRED. ALL ROOF PENETRATIONS, IF APPLICABLE, ARE TO BE COORDINATED WITH THE OWNER'S DESIGNATED ROOFING CONTRACTOR.

M. ELECTRICAL EQUIPMENT EXPOSED TO WEATHER CONDITIONS SHALL BE WEATHERPROOF TYPE. CONDUIT EXPOSED TO WEATHER CONDITIONS OR IN CONTACT WITH CONCRETE SHALL BE POLYVINYL CHLORIDE (PVC) OR GALVANIZED HEAVY WALL STEEL (GRC).

ELECTRICAL WIRING METHODS:

- ELECTRICAL FEEDERS SHALL CONSIST OF EMT, IMC, PVC, OR GRC CONDUITS WHERE ABOVE GRADE, PVC WHERE BELOW GRADE, WITH COPPER OR ALUMINUM CONDUCTORS.
- ELECTRICAL BRANCH CIRCUITS SHALL CONSIST OF EMT, IMC, PVC, OR GRC CONDUITS WHERE ABOVE GRADE, PVC WHERE BELOW GRADE, WITH COPPER CONDUCTORS. MINIMUM SIZE CONDUIT IS 1/2".
- FLEXIBLE CONDUITS AND/OR METAL CLAD CABLES MAY BE USED FOR LIGHT FIXTURE CONNECTIONS, EQUIPMENT CONNECTIONS, DEVICE CONNECTIONS, ETC. WHERE ALLOWABLE BY THE NEC.
- UNDERGROUND CONDUITS OUTSIDE OF THE BUILDING SHALL BE INSTALLED A MINIMUM OF 24" DEEP UNLESS CONCRETE ENCASED. UNDERGROUND CONDUITS INSIDE OF THE BUILDING SHALL BE INSTALLED BELOW OR WITHIN THE CONCRETE SLAB WHERE COVERED BY 4" CONCRETE (MINIMUM).
- ALL 15 AND 20 AMP, 120 VOLT RECEPTACLES INSTALLED OUTDOORS, IN KITCHENS, ON ROOF-TOPS, IN RESTROOMS, AND/OR AS IDENTIFIED ON THESE DRAWINGS SHALL HAVE CLASS A GFI PROTECTION.
- DISCONNECTING MEANS TO DISCONNECT MOTORS AND CONTROLLERS FROM THE CIRCUIT SHALL BE PROVIDED AND SHALL BE LOCATED PER NEC 430.102. CIRCUIT BREAKERS AT THE PANELS MAY SERVE AS THE DISCONNECT MEANS PROVIDED THEY ARE WITHIN SIGHT AS DEFINED IN THE NEC OR ARE CAPABLE OF BEING LOCKED IN THE OPEN POSITION.
- WIRING METHODS FOR THIS PROJECT SHALL CONSIST OF WIRE IN CONDUIT, MANUFACTURED FLEXIBLE CABLE ASSEMBLIES WITH CONDUCTORS AND LISTED MODULAR WIRING SYSTEMS. APPROVED CONDUIT TYPES FOR THIS PROJECT ARE PVC, GRC, IMC, EMT, STEEL AND ALUMINUM FLEXIBLE CONDUIT, LIQUIDTITE NON-METALLIC CONDUIT AND LIQUIDTITE METALLIC CONDUIT. APPROVED WIRING TYPES FOR THIS PROJECT ARE COPPER FOR SIZE #8 AWG AND SMALLER, AND COPPER OR ALUMINUM FOR SIZES LARGER THAN #8 AWG, WITH THHN, THHW, THW OR XHHW INSULATION. APPROVED FLEXIBLE CABLE ASSEMBLIES FOR THIS PROJECT ARE TYPE MC CABLE, TYPE SJ CABLE, TYPE SO CABLE. LISTED MODULAR WIRING SYSTEMS FOR USE IN CONJUNCTION WITH LIGHTING FIXTURES ARE APPROVED FOR THIS PROJECT.

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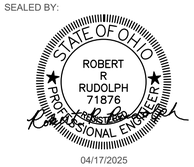
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100 ROCKRIDGE ROAD, ENGLEWOOD, OH 45322
P 937.771.3202 F 937.771.3215

Churches of Christ Disaster Response Team

CHURCHES OF CHRIST - DRT
NEW WAREHOUSE
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NO.	ISSUE / REVISION	DATE
1	FOR PERMIT	04/17/2025

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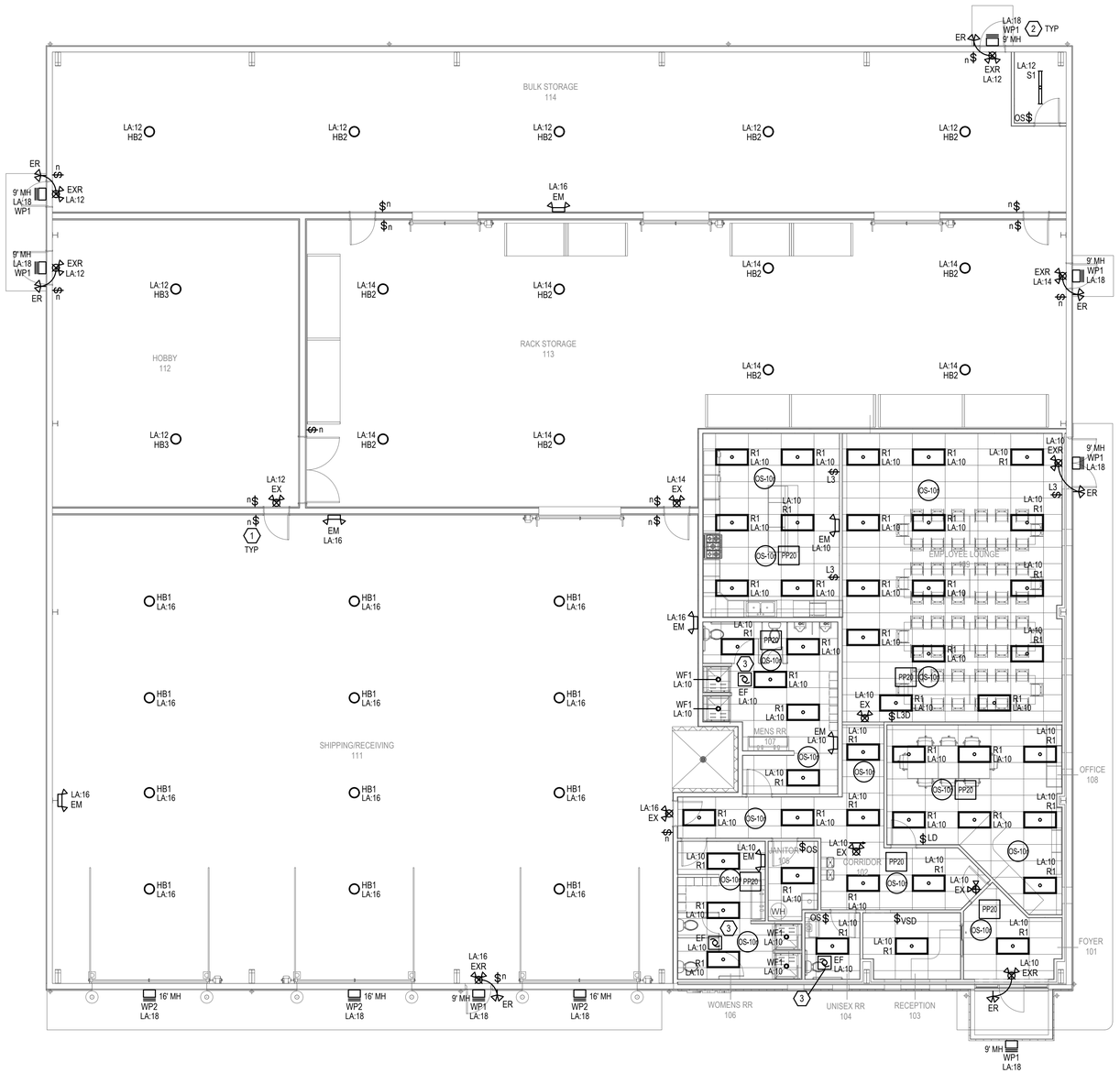
04/17/2025

DRAWN BY:	STAFF
CHECKED BY:	STAFF
DESIGNED BY:	STAFF
APPROVED BY:	RRR
JOB NUMBER:	25064

SHEET DESCRIPTION:
ELECTRICAL COVER SHEET

SHEET NO.:
E000

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GENERAL NOTES:

A. ALL WORK SHALL MEET OR EXCEED ALL NEC STANDARDS.

B. SEE MAIN ELECTRICAL GENERAL NOTES FOR MORE INFORMATION.

C. COORDINATE ALL WORK WITH OTHER TRADES PRIOR TO ROUGH-IN.

D. VERIFY EXACT LOCATIONS AND MOUNTING HEIGHTS FOR ALL FIXTURES AND DEVICES PRIOR TO ROUGH-IN.

E. ALL EXIT/EMERGENCY LIGHTING SHALL BE PROVIDED WITH AN UNSWITCHED CONDUCTOR ON THE INDICATED CIRCUIT.

F. VERIFY THE COLOR OF ALL FIXTURES, DEVICES, AND COVER PLATES WITH OWNER.

G. FOR ALL OCCUPANCY SENSORS, PROVIDE SWITCHPACK AND ALL OTHER REQUIRED HARDWARE WHERE NECESSARY. COORDINATE ALL SETTINGS WITH OWNER PRIOR TO ROUGH-IN.

PLAN NOTES:

1. FOR LIGHTING CONTROLS WIRING, REFER TO LIGHTING CONTROLS DRAWINGS PREPARED BY KING LIGHTING, INC. CONTACT AARON PRINE AT (937) 741-2290.
2. EXTERIOR LIGHTING TO BE CONTROLLED VIA LIGHTING CONTROL PANEL.
3. RESTROOM EXHAUST FAN TO BE CONTROLLED WITH RESTROOM LIGHTING.

LIGHTING PLAN | 1
1/8" = 1'-0" | E100

NORTH

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NEW WAREHOUSE
9315 STATE ROUTE 202
TIPP CITY, OHIO 45371

NO.	ISSUE / REVISION	DATE
1	FOR PERMIT	04/17/2025

SEALED BY:

STATE OF OHIO
ROBERT R RUDOLPH
71876
REGISTERED
PROFESSIONAL ENGINEER

04/17/2025

DRAWN BY:	STAFF
CHECKED BY:	STAFF
DESIGNED BY:	STAFF
APPROVED BY:	RRR
JOB NUMBER:	25064

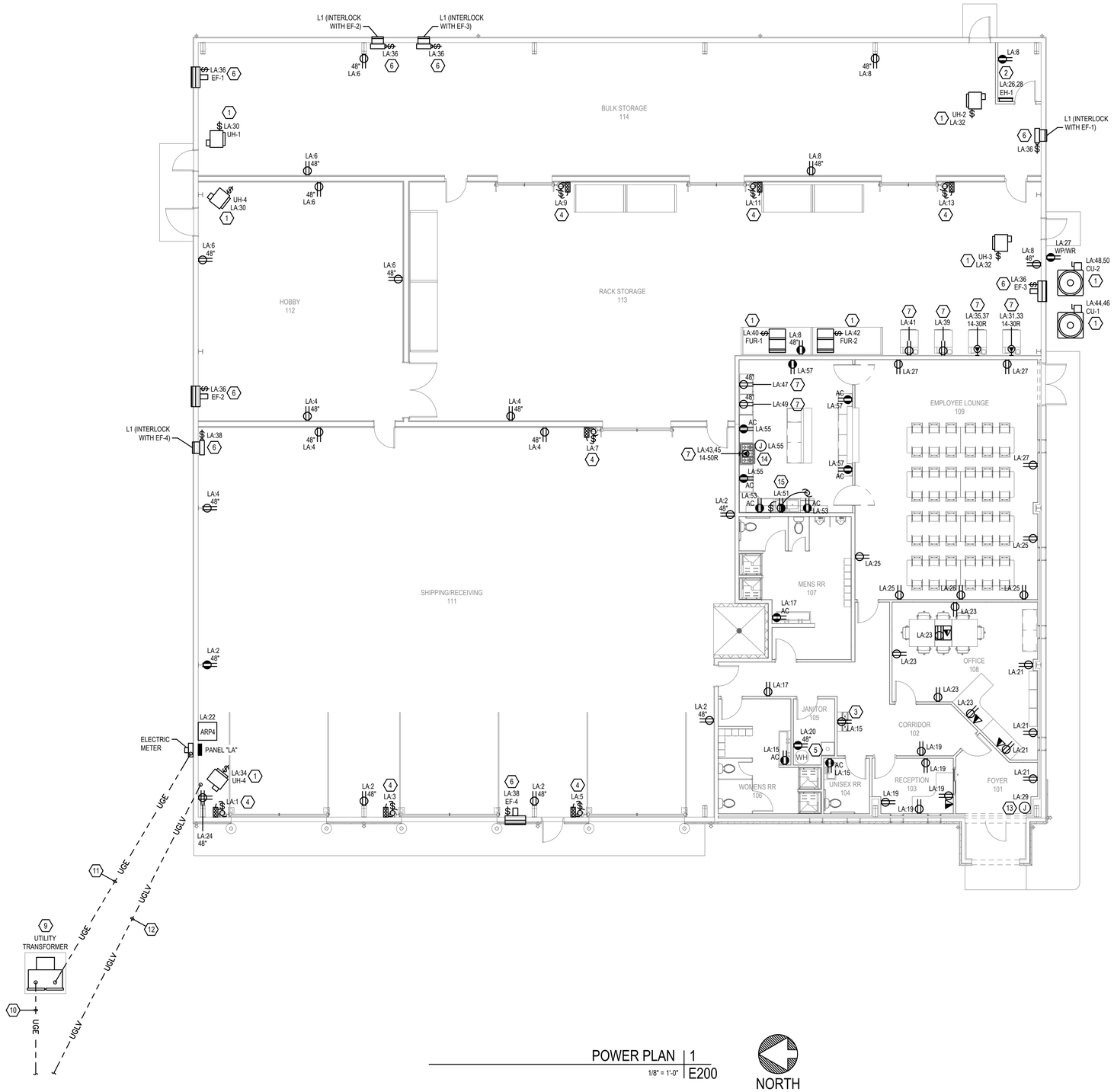
SHEET DESCRIPTION:

LIGHTING PLAN

SHEET NO.:

E100

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POWER PLAN | 1
1/8" = 1'-0" | E200

NORTH

GENERAL NOTES:

A. ALL WORK SHALL MEET OR EXCEED ALL NEC STANDARDS.

B. SEE MAIN ELECTRICAL GENERAL NOTES FOR MORE INFORMATION.

C. COORDINATE ALL WORK WITH OTHER TRADES PRIOR TO ROUGH-IN.

D. VERIFY EXACT LOCATIONS AND MOUNTING HEIGHTS FOR ALL FIXTURES AND DEVICES PRIOR TO ROUGH-IN.

E. VERIFY THE COLOR OF ALL FIXTURES, DEVICES, AND COVER PLATES WITH OWNER.

PLAN NOTES:

1. PROVIDE ELECTRICAL CONNECTION, DISCONNECT SWITCH AND ELECTRICAL CIRCUITRY TO SERVE MECHANICAL EQUIPMENT. VERIFY LOCATION AND ELECTRICAL REQUIREMENTS WITH MECHANICAL CONTRACTOR.
2. PROVIDE ELECTRICAL CONNECTION AND ELECTRICAL CIRCUITRY TO SERVE MECHANICAL EQUIPMENT. VERIFY LOCATION AND ELECTRICAL REQUIREMENTS WITH MECHANICAL CONTRACTOR.
3. PROVIDE RECEPTACLE TO SERVE DRINKING FOUNTAIN. PROVIDE GFCI PROTECTION VIA LOAD-SIDE OF GFCI-TYPE RECEPTACLE LOCATED IN ADJACENT RESTROOM.
4. PROVIDE ELECTRICAL CONNECTION, DISCONNECT SWITCH AND ELECTRICAL CIRCUITRY TO SERVE OVERHEAD DOOR OPERATOR. INCLUDE OUTLET BOX, CONDUIT AND WIRING ASSOCIATED WITH CONTROLS.
5. RECEPTACLE TO SERVE GAS FIRED WATER HEATER BLOWER MOTOR AND RE-CIRCULATION PUMP. VERIFY LOCATION AND ELECTRICAL REQUIREMENTS WITH PLUMBING CONTRACTOR.
6. PROVIDE ELECTRICAL CONNECTION, DISCONNECT SWITCH AND ELECTRICAL CIRCUITRY TO SERVE EXHAUST FAN. INCLUDE INTERLOCK WITH LOUVER AS INDICATED. VERIFY LOCATION AND ELECTRICAL REQUIREMENTS WITH MECHANICAL CONTRACTOR.
7. PROVIDE GFCI TYPE BREAKER FOR CIRCUIT.
8. COORDINATE TELEVISION MOUNTING HEIGHT WITH ARCHITECT PRIOR TO ROUGH-IN.
9. CONCRETE TRANSFORMER PAD AND PROTECTION BOLLARDS BY GENERAL CONTRACTOR. COORDINATE EXACT LOCATION WITH LOCAL UTILITY COMPANY.
10. PROVIDE (1) 4" CONDUIT TO GRASSY AREA PAST PARKING LOT FOR PRIMARY ELECTRIC CABLING. COORDINATE EXACT REQUIREMENTS WITH LOCAL UTILITY COMPANY.
11. PROPOSED ROUTING OF SECONDARY ELECTRICAL SERVICE LATERAL.
12. PROVIDE (1) 4" CONDUIT TO GRASSY AREA PAST PARKING LOT FOR TELECOMMUNICATIONS SERVICE CABLING. COORDINATE EXACT REQUIREMENTS WITH LOCAL UTILITY COMPANY.
13. PROVIDE JUNCTION BOX AND ELECTRICAL CIRCUIT FOR BUILDING SIGNAGE. LOCATE JUNCTION BOX ABOVE ACCESSIBLE CEILING. LABEL JUNCTION BOX COVER WITH THE CIRCUIT DESIGNATION AND "BUILDING SIGN CIRCUIT".
14. PROVIDE ELECTRICAL CONNECTION AND ELECTRICAL CIRCUITRY TO KITCHEN HOOD. VERIFY LOCATION AND ELECTRICAL REQUIREMENTS WITH GENERAL CONTRACTOR.
15. PROVIDE RECEPTACLE LOCATED IN SINK BASE CABINET TO SERVE DISPOSAL AND DISHWASHER. PROVIDE WALL SWITCH TO CONTROL TOP-HALF OF RECEPTACLE. TOP-HALF OF RECEPTACLE TO SERVE DISPOSAL. BOTTOM-HALF OF RECEPTACLE TO SERVE DISHWASHER. PROVIDE CORD KIT FOR DISPOSAL AND DISHWASHER. PROVIDE GFCI-TYPE BREAKER FOR THIS CIRCUIT. VERIFY LOCATION AND ELECTRICAL REQUIREMENTS WITH GENERAL CONTRACTOR.

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SEALED BY:

STATE OF OHIO
ROBERT R RUDOLPH 71876
PROFESSIONAL ENGINEER
04/17/2025

DRAWN BY:	STAFF
CHECKED BY:	STAFF
DESIGNED BY:	STAFF
APPROVED BY:	RRR
JOB NUMBER:	25064

SHEET DESCRIPTION:
POWER PLAN

SHEET NO.:
E200

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TAG	MANUFACTURER	MODEL NUMBER	VOLTS	LAMP TYPE	WATTS	MOUNTING TYPE	DESCRIPTION / REMARKS
EM	LITHONIA	ELM2L M12	120/277	LED	1	SURFACE	TWO-HEAD EMERGENCY EGRESS LIGHT FIXTURE, BATTERY BACK-UP
ER	LITHONIA	ERE GY T WP RD M12	LV	LED	-	SURFACE	EXTERIOR REMOTE HEAD LIGHT FIXTURE
EX	LITHONIA	ECRG RD M6	120/277	LED	1	UNIVERSAL	EXIT/TWO-HEAD EMERGENCY EGRESS LIGHT FIXTURE, BATTERY BACK-UP
EXR	LITHONIA	ECRG HO RD M6	120/277	LED	5	UNIVERSAL	EXIT/TWO-HEAD EMERGENCY EGRESS LIGHT FIXTURE, BATTERY BACK-UP, REMOTE CAPACITY
HB1	LITHONIA	CPRB ALO13 (18,000 LM) UVOLT SWW9 80CRI DWH	120-277	LED	133	SUSPENDED	LED HIGH BAY LIGHT FIXTURE, ADJUSTABLE LUMENS, GRIPPLE HANGERS
HB2	LITHONIA	CPRB ALO14 (24,000 LM) UVOLT SWW9 80CRI DWH	120-277	LED	175	SUSPENDED	LED HIGH BAY LIGHT FIXTURE, ADJUSTABLE LUMENS, GRIPPLE HANGERS
HB3	LITHONIA	CPRB ALO14 (27,000 LM) UVOLT SWW9 80CRI DWH	120-277	LED	195	SUSPENDED	LED HIGH BAY LIGHT FIXTURE, ADJUSTABLE LUMENS, GRIPPLE HANGERS
R1	LITHONIA	CPX 2X4 ALO8 (MID) 80CRI SWW7 (40K) SWL MVOLT	120-277	LED	35	RECESSED	2'X4' LED FLAT PANEL, ADJUSTABLE LUMENS
S1	LITHONIA	CSS-L48-4000LM-MVOLT-40K-80CRI	120-277	LED	36	SURFACE	4' LED STRIP LIGHT FIXTURE
WF1	LITHONIA	WF6 ALO20 SWW5 90CRI MVOLT 40K	120-277	LED	15	SURFACE	6" LED WAFER WET LOCATION LIGHT FIXTURE
WP1	LITHONIA	WPX0 LED ALO1 40K MVOLT	120-277	LED	6	WALL	LED WALL PACK LIGHT FIXTURE
WP2	LITHONIA	WDGE2 LED P3 40K 70CRI TFTM	120-277	LED	33	WALL	LED WALL PACK LIGHT FIXTURE

ALL FIXTURES MAY NOT APPLY
CONFIRM MOUNTING HEIGHTS OF ALL FIXTURES WITH ARCHITECT PRIOR TO ROUGH-IN.
COORDINATE DIMENSIONED LOCATIONS OF ALL FIXTURES WITH ARCHITECTS DRAWINGS PRIOR TO ROUGH-IN.
PROVIDE ALL NECESSARY HARDWARE / INSTALLATION TO MAINTAIN THE INTEGRITY OF FIRE RATED ASSEMBLIES IN WHICH FIXTURES ARE INSTALLED.
PROVIDE ALL NECESSARY TRANSFORMERS / CABLING FOR ALL LOW-VOLTAGE FIXTURES.

PANEL - LA

PANELBOARD SCHEDULE
CONNECTED LOAD (VA)

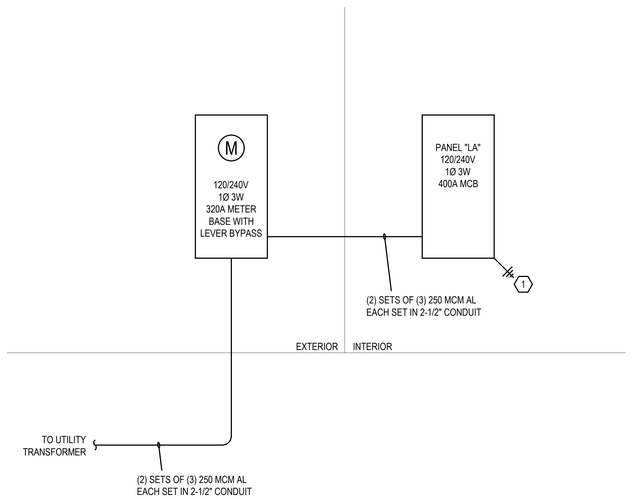
LOAD SERVED	CKT No.	CKT BKR	TYPE	LOAD	PHASE A	PHASE B	LOAD	TYPE	CKT BKR	CKT No.	LOAD SERVED
OVERHEAD DOOR OPERATOR	1	20	5	746			900	2	20	2	RECEPTACLES
OVERHEAD DOOR OPERATOR	3	20	5	746			900	2	20	4	RECEPTACLES
OVERHEAD DOOR OPERATOR	5	20	5	746			900	2	20	6	RECEPTACLES
OVERHEAD DOOR OPERATOR	7	20	5	746			900	2	20	8	RECEPTACLES
OVERHEAD DOOR OPERATOR	9	20	5	746			1607	1	20	10	OFFICE AREA LIGHTING
OVERHEAD DOOR OPERATOR	11	20	5	746			1225	1	20	12	BULK STORAGE, HOBBY LIGHTING
OVERHEAD DOOR OPERATOR	13	20	5	746			1400	1	20	14	RACK STORAGE LIGHTING
RR RECEPS, DRINKING FOUNTAIN	15	20	5	1110			1596	1	20	16	SHIPPING/RECEIVING LIGHTING
RR RECEPTACLES	17	20	2	360			129	1	20	18	EXTERIOR LIGHTING
RECEPTACLES	19	20	2	900			750	5	20	20	WATER HEATER, RECIRC PUMP
RECEPTACLES	21	20	2	720			500	5	20	22	LIGHTING CONTROL PANEL
RECEPTACLES	23	20	2	900			360	2	20	24	IT RECEPTACLES
RECEPTACLES	25	20	2	900			1500	3	20	26	ELECTRIC HEATER EH-1
RECEPTACLES	27	20	2	720			1500	3		28	
BUILDING SIGN	29	20	1	1200			864	3	20	30	UNIT HEATERS UH-1, UH-4
DRYER (GFCI)	31	30	5	2500			864	3	20	32	UNIT HEATERS UH-2, UH-3
	33		5	2500			528	3	20	34	UNIT HEATER UH-5
DRYER (GFCI)	35	30	5	2500			833	3	20	36	EXHAUST FANS EF-2, EF-2, EF-3
	37		5	2500			745	3	20	38	EXHAUST FAN EF-4
WASHER (GFCI)	39	20	5	1500			1010	3	15	40	FURNACE F-1
WASHER (GFCI)	41	20	5	1500			1632	3	20	42	FURNACE F-2
RANGE (GFCI)	43	50	5	4000			1738	3	30	44	CONDENSING UNIT CU-1
	45		5	4000			1738	3		46	
FREEZER (GFCI)	47	20	5	750			2640	3	40	48	CONDENSING UNIT CU-2
REFRIGERATOR (GFCI)	49	20	5	750			2640	3		50	
DISHWASHER/DISPOSAL (GFCI)	51	20	5	1500					20	52	SPARE
KITCHEN RECEPTACLES	53	20	2	360					20	54	SPARE
KITCHEN RECEPTACLES	55	20	2	360					20	56	SPARE
KITCHEN RECEPTACLES	57	20	2	540					20	58	SPARE
SPARE	59	20							20	60	SPARE
SPARE	61	20							20	62	SPARE
SPARE	63	20							20	64	SPARE
BLANK SPACE	65									66	BLANK SPACE
BLANK SPACE	67									68	BLANK SPACE
BLANK SPACE	69									70	BLANK SPACE
BLANK SPACE	71									72	BLANK SPACE

VOLTAGE: 240
PHASE: 1
WIRE: 3

MAIN TYPE: MCB
OCP = 400
FEED-THRU LUGS: NO

NEC LOAD ANALYSIS	TYPE					
CONTINUOUS	1	7157	125%	8946	TOTAL PHASE A	33397
RECEPTACLE	2	9720	TABLE 220.44	9720	TOTAL PHASE B	33293
HVAC EQUIPMENT	3	18231	100%	18231		
NONCOINCIDENT	4	0	0%	0		
MISC EQUIPMENT	5	31582	100%	31582	CONNECTED LOAD (VA)	66690
KITCHEN EQUIPMENT	6	0	65%	0	CONNECTED LOAD (A)	278
MOTOR	7	0	100%	0		
LARGEST MOTOR			25%	0	DEMAND LOAD (VA)	68480
DWELLING UNIT	8	0			DEMAND LOAD (A)	285
PANEL FEEDER	9	*				

* SEE THAT PANEL SCHEDULE FOR ITS SUMMARY



ELECTRICAL RISER DIAGRAM | 1
NTS | E600

GENERAL NOTES:

A. ALL WORK SHALL MEET OR EXCEED ALL NEC STANDARDS.

B. EC SHALL VERIFY ALL WIRE SIZING DUE TO IN FIELD ROUTING AND VOLTAGE DROP.

C. ALL BRANCH CIRCUIT WIRING SHALL BE COPPER UNLESS NOTED OTHERWISE.

D. PROVIDE APPROPRIATELY RATED EQUIPMENT, BREAKERS, FUSES, ETC. BASED ON SHORT CIRCUIT CALCULATIONS AND FAULT CURRENT INFORMATION FROM LOCAL UTILITY.

E. PROVIDE TYPE WRITTEN CIRCUIT DIRECTORY FOR EACH PANELBOARD.

F. PROVIDE PLACARD ON EACH PIECE OF DISTRIBUTION EQUIPMENT INDICATING EQUIPMENT DESIGNATION, VOLTAGE AND PHASE IDENTIFICATION. PLACARD SHALL BE ENGRAVED PHENOLIC WITH 1/4" TALL LETTERS.

G. PROVIDE INTERSYSTEM BONDING PROVISIONS IN ACCORDANCE WITH NEC 250.94 FOR ALL SERVICES.

PLAN NOTES:

1. PROVIDE GROUNDING ELECTRODE SYSTEM CONSISTING OF #1/0 AL TO BUILDING STEEL AND METAL WATER SERVICE PIPING, #4 CU TO CONCRETE ENCASED ELECTRODE, AND #6 CU TO GROUND ROD.

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Churches of Christ
Disaster Response Team

CHURCHES OF CHRIST - DRT
NEW WAREHOUSE
9315 STATE ROUTE 202
TIPP CITY, OHIO 45371

NO.	ISSUE / REVISION	DATE
1	FOR PERMIT	04/17/2025

SEALED BY:
STATE OF OHIO
ROBERT R RUDOLPH 71876
REGISTERED
PROFESSIONAL ENGINEER
04/17/2025

DRAWN BY:	STAFF
CHECKED BY:	STAFF
DESIGNED BY:	STAFF
APPROVED BY:	RRR
JOB NUMBER:	25064

SHEET DESCRIPTION:
RISER DIAGRAM
AND SCHEDULES

SHEET NO.:
E600

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