Springfield Township Recreation Center

1200 East Willow Grove Avenue
Wyndmoor, Pennsylvania 19083

Drawing List:

Project Sheet List	
Sheet Number	Sheet Name
G001	Cover Sheet
G002	Code Information & Life Safety Plan
1 of 2	Layout Plan
2 of 2	Grading & Utility Plan
S100	Foundation Plan
S200	General Notes & Schedules
S201	Typical Foundation Details
A001	General Notes, Symbols, Abbreviations and Details
A002	Partition Types
A101	Overall Floor Plan
A102	Floor Plan - Area 'A'
A103	Floor Plan - Area 'B'
A104	Floor Plan - Area 'C'
A105	Roof Plan
A106	Roof Details
A201	Building Elevations
A301	Building Sections
A302	Building Sections
A350	Wall Sections
A351	Wall Sections
A402	Reflected Ceiling Plan - Area 'A'
A403	Reflected Ceiling Plan - Area 'B'
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A601	Finish Legend, Finish Schedule & Details
A611	Door & Frame Schedule
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Project Sheet List	
Sheet Number	Sheet Name
M000	Mechanical Symbols, Legend, & Abbreviations
M101	Mechanical Floor Plan - Area 'A'
M102	Mechanical Floor Plan - Area 'B'
M103	Mechanical Floor Plan - Area 'C'
M104	Mechanical Roof Plan
M200	Mechanical Schedules & Details
P000	Plumbing Legend, Abbreviations & Symbols
P101	Plumbing Floor Plan - Area 'A'
P102	Plumbing Floor Plan - Area 'B'
P103	Plumbing Floor Plan - Area 'C'
P104	Plumbing Roof Plan
P200	Plumbing Schedules
FP000	Fire Protection Symbols, Abbreviations, & General Notes
FP101	Fire Protection Floor Plan
FP200	Fire Protection Details
E000	Electrical Symbols, Legend, & Abbreviations
E001	Electrical Single-line Diagram
E101	Lighting Floor Plan - Area 'A'
E102	Lighting Floor Plan - Area 'B'
E103	Lighting Floor Plan - Area 'C'
E201	Power, Telecom, Fire Alarm Floor Plan - Area 'A'
E202	Power, Telecom, Fire Alarm Floor Plan - Area 'B'
E203	Power, Telecom, Fire Alarm Floor Plan - Area 'C'
E300	Electrical Details

Owner:

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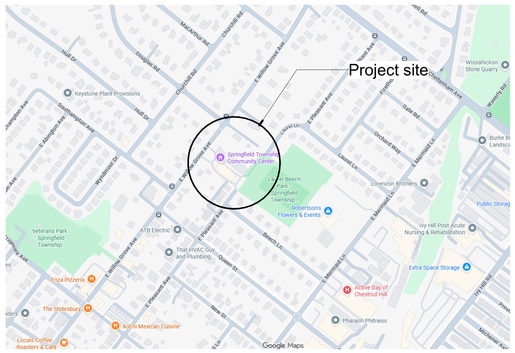
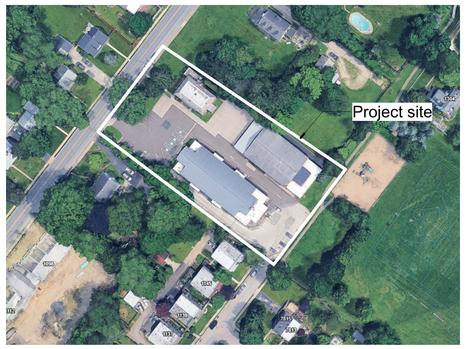
Location Map:



Site / Campus Map:



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Revisions

No.	Date	Description

04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title

Cover Sheet

Project Number 24.129

Date 4.30.2026

Drawing Number

G001

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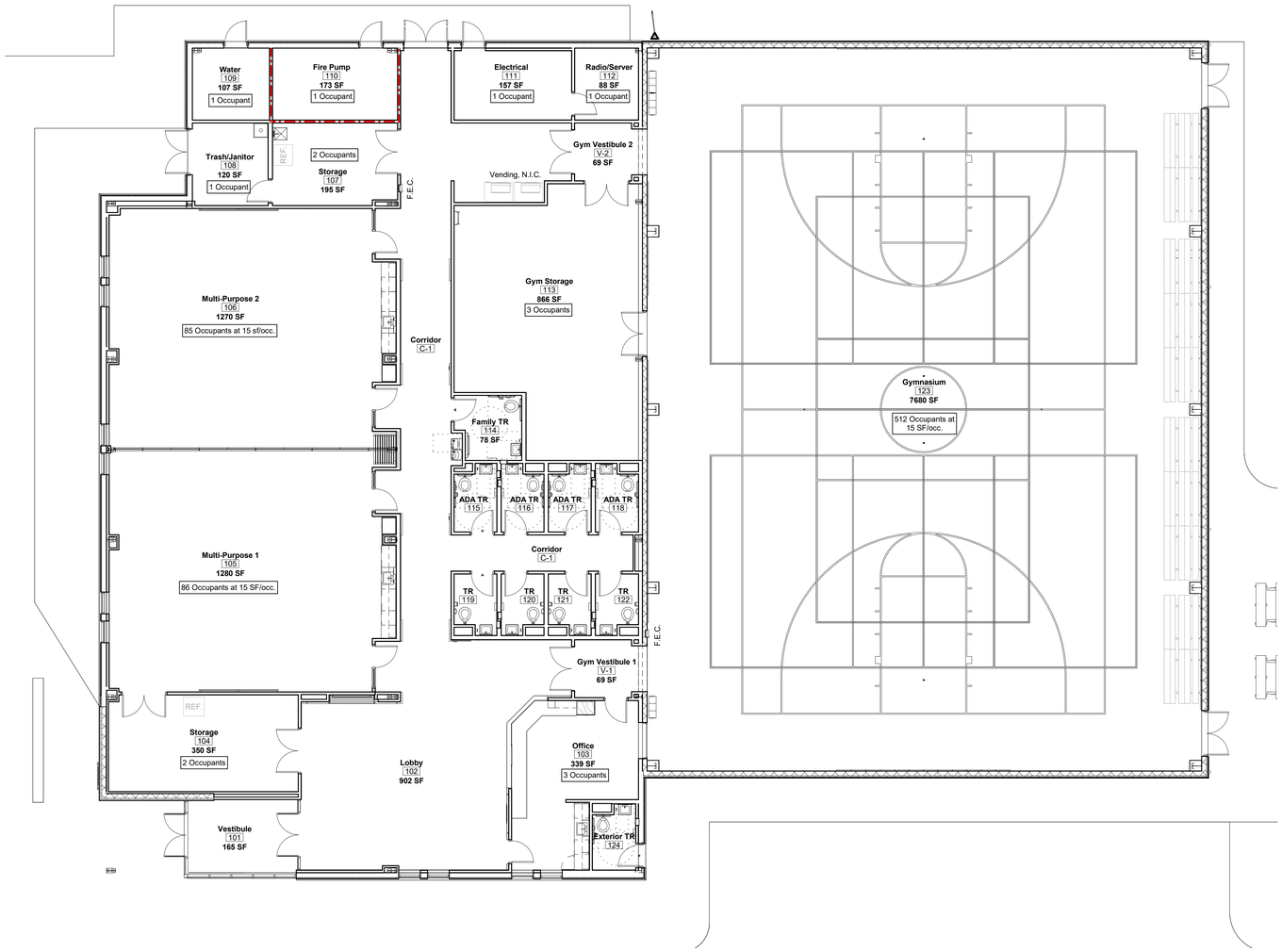

1 Life Safety Plan

1/8" = 1'-0"

CODE INFORMATION:

Municipality: Springfield Township

All construction has been designed to meet the provisions of the Pennsylvania Uniform Construction Code (UCC). The UCC Administration and Enforcement regulation has adopted the following codes for use throughout the Commonwealth of Pennsylvania, effective 01/01/2026.

PENNSYLVANIA UNIFORM CONSTRUCTION CODE

International Building Code 2021 ('IBC 2021') excluding chapter 1 (most of its requirements are incorporated in Chapter 403 of the UCC regulation), Chapter 11 Accessibility. Chapter 27 (Electrical) requires that all electrical components, equipment and systems in buildings and structures covered by the IBC comply with the requirements of NFPA 70, National Electrical Code.

Chapter 11, International Building Code 2018 Accessibility Requirements

International Energy Conservation Code 2021 ('IECC 2021')

International Fire Code 2021 ('IFC 2021') only to the extent referenced in Chapter 35 of the IBC 2018

International Mechanical Code 2021 ('IMB 2021')

International Plumbing Code 2021 ('IPC 2021')

American National Standard Accessible and Usable Buildings and Facilities 2009 (ICC A117.1-2009)

PROJECT SUMMARY

This project consists of the construction of a new 16,350 gross square foot recreation center for Springfield Township. Project consists of the demolition of the existing structures on the site, new general construction, HVAC, plumbing, fire protection, and electrical construction. The building will contain a gymnasium, two multipurpose rooms, and office, and support spaces.

PLUMBING FIXTURE CALCULATIONS:

The occupant loads for the facility are calculated by using IBC Table 1004.1.2

PLUMBING FIXTURE CALCULATIONS

OCC. TYPE	OCC. COUNT	WATER CLOSETS	LAVATORIES	DRINKING FOUNTAINS	SVC. SINKS
(A-3)	**683 occ** **342 M/F**	*1/125 (M)* *1/65 (W)* **2.7 M** **5.2 F**	*1/200* **1.71 M, 1.71 F**	*1/500* **0.68**	*1* **1**
(B)	**3 occ** **2 M/F**	*1/25 + 1/50* **0.08 M , 0.08 F**	*1/40 + 1/80* **0.05 M, 0.05 F**	*1/100* **0.02**	*1* **1**
(S)	**11 occ** **6 M/F**	*1/100* **0.06 M , 0.06 F**	*1/100* **0.06 M, 0.06 F**	*1/1000* **.006**	*1* **1**
TOTALS **REQUIRED**		**3 M, 6 F**	**2 M, 2 F**	**1**	**1**
TOTALS **PROVIDED**		**9 Water Closets + 1 Exterior**	**9 Lavatories**	**2**	**1**

IBC 2021 Code Review			
Review No.	Code Information	Section No.	Requirement
0 - PROJECT DATA			
0.01	Occupancy Group	302	Assembly (A-3), Business (B), Storage (S-2)
0.02	Construction Type	602 / T601	IIB
0.03	Automatic Sprinkler Systems	903	Required and Provided
1 - BUILDING CONSTRAINTS			
1.01	Building Height, Allowable	504 / T504.3	75 feet (sprinklered, IIB construction)
1.02	Building Height, Proposed		35 feet, Complies
1.03	Number of Stories, Allowable	504 / T504.4	3 stories (A-3), 4 stories (B, S-2)
1.04	Number of Stories, Proposed		1 story, Complies
1.05	Building Area, Allowable	506 / T506.2	Aa = [At + (NS x If)] x Sa
1.06		T506.2	38,000 SF (A-3), 92,000 SF (B), 104,000 SF (S-2) - 38,000 SF most restrictive for mixed use non-separated
1.07	Building Area, Proposed		16,350 SF
1.09	Frontage Increase	506.3	Not required
2 - FIRE RESISTANCE RATINGS			
2.01	Fire Wall	T706.4	Not applicable
2.02	Fire Barriers	T707.3.10	1-hour rated fire barrier required at Fire Pump Room per IBC 913.2.1, Exception 1
2.03	Separation of Occupancies	508	Mixed use non-separated (IBC 508.3)
2.03	Required Separation of Separated Occupancies	T508.4	Not applicable
2.04	Primary Structural Frame	T601	0 HR
2.05	Bearing Wall, Exterior	T601	0 HR
2.06	Bearing Wall, Interior	T601	0 HR
2.07	Non-Bearing Wall, Exterior	T601	0 HR
2.09	Non-Bearing Partition, Interior	T601	0 HR
2.10	Floor Construction	T601	0 HR
2.11	Roof Construction	T601	0 HR
2.12	Fire Separation Distance	T705.5	0 HR since closest adjacent structure is >30'
2.13	Corridor Fire-Resistance Rating	T1020.2	0 HR w/ sprinkler system
2.14	Minimum Corridor Width	T1020.3	44 inches or 36 inches if serving an occupant load of less than 50
3 - OCCUPANCY			
3.00			See Life Safety Plan for detailed Occupancy Count
3.01	Occupancy Load Total	T1004.5	Total - 697 occupants
4 - EGRESS			
4.01	Minimum number of exits	T1006.3.3	3 exits min. (501-1,000 occupants)
4.02	Spaces with One Exit	T1006.2.1	Assembly & Business Occupancies - spaces with 49 or less occupants; Storage Occupancy - spaces with 29 or less occupants
4.03	Maximum Common Path of Egress Travel Distance	T1006.2.1	Assembly Occupancy - 75 feet; Business and Storage Occupancies - 100 feet
5 - EGRESS WIDTH			
5.01	Doors, per Occupant served	1005.3.2	0.2" per occupant (36" door allows 170 occupants and 72" opening allows 340 occupants)
5.02	Doors, minimum size	1010.1.1	32" clear width = 34" door
5.03	Corridors, per Occupant served	1005.3.2	0.2" per occupant
5.04	Corridors, minimum size	1020.2, T1020.3	44" unless exceptions apply
6 - EGRESS ACCESS DISTANCES			
6.01	Exit Access Travel Distance		
6.02	Most remote point to exit	T1017.2	Assembly & Storage Occupancies - 250 feet; Business Occupancy - 300 feet
6.03	Dead End corridors	1020.5	50' max in sprinklered building
7 - INTERIOR FINISHES			
7.01	Interior Exit Stairways and Ramps and Exit Passageways	T803.13	Class B for A-3 & B, Class C in S
7.02	Exit Corridors	T803.13	Class B for A-3; Class C for B and S
7.03	Rooms / Enclosed Spaces	T803.13	Class C for A-3, B, and S
8 - FIRE PROTECTION			
8.01	Where Required, by Use Group	903.2	Required in A-3 due to the occupant load of the fire area exceeding 300
9 - EMERGENCY PROVISIONS			
9.01	Fire Alarm (by Use Group)	907.2	Required in A
9.02	Emergency Lighting	1008.2.1	Required; 1 foot-candle average, 0.1 fc min.; exit access corridors, aisles in rooms requiring 2 exits, portion of exterior exit discharge immediately adjacent to the exit discharge doorways in buildings required to have 2 exits.
9.03	Emergency Lighting	1008.2.3	Illumination of means of egress, including exit discharge
9.04	Fire Extinguishers	906, T906.3	Provide (1) 2A:60B:C - 10lb per 1,500 sf. max. floor area per unit of A (ordinary hazard)
9.05	Fire Extinguishers	906, T906.3	11,250 sf. max. floor area for fire extinguisher
9.06	Fire Extinguishers	906, T906.3	75' max. travel distance to fire extinguisher
10 - HAZARDOUS AREAS			
10.01	Furnace Rooms > 400,000 BTUH Output	T509	Not applicable
10.02	Boiler Rooms > 15 psi and 10hp	T509	Not applicable
11 - ACCESSIBILITY			
11.01	Scoping requirements	1103.1 (IBC 2018)	All buildings, including associated sites, shall be accessible, unless specifically exempted.
11.02	Scoping requirements	1103.2.2 (IBC 2018)	Work areas – 300 sq ft or less & elevated 7" + above f.f. where the elevation is essential to the function of the space shall be exempt from all requirements.
11.03	Scoping requirements	1103.2.9 (IBC 2018)	Spaces frequented only by personnel for maintenance, repair or monitoring of equipment are not required to be accessible.
11.05	Accessible Route	1104.1 (IBC 2018)	Site arrival point, see civil drawings
11.06	Accessible Route	1104.2 (IBC 2018)	At least one accessible route shall connect accessible elements on the same site
11.07	Accessible Route	1104.3 (IBC 2018)	Accessible route can not pass through kitchens, storage rooms, restrooms, closets, etc.
11.09	Accessible Route	1104.3.1 (IBC 2018)	Common use circulation paths within employee work areas shall be accessible routes.
11.10	Accessible Entrances	1105.1 (IBC 2018)	At least 60 % of all public entrances shall be accessible, All entrances used for emergency egress to be accessible
11.11	Parking & Passenger Loading	1106.1 (IBC 2018)	Where parking is provided accessible parking shall be provided
11.12	Number of Parking Spaces	T1106.1 (IBC 2018)	1 HC per 25
11.13	Van Accessible Spaces	1106.5 (IBC 2018)	1 van accessible per 6 HC
11.14	Location	1106.6 (IBC 2018)	Shortest route to accessible entry
11.18	Family or Assisted-Use Toilet and Bathing Rooms	1109.2 (IBC 2018)	Provide where an aggregate of six or more male and female water closets is required in assembly and mercantile occupancies

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Revisions

No.	Date	Description

04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title

Code Information & Life Safety Plan

Project Number 24.129

Date 4.30.2026

Drawing Number

G002

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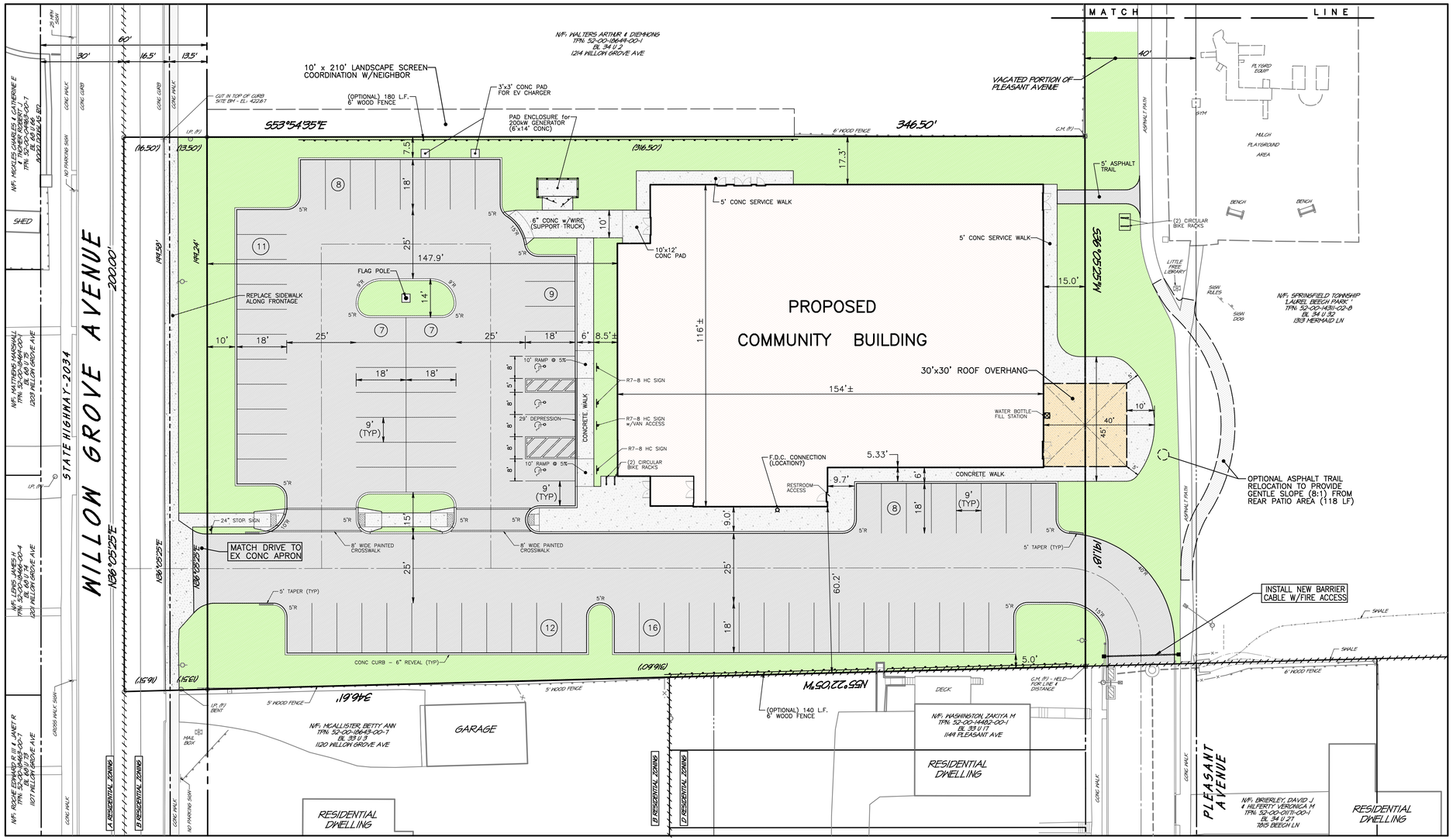
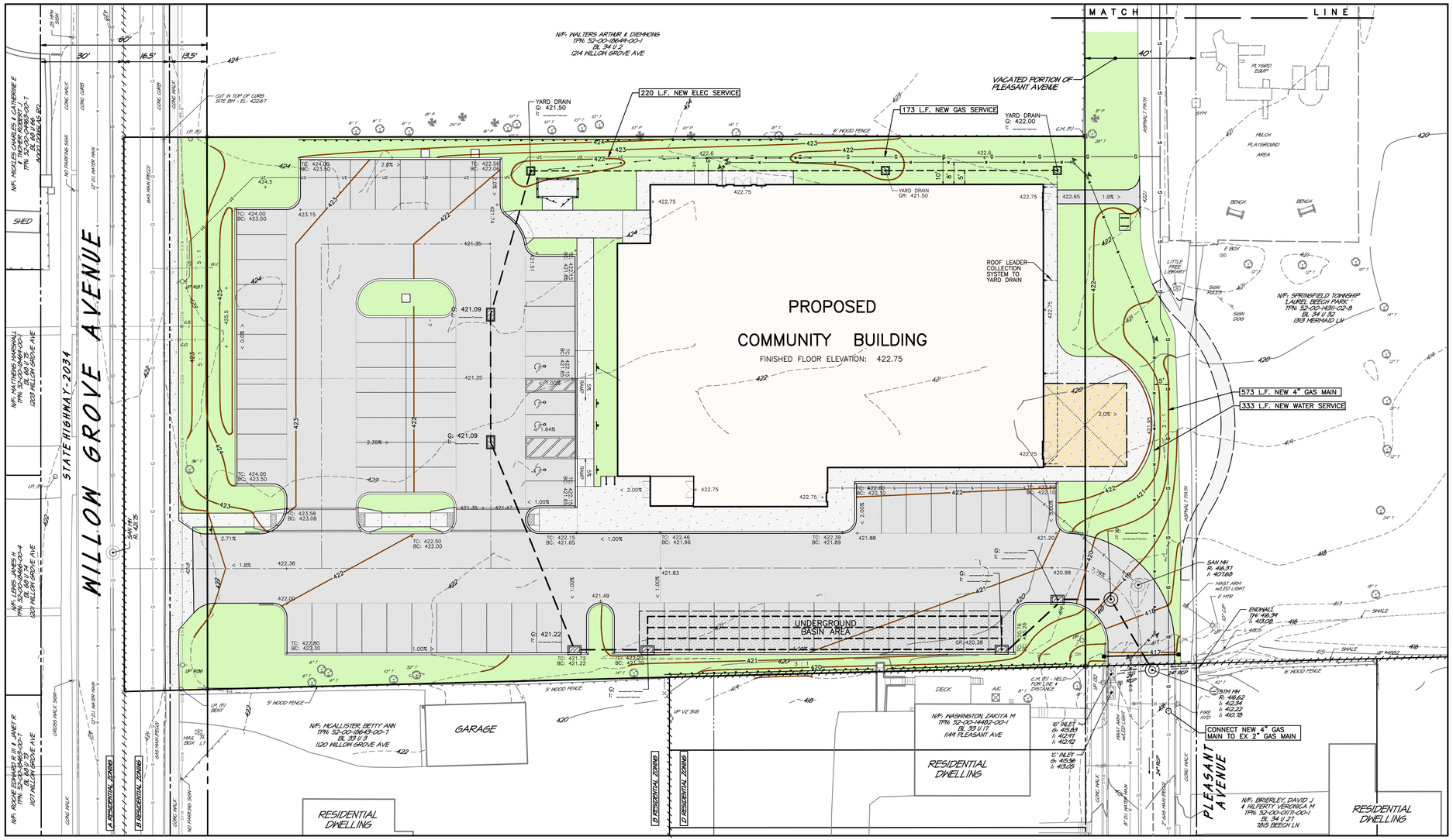

MATCH LINE
WILLOW GROVE AVENUE
STATE HIGHWAY - 2034
200.00'
60'
30'
16.5'
13.5'
10' x 210' LANDSCAPE SCREEN COORDINATION W/NEIGHBOR
(OPTIONAL) 180 L.F. 6' WOOD FENCE
3'x3' CONC PAD FOR EV CHARGER
PAD ENCLOSURE for 200kW GENERATOR (6'x14' CONC)
CUT IN TOP OF CURB SITE BM - EL. 422.67
N/F: WALTERS ARTHUR & DIEMMONS TPN: 52-00-08644-00-1 BL 34 U 2 1214 WILLOW GROVE AVE
N/F: NICOLES CHARLES & CATHERINE E TPN: 52-00-08643-00-7 BL 60 U 86 AREA=2,000 SQ FT
N/F: MATTHEWS MARSHALL TPN: 52-00-08642-00-1 BL 60 U 85 1209 WILLOW GROVE AVE
N/F: LONG JAMES H TPN: 52-00-08641-00-4 BL 60 U 84 1201 WILLOW GROVE AVE
N/F: ROCHE EDWARD R III & JANET R TPN: 52-00-08640-00-7 BL 60 U 83 1011 WILLOW GROVE AVE
N/F: MCALLISTER BETTY ANN TPN: 52-00-08643-00-7 BL 33 U 3 1120 WILLOW GROVE AVE
N/F: WASHINGTON ZAKIYA M TPN: 52-00-44482-00-1 BL 33 U 17 1144 PLEASANT AVE
N/F: BRIERLEY DAVID J & HEFFERTY VERONICA M TPN: 52-00-01171-00-1 BL 34 U 27 1815 BEECH LN
N/F: SPRINGFIELD TOWNSHIP LAUREL BEECH PARK TPN: 52-00-WEB1-00-8 BL 34 U 30 1919 MERMAID LN
VACATED PORTION OF PLEASANT AVENUE
PROPOSED COMMUNITY BUILDING
30'x30' ROOF OVERHANG
5' CONC SERVICE WALK
5' ASPHALT TRAIL
(2) CIRCULAR BIKE RACKS
LITTLE FREE LIBRARY
SIGN RULES
SIGN DOG
PLAYGROUND EQUIP
SWING
MULCH PLAYGROUND AREA
BENCH
BENCH
6" CONC w/WIRE (SUPPORT TRUCK)
10'x12' CONC PAD
FLAG POLE
REPLACE SIDEWALK ALONG FRONTAGE
10' RAMP @ 5%
29" DEPRESSION
R7-8 HC SIGN
R7-8 HC SIGN w/VAN ACCESS
R7-8 HC SIGN
CONCRETE WALK
WATER BOTTLE FILL STATION
F.D.C. CONNECTION (LOCATION?)
RESTROOM ACCESS
CONCRETE WALK
OPTIONAL ASPHALT TRAIL RELOCATION TO PROVIDE GENTLE SLOPE (8:1) FROM REAR PATIO AREA (118 LF)
24" STOP SIGN
MATCH DRIVE TO EX CONC APRON
8' WIDE PAINTED CROSSWALK
8' WIDE PAINTED CROSSWALK
5' TAPER (TYP)
INSTALL NEW BARRIER CABLE W/FIRE ACCESS
SHALE
SHALE
CONC CURB - 6" REVEAL (TYP)
5' WOOD FENCE
5' WOOD FENCE
6' WOOD FENCE
(OPTIONAL) 140 L.F. 6' WOOD FENCE
C.M. (F) - HELD FOR LINE & DISTANCE
DECK
GARAGE
MAIL BOX
RESIDENTIAL DWELLING
RESIDENTIAL DWELLING
RESIDENTIAL DWELLING
A RESIDENTIAL ZONING
B RESIDENTIAL ZONING
B RESIDENTIAL ZONING
B RESIDENTIAL ZONING
PLEASANT AVENUE
S53°54'35"E 346.50'
(16.50')
(13.50')
(36.50')
N36°05'25"E 200.00'
N36°05'25"E 199.59'
N36°05'25"E 199.24'
N55°50'22"W 346.50'
N55°50'22"W (109.96')
N55°50'22"W (115.91')
S34°09'38"E 199.94'
S34°09'38"E 199.94'
S34°09'38"E 199.94'



PLAN LEGEND

EXISTING (EX) FEATURES

- I.P. (F) — Iron Pin | Pipe (Found)
- C.M. (F) — Concrete Monument (Found)
- Tract Boundary
- Ex R/W Centerline
- Ex R/W Line
- Ex Zoning Boundary
- Ex Topographic Contours
- Ex Fence Line
- Ex Tree Drip Line
- XX" P — Ex Deciduous Tree
- XX" T — Ex Coniferous Tree
- M.B. — Ex Mailbox
- SIGN — Ex Sign
- U.P. — Ex Utility Pole & O.H. Wires
- C.O. — Ex Sewer Clean Out
- W.V. — Ex Water Valve
- F.H. — Ex Fire Hydrant
- C.S. — Ex Water Curb Stop
- G.V. — Ex Gas Valve
- LT. — Ex Light / Lamp Post
- Ex Storm Sewer and Inlet
- Ex Sanitary Sewer & MH
- Ex U.g. Electric Line
- Ex Gas Main & Service
- Ex Water Main & Service

PROPOSED (PR) FEATURES

- I.P. (S) — Iron Pin (Set)
- C.M. (S) — Concrete Monument (Set)
- 251.5 + — Ex | Pr Spot Elevation
- Pr Topographic Contours
- Pr Storm Sewer and Inlet
- Pr Sanitary Sewer & MH
- Pr Utility Pole & O.H. Wires
- Pr U.g. Electric Line
- Pr Gas Main & Service
- Pr Water Main & Service
- Pr Tele Communications

EROSION CONTROL FEATURES

- NPDES Permit Boundary
- Temp Disturbance Limit
- Temp Stockpile Limit
- Temp Compost Filter Sock
- Temp Silt Fence
- Temp Construction Fence
- R.C.E. — Rock Construction Entrance

GENERAL PLAN NOTES

EXISTING FEATURES and SURVEY NOTES:

1. A field metes and bounds survey was performed under the supervision of Keith A. Houser, PLS, Survey performed without the benefit of a full Title Report. Bearings shown reflect a rotation of -03 Deg 40 Min. 05 Sec. from Deed Bearing Basis to match Pennsylvania South Zone 3702 State Plane Coordinate Bearing Basis. Field Survey performed April 2026.

   Horizontal datum based on NAD 1983, SPC 83 Pennsylvania (South), GEOID Model g2003u08 using Topcon Topnet Live Virtual Network System.

2. A topographic and existing features survey was performed under the supervision of Keith A. Houser, PLS, Site Benchmark is a cut in the top of curb along E. Willow Grove Ave in front of the subject property having an elevation of 422.67. Field Survey performed April 2026.

   Vertical datum references provided by the PA Spacial Data Access system (PASDA). PAMAP data is based on PA State Plane (South) NAD83 horizontal, NAVD88 vertical datum. Site Vertical Datum using Topcon Topnet Live Virtual Network System.

3. This plan was prepared utilizing the following references:
   a. Tax maps and deeds of record as obtained from the Recorder of Deeds online resources.
   b. Existing Soil mapping has been plotted from maps obtained from the USDA Web Soil Survey web-site unless otherwise noted. Site contains UugB Urban land-Udorthents complex soils.
   c. Aerial imagery used for base plan reference provided by NearMap, Inc. Imagery from flight dated February 22, 2025, updated October 09, 2025.
   d. Montgomery County - Geospatial Data Hub, providing supporting information for Tax Parcel(s), Municipal Boundaries & Zoning District Boundaries, and Soils Limits.
   e. Plan entitled Plan of Subdivision prepared for The Township of Springfield by Boucher & James, Inc. dated March 12, 1999, and last revised July 9, 1999. Recorded in the Montgomery County Office for Recording of Deeds plot plan book A-58 page 447 dated September 10, 1999.

4. There has been NO field investigation performed to verify any existence of any wetlands, waters of the U.S. or Commonwealth or Alluvial Soils at the time of the site survey.

5. This site is located within Flood Plain Zone 'X' (areas determined to be outside the 0.2% annual chance floodplain) as illustrated on Community Panel Number 42091-C-0381-G, effective date March 2, 2016 as prepared by the Federal Emergency Management Agency. No computational floodplain study has been performed for this plan.

6. All persons digging on this site shall comply with the requirements of Section 5 of PA Act 287 as amended by PA Act 181. State law requires a three (3) business day notice prior to any digging (does not include state holidays or weekends). Dial 8-1-1 or go to www.paonecall.org.

7. Existing subsurface utility information illustrated on these plans were based upon visual field locations obtained as part of site survey operations. The information provided is representative of subsurface conditions only at locations and depths where such information was available. There is no expressed or implied agreement that subsurface utility connections exist between exposed locations. Accordingly, utility information shown should not be relied upon for construction purposes. It is incumbent upon the contractor to verify subsurface utilities prior to excavation.

8. Legal right(s)-of-way width are per deed reference, recorded plan, and PennDOT Highway data. Ultimate right(s)-of-way width are derived from Municipal Ordinances.

9. Subject property is zoned 'B' Residential District as noted on the official Zoning Map.

10. This project shall be served by the following public utilities;
    Sanitary sewer by: Philadelphia Water Department (Treatment) / Bucks County Water & Sewer (Conveyance)
    Public Water service by: AQUA Pennsylvania, Inc.
    Electric & Natural Gas service by: PECO, an Exelon Company

DEVELOPMENT NOTES:

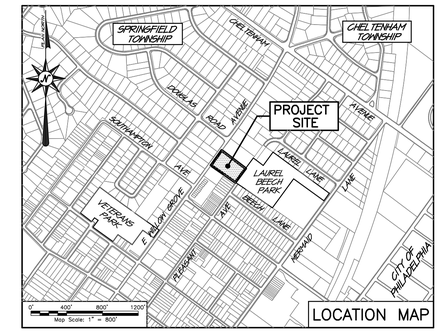
11. The contractor shall ensure that all necessary permits and approvals have been obtained prior to commencement of any site construction activities.

12. Erosion and sedimentation control measures shall be in place and functional prior to any earth disturbance or grading work.

13. Nothing shall be permitted to be set on, placed or planted within, the area of any utility or storm water easement except lawns or suitable low ground cover.

14. Construction materials and procedures shall follow Pennsylvania Department of Transportation Specifications and Standard Drawings (latest edition).

15. Any/all storm water conveyance system(s) and detention facilities shown on these plans are a basic and perpetual part of the storm water management system for this Municipality, and as such, are to be protected, maintained and preserved in accordance with the approved plans. The Municipality and/or its agents may reserve the right and privilege to enter upon such lands from time to time for the purpose of inspection of said storm water management system in order to determine that the structural design and integrity are being maintained.



No.	DATE:	DESCRIPTION:
2	04/28/26	ADDED LATEST ARCH FOOTPRINT, MISC SITE UPDATES PER TWP COMMENTS
1	04/22/26	ADDED LATEST ARCH FOOTPRINT, MISC SITE UPDATES PER TWP COMMENTS

REVISIONS

PLAN NORTH

SEAL

SEAL

PROJECT SERIAL NUMBER FOR DESIGN:
20260920692 (4/2/26)
20260920732 (4/2/26)
20260920787 (4/2/26)

Pennsylvania 811
A Privately Funded Nonprofit Pennsylvania Corporation

Parcel Information:

N/F: Springfield Township

52-00-18637-01-3
Block 34 Unit 30
D.B.: 5953 Pg: 2270

1200 Willow Grove Ave

Deed Area:	67,772.16 Sq. Ft.
Legal R/W:	3,296.56 Sq. Ft.
UTL R/W:	2,692.15 Sq. Ft.
NET Area:	61,783.45 Sq. Ft.

Applicant:

SPRINGFIELD TOWNSHIP
c/o Michael Taylor, Manager
1510 Paper Mill Rd.
Wyndmoor, PA 19038
(215) 836-7600

10' 0' 20'
Scale In Feet (1" = 20')

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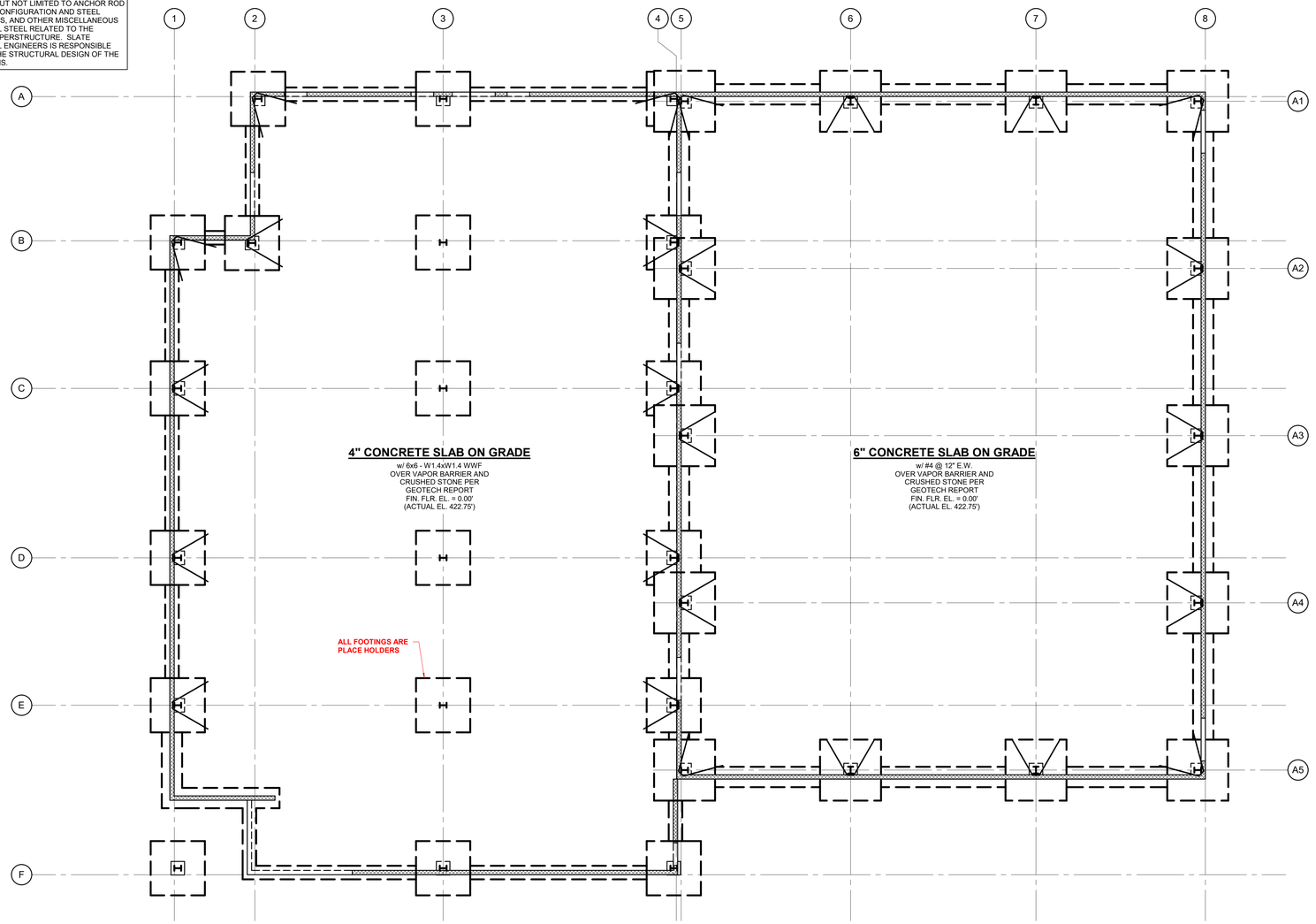
CONCEPT DESIGN - SITE DEVELOPMENT PLAN
DEVELOPMENT STUDY EXHIBIT
SPRINGFIELD TOWNSHIP - RECREATION
SPRINGFIELD TOWNSHIP - MONTGOMERY COUNTY - PENNSYLVANIA

WOODROW & ASSOCIATES, INC.
MUNICIPAL / CIVIL CONSULTING ENGINEERS
1108 North Bethlehem Pike / Suite 5 - Lower Gwynedd - PA 19002
Phone: (215) 542-5648 Web: www.Woodrowinc.com

Layer List: CPT-S02_Design
Job No: 25-1003 SP
Plan Date: APRIL 17, 2026
Sheet No: 2 of 2

Plan Date: Apr 28, 2026 (13:32)
File Name: C:\2025\25-1003\SP\1003_Dev_Concept.dwg
Print Scale: 1" = 20.00'
Plotted: Tuesday, April 28, 2026 - 1:32pm

NOTE: THE METAL BUILDING MANUFACTURER SHALL BE THE ENGINEER-OF-RECORD OF THE SUPERSTRUCTURE AND BE RESPONSIBLE FOR ITS DESIGN. THE METAL BUILDING MANUFACTURER SHALL PROVIDE THE COMPLETE SUPERSTRUCTURE ENVELOPE, INCLUDING BUT NOT LIMITED TO ANCHOR ROD DIAMETER, CONFIGURATION AND STEEL GRADE, GIRTS, AND OTHER MISCELLANEOUS STRUCTURAL STEEL RELATED TO THE BUILDING SUPERSTRUCTURE. SLATE STRUCTURAL ENGINEERS IS RESPONSIBLE ONLY FOR THE STRUCTURAL DESIGN OF THE FOUNDATIONS.



FOUNDATION PLAN

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

NOTES:

1) SEE PLAN FOR FINISHED FLOOR ELEVATION RELATIVE TO DATUM ELEVATION 0.00' (ACTUAL ELEVATION 422.75'). SEE ARCHITECTURAL DOCUMENTS FOR ALL SLOPES AND VARIANCES FROM 0.00'.

2) ( ) INDICATES TOP OF FOOTING ELEVATION RELATIVE TO DATUM ELEVATION 0.00'.

3) SEE S200 FOR PIER AND FOOTING SCHEDULES. SEE PRE-ENGINEERED METAL BUILDING MANUFACTURER'S (PEMB) DRAWINGS FOR COLUMN LOCATIONS AND REFERENCE TO PIER LOCATIONS. FINAL PEMB PIER SIZE TO BE COORDINATED WITH FINAL PEMB DRAWINGS.

4) [ ] INDICATES TOP OF PIER ELEVATION RELATIVE TO DATUM ELEVATION 0.00'.

5) 'S.F.' INDICATES STEPPED FOOTING. SEE TYPICAL DETAIL ON SHEET S300.

6) 'T.D.S.' INDICATES TURNED DOWN SLAB. SEE TYPICAL DETAIL ON SHEET S300.

7) COORDINATE TOP OF FOOTING WITH FINAL SITE GRADING INFORMATION.

8) T.S. INDICATES THICKENED SLAB. SEE TYPICAL DETAIL ON SHEET S300.

9) SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT INDICATED.

10) ALL STRUCTURAL STEEL, INCLUDING BASE PLATES, BASE PLATE EXTENSIONS, GUSSET PLATES AND TOPS OF ANCHOR RODS, EXPOSED TO SOIL, ARE TO BE COATED WITH APPROVED COAL TAR EPOXY, 16 MILS MINIMUM THICKNESS, AND ENCASED IN CONCRETE WITH MINIMUM 3" COVER.

11) SEE ARCHITECTURAL DRAWINGS FOR ALL THE DIMENSIONS. DIMENSIONS ON THIS DRAWING ARE FOR THE CONVENIENCE ONLY AND MUST BE CHECKED WITH ARCHITECTURAL DRAWINGS FOR ACCURACY. DIMENSIONS ON ARCHITECTURAL DRAWINGS GOVERN.

12) 'RWC' INDICATES COLUMN AT RAINWATER CONDUCTOR. COORDINATE LOCATION w. ARCH/MEP DRAWINGS.

13) STEP FOOTINGS AS REQUIRED FOR ALL UTILITIES. COORDINATE INVERT ELEVATIONS w. SITE/MEP DRAWINGS.

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DESIGN DEVELOPMENT
4/30/2026

THESE ARE PROGRESS DRAWINGS, THEREFORE THEY ARE ISSUED PRIOR TO COMPLETION OF THE STRUCTURAL DESIGN AND OTHER DESIGN DISCIPLINES INCLUDING BUT NOT LIMITED TO ARCHITECTURAL OR MECHANICAL DESIGNS; AND AS SUCH, ARE INCOMPLETE BY NATURE FOR THE COMPREHENSIVE SCOPE OF THE PROJECT. ALLOWANCES FOR STRUCTURAL ELEMENTS REQUIRED DUE TO THE COMPLETION AND CROSS-COORDINATION OF ALL OTHER DISCIPLINES SHOULD BE MADE.

SLATE
STRUCTURAL ENGINEERS
32 South Broad Street | Nazareth PA 18064 | (610) 365-7634
www.slatestructural.com | Project No. 200.161

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Project

Springfield Township Recreation Center

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Wyndmoor, PA 19083

Client

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Revisions

No.	Date	Description

04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title

FOUNDATION PLAN

Project Number 24.129

Date 4.30.2026

Drawing Number

S100

GENERAL CONSTRUCTION

1. NOTES, TYPICAL DETAILS, AND SCHEDULES APPLY TO ALL STRUCTURAL WORK UNLESS NOTED OTHERWISE. TYPICAL DETAILS ARE TO BE USED FOR ALL CONDITIONS WHERE THE DETAIL IS APPLICABLE, WHETHER OR NOT NOTED ON PLAN. TYPICAL DETAILS MAY BE SLIGHTLY ALTERED IF REQUIRED DUE TO PROJECT CONDITIONS, ONLY WHEN SUBMITTED AND THE ENGINEER'S APPROVAL IS OBTAINED PRIOR TO PERFORMING THE WORK.

2. ALL DIMENSIONS AND ELEVATIONS SHOWN ON STRUCTURAL DRAWINGS, WITH THE EXCEPTION OF STRUCTURAL MEMBER SIZES, ARE GENERATED BY OTHER DISCIPLINES. ANY DIMENSIONS OR ELEVATIONS OMITTED OR NOT SHOWN ON THE STRUCTURAL DRAWINGS SHOULD BE OBTAINED FROM THE DRAWINGS OF THE OTHER DISCIPLINES. STRUCTURAL DRAWINGS ARE NOT 'STAND-ALONE' DOCUMENTS AND SHOULD BE USED IN CONJUNCTION WITH, AND COORDINATED WITH THE SPECIFICATIONS, ARCHITECTURAL DRAWINGS AND ALL OTHER DISCIPLINE'S DRAWINGS. IF THERE IS A DISCREPANCY BETWEEN DRAWINGS, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE ENGINEER AND ARCHITECT PRIOR TO PERFORMING THE WORK.

3. IF DIFFERENCES OCCUR WITHIN OR BETWEEN DRAWINGS AND SPECIFICATIONS REGARDING MATERIALS, STRENGTHS OR QUANTITIES, THE BETTER MATERIAL, HIGHER STRENGTH, AND GREATER QUANTITY INDICATED, SPECIFIED OR NOTED SHALL BE PROVIDED.

4. REPRODUCTIONS OF STRUCTURAL DRAWINGS FOR SUBMITTAL AS SHOP DRAWINGS IS PROHIBITED, UNLESS WRITTEN APPROVAL IS REQUESTED BY THE CONTRACTOR AND IT IS GRANTED BY SLATE STRUCTURAL ENGINEERS.

5. DO NOT SCALE DRAWINGS TO OBTAIN DIMENSIONAL INFORMATION.

6. THESE DRAWINGS DO NOT DEFINE SCOPE OF CONTRACTOR OR SUBCONTRACTOR CONTRACTS.

7. AT ALL TIMES, THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONDITIONS OF THE JOBSITE INCLUDING MEANS AND METHODS OF CONSTRUCTION AND SAFETY OF PERSONS AND PROPERTY. THE ENGINEER'S PRESENCE OR REVIEW OF WORK AT THE JOBSITE IS FOR GENERAL COMPLIANCE WITH THE DESIGN INTENT ONLY AND IS NOT EVER TO BE CONSTRUED AS A REVIEW OF MEANS AND METHODS OF CONSTRUCTION AND SAFETY METHODS.

8. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING ALLOWABLE CONSTRUCTION LOADS AND FOR PROTECTING THE COMPLETED OR INCOMPLETED STRUCTURAL FRAMING FROM DAMAGE DUE TO TEMPORARY CONSTRUCTION LOADINGS.

9. COSTS OF INVESTIGATION AND/OR REDESIGN DUE TO CONTRACTOR ERRORS WILL BE AT THE CONTRACTOR'S EXPENSE.

10. ANY APPROVED CONTRACTOR REQUESTED CHANGES TO THESE DRAWINGS WILL BE DONE AT NO COST TO THE OWNER. APPROVAL OF CONTRACTOR REQUESTED CHANGES IN NO WAY STATES OR IMPLIES APPROVAL OF A CHANGE IN SCOPE OR CHANGE IN CONTRACT COST.

11. ALL REFERENCES TO WATER/DAMPROOFING, FIREPROOFING, AND UTILITIES ON THE STRUCTURAL DRAWINGS ARE FOR REFERENCE ONLY. SEE ARCHITECTURAL DRAWINGS, SPECIFICATIONS, AND OTHER DOCUMENTS FOR ALL WATER/DAMPROOFING, FIREPROOFING AND UTILITIY DETAILS AND REQUIREMENTS. COORDINATE ALL UNDERGROUND UTILITY REQUIREMENTS WITH THE CIVIL/MEP DRAWINGS. ALL UTILITES SHALL BE ABOVE/BELOW FOOTING AND NOT LOCATED WITHIN THE FOOTINGS. NOTIFY ENGINEER OF RECORD IF OTHERWISE

12. IF THE EXISTING FIELD CONDITIONS DO NOT PERMIT THE INSTALLATION OF THE WORK IN ACCORDANCE WITH THE DETAILS SHOWN, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER IMMEDIATELY. THE CONTRACTOR MUST PROVIDE A SKETCH OF THE CONDITION WITH PROPOSED MODIFICATION OF THE DETAILS GIVEN ON THE CONTRACT DOCUMENTS. THIS SKETCH MUST BE SUBMITTED TO AND APPROVAL MUST BE GRANTED BY THE ENGINEER PRIOR TO PERFORMING THE WORK.

13. SUBMIT SHOP DRAWINGS SUCH THAT BY THE TIME THEY ARE RECEIVED BY SLATE STRUCTURAL ENGINEERS, THERE WILL BE AT LEAST 14 DAYS BEFORE REVIEWED SUBMITTALS WILL BE NEEDED. ANY REVIEW THAT IS REQUIRED MORE EXPEDIENTLY WILL BE AT THE CONTRACTOR'S EXPENSE. SHOP DRAWINGS SHALL BEAR THE CONTRACTOR'S STAMP OF APPROVAL CERTIFYING THAT HE HAS VERIFIED ALL FIELD MEASUREMENTS, CONSTRUCTION CRITERIA, MATERIALS AND SIMILAR DATA AND HAS CHECKED EACH DRAWING FOR COMPLETENESS, COORDINATION AND COMPLIANCE WITH THE CONTRACT DOCUMENTS. IF REVIEW OF AN INCOMPLETE SHOP DRAWING IS REQUIRED, THAT SHOP DRAWING SHALL BE CLEARLY MARKED AS INCOMPLETE. THE AREA THAT NEEDS TO BE REVIEWED SHALL BE CLEARLY NOTED WITH AN EXPLANATION FOR THE REASON FOR PARTIAL APPROVAL.

14. IN NO CASE SHALL HEAVY EQUIPMENT BE PERMITTED CLOSER THAN 8'-0" FROM ANY FOUNDATION/BASEMENT WALL. IF THE CONTRACTOR DEEMS IT NECESSARY TO OPERATE SUCH EQUIPMENT CLOSER THEN 8'-0", THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE AND, AT HIS OWN EXPENSE, PROVIDE ADEQUATE SUPPORTS OR WALL BRACES TO WITHSTAND THE ADDITIONAL LOADS SUPERIMPOSED FROM SUCH EQUIPMENT.

15. SIZE AND/OR LOCATION OF OPENINGS, SLEEVES, CONCRETE HOUSEKEEPING PADS, INSERTS, DEPRESSIONS, ETC. SHOWN ON THE STRUCTURAL DOCUMENTS ARE FOR THE CONTRACTOR'S CONVENIENCE ONLY. THE CONTRACTOR IS SOLELY RESPONSIBLE TO COORDINATE ALL CONTRACT DOCUMENTS TO DETERMINE THE SIZE AND/OR LOCATION OF OPENINGS, SLEEVES, CONCRETE HOUSEKEEPING PADS, INSERTS, DEPRESSIONS, ETC.

16. SIZE AND/OR LOCATION OF EXISTING STRUCTURES AND UTILITIES SHOWN ON THE STRUCTURAL DOCUMENTS ARE FOR THE CONTRACTOR'S CONVENIENCE ONLY. THE CONTRACTOR IS SOLELY RESPONSIBLE TO VERIFY BY FIELD MEASUREMENTS/INVESTIGATION THE SIZE AND/OR LOCATION OF ALL EXISTING STRUCTURES AND UTILITIES.

17. THE CONTRACTOR SHALL SUBMIT SIGNED AND SEALED CALCULATIONS AND SHOP DRAWINGS BY A STRUCTURAL ENGINEER REGISTERED IN THE COMMONWEALTH OF PENNSYLVANIA SHOWING DESIGNS OF METAL STAIRS, METAL RAILINGS AND CONNECTIONS TO STRUCTURE TAKING INTO ACCOUNT THE VERTICAL AND LATERAL LOADS STATED IN THE GOVERNING CODES. WHERE HEADERS OR OTHER TYPES OF STRUCTURAL MEMBERS HAVE BEEN DESIGNATED ON THE STRUCTURAL CONTRACT DOCUMENTS TO SUPPORT THE STAIRS, THE CONNECTIONS FROM THE STAIRS SHALL BE DESIGNED SO THAT NO ECCENTRIC OR TORSIONAL FORCES ARE IMPOSED ON THESE STRUCTURAL MEMBERS. IF ECCENTRIC CONNECTIONS ARE USED, CONTRACTOR SHALL PROVIDE BRACING ELEMENTS FOR ALL SUPPORTING STEEL TO ELIMINATE THE TORSIONAL EFFECTS OF THE ECCENTRIC CONNECTIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING AND INSTALLING ALL EMBEDDED ITEMS AND HARDWARE AS REQUIRED PER THE STAIR DESIGN.

18. EXACT LOCATIONS OF ROOF PENETRATIONS TO BE COORDINATED BY THE GENERAL CONTRACTOR BETWEEN STEEL/JOIST/DECK/HVAC SUBCONTRACTORS. SEE DETAIL FOR ROOF FRAME REQUIREMENTS

STRUCTURAL SPECIAL INSPECTIONS

1. THE QUALIFIED AGENCY RETAINED BY THE OWNER FOR THESE SPECIAL INSPECTION SERVICES SHALL BE APPROVED BY THE OWNER, THE ARCHITECT, AND THE ENGINEER OF RECORD PRIOR TO START OF CONSTRUCTION. AN OUTLINE OF THE SCOPE OF SERVICES TO BE PERFORMED BY THE INSPECTING AGENCY IS TO BE SUBMITTED PRIOR TO THE START OF CONSTRUCTION.

2. IN ACCORDANCE WITH SECTION 1704 OF THE INTERNATIONAL BUILDING CODE, AND ALL APPLICABLE STATE AND LOCAL REQUIREMENTS, AN INDEPENDENT APPROVED AGENCY SHALL MAKE PERIODIC AND/OR CONTINUOUS INSPECTIONS OF THE CONSTRUCTION PROGRESS IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:

STEEL CONSTRUCTION	SECTION 1705.2, TABLE 1705.2.3, AISC 360
CONCRETE CONSTRUCTION	SECTION 1705.3, TABLE 1705.3
SOILS	SECTION 1705.6, TABLE 1705.6

3. IN ACCORDANCE WITH SECTIONS 1707.1 THROUGH 1707.5 (1705.12.1 THROUGH 1705.12.9 FOR IBC 2015) OF THE INTERNATIONAL BUILDING CODE AND ALL APPLICABLE STATE AND LOCAL REQUIREMENTS, AN INDEPENDENT APPROVED AGENCY SHALL MAKE PERIODIC AND/OR CONTINUOUS SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE OF THE CONSTRUCTION PROGRESS.

FOUNDATIONS

1. PERFORM ALL SITE PREPARATION AND EXCAVATION WORK IN STRICT ACCORDANCE WITH THE GEOTECHNICAL ENGINEERING REPORT PREPARED BY — (PROJECT NO. —, DATED —).

2. EXCAVATE THE BUILDING SITE TO THE DEPTH AND EXTENT INDICATED IN THE SOILS REPORT. ALL SUBGRADES SHALL BE APPROVED IN WRITING BY THE SOILS ENGINEER PRIOR TO BACKFILLING.

3. BOTTOM OF FOOTINGS SHALL BEAR ON SUBGRADE PER THE GEOTECHNICAL REPORT.

4. SUBGRADE OF ALL FOOTINGS MUST BE INSPECTED UNDER THE SUPERVISION OF AND APPROVED BY A REGISTERED SOILS ENGINEER BEFORE PLACING ANY CONCRETE. APPROVAL IN WRITING MUST INDICATE THE SOIL IS ADEQUATE TO SAFELY SUSTAIN SPECIFIED SOIL BEARING PRESSURE.

5. BOTTOM OF ALL EXTERIOR FOOTINGS SHALL BE A MINIMUM OF THREE FEET BELOW EXTERIOR FINISH GRADE. ALL FOOTING ELEVATIONS SHOWN ON PLAN ARE THE BEST APPROXIMATIONS BASED ON AVAILABLE DATA. GENERAL CONTRACTOR MAY ALTER FOOTING ELEVATIONS FOR REASONS INCLUDING, BUT NOT LIMITED TO, REVISED GEOTECHNICAL OR CIVIL INFORMATION, UNFORESEEN CONDITIONS, ACTUAL INVERT ELEVATIONS, CONSTRUCTABILITY, ETC. CONTRACTOR SHALL NOTIFY ARCHITECT AND OBTAIN WRITTEN APPROVAL PRIOR TO ANY MODIFICATIONS.

CONCRETE

1. REINFORCING STEEL SHALL BE WITHIN TOLERANCES SET FORTH IN ACI 117, AND HAVE THE SPECIFIED CLEAR COVER, UNLESS NOTED OTHERWISE ON DRAWINGS:

CONCRETE POURED AGAINST EARTH	3"
CONCRETE EXPOSED TO EARTH OR WEATHER:	
#5 OR SMALLER	1 1/2"
#6 OR LARGER	2"

CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND: 1 1/2"

CLEAR COVER SHALL BE CLEARLY SHOWN ON ALL REINFORCING BAR DETAIL DRAWINGS.

2. ALL CONCRETE SHALL BE READY-MIX AND HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF:

SPREAD FOOTINGS/WALL FOOTINGS/FOUNDATION WALL	
BASEMENT WALLS/RETAINING WALLS	3,000 PSI
PIERS-MATCH WALL STRENGTH	(MINIMUM OF 3,000 PSI)
SLAB-ON-GRADE	3,500 PSI
CONCRETE SLABS ON METAL DECK	3,500 PSI
OR AS SHOWN ON DRAWINGS.	

HAVE A MINIMUM OF 500 LBS. OF CEMENT PER CUBIC YARD. SLUMP (AT POINT OF CONCRETE PLACEMENT) SHALL BE 3 INCH MINIMUM AND 6 INCH MAXIMUM. CONCRETE EXPOSED TO WEATHER SHALL HAVE 5 PERCENT AIR ENTRAINMENT. CONCRETE NOT EXPOSED TO WEATHER SHALL NOT CONTAIN AN AIR-ENTRAINING AGENT. SUBMIT MIX DESIGNS FOR REVIEW.

NORMAL-WEIGHT CONCRETE TO BE GIVEN A HARD-TROWELED FINISH SHALL NOT CONTAIN AN AIR-ENTRAINING AGENT. TOTAL AIR CONTENT FOR THIS CONCRETE SHOULD NOT EXCEED 3 PERCENT (AT POINT OF CONCRETE PLACEMENT). ALL CONCRETE WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE LATEST ACI BUILDING CODE (ACI 318),

3. ALL REINFORCING STEEL SHALL BE MANUFACTURED FROM HIGH STRENGTH BILLET STEEL CONFORMING TO ASTM DESIGNATION A615 GRADE 60. WWF SHALL COMPLY WITH ASTM A185.

4. LAP ALL REINFORCING BARS 62 DIAMETERS. LAP ALL WWF A MINIMUM OF SIX INCHES.

5. SUBMIT ALL REINFORCING SHOP DRAWINGS FOR REVIEW PRIOR TO ANY FABRICATION.

6. THE CONTRACTOR SHALL INSTALL FLOOR LEVELING MATERIAL AND PERFORM OTHER CORRECTIVE MEASURES IN ALL AREAS, INCLUDING BUT NOT LIMITED TO, AREAS WHERE FLOOR FINISH PROVISIONS DO NOT COMPLY WITH THE FLATNESS AND LEVELNESS REQUIREMENTS.

STEEL

1. ALL STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST AISC CODE.
ALL CONNECTIONS, INCLUDING AT HSS SECTIONS, SHALL BE DESIGNED AND DETAILED IN ACCORDANCE WITH THE LATEST AISC CODE. UNLESS INDICATED OTHERWISE ON CONTRACT DOCUMENTS, IN ADDITION TO THE SHEAR CONNECTION, INCLUDE AS A MINIMUM, 4X4X3/8 ANGLES TOP AND BOTTOM OR ENDPLATE AT ALL HSS BEAMS/GIRDERS TO COLUMN CONNECTIONS. ALL WIDE FLANGE SHAPES SHALL BE ASTM A992. ALL OTHER STRUCTURAL STEEL SHALL BE ASTM A36 UNLESS NOTED OTHERWISE. ALL STEEL RECTANGULAR/SQUARE HOLLOW STRUCTURAL SECTIONS SHALL BE ASTM A500 GRADE C, FY = 50 KSI. ALL STEEL ROUND HOLLOW STRUCTURAL SECTIONS SECTIONS SHALL BE ASTM A500 GRADE C, FY = 46 KSI. ALL STEEL SHALL HAVE A SHOP COAT OF RUST INHIBITIVE PAINT, DELETE PAINT ON ALL STEEL TO RECEIVE SPRAYED-ON FIREPROOFING OR CONCRETE ENCASEMENT, AS NOTED ON ARCHITECTURAL DOCUMENTS. ORIENT ALL MILL CAMBER UPWARD DURING FABRICATION AND ERECTION. ALL STEEL SHALL BE THOROUGHLY CLEANED IN ACCORDANCE WITH SSPC- SP3 PRIOR TO PAINTING.

2. ALL SHOP AND FIELD WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS, AS DESCRIBED IN "AMERICAN WELDING SOCIETY'S STANDARD QUALIFICATION PROCEDURE", AWS D1.1 LATEST EDITION, TO PERFORM THE TYPE OF WORK REQUIRED.

3. UNLESS OTHERWISE NOTED, ALL CONNECTIONS SHALL BE BOLTED WITH MINIMUM 3/4-INCH DIAMETER A325 OR A490 HIGH STRENGTH BEARING TYPE BOLTS OR WELDED. THE FABRICATOR IS RESPONSIBLE FOR THE SELECTION, DESIGN, AND DETAILING OF ALL CONNECTIONS, INCLUDING BUT NOT LIMITED TO MOMENT CONNECTIONS, BRACED FRAME CONNECTIONS, AND TRUSS CONNECTIONS, NOT FULLY DETAILED ON THE CONTRACT DRAWINGS. THIS INCLUDES TO DESIGN, DETAIL, FURNISH, AND INSTALL STIFFENERS, CONTINUITY PLATES, DOUBLER PLATES, OR OTHER NECESSARY ADDITIONAL LOCAL STRENGTHENING MEASURES AS REQUIRED. MEMBER SIZES INDICATED ON THE DRAWINGS ARE BASED ON MEMBER BEHAVIOR AWAY FROM CONNECTIONS. USE FULL DEPTH DOUBLE ANGLE CONNECTIONS ON ALL GIRDER AND BEAM CONNECTIONS TO COLUMNS. BOLTS SHALL BE AT 3 INCH O/C VERTICALLY. INFILL BEAM CONNECTIONS MAY BE ONE-SIDED CONNECTIONS, UNLESS NOTED OTHERWISE. ALL GRAVITY MOMENT CONNECTIONS SHALL BE BOLTED WITH MINIMUM 3/4-INCH DIAMETER A325 OR A490 HIGH STRENGTH SLIP CRITICAL BOLTS OR WELDED.

UNLESS OTHERWISE NOTED, DETAILS INDICATED ON DRAWINGS INDICATE GENERAL CRITERIA FOR DESIGN AND DETAILING OF CONNECTIONS. DETAILS INDICATED ON DRAWINGS ARE NOT INTENDED TO CONVEY COMPLETE CONNECTOR SIZES, PLATE SIZES, WELD SIZES, NUMBER OF BOLTS, OR ANY OTHER SPECIFIC INFORMATION THAT IS OBTAINED THROUGH DESIGNING OF AN INDIVIDUAL CONNECTION FOR A GIVEN SET OF LOADS. THESE DETAILS DO NOT SHOW ERECTION AIDS. PROVIDE ERECTION AIDS AS REQUIRED AND REMOVE THEM AFTER WORK IS COMPLETE.

4. ALL ANCHOR RODS TO BE ASTM F1554 GRADE 36, UNLESS NOTED OTHERWISE.

5. ALL ALUMINUM AND STEEL MEMBERS SHALL BE TREATED OR PROPERLY SEPARATED TO PREVENT GALVANIC AND CORROSIVE EFFECTS.

6. ALL STEEL WELDING RODS SHALL BE E70XX.

7. SUBMIT ALL STEEL SHOP DRAWINGS FOR REVIEW PRIOR TO ANY FABRICATION. SHOP DRAWINGS SHALL SHOW COMPLETE BOLTING AND WELDING INFORMATION, BOTH SHOP AND FIELD. ALL WELDING INFORMATION SHALL USE AMERICAN WELDING SOCIETY SYMBOLS. SHOP OR FIELD SPLICING OF ANY STRUCTURAL STEEL SECTION WHERE NOT DETAILED ON THE CONTRACT DOCUMENTS IS STRICTLY PROHIBITED WITHOUT PRIOR WRITTEN APPROVAL BY THE STRUCTURAL ENGINEER OF RECORD.

8. CONNECTIONS FOR ALL NON-COMPOSITE AND COMPOSITE BEAM/GIRDERS NOT CONNECTED TO COLUMNS SHALL BE DESIGNED FOR A MINIMUM UNFACTORED REACTION OF 15 KIPS, UNLESS NOTED GREATER ON DRAWINGS.

9. STEEL FABRICATOR IS SOLELY RESPONSIBLE FOR SURVEYING AND VERIFICATION OF EXISTING CONDITIONS INCLUDING BUT NOT LIMITED TO THE LOCATION, ELEVATION, AND DIMENSIONS OF EXISTING WALLS AND FRAMING.

10. ALL LINTELS AND SHELF ANGLES WITHIN EXTERIOR WALLS SHALL BE HOT DIP GALVANIZED. ANY POINTS OF WELDING SHALL BE TOUCHED UP IN THE FIELD WITH A ZINC-RICH PAINT BY THE STEEL ERECTOR.

11. ALL EXPOSED STEEL (INCLUDING BUT NOT LIMITED TO DUNNAGE FRAMING, SCREEN WALL FRAMING, CANOPY FRAMING, ETC.) SHALL BE HOT DIP GALVANIZED. ANY POINTS OF WELDING SHALL BE TOUCHED UP IN THE FIELD WITH A ZINC-RICH PAINT BY THE STEEL ERECTOR.

12. PROVIDE WELDED STIFFENER PLATES ON BOTH SIDES OF THE WEB OF BEAMS AT POINTS OF CONCENTRATED LOADS INCLUDING BEAMS SUPPORTING COLUMNS OR RUNNING OVER THE TOPS OF COLUMNS, OR OTHER BEAMS. MINIMUM STIFFENER PLATE THICKNESS SHALL BE 3/8 INCH OR FLANGE THICKNESS OF COLUMN ABOVE OR BELOW OR BEAM WEB THICKNESS ABOVE OR BELOW, WHICHEVER IS GREATER.

13. ALL POST-INSTALLED EXPANSION ANCHORS FASTENED INTO CONCRETE SHALL BE HILTI KWIK BOLT TZ WITH MATERIAL TYPE, DIAMETER, AND EMBEDMENT PER DOCUMENTS, UNLESS NOTED OTHERWISE. ALL POST-INSTALLED ADHESIVE ANCHORS FASTENED INTO CONCRETE AND REINFORCING BAR DOWELING INTO CONCRETE SHALL USE HILTI HIT-RE 500-SD EPOXY ADHESIVE ANCHORING SYSTEM IN HAMMER-DRILLED HOLES WITH ROD TYPE, DIAMETER, EMBEDMENT AND SPACING/EDGE DISTANCE PER DOCUMENTS, UNLESS NOTED OTHERWISE.

14. ALL PIPING RUNS LARGER THAN 4" DIAMETER SHALL BE HUNG DIRECTLY FROM STEEL BEAMS/JOISTS AND NOT THE CONCRETE SLAB/METAL DECK SYSTEM. ALL PIPING RUNS LARGER THAN 4" DIAMETER SHALL BE FROM EACH STEEL BEAM/JOIST AND NOT BASED ON MAXIMUM ALLOWABLE SPAN OF PIPING. ANY SUPPLEMENTAL STEEL REQUIRED FOR BUILDING SYSTEMS (MECHANICAL, ELECTRICAL, PLUMBING, ETC.) IS NOT BY SLATE STRUCTURAL ENGINEERS.

MASONRY

1. MASONRY UNITS SHALL BE TYPE N-I MEDIUM WEIGHT ASTM C90 SOLID (GREATER THAN OR EQUAL TO 75 PERCENT SOLID MATERIAL) OR ASTM C90 HOLLOW GROUTED SOLID BELOW GRADE. ASTM C90 HOLLOW ABOVE GRADE WITH MINIMUM COMPRESSIVE STRENGTH OF 1900 PSI. ALL CMU SHALL BE LAID IN A FULL BED OF MORTAR. CONSTRUCT COLUMN PIERS INTEGRALLY WITH FOUNDATION WALLS AND CONTINUE WALL REINFORCEMENT THROUGH THE PIER. GROUT COLUMN PIERS AND WALLS MONOLITHICALLY.

2. FOLLOWING ARE THE BLOCK STRENGTHS REQUIRED:

ASTM C90 SOLID 1900 PSI ON GROSS AREA OF INDIVIDUAL UNITS.
ASTM C90 HOLLOW 1900 PSI ON NET AREA OF INDIVIDUAL UNITS.

3. ALL MORTAR SHALL BE ASTM C270 TYPE S WITH A MINIMUM COMPRESSIVE STRENGTH OF 1800 PSI AT 28 DAYS. FROM FIELD OBTAINED TEST CYLINDERS

4. GROUT SHALL BE A HIGH SLUMP MIX IN ACCORDANCE WITH ASTM SPECIFICATION C476 HAVING A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI. FROM FIELD OBTAINED TEST CYLINDERS.

5. LAID UP MASONRY DESIGN F'M IS 1500 PSI FOR STANDARD CONCRETE MASONRY.

6. VERTICAL REINFORCING SHALL BE ASTM A615, GRADE 60 DEFORMED BARS. MINIMUM LAP SPLICE LENGTHS TO BE PER TABLE 1 (U.N.O. ON PLANS) AND SHALL BE AS FOLLOWS:

TABLE 1

#3:	27"
#4:	36"
#5:	45"
#6:	54"
#7:	63"
#8:	72"
#9:	82"

TABLE 2

#3:	15"
#4:	20"
#5:	25"
#6:	30"
#7:	35"
#8:	40"
#9:	46"

MECHANICAL SPLICING DEVICES WHICH ARE RATED TO DEVELOP 125 PERCENT OF FY OF THE BAR MAY BE SUBSTITUTED. SUBMIT PRODUCT DATA FOR ENGINEERING APPROVAL.

7. ALL CONCRETE MASONRY SHALL BE CONSTRUCTED AND ERECTED IN ACCORDANCE WITH THE LATEST ACI MASONRY CODE (ACI 530/ASCE 5/TMS 402) AND SPECIFICATIONS (ACI 530.1/ASCE 6/TMS 602) AND INSPECTED BY A QUALIFIED ENGINEER.

8. PROVIDE HOT-DIPPED GALVANIZED TRUSS TYPE OR LADDER TYPE HORIZONTAL JOINT REINFORCEMENT, MINIMUM 9 GA, AT 16 INCHES ON CENTER VERTICAL IN ALL MASONRY WALLS. SPACE HORIZONTAL JOINT REINFORCEMENT AT 8 INCHES ON CENTER IN ALL PARAPETS. USE SHOP FABRICATED SPECIAL PIECES AT ALL CORNERS AND TEES.

9. AS A MINIMUM, ALL CORES CONTAINING VERTICAL REINFORCING ARE TO BE GROUTED SOLID.

LIGHT GAUGE METAL FRAMING

1. LIGHT GAUGE METAL STUD DESIGNATION SHOWN ON STRUCTURAL DRAWINGS ASSUME MARINO WARE AS A DESIGN BASIS. MANUFACTURER MUST SUBMIT LITERATURE INDICATING THAT THE MEMBERS SUPPLIED PROVIDE EQUIVALENT STRENGTH AND STIFFNESS. MANUFACTURER AND/OR SUPPLIER TO PREPARE INFORMATION INDICATING CAPACITY OF MEMBERS, FRAMING DETAILS, CONNECTIONS, BRACING, BRIDGING AND ALL OTHER APPURTENANCES OF MEMBERS TO CONFORM TO LOAD CRITERIA AS DIRECTED BY CONTRACTOR/CONSTRUCTION MANAGER.

2. ALL STEEL STUDS SHALL BE HOT-DIPPED GALVANIZED (G 60) IN ACCORDANCE WITH ASTM A924. STEEL STUDS SHALL BE DESIGNED, MANUFACTURED AND INSTALLED IN ACCORDANCE WITH THE LATEST AISC SPECIFICATIONS AND SHALL COMPLY WITH ASTM A653 & C955. ALL STUDS, JOISTS, AND ACCESSORIES SHALL HAVE THE FOLLOWING MATERIAL STRENGTHS:

54 MILS (16 GAUGE) AND HEAVIER - FY = 50KSI.
33 MILS, 43 MILS (20 GAGE, 18 GAUGE RESPECTIVELY) - FY = 33KSI.

3. ALL WELDING OF LIGHT GAUGE STEEL FRAMING MUST BE DONE BY CERTIFIED WELDERS IN ACCORDANCE WITH AWS D1.3, SPECIFICATION FOR WELDING SHEET STEEL IN STRUCTURES.

4. MAKE CONNECTIONS WITH SELF-TAPPING SCREWS OR WELDING SO THAT THE CONNECTIONS MEET OR EXCEED THE DESIGN LOADS. ALWAYS USE WELDS WHERE SHOWN ON DRAWINGS.

5. CUT ALL LIGHT GAUGE STEEL FRAMING MEMBERS WITH SAWS OR SHEARS. FLAME CUTTING IS NOT PERMITTED.

6. THE LIGHT GAUGE STEEL FRAMING SUPPLIER AND ERECTOR SHALL HAVE A MINIMUM 5 YEARS EXPERIENCE IN THE FABRICATION AND ERECTION OF LIGHT GAUGE STEEL FRAMING SYSTEMS.

METAL BUILDING SYSTEMS

1. THE METAL BUILDING MANUFACTURER SHALL BE THE ENGINEER-OF-RECORD OF THE SUPERSTRUCTURE AND BE RESPONSIBLE FOR ITS DESIGN. THE METAL BUILDING MANUFACTURER SHALL PROVIDE THE COMPLETE SUPERSTRUCTURE BUILDING ENVELOPE, INCLUDING BUT NOT LIMITED TO ANCHOR ROD DIAMETER, CONFIGURATION AND STEEL GRADE, GIRTS, AND OTHER MISCELLANEOUS STRUCTURAL STEEL RELATED TO THE BUILDING SUPERSTRUCTURE. SLATE STRUCTURAL ENGINEERS IS RESPONSIBLE ONLY FOR THE STRUCTURAL DESIGN OF THE FOUNDATIONS AND EMBEDMENT LENGTHS OF THE ANCHOR RODS.

2. THE CONTRACTOR IS TO REFER TO THE METAL BUILDING MANUFACTURER'S DOCUMENTS FOR FRAMING OF THE SUPERSTRUCTURE AND INSTALLATION OF THE ANCHOR RODS.

3. THE FOUNDATIONS, INCLUDING WALLS, PIERS, FOOTINGS, GRADE BEAMS, PILE CAPS, ETC., SHALL NOT BE PLACED UNTIL THE FINAL DESIGN LOADS AND ANCHOR ROD SIZES AND LAYOUT HAVE BEEN SUBMITTED ON SHOP DRAWINGS AND HAVE BEEN REVIEWED BY SLATE STRUCTURAL ENGINEERS.

4. THE METAL BUILDING MANUFACTURER SHALL SUBMIT ALL SUPERSTRUCTURE DOCUMENTS AND CALCULATIONS NECESSARY TO OBTAIN BUILDING PERMITS. THESE DOCUMENTS SHALL BE SEALED BY THE QUALIFIED REGISTERED PROFESSIONAL ENGINEER RESPONSIBLE FOR THE SUPERSTRUCTURE DESIGN.

5. THE METAL BUILDING MANUFACTURER SHALL PROVIDE A SUBMITTAL CONTAINING FINAL FOUNDATION REACTIONS, UTILIZING CODE REQUIRED LOAD COMBINATIONS, AND FINAL ERECTION AND ANCHOR ROD LAYOUT AND DETAIL DRAWINGS WHICH SHOW THE LOCATIONS OF WHERE THE FOUNDATION REACTIONS ARE GIVEN. THIS SUBMITTAL SHALL BE SIGNED AND SEALED BY A QUALIFIED REGISTERED PROFESSIONAL ENGINEER, LICENSED IN THE RESPECTIVE STATE, RESPONSIBLE FOR THE SUPERSTRUCTURE DESIGN.

DESIGN LOAD SCHEDULE
(ALL LOADS SHOWN ARE IN POUNDS PER SQ. FT.)

COMPONENT \ AREA	SLAB ON GRADE	TYPICAL ROOF			
CONCRETE SLAB	50				
ROOF & INSULATION		7			
STEEL & JOIST		8			
CEILING		3			
MEP		3			
SOLAR PANEL SYSTEM		10			
COLLATERAL		4			
TOTAL DEAD LOAD	50	35			
TOTAL LIVE LOAD	100	30			
TOTAL LOAD	150	65			

SNOW DESIGN LOAD SCHEDULE
INTERNATIONAL BUILDING CODE 2021/ASCE 7-16

ITEM	SYMBOL	VALUE	REFERENCE
GROUND SNOW LOAD	P_g	30	FIGURE 7.2-1
SNOW EXPOSURE FACTOR	C_e	1.0	TABLE 7.3-1
SNOW LOAD IMPORTANCE FACTOR	I_s	1.0	TABLE 1.5-2
THERMAL FACTOR	C_t	1.0	TABLE 7.3-2
FLAT-ROOF SNOW LOAD	P_f	21	SECTION 7.3

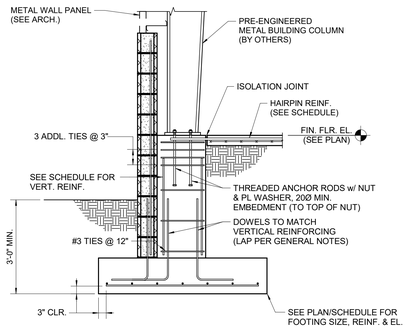
LATERAL LOAD DESIGN SCHEDULE
INTERNATIONAL BUILDING CODE 2021/ASCE 7-16

WIND LOAD			
ITEM	SYMBOL	VALUE	REFERENCE
BASIC WIND SPEED (3 SEC. GUST)	V	115	FIGURE 1609.3
RISK CATEGORY	-	II	TABLE 1604.5
WIND EXPOSURE CATEGORY	-	C	SECTION 1609.4.3

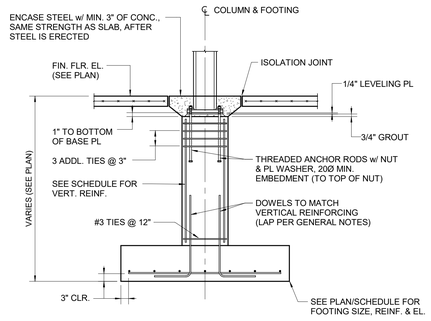
SEISMIC LOAD			
ITEM	SYMBOL	VALUE	REFERENCE
IMPORTANCE FACTOR	I_E	1.00	TABLE 1.5-2
SHORT PERIOD SPECTRAL ACCELERATION	S_{DS}	0.204	SECTION 1613.2.4
(1) SECOND PERIOD SPECTRAL ACCELERATION	S_{D1}	0.078	SECTION 1613.2.4
RISK CATEGORY	-	II	TABLE 1604.5
SEISMIC DESIGN CATEGORY	-	B	TABLE 1613.2.5
SITE CLASSIFICATION	-	D	TABLE 20.3-1
SEISMIC FORCE-RESISTING SYSTEM	-	-	TABLE 12.2-1
RESPONSE MODIFICATION COEFFICIENT	R	3	TABLE 12.2-1
DEFLECTION AMPLIFICATION FACTOR	C_d	3	TABLE 12.2-1
SEISMIC BASE SHEAR	V	---k	SECTION 12.8.1
ANALYSIS PROCEDURE	EQUIVALENT LATERAL FORCE PROCEDURE		SECTION 12.8

CONCRETE/STEEL LINTEL SCHEDULE
(NON-BEARING WALLS)

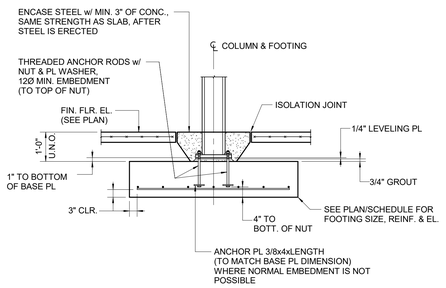
WIDTH OF OPENING	STEEL FOR EACH 4" OF WALL THICKNESS	REINF. CONC. FOR EACH 4" OF WALL THICKNESS	REMARKS
UP TO 2'-11"	L3 1/2x3 1/2x5/16	(1) #4 TOP & BOTTOM	
3'-0" TO 3'-11"	L4x3 1/2x5/16	(1) #4 TOP & BOTTOM	
4'-0" TO 5'-11"	L5x3 1/2x5/16	(1



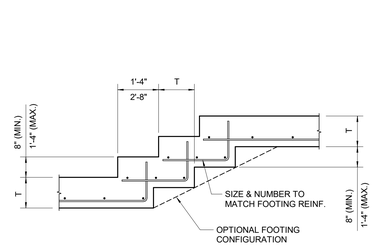
TYPICAL PRE-ENGINEERED METAL BUILDING COLUMN FOOTING WITH PIER DETAIL



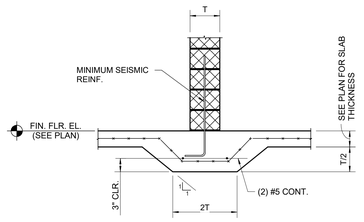
TYPICAL COLUMN FOOTING WITH PIER



TYPICAL COLUMN FOOTING WITHOUT PIER

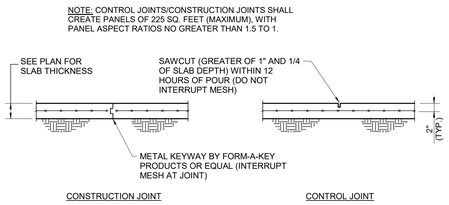


TYPICAL STEPPED FOOTING DETAIL

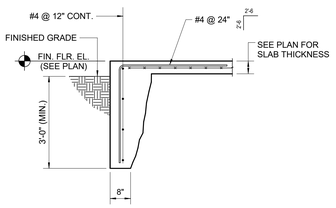


TYPICAL THICKENED SLAB DETAIL

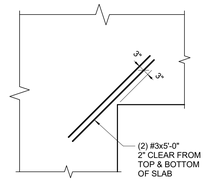
(SEE ARCH. DWGS. FOR WALL LOCATIONS)



TYPICAL SLAB ON GRADE DETAILS

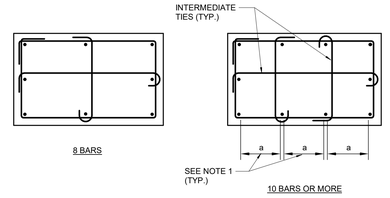


TYPICAL TURNED DOWN SLAB DETAIL



PLAN VIEW

ADDITIONAL INSIDE CORNER REINFORCING



TYPICAL CONCRETE PIER DETAILS

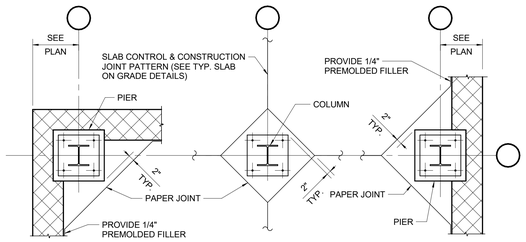
NOTES:
1) FOR CLEAR DISTANCE BETWEEN VERTICAL BARS OF a ≤ 6" ALTERNATE INTERMEDIATE TIES MAY BE OMITTED.

2) TOTAL NO. OF BARS SHOULD BE SPACED AROUND PERIMETER IN SUCH A WAY AS TO ACHIEVE APPROXIMATELY EQUAL SPACING.
3) THE ABOVE DETAILS APPLY ALSO AT PIERS.

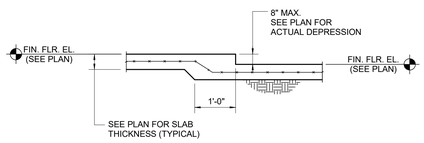
4) MIN. CLEAR VERTICAL BAR SPACING SHALL BE PER REINFORCEMENT DEVELOPMENT LENGTH TABLE.

5) ALTERNATE THE LOCATION OF THE 90° AND 135° HOOKS ON SUCCESSIVE SETS OF TIES.

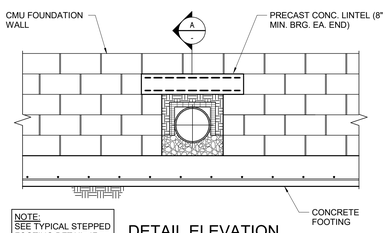
6) SEE TABLE OF COLUMN TIE SPACING THIS DRAWING.



TYPICAL ISOLATION JOINT DETAILS

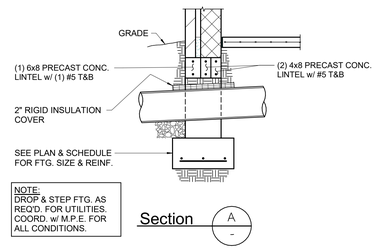


TYPICAL DEPRESSED SLAB DETAIL



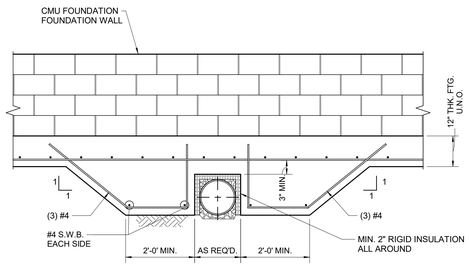
NOTE:
SEE TYPICAL STEPPED FOOTING DETAIL, IF REQ'D.

DETAIL ELEVATION

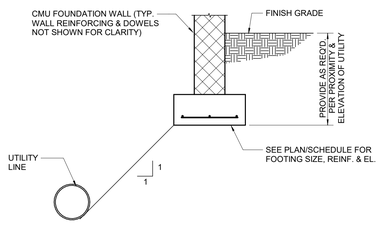


NOTE:
DROP & STEP FTG. AS REQ'D. FOR UTILITIES. COORD. w/ M.P.E. FOR ALL CONDITIONS.

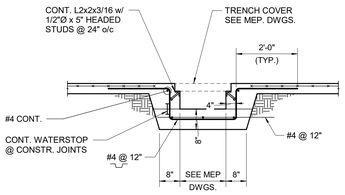
TYPICAL DETAIL FOR UTILITIES RUNNING THRU FOUNDATION WALL



TYPICAL DETAIL FOR UTILITIES RUNNING BELOW FOOTINGS (DETAIL ELEVATION)

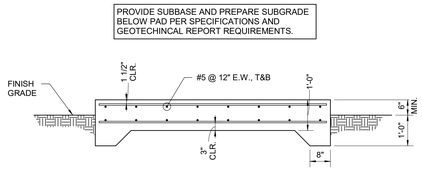


TYPICAL DETAIL FOR UTILITIES ADJACENT TO FOOTINGS



SEE ARCH. AND MECH. DWGS FOR TRENCH DRAIN LOCATIONS & DIMENSIONS

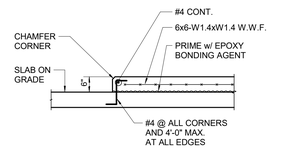
TRENCH DRAIN IN SLAB ON GRADE TYPICAL DETAIL



CONCRETE BASE FOR EXTERIOR EQUIPMENT TYPICAL DETAIL

NOTES:
1) COORDINATE LOCATIONS AND DIMENSIONS OF EQUIPMENT SUPPORT PADS WITH M.E.P. DWGS., MECHANICAL CONTRACTOR AND WITH EQUIPMENT MFR.

2) COORDINATE VIBRATION ISOLATION REQUIREMENTS WITH M.E.P. DWGS. AND SPECIFICATIONS AND WITH EQUIPMENT MFR.



TYPICAL HOUSEKEEPING PAD DETAIL

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Revisions

No.	Date	Description

04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title

TYPICAL FOUNDATION DETAILS

Project Number	24.129
Date	4.30.2026
Drawing Number	S300

DESIGN DEVELOPMENT
4/30/2026

THESE ARE PROGRESS DRAWINGS, THEREFORE THEY ARE ISSUED PRIOR TO COMPLETION OF THE STRUCTURAL DESIGN AND OTHER DESIGN DISCIPLINES INCLUDING BUT NOT LIMITED TO ARCHITECTURAL OR MECHANICAL DESIGNS; AND AS SUCH, ARE INCOMPLETE BY NATURE FOR THE COMPREHENSIVE SCOPE OF THE PROJECT. ALLOWANCES FOR STRUCTURAL ELEMENTS REQUIRED DUE TO THE COMPLETION AND CROSS-COORDINATION OF ALL OTHER DISCIPLINES SHOULD BE MADE.

SLATE STRUCTURAL ENGINEERS
32 South Broad Street | Nazareth PA 18064 | (610) 365-7634
www.slatestructural.com | Project No. 200.161

4/29/2026 12:29:09 PM M:\200.161\000\S\200.161 - SSE - 2025.rvt DRAWN BY Author
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Symbols Legend

VIEW REFERENCE SYMBOLS

DETAIL
- 1 / A500 — DETAIL NUMBER / SHEET REFERENCE

BUILDING ELEVATION
- Ref — ELEVATION NAME/NUMBER
- 1 / A101 / 1 / Ref / Ref — SHEET REFERENCE

BUILDING SECTION DESIGNATION
- 1 / A300 — DETAIL NUMBER / SHEET REFERENCE

WALL SECTION DESIGNATION
- 1 / A350 — DETAIL NUMBER / SHEET REFERENCE

INTERIOR ELEVATION
- 1 Ref — ELEVATION NAME/NUMBER
- Ref / A101 / Ref — SHEET REFERENCE
- 1 Ref

DRAWING SYMBOLS

ROOM IDENTIFICATION
- ROOM NUMBER
- AREA (WHERE APPLIES)

STRUCTURAL GRID IDENTIFICATION
- 0 — GRIDLINE DESIGNATION

LEVEL ELEVATION
- LEVEL NAME
- VERTICAL DATUM

POINT ELEVATION
- T.O.S. HP: 40'-0" — DESCRIPTION
- VERTICAL DATUM

PARTITIONS
- EXISTING PARTITION TO REMAIN
- EXISTING PARTITION TO BE DEMOLISHED
- NEW PARTITION & TYPE SYMBOL
- PARTITION TYPE DESIGNATION

DOORS
- EXISTING DOOR/FRAME
- EXISTING DOOR TO BE DEMOLISHED
- NEW DOOR/FRAME
- DOOR SYMBOL & NUMBER

WINDOW TYPE INDICATOR
- 1t — WINDOW TYPE DESIGNATION

CEILING IDENTIFICATION
- CEILING TYPE
- CEILING HEIGHT

Abbreviations

A	
A/C	AIR CONDITIONING
A.C.M.	ALUMINUM COMPOSITE MATERIAL
A.C.T.	ACOUSTICAL CEILING TILE
A.F.F.	ABOVE FINISHED FLOOR
A.W.C.	ACOUSTIC WALL COVERING
ABV	ABOVE
ADD'L	ADDITIONAL
ALT	ALTERNATE
ALUM	ALUMINUM
ANOD	ANODIZED
APPROX	APPROXIMATE(LY)
AVG	AVERAGE
B	
BD	BOARD
BLDG	BUILDING
BRG	BEARING
BSMT	BASEMENT
BTM	BOTTOM
BTWN	BETWEEN
BUR	BUILT-UP ROOFING
BW	BOTH WAYS
C	
C.I.P.	CAST-IN-PLACE
C.J.	CONTROL JOINT
C.L.	CENTER LINE
C.M.T.	CERAMIC MOSAIC TILE
C.M.U.	CONCRETE MASONRY UNIT
C.T.	CERAMIC TILE
CLG	CEILING
COL	COLUMN
CONC	CONCRETE
CONST JT	CONSTRUCTION JOINT
CONT	CONTINUOUS
CPT	CARPET
CTR	CENTER
D	
D.F.	DRINKING FOUNTAIN
DEMO	DEMOLITION
DIA	DIAMETER
DIM	DIMENSION
DN	DOWN
DR	DOOR
DTL	DETAIL
DWG	DRAWING
E	
E	EAST
EC	ELECTRICAL CONTRACTOR
E.I.F.S.	EXTERIOR INSULATION FINISH SYSTEM
E.J.	EXPANSION JOINT
E.W.C.	ELECTRIC WATER COOLER
EA	EACH
ELEC	ELECTRIC(AL)
ELEV	ELEVATOR
EQ	EQUAL
EQUIP	EQUIPMENT
EXIST	EXISTING
EXP	EXPANSION
EXT	EXTERIOR

F	
F.E.	FIRE EXTINGUISHER
F.E.C.	FIRE EXTINGUISHER CABINET
F.F.E.	FINISH FLOOR ELEVATION
FD	FLOOR DRAIN
FDN	FOUNDATION
FIN FL	FINISH FLOOR
FL	FLOOR
FOS	FACE OF STUD
FRT	FIRE RATED TREATED
FT (')	FOOT
FTG	FOOTING
G	
GC	GENERAL CONTRACTOR
G.W.B.	GYPSUM WALLBOARD
GALV	GALVANIZED
H	
H.M.	HOLLOW METAL
HCP	HANDICAP(PED)
HT	HEIGHT
HORIZ	HORIZONTAL
I	
IN	INCH(ES)
INCL	INCLUDE(S)
INFO	INFORMATION
INSUL	INSULATION (INSULATED)
INT	INTERIOR
J	
JAN	JANITOR
JT	JOINT
L	
LAV	LAVATORY
LTG	LIGHTING
M	
MC	MECHANICAL CONTRACTOR
M.B.	MARKER BOARD
M.O.	MASONRY OPENING
MAINT	MAINTENANCE
MAS	MASONRY
MAT'L	MATERIAL
MAX	MAXIMUM
MCJ	MASONRY CONTROL JOINT
MDF	MEDIUM DENSITY FIBERBOARD
MDO	MEDIUM DENSITY OVERLAY
MECH	MECHANICAL
MEP	MECHANICAL, ELECTRICAL, PLUMBING
MFR	MANUFACTURER
MIN	MINIMUM
MIR	MIRROR
MISC	MISCELLANEOUS
MR	MOISTURE RESISTANT
MTD	MOUNTED
MTL	METAL
N	
N.I.C.	NOT IN CONTRACT
N.T.S.	NOT TO SCALE

O	
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
O.F.	OUTSIDE FACE
OH	OVERHEAD
OPNG	OPENING
OPP	OPPOSITE
ORIG	ORIGINAL
P	
PC	PLUMBING CONTRACTOR
P LAM	PLASTIC LAMINATE
P.B.	PIN BOARD
PERF	PERFORATED
PERIM	PERIMETER
PL	PLATE
PLAS	PLASTER
PLBG	PLUMBING
PLWD	PLYWOOD
PNL	PANEL
PREFAB	PREFABRICATED
PREFIN	PREFINISHED
PT	PAINT
PTD	PAINTED
Q	
Q.T.	QUARRY TILE
QLTY	QUALITY
QTY	QUANTITY
R	
R	RISERS (STAIR)
r	RADIUS
R.D.	ROOF DRAIN
R.O.	ROUGH OPENING
R.W.C.	RAIN WATER CONDUCTOR
REINF	REINFORCE(D)(ING)(MENT)
REQ'D	REQUIRED
REV	REVISION, REVISED
RFRIG	REFRIGERATOR
RM	ROOM
RUB	RUBBER
S	
S.A.B.	SOUND ATTENUATION BLANKET
S.G.T.	STRUCTURAL GLAZED TILE
S.P.R.	SINGLE- PLY ROOFING
S.S.M.	SOLID SURFACE MATERIAL
SCHED	SCHEDULE
SECT	SECTION
SEP	SEPARATE
SF	SQUARE FOOT
SHWR	SHOWER
SIM	SIMILAR
SPEC	SPECIFICATIONS
SPEC'D	SPECIFIED
SQ	SQUARE
SS	STAINLESS STEEL
STD	STANDARD
STL	STEEL
STOR	STORAGE
STRUC	STRUCTURAL
SUSP	SUSPEND(ED)
SYS	SYSTEM

T	
T	TREAD
T & G	TONGUE AND GROOVE
T.E.S.	TACTILE EXIT SIGN
T/	TOP OF
T/CONC	TOP OF CONCRETE
T/FTG	TOP OF FOOTING
T/JST	TOP OF JOIST
T/STL	TOP OF STEEL
T/WALL	TOP OF WALL
TB	TACK BOARD
T.B.R.	TO BE REMOVED
THRES	THRESHOLD
TLT	TOILET
T.S.	TACK STRIP
TYP	TYPICAL
TZ	TERRAZZO
U	
U.H.	UNIT HEATER
U.O.N.	UNLESS OTHERWISE NOTED
U/S	UNDERSIDE OF
V	
V.T.	VINYL TILE
VAR	VARIES
VAT	VINYL ASBESTOS TILE
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
V.I.F.	VERIFY IN FIELD
VWC	VINYL WALL COVERING
W	
W.B.	DRY ERASE WHITE BOARD
W.C.	WATER CLOSET
W.W.F.	WELDED WIRE FABRIC
W/	WITH
W/O	WITHOUT
WD	WOOD
WGT	WEIGHT
WIN	WINDOW
Y	
YD	YARD

General Construction Notes

1. ALL WORK SHALL BE INSTALLED AND ERECTED IN ACCORDANCE WITH BUILDING AND SAFETY CODES MANDATED BY FEDERAL, STATE AND LOCAL GOVERNMENT LAWS, ORDINANCES AND REGULATIONS; INDUSTRY STANDARDS AND THE REQUIREMENTS AND RULES AND REGULATIONS OF ALL PUBLIC UTILITIES. ALL LOCAL PERMITS AND FEES SHALL BE PAID BY THE INSTALLING CONTRACTOR UNLESS OTHERWISE NOTED.
2. PRIOR TO SUBMITTING A PROPOSAL, CONTRACTOR/BIDDER SHALL HAVE CAREFULLY EXAMINED THE SITE AND BE FAMILIAR WITH THE ACTUAL CONDITIONS AND EXISTING IMPROVEMENTS, EQUIPMENT AND THEIR LOCATIONS; AND CONTRACTOR/BIDDER UNDERSTANDS THAT THE ACTUAL CONDITIONS AND EXISTING STRUCTURES, IMPROVEMENTS, EQUIPMENT AND THEIR LOCATIONS MAY BE DIFFERENT FROM THAT DEPICTED ON THE PLANS AND SPECIFICATIONS PROVIDED. IN SUBMITTING A BID AND ENTERING INTO AN AGREEMENT, CONTRACTOR/BIDDER RELIES UPON ITS EXAMINATION OF THE SITE AND THE ACTUAL CONDITIONS AT THE SITE. ANY AND ALL ADDITIONAL LABOR/MATERIAL/EQUIPMENT THAT MAY BE REQUIRED AS A RESULT OF CONTRACTOR/BIDDER'S FAILURE TO FOLLOW THESE REQUIREMENTS SHALL BE PROVIDED BY THE CONTRACTOR/BIDDER AT NO ADDITIONAL COST TO THE OWNER.
3. CONTRACTOR SHALL FIELD VERIFY ALL CONDITIONS AND DIMENSIONS AT THE JOB SITE PRIOR TO START OF WORK AND SHALL BE RESPONSIBLE TO NOTIFY THE ARCHITECT OF ANY AND ALL DISCREPANCIES IN WRITING. IF DISCREPANCIES OCCUR BETWEEN DRAWINGS AND/OR PROJECT MANUAL AND NO ADDENDA ARE ISSUED TO CLARIFY THE DISCREPANCIES, THE MORE EXPENSIVE OR GREATER QUANTITY OPTION(S) SHALL BE INCLUDED IN THE WORK.
4. CONTRACTOR TO MAKE EVERY EFFORT TO COORDINATE OR SCHEDULE ACTIVITIES TO MINIMIZE AREAS OF DISRUPTION OCCURRING AT ANY ONE TIME. CONTRACTOR SHALL COORDINATE INTERRUPTION OF ANY SERVICES AFFECTING THE ADJOINING AREAS WITH THE OWNER.
5. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR(S) TO COORDINATE THEIR WORK WITH OTHER CONTRACTOR(S) WORKING ON THE PROJECT AND FOR SHARING SHOP DRAWINGS AND INSTALLATION INSTRUCTION. ANY LABOR AND MATERIAL REQUIRED IN ORDER TO MAKE A SYSTEM OPERABLE AND/OR REQUIRED FOR PROPER INSTALLATION SHALL BE MADE AT NO ADDITIONAL COST REGARDLESS IF SPECIFIED OR NOT.
6. GENERAL CONTRACTOR SHALL PROVIDE NECESSARY CONCEALED BLOCKING FOR SUPPORT AS REQUIRED FOR COMPLETE INSTALLATION AT NO ADDITIONAL COST.
7. CONTRACTOR(S) ARE TO VERIFY DEPTH/HEIGHT OF ANY ITEMS INSTALLED AND MAKE APPROPRIATE ADJUSTMENTS FOR A COMPLETE INSTALLATION.
8. ANY DAMAGE TO SITE AND OR BUILDINGS CAUSED AS A RESULT OF THE CONSTRUCTION PROCESS SHALL BE REPAIRED AND/OR MADE NEW BY THE CONTRACTOR CAUSING THE DAMAGE AS DETERMINED BY THE ARCHITECT/OWNER.
9. WHERE A FIRE RATED OR SOUND RATED PARTITION/WALL IS CALLED FOR, ALL VOIDS BETWEEN THE PARTITION AND ADJOINING SURFACE SHALL BE SEALED ACCORDINGLY WITH RATED BARRIER MATERIALS BY THE CONTRACTOR INSTALLING THE PARTITION (OR IN EXISTING PARTITIONS) AS APPROVED BY THE ARCHITECT/OWNER.
10. ANY ITEM PASSING THROUGH A FIRE RATED OR SOUND RATED PARTITION SHALL BE SEALED ACCORDINGLY WITH RATED BARRIER MATERIALS BY THE CONTRACTOR INSTALLING THE ITEM.
11. CONTRACTOR TO PROVIDE ADEQUATE PROTECTION OF ALL EXISTING FINISHES/BUILDING ELEMENTS TO REMAIN DURING ENTIRE CONSTRUCTION PERIOD.
12. OWNER SUPPLIED EQUIPMENT TO BE ADA COMPLIANT.
13. OWNER TO SUBMIT PRODUCT DATA TO THE CONTRACTOR FOR ALL OWNER SUPPLIED EQUIPMENT PRIOR TO THE SUBMITTAL OF ASSOCIATED SHOP DRAWINGS FOR COORDINATION PURPOSES.
14. REFER TO FLOOR PLAN FOR HORIZONTAL DIMENSIONS NOT SHOWN ON INTERIOR ELEVATIONS.
15. ALL EXPOSED SURFACES TO RECEIVE FINISH AS IDENTIFIED ON FINISH SCHEDULE.

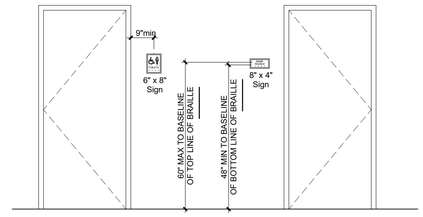
SIGNAGE DETAILS

Provide, at a minimum, one sign for every Exit Door, Toilet Room, and any other locations as required by code.

All signage to comply with all current ADA and code requirements.

Note: Where door is surrounded by glass, provide back plate to conceal back of sign on other side of glass.

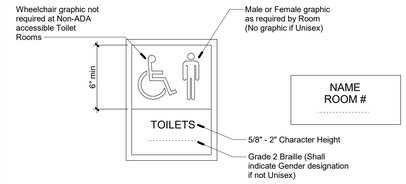
Locate sign on the latch side of door, or as directed by Architect



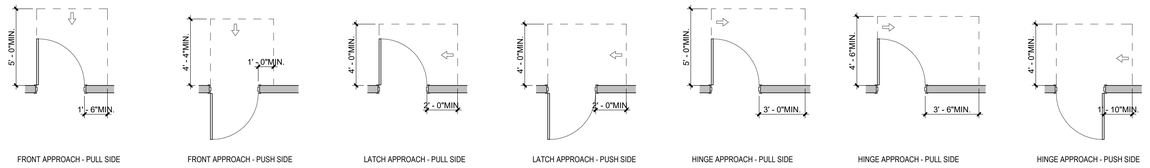
MOUNTING DETAILS

NOTE - MIN / MAX MOUNTING HEIGHTS SHOWN ABOVE REFERENCE THE **BRAILLE**

Per ICC A117.1-2009-703.4, "Braille shall be below the corresponding text. If text is multilined, braille shall be placed below entire text. Braille shall be separated 3/8" minimum from any other raised characters and 3/8" minimum from raised borders and decorative elements... Braille shall be 48" minimum and 60" maximum above the floor, measured to the baseline of the braille cells."



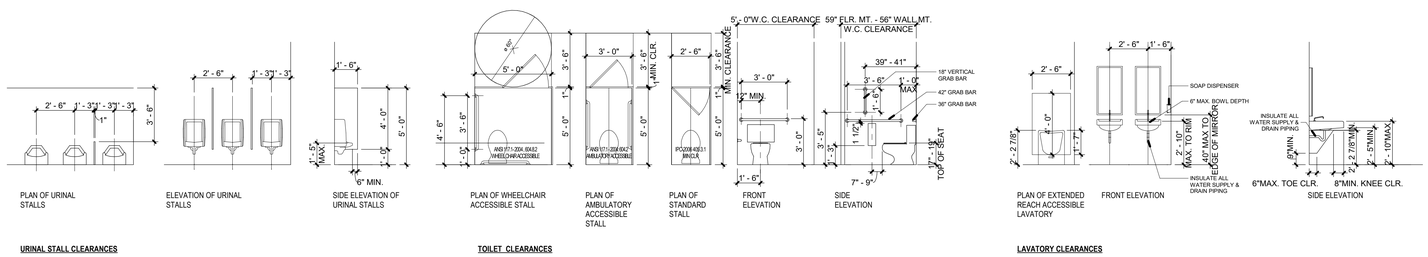
BRAILLE DETAILS



ADA DOOR CLEARANCES

1 ADA Door Clearances

1/4" = 1'-0"

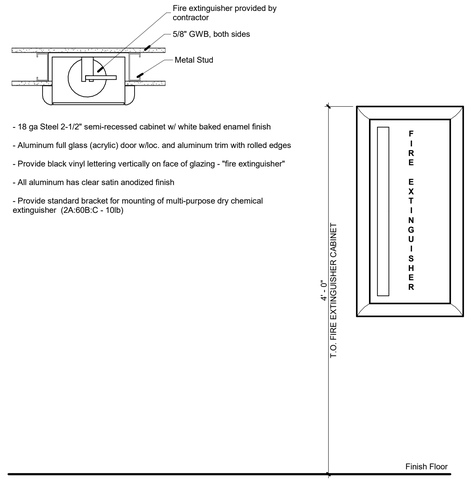


2 ADA Toilet Fixture Clearances

1/4" = 1'-0"

4 Signage Details

1/2" = 1'-0"



3 Fire Extinguisher Cabinet Detail

1 1/2" = 1'-0"

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Revisions

No.	Date	Description

04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title

General Notes, Symbols, Abbreviations and Details

Project Number 24.129

Date 4.30.2026

Drawing Number

A001

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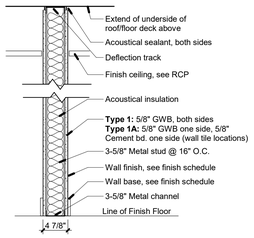
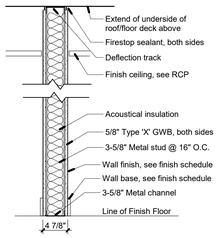
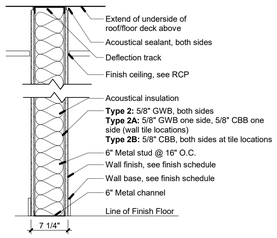


1 PARTITION TYPE
1" = 1'- 0"

1A PARTITION TYPE
1" = 1'- 0"



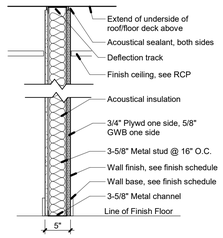
1R PARTITION TYPE
1" = 1'- 0"
1 HR. RTD. - UL U419



2 PARTITION TYPE
1" = 1'- 0"

2A PARTITION TYPE
1" = 1'- 0"

2B PARTITION TYPE
1" = 1'- 0"



3 PARTITION TYPE
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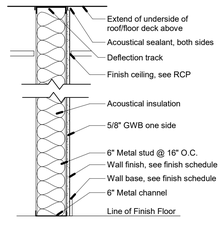
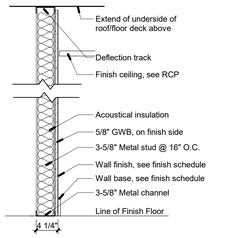
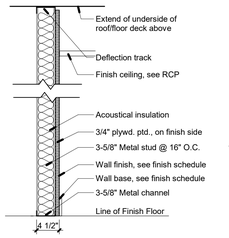


4 PARTITION TYPE
1" = 1'- 0"



5 PARTITION TYPE
1" = 1'- 0"



5a PARTITION TYPE
1" = 1'- 0"

6 PARTITION TYPE
1" = 1'- 0"

Partition Notes:

1. All partitions are type 1 unless otherwise noted.
   All walls and partitions required to be fire separation assemblies, smoke partitions, or constructed to resist the passage of smoke, shall be sealed at all voids at decks and all annular spaces shall be sealed with approved material for rated application.
2. Provide double 20 ga studs at door openings.
3. Provide diagonal bracing at 6'-0" o.c. min. at all mtl. stud partitions stopping below structure.
4. Partition types do not indicate finish, see finish schedule for finishes.
5. All gwb surfaces within 6'-0" of all lavatory, sink, water closet, shower, mop rack, whirlpool, tub, or other water source shall receive usg sheetrock mold tough ar firecode x (or approved equal). all wet locations shall be painted with epoxy paint from floor to ceiling
6. Provide control joints in the gypsum board where any of the conditions below exist:
   A. Where a partition, wall, or ceiling traverses a construction joint (expansion, seismic or building control element) in the base building structure.
   B. Where a wall or partition runs in an uninterrupted straight plane exceeding 30 linear feet.
   C. In ceilings with perimeter relief, control joints shall be installed so that linear dimensions between control joints do not exceed 50 ft and total area between control joints does not exceed 2500 sq ft.
   D. In ceilings without perimeter relief, control joints shall be installed so that linear dimensions between control joints do not exceed 30 ft and total area between control joints does not exceed 900 sq ft.
   E. Where ceiling framing members change direction.
   F. Where specified by the architect.

NOTE: Where a control joint occurs in an acoustical or fire-rated system, blocking shall be provided behind the control joint by using a backing material such as 5/8" type x gypsum board, mineral fiber, or other tested equivalent.

1 Partition Types

1" = 1'-0"

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Revisions

No.	Date	Description

04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title

Partition Types

Project Number 24.129

Date 4.30.2026

Drawing Number

A002

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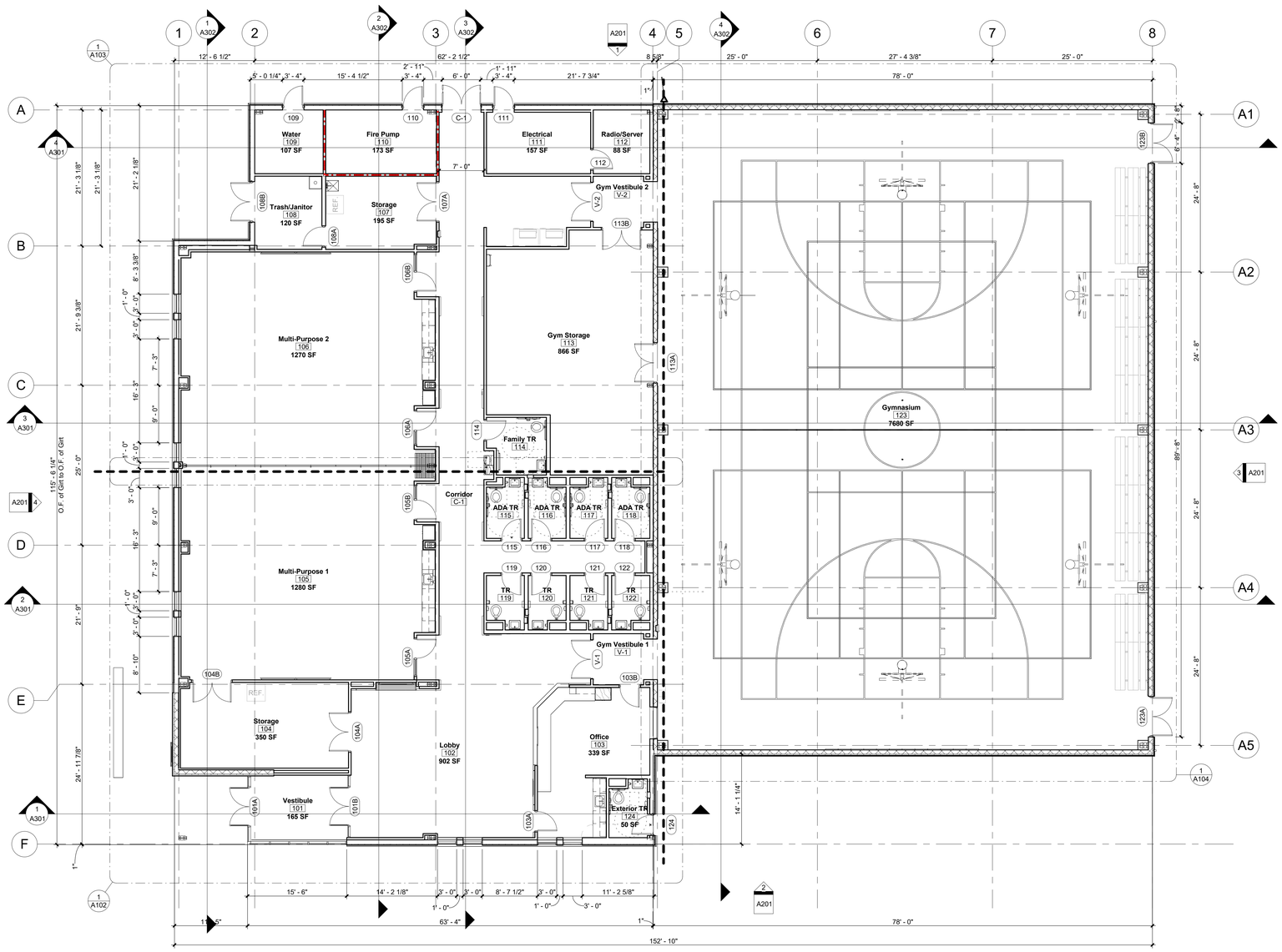

1 Overall Floor Plan

1/8" = 1'-0"

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Revisions

No.	Date	Description

04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title

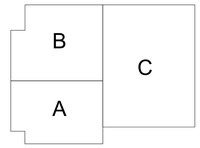
Overall Floor Plan

Project Number 24.129

Date 4.30.2026

Drawing Number

A101



Key Plan
NTS

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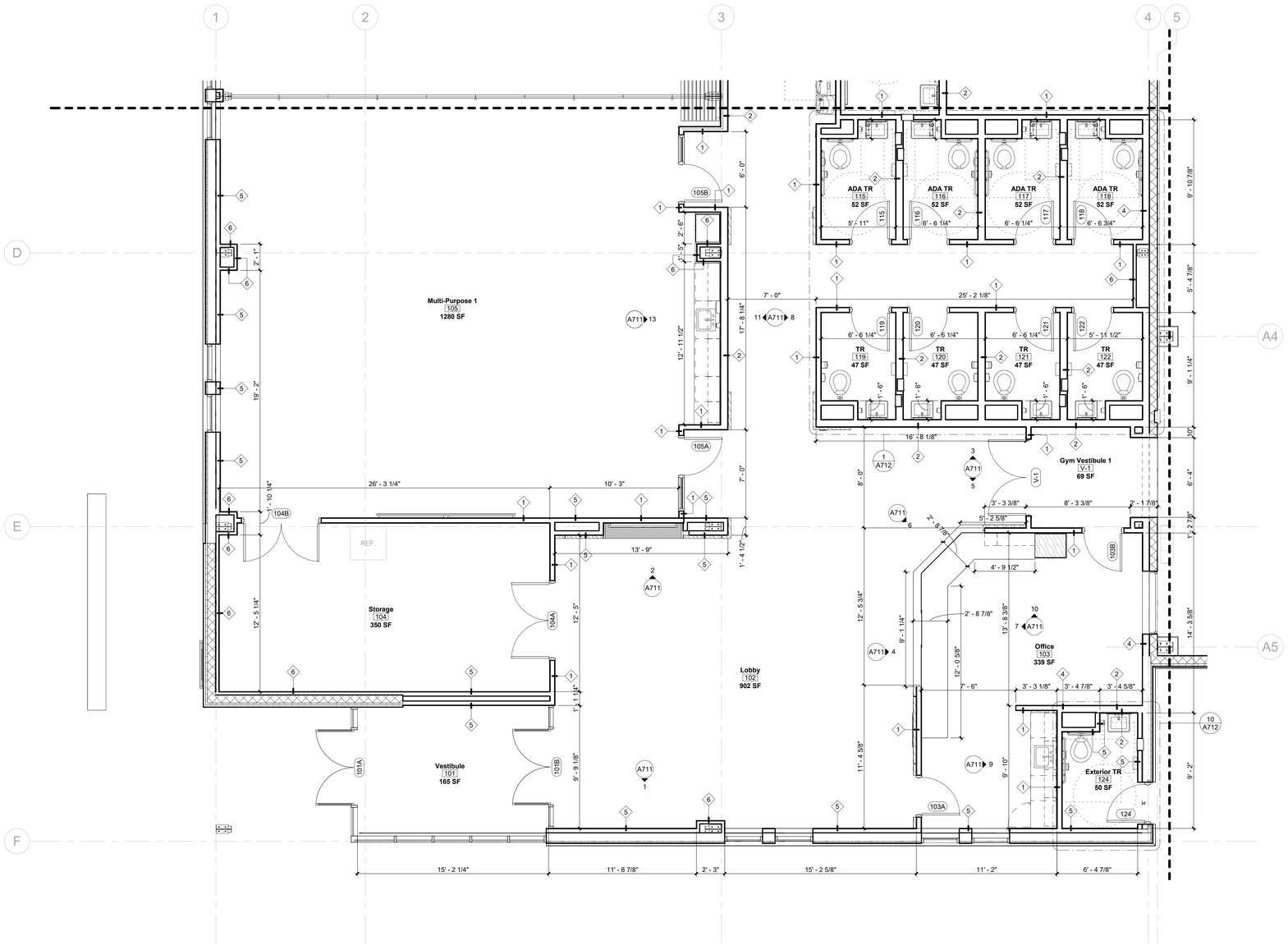

1 Floor Plan - Area 'A'

1/4" = 1'-0"

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Revisions

No.	Date	Description

04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

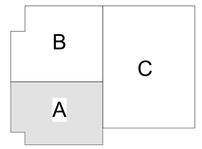
Drawing Title

Floor Plan - Area 'A'

Project Number 24.129

Date 4.30.2026

Drawing Number A102



Key Plan
NTS

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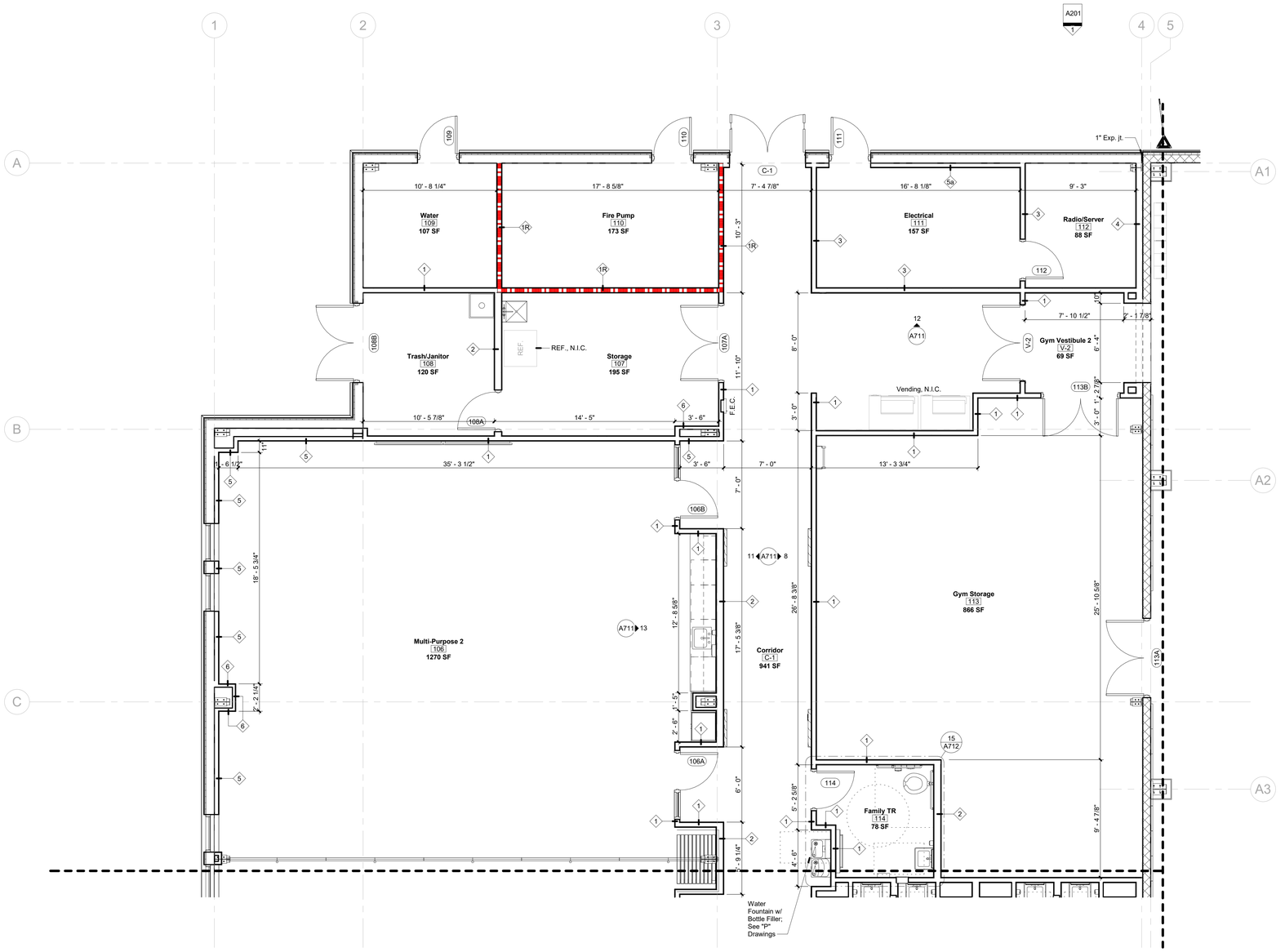
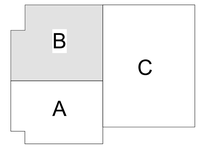


1 Floor Plan - Area 'B'

1/4" = 1'-0"



Key Plan

NTS

MKSD, LLC
1209 Hausman Road
Suite A
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610.366.2081
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Jill P. Hewes, AIA
Jessica E. Klocek, AIA

Project

Springfield Township Recreation Center

1200 East Willow Grove Avenue
Wyndmoor, PA 19083

Client

Springfield Township
8900 Hawthorne Lane
Wyndmoor, PA 19038

Project Team

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Revisions

No.	Date	Description

04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title

Floor Plan - Area 'B'

Project Number 24.129

Date 4.30.2026

Drawing Number

A103

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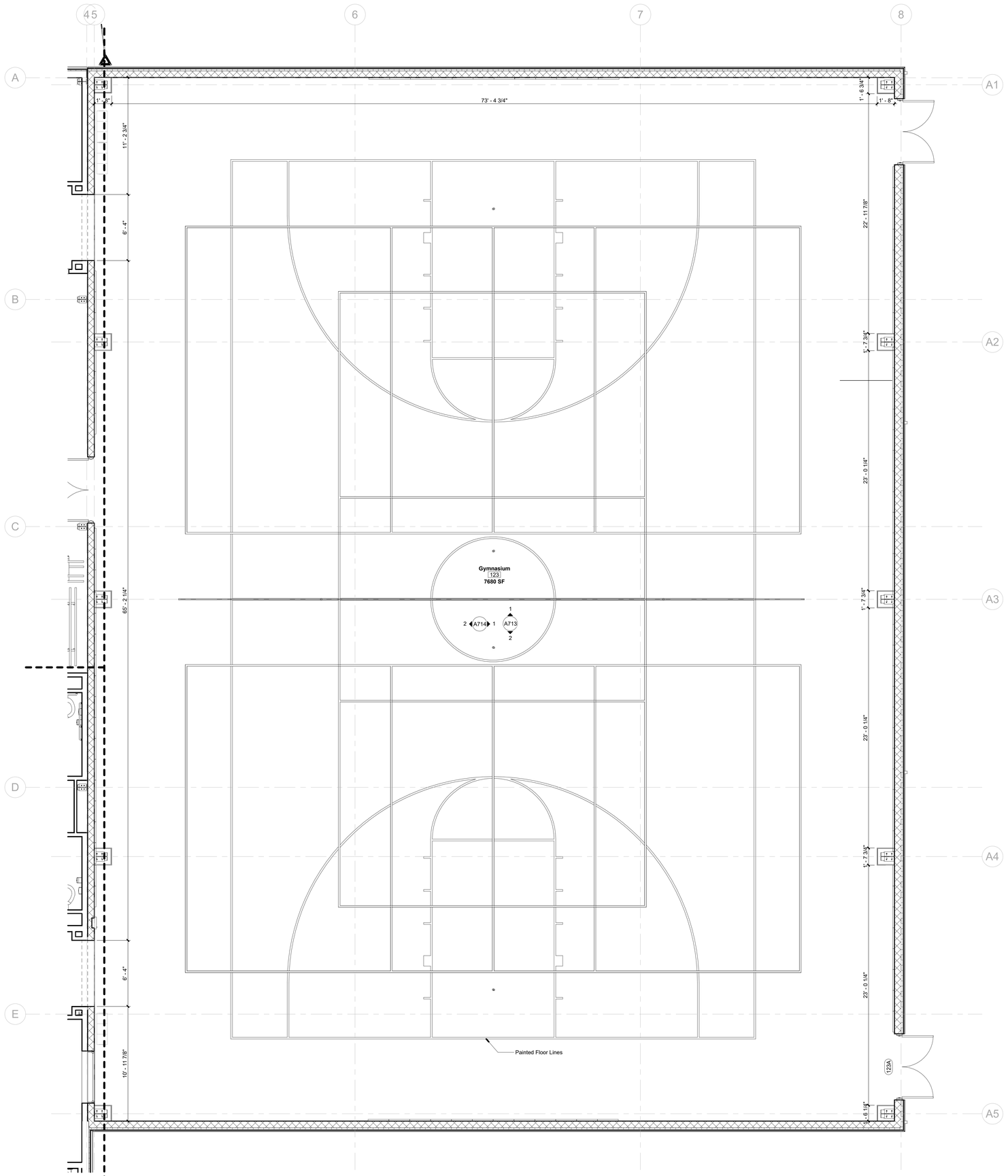

1 Floor Plan - Area 'C'

1/4" = 1'-0"

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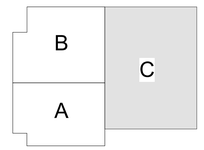
Revisions

No.	Date	Description

04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title

Floor Plan - Area 'C'



Key Plan
NTS

Project Number 24.129

Date 4.30.2026

Drawing Number

A104

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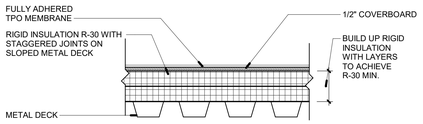
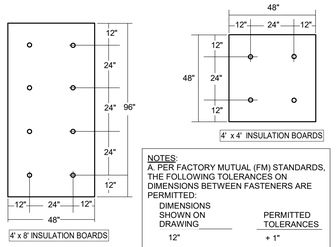


2 Typical Roof Detail

1 1/2" = 1'-0"



NOTES:
A. PER FACTORY MUTUAL (FM) STANDARDS, THE FOLLOWING TOLERANCES ON DIMENSIONS BETWEEN FASTENERS ARE PERMITTED:

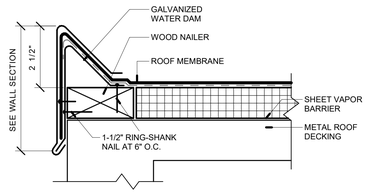
DIMENSIONS SHOWN ON DRAWING	PERMITTED TOLERANCES
12"	+ 1"
24"	+ 2"

B. PER FACTORY MUTUAL (FM) STANDARDS, ADDITIONAL INSULATION FASTENERS WILL BE REQUIRED AT THE ROOF PERIMETER AND CORNERS.

C. FOR POLYISOCYANURATE, PROVIDE 2 LAYERS OF ATTACHMENT FOR TOTAL THICKNESSES EXCEEDING 2".

3 Typical Rigid Insulation Fastening

3" = 1'-0"



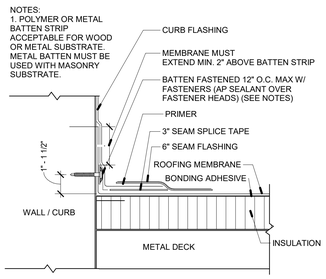
NOTES:

1. WOOD NAILER MUST EXTEND PAST TOTAL WIDTH OF GRAVEL STOP DECK FLANGE
2. APPLY EPDM PRIMER TO THE MEMBRANE SURFACE PRIOR TO INSTALLING PRESSURE-SENSITIVE ELASTOFORM FLASHING
3. APPLY EPDM PRIMER TO THE MEMBRANE SURFACE PRIOR TO INSTALLING PRESSURE-SENSITIVE ELASTOFORM FLASHING
4. 6" WIDE SECTION OF PRESSURE-SENSITIVE ELASTOFORM FLASHING MAY ALSO BE CENTERED OVER FIELD SPLICE AT ANGLE CHANGE.

4 Roof Detail - Gravel Stop (Typ)

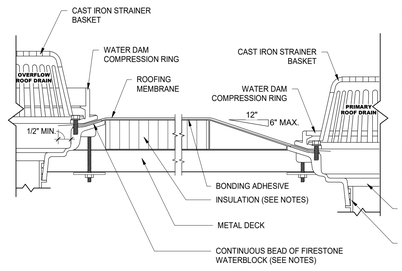
1 1/2" = 1'-0"

NOTES:
1. POLYMER OR METAL BATTEN STRIP ACCEPTABLE FOR WOOD OR METAL SUBSTRATE. METAL BATTEN MUST BE USED WITH MASONRY SUBSTRATE.



5 Typical Base Flashing Tie-In

1 1/2" = 1'-0"



NOTES:
1. HOLE IN MEMBRANE SHOULD EXTEND A MIN. OF 1/2" BEYOND CLAMPING RING & SHOULD NOT BE SMALLER THAN THE DIAMETER OF THE LEADER PIPE.
2. INSULATION ADJACENT TO DRAIN TO BE APPROPRIATE INSULATION WITH APPROPRIATE BONDING SURFACE.
3. WATERBLOCK MIN. OF 1/2 OF 10 oz TUBE PER 4" DRAIN. USE ADDITIONAL WATERBLOCK FOR LARGER DRAINS.

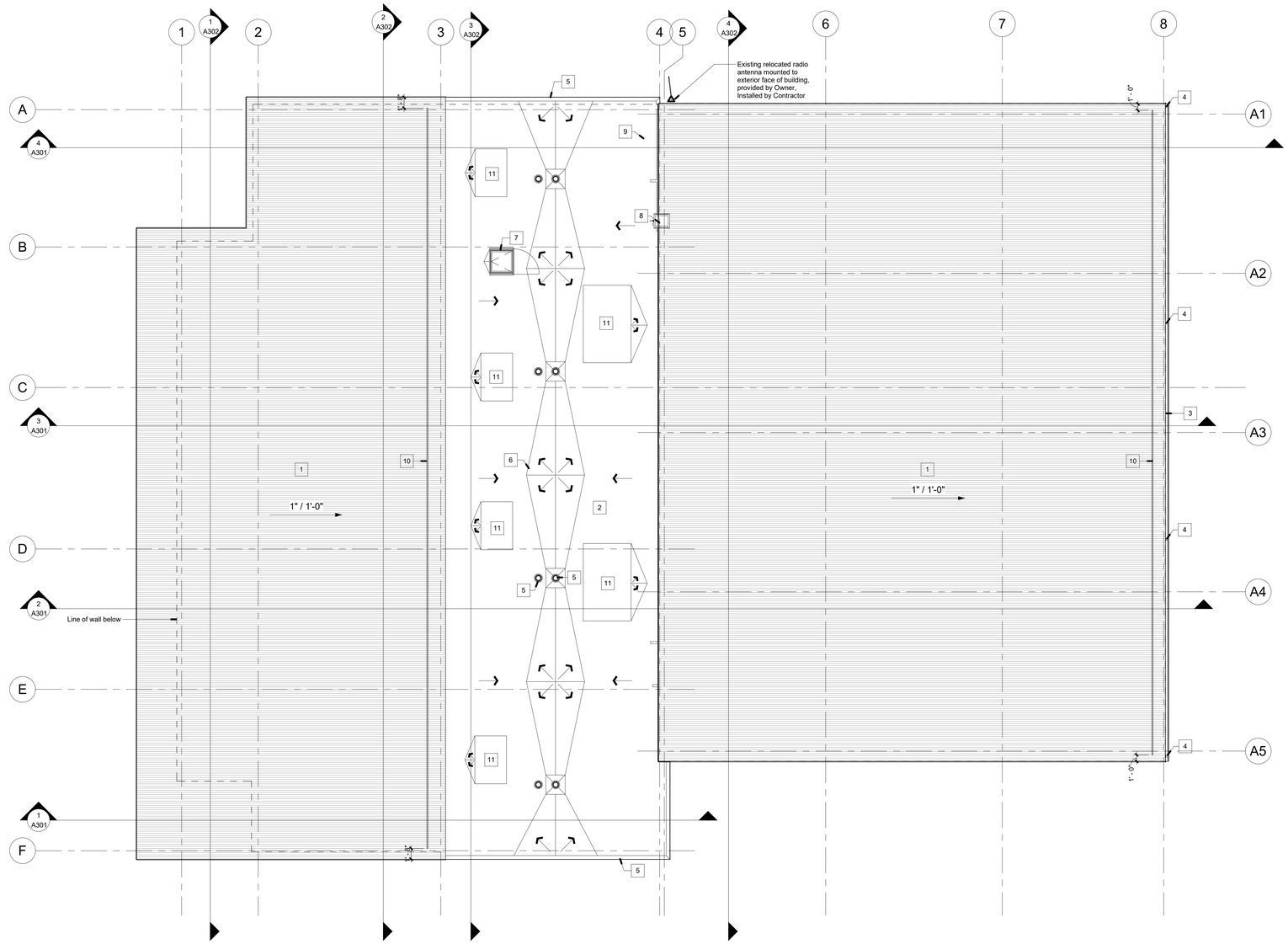
SUMP ARE FIELD SEAM REQUIREMENTS:
IF FIELD SEAM IS WITHIN 9" OF DRAIN COMPRESSION RING, TPO TARGET PATCH REQUIRED.

VERIFY SIZE OF ROOF DRAIN PIPE FOR NEW ROOF DRAIN BOWL (TYP.)

PROVIDE NEW INSULATION AT ROOF DRAIN AND PROVIDE 6" OF INSULATION ON THE NEW DRAIN LEADER

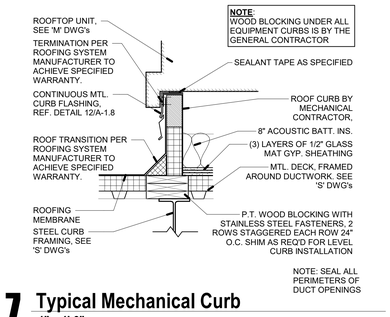
6 Typical Roof & Overflow Drain

1 1/2" = 1'-0"



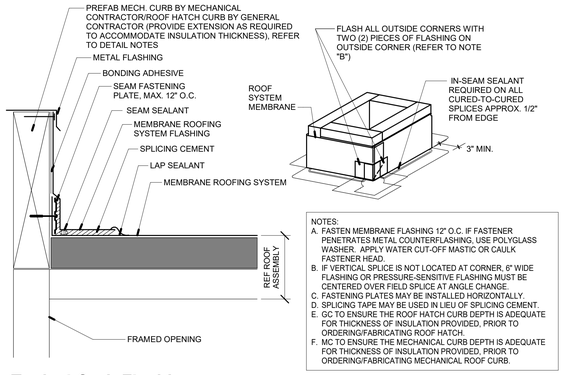
1 Roof Plan

1/8" = 1'-0"



7 Typical Mechanical Curb

1" = 1'-0"



NOTES:
A. FASTEN MEMBRANE FLASHING 12" O.C. IF FASTENER PENETRATES METAL COUNTERFLASHING; USE POLYGLASS WASHER. APPLY WATER CUT-OFF MASTIC OR CAULK FASTENER HEAD.
B. IF VERTICAL SPLICE IS NOT LOCATED AT CORNER, 6" WIDE FLASHING OR PRESSURE-SENSITIVE FLASHING MUST BE CENTERED OVER FIELD SPLICE AT ANGLE CHANGE.
C. FASTENING PLATES MAY BE INSTALLED HORIZONTALLY.
D. SPLICING TAPE MAY BE USED IN LIEU OF SPLICING CEMENT.
E. GC TO ENSURE THE ROOF HATCH CURB DEPTH IS ADEQUATE FOR THICKNESS OF INSULATION PROVIDED, PRIOR TO ORDERING/FABRICATING ROOF HATCH.
F. MC TO ENSURE THE MECHANICAL CURB DEPTH IS ADEQUATE FOR THICKNESS OF INSULATION PROVIDED, PRIOR TO ORDERING/FABRICATING MECHANICAL ROOF CURB.

8 Typical Curb Flashing

3" = 1'-0"

Roof Plan Key Notes	
Number	Note
1	Standing seam metal panel roof
2	Single-ply full adhered EPDM membrane over (2) layers of tapered polyiso insulation @ 1/4" per 1'-0" w/ staggered joints
3	6" x 6" prefinished alum. box gutter
4	5" x 5" prefinished alum. rectangular downspout
5	Roof draing w/ overflow drain, ref. 'P' dwgs
6	Tapered insulation cricket @ 1/2" per 1'-0"
7	36" x 36" roof access hatch, with guard rails
8	Exterior mounted alum. roof access ladder
9	Radio antenna provided by Owner, installed by Contractor
10	Snow guards, mount to standing seam roof, color shall match roof finish, typ.
11	Rooftop mech. unit, ref. 'M' dwgs

X - Roof plan tag designation

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Revisions

No.	Date	Description

04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title

Roof Plan

Project Number 24.129

Date 4.30.2026

Drawing Number

A105

4/30/2026 3:28:11 PM C:\Users\jhf\Documents\24.129_Springfield Township Rec Center_R26_jhf@MKSD_A_rgarvin.rvt
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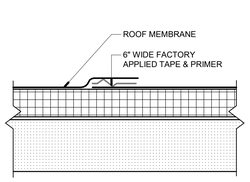
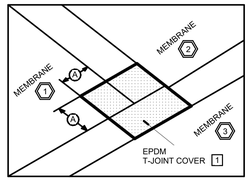
Detail Legend

- EPDM REINFORCED MEMBRANE
- APPROVED INSULATION
- [0] SEE NOTE(S)
- APPLICABLE BONDING ADHESIVE OR BONDING TAPE
- WATER CUT-OFF MASTIC- MUST BE HELD UNDER CONSTANT COMPRESSION





NOTES:

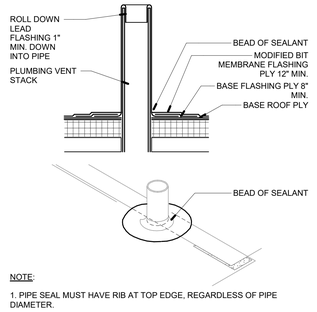
1. WHEN USING 60 MEMBRANE, APPLY A 6" x 6" "T-JOINT" COVER AT ALL FIELD SPLICE INTERSECTIONS.
2. APPROXIMATELY 1/8" DIAMETER BEAD OF CUT-EDGE SEALANT IS REQUIRED ON CUT EDGES OF REINFORCED TPO MEMBRANE AND RECOMMENDED ON CUT EDGES OF SURE-FLEX PVC MEMBRANE.

DIMENSIONS		
A	2-1/4"	MIN.

MEMBRANE SPLICE (A-2)

1 Roof Detail - Membrane Splice (Typ)

1 1/2" = 1'-0"

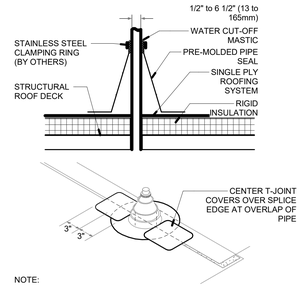


NOTE:

1. PIPE SEAL MUST HAVE RIB AT TOP EDGE, REGARDLESS OF PIPE DIAMETER.
2. DECK FLANGES OF THE PRE-MOLDED PIPE SEAL SHALL NOT BE OVERLAPPED, CUT OR APPLIED OVER ANY ANGLE CHANGE.
3. ON MECHANICALLY-FASTENED ROOFING SYSTEM, ADDITIONAL MEMBRANE SECUREMENT IN REQUIRED.

2 Typical Pipe Seal

1 1/2" = 1'-0"

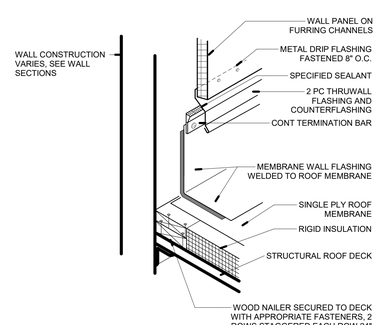


NOTE:

1. PIPE SEAL MUST HAVE INTACT RIB AT TOP EDGE, REGARDLESS OF PIPE DIAMETER.
2. DECK FLANGES OF THE PRE-MOLDED PIPE SEAL SHALL NOT BE OVERLAPPED, CUT OR APPLIED OVER ANY ANGLE CHANGE.

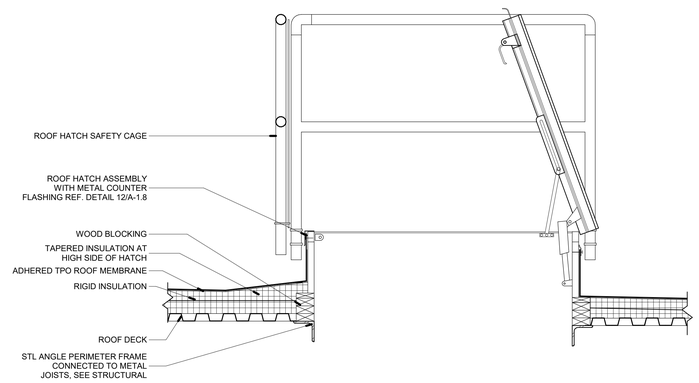
3 Typical Pipe VTR

1 1/2" = 1'-0"



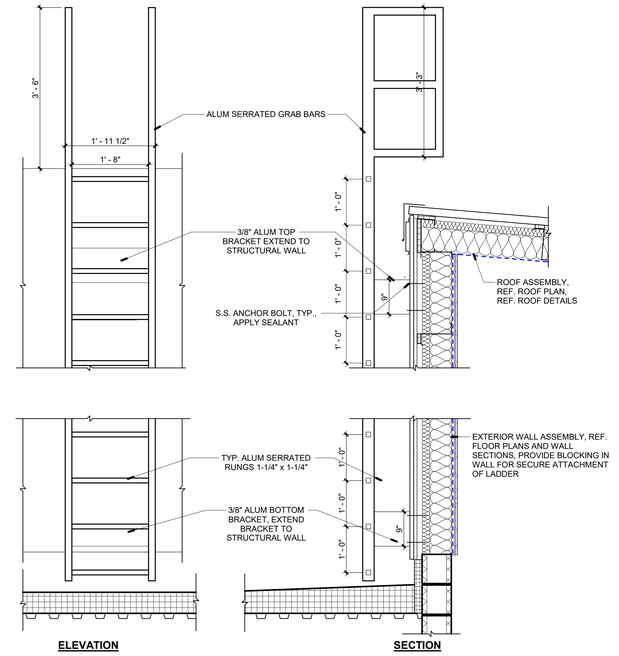
4 Typical Wall Flashing

1 1/2" = 1'-0"



5 Roof Hatch Curb Detail

1" = 1'-0"



6 Typical Roof Ladder Detail - Exterior

3/4" = 1'-0"

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Revisions

No.	Date	Description

04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title

Roof Details

Project Number 24.129

Date 4.30.2026

Drawing Number

A106

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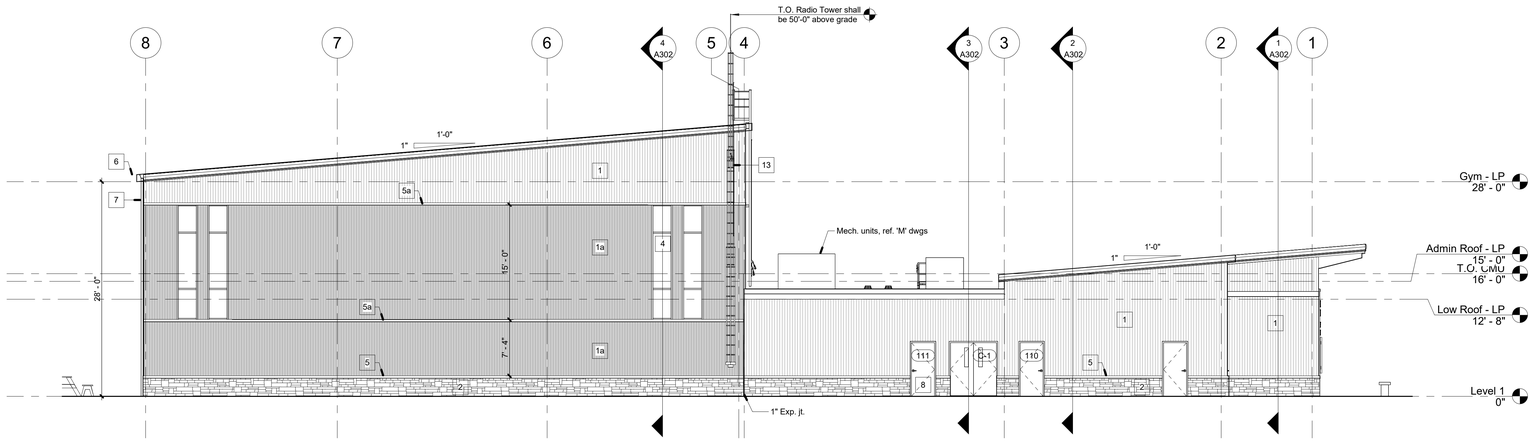
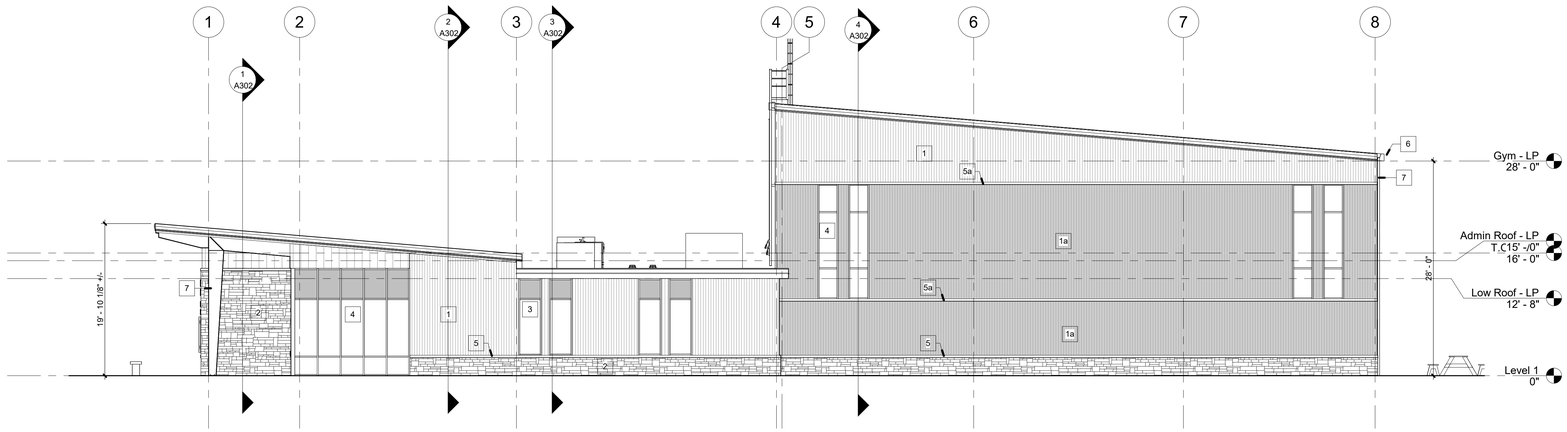
Elevation Key Notes	
Number	Note
1	Metal Wall Panel - Color 'A'
1a	Metal Wall Panel - Color 'B'
2	Adhered stone veneer
3	Alum. storefront framing system, ref. glazing schedule and details
4	Alum. curtainwall framing syste, ref. glazing schedule and details
5	Metal flashing - Color 'A'
5a	Metal flashing - Color 'B'
6	Alum. gutter, refer to Roof Plan
7	Alum. downspout, refer to Roof Plan
8	Hollow metal door and frame, ref. Door Schedule
9	Standing seam metal roof
10	10" Alum. building mounted signage
10a	8" Alum. building mounted signage
11	Cast alum. building mounted sign with Township Seal
12	Exterior mounted access ladder
13	Radio tower, mounted to face of building, provided by Owner, Installed by contractor, provide framing in wall for mounting, coordinate mounting points with existing radio tower

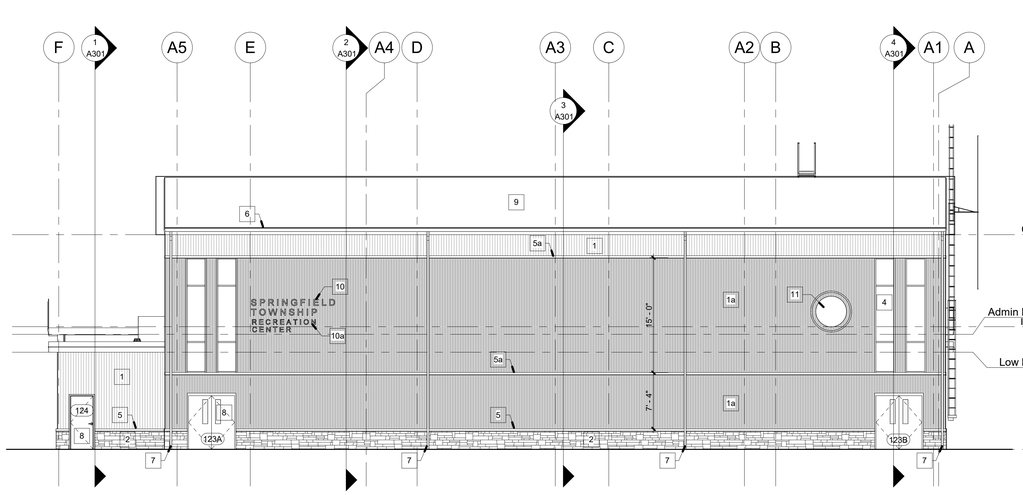
X - Elevation key note designation



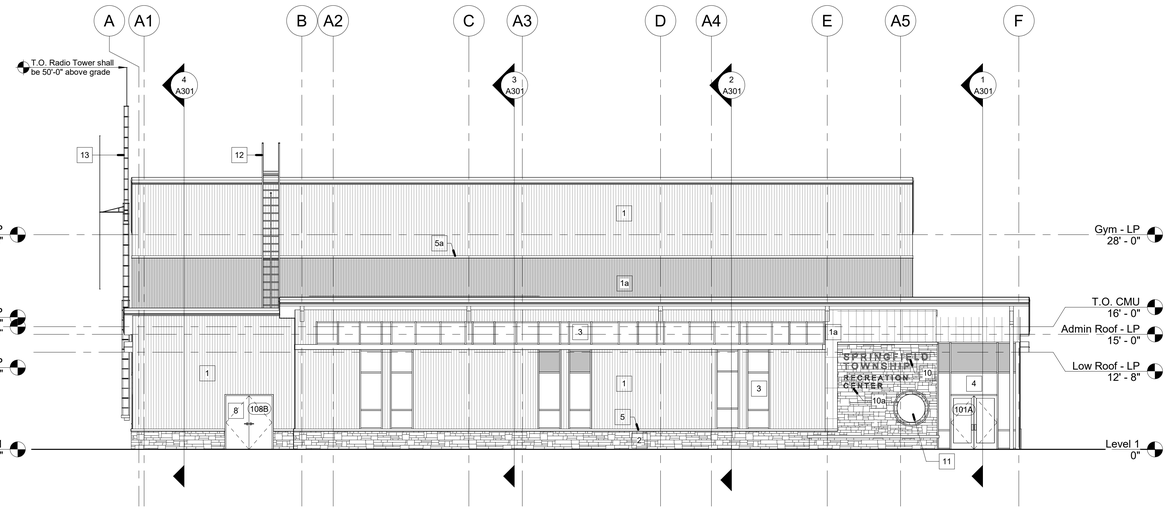
1 Building Elevation - North
1/8" = 1'-0"



2 Building Elevation - South
1/8" = 1'-0"



3 Building Elevation - East
1/8" = 1'-0"



4 Building Elevation - West
1/8" = 1'-0"

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Revisions

No.	Date	Description

04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title

Building Elevations

Project Number 24.129

Date 4.30.2026

Drawing Number

A201

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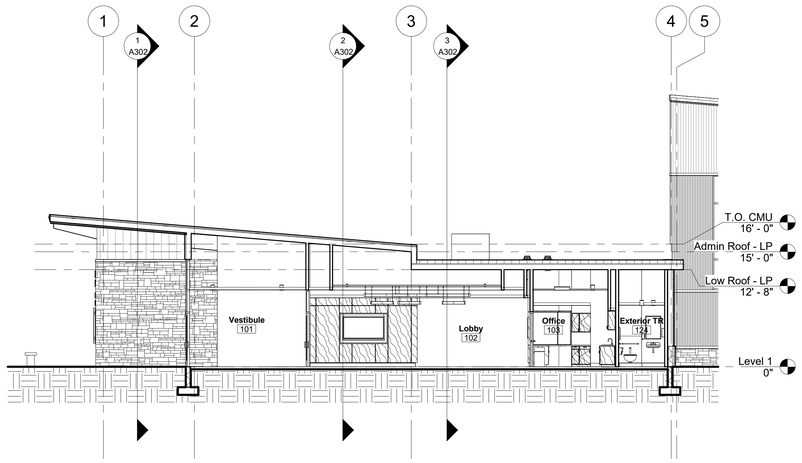
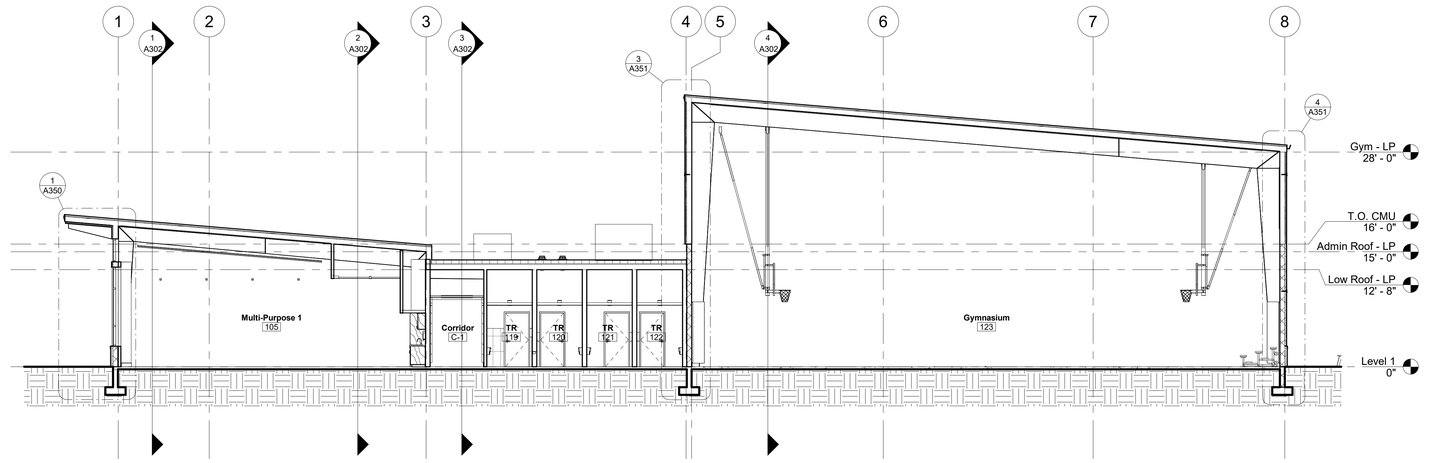


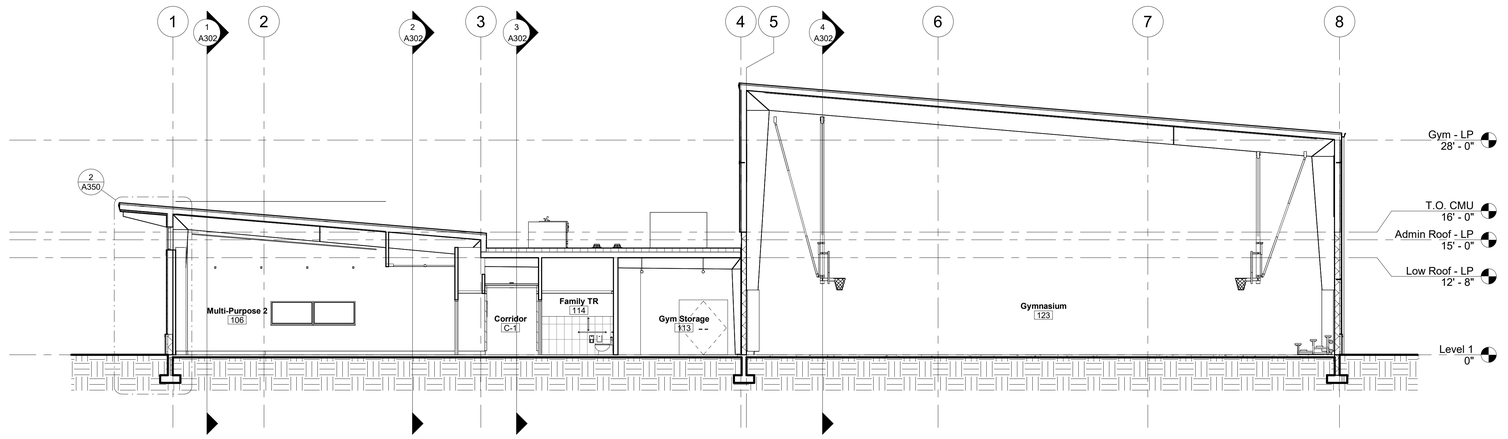
1 Building Section - 1

1/8" = 1'-0"



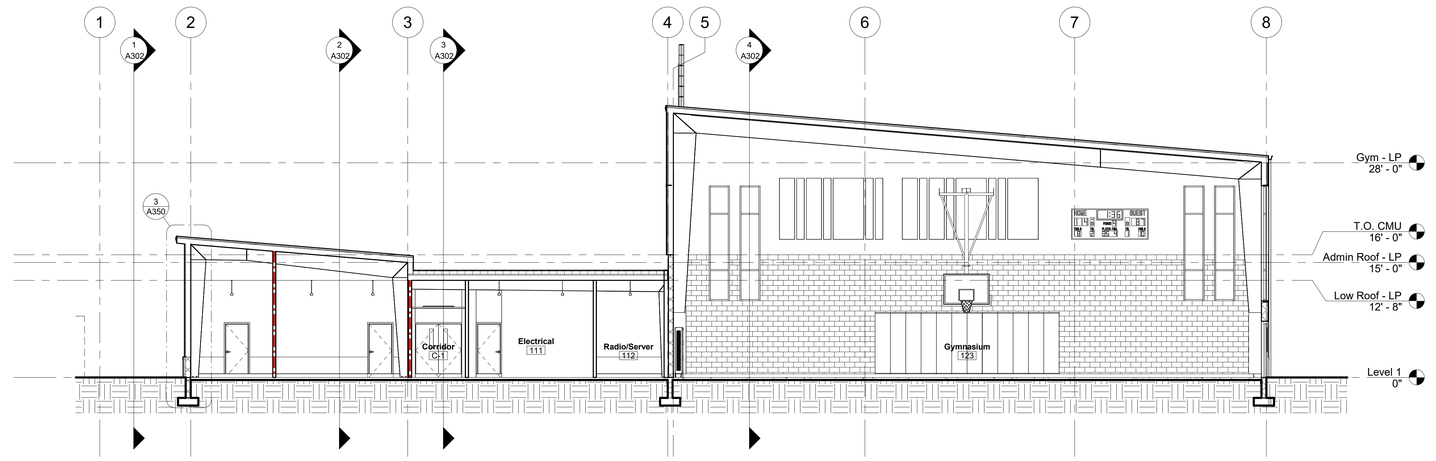
2 Building Section - 2

1/8" = 1'-0"



3 Building Section - 3

1/8" = 1'-0"



4 Building Section - 4

1/8" = 1'-0"

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Project

Springfield Township Recreation Center

1200 East Willow Grove Avenue
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Client

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8900 Hawthorne Lane
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Revisions

No.	Date	Description

04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title

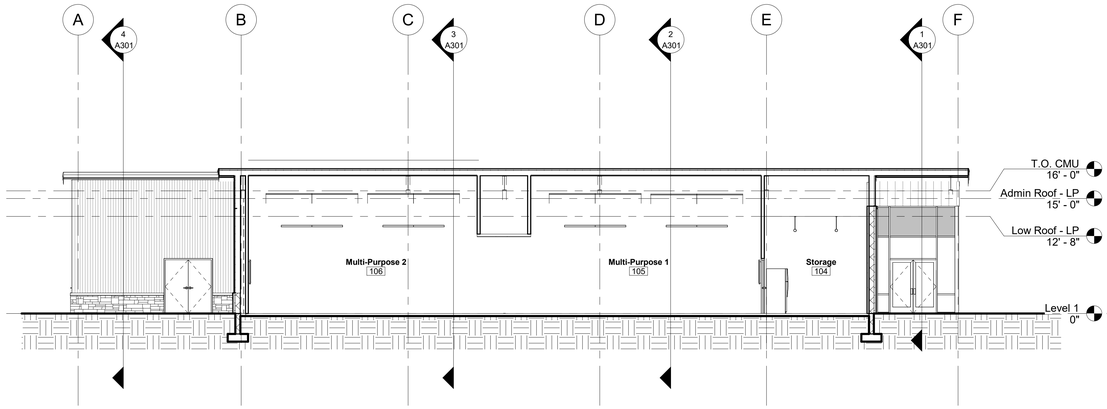
Building Sections

Project Number 24.129

Date 4.30.2026

Drawing Number

A301



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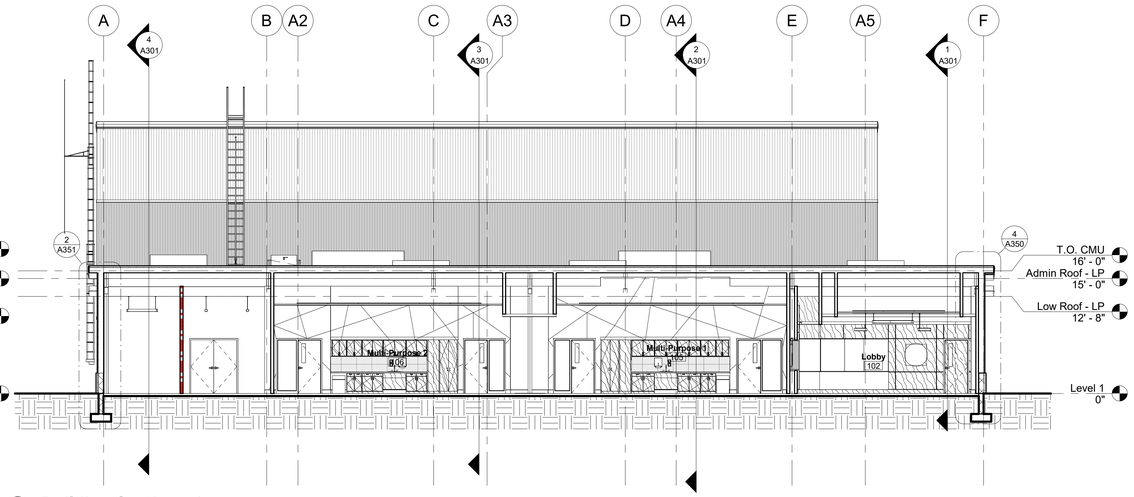
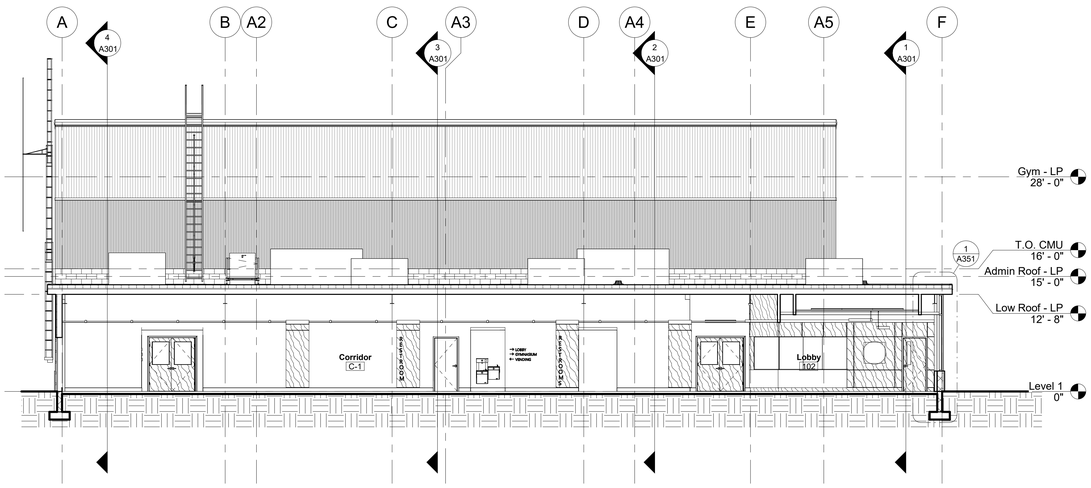


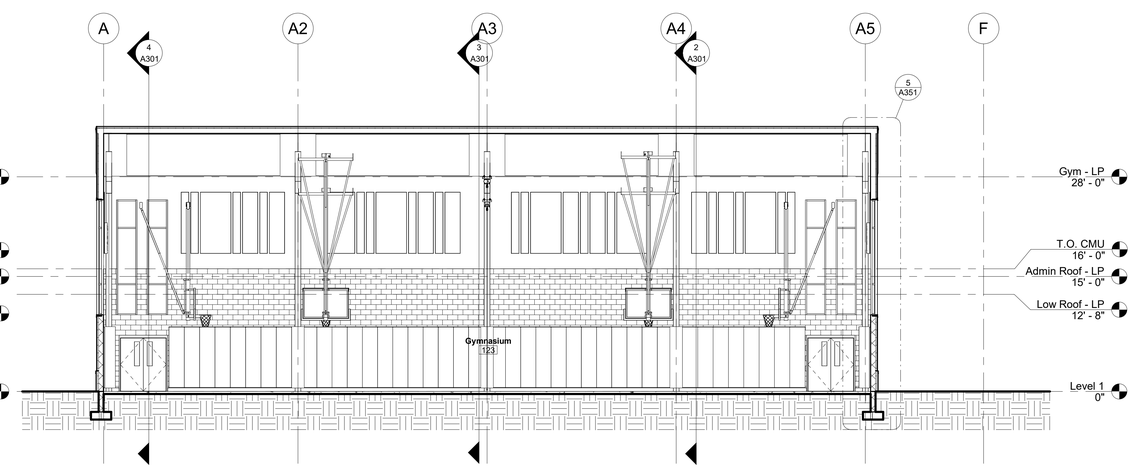
2 Building Section - 6

1/8" = 1'-0"



3 Building Section - 7

1/8" = 1'-0"



4 Building Section - 8

1/8" = 1'-0"

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Revisions

No.	Date	Description

04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title

Building Sections

Project Number 24.129

Date 4.30.2026

Drawing Number

A302

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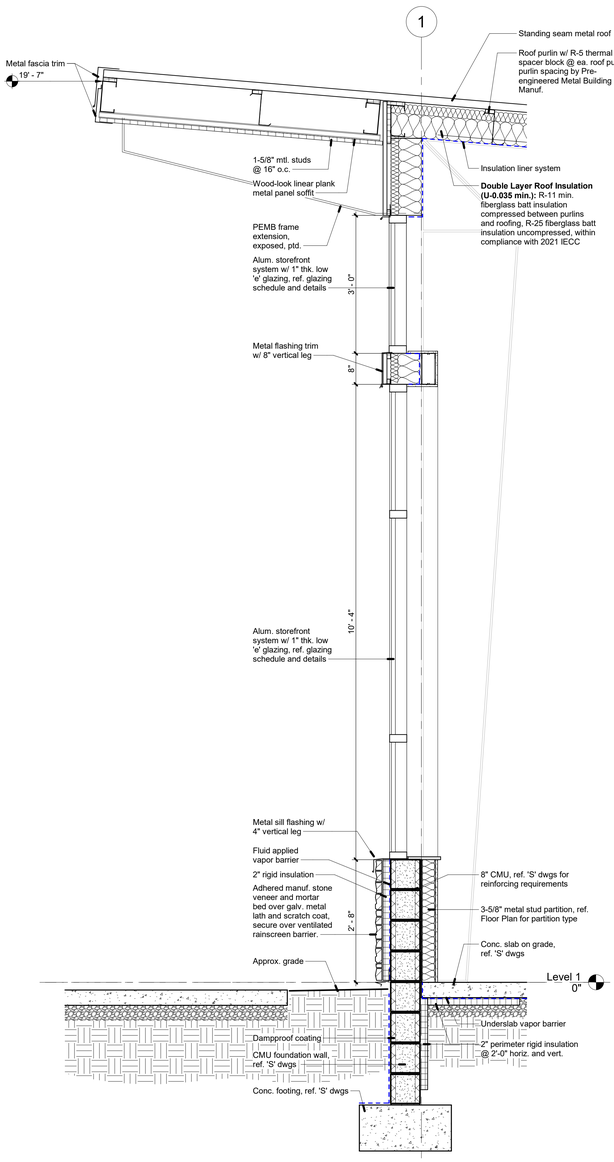
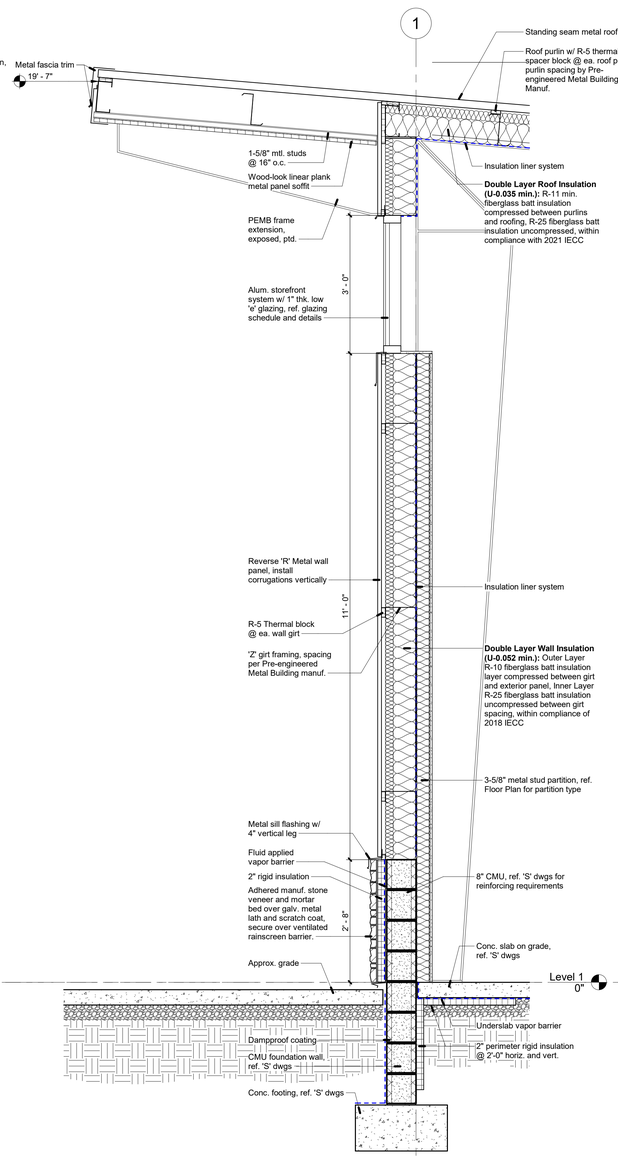
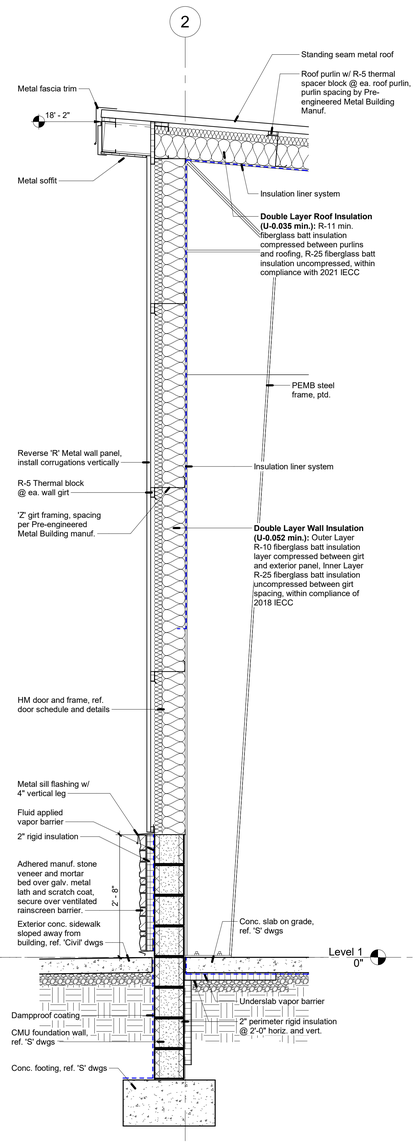


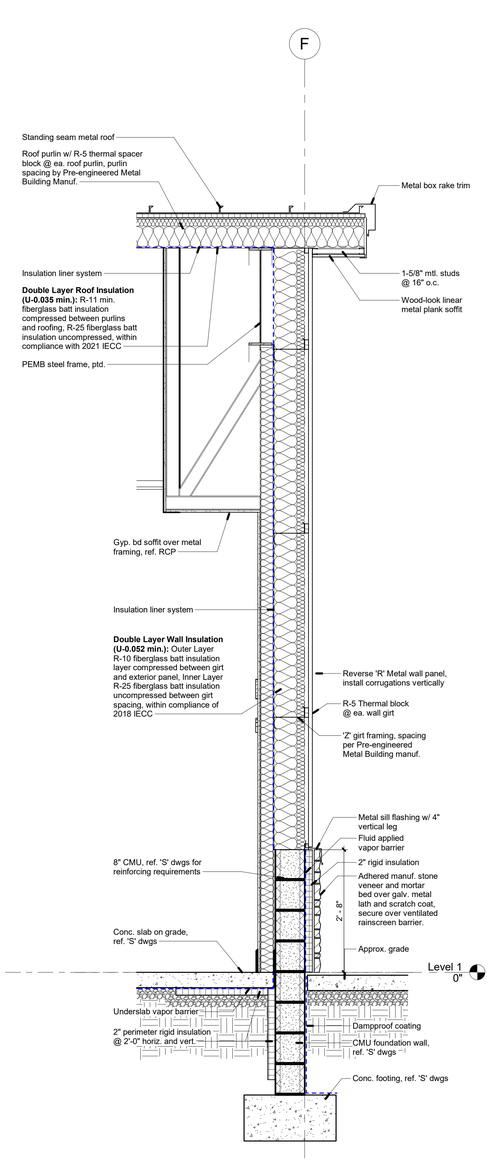
1 Wall Section
3/4" = 1'-0"



2 Wall Section
3/4" = 1'-0"



3 Wall Section
3/4" = 1'-0"



4 Wall Section
3/4" = 1'-0"

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Revisions

No.	Date	Description

04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title

Wall Sections

Project Number 24.129

Date 4.30.2026

Drawing Number

A350

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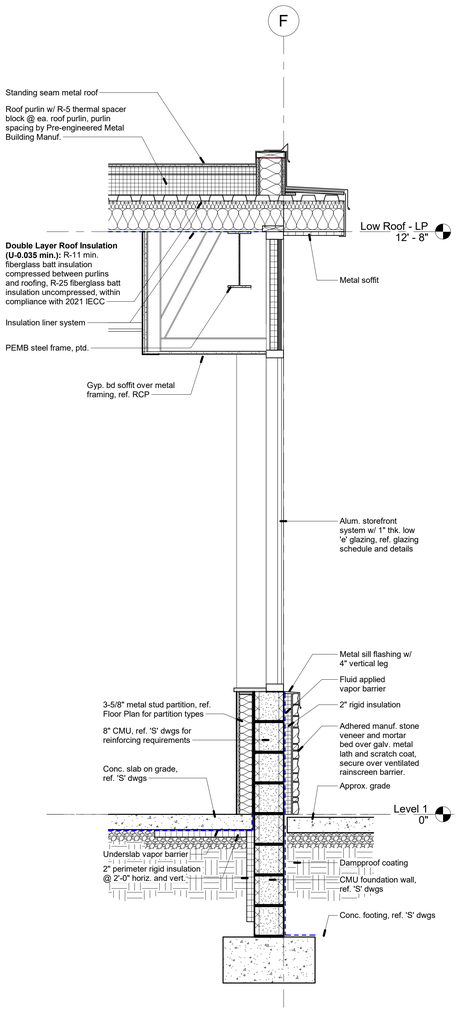
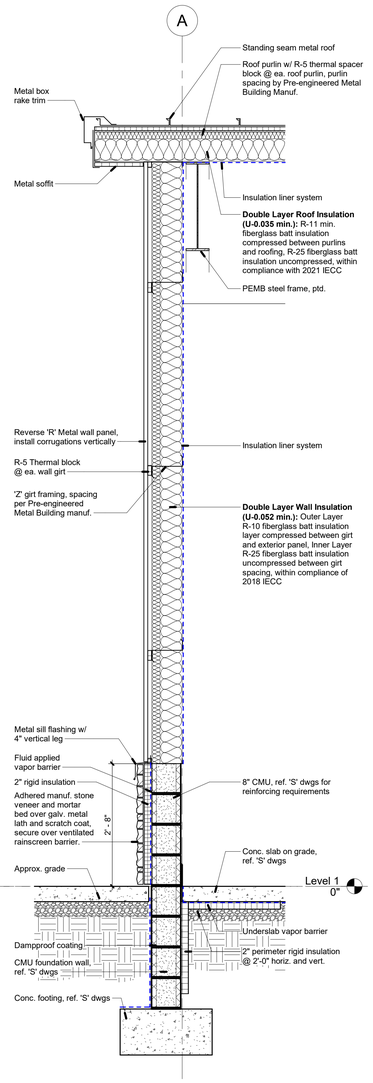
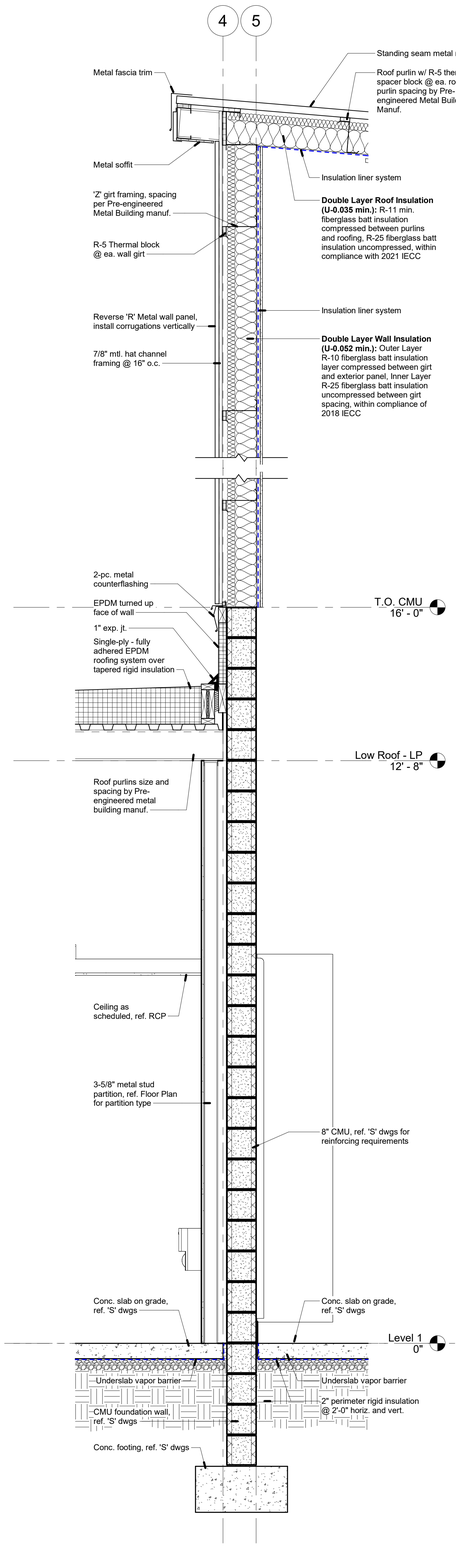


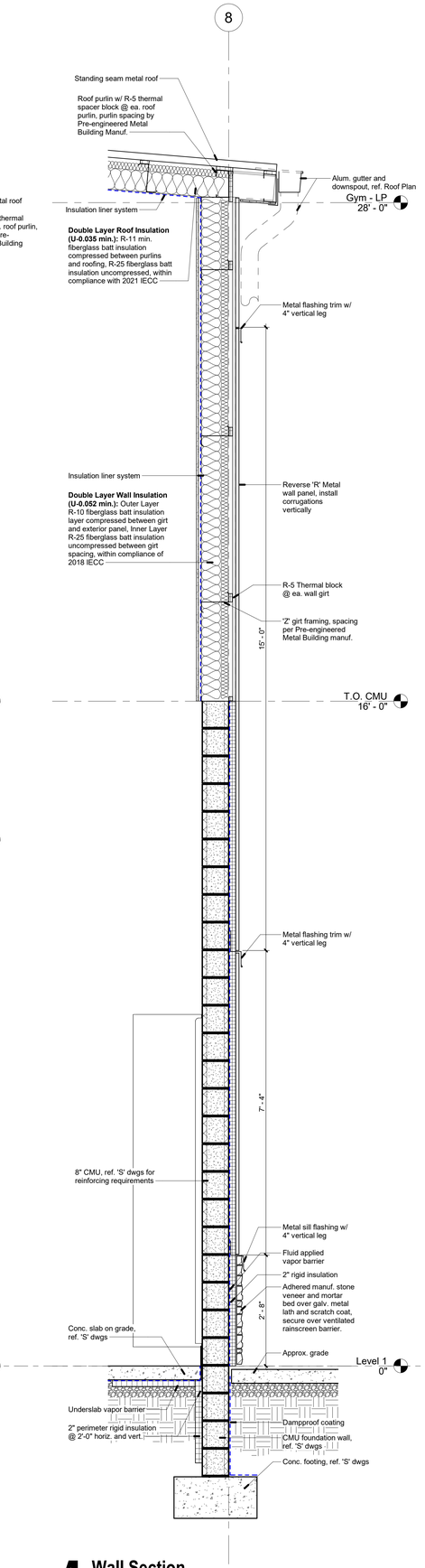
1 Wall Section
3/4" = 1'-0"



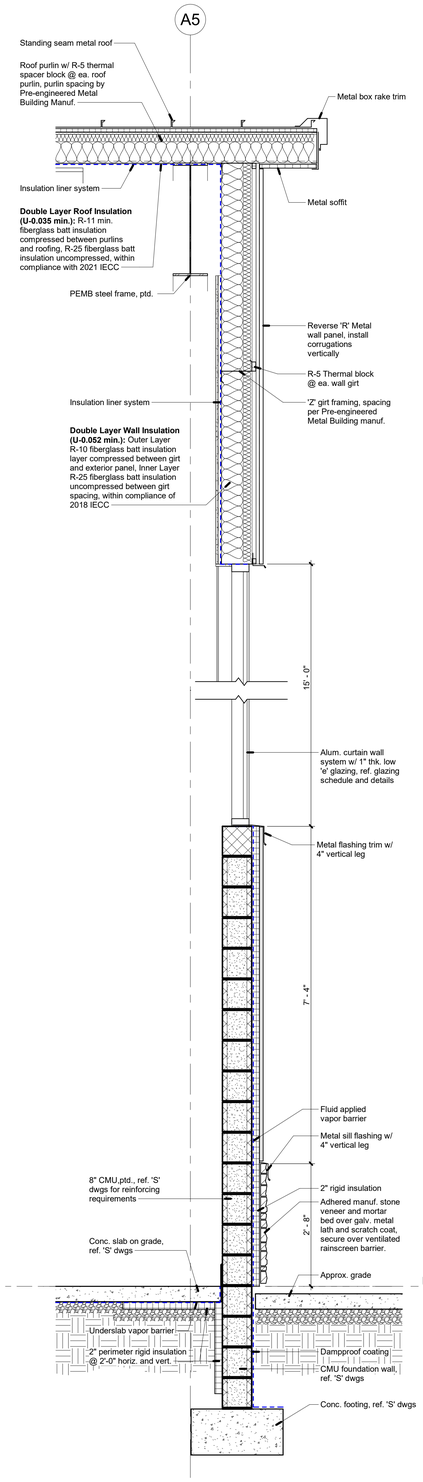
2 Wall Section
3/4" = 1'-0"



3 Wall Section
3/4" = 1'-0"



4 Wall Section
3/4" = 1'-0"



5 Wall Section
3/4" = 1'-0"

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Revisions

No.	Date	Description

04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title

Wall Sections

Project Number 24.129

Date 4.30.2026

Drawing Number

A351

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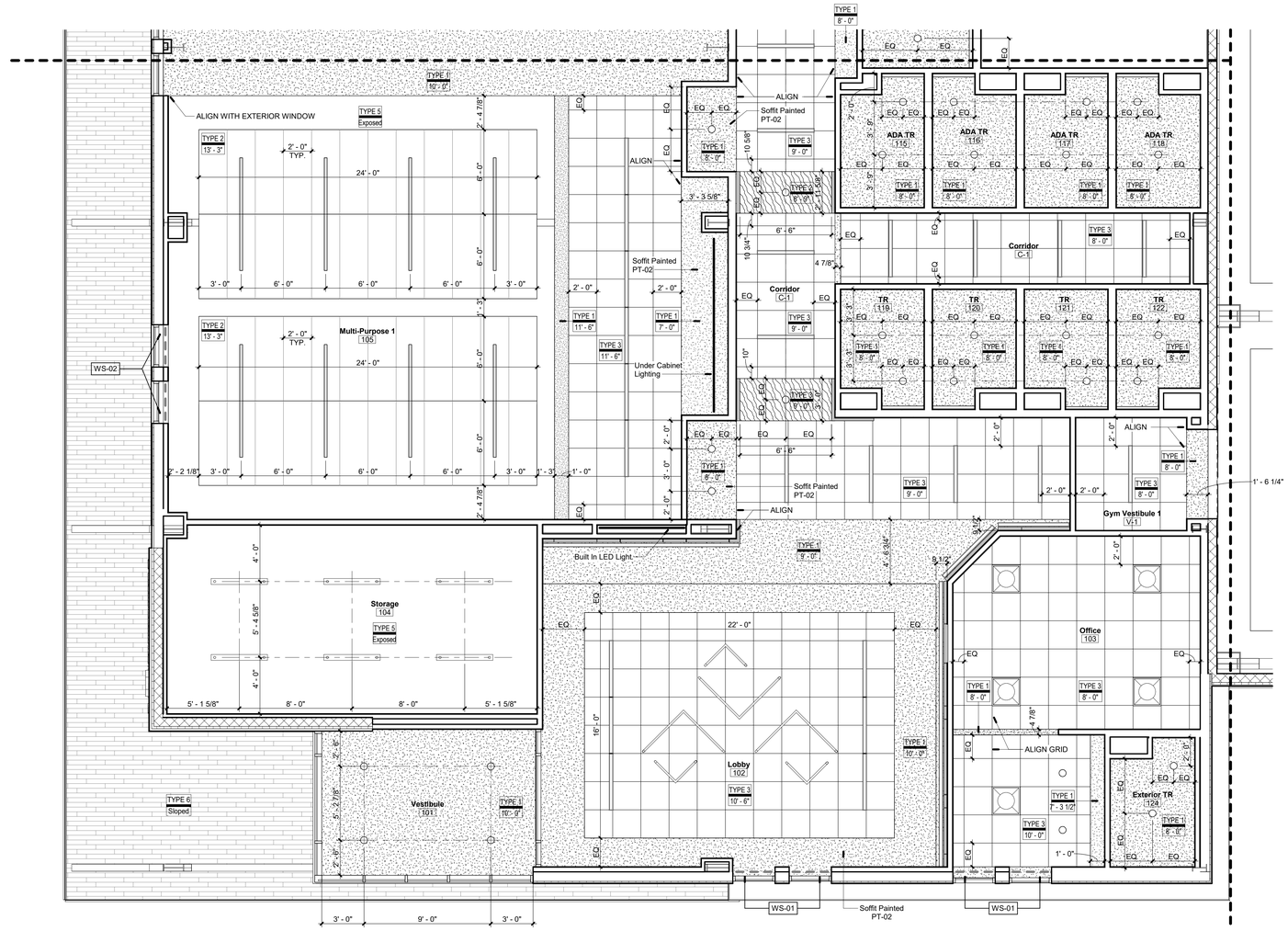
CEILING NOTES

TYPE 1	Gypsum Wall Board, Painted, Sherwin Williams, Snowbound 7004
TYPE 2	Woodworks Concealed Suspension, W2 Perforation, Custom To Match PLAM-1, Custom Size
TYPE 3	24" x 24" Armstrong, Beveled Tegular, #1911 Ceiling Tile With 15/16" Grid
TYPE 4	47-3/4" x 96" Armstrong, TECTUM Direct-Attach Ceilings #8173T10 With Beveled (long side) / Beveled (short side)
TYPE 5	Exposed roof structure and mechanical units, Cleaned And Painted, Sherwin Williams, Snowbound 7004 By Contractor
TYPE 6	Armstrong Metalworks Linear - Synchro, Exterior

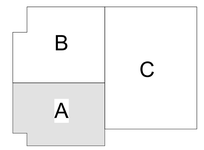
CEILING LEGEND

- GYPSUM WALL BOARD, PAINTED, SEE FINISH SCHEDULE
- SUSPENDED ACOUSTICAL CEILING TILE (ACT)
- 24"x24" LIGHT FIXTURE, SEE 'E' DRAWINGS
- RECESSED LIGHT FIXTURE, SEE 'E' DRAWINGS
- PENDANT LIGHT FIXTURE, SEE 'E' DRAWINGS
- LED HIGH BAY PENDANT LIGHT FIXTURE, SEE 'E' DRAWINGS
- RECESSED LINEAR LIGHT FIXTURE, SEE 'E' DRAWINGS
- PENDANT LINEAR LIGHT FIXTURE, SEE 'E' DRAWINGS
- LED LINEAR STRIP LIGHT FIXTURE
- WINDOW SHADES



1 Reflected Ceiling Plan - Area 'A'

1/4" = 1'-0"



Key Plan

NTS

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Revisions

No.	Date	Description

04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title

Reflected Ceiling Plan - Area 'A'

Project Number	24.129
Date	4.30.2026
Drawing Number	A402

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CEILING NOTES

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TYPE 2	Woodworks Concealed Suspension, W2 Perforation, Custom To Match PLAM-1, Custom Size
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- PENDANT LIGHT FIXTURE, SEE 'E' DRAWINGS
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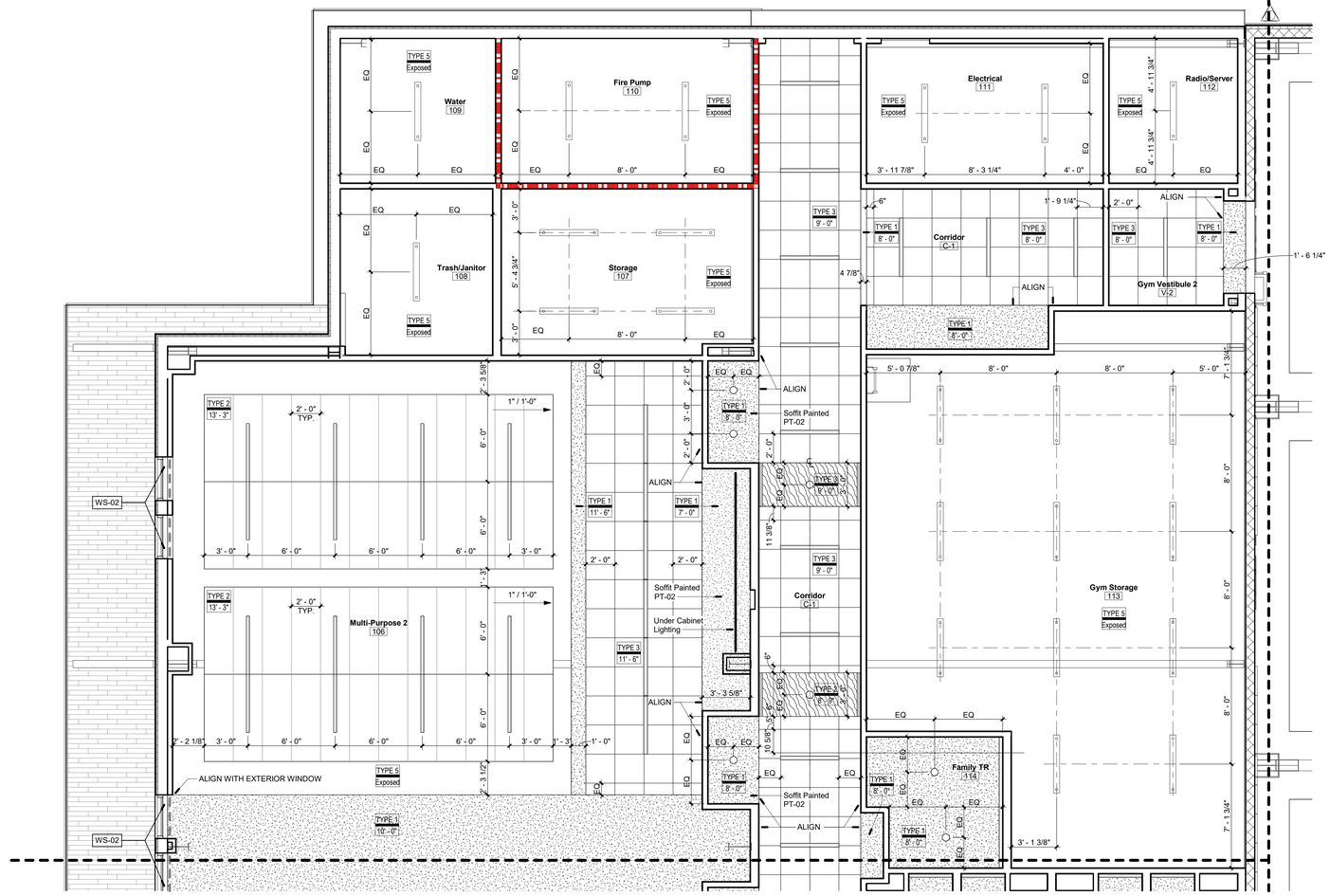
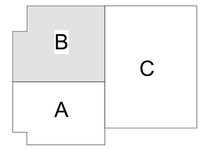
- RECESSED LINEAR LIGHT FIXTURE, SEE 'E' DRAWINGS
- PENDANT LINEAR LIGHT FIXTURE, SEE 'E' DRAWINGS
- LED LINEAR STRIP LIGHT FIXTURE
- WINDOW SHADES



1 Reflected Ceiling Plan - Area 'B"

1/4" = 1'-0"



Key Plan

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Revisions

No.	Date	Description

04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title

Reflected Ceiling Plan - Area 'B'

Project Number 24.129

Date 4.30.2026

Drawing Number

A403

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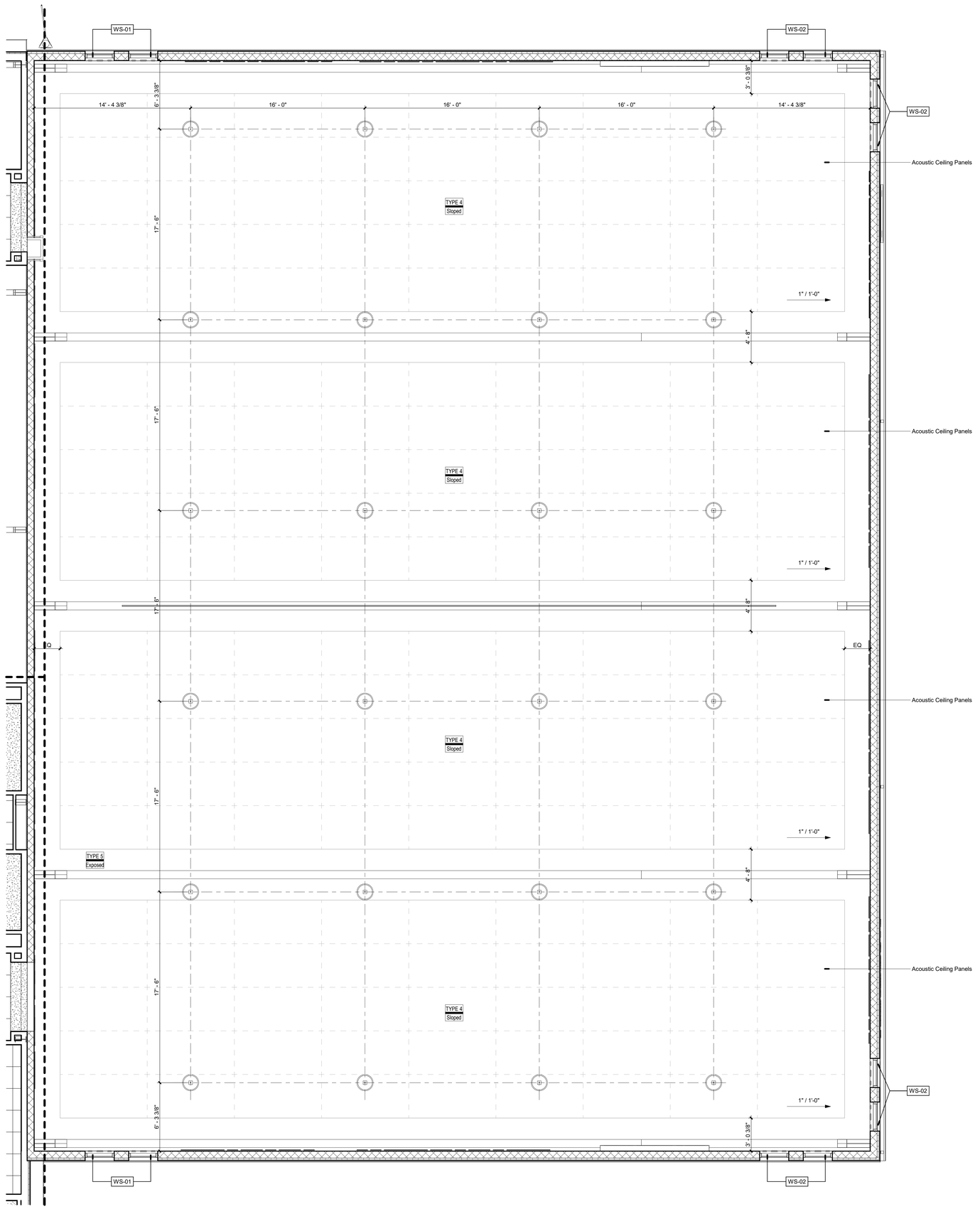
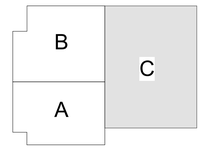
- PENDANT LINEAR LIGHT FIXTURE, SEE 'E' DRAWINGS
- LED LINEAR STRIP LIGHT FIXTURE
- WINDOW SHADES



1 Reflected Ceiling Plan - Area 'C'
1/4" = 1'-0"



Key Plan
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Revisions

No.	Date	Description

04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title

Reflected Ceiling Plan - Area 'C'

Project Number	24.129
Date	4.30.2026
Drawing Number	A404

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ROOM FINISH SCHEDULE LEGEND

FLOORING

LUXURY VINYL TILE (LVT)
LVT-01 Armstrong Flooring
Product: Motera
Size: 18" x 36"
Color: Sunlit Aura
(Lobby, Corridor)

LVT-02 Armstrong Flooring
Product: Duo
Size: 6" x 36"
Color: Green Grass
(Lobby, Corridor, Gym Vestibules)

LVT-03 Patcraft
Product: Mix + Mason
Size: 15.67" x 30.71"
Color: Malachite
(Office Kitchenette, Multi-Purpose)

CARPET (CPT)
CPT-01 Patcraft
Product: Color Current
Size: 24" x 24"
Color: Keen Green
Installation: Ashlar
(Office)

PORCELAIN FLOOR TILE (PFT)
PFT-01 Daltile
Product: Modernist
Size: 12" x 12"
Color: Bertoia White (Matte)
(TR, ADA TR, Family TR)

SYNTHETIC SPORTS FLOOR (SF)
SF-01 Tarkett Sports
Product: Omnisports Multi-Use
Color: Concrete Cool Grey
(Multi-Purpose)

SF-02 Tarkett Sports
Product: Active+
Color: Golden Maple
(Gymnasium)

EPOXY (EPX)
EPX-01 Stonhard
Product: Stonshield URT
Color: Flagstone
(Exterior TR)

WALL BASE (WB)
WB-01 Roppe
Product: Pinnacle Rubber Base
Size: 6"
Color: Parsley

WB-02 Roppe
Product: Pinnacle Rubber Base
Size: 6"
Color: Charcoal

WOOD WALL BASE (WWB)
WWB-01
Size: 6"
Color: Stained To Match Doors

EPOXY WALL BASE (EWB)
EWB-01 Stonhard
Product: Stonshield URT
Size: 6"
Color: Flagstone

SEALED CONCRETE (SC)

WALLS

PAINT (PT)
PT-01 Sherwin Williams
Color: Snowbound SW7008
(Field)

PT-02 Sherwin Williams
Color: Espalier SW6734
(Accent)

PT-03 Sherwin Williams
Color: Grasshopper SW6733
(Accent)

PT-04 Sherwin Williams
Color: Blueblood SW6966
(Accent)

PT-05 Sherwin Williams
Color: Blue Chip SW6959
(Accent)

PT-06 Sherwin Williams
Color: TBD
(Accent)

PT-07 Sherwin Williams
Color: TBD
(Door Frames)

PORCELAIN WALL TILE (PWT)
PWT-01 Garden State Tile
Product: BiancoVista
Size: 12" x 24"
Color: BiancoVista Rectified
(TR, ADA TR, Family TR)

PWT-02 Richards & Sterling
Product: Culura
Size: 12" x 24"
Color: Verde
(Office Kitchenette, Multi-Purpose)

WALL PROTECTION (WP)
WP-01 Manufacturer: Valto
Product: Glasbord
Size: 4' x 8'
Color: White | 85
(Exterior TR)

ACOUSTIC WALL PANELS (AWP)
AWP-01 G & S Acoustics
Product: Designtex Felt 2mm Panels
Color: Kelly Green AM001-504
(Gymnasium)

CASEWORK

PLASTIC LAMINATE (PL)
PLAM-01 Nevamar
Color: Santa Rosa Plum Tree
(Casework, Wood Wall Panels)

PLAM-02 Wilsonart
Product: Standard Laminate
Color: Nori
(Lobby TV Wall)

Quartz (QTZ)
QTZ-01 Cambria
Color: White Cliff
(Office, Multi-Purpose)

WOOD WALL PANEL (WWP)
WWP-01 Armstrong
Product: Woodworks Walls
Size: Varies
Color: TBD
(Lobby, Corridor)

OTHER

CORNER GUARD (CG)
CG-01 Inpro
Product: Tape-On Corner Guards
Size: 3" x 8'
Color: Designer White
(Gynamsium)

SOLID SURFACE (SS)
SS-01 Corian
Product: Solid Surface
Color: Modern White
(Window Sills)

WOOD STAIN (STN)
STN-01 Masonite Architectural
Product: Aspiro Series
Species: White Birch
Color: Cane
(Doors)

Window SHADES (WS)
WS-01 Draper
Product: Clutch-Operated Flexshade, Single Roll
Cloth Style: TBD
Cloth Color: TBD
Hardware Color: TBD
(Refer To RCP For Locations)

WS-02 Draper
Product: Motorized Flexshade, Single Roll
Cloth Style: TBD
Cloth Color: TBD
Hardware Color: TBD
(Refer To RCP For Locations)

GENERAL FINISH NOTES

1. GENERAL CONSTRUCTION SCOPE OF WORK INCLUDES ALL DEMOLITION, SUBSTRATE REMOVAL/ RE-CONSTRUCTION, PREPARATION/ PATCH WORK ON EXISTING SURFACES THAT ARE SCHEDULED TO RECEIVE NEW FINISHES PER MANUFACTURERS RECOMMENDATIONS.
2. INTERIOR FINISH REQUIREMENTS SHALL MEET APPLICABLE CODES AS OUTLINED IN THE CODE INFORMATION ON THE COVER SHEET (CS).
3. PROVIDE FULL RANGE OF COLORS FOR FINISH SELECTIONS. TYPICAL FOR ALL SELECTIONS.
4. UNLESS NOTED OTHERWISE PAINT MISCELLANEOUS ITEMS INCLUDING, BUT NOT LIMITED TO THE FOLLOWING; ACCESS DOORS/ PANELS, ELECTRICAL PANELS IN THE FINISHED AREAS, EXPOSED STEEL STRUCTURE/ PIPING, DOOR FRAMES, & SIDELIGHTS. DO NOT PAINT OVER U.L. LABELS, EQUIPMENT INFO, CODE REQUIRED INFORMATION, ETC.
5. ALL EXPOSED MECHANICAL DUCTWORK (BOTH INSULATED AND NON INSULATED) TO BE PAINTED.
6. ALL EXPOSED MECHANICAL VRF FAN COIL UNITS TO BE PAINTED.
7. ALL EXPOSED CEILINGS TO BE PAINTS PT-01
8. ALL WALLS WITH EXPOSED CEILINGS TO BE PAINTED PT-01 11'-6" AFF TO CEILING.
9. NORTH IN FINISH SCHEDULE MATCHES NORTH IN PLANS.
10. PROVIDE ADA COMPLIANT THRESHOLDS, TRANSITIONS AT FLOORING MATERIAL CHANGES AS REQUIRED.
11. ACCENT PAINTS NOTED ON FINISH PLAN.
12. GC TO INSTALL OWNER PROVIDED EQUIPMENT & COORDINATE FINAL LOCATIONS WITH OWNER'S IT CONTRACTOR. EQUIPMENT TO INCLUDE, BUT NOT LIMITED TO THE FOLLOWING WALL MOUNTED TV'S, COMPUTER MONITORS, AND ALL REQUIRED BRACKETS AND HARDWARE FOR A COMPLETE INSTALLATION.
13. PAINT IN TOILET ROOMS AND UTILITY ROOMS TO BE SPECIFIED AS EPOXY PAINT.
14. FLOORING FINISH MATERIAL SHALL COVER FLOOR SURFACE OF ENTIRE SPACE, INCLUDING UNDER CASEWORK.
15. ALL VP TO BE PAINTED TO MATCH DOOR FRAMES ON SUITE SIDE & PAINTED TO MATCH EXISTING CORE BUILDING DOOR FRAMES ON CORE BUILDING SIDE.
16. ALL FINISH INSTALLATION PATTERNS ON FINISH PLANS ARE FOR GRAPHIC REPRESENTATION ONLY.

Finish Schedule

Room Number	Room Name	Floor Finish	Base Finish	Door Frames	Wall Finish				Cabinets	Countertops	Other
					North	East	South	West			
101	Vestibule	WOM-01	WB-02	ANO	PT-01	-	-	-			
102	Lobby	LVT-01, LVT-01	WB-01	PT	PT-01, PT-Varies, WWP-01	WWP-01	PT-01, PT-Varies	PT-01			
103	Office	CPT-01 , LVT-03	WB-01	PT	PT-01	PT-01	PT-01	PT-01	PLAM-01	QTZ-01	PWT-02 on office kitchenette wall. Refer to elevation A711/8
104	Storage	SC	WB-02	PT	PT-01	PT-01	PT-01	PT-01			
105	Multi-Purpose 1	SF-01, LVT-03	WB-01	PT	-	PT-01	PT-01	PT-Varies	PLAM-01	QTZ-01	Refer to elevations for PT-Varies (accent paint)
106	Multi-Purpose 2	SF-01, LVT-03	WB-01	PT	PT-01	PT-01	-	PT-Varies	PLAM-01	QTZ-01	Refer to elevations for PT-Varies (accent paint)
107	Storage	SC	WB-02	PT	PT-01	PT-01	PT-01	PT-01			
108	Trash/Janitor	SC	WB-02	PT	PT-01	PT-01	PT-01	PT-01			
109	Water	SC	WB-02	PT	PT-01	PT-01	PT-01	PT-01			
110	Fire Pump	SC	WB-02	PT	PT-01	PT-01	PT-01	PT-01			
111	Electrical	SC	WB-02	PT	PT-01	PT-01	PT-01	PT-01			
112	Radio/Server	SC	WB-02	PT	PT-01	PT-01	PT-01	PT-01			
113	Gym Storage	SC	WB-02	PT	PT-01	PT-01	PT-01	PT-01			
114	Family TR	PFT-01		PT	PWT-01, PT-03	PWT-01, PT-03	PWT-01, PT-03	PWT-01, PT-03			PWT-01 5'-0" A.F.F. on all walls
115	ADA TR	PFT-01		PT	PWT-01, PT-03	PWT-01, PT-03	PWT-01, PT-03	PWT-01, PT-03			PWT-01 5'-0" A.F.F. on all walls
116	ADA TR	PFT-01		PT	PWT-01, PT-03	PWT-01, PT-03	PWT-01, PT-03	PWT-01, PT-03			PWT-01 5'-0" A.F.F. on all walls
117	ADA TR	PFT-01		PT	PWT-01, PT-03	PWT-01, PT-03	PWT-01, PT-03	PWT-01, PT-03			PWT-01 5'-0" A.F.F. on all walls
118	ADA TR	PFT-01		PT	PWT-01, PT-03	PWT-01, PT-03	PWT-01, PT-03	PWT-01, PT-03			PWT-01 5'-0" A.F.F. on all walls
119	TR	PFT-01		PT	PWT-01, PT-03	PWT-01, PT-03	PWT-01, PT-03	PWT-01, PT-03			PWT-01 5'-0" A.F.F. on all walls
120	TR	PFT-01		PT	PWT-01, PT-03	PWT-01, PT-03	PWT-01, PT-03	PWT-01, PT-03			PWT-01 5'-0" A.F.F. on all walls
121	TR	PFT-01		PT	PWT-01, PT-03	PWT-01, PT-03	PWT-01, PT-03	PWT-01, PT-03			PWT-01 5'-0" A.F.F. on all walls
122	TR	PFT-01		PT	PWT-01, PT-03	PWT-01, PT-03	PWT-01, PT-03	PWT-01, PT-03			PWT-01 5'-0" A.F.F. on all walls
123	Gymnasium	SF-02	WB-01	PT	PT-01	PT-01, PT-02	PT-01	PT-01,PT-02, PT-Varies			Structure painted PT-02. Refer to elevation A714/2 for West wall accent paint
124	Exterior TR	EPX-01	EWB-01	PT	WP-01	WP-01	WP-01	WP-01			WP-01 4'-0" A.F.F. on all walls
C-1	Corridor	LVT-01, LVT-02	WB-01	PT	PT-01, PT-Varies	PT-01, WWP-01	-	PT-01, PT-Varies, WWP-01			Refer to elevations for PT-Varies (accent paint)
V-1	Gym Vestibule 1	LVT-02	WB-01	PT	PT-01	PT-01	PT-01	PT-01			
V-2	Gym Vestibule 2	LVT-02	WB-01	PT	PT-01	PT-01	PT-01	PT-01			

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Springfield Township Recreation Center

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Client

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8900 Hawthorne Lane
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Revisions

No.	Date	Description

04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title

Finish Legend, Finish Schedule & Details

Project Number 24.129

Date 4.30.2026

Drawing Number

A601

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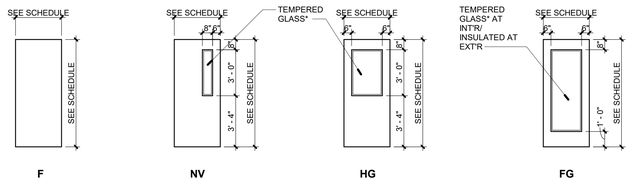
Door Schedule

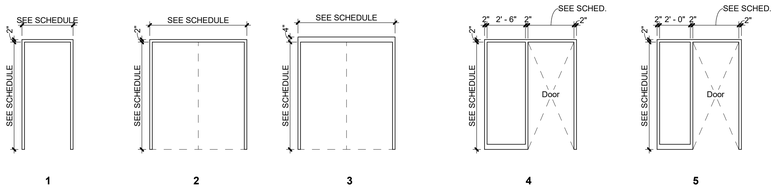
Door Number	Door						Frame			Hardware - Power / Panic	Fire Rating	Comments
	Type	Width	Height	Thickness	Material	Finish	Type	Material	Finish			
101A	FG	6' - 0"	7' - 0"	1 3/4"	ALUM	ANO	SEE ELEV.	ALUM	ANO			Card Reader
101B	FG	6' - 0"	7' - 0"	1 3/4"	ALUM	ANO	SEE ELEV.	ALUM	ANO			Card Reader
103A	NV	3' - 0"	7' - 0"	1 3/4"	WD	STN-01	1	HM	PT-X			Card Reader
103B	HG	3' - 0"	7' - 0"	1 3/4"	WD	STN-01	1	HM	PT-02			Card Reader
104A	F	6' - 0"	7' - 0"	1 3/4"	WD	STN-01	2	HM	PT-02			Card Reader
104B	F	6' - 0"	7' - 0"	1 3/4"	WD	STN-01	2	HM	PT-02			Card Reader
105A	NV	3' - 0"	7' - 0"	1 3/4"	WD	STN-01	4	HM	PT-02			
105B	NV	3' - 0"	7' - 0"	1 3/4"	WD	STN-01	5	HM	PT-02			
106A	NV	3' - 0"	7' - 0"	1 3/4"	WD	STN-01	5	HM	PT-02			
106B	NV	3' - 0"	7' - 0"	1 3/4"	WD	STN-01	4	HM	PT-02			
107A	F	6' - 0"	7' - 0"	1 3/4"	WD	STN-01	2	HM	PT-02			Card Reader
108A	F	3' - 0"	7' - 0"	1 3/4"	HM	PT-07	1	HM	PT-07			
108B	F	6' - 0"	7' - 0"	1 3/4"	HM	PT-07	1	HM	PT-07			Card Reader
109	F	3' - 0"	7' - 0"	1 3/4"	HM	PT-07	1	HM	PT-07			Card Reader
110	F	3' - 0"	7' - 0"	1 3/4"	HM	PT-07	1	HM	PT-07			Card Reader
111	F	3' - 0"	7' - 0"	1 3/4"	HM	PT-07	1	HM	PT-07			Card Reader
112	F	3' - 0"	7' - 0"	1 3/4"	HM	PT-07	1	HM	PT-07			Card Reader
113A	F	6' - 0"	7' - 0"	1 3/4"	HM	PT-01	3	HM	PT-07			Card Reader
113B	F	6' - 0"	7' - 0"	1 3/4"	HM	PT-07	2	HM	PT-02			Card Reader
114	F	3' - 0"	7' - 0"	1 3/4"	WD	STN-01	1	HM	PT-02			
115	F	3' - 0"	7' - 0"	1 3/4"	WD	STN-01	1	HM	PT-02			
116	F	3' - 0"	7' - 0"	1 3/4"	WD	STN-01	1	HM	PT-02			
117	F	3' - 0"	7' - 0"	1 3/4"	WD	STN-01	1	HM	PT-02			
118	F	3' - 0"	7' - 0"	1 3/4"	WD	STN-01	1	HM	PT-02			
119	F	3' - 0"	7' - 0"	1 3/4"	WD	STN-01	1	HM	PT-02			
120	F	3' - 0"	7' - 0"	1 3/4"	WD	STN-01	1	HM	PT-02			
121	F	3' - 0"	7' - 0"	1 3/4"	WD	STN-01	1	HM	PT-02			
122	F	3' - 0"	7' - 0"	1 3/4"	WD	STN-01	1	HM	PT-02			
123A	HG	3' - 0"	7' - 0"	1 3/4"	HM	PT-07	3	HM	PT-07			Card Reader
123B	HG	3' - 0"	7' - 0"	1 3/4"	HM	PT-07	3	HM	PT-07			Card Reader
124	F	3' - 0"	7' - 0"	1 3/4"	HM	PT-07	1	HM	PT-07			Card Reader
C-1	NV	6' - 0"	7' - 0"	1 3/4"	HM	PT-07	1	HM	PT-07			Card Reader
V-1	HG	6' - 0"	7' - 0"	1 3/4"	WD	STN-01	2	HM	PT-02			
V-2	HG	6' - 0"	7' - 0"	1 3/4"	WD	STN-01	2	HM	PT-02			

Door Types:



*Fire Rated Safety Glazing at fire rated doors

Frame Types:



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Revisions

No.	Date	Description

04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title

Door & Frame Schedule

Project Number 24.129

Date 4.30.2026

Drawing Number

A611

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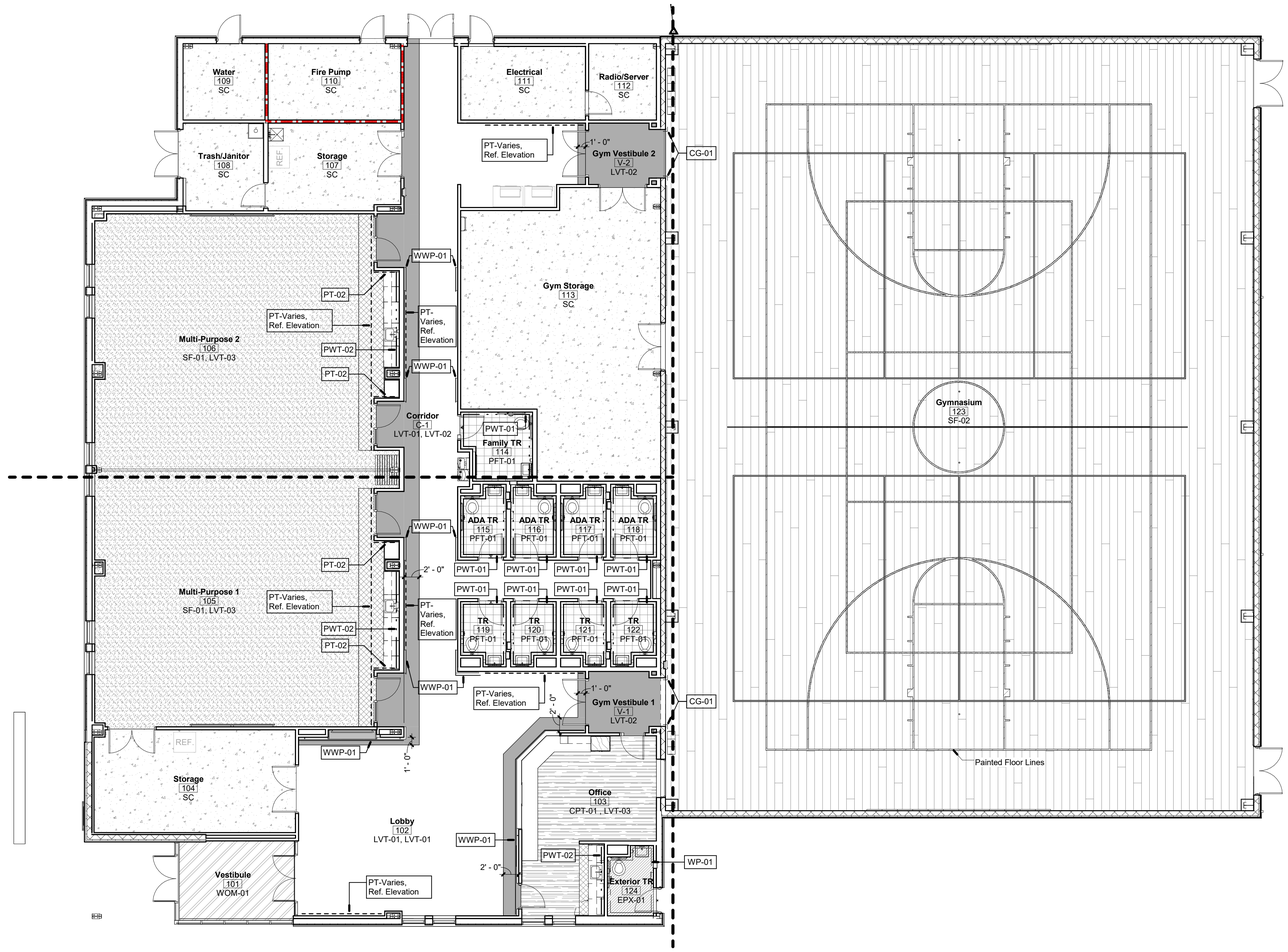


1 Finish Plan

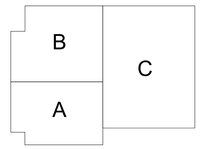
1/8" = 1'-0"

FLOORING LEGEND

WOM-01	PFT-01
LVT-01	SC
LVT-02	SF- 01
LVT-03	SF-02
CPT-01	EPX-01

LINE LEGEND

- ACCENT PAINT
- WALL TILE
- WALL PROTECTION
- WOOD WALL PANEL



Key Plan

NTS

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Revisions

No.	Date	Description

04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title

Finish Plan

Project Number 24.129

Date 4.30.2026

Drawing Number

A701

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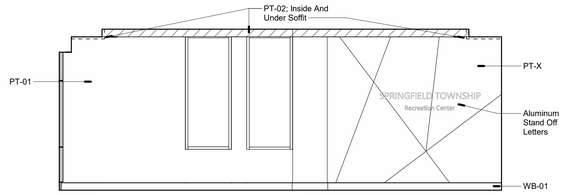
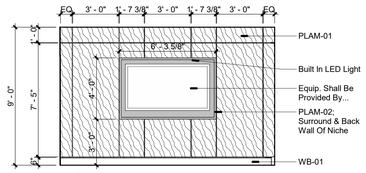
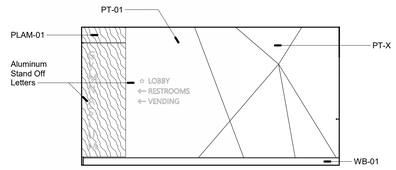


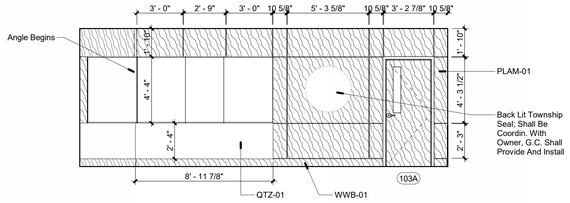
1 Elevation - Lobby (Accent Wall) South
1/4" = 1'-0"



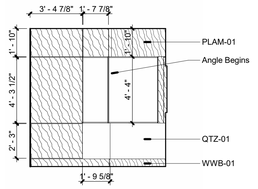
2 Elevation - Lobby (TV Wall)
1/4" = 1'-0"



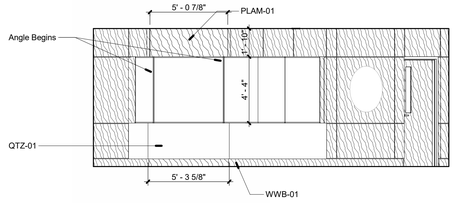
3 Elevation - Lobby (Accent Wall) North
1/4" = 1'-0"



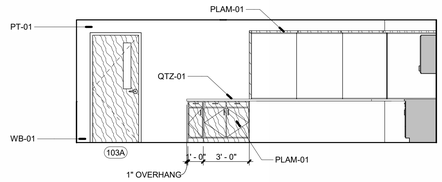
4 Elevation - Reception Desk East
1/4" = 1'-0"



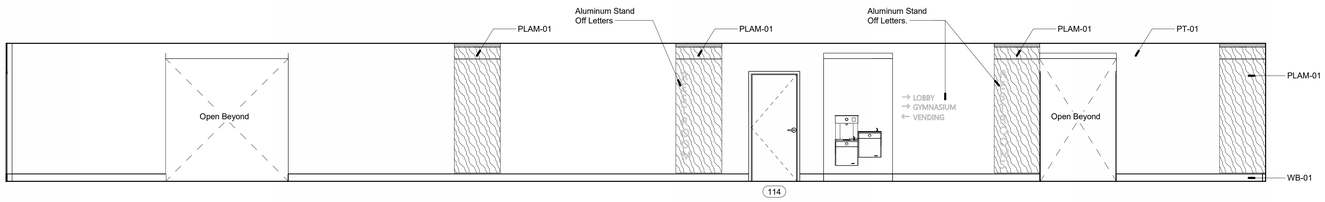
5 Elevation - Reception Desk South
1/4" = 1'-0"



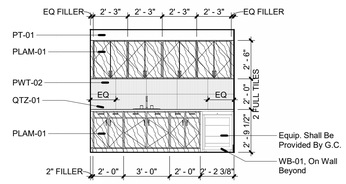
6 Elevation - Reception Desk South East
1/4" = 1'-0"



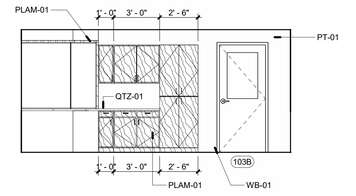
7 Elevation - Office West
1/4" = 1'-0"



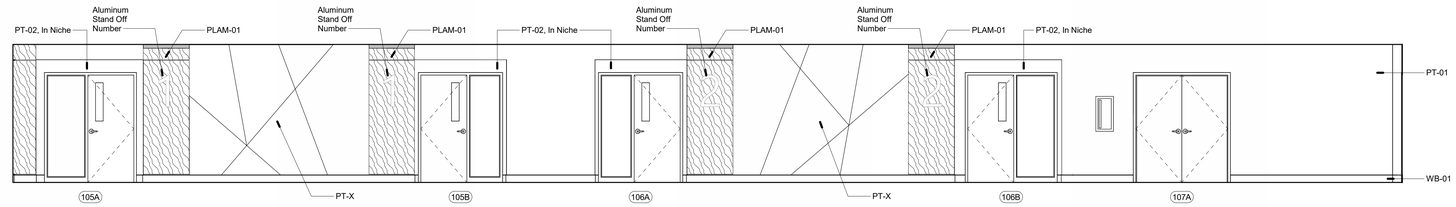
8 Elevation - Corridor East
1/4" = 1'-0"



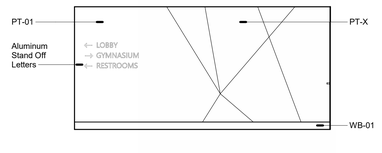
9 Elevation - Office Kitchenete
1/4" = 1'-0"



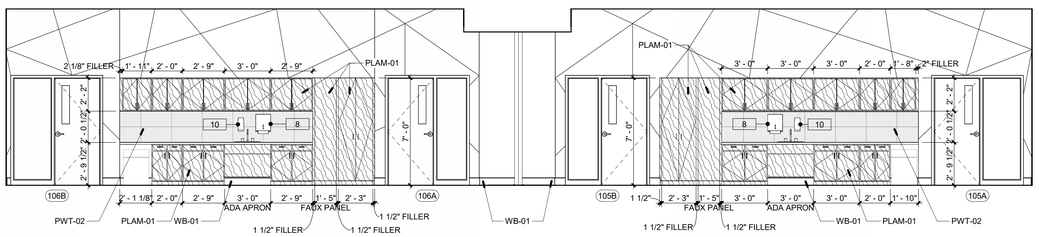
10 Elevation - Office North
1/4" = 1'-0"



11 Elevation - Corridor West
1/4" = 1'-0"



12 Elevation - Corridor North (Accent Wall)
1/4" = 1'-0"



13 Elevation - Multi Purpose East
1/4" = 1'-0"

14 Elevation - Multi Purpose East (Paint)
1/4" = 1'-0"

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Revisions

No.	Date	Description

04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title

Interior Elevations

Project Number 24.129

Date 4.30.2026

Drawing Number

A711

4/30/2026 3:23:25 PM C:\Users\jill\Documents\24.129_Springfield Township Rec Center_R25_LJPDATED_A_rgarvin.rvt
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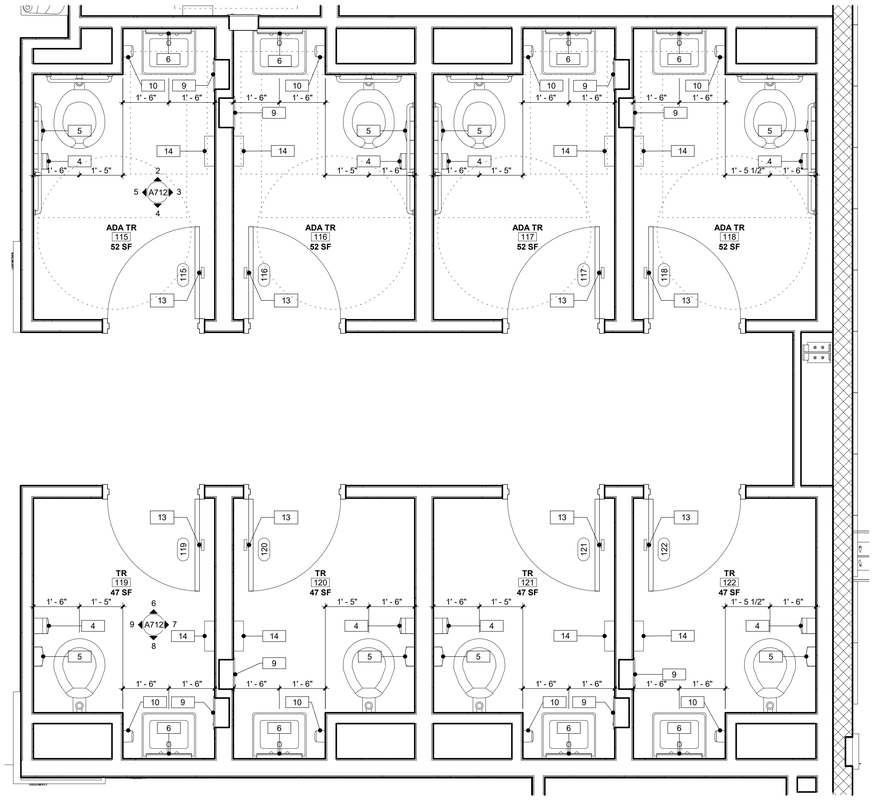
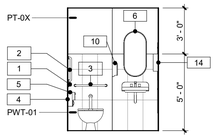
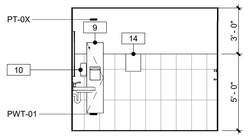


1 Enlarged Plan - Typ. TR & ADA TR
1/2" = 1'-0"



2 Elevation - Typ. ADA TR North
1/4" = 1'-0"



3 Elevation - Typ. ADA TR East
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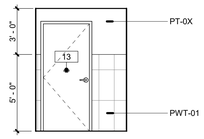
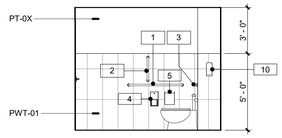
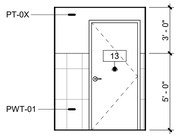


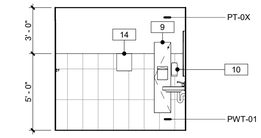
4 Elevation - Typ. ADA TR South
1/4" = 1'-0"



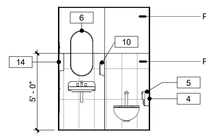
5 Elevation - Typ. ADA TR West
1/4" = 1'-0"



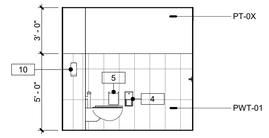
6 Elevation - Typ. TR North
1/4" = 1'-0"



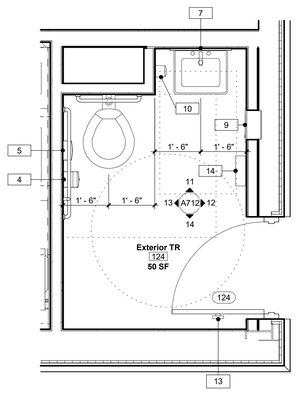
7 Elevation - Typ. TR East
1/4" = 1'-0"



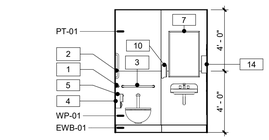
8 Elevation - Typ. TR South
1/4" = 1'-0"



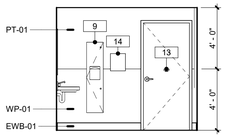
9 Elevation - Typ. TR West
1/4" = 1'-0"



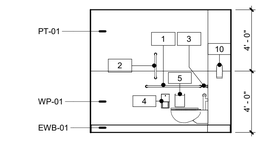
10 Enlarged Plan - Exterior TR
1/2" = 1'-0"



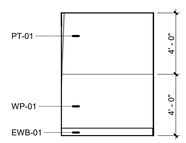
11 Elevation - Exterior TR North
1/4" = 1'-0"



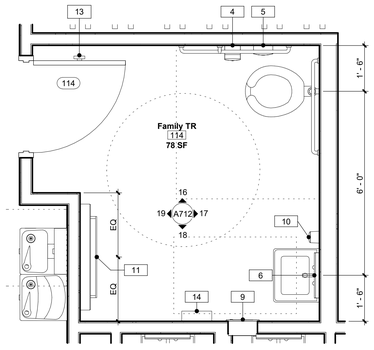
12 Elevation - Exterior TR East
1/4" = 1'-0"



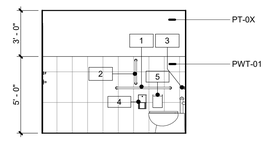
13 Elevation - Exterior TR West
1/4" = 1'-0"



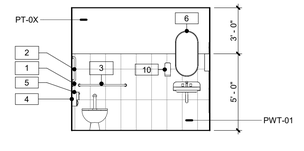
14 Elevation - Exterior TR South
1/4" = 1'-0"



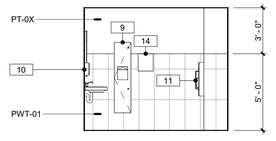
15 Enlarged Plan - Family TR
1/2" = 1'-0"



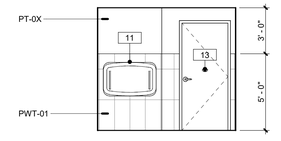
16 Elevation - Family TR North
1/4" = 1'-0"



17 Elevation - Family TR East
1/4" = 1'-0"



18 Elevation - Family TR South
1/4" = 1'-0"



19 Elevation - Family TR West
1/4" = 1'-0"

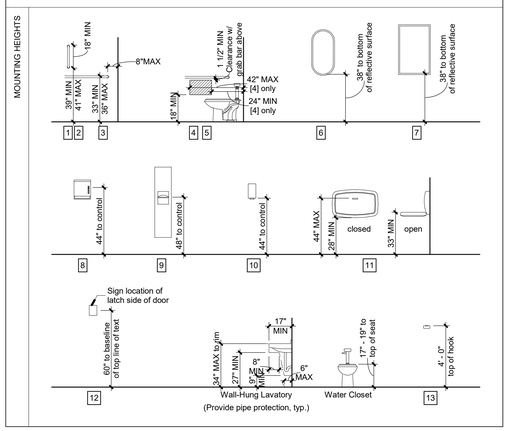
TOILET ROOM ACCESSORY SCHEDULE

ITEM #	DESCRIPTION
1	GRAB BAR, 42"
2	VERTICAL GRAB BAR, 18"
3	GRAB BAR, 36" (24" WHERE DEPICTED)
4	TOILET TISSUE HOLDER
5	SANITARY NAPKIN DISPOSAL
6	24"X36" MIRROR
7	24"X36" MIRROR
8	PAPER TOWEL DISPENSER
9	PAPER TOWEL DISPENSER/TRASH RECEP.
10	SOAP DISPENSER
11	BABY CHANGING STATION
12	TOILET ROOM SIGNAGE
13	TOWEL / ROBE HOOK
14	HAND DRYER

NOTES

1. ALL ACCESSORIES , MOUNTING / FASTENING AND REQUIRED BLOCKING TO MEET ALL UFAS & ADA REGULATIONS. ANY REQUIRED BLOCKING SHALL BE PROVIDED BY G.C.
2. ANY ACCESSORIES NOT SHOWN OR SCHEDULED ARE PROVIDED BY OWNER, INSTALLED BY GC.
3. PROVIDE PIPE COVERING, TYPICAL FOR ALL H.C.P. SINK, SUPPLIED AND INSTALLED BY PLUMBING CONTRACTOR

MOUNTING HEIGHTS



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Revisions

No.	Date	Description

04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title

Enlarged Plans & Interior Elevations

Project Number 24.129

Date 4.30.2026

Drawing Number

A712

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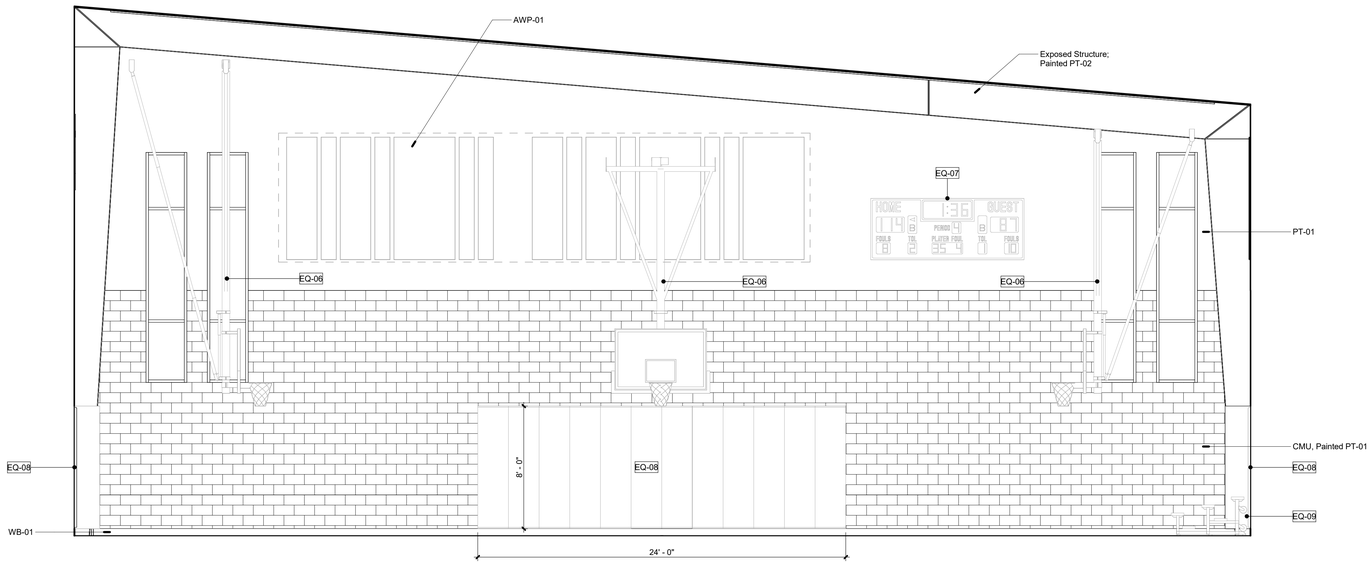
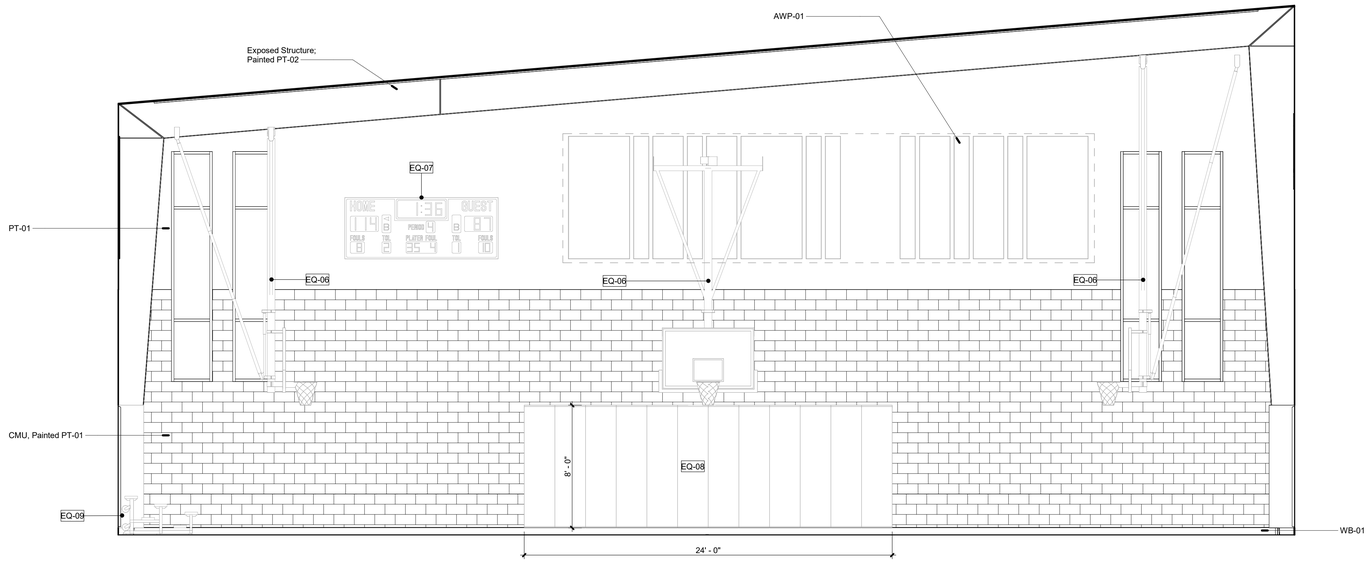


1 Elevation - Gymnasium North

1/4" = 1'-0"



2 Elevation - Gymnasium South

1/4" = 1'-0"

Equipment Schedule Copy 1				
Type Mark	Description	Furnished By	Installed By	Comments
EQ-01	Wall Mounted Monitors	Contractor	Contractor	
EQ-02	Undercounter Fridge	Contractor	C	
EQ-03	Refrigerator	Contractor	Contractor	
EQ-04	Vending Machines	Contractor	Contractor	
EQ-05	Gym Curtain	Contractor	Contractor	
EQ-06	Basketball Backstop	Contractor	Contractor	
EQ-07	Scoreboard	Contractor	Contractor	
EQ-08	Wall Pads	Contractor	Contractor	
EQ-09	Tip & Roll Bleachers	Contractor	Contractor	
EQ-10	Volleyball Floor Sleeve and Cover Plate	Contractor	Contractor	
EQ-11	Lockers	TBD	TBD	
EQ-12	Operable Partition	Contractor	Contractor	

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Revisions

No.	Date	Description

04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title

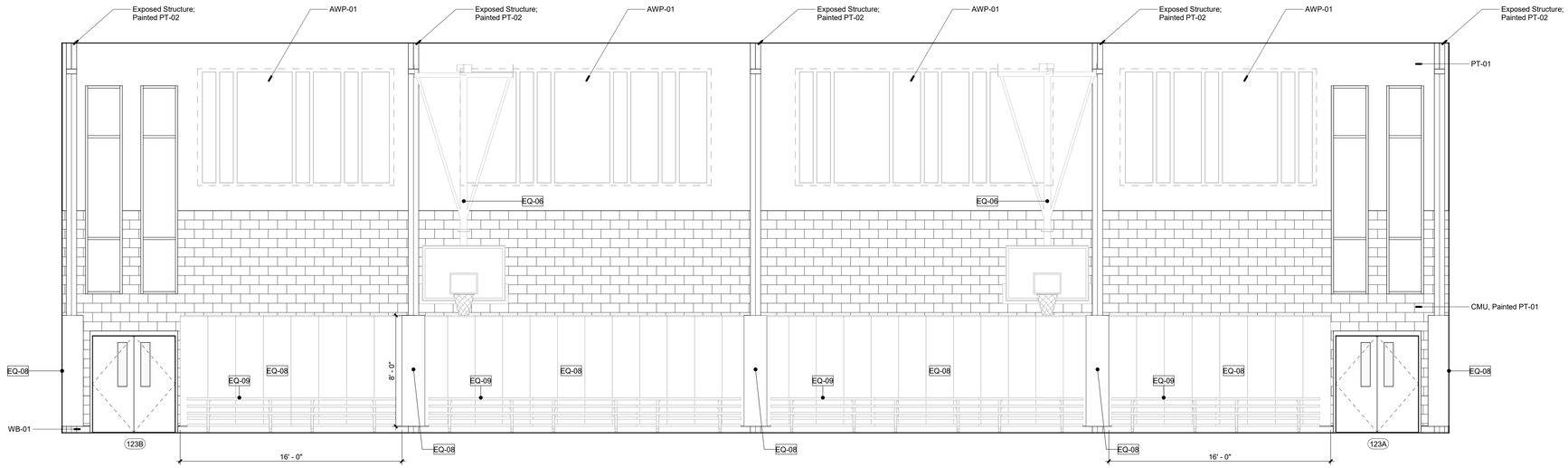
Interior Elevations

Project Number 24.129

Date 4.30.2026

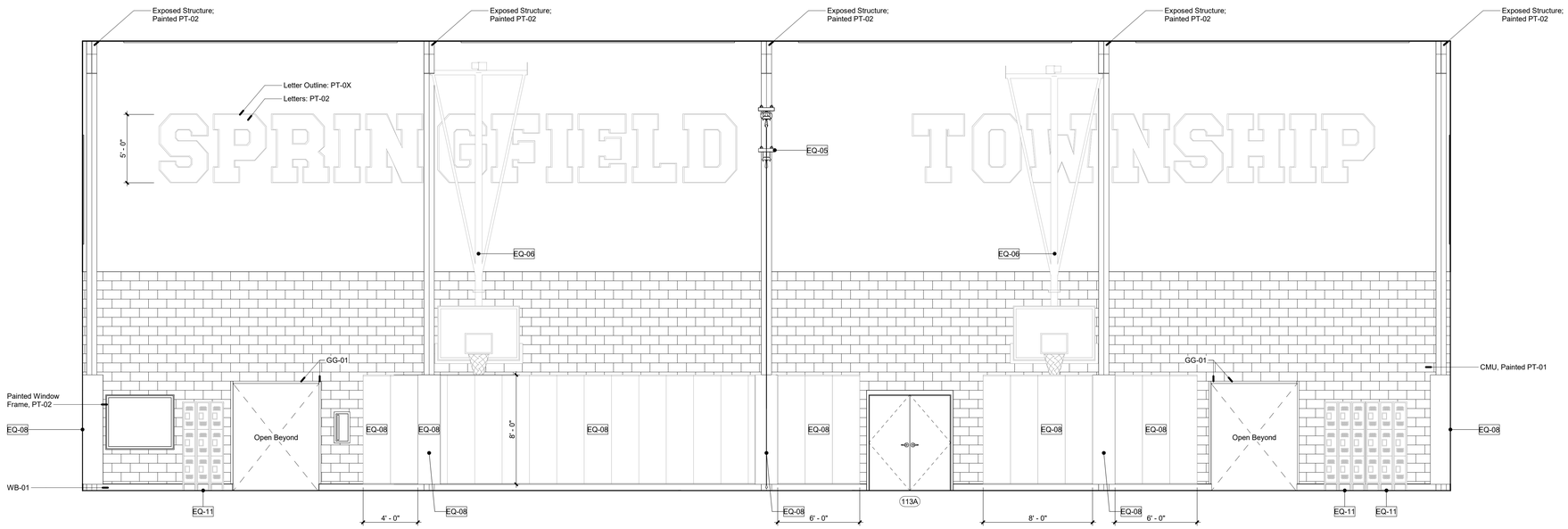
Drawing Number

A713



1 Elevation - Gymnasium East

1/4" = 1'-0"



2 Elevation - Gymnasium West

1/4" = 1'-0"

Equipment Schedule Copy 1 Copy 1				
Type Mark	Description	Furnished By	Installed By	Comments
EQ-01	Wall Mounted Monitors	Contractor	Contractor	
EQ-02	Undercounter Fridge	Contractor	C	
EQ-03	Refrigerator	Contractor	Contractor	
EQ-04	Vending Machines	Contractor	Contractor	
EQ-05	Gym Curtain	Contractor	Contractor	
EQ-06	Basketball Backstop	Contractor	Contractor	
EQ-07	Scoreboard	Contractor	Contractor	
EQ-08	Wall Pads	Contractor	Contractor	
EQ-09	Tip & Roll Bleachers	Contractor	Contractor	
EQ-10	Volleyball Floor Sleeve and Cover Plate	Contractor	Contractor	
EQ-11	Lockers	TBD	TBD	
EQ-12	Operable Partition	Contractor	Contractor	

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Revisions

No.	Date	Description

04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title

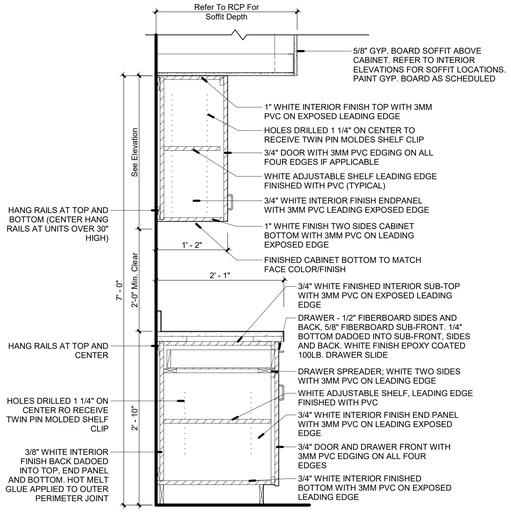
Interior Elevations

Project Number 24.129

Date 4.30.2026

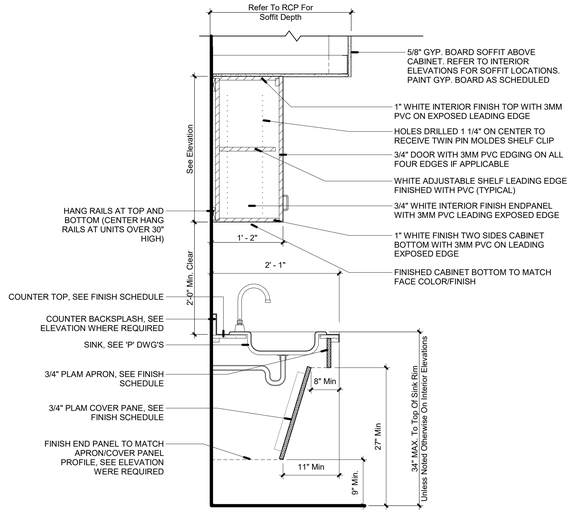
Drawing Number

A714



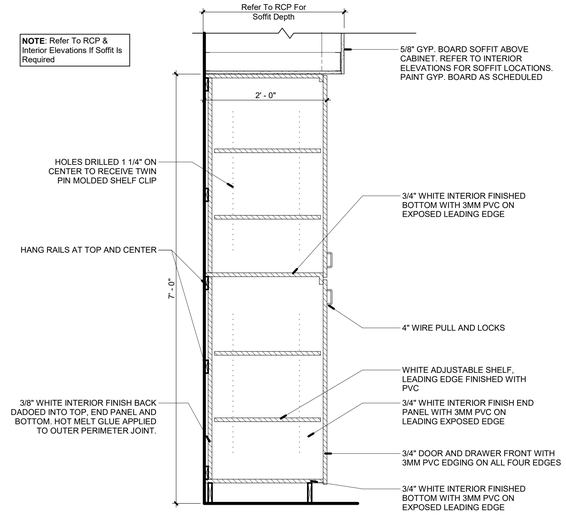
1 Casework Section - Typ. Casework

1" = 1'-0"



2 Casework Section - Typ. ADA Sink Apron w/ Soffit Above

1" = 1'-0"



3 Casework Section - Tall Cabinet

1" = 1'-0"

4 Casework Section - Typ. Casework

1" = 1'-0"

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Springfield Township Recreation Center

1200 East Willow Grove Avenue
Wyndmoor, PA 19083

Client

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8900 Hawthorne Lane
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Revisions

No.	Date	Description

04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title

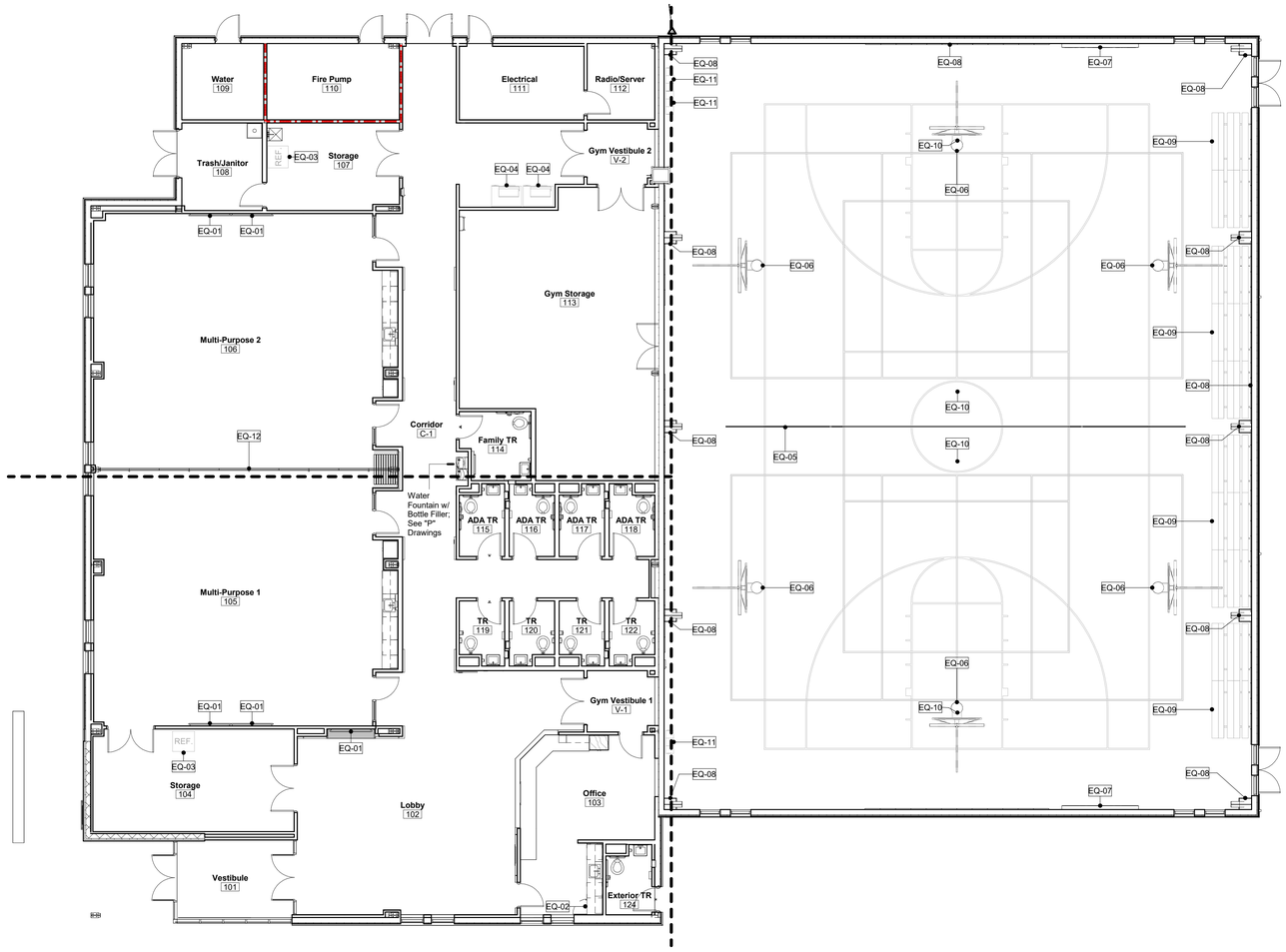
Casework Details

Project Number 24.129

Date 4.30.2026

Drawing Number

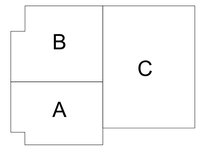
A720



1 Equipment Plan

1/8" = 1'-0"

Equipment Schedule				
Type Mark	Description	Furnished By	Installed By	Comments
EQ-01	Wall Mounted Monitors	Contractor	Contractor	
EQ-02	Undercounter Fridge	Contractor	C	
EQ-03	Refrigerator	Contractor	Contractor	
EQ-04	Vending Machines	Contractor	Contractor	
EQ-05	Gym Curtain	Contractor	Contractor	
EQ-06	Basketball Backstop	Contractor	Contractor	
EQ-07	Scoreboard	Contractor	Contractor	
EQ-08	Wall Pads	Contractor	Contractor	
EQ-09	Tip & Roll Bleachers	Contractor	Contractor	
EQ-10	Volleyball Floor Sleeve and Cover Plate	Contractor	Contractor	
EQ-11	Lockers	TBD	TBD	
EQ-12	Operable Partition	Contractor	Contractor	



Key Plan

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Revisions

No.	Date	Description

04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title

Equipment Plan

Project Number 24.129

Date 4.30.2026

Drawing Number

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MECHANICAL SYMBOLS, LEGEND, & ABBREVIATIONS

ABBREVIATIONS:

AV	AUTOMATIC AIR VENT
AC	AIR CONDITIONING UNIT
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AFMS	AIRFLOW MEASURING STATION
AHU	AIR HANDLING UNIT
AP	ACCESS PANEL
B	BOILER
BC	BLOWER COIL
BDD	BACKDRAFT DAMPER
BFW	BOILERFEED WATER
BHP	BRAKE HORSEPOWER
BOD	BOTTOM OF DUCT
BOP	BOTTOM OF PIPE
BTUH	BRITISH TERMAL UNIT PER HOUR
CA	COMPRESSED AIR
CAV	CONSTANT AIR VOLUME
CC	COOLING COIL
CFM	CUBIC FEET PER MINUTE
CH	CHILLER
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
COND	CODENSATE
CONV	CONVECTOR
CP	CONDENSATE PUMP
CT	COOLING TOWER
CU	CONDENSING UNIT
CUH	CABINET UNIT HEATER
CW	COLD WATER (DOMESTIC)
CR	CONDENSER WATER RETURN
CS	CONDENSER WATER SUPPLY
D	DIFFUSER
DB	DRY BULB TEMPERATURE
DC	DUCT COIL
DIA	DIAMETER
DN	DOWN
DP	DIFFERENTIAL PRESSURE
DR	DRAIN
DSA	DUCT SOUND ATTENUATOR
DTR	DUAL TEMPERATURE RETURN
DTS	DUAL TEMPERATURE SUPPLY
EX	EXISTING
EAT	ENTERING AIR TEMPERATURE
EF	EXHAUST FAN
EG	EXHAUST GRILLE
ER	EXHAUST REGISTER
ESP	EXTERNAL STATIC PRESSURE
ET	EXPANSION TANK
ETR	EXISTING TO REMAIN
EWT	ENTERING WATER TEMPERATURE
F	FAN
F & T	FLOAT AND THERMOSTATIC
FCU	FAN COIL UNIT
FCV	FLOW CONTROL VALVE
FD	FLOOR DRAIN OR FIRE DAMPER
FOR	FUEL OIL RETURN
FOS	FUEL OIL SUPPLY
FOV	FUEL OIL VENT
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FS	FLOW SWITCH
F/SD DAMPER	COMBINATION FIRE/SMOKE
FT	FEET
FTR	FINNED TUBE RADIATION
GPM	GALLONS PER MINUTE
H	HUMIDISTAT
HC	HEATING COIL
HD	HEAD
HW	HOT WATER (DOMESTIC)
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
HP	HORSEPOWER
HPRC	HIGH PRESSURE CONDENSATE RETURN
HPS	HIGH PRESSURE STEAM SUPPLY
HR	HEAT RECOVERY
HRC	HEAT RECOVERY COIL
HX	HEAT EXCHANGER
HZ	HERTZ
H2O	WATER
ID	INSIDE DIAMETER
IN	INCHES
KVA	KILO-VOLT-AMPERES
KW	KILOWATTS
L	LOUVER
LAT	LEAVING AIR TEMPERATURE
LBS	POUNDS
LPCR	LOW PRESSURE CONDENSATE RETURN
LPG	LIQUIFIED PETROLEUM GAS
LPS	LOW PRESSURE STEAM SUPPLY
LWT	LEAVING WATER TEMPERATURE
MAV	MANUAL AIR VENT
MAX	MAXIMUM
MBH	1000 BTU PER HOUR
MCA	MINIMUM CIRCUIT AMPERES
MIN	MINIMUM
MPCR	MEDIUM PRESSURE CONDENSATE RETURN
MPS	MEDIUM PRESSURE STEAM SUPPLY
MU	MAKE-UP WATER
NC	NORMALLY CLOSED
NEG	NEGATIVE
NG	NATURAL GAS
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OAI	OUTSIDE AIR INTAKE
OBD	OPPOSED BLADE DAMPER
OD	OUTSIDE DIAMETER
OED	OPEN END DUCT
P	PUMP
PC	PUMPED CONDENSATE RETURN
PH	PHASE PRESS PRESSURE
PRV	PRESSURE REDUCING VALVE
PS	PRESSURE SWITCH
PSIA	POUNDS PER SQUARE INCH, ABSOLUTE
PSIG	POUNDS PER SQUARE INCH, GAUGE
PTAC	PACKAGED TERMINAL AIR CONDITIONING
RAF	RETURN AIR FAN
ROP	RADIANT CEILING PANEL
RF	RELIEF FAN
RG	RETURN GRILLE
RH	RELATIVE HUMIDITY
RL	REFRIGERANT LIQUID
RPM	REVOLUTIONS PER MINUTE
RR	RETURN REGISTER
RS	REFRIGERANT SUCTION
RTU	ROOFTOP UNIT
RV	REFRIGERANT VENT
SAF	SUPPLY AIR FAN
SD	SMOKE DAMPER
SG	SUPPLY GRILLE
SP	STATIC PRESSURE
SR	SUPPLY REGISTER
SRV	SAFETY RELIEF VALVE
SS	SPLIT SYSTEM
ST	STEAM TRAP
STM	STEAM
T	THERMOSTAT
TA	TRANSFER AIR
TAB	TERMINAL AIR BOX
TEMP	TEMPERATURE
TOS	TOP OF STEEL
TSP	TOTAL STATIC PRESSURE
UH	UNIT HEATER
UV	UNIT VENTILATOR
V	VOLTS
VAV	VARIABLE AIR VOLUME
VD	VOLUME DAMPER
VP	VELOCITY PRESSURE
WB	WET BULB TEMPERATURE
WC	WATER COLUMN
WG	WATER GAUGE
WT	WEIGHT

DUCTWORK IDENTIFICATION:

- SUPPLY AIR DUCT (RECTANGULAR OR SQUARE)
- RETURN AIR DUCT (RECTANGULAR OR SQUARE)
- EXHAUST AIR DUCT (RECTANGULAR OR SQUARE)
- OUTSIDE AIR DUCT (RECTANGULAR OR SQUARE)
- SUPPLY AIR DUCT (ROUND)
- RETURN AIR DUCT (ROUND)
- EXHAUST AIR DUCT (ROUND)
- OUTSIDE AIR DUCT (ROUND)
- SUPPLY AIR DUCT (FLAT OVAL)
- SUPPLY OR OUTSIDE AIR DUCT UP (RECTANGULAR OR SQUARE)
- RETURN OR EXHAUST AIR DUCT UP (RECTANGULAR OR SQUARE)
- SUPPLY AIR DUCT UP (FLAT OVAL)
- SUPPLY OR OUTSIDE AIR DUCT UP (ROUND)
- RETURN OR EXHAUST AIR DUCT UP (ROUND)
- SUPPLY OR OUTSIDE AIR DUCT DOWN (RECTANGULAR OR SQUARE)
- RETURN OR EXHAUST AIR DUCT DOWN (RECTANGULAR OR SQUARE)
- SUPPLY AIR DUCT DOWN (FLAT OVAL)
- SUPPLY OR OUTSIDE AIR DUCT DOWN (ROUND)
- RETURN OR EXHAUST AIR DUCT DOWN (ROUND)
- END OF DUCT (CAPPED)
- ROUND SUPPLY AIR DIFFUSER OFF BOTTOM OF DUCT
- SIDEWALL SUPPLY AIR GRILLE OR REGISTER
- SQUARE OR RECTANGULAR RETURN OR EXHAUST GRILLE OR REGISTER OFF BOTTOM OF DUCT
- SIDEWALL RETURN OR EXHAUST AIR GRILLE OR REGISTER
- 90° ELBOW WITH TURNING VANES
- 90° ELBOW WITHOUT TURNING VANES
- 90° RADIUS ELBOW
- ECCENTRIC TRANSITION
- CONCENTRIC TRANSITION
- MANUAL VOLUME DAMPER
- RECTANGULAR BRANCH TAKE-OFF
- ROUND BRANCH TAKE-OFF
- DUCT MOUNTED HEATING COIL
- FLEXIBLE CONNECTION
- FLEXIBLE DUCT
- RISE IN DUCT
- DROP IN DUCT
- DUCT WITH INTERNAL LINING
- DUCT WITH ACCESS DOOR

- SUPPLY AIR DIFFUSER
- THERMOSTAT
- HUMIDISTAT
- OCCUPANCY SENSOR
- DUCT MOUNTED HUMIDIFIER
- FIRE DAMPER (VERTICAL)
- FIRE DAMPER (HORIZONTAL)
- SMOKE DAMPER
- COMBINATION FIRE/SMOKE DAMPER
- BACKDRAFT DAMPER
- FLOW SWITCH
- MOTOR OPERATED DAMPER
- AIR FLOW MEASURING STATION
- DUCT MOUNTED SMOKE DETECTOR
- STATIC PRESSURE SENSOR

PIPING IDENTIFICATION:

- BOILER FEED WATER
- CHILLED WATER SUPPLY
- CHILLED WATER RETURN
- CONDENSER WATER SUPPLY
- CONDENER WATER RETURN
- DUAL TEMPERATURE WATER SUPPLY
- DUAL TEMPERATURE WATER RETURN
- FUEL OIL SUPPLY
- FUEL OIL RETURN
- FUEL OIL VENT
- NATURAL GAS
- HOT WATER SUPPLY
- HOT WATER RETURN
- LIQUIFIED PETROLEUM GAS
- REFRIGERANT SUCTION
- REFRIGERANT LIQUID
- HIGH PRESUURE STEAM SUPPLY
- MEDIUM PRESSURE STEAM SUPPLY
- LOW PRESSURE STEAM SUPPLY
- HIGH PRESSURE CONDENSATE RETURN
- MEDIUM PRESSURE CONDENSATE RETURN
- LOW PRESSURE CONDENSATE RETURN
- EXISTING PIPING TO REMAIN
- EXISTING PIPING TO BE REMOVED
- SHUTOFF VALVE
- THROTTLING VALVE
- CHECK VALVE
- DRAIN VALVE
- PRESSURE REGULATING VALVE
- PRESSURE REDUCING VALVE
- CALIBRATED BALANCING VALVE
- TWO-WAY CONTROL VALVE
- THREE-WAY CONTROL VALVE
- SAFETY RELIEF VALVE
- BASKET STRAINER
- STRAINER
- PRESSURE GAUGE
- THERMOMETER
- ORIFICE PLATE FLOW MEASURING DEVICE
- VENTURI FLOW MEASURING DEVICE
- UNION
- END CAP
- EXPANSION LOOP
- FLEXIBLE CONNECTION
- PIPE ANCHOR
- 90° ELBOW
- 45° ELBOW
- PIPE ALIGNMENT GUIDE
- PIPE ELBOW UP
- PIPE ELBOW DOWN
- AUTOMATIC AIR VENT
- MANUAL AIR VENT
- STEAM TRAP
- CONCENTRIC REDUCER
- ECCENTRIC REDUCER (ON TOP)
- ECCENTRIC REDUCER (ON BOTTOM)
- FLOW SWITCH
- TEMPERATURE SWITCH
- HEAT TRACING ON PIPING
- PUMP
- THERMOMETER WELL

ANNOTATION IDENTIFICATION:

- REVISION AREA
- REVISION NUMBER
- KEYED NOTE
- DEMOLITION KEYED NOTE
- POINT OF CONNECTION TO EXISTING
- POINT OF DEMOLITION
- DETAIL NUMBER / DRAWING NUMBER
- EQUIPMENT ABBREVIATION / EQUIPMENT NUMBER
- SECTION LETTER / DRAWING NUMBER

GENERAL NOTES (APPLIES TO ALL MECHANICAL DRAWINGS):

1. THE GENERAL NOTES BELOW APPLY TO ALL MECHANICAL DRAWINGS. NOT ALL SYMBOLS AND ABBREVIATIONS LISTED ON THIS SHEET MAY APPLY TO THIS PROJECT.
2. THE CONTRACTOR SHALL SUPPLY ALL NECESSARY OFFSETS, TRANSITIONS, AND OTHER APPURTENANCES IN THE DUCTWORK SYSTEMS AS REQUIRED TO AVOID INTERFERENCES AND CONFLICTS AT NO ADDITIONAL COST TO THE PROJECT.
3. THE CONTRACTOR SHALL VERIFY ALL CONNECTIONS WITH THE EQUIPMENT MANUFACTURER'S CERTIFIED DRAWINGS AND MAKE THE NECESSARY TRANSITIONS OR OFFSETS REQUIRED TO MAKE THE FINAL CONNECTION. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS PRIOR TO FABRICATION AND INSTALLATION.
4. THE CONTRACTOR SHALL COORDINATE THE EXACT LOCATION OF ALL GRILLES, REGISTERS, AND DIFFUSERS WITH THE REFLECTED CEILING PLANS PRIOR TO INSTALLATION. SPACE SYMMETRY SHALL BE PROVIDED BASED ON THE FINAL SPACE LIGHTING LAYOUT.
5. THE CONTRACTOR SHALL VERIFY AND COORDINATE THE GRILLE, REGISTER, AND DIFFUSER MOUNTING FRAME TYPE WITH THE REFLECTED CEILING PLANS PRIOR TO INSTALLATION. CONTRACTOR SHALL MATCH THE FRAME TYPE WITH THE CEILING CONFIGURATION.
6. THE FINAL ROUTING AND ELEVATIONS OF ALL DUCTWORK SHALL BE COORDINATED WITH ALL OTHER TRADES PRIOR TO FABRICATION AND INSTALLATION.
7. ALL DUCTWORK SHALL BE INSTALLED AS CLOSE AS POSSIBLE TO THE UNDERSIDE OF BEAMS AND JOISTS.
8. PROVIDE ACCESS DOORS OR PANELS FOR DUCT MOUNTED FIRE, SMOKE, COMBINATION FIRE/SMOKE DAMPERS, AND DUCT MOUNTED SMOKE DETECTORS.
9. PROVIDE ACCESS DOORS OR PANELS IN ALL WALLS AND ACCESSIBLE CEILINGS TO SERVICE TO ANY DUCT MOUNTED FIRE OR SMOKE DAMPERS, DUCT MOUNTED SMOKE DETECTORS, VALVES, AND OTHER CONCEALED EQUIPMENT REQUIRING PERIODIC MAINTENANCE.
10. THE DUCTWORK PLANS ARE DRAWN AT A SMALL SCALE AND THE FITTINGS ARE INDICATED SYMBOLICALLY. REFER TO DETAILS FOR THE CONFIGURATION OF FITTINGS, TAPS, AND CONNECTIONS. DUCT CONSTRUCTION SHALL COMPLY WITH SMACNA CONSTRUCTION STANDARDS. ALL 90° ELBOWS SHALL BE LONG RADIUS TYPE UNLESS SPACE IS LIMITED. ALL SQUARE OR RECTANGULAR ELBOWS IN SUPPLY AIR DUCTWORK SHALL HAVE TURNING VANES.
11. PROVIDE FLEXIBLE CONNECTIONS BETWEEN THE DUCTWORK AND ALL FANS OR AIR HANDLING EQUIPMENT.
12. FLEXIBLE DUCTWORK SHALL NOT BE USED IN RETURN OR EXHAUST AIR DUCT SYSTEMS. WHERE USED IN SUPPLY AIR SYSTEMS, LIMIT TO A MAXIMUM LENGTH OF FIVE (5) FEET.
13. AT LOCATIONS WHERE OPEN ENDED DUCTS ARE INDICATED ON THE PLANS, THE CONTRACTOR SHALL FURNISH AND INSTALL 1/2" x 1/2" ALUMINUM SCREEN WITH REMOVABLE FRAMES.
14. ALL DUCTWORK SIZES INDICATED ON THE PLANS ARE CLEAR INSIDE DIMENSIONS.
15. FIRE SAFE PIPE AND DUCTWORK PENETRATIONS AT ALL FIRE AND SMOKE RESISITIVE CONSTRUCTION.
16. UNLESS OTHERWISE NOTED, MOUNT ALL THERMOSTATS AT 48" ABOVE FINISHED FLOOR.
17. INSTALL ALL ROOFTOP EQUIPMENT REQUIRING PERIODIC MAINTENANCE A MINIMUM OF TEN (10) FEET FROM THE ROOF EDGE WITHOUT A PROTECTIVE HANDRAIL OR 42" HIGH PARAPET.
18. ALL DUCT SYSTEMS SHALL BE BALANCED TO THE AIR QUANTITIES INDICATED ON THE PLANS. ALL FANS SHALL BE TESTED IN THE FIELD TO PROVE THAT THEY ARE IN COMPLIANCE WITH THE SCHEDULED FAN PERFORMANCE AND SCHEDULED AIRFLOW AT THE TOTAL DESIGN STATIC PRESSURE.
19. PROVIDE VOLUME BALANCING DAMPERS AT ALL BRANCH DUCT TAKE-OFFS, AT EACH TERMINAL DEVICE, AND WHERE INDICATED ON THE PLANS.
20. MATERIALS EXPOSED WITHIN PLENUMS SHALL BE NON-COMBUSTIBLE OR SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE DEVELOPED INDEX OF NOT MORE THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E84.
21. DUCTS PENETRATING FIRE-RESITANCE-RATED ASSEMBLIES SHALL HAVE FIRE DAMPERS AS INDICATED ON THE DRAWINGS. FIRE DAMPERS PENETRATING LESS THAN 3-HOUR FIRE-RESISTANCE-RATED ASSEMBLIES SHALL HAVE A MINIMUM DAMPER RATING OF 1 1/2 HOUR. ACCESS DOORS SHALL BE PERMANENTLY IDENTIFIED ON THE EXTERIOR BY A LABEL HAVING LETTERS NOT LESS THAN 1/2 INCHES IN HEIGHT READING, "FIRE DAMPER".

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Revisions

No.	Date	Description

04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title

Mechanical Symbols, Legend, & Abbreviations

Project Number 24.129

Date 4.30.2026

Drawing Number

M000

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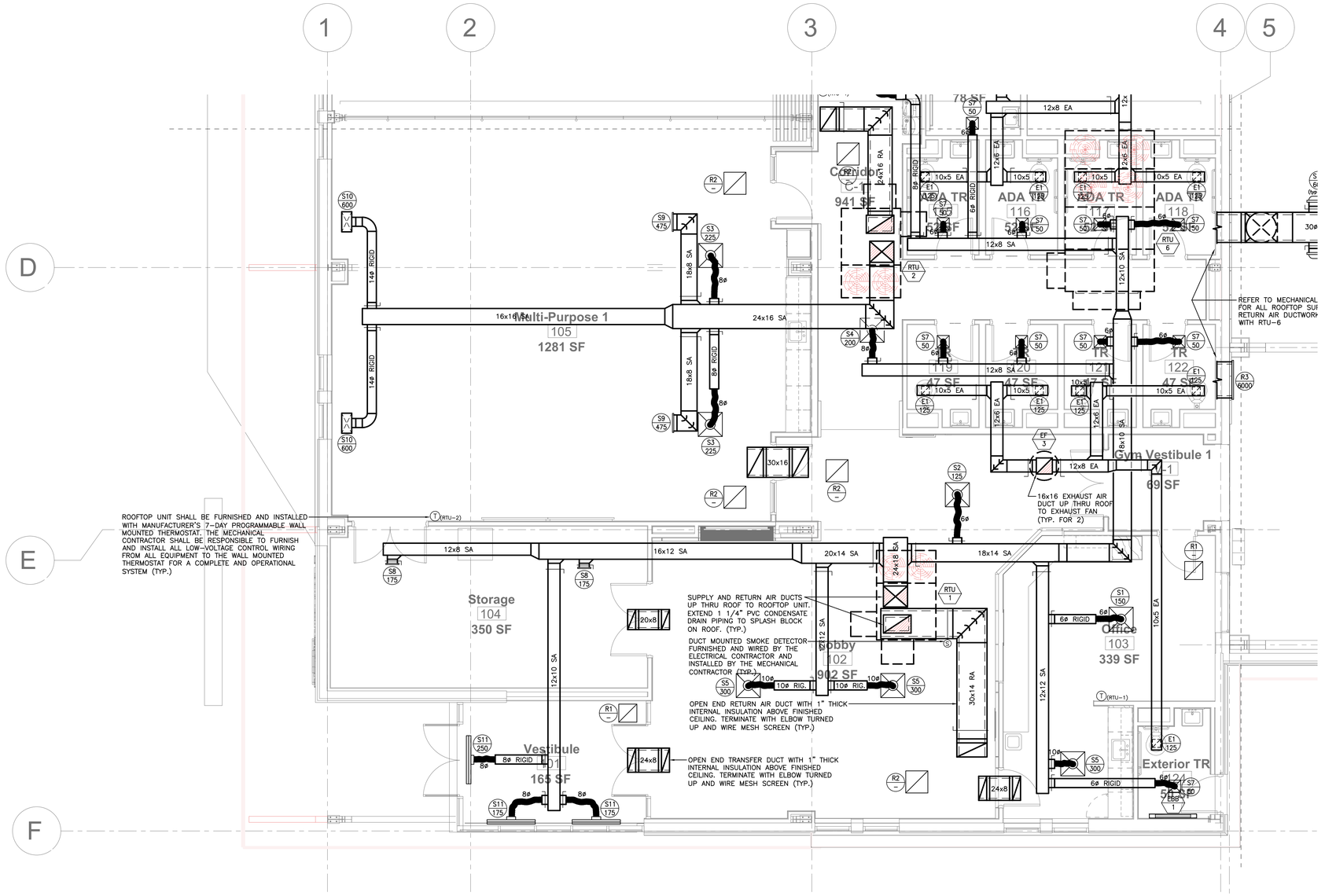

1 Mechanical Floor Plan - Area 'A'

1/4" = 1'-0"

GENERAL NOTES:

1. ALL ROOFTOP UNITS SHALL BE FURNISHED AND INSTALLED WITH MANUFACTURER'S 7-DAY PROGRAMMABLE WALL MOUNTED THERMOSTAT. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE TO FURNISH AND INSTALL ALL LOW-VOLTAGE CONTROL WIRING FROM ALL MECHANICAL EQUIPMENT TO THE ASSOCIATED WALL MOUNTED THERMOSTAT FOR A COMPLETE AND OPERATIONAL SYSTEM. PROVIDE LOCKABLE THERMOSTAT COVERS FOR ALL THERMOSTATS. ALL LOW VOLTAGE WIRING FOR THERMOSTATS SHALL BE IN CONDUIT AND SHALL BE INSTALLED WITH WALL OR FLOORS. EXPOSED CONDUIT IS PROHIBITED.

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Revisions

No.	Date	Description

04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title

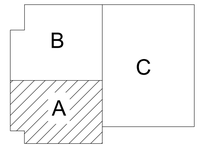
Mechanical Floor Plan - Area 'A'

Project Number 24.129

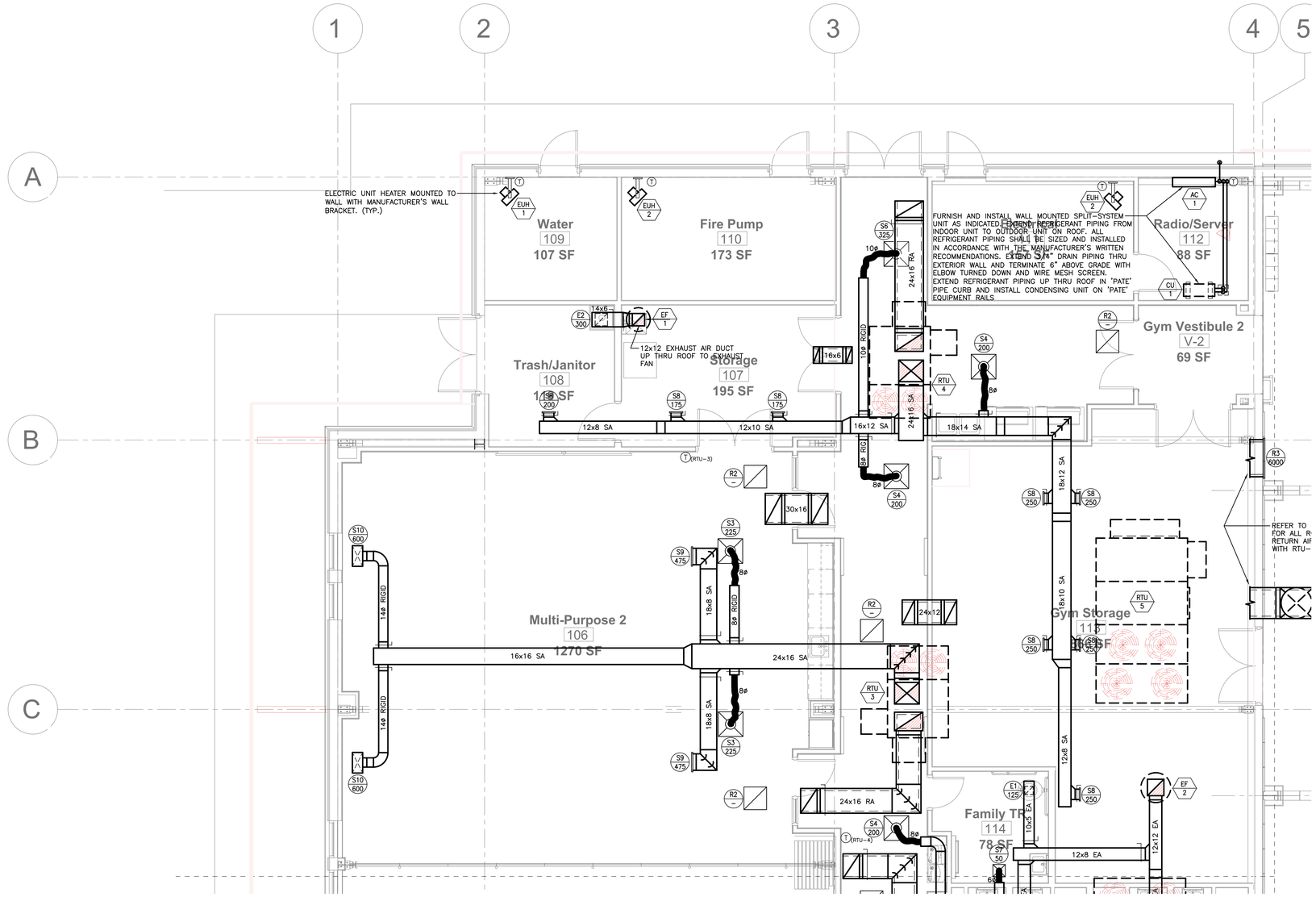
Date 4.30.2026

Drawing Number

M101



Key Plan
NTS

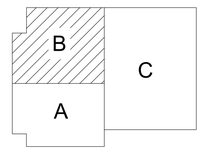


1 Mechanical Floor Plan - Area 'B'

1/4" = 1'-0"

GENERAL NOTES:

1. ALL ROOFTOP UNITS SHALL BE FURNISHED AND INSTALLED WITH MANUFACTURER'S 7-DAY PROGRAMMABLE WALL MOUNTED THERMOSTAT. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE TO FURNISH AND INSTALL ALL LOW-VOLTAGE CONTROL WIRING FROM ALL MECHANICAL EQUIPMENT TO THE ASSOCIATED WALL MOUNTED THERMOSTAT FOR A COMPLETE AND OPERATIONAL SYSTEM. PROVIDE LOCKABLE THERMOSTAT COVERS FOR ALL THERMOSTATS. ALL LOW VOLTAGE WIRING FOR THERMOSTATS SHALL BE IN CONDUIT AND SHALL BE INSTALLED WITH WALL OR FLOORS. EXPOSED CONDUIT IS PROHIBITED.



Key Plan

NTS

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Springfield Township Recreation Center

1200 East Willow Grove Avenue
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Client

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Revisions

No.	Date	Description

04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title

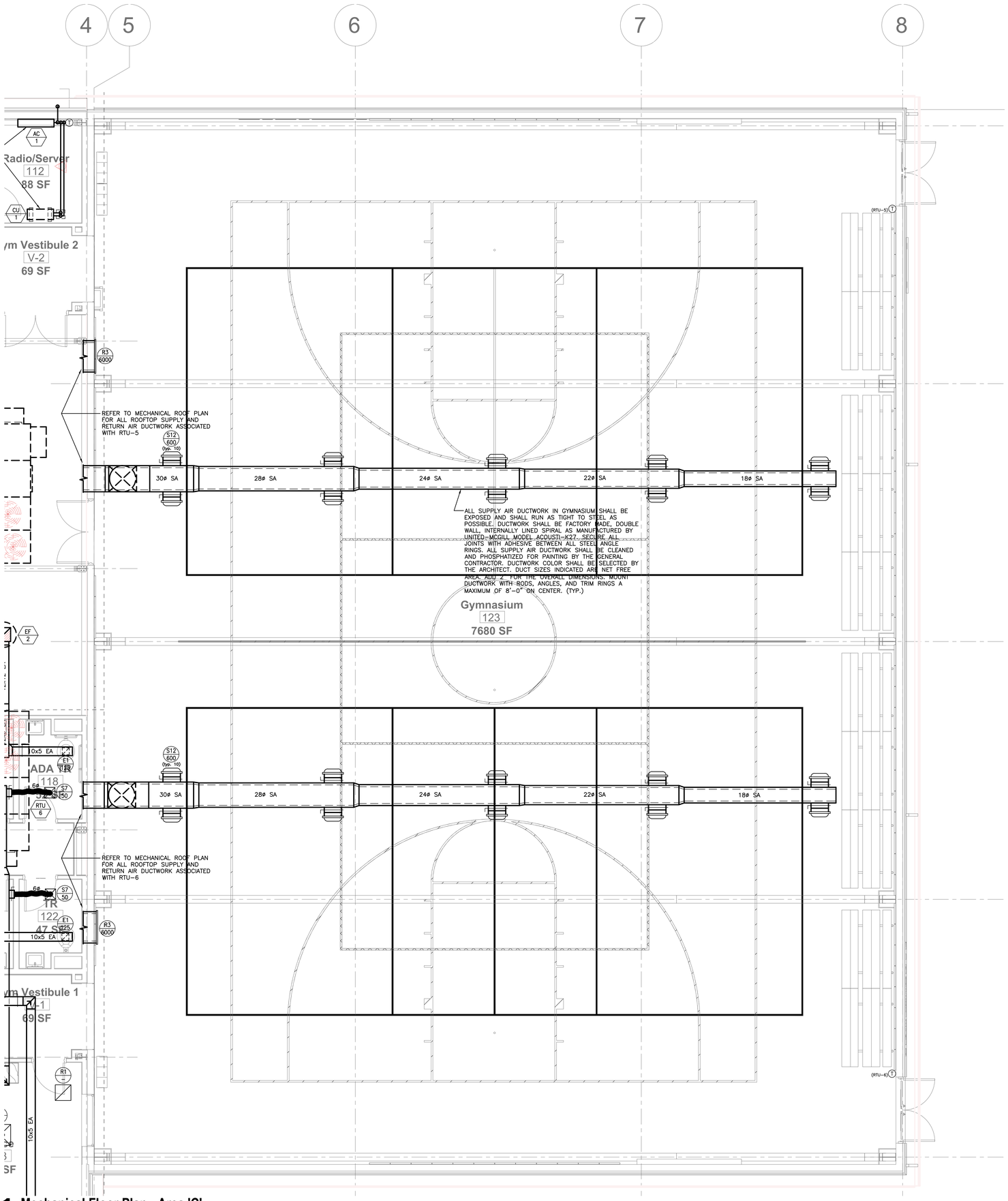
Mechanical Floor Plan - Area 'B'

Project Number 24.129

Date 4.30.2026

Drawing Number

M102

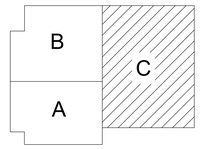


1 Mechanical Floor Plan - Area 'C'

1/4" = 1'-0"

GENERAL NOTES:

1. ALL ROOFTOP UNITS SHALL BE FURNISHED AND INSTALLED WITH MANUFACTURER'S 7-DAY PROGRAMMABLE WALL MOUNTED THERMOSTAT. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE TO FURNISH AND INSTALL ALL LOW-VOLTAGE CONTROL WIRING FROM ALL MECHANICAL EQUIPMENT TO THE ASSOCIATED WALL MOUNTED THERMOSTAT FOR A COMPLETE AND OPERATIONAL SYSTEM. PROVIDE LOCKABLE THERMOSTAT COVERS FOR ALL THERMOSTATS. ALL LOW VOLTAGE WIRING FOR THERMOSTATS SHALL BE IN CONDUIT AND SHALL BE INSTALLED WITH WALL OR FLOORS. EXPOSED CONDUIT IS PROHIBITED.



Key Plan

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Revisions

No.	Date	Description

04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title

Mechanical Floor Plan - Area 'C'

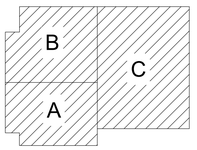
Project Number 24.129

Date 4.30.2026

Drawing Number

M103

1 Mechanical Roof Plan
1/8" = 1'-0"



Key Plan
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Revisions

No.	Date	Description

04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title

Mechanical Roof Plan

Project Number 24.129

Date 4.30.2026

Drawing Number

M104

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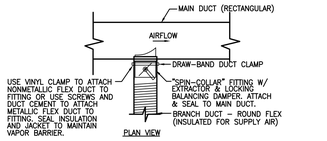
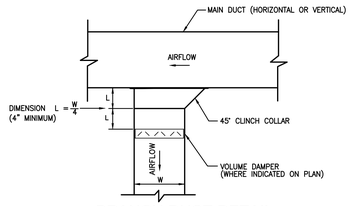
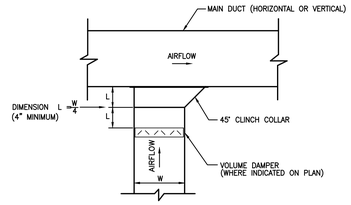


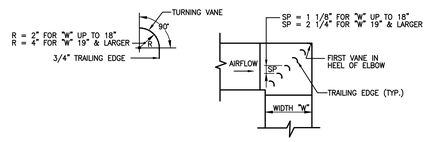
1 FLEXIBLE BRANCH DUCT DETAIL
NO SCALE (TYPICAL FOR ALL FLEX DUCT TAKEOFFS)
- DUCT SIZES AS NOTED ON PLANS



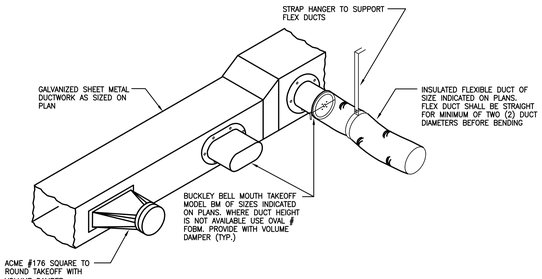
2 BRANCH DUCT DETAIL
NO SCALE (SUPPLY)
- DUCT SIZES NOTED ON PLANS



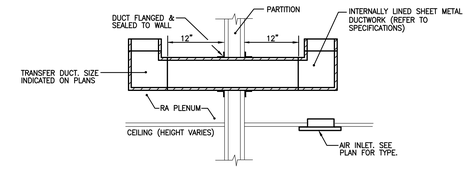
3 BRANCH DUCT DETAIL
NO SCALE RETURN OR EXHAUST
- DUCT SIZES NOTED ON PLANS



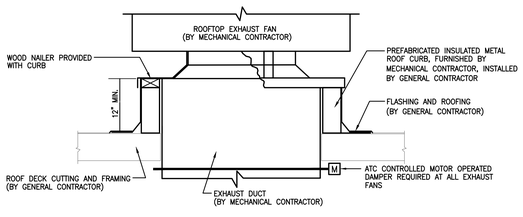
4 TURNING VANE DETAIL
NO SCALE
- 90° AND 45° RECTANGULAR ELBOWS
- SUPPLY, RETURN, AND EXHAUST DUCTS
- REFER TO SMACNA DUCT CONSTRUCTION STANDARDS



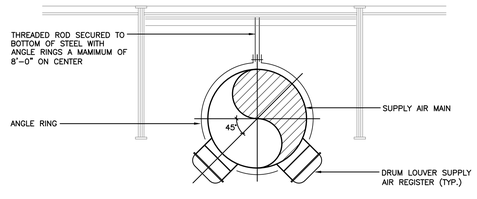
5 BRANCH DUCT AND TAKEOFF DETAIL
NO SCALE



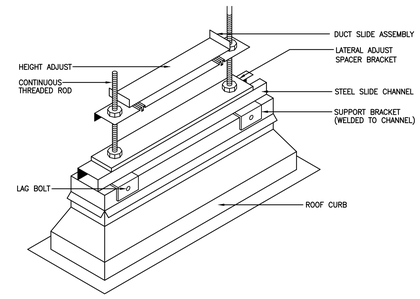
6 TRANSFER DUCT DETAIL
NO SCALE



7 GENERAL EXHAUST FAN DETAIL
NO SCALE



8 EXPOSED GYMNASIUM DUCT DETAIL
NO SCALE



9 DUCT MOUNTING PEDESTAL DETAIL
NO SCALE

HEAT PUMP ROOFTOP UNIT SCHEDULE

SYMBOL	CFM	MIN. OA CFM	SUPPLY AIR ESP (IN.)	SUPPLY FAN HP	REFRIG.	TOTAL COOLING (MBH)	SENSIBLE COOLING (MBH)	IEER	AMBIENT TEMPERATURE (°F.)	E.A.T. DB/WB (°F.)	L.A.T. DB/WB (°F.)	GAS HEAT-IN (MBH)	GAS HEAT-OUT (MBH)	E.A.T/L.A.T. DB (°F.)	MINIMUM CIRCUIT AMPACITY	MAXIMUM OVERCURRENT DEVICE	VOLTAGE / PH	BASIS OF DESIGN
RTU-1	3025	450	–	–	–	–	–	–	95	–	–	–	–	–	–	–	208 / 3	JOHNSON CONTROLS, INC. MODEL WP090N12R4BEBCA2A1
RTU-2	2600	400	–	–	–	–	–	–	95	–	–	–	–	–	–	–	208 / 3	JOHNSON CONTROLS, INC. MODEL WP078N12R4BEBCA2A1
RTU-3	2600	400	–	–	–	–	–	–	95	–	–	–	–	–	–	–	208 / 3	JOHNSON CONTROLS, INC. MODEL WP078N12R4BEBCA2A1
RTU-4	2600	260	–	–	–	–	–	–	95	–	–	–	–	–	–	–	208 / 3	JOHNSON CONTROLS, INC. MODEL WP078N12R4BEBCA2A1
RTU-5	6000	2250	–	–	–	–	–	–	95	–	–	–	–	–	–	–	208 / 3	JOHNSON CONTROLS, INC. MODEL WD25S3EP4E1CAS86B1
RTU-6	6000	2250	–	–	–	–	–	–	95	–	–	–	–	–	–	–	208 / 3	JOHNSON CONTROLS, INC. MODEL WD25S3EP4E1CAS86B1

REMARKS:
1. REFER TO SPECIFICATIONS FOR ALL ADDITIONAL ROOFTOP UNIT INFORMATION.
2. ALL ROOFTOP UNITS SHALL BE FURNISHED AND INSTALLED WITH MANUFACTURER'S 7-DAY PROGRAMMABLE WALL MOUNTED THERMOSTATS.
3. GAS PRESSURE REGULATOR FOR ALL HEAT PUMP ROOFTOP UNITS WITH NATURAL GAS AUXILIARY HEAT SHALL BE CAPABLE OF HANDLING 2 PSIG. SUPPLY GAS PRESSURE.
4. 115 V. SERVICE RECEPTACLE (POWERED THRU RTU)

EXHAUST FAN SCHEDULE

SYMBOL	TYPE	CFM	ESP	RPM	HP	VOLTAGE / PH.	CONTROL	BASIS OF DESIGN
EF-1	ROOFTOP DOMEX	300	0.38	770	1/4	115 / 1ø	TIME CLOCK	PENN-BARRY MODEL DX 08B
EF-2	ROOFTOP DOMEX	625	0.50	875	1/4	115 / 1ø	TIME CLOCK	PENN-BARRY MODEL DX 11B
EF-3	ROOFTOP DOMEX	625	0.50	875	1/4	115 / 1ø	TIME CLOCK	PENN-BARRY MODEL DX 11B

REMARKS:
1. EXHAUST FAN COLOR SHALL BE SELECTED BY ARCHITECT FROM MANUFACTURER'S STANDARD COLOR CHART.
2. EXHAUST FAN SHALL BE FURNISHED WITH A ADDITIONAL BELT AND SHEAVE FOR FINAL BALANCING.
3. EXHAUST FAN SHALL BE FURNISHED WITH 12" HIGH PRE-FABRICATED FACTORY ROOF CURB.
4. FURNISH AND INSTALL TIME CLOCK FOR EACH EXHAUST FAN.

ELECTRIC BASEBOARD RADIATION SCHEDULE

SYMBOL	TYPE	LENGTH (FEET)	OUTPUT (WATTS/FT.)	WATTS	KW	VOLTAGE / PH	BASIS OF DESIGN
EBB-1	WALL MOUNTED	4'-0"	250	1000	1.0	208 / 1ø	CHROMALOX MODEL CAF-6F410

REMARKS:
1. FURNISH ELECTRIC BASEBOARD RADIATION WITH FRONT INTAKE LOUVER AND TOP DISCHARGE LOUVER, INTEGRAL THERMOSTAT, AND DISCONNECT SWITCH.
2. ELECTRIC BASEBOARD RADIATION COLOR SHALL BE SELECTED BY ARCHITECT FROM MANUFACTURER'S STANDARD COLOR CHART.

ELECTRIC UNIT HEATER SCHEDULE

SYMBOL	AREA SERVING	TYPE	VOLTAGE/PH.	KW	HP	CFM	EAT/LAT (°F)	CONTROL	BASIS OF DESIGN
EUH-1	WATER ROOM 109	WALL MOUNTED	208 / 1ø	3	1/50	310	65/92	THERMOSTAT	CHROMALOX MODEL LUH 04 21 34
EUH-2	FIRE PUMP 110 ELECTRICAL 111	WALL MOUNTED	208 / 1ø	5	1/50	420	65/107	THERMOSTAT	CHROMALOX MODEL LUH 05 81 34

REMARKS:
1. FURNISH ELECTRIC UNIT HEATER WITH WALL BRACKET, WALL MOUNTED THERMOSTAT, AND DISCONNECT SWITCH.

AIR INLET & OUTLET SCHEDULE

SYMBOL	TYPE	MODULE SIZE	BACK PAN SIZE	NECK SIZE	PATTERN	OPPOSED BLADE DAMPER	FINISH	MATERIAL	BASIS OF DESIGN
S1	CEILING DIFFUSER	24x24	9x9	6ø	4-WAY	YES	BAKED WHITE	STEEL	TITUS MODEL TDCA
S2	CEILING DIFFUSER	24x24	9x9	6ø	2-WAY (OPPOSITE)	YES	BAKED WHITE	STEEL	TITUS MODEL TDCA
S3	CEILING DIFFUSER	24x24	12x12	8ø	4-WAY	YES	BAKED WHITE	STEEL	TITUS MODEL TDCA
S4	CEILING DIFFUSER	24x24	12x12	8ø	2-WAY (OPPOSITE)	YES	BAKED WHITE	STEEL	TITUS MODEL TDCA
S5	CEILING DIFFUSER	24x24	15x15	10ø	4-WAY	YES	BAKED WHITE	STEEL	TITUS MODEL TDCA
S6	CEILING DIFFUSER	24x24	15x15	10ø	1-WAY	YES	BAKED WHITE	STEEL	TITUS MODEL TDCA
S7	CEILING DIFFUSER	12x12	9x9	6ø	1-WAY	YES	BAKED WHITE	STEEL	TITUS MODEL TDCA
S8	WALL REGISTER	———	———	14x6	———	YES	BAKED WHITE	STEEL	TITUS MODEL 300 RL
S9	WALL REGISTER	———	———	18x8	———	YES	BAKED WHITE	STEEL	TITUS MODEL 300 RL
S10	WALL REGISTER	———	———	20x10	———	YES	BAKED WHITE	STEEL	TITUS MODEL 300 RL
S11	SLOT DIFFUSER	48" LONG	2 SLOT 1" WIDTH	8ø	2-WAY	YES	BAKED WHITE	STEEL	TITUS MODEL TBDI 30
S12	DRUM LOUVER	———	———	20x10	———	YES	BAKED WHITE	STEEL	TITUS MODEL 2010 DL SV
R1	CEILING GRILLE	———	———	18x18	———	NO	BAKED WHITE	STEEL	TITUS MODEL 350 RL
R2	CEILING GRILLE	———	———	22x22	———	NO	BAKED WHITE	STEEL	TITUS MODEL 350 RL
R3	WALL REGISTER	———	———	36x60	———	YES	BAKED WHITE	HEAVY DUTY STEEL	TITUS MODEL 33 RFS
E1	CEILING REGISTER	———	———	8x8	———	YES	BAKED WHITE	STEEL	TITUS MODEL 350 RL

REMARKS:

SPLIT SYSTEM AIR CONDITIONING UNIT SCHEDULE

SYMBOL	AREA SERVED	FAN CFM	FAN SPEED	FAN FLA	MCA	VOLTAGE / PH.	COOLING CAPACITY (MBH)	HEATING CAPACITY (MBH)	BASIS OF DESIGN
AC-1	RADIO/SERVER 111	400	MEDIUM	0.9	1.1	208 / 1	18.0	16.0	DAIKIN AC MODEL FTXN18KVJU

REMARKS:

CONDENSING UNIT SCHEDULE

SYMBOL	COOLING CAPACITY		CONDENSING UNIT DATA				BASIS OF DESIGN
	MBH	SEER	COMP. (AMPS) COOLING	COMP. (AMPS) HEATING	MCA	VOLTAGE / PH.	
CU-1	18.0	14.5	15.0	12.0	15	208 / 1	DAIKIN AC MODEL RXN18KEVJU

REMARKS:

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Revisions

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04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title

Mechanical Schedules & Details

Project Number 24.129

Date 4.30.2026

Drawing Number

M200

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PLUMBING LEGEND, ABBREVIATIONS & SYMBOLS

ABBREVIATIONS:

A	ABANDON EXISTING
AAV	AUTOMATIC AIR VENT
AC	AIR COMPRESSOR
AD	ACCESS DOOR
AF	AIR FILTER
AFF	ABOVE FINISH FLOOR
AP	ACCESS PANEL
AV	ACID VENT
AW	ACID WASTE
CA	COMPRESSED AIR
CFH	CUBIC FOOT PER HOUR
CFM	CUBIC FOOT PER MINUTE
CO	CLEAN OUT
CO2	CARBON DIOXIDE
CW	COLD WATER (DOMESTIC)
DCBP	DOUBLE CHECK (ASSEMBLY) BACKFLOW PREVENTER
DE	DEIONZIED (WATER)
DF	DRINKING FOUNTAIN
DI	DISTILLED (WATER)
DIA	DIAMETER
DWH	DOMESTIC WATER HEATER
DP	DIFFERENTIAL PRESSURE
DR	DRAIN
DWH	DOMESTIC WATER HEATER
(E)	EXISTING
ET	EXPANSION TANK
(ETR)	EXISTING TO REMAIN
EW	EYE WASHER
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EW/S	EYE WASHER/SAFETY SHOWER (COMBINATION)
FC	FLEXIBLE CONNECTOR
FCO	FLOOR CLEAN OUT
FD	FLOOR DRAIN
FFE	FINISHED FLOOR ELEVATION
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FS	FLOW SWITCH
FT	FEET
GAS	(NATURAL) GAS
GWH	GAS WATER HEATER
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GCO	GROUND CLEAN OUT
HB	HOSE BIBB
HP	HORSEPOWER
HW	HOW WATER (SUPPLY)
HWR	HOT WATER RECIRCULATION
HX	HEAT EXCHANGER
HZ	HERTZ
IDW	INDIRECT WASTE
IE	INVERT ELEVATION
IN	INCHES
KW	KILOWATTS
KW	KITCHEN (GREASE-LADEN) WASTE
LA	LABORATORY (COMPRESSED) AIR
LAV	LAVATORY
LPG	LIQUEFIED PETROLEUM GAS (PROPANE)
LV	LABORATORY VACUUM
LEC	LABORATORY EQUIPMENT CONTRACTOR
MA	MEDICAL (COMPRESSED) AIR
MAV	MANUAL AIR VENT
MAX	MAXIMUM
MBH	1000 BTU PER HOUR
MIN	MINIMUM
MR	MOP RECEPTOR
N2	NITROGEN
N2O	NITROUS OXIDE
NC	NORMALLY CLOSED
NO	NORMALLY OPENED
O2	OXYGEN
OD	OUTSIDE DIAMETER
OWH	OIL WATER HEATER
P	PUMP
PD	PUMP DISCHARGE
PRESS	PRESSURE
PRV	PRESSURE REDUCING VALVE
PS	PRESSURE SWITCH
PSIA	POUNDS PER SQUARE INCH, ABSOLUTE
PSIG	POUNDS PER SQUARE INCH, GAGE
RD	ROOF DRAIN
RWC	RAIN WATER CONDUCTOR
RPM	REVOLUTIONS PER MINUTE
RZBP	REDUCED (PRESSURE) ZONE BACKFLOW PREVENTER
S	SANITARY (DRAIN/SEWER)
SF	SQUARE FOOT
SH	SHOWER
SS	SERVICE SINK
SSD	SUB-SOIL DRAIN
SSH	SAFETY SHOWER
STK	STACK
STM	STORM (DRAIN/SEWER)
T	TEMPERATURE
TOS	TOP OF STEEL
U	URINAL
V	MEDICAL VACUUM
V	(SANITARY) VENT
VAC	VACUUM
VTR	VENT THROUGH ROOF
W	WASTE (DRAW)
WC	WATER CLOSET
WCO	WALL CLEAN OUT
WH	WALL HYDRANT
WHA	WALL HAMMER ARRESTOR
(X)	REMOVE EXISTING

PIPING SYSTEM IDENTIFICATION:

- SOIL OR WASTE (ABOVE FLOOR OR GRADE) – NEW
- SOIL OR WASTE (BELOW FLOOR OR GRADE) –NEW
- KW — KITCHEN WASTE (ABOVE FLOOR OR GRADE) – NEW
- KW — KITCHEN WASTE (BELOW FLOOR OR GRADE) –NEW
- VENT
- AW — ACID WASTE
- AV — ACID VENT
- IW — INDIRECT WASTE
- PD — PUMP DISCHARGE
- RWC — RAIN WATER CONDUCTOR (ABOVE FLOOR OR GRADE)
- RWC — RAIN WATER CONDUCTOR (BELOW FLOOR OR GRADE)
- CD — CONDESATE DRAIN
- CW — COLD WATER
- HW — HOT WATER (110°F UNLESS NOTED OTHERWISE)
- 140°F — TEMPERATURE OF WATER
- HWR — HOT WATER RETURN (CIRCULATION)
- T — TEMPERED WATER
- DI — DEIONIZED WATER
- G — NATURAL GAS
- GV — GAS VENT
- CA — COMPRESSED AIR
- DA — DENTAL COMPESSED AIR
- LV — LABORTORY VACUUM
- LA — LABORTORY COMPRESSED AIR
- PIPE LABEL — EXISTING PIPING TO REMAIN
- PIPE LABEL — EXISTING PIPING TO BE REMOVED

PIPING ACCESSORIES/EQUIPMENT IDENTIFICATION:

- CLEAN OUT
- UNION OR FLANGED CONNECTION
- SHUT-OFF VALVE
- WATER HAMMER ARRESTER
- THROTTLING VALVE
- CHECK VALVE
- DRAIN VALVE
- PRESSURE REGULATING VALVE
- PRESSURE REDUCING VALVE
- CALIBRATED BALANCING VALVE
- TWO-WAY MOTORIZED VALVE
- THREE-WAY MOTORIZED VALVE
- SOLENOID VALVE
- SAFETY RELIEF VALVE
- GAS COCK
- STRAINER
- PRESSURE GAUGE
- THERMOMETER
- ORIFICE PLATE FLOW MEASURING DEVICE
- VENTURI FLOW MEASURING DEVICE
- END CAP
- EXP — EXPANSION DEVICE
- EXPANSION COMPENSATOR
- EXPANSION LOOP
- FLEXIBLE CONNECTION
- PIPE ANCHOR
- 90° ELBOW
- 45° ELBOW
- PIPE ALIGNMENT GUIDE
- PIPE ELBOW UP
- PIPE ELBOW DOWN
- AUTOMATIC AIR VENT
- MANUAL AIR VENT
- STEAM TRAP
- CONCENTRIC REDUCER
- ECCENTRIC REDUCER (ON TOP)
- ECCENTRIC REDUCER (ON BOTTOM)
- FS — FLOW SWITCH
- TS — TEMPERATURE SWITCH
- HEAT TRACING ON PIPING
- PUMP
- THERMOMETER WELL
- HOSE BIBB
- WALL HYDRANT WITH LOCK BOX
- BACKFLOW PREVENTER
- FD- — FLOOR DRAIN
- FS- — FLOOR SINK
- AD- — AREA DRAIN
- RD- — ROOF DRAIN

ANNOTATION IDENTIFICATION:

- REVISION AREA
- REVISION NUMBER
- KEYED NOTE
- DEMOLITION KEYED NOTE
- POINT OF CONNECTION TO EXISTING
- POINT OF DEMOLITION
- DETAIL NUMBER
- DRAWING NUMBER
- EQUIPMENT ABBREVIATION
- EQUIPMENT NUMBER
- SECTION LETTER
- DRAWING NUMBER

PLUMBING GENERAL NOTES:

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL PERTINENT CODES AND REGULATIONS.
2. THE PLUMBING CONTRACTOR SHALL COORDINATE WITH OTHER TRADES TO ELIMINATE ANY CONFLICTS BETWEEN PIPING, DUCTWORK, AND ELECTRICAL WORK.
3. THESE DRAWINGS ARE DIAGRAMMATIC, THEREFORE, THE PLUMBING CONTRACTOR SHALL MAKE ADJUSTMENTS AS REQUIRED FOR A COMPLETE INSTALLATION. EXAMINE ALL PROJECT DRAWINGS TO UNDERSTAND THE WORK REQUIRED AND TO AVOID ANY INTERFERENCE WITH THE EXISTING AND NEW WORK SUCH AS DUCTS, PIPING, LIGHTING FIXTURES, STRUCTURAL BEAMS, ETC.
4. THE PLUMBING CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS AND FEES AND ARRANGE FOR INSPECTIONS BY THE LOCAL AUTHORITIES HAVING JURISDICTIONS.
5. PROTECT ALL EQUIPMENT AND FIXTURES STORED OR SET IN PLACE ON THE CONSTRUCTION SITE.
6. REFER TO ARCHITECTURAL PLANS FOR DIMENSIONS, ROOM FINISHES, CEILING HEIGHTS, AND COORDINATE PLUMBING WORK WITH ARCHITECTURAL PLANS.
7. ALL PIPING SHALL BE CONCEALED ABOVE CEILINGS, IN WALLS, OR BELOW FLOOR UNLESS NOTED OTHERWISE.
8. SLOPE SANITARY AND WASTE PIPE AT A MINIMUM OF 1/8" PER FOOT. SLOPE ALL HORIZONTAL VENT PIPE UP TOWARDS VERTICAL VENT PIPES.
9. PROVIDE EACH PLUMBING FIXTURE WITH AN ACCESSIBLE KEYLESS STOP ON EACH SUPPLY PIPE.
10. PROVIDE AN ACCESSIBLE VALVE IN FOR EACH RISER.
11. PLUMBING WORK BELOW GRADE, BELOW FLOOR, WITHIN WALLS, OR ABOVE CEILINGS SHALL NOT BE COVERED OR CONCEALED UNTIL AFTER IT IS INSPECTED AND APPROVED BY THE PLUMBING INSPECTOR OR AUTHORITY HAVING JURISDICTION.
12. WHERE FIXTURES ARE TO BE INSTALLED IN PLACE OF EXISTING, FIELD VERIFY ROUGH-IN REQUIREMENTS AND PROVIDE NEW FIXTURES WITH THE APPROPRIATE ROUGH-IN DIMENSIONS.
13. PLUMBING CONTRACTOR SHALL PERFORM ALL CUTTING AND PATCHING ASSOCIATED WITH THE INSTALLATION OF NEW FIXTURES, PIPING, CARRIERS, ETC. WITHIN EXISTING WALL, FLOOR, OR ABOVE CEILINGS. PATCH ALL AFFECTED AREAS TO MATCH THE EXISTING SURROUNDING SUBSTRATE AND FINISH SURFACES.
14. PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR ANY CORE DRILLING OF CONCRETE FLOORS REQUIRED FOR THE INSTALLATION OF PIPING OR FIXTURES,
15. PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ANY EXISTING CEILING GRID, TILES, OR LIGHT FIXTURES AS MAY BE REQUIRED FOR THE INSTALLATION OF THE NEW PIPING. REINSTALL ALL REMOVED GRID, TILES, AND LIGHT FIXTURES AFTER NEW WORK HAS BEEN INSTALLED AND TESTED.

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Revisions

No.	Date	Description

04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title

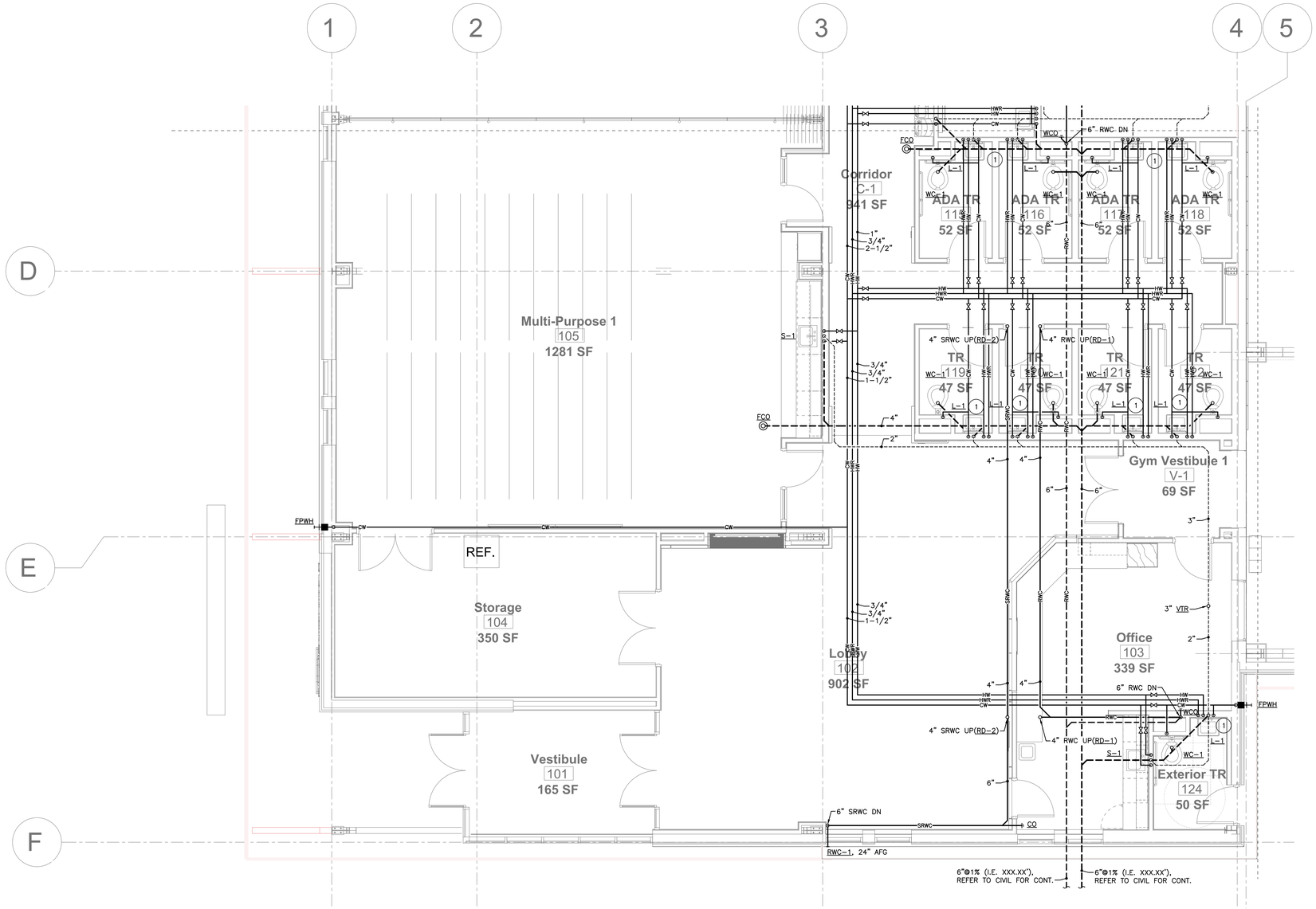
Plumbing Legend, Abbreviations & Symbols

Project Number 24.129

Date 4.30.2026

Drawing Number

P000

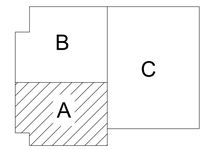


1 Plumbing Floor Plan - Area 'A'

1/4" = 1'-0"

KEYED NOTES:

1. WALL-HUNG LAVATORY WITH CONCEALED ARM CARRIER. EXTEND 2" SANITARY AND VENT BRANCH PIPING AND 1/2" DOMESTIC COLD WATER, 1/2" DOMESTIC HOT WATER, AND 1/2" DOMESTIC HOT WATER RECIRCULATING PIPING DOWN WITHIN WALL TO SERVE THE FIXTURE. CONNECT HOT WATER RECIRCULATING PIPING WITHIN 2' OF THE PLUMBING FIXTURE IN ACCORDANCE WITH THE INTERNATIONAL ENERGY CONSERVATION CODE. PROVIDE CALIBRATED BALANCE VALVE AND CHECK VALVE, AND BALANCE TO 0.5 GPM.



Key Plan

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Revisions

No.	Date	Description

04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title

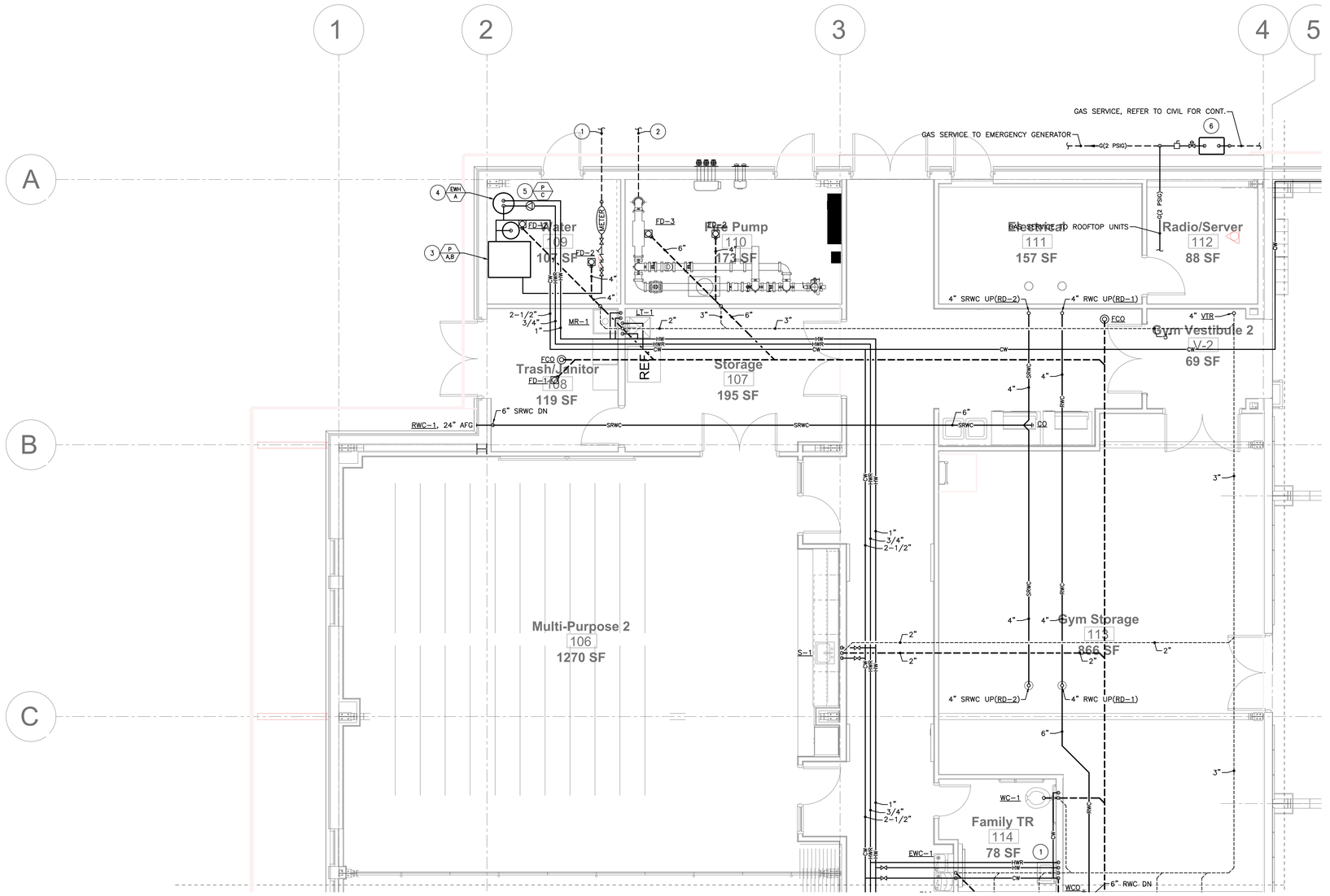
Plumbing Floor Plan - Area 'A'

Project Number 24.129

Date 4.30.2026

Drawing Number

P101

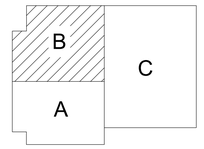


1 Plumbing Floor Plan - Area 'B"

1/4" = 1'-0"

KEYED NOTES:

1. NEW 3" DOMESTIC WATER SERVICE. REFER TO CIVIL DRAWINGS FOR CONTINUATION.
2. NEW 6" FIRE WATER SERVICE. REFER TO CIVIL DRAWINGS FOR CONTINUATION.
3. SKID-MOUNTED DOMESTIC WATER BOOSTER PUMP ASSEMBLY P-A,B WITH DUPLEX VERTICAL IN-LINE PUMPS, PIPING HEADERS, ISOLATION VALVES, AND CONTROL PANEL. THE COMPLETE PUMP ASSEMBLY SHALL BE UL QCZJ LISTED. FURNISH PUMP ASSEMBLY WITH SUPPLEMENTAL EXPANSION TANK WITH MINIMUM 23 GALLON VOLUME.
4. ELECTRIC WATER HEATER EWH-A ON 4" CONCRETE HOUSEKEEPING PAD. REFER TO SCHEDULE AND DETAIL FOR ADDITIONAL INFORMATION.
5. DOMESTIC HOT WATER RECIRCULATING PUMP P-C SUPPORTED FROM STRUCTURE ABOVE. REFER TO SCHEDULE AND DETAIL FOR ADDITIONAL INFORMATION.
6. PLUMBING CONTRACTOR SHALL COORDINATE WITH GAS UTILITY PROVIDER FOR NEW METER INSTALLATION. SERVICE PIPING AND METER SHALL BE FURNISHED/INSTALLED BY GAS UTILITY PROVIDER. PLUMBING CONTRACTOR SHALL INSTALL CONCRETE PAD/BASE AS DIRECTED BY THE GAS UTILITY PROVIDER. ALL BUILDING-SIDE BELOW-GRADE PIPING SHALL BE INSTALLED BY PLUMBING CONTRACTOR. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO; TRENCHING, PIPE BASE, SERVICE INDICATOR/MARKER AND BACKFILL. ALL GAS PIPING PENETRATIONS THROUGH GRADE SHALL UTILIZE A SERVICE RISER.
7. WALL-HUNG LAVATORY WITH CONCEALED ARM CARRIER. EXTEND 2" SANITARY AND VENT BRANCH PIPING AND 1/2" DOMESTIC COLD WATER, 1/2" DOMESTIC HOT WATER, AND 1/2" DOMESTIC HOT WATER RECIRCULATING PIPING DOWN WITHIN WALL TO SERVE THE FIXTURE. CONNECT HOT WATER RECIRCULATING PIPING WITHIN 2' OF THE PLUMBING FIXTURE IN ACCORDANCE WITH THE INTERNATIONAL ENERGY CONSERVATION CODE. PROVIDE CALIBRATED BALANCE VALVE AND CHECK VALVE, AND BALANCE TO 0.5 GPM.



Key Plan

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Revisions

No.	Date	Description

04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title

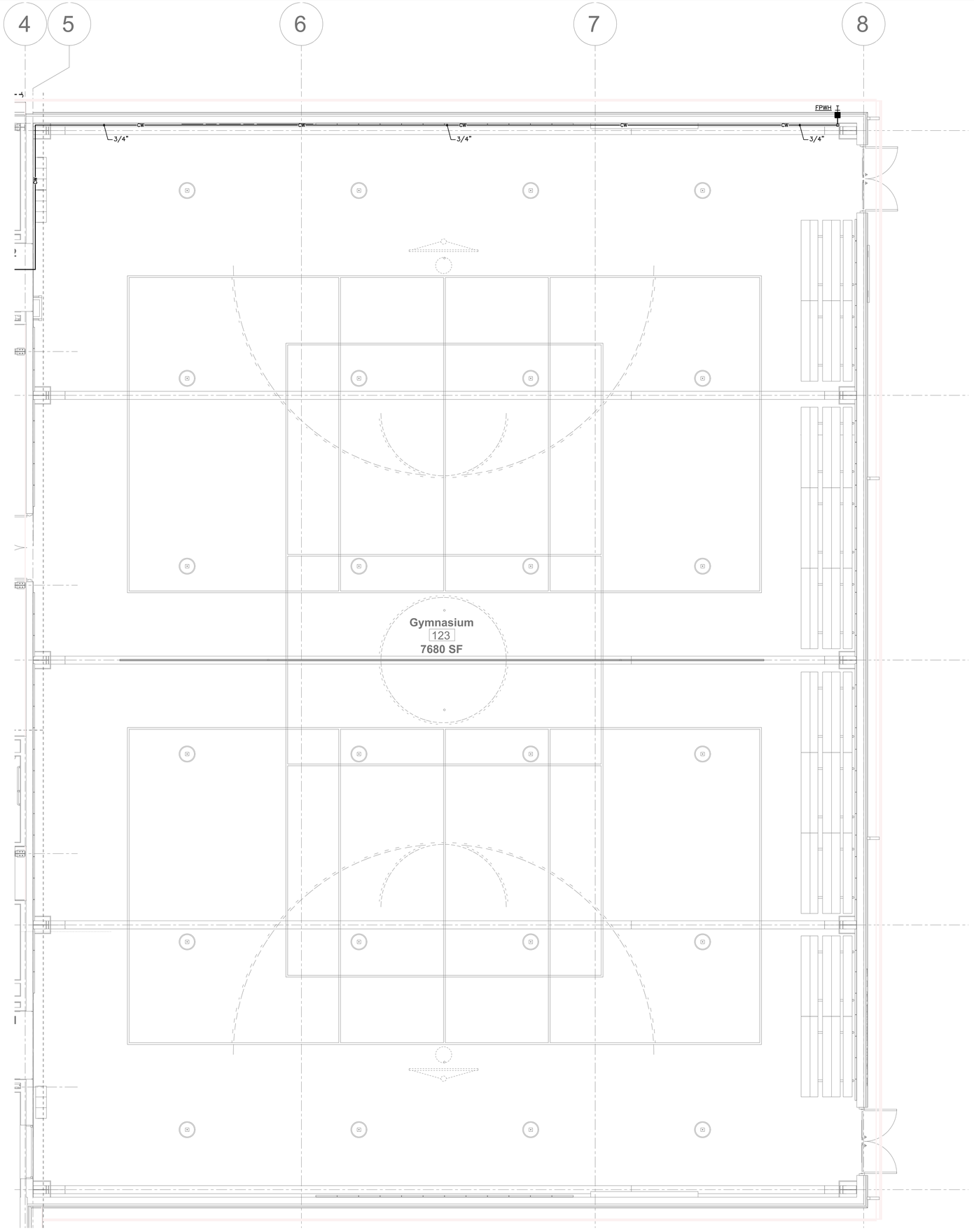
Plumbing Floor Plan - Area 'B'

Project Number 24.129

Date 4.30.2026

Drawing Number

P102



1 Plumbing Floor Plan - Area 'C'

1/4" = 1'-0"

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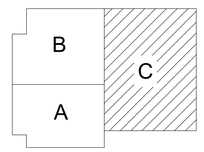
Revisions

No.	Date	Description

04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title

Plumbing Floor Plan - Area 'C'



Key Plan
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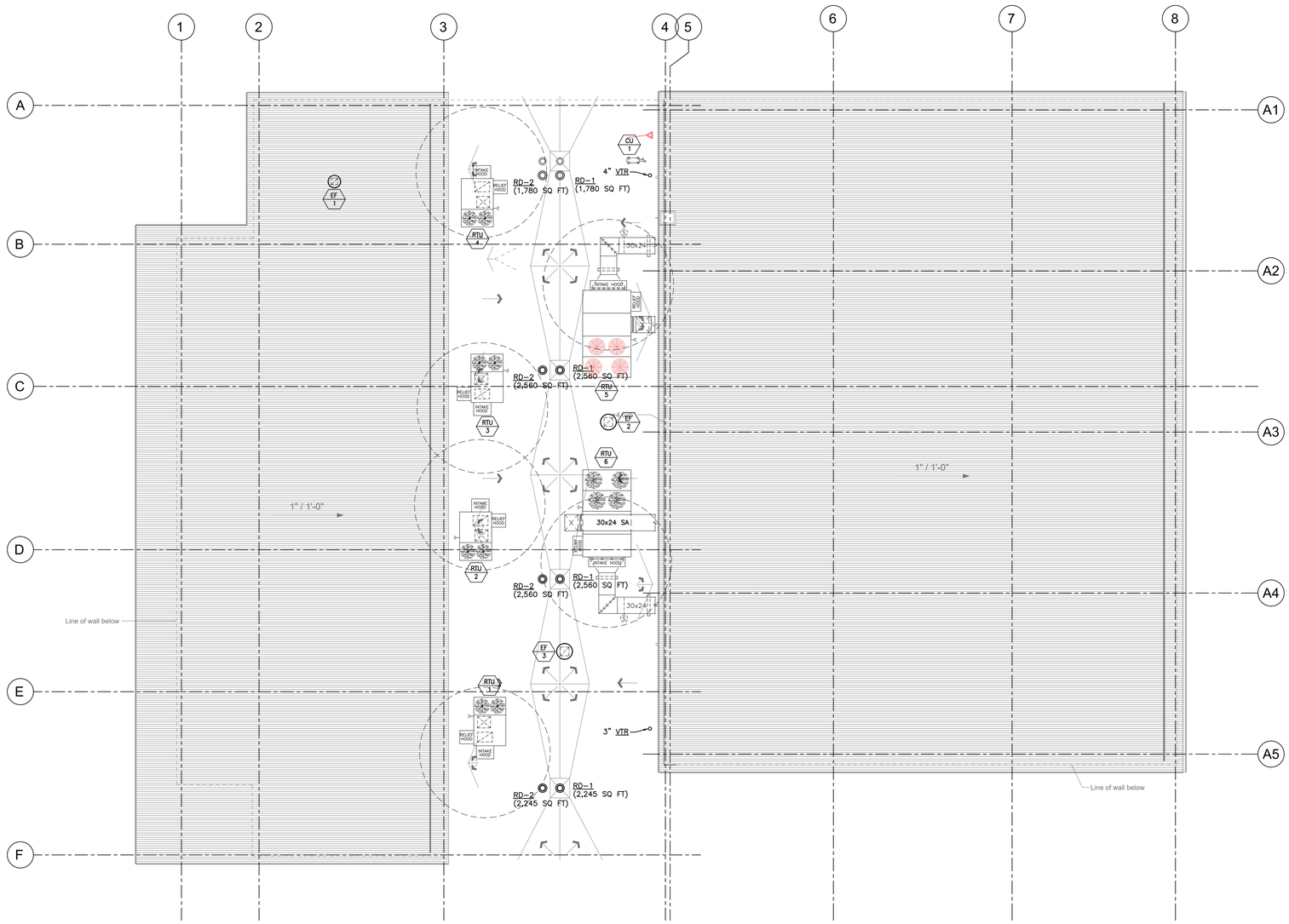
Project Number 24.129

Date 4.30.2026

Drawing Number

P103



1 Plumbing Roof Plan

1/8" = 1'-0"

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Revisions

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04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title

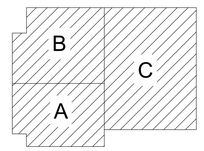
Plumbing Roof Plan

Project Number 24.129

Date 4.30.2026

Drawing Number

P104



Key Plan
NTS

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DRAINAGE SCHEDULE

SYMBOL	DESCRIPTION	BODY	TOP/STRAINER	REMARKS
CO	CLEAN OUT	Z-1440	–	ABS PLUG; TAPERED THREADS
FCO	FLOOR CLEAN OUT	ZN-1400	BRONZE TOP	ADJUSTABLE TO FINISHED FLOOR
GCO	GROUND CLEAN OUT	Z-1400	BRONZE TOP	ADJUSTABLE TO FINISHED GRADE
WCO	WALL CLEAN OUT	ZB-1446	STAINLESS STEEL WALL PLATE	ROUND WALL ACCESS PANEL
FD-1	FLOOR DRAIN	Z415BZ	5-3/16"ø BRONZE TOP	2" OUTLET, NOTE 4
FD-2	FLOOR DRAIN	Z550-Y	9"ø, C.I. GRATE	4" OUTLET, NOTE 4
FD-3	FLOOR DRAIN	Z550-Y	9"ø, C.I. GRATE	6" OUTLET, NOTE 4
RD-1	ROOF DRAIN (PRIMARY)	Z-100-DP-EA	12" DIA. CI DOME	15" DIA. CAST IRON BODY, 4" OUTLET
RD-2	ROOF DRAIN (SECONDARY)	Z-100-DP-89	12" DIA. CI DOME	15" DIA. CAST IRON BODY, 4" OUTLET
RWC-1	RWC NOZZLE	ZANB-Z199	NICKEL BRONZE	6" INLET, 2-3/4" TONGUE

REMARKS:

1. UNLESS OTHERWISE NOTED, MODEL NUMBERS SHOWN ARE FOR ZURN INDUSTRIES PRODUCT. SHOWN AS A BASIS OF DESIGN.
2. SEE PLANS FOR PIPE SIZES.
3. REFER TO ARCHITECTURAL DRAWINGS FOR FLOOR FINISHES. PROVIDE CLEAN OUT SUITABLE FOR FLOOR FINISH SHOWN PER SPECIFICATIONS.
4. FLOOR DRAIN TO BE PROVIDED WITH TRAP PRIMER. ASSE 1072 MECHANICAL TRAP GUARD AS MANUFACTURED BY SURESEAL MAY BE SUBSTITUTED IN LIEU OF TRAP PRIMER IF APPROVED BY AUTHORITY HAVING JURISDICTION.

WATER HAMMER ARRESTOR SCHEDULE

SYMBOL	DESRIPTION	FIXTURE UNITS	PIPE SIZE	AIR CHAMBER CAPACITY (CU. IN.)	NOTES
WHA-A	PLUMBING DRAINAGE INSTITUTE (PDI), TYPE A	1-11	1/2"	3.5	1, 2, 3
WHA-B	PLUMBING DRAINAGE INSTITUTE (PDI), TYPE B	12-32	3/4"	4.3	1, 2, 3
WHA-C	PLUMBING DRAINAGE INSTITUTE (PDI), TYPE C	33-60	1"	6.5	1, 2, 3

NOTES:
1. INSTALL IN AN ACCESSIBLE LOCATION FOR MAINTENANCE.
2. INSTALL ON ALL PLUMBING EQUIPMENT WITH QUICK CLOSING VALVES.
3. INSTALL ON COMMERCIAL DISHWASHER.

DOMESTIC WATER BOOSTER PUMP SCHEDULE

(P-)

SYMBOL	SERVICE	PUMPS (QTY.)	LOCATION	PUMP FLOW (GPM)	PUMP PRESS. (FT. WG.)	SYSTEM FLOW (GPM)	SYSTEM PRESS. (FT. WG.)	TYPE	HP	VOLTS	PHASE	FLA (SYSTEM)	BASIS OF DESIGN	NOTES
P-A,B	DOMESTIC WATER	2	WATER (109)	50	69.3	50	69.3	VERTICAL, MULTI-STAGE	(2)3	208	3	31.4	WILO: CO2 MVI-1SB-50	NOTES: 1,2,3

NOTES:

1. FURNISH WITH INTEGRAL HOA, VFDs, PUMP LEAD-LAG CONTROLLER AND LOCAL ALARM PANEL.
2. SKID-MOUNTED PUMP SET SHALL INCLUDE 23 GALLON VERTICAL EXPANSION TANK FOR FIELD INSTALLATION.
3. CONTRACTOR SHALL EXTEND CONTROL WIRING FROM CONTROL PANEL TO BMS.

PUMP SCHEDULE

(P-)

SYMBOL	SERVICE	NUMBER REQUIRED	LOCATIONS	GPM	HEAD (FT.)	TYPE	RPM	HP	VOLTS	PHASE	PUMP BASIS OF DESIGN	NOTES
P-C	HOT WATER CIRCULATION	1	WATER (109)	7.5	20	IN-LINE	2831	0.5	208	1	BELL&GOSSETT: ECOCIRC XL 55-45	NOTE 1,2

NOTES:

1. PROVIDE WITH TEMPERATURE AQUASTAT AND 24 HOUR/7 DAY TIMER.
2. INSTALL WITH FLANGE CONNECTIONS.
3. PROVIDE THERMOMETER AT SUCTION SIDE OF CIRCULATION PUMP.

ELECTRIC WATER HEATER SCHEDULE

(EWH-)

SYMBOL	STORAGE (GAL.)	RECOVERY GPH	RECOVERY DEG. RISE	ELEC. INPUT (KW)	ELECTRICAL VOLT / PH / HZ	TEMP SETTING	REMARKS	BASIS OF DESIGN
EWH-A	80	50	100°F	4.5/4.5/4.5	208/3	140°F	1	BRADFORD WHITE: CEHD8013.53-3

REMARKS:

1. WATER HEATER HAS THREE (3) 4.5 KW HEATING ELEMENTS. RECOVERY BASED ON SIMULTANEOUS HEATING ELEMENT USAGE.

PLUMBING FIXTURE SPECIFICATION SCHEDULE

SYMBOL	FIXTURE	PIPE CONNECTION SIZES	MATERIAL	DESCRIPTION	OPERATION/CONTROLS	MANUFACTURERS		REMARKS
WC-1	WATER CLOSET (ADA)	CW: 1" HW: -- VENT: 2" SAN: 4"	VITREOUS CHINA (WHITE)	ADA ACCESSIBLE STYLE: FLUSH VALVE OPERATION: DESIGN CONSUMPTION: 1.6 GPF HEIGHT: ACCESSIBLE SPUD LOCATION: TOP MOUNTING: WALL CARRIER OUTLET: REAR BOWL: ELONGATED TOILET SEAT: WHITE COMMERCIAL OPEN FRONT W/ S.S. SSC HINGES.	FLUSHOMETER VALVE: CHROME PLATED BRASS BODY, CHECK VALVE, VACUUM BREAKER DESIGN: DIAPHRAGM OR PISTON STYLE: EXPOSED INLET SIZE: 1" VACCUM BREAKER: 1-1/2" TRIP MECHANISM: HANDS-FREE W/ MANUAL OVER-RIDE CONSUMPTION: 1.6 GPF OR LESS	WATER CLOSET: AMERICAN STANDARD CO. (AFWALL: 2257.101) SEAT: CHURCH SEATS (MODEL: 9500SSCT)	FLUSHOMETER: SLOAN VALVE COMPANY (ROYAL OPTIMA MODEL 8111-1.6)	REFER TO DRAWINGS FOR TRIP LEVER SIDE OF TOILET.
L-1	LAVATORY (PUBLIC)	CW: 1/2" HW: 1/2" VENT: 2" SAN: 2"	VITREOUS CHINA (WHITE)	ADA ACCESSIBLE SIZE: 20"L-Rx18"F-B INSTALLATION: WALL-HUNG RIM HEIGHT: ADA FAUCET HOLES: SINGLE-HOLE OVERFLOW: REQUIRED DRAIN: GRID SUPPORT: WALL CARRIER	ADA ACCESSIBLE FAUCET: COMMERCIAL CHROME PLATED BRASS BODY CENTERS: SINGLE HOLE MAX. FLOW RATE: 0.5 GPM SPOUT OUTLET: -- SUPPLIES: 1/2" OPERATION: HANDS-FREE, BATTERY OPERATED	LAVATORY: AMERICAN STANDARD CO. (DECORUM: 9024.001EC)	FAUCET: SLOAN VALVE (OPTIMA MODEL: EBF-187-4)	FURNISH WITH SEMI-CAST BRASS P-TRAP, CHROME PLATED SUPPLIES, LOOSE KEY STOPS. PROVIDE ASSE 1070 TEMPERING VALVE FOR MAXIMUM HOT WATER TEMPERATURE OF 110°F
S-1	SINK	CW: 1/2" HW: 1/2" VENT: 2" SAN: 2"	STAINLESS STEEL, 18GA TYPE 304	ADA ACCESSIBLE OVERALL: 19"L-Rx18"F-Bx6.5"D BOWL: 16"L-Rx11.5"F-Bx6"D MOUNTING: ARCH, INTEGRAL FAUCET HOLES: 8" CENTERS W/ FOURTH HOLE DRAIN: 3.5" CRUMB CUP STRAINER DRAIN LOCATION: CENTER REAR SINK OVERFLOW: YES	ADA ACCESSIBLE FAUCET: COMMERCIAL, CHROME PLATED BRASS BODY WITH SIDE SPRAY MOUNTING: 8" FIXED CENTERS IN SINK MAX. FLOW RATE: 2.2 GPM SPOUT: SWING SPOUT SIZE: 10" SPREAD SPOUT OUTLET: AERATOR OPERATION: MANUAL, CERAMIC DISK HANDLES: SINGLE 4-5/8" ADA LEVER AND SIDE SPRAY	SINK: ELKAY (MODEL: LRAD19180)	FAUCET: CHICAGO FAUCETS: (MODEL: 2301-ABCP)	FURNISH AND INSTALL SEMI-CAST BRASS P-TRAP, CHROME PLATED SUPPLIES, LOOSE KEY STOPS. PROVIDE ASSE 1070 TEMPERING VALVE FOR MAXIMUM HOT WATER TEMPERATURE OF 110°F
MR-1	MOP RECEPTOR	CW: 1/2" HW: 1/2" VENT: 2" SAN.: 4"	STAINLESS STEEL, 14GA TYPE 304	SIZE: 24"L-R x 24"F-B HEIGHT: 10" AFF DRAIN: 3" PROVIDED W/ MR WALL GUARDS: BACK & SIDE, STAINLESS STEEL MOP BRACKET: 24"L X 3"W, (3) RUBBER TOOL GRIPS HOSE & BRACKET: 5/8" X 30"L	FAUCET: CHROME PLATED BRASS BODY MOUNTING: WALL OPERATION: COMPRESSION, MANUAL HANDLES: LEVER CENTERS: 8 INCHES SPOUT: 3/4" HOSE THREAD PAIL HOOK: REQUIRED WALL BRACE: REQUIRED VACUUM BREAKER: REQUIRED	MOP RECEPTOR: FIAT PRODUCTS (MODEL: MSB-2424)	FAUCET: CHICAGO FAUCET CO. (MODEL 540-LD897SWXFCP)	
LT-1	LAUNDRY TRAY	CW: 1/2" HW: 1/2" VENT: 2" SAN.: 2"	MOLDED STONE	SIZE: 20"L-Rx24"F-B BOWL: 17.75"x20.13"x11.63" HEIGHT: 33-3/4" AFF DRAIN: GRID DRAIN LOCATION: CENTER REAR	FAUCET: CHROME PLATED BRASS BODY MOUNTING: DECK OPERATION: NON-COMPRESSION, MANUAL HANDLES: 2-3/8" LEVER CENTERS: 4 INCHES SPOUT: 5-3/8" L-TYPE SWING, 3/4" HOSE THREAD VACUUM BREAKER: REQUIRED	FIXTURE: FIAT PRODUCTS (MODEL: FL-7)	FAUCET: CHICAGO FAUCET CO. MODEL 895-L5VBXKCP	SECURE TO FIXTURE TO WALL AND FLOOR
EWC-1	ELECTRIC WATER COOLER	CW: 1/2" HW: -- VENT: 2" SAN.: 2"	STAINLESS STEEL, SATIN FINISH	ADA ACCESSIBLE TYPE: P8, PRESSURE WITH BUBBLER AND BOTTLE FILLING STATION MOUNTING: WALL CABINET: BI-LEVEL, ONE ADA HEIGHT WITH BOTTLE FILLER, ONE STANDARD HEIGHT NOTE: ADA ON LEFT SIDE	CONTROL: PUSH OR PUSH BUTTON REFRIGERATION SYSTEM: INTEGRAL IN CABINET CAPACITY: 8.0 GPH, 80 DEG INLET, 50 DEG OUTLET WATER ELECTRIC: 1/5HP, 120V, 60HZ SUPPORT: MOUNTED ON WALL CANE TOUCH APRON: REQUIRED	ACORN ENGINEERING COMPANY BRADLEY COMPANY ELKAY (BOD: MODEL LZSTLBWSSP) FILTRINE COMPANY HALSEY TAYLOR OASIS CORPORATION SUNROC CORPORATION		
PS-1	ADA PROTECT. SHIELDING GUARD	----	PVC INSUL. WRAP (WHITE)	PVC WRAP FOR COVERING PLUMBING FIXTURE HOT AND COLD WATER SUPPLIES, VALVES, TRAP, AND DRAIN PIPING	-------	McGUIRE MANUFACTURING CO., INC. PLUMBEREX SPECIALTY PRODUCTS INC. TRUEBRO, INC.		FURNISH AND INSTALL ON ALL ADA FIXTURES AND FIXTURES NOTED IN THIS SPECIFICATION SCHEDULE

NOTES

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Revisions

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Plumbing Schedules

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P200

FIRE PROTECTION SYMBOLS, ABBREVIATIONS & GENERAL NOTES

GENERAL ABBREVIATIONS

@	AT	EFF	EFFICIENCY	NTS	NOT TO SCALE
1Ø, 3Ø	SINGLE PHASE, THREE PHASE	EL	ELEVATION	O2	OXYGEN
		ELEC	ELECTRICAL	OA	OUTSIDE AIR
A,AMP	AMPERE	ELEV	ELEVATOR	OB	OFF BOTTOM
ABV	ABOVE	EMER	EMERGENCY	OC	ON CENTER
AC	AIR COMPRESSOR	ENCL	ENCLOSURE	OCC	OCCUPIED / OCCUPANCY
AD	ACCESS DOOR	EQ	EQUAL		
ADR	AREA DRAIN	EQUIP	EQUIPMENT	OD	OUTSIDE DIMENSION / DIAMETER
AFC	ABOVE FINISHED CEILING	EQUIV	EQUIVALENT		
		ESC	ESCUTCHEON	OFCI	OWNER-FURNISHED, CONTRACTOR-INSTALLED
AFF	ABOVE FINISHED FLOOR	ETC	AND SO FORTH		
AFG	ABOVE FINISHED GRADE	EW	EYEWASH		
AHU	AIR HANDLING UNIT	EWC	ELECTRICAL WATER COOLER	OFOI	OWNER-FURNISHED, OWNER-INSTALLED
ALUM	ALUMINUM	EWH	ELECTRIC WATER HEATER	OPNG	OPENING
AP	ACCESS PANEL			OS	OPEN SITE DRAIN
APPROX	APPROXIMATELY	EWT	ENTERING WATER TEMPERATURE	OT	OFF TOP
AR	ARGON			PART	PARTIAL
AUX	AUXILIARY			PC	PLUMBING CONTRACTOR
AV	ACID VENT	EX	EXAMPLE		
AVG	AVERAGE	EXP	EXPANSION	PCW	PROCESS COLD WATER
AVTR	ACID VENT THRU ROOF	EXT	EXTERNAL / EXTERIOR	PD	PRESSURE DROP
AW	ACID WASTE	°F	DEGREES FAHRENHEIT	PE	PNEUMATIC-ELECTRIC
AWS	ANIMAL WATERING SYSTEM	FFA	FROM FLOOR ABOVE	PERF	PERFORATED
		FFB	FROM FLOOR BELOW	PH	PHASE
BA	BREATHING AIR	FC	FAIL CLOSED	PHW	PROCESS HOT WATER
BAS	BUILDING AUTOMATION SYSTEM	FCO	FLOOR CLEANOUT	PHWR	PROCESS HOT WATER RETURN
		FD	FLOOR DRAIN		
BFC	BELOW FINISH CEILING	FDC	FLOOR DEPARTMENT CONNECTION	PI	PRESSURE INDICATOR
BFP	BACKFLOW PREVENTOR	FDV	FIRE DEPARTMENT VALVE	PIV	POST INDICATOR VALVE
BHP	BRAKE HORSEPOWER			PLBG	PLUMBING
BLDG	BUILDING	FDVC	FIRE DEPARTMENT VALVE CONNECTION	PNEU	PNEUMATIC
BLW	BELOW			POLY	POLYETHYLENE
BSMT	BASEMENT	FLG	FLANGE	POS	POSITIVE
BMS	BUILDING MANAGEMENT SYSTEM	FLA	FULL LOAD AMPS	PRESS	PRESSURE
		FLEX	FLEXIBLE	PRV	PRESSURE REDUCING VALVE
BOD	BOTTOM OF DUCT	FLR	FLOOR		
BOP	BOTTOM OF PIPE	FO	FAIL OPEN	PSI	POUNDS PER SQUARE INCH
BOS	BOTTOM OF STEEL	FP	FIRE PROTECTION		
BTU	BRITISH THERMAL UNIT	FPM	FEET PER MINUTE	PSIG	POUNDS PER SQUARE INCH GAUGE
BTUH	BRITISH THERMAL UNIT PER HOUR	FPS	FEET PER SECOND		
		FRP	FIBER REINFORCED POLYESTER	PSIA	POUNDS PER SQUARE INCH ABSOLUTE
BV	BALL VALVE				
BWV	BACKWATER VALVE	FS	FLOW SWITCH	PV	PLUG VALVE
BYP	BYPASS	FT	FEET	PVC	POLYVINYL CHLORIDE
°C	DEGREES CENTIGRADE	FTB	FLOOR TO BOTTOM	QTY	QUANTITY
CA	COMPRESSED AIR	FTC	FLOOR TO CENTERLINE	(R)	REMOVE
CAD	COMPRESSED AIR DRYER	FTT	FLOOR TO TOP	(RE)	RELOCATED EXISTING
CAF	COMPRESSED AIR FILTER	FURN	FURNISH	RAC	RUN ABOVE CEILING
CAFM	COMPRESSED AIR FLOW METER	FUT	FUTURE	RAF	RUN ABOVE FLOOR
		FXC	FLEXIBLE CONNECTION	RATC	RUN AT CEILING
CAP	CAPACITY	G	NATURAL GAS	RBC	RUN BELOW CEILING
CAR	COMPRESSED AIR RECEIVER	GA	GAUGE	RBF	RUN BELOW FLOOR
		GAL	GALLON	RBG	RUN BELOW GRADE
CB	CATCH BASIN	GALV	GALVANIZED	RBJ	RUN BETWEEN JOIST
CBV	CIRCUIT BALANCING VALVE	GC	GENERAL CONTRACTOR	RD	ROOF DRAIN
		GLV	GLOBE VALVE	RDC	REDUCER
CCW	COUNTERCLOCKWISE	GMP	GOOD MANUFACTURING PRACTICE	REC	RECESSED
CFH	CUBIC FEET PER HOUR			RECIRC	RECIRCULATE
CFM	CUBIC FEET PER MINUTE			REL	RELIEF
CGM	COMPRESSED GAS MANIFOLD	GPD	GALLONS PER DAY	REQD	REQUIRED
		GPH	GALLONS PER HOUR	RIC	RUN IN CHASE
CHKV	CHECK VALVE	GPM	GALLONS PER MINUTE	RICW	RUN IN CASEWORK
CI	CAST IRON	GR/LB	GRAINS PER POUND	RIE	RUN IN ENCLOSURE
CIP	CLEAN IN PLACE	GV	GATE VALVE	RIW	RISE IN WALL
CL	CENTERLINE	GWH	GAS WATER HEATER	RLA	RATED LOAD AMPS
CLL	COLUMN LINE	H2	HYDROGEN	RM	ROOM
CLG	CEILING	H2O	WATER	RO	REVERSE OSMOSIS
CS	CLEAN STEAM	HB	HOSE BIBB	ROD	ROOF OVERFLOW DRAIN
CMU	CONCRETE MASONRY UNIT	HD	HEAD	RPM	REVOLUTIONS PER MINUTE
CO	CLEANOUT	HE	HELIUM		
CO2	CARBON DIOXIDE	HP	HORSEPOWER	S/SHO	SAFETY SHOWER
COL	COLUMN	HR	HOUR	SS/EW	SAFETY SHOWER/EYEWASH
COMP	COMPRESSOR	HS	HOSE STATION		
CON	CONCENTRIC	HSW	HOT SOFT WATER	SA	SHOCK ABSORBER
CONC	CONCRETE	HSKPG	HOUSEKEEPING	SCFM	STANDARD CUBIC FEET PER MINUTE
COND	CONDENSATE	HT	HEIGHT		
CONN	CONNECT/CONNECTION	HTR	HEATER	SCH	SCHEDULE
CONT'N	CONTINUATION	HZ	HERTZ	SEC	SECONDARY
CONTR	CONTRACTOR	IA	INSTRUMENT AIR	SF	SQUARE FOOT
COORD	COORDINATE	ID	INSIDE DIMENSION / DIAMETER	SH	SHOWER
CORR	CORRIDOR			SIP	STERILIZE IN PLACE
CP	CONTROL PANEL	IN	INCHES	SK	SINK
CPVC	CHLORINATED POLYVINYL CHLORIDE	INCL	INCLUDING	SP	SPRINKLER
		INFO	INFORMATION	SPEC	SPECIFICATION
CS	CUP SINK	INT	INTERNAL	SQ	SQUARE
CSW	COLD SOFT WATER	INV	INVERT	SRV	SAFETY RELIEF VALVE
CTRL	CONTROL	INWC	INCHES OF WATER COLUMN	SST	STAINLESS STEEL
CU	COPPER			STD	STANDARD
CVS	CONTROL VALVE STATION	IPS	INTERNATIONAL PIPE STANDARD	STL	STEEL
				STRUCT	STRUCTURAL
CW	CLOCKWISE	KW	KILOWATTS	SUCT	SUCTION
(D)	DEMOLITION	LAB	LABORATORY	SUP	SUPPLY
DB	DECIBEL	LAV	LAVATORY	SYS	SYSTEM
DCW	DOMESTIC COLD WATER	LB	POUND	TD	TRENCH DRAIN
DEG	DEGREES	LBS/HR	POUNDS PER HOUR (#/HR)	TDH	TOTAL DYNAMIC HEAD
DEPT	DEPARTMENT			TEMP	TEMPERATURE
DET	DETAIL	LIQ	LIQUID	TFA	TO FLOOR ABOVE
DFU	DRAINAGE FIXTURE UNIT	LN2	LIQUID NITROGEN	TI	TEMPERATURE INDICATOR
DHW	DOMESTIC HOT WATER SUPPLY	LS	LAB SINK		
		LVG	LEAVING	TK	TANK
DHWR	DOMESTIC HOT WATER RETURN	LWT	LEAVING WATER TEMPERATURE	TOD	TOP OF DUCT
				TOP	TOP OF PIPE
DI	DUCTILE IRON	MAV	MANUAL AIR VENT	TP	TRAP PRIMER
DIA	DIAMETER	MAWP	MAXIMUM ALLOWABLE WORKING PRESSURE	TPW	TEMPERED WATER
DIAG	DIAGRAM			T&P	TEMPERATURE & PRESSURE RELIEF
DIFF	DIFFERENTIAL	MAX	MAXIMUM		
DIR	DEIONIZED WATER RETURN	MBH	THOUSAND BTU PER HOUR	TYP	TYPICAL
				UH	UNIT HEATER
DIS	DEIONIZED WATER SUPPLY	MMBTU	MILLION BRITISH THERMAL UNIT	UNOCC	UNOCCUPIED
				UR	URINAL
DISCH	DISCHARGE	MC	MECHANICAL CONTRACTOR	V	VOLTS
DIV	DIVISION			VAC	LAB VACUUM
DIW	DOWN IN WALL	MECH	MECHANICAL	VB	VACUUM BREAKER
DN	DOWN	MFR	MANUFACTURER	VEL	VELOCITY
DS	DRY STANDPIPE	MH	MANHOLE	VERT	VERTICAL
DWG	DRAWING	MIN	MINIMUM	VFD	VARIABLE FREQUENCY DRIVE
DWV	DRAINAGE, WASTE, & VENT	MISC	MISCELLANEOUS		
		MR	MOP RECEPTOR	VIF	VERIFY IN FIELD
(E)	EXISTING / EXISTING TO REMAIN	MTD	MOUNTED	VTR	VENT THRU ROOF
		MV	MIXING VALVE	W/	WITH
(ER)	EXISTING TO BE RELOCATED	N2	NITROGEN	W/O	WITHOUT
		NIC	NOT IN CONTRACT	W	WIDTH
EA	EACH	NO	NORMALLY OPEN	WC	WATER CLOSET
EC	ELECTRICAL CONTRACTOR	NOM	NOMINAL	WCO	WATER CLEANOUT
		NPW	NON-POTABLE WATER	WFU	WATER FIXTURE UNIT
ECC	ECCENTRIC	NUM	NUMBER	WS	WET STANDPIPE

GENERAL SYMBOLS

SECTION TAG	## / AA-### — SECTION NUMBER; DRAWING ON WHICH SECTION IS SHOWN	EXTENT OF DEMOLITION	
		CONNECT TO EXISTING	
ROOM TAG	ROOM / ### / DESCR — ROOM NAME; ROOM NUMBER; ADDITIONAL INFO (OPTIONAL)	DEMOLITION WORK NOTE	#
		NEW WORK NOTE	#
EQUIPMENT TAG	X / # — DESIGNATION; REFERENCE NUMBER	PREPURCHASED EQUIPMENT	
		CONNECT TO MANUFACTURER'S PREPIPED CONNECTION	
MATCH LINE	REFER TO SHEET XX-###	CONTINUATION REFERENCE	X
		REVISION & NUMBER	#

WATER SUPPLY & DISTRIBUTION PIPING SYMBOLS

CITY OR COUNTY PUBLIC WATER MAIN	W W W	FITTINGS (DOWN ELBOW, DOWN TEE, AND UP ELBOW OR TEE)	
UNDERGROUND SPRINKLER SUPPLY PIPING	F F F	VALVE (GENERAL)	
WATER MAIN UNDER BUILDING		VALVE IN PIT	
SUCTION PIPE		POST INDICATOR VALVE	
THRUST BLOCK		OS&Y VALVE (OUTSIDE SCREW AND YOKE, RISING STEM)	
SPRINKLER PIPING AND BRANCH LINE		INDICATING BUTTERFLY VALVE	
EXISTING SPRINKLER PIPING AND BRANCH LINE		NON-INDICATING VALVE (NON RISING STEM VALVE)	
DEMO SPRINKLER PIPING AND BRANCH LINE	X X X X X X	CHECK VALVE	
PIPE HEAT TRACE		BACKFLOW PREVENTER - DOUBLE CHECK TYPE	
MECHANICAL COUPLING		BACKFLOW PREVENTER - REDUCED PRESSURE ZONE (RPZ)TYPE	
PIPE HANGER		PRESSURE REGULATING VALVE	
RISER		PRESSURE RELIEF VALVE	
WET RISER		ANGLE VALVE (ANGLE HOSE VALVE)	
DRY RISER		PRIVATE HOUSED HYDRANT, TWO HOSE OUTLETS	
PREACTION RISER		SIAMESE FIRE DEPARTMENT CONNECTION	
NITROGEN FILLED DRY RISER	N	FREESTANDING SIAMESE FIRE DEPARTMENT CONNECTION	
NITROGEN FILLED PREACTION RISER	N	FIRE PUMP WITH DRIVER	
RISER AIR COMPRESSOR	A	FREESTANDING TEST HEADER	
TANK AIR COMPRESSOR	A	WALL MOUNTED TEST HEADER	
TANK NITROGEN GENERATOR	N	WATER MOTOR ALARM (WATER MOTOR GONG)	W
FLOOR/ZONE CONTROL VALVE ASSEMBLY	F/Z	ELECTRIC BELL	E
RISER CHECK VALVE	R	ALARM CHECK VALVE	A
DRY PIPE VALVE		DRY PIPE VALVE WITH QUICK OPENING DEVICE	
DRY PIPE VALVE - NITROGEN CHARGED	N	DRY PIPE VALVE WITH QUICK OPENING DEVICE - NITROGEN CHARGED	N
PREACTION VALVE		PREACTION VALVE - NITROGEN CHARGED	N
DELUGE VALVE			

WATER BASED SYSTEM SYMBOLS

WET CHARGED SYSTEM AUTOMATICALLY ACTUATED	
WET CHARGED SYSTEM MANUALLY ACTUATED	
DRY SYSTEM AUTOMATICALLY ACTUATED, AIR FILLED	
DRY SYSTEM MANUALLY ACTUATED, AIR FILLED	
DRY SYSTEM AUTOMATICALLY ACTUATED, NITROGEN FILLED	N
DRY SYSTEM MANUALLY ACTUATED, NITROGEN FILLED	N
PREACTION SYSTEM AUTOMATICALLY ACTUATED, AIR FILLED	
PREACTION SYSTEM MANUALLY ACTUATED, AIR FILLED	
PREACTION SYSTEM AUTOMATICALLY ACTUATED, NITROGEN FILLED	N
PREACTION SYSTEM MANUALLY ACTUATED, NITROGEN FILLED	N
FOAM SYSTEM AUTOMATICALLY ACTUATED	
FOAM SYSTEM MANUALLY ACTUATED	
WATER MIST SYSTEM AUTOMATICALLY ACTUATED	
WATER MIST SYSTEM MANUALLY ACTUATED	

MISCELLANEOUS SYSTEM SYMBOLS

DRY CHEMICAL SYSTEM AUTOMATICALLY ACTUATED	
DRY CHEMICAL SYSTEM MANUALLY ACTUATED	
CARBON DIOXIDE SYSTEM AUTOMATICALLY ACTUATED	
CARBON DIOXIDE SYSTEM MANUALLY ACTUATED	
CLEAN AGENT EXTINGUISHING SYSTEM AUTOMATICALLY ACTUATED	
CLEAN AGENT EXTINGUISHING SYSTEM MANUALLY ACTUATED	
FULLY SPRINKLERED SPACE	AS
PARTIALLY SPRINKLERED SPACE	AS
NON- SPRINKLERED SPACE	NS
WATER SPRAY SYSTEM	WS

FIRE SPRINKLER SYMBOLS

UPRIGHT SPRINKLER	
PENDENT SPRINKLER	
UPRIGHT SPRINKLER, ON SPRIG	
UPRIGHT SPRINKLER ON TOP OF RISER NIPPLE	
UPRIGHT SPRINKLER ON SPRIG ON TOP OF RISER NIPPLE	
PENDENT SPRINKLER ON DROP NIPPLE	
SIDEWALL SPRINKLER	
UPRIGHT ON SPRIG - EXTENDED COVERAGE	
PENDENT DROP - EXTENDED COVERAGE	
UPRIGHT ON SPRIG - EXTENDED COVERAGE WITH GUARD	G
PENDENT DROP - EXTENDED COVERAGE WITH GUARD	G
DRY UPRIGHT ON SPRIG	D
DRY PENDENT DROP	D
DRY UPRIGHT ON SPRIG - EXTENDED COVERAGE	D
DRY PENDENT DROP - EXTENDED COVERAGE	D
VERTICAL SIDEWALL SPRINKLER	OR
DRY HORIZONTAL SIDEWALL SPRINKLER	D OR D
DRY VERTICAL SIDEWALL SPRINKLER	D OR D
WATER SPRAY NOZZLE	
WINDOW SPRINKLERS	

GENERAL FIRE PROTECTION NOTES

1. SUBMISSION OF A PROPOSAL SHALL BE CONSTRUED AS EVIDENCE THAT A CAREFUL EXAMINATION OF THE PORTIONS OF THE EXISTING BUILDING, EQUIPMENT, ETC., WHICH AFFECT THIS WORK, AND THE ACCESS TO SUCH SPACES, HAS BEEN MADE AND THAT THE CONTRACTOR IS FAMILIAR WITH THE EXISTING CONDITIONS AND DIFFICULTIES THAT WILL AFFECT THE EXECUTION OF THE WORK.
2. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, FEES, TESTING, AND INSPECTIONS.
3. ALL APPLICABLE CODES, LAWS AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THIS WORK ARE HEREBY INCORPORATED INTO AND MADE A PART OF THESE CONTRACT DOCUMENTS. THEIR PROVISIONS SHALL BE CARRIED OUT BY THE CONTRACTOR WHO SHALL INFORM THE OWNER, PRIOR TO SUBMITTING A PROPOSAL, OF ANY WORK OR MATERIALS WHICH VIOLATE ANY OF THESE LAWS AND REGULATIONS. ANY WORK DONE BY THE CONTRACTOR CAUSING SUCH VIOLATIONS SHALL BE CORRECTED BY THE CONTRACTOR.
4. THE CONTRACTOR SHALL BE RESPONSIBLE, EXCEPT AS OTHERWISE INDICATED OR APPROVED BY THE OWNER, TO PROVIDE LABOR AND MATERIALS TO RESTORE ALL SURFACES REMOVED, DAMAGED OR DISTURBED AS PART OF THE WORK OF THESE CONTRACT DOCUMENTS, TO A CONDITION THAT IS ACCEPTABLE TO THE ARCHITECT AND THE BUILDING OWNER EQUAL TO OR BETTER THAN THAT BEFORE THE WORK BEGAN. THIS SHALL INCLUDE BUT NOT BE LIMITED TO PATCHING, PAINTING, ROOFING, ETC. FOR ALL CUTTING AND PATCHING OF THE EXISTING FLOORS, WALLS AND PARTITIONS IN THE EXISTING BUILDING.
5. ALL WORK SHALL BE PERFORMED IN A CLEAN AND WORKMANLIKE MANNER. CARE SHALL BE EXERCISED TO MINIMIZE ANY INCONVENIENCE OR DISTURBANCE TO OTHER AREAS OF THE BUILDING WHICH ARE TO REMAIN IN OPERATION. ISOLATE WORK AREAS BY MEANS OF TEMPORARY PARTITIONS AND/OR TARPS TO KEEP DUST AND DIRT WITHIN THE CONSTRUCTION AREA. NO TRIPPING HAZARDS SHALL BE PRESENT DURING CONSTRUCTION OR AT COMPLETION OF WORK.
6. KEEP ALL EQUIPMENT AND MATERIALS AND ALL PARTS OF THE BUILDING, EXTERIOR SPACES AND ADJACENT STREETS, SIDEWALKS AND PAVEMENTS FREE FROM MATERIAL AND DEBRIS RESULTING FROM THE EXECUTION OF THIS WORK. EXCESS MATERIALS WILL NOT BE PERMITTED TO ACCUMULATE EITHER ON THE INTERIOR OR THE EXTERIOR OF THE BUILDING. CLEAN THE JOB SITE DAILY AND REMOVE FROM THE PREMISES ANY DIRT AND DEBRIS CAUSED BY THE PERFORMANCE OF THE WORK INCLUDED IN THIS CONTRACT.
7. IF THE CONTRACTOR ENCOUNTERS WHAT APPEARS TO BE A HAZARDOUS OR QUESTIONABLE MATERIAL, THE CONTRACTOR SHALL DISCONTINUE WORK IMMEDIATELY AND CONTACT THE OWNER.
8. PLAN INSTALLATION OF NEW WORK AND CONNECTIONS TO EXISTING WORK TO ENSURE MINIMUM INTERFERENCE WITH REGULAR OPERATION OF EXISTING FACILITIES. SYSTEMS SHALL NOT BE REMOVED, DISCONNECTED, OR SHUT DOWN WITHOUT PRIOR REVIEW WITH THE OWNER AND/OR ENGINEER TO CONFIRM THAT AREAS TO REMAIN IN OPERATION WILL NOT BE AFFECTED. IF ANY AREAS NOT WITHIN THE SCOPE OF WORK ARE AFFECTED BY ANY SHUTDOWN, REMOVAL OR DISCONNECTION, SUFFICIENT ADVANCE NOTICE MUST BE GIVEN TO THE OWNER INDICATING WHICH AREAS WILL BE AFFECTED, WHEN THE PROPOSED SHUTDOWN WILL OCCUR, AND FOR HOW LONG A PERIOD OF TIME.
9. ALL ITEMS TO BE DEMOLISHED OR REMOVED SHALL BE DISPOSED OF AS PER THE OWNER'S INSTRUCTIONS, UNLESS INDICATED OTHERWISE. ALL ITEMS WHICH ARE NOT TO BE STORED ON SITE BY OWNER SHALL BE REMOVED FROM THE BUILDING IMMEDIATELY.
10. THIS CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS PRIOR TO PROCEEDING WITH ANY WORK. WHERE DISCREPANCIES OCCUR BETWEEN THESE DOCUMENTS AND EXISTING CONDITIONS, THE DISCREPANCY SHALL BE REPORTED TO THE OWNER AND/OR ENGINEER FOR EXPEDITING AND RESOLUTION.
11. USE OF THE OWNER'S ELEVATORS AND BUILDING CORRIDORS FOR HANDLING OF NEW AND REMOVED MATERIALS AND EQUIPMENT SHALL BE AT THE DIRECTION OF THE OWNER AND SHALL BE COORDINATED WITH OWNER'S OPERATIONS.
12. INVESTIGATE EACH SPACE THROUGH WHICH EQUIPMENT MUST BE MOVED. WHERE NECESSARY, EQUIPMENT SHALL BE SKIPPED FROM THE MANUFACTURER IN SECTIONS OF SIZE SUITABLE FOR MOVING THROUGH AVAILABLE RESTRICTIVE SPACES. ASCERTAIN FROM BUILDING OWNER AND TENANT AT WHAT TIMES OF THE DAY EQUIPMENT MAY BE MOVED THROUGH ALL AREAS.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFEKEEPING OF HIS OWN PROPERTY ON THE JOB SITE. OWNER ASSUMES NO RESPONSIBILITY FOR PROTECTION OF PROPERTIES AGAINST FIRE, THEFT, AND ENVIRONMENTAL CONDITIONS.
14. SEAL ALL OPENINGS AROUND ALL SYSTEM DISTRIBUTION (PIPING, DUCTWORK, CONDUIT, ETC.) THROUGH PARTITIONS, WALLS, AND FLOORS WITH APPROVED FIRESTOPPING MATERIAL.
15. FURNISH SHOP DRAWINGS FOR ALL EQUIPMENT AND MATERIALS BEING PROVIDED. SUBMIT TO OWNER AND ENGINEER FOR APPROVAL PRIOR TO FABRICATION, PURCHASE AND/OR INSTALLATION.
16. WHERE USED, THE TERM "PROVIDE" SHALL MEAN "FURNISH AND INSTALL."
17. THIS CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL OTHER TRADES PRIOR TO FABRICATION, PURCHASE AND/OR INSTALLATION OF ALL WORK.
18. ALL SYSTEMS DISTRIBUTION (PIPING, DUCTWORK, CONDUIT, ETC.) IS SHOWN DIAGRAMMATICALLY AND DOES NOT SHOW ALL OFFSETS, DROPS, AND RISES OF RUNS. THE CONTRACTOR SHALL ALLOW IN HIS PRICE FOR ROUTING TO AVOID OBSTRUCTIONS.
19. PROVIDE ALL NECESSARY FLASHING AND COUNTER FLASHING TO MAINTAIN THE WATERPROOFING INTEGRITY OF THIS BUILDING AS REQUIRED BY THE INSTALLATION OR REMOVAL OF SYSTEM DISTRIBUTION (PIPING, DUCTWORK, CONDUIT, ETC.) AND EQUIPMENT.
20. SUPPORT NEW PIPING FROM BUILDING STRUCTURE AND/OR FRAMING IN AN APPROVED MANNER. WHERE OVERHEAD CONSTRUCTION DOES NOT PERMIT FASTENING OF SUPPORTS FOR EQUIPMENT, PROVIDE ADDITIONAL FRAMING. COMPLY WITH ALL LOCAL AND STATE CODES FOR SEISMIC ISOLATION. THE DRAWINGS DO NOT SHOW ALL SEISMIC ISOLATION POINTS, THEREFORE ALLOW FOR SEISMIC ISOLATION IN ACCORDANCE WITH THE AUTHORITY HAVING JURISDICTION.
21. EXISTING MATERIALS THAT ARE REMOVED SHALL NOT BE REUSED IN NEW SYSTEMS, EXCEPT WHERE INDICATED AS BEING RELOCATED.
22. INSTALL WORK SO AS TO BE READILY ACCESSIBLE FOR OPERATION, MAINTENANCE AND REPAIR. MINOR DEVIATIONS FROM DRAWINGS MAY BE MADE TO ACCOMPLISH THIS, BUT CHANGES WHICH INVOLVE ADDITIONAL COST TO THE OWNER SHALL NOT BE MADE WITHOUT APPROVAL.
23. IF A DISCREPANCY ARISES BETWEEN CONTRACT DOCUMENTS, CONTACT THE ARCHITECT/ENGINEER FOR RESOLUTION BEFORE PROCEEDING.
24. REMOVAL AND RELOCATION OF CERTAIN EXISTING WORK WILL BE NECESSARY FOR THE PERFORMANCE OF THE GENERAL WORK. ALL EXISTING CONDITIONS CANNOT BE COMPLETELY DETAILED ON THE DRAWINGS. THE CONTRACTOR SHALL SURVEY THE SITE AND INCLUDE ALL CHANGES IN MAKING UP THE WORK PROPOSAL. PRIOR TO CONSTRUCTION, DETERMINE EXACT ELEVATION, SIZE, AND LOCATION OF ALL EXISTING UTILITIES WHERE CONNECTIONS ARE TO BE MADE OR INTERSECTIONS OCCUR.
25. REMOVE AND REINSTALL EXISTING LAY-IN TYPE CEILINGS AS REQUIRED TO PERFORM THE WORK UNDER THE CONTRACT DOCUMENTS AND BE RESPONSIBLE FOR DAMAGE THAT MAY OCCUR TO CEILINGS AS A RESULT OF REMOVAL AND REPLACEMENT OF SAME. DAMAGED CEILING TILES, INCLUDING TILES WITH HOLES OR OPENINGS LEFT AS A RESULT OF DEMOLITION SHALL BE REPLACED. REMOVE ONLY THOSE CEILING TILES REQUIRED TO GAIN ACCESS TO AFFECTED SYSTEMS AND STORE IN PROTECTED AREA WHERE DESIGNATED BY THE OWNER. REINSTALL UPON COMPLETION OF THE WORK.
26. CONTRACTOR SHALL KEEP A CURRENT RECORD OF ALL DEVIATIONS FROM THE SPECIFICATIONS AND DRAWINGS. THE CONTRACTOR SHALL SUBMIT CORRECTED AS-BUILT DRAWINGS TO OWNER AND ENGINEER AT PROJECT COMPLETION.
27. CONTRACTOR SHALL FURNISH A WRITTEN GUARANTEE TO REPLACE OR REPAIR PROMPTLY AND ASSUME RESPONSIBILITY FOR ALL EXPENSES INCURRED FOR ANY WORKMANSHIP AND EQUIPMENT IN WHICH DEFECTS DEVELOP WITHIN A PERIOD OF ONE (1) YEAR FROM THE DATE OF ACTUAL USE OF THE EQUIPMENT OR TURNOVER TO OWNER, WHICHEVER DATE IS EARLIER. THIS WORK SHALL BE DONE AS DIRECTED BY THE OWNER. WHERE DEFECTS OCCUR, ASSUME RESPONSIBILITY FOR ALL EXPENSES INCURRED IN REPAIRING AND REPLACING WORK OF THE OTHER TRADES AFFECTED BY DEFECTS.
28. SUCCESSFULLY PRESSURE TEST ALL NEW OR REROUTED PIPING SYSTEMS. REPAIR AND RETEST AS REQUIRED UNTIL SYSTEMS PROVE TIGHT.
29. PROVIDE ALL NECESSARY TEMPORARY OR PERMANENT CAPS OR PLUGS FOR PIPING. DO NOT LEAVE PIPING OPEN-ENDED.
30. ALL HANGERS SHALL BE DESIGNED PER REQUIREMENTS OF NFPA 13.
31. SPRINKLERS SHALL BE INSTALLED UNDER FIXED OBSTRUCTIONS (IE: DUCTWORK) OVER 4'-0" WIDE. OPEN GRATE FLOORING OVER 4'-0" IN WIDTH SHALL REQUIRE SPRINKLER PROTECTION BELOW GRATING.
32. DUCTWORK, PIPING, AND OTHER COMPONENTS THROUGHOUT THESE DOCUMENTS MAY BE SHOWN WITH COLORS REPRESENTING THE ASSOCIATED SYSTEM. THE COLORS ARE PROVIDED AS A CONVENIENCE TO IMPROVE DOCUMENT LEGIBILITY AND SHALL NOT BE USED TO DETERMINE THE SCOPE OF WORK. ALL LINE WORK, LINE TYPES, ANNOTATIONS, NOTES, DETAILS, SCHEDULES, AND SPECIFICATIONS ARE PART OF THE SCOPE OF WORK REGARDLESS OF COLOR.

CODE REFERENCE (PENNSYLVANIA)

ALL NEW WORK SHALL BE IN ACCORDANCE WITH THE PENNSYLVANIA UNIFORM CONSTRUCTION CODE (UCC), COMPRISED OF THE 2018 INTERNATIONAL CODES ISSUED BY THE INTERNATIONAL CODE COUNCIL (ICC) AND THE PROVISIONS AMENDED BY THE UCC REVIEW & ADVISORY COUNCIL (RAC), INCLUDING:

- 2018 INTERNATIONAL BUILDING CODE (IBC)
- 2018 INTERNATIONAL FIRE CODE (IBC)
- 2018 INTERNATIONAL EXISTING BUILDING CODE (IEBC)
- 2018 INTERNATIONAL PLUMBING CODE (IPC)
- 2016 NFPA 13 INSTALLATION OF SPRINKLER SYSTEMS

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Revisions

No.	Date	Description

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Drawing Title

Fire Protection Symbols, Abbreviations & General Notes

Project Number 24.129

Date 4.30.2026

Drawing Number

FP000

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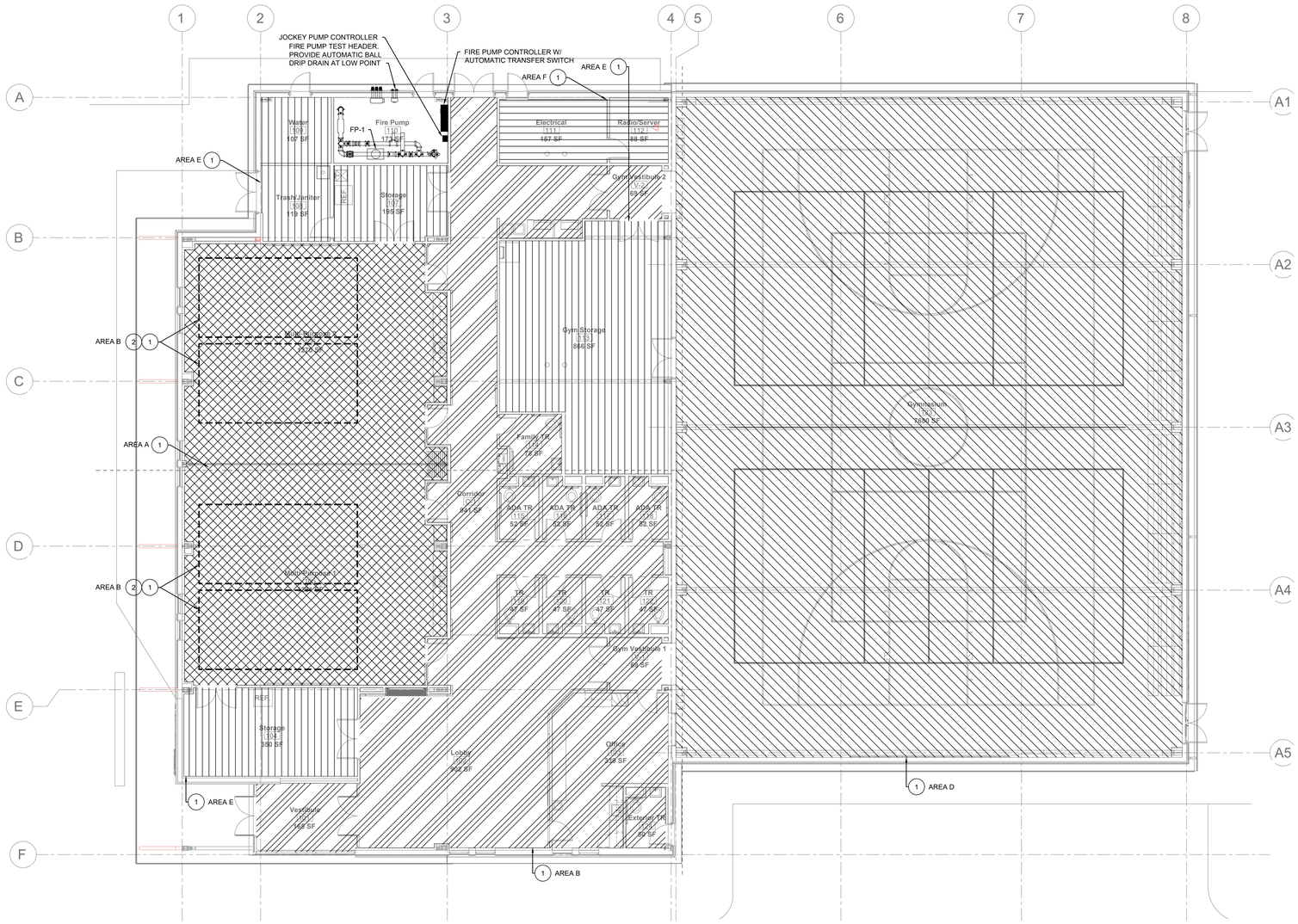
SPRINKLER SCHEDULE

AREA/ZONE	SYSTEM TYPE	SPRINKLER TYPE	SPRINKLER FINISH	SPRINKLER RESPONSE TYPE	SPRINKLER TEMP RATING (DEG. F)	COVER PLATE TEMP RATING (DEG. F)	K FACTOR	MAX SPRINKLER SPACING (SQ FT)	OCCUPANCY CLASSIFICATION	DESIGN DENSITY (GPM/ SQ FT)	DESIGN AREA (SQ FT)	HOSE STREAM ALLOWANCE (GPM)	CODE REFERENCE	NOTES
A	WET PIPE	UPRIGHT	BRASS	QUICK	165	N/A	5.6	225	LIGHT HAZARD	0.10	1950	100	NFPA 13 11.2.3.3.1 & 11.2.3.2.4	1
B	WET PIPE	PENDENT, CONCEALED	WHITE	QUICK	165	135	5.6	225	LIGHT HAZARD	0.10	1500	100	NFPA 13 11.2.3.3.1	
C	WET PIPE	HORIZONTAL SIDEWALL	BRASS	QUICK	165	N/A	5.6	225	LIGHT HAZARD	0.10	1500	250	NFPA 13 11.2.3.3.1	
D	WET PIPE	UPRIGHT	BRASS	QUICK	165	N/A	5.6	130	ORDINARY HAZARD GROUP I	0.15	1950	250	NFPA 13 11.2.3.3.1 & 11.2.3.2.4	1, 2
E	WET PIPE	UPRIGHT	BRASS	STANDARD	165	N/A	5.6	130	ORDINARY HAZARD GROUP II	0.20	1500	250	NFPA 13 11.2.3.3.1	2, 3, 4
F	WET PIPE	UPRIGHT	BRASS	STANDARD	200	N/A	5.6	130	ORDINARY HAZARD GROUP II	0.20	1500	250	NFPA 13 11.2.3.3.1	
G	WET PIPE	PENDENT, CONCEALED	WHITE	STANDARD	165	135	5.6	130	ORDINARY HAZARD GROUP II	0.20	1500	250	NFPA 13 11.2.3.3.1	5

NOTES:

1. DESIGN AREA IS INCREASED BY 30% TO ACCOMMODATE SLOPED CEILING IN ACCORDANCE WITH NFPA 13, SECTION 11.2.3.2.4.
2. UPRIGHT SPRINKLERS IN THE GYMNASIUM AND STORAGE AREAS SHALL BE EQUIPPED WITH INTEGRAL GUARDS TO PROTECT AGAINST MECHANICAL INJURY.
3. STORAGE AREAS THAT INCLUDE SOLID-PILED, PALLETIZED, BIN-BOX, OR SHELF STORAGE OF UP TO CLASS IV COMMODITIES SHALL NOT EXCEED A MAXIMUM STORAGE HEIGHT OF 12 FEET IN ACCORDANCE WITH NFPA 13, TABLE 13.2.1.
4. STORAGE AREAS THAT INCLUDE SOLID-PILED, PALLETIZED, BIN-BOX, OR SHELF STORAGE OF CARTONED OR EXPOSED PLASTICS SHALL NOT EXCEED A MAXIMUM STORAGE HEIGHT OF 5 FEET IN ACCORDANCE WITH NFPA 13, TABLE 13.2.1.
5. HIGH-TEMPERATURE RATED SPRINKLERS SHALL BE INSTALLED ADJACENT TO HEAT PRODUCING EQUIPMENT IN ACCORDANCE WITH NFPA 13, SECTION 8.3.2.5.



1 Fire Protection Floor Plan

1/8" = 1'-0"

NEW WORK SHEET NOTES

1. PROVIDE NEW SPRINKLERS, BRANCHLINE/MAIN PIPING, FITTINGS AND APPURTENANCES FOR COMPLETE FIRE SPRINKLER PROTECTION OF THE BUILDING AREAS AS INDICATED. PROVIDE HANGERS WHERE REQUIRED. SEE SPRINKLER SCHEDULE ON THIS SHEET FOR MORE INFORMATION.
2. PROVIDE UPRIGHT SPRINKLERS AT THE STRUCTURAL CEILING. WHERE REQUIRED, PROVIDE ADDITIONAL PENDENT SPRINKLERS BELOW SOLID CEILINGS, CLOUD CEILINGS, AND SOFFITS IN THIS AREA. SEE SPRINKLER SCHEDULE FOR MORE INFORMATION. PROVIDE HANGERS WHERE REQUIRED BY NFPA 13.
3. PROVIDE UPRIGHT SPRINKLERS AT THE STRUCTURAL CEILING. WHERE REQUIRED, PROVIDE ADDITIONAL SIDEWALL SPRINKLERS BELOW OVERHEAD DOORS IN THIS AREA. SEE SPRINKLER SCHEDULE FOR MORE INFORMATION. PROVIDE HANGERS WHERE REQUIRED BY NFPA 13.
4. PROVIDE AUTOMATIC AIR VENT AT HIGH POINT OF SPRINKLER SYSTEM TO ALLOW AIR TO BE REMOVED IN ACCORDANCE WITH NFPA 13, SECTION 7.1.5 AND 8.16.6. SEE DETAIL 4/F-701 FOR ADDITIONAL INFORMATION.

GENERAL NOTES

A. SEE DRAWING F001, FIRE PROTECTION COVER SHEET FOR ADDITIONAL SYMBOLS, ABBREVIATIONS AND NOTES.

B. SPRINKLER CONTRACTOR IS RESPONSIBLE FOR FINAL COORDINATION OF SPRINKLER LAYOUT WITH NEW CEILING, HVAC, ELECTRICAL, PIPING, LIGHTING, ETC. REFER TO ARCHITECTURAL SHEETS FOR FULL EXTENT OF CEILING REMOVAL IN AREAS OF RENOVATION.

C. CONTRACT DRAWINGS ARE DIAGRAMMATIC AND DO NOT NECESSARILY INDICATE ALL REQUIRED SYSTEM COMPONENTS, PIPES, OR FITTINGS FOR A COMPLETE FUNCTIONING FIRE PROTECTION SYSTEM. THE INSTALLING CONTRACTOR IS REQUIRED TO PROVIDE ALL NECESSARY EQUIPMENT FOR A FULLY FUNCTIONAL SPRINKLER SYSTEM AS DESCRIBED ON THE DRAWINGS, SPECIFICATIONS, AND NFPA 13.

SPRINKLER LEGEND

AREA A - WET-PIPE
LIGHT HAZARD
K-5.6, UPRIGHT, QR, 165 DEG. F.

OR

AREA B - WET-PIPE
LIGHT HAZARD
K-5.6, CONCEALED, QR, 165/135 DEG. F.

AREA C - WET-PIPE
LIGHT HAZARD
K-5.6, HORIZONTAL SIDEWALL, QR, 165 DEG. F.

AREA D - WET-PIPE
ORDINARY HAZARD GROUP I
K-5.6, UPRIGHT, QR, 165 DEG. F.

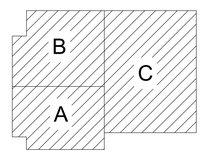
AREA E - WET-PIPE
ORDINARY HAZARD GROUP II
K-5.6, UPRIGHT, SR, 165 DEG. F.

AREA F - WET-PIPE
ORDINARY HAZARD GROUP II
K-5.6, UPRIGHT, SR, 200 DEG. F.

AREA G - WET-PIPE
ORDINARY HAZARD GROUP II
K-5.6, CONCEALED, SR, 165/135 DEG. F.

Key Plan

NTS



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Revisions

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Fire Protection Floor Plan

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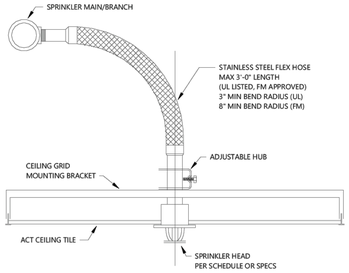
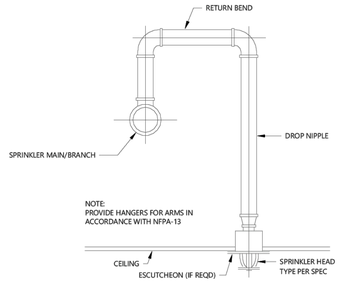


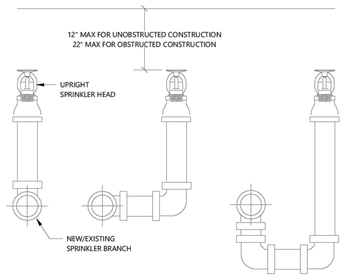
1 DETAIL - FLEX SPRINKLER CONNECTION (ACT CEILING)

NOT TO SCALE



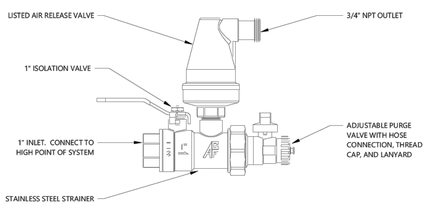
2 DETAIL - SPRINKLER RETURN BEND

NOT TO SCALE



3 DETAIL - UPRIGHT SPRINKLER HEAD

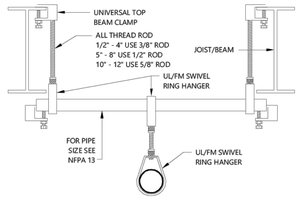
NOT TO SCALE



AIR VENT NOTES:
1. CONNECT TO SYSTEM IN ACCORDANCE WITH NFPA 13.
2. BASIS OF DESIGN: AGF MANUFACTURING W7900AAV.

4 DETAIL - AUTOMATIC AIR VENT VALVE

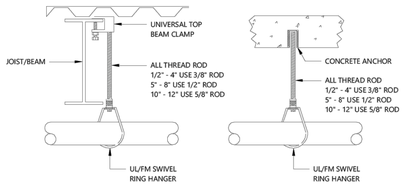
NOT TO SCALE



NOTE:
MAXIMUM HANGER SPACING AND LOCATION PER NFPA 13 REQUIREMENTS.

5 DETAIL - TRAPEZE PIPE HANGER

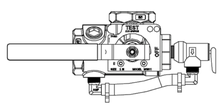
NOT TO SCALE



NOTE:
MAXIMUM HANGER SPACING AND LOCATION PER NFPA 13 REQUIREMENTS.

6 DETAIL - PIPE HANGERS

NOT TO SCALE



TEST/DRAIN ASSEMBLY NOTES:
1. CONNECT TO SYSTEM IN ACCORDANCE WITH NFPA 13.
2. TEST/DRAIN ASSEMBLY SHALL INCLUDE PRESSURE RELIEF VALVE.
3. BASIS OF DESIGN: AGF MANUFACTURING; MODEL 101A TESTanDRAIN.

7 DETAIL - TEST/DRAIN ASSEMBLY

NOT TO SCALE

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ABBREVIATIONS

A	AMPERES
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLING UNIT
ATC	AUTOMATIC TEMPERATURE CONTROL
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BFF	BELOW FINISHED FLOOR
BFG	BELOW FINISHED GRADE
CPT	CONTROL POWER TRANSFORMER
CUH	CABINET UNIT HEATER
CUV	CABINET UNIT VENTILATOR
CU	CONDENSING UNIT
DIA	DIAMETER
DPDT	DOUBLE POLE, DOUBLE THROW
EC	ELECTRICAL CONTRACTOR
EHD	ELECTRIC HAND DRYER
EF	EXHAUST FAN
EMT	ELECTRICAL METALLIC TUBING
EWC	ELECTRIC WATER COOLER
EX	EXISTING TO REMAIN
F	FAN
FCU	FAN COIL UNIT
FLA	FULL LOAD AMPERES
FR	FINNED RADIATION
GFI	GROUND FAULT INTERRUPTER
H-O-A	HAND-OFF-AUTOMATIC
HUH	HORIZONTAL UNIT HEATER
HP	HORSEPOWER
HT	HEIGHT
IMC	INTERMEDIATE METALLIC CONDUIT
KCMIL	KILO CIRCULAR MILS
KVA	KILOVOLT-AMPERES
KW	KILOWATTS
LRA	LOCKED ROTOR AMPERES
LTG	LIGHTING
MAX	MAXIMUM
MC	MECHANICAL CONTRACTOR
MIN	MINIMUM
MLO	MAIN LUGS ONLY
NEC	NATIONAL ELECTRICAL CODE
N.C.	NORMALLY CLOSED
NO.	NUMBER
N.O.	NORMALLY OPEN
OC	ON CENTER
P	PUMP
PC	PLUMBING CONTRACTOR
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
QTY.	QUANTITY
RAF	RETURN AIR FAN
RCP	RADIANT CEILING PANEL
RGS	RIGID GALVANIZED STEEL
RTU	ROOF TOP UNIT
SCU	SELF-CONTAINED UNIT
SPDT	SINGLE POLE, DOUBLE THROW
SPST	SINGLE POLE, SINGLE THROW
STP	SHIELDED TWISTED PAIR
SS	SPLIT SYSTEM
TYP	TYPICAL
UH	UNIT HEATER
UG	UNDERGROUND
UTP	UNSHIELDED TWISTED PAIR
V	VOLT, VOLTS
VA	VOLT AMPERES
VAV	VARIABLE AIR VOLUME
WP	WEATHERPROOF
XFMR	TRANSFORMER
XP	EXPLOSION PROOF

ANNOTATION

	CLOUD
X	REVISION
X	CIRCLE KEYNOTE
XX	DEMOLITION KEYNOTE
XX/XX	EQUIPMENT TAG - REFER TO MECHANICAL AND/OR PLUMBING DRAWINGS
X	INDICATES KEYED NOTE NUMBER

EQUIPMENT

SYMBOL	MOUNTING HEIGHT	DESCRIPTION
J	18" AFF	JUNCTION BOX-FLUSH
J	3" AFF	JUNCTION BOX-WITH CAST OUTLET BOX ON STAND PIPE
B	18" AFF	BLANK OUTLET-FLUSH
J	X	JUNCTION BOX
B	X	BLANK OUTLET
J	FLOOR	JUNCTION BOX-FLUSH
B	FLOOR	BLANK OUTLET-FLUSH
30A/3P B	5'-0" AFF	ENCLOSED CIRCUIT BREAKER-RATING AS INDICATED
C	X	CONTACTOR
45 T	X	DRY TYPE TRANSFORMER-NUMERAL DENOTES KVA RATING
45 T K-13	X	DRY TYPE TRANSFORMER-NUMERAL DENOTES KVA RATING LETTER AND NUMERAL DENOTE K-FACTOR RATING
J	5'-0" AFF	SAFETY SWITCH-NON-FUSED (NEMA TYPE 1, UNLESS NOTED OTHERWISE)
30/20 FJ	5'-0" AFF	SAFETY SWITCH-FUSED-SWITCH RATING AND FUSE RATING AS INDICATED (NEMA TYPE 1, UNLESS NOTED OTHERWISE)
60/40 1 J	5'-0" AFF	COMBINATION STARTER-NEMA SIZE, SWITCH, AND FUSE RATING AS INDICATED (NEMA TYPE 1, UNLESS NOTED OTHERWISE)
1	5'-0" AFF	MOTOR STARTER-NEMA SIZE AS INDICATED (NEMA TYPE 1, UNLESS NOTED OTHERWISE)
	X	MOTOR
WP	+44" AFF	MOTORIZED DOOR WAVE PLATE

SWITCHES

SYMBOL	MOUNTING HEIGHT	DESCRIPTION
S	44" AFF	SINGLE POLE TOGGLE SWITCH-FLUSH
S3	44" AFF	THREE WAY TOGGLE SWITCH-FLUSH
SD	44" AFF	DIMMER SWITCH
SM	44" AFF	MOTOR OPERATING SWITCH, WITH THERMAL OVERLOAD PROTECTION
S3D	44" AFF	3-WAY DIMMER SWITCH

DISTRIBUTION

SYMBOL	MOUNTING HEIGHT	DESCRIPTION
	EXISTING	EXISTING PANELBOARD - FLUSH MOUNTED
	EXISTING	EXISTING PANELBOARD - SURFACE MOUNTED
	TOP BREAKER 6'-0" AFF	NEW PANELBOARD - FLUSH MOUNTED
	TOP BREAKER 6'-0" AFF	NEW PANELBOARD - SURFACE MOUNTED
	AS NOTED	PULL BOX OR WIREWAY
		BRANCH CIRCUITING - (2)#12 PER 1 POLE CIRCUIT WITH SEPARATE #12 GROUND WIRE MINIMUM
		HOMERUN TO PANELBOARD - PANEL AND CIRCUIT NUMBER AS INDICATED
		EQUIPMENT ON SAME CIRCUIT BUT SEPARATELY CONTROLLED

COMMUNICATIONS

SYMBOL	MOUNTING HEIGHT	DESCRIPTION
	18" AFF	DATA OUTLET, WALL-MOUNT IN OUTLET BOX, SUBSCRIPT INDICATES NUMBER OF DROPS IF MORE THAN 2
	18" AFF	VOIP OUTLET, WALL-MOUNT IN OUTLET BOX SUBSCRIPT INDICATES NUMBER OF DROPS IF MORE THAN 2
	18" AFF	VOIP\DATA OUTLET, WALL-MOUNT IN OUTLET BOX SUBSCRIPT INDICATES NUMBER OF DROPS IF MORE THAN 2
TV	84" AFF	CATV OUTLET
W	+44" AFF	WALL MOUNT DATA OUTLET, WALL-MOUNT IN OUTLET BOX SUBSCRIPT INDICATES NUMBER OF DROPS IF MORE THAN 2
	18" AFF	ANALOG OUTLET, WALL-MOUNT IN OUTLET BOX
W	+44" AFF	WALL MOUNT VOIP OUTLET, WALL-MOUNT IN OUTLET BOX SUBSCRIPT INDICATES NUMBER OF DROPS IF MORE THAN 2
HD	84" AFF	HDMI OUTLET
	CEILING	DATA OUTLET, CEILING-MOUNT IN OUTLET BOX, SUBSCRIPT INDICATES NUMBER OF DROPS

NOTES:
1. NUMBER BY DEVICE INDICATES QUANTITY OF DROPS, DEFAULT ONE. "C" BY DEVICE INDICATES MOUNTING AT COUNTER HEIGHT (6" ABOVE COUNTER).
2. EC SHALL PROVIDE A SINGLE-GANG BACKBOX WITH A 1" CONDUIT AND PULL STRING UP TO THE NEAREST ACCESSIBLE CEILING SPACE (ABOVE OR BELOW AS-REQUIRED) FOR LOW-VOLTAGE WIRING THAT WILL BE PROVIDED AND INSTALLED BY THE ELECTRICAL CONTRACTOR, U.O.N.

RECEPTACLES

SYMBOL	MOUNTING HEIGHT	DESCRIPTION
	18" AFF	SINGLE RECEPTACLE-FLUSH
	18" AFF	DUPLEX RECEPTACLE-FLUSH
USB	18" AFF	DUPLEX RECEPTACLE WITH (2) INTEGRAL USB PORTS-FLUSH
C	6" ABOVE COUNTER BACKSPLASH	DUPLEX RECEPTACLE-FLUSH-MOUNTED ABOVE COUNTER
	18" AFF	DUPLEX RECEPTACLE-FLUSH-WITH GROUND FAULT INTERRUPTER
C	6" ABOVE COUNTER BACKSPLASH	MOUNTED ABOVE COUNTER
WP	24" AFG	DUPLEX RECEPTACLE-EXTERIOR-FLUSH-WITH GROUND FAULT INTERRUPTER WITH WEATHERPROOF COVER
	18" AFF	DOUBLE DUPLEX RECEPTACLE-FLUSH
C	6" ABOVE COUNTER BACKSPLASH	DOUBLE DUPLEX RECEPTACLE-FLUSH-MOUNTED ABOVE COUNTER
J	18" AFF	DOUBLE DUPLEX RECEPTACLE-FLUSH-TRANSIENT VOLTAGE SURGE SUPPRESSION TYPE (TVSS)
	18" AFF	SPECIAL PURPOSE RECEPTACLE-SINGLE PHASE
	18" AFF	SPECIAL PURPOSE RECEPTACLE-THREE PHASE
	AS NOTED	SURFACE RACEWAY WITH SINGLE RECEPTACLES AS INDICATED
	AS NOTED	SURFACE RACEWAY WITH DUPLEX RECEPTACLES AS INDICATED
	AS NOTED	SURFACE RACEWAY
	CEILING	DUPLEX RECEPTACLE-FLUSH
	FLOOR	DUPLEX RECEPTACLE-FLUSH
	FLOOR	DOUBLE DUPLEX RECEPTACLE-FLUSH
	FLOOR	SPECIAL PURPOSE RECEPTACLE-SINGLE PHASE-FLUSH
	FLOOR	SPECIAL PURPOSE RECEPTACLE-THREE PHASE-FLUSH
	FLOOR	DUPLEX RECEPTACLE-FLUSH-TRANSIENT VOLTAGE SURGE SUPPRESSION TYPE (TVSS)
	FLOOR	COMBINATION DUPLEX RECEPTACLE/DATA/VOICE OUTLET-FLUSH
	FLOOR	COMBINATION DOUBLE DUPLEX RECEPTACLE/DATA/VOICE OUTLET-FLUSH
	FLOOR	COMBINATION DUPLEX RECEPTACLE AND DATA OUTLET-FLUSH
	FLOOR	COMBINATION DOUBLE DUPLEX RECEPTACLE AND DATA OUTLET-FLUSH
USB	18" AFF	DUPLEX RECEPTACLE-FLUSH- WITH INTEGRAL USB PORTS (A&C)

LIGHTING CONTROL SYMBOLS

OS W	44" AFF	WALL MOUNT DUAL TECHNOLOGY OCCUPANCY SENSOR WITH INTEGRAL ON/OFF OVERRIDE SWITCH
OS TS	44" AFF	DIGITAL TIME SWITCH
OS	+102" AFF OR 6" BELOW CEILING	CORNER MOUNT PASSIVE INFRARED OCCUPANCY SENSOR
OS DT	+102" AFF OR 6" BELOW CEILING	CORNER MOUNT DUAL TECHNOLOGY (PASSIVE INFRARED & ULTRASONIC) OCCUPANCY SENSOR
OS DT	CEILING MOUNT	CEILING MOUNT DUAL TECHNOLOGY (PASSIVE INFRARED & ULTRASONIC) OCCUPANCY SENSOR
OS U	CEILING MOUNT	CEILING MOUNT ULTRASONIC OCCUPANCY SENSOR
OS i	FIXTURE MOUNT	INTEGRAL FIXTURE MOUNTED OCCUPANCY SENSOR
ELR	ABOVE CEILING	EMERGENCY LIGHTING RELAY CONTROL BY-PASS DEVICE (BODINE OR EQUAL)
OS WD	44" AFF	WALL MOUNT DUAL TECHNOLOGY OCCUPANCY SENSOR WITH INTEGRAL ON/OFF/DIMMER OVERRIDE SWITCH
DRC	ABOVE CEILING	DIGITAL ROOM LIGHTING CONTROLLER
D	44" AFF	WALL MOUNT DIGITAL SCENE LOW-VOLTAGE SWITCH
OS	CEILING MOUNT	CEILING MOUNT (DAYLIGHT) PHOTOSENSOR
PS	CEILING	PARTITION SENSOR

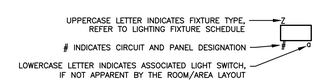
GENERAL NOTE

1. NO OPERABLE DEVICE SHALL EXCEED THE MAXIMUM MOUNTING HEIGHT OF +48" AFF. EC SHALL ADJUST THE MOUNTING HEIGHT INDICATED ON THIS LEGEND IF ANY OPERABLE PORTION OF THE DEVICE EXCEEDS THE MAXIMUM MOUNTING +48".
2. EC SHALL UPSIZE ALL #12 120V FEEDERS IN LENGTHS EXCEEDING 100' AS-REQUIRED TO ACCOMMODATE THE EFFECTS OF VOLTAGE DROP (NOT TO EXCEED 3%).

LIGHTING FIXTURES

SYMBOL	MOUNTING HEIGHT	DESCRIPTION
	RECESSED/SURFACE	LIGHT FIXTURE WITH INTEGRAL EMERGENCY BATTERY
	RECESSED/SURFACE	LIGHT FIXTURE
	SURFACE	UNDERCABINET STRIP LIGHT
	WALL	LIGHT FIXTURE
	WALL	WALL SCONCE
	WALL	WALL SCONCE WITH INTEGRAL EMERGENCY BATTERY
	RECESSED/SURFACE	LED DOWNLIGHT
	RECESSED/SURFACE	DOWNLIGHT WITH INTEGRAL EMERGENCY BATTERY
	AS NOTED	TRACK LIGHTING
	12" BELOW CEILING MAX. 8'-0" AFF	EMERGENCY LIGHT BATTERY UNIT
	18" BELOW CEILING MAX. 8'-0" AFF	EMERGENCY LIGHT BATTERY UNIT
	6" ABOVE DOOR JAMB	EXIT SIGN WITH DIRECTIONAL ARROWS WHERE INDICATED
	CEILING	EXIT SIGN WITH DIRECTIONAL ARROWS WHERE INDICATED
	SURFACE/PENDANT	LIGHT FIXTURE
	SURFACE/PENDANT	LIGHT FIXTURE WITH INTEGRAL EMERGENCY BATTERY

LIGHT FIXTURE TYPE AND CIRCUIT DESIGNATION



FIRE ALARM

SYMBOL	DESCRIPTION
(15)	CANDELA RATING
	FIRE ALARM WALL MOUNTED VISIBLE NOTIFICATION APPLIANCE
	FIRE ALARM CEILING MOUNTED VISIBLE NOTIFICATION APPLIANCE
	FIRE ALARM WALL MOUNTED COMBINED AUDIBLE/VISIBLE NOTIFICATION APPLIANCE
	FIRE ALARM WALL MOUNTED AUDIBLE NOTIFICATION APPLIANCE
	FIRE ALARM CEILING MOUNTED COMBINED AUDIBLE/VISIBLE NOTIFICATION APPLIANCE
	FIRE ALARM CEILING MOUNTED AUDIBLE NOTIFICATION APPLIANCE
SD	SMOKE DETECTOR
S	DUCT SMOKE DETECTOR
FAP	FIRE ALARM PANEL
FAA	FIRE ALARM ANNUNCIATOR
AMP	AMPLIFIER PANEL
NAC	NOTIFICATION APPLIANCE CIRCUIT POWER EXTENDER PANEL
F	MANUAL PULL STATION
HO	DOOR HOLD OPEN
T	FIXED TEMPERATURE HEAT DETECTOR
FS	FLOW SWITCH (BY OTHERS)
TS	TAMPER SWITCH (BY OTHERS)
S B	BEAM DETECTOR (REFLECTIVE STYLE)

SECURITY DEVICES

	-	FIXED SECURITY CAMERA
CR	42" AFF	CARD READER (DOUBLE-GANG BACKBOX)
CRR	42" AFF	CARD READER RELEASE (DOUBLE-GANG BACKBOX)
TV M	-	CCTV MONITOR AND VIDEO MASTER STATION
DC	TOP OF DOOR JAMB	DOOR CONTACT
ES	-	ELECTRIC STRIKE
KP	42" AFF	KEYPAD (DOUBLE-GANG BACKBOX)
PB	-	PUSH-BUTTON (SINGLE-GANG BACKBOX)
	42" AFF	PANIC BUTTON
PR	-	PANIC BUTTON RECEIVER
DR	42" AFF	CARD READER RELEASE
IC	42" AFF	INTERCOM STATION

NOTES:
1. EC SHALL COORDINATE WITH THE OWNER'S VENDOR AND PROVIDE ALL NEW BACKBOXES, CONDUIT, DEVICES, ETC. REQUIRED TO ROUGH-IN ANY NEW SECURITY DEVICES.
2. EC SHALL COORDINATE THE HEIGHT AND EXACT LOCATION OF ALL RECESSED BACKBOXES WITH THE OWNER'S SECURITY VENDOR PRIOR TO ROUGH-IN.

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Revisions

No.	Date	Description

04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title

Electrical Symbols, Legend, & Abbreviations

Project Number 24.129

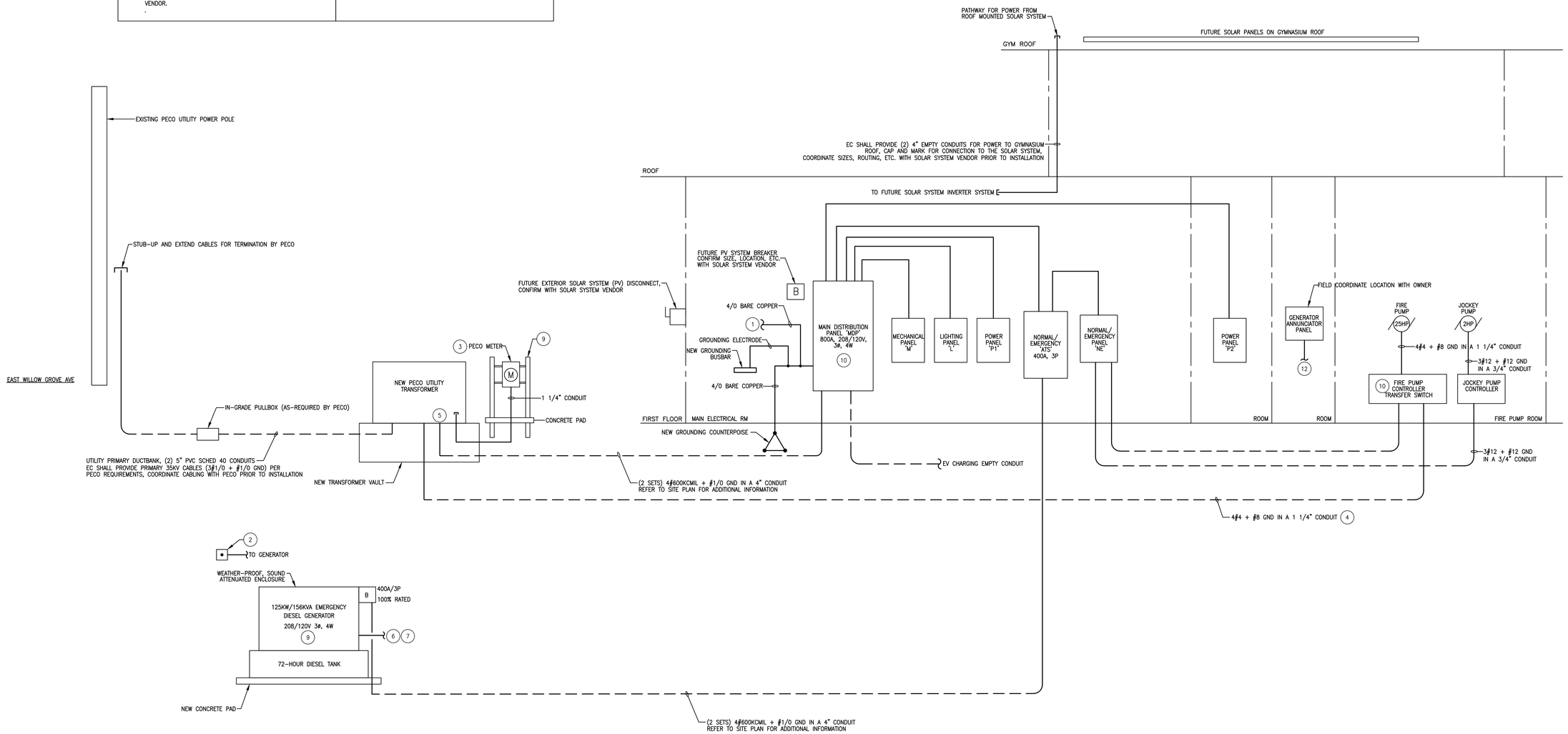
Date 4.30.2026

Drawing Number

E000

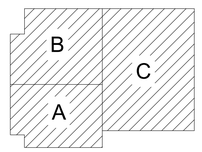
SHEET NOTES:

1. EC SHALL PROVIDE GROUNDING TO REBAR IN BUILDING FOOTING, BUILDING STRUCTURAL STEEL, AND WATER SERVICE PIPING TO MEET ALL GROUNDING REQUIREMENTS PER ARTICLE 250 OF THE NEC.
2. GENERATOR EMERGENCY SHUT–OFF "KILL SWITCH" (PER NFPA 110) TO BE MOUNTED NEAR THE GENERATOR (FIELD COORDINATE LOCATION), COORDINATE ALL INTERCONNECTION WIRING AND CONDUIT ROUTING TO THE GENERATOR (PROVIDED AND INSTALLED BY THE EC).
3. EC SHALL INSTALL 4" ROUND STEEL PIPES, METER SOCKET, UNI–STRUT, WIRING, GROUNDING, CT'S, ETC. PER PECO UTILITY REQUIREMENTS.
4. FIRE PUMP FEED TO BE INSTALLED UNDER A MINIMUM OF 2" OF CONCRETE OR SHALL BE ENCASED IN A CONCRETE DUCTBANK A MINIMUM OF 2" THICK.
5. TERMINATE FEEDERS ON THE SECONDARY BLADES OF THE TRANSFORMER, COORDINATE WITH PECO UTILITIES.
6. EC SHALL TIE–IN THE GENERATOR TO THE FIRE ALARM PANEL TO PROVIDE A GENERAL ALARM TO THE FIRE ALARM SYSTEM DURING ANY ALARMS SENT TO THE REMOTE GENERATOR ANNUNCIATOR PANEL.
7. EC SHALL PROVIDE ALL INTERCONNECTION WIRING AND RACEWAY TO THE GENERATOR REMOTE ANNUNCIATOR AND ASSOCIATED TRANSFER SWITCH, COORDINATE WITH ATS VENDOR FOR ALL WIRING REQUIREMENTS FROM THE GENERATOR. EC SHALL PROVIDE ALL WIRING AND PATHWAY AS–REQUIRED.
8. INTERCONNECTION WIRING TO GENERATOR, EC SHALL COORDINATE WIRING REQUIREMENTS WITH GENERATOR VENDOR.
9. EC WILL BE RESPONSIBLE FOR ALL POWER AND CONTROL CONNECTIONS, CONCRETE PAD, START–UP, ETC., COORDINATE ALL EC RESPONSIBILITIES WITH SPRINGFIELD TOWNSHIP AND GENERATOR VENDOR.
10. EC SHALL PROVIDE A PERMANENT PLAQUE INDICATING MULTIPLE SOURCES OF POWER SUPPLY, AT EACH DISCONNECT MEANS, PROVIDE ALL LABELING REQUIREMENTS PER ARTICLE 230.2 OF THE NEC.



1 ELECTRICAL SINGLE-LINE DIAGRAM

NOT TO SCALE



Key Plan

NTS

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Revisions

No.	Date	Description

04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title

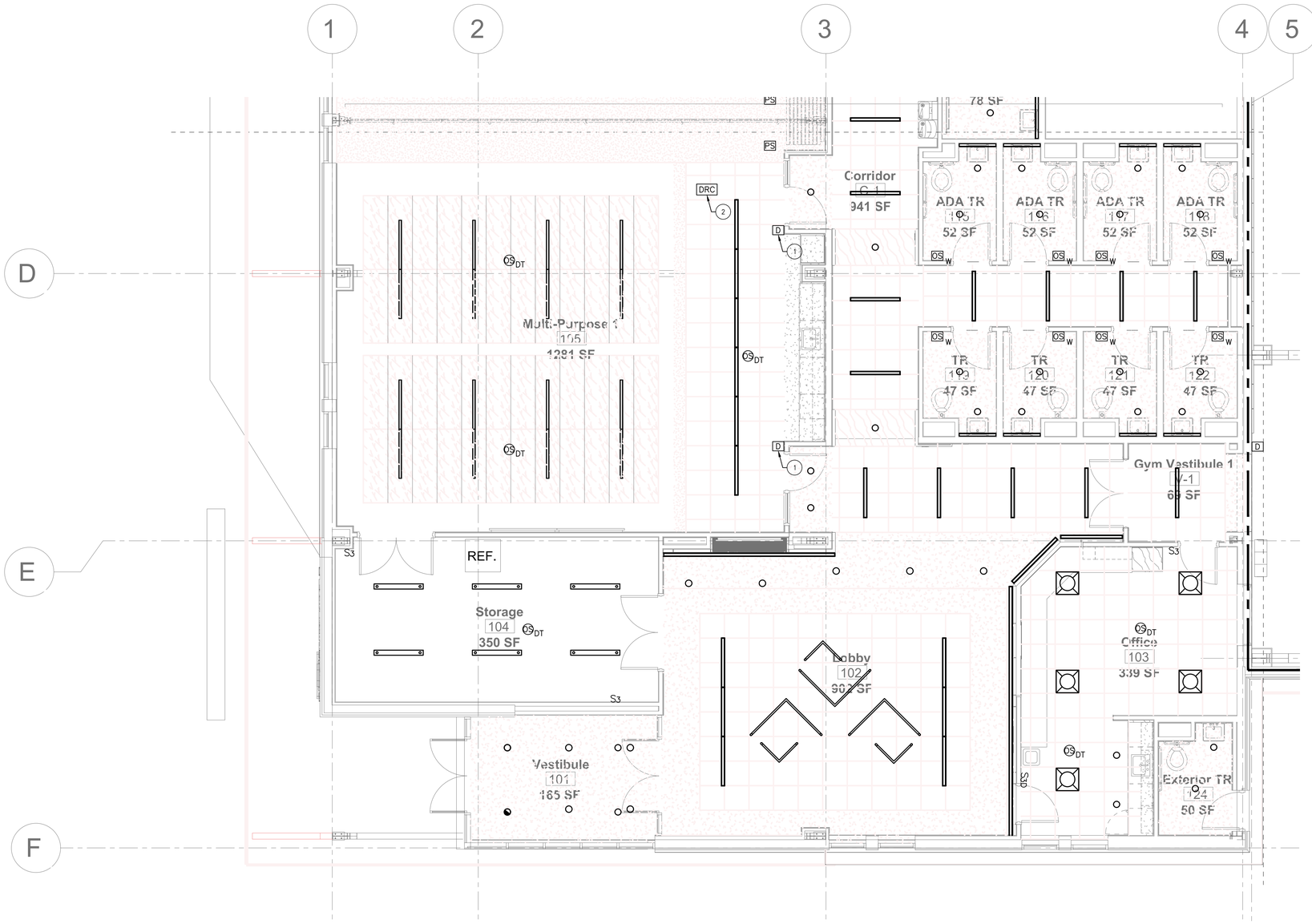
Electrical Single-line Diagram

Project Number 24.129

Date 4.30.2026

Drawing Number

E001



1 Lighting Floor Plan - Area 'A'

1/4" = 1'-0"

NEW WORK NOTES:

1. REFER TO DRAWING 'E000' FOR ELECTRICAL LEGEND, ABBREVIATIONS, AND SYMBOLS.
2. COORDINATE WITH ARCHITECTURAL REFLECTED CEILING PLANS AND ELEVATIONS FOR EXACT QUANTITIES AND LOCATIONS OF ALL CEILING AND WALL MOUNTED LIGHTING FIXTURES AND DEVICES. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION PRIOR TO PURCHASE AND/OR INSTALLATION.
3. THESE DRAWINGS DEPICT THE LOCATION AND TYPE OF OCCUPANCY SENSOR USED. THE E.C. IS RESPONSIBLE FOR ALL REQUIRED POWER PACKS, LOW VOLTAGE WIRING, AND ACCESSORIES NECESSARY TO PROVIDE A COMPLETE AND OPERATIONAL OCCUPANCY SENSING SYSTEM FOR EACH AREA INDICATED.
4. EMERGENCY EXIT SIGNS AND EMERGENCY BATTERY PACKS/DRIVERS SHALL BE CIRCUITED TO NEAREST 120V LIGHTING CIRCUIT SERVING RESPECTIVE AREA AHEAD OF ANY SWITCHING. EXIT SIGNS SHALL NOT BE WIRED THROUGH ANY EMERGENCY LIGHTING RELAY DEVICES.
5. ALL OCCUPANCY SENSORS SHALL BE CAPABLE OF OPERATING AS VACANCY SENSORS.
6. ELECTRICAL CONTRACTOR SHALL PROVIDE DAYLIGHT SENSING CONTROLS AND CIRCUITING FOR ALL AREAS WITH OUTDOOR WINDOWS THAT MEET THE REQUIREMENTS FOR DAYLIGHTING. DAYLIGHT SENSING CONTROL SHALL BE PER THE CURRENTLY ADOPTED IECC.

SHEET NOTES:

1. DIGITAL HUBBELL DIMMER SWITCH TIED INTO THE DIGITAL ROOM CONTROLLER WITH A CAT6 CABLE, SWITCH SHOULD PROVIDE OVERRIDE AND DIMMING CONTROL OF THE MULTI-PURPOSE ROOMS, COORDINATE CONTROL WITH SPRINGFIELD TOWNSHIP.
2. EC SHALL PROVIDE A DIGITAL ROOM CONTROLLER, HUBBELL MANUFACTURER, CATALOG #NXRCFX (OR APPROVED EQUAL) FOR CONTROL OF INDOOR LIGHTING (WHERE INDICATED) AND EXTERIOR BUILDING LIGHTING, EC SHALL PROVIDE DIGITAL SMART SWITCHES FOR MANUAL CONTROL/DIMMING, OCCUPANCY SENSORS, DAYLIGHT SENSORS, PARTITION SENSOR, ETC. AS INDICATED ON THE FLOOR PLANS OR AS-REQUIRED FOR A COMPLETE OPERATIONAL SYSTEM, CONNECT TO THE ASSOCIATED ROOM CONTROLLER WITH CAT6 CABLING. EC SHALL COORDINATE WITH SPRINGFIELD TOWNSHIP FOR CONTROL OF LIGHTING AND SHALL PROGRAM THE ROOM CONTROLLER AND ASSOCIATED DIGITAL CONTROLLERS AS DIRECTED BY SPRINGFIELD TOWNSHIP.
3. EC SHALL PROVIDE DIGITAL SMART SWITCHES FOR MANUAL CONTROL/DIMMING, OCCUPANCY SENSORS, DAYLIGHT SENSORS, ETC. AS INDICATED ON THE FLOOR PLANS OR AS-REQUIRED FOR A COMPLETE OPERATIONAL SYSTEM, CONNECT TO THE ASSOCIATED LIGHTING CONTROL PANEL 'LCP' WITH CAT6 CABLING.

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Revisions

No.	Date	Description

04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title

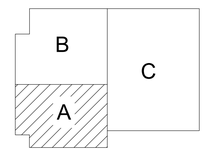
Lighting Floor Plan - Area 'A'

Project Number 24.129

Date 4.30.2026

Drawing Number

E101



Key Plan
NTS

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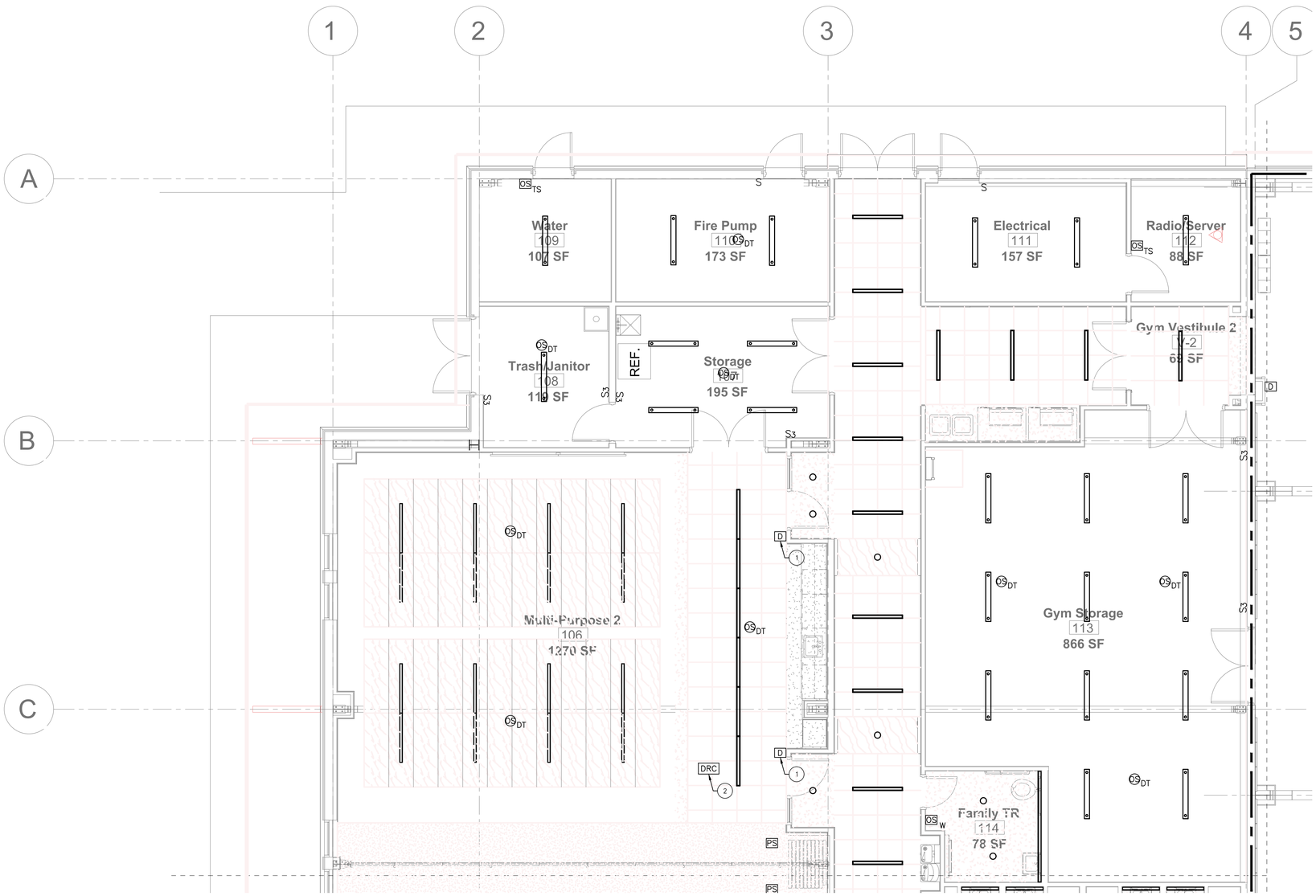

1 Lighting Floor Plan - Area 'B"

1/4" = 1'-0"

NEW WORK NOTES:

1. REFER TO DRAWING 'E000' FOR ELECTRICAL LEGEND, ABBREVIATIONS, AND SYMBOLS.
2. COORDINATE WITH ARCHITECTURAL REFLECTED CEILING PLANS AND ELEVATIONS FOR EXACT QUANTITIES AND LOCATIONS OF ALL CEILING AND WALL MOUNTED LIGHTING FIXTURES AND DEVICES. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION PRIOR TO PURCHASE AND/OR INSTALLATION.
3. THESE DRAWINGS DEPICT THE LOCATION AND TYPE OF OCCUPANCY SENSOR USED. THE E.C. IS RESPONSIBLE FOR ALL REQUIRED POWER PACKS, LOW VOLTAGE WIRING, AND ACCESSORIES NECESSARY TO PROVIDE A COMPLETE AND OPERATIONAL OCCUPANCY SENSING SYSTEM FOR EACH AREA INDICATED.
4. EMERGENCY EXIT SIGNS AND EMERGENCY BATTERY PACKS/DRIVERS SHALL BE CIRCUITED TO NEAREST 120V LIGHTING CIRCUIT SERVING RESPECTIVE AREA AHEAD OF ANY SWITCHING. EXIT SIGNS SHALL NOT BE WIRED THROUGH ANY EMERGENCY LIGHTING RELAY DEVICES.
5. ALL OCCUPANCY SENSORS SHALL BE CAPABLE OF OPERATING AS VACANCY SENSORS.
6. ELECTRICAL CONTRACTOR SHALL PROVIDE DAYLIGHT SENSING CONTROLS AND CIRCUITING FOR ALL AREAS WITH OUTDOOR WINDOWS THAT MEET THE REQUIREMENTS FOR DAYLIGHTING. DAYLIGHT SENSING CONTROL SHALL BE PER THE CURRENTLY ADOPTED IECC.

SHEET NOTES:

1. EC SHALL PROVIDE DIGITAL SMART SWITCHES FOR MANUAL CONTROL/DIMMING, OCCUPANCY SENSORS, DAYLIGHT SENSORS, PARTITION SENSOR, ETC. AS INDICATED ON THE FLOOR PLANS OR AS-REQUIRED FOR A COMPLETE OPERATIONAL SYSTEM. CONNECT TO THE ASSOCIATED LIGHTING CONTROL PANEL 'LCP' WITH CAT6 CABLING. EC SHALL COORDINATE WITH SPRINGFIELD TOWNSHIP FOR CONTROL OF LIGHTING AND SHALL PROGRAM THE LIGHTING CONTROL PANEL AND ASSOCIATED DIGITAL CONTROLLERS AS DIRECTED BY SPRINGFIELD TOWNSHIP.
2. EC SHALL PROVIDE WIRE GUARDS/PROTECTIVE COVERS ON ALL EXIT SIGNS, SWITCHES, SENSORS, ETC. WITHIN THE GYMNASIUM. COORDINATE PROTECTIVE COVERS WITH ASSOCIATED MANUFACTURER TO AVOID IMPEDING ON DEVICES/FIXTURE OPERATION. EC SHALL COORDINATE MOUNTING OF LIGHTING WITH ALL OTHER TRADES, EQUIPMENT, AND STRUCTURE.
3. PROVIDE A DIGITAL LIGHTING CONTROL PANEL 'LCP', HUBBELL MANUFACTURER, CATALOG #NXP2-ETT-24-**-**-UNV-S (OR APPROVED EQUAL) FOR CONTROL OF INTERIOR AND EXTERIOR BUILDING LIGHTING. EC SHALL PROVIDE DIGITAL SWITCH FOR MANUAL CONTROL OVERRIDE AT THE PANEL. EC SHALL COORDINATE WITH SPRINGFIELD TOWNSHIP FOR CONTROL OF LIGHTING AND SHALL PROGRAM THE CONTROL PANEL AND ASSOCIATED DIGITAL CONTROLLERS AS DIRECTED BY THE TOWNSHIP. *PROVIDE SINGLE AND DOUBLE POLE RELAY AS-REQUIRED (NXP2-RL-SP/NXP2-RL-DP).

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Revisions

No.	Date	Description

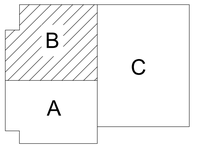
04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title
Lighting Floor Plan - Area 'B'

Project Number 24.129

Date 4.30.2026

Drawing Number
E102



Key Plan
NTS

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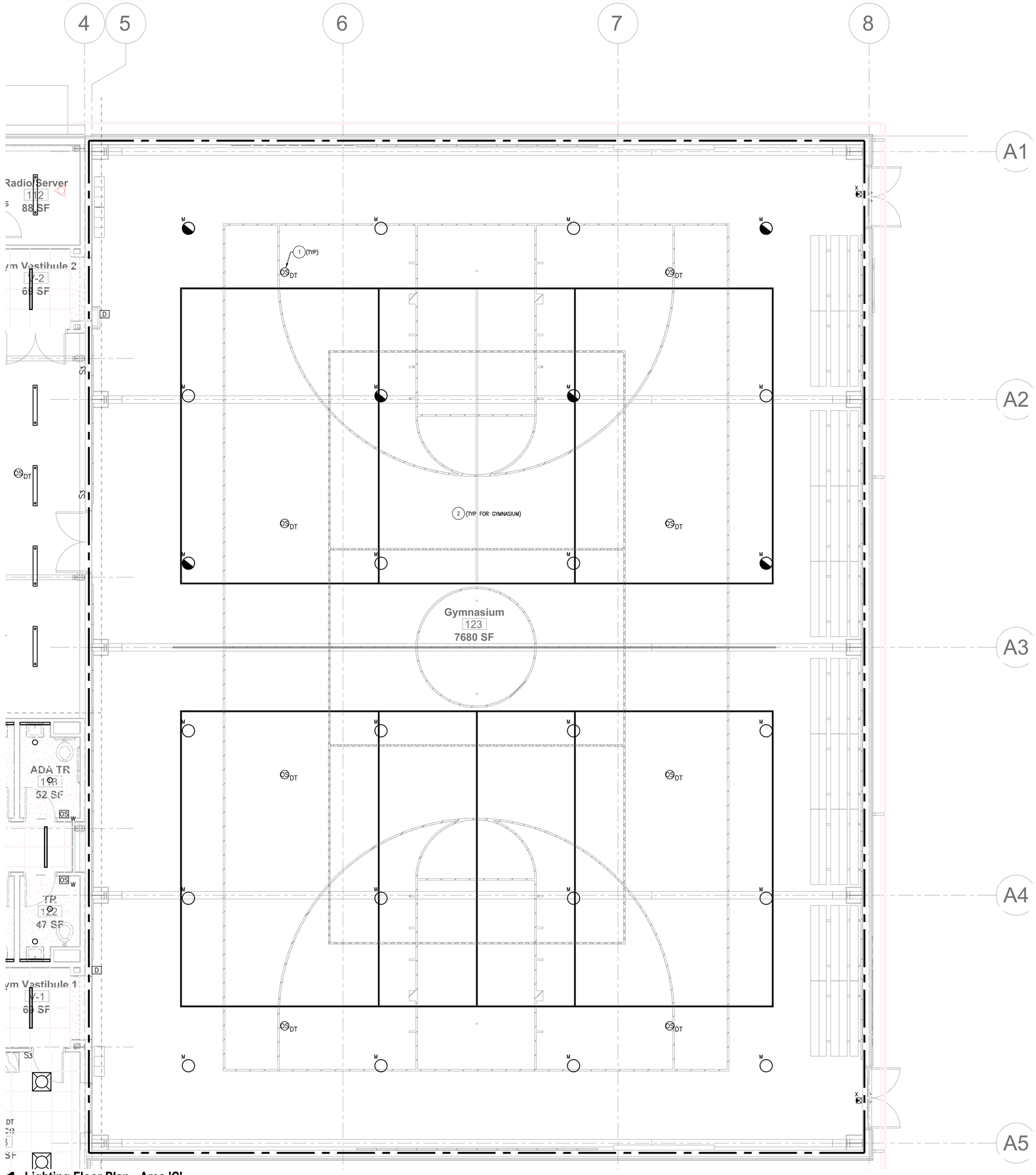

1 Lighting Floor Plan - Area 'C'

1/4" = 1'-0"

NEW WORK NOTES:

1. REFER TO DRAWING 'E000' FOR ELECTRICAL LEGEND, ABBREVIATIONS, AND SYMBOLS.
2. COORDINATE WITH ARCHITECTURAL REFLECTED CEILING PLANS AND ELEVATIONS FOR EXACT QUANTITIES AND LOCATIONS OF ALL CEILING AND WALL MOUNTED LIGHTING FIXTURES AND DEVICES. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION PRIOR TO PURCHASE AND/OR INSTALLATION.
3. THESE DRAWINGS DEPICT THE LOCATION AND TYPE OF OCCUPANCY SENSOR USED. THE E.C. IS RESPONSIBLE FOR ALL REQUIRED POWER PACKS, LOW VOLTAGE WIRING, AND ACCESSORIES NECESSARY TO PROVIDE A COMPLETE AND OPERATIONAL OCCUPANCY SENSING SYSTEM FOR EACH AREA INDICATED.
4. EMERGENCY EXIT SIGNS AND EMERGENCY BATTERY PACKS/DRIVERS SHALL BE CIRCUITED TO NEAREST 120V LIGHTING CIRCUIT SERVING RESPECTIVE AREA AHEAD OF ANY SWITCHING. EXIT SIGNS SHALL NOT BE WIRED THROUGH ANY EMERGENCY LIGHTING RELAY DEVICES.
5. ALL OCCUPANCY SENSORS SHALL BE CAPABLE OF OPERATING AS VACANCY SENSORS.
6. ELECTRICAL CONTRACTOR SHALL PROVIDE DAYLIGHT SENSING CONTROLS AND CIRCUITING FOR ALL AREAS WITH OUTDOOR WINDOWS THAT MEET THE REQUIREMENTS FOR DAYLIGHTING. DAYLIGHT SENSING CONTROL SHALL BE PER THE CURRENTLY ADOPTED IECC.

SHEET NOTES:

1. EC SHALL PROVIDE DIGITAL SMART SWITCHES FOR MANUAL CONTROL/DIMMING, OCCUPANCY SENSORS, DAYLIGHT SENSORS, PARTITION SENSOR, ETC. AS INDICATED ON THE FLOOR PLANS OR AS-REQUIRED FOR A COMPLETE OPERATIONAL SYSTEM, CONNECT TO THE ASSOCIATED LIGHTING CONTROL PANEL 'LCP' WITH CAT6 CABLING. EC SHALL COORDINATE WITH SPRINGFIELD TOWNSHIP FOR CONTROL OF LIGHTING AND SHALL PROGRAM THE LIGHTING CONTROL PANEL AND ASSOCIATED DIGITAL CONTROLLERS AS DIRECTED BY SPRINGFIELD TOWNSHIP.
2. EC SHALL PROVIDE WIRE GUARDS/PROTECTIVE COVERS ON ALL EXIT SIGNS, SWITCHES, SENSORS, ETC. WITHIN THE GYMNASIUM. COORDINATE PROTECTIVE COVERS WITH ASSOCIATED MANUFACTURER TO AVOID IMPEDING ON DEVICES/FIXTURE OPERATION. EC SHALL COORDINATE MOUNTING OF LIGHTING WITH ALL OTHER TRADES, EQUIPMENT, AND STRUCTURE.
3. PROVIDE A DIGITAL LIGHTING CONTROL PANEL 'LCP', HUBBELL MANUFACTURER, CATALOG #NXP2-ETT-24-**-**-UNV-S (OR APPROVED EQUAL) FOR CONTROL OF INTERIOR AND EXTERIOR BUILDING LIGHTING. EC SHALL PROVIDE DIGITAL SWITCH FOR MANUAL CONTROL OVERRIDE AT THE PANEL. EC SHALL COORDINATE WITH SPRINGFIELD TOWNSHIP FOR CONTROL OF LIGHTING AND SHALL PROGRAM THE CONTROL PANEL AND ASSOCIATED DIGITAL CONTROLLERS AS DIRECTED BY THE TOWNSHIP. *PROVIDE SINGLE AND DOUBLE POLE RELAY AS-REQUIRED (NXP2-RL-SP/NXP2-RL-DP).

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Springfield Township Recreation Center

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Revisions

No.	Date	Description

04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title

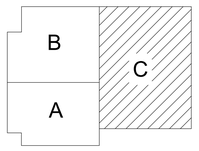
Lighting Floor Plan - Area 'C'

Project Number 24.129

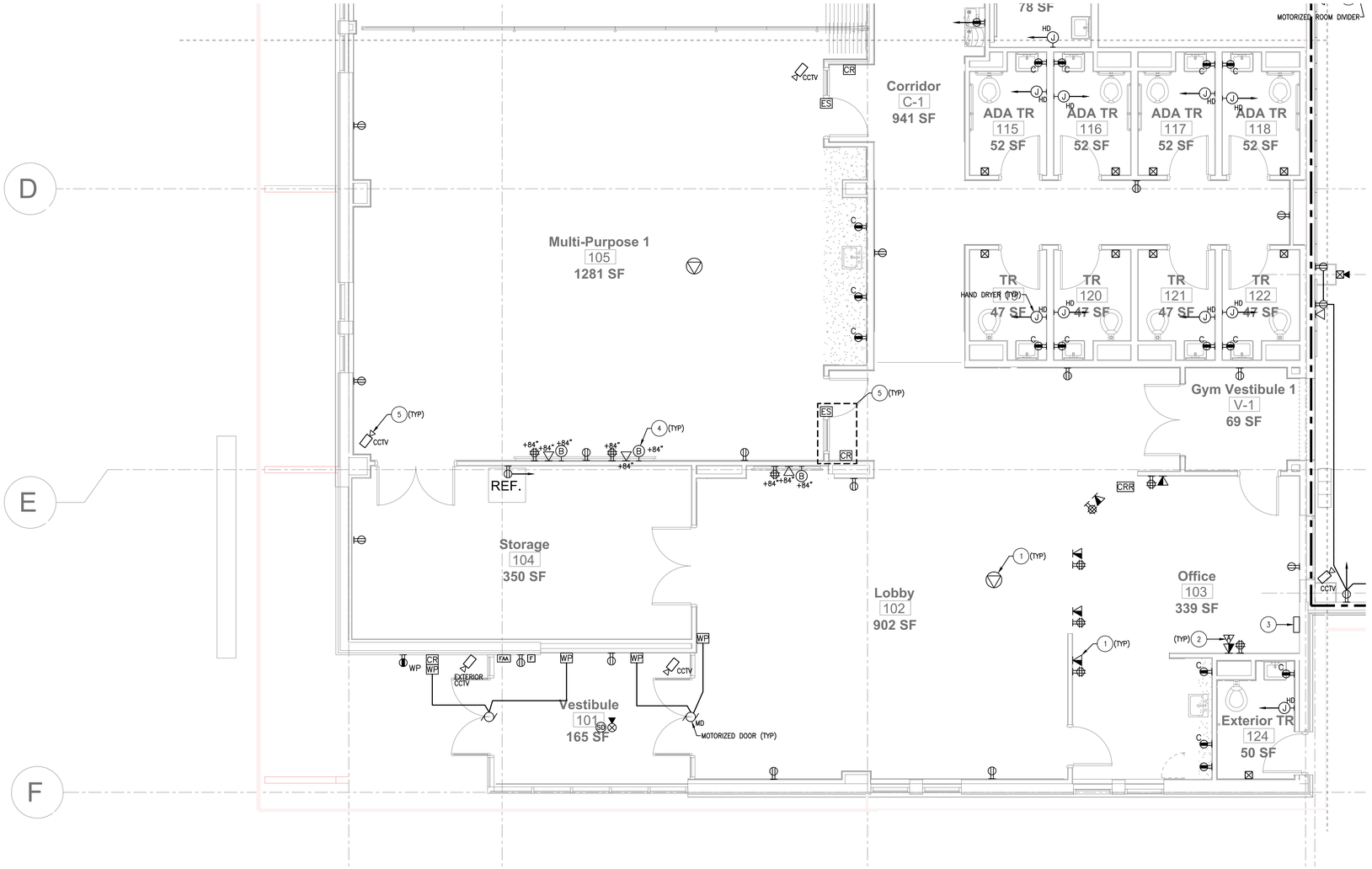
Date 4.30.2026

Drawing Number

E103



Key Plan
NTS



1 Power, Telecom, Fire Alarm Plan - Area 'A'

1/4" = 1'-0"

GENERAL NOTES:

1. EC SHALL COORDINATE LOCATIONS OF ALL ELECTRICAL DEVICES WITH THE ARCHITECTURAL ELEVATIONS PRIOR TO ROUGH-IN.
2. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN AND INTERIOR ELEVATIONS FOR COORDINATION AND EXACT LOCATION OF CEILING AND WALL MOUNTED DEVICES.
3. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ALL FIBER OPTIC, COPPER CABLE, CONNECTORS, PATCH PANELS, AND PUNCH BLOCKS, AND MAKE ALL TERMINATIONS NECESSARY AT THE TELECOMMUNICATION OUTLETS AND THE DATA RACK AND TELEPHONE PUNCHBLOCK SERVING THIS BUILDING TO INTEGRATE THE NEW DEVICES INTO THE BUILDINGS TELECOMMUNICATION SYSTEM.
4. ALL VOICE AND DATA WIRING TERMINATIONS FOR OUTLETS SHOWN SHALL BE MADE AS DIRECTED BY SPRINGFIELD TOWNSHIP'S 'IS' DEPARTMENT. EC SHALL BE RESPONSIBLE FOR ALL TERMINATIONS FOR VOICE AND DATA CABLING PER STANDARDS. THE EC SHALL PROVIDE NEW RACK MOUNTED 110-STYLE PUNCHBLOCKS FOR VOICE CABLING AND NEW COMMUNICATION OUTLET PATCH PANELS FOR DATA CABLING AS REQUIRED. ALL WORK SHALL BE COORDINATED WITH THE SPRINGFIELD TOWNSHIP 'IS' DEPARTMENT PRIOR TO INSTALLATION.
5. THE EC MUST SUBMIT COMPLETE SHOP DRAWINGS, SPECIFICATIONS, AND CALCULATIONS FOR THE FIRE ALARM SYSTEM, NO WORK CAN BE STARTED UNTIL THE SHOP DRAWINGS HAVE BEEN REVIEWED AND APPROVED.
6. ALL ELECTRICAL APPLIANCES AND EQUIPMENT SHALL BE LABELED AND LISTED BY A CERTIFIED TESTING LABORATORY OR AGENCY (SUCH AS UL) AND INSTALLED IN ACCORDANCE WITH ALL INSTRUCTIONS INCLUDED AS PART OF SUCH LISTING.
7. EC SHALL ENSURE THAT ALL RECEPTACLES LOCATED WITHIN 6' OF A SINK ARE GFCI TYPE.
8. EC SHALL COORDINATE WITH THE MECHANICAL CONTRACTOR TO ENSURE PROPER CLEARANCES ARE MET ABOVE THE ACCESSIBLE CEILING IN FRONT OF THE MECHANICAL EQUIPMENT DISCONNECT MEANS TO MEET THE NEC.

SHEET NOTES:

1. THE EC SHALL PROVIDE ALL CABLING, DEVICES, AND TERMINATIONS AS FOLLOWS: DATA/VOIP CABLING SHALL BE CATEGORY 6e, PLENUM RATED CABLE AS MANUFACTURED BY MOHAWK, BELDEN, BERK-TEK, OR APPROVED EQUAL. DATA JACKS SHALL BE FLUSH MOUNTED, HIGH QUALITY, CATEGORY 6e, 8-POSITION MODULAR JACKS WITH LEADFRAME CONSTRUCTION AND 110 STYLE TERMINATIONS (WITH HIGH IMPACT 110 TERMINATION TOOL). THE CONTRACTOR SHALL BE RESPONSIBLE FOR ROUTING ALL CAT6e WIRING FROM THE DATA OUTLET TO THE PATCH PANELS IN THE NEW DATA RACK SERVING THIS AREA (COORDINATE EXACT LOCATION WITH OWNER'S I.S. DEPARTMENT). THE I.S. DEPARTMENT SHALL BE RESPONSIBLE FOR PURCHASING AND INSTALLING NEW SWITCHES TO ACCOMMODATE THE NEW DROPS. ALL OUTLETS SHALL BE PROVIDED WITH (2) CAT6e CABLES/JACKS (SPRINGFIELD TOWNSHIP STANDARD)
2. EC SHALL PROVIDE ALL CABLING, DEVICES, AND TERMINATIONS AS FOLLOWS: ANALOG VOICE CABLING SHALL CATEGORY 6e PLENUM RATED CABLE AS MANUFACTURED BY MOHAWK, BELDEN, BERK-TEK, OR APPROVED EQUAL. VOICE JACKS SHALL BE 6-POSITION CATEGORY 6e MODULAR JACKS, PROVIDE REQUIRED FACEPLATES AND INSTALLATION KITS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ROUTING ALL CAT 6e PHONE WIRING TO THE NEW TELEPHONE RACK MOUNTED 110-PUNCHDOWN BLOCKS SERVING THIS AREA (COORDINATE EXACT LOCATION WITH OWNER'S I.S. DEPARTMENT). THE CONTRACTOR SHALL BE RESPONSIBLE TO TERMINATE THE NEW WIRING AND PROVIDE NEW 110-PUNCHBLOCKS AS-REQUIRED TO INTEGRATE INTO THE TELEPHONE SYSTEM.
3. GENERATOR ANNUNCIATOR PANEL, TIE-IN TO THE EMERGENCY GENERATOR COORDINATE WITH VENDOR FOR WIRING REQUIREMENTS.
4. EC SHALL ROUTE A 1 1/4" CONDUITS FROM THE 1-GANG BACKBOX UPTO THE ACCESSIBLE CEILING FOR FUTURE A/V WIRING.
5. EC SHALL COORDINATE WITH THE SECURITY VENDOR AND PROVIDE ALL PATHWAY, BACKBOXES, ETC. REQUIRED FOR INSTALLATION OF THE SECURITY CAMERA BY THE SECURITY VENDOR.
6. REFER TO CARD READER ROUGH-IN DETAIL 7 ON DRAWING 'E300' FOR ADDITIONAL INFORMATION, COORDINATE WITH OWNER'S SECURITY VENDOR AND ARCHITECT'S DOOR SCHEDULE REQUIREMENTS, WHERE APPLICABLE COORDINATE CARD READER INTERFACE/CONTROL WITH MOTORIZED DOORS.

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Revisions

No.	Date	Description

04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title

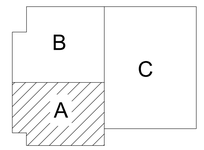
Power, Telecom, Fire Alarm Floor Plan - Area 'A'

Project Number 24.129

Date 4.30.2026

Drawing Number

E201



Key Plan
NTS

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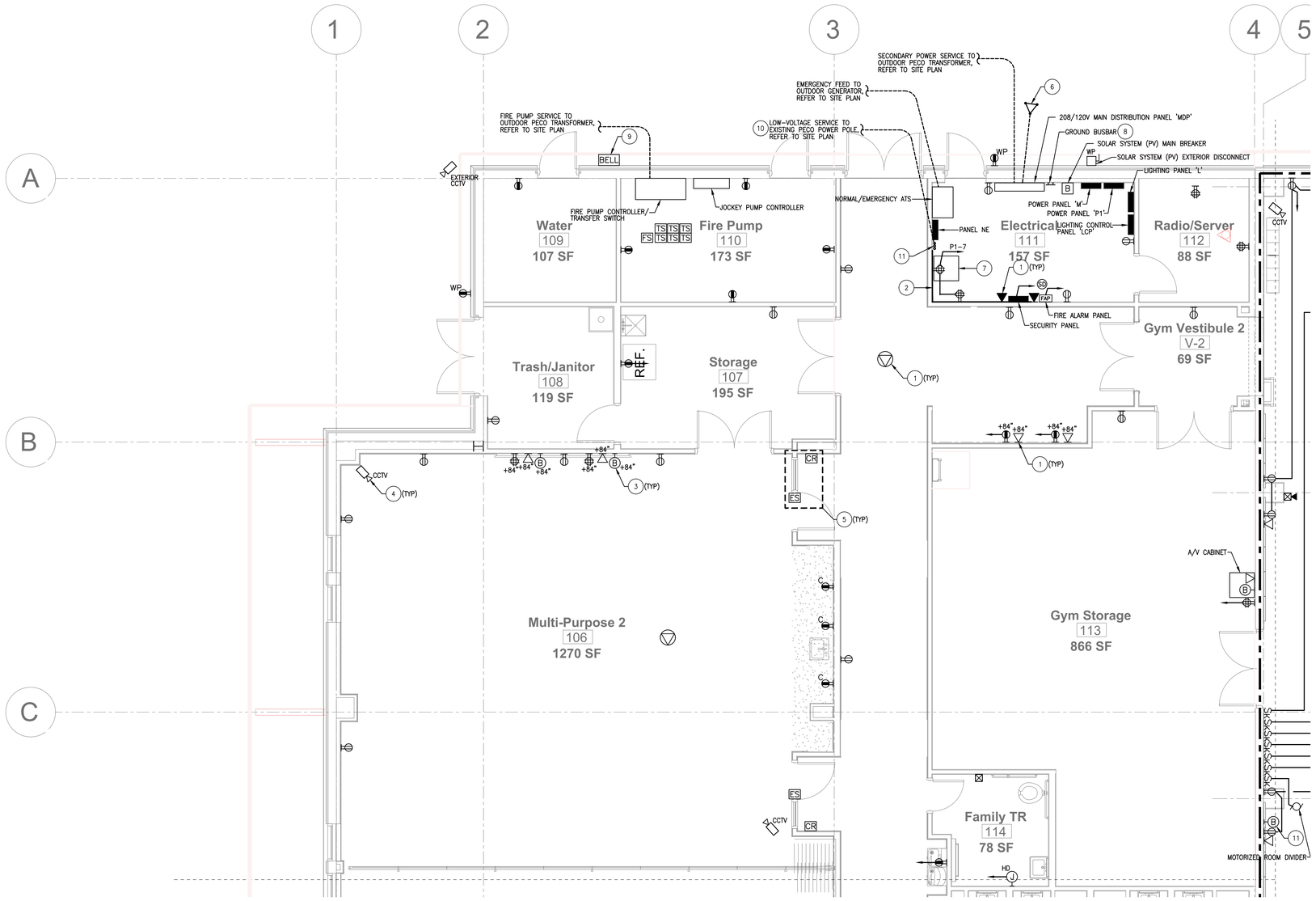


1 Power, Telecom, Fire Alarm Plan - Area 'B"

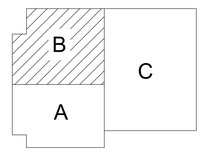
1/4" = 1'-0"

GENERAL NOTES:

1. EC SHALL COORDINATE LOCATIONS OF ALL ELECTRICAL DEVICES WITH THE ARCHITECTURAL ELEVATIONS PRIOR TO ROUGH-IN.
2. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN AND INTERIOR ELEVATIONS FOR COORDINATION AND EXACT LOCATION OF CEILING AND WALL MOUNTED DEVICES.
3. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ALL FIBER OPTIC, COPPER CABLE, CONNECTORS, PATCH PANELS, AND PUNCH BLOCKS, AND MAKE ALL TERMINATIONS NECESSARY AT THE TELECOMMUNICATION OUTLETS AND THE DATA RACK AND TELEPHONE PUNCHBLOCK SERVING THIS BUILDING TO INTEGRATE THE NEW DEVICES INTO THE BUILDINGS TELECOMMUNICATION SYSTEM.
4. ALL VOICE AND DATA WIRING TERMINATIONS FOR OUTLETS SHOWN SHALL BE MADE AS DIRECTED BY SPRINGFIELD TOWNSHIP'S 'IS' DEPARTMENT. EC SHALL BE RESPONSIBLE FOR ALL TERMINATIONS FOR VOICE AND DATA CABLING PER STANDARDS. THE EC SHALL PROVIDE NEW RACK MOUNTED 110-STYLE PUNCHBLOCKS FOR VOICE CABLING AND NEW COMMUNICATION OUTLET PATCH PANELS FOR DATA CABLING AS REQUIRED. ALL WORK SHALL BE COORDINATED WITH THE SPRINGFIELD TOWNSHIP 'IS' DEPARTMENT PRIOR TO INSTALLATION.
5. THE EC MUST SUBMIT COMPLETE SHOP DRAWINGS, SPECIFICATIONS, AND CALCULATIONS FOR THE FIRE ALARM SYSTEM, NO WORK CAN BE STARTED UNTIL THE SHOP DRAWINGS HAVE BEEN REVIEWED AND APPROVED.
6. ALL ELECTRICAL APPLIANCES AND EQUIPMENT SHALL BE LABELED AND LISTED BY A CERTIFIED TESTING LABORATORY OR AGENCY (SUCH AS UL) AND INSTALLED IN ACCORDANCE WITH ALL INSTRUCTIONS INCLUDED AS PART OF SUCH LISTING.
7. EC SHALL ENSURE THAT ALL RECEPTACLES LOCATED WITHIN 6' OF A SINK ARE GFCI TYPE.
8. EC SHALL COORDINATE WITH THE MECHANICAL CONTRACTOR TO ENSURE PROPER CLEARANCES ARE MET ABOVE THE ACCESSIBLE CEILING IN FRONT OF THE MECHANICAL EQUIPMENT DISCONNECT MEANS TO MEET THE NEC.

SHEET NOTES:

1. THE EC SHALL PROVIDE ALL CABLING, DEVICES, AND TERMINATIONS AS FOLLOWS: DATA/VOIP CABLING SHALL BE CATEGORY 6e, PLENUM RATED CABLE AS MANUFACTURED BY MOHAWK, BELDEN, BERK-TEK, OR APPROVED EQUAL. DATA JACKS SHALL BE FLUSH MOUNTED, HIGH QUALITY, CATEGORY 6e, 8-POSITION MODULAR JACKS WITH LEADFRAME CONSTRUCTION AND 110 STYLE TERMINATIONS (WITH HIGH IMPACT 110 TERMINATION TOOL). THE CONTRACTOR SHALL BE RESPONSIBLE FOR ROUTING ALL CAT6e WIRING FROM THE DATA OUTLET TO THE PATCH PANELS IN THE NEW DATA RACK SERVING THIS AREA (COORDINATE EXACT LOCATION WITH OWNER'S I.S. DEPARTMENT). THE I.S. DEPARTMENT SHALL BE RESPONSIBLE FOR PURCHASING AND INSTALLING NEW SWITCHES TO ACCOMMODATE THE NEW DROPS. ALL OUTLETS SHALL BE PROVIDED WITH (2) CAT6e CABLES/JACKS (SPRINGFIELD TOWNSHIP STANDARD)
2. EC SHALL WRAP THE WALL WITH 3/4" PLYWOOD WITH FIRE RETARDANT PAINT FOR THE NEW LOW-VOLTAGE DEMARC.
3. EC SHALL ROUTE A 1 1/4" CONDUIT FROM THE 1-GANG BACKBOX UPTO THE ACCESSIBLE CEILING FOR FUTURE A/V WIRING.
4. EC SHALL COORDINATE WITH THE SECURITY VENDOR AND PROVIDE ALL PATHWAY, BACKBOXES, ETC. REQUIRED FOR INSTALLATION OF THE SECURITY CAMERA BY THE SECURITY VENDOR.
5. REFER TO CARD READER ROUGH-IN DETAIL 7 ON DRAWING 'E300' FOR ADDITIONAL INFORMATION, COORDINATE WITH OWNER'S SECURITY VENDOR AND ARCHITECT'S DOOR SCHEDULE REQUIREMENTS, WHERE APPLICABLE COORDINATE CARD READER INTERFACE/CONTROL WITH MOTORIZED DOORS.
6. GROUNDING COUNTERPOISE, REFER TO DETAIL 3 ON DRAWING 'E300', EC SHALL ROUTE A 1" CONDUIT AT 18" BELOW GRADE FOR GROUNDING ELECTRODE.
7. EC SHALL PROVIDE A 19" DATA RACK (SPRINGFIELD TOWNSHIP MANUFACTURER STANDARD) WITH WITH CABLE MANAGEMENT.
8. FIELD COORDINATE EXACT LOCATION, REFER TO GROUNDING DETAILS 5 & 6 ON DRAWING 'E300' FOR ADDITIONAL INFORMATION.
9. TIE-IN FIRE PROTECTION ELECTRIC BELL TO FIRE ALARM SYSTEM.
10. THE EC SHALL COORDINATE WITH THE OWNER AND THE LOCAL SERVICE PROVIDERS TO PROVIDE NEW PHONE, DATA, AND CATV SERVICE TO SERVE THE NEW BUILDING. NEW SERVICE SHALL BE BROUGHT UNDERGROUND FROM THE CLOSEST POWER POLE AVAILABLE (COORDINATE EXACT POWER POLE WITH LOCAL SERVICE PROVIDERS), EC SHALL PROVIDE ALL PROVISIONS, PATHWAY, ETC. TO PROVIDE NEW LOW-VOLTAGE UTILITIES TO THE SITE.
11. STUB-UP CONDUITS AT 1'-0" AFF.



Key Plan

NTS

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Revisions

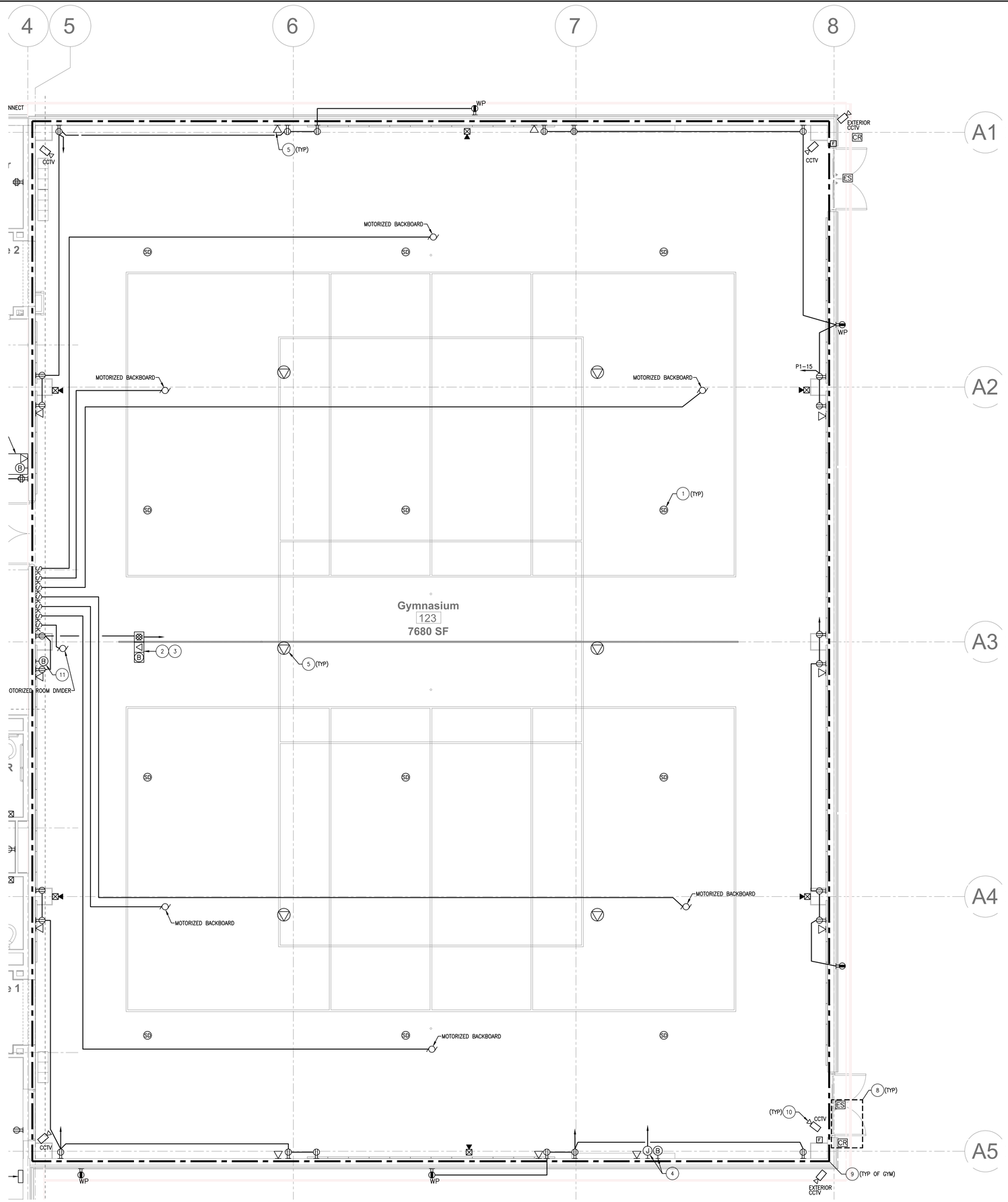
No.	Date	Description

04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title

Power, Telecom, Fire Alarm Floor Plan - Area 'B'

Project Number	24.129
Date	4.30.2026
Drawing Number	E202



1 Power, Telecom, Fire Alarm Floor Plan - Area 'C'

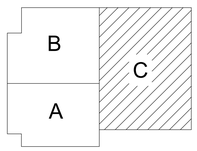
1/4" = 1'-0"

GENERAL NOTES:

1. EC SHALL COORDINATE LOCATIONS OF ALL ELECTRICAL DEVICES WITH THE ARCHITECTURAL ELEVATIONS PRIOR TO ROUGH-IN.
2. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN AND INTERIOR ELEVATIONS FOR COORDINATION AND EXACT LOCATION OF CEILING AND WALL MOUNTED DEVICES.
3. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ALL FIBER OPTIC, COPPER CABLE, CONNECTORS, PATCH PANELS, AND PUNCH BLOCKS, AND MAKE ALL TERMINATIONS NECESSARY AT THE TELECOMMUNICATION OUTLETS AND THE DATA RACK AND TELEPHONE PUNCHBLOCK SERVING THIS BUILDING TO INTEGRATE THE NEW DEVICES INTO THE BUILDINGS TELECOMMUNICATION SYSTEM.
4. ALL VOICE AND DATA WIRING TERMINATIONS FOR OUTLETS SHOWN SHALL BE MADE AS DIRECTED BY SPRINGFIELD TOWNSHIP'S 'IS' DEPARTMENT. EC SHALL BE RESPONSIBLE FOR ALL TERMINATIONS FOR VOICE AND DATA CABLING PER STANDARDS. THE EC SHALL PROVIDE NEW RACK MOUNTED 110-STYLE PUNCHBLOCKS FOR VOICE CABLING AND NEW COMMUNICATION OUTLET PATCH PANELS FOR DATA CABLING AS REQUIRED. ALL WORK SHALL BE COORDINATED WITH THE SPRINGFIELD TOWNSHIP 'IS' DEPARTMENT PRIOR TO INSTALLATION. REFER TO DETAIL 8 ON DRAWING E300 FOR TYPICAL BACKBOX AND PATHWAY ROUGH-IN.
5. THE EC MUST SUBMIT COMPLETE SHOP DRAWINGS, SPECIFICATIONS, AND CALCULATIONS FOR THE FIRE ALARM SYSTEM, NO WORK CAN BE STARTED UNTIL THE SHOP DRAWINGS HAVE BEEN REVIEWED AND APPROVED.
6. ALL ELECTRICAL APPLIANCES AND EQUIPMENT SHALL BE LABELED AND LISTED BY A CERTIFIED TESTING LABORATORY OR AGENCY (SUCH AS UL) AND INSTALLED IN ACCORDANCE WITH ALL INSTRUCTIONS INCLUDED AS PART OF SUCH LISTING.
7. EC SHALL ENSURE THAT ALL RECEPTACLES LOCATED WITHIN 6' OF A SINK ARE GFCI TYPE.
8. EC SHALL COORDINATE WITH THE MECHANICAL CONTRACTOR TO ENSURE PROPER CLEARANCES ARE MET ABOVE THE ACCESSIBLE CEILING IN FRONT OF THE MECHANICAL EQUIPMENT DISCONNECT MEANS TO MEET THE NEC.
9. EC SHALL PROVIDE WIRE GUARDS/PROTECTIVE COVERS ON ALL ELECTRICAL, FIRE ALARM DEVICES, ETC. WITHIN THE GYMNASIUM, COORDINATE PROTECTIVE COVERS WITH ASSOCIATED MANUFACTURER TO AVOID IMPEDING ON DEVICES/FIXTURE OPERATION. EC SHALL COORDINATE MOUNTING OF ALL DEVICES WITH ALL OTHER TRADES, EQUIPMENT, AND STRUCTURE.

SHEET NOTES:

1. EC SHALL PROVIDE A WIRE GUARD FOR ALL FIRE ALARM DEVICES LOCATED WITHIN THE GYMNASIUM.
2. RECESSED FLOOR BOX WITH FLUSH MOUNTED BRASS COVERPLATE, COORDINATE EXACT LOCATION WITH SCORER'S TABLE.
3. EC SHALL PROVIDE A 1" EMPTY CONDUIT BELOW GRADE BETWEEN THE RECESSED FLOORBOX AND THE BACKBOX FOR SCOREBOARD CONTROL WIRING.
4. POWER CONNECTION AND CONTROL FOR SCOREBOARD, COORDINATE EXACT LOCATION WITH SCOREBOARD MANUFACTURER PRIOR TO ROUGH-IN.
5. THE EC SHALL PROVIDE ALL CABLING, DEVICES, AND TERMINATIONS AS FOLLOWS: DATA/VOIP CABLING SHALL BE CATEGORY 6, PLENUM RATED CABLE AS MANUFACTURED BY MOHAWK, BELDEN, BERK-TEK, OR APPROVED EQUAL. DATA JACKS SHALL BE FLUSH MOUNTED, HIGH QUALITY, CATEGORY 6e, 8-POSITION MODULAR JACKS WITH LEADFRAME CONSTRUCTION AND 110 STYLE TERMINATIONS (WITH HIGH IMPACT 110 TERMINATION TOOL). THE CONTRACTOR SHALL BE RESPONSIBLE FOR ROUTING ALL CAT6e WIRING FROM THE DATA OUTLET TO THE PATCH PANELS IN THE NEW DATA RACK SERVING THIS AREA (COORDINATE EXACT LOCATION WITH OWNER'S I.S. DEPARTMENT). THE I.S. DEPARTMENT SHALL BE RESPONSIBLE FOR PURCHASING AND INSTALLING NEW SWITCHES TO ACCOMMODATE THE NEW DROPS. ALL OUTLETS SHALL BE PROVIDED WITH (2) CAT6e CABLES/JACKS (SPRINGFIELD TOWNSHIP STANDARD)
6. EC SHALL PROVIDE ALL CABLING, DEVICES, AND TERMINATIONS AS FOLLOWS: ANALOG VOICE CABLING SHALL CATEGORY 6 PLENUM RATED CABLE AS MANUFACTURED BY MOHAWK, BELDEN, BERK-TEK, OR APPROVED EQUAL. VOICE JACKS SHALL BE 6-POSITION CATEGORY 6e MODULAR JACKS, PROVIDE REQUIRED FACEPLATES AND INSTALLATION KITS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ROUTING ALL CAT 6e PHONE WIRING TO THE NEW TELEPHONE RACK MOUNTED 110-PUNCHDOWN BLOCKS SERVING THIS AREA (COORDINATE EXACT LOCATION WITH OWNER'S I.S. DEPARTMENT). THE CONTRACTOR SHALL BE RESPONSIBLE TO TERMINATE THE NEW WIRING AND PROVIDE NEW 110-PUNCHBLOCKS AS-REQUIRED TO INTEGRATE INTO THE TELEPHONE SYSTEM.
7. DUCT MOUNTED SMOKE DETECTOR, REFER TO DETAIL 3 ON DRAWING 'E301' FOR ADDITIONAL INFORMATION ON HVAC SHUTDOWN REQUIREMENTS.
8. REFER TO CARD READER ROUGH-IN DETAIL 7 ON DRAWING 'E300' FOR ADDITIONAL INFORMATION, COORDINATE WITH OWNER'S SECURITY VENDOR AND ARCHITECT'S DOOR SCHEDULE REQUIREMENTS, WHERE APPLICABLE COORDINATE CARD READER INTERFACE/CONTROL WITH MOTORIZED DOORS.
9. ALL CONDUITS SERVING WALL MOUNTED DEVICES WITHIN THE GYMNASIUM SHALL BE MOUNTED BELOW GRADE FROM THE SOURCE (PANEL, DATA RACK, ACCESS CONTROL, ETC.) AND STUBBED-UP WITHIN THE WALL AT THE DEVICE TO AVOID EXPOSED CONDUITS AND WIRING. ALL EXPOSED WIRING WITHIN THE GYMNASIUM SHALL BE ROUTED WITHIN A CONDUIT PER SPECIFICATIONS.
10. EC SHALL COORDINATE WITH THE SECURITY VENDOR AND PROVIDE ALL PATHWAY, BACKBOXES, ETC. REQUIRED FOR INSTALLATION OF THE SECURITY CAMERA BY THE SECURITY VENDOR.
11. EC SHALL ROUTE A 1 1/4" CONDUIT TO THE CEILING MOUNTED PROJECTOR FOR A/V INTERFACE.



Key Plan

NTS

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Revisions

No.	Date	Description

04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title

Power, Telecom, Fire Alarm Floor Plan - Area 'C'

Project Number	24.129
Date	4.30.2026
Drawing Number	E203

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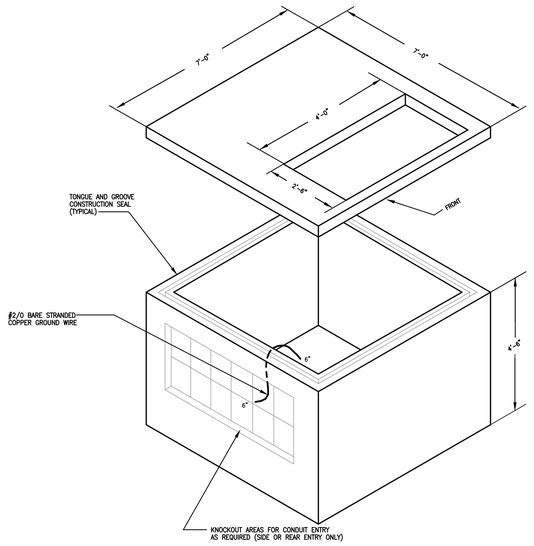
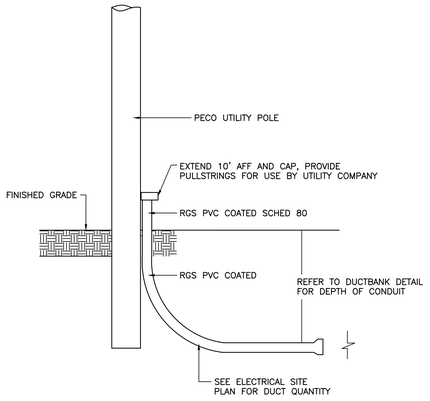


1 PRECAST TRANSFORMER FOUNDATION DETAIL

NOT TO SCALE

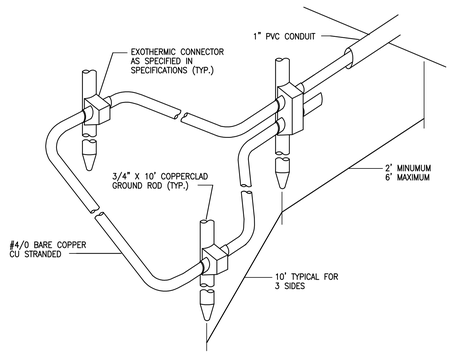
NOTES:

1. TOP OF FOUNDATION TO BE SET 6" ABOVE FINISHED GRADE.
2. FOUNDATION TO BE SET ON 6" OF COMPACTED #2B CRUSHED STONE.
3. MINIMUM EXCAVATION SHALL BE 9FT BY 9FT BY 5FT DEEP.
4. EC SHALL DIG A TRENCH AROUND THE FOUNDATION FOR INSTALLATION OF A GROUND ROD AND GROUND RING BY PECO.



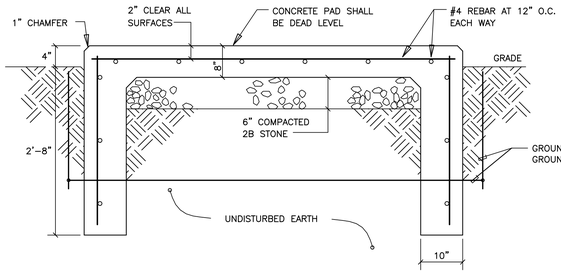
2 POWER UTILITY DUCTBANK TO POLE DETAIL

NOT TO SCALE



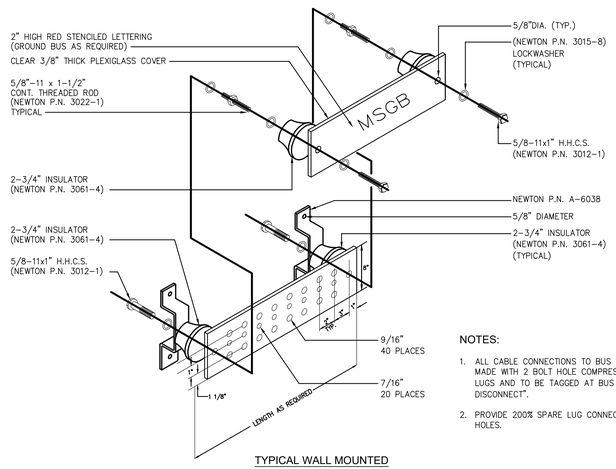
3 COUNTERPOISE GROUNDING DETAIL

NOT TO SCALE



4 EQUIPMENT CONCRETE PAD DETAIL

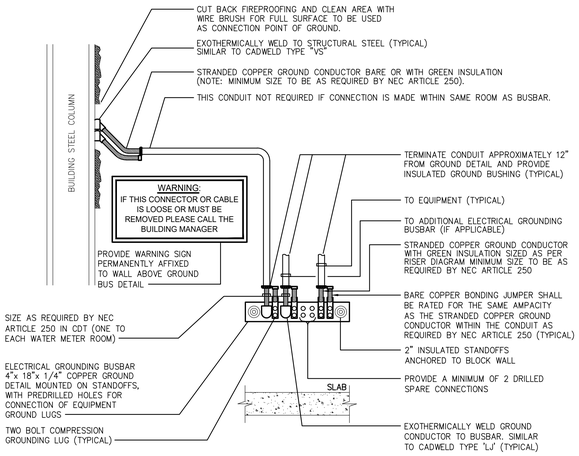
NOT TO SCALE



NOTES:

1. ALL CABLE CONNECTIONS TO BUS TO BE MADE WITH 2 BOLT HOLE COMPRESSION LUGS AND TO BE TAGGED AT BUS "DO NOT DISCONNECT".
2. PROVIDE 200% SPARE LUG CONNECTIONS HOLES.

TYPICAL WALL MOUNTED GROUNDING BUS BAR DETAIL
(N.T.S.)



NOTES:

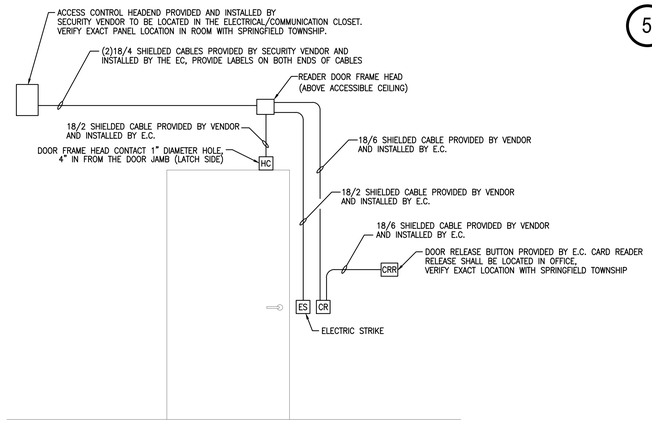
1. TYPICAL FOR EACH ELECTRICAL CLOSET.
2. ALL LUGS, CONNECTORS, BUSHINGS, ETC. SHALL BE LISTED FOR GROUNDING.

5 TYPICAL WALL MOUNTED GROUND BUS BAR

NOT TO SCALE

6 GROUND CONNECTION IN ELECTRICAL CLOSETS

NOT TO SCALE

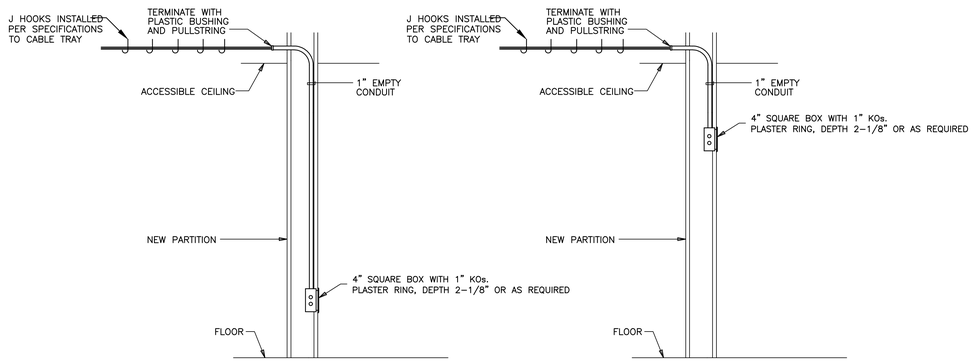


7 TYPICAL CARD READER WIRING DIAGRAM DETAIL

SCALE: NONE

GENERAL NOTE:

1. COORDINATE INSTALLATION WITH SPRINGFIELD TOWNSHIP AND SECURITY VENDOR PRIOR TO ANY INSTALLATION.



8 TYPICAL VOIP/DATA/LV BACKBOX AND CONDUIT INSTALLATION DETAIL

SCALE: NONE

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Revisions

No.	Date	Description

04.30.26 - DESIGN DEVELOPMENT - NOT FOR CONSTRUCTION

Drawing Title

Electrical Details

Project Number 24.129

Date 4.30.2026

Drawing Number

E300