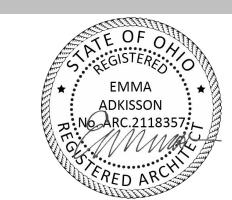
# **BOYS & GIRLS CLUB OF GREATER CINCINNATI**

# PRICE HILL TEEN CENTER & CORPORATE **OFFICES**

1205 Dewey Ave, Cincinnati, OH 45205



EmbossDesign.com 906 Monmouth Street



**Expiration Date:** 

12/31/2025

# **Drawing List**

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C300									
C400	UTILITY PLAN								
C500	SITE LAYOUT PLAN								
ARCHITE	CTURAL SITE								
AS100	ARCHITECTURAL SITE								
ARCHITE	CTURAL								
A100	FIRST FLOOR PLAN								
A101	SECOND FLOOR PLAN								
A102	ROOF PLAN								
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A201	ENLARGED BRICK ELEVATIONS								
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A400	FIRST FLOOR REFLECTED CEILING PLAN								
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FP100 FIRE PROTECTION FIRST FLOOR PLAN

FP101 FIRE PROCTECTION SECOND FLOOR PLAN

Number	Sheet Name
PLUMBIN	G
P100	PLUMBING FIRST FLOOR PLAN
P101	PLUMBING SECOND FLOOR PLAN
P102	PLUMBING ROOF PLAN
P200	PLUMBING DETAILS, SCHEDULES, AND ISOMETRIC
MECHANI	CAL
M100	MECHANICAL FIRST FLOOR PLAN
M101	MECHANICAL SECOND FLOOR PLAN
M102	MECHANICAL ROOF PLAN
M200	MECHANICAL DETAILS
ELECTRIC	CAL
E001	ELECTRICAL SITE PLAN
E100	ELECTRICAL POWER FIRST FLOOR PLAN
E101	ELECTRICAL POWER SECOND FLOOR PLAN
E102	ELECTRICAL POWER ROOF PLAN
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E300	ELECTRICAL DETAILS AND SCHEDULES
S301	ELECTRICAL DETAILS
TELECOM	MUNICATIONS
T001	TECHNOLOGY LEGENDS
T002	TECHNOLOGY NOTES
T003	TECHNOLOGY NOTES
T010	TECHNOLOGY SITE PLAN
T011	FIRST FLOOR CABLE PATHWAY PLAN
T012	SECOND FLOOR CABLE PATHWAY PLAN
T101	TECHNOLOGY WIRELESS FIRST FLOOR PLAN
T102	TECHNOLOGY WIRELESS SECOND FLOOR PLAN
T103	COMMUNICATIONS NETWORK FIRST FLOOR PLAN
T104	COMMUNICATIONS NETWORK SECONDFLOOR PLAN
T105	PAGING SYSTEM FIRST FLOOR PLAN
T106	PAGING SYSTEM SECOND FLOOR PLAN
T107	SECURITY FIRST FLOOR PLAN
T108	A/V FIRST FLOOR PLAN
T109	A/V SECOND FLOOR PLAN
T501	TECHNOLOGY ROOMS AND GROUNDING
T502	TECHENOLOGY DETAILS (FACE PLATES)
T503	TECHNOLOGY DETAILS (ACCESS CONTROL DOORS)
T504	TECHNOLOGY DETAILS (SECURITY CAMERAS)
TEAT	TECHNICI COVERTALI O (NITRIJOLON RETECTION)

TECHNOLOGY DETAILS (INTRUSION DETECTION)

TECHNOLOGY DETAILS (PAGING)

# **Team**

#### Owner:

**BOYS & GIRLS CLUBS OF GREATER CINCINNATI** 600 Dalton Ave. Cincinnati, OH 45203 Ph: 513.421.8909

#### **OWNER'S REP:**

JS HELD 3950 Virginia Ave, Cincinnati, OH Ph: 513.838.3904

#### **Architect:**

**Emboss** 906 Monmouth Street, Newport, KY 41071 Ph: 859.431.8612

#### **Civil Engineer:**

ABERCROMBIE & ASSOCIATES 8111 Cheviot Road, Suite 200 Cincinnati, Ohio 45247 Ph: 513.385.5757

#### **Structural Engineer:**

Advantage Structural Engineers 1527 Madison Road, Cincinnati, OH 45206 Ph: 513.396.8900

#### Mechanical, Electrical, Plumbing, & Fire

W Liberty St

Vincent Ave

#### **Protection Engineer:**

**Location Map** 

Engineered Building System Inc. 515 Monmouth Street, Suite 201, Newport, KY 41071 Ph: 859.261.0585

Westhaven Ave

5 Weber Ln

Keyboard shortcuts Map data ©2024 Terms Report a map error

# **General Project Notes**

#### DIVISION 01 - GENERAL REQUIREMENTS

#### 013000 - ADMINISTRATIVE REQUIREMENTS

- 1. Contractor shall be responsible for verification and coordination of sub-contractors work to secure compliance with the drawings and specifications.
- 2. Safety: In accordance with generally accepted construction practices, Contractor will be solely and completely responsible for conditions of job site, including safety of all continuously and not be limited to normal working hours.
- The Architect shall not be responsible for the means, methods, techniques, sequences or procedures of construction selected by the Contractor.

- 1. The Contractor shall obtain and pay for all required permits and inspections unless
- regulations and ordinances or governing authorities. In case of conflict the most restrictive shall not limit their applicability.
- 3. The term "provide" when used shall mean "furnish and install" unless noted otherwise.
- 4. Provide blocking in walls, ceilings, etc. wherever items will be attached to these surfaces (i.e. toilet accessories, wall mounted door stops, fixtures, casework, handrails, A/V equipment, etc.).
- 5. Provide firestopping at all locations required by governing codes and authorities. Contact building inspector for inspection of all firestopping prior to installation of any material which may conceal the firestopping.
- 6. All steel exposed to the exterior shall be galvanized and painted, unless noted to be stainless steel or galvanized (unpainted).

#### 015000 - TEMPORARY FACILITIES AND CONTROLS

effects in the surrounding area.

SYMBOL LEGEND

1001 AREA (OPTIONAL)

Room name

101

⟨W1⟩

10A)

ne ROOM NUMBER

DOOR TAG

STOREFRONT TAG

WINDOW TAG

WALL TYPE TAG

**TOILET & BATH** 

ACCESSORY TAG

LEVEL LINE OR POINT ELEVATION

REVISION TAG

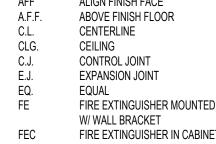
CONSTRUCTION NOTE

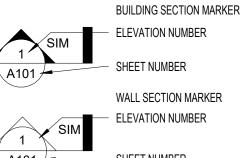
- 1. Contractor is responsible for providing any temporary water, electrical service,
- heating and trash removal as needed to complete the work. 2. Contractor shall collect and remove all rubbish, surplus material, tools and scaffolding pertaining to his work on a regular basis throughout the construction in
- order to maintain an orderly working environment. 3. Temporarily brace structural components as required to maintain stability until
- complete and functioning as a designed unit. 4. Fumes and dust shall be controlled so as to prevent any harmful or undesirable

#### DIVISION 02 - EXISTING CONDITIONS

- 1. Commencement of work by the Contractor or Trade shall signify the
- 2. Area and dimensions: It shall be the responsibility of the Contractor(s) or Trade(s) to verify all area takeoffs and dimensions by making their own field
- 3. The Contractor shall verify at the job site, all dimensions and conditions shown on the drawings and within the Contract Documents and shall notify the Architect of any discrepancies, omissions and/or conflicts before proceeding with the project. All discrepancies shall be resolved before starting work or
- 4. The Contractor shall not scale drawings, written dimensions shall govern. Large scale drawings shall govern over small scale drawings. Field verify
- 5. All dimensions to existing construction are to the finished face. All dimensions to new construction are to face of concrete, face of masonry, face of stud or column centerline unless noted otherwise. Any dimension noted as 'CLEAR' or "CLR" is from finished face to finished face.
- 6. Contractor shall verify location of all existing utilities. Take precautions as necessary to protect them. Repair all utilities damaged during construction at
- 7. Contractor shall replace topsoil and re-seed lawn areas disturbed by
- 8. The removal and installation of mechanical, electrical, plumbing and
- architectural items may require the penetrations or removal of existing floors, ceilings, and walls. Patch and finish all existing surfaces that are disturbed during construction unless noted otherwise.

# **ABBREVIATIONS**





FIRE EXTINGUISHER MOUNTED EXTERIOR ELEVATION MARKER FIRE EXTINGUISHER IN CABINET O.C. ON CENTER U.N.O. UNLESS NOTED OTHERWISE

INTERIOR ELEVATION MARKER

- ELEVATION NUMBER

SHEET NUMBER

**ELEVATION NUMBER** 

SHEET NUMBER

**Symbol Legend & Abbreviations** 

**G000** 

PRINT DATE:

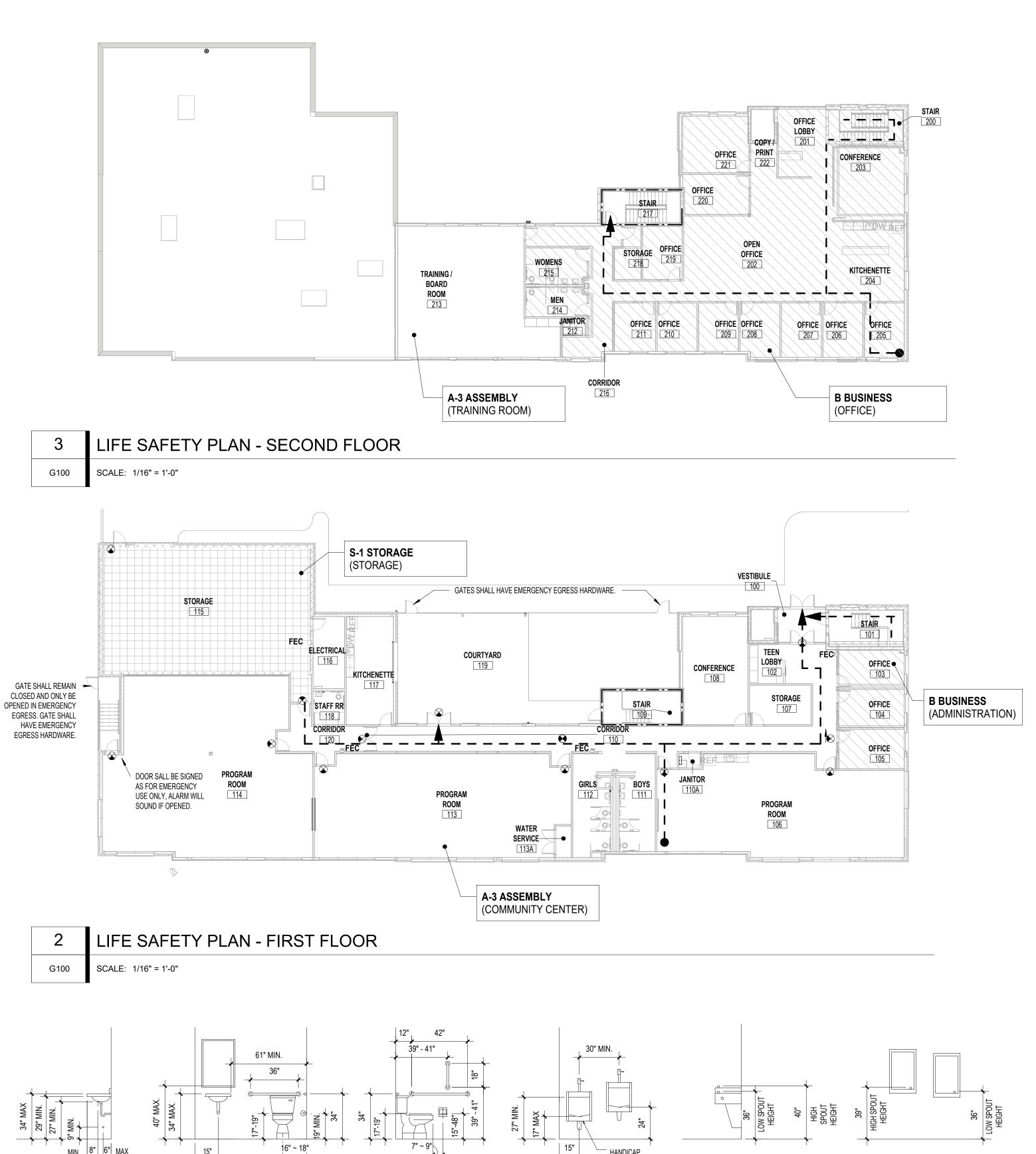
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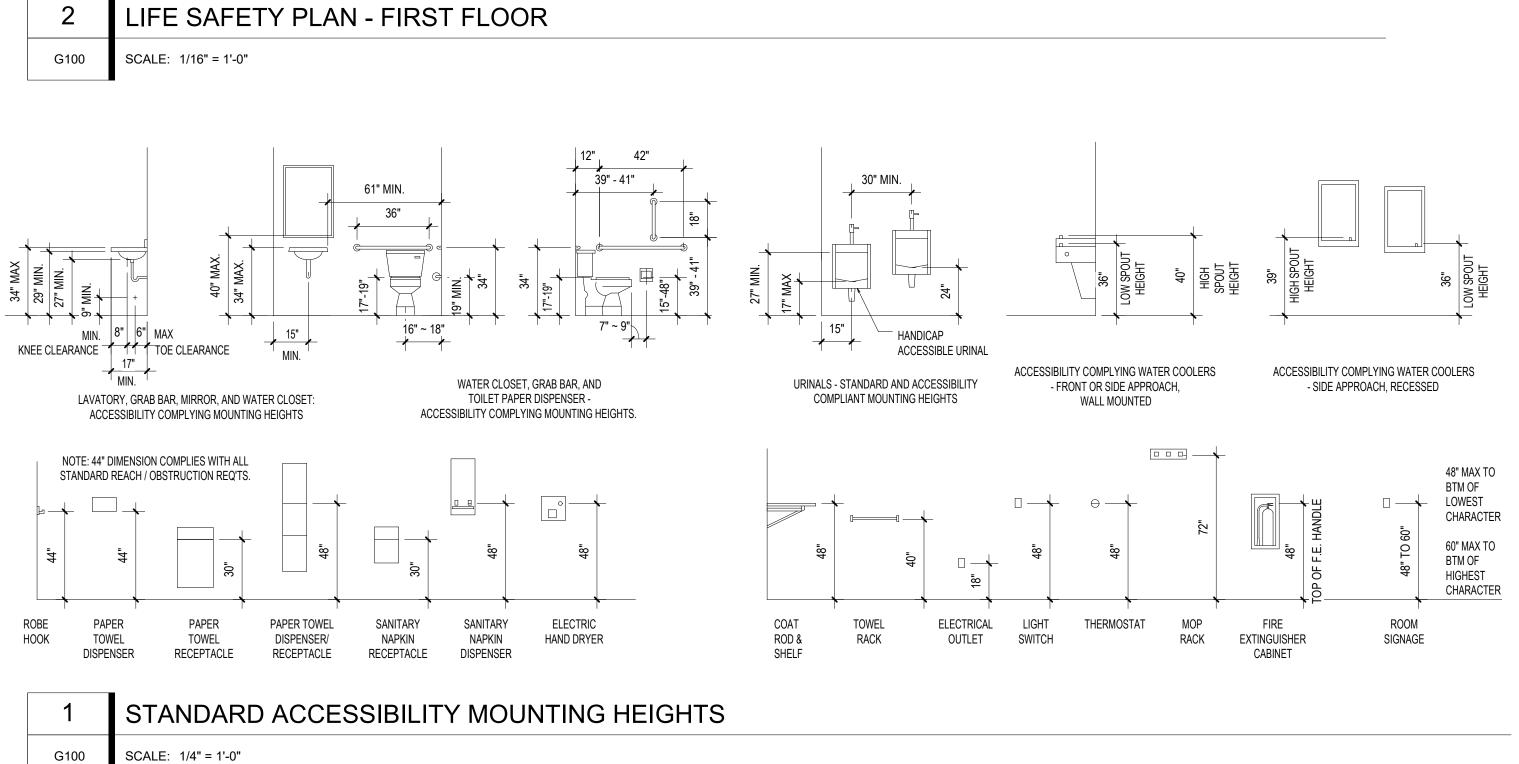
NO. DESCRIPTION DATE PERMIT SET 01/08/2024 **BID DOCUMENTS** 02/12/2024

**COVER SHEET** 

21-052

G100





# LIFE SAFETY PLAN LEGEND FIRE RATING - 1 HOUR NON RATED ASSEMBLY - PARTITION WALL EGRESS PATH - (X' - X") EQUALS TRAVEL DISTANCE MAXIMUM EXIT ACCESS TRAVEL DISTANCE DOES NOT EXCEED = 250' SEE ELECTRICAL PLANS FOR EXIT LIGHTS

#	Name	Area	Occ/SF	OLF GrossNet	Persons
200	STAIR	156 SF			
201	OFFICE LOBBY	278 SF	100 SF	Gross	3
202	OPEN OFFICE	1,007 SF	100 SF	Gross	11
203	CONFERENCE	317 SF	100 SF	Gross	4
204	KITCHENETTE	354 SF	200 SF	Gross	2
205	OFFICE	136 SF	100 SF	Gross	2
206	OFFICE	136 SF	100 SF	Gross	2
207	OFFICE	136 SF	100 SF	Gross	2
208	OFFICE	132 SF	100 SF	Gross	2
209	OFFICE	121 SF	100 SF	Gross	2
210	OFFICE	121 SF	100 SF	Gross	2
211	OFFICE	126 SF	100 SF	Gross	2
212	JANITOR	24 SF			
213	TRAINING / BOARD ROOM	1,130 SF	15 SF	Net	76
214	MEN	113 SF			
215	WOMENS	139 SF			
216	CORRIDOR	412 SF			
217	STAIR	155 SF			
218	STORAGE	78 SF	300 SF	Gross	1
219	OFFICE	132 SF	100 SF	Gross	2
220	OFFICE	164 SF	100 SF	Gross	2
221	OFFICE	238 SF	100 SF	Gross	3
222	COPY / PRINT	41 SF			

#	Name	Area	Occ/SF	OLF GrossNet	Persons
100	VESTIBULE	99 SF			
101	STAIR	164 SF			
102	TEEN LOBBY	235 SF	100 SF	Gross	3
103	OFFICE	155 SF	100 SF	Gross	2
104	OFFICE	158 SF	100 SF	Gross	2
105	OFFICE	163 SF	100 SF	Gross	2
106	PROGRAM ROOM	1,435 SF	15 SF	Net	96
107	STORAGE	152 SF	300 SF	Gross	1
108	CONFERENCE	445 SF	100 SF	Gross	5
109	STAIR	155 SF			
110	CORRIDOR	901 SF			
110A	JANITOR	20 SF			
111	BOYS	200 SF			
112	GIRLS	224 SF			
113	PROGRAM ROOM	1,601 SF	15 SF	Net	107
113A	WATER SERVICE	31 SF	300 SF	Gross	1
114	PROGRAM ROOM	2,131 SF	15 SF	Net	143
115	STORAGE	1,660 SF	300 SF	Gross	6
116	ELECTRICAL	142 SF	300 SF	Gross	1
117	KITCHENETTE	321 SF	100 SF	Gross	4
118	STAFF RR	66 SF			
119	COURTYARD	1,787 SF			
120	CORRIDOR	178 SF			

## PLUMBING FIXTURE REQUIREMENTS

BUILE	DING OCCUPANTS:	FIRST FLOOR	FIRST FLOOR SECOND FLOOR								
		114 OCCUPANTS			103 OCCUPANTS						
			М	F	U		М	F			
			57	57			52	52			
Wate	r Closets:										
A-3	1: 125M 1: 65F	48 M / 48 F	0.38	.738		38 M / 38 F	0.30	.58			
S-1	1: 100M 1: 100F	3 M / 3 F	.03	.03		-	-	-			
В	1: 50M 1: 50F	6 M / 6 F	0.12	0.12		14 M / 14 F	0.28	0.28			
	Water Closets	Required	1	5		Required	1	1			
		Provided	2	8	1	Provided	1	2			
Urinals		Provided	1	-		Provided	1	-			
		TOTAL	3	3	1	TOTAL	2	2			
Lavat	tories:										
A-3	1: 200M 1: 200F	48 M / 48 F	0.24	0.24		38 M / 38 F	0.19	0.19			
S-1	1: 100M 1: 100F	3 M / 3 F	0.03	0.03		-	-	-			
В	1: 80M 1: 80F	6 M / 6 F	0.75	0.75		14 M / 14 F	0.18	0.18			
	Lavatories	Required	1	1		Required	1	1			
		Provided	2	2	1	Provided	2	2			
Show	vers: Not Required by Code										
Drink	ing Fountains:										
A-3	1: 500 RATIO	96 OCCUPANTS	0.	19		76 OCCUPANTS	0.	15			
S-1	1: 1000 RATIO	6 OCCUPANTS	0.006			-		=			
В	1: 100 RATIO	12 OCCUPANTS	ANTS 0.			27 OCCUPANTS	0.	27			
	<b>Drinking Fountains</b>	Required		1		Required		1			
		Provided	2	)* -		Provided	2	<u>*</u>			
Servi	ce Sinks:	Required	•	1		Required		1			
		Provided		2		Provided	1				

\*(2) FOUNTAINS AND BOTTLE FILLERS PROVIDED M = MALE F = FEMALE U = UNISEX

# **Code Notes**

Chapter 3

Section 302: Classification

for Building Elements:

Chapter 9

Building: Cincinnati Building Code; 2017 Ohio Building Code Plumbing: Ohio Plumbing Code Fire Safety: Ohio Fire Code Accessibility: 2017 Ohio Building Code & 2009 ICC A117.1

Non-Separated Mixed Use:

Mechanical: 2017 Ohio Mechanical Code Zoning: Cincinnati Zoning Code Electric: 2017 National Electric Code

BUILDING DEPARTMENT: City of Cincinnati, Ohio

> A-3 Assembly (Community Center) B Business (First and Second floor Office areas) S-1 Storage - (Storage 115)

Chapter 5 Table 504.3 Allowable Height = 75' Section 504: Building Height:

Proposed Height: 31' - 0"

Section 504: Building Number of Stories: Table 504.4 Stories above Grade Plane Allowable = 3 Stories Proposed = 2 Stories

Section 506: Building Area: Table 506.2 Allowable area per floor

Allowable = 28,500 SF (A-3) First Floor = 11,100 SF

Second Floor = 6,120 SF

Primary Structural Frame:

Bearing Walls Exterior:

Chapter 6

Type IIB - Noncombustible Section 601 Construction Type: <u>Table 601</u> Fire Resistance Rating Requirements

> Bearing Walls Interior: Nonbearing Exterior Walls: Nonbearing Interior Walls: Floor Construction: 0 Hours

Roof Construction: 0 Hours

Section 903 Fire Suppression: NFPA 13 Fire Suppression will be provided throughout the building. Section 907 Fire Alarm and Detection Systems: A fire alarm system will be provided throughout the building

Chapter 10 Design Occupant Load (for egress design) Section 1004 Occupant Load First floor

> Assembly Unconcentrated (tables and chairs) 106 Program Room 1435 net sf / 15 sf 113 Program Room 1601 net sf / 15 sf = 107 114 Program Room 1669 net sf / 15 sf Accessory storage areas, mechanical equipment room 107 Storage 152 gross sf / 300 sf = 1113 Water Service 31 gross sf / 300 sf = 1115 Storage 1669 gross sf / 300 sf = 6116 Electrical 142 gross sf / 300 sf = 1117 Kitchenette 321 gross sf / 100 sf = 4**Business Areas** 102 Teen Lobby 236 gross sf / 100 sf 103 Office 157 gross sf / 100 sf 104 Office 158 gross sf / 100 sf 105 Office 168 gross sf / 100 sf

Second floor Assembly Unconcentrated (tables and chairs)

108 Conference

213 Training / Board Room 1608 net sf / 15 sf Accessory storage areas, mechanical equipment room 78 gross sf / 300 sf = 1218 Storage 212 Janitor 24 gross sf / 300 sf = 1 **Business Areas** 201 Office Lobby 277 gross sf / 100 sf 202 Open Office 1008 gross sf / 100 sf 203 Conference 317 gross sf / 100 sf 204 Kitchenette 354 gross sf / 100 sf

446 gross sf / 100 sf

Total First Floor occupant load

205 Office 136 gross sf / 100 sf 206 Office 136 gross sf / 100 sf 207 Office 136 gross sf / 100 sf 208 Office 132 gross sf / 100 sf 209 Office 121gross sf / 100 sf 210 Office 121 gross sf / 100 sf 126 gross sf / 100 sf 211 Office 219 Office 132 gross sf / 100 sf 220 Office 164 gross sf / 100 sf

238 gross sf / 100 sf

Total occupant load

<u>= 119</u> = 492

= 217

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Total First Floor occupant load

Actual Occupancy (for HVAC & plumbing design)

221 Office

First Floor Occupancy

First floor actual occupancy is based on occupancy of the program rooms, storage, and business areas. Children are either in their respective program room or in accessory spaces.

A-3 Program Rooms is based on 50 s.f. / person 106 Program Room

1435 net sf / 50 sf 1601 net sf / 50 sf = 33 113 Program Room 114 Program Room 1669 net sf / 50 sf <u>= 34</u> Total = 96

S-1 Storage 1669 gross sf / 300 sf = 6 B Business Areas <u>1165 gross sf / 100 sf</u> = <u>12</u> Total First Floor occupant load = 114 Second floor Occupany

A-3 Assembly Unconcentrated (tables and chairs) 1608 net sf / 15 sf = 76 B Business Areas  $2727 \operatorname{gross sf} / 100 \operatorname{sf} = 27$ Total First Floor occupant load <u>= 103</u> Total occupant load

Section 1005 Means of Egress Sizing:

nch / Occupant per 1005.3.1, Exception 1. All other Egress Components: 0.15 inch / Occupant per 1005.3.2, Exception 1.

Table 1017.2 Exit Access Travel Distance Section 1017 Exit Access Travel Distance: Allowable = 250'-0" (with Sprinkler System)

Section 1023 Interior Exit Stairways and Ramps: Stair Enclosures: 1 Hour

211B053

EmbossDesign.com 906 Monmouth Street, (859)431-8612 Newport, KY 41071



No. ARC. 2118357 Emma Adkisson **Expiration Date:** 12/31/2025

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NO. DESCRIPTION DATE

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02/12/2024

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**G100** 

#### APPROPRIATE UTILITY COMPANIES SHALL BE NOTIFIED AT LEAST 48 HOURS PRIOR TO BREAKING GROUND FOR THE PURPOSE OF VERIFYING BY FIELD INSPECTION, THE EXACT LOCATION OF UNDERGROUND UTILITIES.

THE CONTRACTOR SHALL EXERCISE DUE CARE DURING CONSTRUCTION SO AS NOT TO DESTROY ANY TREES, PLANTS, SHRUBS OR STRUCTURES OUTSIDE OF THE INDICATED WORK LIMITS AND THOSE NOT SPECIFICALLY MARKED FOR REMOVAL OR RELOCATION WITHIN THE WORK LIMITS.

BENERAL CONSTRUCTION NOTES

ALL MATERIALS AND CONSTRUCTION PROCEDURES SHALL BE IN ACCORDANCE WITH "CONSTRUCTION AND MATERIAL SPECIFICATIONS OF THE STATE OF OHIO DEPARTMENT OF

UNLESS OTHERWISE NOTED ALL CONSTRUCTION DETAILS SHALL CONFORM WITH THE "STANDARD CONSTRUCTION DRAWINGS OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION".

THE ENGINEER/SURVEYOR DOES NOT ASSUME ANY LIABILITY FOR THE LOCATION OF UTILITIES, INCLUDING INDIVIDUAL SERVICE LINES & PRIVATE MAINS NOT SHOWN ON PUBLIC RECORDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXACTLY LOCATING AND PROTECTING ALL UTILITIES, BOTH ABOVE AND BELOW GROUND, THAT EXIST IN THE WORK AREA AND WHICH MAY COME IN CONFLICT WITH HIS OPERATIONS. ANY DAMAGE TO UTILITIES WHICH HAVE BEEN ACCURATELY LOCATED, WHICH IS CAUSED BY THE CONTRACTOR'S OPERATIONS, SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. ASSISTANCE IN LOCATING UNDERGROUND UTILITIES CAN BE OBTAINED BY CONTACTING THE UTILITY COMPANIES AT THE LOCATIONS LISTED ON THIS PAGE. IF A DISCREPANCY IS FOUND TO EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.

FACH INSTALLING CONTRACTOR IS RESPONSIBLE FOR THEIR OWN COORDINATION OF INSTALLATION OF THEIR SYSTEMS UNDER THE SUPERVISION OF THE GENERAL CONTRACTOR/CONSTRUCTION MANAGER, OR APPROPRIATE PARTY. ABERCROMBIE & ASSOCIATES, INC. ASSUMES NO RESPONSIBILITY FOR CONTRACTOR MEANS & METHODS OF CONSTRUCTION ON DRAWINGS.

THE CONTRACTOR SHALL OBTAIN OR VERIFY THAT ALL PERMITS ARE OBTAINED.

THE CONTRACTOR SHALL VERIFY EXISTING SITE INFORMATION AND REQUIRED EARTHWORK.

A GEOTECHNICAL INSPECTION IS RECOMMENDED AND ALL RECOMMENDATIONS IN THE GEOTECHNICAL REPORT SHALL BE FOLLOWED.

ALL PROPOSED SPOT ELEVATIONS ARE TO FINISHED GRADE.

TYPICAL PARKING SPACES ARE 9' WIDE AND 18' LONG, UNLESS OTHERWISE NOTED.

PAVEMENT MARKINGS TO BE HIGH SOLIDS, WATER BASED ACRYLIC PAINT CONTAINING ULTRAVIOLET RESISTANT PIGMENTS. LEAD & CHROMATE FREE. READY MIXED. COMPLYING WITH FTS TT-PP-1952 WITH A DRYING TIME OF LESS THAN 45 MINUTES. PARKING & LANE PARKERS STRIPING TO BE WHITE, HANDICAP SPACES TO BE BLUE, PEDESTRIAN CROSSING LANES & NO PARKING ZONES TO BE YELLOW. APPLY PAINT WITH MECHANICAL EQUIPMENT, AT MANUFACTURER'S RECOMMENDATIONS & AT A MINIMUM WET FILM THICKNESS OF 15 MILS.

#### **UTILITY SPECIFICATION:**

ALL STORM SEWER TO BE PRIVATE, MAINTAINED BY THE OWNER AND BE CORRUGATED POLYETHYLENE SMOOTH LINED PIPE, CONFORMING TO ODOT ITEM 707.33 OR PVC CORRUGATED SMOOTH INTERIOR PIPE, CONFORMING TO ODOT ITEM 707.42 AND INSTALLED PER ODOT ITEM 603.

STEPS SHALL BE REQUIRED IN ALL CATCH BASINS WHERE THE DEPTH EXCEEDS FOUR (4) FEET AND SHALL MEET THE REQUIREMENTS OF THE STATE OF OHIO STANDARD CONSTRUCTION DRAWING MH-1.

ALL CATCH BASINS, INLETS & MANHOLES IN PAVED AREAS SHALL BE SLOPED ACCORDINGLY WITH FINAL PAVEMENT SURFACE PER GRADING PLAN.

ALL DOWNSPOUTS ARE TO TIE IN TO THE STORM SEWER SYSTEM.

UNDERDRAINS TO BE INSTALLED AT LOW POINTS IN PAVEMENT PER DETAIL.

DOMESTIC AND IRRIGATION WATER SERVICE TO BE TYPE "K" COPPER, UNLESS OTHERWISE NOTED. FIRE LINE TO BE DUCTILE IRON CLASS 53 (O.D.O.T. ITEM 748.01) OR PVC AWWA C900, (ODOT ITEM 748.02) UNLESS OTHERWISE NOTED.

ALL SANITARY SEWER PIPE SHALL BE P.V.C., SDR 35, ASTM D-3034.

UTILITY TRENCH BACKFILL SHALL BE PER THE DETAILS SHOWN ON THE PLANS.

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written authorization of Abercrombie & Associates, Inc.

EROSION CONTROL:
ALL EROSION CONTROL MEASURES MUST BE IN PLACE PRIOR TO ANY STRIPPING OF

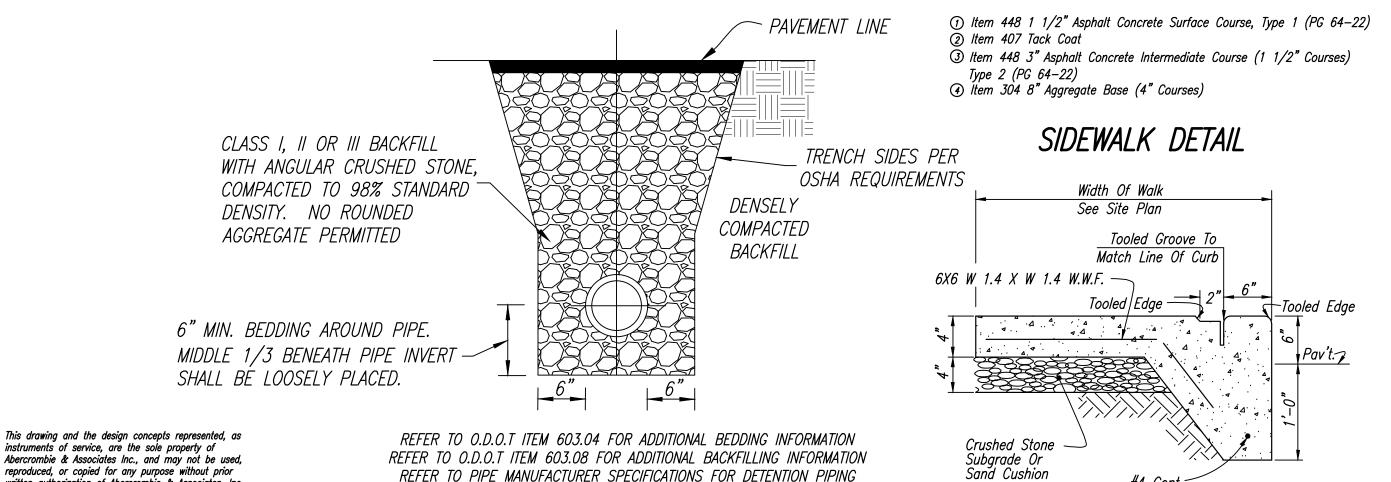
SILT FENCES USED FOR EROSION AND SEDIMENT CONTROL ARE TO BE ENTRENCHED AT LEAST 6" INCHES BELOW GRADE, AND FOLDED ACCORDING TO THE DETAIL AS SHOWN.

ALL EROSION CONTROLS SHALL BE INSPECTED AT LEAST ONCE EVERY 7 CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT PRODUCING GREATER THAN 1/2 INCH OF RAIN IN A 24 HOUR PERIOD. ALL EROSION CONTROLS MUST BE MAINTAINED DURING CONSTRUCTION BY REMOVING COMPACTED SILT AND SEDIMENT, AND REDISTRIBUTING IT AS IS APPROPRIATE. SEEDING AND MULCHING SHALL BE APPLIED IN ACCORDANCE WITH OHIO RAINWATER AND LAND DEVELOPMENT MANUAL TO ALL DISTURBED AREAS WITHIN 7 DAYS IF THE AREA IS AT FINAL GRADE OR IS TO REMAIN DORMANT FOR MORE THAN 14 DAYS.

ALL CATCH BASINS SHALL HAVE SEDIMENT INLET PROTECTION METHODS INSTALLED DURING CONSTRUCTION, USING THE DETAILS SHOWN ON THE PLAN.

# STANDARD UTILITY TRENCH FOR PIPES UNDER PAVEMENT

REFER TO PIPE MANUFACTURER SPECIFICATIONS FOR DETENTION PIPING



–1/2" Exp. Joint If

is Concrete oʻr

Brick Paved

Concrete Driveway

Dne-way 12" Min.

Two-way 24' Min.

Max. 35' to 40'

Drop Curb 1"

UNDERDRAIN DETAIL

Face of Curb ELEVATION

Drop Curb Details See Standard

P-4 and R-2 Concrete Curbs

② Conc. Walk shall be removed to

against undisturbed concrete

the nearest joint outside

of the Proposed driveway. Install 1/2 inch Exp. joint

Drawings Type L-1 , B-1 , P-1 ,

1/2" Exp. Joint —

See Note 2.

Concrete Walk 5"

└Gutter

, <u>15-65-67-15-65-15</u>

Item 712.09

Filter Fabric,

Type A

For Additional Driveway

Interior Driveway /-1/2" Exp. Joint

Width Walk

Concrete Walk

1.5′

-Base of Pavement

└─Drop Curb

to accommodate existing conditions

at locations approved by , and to the satisfaction of , the City

\*To be paved 25' behind Property

3 Dimensions may be modified

line, as per CMC 721-134.

E BEOLD BODD

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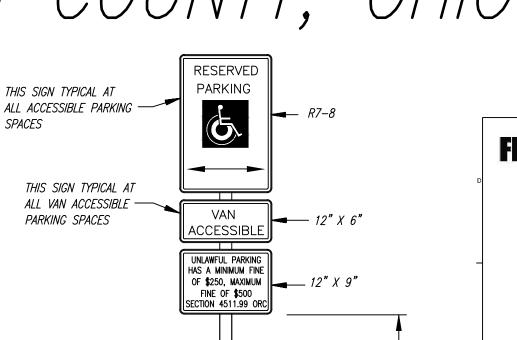
Outlet Pipe

to meet Ramp

1.5' Transition

# PRICE HILL TEEN CENTER & OFFICES FOR BOYS & GIRLS CLUB

CITY OF CINCINNATI HAMILTON COUNTY, OHIO



NOTE: SIGNS SHALL COMPLY WITH U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES". MOUNT SIGNS TO POST IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

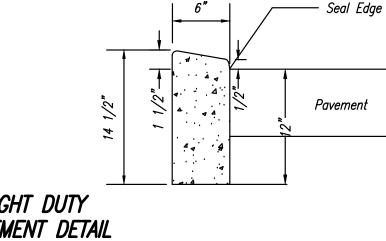
U-TYPE FLANGES STEEL SIGN

TO A MIN. DEPTH OF 3'-0"

POST. SET IN 3500 P.S.I. CONC.

## HANDICAP ACCESSIBLE PARKING SIGN

#### DEPRESSED CURB DETAIL



LIGHT DUTY PAVEMENT DETAIL

ARI

This type of construction

CITY OF CINCINNATI

DEPARTMENT OF PUBLIC WORKS

DIVISION OF ENGINEERING

STANDARD COMMERCIAL

SCALE: NONE

(See Pavement Detail)

Granular Filter Material

(No. 57 Gravel) As per

Item 707.41 – 4" PVC Perforated

End Cap per Item 712.09, Type A

Pipe W/ Filter Fabric Sock, And

ODOT Item 605.03

——Asphalt Courses

Item 304

HEAVY DUTY

PAVEMENT DETAIL

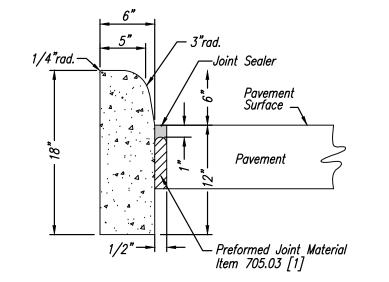
Aggregate Base

permitted only at locations

ACC. NO. 21516

① Item 448 1 1/2" Asphalt Concrete Surface Course Type 1 (PG-64-22) ② Item 407 Tack Coat ③ Item 448 1 1/2" Asphalt Concrete Intermediate Course Type 2 (PG-64-22) ① Item 304 8" Aggregate Base (4" Courses)

#### TYPE 6 CONCRETE CURB

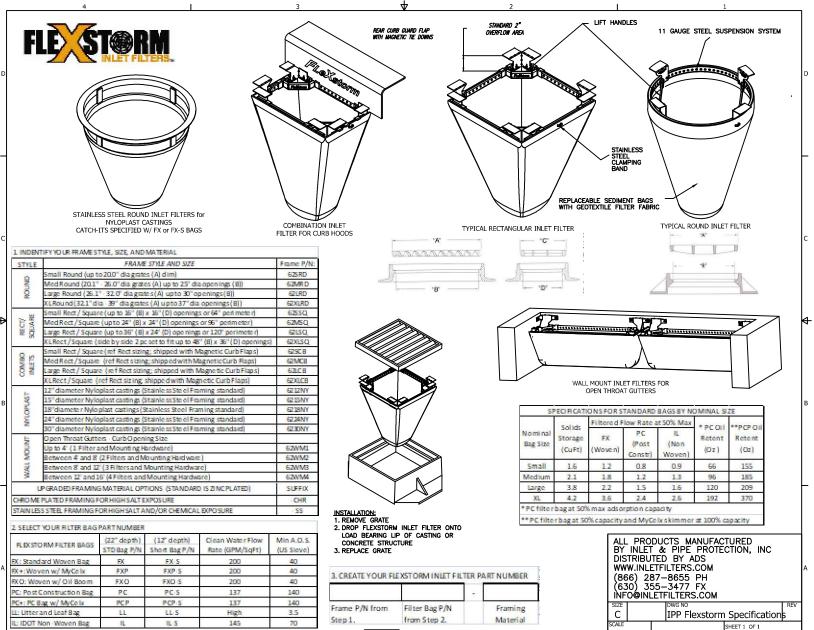


Joints: 1" Expansion Joints Shall Extend Up To The Top Of The Top OF The Curb And Shall Be Constructed In The Curb And Gutter Section In Such A Manner That The Joint Seal Will Extend The Full Width Of The Gutter And Into The Curb Face A Sufficient Distance To Seal The Joint To An Elevation Of At Least 2" Above The Flow Line Of The Gutter. Dowel Bars Shall Be Used In The Curb And Gutter Section At Expansion Joints And To The Surface Of The Pavement. Transverse

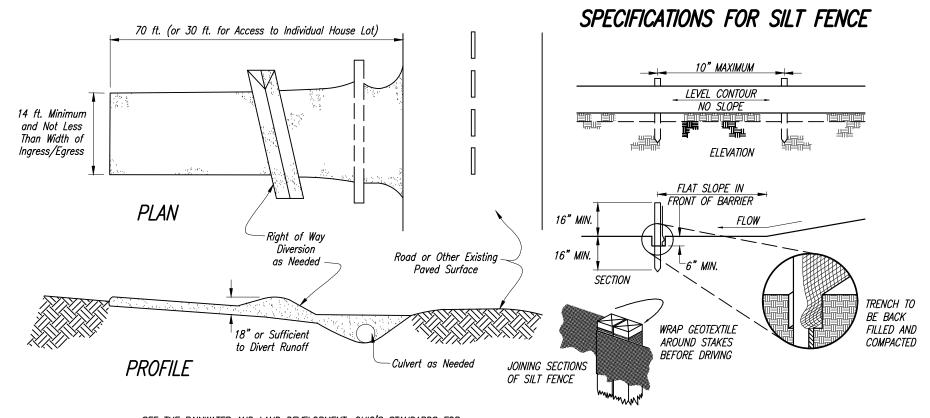
NOTES

[1] Expansion Joint Material And Joint Sealer Are Not Required For The Portion Of The Curb That Is Adjacent To A Flexible Pavement Type. Both Materials Are Required, As Detailed, For The Full Height Of Rigid Pavement And Concrete Bases.

Expansion Joint Material Shall Meet The Requirements Of Item 705.03.



#### CONSTRUCTION ENTRANCE DETAIL



SEE THE RAINWATER AND LAND DEVELOPMENT, OHIO'S STANDARDS FOR STORMWATER MANAGEMENT, LAND DEVELOPMENT AND URBAN STREAM PROTECTION MANUAL, CURRENT EDITION, FOR CONSTRUCTION ENTRANCE SPECIFICATIONS.

### FLUSH CONCRETE SIDEWALK DETAIL

One Course Portland Cement Concrete Sidewalks, Class "C" Concrete, Four Inches (4") In Thickness Shall Be Constructed Where Shown On The Plans Or Typical Sections. One Half Inch  $(\frac{1}{2})$  Full Depth Expansion Joints Shall Be Installed At Intervals Not To Exceed One Hundred Feet (100'). All Sidewalks, Including Curb Ramps, Shall Connect To The Pavement Or Curb With One—Half (1/2") Full Depth Expansion Joint Material Between The Walk And Curb.

#### Abercrombie & Associates, Inc. Civil Engineering + Surveying 8111 Cheviot Road, Suite 200 Cincinnati, Ohio 45247 513-385-5757

3-0016\DSGN\CA-STPL

<u>OWNER</u> BOYS & GIRLS CLUBS OF GREATER CINCINNATI 600 DALTON AVE. CINCINNATI, OHIO 45203

*3950 VIRGINIA AVE.* 

CINCINNATI. OHIO 45227

JS HELD

SEE THE RAINWATER AND LAND DEVELOPMENT, OHIO'S STANDARDS

FOR STORMWATER MANAGEMENT, LAND DEVELOPMENT AND URBAN

STREAM PROTECTION MANUAL, CURRENT EDITION, FOR SILT FENCE







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

SITE TITLE SHEET

BIDDING DOCUMENTS 02/12/24

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0

NO. DESCRIPTION

PERMIT SET

DD SET

05

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DATE

11/13/23

01/08/24

2MB099

imbossDesign.com 906 Monmouth Street,

WE OF O

CRAIG T.

BENJAMIN

859)431-8612 Newport, KY 41071

23-0016

C100

( IN FEET )

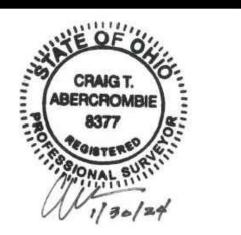
1 inch = 20 ft.

Construction Advisory

513-356-5691 lkeyes@jsheld.com



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# 0 CLUB S GIRL **TEEN** $\mathbf{\Omega}$ FOR 1205

DATE NO. DESCRIPTION 11/13/23 DD SET PERMIT SET 01/08/24 BIDDING DOCUMENTS 02/12/24

EXISTING CONDITIONS/ DEMO PLAN

23-0016

C200

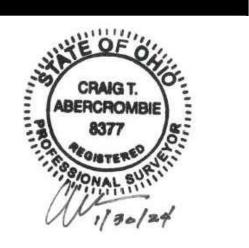
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1 inch = 20 ft.

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# CLUB GIRL

DATE NO. DESCRIPTION 11/13/23 DD SET PERMIT SET 01/08/24 2 BIDDING DOCUMENTS 02/12/24

1205

GRADING PLAN

23-0016

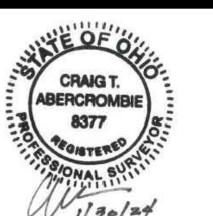
C300

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OB OB GR Ш 

Cincinnati, 45205 1205 DATE NO. DESCRIPTION

 $\mathbf{\Omega}$ 

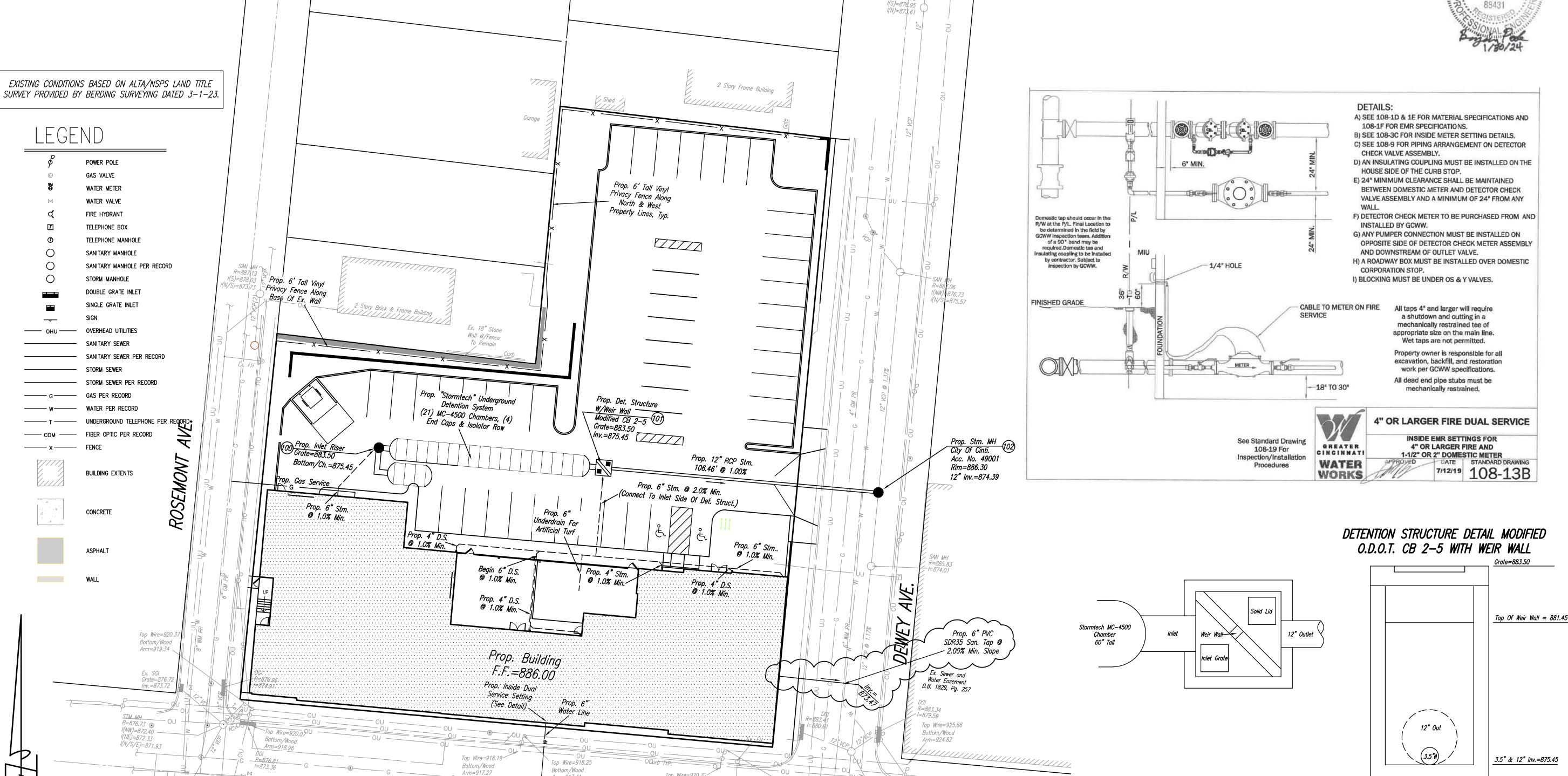
OR

11/13/23 DD SET PERMIT SET 01/08/24 BIDDING DOCUMENTS 02/12/24

UTILITY PLAN

23-0016

C400



Bottom/Wood

GLENWAY AVE.

SAN MH R=880.48

MSDGC NOTE: IF LOWEST LEVEL ELEVATION IS BELOW RIM ELEVATION OF UPSTREAM MANHOLE, THEN TAP MUST INCLUDE BACKFLOW PREVENTION OR BE PUMPED TO GRAVITY.

Bottom/Wood

SAN MH R=882.91 D(PR)=10'

SAN MH R=885,73

Top Wire=925.82

Bottom/Wood Arm=924.92

I(NW)=878.04

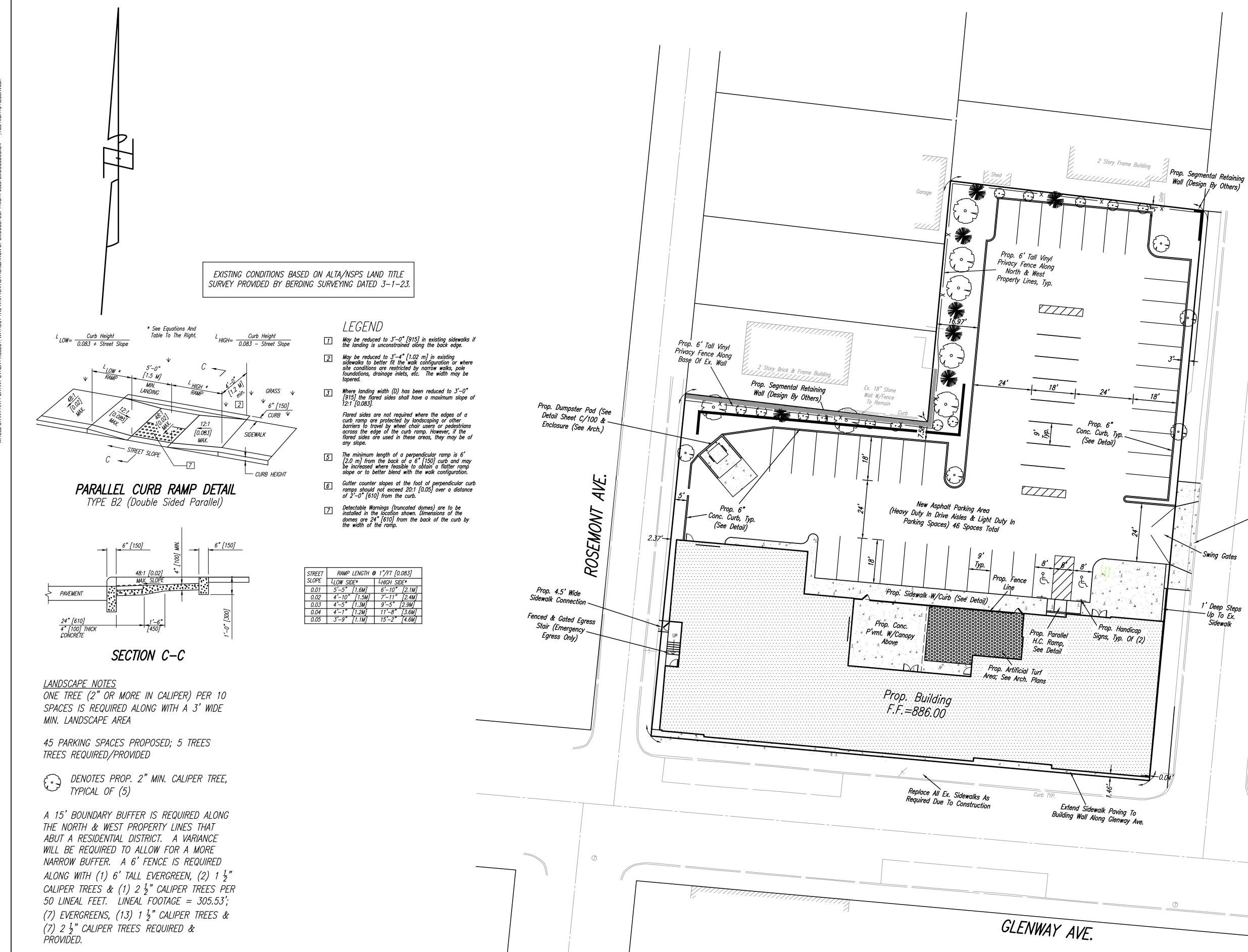


	DECIONATION	HIGHWATER ELEVATION	PRE-DEV	POST-DEV	REQUIRED STORAGE	PROVIDED STORAGE
	DESIGNATION	(FT. ABOVE M.S.L.)	Q ALLOW. (CFS)	Q25 (CFS)	VOLUME (C.F.)	VOLUME (C.F.)
STC	DRMTECH SYSTEM	881.45	0.82	1.74	3,810	3,849



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TE OF OF

CRAIG T.

ABERCROMBIE

BENJAMIN

Prop. Modified Standard Commercial Driveway Construction Per Acc. No. 21516 (See Detail) Transition Sidewalk To Flush On Each Side Over, Typ.

1205 DATE NO. DESCRIPTION

11/13/23

01/08/24

BIDDING DOCUMENTS 02/12/24

SITE LAYOUT PLAN

OHIO Utilities Protection SERVICE Call Before You Dig 1-800-362-2764

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

23-0016

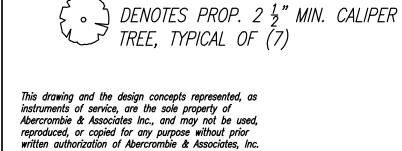
DD SET

C500

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8111 Cheviot Road, Suite 200
Cincinnati, Ohio 45247
513-385-5757 www.abercrombie-associates.com 23-0016\DSGN\CA-DSGN

1' Deep Steps

Up To Ex.



DENOTES PROP. 6' HIGH EVERGREEN,

DENOTES PROP. 1 1/2" MIN. CALIPER

TREE, TYPICAL OF (13)

TYPICAL OF (7)

AS100

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

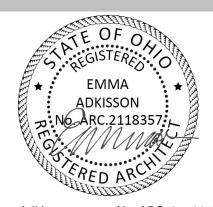
ARCHITECTURAL SITE PLAN

SCALE: 1/16" = 1'-0"

AS100

SUB088

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Emma Adkisson No. ARC. 2118357

Expiration Date: 12/31/2025

NO. DESCRIPTION

BOY

DATE PERMIT SET 01/08/2024 BID DOCUMENTS 02/12/2024

ARCHITECTURAL SITE

21-052

**AS100** 

DUMPSTER ENCLOSURE ENLARGED PLAN 3 DUMPSTER ENCLOSURE SECTION AS100 SCALE: 3/4" = 1'-0"

PRINT DATE:

2/21/2024 4:45:34 PM

**211BOSS** 

**WALL TYPES** 

SHEET KEYNOTES

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> **EMMA ADKISSON** No ARC.2118357

Emma Adkisson Expiration Date:

No. ARC. 2118357 12/31/2025

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NO. DESCRIPTION

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DATE

01/08/2024

02/12/2024

FIRST FLOOR PLAN

21-052

SECOND FLOOR

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

SHEET KEYNOTES

DRAINAGE SYSTEM.

- 6F 2'-1" WIDE SOLID SURFACE CONTERTOP ON 42" HIGH KNEE WALL. PROVIDE UNDERCOUNTER SUPPORTS AT 4'-0" O.C. MIN. 9B BOX OUT AROUND COLUMN TO MINIMUM DIMENSION
- 9C PORTION OF WALL BETWEEN GRIDLINE 5 AND 6 EXTENDS TO ROOF DECK.
- 9F ALIGN FINISH FACE OF COLUMN BOX TO FINISH FACE OF
- ADJACENT WALL. 10S PREFABRICATED ALUMINUM HANGER ROD AWNING SHALL BE MAPES ARCHITECTURAL CANOPY, QUEEN CITY AWNING, OR EQUAL. PROVIDE FLAT SOFFIT AND 8" HIGH SMOOTH 'J' FASCIA. WALL MOUNTED BOLTS SHALL BE CONCEALED WITHIN CANOPY SYSTEM. FLASH ROOF SURFACE TO WALL TO PROVIDE WATERTIGHT TRANSITION. CONNECT TO STORMWATER

5C 18" WIDE METAL ROOF ACCESS LADDER 5E TS 3X3X1/4 36" HIGH POST W/ 3X7X1/4" BACKPLATE & (2) 5/8" THRU BOLTS THRU SLAB DECK. ATTATCH STUDS TO TS.

16" PARTITION SHALL EXTEND 6" ABOVE FINISH CEILING BRACE TO STRUCTURE ABOVE AT 48" O.C. (ALTERNATING DIRECTION) 5/8" GYPSUM BOARD (ONE SIDE) OVER 3-5/8" x 20 GA. METAL STUDS AT 16" O.C. PARTITION SHALL EXTEND 6" ABOVE FINISH CEILING OR TO STRUCTURE WHERE EXPOSED

**WALL TYPES** 

16" . FILL STUD CAVITIES WITH SOUND ATTENUATION BATT. PARTITION AT 48" O.C .ALTERNATING DIRECTION). TYP. WALL UNLESS NOTED OTHERWISE

16" . FILL STUD CAVITIES WITH SOUND ATTENUATION BATT. PARTITION SHALL EXTEND TO STRUCTURE ABOVE

PARTITION SHALL EXTEND 6" ABOVE FINISH CEILING. BRACE TO STRUCTURE ABOVE AT 48" O.C. (ALTERNATING DIRECTION)

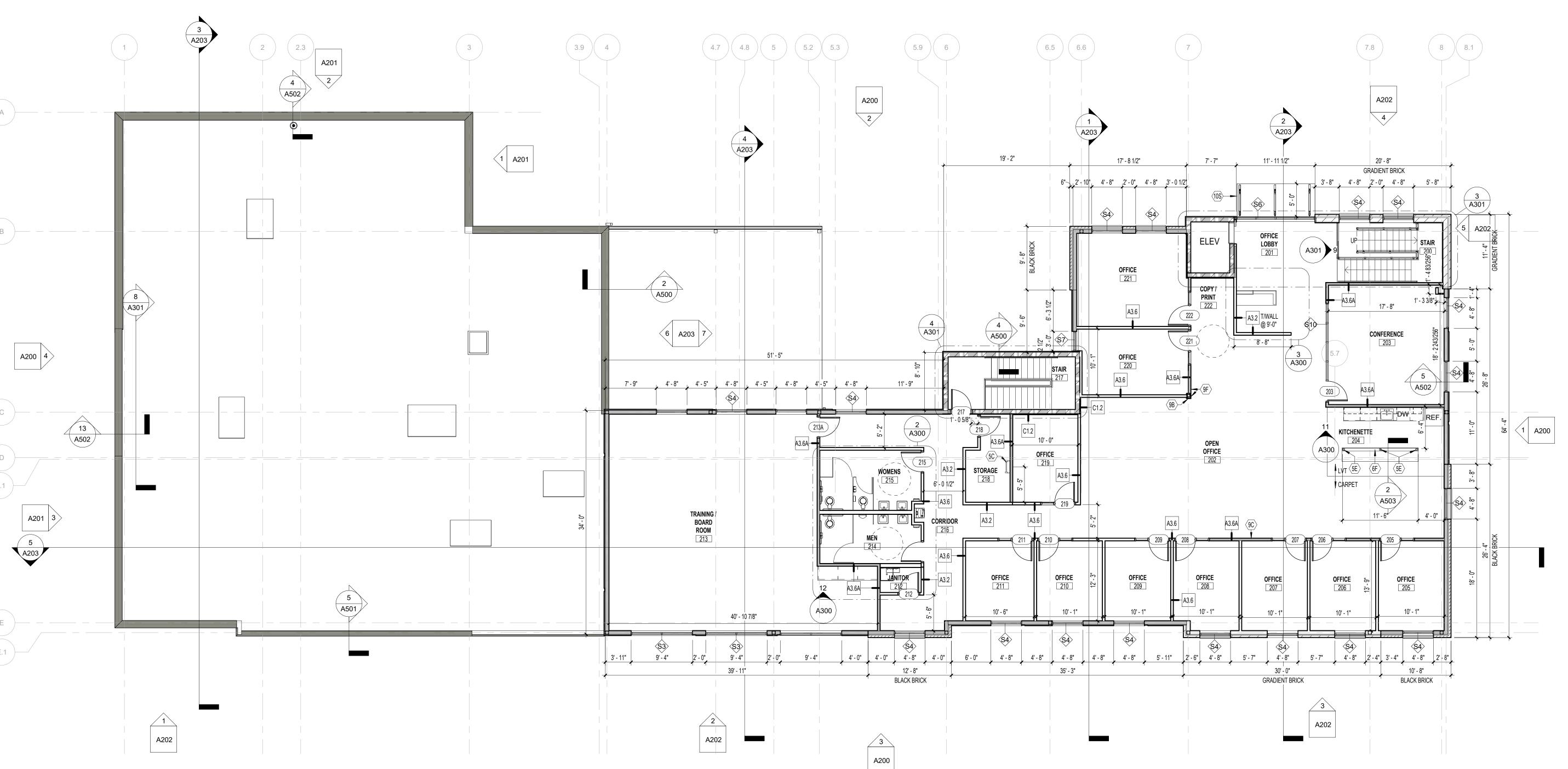
5/8" GYPSUM BOARD (BOTH SIDES) OVER 2X4 WOOD STUDS AT 16" O.C. PARTITION SHALL EXTEND TO UNDERSIDE OF STRUCTURE ABOVE.

16" O.C. FILL STUD CAVITIES WITH SOUND ATTENUATION BATT. PARTITION SHALL EXTEND TO STRUCTURE ABOVE.

16" . PARTITION SHALL EXTEND 6" ABOVE FINISH CEILING

8" CONCRETE MASONRY BLOCK WALL

5/8" GYPSUM BOARD (BOTH SIDES) OVER 3-5/8" x 20 GA. METAL STUDS AT -5/8" GYPSUM BOARD (BOTH SIDES) OVER 3-5/8" x 20 GA. METAL STUDS AT SHALL EXTEND 6" ABOVE FINISH CEILING. BRACE TO STRUCTURE ABOVE 5/8" GYPSUM BOARD (BOTH SIDES) OVER 3-5/8" x 20 GA. METAL STUDS AT 5/8" GYPSUM BOARD (BOTH SIDES) OVER 3-5/8" x 20 GA. METAL STUDS AT |-16" O.C. FILL STUD CAVITIES WITH SOUND ATTENUATION BATT. 5/8" GYPSUM BOARD (ONE SIDES) OVER 6" x 20 GA. METAL STUDS AT 16" O.C. FILL STUD CAVITIES WITH SOUND ATTENUATION BATT. PARTITION SHALL EXTEND 6" ABOVE FINISH CEILING BRACE TO STRUCTURE ABOVE AT 48" O.C. (ALTERNATING DIRECTION) A6.6A 5/8" GYPSUM BOARD (BOTH SIDES) OVER 3-5/8" x 20 GA. METAL STUDS AT |-NEW FURRING: 5/8" GYPSUM BOARD (ONE SIDE) OVER 7/8" X 20 GA. HAT CHANNELS AT 16" O.C. 5/8" GYPSUM BOARD (ONE SIDE) OVER 1-5/8"" x 20 GA. METAL STUDS AT 8" CMU WALL WITH HORIZONTAL REINFORCING AT 16" O.C. VERTICALLY. (1) HOUR FIRE RATED PARTITION SIMILAR TO U.L. #U905: 8" CMU WALL WITH HORIZONTAL REINFORCING AT 16" O.C. VERTICALLY.



**211BOSS** 

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**EMMA** 

**ADKISSON** 

D N6 ARC.2118357

Newport, KY 41071

No. ARC. 2118357

12/31/2025

(859)431-8612

Emma Adkisson

U

Expiration Date:

NO. DESCRIPTION

PERMIT SET BID DOCUMENTS

SECOND FLOOR PLAN

DATE

01/08/2024

02/12/2024

21-052

ROOF PLAN

#### **GENERAL NOTES - ROOF PLAN**

- A. ROOF PLAN DOES NOT SHOW ALL MECHANICAL / ELECTRICAL ROOFTOP EQUIPMENT AND PENETRATIONS, SUCH AS PLUMBING VENT. SEE RESPECTIVE DRAWINGS FOR SUCH EQUIPMENT AND PENETRATIONS.
- B. PROVIDE TAPERED INSULATION CRICKETS ON THE HIGH SIDE OF ALL ROOFTOP MOUNTED EQUIPMENT.
- C. PROVIDE FLASHING AT ALL ROOF PENETRATIONS AS REQUIRED BY ROOFING MANUFACTURER TO PROVIDE WATERTIGHT INSTALLATION AND COMPLY WITH
- D. PREFABRICATED ALUMINUM AWNING SHALL BE CANTILEVERED MAPES ARCHITECTURAL CANOPY OR EQUAL. PROVIDE FLAT SOFFIT AND 8" HIGH SMOOTH 'J' FASCIA. WALLMOUNTED BOLTS SHALL BE CONCEALED WITHIN CANOPY SYSTEM. FLASH ROOF SURFACE TO WALL TO PROVIDE WATERTIGHT TRANSITION. DRAIN CANOPY TO SPLASH BLOCK DIRECTING AWAY FROM
- E. STANDING SEAM METAL ROOF TO BE 22 GA GALVNIZED SHEET STEEL WITH TWO COAT FLUOROPOLYMER FINISH. SEAM HEIGHT TO BE 1-1/2", PANEL COVERAGE 16". PROVIDE 20 YEAR WEATHERTIGHTNESS WARRANTY AND 20 YEAR WARRANTY

┌ DS; TURN DOWNSPOUTS INTO

FOR DETAIL INFORMATION

DS; TURN DOWNSPOUTS INTO

FOR DETAIL INFORMATION

DS; TURN DOWNSPOUTS INTO

FOR DETAIL INFORMATION

BUILDING AND CONNECT TO PIPING IN BUILDING. SEE PLUMBING DRAWINGS

- DS; TURN DOWNSPOUTS INTO BUILDING AND CONNECT TO PIPING IN BUILDING.

SEE PLUMBING DRAWINGS FOR DETAIL

\_\_ INFORMATION \_\_\_ \_\_\_

BUILDING AND CONNECT TO PIPING IN BUILDING. SEE PLUMBING DRAWINGS

A502

BUILDING AND CONNECT TO PIPING IN

BUILDING. SEE PLUMBING DRAWINGS

F. EPDM ROOM MEMBRANE TO BE WHITE 60 MIL MECHANICALLY FASTENED. PROVIDE 15 YEAR WARRANTY.

**SIIBOSS** 

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**EMMA ADKISSON** 

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Emma Adkisson No. ARC. 2118357 12/31/2025

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02/12/2024

PERMIT SET 2 BID DOCUMENTS

**ROOF PLAN** 

21-052

Newport, KY 41071

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> Emma Adkisson No. ARC. 2118357 Expiration Date: 12/31/2025

**EMMA ADKISSON** 

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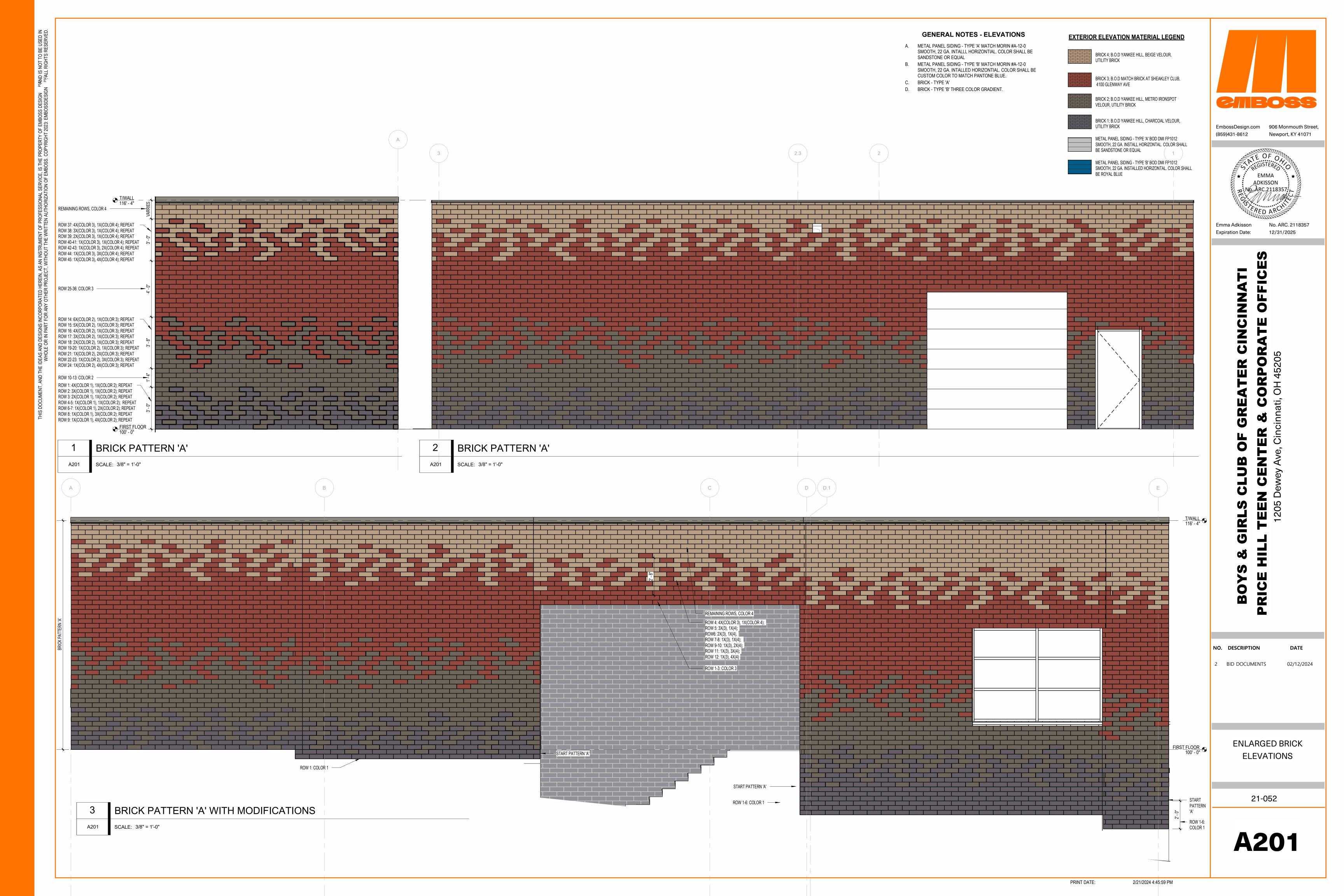
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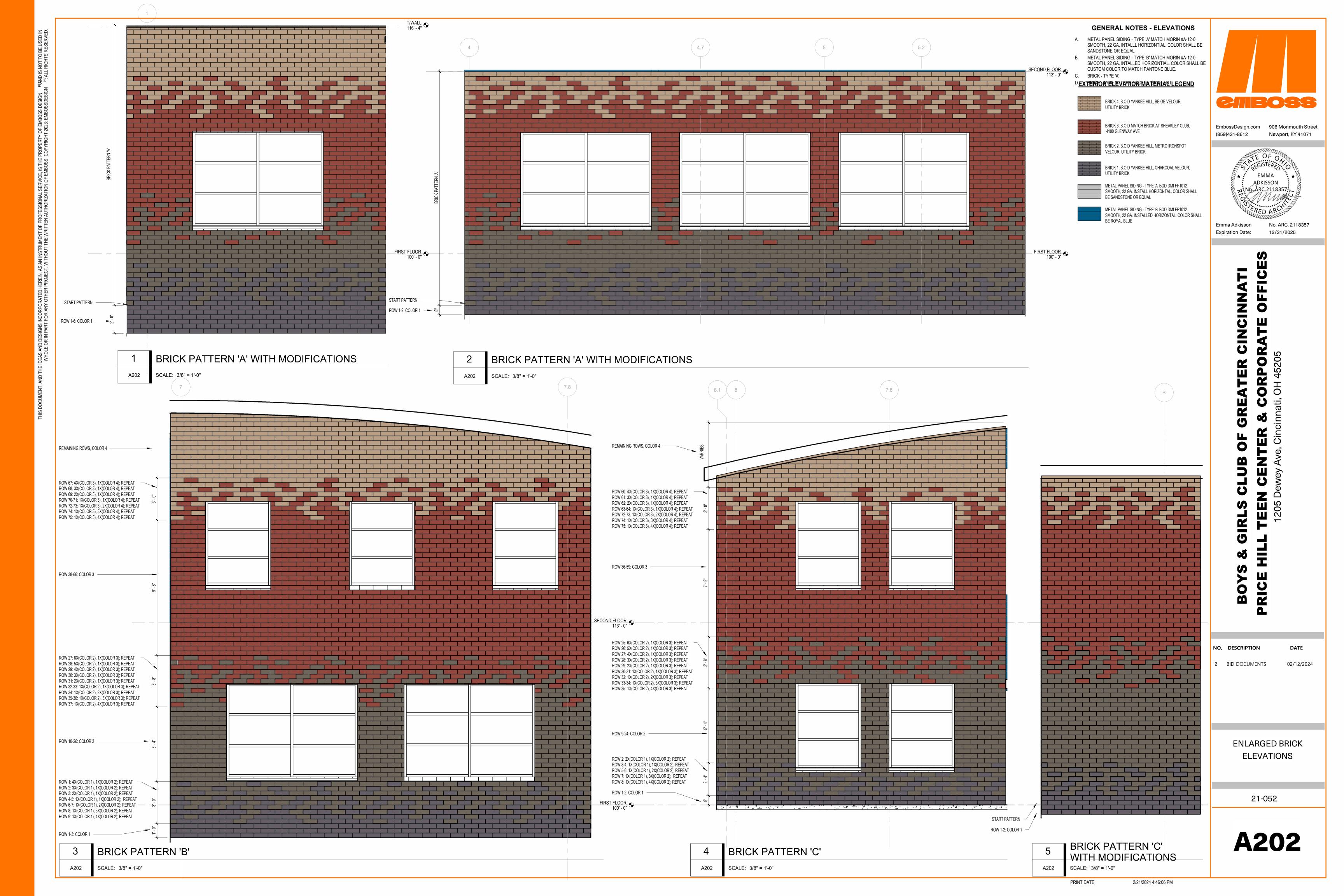
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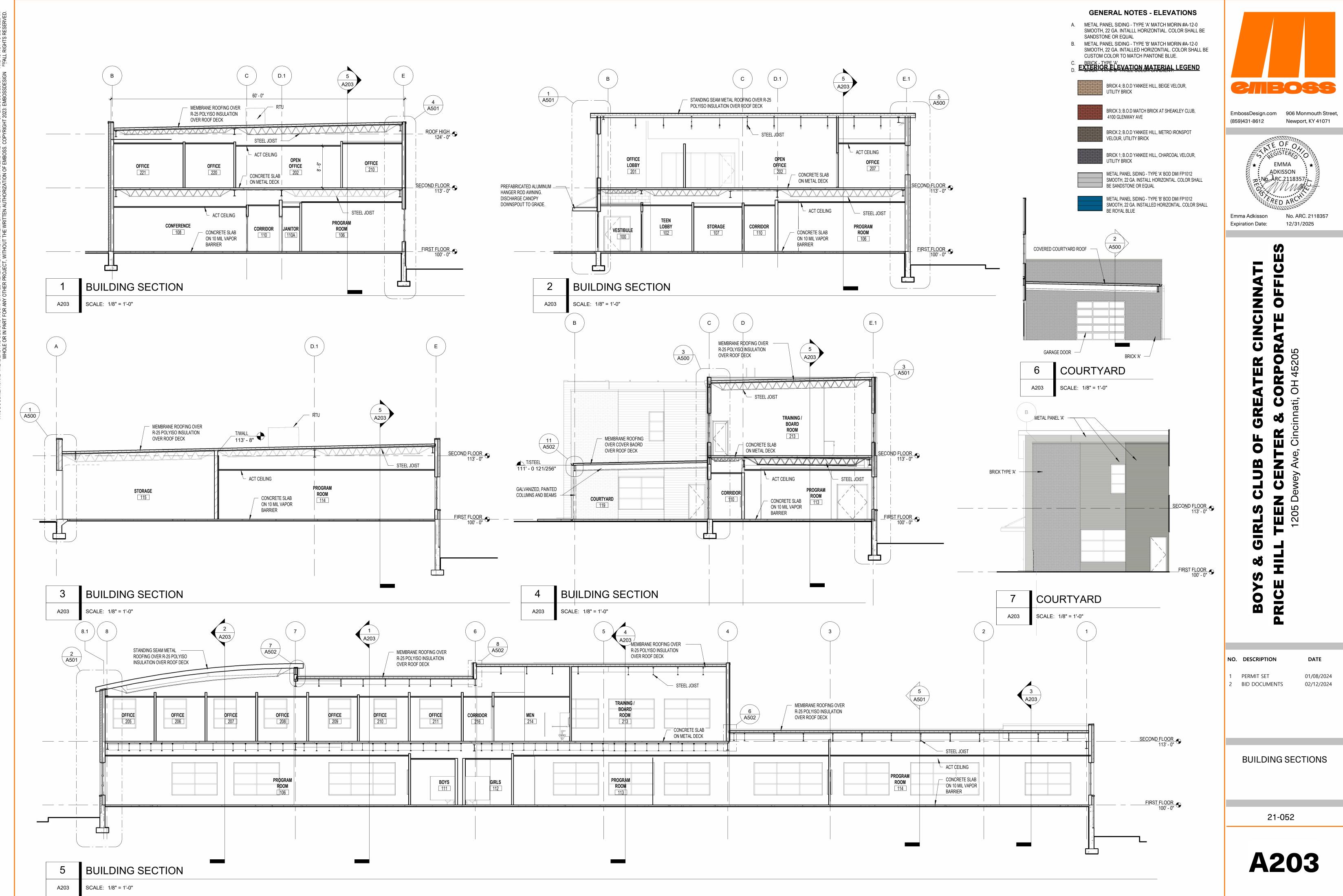
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**EXTERIOR ELEVATIONS** 

21-052

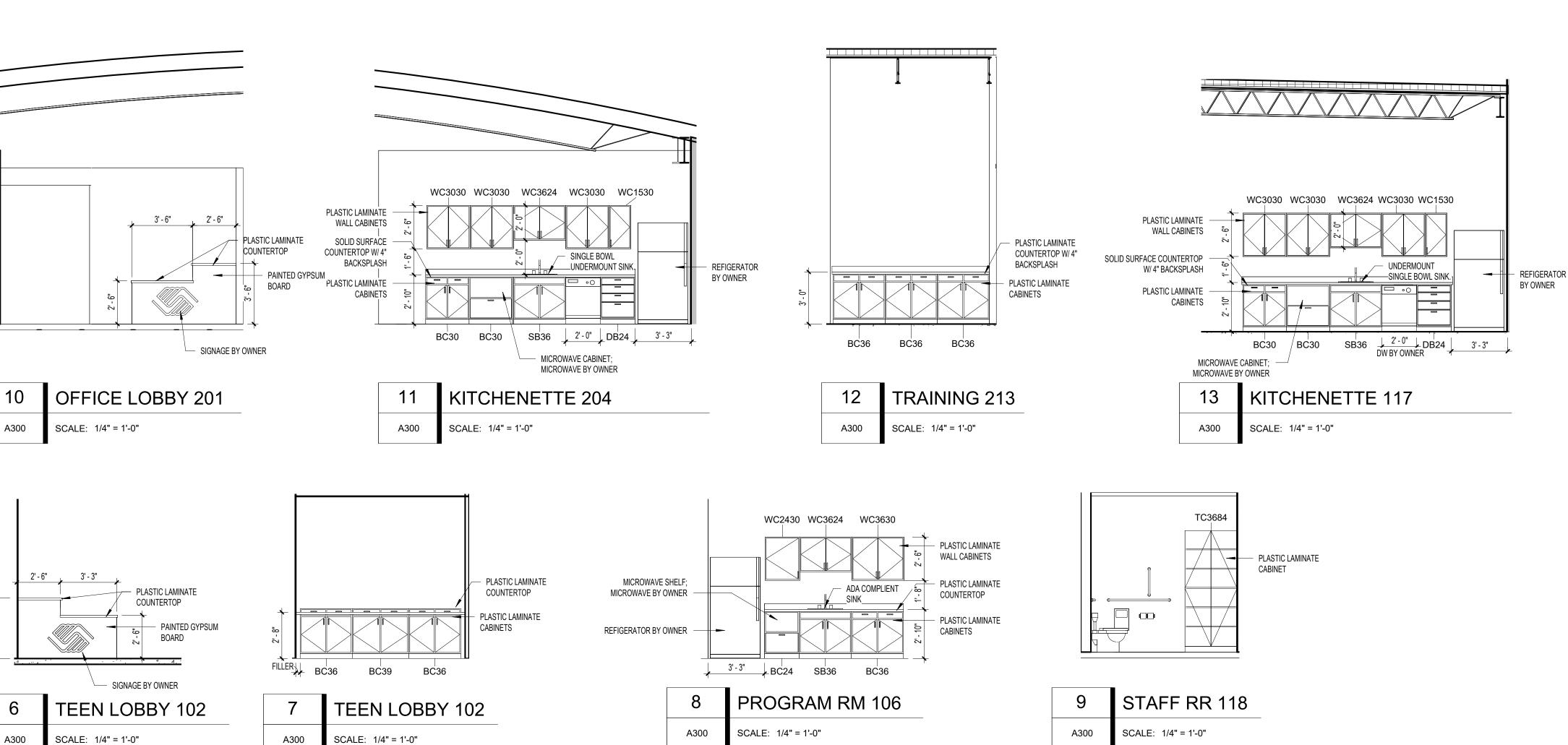


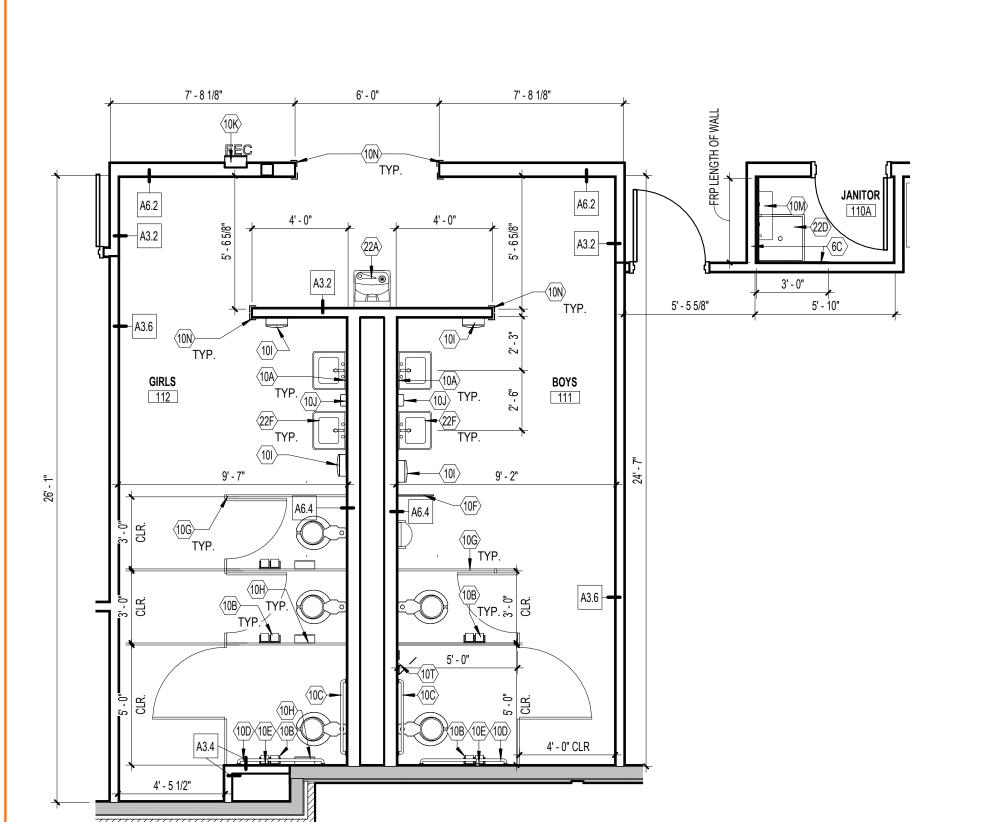




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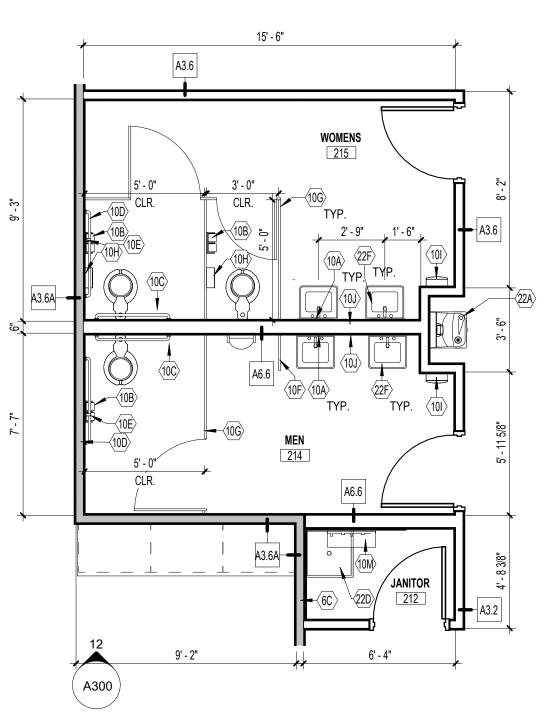




ENLARGED RESTROOM PLAN

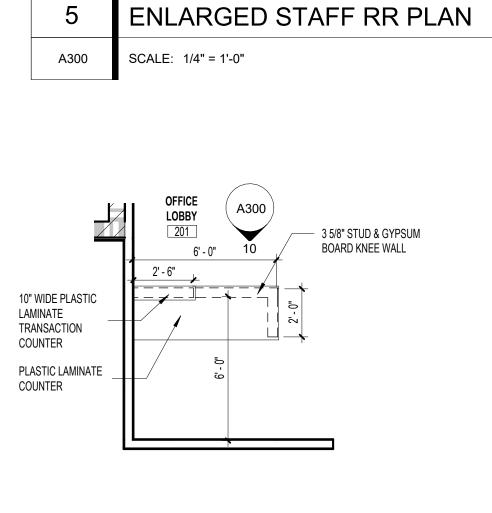
A300

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

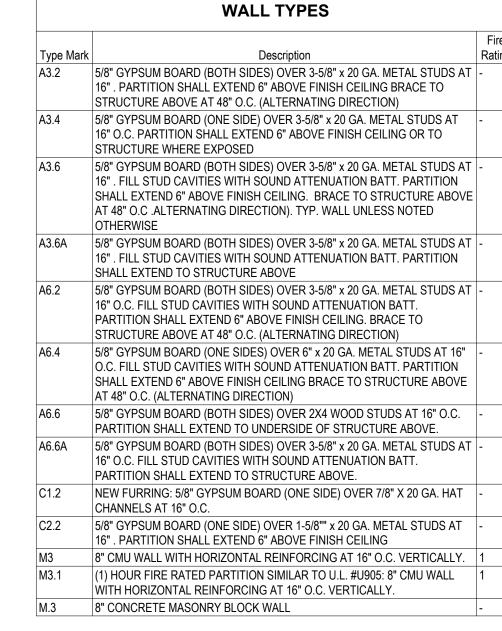


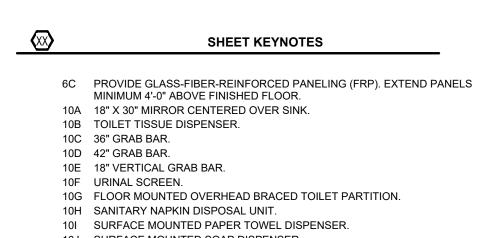
ENLARGED OFFICE RESTROOM PLAN

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



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





10I SURFACE MOUNTED PAPER TOWEL DISPENSER. 10J SURFACE MOUNTED SOAP DISPENSER.

10K FIRE EXTINGUISHER IN SEMI RECESSED FIRE EXTINGUISHER CABINET. 10M MOP HOLDER.

10N CORNER GUARD. 10T LOCKABLE 12X12 ACCESSS PANEL.

22A ADA COMPLIANT DRINKING FOUNTAIN AND BOTTLE FILLER; SEE PLUMBING DRAWINGS.

22D MOP SINK. SEE PLUMBING DRAWINGS. 22F ADA WALL HUNG SINK; SEE PLUMBING DRAWINGS.

# **211BOSS** EmbossDesign.com 906 Monmouth Street, (859)431-8612 Newport, KY 41071 TE OF OL

**EMMA ADKISSON** NO ARC.2118357

No. ARC. 2118357 Emma Adkisson Expiration Date: 12/31/2025

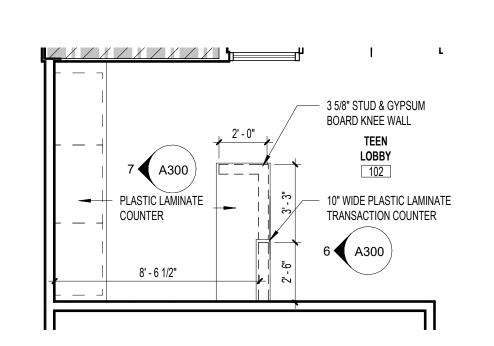
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> **ENLARGED PLANS & INTERIOR ELEVATIONS**

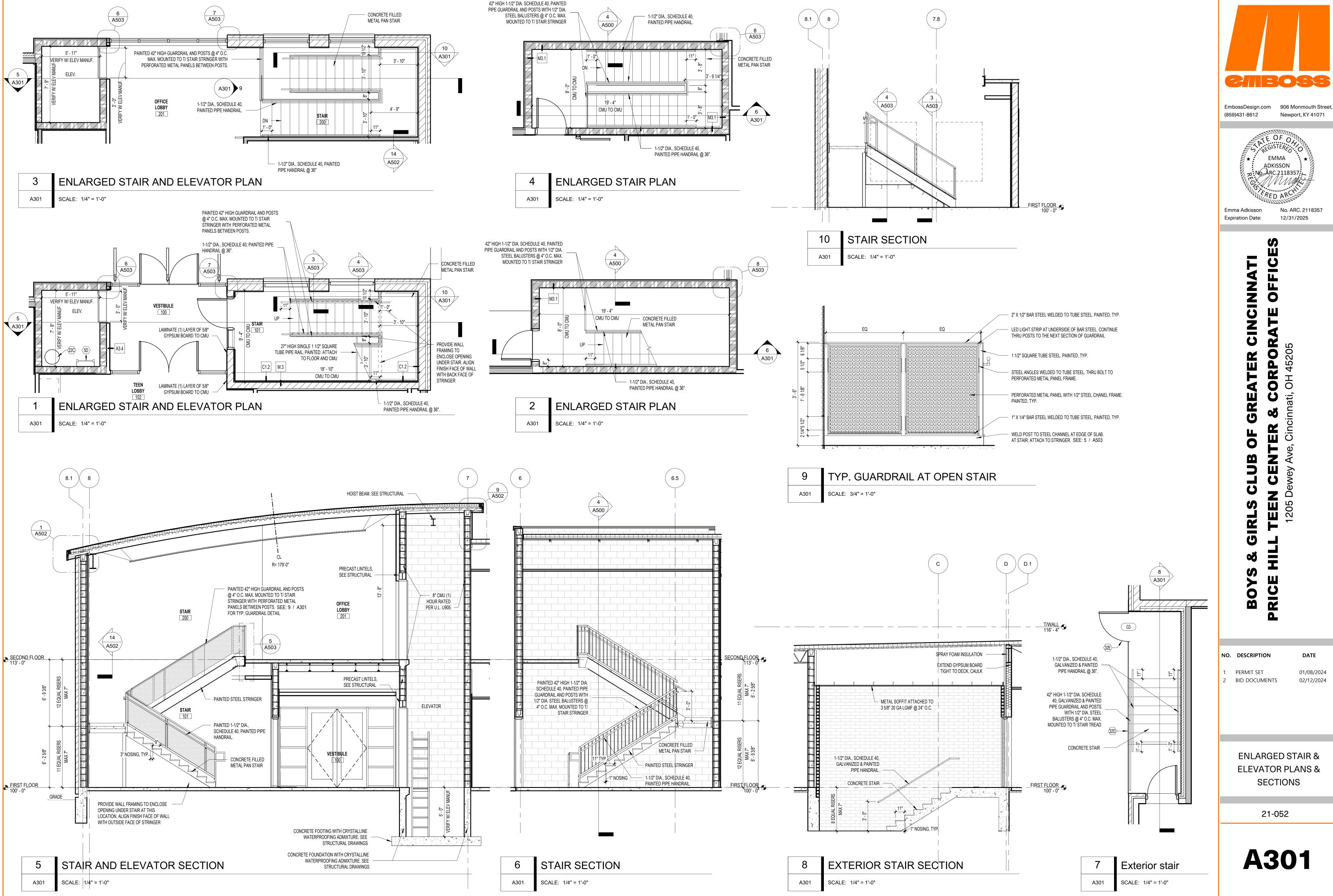
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**A300** 



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

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**SUB088** 

PRINT DATE:

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**CEILING PLAN - ABBREVIATIONS** Note Text GYP GYPSUM BOARD SAP SUSPENDED ACOUSTICAL PANEL

## REFLECTED CEILING PLAN LEGEND

2 X 4 ACOUSTIC CEILING TILE

5/8" GYP. BD. CEILING

GYP AT UNDERSIDE OF STRUCTURE, SEE STAIR SECTIONS ON A302

┗=╛======**┤** 

9' - 0" 2X4 SAP

9' - 0" 2X4 SAP

9' - 0" 2X4 SAP

- PAINT ALL EXPOSED

STEEL STRUCTURE



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**TEE** 1205

NO. DESCRIPTION

BOYS

DATE 1 PERMIT SET 01/08/2024 2 BID DOCUMENTS 02/12/2024

PRICE

FIRST FLOOR REFLECTED **CEILING PLAN** 

21-052

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2113055



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**TEE** 1205 PRICE

NO. DESCRIPTION

BOYS

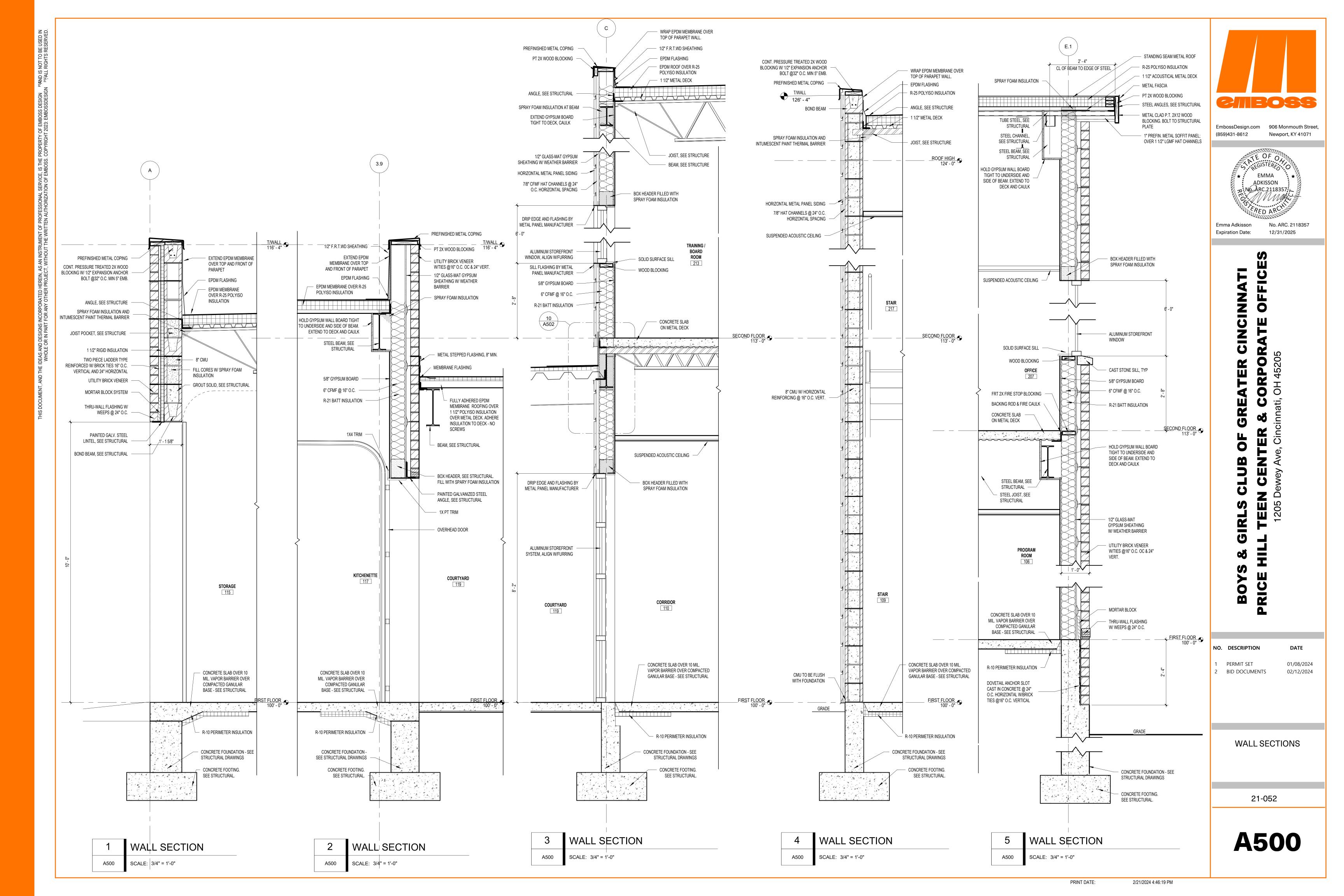
1 PERMIT SET 01/08/2024

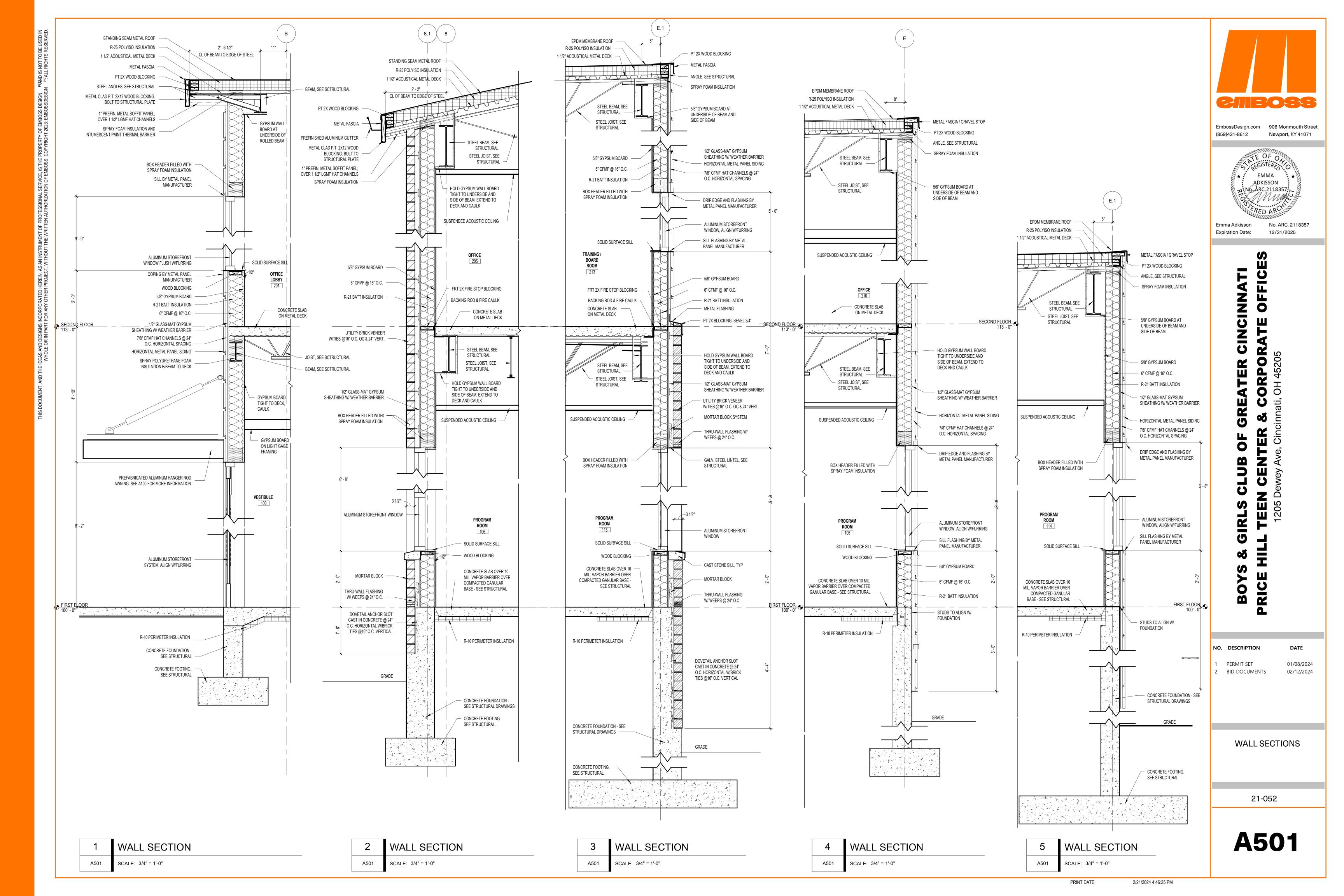
DATE

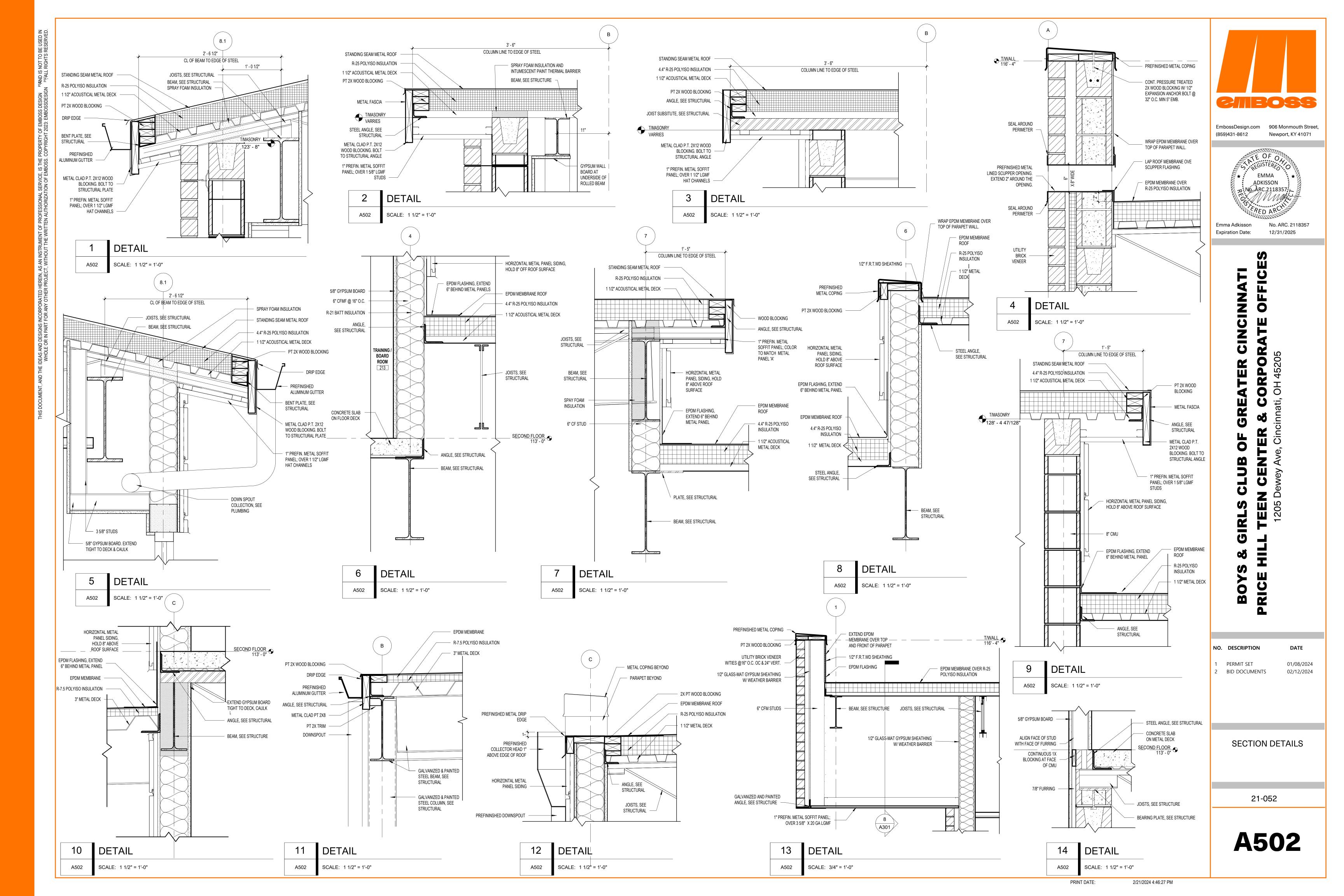
2 BID DOCUMENTS 02/12/2024

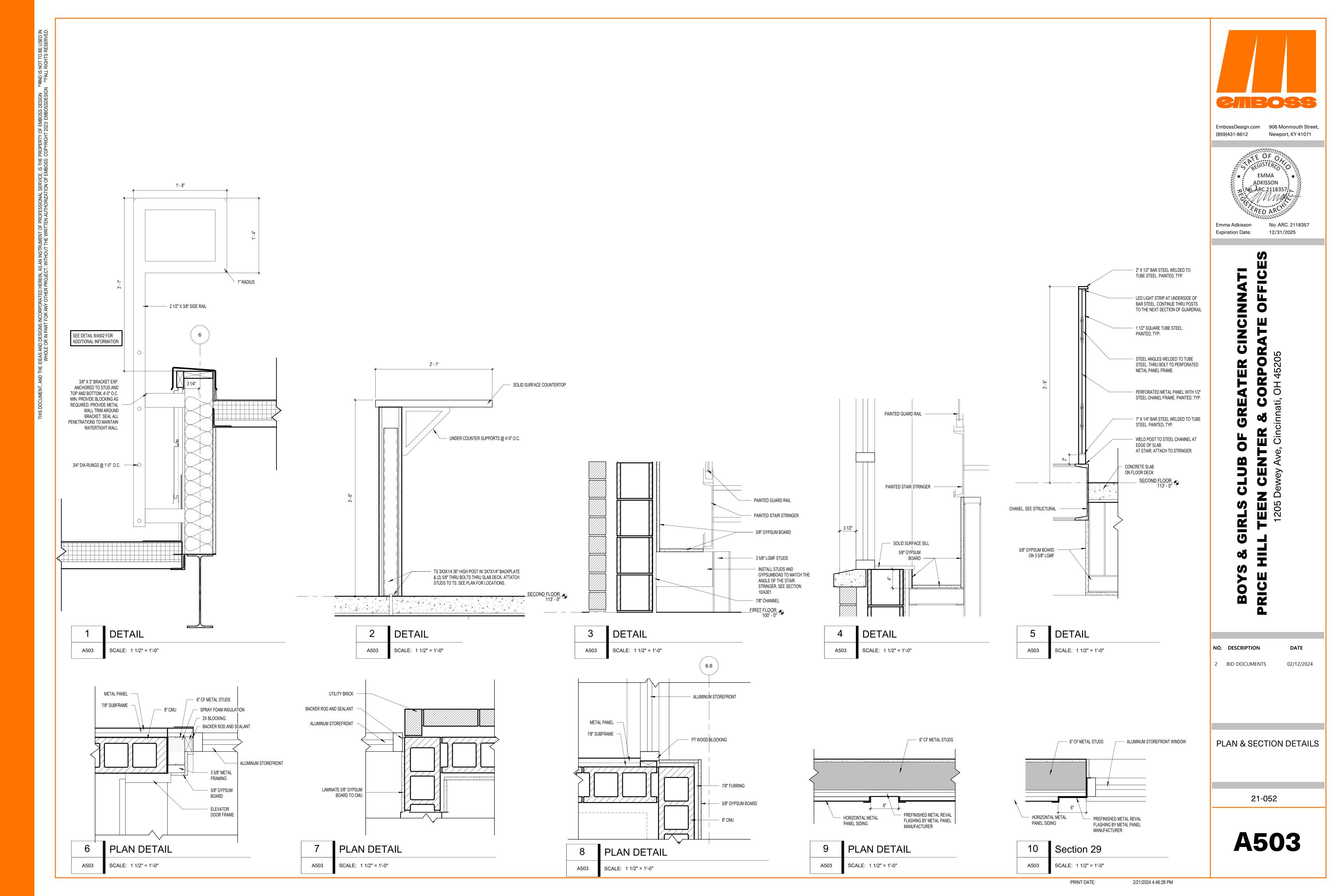
> SECOND FLOOR REFLECTED CEILING PLAN

> > 21-052









#### **GENERAL NOTES - DOOR & FRAME SCHEDULE**

- ALL DOORS SHALL BE MADE READILY OPERABLE FROM SIDE WHICH EGRESS IS TO BE MADE WITHOUT A KEY OR SPECIAL KNOWLEDGE
- ALL LATCHSETS AND LOCKSETS ARE TO BE CYLINDRICAL SETS WITH ADA COMPLIANT LEVER HANDLES

1 3' - 0" 4' - 0"

1 3' - 0" 4' - 0" 1 3' - 0" 6' - 0"

HW-20 COURTYARD GATES - SELF-CLOSING, HINGES, PANIC HARDWARE, LATCHSET

HW-22 HINGES, PANIC HARDWARE, CLOSER, MAGNETIC HOLD OPEN

HW-21 GATE AT PROGRAM ROOM 114 - SELF-CLOSING HINGES, PANIC HARDWARE - NO EXTERIOR HARDWARE

- PROVIDE WALL MOUNTED STOPS WHENEVER POSSIBLE.
- ALL FIRE RATED DOORS SHALL BE LATCHING AND SELF OR AUTOMATIC CLOSING IN ACCORDANCE WITH SECTION 716.5.9 OF THE 2017 OHIO BUILDING CODE
- HOLLOW METAL DOORS TO BE INSULATED & GALVANIZED AT EXTERIOR LOCATIONS HOLLOW METAL FRAMES TO BE GALVANIZED AT EXTERIOR LOCATIONS

#### DOOR AND FRAME SCHEDULE

DOOR AND FRAME SCHEDULE																
				DOOF	₹						FRAME					Τ
#	ROOM	# OF LEAFS	WIDTH	HEIGHT	TYPE	MATL	FINISH	TYPE	MATL	FINISH	HEAD	JAMB	SILL	RATING (MINUTES)	HDWR SET	NOTES
100A	VESTIBULE	2	3' - 0"	8' - 0"	D6	AL	PF	S9	AL	PF				-	HW-2	
100B	VESTIBULE	2	3' - 0"	8' - 0"	D7	AL	PF	S5	AL	PF				-	HW-1	
101	STAIR	1	3' - 0"	7' - 0"	D5	WD	ST	F4	HM	PT				-	HW-3	
103	OFFICE	1	3' - 0"	7' - 0"	D1	HM	PT	F3	HM	PT				-	HW-4	
104	OFFICE	1	3' - 0"	7' - 0"	D1	HM	PT	F3	HM	PT				-	HW-4	
105	OFFICE	1	3' - 0"	7' - 0"	D1	HM	PT	F3	HM	PT				-	HW-4	
106A	PROGRAM ROOM	1	3' - 0"	7' - 0"	D3	HM	PT	F1	HM	PT				-	HW-5	
106B	PROGRAM ROOM	1	3' - 0"	7' - 0"	D3	HM	PT	F1	HM	PT				-	HW-5	
107	STORAGE	1	3' - 0"	7' - 0"	D1	HM	PT	F1	HM	PT				-	HW-6	
108	CONFERENCE	1	3' - 0"	7' - 0"	D7	AL	PF	S10	AL	PF				-	HW-7	
109	STAIR	1	3' - 0"	7' - 0"	D2	HM	PT	F2	HM	PT				-	HW-8	
110	CORRIDOR	2	3' - 0"	8' - 0"	D6	AL	PF	S5	AL	PF				-	HW-16	
110A	JANITOR	1	3' - 0"	7' - 0"	D1	HM	PT	F1	HM	PT				-	HW-9	
113A	PROGRAM ROOM	1	3' - 0"	7' - 0"	D3	HM	PT	F1	HM	PT				-	HW-5	
113B	PROGRAM ROOM	1	3' - 0"	7' - 0"	D3	HM	PT	F1	HM	PT				-	HW-5	
113C	WATER SERVICE	2	3' - 0"	7' - 0"	D1	HM	PT	F1	HM	PT				-	HW-10	
114A	PROGRAM ROOM	1	3' - 0"	7' - 0"	D3	HM	PT	F1	HM	PT				-	HW-5	
114B	PROGRAM ROOM	1	3' - 0"	7' - 0"	D2	HM	PT	F1	HM	PT				-	HW-11	
115A	STORAGE	1	3' - 0"	7' - 0"	D3	HM	PT	F1	HM	PT				-	HW-6	
115B	STORAGE	1	3' - 0"	7' - 0"	D1	HM	PT	F2	HM	PT				-	HW-13	
115C	STORAGE		10' - 0"	10' - 0"	OHD1										-	
116	ELECTRICAL	1	3' - 0"	7' - 0"	D1	HM	PT	F2	HM	PT				-	HW-6	
117A	KITCHENETTE	1	3' - 0"	7' - 0"	D3	HM	PT	F1	HM	PT				-	HW-14	
117B	COURTYARD		10' - 0"	8' - 0"	OHD2										-	
118	STAFF RR	1	3' - 0"	7' - 0"	D1	HM	PT	F1	HM	PT				-	HW-15	
120	CORRIDOR	2	3' - 0"	7' - 0"	D1	HM	PT	F1	HM	PT				-	HW-22	
203	CONFERENCE	1	3' - 0"	7' - 0"	D5	AL	PF	S10	AL	PF				-	HW-7	-
205	OFFICE	1	3' - 0"	7' - 0"	D4	WD	ST	F3	НМ	PT				-	HW-4	
206	OFFICE	1	3' - 0"	7' - 0"	D4	WD	ST	F3	НМ	PT				-	HW-4	
207	OFFICE	1	3' - 0"	7' - 0"	D4	WD	ST	F3	НМ	PT				-	HW-4	
208	OFFICE	1	3' - 0"	7' - 0"	D4	WD	ST	F3	НМ	PT				-	HW-4	
209	OFFICE	1	3' - 0"	7' - 0"	D4	WD	ST	F3	НМ	PT				-	HW-4	
210	OFFICE	1	3' - 0"	7' - 0"	D4	WD	ST	F3	HM	PT				-	HW-4	
211	OFFICE	1	3' - 0"	7' - 0"	D4	WD	ST	F3	HM	PT				-	HW-4	
212	JANITOR	1	3' - 0"	7' - 0"	D4	WD	ST	F1	НМ	PT				-	HW-9	
213A	TRAINING / BOARD ROOM	1	3' - 0"	7' - 0"	D5	WD	ST	F1	HM	PT				-	HW-17	
214	MEN	1	3' - 0"	7' - 0"	D4	WD	ST	F1	HM	PT				-	HW-18	
215	WOMENS	1	3' - 0"	7' - 0"	D4	WD	ST	F1	НМ	PT				-	HW-18	
217	STAIR	1	3' - 0"	7' - 0"	D2	НМ	PT	F2	НМ	PT				60 MIN.	HW-19	
218	STORAGE	1	3' - 0"	7' - 0"	D4	WD	ST	F1	НМ	PT				-	HW-6	
219	OFFICE	1	3' - 0"	7' - 0"	D4	WD	ST	F3	НМ	PT				-	HW-4	
221	OFFICE	1	3' - 0"	7' - 0"	D4	WD	ST	F3	НМ	PT				-	HW-4	
222	OFFICE	1	3' - 0"	7' - 0"	D4	WD	ST	F3	НМ	PT				-	HW-4	
G1		1	3' - N"	4' - 0"										_	HW-20	RM-1

HAR	DWARE SETS	REMARKS LEGEND
HW-1 HW-2 HW-3 HW-4 HW-5 HW-6 HW-7 HW-8 HW-9 HW10 HW-11 HW-12 HW-13 HW-14 HW-15 HW-15 HW-16 HW-17	HINGES, PANIC HARDWARE, ACCESS CONTROL HARDWARE (FREE EGRESS), CLOSER, THRESHOLD, WEATHERSTRIPPING, SWEEP HINGES, PUSH/PULL HARDWARE, ACCESS CONTROL HARDWARE (FREE EGRESS), CLOSER HINGES, PANIC HARDWARE, ACCESS CONTROL HARDWARE (FREE EGRESS), CLOSER HINGES, OFFICE LOCKSET, DOOR STOP HINGES, CLASSROOM LOCKSET, PANIC HARDWARE, DOOR STOP HINGES, STOREROOM LOCKSET, CLOSER, DOOR STOP HINGES, PASSAGE SET, DOOR STOP HINGES, PASSAGE SET, DOOR STOP HINGES, PANIC HARDWARE, ACCESS CONTROL HARDWARE (FREE EGRESS) CLOSER, THRESHOLD, WEATHERSTRIPPING, SWEEP, DRIP CAP HINGES, STORAGE LOCKSET, DOOR STOP HINGES, STOREROOM LOCKSET, TOP & BOTTOM FLUSH BOLT ON INACTIVE LEAF, OVERHEAD DOOR STOP HINGES, PANIC HARDWARE, LOCKSET, CLOSER, THRESHOLD, WEATHERSTRIPPING, SWEEP MANUAL OVERHEAD DOOR TRACK & HARDWARE, LOCK HINGES, STOREROOM LOCKSET, CLOSER, THRESHOLD, WEATHERSTRIPPING, SWEEP, DRIP CAP HINGES, OFFICE LOCKSET, CLOSER, DOOR STOP HINGES, PRIVACY LOCKSET, CLOSER, DOOR STOP HINGES, PASSAGE SET, PANIC HARDWARE, CLOSER, THRESHOLD, WEATHERSTRIPPING, SWEEP HINGES, PASSAGE SET, PANIC HARDWARE, DOOR STOP HINGES, PASSAGE SET, CLOSER, DOOR STOP	RM-1:GATE PROVIDED BY FENCING SUBCONTRACTOR; HARDWARE PROVIDED BY HARDWARE CONTRACTOR

#### **DOOR & FRAME ABBREVIATIONS**

- FINISHES SHALL COMPLY WITH 2017 OHIO BUILDING CODE FINISHES IN CLOSETS SHALL MATCH THAT OF THE ROOM WITH WHICH THEY ARE
- HM HOLLOW METAL PF PREFINISHED
- PT PAINT

AL ALUMINUM

S STAINED WD WOOD

HW-20 RM-1 HW-20 RM-1

HW-21 RM-1

FLOOR:

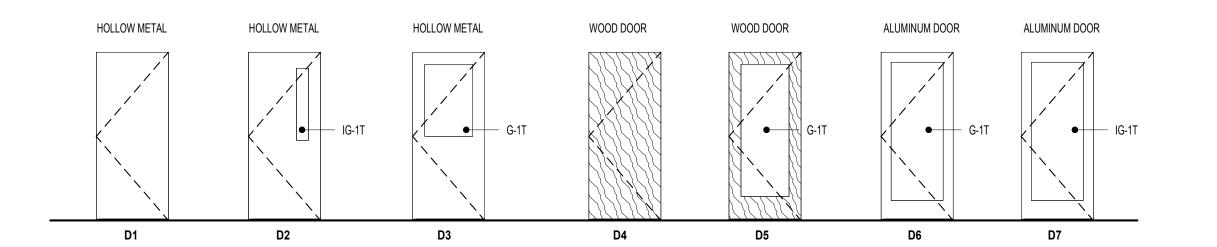
NUMBER	ROOM NAME	FLOOR	BASE	WALL	CEILING	REMARK
100	VESTIBULE	F4	B1	W1	C2	
101	STAIR	F1; F3	B1	W1	C2, C3	RM-1; RM-2
102	TEEN LOBBY	F1	B1	W1	C1	
103	OFFICE	F5	B1	W1	C1	
104	OFFICE	F5	B1	W1	C1	
105	OFFICE	F5	B1	W1	C1	
106	PROGRAM ROOM	F1	B1	W1	C1	
107	STORAGE	F1	B1	W1	C1	
108	CONFERENCE	F5	B1	W1	C1	
109	STAIR	F1; F3	B1	W2	C3	RM-2
110	CORRIDOR	F1	B1	W1	C1	
110A	JANITOR	F6	B1	W1	C1	
111	BOYS	F2	B2	W1	C1	
112	GIRLS	F2	B2	W1	C1	
113	PROGRAM ROOM	F1	B1	W1	C1	
113A	WATER SERVICE	F6	B1	W1	-	
114	PROGRAM ROOM	F1	B1	W1	C1	
115	STORAGE	F6	B1	W1	C3	
116	ELECTRICAL	F6	B1	W1	-	
117	KITCHENETTE	F1	B1	W1	C3	
118	STAFF RR	F2	B2	W1	C1	
120	CORRIDOR	F1	B1	W1	C1	
200	STAIR	F3	B1	W1	C3	RM-2
201	OFFICE LOBBY	F5	B1	W1	C3	
202	OPEN OFFICE	F5	B1	W1	C1, C3	RM-1
203	CONFERENCE	F5	B1	W1	C1	
204	KITCHENETTE	F1	B1	W1	C3	
205	OFFICE	F5	B1	W1	C1	
206	OFFICE	F5	B1	W1	C1	
207	OFFICE	F5	B1	W1	C1	
208	OFFICE	F5	B1	W1	C1	
209	OFFICE	F5	B1	W1	C1	
210	OFFICE	F5	B1	W1	C1	
211	OFFICE	F5	B1	W1	C1	
212	JANITOR	F6	B1	W1	C1	
213	TRAINING / BOARD ROOM	F5	B1	W1	C1	
214	MEN	F7	B3	W1	C1	
215	WOMENS	F7	B3	W1	C1	
216	CORRIDOR	F5	B1	W1	C1	
217	STAIR	F1; F3	B1	W2	C1	RM-2
218	STORAGE	F6	B1	W1	C1	· ···· <u>-</u>
219	OFFICE	F5	B1	W1	C1	
220	OFFICE	F5	B1	W1	C1	
220		F5	B1	W1	C1	
221	OFFICE	F:)				

**GENERAL NOTES - FINISHES** 

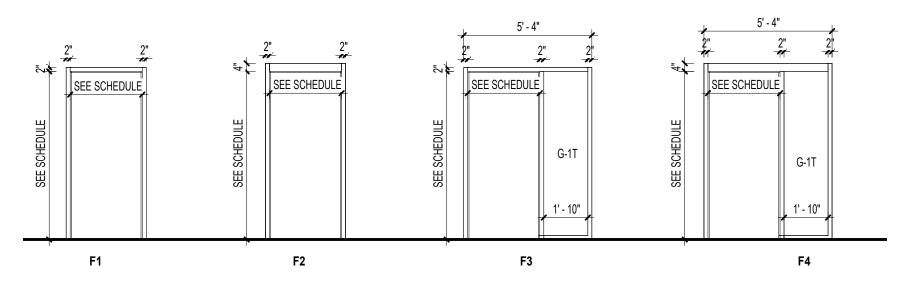
LOW TRANSITION STRIPS SHALL BE USED BETWEEN DIFFERING FLOORING

ROOM FINISH SCHEDULE

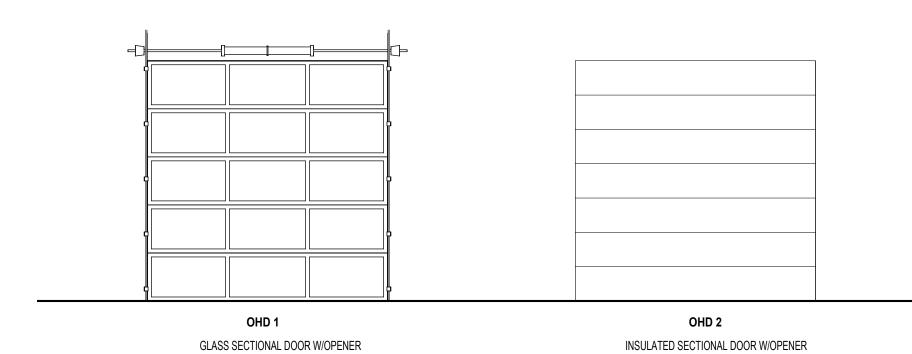
217	STAIR	F1; F3	B1	W2	C1	RM-2						
218	STORAGE	F6	B1	W1	C1							
219	OFFICE	F5	B1	W1	C1							
220	OFFICE	F5	B1	W1	C1							
221	OFFICE	F5	B1	W1	C1							
222	COPY / PRINT	F5	B1	W1	C3							
FINISH	FINISH LEGEND REMARKS LEGEND											
F2 - EPO F3 - LUX F4 - WAL F5 - CARF	ED CONCRTE	ON STAIRS	CEILING	SEE RCP FOR EXTENT OF S IN SPACE PAINT STRINGERS								
BASE: B1 - 4" HIGH RESILIENT BASE B2 - EPOXY COVE BASE - INTEGRAL W/FLOORS B3 - CERAMIC TILE BASE												
WALL: W1 - PAINTED GYPSUM BOARD W2 - FILLED AND PAINTED CMU												
CEILING: C1 - SUSPENDED ACOUSTIC PANEL CEILING C2 - PAINTED GYPSUM BOARD C3 - PAINT EXPOSED STRUCTURE, DUCT, PIPING, CONDUIT, ETC.												



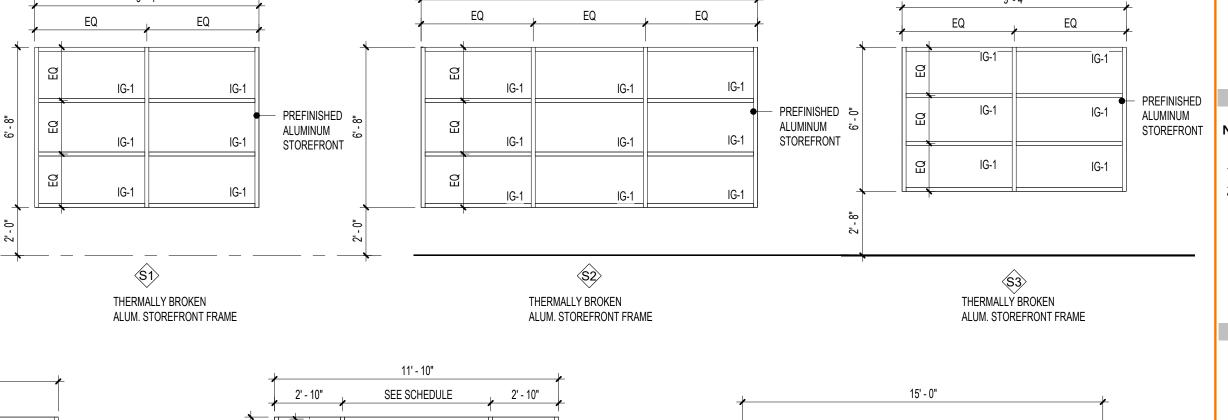
1	DOOR TYPES
A600	SCALE: 1/4" = 1'-0"

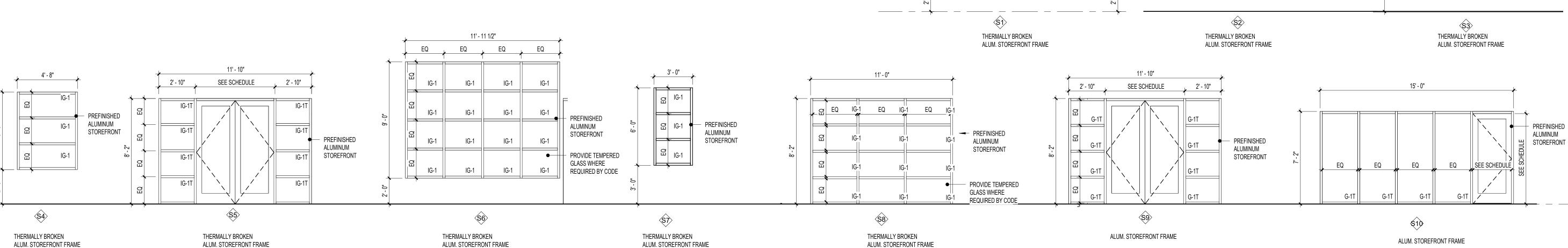


#### FRAME TYPES A600 SCALE: 1/4" = 1'-0"



3	OVERHEAD DOOR TYPES
A600	SCALE: 1/4" = 1'-0"





**211BOSS** 

EmbossDesign.com 906 Monmouth Street, (859)431-8612 Newport, KY 41071

**EMMA ADKISSON** 

Emma Adkisson Expiration Date:

**GLASS TYPE LEGEND** 

1/4" CLEAR GLASS, TEMPERED 1" INSULATING GLASS

1" INSULATING GLASS, TEMPERED

1/4" CLEAR GLASS

DESCRIPTION

No. ARC. 2118357 12/31/2025

CINC

STOREFRONT NO. DESCRIPTION

80

PERMIT SET 01/08/2024 **BID DOCUMENTS** 02/12/2024

DATE

SCHEDULES

21-052

**A600** 

PRINT DATE:

2/21/2024 4:46:28 PM

#### GENERAL STRUCTURAL NOTES

COPIES OF PUBLICATIONS REFERENCED IN THESE GENERAL STRUCTURAL NOTES ARE AVAILABLE FOR REVIEW AT ADVANTAGE GROUP ENGINEERS, INC. CONTRACTORS UNFAMILIAR WITH THESE PUBLICATIONS MUST REVIEW THEM PRIOR TO CONSTRUCTION.

#### GOVERNING CODE

OHIO BUILDING CODE - 2017, BASED ON 2015 IBC

CLASSIFICATION OF THE BUILDING STRUCTURE:

#### RISK CATEGORY II, TABLE 1604.5

#### <u>DESIGN LOADS</u>

. ROOF LOAD:

- A. MINIMUM LIVE LOAD OR SNOW LOAD: 20 PSF\*
- B. ROOF MEMBRANE: 1 PSF C. INSULATION: 3 PSF
- D. METAL DECK: 2 PSF
- E. JOIST FRAMING LOAD: 3 PSF
- F. CEILING (5/8" DRYWALL): 3 PSF G. SPRINKLERS: 3 PSF
- H. DUCTS, LIGHTS, MISC. MECHANICAL: 5 PSF

#### \*MINIMUM LIVE / SNOW LOAD GOVERNED BY MINIMUM SNOW LOAD, Pm = Is \* Pg

#### 2. SNOW LOAD:

- A. GROUND SNOW LOAD,  $P_g = 20$  PSF.
- B. FLAT ROOF SNOW LOAD, Pf = 14 PSF MODIFIED BY APPLICABLE
- BUILDING COEFFICIENTS. C. MINIMUM ROOF SNOW LOAD,  $P_m = 20 \text{ PSF}$ .
- D. SNOW LOAD IMPORTANCE FACTOR,  $I_s = 1.0$
- E. SNOW EXPOSURE FACTOR, Ce = 1.0
- THERMAL FACTOR, C<sub>1</sub> = 1.0
- G. COORDINATE ROOF FRAMING WITH FINAL SELECTION OF ROOF SUPPORTED MECHANICAL EQUIPMENT AND ASSOCIATED OPENINGS. ITEMS TO BE COORDINATED INCLUDE SIZE, LOCATION, TOTAL WEIGHT, WEIGHT DISTRIBUTION, AND SUPPORT FRAME REQUIREMENTS.

#### FLOOR LOAD:

- A. LIVE LOAD: 70 + 20 PSF AT OFFICE
- B. LIVE LOAD: 80 PSF AT CORRIDOR C. SLAB AND DECK: 34 PSF
- D. JOIST FRAMING LOAD: 3 PSF E. CEILING (5/8" DRYWALL): 3 PSF
- F. SPRINKLERS: 3 PSF
- G. DUCTS, LIGHTS, MISC. MECHANICAL: 2 PSF

#### WIND LOAD:

- A. MAIN WIND FORCE RESISTING SYSTEM: 115 MPH PER ASCE 7-10 (3-SECOND GUST - LOAD AND RESISTANCE FACTOR DESIGN)
- B. WIND EXPOSURE: B
- C. BASIC WIND VELOCITY PRESSURE, q<sub>h</sub>= 22.4 PSF D. INTERNAL GUST PRESSURE COEFFICIENT, GCp = 0.18 (ENCLOSED
- BUILDING) SEISMIC LOAD:
- A. BUILDING SITE CLASSIFICATION: D (ASSUMED)
- B. SPECTRAL RESPONSE ACCELERATION, S<sub>S</sub> = 14.4%
- C. SPECTRAL RESPONSE ACCELERATION, S<sub>1</sub> = 7.9%
- a. S<sub>D1</sub> = 12.6% D. SEISMIC DESIGN CATEGORY, SDC = B
- SEISMIC IMPORTANCE FACTOR, le = 1.0
- SEISMIC FORCE RESISTING SYSTEM: INTERMEDIATE REINFORCED MASONRY SHEAR WALLS
- G. RESPONSE MODIFICATION FACTOR, R = 4.5 (TABLE 12.2-1 ASCE 7)
- H. ANALYSIS PROCEDURE: ELFP
- SEISMIC RESPONSE COEFFICIENT, C<sub>s</sub> = 0.03 (EQUATION 12.8-2) J. DESIGN BASE SHEAR,  $V = C_s * W$  (MAXIMUM)
- 6. CONCENTRATED LOADS:
- A. 2000 POUNDS OVER 2.5 SQUARE FEET.
- SPECIAL LOADS:
- A. INTERIOR FINISH: 5 PSF HORIZONTAL LOAD. B. HANDRAILS: 200 POUND CONCENTRATED LOAD AT ANY POINT, IN ANY DIRECTION, OR 50 PLF UNIFORM LOAD IN ANY DIRECTION.
- C. GUARDRAILS:
- a. TOP RAIL: 200 POUNDS CONCENTRATED AT ANY POINT IN ANY DIRECTION, OR 50 PLF UNIFORM LOAD IN ANY DIRECTION. b. IN-FILL AREAS: 50 POUNDS APPLIED OVER A 1 SQUARE FOOT AREA.
- D IMPACT a. ELEVATORS PER SECTION 1607.8.1
- b. MACHINERY PER SECTION 1607.8.2

#### SPECIAL INSPECTIONS

PER THE REQUIREMENTS OF CHAPTER 17 SECTION 1704.1 OF THE REFERENCED BUILDING CODE, A SPECIAL INSPECTION IS REQUIRED FOR THE PROPOSED BUILDING CONSTRUCTION. SPECIAL INSPECTION INVOLVES THE VERIFICATION OF COMPLIANCE OF MATERIALS, INSTALLATION, FABRICATION, ERECTION AND OR PLACEMENT OF COMPONENTS WITH THE OFFICIAL SET OF CONSTRUCTION DOCUMENTS AND REFERENCED STANDARDS. SPECIAL INSPECTION IS PART OF THE PERMIT APPLICATION PROCESS FUNDED BY THE OWNER OR THE OWNER'S AGENT.

A STATEMENT OF SPECIAL INSPECTION LISTING THE REQUIREMENTS ALONG WITH A SCHEDULE OF TESTING, SUBMITTAL REVIEWS, AND FIELD OBSERVATION REQUIREMENTS HAS BEEN PREPARED BY THE STRUCTURAL ENGINEER OF RECORD IN ACCORDANCE WITH SECTION 106.1 OF THE BUILDING CODE. THIS STATEMENT INCLUDES A COMPLETE LIST OF MATERIAL AND ACTIVITY REQUIRING INSPECTION. IT IS THE RESPONSIBILITY OF ALL PARTIES TO BECOME FAMILIAR WITH THIS REQUIREMENT AND UNDERSTAND THE GUIDELINES AND REQUIREMENTS OF EACH PARTY INVOLVED WITH THE CONSTRUCTION. A COPY OF THE STATEMENT OF SPECIAL INSPECTION IS AVAILABLE UPON REQUEST. THE SPECIAL INSPECTOR COORDINATOR SHALL COORDINATE WITH THE OWNER, CONTRACTOR AND THE DESIGN PROFESSIONALS AND SCHEDULE THE INSPECTIONS ACCORDINGLY.

#### SUBSTITUTIONS, SUBMITTALS, AND RFI'S

- CONTRACTOR SHALL SUBMIT ALL SUBSTITUTIONS FOR APPROVAL PRIOR TO CONSTRUCTION WITH THE FOLLOWING INFORMATION:
- A. THE SCOPE, EXTENT, AND ALL LOCATIONS AFFECTED BY THE PROPOSED SUBSTITUTION.
- B. SPECIFIC DRAWING OR SPECIFICATION REFERENCES FOR THE ORIGINAL PRODUCT OR SYSTEM SPECIFIED.
- C. THE REASON FOR THE PROPOSED CHANGE.
- D. COST SAVINGS AND/OR IMPACT ON THE SCHEDULE
- E. IMPACT ON ANY GUARANTEES OR WARRANTIES ASSOCIATED WITH THE PRODUCT OR SYSTEM.
- F. COORDINATION REQUIRED WITH OTHER TRADES OR ADJACENT MATERIALS.

- G. ANY AND ALL DEVIATIONS FROM THE SPECIFIED REQUIREMENTS.
- SHOP DRAWING SUBMITTALS SHALL BE SUBMITTED BY THE GENERAL CONTRACTOR IN A TIMELY MANNER TO PROVIDE AN ADEQUATE AMOUNT OF TIME FOR REVIEW.
- A. ALL SUBMITTALS MUST BE REVIEWED BY THE GENERAL CONTRACTOR PRIOR TO SUBMITTING FOR REVIEW. ANY SHOP DRAWINGS RECEIVED DO NOT BEAR THE STAMP OF THE GENERAL CONTRACTOR AS WELL AS CLEAR EVIDENCE THAT THE SUBMITTAL HAS BEEN REVIEWED WILL BE REJECTED WITHOUT REVIEW.
- B. REVIEW BY STRUCTURAL ENGINEER OF RECORD WILL BE FOR GENERAL COMPLIANCE WITH THE CONTRACT DOCUMENTS AND CONFORMANCE WITH THE DESIGN CONCEPT. THIS REVIEW DOES NOT IN ANYWAY RELIEVE THE CONTRACTOR AND/OR THE CONTRACTOR'S SUBCONTRACTORS FROM RESPONSIBILITY FOR ERRORS OR DEVIATIONS FROM THE CONTRACT REQUIREMENTS. THE CONTRACTOR IS RESPONSIBLE FOR ALL DIMENSIONS, PROPER FIT, QUALITIES OF THE MATERIALS, AND COORDINATION WITH OTHER TRADES AND SUPPLIERS.
- C. IF CHANGES ARE MADE TO A PREVIOUSLY REVIEWED SUBMITTAL, DENOTE ALL REVISED AREAS WITH REVISION CLOUD AND TAGS. D. STRUCTURAL SUBMITTAL REQUIREMENTS:

Submittal/Shop Drawing	Submittal	Calculations	PE/SE Seal & Signature
Concrete Mix – Conforming to ACI 318	For Review	N/a	N/a
Concrete Reinforcing	For Review	N/a	N/a
Masonry Block, Mortar, and Grout Spec & Strength	For Review	N/a	N/a
Masonry Reinforcing	For Review	N/a	N/a
Structural Steel	For Review	N/a	N/a
Open Web Steel Joist & Deck	For Review	N/a	N/a
Miscellaneous Steel	For Record	Required	Required
Cold Formed Steel (Non-	For Review	Required	Required

 For Review denotes the contractor must submit to the design team for review. The contractor shall not fabricate or install until all design team comments have been

resolved in writing. - For Record denotes the contractor must submit to the design team for record. The contractor's engineer is responsible for all loading and coordination of loads to be resisted by the building's structural elements. Any load resisted by the building's structural elements must be approved by the EOR. N/a denotes not applicable.

- 3. REQUESTS FOR INFORMATION (RFI'S) SHALL BE SUBMITTED IN A TIMELY MANNER WHEN INFORMATION IS MISSING FROM THE CONSTRUCTION DOCUMENTS, INFORMATION IS CONFLICTING WITHIN THE CONSTRUCTION DOCUMENTS, OR IS AMBIGUOUS.
- A. THE CONTRACTOR MUST USE DUE DILIGENCE IN ATTEMPTING TO FIND
- ANY ANSWER PRIOR TO SUBMITTING AN RFI. B. IF THE INFORMATION REQUESTED IN AN RFI IS APPARENT FROM FIELD OBSERVATION, IS CONTAINED IN THE CONSTRUCTION DOCUMENTS, OR IS REASONABLY INFERABLE FROM THE CONSTRUCTION DOCUMENTS, THE CONTRACTOR SHALL BE RESPONSIBLE TO THE OWNER FOR ALL REASONABLE COSTS CHARGED RELATED TO ADDITIONAL SERVICES INCURRED DUE TO ANSWERING THE RFI.

#### CONSTRUCTION AND SAFETY

- 1. THE CONTRACTOR SHALL BRACE ENTIRE STRUCTURE AS REQUIRED TO MAINTAIN STABILITY UNTIL COMPLETE AND FUNCTIONING AS THE
- 2. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES OF CONSTRUCTION SELECTED BY THE CONTRACTOR.
- 3. THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. WHEN ON SITE, THE ENGINEER IS RESPONSIBLE FOR HIS OWN SAFETY BUT HAS NO RESPONSIBILITY FOR THE SAFETY OF OTHER PERSONNEL OR SAFETY CONDITIONS AT THE SITE.
- 4. THE CONTRACTOR SHALL ONLY USE STRUCTURAL PLANS ISSUED AS "FOR CONSTRUCTION" OR ISSUES THEREAFTER. PRIOR ISSUES SHALL ONLY BE USED FOR PERMITTING OR BIDDING PURPOSES.

#### MISCELLANEOUS STRUCTURAL NOTES

- 1. THESE STRUCTURAL DRAWINGS DEPICT A STRUCTURAL SYSTEM AND THE MAJOR COMPONENTS OF THAT SYSTEM. MINOR ITEMS, INCLUDING BUT NOT LIMITED TO, POURSTOPS, DECK SUPPORT ANGLES, FRAMES AT FLOOR AND ROOF DECK OPENINGS, CFS AT ARCHITECTURAL FEATURES, ETC. SHALL BE SUPPLIED BY THE CONTRACTOR AS NEEDED TO PROVIDE A COMPLETE SYSTEM.
- WHERE DETAILS ARE CALLED FOR IN ONE AREA OF THE BUILDING, THEY SHALL BE DUPLICATED AT SIMILAR CONDITIONS UNLESS NOTED OTHERWISE.
- 3. STRUCTURAL AND ARCHITECTURAL PLANS SHOW DIMENSIONS AND ELEVATIONS TO SIGNIFICANT WORKING POINTS. CONTRACTORS, DETAILERS AND SUPPLIERS ARE RESPONSIBLE FOR THE DETERMINATION OF ALL DIMENSIONS, PITCHES, ELEVATIONS, ETC. BEYOND THOSE NOTED AS NECESSARY TO THOROUGHLY DETAIL/FABRICATE THEIR WORK. CONTACT ARCHITECT WITH ANY DISCREPANCIES FOUND.

**FOUNDATIONS** 

- SOIL CONDITIONS:
- A. FOUNDATION DESIGN IS BASED ON RECOMMENDATIONS DESCRIBED IN THE GEOTECHNICAL ENGINEER'S REPORT BY TERRACON, DATED SEPTEMBER 8<sup>TH</sup>, 2023. THE GEOTECHNICAL ENGINEER'S REPORT IS AVAILABLE UPON REQUEST.
- 2. THE BOTTOM OF FOUNDATION ELEVATION INDICATED ARE FOR BIDDING PURPOSES AND MAY BE LOWERED TO SUIT SUB-SURFACE SOIL CONDITION. BEARING STRATA SHALL BE APPROVED BY A GEOTECHNICAL ENGINEER PRIOR TO PLACING CONCRETE. PROVIDE ENGINEERED FILL OR FLOWABLE FILL CONCRETE (500 PSI) UNDER FOUNDATIONS AT SOFT SPOTS AND FOR EXTENDING EXCAVATION TO ADEQUATE BEARING MATERIAL. INSTALL FOUNDATIONS AT DESIGNED ELEVATIONS.
- FOOTINGS AND GRADE BEAMS MAY BE PLACED WITHOUT SIDE FORMS IF EXCAVATED WALLS STAND APPROXIMATELY VERTICAL.

- 4. ALL FOOTINGS SHALL BEAR ON LEVEL (WITHIN 1 IN 12) UNDISTURBED SOIL OR APPROVED ENGINEERED FILL. FOUNDATIONS HAVE BEEN DESIGNED FOR A MAXIMUM SOIL BEARING PRESSURE OF 1500 PSF BELOW STRIP FOOTINGS AND 1500 PSF BELOW ISOLATED COLUMN FOOTINGS.
- 5. LATERAL SOIL PRESSURES USED FOR DESIGN:
- A. RETAINING WALLS: 45 PCF EQUIVALENT FLUID PRESSURE, TRIANGULAR
- DISTRIBUTION. B. BASEMENT WALLS: (30 \* HEIGHT OF WALL + 0.5 \* SURCHARGE) PSF, RECTANGULAR DISTRIBUTION.
- 6. CONTRACTOR SHALL CONTACT UTILITY COMPANIES FOR LOCATING UNDERGROUND SERVICES AND IS RESPONSIBLE FOR THEIR PROTECTION AND SUPPORT.

#### COMPACTION:

- A. ALL FILL MATERIALS SHALL BE APPROVED BY A GEOTECHNICAL
- B. ENGINEERED FILL BENEATH FOOTINGS: MINIMUM COMPACTION 98%
- STANDARD PROCTOR DENSITY AT THE OPTIMUM MOISTURE CONTENT. C. BACKFILL AGAINST FOUNDATION WALLS ALONG INTERIOR FACE OF FOUNDATION WALLS SHALL BE CLAYEY MATERIAL COMPACTED IN 6"

LIFTS TO 95% STANDARD PROCTOR DENSITY OR CONCRETE WITH A

- COMPRESSIVE STRENGTH OF f'c = 500 PSI D. BACKFILL ALONG EXTERIOR FACE OF BASEMENT OR ALONG RETAINING TYPE WALLS SHALL BE A WELL-GRADED GRANULAR MATERIAL COMPACTED TO 95% STANDARD PROCTOR DENSITY UP TO WITHIN 24 INCHES OF THE FINISHED GRADE. TOP 24" OF BACKFILL SHALL BE COMPACTED CLAYEY MATERIAL. AT THE BOTTOM OF THE GRANULAR MATERIAL, PLACE A 4" DIAMETER PERFORATED FOUNDATION DRAINPIPE WITH POSITIVE DRAINAGE TO SUMP OR TO DAYLIGHT. AT EXTERIOR RETAINING WALLS, 4" DIAMETER WEEP HOLES AT 10'-0" ON CENTER MAXIMUM MAY BE INSTALLED IN LIEU OF PERFORATED
- E. BACKFILL ALONG EXTERIOR FACE OF SHALLOW WALL FOUNDATIONS TO BE COMPACTED CLAYEY MATERIAL; COMPACT TO 95% STANDARD
- F. FILL BELOW FLOOR SLABS TOP 12" OF SUBBASE BELOW INTERIOR FLOOR SLAB TO BE PROOF ROLLED TO 98% STANDARD PROCTOR DENSITY PRIOR TO PLACEMENT OF SLAB.
- 8. ALL AREAS WITHIN THE FOOTPRINT OF THE BUILDING, INCLUDING UTILITY TRENCHES, MUST BE FREE OF ANY WET AND/OR SOFT AREAS PRIOR TO THE PLACEMENT OF FILL MATERIAL OR SLAB.
- 9. SEAL UTILITY TRENCH AT THE EXTERIOR FOUNDATION WALL BY USING A COMPACTED CLAYEY BACKFILL OR LEAN CONCRETE TO CREATE A DAM TO PREVENT ENTRY OF WATER.
- 10. FINISHED GRADE SHALL SLOPE AWAY FROM THE PERIMETER FOUNDATION.

- 1. CONCRETE WORK AND TESTING SHALL CONFORM TO ALL REQUIREMENTS OF ACI 301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS", EXCEPT AS MODIFIED BY THE SUPPLEMENTAL REQUIREMENTS BELOW. REPORTS FROM TESTS REQUIRED BY SECTION 1.6 OF ACI 301 SHALL BE SUBMITTED TO STRUCTURAL ENGINEER, ARCHITECT, OWNER, CONTRACTOR, CONCRETE SUPPLIER, AND BUILDING OFFICIAL
- 2. CONCRETE WORK IN COLD WEATHER SHALL CONFORM TO ALL REQUIREMENTS OF ACI 306.1 "STANDARD SPECIFICATION FOR COLD WEATHER CONCRETING" AND ACI 306R "COLD WEATHER CONCRETING".
- 3. CONCRETE WORK IN HOT WEATHER SHALL CONFORM TO ALL REQUIREMENTS OF ACI 305R "HOT WEATHER CONCRETING". THE AIR TEMPERATURE. RELATIVE HUMIDITY. CONCRETE TEMPERATURE. AND WIND VELOCITY SHALL BE ENTERED INTO THE NOMOGRAPH OF THIS REFERENCE TO DETERMINE IF PRECAUTIONS AGAINST PLASTIC SHRINKAGE ARE
- 4. CONCRETE MIX DESIGNS SHALL BE SUBMITTED FOR EACH TYPE OF CONCRETE TO THE STRUCTURAL ENGINEER FOR APPROVAL IN ACCORDANCE WITH ACI 301 SECTION 4.2.3.4 FIELD TEST DATA OR TRIAL
- 5. SUBMIT SHOP DRAWINGS OF REINFORCING STEEL.
- MATERIALS (ALSO SEE CONCRETE MIX SCHEDULE):
- A. REINFORCING STEEL: ASTM A615 OR ASTM 996 (AXLE ONLY) 60 KSI YIELD DEFORMED BARS AND ASTM A1064 MESH, FLAT SHEETS ONLY, B. FLY ASH: ASTM C618, TYPE F OR C. FLY ASH-TO-TOTAL CEMENTITIOUS
- RATIO SHALL NOT EXCEED 25% MAXIMUM. C. GROUND GRANULATED BLAST FURNACE SLAG: ASTM C989. TOTAL GROUND GRANULATED BLAST FURNACE SLAG-TO-TOTAL CEMENTITIOUS RATIO SHALL NOT EXCEED 50% MAXIMUM.
- D. HIGH RANGE WATER REDUCER (HRWR) ADMIXTURE: ASTM C494. E. CHLORIDE CONTENT OF CONCRETE: LIMIT TOTAL CHLORIDE ION CONTENT TO AMOUNT INDICATED IN TABLE 4.2.2.6 OF ACI 318. ADMIXTURES CONTAINING CHLORIDE ARE NOT PERMITTED IN

REINFORCED CONCRETE OR CONCRETE CONTAINING METALS.

#### 7. CONCRETE MIX SCHEDULE:

f <sub>c</sub> @ 28 days (psi)	Air Content <sup>1</sup>	Max w/c ratio <sup>2</sup>	Max Agg. Size <sup>1</sup> (in)	F Class	S Class	W Class	C Class
3000	N/a	0.55	3/4	F0	S0	WO	C0
4500	6% ± 1.5%	0.45	3/4	F2	S0	W1	C1
4000	N/a	0.5	3/4	F0	S0	W0	C0
4500	6% ± 1.5%	0.45	3/4	F3	S0	W1	C1
4000	N/a	0.5	3/4	F0	S0	W0	C0
	28 days (psi) 3000 4500 4500	28	28	28 days (psi)     Air Content¹ (psi)     M/a w/c ratio²     Agg. Size¹ (in)       3000     N/a     0.55     3/4       4500     6% ± 1.5%     0.45     3/4       4500     6% ± 1.5%     0.45     3/4       4500     6% ± 1.5%     0.45     3/4	28 days (psi)       Air Content¹       Imax w/c ratio²       Agg. Size¹ (in)       F Class         3000       N/a       0.55       3/4       F0         4500       6% ± 1.5%       0.45       3/4       F2         4500       N/a       0.5       3/4       F0         4500       6% ± 1.5%       0.45       3/4       F3	28 days (psi)         Air Content¹ (content¹ (psi))         Max w/c ratio²         Agg. Size¹ (in)         F Class         S Class           3000         N/a         0.55         3/4         F0         S0           4500         6% ± 1.5%         0.45         3/4         F2         S0           4500         N/a         0.5         3/4         F0         S0           4500         6% ± 1.5%         0.45         3/4         F3         S0	28 days (psi)         Air Content¹ (psi)         Imax w/c ratio²         Agg. Size¹ (in)         F Class         S Class         W Class           3000         N/a         0.55         3/4         F0         S0         W0           4500         6% ± 1.5%         0.45         3/4         F2         S0         W1           4500         N/a         0.5         3/4         F0         S0         W0           4500         6% ± 1.5%         0.45         3/4         F3         S0         W1

- 1] Where 3/8" maximum aggregate is preferred, adjust air entrainment to 7.5%  $\pm$
- 1.5% (if required). [2] - Where air entrainment is not required by design, the contractor/supplier may choose to include air entrainment to improve placement or finish characteristics. Air entrainment is not permitted in normal weight concrete to receive a hard trowel finish and entrapped air shall not exceed 3%.
- [4] Normal weight aggregate with 8%-18% retained on each sieve. Fly ash not permitted. f'c = 1800 psi @ 3 days.

[3] -  $f_c$  = 1800 psi @ 3 days.

maintained by the owner.

- [5] Cortec MCI required.
- [6] f'c = 3000 psi @ 7 days. [7] - Entrained air is not required provided walls are painted and exterior paint is
- 8. SLUMP SHALL BE MEASURED PRIOR TO THE ADDITION OF HRWR.

- 9. ALL REINFORCING BARS, EMBEDS, AND ANCHOR RODS SHALL BE PLACED WITHIN THE REQUIRED TOLERANCES AND SUPPORTED TO PREVENT DISPLACEMENT DURING CONCRETE PLACEMENT. WORKING REINFORCING BARS, EMBEDS, AND ANCHOR RODS INTO WET CONCRETE (KNOWN AS "WET STICKING") IS PROHIBITED. IF NECESSARY, CONTRACTOR MAY PROVIDE ADDITIONAL REINFORCING BARS TO SECURELY TIE REINFORCING BARS, EMBEDS, AND ANCHOR RODS.
- 10. LAP SPLICE REINFORCING BARS 48 BAR DIAMETERS UNLESS NOTED OTHERWISE.
- 11. BAR CLEARANCES BETWEEN ADJACENT BARS AND FORMWORK SHALL BE
- 12. AT CORNERS AND INTERSECTIONS OF FOOTINGS, WALLS, AND GRADE BEAMS, PROVIDE BENT BARS OF EQUAL SIZE AND AT SAME SPACING AS TYPICAL REINFORCING AROUND CORNER AND/OR INTO ABUTTING WALL OR GRADE BEAM. BARS SHALL HAVE EMBEDMENT OF 30 BAR DIAMETERS (18"

AS NOTED ON THE DRAWINGS OR A MINIMUM AS PER ACI REQUIREMENTS.

- 13. MACHINE TROWEL FINISH FLOOR SLAB AND CURE USING A METHOD RECOMMENDED BY ACI 302.1R (GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION) INCLUDING WATER CURING, WET COVERING APPLICATION OF IMPERVIOUS SHEETING OR APPLICATION OF "CURE AND SEAL" TYPE CURING COMPOUND MEETING ASTM C-1315. FOR APPLICATIONS EXPOSED TO SUNLIGHT USE CLASS A (NON-YELLOWING) CURING COMPOUND. COORDINATE CURING METHOD WITH ARCHITECTURAL FLOOR FINISHES THAT REQUIRE ADHESION TO THE SLAB (SUCH AS TILE) TO INSURE PROPER BOND.
- 14. FLOOR SLAB-ON-GRADE SHALL CONFORM TO THE FOLLOWING SURFACE PROFILE TOLERANCES PER ASTM E-1155 AND ACI 117: F<sub>f</sub> (FLATNESS) / F<sub>I</sub> (LEVELNESS)
- A. SPECIFIED OVERALL VALUE: 25 / 20
- B. MINIMUM LOCAL VALUE: 18 / 13 C. MAXIMUM GAP UNDER 10 FT. UNLEVELED STRAIGHTEDGE = 1/4"
- 15. SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR VAPOR BARRIER REQUIREMENTS. VAPOR BARRIER, WHERE REQUIRED, SHALL BE PLACED OVER COMPACTED GRANULAR SUBBASE.
- 16. AT SLAB AND WALL OPENING CORNERS AND REENTRANT CORNERS, PROVIDE (1) #5 BAR IN EACH FACE PARALLEL TO EACH EDGE EXTENDING A MINIMUM OF 2'-0" PAST EDGE OF OPENING. THIS STEEL MAY BE OMITTED IF TYPICAL REINFORCING STEEL EXCEEDS THIS MINIMUM REQUIREMENT.
- 17. REINFORCE ALL INTERIOR SLABS ON GROUND WITH 6x6-W2.9xW2.9 (42#) MESH. LOCATE MESH 2" CLEAR BELOW TOP OF SLAB.
- 18. REINFORCE ALL CONCRETE SLABS SUPPORTED ON METAL FORM DECK WITH 6x6-W2.9xW2.9 (42#) MESH. LOCATE MESH AT CENTER OF DEPTH OF CONCRETE THICKNESS ABOVE METAL DECK FOR SLABS UP TO 3" THICK. FOR SLABS GREATER THAN 3" THICK, DRAPE MESH OVER SUPPORTS TO 3/4" CLEAR FROM THE TOP OF SLAB.
- 19. LAP WELDED WIRE FABRIC MINIMUM 1 FULL SPACE PLUS 2".
- 20. PROVIDE 6'-0" LONG #4 BARS AT 16" ON CENTER CENTERED ABOVE ALL GIRDERS. LOCATE 3/4" CLEAR FROM TOP OF SLAB.
- 21. DO NOT BACKFILL AGAINST BASEMENT FOUNDATION WALLS UNTIL ADJACENT FLOOR STRUCTURE AND CONCRETE/DECKING IS IN PLACE TO BRACE THE TOP OF THE WALL.

22. CAST IN CONTINUOUS DOVETAIL ANCHOR SLOTS ON VERTICAL SURFACES

- WHERE MASONRY ABUTS; 24" ON CENTER FOR PARALLEL SURFACES AND AT CENTERLINE OF MASONRY FOR PERPENDICULAR WALLS. 23. FINISH OF CONCRETE HANDICAP RAMPS TO CONFORM TO THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA)
- COORDINATE LOCATION AND PATTERN WITH ARCHITECTURAL DRAWINGS. 24. CONTROL JOINTS IN SLABS ON GROUND SHALL BE LOCATED AT 12'-0" MAXIMUM SPACING AND SHALL CREATE SECTIONS OF SLAB WITH A MAXIMUM ASPECT RATIO OF 11/2 TO 1. CONTROL JOINTS SHALL BE SAWN AND SHALL BE A MINIMUM OF 1/4 OF THE SLAB THICKNESS DEEP. THE CONTROL JOINT SHALL BE SAWN AS SOON AS THE SAW BLADE CAN CUT THE CONCRETE WITHOUT DISPLACING THE AGGREGATE. CUT EVERY OTHER MESH WIRE AT THE CONTROL JOINT LOCATION PRIOR TO PLACING CONCRETE. IF AN EARLY-CUTTING SAW IS BE USED AND A SHALLOWER DEPTH OF THE CUT IS DESIRED, CONTACT THE ENGINEER IN ADVANCE FOR
- 25. CONSTRUCTION JOINTS IN SLABS ON GROUND MAY BE LOCATED AT ANY CONTROL JOINT LOCATION. CONSTRUCTION JOINTS SHALL HAVE A KEY FORMED AT MID-DEPTH OF THE FIRST CAST SECTION. THE KEY SHALL BE 11/2" DEEP AND SHALL BE 1/3 OF THE SLAB THICKNESS HIGH. THE TOP AND BOTTOM OF THE KEY SHALL HAVE 1 VERTICAL TO 3 HORIZONTAL SLOPE.
- 26. FILL CONTROL AND CONSTRUCTION JOINTS IN TRAFFIC AREAS WITH SEMI-RIGID EPOXY JOINT FILLER WITH A DUROMETER SHORE A-SCALE HARDNESS NUMBER OF APPROXIMATELY 80. FILL CONTROL AND CONSTRUCTION JOINTS IN NON-TRAFFIC AREAS WITH ELASTOMERIC
- SEALANT. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. 27. PROVIDE 3/4" CHAMFER AT CORNERS OF EXPOSED CONCRETE.
- 28. WHERE BRITTLE FLOOR FINISHES ARE TO BE APPLIED TO FLOOR SLABS. COORDINATE CONTROL JOINT LOCATIONS WITH FLOOR FINISH JOINT LOCATIONS AND ARCHITECT.
- 29. PROVIDE CONTROL/CONSTRUCTION JOINTS IN CONCRETE WALLS AT A MAXIMUM SPACING OF TWICE THE HEIGHT OF THE WALL. MAXIMUM JOINT SPACING SHALL NOT EXCEED 24 FT. CONTROL JOINTS SHALL HAVE A 3/4" DEEP BY 11/2" WIDE TAPERED REVEAL EACH SIDE OF THE WALL. AT CONTROL JOINTS, EVERY OTHER HORIZONTAL BAR SHALL BE CUT BACK 1" TO 1/2" FROM THE CONTROL JOINT. CONSTRUCTION JOINTS SHALL BE FORMED SIMILAR TO CONTROL JOINTS. AT CONSTRUCTION JOINTS, ALL HORIZONTAL STEEL SHALL BE DISCONTINUOUS AND A DOWEL BAR OF SIZE AND SPACING TO MATCH THE HORIZONTAL REINFORCING SHALL BE EMBEDDED A MINIMUM OF 40 BAR DIAMETERS EACH SIDE OF THE CONSTRUCTION JOINT. SEE ARCHITECTURAL DRAWINGS FOR

#### **EXPANSION AND EPOXY ADHESIVE ANCHORS**

ARCHITECTURAL JOINT TREATMENT.

1. EXPANSION ANCHORS:

APPROVAL.

- A. EXPANSION ANCHORS SHALL BE MANUFACTURED BY THE HILTI COMPANY AND SHALL BE THE TYPE, SIZE, AND EMBEDMENT INDICATED ON THE DRAWINGS. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. SUBSTITUTES MAY BE CONSIDERED; SUBMIT MANUFACTURER'S DATA PRIOR TO INSTALLATION.
- 2. EPOXY ADHESIVE ANCHORS:
- A. EPOXY ADHESIVE SHALL BE HIT-HY 200 V3 EPOXY ADHESIVE MANUFACTURED BY THE HILTI COMPANY, INSTALL PER MANUFACTURER'S RECOMMENDATIONS. SUBSTITUTES MAY BE CONSIDERED; SUBMIT MANUFACTURER'S DATA PRIOR TO
- INSTALLATION. B. THREADED RODS SHALL BE ASTM A36. SIZES AND EMBEDMENT AS INDICATED ON THE DRAWINGS.

 C. CONDUCT JOB-SITE TRAINING OF ALL CONTRACTOR'S PERSONNEL INSTALLING THIS PRODUCT FOR SAFE AND PROPER INSTALLATION, HANDLING, AND STORAGE OF THE EPOXY SYSTEM.

- 1. MASONRY CONSTRUCTION AND MATERIALS SHALL CONFORM TO ALL REQUIREMENTS OF "SPECIFICATION FOR MASONRY STRUCTURES (ACI 530.1/ASCE 6/TMS 602)" EXCEPT AS MODIFIED BY THE REQUIREMENTS OF THESE CONTRACT DOCUMENTS.
- 2. COMPRESSIVE STRENGTH SHALL BE DETERMINED FOR EACH TYPE OF MASONRY BY THE UNIT STRENGTH METHOD.
- A. NET AREA COMPRESSIVE STRENGTH OF CONCRETE MASONRY USED FOR DESIGN: f'm = 2000 PSI AT 28 DAYS
- 3. SUBMITTALS SHALL BE MADE FOR THE FOLLOWING:
- A. COLD WEATHER CONSTRUCTION PROCEDURE
- B. HOT WEATHER CONSTRUCTION PROCEDURE. MANUFACTURERS LITERATURE FOR: HORIZONTAL JOINT REINFORCING, REINFORCING STEEL POSITIONERS, MOVEMENT JOINT MATERIALS, TIES
- AND ANCHORS. D. SHOP DRAWINGS SHOWING: DETAILS OF STEEL REINFORCING, AND
- E. MANUFACTURER'S CERTIFICATE OF COMPLIANCE FOR SPECIFIED
- MASONRY UNIT, AND REINFORCING STEEL F. PROPORTIONS OF MATERIAL IN ACCORDANCE WITH REFERENCED SPECIFICATIONS OF MORTAR AND GROUT.

- A. CONCRETE MASONRY UNITS: ASTM C90 TYPE I BELOW GRADE: NORMAL WEIGHT AGGREGATE PER ASTM C33.
- a. MINIMUM UNIT COMPRESSIVE STRENGTH, f'm = 2000 PSI. B. CONCRETE MASONRY UNITS: ASTM C90 TYPE I ABOVE GRADE: LIGHTWEIGHT AGGREGATE PER ASTM C331 OR NORMAL WEIGHT.
- a. MINIMUM UNIT COMPRESSIVE STRENGTH, f'm = 2000 PSI. C. FACING BRICK: ASTM C216 GRADE SW. COLOR AND SIZE AS NOTED ON THE ARCHITECTURAL DRAWINGS.
- D. MORTAR: ASTM C270 TYPE S,  $f_m = 1800$  PSI AT 28 DAYS. a. PORTLAND CEMENT-LIME MORTAR: i. PORTLAND CEMENT: TYPE I AND HYDRATED LIME
- b. MASONRY CEMENT MORTAR: AT CONTRACTOR'S OPTION. E. GROUT: ASTM C476.  $f_c = 2000$  PSI, SLUMP 8" TO 10".
- F. REINFORCING STEEL: ASTM A615, 60 KSI YIELD. G. HORIZONTAL JOINT REINFORCING FOR SINGLE WYTHE CONCRETE MASONRY: 9 GAUGE LADDER TYPE. HOT DIPPED GALVANIZED PER ASTM A153 CLASS B. PLACE HORIZONTAL JOINT REINFORCING AT 16" CENTERS VERTICALLY FOR CONCRETE MASONRY. LAP HORIZONTAL JOINT REINFORCING 6" MINIMUM. HORIZONTAL JOINT REINFORCING SHALL BE DISCONTINUOUS ACROSS MOVEMENT JOINTS.
- H. HORIZONTAL JOINT REINFORCING FOR CONCRETE MASONRY AND BRICK VENEER CAVITY WALL: 9 GAUGE LADDER TYPE PLACED IN CONCRETE MASONRY WITH PROJECTING EYES FOR 3/16" DIAMETER DOUBLE WIRE RECTANGULAR ADJUSTABLE PINTLE. HOT DIPPED GALVANIZED PER ASTM A153 CLASS B. THIS TYPE OF JOINT REINFORCING ALLOWS THE VENEER TO BE PLACED AFTER INTERIOR WYTHE IS PLACED. LADDER TYPE TRI-ROD MAY BE USED IF BOTH WYTHES ARE LAID SIMULTANEOUSLY. PLACE HORIZONTAL JOINT REINFORCING AT 16" CENTERS VERTICALLY FOR CONCRETE MASONRY LAP HORIZONTAL JOINT REINFORCING 6" MINIMUM. HORIZONTAL JOINT REINFORCING SHALL BE DISCONTINUOUS ACROSS MOVEMENT JOINTS. BRICK VENEER ANCHORS FOR METAL STUD AND WOOD STUD BACKUP:
- DUR-O-WAL D/A 213 OR WIRE-BOND RJ-711 WITH 3/16" DIAMETER PINTLE. HOT-DIPPED GALVANIZED PER ASTM A153 CLASS B. VERTICAL DISTANCE BETWEEN HORIZONTAL PINTLE WIRE AND CLIP PLATE SHALL NOT EXCEED 3/4". (FLAT CORRUGATED TIES ARE NOT PERMITTED). SCREWS SHALL BE MINIMUM #10 SIZE AND SHALL BE CADMIUM-PLATED OR HOT-DIPPED GALVANIZED (STAINLESS STEEL AND COPPER-COATED SCREWS ARE NOT PERMITTED). ANCHORS SHALL BE ATTACHED WITH FASTENERS TO THE WOOD OR STEEL FRAMING WALL STUDS. PROVIDE BRICK VENEER ANCHORS WITH MAXIMUM HORIZONTAL SPACING OF 24" AND MAXIMUM VERTICAL SPACING OF 16". BRICK VENEER ANCHORS SHALL BE EMBEDDED 2" MINIMUM INTO BRICK.
- 5. MORTAR PROPORTIONS MUST BE ACCURATELY MEASURED PRIOR TO MIXING. ADD CEMENT TO MIX IN FULL BAG QUANTITIES. MEASURE SAND IN BOX WITH VOLUME OF ONE CUBIC FOOT AS OFTEN AS NECESSARY TO MAINTAIN CONSISTENT PROPORTIONS AND AT LEAST ONCE DAILY AND EVERY 4 HOURS OF MIXING
- 6. MINIMUM VERTICAL REINFORCEMENT REQUIREMENTS FOR ALL MASONRY
- A. AS A MINIMUM, ALL MASONRY SHALL BE REINFORCED PER SECTION ACI

530 1.14.2.2.2.1.

EXTERIOR FACE.

ADJACENT TO CONTROL JOINTS.

- B. #4 VERTICAL BARS SHALL BE PLACED AT ALL CORNERS, WITHIN 16 INCHES OF EACH WALL OPENINGS. WITHIN 8 INCHES OF EACH WALL MOVEMENT JOINT AND WITHIN 8 INCHES OF THE END OF THE WALL. C. HORIZONTAL JOINT REINFORCEMENT SHALL BE SPACED AT 16" MAX. WALL OPENINGS SHALL BE REINFORCED TOP AND BOTTOM OF
- PAST THE ROUGH OPENING. D. SPACING OF VERTICAL REINFORCEMENT SHALL NOT EXCEED 4'-0".
- 7. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS AND SPECIFICATIONS OF FIRE RATED MASONRY.

OPENINGS AND SHALL EXTEND NOT LESS THAN 24 INCHES BEYOND

- 8. PROVIDE PREFABRICATED "L" AND "T" SHAPED HORIZONTAL JOINT REINFORCING AT WALL INTERSECTIONS. ALTERNATE MESH TIES REINFORCEMENT TO BE SUBMITTED FOR REVIEW CONSIDERATION PRIOR TO CONSTRUCTION.
- 9. KEEP AIR SPACE BEHIND VENEER FREE OF MORTAR DROPPINGS.
- 10. RUNNING BOND PATTERN SHALL BE USED FOR ALL MASONRY WORK UNLESS OTHERWISE NOTED.

11. PROVIDE MOVEMENT (CONTROL AND EXPANSION) JOINTS IN WALLS AS

BOND BEAMS SHALL BE DISCONTINUOUS ACROSS MOVEMENT JOINTS UNLESS NOTED OTHERWISE: A. MOVEMENT JOINTS IN CONCRETE BLOCK: SASH BLOCK UNIT WITH

PREFORMED SHEAR KEY. CAULK BOTH FACES. ALTERNATE DETAILS

INDICATED ON ARCHITECTURAL DRAWINGS UNLESS NOTED OTHERWISE.

- FOR CONTROL JOINTS MAY BE ACCEPTABLE; SUBMIT DETAILS FOR B. MOVEMENT JOINTS IN BRICK: 3/8" WIDE CLEAN JOINT FILLED WITH EXPANSION JOINT MATERIAL PER ASTM D1056, CLASS RE 41. CAULK
- 12. UNLESS NOTED OTHERWISE ON PLANS, UNDER LINTELS, BEARING PLATES, BEAMS, ETC.; FILL CELLS WITH GROUT, 3 COURSES MINIMUM BELOW BEARING.

C. PROVIDE BUILDING PAPER BOND BREAK BELOW LINTEL BEARING



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# Revision/Submission Date 2/09/2024 ADDENDUM 03 2/19/2024

Project Number: 23101.15

Design Team: STH / JTL

NOTES

**GENERAL STRUCTURAL** 

- 13. ALL REINFORCING STEEL SHALL BE SUPPORTED AND FASTENED TO APPROVED POSITIONERS LOCATED AT 192 BAR DIAMETERS MAXIMUM SPACING AND WITH A MINIMUM OF TWO POSITIONERS PER GROUT POUR (ONE NEAR THE BOTTOM AND ONE NEAR THE TOP) TO PREVENT DISPLACEMENT DURING THE PLACEMENT OF GROUT. ALL REINFORCING BARS MUST BE FULLY GROUTED IN PLACE IN LIFTS NOT TO EXCEED 60 INCHES
- 14. BAR LAPS ARE AS FOLLOWS UNLESS OTHERWISE NOTED. MINIMUM BAR LAPS SHALL NOT BE LESS THAN 48 BAR DIAMETERS.
- A. #4 BAR: 24" MINIMUM LAP
- B. #5 BAR: 30" MINIMUM LAP
  C. #6 BAR: 36" MINIMUM LAP
- D. IN DOUBLE REINFORCED CELLS, STAGGER BAR SPLICES ACCORDINGLY SO THAT LAPS DO NOT OCCUR WITHIN THE SAME SECTION ALONG THE HEIGHT OF THE WALL.
- 15. GROUT ALL CELLS BELOW GRADE SOLID.

#### STRUCTURAL STEEL

- 1. ALL DETAILING, FABRICATION, AND ERECTION SHALL CONFORM TO AISC SPECIFICATIONS FOR "DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS", AND THE AISC "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES", LATEST EDITION.
- 2. FABRICATOR SHALL DESIGN CONNECTIONS AND, WHEN REQUESTED, SUBMIT CALCULATIONS TO AID THE ENGINEER IN REVIEW. UNLESS SPECIFIC END MOMENTS AND REACTIONS ARE INDICATED ON DRAWINGS, DESIGN AND FABRICATE CONNECTIONS TO RESIST SHEAR BASED ON THE MAXIMUM UNIFORM LOAD CAPACITY OF THE MEMBER FOR THE SPAN INCREASED BY 15%, BUT NO MORE THAN THE SHEAR CAPACITY OF THE MEMBER.
- 3. THE CONTRACTOR SHALL SUBMIT AS PART OF THE BIDDING PROCEDURE A UNIT COST FOR MISCELLANEOUS STRUCTURAL STEEL REQUIREMENTS THAT MAY HAVE BEEN OMITTED FROM THE CONSTRUCTION BID DOCUMENTS. PROVIDE A UNIT COST PER POUND FOR EACH OF THE FOLLOWING HOT ROLLED SECTIONS: WF BEAM, WF COLUMN, HSS, C-CHANNELS, L-LINTELS (GALVANIZED) AND L-LINTELS (PAINTED).
- 4. NO OPENING OR HOLE SHALL BE PLACED IN ANY STRUCTURAL MEMBER (OTHER THAT WHAT IS INDICATED ON THE DRAWINGS) UNLESS THE LOCATION HAS BEEN APPROVED IN WRITING BY THE STRUCTURAL ENGINEER.
- ALL FLOOR OR ROOF BEAMS SHALL BE FABRICATED WITH THE NATURAL CAMBER UP.
- FIELD CONNECTIONS SHALL BE BOLTED EXCEPT WHERE WELDED CONNECTIONS ARE INDICATED ON THE STRUCTURAL DRAWINGS.
- WELDING SHALL BE IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY (AWS D1.1).
- 8. MATERIALS:
- A. ROLLED WIDE FLANGE SHAPES UNLESS NOTED: ASTM A992 DUAL GRADE,  $F_v = 50$  KSI.
- B. ROLLED SHAPES AND PLATES UNLESS NOTED: ASTM A36.

INTERIOR AND EXTERIOR APPLICATIONS.

- C. TUBULAR SHAPES: ASTM A500 GRADE C. D. PIPE SHAPES: ASTM A53, TYPES E OR S GRADE B.
- E. BOLTS: ASTM A325-N, 3/4" DIAMETER UNLESS NOTED.
   F. ANCHOR RODS: ASTM F1554 GRADE 36 KSI MATERIAL FULLY THREADED RODS HAVING A NUT TACK WELDED IN PLACE ON BOTTOM. MINIMUM
- EMBEDMENT AS NOTED ON THE DRAWINGS.

  G. FIELD WELDS: AWS E70XX, LOW HYDROGEN ELECTRODES.

  H. COLD-FORMED STRUCTURAL SHAPES: ASTM A1011, F<sub>y</sub> = 50 KSI MINIMUM SECTION PROPERTIES BASED ON SECTIONS MANUFACTURED BY

FABRAL ALCAN BUILDING PRODUCTS, METAL SALES MANUFACTURING

- CORPORATION, STEEL COMPONENT SYSTEMS.

  I. NON-SHRINK NON-METALLIC GROUT: CRD-C-621 AND ASTM C1107 FOR
- 9. PAINT AND PROTECTION:
- A. STRUCTURAL STEEL UNLESS NOTED: FABRICATOR'S STANDARD PRIME
- COAT. TOUCH UP AFTER ERECTION.

  B. PROVIDE MINIMUM 3" CONCRETE COVER FOR ALL STEEL BELOW
- GRADE.

  C. LINTELS SUPPORTING EXTERIOR MASONRY WYTHES AND MEMBERS EXPOSED TO WEATHER IN FINISHED STRUCTURES: HOT DIP GALVANIZE PER ASTM A123 AFTER FABRICATION. COATING WEIGHT PER PARAGRAPH 5.1 OF ASTM A123 AND A153. FABRICATE ASSEMBLIES PER ASTM A143, A384, AND A385. TOUCH UP AFTER ERECTION WITH ORGANIC ZINC RICH PAINT COMPLYING WITH DOP-P-21035 OR MIL-P-26915, MULTIPLE COATS TO DRY FILM THICKNESS OF 8 MILS.
- 10. CONTRACTOR SHALL SUBMIT ERECTION AND SHOP DRAWINGS FOR REVIEW BY ENGINEER PRIOR TO FABRICATION. ANY DEVIATIONS FROM THE ORIGINAL DESIGN INTENT SHALL BE APPROVED PRIOR TO SUBMITTING ANY SHOP SUBMITTALS. SUCH DRAWINGS WILL BE REJECTED.
- 11. CONTRACTOR SHALL SUBMIT MISCELLANEOUS STEEL SHOP DRAWINGS
  FOR REVIEW BY ENGINEER PRIOR TO FABRICATION. MISCELLANEOUS
  STEEL SHOP DRAWINGS SHALL INCLUDE STAIRS AND GUARDRAILS.
  MISCELLANEOUS STEEL SHOP DRAWINGS SHALL BEAR THE SEAL OF A
  REGISTERED PROFESSIONAL ENGINEER WHO IS PROVIDING SERVICES AS A
  SPECIALTY ENGINEER.
- 12. INSTALLATION OF HEADED COMPOSITE STUDS SHALL CONFORM TO THE REQUIREMENTS OF AWS D1.1 SECTIONS 7.4 AND 7.5. HEADED COMPOSITE STUDS SHALL BE TESTED IN ACCORDANCE WITH AWS D1.1 SECTIONS 7.6, 7.7, AND 7.8 BY A QUALIFIED TESTING AGENCY. COPIES OF THE TEST REPORTS SHALL BE SUBMITTED TO THE ENGINEER.

#### OPEN WEB STEEL JOISTS

- 1. THE DESIGN, FABRICATION, AND ERECTION OF STEEL JOISTS AND JOIST GIRDERS SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST EDITION OF THE SPECIFICATIONS ADOPTED BY THE STEEL JOIST INSTITUTE.
- CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR REVIEW BY ENGINEER PRIOR TO FABRICATION.
- CONNECTIONS: WELD EACH SIDE OF JOISTS TO SUPPORTING STEEL WITH 2 INCHES OF 3/16 INCH FILLET WELD. JOISTS AT COLUMNS TO HAVE ERECTION BOLTS.
- 4. JOISTS SHALL HAVE MINIMUM BRIDGING AS REQUIRED BY THE SJI, THE JOIST DESIGN REQUIREMENTS AND AS OTHERWISE NOTED ON THE STRUCTURAL DRAWINGS. WHERE BOLTED X-BRIDGING IS REQUIRED, BOLTED CONNECTIONS SHALL BE MADE PRIOR TO SLACKING HOIST LINES. PLACE ADDITIONAL X-BRIDGING AT THE END OF EACH HORIZONTAL BRIDGING RUN IN LAST JOIST SPACE.

- 5. WHERE JOISTS DO NOT CONNECT DIRECTLY TO THE COLUMN CAP PLATE, AT THE JOIST CLOSEST TO EACH COLUMN, PROVIDE DIAGONAL L2x2x3/16. ANGLE SHALL BE WELDED TO TOP OF COLUMN OR TO BOTTOM FLANGE OF BEAM AND TO THE FIRST TOP CHORD PANEL POINT OF JOIST WITH 2 INCHES OF 1/8 INCH FILLET EACH END UNLESS NOTED OTHERWISE ON PLAN. ANGLE SHALL BE SUPPLIED BY THE STRUCTURAL STEEL
- 6. PROVIDE MATCHING HEIGHT SEATS ON SHORT SPAN JOISTS WHICH HAVE COMMON BEARING WITH LONG SPAN AND DEEP LONG SPAN JOISTS.
- 7. PROVIDE SLOPING JOIST AND JOIST GIRDER SEATS WHERE THE SLOPE

#### METAL DECKING

EXCEEDS 1/4" PER FOOT.

- 1. THE DESIGN, FABRICATION, AND ERECTION OF ALL STEEL DECKING SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST EDITION OF THE SPECIFICATIONS OF THE STEEL DECK INSTITUTE.
- 2. MATERIALS:
- A. DECK FOR ROOF: 22 GAUGE x1½" WIDE RIB STYLE, PAINTED WITH STANDARD SHOP COAT.
- B. DECK FOR CONCRETE FORM: 28 GAUGE x9/16", GALVANIZED COATING CONFORMING TO ASTM A653 G60.
- 3. CONNECT 1½" AND 3" ROOF DECK TO SUPPORTS WITH 5/8" ROUND PUDDLE WELDS OR HILTI FASTENERS (USE X-HSN FASTENERS FOR 3/8" THICK OR THINNER STEEL AND X-ENP-19 POWDER-ACTUATED FASTENERS WHERE BASE STEEL THICKNESS IS GREATER THAN OR EQUAL TO 1/4"). FASTEN 1½" DECK AT 10" ON CENTER AT SUPPORTS FOR 30" WIDE DECK AND 12" ON CENTER AT SUPPORTS FOR 36" WIDE DECK AND AT 6" ON CENTER AT ENDS OF SHEETS AND PERIMETER. FOR 3" DECK, USE 8" ON CENTER PATTERN. SCREW SIDE LAPS AT 3'-0" MAXIMUM SPACING WITH #10 TEK SCREWS OR HILTI SLC.
- 4. CONNECT CONCRETE FORM DECK TO SUPPORTS WITH WELDS USING WELDING WASHERS OR ITW BUILDEX BX14 POWDER ACTUATED FASTENERS OR #12-24 X 7/8" ICH TRAXX 5 CLIMASEAL AT 10" ON CENTER AT SUPPORTS FOR 30" WIDE DECK (30/4 PATTERN). SCREW SIDELAPS AT MIDSPAN OR 3'-0" MAXIMUM SPACING WITH #10 TEK SCREWS.
- 5. METAL DECK SHALL BE PROVIDED TO RUN CONTINUOUS OVER AT LEAST 3 SPANS EXCEPT AS NOTED OTHERWISE.
- 6. CONNECT METAL DECK TO STRUCTURAL MEMBERS, INCLUDING PERIMETER ANGLES
- 7. LAP ENDS OF ROOF DECK AND CONCRETE FORM DECK 2" MINIMUM. BUTT ENDS OF COMPOSITE FLOOR DECK.
- 8. OPENINGS UP TO 6" SQUARE MAY BE CUT THROUGH METAL DECK WITHOUT REINFORCING. OPENINGS BETWEEN 6" AND 18" SHALL BE REINFORCED WITH STEEL ANGLES 2x2x1/4 PUDDLE WELDED TO THE METAL DECK FLUTES AND ORIENTED PERPENDICULAR TO THE FLUTES. STEEL REINFORCING ANGLE SHALL EXTEND A MINIMUM OF 2 FLUTES EACH SIDE OF THE OPENING.
- 9. WELDING OF METAL DECK SHALL BE IN ACCORDANCE WITH AWS D1.3.

#### COLD-FORMED STEEL (CFS)

- COLD-FORMED STEEL FRAMING CONSTRUCTION AND MATERIALS SHALL CONFORM TO ALL REQUIREMENTS OF "COLD-FORMED STEEL DESIGN MANUAL" CURRENT ADDITION. PUBLISHED BY "AMERICAN IRON AND STEEL INSTITUTE" (AISI).
- 2. MATERIALS:
- A. STRUCTURAL FRAMING MEMBERS 18 GAUGE AND THINNER: ASTM A1003, GRADE A, F<sub>y</sub> MINIMUM = 33 KSI, GALVANIZED GRADE G 60 PER
- B. STRUCTURAL FRAMING MEMBERS 16 GAUGE AND HEAVIER: ASTM A1003, GRADE D,  $F_y$  MINIMUM = 50 KSI, GALVANIZED GRADE G 60 PER ASTM A1003.
- C. METAL STUDS FOR BRICK VENEER BACKUP: 18 GAUGE MINIMUM
  THICKNESS. MEMBERS SHALL BE GALVANIZED GRADE G 90 PER ASTM
  - D. ALL TRACK AND BRIDGING:  $F_y = 33$  KSI MINIMUM, ASTM A1003 GRADE A, GALVANIZED GRADE G60 PER ASTM A653.
  - E. VERTICAL STRAP BRACING:  $F_y = 50$  KSI MINIMUM. SIZE AND GAUGE AS NOTED ON PLAN, ASTM A1003, GRADE D, GALVANIZED GRADE G 60 PER ASTM A1003.
  - F. WELDING ELECTRODES: E60XX, WELD SIZE AS NOTED ON STRUCTURAL DRAWINGS.
- 3. CUT ALL FRAMING COMPONENTS SO THEY FIT SQUARELY TOGETHER. STUDS MUST BEAR TIGHT AGAINST TRACK WEB. MEMBERS SHALL BE HELD POSITIVELY IN PLACE UNTIL PROPERLY FASTENED. BRACE WALL COMPONENTS AS REQUIRED DURING ERECTION TO PREVENT RACKING AND DISTORTION.
- 4. ALL FRAMING AND COMPONENTS SPECIFIED ON THE STRUCTURAL DRAWINGS SHALL FOLLOW THE PRODUCT STANDARDS AND QUALITY STANDARDS AS REQUIRED BY "STEEL STUD MANUFACTURERS ASSOCIATION" (SSMA). ALL MEMBERS SHALL HAVE 1%" FLANGE WIDTH UNLESS NOTED OTHERWISE ON THE PLANS. ALL STUD/JOIST MEMBERS SHALL HAVE FLANGE LIP.
- 5. NO OPENING OR HOLE SHALL BE PLACED IN ANY STRUCTURAL MEMBER (OTHER THAT WHAT IS INDICATED ON THE DRAWINGS) UNLESS THE LOCATION HAS BEEN APPROVED IN WRITING BY THE STRUCTURAL ENGINEER.
- 6. FASTEN ALL EXTERIOR METAL WALL FRAMING TO SUPPORTING FOUNDATION WITH A MINIMUM OF 1/2" DIAMETER ANCHOR BOLTS SPACED AT 32" ON CENTER OR BY USE OF A MINIMUM OF (2) POWDER ACTUATED FASTENERS HAVING A SHANK DIAMETER OF 0.157" AND EMBEDMENT OF 1" SPACED AT 16" ON CENTER. APPROVED FASTENER: HILTI X-U UNIVERSAL KNURLED SHANK FASTENER.
- 7. PROVIDE SUBMITTALS FOR STRUCTURAL FRAMING SHOWING PROPOSED METHODS OF ATTACHMENT, STUD/JOIST SPACING WITH MEMBER SIZES INDICATED. SUBMITTAL SHALL INDICATE THE SIZE OF ALL MEMBERS, ALL CONNECTION DETAILS, BRIDGING, AND BRACING. THE ENGINEER, PRIOR TO FABRICATION AND ERECTION, SHALL APPROVE SUBMITTALS.
- 8. PRIOR TO THE START OF INSTALLATION OF METAL FRAMING SYSTEMS, THE GENERAL CONTRACTOR SHALL COORDINATE WITH THE INSTALLERS OF OTHER WORK INCLUDING MECHANICAL, STRUCTURAL AND ELECTRICAL WORK. REVIEW AREAS OF POTENTIAL INTERFERENCE AND CONFLICTS AND COORDINATE LAYOUT AND SUPPORT PROVISIONS FOR INTERACTING WORK.
- 9. FASTENING OF COMPONENTS SHALL BE WITH SELF-DRILLING SCREWS OR WELDING. ALL WELDED CONNECTIONS SHALL BE MADE BY WELDERS CERTIFIED FOR WELDING MEMBERS OF GAUGE BEING USED PER AWS D.1.3.

- 10. BRIDGING OF AXIAL LOADED WALL FRAMING AND NON-BEARING WALL FRAMING SHALL BE ACCOMPLISHED BY EITHER: A COLD ROLLED CHANNEL THAT RUNS HORIZONTALLY THROUGH THE STUD PUNCH-OUTS AND IS ATTACHED AT EACH STUD BY USE OF CLIPS, OR BY MINIMUM 2" WIDE STEEL STRAPS THAT RUN HORIZONTALLY ON BOTH SIDES OF THE STUDS AND IS ATTACHED AT EACH STUD AND TO FULL DEPTH BLOCKING AT EVERY FOURTH STUD SPACE. SPACING OF HORIZONTAL BRIDGING SHALL BE AT A MAXIMUM OF 4'-0" ON CENTER. ALL DAMAGED OR CUT BRIDGING SHOULD BE REPAIRED OR REPLACED.
- 11. STUD OR TRACK SHALL HAVE SOLID BLOCKING LOCATED AT EACH END BRIDGING RUN OR AT THE BEGINNING AND END OF EACH DOOR OR WINDOW OPENING.
- 12. FOR LARGER STUDS (8" OR WIDER) THE BRIDGING CLIP ATTACHED TO THE STUD SHALL BE WIDE ENOUGH TO RESIST BOTH LATERAL AND TWISTING FORCES. COORDINATE WITH BRIDGING CLIP MANUFACTURER.
- 13. SEE PLAN FOR LOCATION OF BRIDGING AT COLD-FORMED STEEL JOISTS.
  USE 16 GAUGE SOLID BRIDGING ONE SIZE SMALLER IN FIRST TWO AND
  LAST TWO JOIST SPACES. BETWEEN END SPACES INSTALL STRAP BRACING
  2"x16 GAUGE TOP AND BOTTOM FOR 10'-0" RUN, THEN ONE SOLID 16 GAUGE
  BRIDGING IN SPACE, REPEATED AS REQUIRED.



#### DRAWING INDEX

- S001 GENERAL STRUCTURAL NOTES S002 GENERAL STRUCTURAL NOTES
- S110 FOUNDATION PLAN
- S120 2ND FLOOR FRAMING AND LOW ROOF S130 HIGH ROOF FRAMING PLAN
- S200 ELEVATIONS
- S201 ELEVATIONS
  S310 FOUNDATION SECTIONS
- S311 FOUNDATION SECTIONS
- S320 FRAMING SECTIONS S321 FRAMING SECTIONS
- S321 FRAMING SECTIONS
  S330 FRAMING SECTIONS
- S400 TYPICAL DETAILS

#### TYPICAL ABBREVIATION LIST

TYPICAL ABBREVIATION LIST					N LIST
AEF	=	Alternate Each Face	LG	=	Long
ARCH	=	Architect	LL	=	Live Load
BLDG	=	Building	LLH	=	Long Leg Horizontal
BM	=	Beam	LLV	=	Long Leg Vertical
B/FTG		Bottom of Footing	LSL	=	Laminated Strand Lumber
B/DECK	=	Bottom of Deck	LVL	=	Laminated Veneer Lumber
BRG	=	Bearing	MAX	=	Maximum
CIP	=	Odot III i idoo	MECH	=	Mechanical
CJ	=	Control Joint	MIN	=	Minimum
CL	=	Center Line	ML	=	Micro Laminated
CLR	=	Clear	NS	=	Non Shrink
CMU		Concrete Masonry Unit	NTS	=	Not to Scale
CONC		Concrete	O.C.		On Center
CONT		Continuous	PAF		Powder Actuated Fastener
DL		Dead Load	PC		Piece
DWG		Drawings	PEMB		Pre-Engineered Metal Buildir
EJ	=	Expansion Joint	PL	=	Plate
EL	=	Liovation	psf	=	. carrae r or equare r cor
EMBD	=	Embedment	RD		Roof Drain
ENGR	=	Engineer	REINF		Reinforcement
EQ	=	Equal Distance	RTU		Roof Top Unit
EW	=	Each Way	SDS		Self Drilling Screw
EF	=	Each Face	SF		Step Footing
EX		Existing	SW		Step Wall
EXT		Exterior	SB		Solid Bearing
FTG		Footing	SCH		Schedule
FND		Foundation	SIM		Similar
ga	=	Gauge	STL		Steel
GALV	=	Carvariizoa	SRD		Secondary Roof Drain
GC	=	Contra Contractor	T/FTG		Top Of Footing
GRAN	=	Granular	TS	=	Tube Steel
HORZ	=	Honzontai	TYP	=	1 ) piodi
HD	=	Tiola Down / Wionor	UNO		Unless Noted Otherwise
HSS	=	Hollow Structural Section	VERT		Vertical
k	=	Kips	WWF		Welded Wire Fabic
ksf	=	Kips Per Square Foot	WF	=	Wide Flange
lla a	_	Darmala	WD	_	Mark Daint

NOT ALL ABBREVIATIONS APPLY. INCLUDED FOR REFERENCE ONLY.

WP = Work Point

= Pounds

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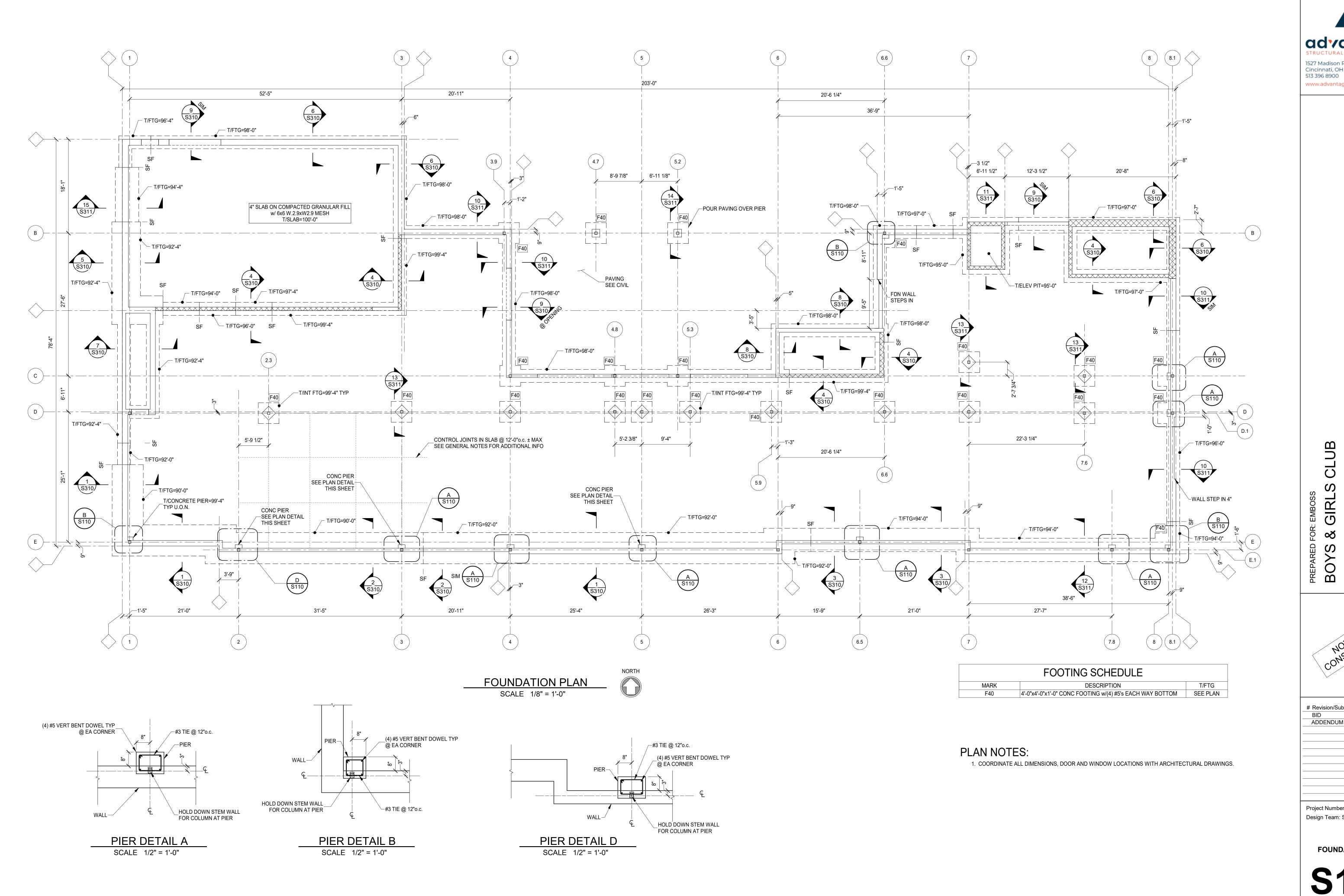
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# Revision/Submission Date
BID 2/09/2024
ADDENDUM 03 2/19/2024

Project Number: 23101.15

Design Team: STH / JTL

GENERAL STRUCTURAL
NOTES



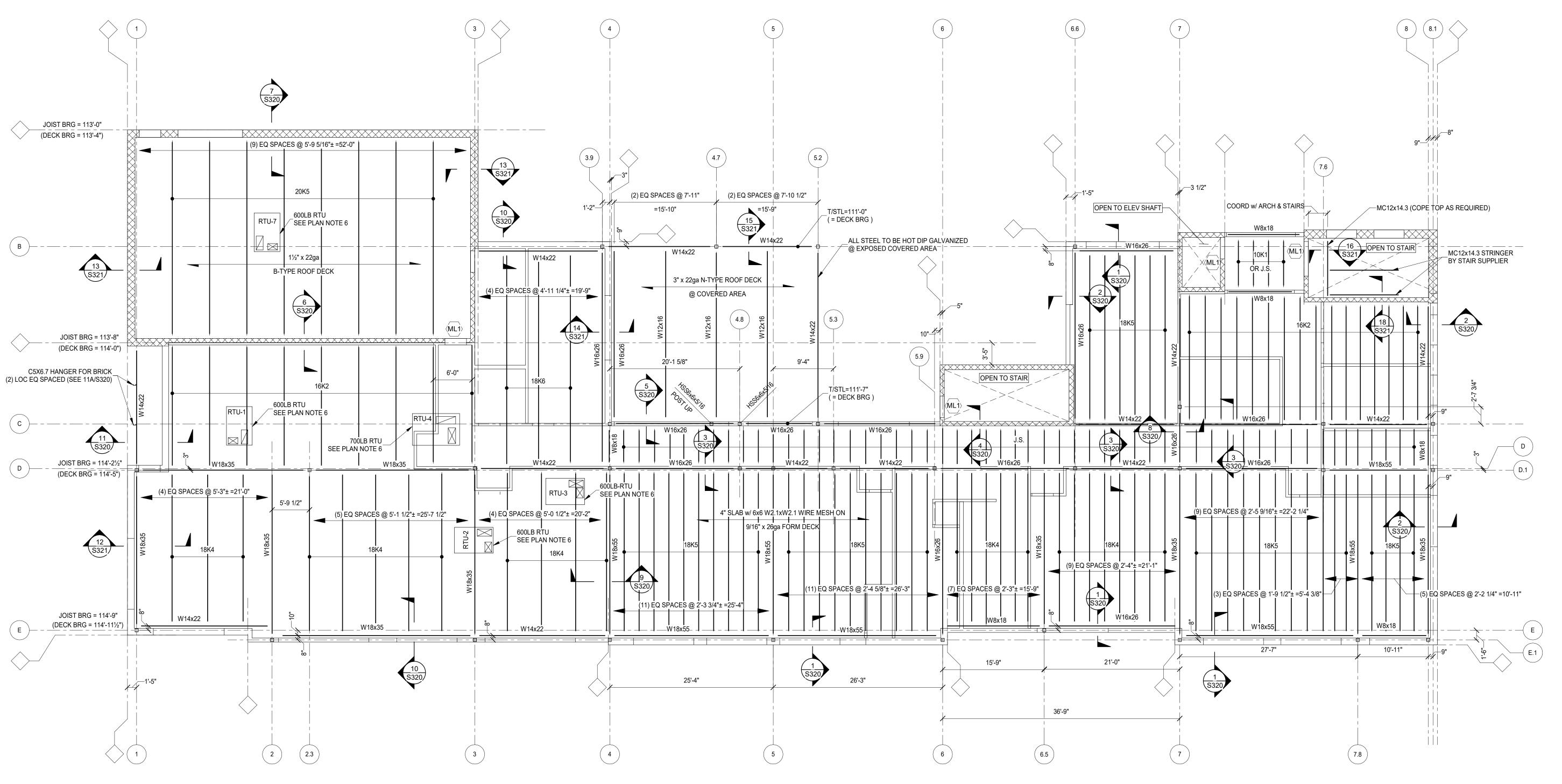


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**FOUNDATION PLAN** 



	LINTEL SCHEDULE					
MARK	SIZE	REMARKS				
BL1	L5x3½x5/16 LLV	6" BRG 4'-0" MAX OPEN				
BL2	L7x4x3/8 LLV	8" BRG 9'-4" MAX OPEN				
ML1	8" BOND BEAM w/ (2) #5 CONT GROUT SOLID	8" BRG 4'-0" MAX OPEN				
ML2	W8x28 STEEL BEAM w/ 3/8"x11½ PLATE SHOP WELD TO BOT OF BEAM FOR BRICK SHELF	8" BRG 10'-0" MAX OPEN				

GALV ALL STEEL LINTELS

	HEADER SCHEDULE					
MARK	HEADER	HEAD/SILL	BEARING STUDS	FULL HEIGHT MEMBERS		
H1	(2) 600S162-43 w/ TRACK TOP AND BOT	600T125-43	(1) 600S162-43	(1) 600S162-43 5'-0" MAX OPEN		
H2	(2) 800S162-43 w/ TRACK TOP AND BOT	600T125-43 & NESTED 600S162-43	(1) 600S162-43	(2) 600S162-43 9'-4" MAX OPEN		
H3	(2) 800S162-54 w/ TRACK TOP AND BOT	600T125-54 & NESTED 600S162-54	(2) 600S162-43	(3) 600S162-43 14'-0" MAX OPEN		

2ND FLOOR FRAMING AND LOW ROOF SCALE 1/8" = 1'-0"



## PLAN NOTES:

- 1. COORDINATE ALL DIMENSIONS, DOOR AND WINDOW LOCATIONS WITH ARCHITECTURAL DRAWINGS. 2. ▶ = MOMENT CONNECTION.
- 3. J.S. = JOIST SUBSTITUTE DESIGN FOR 200 PLF LIVE LOAD & 150 PLF DEAD LOAD ASD LEVEL TYP.
- 4. REINFORCE ALL CMU WALLS WITH #5 VERT BARS AT 48"o.c. TYP. U.N.O.
- 5. T/SLAB=113'-0" T/JOIST=112'-8"
- T/BM BRG=112'-51/2" 6. JOIST FABRICATOR TO DESIGN JOISTS FOR MECHANICAL LOADS ADDITIONAL TO LINEAL LOADS OF SPECIFIED K-JOIST.

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2ND FLOOR FRAMING AND

**LOW ROOF** 



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GALV ALL STEEL LINTELS

	HEADER SCHEDULE						
MARK	HEADER	HEAD/SILL	BEARING STUDS	FULL HEIGHT MEMBERS			
H1	(2) 600S162-43 w/ TRACK TOP AND BOT	600T125-43	(1) 600S162-43	(1) 600S162-43 5'-0" MAX OPEN			
H2	(2) 800S162-43 w/ TRACK TOP AND BOT	600T125-43 & NESTED 600S162-43	(1) 600S162-43	(2) 600S162-43 9'-4" MAX OPEN			
H3	(2) 800S162-54 w/ TRACK TOP AND BOT	600T125-54 & NESTED 600S162-54	(2) 600S162-43	(3) 600S162-43 14'-0" MAX OPEN			

HIGH ROOF FRAMING PLAN SCALE 1/8" = 1'-0"



#### PLAN NOTES:

- COORDINATE ALL DIMENSIONS, DOOR AND WINDOW LOCATIONS WITH ARCHITECTURAL DRAWINGS.
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HIGH ROOF FRAMING PLAN



NORTH ELEVATION

SCALE 1/8" = 1'-0"



SOUTH ELEVATION

SCALE 1/8" = 1'-0"

HEADER SCHEDULE						
MARK	HEADER	HEAD/SILL	BEARING STUDS	FULL HEIGHT MEMBERS		
H1	(2) 600S162-43 w/ TRACK TOP AND BOT	600T125-43	(1) 600S162-43	(1) 600S162-43 5'-0" MAX OPEN		
H2	(2) 800S162-43 w/ TRACK TOP AND BOT	600T125-43 & NESTED 600S162-43	(1) 600S162-43	(2) 600S162-43 9'-4" MAX OPEN		
НЗ	(2) 800S162-54 w/ TRACK TOP AND BOT	600T125-54 & NESTED 600S162-54	(2) 600S162-43	(3) 600S162-43 14'-0" MAX OPEN		

	LINTEL SCHEDULE					
MARK	SIZE	REMARKS				
BL1	L5x3½x5/16 LLV	6" BRG 4'-0" MAX OPEN				
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ML1	8" BOND BEAM w/ (2) #5 CONT GROUT SOLID	8" BRG 4'-0" MAX OPEN				
ML2	W8x28 STEEL BEAM w/ 3/8"x11½ PLATE SHOP WELD TO BOT OF BEAM FOR BRICK SHELF	8" BRG 10'-0" MAX OPEN				

GALV ALL STEEL LINTELS



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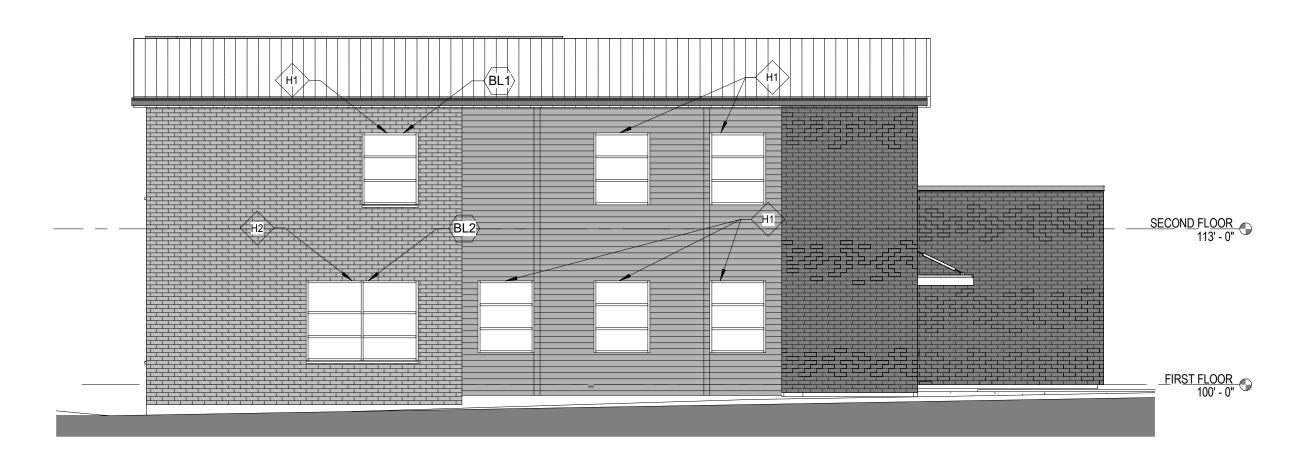
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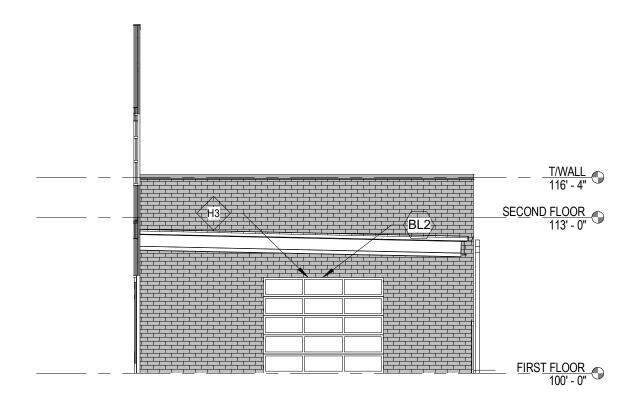
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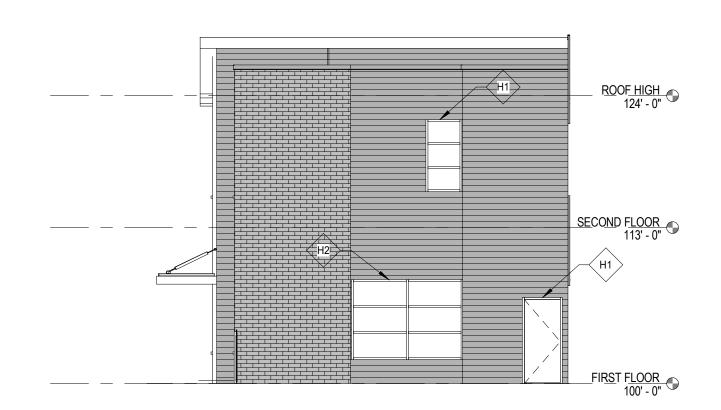
**ELEVATIONS** 





SCALE 1/8" = 1'-0"





COURTYARD

SCALE 1/8" = 1'-0"

	LINTEL SCHEDULE					
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GALV ALL STEEL LINTELS

HEADER SCHEDULE						
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Н3	(2) 800S162-54 w/ TRACK TOP AND BOT	600T125-54 & NESTED 600S162-54	(2) 600S162-43	(3) 600S162-43 14'-0" MAX OPEN		

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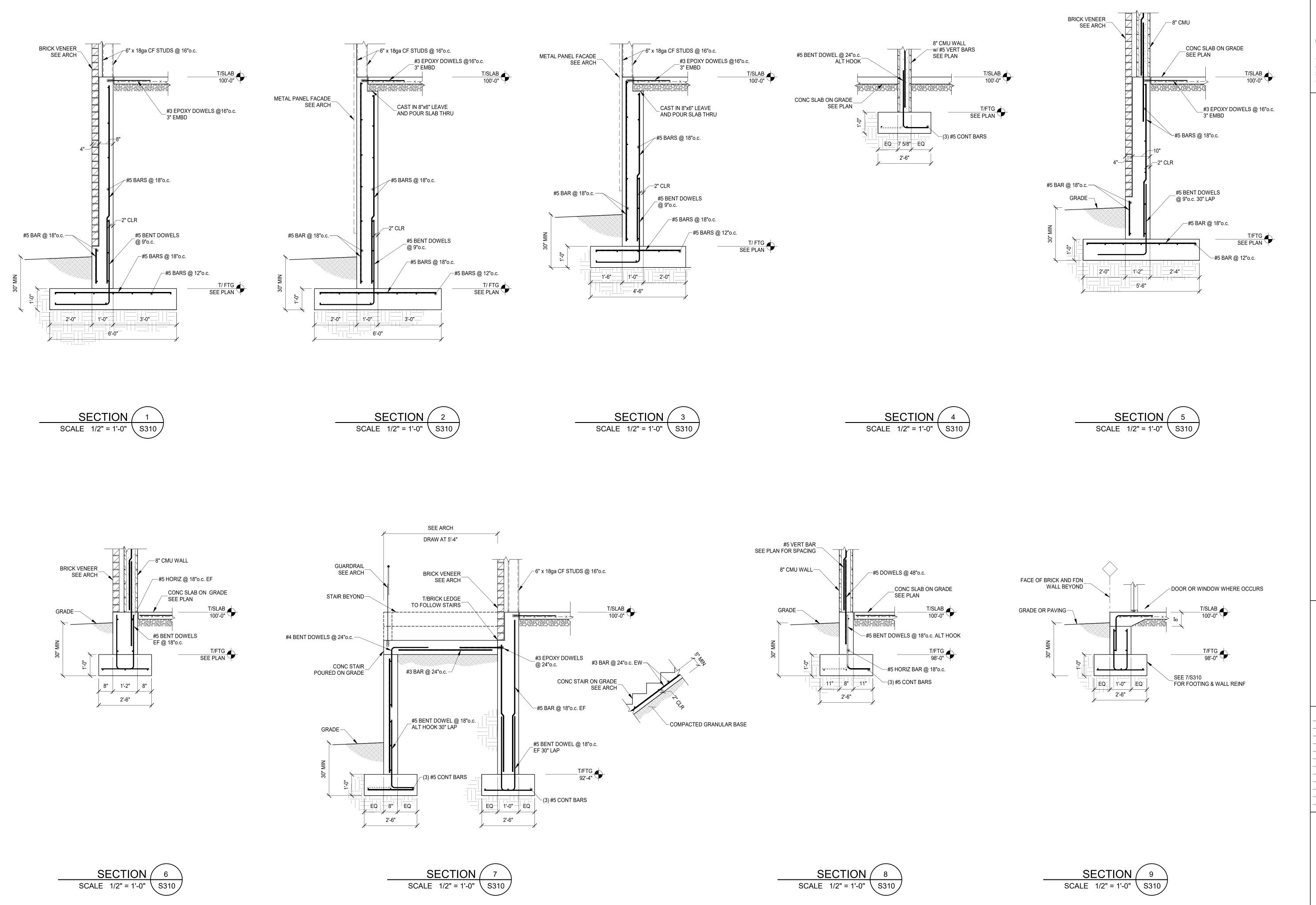
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ELEVATIONS



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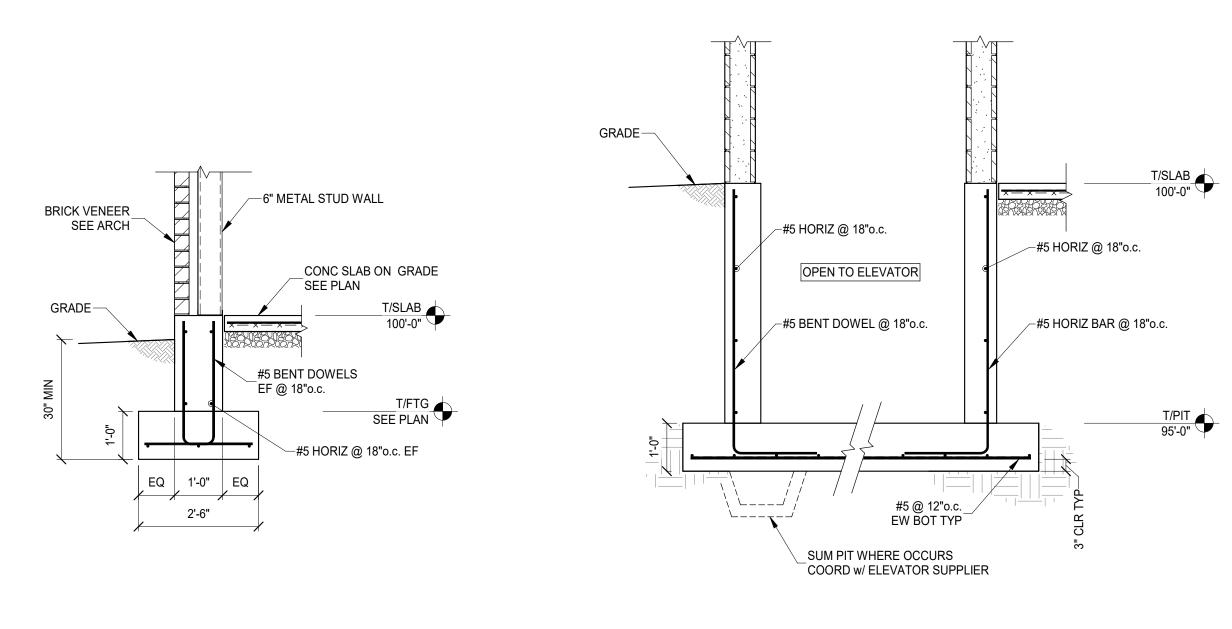
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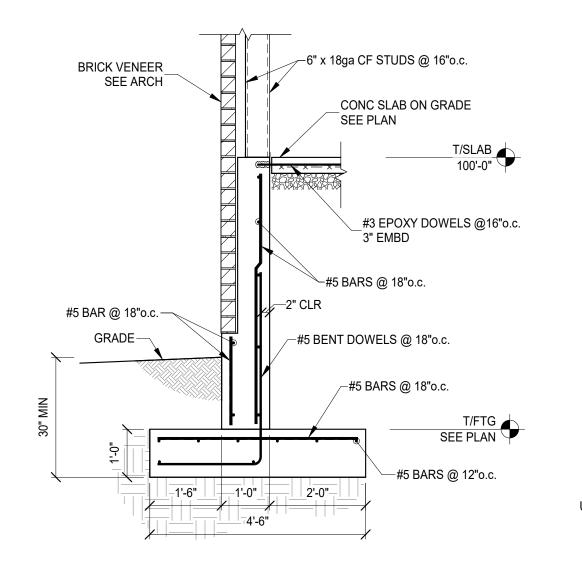
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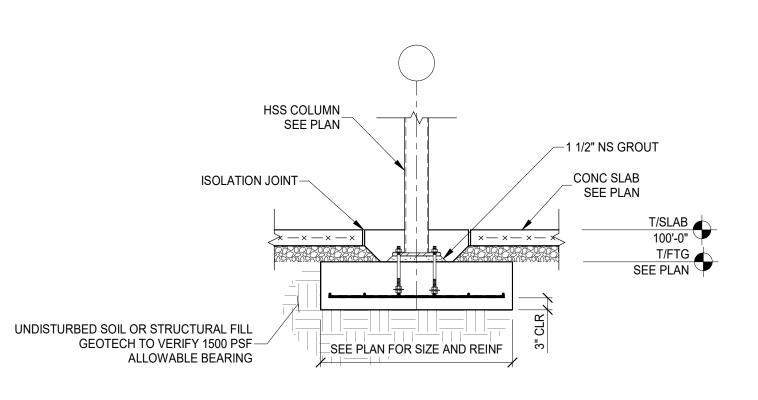
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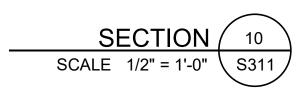
FOUNDATION SECTIONS



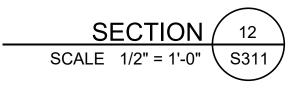


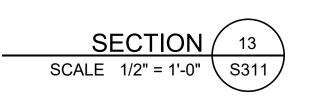


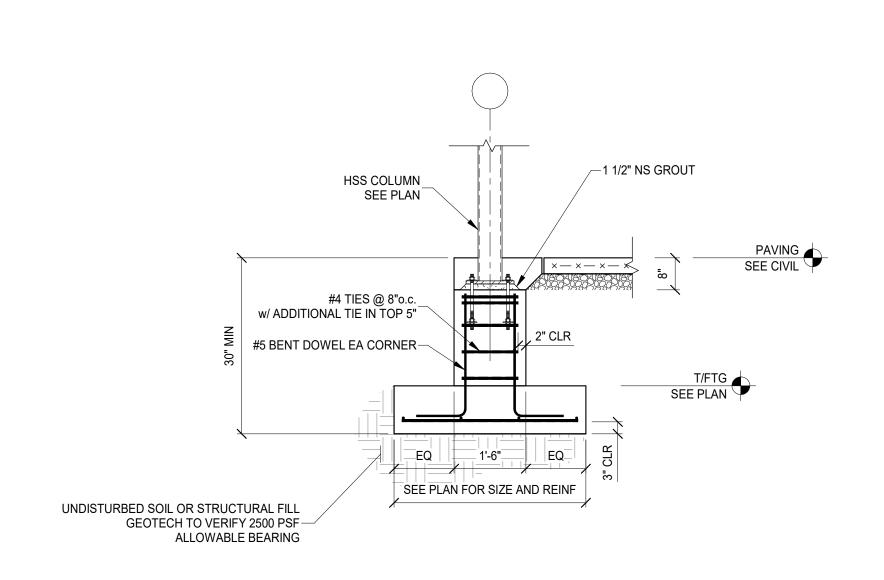


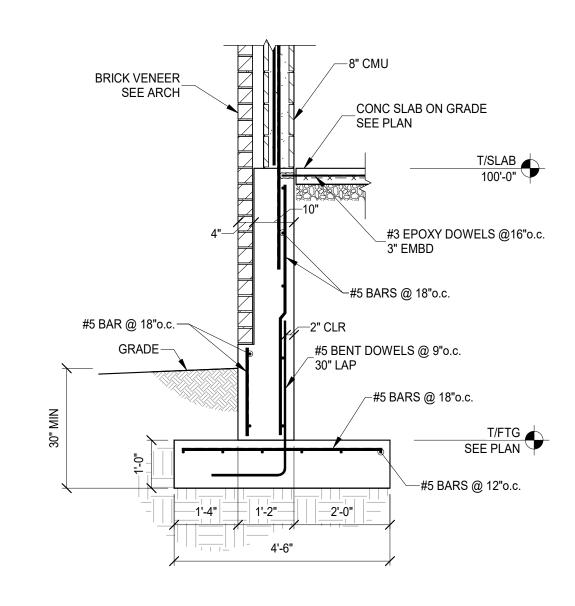












SECTION 14 SCALE 1/2" = 1'-0" S311

SECTION 15

SCALE 1/2" = 1'-0" S311

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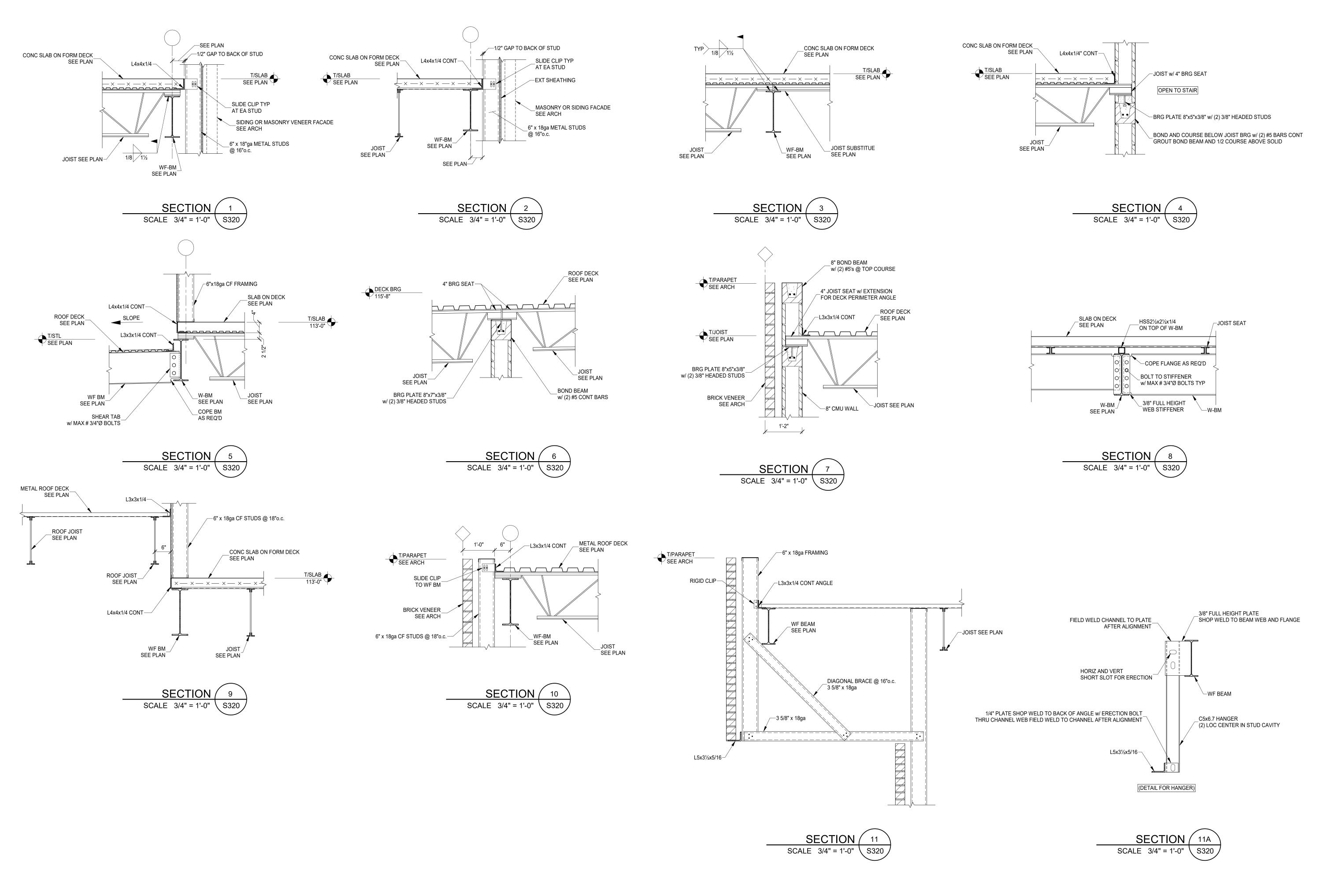
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CONSTRUCTION

# Revision/Submission Date
BID 2/09/2024
ADDENDUM 03 2/19/2024

Project Number: 23101.15
Design Team: STH / JTL

FOUNDATION SECTIONS





PREPARED FOR: EMBOSS

BOYS & GIRLS CLUB
PRICE HILL

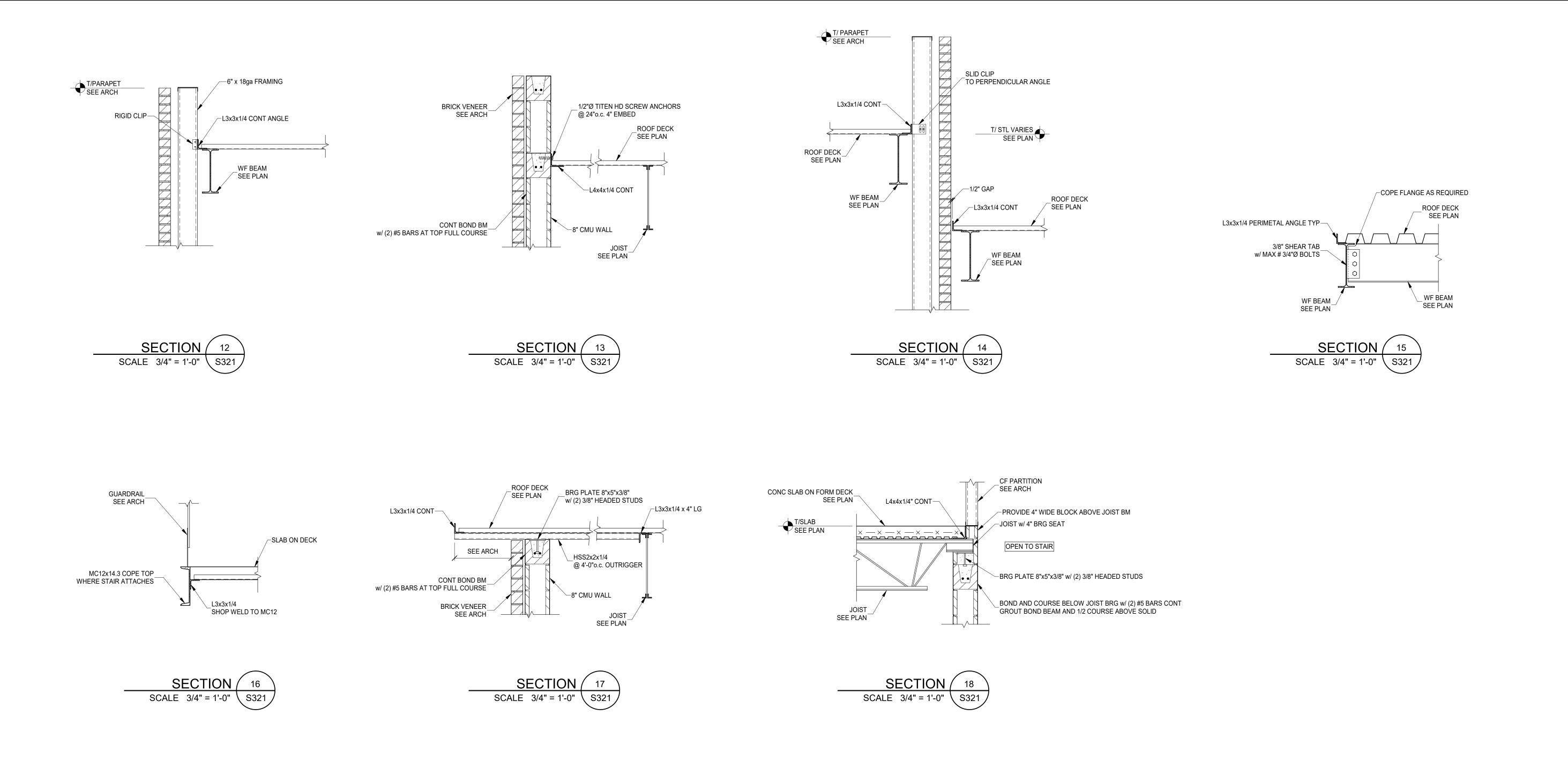
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FRAMING SECTIONS





PREPARED FOR: EMBOSS

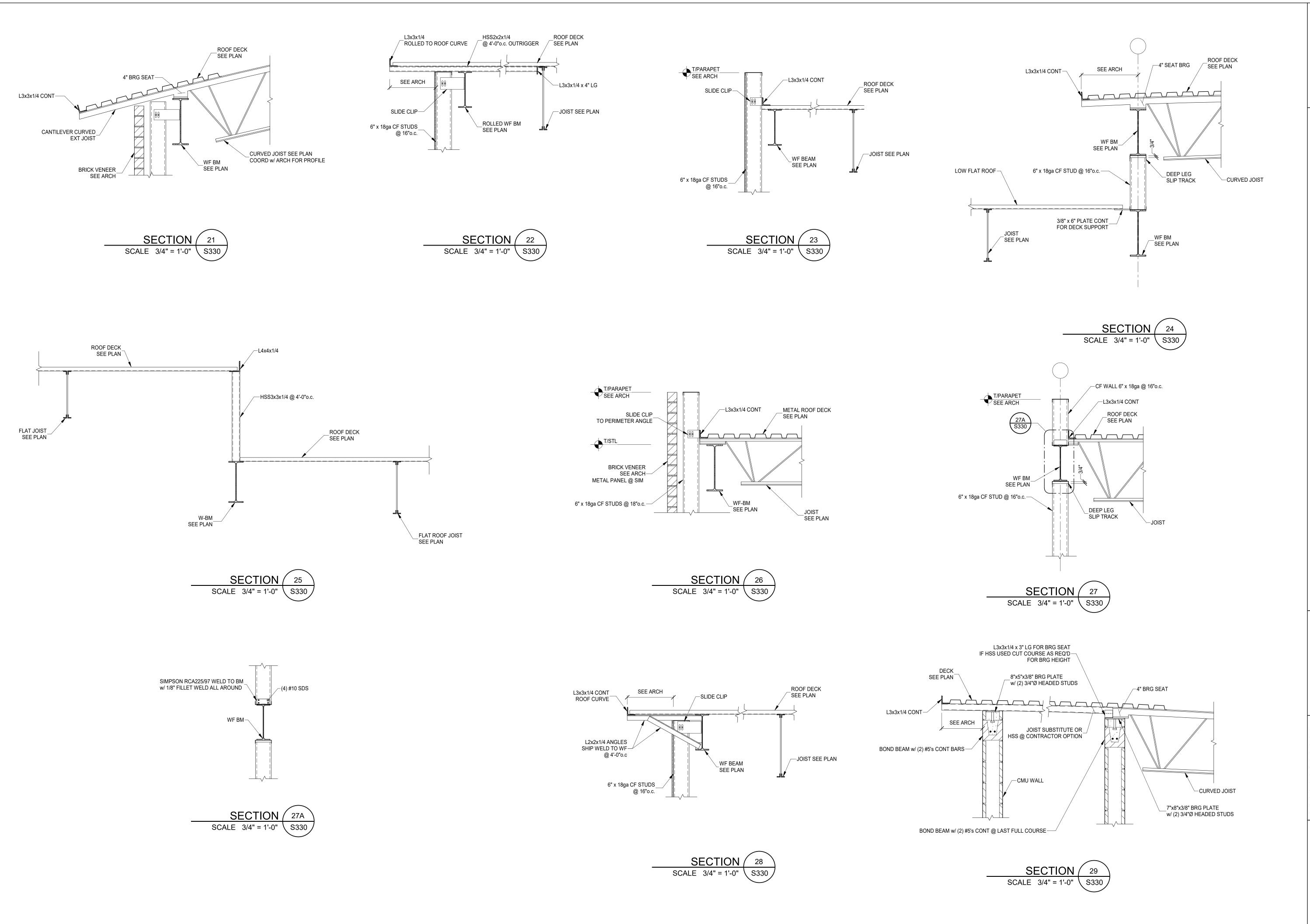
BOYS & GIRLS CLUB
PRICE HILL

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Design Team: STH / JTL

FRAMING SECTIONS



advantage
STRUCTURAL ENGINEERS

1527 Madison Road
Cincinnati, OH 45206
513 396 8900
www.advantageSE.com

PREPARED FOR: EMBOSS

BOYS & GIRLS CLUB
PRICE HILL

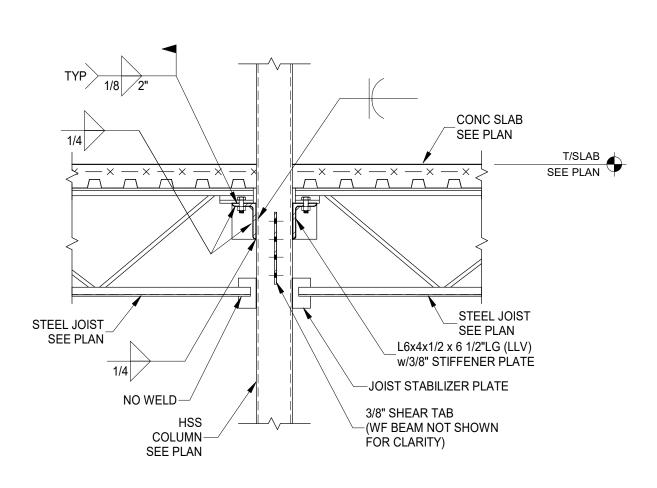
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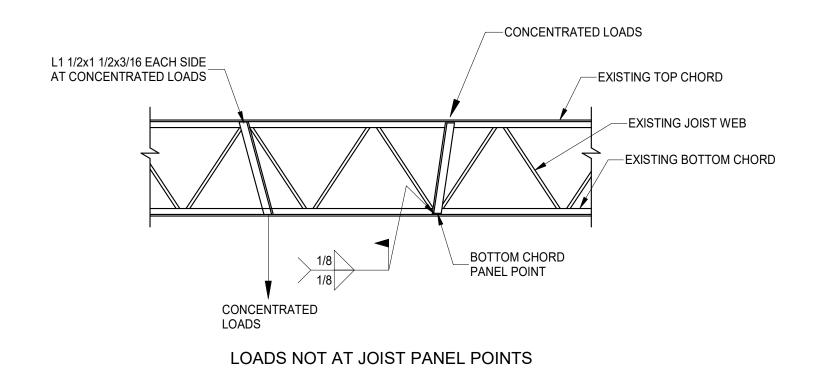
Project Number: 23101.15 Design Team: STH / JTL

FRAMING SECTIONS

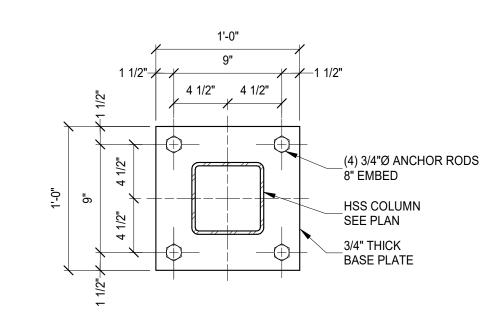
TYP BEAM TO HSS COLUMN SIDE CONNECTION SCALE 3/4" = 1'-0"

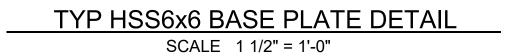


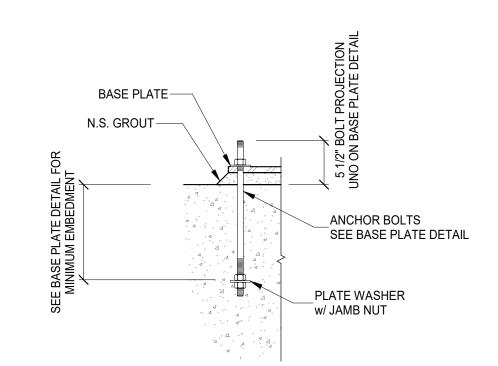
TYPICAL JOIST SEAT SUPPORT @ CONTINUOUS COLUMN SCALE 3/4" = 1'-0"



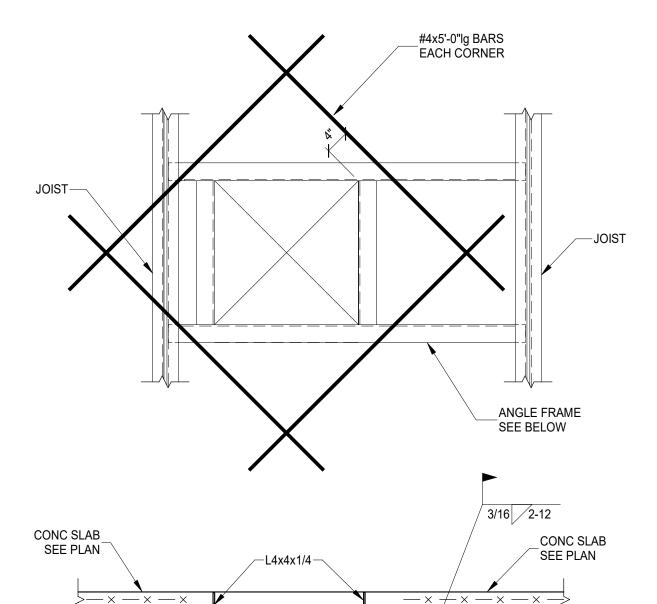
TYPICAL SUPPORT OF CONCENTRATED LOADS SCALE 3/4" = 1'-0"





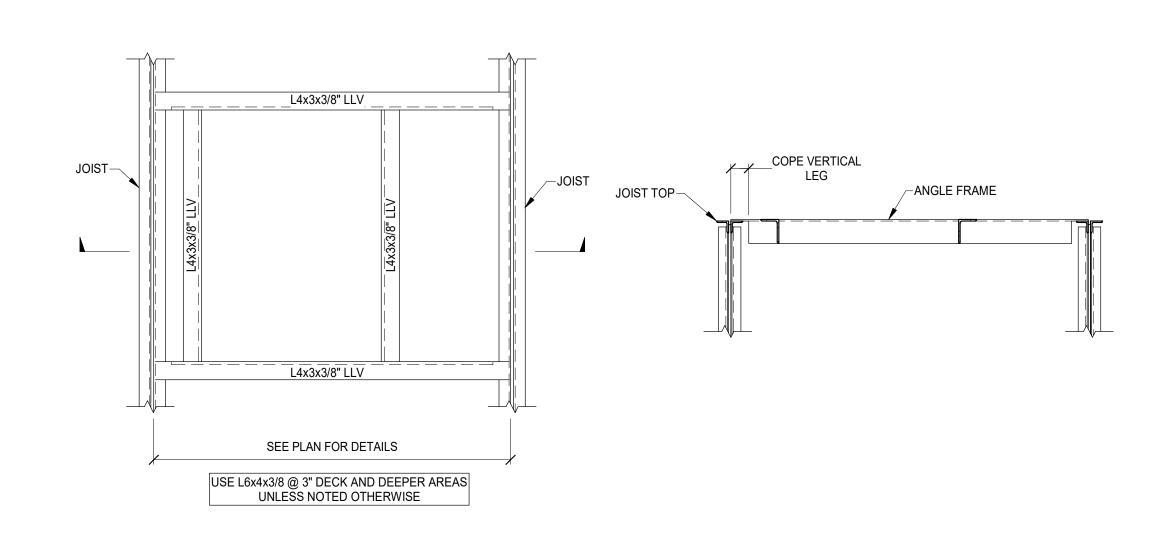


T/ANCHOR BOLT DET SCALE 1" = 1'-0"

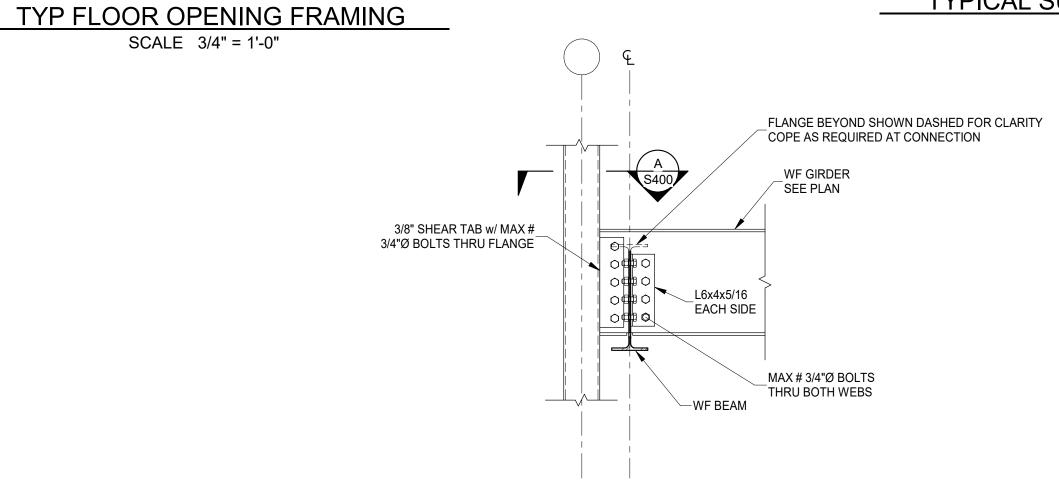


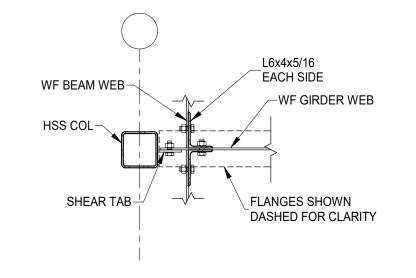
SCALE 3/4" = 1'-0"

STEEL JOIST\_ SEE PLAN



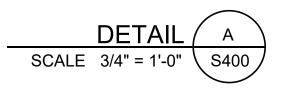
TYPICAL SUPPORT OF HVAC UNIT / FRAMED DECK OPENINGS SCALE 3/4" = 1'-0"





TYP OFF SET BEAM TO GIRDER CONNECTION AT COLUMN FOR 2ND FLOOR FRAMING SCALE 3/4" = 1'-0"

\_STEEL JOIST SEE PLAN





GIRL ∞ PREPARED I
BOYS
PRICE HILL

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# Revision/Submission Date 2/09/2024 ADDENDUM 03 2/19/2024

Project Number: 23101.15 Design Team: STH / JTL

TYPICAL DETAILS

### FIRE PROTECTION GENERAL NOTES INSTALL NEW SPRINKLER SYSTEM PER NFPA 13. PROTECT CONCEALED COMBUSTIBLE SPACES AS REQUIRED. COORDINATE WITH ARCHITECTURAL DRAWINGS WHERE CEILING CAVITIES ARE BEING COMPLETELY FILLED WITH SPRINKLERS ARE TO BE LOCATED IN THE CENTER OF ALL CEILING TILES (IN AT LEAST ONE DIRECTION). COORDINATE WITH ARCHITECT'S CODE ANALYSIS. CONTACT ARCHITECT IF ANY DISCREPANCIES. REFERENCE ARCHITECTURAL PLANS FOR CEILING HEIGHTS AND MATERIALS.

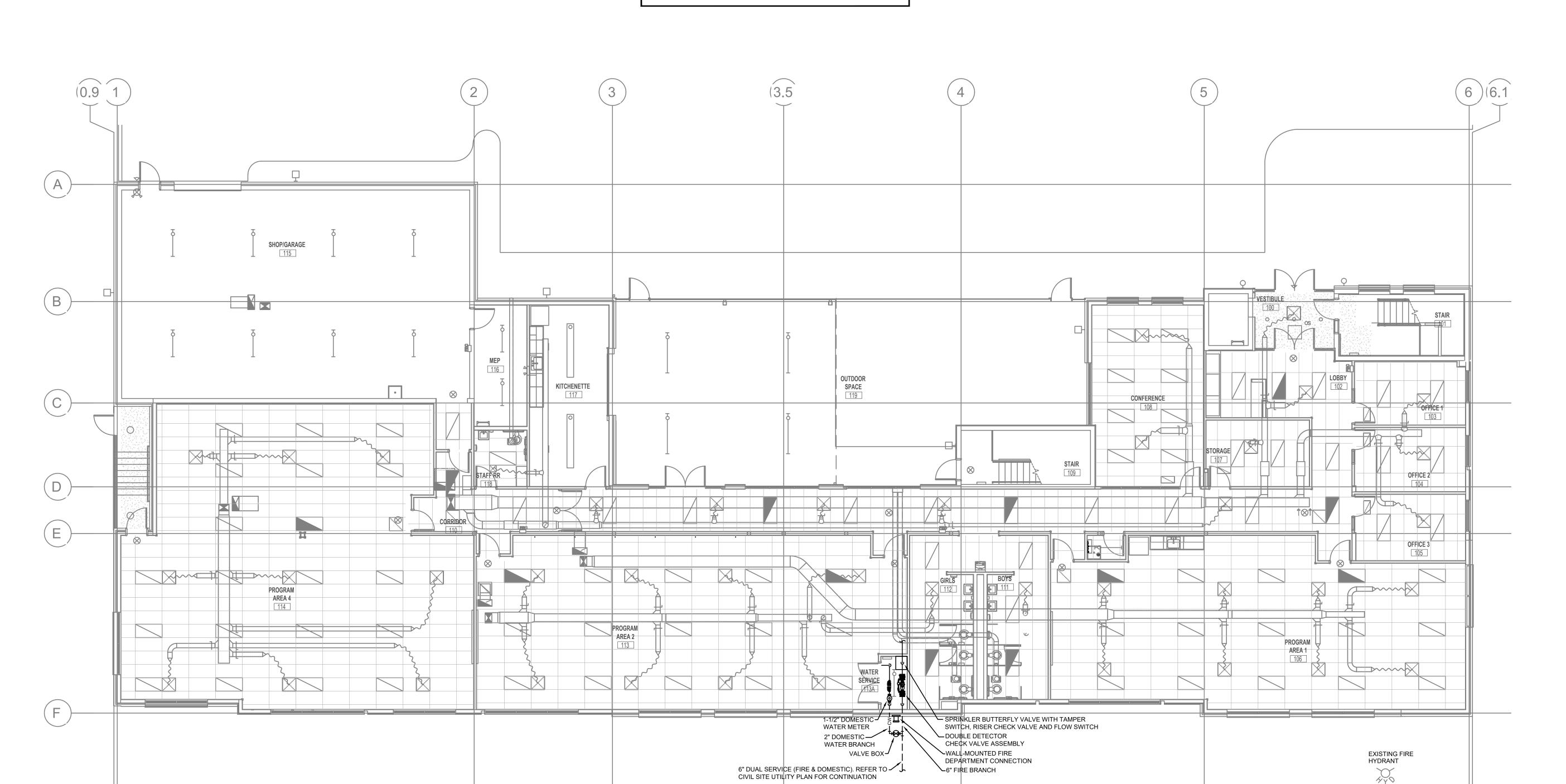
DELEGATED FIRE SUPPRESSION DESIGN

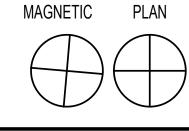
DESIGN OF THE FIRE SUPPRESSION SYSTEM IS DELEGATED TO THE INSTALLING CONTRACTOR. RESPONSIBILITY FOR PROVIDING A COMPLIANT, OPERATIONAL FIRE SUPPRESSION SYSTEM LIES WITH THE INSTALLING SPRINKLER CONTRACTOR. REFER TO ARCHITECT'S CODE SHEET WHEN DETERMINING THE APPROPRIATE FIRE SUPPRESSION DESIGN. VERIFY REQUIREMENTS SPECIFIC TO THE PROJECT LOCALE, THE AUTHORITY HAVING JURISDICTION, AND INCLUDE IN

THESE DRAWINGS SHOW THE INTENDED FIRE SUPPRESSION SCOPE. THE INSTALLING CONTRACTOR SHALL FURNISH ALL REQUIRED DRAWINGS AND HYDRAULIC CALCULATIONS REQUIRED TO OBTAIN THE PERMIT. THE DRAWINGS AND CALCULATIONS SHALL BE PREPARED BY A LICENSED PROFESSIONAL ENGINEER OR AN INDIVIDUAL CARRYING ALL CERTIFICATIONS REQUIRED BY THE AGENCY RESPONSIBLE FOR REVIEW AND APPROVAL. DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT / OWNER FOR REVIEW PRIOR TO SUBMITTING FOR

REQUIRED COMPONENTS THAT ARE NOT SHOWN ON THESE DRAWINGS ARE THE RESPONSIBILITY OF THIS CONTRACTOR AND ARE INCLUDED IN THIS SCOPE OF

	FIRE PROTECTION LEGEND											
	SYMBOL DESCRIPTION											
	— F —	FIRE SERVICE / SPRINKLER PIPING										
٠	ON	EXPOSED SPRINKLER IN AREA WITH NO CEILING (BRASS FINISH)										
٠	•N	SPRINKLER IN FINISHED CEILING (CONCEALED WITH COVER PLATE)										
Í		WALL-MOUNTED FIRE DEPARTMENT CONNECTION										





. Plot Date/Time: Feb 12, 2024-9 D TO DEMONSTRATE COMPLIN CONSTRUCTION ARE INSTA

FIRE PROTECTION FIRST FLOOR PLAN FP100 SCALE: 1/8" = 1'-0"

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PROJECT NO.: 10204

SCALE:AS NOTED

DATE: 01-08-2024

DRAWING TITLE FIRE PROTECTION FIRST FLOOR PLAN

SHEET NO. FP100

- a. DO ALL EXCAVATION, TRENCHING & BACKFILL REQUIRED FOR THE INSTALLATION OF ALL FIRE SUPPRESSION
- b. ALL BACKFILL SHALL BE COMPACTED & BROUGHT TO FINISHED GRADE AND SHALL MATCH SURROUNDING
- CONNECTIONS. INSTALL SLEEVES FOR PIPES PASSING THROUGH CONCRETE AND MASONRY WALLS, GYPSUM-BOARD
- b. WHERE PIPING PASSES THROUGH CONCRETE WALLS, MASONRY WALLS, GYPSUM-BOARD PARTITIONS, CONCRETE FLOORS. AND ROOF SLABS. OPENINGS SHALL BE CUT CLEAN AROUND THE PIPING WITH NOT MORE THAN 2 INCHES OF SPACE BETWEEN THE PIPING AND THE OPENING. PIPE SLEEVES WILL BE REQUIRED WHERE THERE IS MORE THAN
- a. SUBMIT TO THE ARCHITECT PDF FILE COPIES OF COMPLETE & CERTIFIED SHOP DRAWINGS, DESCRIPTIVE DATA, PERFORMANCE DATA & RATINGS, DIAGRAMS AND SPECIFICATIONS ON ALL PIPING, DEVICES, AND EQUIPMENT,
- REVIEWED & APPROVED BY THE FIRE SUPPRESSION/SPRINKLER CONTRACTOR & GENERAL CONTRACTOR PRIOR TO
- c. REVIEW OF SHOP DRAWINGS DOES NOT RELIEVE THE FIRE SUPPRESSION/SPRINKLER CONTRACTOR/VENDOR FROM COMPLIANCE WITH THE REQUIREMENTS OF THE CONTRACT DRAWINGS, SPECIFICATIONS & APPLICABLE CODES.
- a. PROVIDE TWO SETS OF COMPLETE OPERATING AND MAINTENANCE INSTRUCTIONS WITH DRAWINGS, TYPEWRITTEN
- INSTRUCTIONS AND OPERATING SEQUENCES AND DESCRIPTIVE DATA SHEETS. ASSEMBLE EACH SET IN A
- a. THE FIRE SUPPRESSION CONTRACTOR SHALL UNCONDITIONALLY WARRANT ALL WORK TO BE FREE OF DEFECTS IN ACCEPTANCE AND THE FIRE SUPPRESSION CONTRACTOR WILL REPAIR OR REPLACE DEFECTIVE WORK PROMPTLY

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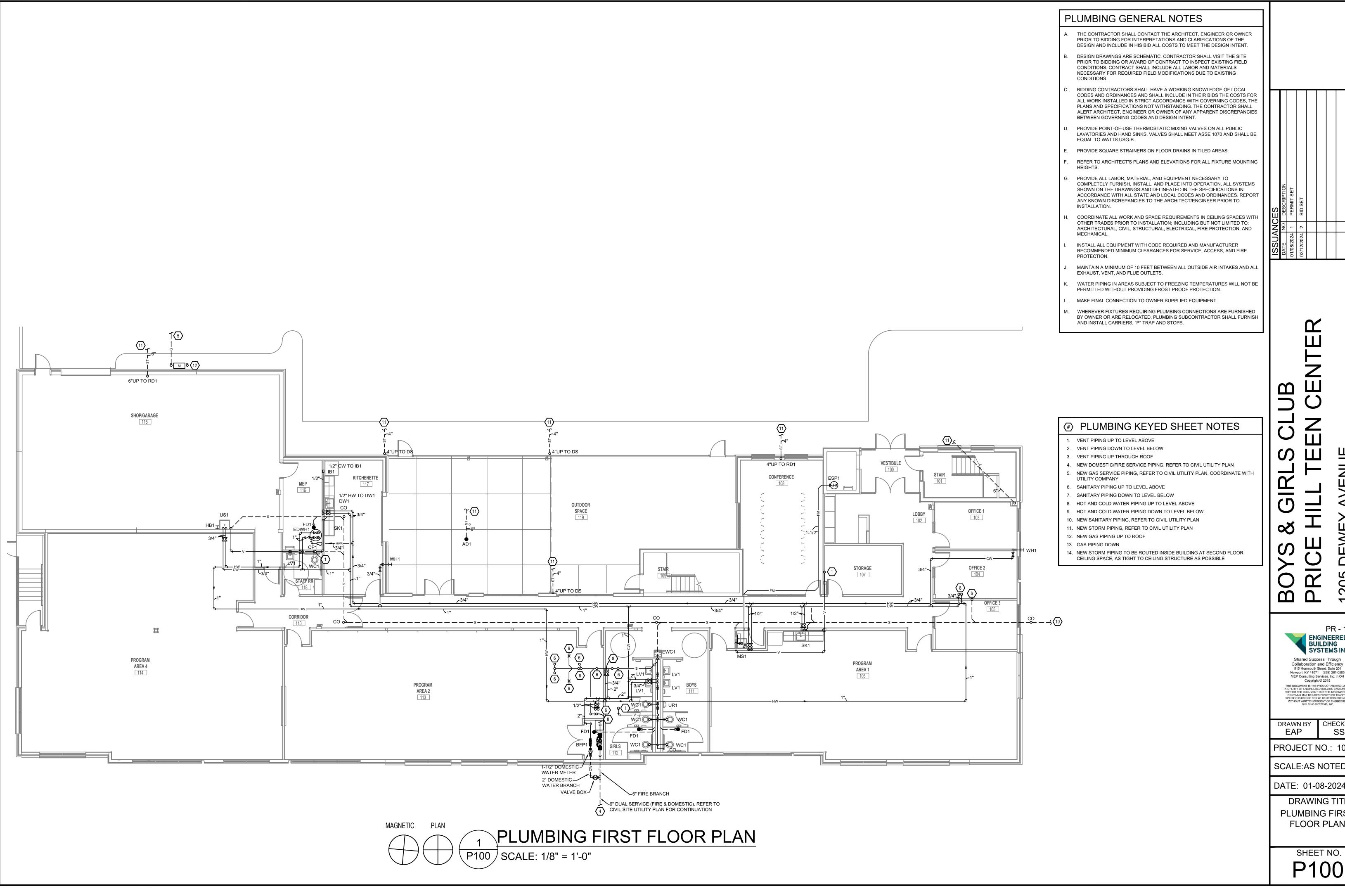
PROJECT NO.: 10204

SCALE: AS NOTED

DATE: 01-08-2024

DRAWING TITLE FIRE PROTECTION SECOND FLOOR PLAN

SHEET NO. FP101



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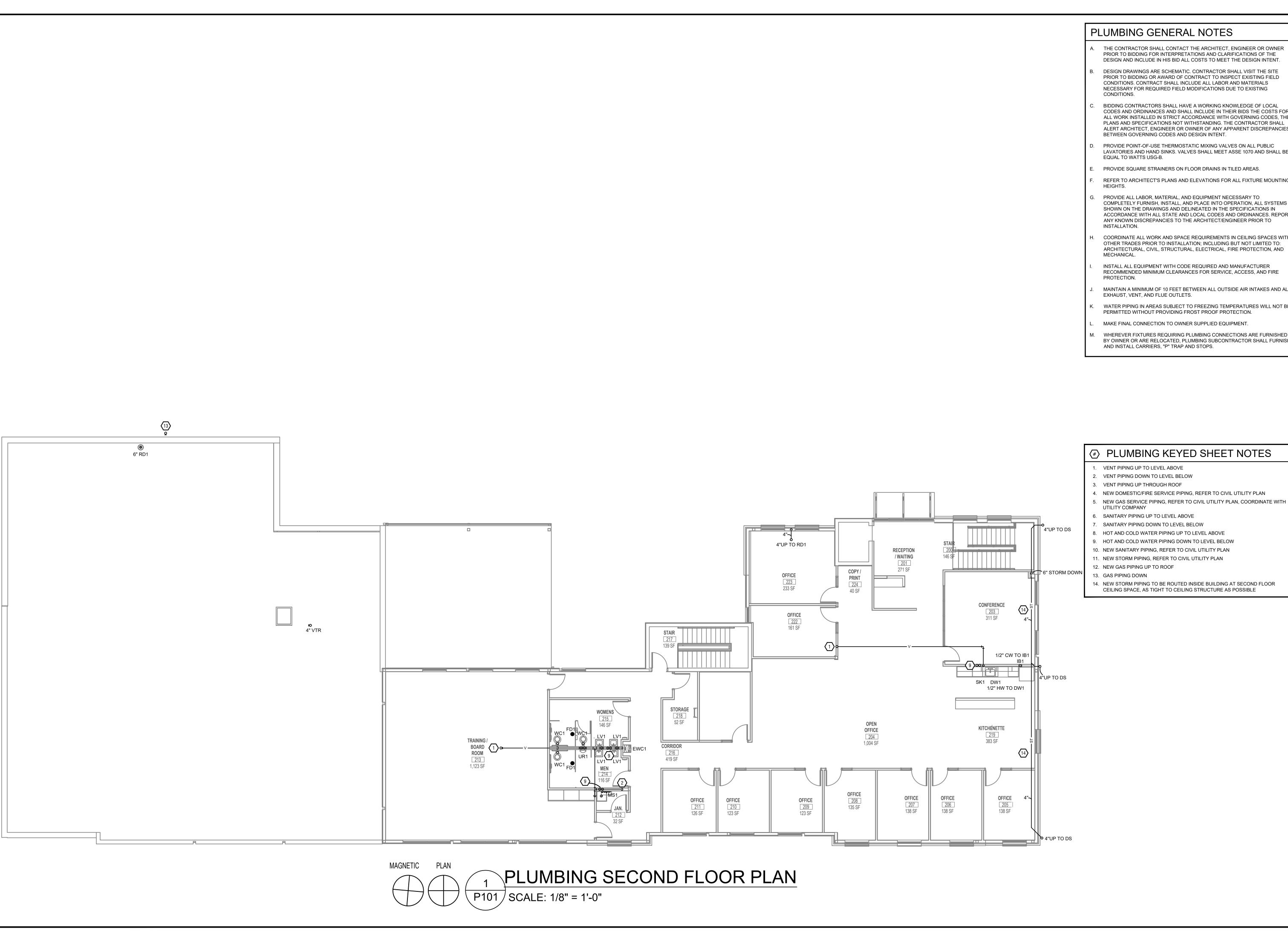
PROJECT NO.: 10204

SCALE:AS NOTED

DATE: 01-08-2024

DRAWING TITLE PLUMBING FIRST FLOOR PLAN

SHEET NO.



ENDED TO PROVIDE THE

Club - Price Hill Teen Center\~Construction Documents\10204-P101-PLUMBING-SECOND-FLOOR-PLAN.dwg-EBS. Plot Date/Time: Feb 12, 2024-9:42am - By: eddie.platt AUTHORIZED TO BE USED AS CONTRACT DOCUMENTS. THESE DRAWINGS HAVE BEEN PREPARED TO DEMONSTRATE COMPLIANCE WITH APPLING CONTRACTOR IS RESPONSIBLE TO ENSURE THAT MEANS, METHODS, AND MATERIALS USED IN CONSTRUCTION ARE INSTALLED IN ACCORD ESPONSIBLITY OR LIABILITY FOR THE COMPLIANCE OR CONDITION OF EXISTING EQUIPMENT AND WIRING.

- THE CONTRACTOR SHALL CONTACT THE ARCHITECT, ENGINEER OR OWNER PRIOR TO BIDDING FOR INTERPRETATIONS AND CLARIFICATIONS OF THE
- DESIGN DRAWINGS ARE SCHEMATIC. CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING OR AWARD OF CONTRACT TO INSPECT EXISTING FIELD CONDITIONS. CONTRACT SHALL INCLUDE ALL LABOR AND MATERIALS NECESSARY FOR REQUIRED FIELD MODIFICATIONS DUE TO EXISTING
- BIDDING CONTRACTORS SHALL HAVE A WORKING KNOWLEDGE OF LOCAL CODES AND ORDINANCES AND SHALL INCLUDE IN THEIR BIDS THE COSTS FOR ALL WORK INSTALLED IN STRICT ACCORDANCE WITH GOVERNING CODES, THE PLANS AND SPECIFICATIONS NOT WITHSTANDING. THE CONTRACTOR SHALL ALERT ARCHITECT, ENGINEER OR OWNER OF ANY APPARENT DISCREPANCIES BETWEEN GOVERNING CODES AND DESIGN INTENT.
- LAVATORIES AND HAND SINKS. VALVES SHALL MEET ASSE 1070 AND SHALL BE
- PROVIDE SQUARE STRAINERS ON FLOOR DRAINS IN TILED AREAS.
- REFER TO ARCHITECT'S PLANS AND ELEVATIONS FOR ALL FIXTURE MOUNTING
- PROVIDE ALL LABOR, MATERIAL, AND EQUIPMENT NECESSARY TO COMPLETELY FURNISH, INSTALL, AND PLACE INTO OPERATION, ALL SYSTEMS SHOWN ON THE DRAWINGS AND DELINEATED IN THE SPECIFICATIONS IN ACCORDANCE WITH ALL STATE AND LOCAL CODES AND ORDINANCES. REPORT ANY KNOWN DISCREPANCIES TO THE ARCHITECT/ENGINEER PRIOR TO
- COORDINATE ALL WORK AND SPACE REQUIREMENTS IN CEILING SPACES WITH OTHER TRADES PRIOR TO INSTALLATION; INCLUDING BUT NOT LIMITED TO: ARCHITECTURAL, CIVIL, STRUCTURAL, ELECTRICAL, FIRE PROTECTION, AND
- INSTALL ALL EQUIPMENT WITH CODE REQUIRED AND MANUFACTURER RECOMMENDED MINIMUM CLEARANCES FOR SERVICE, ACCESS, AND FIRE
- MAINTAIN A MINIMUM OF 10 FEET BETWEEN ALL OUTSIDE AIR INTAKES AND ALL EXHAUST, VENT, AND FLUE OUTLETS.
- WATER PIPING IN AREAS SUBJECT TO FREEZING TEMPERATURES WILL NOT BE PERMITTED WITHOUT PROVIDING FROST PROOF PROTECTION.
- MAKE FINAL CONNECTION TO OWNER SUPPLIED EQUIPMENT.
- M. WHEREVER FIXTURES REQUIRING PLUMBING CONNECTIONS ARE FURNISHED BY OWNER OR ARE RELOCATED, PLUMBING SUBCONTRACTOR SHALL FURNISH AND INSTALL CARRIERS, "P" TRAP AND STOPS.

### PLUMBING KEYED SHEET NOTES

- S. SANITARY PIPING UP TO LEVEL ABOVE
- B. HOT AND COLD WATER PIPING UP TO LEVEL ABOVE

- 14. NEW STORM PIPING TO BE ROUTED INSIDE BUILDING AT SECOND FLOOR CEILING SPACE, AS TIGHT TO CEILING STRUCTURE AS POSSIBLE

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PROJECT NO.: 10204

SCALE:AS NOTED

DATE: 01-08-2024

DRAWING TITLE PLUMBING SECOND

FLOOR PLAN

SHEET NO. P101

Club - Price Hill Teen Center\~Construction Documents\10204-P102-PLUMBING-ROOF-PLAN.dwg-EBS. Plot Date/Time: Feb 12, 2024-9:39am - By:
AUTHORIZED TO BE USED AS CONTRACT DOCUMENTS. THESE DRAWINGS HAVE BEEN PREPARED TO DEMONSTRATE COMPING CONTRACTOR IS RESPONSIBLE TO ENSURE THAT MEANS, METHODS, AND MATERIALS USED IN CONSTRUCTION ARE INSTERDONSIBLE TO ENSURE THE COMPILANCE OR CONDITION OF EXISTING FOLLIPMENT AND WIRING

ect Directories\10200-10299\10204 - Boys & Girls
DRAWINGS AND SPECIFICATIONS ARE NOT
TERMINE CODE COMPLIANCE. THE INSTALL
AL CONTRACTOR FTC. FBS ACCEPTS NO R

### PLUMBING GENERAL NOTES

- THE CONTRACTOR SHALL CONTACT THE ARCHITECT, ENGINEER OR OWNER PRIOR TO BIDDING FOR INTERPRETATIONS AND CLARIFICATIONS OF THE DESIGN AND INCLUDE IN HIS BID ALL COSTS TO MEET THE DESIGN INTENT.
- DESIGN DRAWINGS ARE SCHEMATIC. CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING OR AWARD OF CONTRACT TO INSPECT EXISTING FIELD CONDITIONS. CONTRACT SHALL INCLUDE ALL LABOR AND MATERIALS NECESSARY FOR REQUIRED FIELD MODIFICATIONS DUE TO EXISTING CONDITIONS.
- BIDDING CONTRACTORS SHALL HAVE A WORKING KNOWLEDGE OF LOCAL CODES AND ORDINANCES AND SHALL INCLUDE IN THEIR BIDS THE COSTS FOR ALL WORK INSTALLED IN STRICT ACCORDANCE WITH GOVERNING CODES, THE PLANS AND SPECIFICATIONS NOT WITHSTANDING. THE CONTRACTOR SHALL ALERT ARCHITECT, ENGINEER OR OWNER OF ANY APPARENT DISCREPANCIES BETWEEN GOVERNING CODES AND DESIGN INTENT.
- PROVIDE POINT-OF-USE THERMOSTATIC MIXING VALVES ON ALL PUBLIC LAVATORIES AND HAND SINKS. VALVES SHALL MEET ASSE 1070 AND SHALL BE EQUAL TO WATTS USG-B.
- PROVIDE SQUARE STRAINERS ON FLOOR DRAINS IN TILED AREAS.
- REFER TO ARCHITECT'S PLANS AND ELEVATIONS FOR ALL FIXTURE MOUNTING
- PROVIDE ALL LABOR, MATERIAL, AND EQUIPMENT NECESSARY TO COMPLETELY FURNISH, INSTALL, AND PLACE INTO OPERATION, ALL SYSTEMS SHOWN ON THE DRAWINGS AND DELINEATED IN THE SPECIFICATIONS IN ACCORDANCE WITH ALL STATE AND LOCAL CODES AND ORDINANCES. REPORT ANY KNOWN DISCREPANCIES TO THE ARCHITECT/ENGINEER PRIOR TO INSTALLATION.
- COORDINATE ALL WORK AND SPACE REQUIREMENTS IN CEILING SPACES WITH OTHER TRADES PRIOR TO INSTALLATION; INCLUDING BUT NOT LIMITED TO: ARCHITECTURAL, CIVIL, STRUCTURAL, ELECTRICAL, FIRE PROTECTION, AND MECHANICAL.
- INSTALL ALL EQUIPMENT WITH CODE REQUIRED AND MANUFACTURER RECOMMENDED MINIMUM CLEARANCES FOR SERVICE, ACCESS, AND FIRE
- MAINTAIN A MINIMUM OF 10 FEET BETWEEN ALL OUTSIDE AIR INTAKES AND ALL EXHAUST, VENT, AND FLUE OUTLETS.
- WATER PIPING IN AREAS SUBJECT TO FREEZING TEMPERATURES WILL NOT BE PERMITTED WITHOUT PROVIDING FROST PROOF PROTECTION.
- MAKE FINAL CONNECTION TO OWNER SUPPLIED EQUIPMENT.
- M. WHEREVER FIXTURES REQUIRING PLUMBING CONNECTIONS ARE FURNISHED BY OWNER OR ARE RELOCATED, PLUMBING SUBCONTRACTOR SHALL FURNISH AND INSTALL CARRIERS, "P" TRAP AND STOPS.

### PLUMBING KEYED SHEET NOTES

- 1. VENT PIPING UP TO LEVEL ABOVE
- 2. VENT PIPING DOWN TO LEVEL BELOW
- 3. VENT PIPING UP THROUGH ROOF
- NEW DOMESTIC/FIRE SERVICE PIPING, REFER TO CIVIL UTILITY PLAN 5. NEW GAS SERVICE PIPING, REFER TO CIVIL UTILITY PLAN, COORDINATE WITH
- UTILITY COMPANY
- 6. SANITARY PIPING UP TO LEVEL ABOVE
- 7. SANITARY PIPING DOWN TO LEVEL BELOW 8. HOT AND COLD WATER PIPING UP TO LEVEL ABOVE
- 9. HOT AND COLD WATER PIPING DOWN TO LEVEL BELOW
- 10. NEW SANITARY PIPING, REFER TO CIVIL UTILITY PLAN 11. NEW STORM PIPING, REFER TO CIVIL UTILITY PLAN
- 12. NEW GAS PIPING UP TO ROOF
- 13. GAS PIPING DOWN
- 14. NEW STORM PIPING TO BE ROUTED INSIDE BUILDING AT SECOND FLOOR CEILING SPACE, AS TIGHT TO CEILING STRUCTURE AS POSSIBLE

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PROJECT NO.: 10204

SCALE:AS NOTED

DATE: 01-08-2024

**DRAWING TITLE** PLUMBING ROOF PLAN

> SHEET NO. P102

GAS INPUT SCHEDULE FOR BOYS AND GIRLS CLUB PRICE HILL									
SERVICE ADDRESS: 4122 GLENWAY AVE. CINCINNATI OH, 45205									
TOTAL EQUIVALENT LENGTH OF PIPE: 260' GAS SERVICE LENGTH:									
REQUIRED DELIVERY PRESSURE:7" W.C.	NUMBER OF METERS: 1								
EQUIPMENT	LOAD (CFH)								
RTU-1	110								
RTU-2	110								
RTU-3	110 110								
RTU-4									
RTU-5	180								
RTU-6	110								
RTU-7	110								
BUILDING TOTAL	840								

PLUMBING ISOMETRIC

P200 NOT TO SCALE

GAS IN OT SCHEDOLE FOR BOTS AND GIRLS CLOB FRICE HILL									
SERVICE ADDRESS: 4122 GLENWAY AVE. CINCINNATI OH, 45205									
TOTAL EQUIVALENT LENGTH OF PIPE: 260'	GAS SERVICE LENGTH: N/A								
REQUIRED DELIVERY PRESSURE:7" W.C.	NUMBER OF METERS: 1								
EQUIPMENT	LOAD (CFH)								
RTU-1	110								
RTU-2	110								
RTU-3	110								
RTU-4	110								
RTU-5	180								
RTU-6	110								
RTU-7	110								

### PLUMBING EQUIPMENT AND FIXTURE SCHEDULE WC1 - WATER CLOSET, MANUAL FLUSH - WATERSENSE STANDARD - EQUAL TO KOHLER MODEL HIGHCLIFF ULTRA K-96057 ELONGATED TOILET BOWL, WHITE, WITH

INTEGRAL STOPS AND TRAP, FLOOR MOUNTED, WHITE SEAT WITH CONCEALED CHECK HINGE STOPS. MOUNTED AT HEIGHT REQUIRED BY CODE. PROVIDE FLUSH VALVE EQUAL TO KOHLER MODEL K-80TM00N10-CP MANUAL 1.28 GPF WC FLUSHOMETER.

LV1 - LAVATORY SINK, EQUAL TO KOHLER MODEL K-2005-0, VITREOUS CHINA, 22"X18" WALL HUNG LAVATORY W/ KOHLER K-15198-F-CP SINGLE LEVER POLISHED CHROME FAUCET WITH 0.5 GPM AERATOR, FLEXIBLE STAINLESS SUPPLY PIPES, ANGLE STOPS, "P" TRAP, POPUP DRAIN, AND PROFLO #PF200TRAP COVER. PROVIDE FLOOR MOUNTED CARRIERS FOR WALL MOUNTED SINKS.

FD1 - FLOOR DRAIN, EQUAL TO SIOUX CHIEF MODEL 842-P WITH NICKEL BRONZE ADJUSTABLE STRAINER. PROVIDE TRAP PRIMERS WHERE REQUIRED BY CODE. REFER TO WASTE AND VENT ISOMETRIC FOR SIZES.

MS1 - MOP SINK, EQUAL TO PROFLO MODEL PFMB2424, 24" X 24" X 10" MOP SINK BASIN MOEN #8230 W/ CHROME PLATED TWO-HANDLE SERVICE SINK FAUCET, STRAINER, DRAIN SHALL BE 3" IPS HUB OUTLET, P-TRAP WITH ADJUSTABLE FLOOR FLANGE. PROVIDE PROFLO #PF296 HOSE BRACKET AND STAINLESS STEEL WALL

EDWH1 - ELECTRIC DOMESTIC WATER HEATER, EQUAL TO A.O. SMITH DSE-40-9, 40 GALLON, 9 KW, 208V 3/PH, ROUTE T&P VALVE AND OVERFLOW TO EXISTING FLOOR DRAIN, PROVIDE AMTROL 2 GALLON EXPANSION TANK

UR1 - URINAL, EQUAL TO KOHLER MODEL K-4904-ET WITH SLOAN MODEL 186-0.125 SMO BATTERY OPERATED FLUSH VALVE. PROVIDE FLOOR MOUNTED CARRIERS.

HB1 - HOSE BIB, EQUAL TO WOODFORD MODEL 24P-1/2", LESS HANDLE, AND PROVIDE "OPTIONAL LOOSE TEE KEY", VACUUM BREAKER - ANTI-SIPHON, CHROME

WH1 - WALL HYDRANT, EQUAL TO WOODFORD MODEL B-67 3/4". PROVIDE FROST-PROOF EXTERIOR WALL HYDRANTS WITH LOOSE-TEE KEYS ON EACH ELEVATION OF BUILDING. WALL HYDRANTS SHALL BE WALL HYDRANT WITH CHROME FINISH ON BRASS CASTING WITH BOX AND HINGED, DOOR. CONCEAL WITHIN INTERIOR PARTITIONS AND/OR INSTALL IN A MANNER THAT PREVENTS FREEZING. FURNISH TO OWNER, ONE VALVE KEY FOR EACH KEY OPERATED WALL HYDRANT INSTALLED. APPROVED MANUFACTURERS OF EQUAL PRODUCTS SHALL BE ZURN, WADE, JOSAM, SMITH, OR WATTS.

SK1 - SINK, EQUAL TO ELKAY MODEL LRAD312255 ONE COMPARTMENT STAINLESS STEEL SELF-RIMMING 18 GAUGE WITH 5-1/2" DEEP BOWL, SINBGLE-HOLE WITH LK5000 FAUCET WITH LK-99 CRUMB CUP STRAINER AND DRAIN. PROVIDE WITH 1-1/2 17-GAGE "P" TRAP AND 1/2" HOT AND COLD WATER STOPS. BADGER 1 GARBAGE DISPOSAL & KEENEY #535SN DISPOSER KIT ASSEMBLY.

EWC1 - ELECTRIC WATER COOLER, EQUAL TO HAWS MODEL 1212SF, HI-LO BARRIER-FREE, WALL MOUNTED, DUAL SATIN FINISH STAINLESS STEEL WITH BACK PANEL. 100% LEAD FREE. WITH BOTTLE FILLER

CP1 - HOT WATER CIRCULATION PUMP, EQUAL TO BELL AND GOSSETT SERIES 100, 1/12 HP, 1 PHASE, 115V, 1.75 F.L. AMPS WITH TIMER KIT COORDINATED WITH OWNERS OPERATION HOURS. PLUMBING CONTRACTOR SHALL PROVIDE ALL SHUT-OFF, CHECK AND BALANCING VALVES AS NECESSARY.

ESP1 - ELEVATOR SUMP PUMP, REFER TO PLUMBING SPECIFICATIONS

US1 - UTILITY SINK, EQUAL TO MUSTEE MODEL 19CFT UTILATUB COMBO. ONE PIECE MOLDED CONSTRUCTION, 18 GALLON CAPACITY KIT WHICH INCLUDES FAUCET, FLEXIBLE SUPPLY HOSES, PVC TRAP AND TAILPIECE, TOP COVER, AND DRAIN

IB1 - ICE MAKER BOX, EQUAL TO ACCOR MODEL FLOWTITE OBP05-2, ICE MAKER WATER SUPPLY BOX. PROVIDE FIRE-RATED BOX IF INSTALLED IN FIRE-RATED WALL EQUAL TO ACCOR MODEL FR-12.

DW1 - DISHWASHER, COORDINATE WITH OWNER/ARCHITECT

AD1 - AREA DRAIN, EQUAL TO SIOUX CHIEF MODEL 842 SERIES.

		PLUMBING LEGEND								
	SYMBOL	DESCRIPTION								
	s	SANITARY WASTE PIPING								
	v	VENT PIPING								
	cw	COLD WATER PIPING								
•	——нw ——	HOT WATER PIPING								
	——нwr —	HOT WATER RETURN PIPING								
	— G —	NATURAL GAS PIPING								
	——st——	STORM PIPING								
	FD●	FLOOR DRAIN								
	FS	FLOOR SINK								
	<u>rd</u> <b>©</b>	ROOF DRAIN								
	<b>—</b> ×	BALL VALVE								
	<b>-</b>	CHECK VALVE								
	CO•	CLEANOUT								
	WH <b>H</b>	FROST PROOF WALL HYDRANT								
	нв <b>н</b>	HOSE BIBB								
	O	HOT WATER RETURN PUMP								



SSS

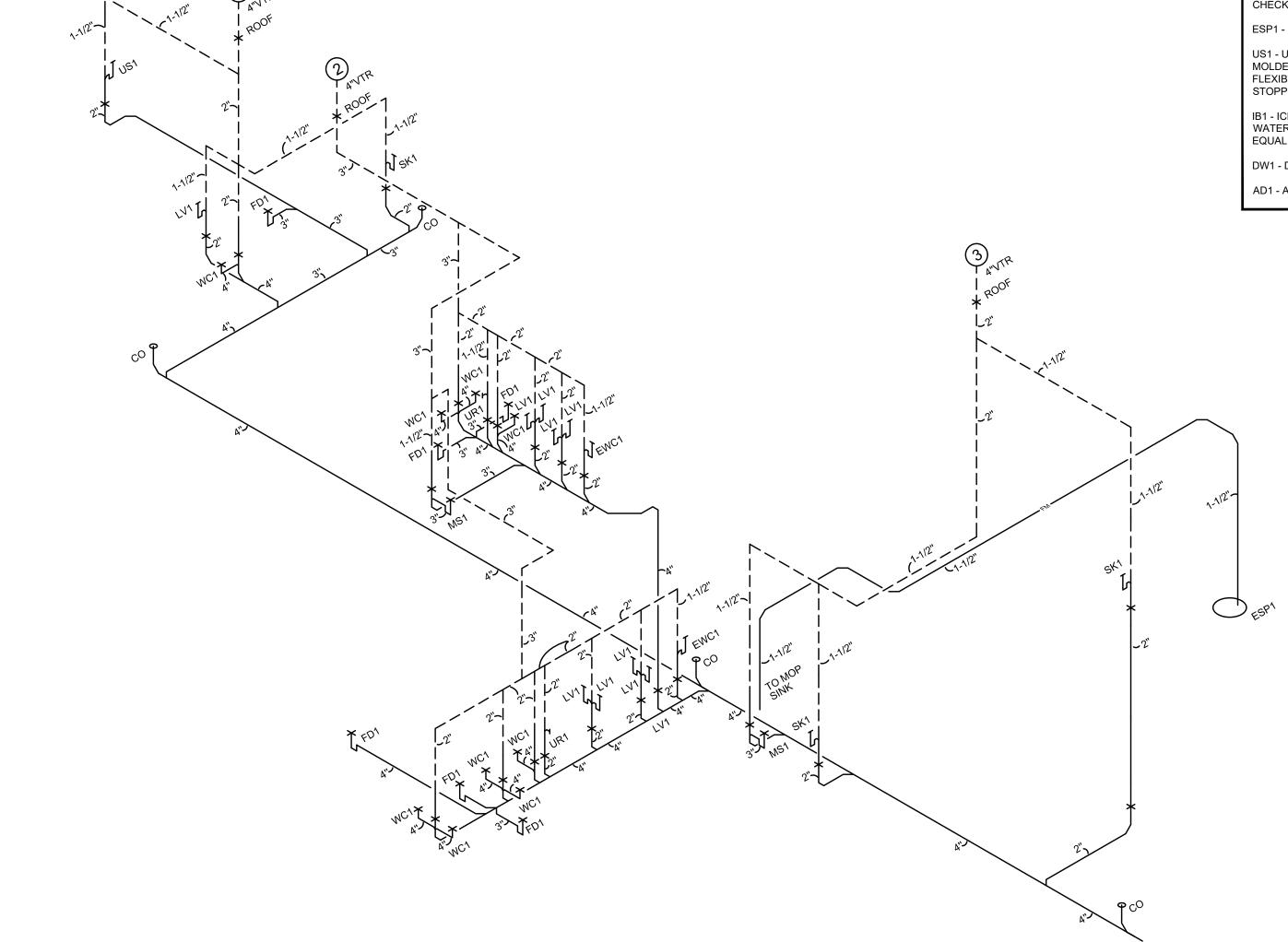
PROJECT NO.: 10204

SCALE:AS NOTED

DATE: 01-08-2024

DRAWING TITLE PLUMBING DETAILS SCHEDULES, AND ISOMETRIC

> SHEET NO. P200



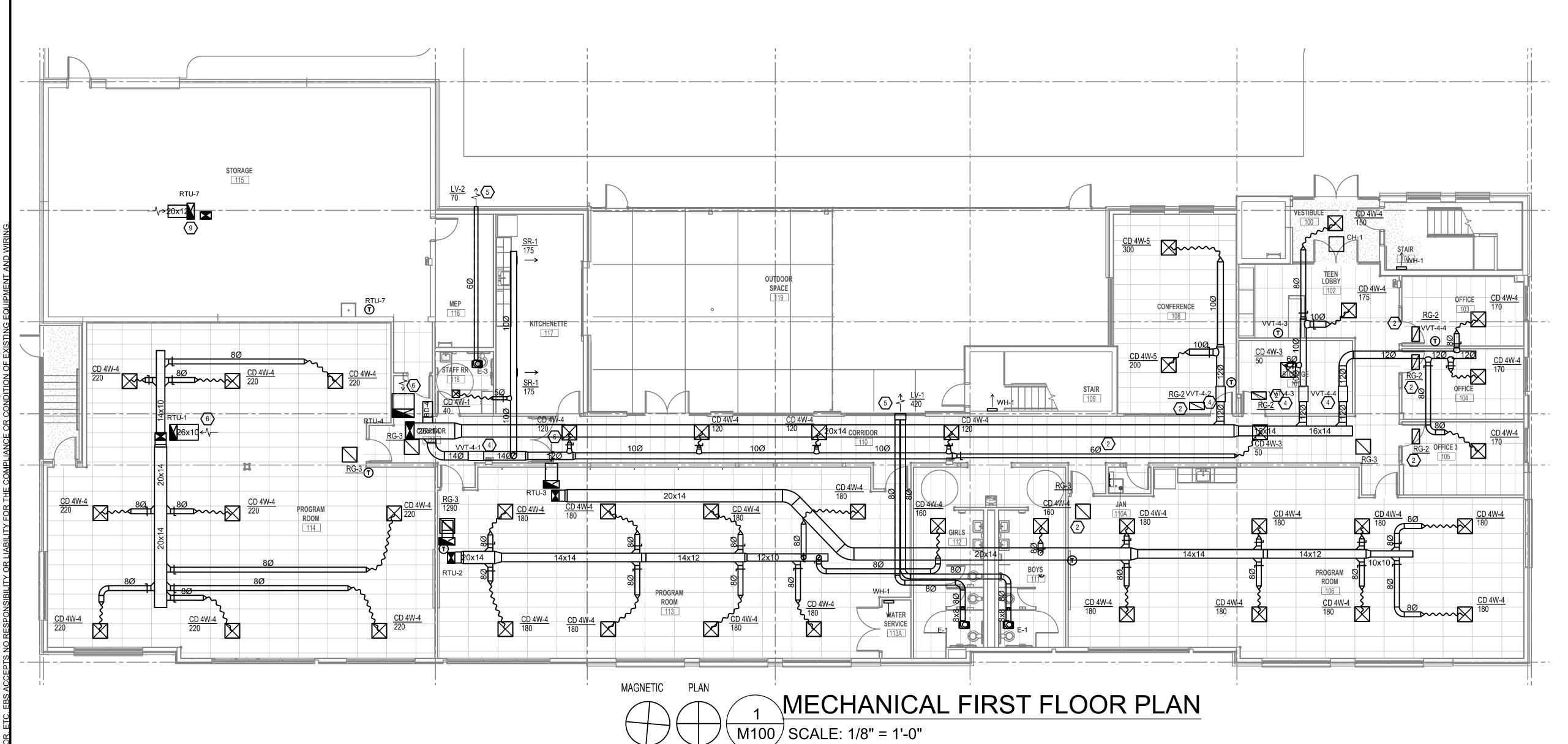
ries\10200-10299\10204 - Boys & Girls Club - Price Hill Teen Center\~Construction Documents\10204-P200-PLUMBING-DETAILS.dwg-EBS. Plot Date/Time: Feb 12, 2024-9:44am - By: eddie GS AND SPECIFICATIONS ARE NOT AUTHORIZED TO BE USED AS CONTRACT DOCUMENTS. THESE DRAWINGS HAVE BEEN PREPARED TO DEMONSTRATE COMPICATIONS AND MATERIALS USED IN CONSTRUCTION ARE INSTRUCTION AND INSTRUCTION ARE INSTRUCTION ARE INSTRUCTION ARE INSTRUCTION ARE INSTRUCTION ARE INSTRUCTION ARE INSTRUCTION AND INSTRUCTION ARE INSTRUCTION ARE INSTRUCTION ARE INSTRUCTION AND INSTRUCTION AND INSTRUCTION AND INSTRUCTION ARE INSTRUCTION ARE INSTRUCTION ARE INSTRUCTION AND INSTRUCTION

DIFFUSER, GRILLE, AND REGISTER SCHEDULE										
CALLOUT	DESCRIPTION	FACE SIZE (IN)	INLET SIZE (IN)	MODEL	NOTES					
CD 3W-2	3-WAY THREE CONE DIFFUSER	24x24	6Ø	TITUS PAS	ADJUSTABLE DISCHARGE PATTERN					
CD 4W-1	4-WAY THREE CONE DIFFUSER	12x12	6Ø	TITUS TMS	REMOVABLE CORE FROM FACE OF DIFFUSER. INSULATE BACK OF DIFFUSER.					
CD 4W-3	4-WAY THREE CONE DIFFUSER	24x24	6Ø	TITUS TMS	REMOVABLE CORE FROM FACE OF DIFFUSER. INSULATE BACK OF DIFFUSER.					
CD 4W-4	4-WAY THREE CONE DIFFUSER	24x24	8Ø	TITUS TMS	REMOVABLE CORE FROM FACE OF DIFFUSER. INSULATE BACK OF DIFFUSER.					
CD 4W-5	4-WAY THREE CONE DIFFUSER	24x24	10Ø	TITUS TMS	REMOVABLE CORE FROM FACE OF DIFFUSER. INSULATE BACK OF DIFFUSER.					
EG-1	ALUMINUM RETURN GRILLE, 35 DEGREE DEFLECTION, 3/4" BLADE SPACING	8x8	6x6	TITUS 350FS	STANDARD FINISH: #26 WHITE					
EG-3	ALUMINUM RETURN GRILLE, 35 DEGREE DEFLECTION, 3/4" BLADE SPACING	12x12	10x10	TITUS 350FS	STANDARD FINISH: #26 WHITE					
LV-1	4" DRAINABLE BLADE LOUVER. EXTRUDED ALUMINUM STATIONARY LOUVER	18x12	18x12	GREENHECK ESJ-401-18X12	ALUMINUM CONSTRUCTION					
LV-2	LOUVER WALL VENT, 26 GAUGE GALVANIZED/POWDER COATED STEEL BODY	6x6	4Ø	DRYERWALL VENT/DWV4						
RG-1	STEEL RETURN GRILLE, 3/4" BLADE SPACING, 35 DEGREE DEFLECTION, BLADES PARALLEL TO LONG DIMENSION	30x12	28x10	TITUS 350	#26 WHITE FINISH. OPPOSED BLADE DAMPER					
RG-2	EGGCRATE RETURN GRILLE	24x12	22x10	TITUS 50F	#26 WHITE FINISH.					
RG-3	EGGCRATE RETURN GRILLE	24x24	22x22	TITUS 50F	#26 WHITE FINISH.					
SR-1	ALUMINUM DIRECT SPIRAL DUCT MOUNTED, DOUBLE DEFLECTION SUPPLY GRILLE WITH RADIUS END CAP	12x6	12x6	TITUS S300FL	STEEL OPPOSED-BLADE DAMPER OPERABLE FROM THE FACE OF THE GRILLE.					
SR-2	STEEL DOUBLE DEFLECTION, 3/4" BLADE SPACING, FRONT BLADES PARALLEL TO LONG DIMENSION.	12x8	10x6	TITUS 300RL	STEEL OPPOSED-BLADE DAMPER OPERABLE FROM THE FACE OF THE GRILLE.					

- NOTES FOR ALL AIR DEVICES:

  1. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR MOUNTING TYPE 2. DUCT RUN-OUT SAME SIZE AS NECK UNLESS NOTED OTHERWISE
- . PLASTER FRAME WHERE LOCATED IN GYPSUM CEILING
- PAINT DUCTWORK THAT IS VISIBLE BEHIND AIR DEVICES MATTE BLACK AIR DEVICES SHALL BE ALUMINUM IN HIGH MOISTURE AREAS. (RESTROOMS)
- PROVIDE SAMPLE AIR DEVICES STYLE AND COLOR, FOR OWNER'S REPRESENTATIVE APPROVAL, BEFORE ORDERING FINAL AIR DEVICES.
- ADD INSULATION TO THE BACK OF ALL AIR DEVICES WHERE DUCTWORK ALSO REQUIRES INSULATION.

SYMBOLS L	EGEND — HVAC
T	THERMOSTAT
$\boxtimes$	CEILING DIFFUSER
→	SIDE WALL GRILL
<del>«</del> \-	RETURN WALL GRILL
<b>←√</b> −	AIR FLOW DIRECTION
14x10	DUCTWORK
14x10	LINED DUCTWORK
	TYPICAL SUPPLY DUCT DN
	TYPICAL RETURN DUCT DN
N.	TYPICAL EXHAUST DUCT
[دري	TURNING VANES
$\boxtimes$ ~~	FLEXIBLE DUCT, 8'-0" LONG MAX.
<u> </u>	TYPICAL ROUND DUCT DN
	ROUND DUCT UP
DS	DUCT SMOKE DETECTOR
	MVD MANUAL VOLUME DAMPER
MOD	MOD MOTOR OPERATED DAMPER
***************************************	DROPPED CEILING/SOFFIT
<b>\rightarrow</b>	DUCT CONTINUATION
COND	CONDENSATE PIPING



### MECHANICAL SCOPE OF WORK (PLAN REVIEW ONLY)

INSTALL (7) ROOF TOP UNITS ON FLAT ROOF. (2) RTU's will have VVT'S, (4-5) PER UNIT. INSTALL (4) EXHAUST FANS. INSTALL DUCTWORK, AIR DEVICES AND BALANCE SYSTEM. MECHANICAL CONTRACTOR SHALL REFERENCE ALL DISCIPLINE DRAWING, ETC. TO REVEAL FULL SCOPE OF WORK. REFER TO MECHANICAL SPECIFICATIONS FOR ADDITIONAL DETAILS.

### **CODES & STANDARDS REFERENCED**

- 2017 OHIO MECHANICAL CODE 2017 OHIO BUILDING CODE
- ASHRAE 90.1-2010

### **HVAC DESIGN CONDITIONS**

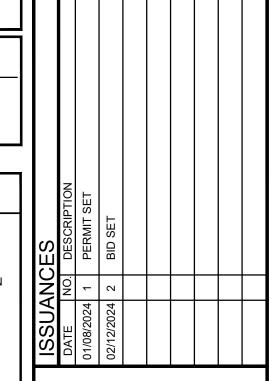
COOLING
OUTDOOR: 93 DB / 75 WB
HEATING
OUTDOOR: 0 DB

### KEYED SHEET NOTES

- INSTALL ROOF TOP ON FLAT ROOF. PROVIDE 14" CURB. INSTALL CONDENSATE TRAP ON RTU. RTU-1,2,3,4 & 7 ARE ON LOWER ROOF. RTU-5 & 6 ARE ON UPPER ROOF ABOVE SECOND FLOOR. REFER TO ARCHITECTURAL ELEVATIONS FOR ROOF ELEVATIONS.
- PROVIDE 1" INTERNALLY LINDED RETURN DUCT BOOT FOR SOUND REDUCTION SEE DETAIL ON M200. COORDINATE WALLS WITH ARCHITECT IN PLENUM CEILING AREA. IF WALLS GO TO DECK PROVIDE TRANSFER OPENING FOR RETURN AIR BACK TO RTU.
- INSTALL ROOF TOP VVT CONTROL PANELS IN LOCATION SHOWN. REFER TO SPECIFICATIONS FOR SEQUENCE OF OPERATIONS.
- INSTALL 22 GAUGE 2 WIRE SHIELDED COMMUNICATION WIRE TO VVT BOX. REFER TO O&M SPECIFICATIONS FOR TERMINATING WIRES. ROUTE EXHAUST DUCTWORK ABOVE SUPPLY DUCT AND OVER TO EXTERIOR WALL. INSTALL A LOUVERED VENT. SEE ARCHITECT BEFORE PENETRATION FOR EXACT LOCATION AND COLOR COORDINATION. ALL EXHAUST SHALL
- MEET THE FOLLOWING REQUIREMENTS. 5.1. 3' FROM PROPERTY LINE. 5.2. 3' FROM OPERABLE OPENINGS INTO BUILDING.
- 5.3. 10' FROM MECHANICAL AIR INTAKE
- 6. INSTALL MESH SCREEN ON END OF RETURN DUCT. ROUTE EXHAUST DUCT UP TO EXHAUST FAN ON ROOF.
- EXTEND RETURN AIR BOOT THROUGH WALL, WHERE WALL GOES TO DECK. BOOT FITTING TO BE FLUSH WITH WALL.
- INSTALL DROP BOX DIFFUSER EQUIVALENT TO AIRKITEK MODEL TDAVI-6 ON BOTTOM SIDE OF SUPPLY DROP. INSTALL RETURN DROP TRANSITION TO 20"X12" DUCT WITH BIRDSCREEN ON OPEN END. SEE M200 FOR DETAIL OF DROP BOX DIFFUSER.
- 10. EXPOSED SPIRAL DUCTWORK TO BE DOUBLEWALL PAINTGRIP.

### **GENERAL NOTES**

- A. FOR FULL SCHEDULES, SPECIFICATIONS, AND COMPLETE LISTING SEE DETAIL
- B. COORDINATE ROUTING OF ALL WORK WITH OTHER TRADES.
- C. COORDINATE WITH ELECTRICAL CONTRACTOR FOR POWER CONNECTIONS TO ALL MECHANICAL EQUIPMENT.
- D. INSTALL ALL EQUIPMENT PER MANUFACTURER'S REQUIREMENTS. MAINTAIN ALL CODE RECOMMENDED CLEARANCES FOR ACCESS AND MAINTENANCE.
- E. REFER TO ARCHITECTURAL PLANS FOR DIMENSIONS, AND FINAL CEILING DIFFUSER LOCATIONS.
- . MAINTAIN ALL CODE REQUIRED SERVICE CLEARANCES, FOLLOW CLEARANCE
- G. PROVIDE BACKDRAFT DAMPERS FOR ALL EXHAUST SYSTEMS AND EITHER
- PROVIDE AN APPROVED THROUGH PENETRATION FIRESTOP FOR ALL PIPING SHALL HAVE A MINIMUM POSITIVE PRESSURE DIFFERENTIAL OF 0.01 INCHES OF WATER AND SHALL HAVE AN F RATING OF NOT LESS THAN THE REQUIRED
- WITH ADEQUATE ROOM FOR SERVICING, INCLUDING SUBSTITUTE EQUIPMENT THE MECHANICAL CONTRACTOR TO COORDINATE ALL NEW ELECTRICAL AND PLUMBING REQUIREMENTS WITH THE ELECTRICAL AND PLUMBING
- MATERIALS WITHIN PLENUMS SHALL BE NONCOMBUSTIBLE OR SHALL BE LISTED SMOKE-DEVELOPED INDEX OF NOT MORE THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E 84 OR UL 723.
- THROUGH AVERAGING SENSORS IN THE SPACE. SENSORS SHALL COMMUNICATE WITH CONTROL PANEL LOCATED IN EACH MECHANICAL/STORAGE 218. CONSTANT VOLUME ROOF TOPS WILL HAVE STAND ALONE THERMOSTATS IN SPACE.
- K. MAINTAIN CODE REQUIRED CLEARANCE TO COMBUSTIBLES FOR ALL GAS-FIRED





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CHECKED B

PROJECT NO.: 10204

SCALE:AS NOTED

DATE: 01-08-2024

DRAWING TITLE MECHANICAL FIRST FLOOR PLAN

SHEET NO.

DIFFU	DIFFUSER, GRILLE, AND REGISTER SCHEDULE											
CALLOUT	DESCRIPTION	FACE SIZE (IN)	INLET SIZE (IN)	MODEL	NOTES							
CD 3W-2	3-WAY THREE CONE DIFFUSER	24x24	6Ø	TITUS PAS	ADJUSTABLE DISCHARGE PATTERN							
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CD 4W-4	4-WAY THREE CONE DIFFUSER	24x24	8Ø	TITUS TMS	REMOVABLE CORE FROM FACE OF DIFFUSER. INSULATE BACK OF DIFFUSER.							
CD 4W-5	4-WAY THREE CONE DIFFUSER	24x24	10Ø	TITUS TMS	REMOVABLE CORE FROM FACE OF DIFFUSER. INSULATE BACK OF DIFFUSER.							
EG-1	ALUMINUM RETURN GRILLE, 35 DEGREE DEFLECTION, 3/4" BLADE SPACING	8x8	6x6	TITUS 350FS	STANDARD FINISH: #26 WHITE							
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10204 BOYS AND GIRLS PRICE HII
NOTES FOR ALL AIR DEVICES:

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- . PLASTER FRAME WHERE LOCATED IN GYPSUM CEILING 4. PAINT DUCTWORK THAT IS VISIBLE BEHIND AIR DEVICES MATTE BLACK
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SYMBOLS LI	EGEND — HVAC
(T)	THERMOSTAT
$\boxtimes$	CEILING DIFFUSER
→	SIDE WALL GRILL
-\-	RETURN WALL GRILL
<b>←√</b> −	AIR FLOW DIRECTION
14x10	DUCTWORK
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	TYPICAL SUPPLY DUCT DN
	TYPICAL RETURN DUCT DN
N N	TYPICAL EXHAUST DUCT
ردر	TURNING VANES
	FLEXIBLE DUCT, 8'-0" LONG MAX.
<u>a</u>	TYPICAL ROUND DUCT DN
	ROUND DUCT UP
	DUCT SMOKE DETECTOR
	MVD MANUAL VOLUME DAMPER
MOD	MOD MOTOR OPERATED DAMPER
	DROPPED CEILING/SOFFIT
<u> </u>	DUCT CONTINUATION
COND	CONDENSATE PIPING

### OFFICE LOBBY SEE KEY NOTE #1 AND ROOF PLAN FOR RTU LOCATIONS KITCHENETTE MECHANICAL SECOND FLOOR PLAN

M101 SCALE: 1/8" = 1'-0"

### MECHANICAL SCOPE OF WORK (PLAN REVIEW ONLY)

INSTALL (7) ROOF TOP UNITS ON FLAT ROOF. (2) RTU's will have VVT'S, (4-5) PER UNIT. INSTALL (4) EXHAUST FANS. INSTALL DUCTWORK, AIR DEVICES AND BALANCE SYSTEM. MECHANICAL CONTRACTOR SHALL REFERENCE ALL DISCIPLINE DRAWING, ETC. TO REVEAL FULL SCOPE OF WORK. REFER TO MECHANICAL SPECIFICATIONS FOR ADDITIONAL DETAILS.

### **CODES & STANDARDS REFERENCED**

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### **HVAC DESIGN CONDITIONS**

COOLING
OUTDOOR: 93 DB / 75 WB
HEATING
OUTDOOR: 0 DB

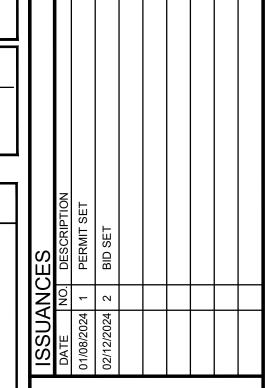
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- PROVIDE 1" INTERNALLY LINDED RETURN DUCT BOOT FOR SOUND REDUCTION SEE DETAIL ON M200. COORDINATE WALLS WITH ARCHITECT IN PLENUM CEILING AREA. IF WALLS GO TO DECK PROVIDE TRANSFER OPENING FOR RETURN AIR BACK TO RTU.
- INSTALL ROOF TOP VVT CONTROL PANELS IN LOCATION SHOWN. REFER TO SPECIFICATIONS FOR SEQUENCE OF OPERATIONS.
- INSTALL 22 GAUGE 2 WIRE SHIELDED COMMUNICATION WIRE TO VVT BOX. REFER TO O&M SPECIFICATIONS FOR TERMINATING WIRES. ROUTE EXHAUST DUCTWORK ABOVE SUPPLY DUCT AND OVER TO EXTERIOR
- WALL. INSTALL A LOUVERED VENT. SEE ARCHITECT BEFORE PENETRATION FOR EXACT LOCATION AND COLOR COORDINATION. ALL EXHAUST SHALL MEET THE FOLLOWING REQUIREMENTS. 5.1. 3' FROM PROPERTY LINE.
- 5.2. 3' FROM OPERABLE OPENINGS INTO BUILDING. 5.3. 10' FROM MECHANICAL AIR INTAKE
- 6. INSTALL MESH SCREEN ON END OF RETURN DUCT.
- ROUTE EXHAUST DUCT UP TO EXHAUST FAN ON ROOF. EXTEND RETURN AIR BOOT THROUGH WALL, WHERE WALL GOES TO DECK.
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- DROP BOX DIFFUSER. 10. EXPOSED SPIRAL DUCTWORK TO BE DOUBLEWALL PAINTGRIP.

### **GENERAL NOTES**

- A. FOR FULL SCHEDULES, SPECIFICATIONS, AND COMPLETE LISTING SEE DETAIL
- B. COORDINATE ROUTING OF ALL WORK WITH OTHER TRADES.
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- E. REFER TO ARCHITECTURAL PLANS FOR DIMENSIONS, AND FINAL CEILING DIFFUSER LOCATIONS.

- SHALL HAVE A MINIMUM POSITIVE PRESSURE DIFFERENTIAL OF 0.01 INCHES OF WATER AND SHALL HAVE AN F RATING OF NOT LESS THAN THE REQUIRED
- THE MECHANICAL CONTRACTOR TO COORDINATE ALL NEW ELECTRICAL AND PLUMBING REQUIREMENTS WITH THE ELECTRICAL AND PLUMBING
- AND LABLED AS HAVING A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND SMOKE-DEVELOPED INDEX OF NOT MORE THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E 84 OR UL 723.
- INDOOR TEMPERATURES FOR RTU VVT SYSTEMS SHALL BE CONTROLLED THROUGH AVERAGING SENSORS IN THE SPACE. SENSORS SHALL COMMUNICATE WITH CONTROL PANEL LOCATED IN EACH MECHANICAL/STORAGE 218. CONSTANT VOLUME ROOF TOPS WILL HAVE STAND ALONE THERMOSTATS IN SPACE.
- K. MAINTAIN CODE REQUIRED CLEARANCE TO COMBUSTIBLES FOR ALL GAS-FIRED



PR - 10204 SYSTEMS INC

Collaboration and Efficiency 515 Monmouth Street, Suite 201 Newport, KY 41071 (859) 261-0585 MEP Consulting Services, Inc. in OH

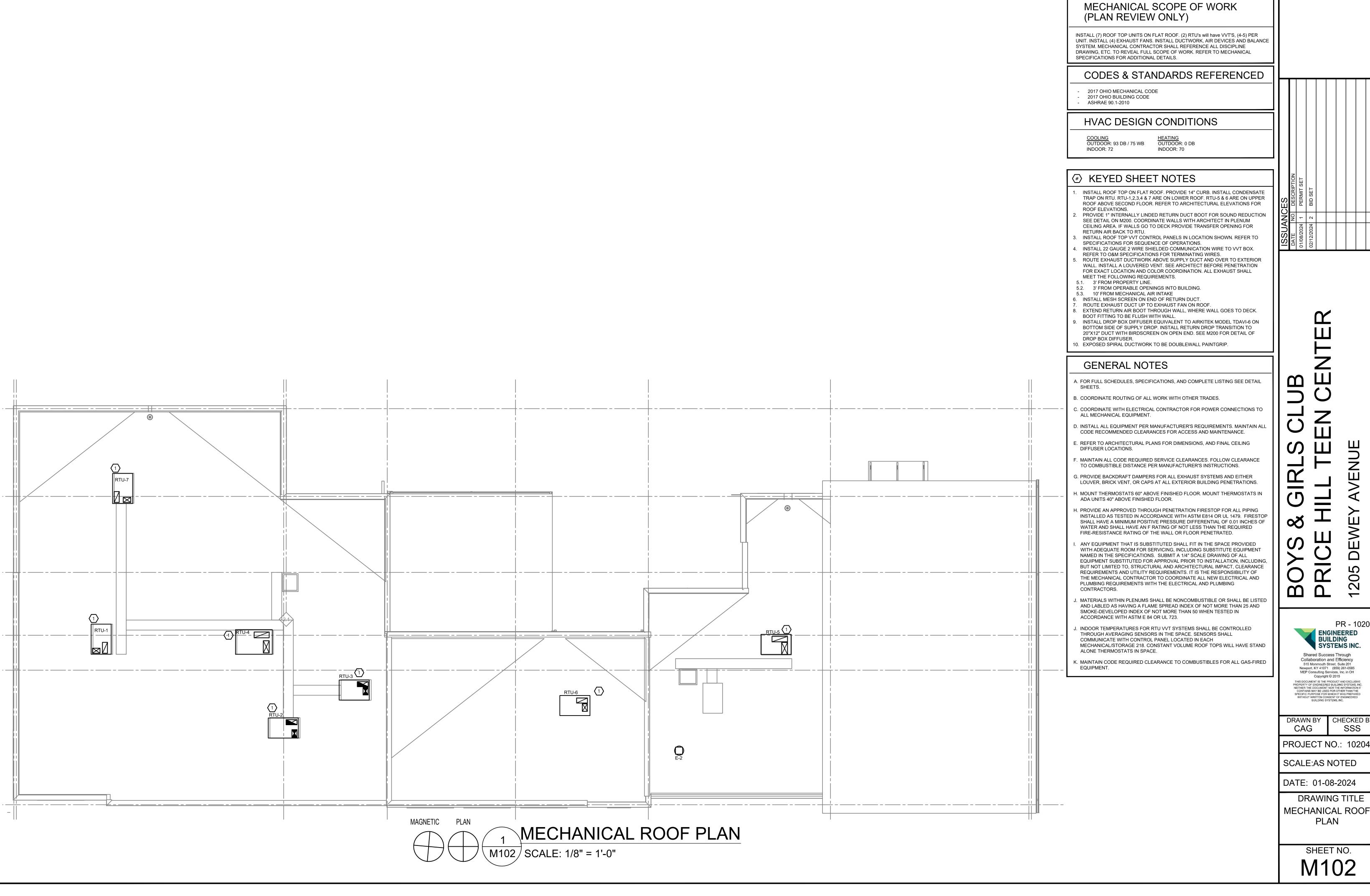
PROJECT NO.: 10204

SCALE:AS NOTED

DATE: 01-08-2024

DRAWING TITLE **MECHANICAL** SECOND FLOOR PLAN

SHEET NO.





PR - 10204 SYSTEMS INC.

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CHECKED B

**DRAWING TITLE** MECHANICAL ROOF

	BOYS AND GIRLS CLUB PRICE HILL RTU SCHEDULE																				
															HEATING MB	Н			ECONOMIZER		
		GE	ENERAL								COC	DLING			INPUT/OUTPUT				CTRIC	TYPE (SINGLE OR	
TAG	AREA SERVED	MANUFACTURER	MODEL	WEIGHT	MOUNTING	NOM.CFM	ESP IN.WG	OA CFM	/ ВНР	GROSS CLG (MBH)	CLG-SENS (MBH)	NOMINAL TONS	SEER	EER	INPUT MBH	OUTPUT MBH	EFFICIENCY %	VOLT/PHASE	MCA MOC	DUAL, DRY BULB	NOTES
RTU-1	PROGRAM AREA 4 114	CARRIER	48FCEM06A2A5-0W0A0	574	ROOF	2,000	0.5	350	0.94	59	45	5	13.4	11.5	110	88	81	208/3	31 45	SINGLE/ENTHALPY	1-10
RTU-2	PROGRAM AREA 2 113	CARRIER	48FCEM05A2A5-0W0A0	543	ROOF	1,600	0.5	310	0.68	48	34	4	13.4	11.5	110	88	81	208/3	26 30	SINGLE/ENTHALPY	1-10
RTU-3	PROGRAM AREA 1 105	CARRIER	48FCEM05A2A5-0W0A0	543	ROOF	1,600	0.5	300	0.68	48	34	4	13.4	11.5	110	88	81	208/3	26 30	SINGLE/ENTHALPY	1-10
RTU-4	1ST FLOOR LOBBY, CONFERENCE, OFFICES	CARRIER	48FCEM07A2A5-0W0A0	662	ROOF	2,400	0.5	445	1.31	72	56	6	13.4	11.5	110	88	81	208/3	29 45	SINGLE/ENTHALPY	1-10
RTU-5	2ND FLOOR OFFICES,CONFERENCE,COR	CARRIER	48FCEM09A2A5-0W0A0	887	ROOF	3,200	0.5	610	1.37	102	79	8.5	15	11.2	180	148	82	208/3	41 50	SINGLE/ENTHALPY	1-10
RTU-6	TRAINING BOARD ROOM 213	CARRIER	48FCEM06A2A5-0W0A0	574	ROOF	2,000	0.5	350	0.94	59	45	5	13.4	11.5	110	88	81	208/3	31 45	SINGLE/ENTHALPY	1-10
RTU-7	STORAGE 115	CARRIER	48FCEM04A2A5-0W0A0	531	ROOF	1,200	0.5	100	0.31	35	25	3	13.4	11.5	110	88	80	208/3	20 30	SINGLE/ENTHALPY	1-10

ZONE

FLEX DUCT MAX. 6'-0"

FLEX DUCT SIZE SHALL

MATCH NECK SIZE

- CEILING

DAMPER -

OPPOSED BLADE

WT-4-2 CONFERENCE 108

WT-4-4 OFFICE 103,104,105

WT-5-2 OFFICE 205,206,207,208

WT-5-4 OFFICE 222,223

BD-4 BYPASS DAMPER FOR RTU-4

BD-5 BYPASS DAMPER FOR RTU-3

ROOM

WT-5-5 CONFERENCE 203, COPY/PRINT 224, OPEN OFFICE 220, RECEPTION/WAITING 201

— DRAW BAND WITH SILICONE SEALER

WT-4-1 CORRIDOR 110, KITCHENETTE, STAFF RR 118

WT-5-1 CORRIDOR 216,0FFICE 209,210,211, STORAGE/MECH 218

COLLAR -

WT-5-3 KITCHENETTE 219, OFFICE 219, OPEN OFFICE 220

WT-4-3 LOBBY 102, STORAGE 107, VESTIBULE 100

	DUCT INSULATION SCHEDULE											
		AIR DISTRIBUTION TYPE										
		SA	SA (EXPOSED)	RA	ADDITIONAL NOTES							
	RTU-1	R-3.5	N/A	R-3.5	1,2							
MENT	RTU-2	R-3.5	N/A	R-3.5	2							
EQUIPMENT	EQUIPA RTU-3		N/A	R-3.5	2							
	RTU-4	R-3.5	N/A	R-3.5	2							
	RTU-5	R-3.5	R-3.5	R-3.5	2							
	RTU-6	R-3.5	R-3.5	R-3.5	2							
	RTU-7	R-3.5	N/A	R-3.5	2							

| K

INLET STATIC

PRESSURE

STATIC

PRESSURE

0.5

0.5

0.5

0.5

0.5

0.5

0.5

0.5

0.5

0.5

0.5

CFM | CFM - MIN/MAX

159-920

89-515

89-515

159-920

910 | 159-920

509 159-920

1,150 0-1430

395 159-920

820 159-920

500

375

470

295

845

35EN3000L100D 10 1,400 0-1,400

		Ar	ea Outdoor	Air		People O	utdoor Air		Breathing Zone	Zone Air	Zone	Supply	OA/SA	Exhaust
		Area	Rate	Total	Occupant	Actual	Rate	Total	Outdoor Airflow	Distribution	Airflow	Airflow	Ratio	Airflow
		(ft2)	(cfm/ft2)	(cfm)	Density	People	(cfm/per)	(cfm)	(cfm)	ffectivenes	(cfm)	(cfm)	(%)	(cfm)
Room # and Name	Occupancy Type	Az	Ra	Ra*Az	per 1000 sf	Pz	Rp	Rp*Pz	Vbz=Rp*Pz+Ra*Az	Ez	Voz			
Corridor 110	Corridor	1020	0.06	61.2	0	0	0	0	61.2	0.8	77	1800	4.3	
Kitchenette	Office Space	340	0.06	20.4	5	2	5	10	30.4	0.8	38	1800	2.1	
Conference 108	Conference/Meeting	445	0.06	26.7	5	2	5	10	36.7	0.8	46	150	30.7	
Lobby 102	Office Space	300	0.06	18	5	2	5	10	28	0.8	35	180	19.4	
Storage 107	Corridor	160	0.06	9.6	0	0	0	0	9.6	0.8	12	250	4.8	
Vestibule 100	Main Entry Lobbies	113	0.06	6.78	10	1	5	5	11.78	0.8	15	250	6	
Office 103	Office Space	160	0.06	9.6	5	1	5	5	14.6	0.8	18	250	7.2	
Office 104	Office Space	156	0.06	9.36	5	1	5	5	14.36	0.8	18	250	7.2	
Office 105	Office Space	165	0.06	9.9	5	1	5	5	14.9	0.8	19	250	7.6	
Staff RR 118	Toilet room - public	219	0	0	0	0	0	0	0	0.8	0	250	0	70
Total		3078				6					208	4180	61.3	70

Ventilation Schedule For Boys and Girls Club Price Hill RTU-1

Ventilation Schedule For Boys and Girls Club Price Hill RTU-2

Ventilation Schedule For Boys and Girls Club Price Hill RTU-3

Occupancy Type Multiuse assembly

RESTROOMS EXHAUST 70 CFM PER FLUSHABLE FIXTURE.

RESTROOMS EXHAUST 70 CFM PER FLUSHABLE FIXTURE.

Area Outdoor Air People Outdoor Air Breathing Zone Zone Air Zone Supply OA/SA Exhaust
Area Rate Total Occupant Actual Rate Total Outdoor Airflow Distribution Airflow Airflow Ratio Airflow

 Area
 Rate
 Total
 Occupant
 Actual
 Rate
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 Outdoor Almow
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Area Outdoor Air People Outdoor Air Breathing Zone Zone Air Zone Supply OA/SA Exhaust
Area Rate Total Occupant Actual Rate Total Outdoor Airflow Distribution Airflow Airflow Ratio Airflow

Area Rate Total Occupant Actual Rate Total Outdoor Airflow Distribution Airflow Airflow Ratio Airflow (ft2) (cfm/ft2) (cfm) Density People (cfm/per) (cfm) (cfm) (cfm) ffectivenes (cfm) (cfm) (cfm) Az Ra Ra\*Az per 1000 sf Pz Rp Rp\*Pz Vbz=Rp\*Pz+Ra\*Az Ez Voz

| Company Type | Comp

Multiuse assembly 1440 0.06 86.4 100 20 7.5 150 236.4 0.8 296 170 174.1

(OMC 2017)

(OMC 2017)

	Ventilation :	Schedul	e For Bo	oys and	l Girls Cl	ub Pric	e Hill	RTU	l <b>-</b> 5	(OMC 2	(017)			
		Ar	ea Outdoor	Air		People O	utdoor Air		Breathing Zone	Zone Air	Zone	Supply	OA/SA	Exhaus
		Area	Rate	Total	Occupant	Actual	Rate	Total	Outdoor Airflow	Distribution	Airflow	Airflow	Ratio	Airflow
		(ft2)	(cfm/ft2)	(cfm)	Density	People	(cfm/per)	(cfm)	(cfm)	ffectivenes	(cfm)	(cfm)	(%)	(cfm)
Room # and Name	Occupancy Type	Az	Ra	Ra*Az	per 1000 sf	Pz	Rp	Rp*Pz	Vbz=Rp*Pz+Ra*Az	Ez	Voz			
Conference 203	Conference/Meeting	342	0.06	20.52	5	2	5	10	30.52	0.8	38	270	14.1	
Copy/Print 224	Office Space	53	0.06	3.18	5	1	5	5	8.18	0.8	10	50	20	
Corridor 216	Corridor	450	0.06	27	5	0	0	0	27	0.8	34	150	22.7	
Kitchenette 219	Office Space	345	0.06	20.7	5	2	5	10	30.7	0.8	38	270	14.1	
Office 205	Office Space	135	0.06	8.1	5	1	5	5	13.1	0.8	16	135	11.9	
Office 206	Office Space	135	0.06	8.1	5	1	5	5	13.1	0.8	16	110	14.5	
Office 207	Office Space	135	0.06	8.1	5	1	5	5	13.1	0.8	16	110	14.5	1
Office 208	Office Space	135	0.06	8.1	5	1	5	5	13.1	0.8	16	110	14.5	
Office 209	Office Space	125	0.06	7.5	5	1	5	5	12.5	0.8	16	105	15.2	1
Office 210	Office Space	125	0.06	7.5	5	1	5	5	12.5	0.8	16	105	15.2	
Office 211	Office Space	130	0.06	7.8	5	1	5	5	12.8	0.8	16	105	15.2	1
Office 219	Office Space	125	0.06	7.5	5	1	5	5	12.5	0.8	16	95	16.8	
Office 222	Office Space	163	0.06	9.78	55	1	5	5	14.78	0.8	18	120	15	
Office 223	Office Space	264	0.06	15.84	5	1	5	5	20.84	0.8	26	215	12.1	
Open Office 220	Office Space	969	0.06	58.14	5	1	5	5	63.14	0.8	79	790	10	1
Reception/Waiting 201	Reception Areas	225	0.06	13.5	5	1	5	5	18.5	0.8	23	215	10.7	
Storage/Mech 218	Storage rooms	48	0.12	5.76	0	0	0	0	5.76	0.8	7	50	14	1
- Гotal		3904				6					136	875	82.8	0

Total		3307				)					100	070	0.	
ESTROOMS EXHAUST 70	O CFM PER FLUSHABLE F	FIXTURE.	·											
	Ventilation S	chedule	e For Bc	ys and	Girls Clu	ub Price	e Hill	RTU-	-6	(OMC 2	2017)			
		Area Outdoor Air				People Outdoor Air			Breathing Zone		Zone	Supply	OA/SA	Exhaus
		Area	Rate	Total	Occupant	Actual	Rate	Total	Total Outdoor Airflow		Airflow	Airflow	Ratio	Airflo
	ľ	(ft2)	(cfm/ft2)	(cfm)	Density	Density People (cfm/per) (cfm)		(cfm)	(cfm)	ffectivenes	(cfm)	(cfm)	(%)	(cfm
Room # and Name	Occupancy Type	Az	Ra	Ra*Az	per 1000 sf	Pz	Rp	Rp*Pz	Vbz=Rp*Pz+Ra*Az	Ez	Voz			
raining/Board Room 213	Conference/Meeting	1080	0.06	64.8	100	11	5	55	119.8	0.8	150	2000	7.5	0
· otal	†	1080				11					150	2000	7.5	0
RESTROOMS EXHAUST 70	O CFM PER FLUSHABLE F	FIXTURE.							•					

Ventilation Schedule For Boys and Girls Club Price Hill RTU-7									7	(OMC 2	(017)			
		Ar	ea Outdoor	Air		People O	utdoor Air		Breathing Zone	Zone Air Zone		Supply	OA/SA	Exhaust
		Area	Rate	Total	Occupant	Actual	Rate	Total	Outdoor Airflow	Distribution Airflow	Airflow	Airflow	Ratio	Airflow
		(ft2) (cfm/ft2) (cfm) Density People (cf	(cfm/per)	(cfm)	(cfm)	ffectivenes	(cfm)	(cfm)	(%)	(cfm)				
Room # and Name	Occupancy Type	Az	Ra	Ra*Az	per 1000 sf	Pz	Rp	Rp*Pz	Vbz=Rp*Pz+Ra*Az	Ez	Voz			
Storage 115	Storage rooms	1600	0.12	192	0	11	0	0	192	0.8	240	1200	20	0
   Total		1600				11					240	1200	20	0

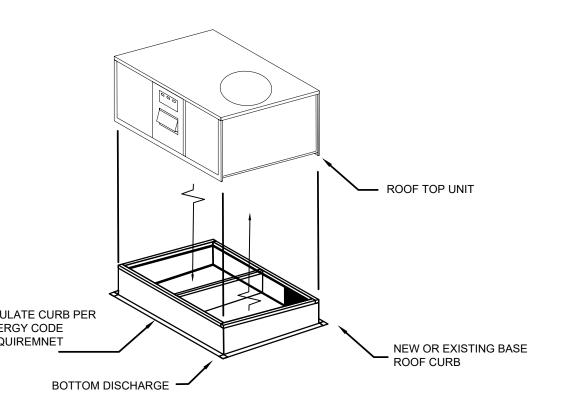
		Ar	ea Outdoor	Air		People O	utdoor Air		Breathing Zone	Zone Air	Zone	Supply	OA/SA
		Area	Rate	Total	Occupant	Actual	Rate	Total	Outdoor Airflow	Distribution	Airflow	Airflow	Ratio
		(ft2)	(cfm/ft2)	(cfm)	Density	People	(cfm/per)	(cfm)	(cfm)	ffectivenes	(cfm)	(cfm)	(%)
Room # and Name	Occupancy Type	Az	Ra	Ra*Az	per 1000 sf	Pz	Rp	Rp*Pz	Vbz=Rp*Pz+Ra*Az	Ez	Voz		
Storage 115	Storage rooms	1600	0.12	192	0	11	0	0	192	0.8	240	1200	20
Total		1600				11					240	1200	20

SUPPLY C	<b>\</b>
DROP BOX DIFFUSER GRILLE ON SIDE OF DIFFUSER	
	DROP BOX DIFFUSER DETAIL

(SIDE VIEW)

NOT TO SCALE

IFFUSER CONNECTION		
TOP VIFW)		



TYPICAL	ROOF	TOP	UNIT	<b>DETAIL</b>	
NO SCALE					

DUCT INSULATION REQUIREMENTS ARE BASED ON TABLE 6.8.2E
OF ASHRAE 90.1 2010 ENERGY CODE.
PROVIDE DUCTWORK OF SUFFICIENT THICKNESS TO MEET THE
INSTALLED R-VALUE REQUIREMENTS LISTED ABOVE.
ITEMS NOT REQUIRED TO BE INSULATED: FIBROUS-GLASS
DUCTS DUCTS WITH LINER THAT MEETS ASHRAE OO 1

ITEMS NOT REQUIRED TO BE INSULATED: FIBROUS-GLASS
DUCTS, DUCTS WITH LINER THAT MEETS ASHRAE 90.1,
FACTORY-INSULATED FLEXIBLE DUCTS, FACTORY-INSULATED
PLENUMS AND CASINGS, FLEX CONNECTORS, VIBRATION-
CONTROL DEVICES, FACTORY-INSULATED ACCESS PANELS
1. SUPPLY DUCT IS CONSTRUCTED OF FABRIC
2. RETURN DUCT INTERNALLY LINED

	FAN SCHEDULE																
TAG	TYPE	AREA SERVED	MANUFACTURER	MODEL	DRIVE	CFM	ESP	HP	WATTS	RPM	AMPS FLA	MCA	МОСР	VOLT/PHASE	MOUNTING	WEIGHT	NOTES
E-1	EXHAUST	FIRST FLOOR GIRLS, BOYS RR, JANITOR	GREENHECK	SP-A200	DIRECT	210	0.25	1/10	47	868	0.46	0.6	15	115/60/1	CEILING	29	1,2
E-2	EXHAUST	SEOND FLOOR GIRLS, BOYS RR	GREENHECK	G-090-VG	DIRECT	330	0.25	1/10	-	1,100	1.5	1.9	15	115/60/1	CEILING	29	1,2
E-3	EXHAUST	STAFF RESTROOM 118	GREENHECK	SP-B90	DIRECT	70	0.25	-	20	700	0.19	0.2	15	115/60/1	CEILING	9	3
. FAN SH	FAN SHALL RUN ON 24/HR TIMECLOCK. MECHANICAL CONTRACTOR TO PROVIDE. ELECTRICAL CONTRACTOR TO INSTALL.																

2. PROVIDE BACKDRAFT DAMPERS

				HEATE	ER SCH	HEDULE	•					
TAG	AREA SERVED	MANUFACTURER	MODEL	DRIVE	CFM	BTU/HR	KW	RPM	AMPS FLA	VOLT/PHASE	MOUNTING	NOTES
CH-1	VESTIBULE 100	BERKO	FFCH-548	DIRECT	300	13.7	4	1400	19.2	208/1	CEILING	1
WH-1	STAIRS/MEP 102	BERKO	FRA4024F	DIRECT	-	10,230	3	-	14.5	208/1	WALL	1,2

. INTEGRAL THERMOSTAT 2. PROVIDE SURFACE MOUNT FOR CMU WALL

1. MEDIUM HEAT, GALVANIZED HEAT EXCHANGER

B. ENTHALPY CONTROL FOR W7220 CONTROLLER

6. ISOLATION VALVES (SUCTION AND DISCHARGE LINES)

4. ECONOMIZER/BAROMETRIC RELIEF 5. RETURN SMOKE DETECTOR

7. BACNET COMMUNICATION CARD

8. STAINLESS STEEL DRAIN PAN. 9. ECM SUPPLY FAN MOTOR 10. TXV METERING DEVICE

2. 14" ROOF CURB

### **BOYS & GIRLS CLUB - PRICE HILL** CARRIER VVT OPEN - SEQUENCE OF OPERATION

Project includes a Carrier OPEN BACnet-compatible system for control of packaged Carrier Rooftop Units, VVT Zone Controllers & Bypass Dampers. Rooftop units include OPEN SystemVu controllers w/integral Operator Interface that serve the unit's DX cooling, gas heating, fan and Humidi-MiZer Adaptive Dehumidification system. All devices communicate with one another via a 22Ga., 2-wire

A new wall-mtd. System Touch Interface (SYST1-4-CAR) will be provided for monitoring and setpoint & time schedule adjustments. All setpoints shown in this sequence of operation may be adjusted though the System Touch Interface.

### **VARIABLE-VOLUME & TEMPERATURE SYSTEM**

≥≥

Carrier OPEN Variable Volume & Temperature (VVT) is a zoning system that utilizes both cooling and heating from one central air source. The VVT System makes the decision to enter a system mode (heat or cool - see "SYSTEM MODE CONTROL") based on the number of heating and cooling callers. The Zone Controller modulates individual zone dampers to maintain space temperature setpoint.

### OCCUPIED & UNOCCUPIED OPERATION:

Unit shall be scheduled for occupied/unoccupied 7-day and holiday operation. An unoccupied override pushbutton (on wall-mounted temperature sensor) will force that individual zone to occupied mode for 2 hours (adjustable) Occupied setpoints are preset at 74 °F for cooling and 70 °F for heating, adjustable for up to + / - 3 °F from a space temperature sensor slidebar setpoint adjustment. Unoccupied setpoints are preset at 80 °F for cooling and 60 °F for heating. During the occupied mode, the fan is operational. During the unoccupied mode the unit fan shall cycle based on a call for unoccupied cooling or heating.

### SYSTEM MODE DETERMINATION:

This system mode (heat or cool) is chosen by calculating the average heat and cool demands between all zones (difference between setpoint & actual space temperature). NOTE: Each zone may be designated a priority level, which will allow for a "weighted" average demand for larger or more critical zones. When the average cooling demand rises to 0.7 °F above setpoint, the unit shall enter cooling mode. When the average heating demand

falls to 0.7 °F below setpoint, the unit shall enter heating mode. If both average heating and cooling demands are above 0.7 °F, the highest demand will determine the mode. Once a mode is selected, it will remain in that mode until either the average zone demand reaches setpoint or the opposite mode demand is higher (after a minimum 30 minute run time).

Heating and/or cooling may be locked out based on outdoor temperature lockout setpoints if desired.

Once a system mode is determined, the VVT System will communicate with the Carrier OPEN RTU Controller to enable heating or cooling. The RTU Controller will utilize PID logic to stage heating or cooling based on average demand. The unit will always maintain a minimum supply temperature of 50 °F during cooling mode and a maximum supply temperature of 140 °F during heating mode. Economizer control will be utilized for free cooling during cooling mode when outdoor temperatures are suitable.

When outdoor temp is not suitable, economizer damper shall be at minimum ventilation position and mechanical cooling will be staged to maintain occupied space temperature cooling setpoint. When outdoor temp is suitable, return air shall be exhausted and unit shall bring in additional outdoor air. If outdoor damper reaches 100% and space temperature setpoint cannot be met, damper will remain open and mechanical cooling will be enabled.

### ZONE DAMPER CONTROL: Each zone will have a minimum damper position for ventilation purposes. When a zone's temperature rises above its cooling setpoint and

the overall system mode is cooling, the zone damper shall modulate to maintain cooling setpoint. If the zone's temperature is below its heating setpoint and the overall system mode is heating, the zone damper shall modulate to maintain heating setpoint. When no system mode is present and the supply air temperature is acceptable (65-75 °F), the zone damper will open beyond the minimum position to the ventilation position to provide additional ventilation to the space.

### BYPASS DAMPER CONTROL:

The Bypass Controller shall work in conjunction with all Zone Controllers to maximize the amount of supply air in the duct system and to prevent inadequate air flow through the HVAC unit.

The Bypass Controller shall preposition its damper(s) to the maximum open position prior to system startup. The static pressure will be regulated from minimum system pressure during startup to maximum system pressure during normal operating conditions. During changeover mode, the Bypass Controller shall open the bypass dampers to pre condition the supply air temperature if it is counterproductive for use by any zone.

### **DEHUMIDIFICATION CONTROL:**

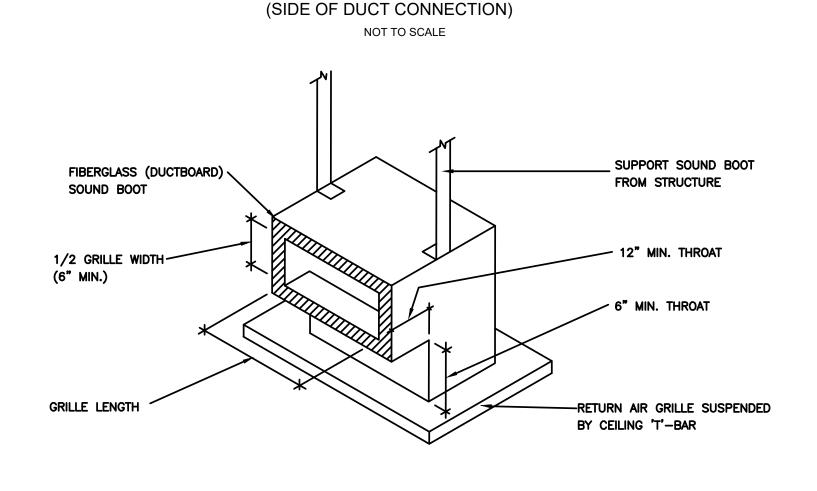
Humidi-MiZer Adaptive Dehumidification system will be enabled whenever space humidity rises above 70% (adjustable). Hot gas bypass will be utilized to avoid overcooling the space during dehumidification mode. There will be three modes of operation: Normal Mode (HGSV closed, LLSV open) - cooling only call.

Sub-Cooling Mode (HGSV closed, LLSV closed) - cooling / dehumidification call. Hot Gas Reheat Mode (HGSV open, LLSV closed) - dehumidification call w/o cooling.

See attached Humidi-MiZer Product sheet for additional details.

### **UNOCCUPIED MODE:**

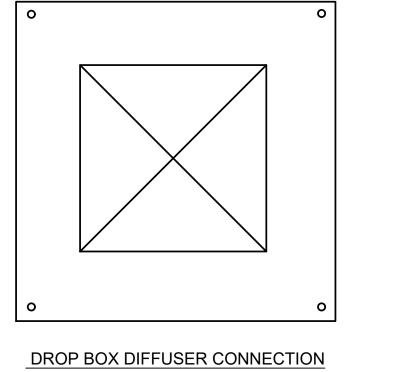
During unoccupied mode, the RTU fan will cycle on based on a call for unoccupied cooling or heating and remain off when satisfied. RTU will operate off of the unoccupied cooling & heating setpoints of 80 F and 60 F for all zones. System will to run until space temperature



- CEILING DIFFUSER

TYPICAL DIFFUSER CONNECTION

TYPICAL RETURN AIR GRILLE W/ SOUND BOOT DETAIL



VVT SCHEDULE

MANUFACTURER

CARRIER

CARRIER

CARRIER

CARRIER

CARRIER

CARRIER

CARRIER

CARRIER

CARRIER

MODEL

35EN3000L080D

35EN3000L080D

35EN3000L060D

35EN3000L080D

35EN3000L100D

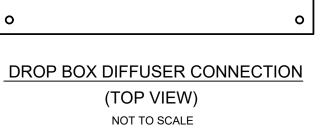
35EN3000L080D

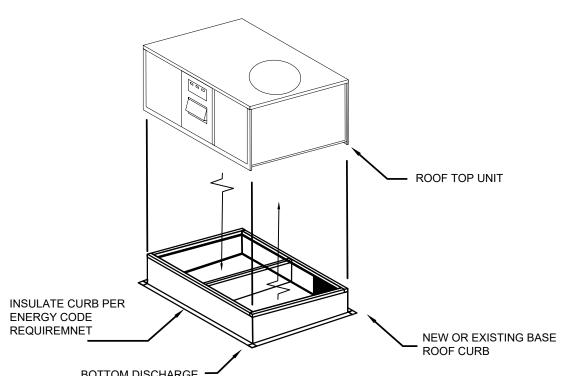
35EN3000L080D

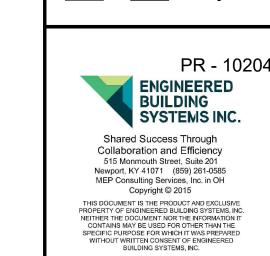
35EN3000L060D

35EN3000L080D

35EN3000L080D | 8







CHECKED B PROJECT NO.: 10204

SCALE: AS NOTED

DATE: 01-08-2024

DRAWING TITLE MECHANICAL DETAILS

SHEET NO.

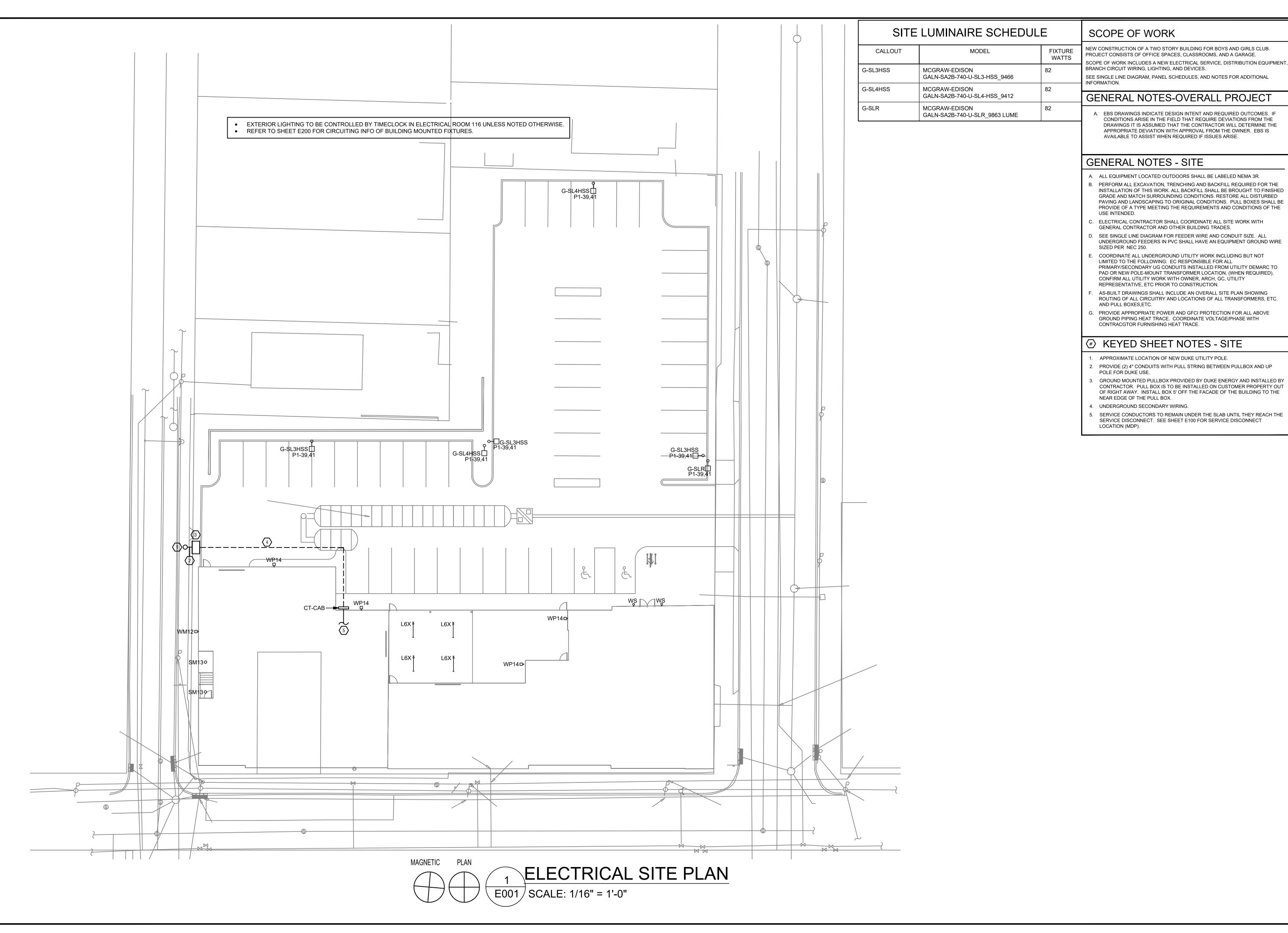
SUPPORT ANGLE FOR ROOF MOUNTED EXHAUST DAMPER ATTACHED FAN WITH BIRD SCREEN DRAWN BY TO CURB 1/4" SPONGE RUBBER GASKET ALL AROUND ANCHOR CURB TO HOOD FLASH AND COUNTERFLASH

ROOF CURB  $\sim$ 

SCHEDULES FOR SIZE

NOTE:
USE SAME CURB AND FLASHING ARRANGEMENT FOR ROOF MOUNTED

lowers (cooling mode) or raises (heating mode) by 4 °F.



CTRICAL-SITE-PLAN.dwg-EBS. Plot Date/Time: Feb 12, 2024-1:27pm - By: SE DRAWINGS HAVE BEEN PREPARED TO DEMONSTRATE COMP, METHODS, AND MATERIALS USED IN CONSTRUCTION ARE INSTRUCTION OF EXISTING EQUIPMENT AND MAIDING

A. EBS DRAWINGS INDICATE DESIGN INTENT AND REQUIRED OUTCOMES. IF CONDITIONS ARISE IN THE FIELD THAT REQUIRE DEVIATIONS FROM THE DRAWINGS IT IS ASSUMED THAT THE CONTRACTOR WILL DETERMINE THE APPROPRIATE DEVIATION WITH APPROVAL FROM THE OWNER. EBS IS

- A. ALL EQUIPMENT LOCATED OUTDOORS SHALL BE LABELED NEMA 3R.
- B. PERFORM ALL EXCAVATION, TRENCHING AND BACKFILL REQUIRED FOR THE INSTALLATION OF THIS WORK. ALL BACKFILL SHALL BE BROUGHT TO FINISHED GRADE AND MATCH SURROUNDING CONDITIONS. RESTORE ALL DISTURBED PAVING AND LANDSCAPING TO ORIGINAL CONDITIONS. PULL BOXES SHALL BE PROVIDE OF A TYPE MEETING THE REQUIREMENTS AND CONDITIONS OF THE
- GENERAL CONTRACTOR AND OTHER BUILDING TRADES.
- . SEE SINGLE LINE DIAGRAM FOR FEEDER WIRE AND CONDUIT SIZE. ALL UNDERGROUND FEEDERS IN PVC SHALL HAVE AN EQUIPMENT GROUND WIRE
- . COORDINATE ALL UNDERGROUND UTILITY WORK INCLUDING BUT NOT LIMITED TO THE FOLLOWING: EC RESPONSIBLE FOR ALL PRIMARY/SECONDARY UG CONDUITS INSTALLED FROM UTILITY DEMARC TO PAD OR NEW POLE-MOUNT TRANSFORMER LOCATION, (WHEN REQUIRED). CONFIRM ALL UTILITY WORK WITH OWNER, ARCH, GC, UTILITY REPRESENTATIVE, ETC PRIOR TO CONSTRUCTION.
- ROUTING OF ALL CIRCUITRY AND LOCATIONS OF ALL TRANSFORMERS, ETC.
- E. PROVIDE APPROPRIATE POWER AND GFCI PROTECTION FOR ALL ABOVE GROUND PIPING HEAT TRACE. COORDINATE VOLTAGE/PHASE WITH CONTRACGTOR FURNISHING HEAT TRACE.

### ★ KEYED SHEET NOTES - SITE

- . APPROXIMATE LOCATION OF NEW DUKE UTILITY POLE.
- 2. PROVIDE (2) 4" CONDUITS WITH PULL STRING BETWEEN PULLBOX AND UP
- CONTRACTOR. PULL BOX IS TO BE INSTALLED ON CUSTOMER PROPERTY OUT OF RIGHT AWAY. INSTALL BOX 5' OFF THE FACADE OF THE BUILDING TO THE
- SERVICE CONDUCTORS TO REMAIN UNDER THE SLAB UNTIL THEY REACH THE SERVICE DISCONNECT. SEE SHEET E100 FOR SERVICE DISCONNECT

205



CHECKED B PRS

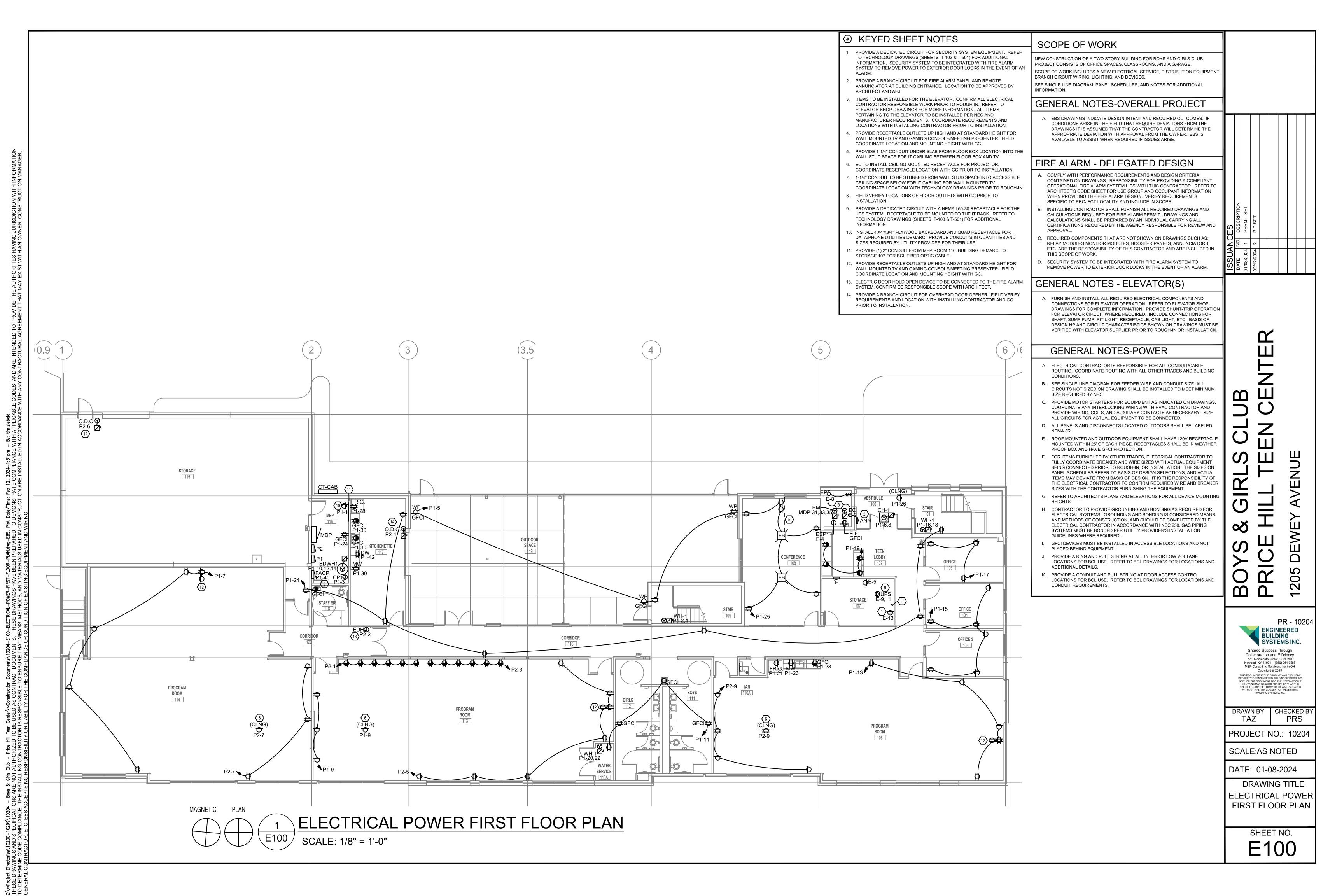
PROJECT NO.: 10204

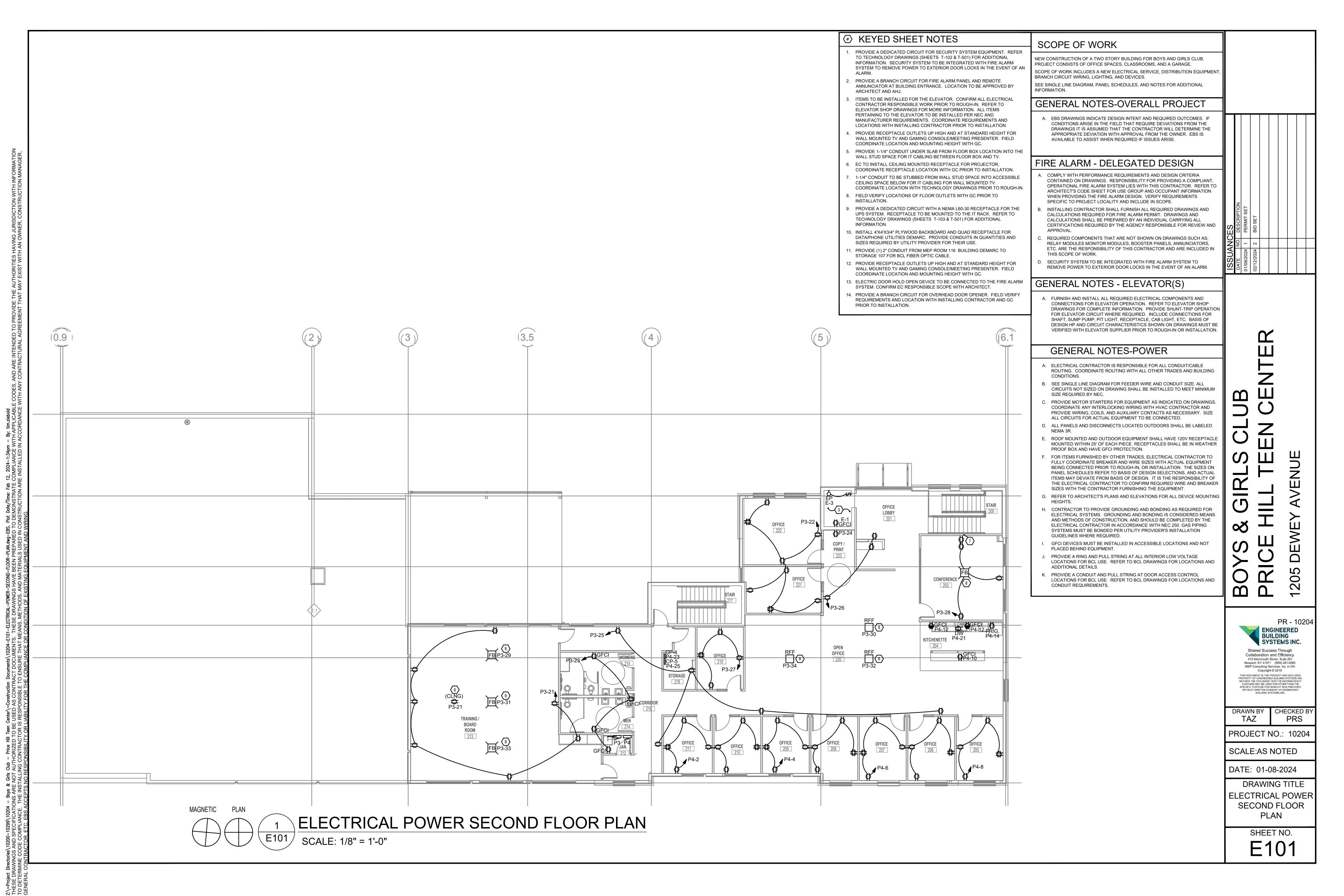
SCALE:AS NOTED

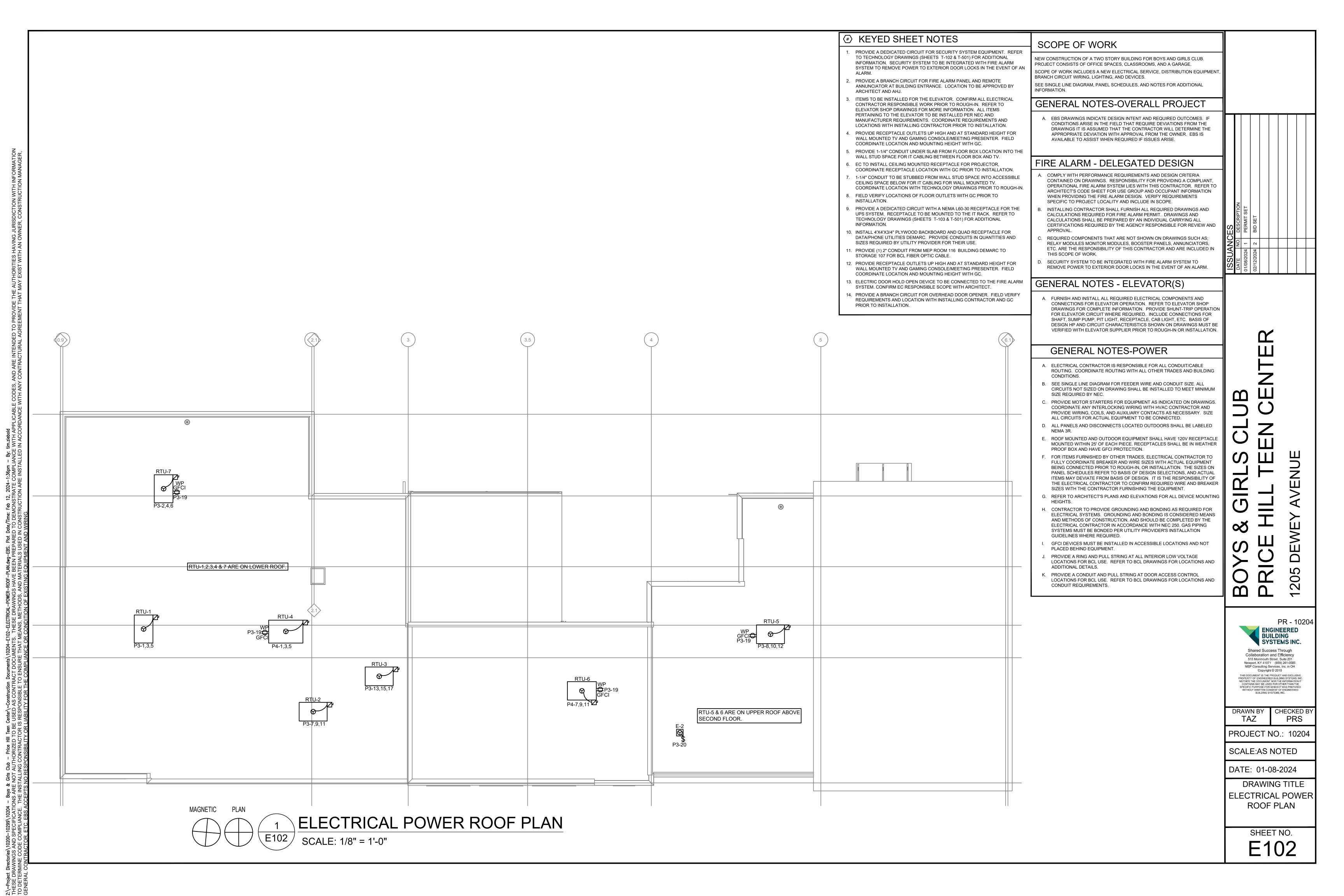
DATE: 01-08-2024

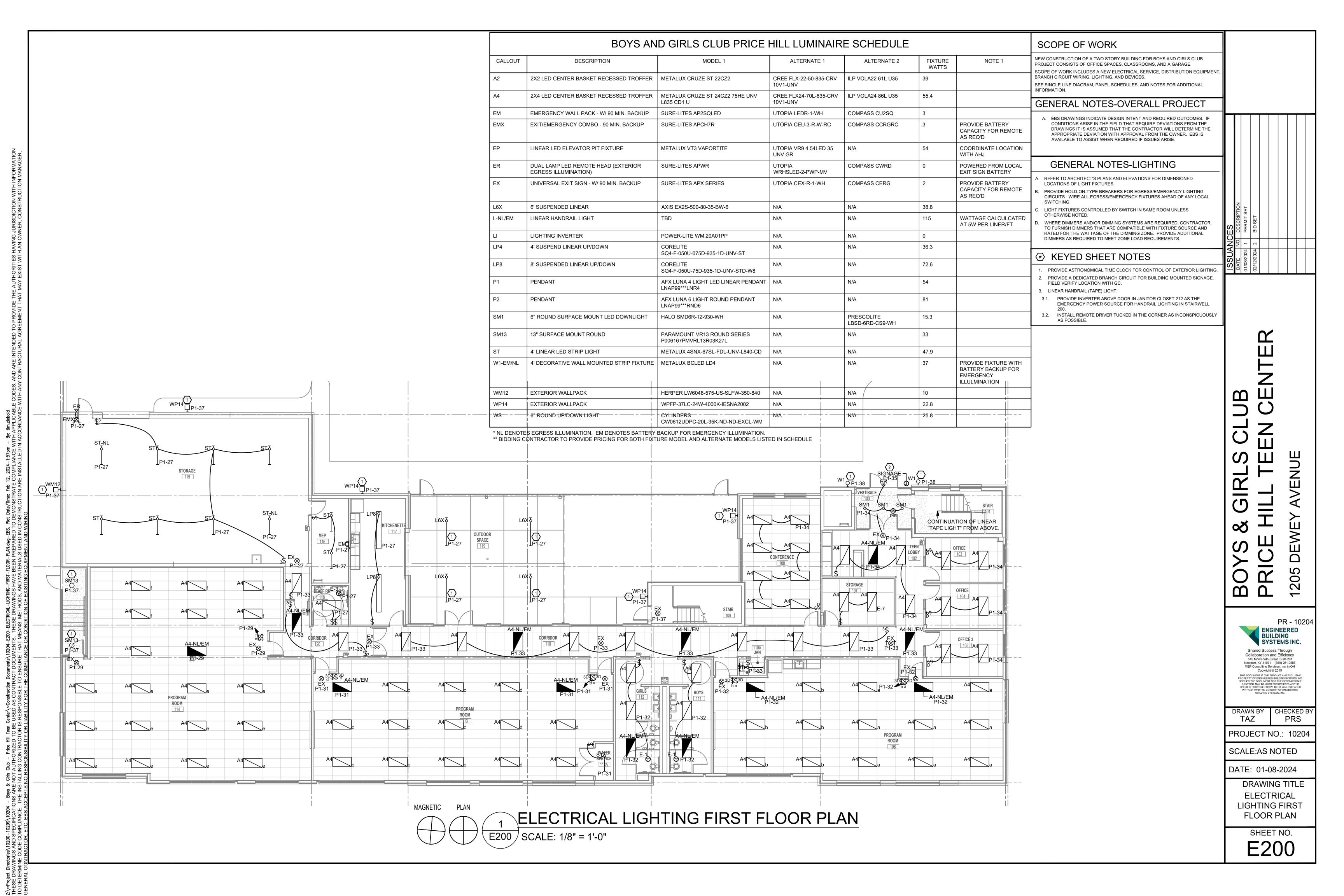
DRAWING TITLE ELECTRICAL SITE PLAN

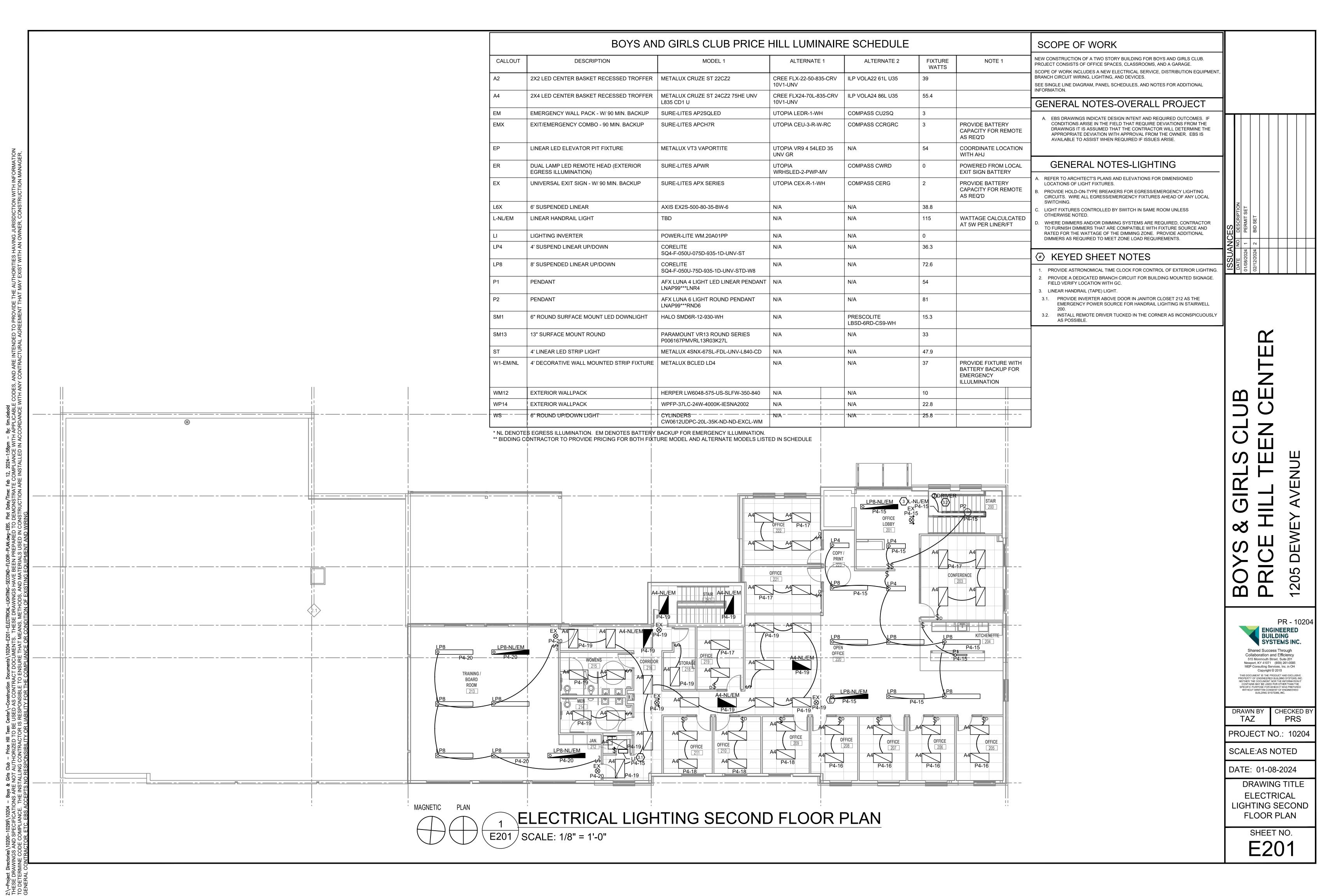
> SHEET NO. E001











### SCOPE OF WORK

NEW CONSTRUCTION OF A TWO STORY BUILDING FOR BOYS AND GIRLS CLUB. PROJECT CONSISTS OF OFFICE SPACES, CLASSROOMS, AND A GARAGE.

SCOPE OF WORK INCLUDES A NEW ELECTRICAL SERVICE, DISTRIBUTION EQUIPMENT, BRANCH CIRCUIT WIRING, LIGHTING, AND DEVICES.

SEE SINGLE LINE DIAGRAM, PANEL SCHEDULES, AND NOTES FOR ADDITIONAL

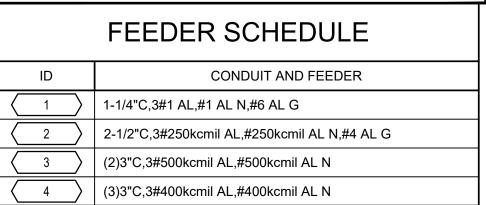
SEE SINGLE LINE DIAGRAM, PANEL SCHEDULES, AND NOTES FOR ADDIT NFORMATION.

### GENERAL NOTES-SINGLE LINE DIAGRAM

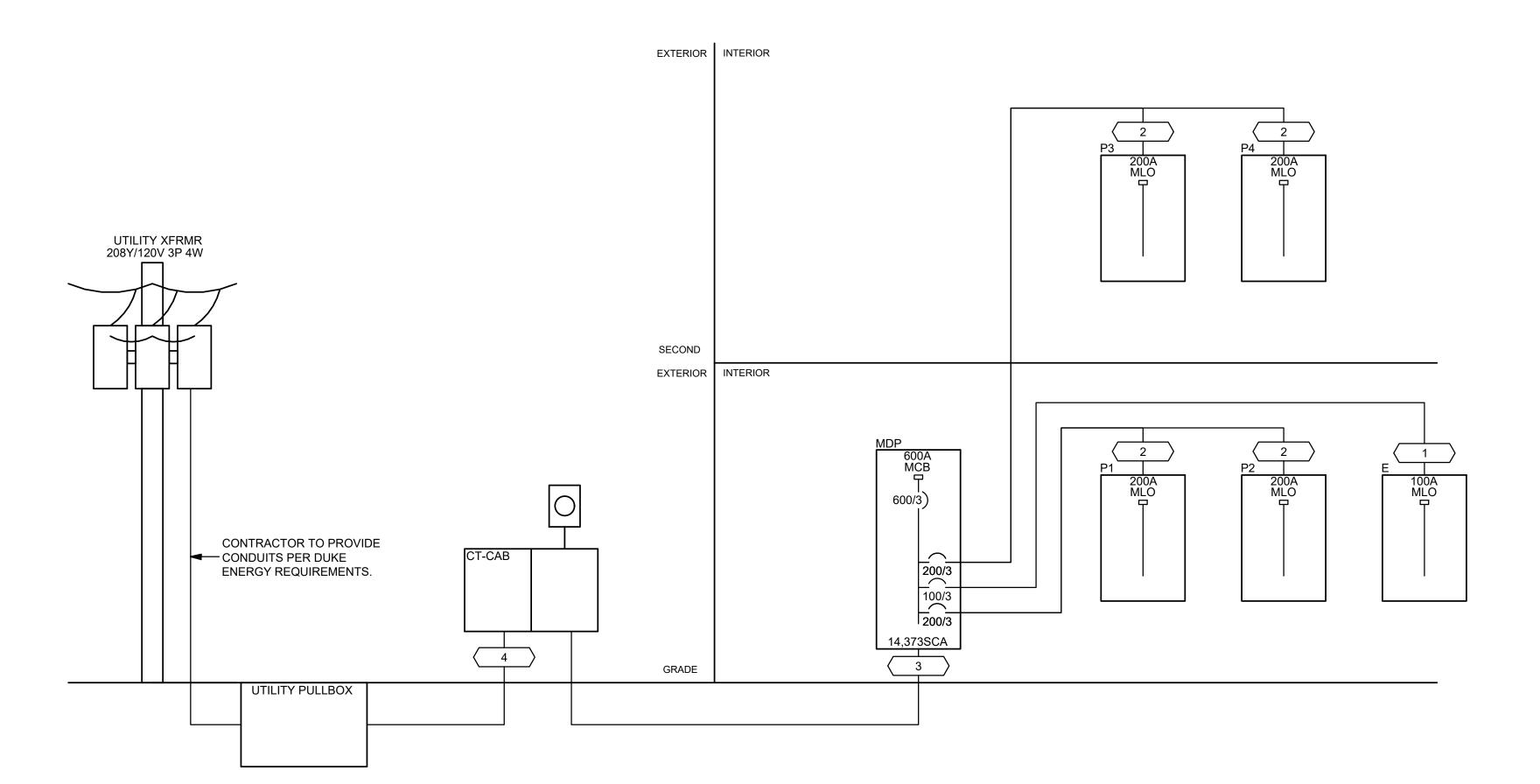
- A. ALL BREAKERS SHALL BE RATED TO WITHSTAND THE AVAILABLE FAULT CURRENT AT THEIR LOCATION. WHERE SERIES- RATED COMBINATIONS ARE USED IN ACCORDANCE WITH NEC 240.86 (B) AND (C) THE CONTRACTOR AND/OR HIS EQUIPMENT SUPPLIER MUST PROVIDE APPROPRIATE DOCUMENTATION AND LABELING.
- WHERE BREAKERS WITH ADJUSTABLE SETTINGS ARE FURNISHED TO THE PROJECT. THE MANUFACTURER'S REP SHALL IDENTIFY AND PROVIDE THE APPROPRIATE SETTINGS TO THE ELECTRICAL CONTRACTOR FOR HIS USE IN INSTALLATION.
   PANEL SCHEDULES INDICATE BREAKER SIZE ONLY. PROVIDE AFCI/GFCI
- PROTECTION AS REQUIRED BY NEC. COORDINATE FINAL BREAKER SIZES/TYPES FOR ITEMS FURNISHED BY OTHERS WITH SHOP DRAWINGS OR PRODUCT INFORMATION FOR ACTUAL EQUIPMENT BEING CONNECTED
- D. ELECTRICAL CONTRACTOR SHALL NOT ORDER OR PURCHASE ANY MATERIALS OR EQUIPMENT UNTIL PERMIT DRAWINGS HAVE BEEN APPROVED BY AHJ.
- PROVIDE SELECTIVE COORDINATION FOR EMERGENCY SYSTEM OVERCURRENT PROTECTION DEVICES IN ACCORDANCE WITH NEC 700.27.

  PROVIDE GROUND-FAULT PROTECTION FOR EQUIPMENT IN ACCORDANCE WITH NEC 240.13 AND NEC 230.95.
- OVERCURRENT PROTECTION DEVICES SUPPLYING TRANSFORMERS WHICH ARE NOT LOCATED WITHIN SIGHT OF THEIR OVERCURRENT PROTECTION SHALL BE LOCKABLE AND THE TRANSFORMER SHALL BE FIELD MARKED WITH THE LOCATION OF THE OVERCURRENT PROTECTION DEVICE.

  CONTRACTOR TO PROVIDE GROUNDING AND BONDING AS REQUIRED FOR
- H. CONTRACTOR TO PROVIDE GROUNDING AND BONDING AS REQUIRED FOR ELECTRICAL SYSTEMS. GROUNDING AND BONDING IS CONSIDERED MEANS AND METHODS OF CONSTRUCTION, AND SHOULD BE COMPLETED BY THE ELECTRICAL CONTRACTOR IN ACCORDANCE WITH NEC 250. GAS PIPING SYSTEMS MUST BE BONDED PER UTILITY PROVIDER'S INSTALLATION GUIDELINES WHERE REQUIRED.

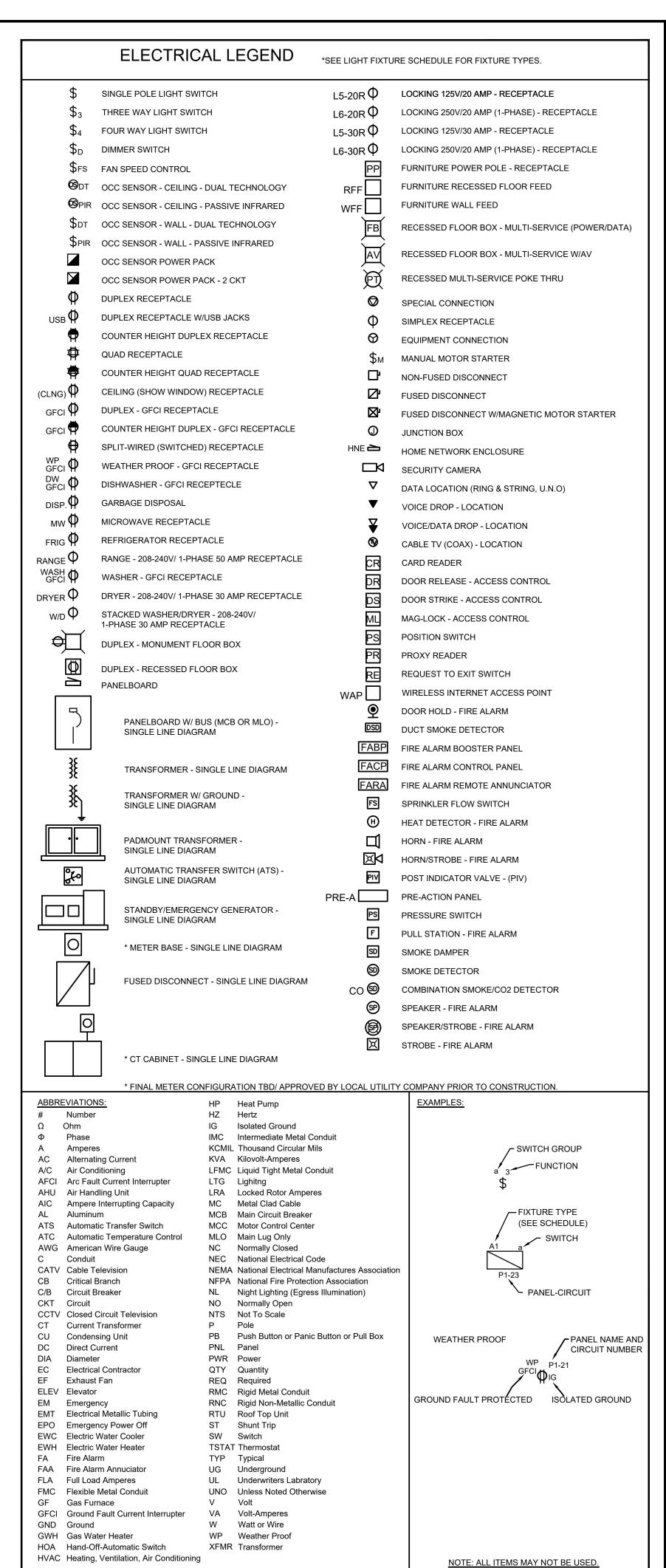


SIZING METHOD: COMPACT AL 75°C 100A AND ABOVE, CU 75°C BELOW 100A



CTRICAL-DETAILS.dwg-EBS. Plot Date/Time: Feb 12, 2024-2:03pm - By: tim. SE DRAWINGS HAVE BEEN PREPARED TO DEMONSTRATE COMP., METHODS, AND MATERIALS USED IN CONSTRUCTION ARE INSTRUCTION OF EXISTING EQUIPMENT AND WIDING

SINGLE LINE DIAGRAM



BOYS & GIRLS CLUB PRICE HILL TEEN CEN

PR - 10204

ENGINEERED
BUILDING
SYSTEMS INC.

Shared Success Through
Collaboration and Efficiency
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MEP Consulting Services, Inc. in OH
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200

DRAWN BY CHECKED BY TAZ PRS

PROJECT NO.: 10204

SCALE:AS NOTED

DATE: 01-08-2024

DRAWING TITLE

ELECTRICAL DETAIL

E300

M( FE	DOM DUNTING D FROM DTE	FLUSH MDP			BUS AN	208Y/1 MPS 20 AL 1009	0	3P 4W		N	AIC <b>T.B.D</b> MAIN BKR LUGS <b>STA</b>	MLO
CKT #	CKT BKR	LOAD KVA	CIRCUI	T DESCRI	PTION		CKT #	CKT BKR	LOAD KVA	CIRC	UIT DESC	RIPTION
1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31	20/1 20/1 20/1 20/1 20/1 20/1 20/1 20/1	0.36 1.2 0.72 1.26 0.72 0.72 1.26 1.44 0.72 0.72 0.5 1.68 1.44 0.943 1.11 0.888	RECEPT E-3, L LIGHTIN LIGHTIN	TACLE	EPTACLE	а b с а b с а	2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32	20/2   30/2   40/3   20/2   20/2   20/1 20/1 20/1 20/1 20/1	3 4 9 3 1.8 0.18 0.5 1.86 1.38	RECE FRIG MICR E-1,	1 1 1 EPTACLE EPTACLE OWAVE, R	RECEPTACLE
33 35 37 39 41	20/1 20/1 20/1 20/2	0.784 1.2 0.169 0.984	LIGHTIN SIGNAG LIGHTIN LIGHTIN	E G		c a b	36 38 40	20/1 20/1 20/1 20/1 20/1	1.05 0.074 0.052 0.1 1.2	t	TING	PANEL
		ı	CONN KVA	CALC KVA		<u> </u>		•		ONN VA	CALC KVA	
L	GHTING ARGEST MOTOR OTORS	0	.33	10.4 0.025 0.3	(125%) (25%) (100%)		CON	EPTACLE ITINUOUS ICONTINU TING	9		11.5 11.3 5.3 13	(50%>10) (125%) (100%) (100%)
							BALA LO PHA PHA	AL LOAD ANCED 3-I AD ASE A ASE B ASE C	PHASE		51.8 144 A 96.2% 93.2% 111%	

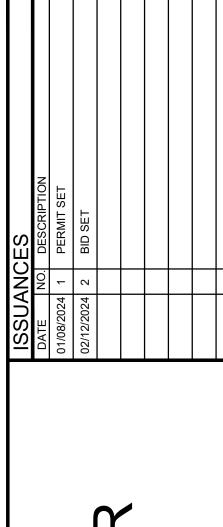
M( FE	DOM DUNTING D FROM DTE	FLUSH MDP			BUS AN	208Y/1 MPS 20 AL 100%	0	3P 4W			М	IC T.B.D IAIN BKR UGS STA	MLO
CKT #	CKT BKR	LOAD KVA	CIRCUIT	DESCRI	PTION		CKT #	CKT BKR	LO.	AD A	CIRCU	JIT DESC	RIPTION
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7 9 11	20/1 20/1 20/1	0.72 0.9 0	RECEPT RECEPT SPACE SPACE	ACLE		a b c	8 10 12	20/1 20/1 20/1	0 0		SPAC SPAC SPAC	E E E	
13 15 17 19	20/1 20/1 20/1 20/1	0 0	SPACE SPACE SPACE			a   b   c   a	14 16 18 20	20/1 20/1 20/1 20/1	0 0 0		SPAC SPAC SPAC	E E E	
21 23 25 27	20/1 20/1 20/1 20/1	0 0 0	SPACE SPACE SPACE			c a b	<ul><li>22</li><li>24</li><li>26</li><li>28</li></ul>	20/1 20/1 20/1 20/1	0 0 0		SPAC SPAC SPAC	E E E	
29 31 33 35 37 39	20/1 20/1 20/1 20/1 20/1 20/1	0 0 0 0	SPACE SPACE SPACE SPACE SPACE SPACE				30 32 34 36 38 40	20/1 20/1 20/1 20/1 20/1 20/1	0 0 0 0 0		SPAC SPAC SPAC SPAC SPAC	E E E	
41	20/1	0	SPACE	CALC		c	42	20/1	0	СО	SPAC NN	E CALC	
	ARGEST MOTOR	<del>-</del>	1.66	0.414	- (25%)		REC	ORS EPTACLE		3.31 5.4	/A 	3.31 5.4 0.002	- (100%) (50%>10) (100%)
							BAL/ LO	ASE A ASE B	PHAS	E		9.13 25.3 A 62% 125% 113%	-

M <sup>c</sup> FE	DOM DUNTING ED FROM DTE	FLUSH MDP			VOLTS 208 BUS AMPS NEUTRAL	10	0	3P 4W		ı	AIC T.B.D Main BKR Lugs Sta	MLO
CKT #	CKT BKR	LOAD KVA	CIRCUI	Γ DESCRIF	TION		CKT #	CKT BKR	LOAD KVA	CIRC	CUIT DESC	RIPTION
1 3 5 7 9 11 13 15 17 19 21 23	20/1 20/1 20/1 20/1 30/2   20/1 20/1 20/1 20/1 20/1	0.18 0.054 0.18 0.111 3 0.18 0 0 0	RECEPT LIGHTIN RECEPT LIGHTIN UPS SECURI SPACE SPACE SPACE SPACE SPACE	G ACLE	A	а b с а b с	6 8 10 12 14 16 18 20 22	20/1 20/1 20/1 20/1 20/1 20/1 20/1 20/1	1.2 0.5 0.18 0.054 0 0 0 0 0	ESP1	EPTACLE TING DE	NTROLS
L	GHTING	_	CONN KVA .42	CALC KVA 1.77	(125%)		NON TOT BAL LO PH/	EPTACLES ICONTINUS AL LOAD ANCED 3-F AD ASE A ASE B	6 1.22 OUS 3	DNN VA	CALC KVA 1.22 3 5.99 16.6 A 86.2% 111%	- (50%>10) (100%)

Z:\~Project Directories\10200-10299\10204 - Boys & Girls Club - Price Hill Teen Center\~Construction Documents\10204-E301-ELECTRICAL-DETAILS.dwg-EBS. Plot Date/Time: Feb 12, 2024-2:03pm - By: tim.ziebold
THESE DRAWINGS AND SPECIFICATIONS ARE NOT AUTHORIZED TO BE USED AS CONTRACT DOCUMENTS. THESE DRAWINGS HAVE BEEN PREPARED TO DEMONSTRATE COMPLIANCE WITH APPLICABL
TO DETERMINE CODE COMPLIANCE. THE INSTALLING CONTRACTOR IS RESPONSIBLE TO ENSURE THAT MEANS, AND MATERIALS USED IN CONSTRUCTION ARE INSTALLED IN ACCORDANCE GENERAL CONTRACTOR, ETC. EBS ACCEPTS NO RESPONSIBILITY OR LIABILITY FOR THE COMPLIANCE OR CONDITION OF EXISTING EQUIPMENT AND WIRING.

MC FE	OOM DUNTING D FROM DTE				VOLTS 2: BUS AMP NEUTRAL	S <b>20</b>	0	3P 4W		N	AIC T.B.D Main BKR Lugs Sta	MLO
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1 3 5 7	45/3                 	9.37	RTU-1	, <u> </u>	non	a b c a b	2 4 6 8	30/3       50/3	7.21	RTU-	-7	,
1 3 5 7	30/3	9.37	RTU-3			c a b c	12 14 16 18	20/3	0	SPAC	CE .	
21 23 25 27 29 31 33 57	20/1 20/1 20/1 20/1 20/1 20/1 20/1 20/1	0.72 1.44 0.72 0.9 0.9 0.18 0.18 0	RECEPT RECEPT RECEPT RECEPT RECEPT RECEPT SPACE SPACE	TACLE TACLE TACLE TACLE TACLE TACLE		b с а b с а	22 24 26 28 30 32 34 36 38	15/1 20/1 20/1 20/1 20/1 20/1 20/1 20/1 20	0.228 1.8 0.18 0.54 0.9 0.18 0.18 0	RECE RECE RECE RECE RECE SPAC	CE	
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			CONN KVA	CALC KVA						NN VA	CALC KVA	
N	ARGEST MOTOR OTORS		5.1	3.78 0.228	(25%) (100%)		HEA	EPTACLES TING DLING	9.18 52.2 52.2	!	9.18 52.2 0	(50%>10) (100%) (0%)
							BALA LO PHA PHA	AL LOAD ANCED 3-F AD ASE A ASE B ASE C	PHASE		65.4 182 A 98.1% 111% 90.9%	_

	JNTING FROM				VOLTS BUS AM NEUTRA	IPS <b>20</b>	0	3P 4W		1	AIC <b>T.B.</b> D MAIN BKR LUGS <b>ST</b> A	R MLO
CKT (	CKT BKR	LOAD KVA	CIRCUI	T DESCRI	PTION		CKT #	CKT BKR	LOAD KVA	CIRC	CUIT DESC	CRIPTION
3 5 7 9 11 13 15 17 21 22 22 22 22 22 33 33 33 33 33 33 33 33	45/3   45/3   20/1 20/1 20/1 20/1 20/1 20/1 20/1 20/1 20/1 20/1 20/1 20/1	10.4 11.2 0 0.942 0.665 1.24 1.2 0.1 0.0 0 0 0		IG IG IG ASHER (VVT CON (VVT CON	•	сарсарсарсар	4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40	20/1 20/1 20/1 20/1 20/1 20/1 20/1 20/1	1.8 1.8 0.9 0.18 0.36 0.5 0.443 0.332 0.512 0 0 0 0 0 0 0	RECI RECI RECI RECI FRIG	TING TING TING CE CE CE CE CE CE CE CE CE	
			CONN KVA	CALC KVA			<u> </u>			ONN (VA	CALC KVA	
	HTING	4	1.13	5.16	(125%)			EPTACLE			6.84	(50%>10)
	RGEST OTOR	1	1.2	2.79	(25%)		HEA	ICONTINU TING DLING	JOUS 1.9 21. 21.	6	1.9 21.6 0	(100%) (100%) (0%)
								AL LOAD	DUAGE		38.3	
							BAL/	ANCED 3- AD	PHASE		106 A	
								ASE A ASE B			107% 102%	





CHECKED BY DRAWN BY TAZ

PROJECT NO.: 10204

SCALE:AS NOTED

DATE: 01-08-2024

DRAWING TITLE **ELECTRICAL DETAILS** 

> SHEET NO. E301

 $\triangleleft$ AV1 $\triangleleft$ AV2

**TELECOMMUNICATIONS** 

-J-J- ≡

**AUDIO VISUAL** 

ARPD IS NOT TO BE USED IN , ARQ. RIGHTS RESERVED.

### **AUDIO VISUAL SYMBOLS**

**SHEET INDEX** 

T-002

T-003

T-012

T-101

T-102

T-103

EXT CAM

SHEET NUMBER SHEET NAME

TECHNOLOGY LEGENDS

TECHNOLOGY SITE PLAN

FIRST FLOOR CABLE PATHWAY PLAN

SECOND FLOOR CABLE PATHWAY PLAN

TECHNOLOGY WIRELESS FIRST FLOOR PLAN

TECHNOLOGY WIRELESS SECOND FLOOR PLAN

COMMUNICATIONS NETWORK FIRST FLOOR PLAN

COMMUNICATIONS NETWORK SECOND FLOOR PLAN

SECURITY

EL ML DC

COORD W/CEILING

**TECHNOLOGY NOTES** 

**TECHNOLOGY NOTES** 

SYMBOL	SECTION	DESCRIPTION
<∫AV1	274100	PRESENTATION POINT OUTLET LOCATION. REFER TO THE FACEPLATE DETAILS AND CONNECTIVITY DETAILS FOR ADDITIONAL INFORMATION. PROVIDE A TELEPHONE HANDSET.
< AV2	274100	DISPLAY OUTLET LOCATION. REFER TO THE FACEPLATE DETAILS AND CONNECTIVITY DETAILS FOR ADDITIONAL INFORMATIONIF P INDICATES OUTLET FOR INTERACTIVE FLAT PANEL, MOUNTED AT 60" AFF. COORDINATE WITH MOUNTING BRACKET AND ARCHITECTURAL.
$\square$ X	274000	DISPLAY MONITOR. "X" INDICATES SIZE OF MONITOR EQUIPPED WITH MOUNTING BRACKETIFP INDICATES INTERACTIVE FLAT PANEL. COORDINATE WITH ARCHITECTURAL.
H(S)	274100, 275120, 275127	WALL MOUNTED SPEAKER. "S" INDICATES SOUND SYSTEM, OTHER SPEAKERS INCLUDE: (PA) PUBLIC ADDRESS; (CS) CLASSROOM SOUND FIELD. SUBSCRIPT "V" INDICATES THAT THE SPEAKER IS VOLUME CONTROLLED.
S	274100, 275120, 275127	CEILING MOUNTED SPEAKER. "S" INDICATES SOUND SYSTEM, OTHER SPEAKERS INCLUDE: (PA) PUBLIC ADDRESS; (CS) CLASSROOM SOUND FIELD. SUBSCRIPT "P" INDICATES PENDANT MOUNTED. SUBSCRIPT "V" INDICATES THAT THE SPEAKER IS VOLUME CONTROLLED.

**SHEET INDEX** 

SHEET NUMBER SHEET NAME

PAGING SYSTEM FIRST FLOOR PLAN

SECURITY FIRST FLOOR PLAN

A/V FIRST FLOOR PLAN

A/V SECOND FLOOR PLAN

PAGING SYSTEM SECOND FLOOR PLAN

TECHNOLOGY ROOM AND GROUNDING

TECHNOLOGY DETAILS (FACE PLATES)

TECHNOLOGY DETAILS (ACCESS CONTROL DOORS)

TECHNOLOGY DETAILS (SECURITY CAMERAS)

TECHNOLOGY DETAILS (INTRUSION DETECTION)

211B055

EmbossDesign.com 906 Monmouth Street, Newport, KY 41071 (859)431-8612



CINCIN

<u>o</u>

DATE

NO. DESCRIPTION

TECHNOLOGY LEGENDS

21-052

1/8/2024 10:07:31 AM

DATE:

NOTES

- ALL DIMENSIONS SHOWN ARE ABOVE FINISHED FLOOR (AFF) OR ABOVE GRADE (AG)

- USE STANDARD MOUNTING HEIGHTS UON. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL MOUNTING HEIGHT DETAILS. PROJECT PLANS AND DETAILS MAY PROVIDE

TO CENTERLINE OF COMPONENT.

ADDITIONAL GUIDANCE.

ABOVE CEILING/EXTERIOR HEIGHTS

SITS ON DESKTOP

FINISHED FLOOR (FF

18" AFF

GB-

- ALL MATERIALS SPECIFIED OR NOTED SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.
- THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS, LICENSES, AND ALL UTILITY CHARGES, AND ARRANGE FOR ALL REQUIRED INSPECTIONS.
- REFER TO THE ARCHITECTURAL INTERIOR ELEVATIONS FOR DEVICE LOCATIONS AND MOUNTING HEIGHTS FOR ADDITIONAL DETAILS. COORDINATE EXACT DEVICE LOCATIONS PRIOR TO ROUGH-IN
- ALL BIDDERS SHALL VISIT AND EXAMINE THE SITE. ANY DISCREPANCIES BETWEEN DRAWINGS AND SPECIFICATIONS SHALL BE PROMPTLY BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION DURING THE BIDDING PERIOD. NO ALLOWANCE SHALL BE MADE TO THE CONTRACTOR FOR FAILURE TO IDENTIFY DISCREPANCIES DURING THE BIDDING PERIOD.
- THE CONTRACTOR SHALL INCLUDE ALL OVERTIME AND PREMIUM TIME WORK THAT MUST BE PERFORMED DURING THE PERIOD OF PERFORMANCE. NO ADDITIONAL COMPENSATION WILL BE AWARDED FOR OVERTIME WORK
- COORDINATE EXACT LOCATIONS OF EQUIPMENT WITH OTHER TRADES. VERIFY EXACT WIRING AND CONNECTION REQUIREMENTS WITH SUBMITTAL DOCUMENTS BEFORE INSTALLATION. SPECIALTY OUTLET TYPES SHALL BE VERIFIED BEFORE ORDERING. ALL ELECTRICAL AND COMMUNICATION WORK SHOWN HERE MUST BE VERIFIED AND COORDINATED IN FIELD BEFORE INSTALLATION
- THE CONTRACTOR SHALL PROTECT ALL EXISTING AND NEW CONSTRUCTION FROM DAMAGE. EXISTING CEILINGS, WALLS, FLOORS AND ALL OTHER BUILDING COMPONENTS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION IF DAMAGED. ALL DAMAGES TO THE BUILDING OR IT'S CONTENTS SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR RESPONSIBLE FOR THE DAMAGE TO THE OWNERS SATISFACTION.
- ALL NEW CONSTRUCTION SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) AND CHAPTER 11 OF THE INTERNATIONAL BUILDING CODE
- ALL WORK REQUIRING POWER OR COMMUNICATION OUTAGES OR DISRUPTION OF OWNER FUNCTIONS SHALL BE COORDINATED WITH THE PROJECT ENGINEER, OWNER AND OWNER ITS DEPARTMENT. REQUESTS FOR, NOTIFICATIONS OF, AND APPROVALS FOR OUTAGES AND DISRUPTIONS SHALL BE MADE TO OWNER AND THE ENGINEER IN WRITING, 2 WEEKS PRIOR TO THE REQUESTED OUTAGE DATE. OUTAGES SHALL NORMALLY OCCUR DURING THE OWNER'S "OFF" HOURS
- ALL COMMUNICATION WORK SHALL BE INSTALLED BY CERTIFIED CONTRACTORS AND THEIR EMPLOYEES PER THE CONTRACT DOCUMENTS.
- THE CONTRACTOR SHALL COORDINATE ALL EQUIPMENT INSTALLATION TO MAINTAIN HEADROOM AND KEEP OPENINGS AND PASSAGEWAYS CLEAR. THE CONTRACTOR SHALL COORDINATE SYSTEMS INSTALLATION TO MINIMIZE CONFLICT WITH EXISTING BUILDING UTILITIES AND OTHER TRADES WORK.
- THE CONTRACTOR SHALL VERIFY EQUIPMENT RACK AND CABINET PLACEMENT AND LAYOUT WITH OWNER AND OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION
- ANY LOW VOLTAGE CABLING IN AN OPEN-CEILING AREA (EXAMPLE GYMNASIUM) SHALL BE INSTALLED IN CONDUIT TO THE NEAREST ACCESSIBLE CABLE TRAY OR TELECOM ROOM (TR) UNLESS NOTED OTHERWISE
- ALL INSTALLATIONS OF EXPOSED EQUIPMENT SHALL BE COORDINATED WITH ASSOCIATED ARCHITECTURAL DETAILS TO MEET INTENDED AESTHETIC APPEARANCE. ALL WIRING, CONDUITS, BACK BOXES AND OTHER ASSOCIATED CONNECTIONS SHALL BE CONCEALED BEHIND EQUIPMENT OR WITHIN EXPOSED MOUNTED BRACKETS. EXPOSED WIRING IS PROHIBITED.
- THE COLOR AND FINISH OF ALL EXPOSED DEVICES IN PUBLIC AREAS SHALL BE REVIEWED AND APPROVED BY THE ARCHITECT PRIOR TO INSTALLATION.
- ALL CONDUIT FRAMING SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR. CONDUITS SHALL BE INSTALLED PARALLEL OR PERPENDICULAR TO WALLS. ANGLED CONDUITS ARE PROHIBITED.
- INCLUDE ALL REQUIRED JUNCTION AND PULL BOXES REGARDLESS OF INDICATION ON THE DRAWINGS (WHICH DUE TO THE SYMBOLIC METHODS OF NOTATION, MAY BE OMITTED).
- PULL-BOXES SHALL BE PROVIDED WHERE THE COMBINED SUM OF THE BENDS EXCEEDS 180 DEGREES AND/OR EVERY 100 LINEAR FEET. THE BEND RADIUS FOR CONDUITS SHALL BE 10X THE OUTSIDE DIAMETER FOR OPTICAL FIBER AND 4X THE OUTSIDE DIAMETER FOR MULTIPAIR COPPER.
- PROVIDE LONG SWEEPING BENDS FOR AL COMMUNICATIONS CONDUITS 2-INCHES AND LARGER. LB FITTINGS FOR COMMUNICATION CONDUITS ARE PROHIBITED.
- PROVIDE PULL TAPE IN ALL EMPTY CONDUIT AND INNERDUCT. PULL TAPE SHALL BE RATED FOR 200 LBS IN ALL CONDUIT. CABLE TRAY SHALL BE TRAPEZE OR CANTILEVER MOUNTED ONLY. BOND ALL SECTIONS OF TRAY TOGETHER WITH MANUFACTURER APPROVED BONDING METHOD PER NEC. ALL CABLE TRAY TO BE 12-INCHES WIDE, UON. CABLE TRAY SHALL BE PROVIDED WITH 25 PERCENT SPARE CAPACITY.
- PROVIDE A MINIMUM OF FOUR (4) CONDUITS BETWEEN STACKED CLOSETS ON SUCCESSIVE FLOORS.
- ALL COMMUNICATIONS OUTLET BOXES SHALL BE A 4 11/16-INCH SQUARE BY 2 1/2-INCH DEEP WITH A MUD RING UON. PROVIDE A MINIMUM OF ONE (1) 1-INCH CONDUIT FOR ALL COMMUNICATIONS OUTLET BOXES. REFER TO COMMUNICATIONS DETAILS FOR SPECIFIC OUTLET BOX AND CONDUIT QUANTITY AND SIZE INFORMATION.
- ALL EQUIPMENT SHALL BE NEW. UON.
- BOND ALL METALLIC EQUIPMENT, RACKS, CABINETS, CABLE TRAY, CONDUITS, SLEEVES, ETC. TO THE TELECOMMUNICATIONS MAIN GROUND BUS WITH 2-HOLE NON-TWISTING LUGS. ALL CONDUITS SHALL BE REAMED WITH BUSHINGS INSTALLED.
- PROVIDE ALL CORE DRILLING, CUTTING, AND PATCHING AND RESTORATION OF ALL FINISHED AREAS REQUIRED TO INSTALL ALL CONDUITS, SLEEVES, BOXES, ETC. SEAL ALL CORE DRILLS AFTER RACEWAY, CONDUITS, ETC. ARE INSTALLED.
- PLACEMENT OF UNAUTHORIZED CABLING IN THE COMMUNICATIONS PATHWAYS I.E. CABLE TRAY, J HOOKS, RACEWAY, ETC. IS PROHIBITED.
- ALL SLEEVES AND PENETRATIONS SHALL BE ACOUSTICALLY AND FIRE TREATED TO MEET WALL RATING. FIRESTOPPING ASSEMBLIES SHALL BE PROVIDED AT PENETRATIONS OF CONDUITS, BUS DUCTS, CABLES, CABLE TRAYS AND OTHER COMMUNICATIONS ITEMS. REFER TO THE THROUGH PENETRATION FIRESTOPPING SPECIFICATION FOR COMPLETE REQUIREMENTS.

### **GENERAL TELECOM NOTES**

- ALL WORK SHALL COMPLY WITH APPLICABLE ANSI/TIA/BICSI STANDARDS.
- FIELD COORDINATE THE LOCATION OF COMMUNICATIONS EQUIPMENT IN ALIGNMENT WITH APPLICABLE CODES.
- THE CONTRACTOR SHALL COORDINATE DEVICE OUTLET LOCATIONS WITH ARCHITECTURAL AND CASEWORK DRAWINGS PRIOR TO ROUGH-IN. REPORT ANY CONFLICTS TO THE CM, ARCHITECT, AND ENGINEER FOR RESOLUTION.
- ALL COMMUNICATIONS CABLING SHALL BE INSTALLED IN CONDUITS, CABLE TRAY, OR AN APPROVED RACEWAY SYSTEM. WHERE CABLE TRAY, CONDUIT, OR RACEWAY IS NOT AVAILABLE ALL CABLES SHALL BE INSTALLED IN J-HOOKS SUPPORTED EVERY 5-FEET, SUFFICIENT IN SIZE TO HANDLE ALL BUNDLED CABLES WHILE MINIMIZING CRUSHING. COPPER AND FIBER OPTIC CABLES WILL BE DIVIDED INTO SEPARATE BUNDLES AND INSTALLED IN SEPARATE J-HOOKS. IF CABLE SLACK EXCEEDS 12-INCHES BETWEEN SUPPORTS, ADDITIONAL SUPPORTS WILL BE INSTALLED TO TAKE UP SLACK AND RELIEVE
- CATEGORY 6/6A CABLES SHALL BE CONTINUOUS FROM TELECOM ROOM TO WORK AREA OUTLET AND FREE FROM SPLICES, REVERSES, GROUNDS, OR OTHER CONNECTIONS. PROVIDE A 5-FOOT SERVICE LOOP IN THE CEILING (AT THE WORK AREA END) FOR EACH HORIZONTAL CABLE.
- DO NOT INSTALL CATEGORY 6/6A HORIZONTAL CABLES THAT EXCEED 90 METERS.
- ALL COPPER TERMINATION HARDWARE SHALL BE 110 STYLE IDC, UON.
- COMMUNICATIONS CABLING SHALL NOT BE SPLICED, UON
- COMMUNICATIONS CONDUIT FILL CAPACITIES ARE GOVERNED BY THE NFPA-70 (NEC) AND SHALL BE FOLLOWED. DO NOT EXCEED 40 PERCENT FILL ON ANY COMMUNICATIONS CONDUIT.
- CAREFULLY LAY ALL CABLE WITH APPROPRIATE RADIUS OF CURVATURE AND PROTECT AT BENDS AND CORNERS. OBSERVE MINIMUM BEND RADIUS AND TENSION LIMITATIONS AS SPECIFIED BY TIA. ANY ADDITIONAL SLEEVES AND/OR PENETRATIONS REQUIRED FOR THE INSTALLATION OF COMMUNICATIONS SYSTEM CABLING NOT SHOWN ON THESE DRAWINGS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- THE CONTRACTOR SHALL ENSURE THAT ALL INSTALLED CABLES ARE FREE FROM TWISTS, KINKS, SHARP BENDS, CUTS, GOUGES OR ANY OTHER PHYSICAL DAMAGE
- MONITOR CABLE PULL TENSION TO ENSURE MANUFACTURER'S RECOMMENDATIONS AND INDUSTRY STANDARDS ARE NOT EXCEEDED.
- ALL CATEGORY 6/6A CABLING MAY BE ROUTED IN THE SAME PATHWAY.
- THE CONTRACTOR SHALL ENSURE ALL CATEGORY 6/6A CABLING IS SEPARATED FROM LIGHTING, POWER, 70-VOLT AUDIO, MICROPHONE LEVEL, RF, AND SPEAKER LEVEL CIRCUITS IAW ANSI/TIA-568 GENERIC TELECOMMUNICATIONS CABLING FOR CUSTOMER PREMISES
- CABLING ASSOCIATED WITH THE WIRELESS ACCESS POINTS SHALL BE PROVIDED WITH A 15' COIL OF CABLE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ADJUST THE LOCATIONS OF THE WIRELESS ACCESS POINTS, AS REQUIRED, AFTER CONDUCTING A SITE VERIFICATION SURVEY TO ENSURE COVERAGE THROUGHOUT THE FACILITY.
- ALL HORIZONTAL AND BACKBONE COMMUNICATIONS CABLING SHALL BE PLENUM RATED, UON. ANY LOW VOLTAGE DEVICE INSTALLED IN A PLENUM-RATED ENVIRONMENT MUST BE RATED FOR PLENUM USE.
- ALL COMMUNICATIONS CABLING INSTALLED UNDER THE FLOOR SLAB SHALL BE WET-LISTED. CONCEAL CABLING WITHIN CONDUIT BACK TO THE TERMINATION LOCATION OR TRANSITION TO PLENUM RATED CABLING ABOVE THE CEILING
- ALL COMMUNICATIONS CABLING SHALL BE PROTECTED FROM EXPOSURE TO PAINT OR ANY OTHER FOREIGN MATERIAL THAT WOULD NEGATIVELY IMPACT THE VALIDITY OF THE MANUFACTURER'S PERFORMANCE WARRANTY. IF ANY CABLE IS EXPOSED TO PAINT AT ANY POINT, REGARDLESS OF THE AMOUNT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING THE CABLE(S) AFFECTED AND WILL REPLACE THE CABLE(S) AT NO COST TO THE OWNER PER THE INSTALLATION SPECIFICATIONS INCLUDING TESTING.
- PROVIDE ALL COPPER PATCH CORDS AND OPTICAL FIBER JUMPERS AT BOTH THE WORK AREA AND TELECOM ROOM ENDS. REFER TO THE SPECIFICATIONS FOR ADDITIONAL DETAILS.
- ALL LABELING SHALL COMPLY WITHANSI/ TIA-606 ADMINISTRATION STANDARD FOR TELECOMMUNICATIONS INFRASTRUCTURE. PROVIDE LABELING FOR ALL MODULAR OUTLETS, FACEPLATES, PATCH PANELS, CABLES, PATCH CABLES, FIBER SPLICE TRAYS, RACKS, CABINETS, PBB/SBB(S), ETC. REFER ELSEWHERE IN THE DRAWINGS AND SPECIFICATIONS FOR THE OWNER'S EXACT REQUIREMENTS.
- TELECOMMUNICATIONS FACEPLATES SHALL MATCH ELECTRICAL SWITCH AND ELECTRICAL RECEPTACLE PLATE FINISHES.
- EQUIPMENT CABINETS AND PATCH PANELS SHALL BE ARRANGED TO ALLOW FOR A NATURAL WIRING PROGRESSION IN FUNCTIONAL FIELDS. MINIMIZE CROSSING OF WIRES AND ALLOW FOR EASY ACCESS TO ALL COMPONENTS.
- SURFACE MOUNTED RACEWAY SHALL BE USED BELOW LAY-IN CEILING IN REMOLDED AREA WHERE CONDUIT. WIRING AND DEVICES CANNOT BE CONCEALED. PROVIDE WIREMOLD 4000 SERIES OR EQUAL, UON. PROVIDE COMPLETE WITH ALL FITTINGS, BARRIERS, COVERS AND MOUNTING ACCESSORIES AS RECOMMENDED BY THE MANUFACTURER COORDINATE ROUTING OF RACEWAY WITH ARCHITECT PRIOR TO ROUGH-IN.

### **GENERAL AUDIO VISUAL NOTES**

- SUPPLY ALL JACKS, RACKS, WIRE, CABINETRY, CONNECTORS, MATERIALS, PARTS, EQUIPMENT AND LABOR NECESSARY FOR THE COMPLETE INSTALLATION OF THE SYSTEMS. IN FULL ACCORDANCE WITH THE RECOMMENDATIONS OF THE EQUIPMENT MANUFACTURERS AND WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.
- REFER TO FLOW DIAGRAMS, RISERS, AND SPECIFICATIONS FOR COMPLETE OPERATIONAL REQUIREMENTS. CONTRACTOR IS TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM.
- WHERE SIGNAL TYPES ARE PROVIDED AND NO CABLE TYPE INDICATED THE CONTRACTOR SHALL PROVIDE THE APPROPRIATE INTERCONNECT CABLE BASED ON THE SIGNAL TYPE REQUIREMENTS.
- ALL JUNCTION BOXES IN WALLS AND CEILINGS SHALL BE FLUSH MOUNTED. CONDUITS SHALL BE CONCEALED, UON.
- STRUCTURAL SUPPORT FOR AUDIOVISUAL EQUIPMENT SHALL BE PROVIDED BY OTHERS AT LOCATIONS DESIGNATED ON THESE DRAWINGS. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO, BLOCKING FOR WALL MOUNTED DEVICES AND OVERHEAD SUPPORT FOR CEILING MOUNTED PROJECTORS AND PROJECTION SCREENS. REFER TO ARCHITECTURAL DRAWINGS FOR SUPPORT DETAILS AND REQUIREMENTS.
- CEILING MOUNTED SPEAKER ENCLOSURES SHALL BE SUPPORTED FROM OVERHEAD STRUCTURE
- ALL EXPOSED INTERCONNECT CABLES SHALL BE MOLDED CONNECTOR TYPE. FIELD TERMINATED INTERCONNECT CABLES ARE PROHIBITED.
- FURNITURE LAYOUT INDICATED ON DRAWINGS IS NOT FINAL AND MAY DIFFER. COORDINATE FINAL FURNITURE CONFIGURATION WITH OWNER PRIOR TO FABRICATION/CONSTRUCTION.
- TERMINAL BLOCK, BOARDS, STRIPS, OR CONNECTORS SHALL BE FURNISHED FOR ALL CABLES, WHICH INTERFACE WITH RACKS, CABINETS, CONSOLES, OR EQUIPMENT MODULES.
- ROUTE ALL CABLE AND WIRING WITHIN EQUIPMENT RACKS ACCORDING TO FUNCTION, SEPARATING WIRES OF DIFFERENT SIGNAL LEVELS (MICROPHONE, LINE LEVEL, AMPLIFIER OUTPUT, AC, ETC.) BY AS MUCH DISTANCE AS POSSIBLE. NEATLY ARRANGE AND BUNDLE ALL CABLE LOOSELY WITH HOOK-N-LOOP TIES.
- POWER CABLES, CONTROL CABLES, AND HIGH-LEVEL CABLES SHALL BE INSTALLED ON THE LEFT SIDE OF AN EQUIPMENT RACK, AS VIEWED FROM THE REAR. ALL OTHER CABLES SHALL BE INSTALLED ON THE RIGHT SIDE OF THE EQUIPMENT RACK, AS VIEWED FROM THE REAR.
- CABLING WITHIN RACKS SHALL BE CONTAINED IN "FINGER TRAY" OR HOOK-N-LOOP TIED TO THE SIDE OF THE RACK IN A NEAT AND ORDERLY FASHION.
- ALL CABLES ROUTED OUTSIDE OF RACKS AND CONDUIT SHALL BE CONTAINED IN A SUITABLE HARNESS OR WIREWAY TO MAINTAIN A NEAT AND CLEAN **INSTALLATION**
- OBSERVE PROPER CIRCUIT POLARITY AND LOUDSPEAKER WIRING POLARITY. NO CABLES SHALL BE WIRED WITH A POLARITY REVERSAL BETWEEN CONNECTIONS, AT EITHER END.
- ALL CABLES SHALL BE CONTINUOUS LENGTHS WITHOUT SPLICES. ALL SYSTEM WIRE (EXCEPT SPARE WIRE, AFTER BEING CUT AND STRIPPED) SHALL HAVE THE WIRE STRAND TWISTED BACK TO THEIR ORIGINAL LAY AND BE TERMINATED BY APPROVED SOLDERED OR MECHANICAL MEANS.
- CLEARLY AND PERMANENTLY LABEL ALL JACKS, CONTROLS, CONNECTIONS, AND SO FORTH. ALL LABELING SHALL BE COMPLETED PRIOR TO FINAL SYSTEM EQUALIZATION. HAND LABELING IS PROHIBITED.
- ALL EQUIPMENT SHALL BE HELD FIRMLY IN PLACE WITH APPROPRIATE MOUNTING HARDWARE. ALL EQUIPMENT SHALL BE INSTALLED TO PROVIDE REASONABLE SAFETY TO THE OPERATOR. SUPPLY ADEQUATE VENTILATION FOR ALL ENCLOSED EQUIPMENT ITEMS WHICH PRODUCE HEAT.
- A MOCK-UP AND MEETING SHALL OCCUR FOR TYPICAL PRESENTATION WALL TECHNOLOGY WHERE INTERACTIVE PROJECTORS AND/OR INTERACTIVE FLAT PANELS OCCUR. WALL SHALL BE FINISHED AND PROJECTOR MARKERBOARD AND/OR VISUAL WALL DISPLAY WALLCOVERING, INTERACTIVE PROJECTOR AND/OR INTERACTIVE FLAT PANEL, DATA AND AV CONNECTIVITY, ELECTRICAL AND ALL ACCESSORIES SHALL BE INSTALLED. CONSTRUCTION MANAGER, ARCHITECT PROJECTOR MARKERBOARD AND/OR VISUAL DISPLAY WALLCOVERING INSTALLER/CONTRACTOR, TECHNOLOGY INSTALLER/CONTRACTOR, AND ELECTRICAL INSTALLER/CONTRACTOR SHALL BE PRESENT TO REVIEW MOCK-UP. PURPOSE OF MOCK-UP IS TO CONFIRM INTERACTIVE TECHNOLOGY IS FUNCTIONING AS INTENDED, THAT THERE IS PROPER COORDINATION BETWEEN THE WALL SURFACE, THE PROJECTOR MARKERBOARD OR VISUAL DISPLAY WALLCOVERING AND THE INTERACTIVE PROJECTOR AND/OR INTERACTIVE FLAT PANEL. ALL FINAL MOUNTING HEIGHTS FOR DIFFERENT ROOMS AND SPACES SHALL BE CONFIRMED AT THE MOCK-UP REVIEW.

### **GENERAL AUDIO VISUAL NOTES**

### **AUDIO VISUAL SYSTEM ROUGH IN AND INFRASTRUCTURE** RECOMMENDATIONS

- LARGE DISPLAYS (70"AND UP): BACK BOX WITH AC RECEPTACLES AND SURGE PROTECTION WITH FLANGE AND COVER CHIEF PAC525FBP2; PROVIDE A MINIMUM OF ONE NETWORK DATA DROP FOR DISPLAY. (ONE NETWORK DROP FOR WIRELESS GATEWAY).
- DIGITAL SIGNAGE DISPLAYS: BACK BOX WITH FLANGE AND COVER CHIEF PAC525FCW OR CHIEF PAC525FBP2 AC RECEPTACLES AND SURGE PROTECTION WITH FLANGE AND COVER: PROVIDE A MINIMUM OF TWO NETWORK DATA DROPS ONE FOR DISPLAY ONE FOR SIGNAGE PLAYER
- DISPLAYS (70" AND BELOW): BACK BOX WITH FLANGE AND COVER CHIEF PAC525FCW OR CHIEF PAC525FBP2 AC RECEPTACLES AND SURGE PROTECTION WITH FLANGE AND COVER; PROVIDE A MINIMUM OF ONE NETWORK DATA DROP FOR DISPLAY. (ONE NETWORK DROP FOR WIRELESS GATEWAY).
- AUDIO INPUT PLATE: (PASSIVE) 2 GANG BOX WITH PLASTER RING TOTAL DEPTH OF AT LEAST 3 1/2".
- 5 DIGITAL MEDIA PLATE: (ACTIVE) MIDDLE ATLANTIC **EVOLUTION 4-GANG WALL BOX OR 8-GANG WALL BOX.**
- 6 DANTE I/O PLATE: (ACTIVE) MIDDLE ATLANTIC EVOLUTION 4-GANG WALL BOX OR 8-GANG WALL BOX.
- SDI CAMERA: SINGLE OR 2 GANG BOX WITH PLASTER RING TOTAL DEPTH OF AT LEAST 3 1/2".
- 8 AV CONTROL TOUCH PANEL: 2 GANG BOX WITH PLASTER RING TOTAL DEPTH OF AT LEAST 3 1/2".
- AUDIO VISUAL FLOOR POKE THRU MIDDLE ATLANTIC **EVOLUTION 8"" OR 10" POKE THRU WITH RECEPTACLES.** COVER AND INTERIOR PLATE OPTIONS.



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FIELD COORDINATE LOCATION OF NEW EQUIPMENT IAW APPLICABLE CODES.

PRIVATE PROPERTY: TRENCHES ON PRIVATE PROPERTY AND AREAS NOT SUBJECT TO VEHICULAR TRAFFIC MAY BE BACKFILLED WITH NATIVE MATERIAL AND SHALL BE PLACED IN 12" MAXIMUM LOOSE LIFTS AND COMPACTED TO 80% MAXIMUM DENSITY PER ASTM D1557.

NATIVE BACKFILL: REFER TO SOIL REPORTS.

COMPACTION: ALL COMPACTION SHALL BE BY HAND-OPERATED, PLATE TYPE, VIBRATORY, OR OTHER SUITABLE HAND-TAMPERS IN AREAS NOT ACCESSIBLE TO LARGER ROLLERS OR COMPACTORS. EXTREME CARE SHALL BE TAKEN TO AVOID DAMAGE TO CONDUITS, PIPES, AND ANY APPURTENANCES. WATER DENSIFICATION BY INUNDATION OR JETTING SHALL NOT BE PERMITTED WITHOUT PRIOR WRITTEN APPROVAL FROM COMMUNICATIONS DESIGNER OF RECORD.

OBTAIN THE SIGNATURE OF THE OWNER AND OWNER'S REPRESENTATIVE SIGNIFYING THE ACCEPTABILITY OF THE DUCT PLACEMENT PRIOR TO POURING ANY CONCRETE FOR THE DUCT BANK

INSTALL A PERMANENT TRACER WIRE (POLYETHYLENE INSULATED), CENTRALLY LOCATED IN TOP OF CONDUIT FORMATION OF EACH COMMUNICATIONS DUCT BANK AND CORRESPONDING STUB OUTS. COMPRESSION TYPE CONNECTORS SHALL BE USED FOR ALL SPLICES. TEST THE WIRE FOR CONTINUITY AFTER INSTALLATION AND PROVIDE THE TEST RESULTS WITH THE AS BUILT DOCUMENTS. THE TRACER WIRE SHALL BE INSTALLED INTO ALL MAINTENANCE HOLES AND HAND HOLES.

JOINTS BETWEEN NON-IDENTICAL DUCT BANK COMPONENTS SHALL USE THE APPROPRIATE CONNECTORS SPECIFICALLY DESIGNED FOR THE PURPOSE

FOR DRAINAGE REQUIREMENTS SLOPE DUCT BANKS A MINIMUM OF 4-INCHES PER 100'-FEET MINIMUM TOWARD EACH MAINTENANCE HOLE OR HAND HOLE.

CHANGES IN DIRECTION OF RUNS EXCEEDING A TOTAL OF 10 DEGREES, EITHER VERTICALLY OR HORIZONTALLY ARE TO BE ACCOMPLISHED WITH LONG SWEEPING BENDS HAVING A MINIMUM RADIUS OF 7.62M (25'). BENDS ARE NOT TO CHANGE THE INTERNAL DIAMETER OF THE DUCT. THERE SHALL BE NO MORE THAN THE EQUIVALENT OF TWO (2) 90 DEGREE BENDS TOTALING 180 DEGREES BETWEEN PULL POINTS INCLUDING OFFSETS AND KICKS. BACK TO BACK 90 DEGREE BENDS ARE TO BE AVOIDED.

DUCT SHALL BE INSTALLED AS STRAIGHT AS POSSIBLE BETWEEN MAINTENANCE HOLES TO MINIMIZE SIDE WALL PRESSURE DURING CABLE INSTALLATION. DO NOT MAKE UNNECESSARY DIRECTION CHANGES

THE TRANSITIONING OF DUCTS FROM THE LOWER MAINTENANCE HOLE WINDOW TO THE NOMINAL TRENCH DEPTH SHALL BE ACCOMPLISHED NO LESS THAN 30 FEET FROM THE MAINENTANCE HOLE TO REDUCE THE RADIUS OF THE BENDS.

COMMUNICATIONS DUCT BANK SHALL ENTER THE LOWEST AVAILABLE WINDOW OF THE MAINTENANCE HOLE.

PROVIDE A PULL STRING RATED AT LEAST 200LBS TENSILE STRENGTH AFTER DUCTS HAVE UNDERGONE CLEANING. PROVIDE A MECHANICALLY EXPANDABLE, REUSABLE RUBBER PLUG FOR EACH VACANT DUCT.

REINFORCED DUCT BANKS SHALL BE STEEL BAR REINFORCED PER THE DIMENSIONS SHOWN ON THE DUCT BANK DETAIL DRAWINGS.

REINFORCE ALL NEW DUCT BANKS WITHIN 5-FEET OF MAINTENANCE HOLES AND HAND HOLES.

REFER TO THE SPECIFICATIONS FOR MAINTENANCE HOLE AND HAND HOLE EQUIPMENT AND ACCESSORIES.

THE TERMS MANHOLE AND MAINTENANCE HOLE ARE INTERCHANGEABLE.

### **GENERAL SECURITY NOTES**

THE LOCATION OF EQUIPMENT SHOWN ON THE PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY THE LOCATION OF EQUIPMENT PRIOR TO THE START OF WORK.

THE DRAWINGS FOR SECURITY WORK UTILIZE SYMBOLS AND SCHEMATIC DIAGRAMS WHICH HAVE NO DIMENSIONAL SIGNIFICANCE. THE WORK SHALL THEREFORE BE INSTALLED TO FULFILL THE DIAGRAMMATIC INTENT EXPRESSED ON THE SECURITY DRAWINGS, BUT IN CONFORMITY WITH THE DIMENSIONS INDICATED ON THE FINAL WORKING DRAWINGS, FIELD LAYOUTS, AND SHOP DRAWINGS OF ALL TRADES.

THE ORIENTATION OF THE SYMBOLS REFLECTS THE GENERAL MOUNTING LOCATION AND ORIENTATION OF THE DEVICE. THE CONTRACTOR SHALL PROMPTLY NOTIFY THE CM, ARCHITECT, AND ENGINEER PRIOR TO INSTALLATION OF WORK IF ANY MOUNTING LOCATIONS NOTED ON THE DRAWINGS ARE OBSTRUCTED AND/OR IF ANY MOUNTING LOCATION CONFLICTS OR PROBLEMS ARE DISCOVERED.

ALL COMPONENTS PROVIDED ARE TO BE LISTED FOR USE IN THE SYSTEM INDICATED INCLUDING, BUT NOT LIMITED TO: UL294 STANDARD FOR ACCESS CONTROL SYSTEM UNITS

UL634 STANDARD FOR CONNECTORS AND SWITCHES FOR USE WITH BURGLAR-ALARM SYSTEMS UL639 STANDARD FOR INTRUSION-DETECTION UNITS

UL1076 PROPRIETARY BURGLAR ALARM UNITS AND SYSTEMS UL2044 STANDARD FOR COMMERCIAL CLOSED-CIRCUIT TELEVISION EQUIPMENT UL2802 STANDARD FOR PERFORMANCE TESTING OF CAMERA IMAGE QUALITY

REFER TO COMMUNICATIONS AND ELECTRICAL DRAWINGS FOR ADDITIONAL SCOPE OF WORK.

THE ELECTRICAL CONTRACTOR SHALL PROVIDE 110 VAC INPUT POWER FOR POWER SUPPLIES. THE SECURITY CONTRACTOR SHALL BE RESPONSIBLE FOR ALL LOW VOLTAGE EQUIPMENT NECESSARY FOR SECURITY HARDWARE

OPERATION. ALL SECURITY INFRASTRUCTURE SHALL BE INSTALLED IN ENCLOSED METALLIC PATHWAYS SUCH AS CONDUIT, ENCLOSED CABLE TRAY, AND ENCLOSED WIREWAYS TO THE ASSOCIATED SECURITY PANEL

ALL ENCLOSURES AND INTRUSION DETECTION DEVICES WITH REMOVABLE COVERS SHALL HAVE TAMPER

PROTECTION DEVICES CAPABLE OF BEING MONITORED CONTINUOUSLY

WHERE APPLICABLE, COORDINATE WITH ELEVATOR CONTRACTOR FOR SPECIAL CONDUCTORS IN THE TRAVEL CABLE FOR ACCESS CONTROL, INTRUSION DETECTION, AND VIDEO SURVEILLANCE DEVICES.

ALL SECURITY CABLES SHALL BE FROM THE SAME MANUFACTURER AND LISTED FOR THE ENVIRONMENT THEY ARE INSTALLED. FOLLOW ALL MANUFACTURER INSTRUCTION FOR VOLTAGE DROP AND DISTANCE. REFER TO SPECIFICATIONS FOR CABLE TYPES.

JUNCTION BOXES FOR SECURITY CABLING SHALL HAVE TAMPER-PROOF SCREWS.

REFER TO THE SECURITY ONE-LINE DIAGRAMS AND DOOR ELEVATION DRAWINGS FOR ADDITIONAL GENERAL NOTES.

SECURITY EQUIPMENT SCHEDULES ARE PROVIDED AS A GUIDE. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY ALL DEVICES IDENTIFIED AND PROVIDE THE APPROPRIATE NUMBER OF DEVICES AS IDENTIFIED ON THE FLOOR PLANS.

THE CONTRACTOR SHALL PROVIDE CAMERA LICENSES FOR EACH NEW INSTALLED CAMERA.

THE CONTRACTOR IS RESPONSIBLE FOR INITIAL CAMERA AIMING, CAMERA PROGRAMING, AND FINAL CHECKOUT WITH THE OWNER AND OWNER'S REPRESENTATIVE.

WHERE ADVANCED SECURITY SYSTEM INTEGRATION IS REQUIRED THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION ACTIVITIES BETWEEN THE ASSOCIATED SYSTEM PROVIDERS TO THE SATISFACTION OF THE OWNER AND OWNER'S REPRESENTATIVE.

### **CAMERA MOUNTING SYMBOLS**

SYMBOL	EXAMPLE	DESCRIPTION
Т	-(1F) <b>-►</b>	CAMERA WALL MOUNT
Y	>_(1F) <b>→</b>	CAMERA CORNER MOUNT
$^{ ho}$ or $^{ ho}$		CAMERA POLE MOUNT
Ф	□(1F) <b>→</b>	CAMERA PARAPET/TELESCOP MOUNT
	(1F) <b>-►</b>	CAMERA CEILING MOUNT (NO MOUNTING SYMBOL)

281300

281300

WIRELESS LOCK

**WIRELESS LOCK GATEWAY** 

### **SECURITY SYMBOLS**

SYMBOL	SECTION	DESCRIPTION
(1F)	282300	SINGLE SENSOR FIXED IP-CCTV SECURITY CAMERA. PROVIDE (1) UTP CABLE AND OUTLET.
▼		
2F)	282300	DUAL SENSOR FIXED IP-CCTV SECURITY CAMERA. PROVIDE (1) UTP CABLE AND OUTLET.
1P	282300	SINGLE SENSOR PTZ IP-CCTV SECURITY CAMERA. PROVIDE (1) UTP CABLE AND OUTLET.
<b>4</b> F ►	282300	QUAD SENSOR FIXED IP-CCTV SECURITY CAMERA. PROVIDE (1) UTP CABLE AND OUTLET.
<b>√</b> (4F)- <b>►</b>	282300	QUAD SENSOR 180 DEGREE FIXED IP-CCTV SECURITY CAMERA. PROVIDE (1) UTP CABLE AND OUTLET.
180		
(1F)	282300	SINGLE SENSOR 360 DEGREE FIXED IP-CCTV SECURITY CAMERA. PROVIDE (1) UTP CABLE AND OUTLET.
IC	281523	INTERCOM DOOR STATION
IC (	281523	INTERCOM DOOR STATION W/VIDEO
IM	281523	MASTER INTERCOM DOOR STATION
CR	281300	CARD READER
KP	281300	ARM/DISARM KEYPAD
EL	281300	ELECTRIC LOCK
ML	281300	MAGNETIC LOCK
DC	281300	DOOR CONTACT
[RX])	281300	REQUEST TO EXIT MOTION
RX	281300	REQUEST TO EXIT PUSH BUTTON
DB	281300	DURESS BUTTON
DR	281300	DOOR RELEASE STATION
LD	281300	LOCK DOWN BUTTON
MD	281300	MOTION DETECTOR
GB	281300	GLASS BREAK SENSOR

ABBR	EVIATIONS	_	
A ABO AC ACS AFF AFC AHJ AL ANNUN ARCH ATS AV AVOIP AWG	AMPERES ALTERNATIVE BID OPTIONS ABOVE COUNTER ACCESS CONTROL SYSTEM ABOVE FINISHED FLOOR ABOVE FINISHED CEILING AUTHORITY HAVING JURISDICTION ALUMINUM ANNUNCIATOR ARCHITECT AUTOMATIC TRANSFER SWITCH AUDIO VISUAL AUDIO VISUAL OVER INTERNET PROTOCOL AMERICAN WIRE GAUGE	TBD TEL TER TR TV TYP U/G UL UNIV UON UTP V VIF	TO BE DETERMINE TELEPHONE TELECOMMUNICAT TELECOMMUNICAT TELEVISION TYPICAL  UNDERGROUND UNDERWRITERS LA UNIVERSAL UNLESS OTHERWIS UNSHIELDED TWIS  VOLTS VERIFY IN FIELD
BFG BKBD BLDG BOTT	BELOW FINISHED GRADE BACKBOARD BUILDING BOTTOM	VOIP VSS W	VOICE OVER INTER VIDEO SURVEILLAN WATTS
C CAB CAT CATV CCTV CFCI CKT CLG CLST CO COAX COMM CT CU C/B C/T	CONDUIT CABINET CATEGORY COMMUNITY ANTENNA TELEVISION CLOSED CIRCUIT TELEVISION CONTRACTOR FURNISHED CONTRACTOR INSTAL CIRCUIT CEILING CLOSET COMMUNICATIONS OUTLET COAXIAL COMMUNICATIONS CABLE TRAY COPPER CIRCUIT BREAKER CURRENT TRANSFORMERS	W/ WAP WP WPG XFMR	WATTS WITH WIRELESS ACCESS WEATHERPROOF WEATHERPROOF TRANSFORMER EXPLOSION PROOF WYE NEMA 3R ENCLOSU NEMA 4X ENCLOSU
Δ DC DEG DEMO DEPT DIA DISC DIST DN DP DPDT DWG	DELTA DIRECT CURRENT DEGREE DEMOLITION DEPARTMENT DIAMETER DISCONNECT DISTRIBUTION DOWN DEEP OR DEPTH DOUBLE POLE DOUBLE THROW DRAWING		
EA EC EES EF ELEC EMT EQUIP ER ESS EXIST	EACH ELECTRICAL CONTRACTOR EARTH ELECTRODE SYSTEM ENTRANCE FACILITY ELECTRIC, ELECTRICAL ELECTRIC METALLIC TUBING EQUIPMENT EQUIPMENT ROOM ELECTRONIC SAFETY & SECURITY EXISTING		
GND GEN GFI	GROUND GENERATOR GROUND FAULT INTERRUPT		
HH IAW IBC IDF IG IMC IP	HANDHOLE IN ACCORDANCE WITH INTERNATIONAL BUILDING CODE INTERMEDIATE DISTRIBUTION FRAME ISOLATED GROUND INTERMEDIATE METAL CONDUIT INTERNET PROTOCOL		
JB KVA KW	JUNCTION BOX  KILOVOLT - AMPERES  KILOWATTS		
LAN MAX MC MCB MCC MCM MER MH MIN MISC MLO MM MNS MON MTD MTG	LOCAL AREA NETWORK  MAXIMUM MAIN CROSS-CONNECT MAIN CIRCUIT BREAKER MOTOR CONTROL CENTER THOUSAND CIRCULAR MILS MAIN EQUIPMENT ROOM MAINTENANCE HOLE MINIMUM MISCELLANEOUS MAIN LUGS ONLY MULTIMODE FIBER MASS NOTIFICATION SYSTEM MONITOR MOUNTED MOUNTING		
NC NEC NIC NL NO NTS	NORMALLY CLOSED  NATIONAL ELECTRICAL CODE  NOT IN CONTRACT  NIGHT LIGHT CIRCUIT  NORMALLY OPEN  NOT TO SCALE		
OC OFC OFOI OFCI OICF OM3 OS OSP	ON CENTER OPTIC FIBER CABLE OWNER FURNISHED OWNER INSTALLED OWNER FURNISHED CONTRACTOR INSTALLED OWNER INSTALLED CONTRACTOR FURNISHED LASER OPTIMIZED MULTIMODE, CLASS 3 OCCUPANCY SENSOR OUTSIDE PLANT		
PB PBB PET PR PT PTZ PVC PWR	PULL BOX PRIMARY BUS BAR PROTECTED ENTRANCE TERMINAL PAIR POKE THRU PAN-TILT-ZOOM POLYVINYL CHLORIDE POWER		
R RGS RM RMC RU	RECESSED RIGID GALVANIZED STEEL ROOM RIGID METAL CONDUIT RACK UNIT		
SBB SCR SCTP	SECONDARY BUS BAR SHORT CIRCUIT RATING SCREENED TWISTED PAIR		

SQUARE FEET

**SPECIFICATIONS** 

SHEET

STANDARD SURFACE

SHT

SPEC

STD

TIONS EQUIP. ROOM TIONS ROOM

**LABORATORIES** ISE NOTED STED PAIR

RNET PROTOCOL ANCE SYSTEM

SS POINT WITH GROUND

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NO. DESCRIPTION

TECHNOLOGY SITE PLAN

DATE

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T-010

- NEW RETAINING WALL

GLENWAY AVE.

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COORDINATE ALL PATHWAYS WITH OTHER TRADES

### **KEYED NOTES**

J-HOOK TREE SUPPORT CABLES 5' ON CENTER. FLOOR PENETRATIONS TO 2ND FLOOR MECHANICAL ROOM.



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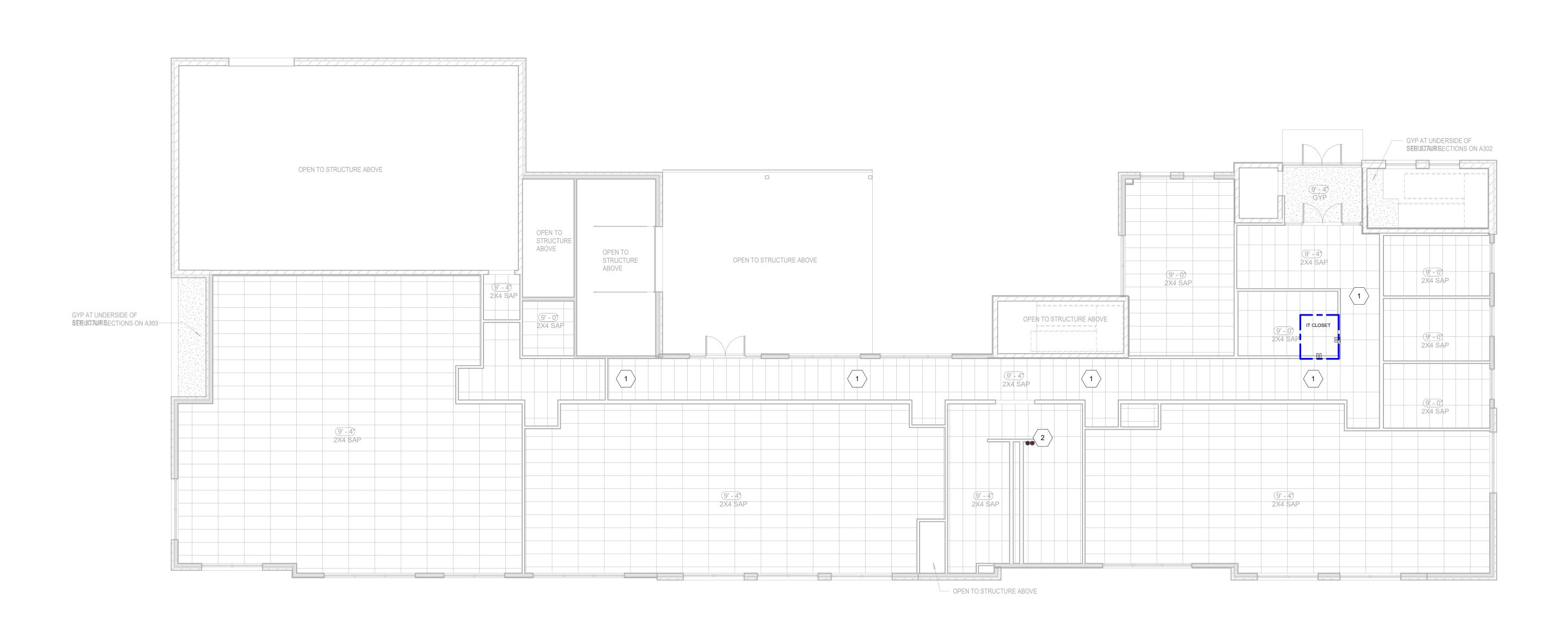
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FIRST FLOOR CABLE PATHWAY PLAN

DATE

21-052

T-011



1/8" = 1'-0"

COORDINATE ALL PATHWAYS WITH OTHER TRADES

### **KEYED NOTES**

J-HOOK TREE SUPPORT CABLES 5' ON CENTER.
 FLOOR PENETRATIONS TO 1ST FLOOR.



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## TEEN CENTER & OFFICES ALS CLUB OF GREATER CINCINNATI

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SECOND FLOOR CABLE PATHWAY PLAN

21-052

T-012



SECOND FLOOR CABLE PATHWAY PLAN
1/8" = 1'-0"

REFER TO SHEET T-002 FOR ALL GENERAL NOTES

### **KEYED NOTES**

LEAVE 15' COIL AT EACH WAP.

WAP SUPPLIED BY OWNER INSTALLED BY TECHNOLOGY CONTRACTOR.



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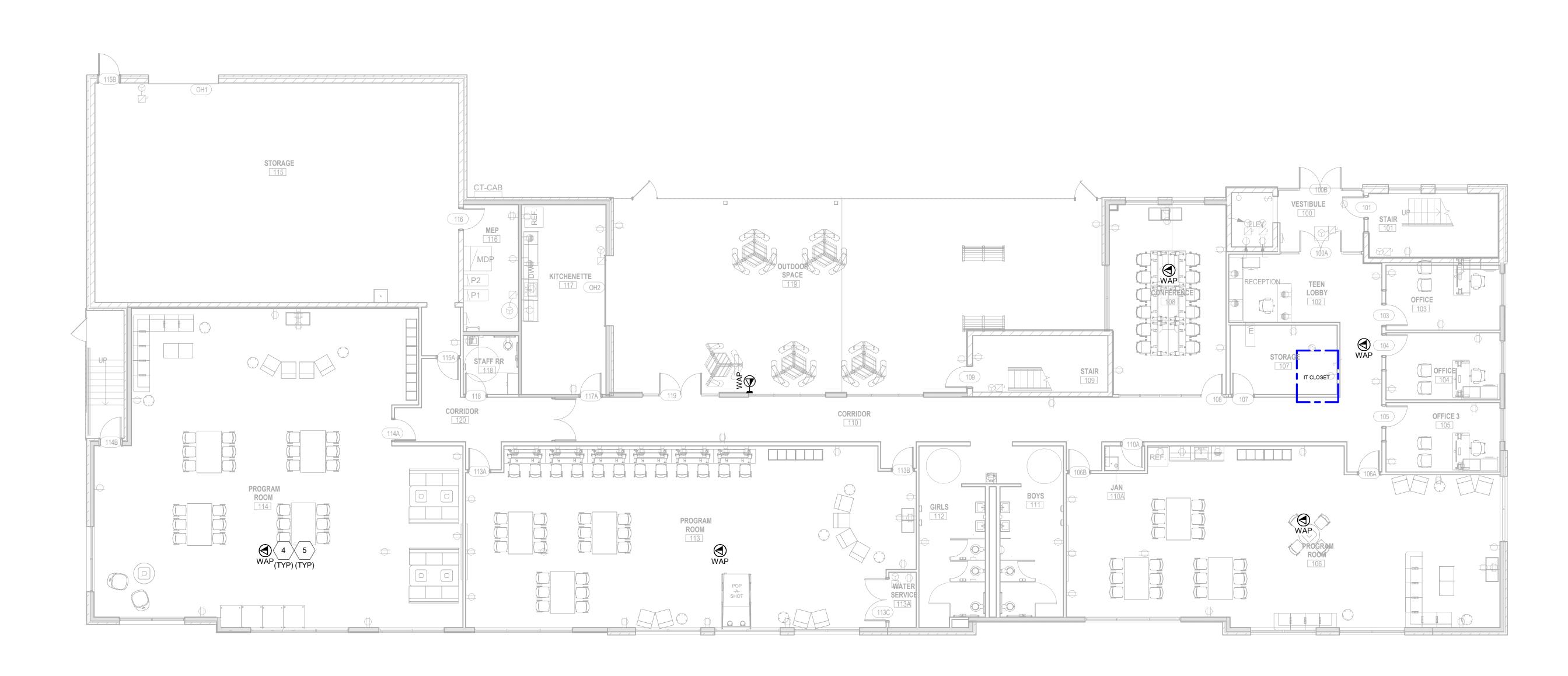
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TECHNOLOGY WIRELESS FIRST FLOOR PLAN

21-052

T-101



1 TECHNOLOGY WIRELESS FIRST FLOOR PLAN
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### **KEYED NOTES**

LEAVE 15' COIL AT EACH WAP.

WAP SUPPLIED BY OWNER INSTALLED BY TECHNOLOGY CONTRACTOR.



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TECHNOLOGY WIRELESS SECOND FLOOR PLAN

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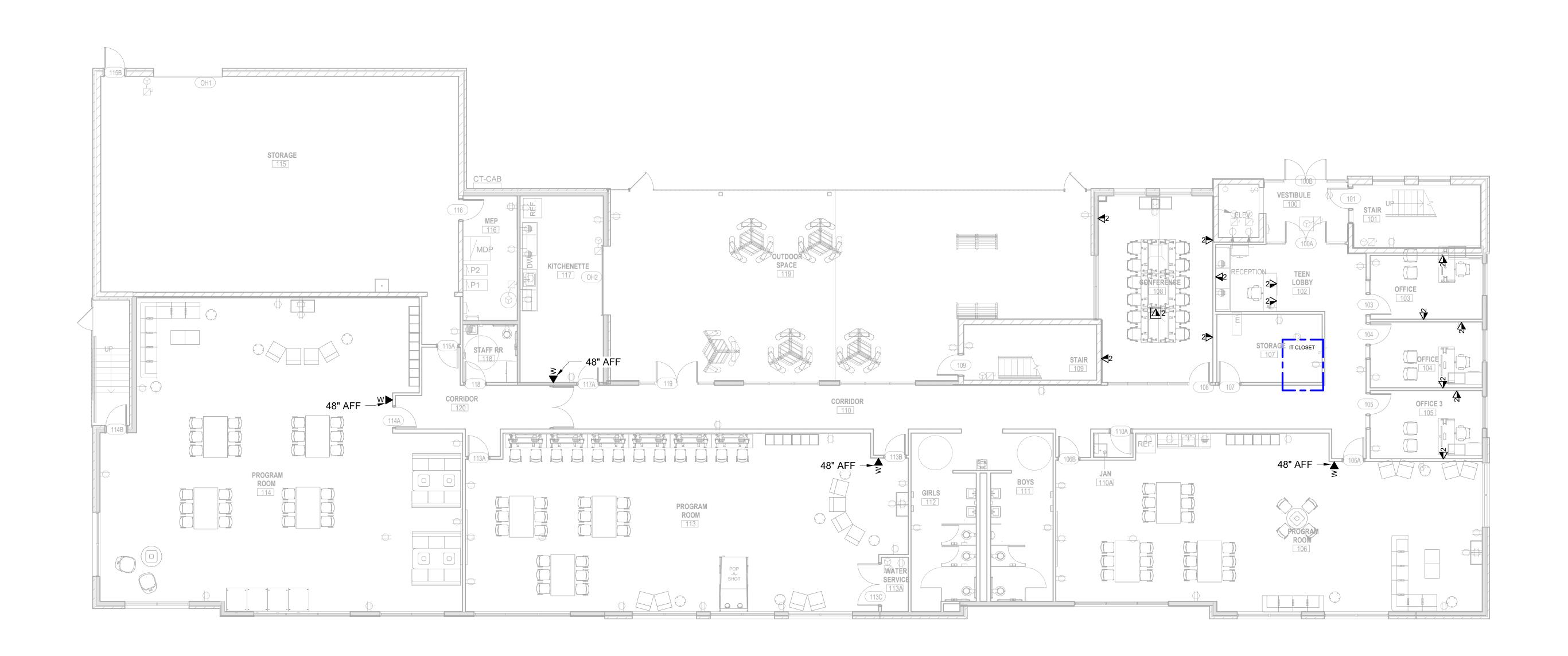
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DATE

COMMUNICATIONS NETWORK FIRST FLOOR PLAN

21-052

**T-103** 



1 COMMUNICATIONS NETWORK FIRST FLOOR PLAN
1/8" = 1'-0"

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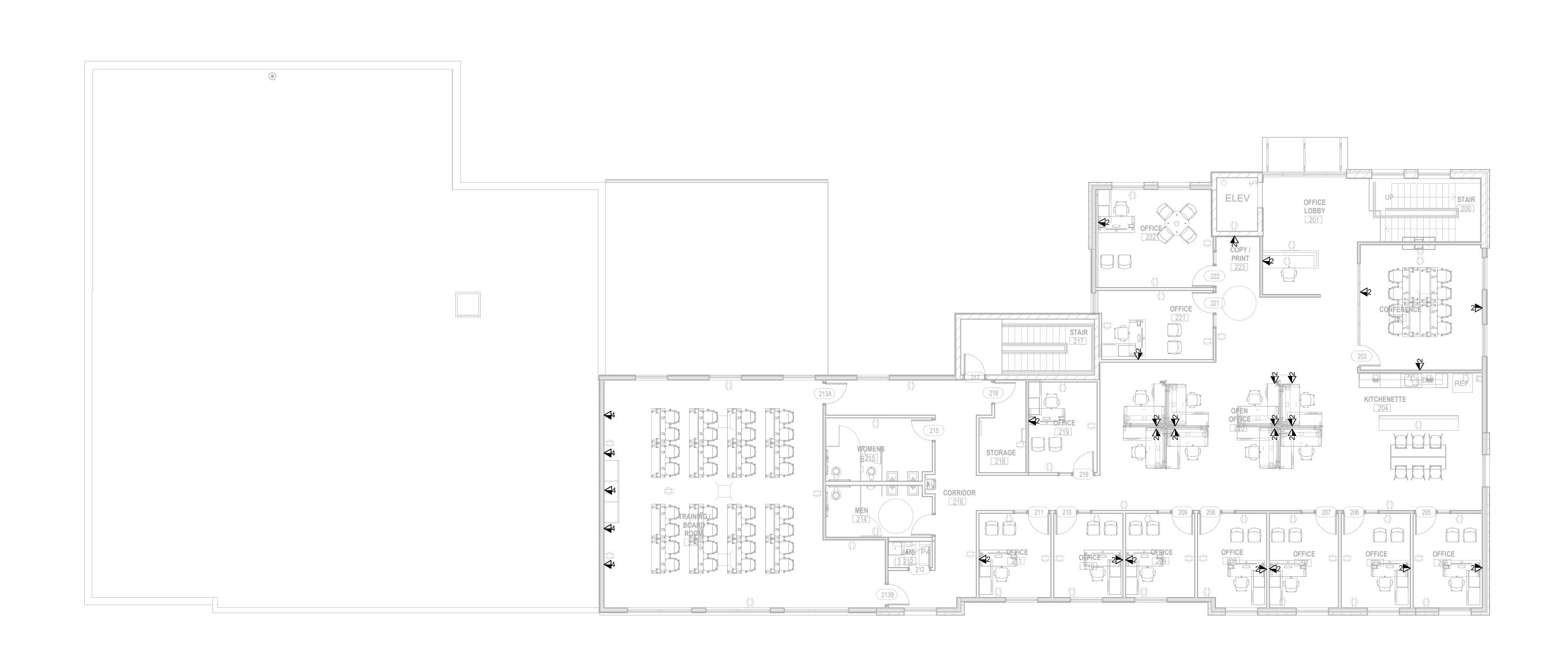
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T-104



1/8" = 1'-0"

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SUPPORT ALL CABLES 5' ON CENTER. (NOT WITH DATA

CABLING.)



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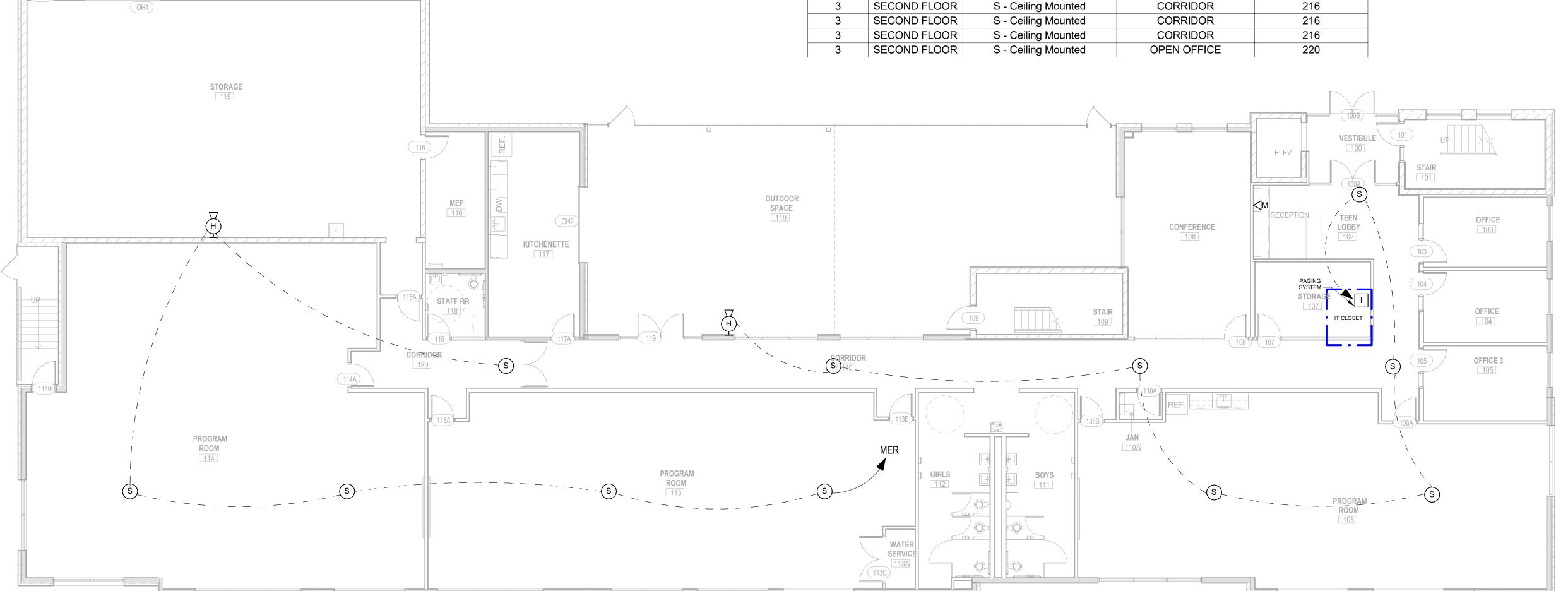
NO. DESCRIPTION

PAGING SYSTEM FIRST FLOOR PLAN

21-052

T-105

MER 107 RACK AUDIO SCHEDULE CIRCUIT NUMBER LEVEL TYPE **ROOM NAME ROOM NUMBER** S - Ceiling Mounted FIRST FLOOR CORRIDOR 110 FIRST FLOOR H - Horn Wall Mounted GARAGE 115 FIRST FLOOR S - Ceiling Mounted PROGRAM ROOM 114 PROGRAM ROOM 114 FIRST FLOOR S - Ceiling Mounted FIRST FLOOR S - Ceiling Mounted PROGRAM ROOM 113 FIRST FLOOR S - Ceiling Mounted PROGRAM ROOM 113 **OUTDOOR SPACE** FIRST FLOOR H - Horn Wall Mounted 119 FIRST FLOOR S - Ceiling Mounted 110 CORRIDOR FIRST FLOOR S - Ceiling Mounted 110 CORRIDOR FIRST FLOOR S - Ceiling Mounted PROGRAM ROOM 106 S - Ceiling Mounted FIRST FLOOR PROGRAM ROOM 106 FIRST FLOOR S - Ceiling Mounted CORRIDOR 110 FIRST FLOOR S - Ceiling Mounted LOBBY 102 SECOND FLOOR S - Ceiling Mounted TRAINING / BOARD ROOM 213 S - Ceiling Mounted SECOND FLOOR TRAINING / BOARD ROOM 213 S - Ceiling Mounted SECOND FLOOR CORRIDOR 216 SECOND FLOOR S - Ceiling Mounted CORRIDOR 216 S - Ceiling Mounted SECOND FLOOR CORRIDOR 216 SECOND FLOOR S - Ceiling Mounted OPEN OFFICE 220



1 PAGING SYSTEM FIRST FLOOR PLAN
1/8" = 1'-0"

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### **GENERAL SHEET NOTES**

- REFER TO SHEET T-002 FOR ALL GENERAL NOTES
- COORDINATE SPEAKERS WITH LIGHTING AND MECHANICAL
- SUPPORT ALL CABLES 5' ON CENTER. (NOT WITH DATA CABLING.)



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NO. DESCRIPTION

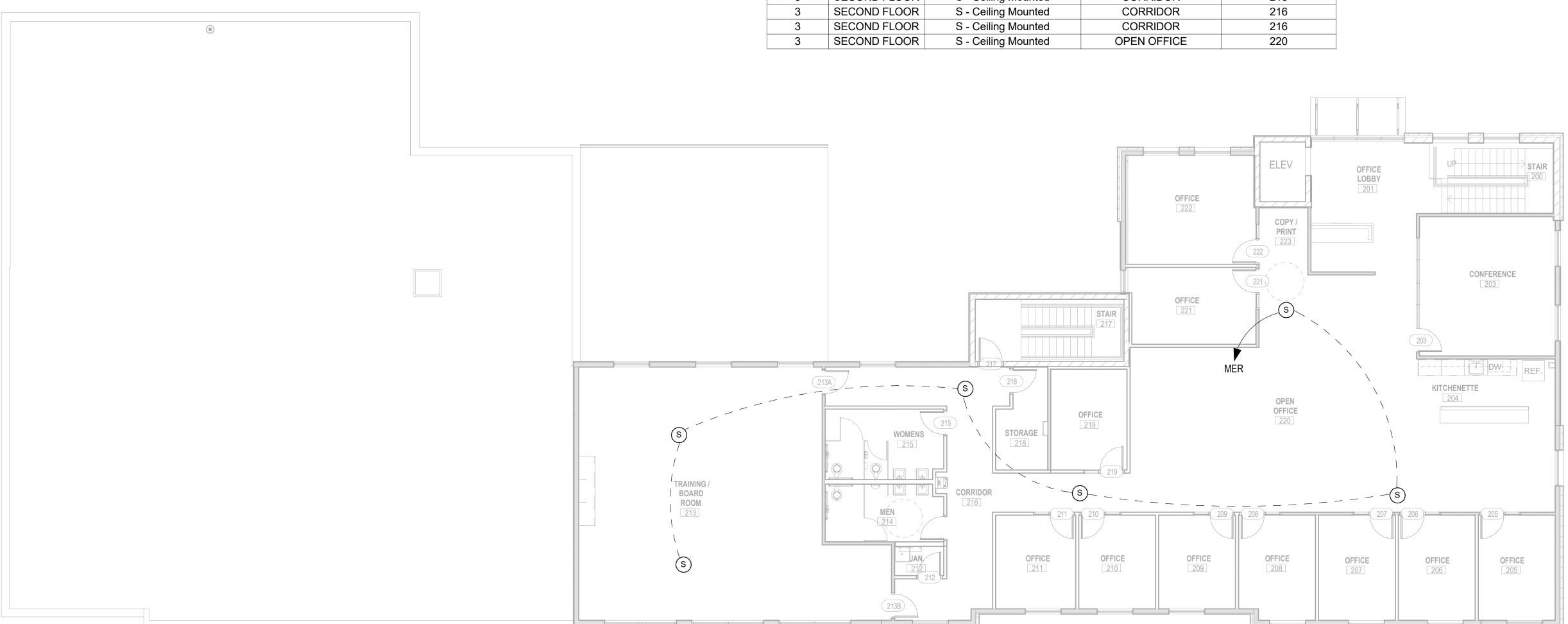
PAGING SYSTEM SECOND FLOOR PLAN

DATE

21-052

T-106

		MER 107 RACK AUDI	O SCHEDULE	
CIRCUIT NUMBER	LEVEL	TYPE	ROOM NAME	ROOM NUMBER
	FIDOT FLOOD		0000000	
1	FIRST FLOOR	S - Ceiling Mounted	CORRIDOR	110
1	FIRST FLOOR	H - Horn Wall Mounted	GARAGE	115
1	FIRST FLOOR	S - Ceiling Mounted	PROGRAM ROOM	114
1	FIRST FLOOR	S - Ceiling Mounted	PROGRAM ROOM	114
1	FIRST FLOOR	S - Ceiling Mounted	PROGRAM ROOM	113
1	FIRST FLOOR	S - Ceiling Mounted	PROGRAM ROOM	113
2	FIRST FLOOR	H - Horn Wall Mounted	OUTDOOR SPACE	119
2	FIRST FLOOR	S - Ceiling Mounted	CORRIDOR	110
2	FIRST FLOOR	S - Ceiling Mounted	CORRIDOR	110
2	FIRST FLOOR	S - Ceiling Mounted	PROGRAM ROOM	106
2	FIRST FLOOR	S - Ceiling Mounted	PROGRAM ROOM	106
2	FIRST FLOOR	S - Ceiling Mounted	CORRIDOR	110
2	FIRST FLOOR	S - Ceiling Mounted	LOBBY	102
3	SECOND FLOOR	S - Ceiling Mounted	TRAINING / BOARD ROOM	213
3	SECOND FLOOR	S - Ceiling Mounted	TRAINING / BOARD ROOM	213
3	SECOND FLOOR	S - Ceiling Mounted	CORRIDOR	216
3	SECOND FLOOR	S - Ceiling Mounted	CORRIDOR	216
3	SECOND FLOOR	S - Ceiling Mounted	CORRIDOR	216
3	SECOND FLOOR	S - Ceiling Mounted	OPEN OFFICE	220



1 PAGING SYSTEM SECOND FLOOR PLAN
1/8" = 1'-0"

### **KEYED NOTES**

CAT 6. PLENUM CABLE BACK TO MER. SUPPLY ONE CAT 6. ETHERNET INDOOR SURGE PROTECTOR.



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## OFFICES

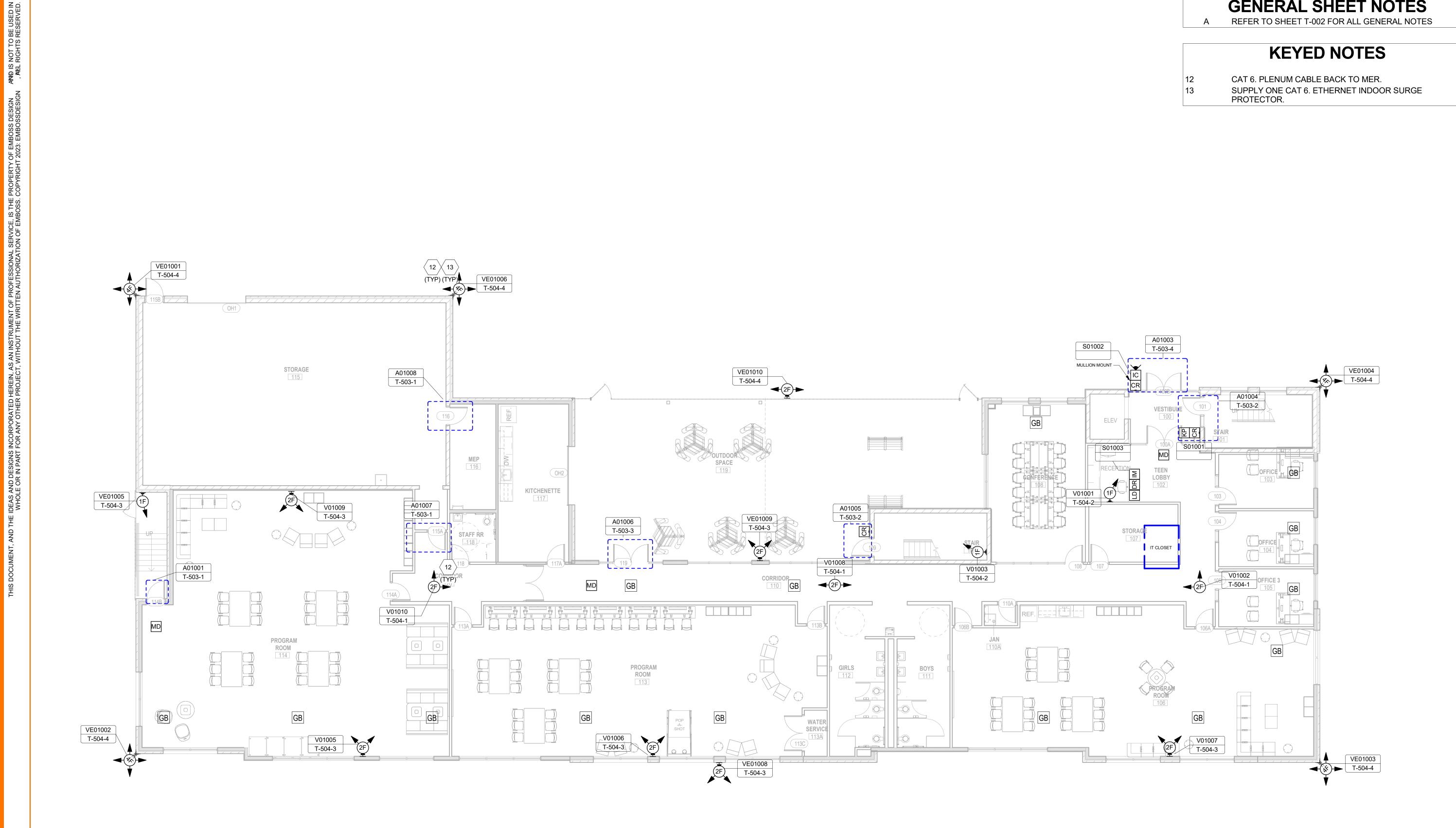
NO. DESCRIPTION

SECURITY FIRST FLOOR PLAN

DATE

21-052

**T-107** 

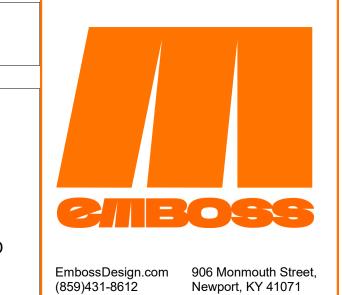


SECURITY FIRST FLOOR PLAN
1/8" = 1'-0"

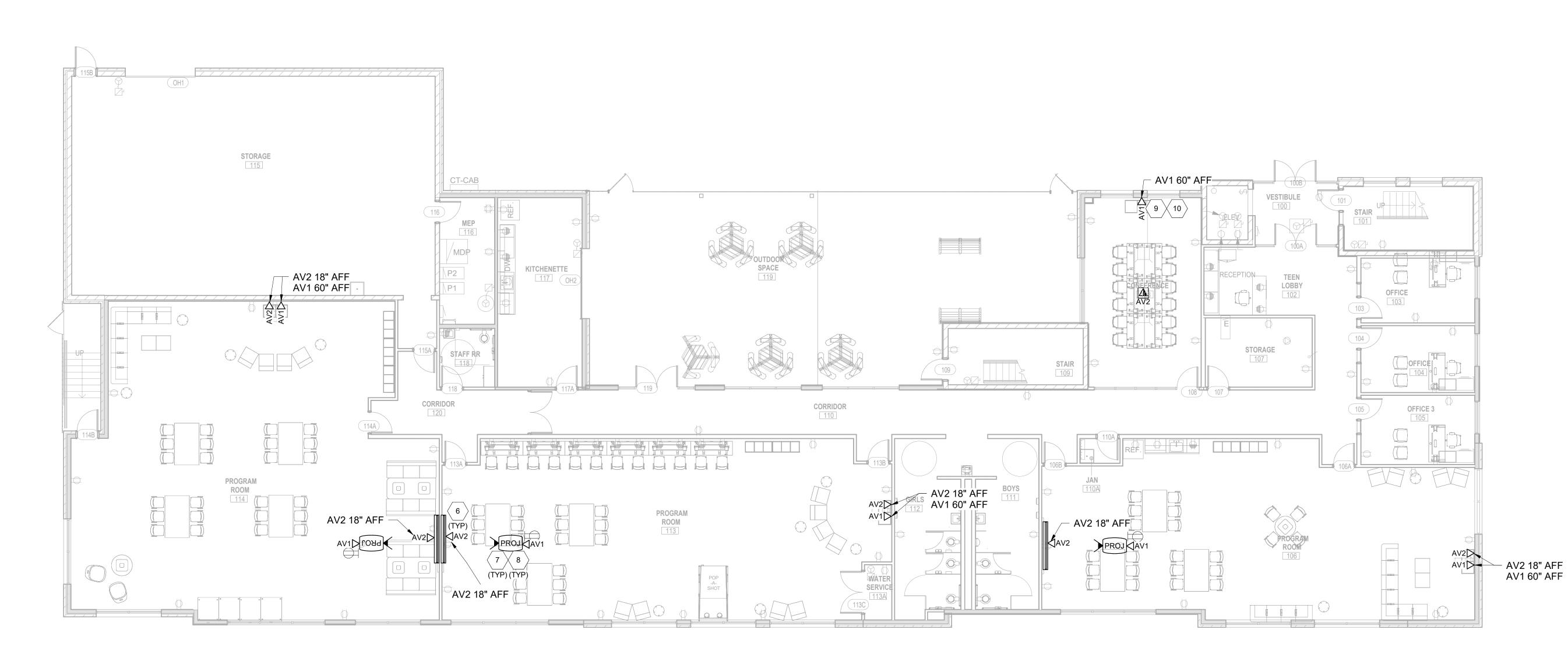
REFER TO SHEET T-002 FOR ALL GENERAL NOTES

### **KEYED NOTES**

- PROJECTOR SCREEN BY TECHNOLOGY CONTRACTOR INSTALLED BY TECHNOLOGY CONTRACTOR.
- PROJECTOR BY OWNER INTSALLED BY TECHNOLOGY CONTRACTOR.
- CONTRACTOR TO PROVIDE CHIEF CMA440 SUSPENDED CEILING KIT. BY ELECTRICAL.
  - 70" LCD MONITOR







NO. DESCRIPTION

A/V FIRST FLOOR PLAN

DATE

21-052

T-108

1 AV FIRST FLOOR 1/8" = 1'-0"

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PRINT DATE:

REFER TO SHEET T-002 FOR ALL GENERAL NOTES

### **KEYED NOTES**

- 6 PROJECTOR SCREEN BY TECHNOLOGY CONTRACTOR INSTALLED BY TECHNOLOGY CONTRACTOR.
- PROJECTOR BY OWNER INTSALLED BY TECHNOLOGY CONTRACTOR.
- CONTRACTOR TO PROVIDE CHIEF CMA440 SUSPENDED CEILING KIT.
  - 70" LCD MONITOR
- OWL LABS, OWL BAR, AND OWL 3 CONFERENCE ROOM SYSTEM.



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### NTER & OFFICES OF GREATER CINCINNATI

PRICE HILL TEEN CENTER & FOR BOYS & GIRLS CLUB OF GREA

NO. DESCRIPTION

DATE

A/V SECOND FLOOR PLAN

21-052

T-109



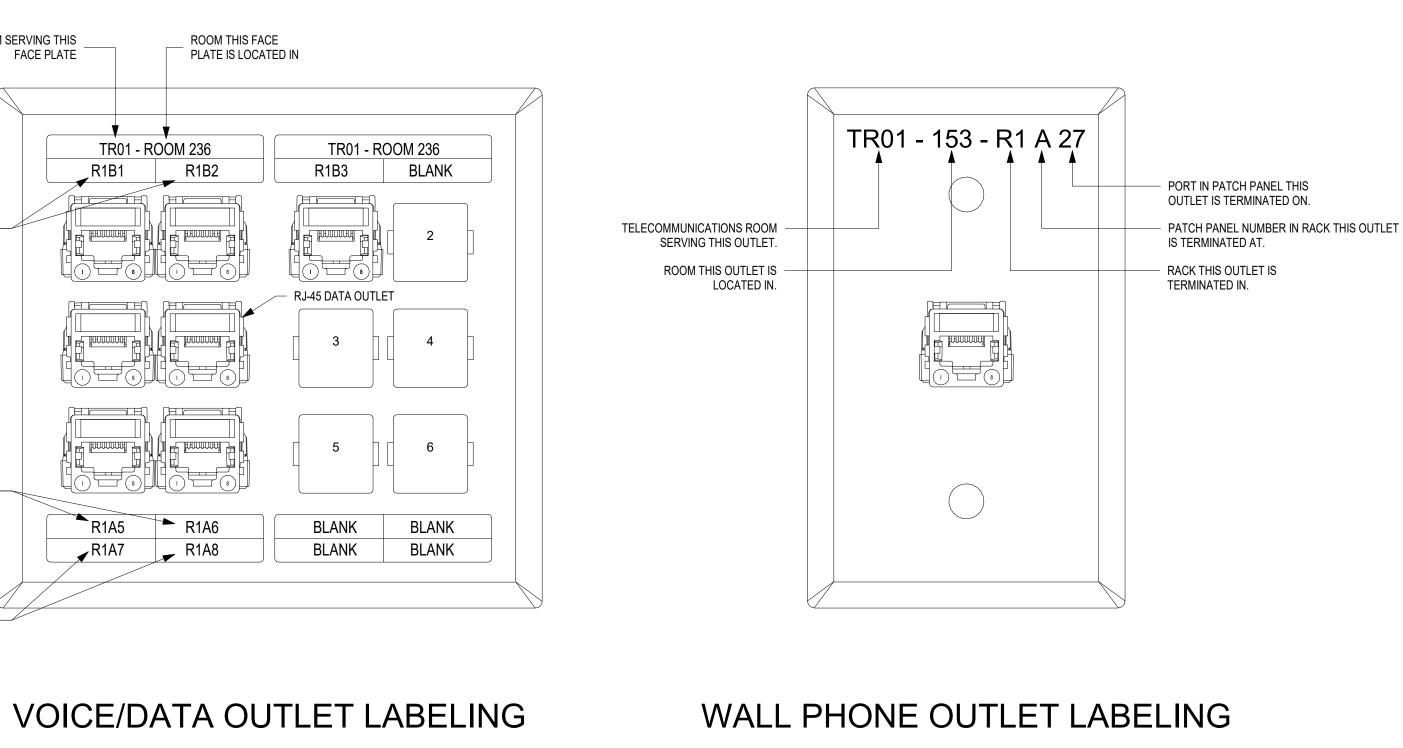
1/8" = 1'-0"

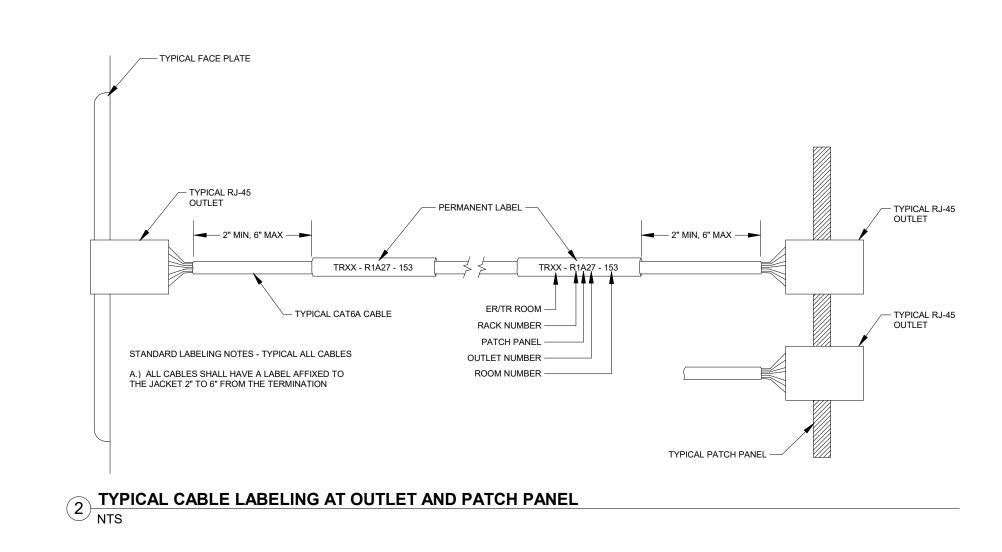
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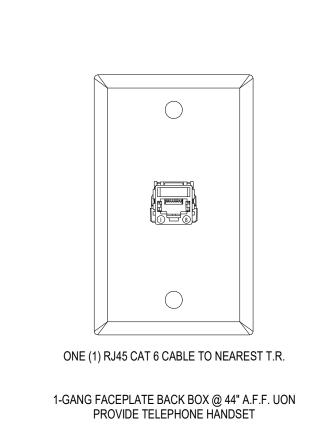
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**TECHNOLOGY ROOM AND** 









TELECOMMUNICATIONS ROOM SERVING THIS

TOP ROW

HORIZONTAL OUTLET IDENTIFIER

HORIZONTAL OUTLET IDENTIFIER (RACK #, PATCH PANEL #, PORT #) /

HORIZONTAL OUTLET IDENTIFIER

(RACK #, PATCH PANEL #, PORT #) /

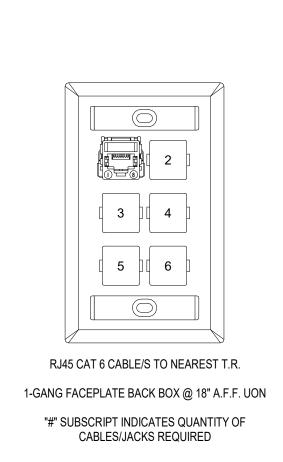
 $\underbrace{1}_{\text{NTS}} \underbrace{\text{FACEPLATE LABELING DETAIL}}_{}$ 

CENTER ROW

**BOTTOM ROW** 

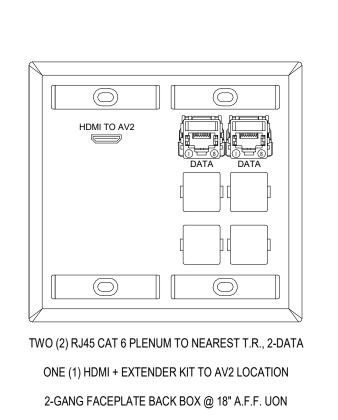
(RACK #, PATCH PANEL #, PORT #) /

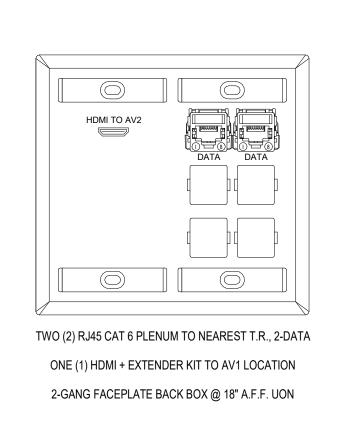
FACE PLATE

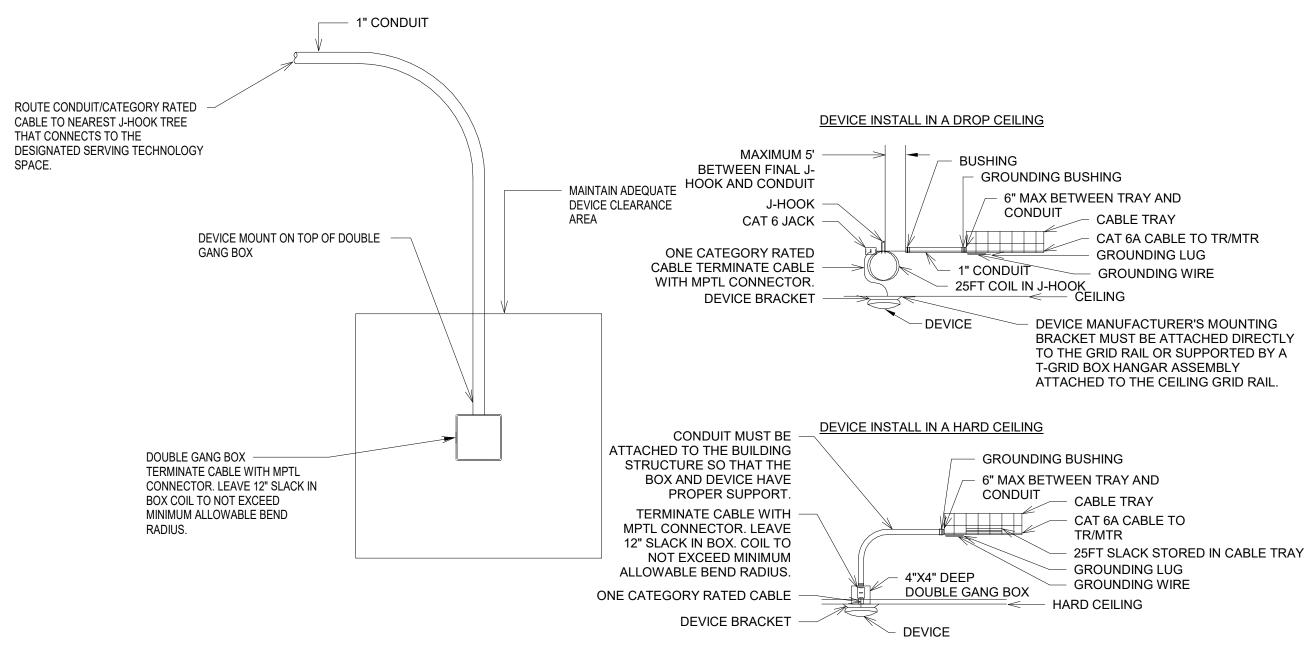


ROOM THIS FACE

TR01 - ROOM 236















NETWORK DEVICE INSTALLATION DETAIL (E.G., CAMERA, WAP, VAPE DETECTOR, MISC SENSOR)

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**TECHNOLOGY DETAILS** (FACE PLATES)

DATE

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BACK UP

ACCESS CONTROL SYSTEM ELEVATION

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## CE

FOR DATE

NO. DESCRIPTION

21-052

**TECHNOLOGY DETAILS** 

(ACCESS CONTROL

DOORS)

T-503

Cabling

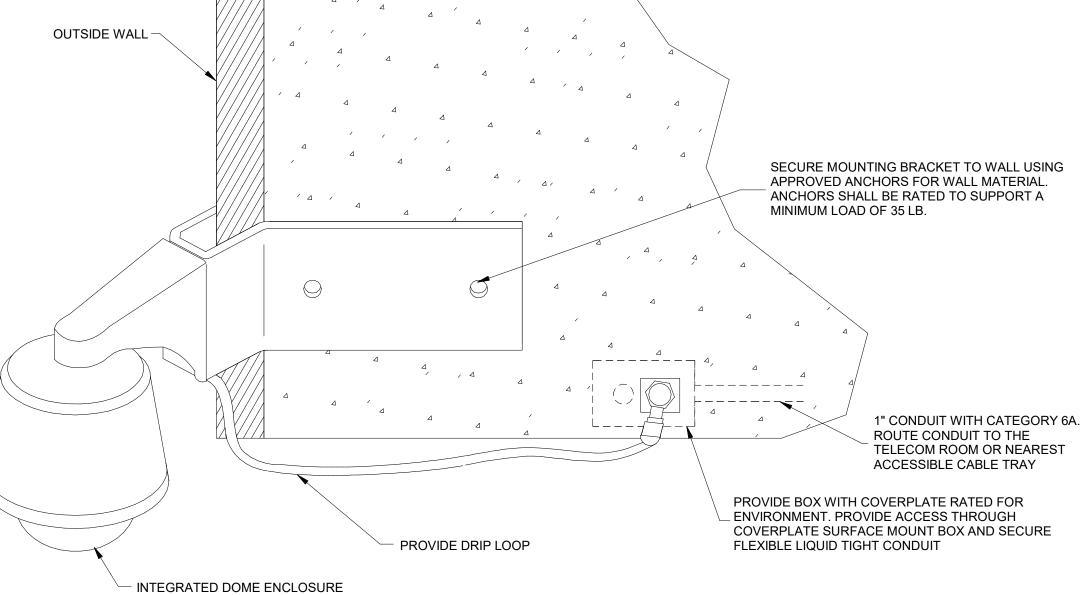
Cable Support System Supporting Conduit/Pathways

Supporting Electrical

Programing and Configuration

J-HOOK SUPPORT BY TO ASSOCIATED CABLING CONTRACTOR TELECOMMUNICATIONS ROOM WITHIN 36" OF DEVICE EXTEND CABLING TO THE NEAREST ACCESSIBLE CABLE TRAY. ROUTE CONDUIT UP TO DECK AND OVER ANY HVAC, PIPING, OR SIMILAR OBSTRUCTIONS. COORDINATE VIDEO AND POWER FEED CONDUITS SIZES AND DESTINATIONS MINIMUM 3/4" FLEXIBLE CONDUIT MOST LOCATIONS WILL WITH ONE (1) CATEGORY 6A PLUS BE CORNER MOUNTED POWER FOR CAMERA HOUSING (IF REQUIRED) DOME CAMERA 1" EMT CONDUIT HOUSING (2) 4-11/16" X 4-11/16" X 2-1/4" DEEP J-BÓXES FOR CAMERA VIDEO AND POWER FEEDS ROUGH-IN BOXES WITH 1" KO's

CAMERA MOUNTING DETAIL - EXTERIOR - WALL MOUNTED



CEILING

FLOOR

	CAMERA	SCHEDULE	
DE///OE ID	CAM SENSOR COUNT		DETAIL DEFEDENCE
DEVICE ID	(F=FIXED P=PTZ)	LEVEL	DETAIL REFERENCE
V01001	1F	FIRST FLOOR	T-504-2
V01002	2F	FIRST FLOOR	T-504-1
V01003	1F	FIRST FLOOR	T-504-2
V01005	2F	FIRST FLOOR	T-504-3
V01006	2F	FIRST FLOOR	T-504-3
V01007	2F	FIRST FLOOR	T-504-3
V01008	2F	FIRST FLOOR	T-504-1
V01009	2F	FIRST FLOOR	T-504-3
V01010	2F	FIRST FLOOR	T-504-1
VE01001	4F	FIRST FLOOR	T-504-4
VE01002	4F	FIRST FLOOR	T-504-4
VE01003	4F	FIRST FLOOR	T-504-4
VE01004	4F	FIRST FLOOR	T-504-4
VE01005	1F	FIRST FLOOR	T-504-3
VE01006	4F	FIRST FLOOR	T-504-4
VE01008	2F	FIRST FLOOR	T-504-3
VE01009	2F	FIRST FLOOR	T-504-3
VE01010	2F	FIRST FLOOR	T-504-4

### 4 EXTERIOR CORNER MOUNTED DOME CAMERA DETAILS 12" = 1'-0"

5 MODULAR PLUG TERMINATED LINK (MPTL) DETAIL 12" = 1'-0"

TYPICAL CCTV CAMERA OLITLET
TYPICAL CCTV CAMERA OUTLET - 10' CABLE COILED ABOVE ACCESSIBLE CEILING
- INSTALL ONE (1) CAT 6A RATED CABLE, WIRED T568B UON. RUN CABLE(S) TO
DESIGNATED TELECOMMUNICATIONS SPACE WITHIN SPECIFIED SERVING
AREA.
- LABEL AS SHOWN
TYPICAL WIRELESS ACCESS POINT OUTLET - MOUNTED WITHIN BACKBOX
- INSTALL ONE (1) CAT 6A RATED CABLE,
WIRED T568B UON. RUN CABLE(S) TO DESIGNATED TELECOMMUNICATIONS SPACE
WITHIN SPECIFIED SERVING AREA.
- LABEL AS SHOWN

SIGNAL LINES DRAIN WIRE SHIELDED TWISTED PAIR — CABLE \_ HEAT SHRINK OR **ELASTIC TUBING** CABLE MARKER CLEAR HEAT SHRINK OVER CABLE MARKER

1.ALL CABLES TO BE LABELED, WITH LABEL SECURED AND PROTECTED BY CLEAR HEAT SHRINK. 2. ALL DRAIN WIRES TO BE SERVED WITH CLEAR HEAT SHRINK OR INSULATING TUBING. WRAP UNUSED DRAIN WIRES UNDER END DRESS BOOT.

3. REQUIRED AT EACH CABLE TERMINATION IN RACKS, TERMINAL BOXES AND AT WALL PLATES.

6 STANDARD PREPARATION FOR ALL TERMINATIONS

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**TECHNOLOGY DETAILS** (SECURITY CAMERAS)

DATE

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- 1. CONTRACTOR SHALL VERIFY EXACT CABLING REQUIREMENTS PRIOR TO INSTALLATION.
- 2. DIAGRAM IS REPRESENTATIONAL ONLY. CARD ACCESS CONTRACTOR SHALL SUBMIT FOR APPROVAL PROJECT SPECIFIC RISER DIAGRAM AND INSTALL PER MANUFACTURERS RECOMMENDATIONS.
- 3. ALL INSTALLATION MATERIALS AND WORKMANSHIP SHALL BE PER LOCAL, STATE AND FEDERAL CODES AND REGULATIONS, INCLUDING BUT NOT LIMITED TO NFPA 70 (NEC) AND NFPA 101.
- 4. CARD ACCESS CONTRACTOR SHALL COORDINATE EXACT POWER SUPPLY CONNECTIONS WITH THE ELECTRICAL CONTRACTOR.
- 5. CARD ACCESS CONTRACTOR SHALL PROVIDE ALL JUMPERS AND CABLING REQUIRED TO COMPLETE THE ALL INTERCONNECTIONS OF THE SYSTEM. ALL ETHERNET NETWORK CABLING BOTH COPPER AND FIBER SHALL BE COMPLIANT WITH THE STRUCTURED CABLING SYSTEM SPECIFICATION, SECTION 271500, AND SHALL MATCH THE MANUFACTURER AND PERFORMANCE RATING OF THE STRUCTURED CABLING REQUIREMENTS. VERIFY THESE REQUIREMENTS WITH THE STRUCTURED CABLING CONTRACTOR.

1) INTRUSION DETECTION RISER DIAGRAM
1/2" = 1'-0"

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# CINCIN

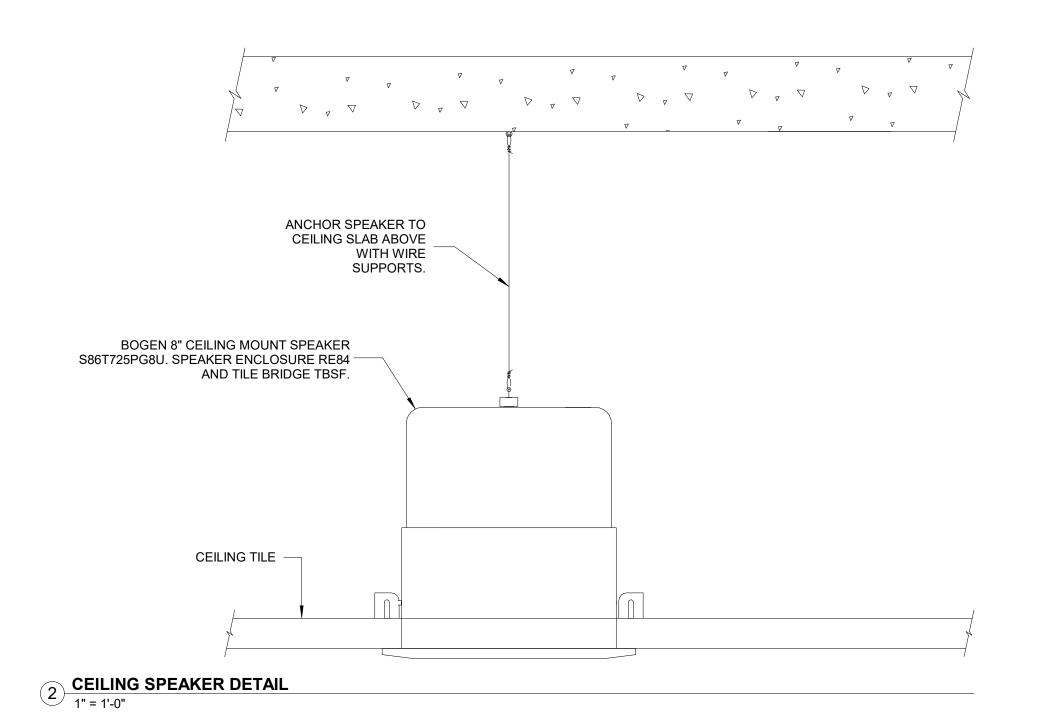
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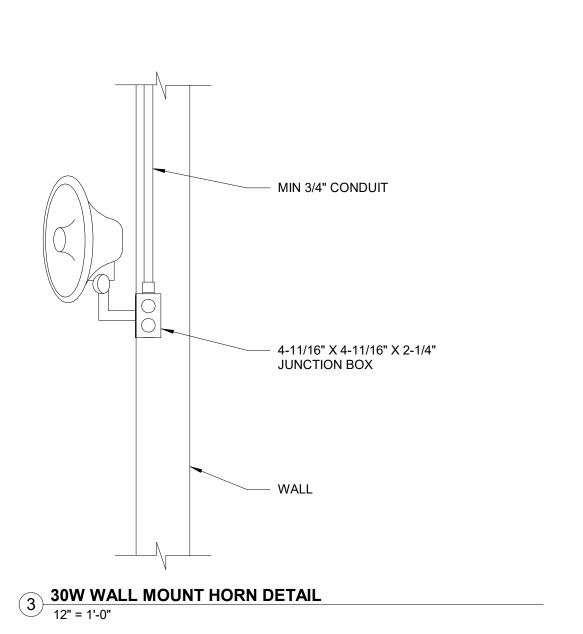
DATE

TECHNOLOGY DETAILS (INTRUSION DETECTION)

21-052

1 TYPICAL PUBLIC ADDRESS ONE-LINE 12" = 1'-0"





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# FOR BOYS & GIRLS CLUB OF GREATER CINCINNATI

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TECHNOLOGY DETAILS (PAGING)

21-052