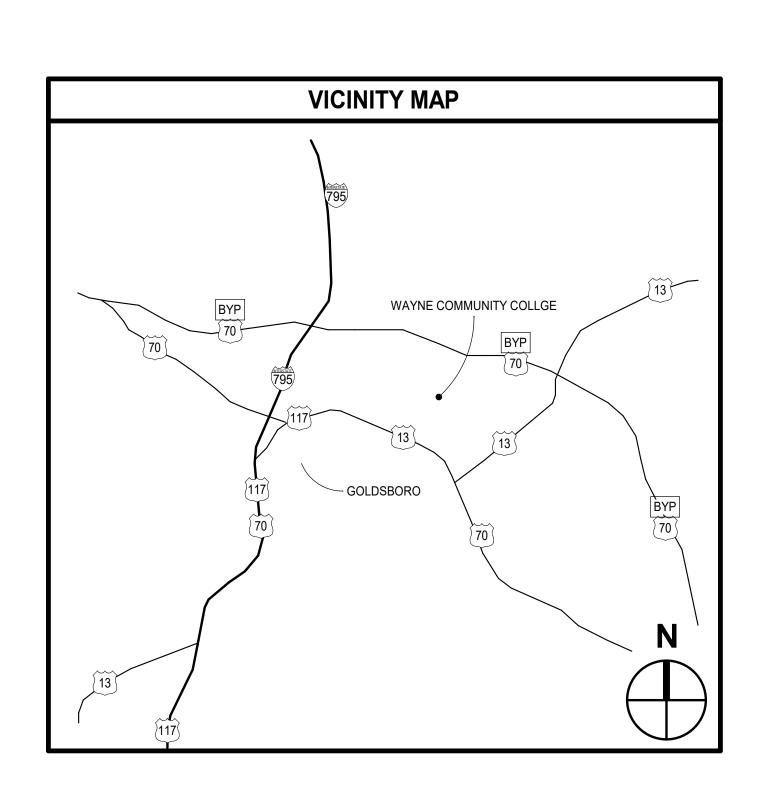
ADVANCED MANUFACTURING CENTER RENOVATION - AZALEA



SCO# 16-15906-01C GOLDSBORO, NC

WAYNE COMMUNITY COLLEGE

MOSELEYARCHITECTS

BRANCH OFFICE

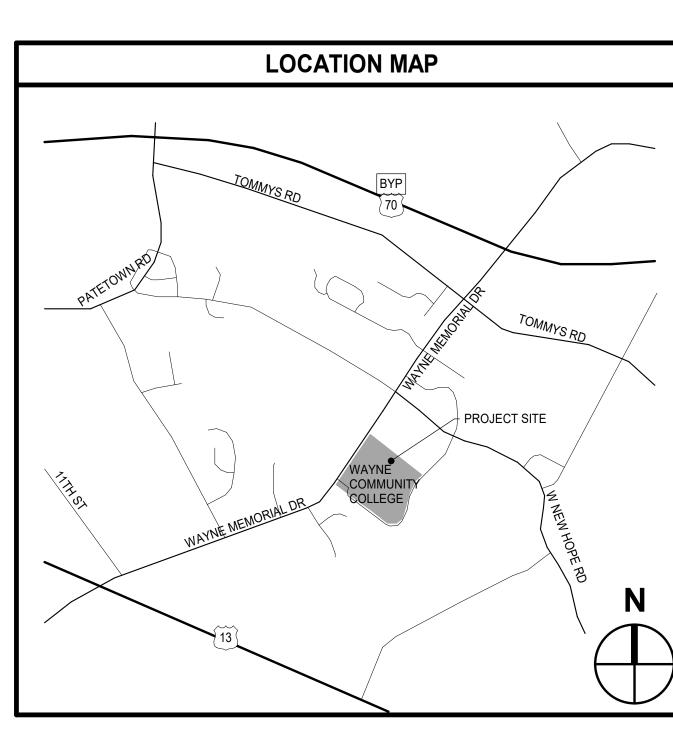
911 N. WEST STREET, SUITE 205 RALEIGH, NORTH CAROLINA 27603 PHONE (919) 840-0091

MOSELEYARCHITECTS.COM

COMPANY HEADQUARTERS

3200 NORFOLK STREET, RICHMOND, VIRGINIA 23230 PHONE (804)-794-7555

MOSELEYARCHITECTS.COM



ANCED

APPENDIX B

2018 NC Administrative Code and Policies

2018 APPENDIX B BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS (EXCEPT 1 AND 2-FAMILY DWELLINGS AND TOWNHOUSES) (Reproduce the following data on the building plans sheet 1 or 2)

Name of Project: <u>Advanced Manufacturing Center Phase 3 – Azalea Renovation</u> Address: 3000 Wayne Memorial Drive, Goldsboro, NC Owner/Authorized Agent: Derek Hunter Phone # (919) 739 - 7020 E-Mail mdhunter@waynecc.edu Owned By: City Code Enforcement Jurisdiction: City Goldsboro

CONTACT: LICENSE # TELEPHONE # E-MAIL Architectural Moseley Architects Brad Lockwood 14206 (919)840-0091 Electrical Moseley Architects Brian Wells 040202 (804)794-7555 Fire Alarm Moseley Architects Brian Wells 040202 (804)794-7555 Plumbing Moseley Architects Jason Forsyth 037569 (804)794-7555 jforsyth@moseleyarchitects.com Mechanical Moseley Architects Jason Forsyth 037569 jforsyth@moseleyarchitects.com Moseley Architects Paul Gagnon 045706 (804)794-7555 pgagnon@moseleyarchitects.com

("Other" should include firms and individuals such as truss, precast, pre-engineered, interior designers, etc.)

2018 NC BUILDING CODE: Renovation 2018 NC EXISTING BUILDING CODE: Alteration Level II Repair N/A CONSTRUCTED: 1990 CURRENT OCCUPANCY(S) (Ch. 3): B PROPOSED OCCUPANCY(S) (Ch. 3): B RENOVATED: N/A RISK CATEGORY (Table 1604.5): Current: III Proposed: III

BASIC BUILDING DATA Construction Type: II-B Sprinklers: No N/A Standpipes: No

Special Inspections Required: Yes (Contact the local inspection jurisdiction for additional procedures and requirements.) Gross Building Area Table SUB-TOTAL EXISTING TO RENOVATED(SQ FT) 7,500 SF

Flood Hazard Area: No

2018 NC Administrative Code and Policies

Primary Fire District: Yes

9,564 SF 4,346 SF 14,000 SF 25,846 SF 9,946 SF

ALLOWABLE AREA Primary Occupancy Classification(s): Business Select one Select one Select one Select one Accessory Occupancy Classification(s): _ Incidental Uses (Table 509): Special Uses (Chapter 4 – List Code Sections): Special Provisions: (Chapter 5 - List Code Sections): Mixed Occupancy: Select one Separation: Select one Exception: Select one

USE BLDG AREA PER TABLE 506.24 AREA FOR FRONTAGE ALLOWABLE AREA PER
 CLASSROOM
 14,000
 23,000

 CLASSROOM
 14,000
 23,000
 OFFICE

Frontage area increases from Section 506.3 are computed thus: Perimeter which fronts a public way or open space having 20 feet minimum width = ______(F) Total Building Perimeter c. Ratio (F/P) = ____ (F/P)
d. W = Minimum width of public way = ____ e. Percent of frontage increase $I_f = 100[F/P - 0.25] \times W/30 =$ ______(%)

² Unlimited area applicable under conditions of Section 507. ³ Maximum Building Area = total number of stories in the building x D (maximum 3 stories) (506.2). ⁴ The maximum area of open parking garages must comply with Table 406.5.4. Frontage increase is based on the unsprinklered area value in Table 506.2.

³ The maximum height of open parking garages must comply with Table 406.5.4.

	ALLOWABLE	SHOWN ON PLANS	CODE REFERENCE
Building Height in Feet (Table 504.3) 2	55'	40'	
Building Height in Stories (Table 504.4) 3	3	3	1

2018 NC Administrative Code and Policies

FIRE PROTECTION REQUIREMENTS
 FIRE
 RATING
 DETAIL #
 DESIGN #
 SHEET # FOR SHEET #

 SEPARATION DISTANCE
 REQ'D PROVIDED (W/___* SHEET #
 AND FOR RATED PENETRATION RATED
 Structural Frame, ncluding columns, girders, Including supporting beams and joists loor Ceiling Assembly of Construction, including porting beams and joists I (ONLY N WORK) ccupancy/Fire Barrier Separation arty/Fire Wall Separation noke Barrier Separation Smoke Partition Fenant/Dwelling Unit/ Sleeping Unit Separation * Indicate section number permitting reduction

PLUMBING FIXTURE REQUIREMENTS (FIRST FLOOR RECALCULATED DUED TO INCREASE IN

OCCUPANT LOAD) (TABLE 2902.1)

PERCENTAGE OF WALL OPENING CALCULATIONS NOT

ALLOWABLE AREA ACTUAL SHOWN ON PLANS

APPLICABLE NO NEW OPENINGS ARE BEING ADDED

LIFE SAFETY SYSTEM REQUIREMENTS

LIFE SAFETY PLAN REQUIREMENTS

Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.3)

A separate schematic plan indicating where fire rated floor/ceiling and/or roof structure is provided for

DEGREE OF OPENINGS

Smoke Detection Systems: <u>Partial All Common Spaces; All Interior Corridors</u>

Exterior wall opening area with respect to distance to assumed property lines (705.8)

Location of doors with delayed egress locks and the amount of delay (1010.1.9.7)

The square footage of each smoke compartment for Occupancy Classification I-2 (407.5)

Note any code exceptions or table notes that may have been utilized regarding the items above

Occupancy Use for each area as it relates to occupant load calculation (Table 1004.1.2)

Assumed and real property line locations (if not on the site plan)

Common path of travel distances (Tables 1006.2.1 & 1006.3.2(1))

Location of doors with electromagnetic egress locks (1010.1.9.9)

Emergency Lighting:

Life Safety Plan Sheet #:

Carbon Monoxide Detection: No

Occupant loads for each area

Dead end lengths (1020.4)

2018 NC Administrative Code and Policies

Exit access travel distances (1017)

Clear exit widths for each exit door

purposes of occupancy separation

Actual occupant load for each exit door

Location of doors with panic hardware (1010.1.10)

Location of doors equipped with hold-open devices

Location of emergency escape windows (1030)

The square footage of each fire area (202)

Fire and/or smoke rated wall locations (Chapter 7)

Fire Alarm:

USE		WATERCLOSETS			URINALS	LAVATORIES			SHOWERS	DRINKING FOUNTAINS	
		MALE	FEMALE	UNISEX		MALE	FEMALE	UNISEX	/TUBS	REGULAR	ACCESSIBLE
SPACE	EXIST'G	7	5			4	4				
	NEW										
	REO'D	4	4			4	4				

SPECIAL APPROVALS

Special approval: (Local Jurisdiction, Department of Insurance, OSC, DPI, DHHS, etc., describe below) Goldsborough County for building permit

ENERGY SUMMARY

ENERGY REQUIREMENTS: The following data shall be considered minimum and any special attribute required to meet the energy code shall also be provided. Each Designer shall furnish the required portions of the project information for the plan data sheet. If performance method, state the annual energy cost for the standard reference design vs annual energy cost for the

Existing building envelope complies with code: No Exempt Building: Yes Provide code or statutory reference: Section N1107.2

Climate Zone: 3A

Method of Compliance: Energy Code - Prescriptive (If "Other" specify source here)_ THERMAL ENVELOPE (Prescriptive method only) Roof/ceiling Assembly (each assembly) N/A Description of assembly: U-Value of total assembly:

R-Value of insulation: Skylights in each assembly: U-Value of skylight: total square footage of skylights in each assembly: Exterior Walls (each assembly)

Description of assembly: MCM PANEL, 2 ½" XPS INSULATION, 6" CFSF W/ 3.5" U-Value of total assembly: R-Value of insulation: 12.5

2018 NC Administrative Code and Policies

Openings (windows or doors with glazing) U-Value of assembly: Solar heat gain coefficient: 0.030 projection factor: Door R-Values: Walls below grade (each assembly) N/A Description of assembly: U-Value of total assembly: R-Value of insulation: Floors over unconditioned space (each assembly) N/A Description of assembly: U-Value of total assembly: R-Value of insulation: Floors slab on grade N/A Description of assembly:

U-Value of total assembly:

Horizontal/vertical requirement:

R-Value of insulation:

slab heated:

2018 APPENDIX B BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS STRUCTURAL DESIGN

(PROVIDE ON THE STRUCTURAL SHEETS IF APPLICABLE) DESIGN LOADS: **Importance Factors:** Snow (I_S) N/A Seismic (I_E) N/ARoof N/A psf Live Loads: Mezzanine N/A psf Floor N/A psf Ground Snow Load: N/A psf Ultimate Wind Speed 130 mph (ASCE-7) Wind Load: Exposure Category C SEISMIC DESIGN CATEGORY: B Provide the following Seismic Design Parameters: Risk Category (Table 1604.5) III Spectral Response Acceleration S_S_____%g S₁_____%g Site Classification (ASCE 7) Data Source: Presumptive Basic structural system BUILDING FRAME – EXISTING STEEL

2018 NC Administrative Code and Policies

Analysis Procedure: Select one

2018 APPENDIX B

BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS

ELECTRICAL DESIGN

(PROVIDE ON THE ELECTRICAL SHEETS IF APPLICABLE) ELECTRICAL SUMMARY

Size category. If oversized, state reason.: Existing to Remain Size category. If oversized, state reason.: Existing to Remain

Architectural, Mechanical, Components anchored? Select one

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

winter dry bulb: 21.7°F

summer dry bulb: 96.5°F

winter dry bulb: 70°F

relative humidity: 50% RH

Building heating load: Existing to Remain

Building cooling load: Existing to Remain

Mechanical Spacing Conditioning System

description of unit: N/A

heating efficiency: N/A cooling efficiency: N/A

size category of unit: N/A

List equipment efficiencies: Existing to Remain

summer dry bulb: 75°F

Interior design conditions

2018 APPENDIX B

BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS

MECHANICAL DESIGN

(PROVIDE ON THE MECHANICAL SHEETS IF APPLICABLE)

MECHANICAL SUMMARY

LATERAL DESIGN CONTROL: Wind

Pile size, type, and capacity

SOIL BEARING CAPACITIES: N/A

Select one

Thermal Zone

ELECTRICAL SYSTEM AND EQUIPMENT Method of Compliance: Energy Code - Prescriptive Lighting schedule (each fixture type) (REFER TO LIGHT FIXTURE SCHEDULE) lamp type required in fixture number of lamps in fixture ballast type used in the fixture number of ballasts in fixture total wattage per fixture

total interior wattage specified vs. allowed (SPACE BY SPACE: 5536W Specified vs 11112 total exterior wattage specified vs. allowed **Additional Efficiency Package Options** (When using the 2018 NCECC; not required for ASHRAE 90.1) C406.2 More Efficient HVAC Equipment Performance C406.3 Reduced Lighting Power Density C406.4 Enhanced Digital Lighting Controls C406.5 On-Site Renewable Energy C406.6 Dedicated Outdoor Air System C406.7 Reduced Energy Use in Service Water Heating

2018 NC Administrative Code and Policies

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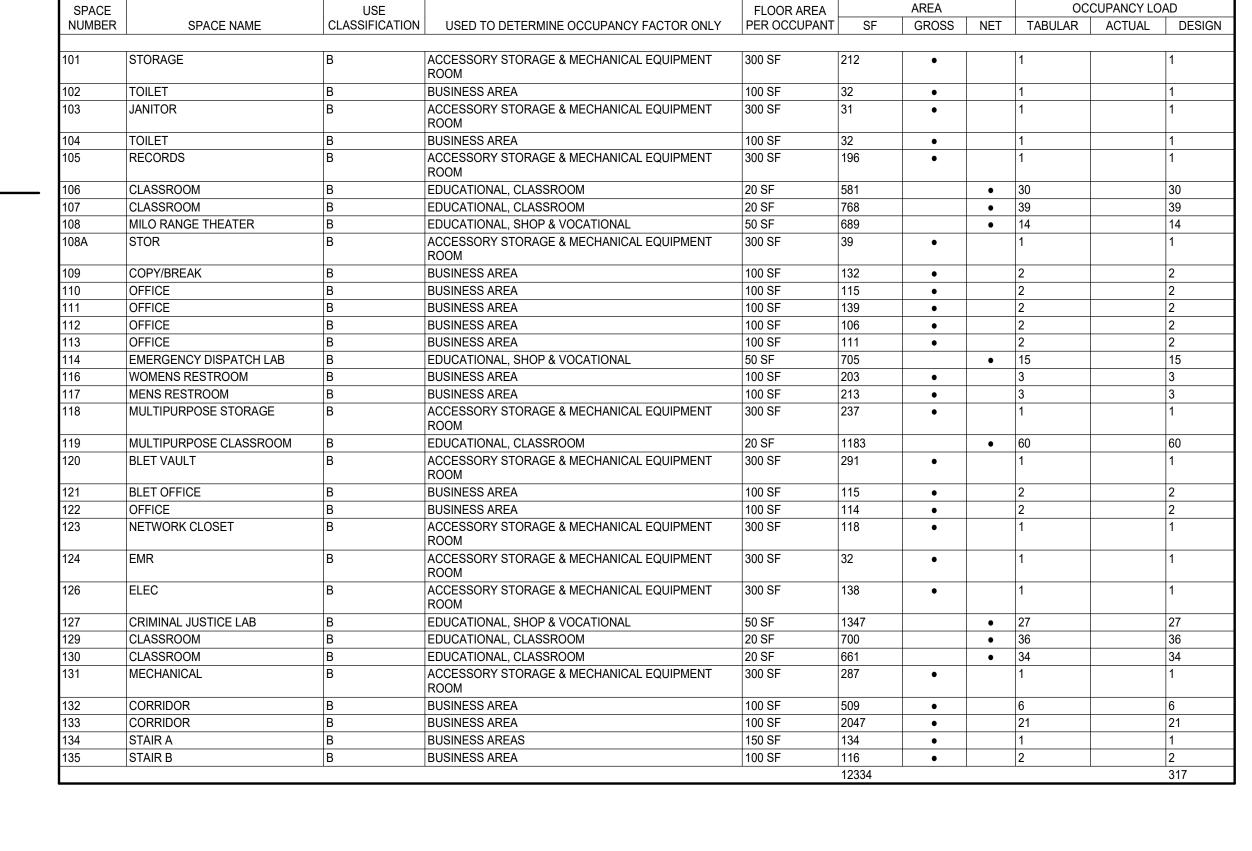
AZALEA HALL WATER CLOSETS LAVATORIES BATH TUBS/SHOWERS DRINKING FOUNTAINS SERVICE SINKS FIRST FLOOR MALE FEMALE MALE FEMALE OCC LOAD FACTOR REQ'D PROVIDED REQ'D PROVIDED OCCUPANCY 2.00 317 2.57 **NEW TOTAL** PLUMBING FIXTURE CALCS

NOTE: THIS TABLE IS FOR THE FIRST FLOOR OF THE BUILDING ONLY AS THAT IS THE ONLY FLOOR WHERE THE OCCUPANT LOAD CHANGED ENOUGH TO REQUIRE A RECALCULATION AND POTIENTIAL UPDATES PER THE EXISTING BUILDING CODE. EXITSTING WATER CLOSETS, LAVS AND SERVICE SINKS MET THE CALCULATED REQUIRMENTS. THE TWO EXISTING DRINKING FOUNTAINS ON THIS LEVEL WERE NOT SUFFICIENT SO TWO ADDITIONAL FOUNTAINS WERE ADDED TO ACCOMODATE ADDITIONAL OCCUPANT LOAD OF THIS LEVEL. THE TWO SINGLE USER TOILETS ON THIS LEVEL WERE ASSIGNED 1 MALE AND 1 FEMALE IN THE COUNTS.

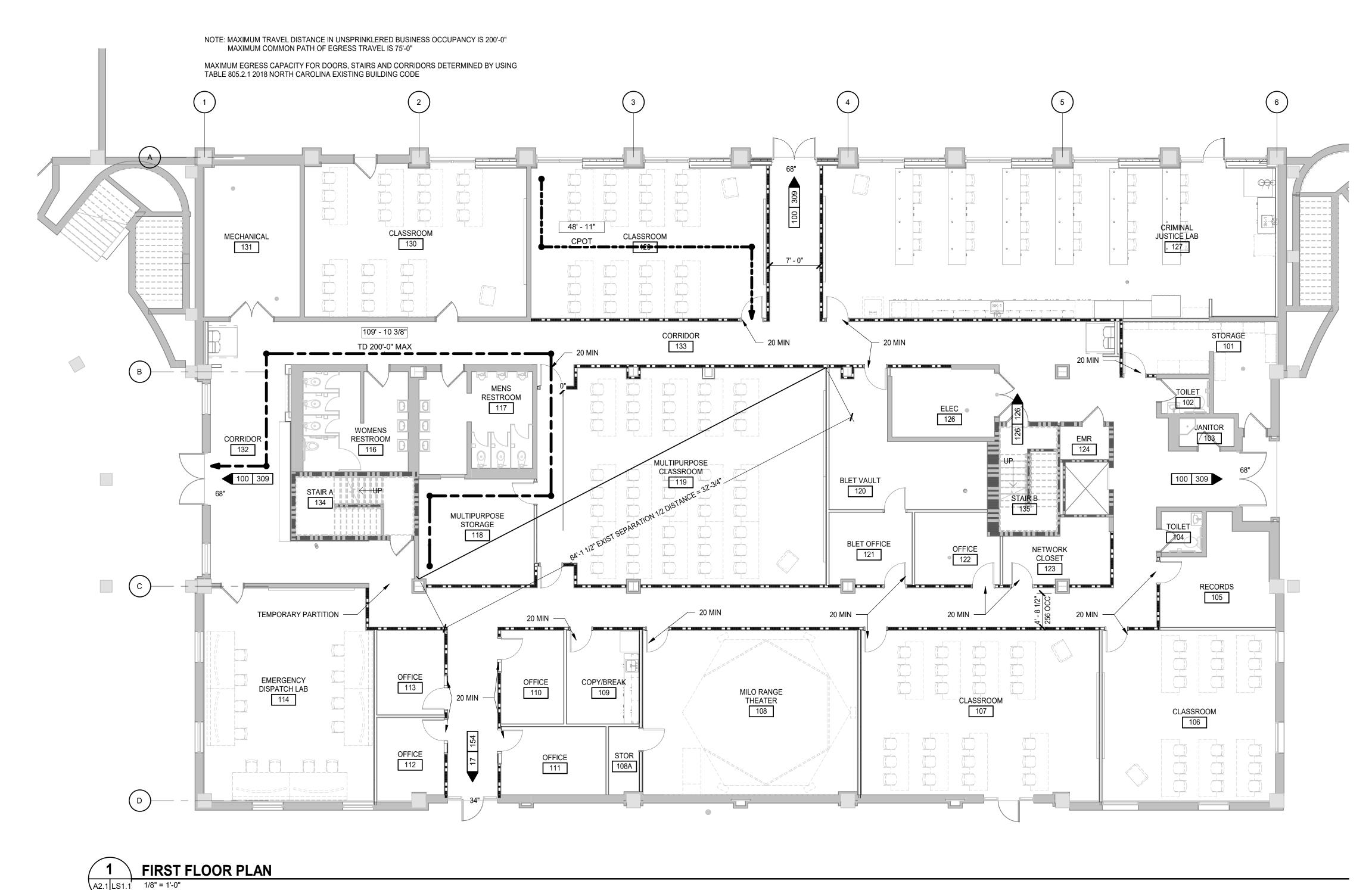
IT WAS ASSUMED THAT FIXTURE CALCULATIONS FOR THE OTHER LEVELS MET THE CODE UNDER WHICH THEY WERE PERMITTED. HOWEVER THE DESIGNER RAN THE NUMBERS FOR THE ENTIRE BUILDING WITH A TOTAL BUILDING B OCCUPANT LOAD OF 884.

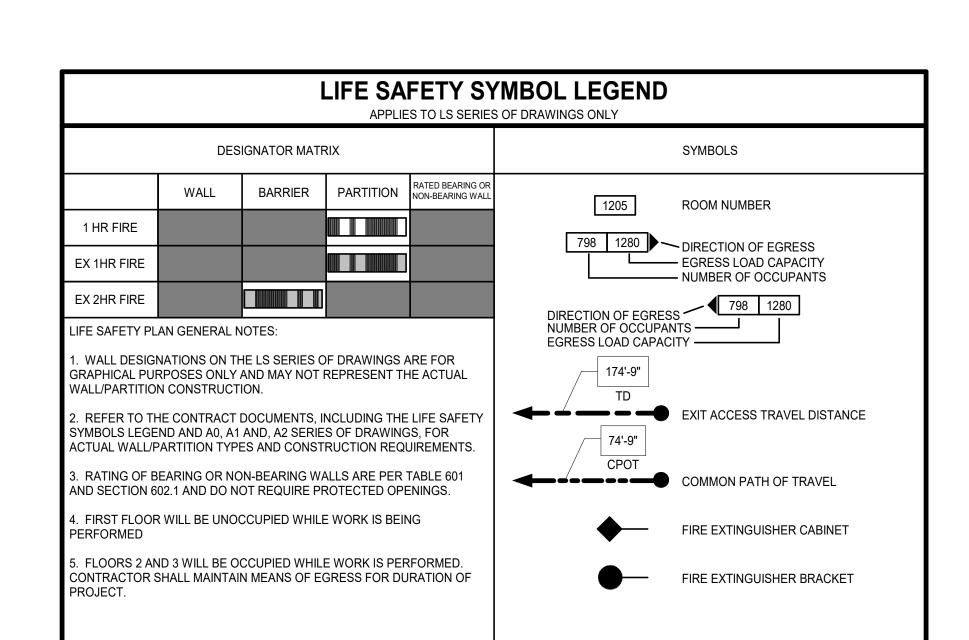
MALE AND FEMALE WATER CLOSETS REQUIRED FOR ENTIRE BUILDING IS 10 MALE AND 10 FEMALE. MALE PROVIDED IN TOTAL IN THE BUILDING IS 15 AND FEMALE PROVIDED 13. THIS EXCEEDS WHAT IS REQUIRED.

LAVATORIES REQUIRED IN THE BUILDING IS 7 MALE AND 7 FEMALE. 8 MALE AND FEMALE LAVS ARE PROVIDED IN TOTAL THROUGHOUT THE BUILDING. THIS ALSO EXCEEDS THE REQUIRED NUMBER.



OCCUPANCY SCHEDULE

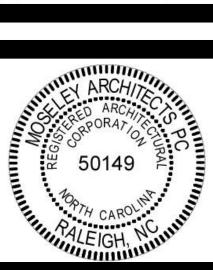




FIRE RATED ASSEMBLIES REPRESENTED BY Xn THE ASSEMBLIES REFERENCED ARE BASIS OF DESIGN; EQUIVALENT COMPATIBLE TESTED ASSEMBLIES WILL BE ACCEPTABLE IF APPROVED BY THE LAHJ							
MARK	FIRE RATING	APPLIES TO	REFERENCE	REMARKS			
X 1	1 FP	GYPSUM BOARD PARTITION	U419				
X2	1 FP	GYPSUM BOARD PARTITION	V-488				
Х3	1FP	HEAD OF GYPSUM PARTITION PERPENDICULAR TO DECK FLUTES	HW-D-0025	EX FLOOR IS 3" STEEL DECK AND 3 1/4" CONC AND MEETS THE FLOOR REQUIRMENTS OF THIS ASSEMBLY			
X4	1FP	HEAD OF GYPSUM PARTITION PARALLEL TO DECK FLUTES	HW-D-0210	EX FLOOR IS 3" STEEL DECK AND 3 1/4" CONC AND MEETS THE FLOOR REQUIRMENTS OF THIS ASSEMBLY			
X5	1FP	HEAD OF GYPSUM PARTITION UNDER STEEL BEAM	HW-D-0259	CONDITION OCCURS ALONG GRIDLINE C. EX FLOOR IS 3" STEEL DECK AND 3 1/4" CONC AND MEETS THE FLOOR REQUIRMENTS OF THIS ASSEMBLY			
X6	1FP	HEAD OF GYPSUM PARTITION SLIGHTLY TO THE SIDE OF STEEL BEAM	HW-D-0582	CONDITION MAY OCCUR ALONG GRIDLINE B. EX FLOOR IS 3" STEEL DECK AND 3 1/4" CONC AND MEETS THE FLOOR REQUIRMENTS OF THIS ASSEMBLY			

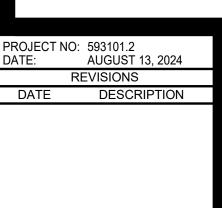
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ED MANUFACTURING CENTER RENOVATION - AZALE

WAYNE COMMUNITY COLLEGE SCO# 16-15906-01C



AD

CONSTRUCTION PHASE EGRESS PLAN

I S2 '

CONSTRUCTION PHASE **EGRESS PLAN**

1. THIS LEVEL WILL BE OCCUPIED DURING RENOVATION OF THE FIRST FLOOR EXISTING OCCUPANT LOAD THIS LEVEL 73 OCCUPANTS OCCUPANT PER 100SF (73 OCCUPANTS THIS FLOOR 2. PER AS BUILT DRAWINGS PROVIDED BY OWNER ALL CORRIDORS THIS LEVEL HAVE 1 HOUR FIRE PARTITION SEPARATION 3. PER AS BUILTS PROVIDED BY OWNER EGRESS STAIRS AND ELEVATOR SHAFT HAVE A 2 HOUR FIRE BARRIER SEPARATION race rac000000 THIRD FLOOR - EGRESS PLAN DURING CONSTRUCTION

BXUV - Fire Resistance Ratings - ANSI/UL 263 Certified for United States BXUV7 - Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada

Design Criteria and Allowable Variances See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada

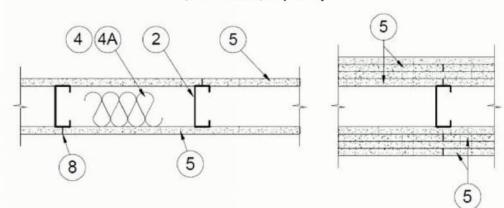
See General Information for Fire-resistance Ratings - ANSI/UL 263 Certified for United States

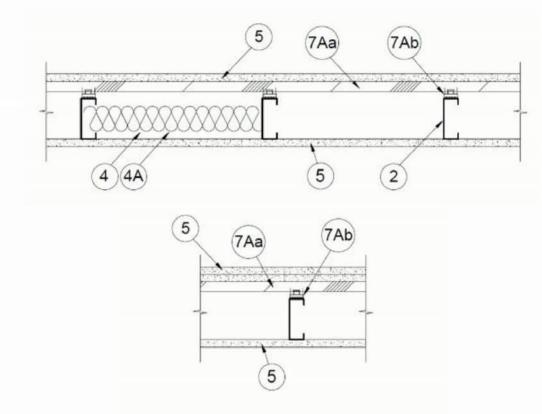
Design No. **U419**

June 14, 2024

Design Criteria and Allowable Variances

Nonbearing Wall Ratings — 1, 2, 3 or 4 Hr (See Items 4 & 5 through 5J) * Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.





. Floor and Ceiling Runners — (Not Shown) — For use with Item 2 — Channel shaped, fabricated from min 25 MSG corrosionprotected steel, min depth to accommodate stud size, with min 1-1/4 in. long legs, attached to floor and ceiling with fasteners 24 in.

1A. Framing Members* — Floor and Ceiling Runner — Not Shown — In lieu of Item 1 — For use with Item 2B, proprietary channel shaped runners, 3-5/8 in. deep attached to floor and ceiling with fasteners 24 in. OC max.

CRACO MFG INC — SmartTrack25™ MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper25™ Track

IMPERIAL MANUFACTURING GROUP INC — Viper25™ Track

1B. Framing Members* — Floor and Ceiling Runner — Not Shown — In lieu of Item 1 — For use with Item 2C, proprietary channel shaped runners, 1-1/4 in. wide by 3-5/8 in. deep fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max. **CEMCO, LLC** — Viper20™ Track

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™ Track IMPERIAL MANUFACTURING GROUP INC — Viper20™ Track

1C. Framing Members* — Floor and Ceiling Runners — (Not Shown) — In lieu of Item 1 — Channel shaped, attached to floor and ceiling with fasteners 24 in. OC. max.

ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20 CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV — Type SUPREME D24/30EQD and Type SUPREME D20

QUAIL RUN BUILDING MATERIALS INC — Type SUPREME D24/30EQD and Type SUPREME D20 SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME D24/30EQD and Type SUPREME D20 STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME D24/30EQD and Type SUPREME D20 **TELLING INDUSTRIES L L C** — Type SUPREME D24/30EQD and Type SUPREME D20

UNITED METAL PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20

1D. Floor and Ceiling Runners — (Not Shown) — For use with Item 2A — Channel shaped, fabricated from min 20 MSG corrosionprotected or galv steel, min depth to accommodate stud size, with min 1 in. long legs, attached to floor and ceiling with fasteners

1E. Framing Members* — Floor and Ceiling Runners — (Not Shown, As an alternate to Item 1) — For use with Items 2E, 5F or 5G or 5I only, channel shaped, fabricated from min. 0.015 in. (min bare metal thickness) galvanized steel, attached to floor and ceiling with fasteners 24 in. OC. max. CLARKDIETRICH BUILDING SYSTEMS — CD ProTRAK

MBA METAL FRAMING — ProTRAK RAM SALES L L C — Ram ProTRAK

DMFCWBS L L C -- ProTRAK

STEEL STRUCTURAL PRODUCTS L L C — Tri-S ProTRAK

1F. Framing Members* — Floor and Ceiling Runner — Not Shown — In lieu of Item 1 — For use with Item 2F, proprietary channel shaped runners, minimum width to accommodate stud size, with 1-1/8 in. long legs fabricated from min 0.015 in. (min bare metal thickness) galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max. SUPER STUD BUILDING PRODUCTS — The Edge

1G. Framing Members* — Floor and Ceiling Runner — For use with Item 2G, proprietary channel shaped runners, minimum width to accommodate stud size attached to floor and ceiling with fasteners 24 in. OC max. STUDCO BUILDING SYSTEMS — CROCSTUD Track

1H. Floor and Ceiling Runners — (Not Shown) — Channel shaped, fabricated from min 0.02 in. galv steel, min width to accommodate stud size, with min 1 in. long legs, for use with studs specified below and fabricated from min 0.018 in. galv steel or thicker, attached to floor and ceiling with fasteners spaced max 24 in. OC. MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™ Track VT100

IMPERIAL MANUFACTURING GROUP INC — Viper20™ Track VT100

11. Framing Members* — Floor and Ceiling Runners — (Not Shown, As an alternate to Item 1) — For use with Items 2H, channel shaped, fabricated from min. 0.015 in. (min bare metal thickness) galvanized steel, attached to floor and ceiling with fasteners 24 in. TELLING INDUSTRIES L L C — TRUE-TRACK™

1J. Framing Members* — Floor and Ceiling Runner — Not Shown — In lieu of Item 1 — For use with Item 2I, proprietary channel aped runners, 3-5/8 in, deep attached to floor and ceiling with fasteners 24 in, OC max.

1K. Framing Members* — Floor and Ceiling Runner — Not Shown — In lieu of Item 1 — For use with Item 2J, proprietary channel shaped runners, 1-1/4 in. wide by 3-5/8 in. deep fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

1L. Framing Members* — Floor and Ceiling Runner — Not Shown — In lieu of Item 1 — For use with Item 2N, proprietary channel shaped runners, 1-1/4 in. wide by min. 3-1/2 in. deep fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max. RESCUE METAL FRAMING, L L C — AlphaTRAK

1M. Framing Members* — Floor and Ceiling Runners — Not Shown — As an alternate to Item 1 — For use with Item 2O, proprietary channel shaped runners, min width to accommodate stud size, galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max. RONDO BUILDING SERVICES PTY LTD — Rondo Wall Track

1N. Framing Members* — Floor and Ceiling Runners — Not Shown — As an alternate to Item 1 — For use with Item 2P, proprietary channel shaped runners, min width to accommodate stud size, galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max. OEG BUILDING MATERIALS — OEG Track

10. Framing Members* — Floor and Ceiling Runner — Not Shown — In lieu of Item 1 — For use with Item 2Q, proprietary channel shaped runners, min width to accommodate stud size, fabricated from min. 25 MSG (0.018 in. min. bare metal thickness), attached to floor and ceiling with fasteners spaced 24 in. OC max. CEMCO, LLC — Viper X Track

1P. Framing Members* — Floor and Ceiling Runner — (Not Shown — Alternate to Item 1) — For use with Item 2R, channel shaped runners preequipped with proprietary attachment clips. Min. 3-5/8 in. wide. Legs of top runners minimum 3-1/4 in. wide. Legs of bottom runners minimum 1-1/2 in. wide. Runners attached to floor and ceiling with fasteners 24 in. OC max. HYPERFRAME INC - Hypertrack

1Q. Framing Members* — Floor and Ceiling Runner — Not Shown — In lieu of Item 1 — For use with Item 2S, proprietary channel shaped runners, min width to accommodate stud size, fabricated from min. 20 EQ/22 mils. (min. 0.0221 in. thick) galvanized steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

JJC INTERNATIONAL DISTRIBUTORS — Non-structural Tracks 3-5/8" and 6". 1R. Framing Members* — Floor and Ceiling Runner — Not Shown — In lieu of Item 1 — For use with Item 2T, proprietary channel shaped runners ,min width to accommodate stud size, fabricated from min. 25 MSG (0.018 in. min. bare metal thickness), attached to floor and ceiling with fasteners spaced 24 in. OC max

2. Steel Studs — Channel shaped, fabricated from min 25 MSG corrosion-protected steel, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.

2A. Steel Studs — (As an alternate to Item 2, For use with Items 5B, 5E, 5H, 5J or Type ULIX) — Channel shaped, fabricated from min 20 MSG corrosion-protected or galv steel, 3-1/2 in. min depth, spaced a max of 16 in. OC. Studs friction-fit into floor and ceiling runners. Studs to be cut 5/8 to 3/4 in. less than assembly height.

2B. Framing Members* - Steel Studs — (As an alternate to Item 2, For use with Items 5C, 5I or Type ULIX) — Proprietary channel shaped studs, 3-5/8 in. deep spaced a max of 24 in. OC. Studs to be cut 3/4 in less than the assembly height and installed with a 1/2 in. gap between the end of the stud and track at the bottom of the wall. For direct attachment of gypsum board only.

CEMCO, LLC — Viper25™ CRACO MFG INC — SmartStud25™ MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper25™ IMPERIAL MANUFACTURING GROUP INC — Viper25™

IRONLINE METALS LLC — Bantam Track.

2C. Framing Members* — Steel Studs — Not Shown — In lieu of Item 2 — proprietary channel shaped steel studs, min depth as indicated under Item 5, spaced a max if 24 in. OC, fabricated from min 0.018 in. thick galv steel. Studs cut 3/8 in. to 3/4 in. less in lengths than assembly heights.

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™

IMPERIAL MANUFACTURING GROUP INC — Viper20™

2D. Framing Members* — Steel Studs — In lieu of Item 2 — Channel shaped studs, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height. **ALLSTEEL & GYPSUM PRODUCTS INC** — Type SUPREME D24/30EQD and Type SUPREME D20

CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV — Type SUPREME D24/30EQD and Type SUPREME D20

QUAIL RUN BUILDING MATERIALS INC — Type SUPREME D24/30EQD and Type SUPREME D20 **SCAFCO STEEL STUD MANUFACTURING CO** — Type SUPREME D24/30EQD and Type SUPREME D20

STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME D24/30EQD and Type SUPREME D20

TELLING INDUSTRIES L L C — Type SUPREME D24/30EQD and Type SUPREME D20 **UNITED METAL PRODUCTS INC** — Type SUPREME D24/30EQD and Type SUPREME D20

2E. Framing Members* — Steel Studs — (Not Shown, As an alternate to Item 2) — For use with Items 5F or 5G or 5I or Type ULIX only, channel shaped studs, min depth as indicated under Item 5F, 5G or 5I, fabricated from min. 0.015 in. (min bare metal thickness) galvanized steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height. **CLARKDIETRICH BUILDING SYSTEMS** — CD ProSTUD

DMFCWBS L L C — ProSTUD MBA METAL FRAMING — ProSTUD

RAM SALES L L C — Ram ProSTUD STEEL STRUCTURAL PRODUCTS L L C — Tri-S ProSTUD

2F. Framing Members* — Steel Studs — Not Shown — In lieu of Item 2 — proprietary channel shaped steel studs, minimum width indicated under Item 5, 1-1/4 in. deep fabricated from min 0.015 in. (min bare metal thickness) galvanized steel. Studs 3/8 in. to 3/4 in. less in lengths than assembly heights. SUPER STUD BUILDING PRODUCTS — The Edge

2G. Framing Members* — Steel Studs — Not Shown — In lieu of Item 2 — proprietary channel shaped studs, minimum width indicated under Item 5, Studs to be cut 3/8 to 3/4 in less than the assembly height. STUDCO BUILDING SYSTEMS — CROCSTUD

2H. Framing Members* — Steel Studs — (Not Shown, As an alternate to Item 2) — Fabricated from min. 0.015 in. (min bare metal thickness) galvanized steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height. TELLING INDUSTRIES L L C — TRUE-STUD™

21. Framing Members* — Steel Studs —

2J. Framing Members* — Metal Studs — Not Shown — In lieu of Item 2 — proprietary channel shaped steel studs, min depth as indicated under Item 5, spaced a max if 24 in. OC, fabricated from min 0.018 in. thick galv steel. Studs cut 3/8 in. to 3/4 in. less in lengths than assembly heights

2K. Framing Members* — Steel Studs — As an alternate to Item 2 — For use with Item 1, channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height EB METAL INC — NITROSTUD

2L. Framing Members* — Steel Studs — As an alternate to Item 2 — For use with Item 1, channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height. **OLMAR SUPPLY INC — PRIMESTUD**

2M. Framing Members* — Steel Studs — As an alternate to Item 2 — For use with Item 1, channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height MARINO/WARE, DIV OF WARE INDUSTRIES INC — StudRite™

2N Framing Members*— Steel Studs — As an alternate to Item 2 — proprietary channel shaped steel studs min depth 3-1/2 in and as indicated under Item 5, spaced a max of 24 in. OC, fabricated from min 0.018 in. thick galv steel. Studs cut 3/8 in. to 3/4 in. less in length than assembly height. RESCUE METAL FRAMING, L L C — AlphaSTUD

20. Framing Members* — Steel Studs — As an alternate to Item 2 — proprietary channel shaped steel studs, min width as indicated under Item 5, galv steel. Studs to be cut 3/8 to 3/4 in. less in lengths than assembly height. Spaced 24 in. OC max. RONDO BUILDING SERVICES PTY LTD — Rondo Lipped Wall Stud

2P. Framing Members* — Steel Studs — As an alternate to Item 2 — proprietary channel shaped steel studs, min width as indicated under Item 5, min 25 MSG galv steel. Studs to be cut 3/8 to 3/4 in. less in lengths than assembly height. Spaced 24 in. OC max. **OEG BUILDING MATERIALS** — OEG Stud

2Q. Framing Members* — Steel Studs — Not Shown — In lieu of Item 2 — For use with Item 10, proprietary channel shaped steel studs, min depth as indicated under Item 5, spaced a max of 24 in. OC, fabricated from min 25 MSG (0.018 in. min, bare metal thickness). Studs cut 3/8 in. to 3/4 in. less in lengths than assembly heights.

CEMCO, LLC — Viper X 2R. Framing Members* — Steel Studs — (Not Shown — Alternate to Item 2, For use with Item 1P) — Channel shaped steel studs with attachment clips at top and bottom, min 3-5/8 in, depth, spaced a max of 24 in, OC, Studs clipped into floor and ceiling runners (Item 1P), Max 2-3/8 in. extension reveal from top of stud to inside of ceiling runner.

HYPERFRAME INC— Hyperstud

2S. Framing Members* — Steel Studs — Not Shown — In lieu of Item 2 — For use with Item 1Q, proprietary channel shaped steel studs, min depth as indicated under Item 5, spaced a max of 24 in. OC, fabricated from min. 20 EQ/22 mils. (min. 0.0221 in. thick) galvanized steel. Studs cut 3/8 in. to 3/4 in. less in lengths than assembly heights.

JJC INTERNATIONAL DISTRIBUTORS — Non-structural Studs 3-5/8" and 6".

2T. Framing Members* — Steel Studs — Not Shown — In lieu of Item 2 — For use with Item 1R, proprietary channel shaped steelstuds, min depth as indicated under Item 5, spaced a max of 24 in. OC, fabricated from min 25 MSG (0.018 in. min. bare metal thickness). Studs cut 3/8 in. to 3/4 in. less in lengths than assembly heights IRONLINE METALS LLC — Bantam Stud.

3. Wood Structural Panel Sheathing — (Optional, For use with Item 5 Only) — (Not Shown) — 4 ft wide, 7/16 in. thick oriented strand board (OSB) or 15/32 in. thick structural 1 sheathing (plywood) complying with DOC PS1 or PS2, or APA Standard PRP-108, manufactured with exterior glue, applied horizontally or vertically to the steel studs. Vertical joints centered on studs, and staggered one stud space from wallboard joints. Attached to studs with flat-head self-drilling tapping screws with a min. head diam. of 0.292 in. at maximum 6 in. OC. in the perimeter and 12 in. OC. in the field. When used, gypsum panels attached over OSB or plywood panels and fastener lengths for gypsum panels increased by min. 1/2 in.

4. Batts and Blankets* — (Required as indicated under Item 5) — Mineral wool batts, friction fitted between studs and runners. Min nom thickness as indicated under Item 5 See Batts and Blankets (BKNV or BZJZ) Categories for names of Classified companies.

4A. Batts and Blankets* — (Optional – as an alternate to item 4) — Placed in stud cavities, any glass fiber or mineral wool insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance. See Batts and Blankets (BKNV or BZJZ) Categories for names of Classified companies.

4B. Fiber, Sprayed* — (Optional – as an alternate for items 4 or 4A, for use with Type ULIX) Where insulation is required - Spray applied granulated mineral fiber material. The fiber is applied with adhesive at a minimum density of 4.0 pcf to completely fill the wall cavity in accordance with the application instructions supplied with the product. See Fiber, Sprayed (CCAZ). AMERICAN ROCKWOOL MANUFACTURING, LLC — Type Rockwool Premium Plus

4C. Foamed Plastic* — (As an alternate for items 4, 4A or 4B, for use with Item 5K) — Spray applied, foamed plastic insulation, at any thickness from partial fill to completely filling stud cavity, for 2 hour rated assemblies only. When foamed plastic is used, minimum stud depth shall be 3-1/2 in, with minimum 20 MSG steel thickness

CARLISLE SPRAY FOAM INSULATION — Types SealTite ONE, SealTite Pro Closed Cell (CC), SealTite Pro Open Cell (OC), SealTite Pro OCX, SealTite Pro No Trim 21, SealTite Pro One Zero, Foamsulate Closed Cell, Foamsulate OCX, Foamsulate 70, and Foamsulate HFO.

4D. Foamed Plastic* — (As an alternate for items 4, 4A or 4B, for use with Item 5K) — Spray applied, foamed plastic insulation, at any thickness from partial fill to completely filling stud cavity, for up to 2 hour rated assemblies only. When foamed plastic is used, minimum stud depth shall be 3-1/2 in. with minimum 20 MSG steel thickness.

BASF CORP - Enertite® NM, Enertite® G, FE178®, Spraytite® 178, Spraytite® 81206, Walltite® 200, Walltite® US, Walltite® US-N, Walltite HP+,

FE137®, FE158®, Spraytite® 158, Spraytite® SP, Spraytite® 81205, Spraytite® Comfort XL, Walltite® XL, Walltite® MAX, Walltite® LWP,

Walltite® Plus and Enertite® Max

5. Gypsum Board* — Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Vertical joints centered

over studs and staggered one stud cavity on opposite sides of studs. Vertical joints in adjacent layers (multilayer systems) staggered

one stud cavity. Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints on opposite

sides of studs need not be staggered. Horizontal edge joints and horizontal butt joints in adjacent layers (multilayer systems) staggered a min of 12 in. Horizontal edge joints and horizontal butt joints in adjacent layers (multilayer systems) with Type ULIX need not be staggered. The thickness and number of layers for the 1 hr, 2 hr, 3 hr and 4 hr ratings are as follows:

Gypsum Board Protection on Each Side of Wall							
Rating, Hr	Min Stud Depth, in. Items 2, 2C, 2D, 2F, 2G, 2O	No. of Layers & Thkns of Panel	Min Thkns of Insulation (Item 4)				
1	3-1/2	1 layer, 5/8 in. thick	Optional				
1	2-1/2	1 layer, 1/2 in. thick	1-1/2 in.				
1	1-5/8	1 layer, 3/4 in. thick	Optional				
2	1-5/8	2 layers, 1/2 in. thick	Optional				
2	1-5/8	2 layers, 5/8 in. thick	Optional				
2	3-1/2	1 layer, 3/4 in. thick	3 in.				
3	1-5/8	3 layers, 1/2 in. thick	Optional				
3	1-5/8	2 layers, 3/4 in. thick	Optional				
3	1-5/8	3 layers, 5/8 in. thick	Optional				
4	1-5/8	4 layers, 5/8 in. thick	Optional				
4	1-5/8	4 layers, 1/2 in. thick	Optional				
4	2-1/2	2 layers, 3/4 in. thick	2 in.				

CGC INC — 1/2 in. thick Type C, IP-X2 or IPC-AR; WRC, 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX, WRX or WRC; 3/4 in. thick Types IP-X3 or ULTRACODE

THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO - 1/2 in. thick Type C and 5/8 in. thick Type SCX UNITED STATES GYPSUM CO — 1/2 in. thick Type C, IP-X2, IPC-AR or WRC; 5/8 in. thick Type SCX, SGX, SHX, ULIX, WRX, IP-X1, AR, C, WRC, FRX-G, IP-AR, IP-X2, IPC-AR; 3/4 in. thick Types IP-X3 or ULTRACODE

USG BORAL DRYWALL SFZ LLC — 1/2 in. Type C; 5/8 in. Types C, SCX, SGX, ULTRACODE USG MEXICO S A DE C V — 1/2 in. thick Type C, IP-X2, IPC-AR or WRC; 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRX, WRC or; 3/4 in. thick Types IP-X3 or ULTRACODE

When Item 7B, Steel Framing Members*, is used, Nonbearing Wall Rating is limited to 1 Hr. Min. stud depth is 3-1/2 in., min. thickness of insulation (Item 4) is 3 in., and two layers of gypsum board panels (1/2 in. or 5/8 in. thick) shall be attached to furring channels as described in Item 6. One layer of gypsum board panels (1/2 in. or 5/8 in. thick) attached to opposite side of stud without furring channels as described in Item 6.

5A. Gypsum Board* — (As an alternate to Item 5) — 5/8 in. thick, 24 to 54 in. wide, applied horizontally as the outer layer to one side of the assembly. Secured as described in Item 6. CGC INC — Type SHX.

UNITED STATES GYPSUM CO — Type FRX-G, SHX.

USG MEXICO S A DE C V — Type SHX.

5B. Gypsum Board* — (Not Shown) — As an alternate to Item 5 when used as the base layer on one or both sides of wall when 5/8 in or 3/4 in. thick products are specified. For direct attachment only to steel studs Item 2A, (not to be used with Item 3) — Nom 5/8 in. or

3/4 in. may be used as alternate to all 5/8 in. or 3/4 in. shown in Item 5, Wallboard Protection on Each Side of Wall table. Nom 5/8 in. or 3/4 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Gypsum board secured to 20 MSG steel studs Item 2A with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. To be used with Lead Batten Strips (see Item 11) or Lead Discs or Tabs (see Item 12). RAY-BAR ENGINEERING CORP — Type RB-LBG

5C. Gypsum Board* — (For Use With Item 2B) — Rating Limited to 1 Hour. 5/8 in. thick, 48 in. wide, Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. (Vertical Application) - The gypsum board is to be installed on each side of the studs with 1 in. long Type S coated steel screws spaced 8 in. OC starting 4 in. from the edge of the board at the vertical edges and 12 in. OC starting 6 in. from the edge of the board at the center of each board. Gypsum boards are to be secured to the top and bottom track with screws spaced 8 in. OC starting 4 in. from the board edge. Fasteners shall not penetrate through both the stud and the track at the same time. Vertical joints are to be centered over studs and staggered one stud cavity on opposite sides of studs. (Horizontal Application) - The gypsum board is to be installed on each side of the studs with 1 in. long Type S coated steel screws spaced 8 in. OC starting 4 in. from the edge of the board at the vertical edges and 12 in. OC starting 6 in. from the edge of the board at the center of each board. Gypsum boards are to be secured to the top and bottom track with screws spaced 8 in. OC starting 4 in. from the board edge. Fasteners shall not penetrate through both the stud and the track at the same time. All horizontal joints are to be backed as outlined under section VI of Volume 1 in the Fire Resistive Directory.

THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — Type SCX UNITED STATES GYPSUM CO — Type SCX, SGX, ULIX. USG BORAL DRYWALL SFZ LLC — Type SCX

CGC INC — Type SCX, ULIX.

5D. Gypsum Board* — (As an alternate to Item 5) — 5/8 in. thick, 48 in. wide, applied vertically or horizontally. Secured as described in Item 6. For use with Items 1 and 2 only. CGC INC — Type USGX

UNITED STATES GYPSUM CO — Type USGX **USG MEXICO S A DE C V** — Type USGX

USG MEXICO S A DE C V — Type SCX

5E. Gypsum Board* — (Not Shown) — (As an alternate to Item 5 when used as the base layer on one or both sides of wall when 1/2 in. or 5/8 in thick products are specified, For direct attachment only to steel studs Item 2A, not to be used with Item 3). Nominal 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 (or No. 6 by 1-1/4 in. long bugle head fine driller) steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. NEW ENGLAND LEAD BURNING CO INC, DBA NELCO — Nelco

5F. Gypsum Board* — (As an alternate to Item 5) — For use with Items 1E and 2E and limited to 1 Hour Rating only, Gypsum panels with beveled, square or tapered edges, applied vertically, and fastened to the steel studs with 1 in. long Type S screws spaced 8 in. OC along vertical and bottom edges and 12 in. OC in the field. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Steel stud depth shall be a minimum 3-5/8 in. THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — Type SCX

UNITED STATES GYPSUM CO — 5/8 in. thick Type SCX, SGX, ULIX USG BORAL DRYWALL SFZ LLC — 5/8 in. thick Type SCX, SGX

5G. Gypsum Board* — (As an alternate to Item 5) — For use with Items 1E and 2E only, Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally, as specified in the table below and fastened to the steel studs as described in Item 6. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Vertical joints in adjacent layers (multilayer systems) staggered one stud cavity. Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered. Horizontal edge joints and horizontal butt joints in adjacent layers (multilayer systems) staggered a min of 12 in. The thickness and number of layers for the 2 hr, 3 hr and 4 hr ratings are as

Gypsum Board Protection on Each Side of Wall

Rating, Hr	Min Stud Depth, in. Item 2E	No. of Layers & Thickness of Panel	Min Thkns of Insulation (Item 4)	
2	1-5/8	2 layers, 1/2 in. thick	Optional	
2	1-5/8	2 layers, 5/8 in. thick	Optional	
3	1-5/8	3 layers, 1/2 in. thick	Optional	
3	1-5/8	3 layers, 5/8 in. thick	Optional	
4	1-5/8	4 layers, 5/8 in. thick	Optional	
	1			

CGC INC — 1/2 in. thick Type C, IP-X2 or IPC-AR;, 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX or 3/4 in. thick Types IP-X3 or

THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — 1/2 in. thick Types C and 5/8 in. thick SCX UNITED STATES GYPSUM CO - 1/2 in. thick Type C, IP-X2, IPC-AR or; 5/8 in. thick Type SCX, SGX, SHX, IP-X1, AR, C, , FRX-G, IP-AR, IP-X2, IPC-AR,

USG MEXICO S A DE C V — 1/2 in. thick Type C, IP-X2, IPC-AR or; 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, or; 3/4 in. thick

ULIX; 3/4 in. thick Types IP-X3 or ULTRACODE USG BORAL DRYWALL SFZ LLC — 1/2 in. Type C; 5/8 in. Types C, SCX, SGX, ULTRACODE

5H. Gypsum Board* — (Not Shown) — (As an alternate to Item 5 when used as the base layer on one or both sides of wall when 5/8 or 3/4 in thick products are specified. For direct attachment only to steel studs Item 2A, (not to be used with Item 3) - Nom 5/8 or 3/4 in. may be used as alternate to all 5/8 or 3/4 in. shown in Item 5, Wallboard Protection on Each Side of Wall table. Nom 5/8 or 3/4 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over 20 MSG steel studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel

long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. For Joint Compound see Item 5. To be used with Lead Batten Strips (see Item 11A) or Lead Discs (see Item 12A). MAYCO INDUSTRIES INC — Type X-Ray Shielded Gypsum

screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Gypsum board secured to 20 MSG steel studs Item 2B with 1-1/4 in.

51. Gypsum Board* — (As an alternate to Item 5) — Nom. 5/8 in. thick gypsum panels with beveled, square or tapered edges installed

UNITED STATES GYPSUM CO — Type ULIX, ULX USG MEXICO S A DE C V — Type ULX

Types IP-X3 or ULTRACODE

CGC INC — Type ULIX, ULX

5J. Gypsum Board* — (Not Shown) — (As an alternate to Item 5 when used as the base layer on one or both sides of wall when 1/2 in. or 5/8 in thick products are specified, For direct attachment only to steel studs Item 2A, not to be used with Item 3). Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws gypsum panel steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 8 ft long with a max thickness of 0.14 in, placed on the face of studs and attached to the stud with construction adhesive and two 1 in, long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, nominal 3/8 in. diam by max 0.085 in. thick. Compression fitted or adhered over the screw heads. Lead batten strips and discs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".

RADIATION PROTECTION PRODUCTS INC — Type RPP - Lead Lined Drywall

as described in Item 5. Steel stud minimum depth shall be as indicated in Item 5.

5K. Gypsum Board* — (As an alternate to Item 5 when Foam Plastic insulation (Items 4C or 4D) is used) — Any 5/8 in. thick, 4 ft. wide, Gypsum Board listed in Item 5 above. Applied vertically with vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Gypsum panels secured to studs with 1-1/4 in. long Type S steel screws spaced 8 in. OC at perimeter and in the field. For 2 layer assemblies outer layer will be attached to studs over inner layer with the 1-7/8 in. long steel screws spaced 8 in. OC.

6. Fasteners — (Not Shown) — For use with Items 2 and 2F - Type S or S-12 steel screws used to attach panels to studs (Item 2) or furring channels (Item 7). Single layer systems: 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 8 in. OC when panels are applied horizontally, or 8 in. OC along vertical and bottom edges and 12 in. OC in the field when panels are applied vertically. Single layer system with Type ULIX: 1 in. long, spaced 12 in. OC in the field and perimeter, when panels are applied horizontally or vertically. Two layer systems: First layer- 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels or 2-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC with screws offset 8 in. from first layer. Three-layer systems: First layer- 1 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Third layer- 2-1/4 in. long for 1/2 in., 5/8 in. thick panels or 2-5/8 in. long for 5/8 in. thick panels, spaced 12 in. OC. Screws offset min 6 in. from layer below. Four-layer systems: First layer- 1 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Third layer- 2-1/4 in. long for 1/2 in. thick panels or 2-5/8 in. long for 5/8 in. thick panels, spaced 24 in. OC. Fourth layer- 2-5/8 in. long for 1/2 in. thick panels or 3 in. long for 5/8 in. thick panels, spaced 12 in. OC. Screws offset min 6 in. from layer below.

7. Furring Channels — (Optional, Not Shown, for single or double layer systems) — Resilient furring channels fabricated from min 25 MSG corrosion-protected steel, spaced vertically a max of 24 in. OC. Flange portion attached to each intersecting stud with 1/2 in. long Type S-12 steel screws. Not for use with Item 5A.

7A. Framing Members* — (Optional on one or both sides, not shown, for single or double layer systems) — As an alternate to Item 7, furring channels and Steel Framing Members as described below: a. Furring Channels — Formed of No. 25 MSG galv steel. 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board attached to furring channels as described in Item 6. Not for use with Item 5A.

b. Steel Framing Members* — Used to attach furring channels (Item 7Aa) to studs (Item 2). Clips spaced max. 48 in. OC. RSIC-1 and RSIC-1 (2.75) clips secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. RSIC-V and RSIC-V (2.75) clips secured to studs with No. 8 x 9/16 in. minimum self-drilling, S-12 steel screw through the center hole. Furring channels are friction fitted into clips. RSIC-1 and RSIC-V clips for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) and RSIC-V (2.75) clips for use with 2-23/32 in. wide furring channels. PAC INTERNATIONAL L L C — Types RSIC-1, RSIC-V, RSIC-1 (2.75), RSIC-V (2.75).

7B. Framing Members* — (Optional, Not Shown) — As an alternate to Item 7, for single or double layer systems, furring channels

a. Furring Channels — Formed of No. 25 MSG galv steel, spaced 24 in. OC perpendicular to studs. Channels secured to studs as

described in Item b. Batts and Blankets placed in stud cavity as described in Item 5. Two layers of gypsum board attached to furring

and Steel Framing Members on only one side of studs as described below:

channels as described in Item 5. Not for use with Item 5A.

b. Steel Framing Members* — Used to attach furring channels (Item 7Ba) to one side of studs (Item 2) only. Clips spaced 48 in. OC., and secured to studs with two No. 8 x 2-1/2 in. coarse drywall screws, one through the hole at each end of the clip. Furring channels are friction fitted into clips. KINETICS NOISE CONTROL INC — Type Isomax

7C. Framing Members* — (Not Shown) — (Optional on one or both sides, not shown, for single or double layer systems) — As an alternate to Item 7, furring channels and Steel Framing Members as described below: a. Furring Channels — Formed of No. 25 MSG galv steel. 2-3/8 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board attached to furring channels as described in Item 6. Not for use with Item 5A.

b. Steel Framing Members* — Used to attach furring channels (Item 7Ca) to studs (Item 2). Clips spaced max. 48 in. OC. GENIECLIPS secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. Furring channels are friction fitted into clips. PLITEQ INC — Type GENIECLIP

7D. Steel Framing Members* — (Optional on one or both sides, not shown, for single or double layer systems) — Furring channels and Steel Framing Members as described below: a. Furring Channels — Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel

b. Steel Framing Members* — Used to attach furring channels (Item 7Da) to studs. Clips spaced 48 in. OC., and secured to studs with 2 in. coarse drywall screw with 1 in. diam washer through the center hole. Furring channels are friction fitted into clips STUDCO BUILDING SYSTEMS — RESILMOUNT Sound Isolation Clips - Type A237 or A237R

wire.. Gypsum board attached to furring channels as described in Item 6. Not for use with Item 5A.

7E. Steel Framing Members* — (Optional on one or both sides, not shown, for single or double layer systems) — Furring channels and Steel Framing Members as described below: a. Furring Channels — Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item 7Eb. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire.. Gypsum board attached to furring channels as described in Item 6. Not for use with Item 5A and 5E.

b. Steel Framing Members* — Used to attach furring channels (Item 7Ea) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips. REGUPOL AMERICA — Type SonusClip

7F. Steel Framing Members* — (Optional on one or both sides, not shown, for single or double layer systems) — Resilient channels and Steel Framing Members as described below a. Resilient Channels — Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured in place with two No. 8 15 x 1/2 in. Philips Modified Truss screws spaced 2-1/2 in. from the center of the overlap. Gypsum board attached to resilient channels as described in Item 5. Not for use with Item 5A and 5E.

b. Steel Framing Members* — Used to attach resilient channels (Item 7Fa) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Resilient channels are secured to clips with one No. 10 x 1/2 in. pan-head self-drilling screw. KEENE BUILDING PRODUCTS CO INC — Type RC+ Assurance Clip

7G. Framing Members* — (Optional on one or both sides, not shown, for single or double layer systems) — As an alternate to Item 7, furring channels and Steel Framing Members as described below: a. Furring Channels — Formed of No. 25 MSG galv steel. 2-23/32 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board attached to furring channels as described in Item 6. Not for

b. Steel Framing Members* — Used to attach furring channels (Item 7Ga) to studs (Item 2). Clips spaced max. 48 in. OC. Clips secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center hole. Furring channels are friction fitted into clips. CLARKDIETRICH BUILDING SYSTEMS — Type ClarkDietrich Sound Clip

8. Joint Tape and Compound — Vinyl or casein, dry or premixed joint compound applied in two coats to joints and screw heads of outer layers. Paper tape, nom 2 in. wide, embedded in first layer of compound over all joints of outer layer panels. Paper tape and joint compound may be omitted when gypsum panels are supplied with a square edge.

9. Siding, Brick or Stucco — (Optional, Not Shown) — Aluminum, vinyl or steel siding, brick veneer or stucco, meeting the requirements of local code agencies, installed over gypsum panels. Brick veneer attached to studs with corrugated metal wall ties attached to each stud with steel screws, not more than each sixth course of brick.

10. Caulking and Sealants* — (Optional, Not Shown) — A bead of acoustical sealant applied around the partition perimeter for UNITED STATES GYPSUM CO — Type AS

11. Lead Batten Strips — (Not Shown, For Use With Item 5B) — Lead batten strips, min 1-1/2 in. wide, max 10 ft long with a max thickness of 0.125 in. Strips placed on the interior face of studs and attached from the exterior face of the stud with two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 5B) and optional at remaining stud locations. Required behind vertical joints.

11A. Lead Batten Strips — (Not Shown, For Use With Item 5H) — Lead batten strips, 2 in. wide, max 10 ft long with a max thickness of 0.140 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.5% meeting the Federal specification QQ-L-201f, Grades "B, C or D". Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations.

12. Lead Discs or Tabs — (Not Shown, For Use With Item 5B) — Used in lieu of or in addition to the lead batten strips (Item 11) or optional at other locations - Max 3/4 in. diam by max 0.125 in. thick lead discs compression fitted or adhered over steel screw heads or max 1/2 in. by 1-1/4 in. by max 0.125 in. thick lead tabs placed on gypsum boards (Item 5B) underneath screw locations prior to the installation of the screws. Lead discs or tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".

12A. Lead Discs — (Not Shown, for use with Item 5H) — Max 5/16 in. diam by max 0.140 in. thick lead discs compression fitted or adhered over steel screw heads. Lead discs to have a purity of 99.5% meeting the Federal Specification QQ-L-201f, Grades "B, C or D".

13. Lead Batten Strips — (Not Shown, For Use With Item 5E) — Lead batten strips, 2 in. wide, max 10 ft long with a max thickness of 0.142 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 5E) and optional at remaining stud locations.

14. Lead Tabs — (Not Shown, For Use With Item 5E) — 2 in. wide, 5 in. long with a max thickness of 0.142 in. Tabs friction-fit around front face of stud, the stud folded back flange, and the back face of the stud. Tabs required at each location where a screw (that secures the gypsum boards, Item 5E) will penetrate the steel stud. Lead tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead tabs may be held in place with standard adhesive tape if necessary.

15. Barrier Mesh — (Optional, Not Shown) - Attached to steel studs on one or both sides of the wall using Barrier Mesh Clips spaced at maximum 12 inches on center vertically, using a flat head type screw penetrating through the steel at least 3/8 of an inch. For Steel Studs less than 0.033 inches in thickness, use self-piercing screws. For Steel Studs equal to or greater than 0.033 inches in thickness, use steel drill screws (self-tapping). Gypsum Board (Item 5) to be installed directly over the Barrier Mesh using prescribed screw patterns with lengths increased by a minimum 1/8 in. Barrier Mesh may be installed with the long dimension of the diamond pattern positioned vertically or horizontally. Barrier Mesh joints may occur as butt joints at the framing members and secured using the Barrier Mesh Clips or occur in between framing members as overlapping joints secured using 18 SWG wire ties spaced a maximum 12 in. or CLARKDIETRICH BUILDING SYSTEMS — Barrier Mesh, Barrier Mesh Clips

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Last Updated on 2024-06-14

DATE DESCRIPTION

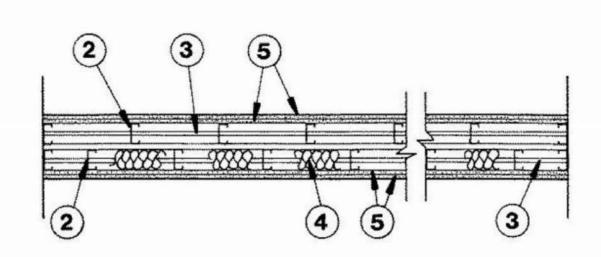
UL ASSEMBLIES

See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada Design Criteria and Allowable Variances

November 14, 2023

Design Criteria and Allowable Variances

Nonbearing Wall Rating — 1 or 2 Hr. (See Items 5 and 5A) * Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



HORIZONTAL SECTION

. Floor and Ceiling Runners — (For use with Item 5) — Channel shaped, attached to floor and ceiling in two rows, a min 1 in. apart, with steel fasteners spaced 24 in. OC. Runners fabricated from min No. 25 MSG galv steel, 1-1/4 in. wide and min 2-1/2 in. deep.

1A. Floor and Ceiling Runners — (As an alternate to Item 1, For use with Item 5A, 5B, and 5C) — Channel shaped, attached to floor and ceiling in two rows, a min 1 in. apart. Runners fabricated from min No. 20 MSG galv steel, 1-3/16 in. wide and min 2-9/16 in. deep.

1B. Framing Members* — Floor and Ceiling Runners — (Not Shown) — As an alternate to Item 1 - For use with Item 2B, channel shaped, min 2-1/2 in. deep fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners 24 in. OC. max. CLARKDIETRICH BUILDING SYSTEMS — CD ProTRAK

DMFCWBS L L C — ProTRAK MBA METAL FRAMING — ProTRAK

RAM SALES L L C - Ram ProTRAK

STEEL STRUCTURAL PRODUCTS L L C — Tri-S ProTRAK

1C. Framing Members* — Floor and Ceiling Runners — (Not Shown) — As an alternate to Item 1 - For use with Item 2C, channel shaped, min 2-1/2 in. deep fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners 24 in. OC. max. TELLING INDUSTRIES L L C — TRUE-TRACK™

1D. Framing Members* — Floor and Ceiling Runners — (Not Shown) — As an alternate to Item 1 - For use with Item 2D, channel shaped, min 2-1/2 in. deep, attached to floor and ceiling with fasteners 24 in. OC. max. MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™ Track

IMPERIAL MANUFACTURING GROUP INC — Viper20™ Track

1E. Framing Members* — Floor and Ceiling Runners — (Not Shown) — As an alternate to Item 1 for a 2 hour rating only - For use with Item 2E, channel shaped, min 2-1/2 in. deep, attached to floor and ceiling with fasteners 24 in. OC. max. MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper25™ Track

IMPERIAL MANUFACTURING GROUP INC — Viper25™ Track

1F. Framing Members* — Floor and Ceiling Runners — (Not Shown) — As an alternate to Item 1 - For use with Item 2F, channel shaped, min 3-1/2 in. deep fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners 24 in. OC. max. RESCUE METAL FRAMING, L L C — AlphaTRAK

IG. Framing Members* — Floor and Ceiling Runner — Not Shown — In lieu of Item 1 – For use with Item 2G, proprietary channel shaped runners, 1-1/4 in. wide by min. 2-1/2 in. deep fabricated from min 0.019 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24

PANEL REY S A - SUPRA Track 20EQ/19 mil

1H. Framing Members* — Floor and Ceiling Runner — (Not Shown — Alternate to Item 1) — For use with Item 2H, channel shaped runners pre-equipped with proprietary attachment clips. Min. 3-5/8 in. wide. Legs of top runners minimum 3-1/4 in. wide. Legs of bottom runners minimum 1-1/2 in. wide. Runners attached to floor and ceiling with fasteners 24 in. OC max. **HYPERFRAME INC** - Hypertrack

2. Steel Studs — (For use with Item 5) — Channel shaped, supplied with cutouts, friction -fitted into floor and ceiling runners and spaced a max 24 in. OC. Studs cut 1/2 in. less than assembly height and evenly staggered between the two rows of floor and ceiling runners. Studs fabricated from min No. 25 MSG galv steel, min 2-1/2 in. deep by 1-5/8 in. wide with 3/8 in. folded back return flange

2A. Steel Studs — (As an alternate to Item 2, For use with Items 5A, 5B, and 5C) — Channel shaped, supplied with cutouts, friction fitted into floor and ceiling runners and spaced a max 16 in. OC. Studs cut 1/2 in. less than assembly height and staggered flush against the floor runners. Studs fabricated from min No. 20 MSG galv steel, min 2-1/2 in. deep by 1-3/16 in. wide with 1/4 in. folded back return flange legs.

2B. Framing Members* — Steel Studs — As an alternate to Item 2 — For use with Item 1B, channel shaped studs, min 2-1/2 in. deep fabricated from min 0.018 in. thick galv steel, spaced a max of 24 in. OC. Studs to be cut 1/2 in. less than assembly height. CLARKDIETRICH BUILDING SYSTEMS — CD ProSTUD

DMFCWBS L L C — ProSTUD MBA METAL FRAMING — ProSTUD

RAM SALES L L C — Ram ProSTUD

STEEL STRUCTURAL PRODUCTS L L C — Tri-S ProSTUD

2C. Framing Members* — Steel Studs — As an alternate to Item 2 — For use with Item 1C, channel shaped studs, min 2-1/2 in. deep fabricated from min 0.018 in. thick galv steel, spaced a max of 24 in. OC. Studs to be cut 1/2 in. less than assembly height. TELLING INDUSTRIES L L C — TRUE-STUD™

2D. Framing Members* — Steel Studs — As an alternate to Item 2 — For use with Item 1D, channel shaped studs, min 2-1/2 in. deep, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.

IMPERIAL MANUFACTURING GROUP INC — Viper20™

IMPERIAL MANUFACTURING GROUP INC — Viper25™

PANEL REY S A - SUPRA Stud 20EQ/19 mil

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™

2E. Framing Members* — Steel Studs — As an alternate to Item 2 for a 2 hour rating only — For use with Item 1E, channel shaped studs, min 2-1/2 in. deep, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height. MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper25™

2F. Framing Members* — Steel Studs — As an alternate to Item 2 — For use with Item 1F, channel shaped studs, min 2-1/2 in. deep fabricated from min 0.018 in. thick galv steel, spaced a max of 24 in. OC. Studs to be cut 1/2 in. less than assembly height. RESCUE METAL FRAMING, L L C — AlphaSTUD

2G. Framing Members* — Steel Studs — Not Shown — In lieu of Item 2 – For use with Item 1G, proprietary channel shaped steel studs, min 1-1/4 in. wide by min 2-1/2 in. deep with 1/4 in. return lips fabricated from min 0.019 in. thick galv steel, spaced 24 in. OC max. Studs cut 1/2 in. less in length than assembly height.

2H. Framing Members* — Steel Studs — (Not Shown — Alternate to Item 2, For use with Item 1H) — Channel shaped steel studs with attachment clips at top and bottom, min 3-5/8 in. depth, spaced a max of 24 in. OC. Studs clipped into floor and ceiling runners (Item 1H). Max 2-3/8 in, extension reveal from top of stud to inside of ceiling runner.

3. Lateral Bracing — The bracing shall be in accordance with the SSMA Technical Note Dated March 2000 Referencing Unsheathed

Flange Bracing. 3A. Framing Members* — Lateral Bracing — (Not Shown) — Right angle- shaped, supplied with notches spaced 12, 16, or 24 in. OC., friction-fitted to the cutouts in steel studs, supplied in 7/8 in. by 7/8 in. by 50 in. lengths. Lateral bracing bars fabricated from min.

20 MSG galvanized steel. The bracing shall be located a maximum of 5 ft on center in accordance with the manufacturers published

CLARKDIETRICH BUILDING SYSTEMS — TradeReady Spazzer 9200 bar 4. Batts and Blankets* — Optional — Glass fiber batts may be friction-fitted to completely fill the stud cavities on one or both rows

See Batts and Blankets (BZJZ) Category for names of manufacturers.

RAY-BAR ENGINEERING CORP — Type RB-LBG

5. **Gypsum Board*** — Nom 5/8 in. thick, 4 ft. wide, gypsum panels with beveled, square or tapered edges.. **For single layer** systems gypsum panels applied vertically or horizontally with joints centered over studs. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered or backed by steel framing. Gypsum panels fastened to framing with 1 in. long Type S steel screws 12 in. OC along vertical edges and in the field. and 12 in. along the top and bottom of the wall. When studs (Item 2) spaced a max 16 in. OC, 5/8 in. thick gypsum panels applied vertically or horizontally, 1 in. long Type S screws spaced 16 in. OC along vertical edges and in the field, and 16 in. OC along top and bottom of wall. For two layer systems gypsum panels applied vertically or horizontally. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs and in adjacent layers. Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered. Horizontal edge joints in adjacent layers staggered a min of 12 in. First layer secured with 1 in. long Type S or S-12 steel screws, spaced 16 in. OC. Second layer secured with 1-5/8 in. long Type S or S-12 steel screws, spaced 16 in. OC with screws offset 8 in. from first layer. Screw spacings remain the same when applied to furring channels. NATIONAL GYPSUM CO — Types eXP-C, FSK, FSK-C, FSK-G, FSW-C, FSW-G, FSW, FSW-3, FSW-5, FSW-6, FSMR-C

5A. Gypsum Board* — (As an alternate to Item 5 may be used as the base layer on one or both sides of wall. For direct attachment only) — Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Gypsum board secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field.

5B. Gypsum Board* — (As an alternate to Item 5 may be used as the base layer on one or both sides of wall. For direct attachment only) — Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws gypsum panel steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 8 ft long with a max thickness of 0.14 in, placed on the face of studs and attached to the stud with construction adhesive and two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, nominal 3/8 in. diam by max 0.085 in. thick. Compression fitted or adhered over the screw heads. Lead batten strips and discs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". RADIATION PROTECTION PRODUCTS INC — Type RPP-LBG

5C. **Gypsum Board*** — (As an alternate to Item 5 when used as the base layer on one or both sides of wall, For direct attachment only) — Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and in the field when applied as the base layer. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 10 ft long with a max thickness of 0.140 in. placed on the face of studs and attached to the stud with two 1 in. long Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, max 5/16 in. diam by max 0.140 in. thick compression fitted or adhered over the screw heads. Lead batten strips and discs to have a purity of 99.9% meeting the Federal specification QQ-L-

201f, Grades "A, B, C or D". Fasteners for face layer gypsum panels (Items 5) when installed over lead backed board to be min 2-1/2 in. Type S-12 bugle head steel screws spaced as described in Item 6. MAYCO INDUSTRIES INC — "X-Ray Shielded Gypsum"

5D. Gypsum Board* — (As an alternate to 5/8 in. Type FSW in Item 5) — Nom. 5/16 in. thick gypsum panels applied vertically or horizontally. Two layers of 5/16 in. for every single layer of 5/8 in. gypsum board described in Item 5. Horizontal joints on the same side need not be staggered. Inner layer of each double 5/16 in. layer attached with fasteners, as described in item 5, spaced 24 in. OC. Outer layer of each double 5/16 in. layer attached per Item 5. NATIONAL GYPSUM CO — Type FSW

5E. Gypsum Board* — (As an Alternate to Items 5 through 5D) – For single layer system only. Nominal 5/8 in. thick, 4 ft wide panels plied vertically only, fastened to the studs and plates with 1 in. long Type 5 steel screws spaced 12 in. OC. When studs (Iter spaced a max 16 in. OC, 5/8" in. thick gypsum panels applied vertically or horizontally with 1 in. long Type S steel screws spaced 16 in. OC along vertical edges and in the field and 16 in. OC along top and bottom of wall. NATIONAL GYPSUM CO — Type SBWB

5F. Gypsum Board* — (As an Alternate to Item 5) – Installed as described in Item 5. For single layer system only. Batts and Blankets (Item 4) required to be friction-fitted to completely fill the stud cavities in both rows of studs. NATIONAL GYPSUM CO — Type FSLX

required layer(s) of UL Classified Gypsum Board.

NATIONAL GYPSUM CO — SoundBreak Gypsum Board.

6. Joint Tape and Compound — (Not Shown) — Outer layer joints covered with joint compound and paper or mesh tape. Screw heads covered with joint compound. Paper or mesh tape and joint compound may be omitted when gypsum boards are supplied with

7. Lead Batten Strips — (Not Shown, For Use With Item 5A) — Used in lieu of or in addition to the lead batten strips (Item 8) or

optional at other locations - Max 3/4 in. diam by max 0.125 in. thick lead discs compression fitted or adhered over steel screw heads

or max 1/2 in, by 1-1/4 in, by max 0.125 in, thick lead tabs placed on gypsum boards (Item 5C) underneath screw locations prior to the

installation of the screws. Lead discs or tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". 8. Lead Discs or Tabs — (Not Shown, For Use With Item 5A) — Used in lieu of or in addition to the lead batten strips (Item 8) or optional at other locations - Max 3/4 in. diam by max 0.125 in. thick lead discs compression fitted or adhered over steel screw heads or max 1/2 in. by 1-1/4 in. by max 0.125 in, thick lead tabs placed on gypsum boards (Item 5C) underneath screw locations prior to the

9. Wall and Partition Facings and Accessories* — (Optional, Not Shown) — For use with Item 5- Nominal 1/2 in. thick, 4 ft wide panels, for optional use as an additional layer on one or both sides of the assembly. Panels attached in accordance with manufacturer's recommendations. When the SoundBreak gypsum board is installed between the steel framing and the UL Classified gypsum board, the required UL Classified gypsum board layer(s) is/are to be installed as indicated as to fastener type and spacing, except that the required fastener length shall be increased by a minimum of 1/2 in. Not evaluated or intended as a substitute for the

installation of the screws. Lead discs or tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".

10. Framing Members* — (Optional on one or both sides, not shown, for single or double layer systems, not for use with items 5A, 5B or 5C) — Furring channels and Steel Framing Members as described below: a. Furring Channels — Formed of No. 25 MSG galv steel. 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b.

b. Steel Framing Members* — Used to attach furring channels (Item 10a) to studs. Clips spaced max. 48 in. OC. RSIC-1 and RSIC-1 (2.75) clips secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. RSIC-V and RSIC-V (2.75) clips secured to studs with No. 8 x 9/16 in. minimum self-drilling, S-12 steel screw through the center hole. Furring channels are friction fitted into clips. RSIC-1 and RSIC-V clips for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) and RSIC-V (2.75) clips for use with 2-23/32 in. wide furring channels. PAC INTERNATIONAL L L C — Types RSIC-1, RSIC-V, RSIC-1 (2.75), RSIC-V (2.75).

10A. Framing Members* — (Optional on one or both sides, not shown, for single or double layer systems, not for use with items 5A, 5B or 5C) — Furring channels and Steel Framing Members as described below:

a. Furring Channels — Formed of No. 25 MSG galv steel, 2-5/8 in. wide by 7/8 in deep, spaced 24 in. OC perpendicular to studs. Channels secured to study as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. Gypsum board attached to furring channels as described in Item 5.

b. Steel Framing Members* — Used to attach furring channels (Item a) to studs. Clips spaced 48 in. OC., and secured to studs with 2 in. coarse drywall screw with 1 in. diam washer through the center hole. Furring channels are friction fitted into clips. **STUDCO BUILDING SYSTEMS** — RESILMOUNT Sound Isolation Clips - Type A237R

10B. Steel Framing Members* — (Not Shown) — (Optional on one or both sides, not shown, for single or double layer systems, not for use with items 5A, 5B, or 5C) — Furring channels and Steel Framing Members as described below: a. Furring Channels — Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured in place with a double strand of No. 18 AWG twisted steel wire. Gypsum board attached to furring channels as described in Item 5.

b. Steel Framing Members* — Used to attach furring channels (Item 10Ba) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips. REGUPOL AMERICA — Type SonusClip

10C. Steel Framing Members* — (Optional on one or both sides, not shown, for single or double layer systems, not for use with items 5A, 5B, or 5C) — Resilient channels and Steel Framing Members as described below: a. Resilient Channels — Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured in place with two No. 8 15 x 1/2 in. Philips Modified Truss screws spaced 2-1/2 in. from the center of the overlap. Gypsum board attached to resilient channels as described in Item 5.

b. Steel Framing Members* — Used to attach resilient channels (Item 10Ca) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Resilient channels are secured to clips with one No. 10 x 1/2 in. pan-head self-drilling screw. KEENE BUILDING PRODUCTS CO INC — Type RC+ Assurance Clip

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

XHBN - Joint Systems

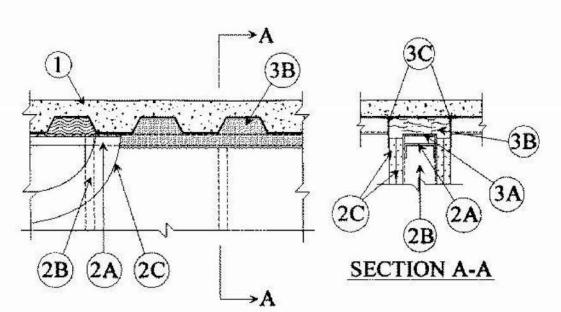
See General Information for Joint Systems

 $\langle X3 \rangle$

System No. HW-D-0025

June 21, 2023

Assembly Ratings — 1 & 2 Hr (See Item 2) L Rating At Ambient — Less Than 1 CFM/Lin Ft L Rating At 400 F — Less Than 1 CFM/Lin Ft. Nominal Joint Width — 3/4 In. Class II Movement Capabilities — 33% Compression & Extension



1. Floor Assembly — The fluted steel deck/concrete floor assembly shall be constructed of the materials and in the manner described in the individual Floor-Ceiling Design in the UL Fire Resistance Directory and shall include the following construction features: A. Steel Floor and Form Units* — Max 3 in. (76 mm) deep galv steel fluted units.

B. Concrete — Min 2-1/2 in. (64 mm) thick reinforced concrete, as measured from the top plane of the floor units.

1A. Roof Assembly — (Not Shown) — As an alternate to the floor assembly, a fire rated fluted steel deck roof assembly may be used. The roof assembly shall be constructed of the materials and in the manner described in the individual P900 Series Roof-Ceiling Design in the UL Fire Resistance Directory. The hourly rating of the roof assembly shall be equal to or greater than the hourly rating of the wall assembly and shall include the following construction features: A. Steel Roof Deck — Max 3 in. (76 mm) deep galv steel fluted roof deck.

B. Roof Insulation — Min 2-1/4 in. (57 mm) thick poured insulating concrete, as measured from the top plane of the floor units.

C. Roof Covering* — Hot-mopped or cold-application materials compatible with insulating concrete.

2. Wall Assembly — The 1 hr or 2 hr fire rated gypsum board/steel stud wall assembly shall be constructed of the materials and in the manner described in the individual U400 or V400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features: A. Steel Floor And Ceiling Runners — Floor and ceiling runners of wall assembly shall consist of galv steel channels sized to accommodate steel studs (Item 2B). When U-shaped deflection channel (Item 3A) is used, ceiling runner installed within the deflection channel with 1 in. gap maintained between the top of ceiling runner and top of deflection channel. When deflection channel is not

used, ceiling runner installed perpendicular to direction of fluted steel deck and secured to valleys with steel masonry anchors or by welds spaced max 24 in. (610 mm) OC. A1 Light Gauge Framing* — Slotted Ceiling Runner — As an alternate to the ceiling runner in Item 2A, slotted ceiling runner to consist of galv steel channel with slotted flanges sized to accommodate steel studs (Item 2B). Slotted ceiling runner installed

perpendicular to direction of fluted steel deck and secured to valleys with steel masonry anchors spaced max 24 in. (610 mm) OC.

CLARKDIETRICH BUILDING SYSTEMS — Type SLT, SLT-H

When slotted ceiling runner is used, deflection channel (Item 3A) shall not be used.

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Type SLT

METAL-LITE INC — The System

RAM SALES L L C — RAM Slotted Track

SCAFCO STEEL STUD MANUFACTURING CO

TELLING INDUSTRIES L L C — True-Action Deflection Track

THE STEEL NETWORK INC — VertiTrack VTD362, VTD400, VTD600 and VTD800

A2. Light Gauge Framing* — Vertical Deflection Ceiling Runner — As an alternate to the ceiling runner in Items 2A, 2A1 or 2A2, vertical deflection ceiling runner to consist of galv steel channel with slotted vertical deflection clips mechanically fastened within runner. Slotted clips, provided with step bushings, for permanent fastening of steel studs. Vertical deflection ceiling runner installed perpendicular to direction of fluted steel deck and secured to valleys with steel masonry anchors spaced max 24 in. (610 mm) OC. When vertical deflection ceiling runner is used, deflection channel (Item 3A) shall not be used.

A3. Light Gauge Framing* — Notched Ceiling Runner — As an alternate to the ceiling runners in Items 2A through 2A3, notched ceiling runners to consist of C-shaped galv steel channel with notched return flanges sized to accommodate steel studs (Item 2B). Notched ceiling runner installed perpendicular to direction of fluted steel deck and secured to valleys with steel masonry anchors spaced max 24 in. (610 mm) OC. When notched ceiling runner is used, deflection channel (Item 3A) shall not be used. OLMAR SUPPLY INC — Type SCR

B. Studs — Steel studs to be min 3-5/8 in. (92 mm) wide. Studs cut 1/2 to 3/4 in. (13 to 19 mm) less in length than assembly height. Studs attached to ceiling runner with sheet metal screws a min of 1/2 in. (13 mm) below bottom of deflection channel, when deflection channel is used. When deflection channel is not used, studs shall not be secured to ceiling runners. When slotted ceiling runner (Item 2A1) is used, steel studs secured to slotted ceiling runner with No. 8 by 1/2 in. (13 mm) long wafer head steel screws at midheight of slot on each side of wall. When vertical deflection ceiling runner (Item 2A3) is used, steel studs secured to slotted vertical deflection clips, through bushings, with steel screws at midheight of each slot. Stud spacing not to exceed 24 in. (610 mm) OC.

C. Gypsum Board* — Gypsum board sheets installed to a min total thickness of 5/8 and 1-1/4 in. (16 and 32 mm) on each side of wall for 1 and 2 hr rated assemblies, respectively. Wall to be constructed as specified in the individual Wall and Partition Design in the UL Fire Resistance Directory, except that a nom 3/4 in. (19 mm) gap shall be maintained between the top of the gypsum board and the lower surface of the floor. The screws attaching the gypsum board to studs at the top of the wall shall be located 1 in. (25 mm) below the bottom of the deflection channel, when deflection channel is used. When deflection channel is not used, the screws attaching the gypsum board to studs at the top of the wall shall be located 1 in. (25 mm) below the bottom of the ceiling runner. The hourly fire rating of the joint system is dependent on the hourly fire rating of the wall.

3. Joint System — Max separation between bottom of floor and top of wall is 1 in. (25 mm). The joint system is designed to accommodate a max 33 percent compression or extension from its installed width. The joint system consists of an optional deflection channel, forming material and a fill material, as follows: A. Deflection Channel — (Optional) — A nom 3-5/8 in. (92 mm) wide by min 2 in. (51 mm) deep min 24 gauge steel U-shaped

channel. Deflection channel installed perpendicular to direction of fluted steel deck and secured to valleys with steel masonry anchors or by welds spaced max 24 in. (610 mm) OC. The ceiling runner (Item 2A) is installed within the deflection channel to maintain a 1 in. (25 mm) gap between the top of the ceiling runner and the top of the deflection channel. The ceiling runner is not fastened to the

B. Forming Material* — Min 4-7/8 in. (124 mm) thickness of min 4 pcf (64 kg/m³) density mineral wool batt insulation cut to the shape of the fluted deck, approximately 25 percent larger than the areas of the flutes and compressed into flutes of the steel floor units between the top of the deflection channel and the steel deck, flush with both sides of wall. Additional pieces of min 5/8 in. (16 mm) thickness of min 4 pcf mineral wool batt insulation are to be cut into strips and compressed approximately 25 percent in width to fill the max 3/4 in. (19 mm) gap between the top of the gypsum board and bottom of the steel floor units, flush with both sides of wall. —

C. Fill, Void or Cavity Material* — Min 1/16 in. (1.6 mm) dry thickness (min 1/8 in. or 3.2 mm wet thickness) of fill material sprayed or brushed on each side of the wall in the flutes of the steel floor units and between the top of the gypsum board and the bottom of the steel floor units to completely cover mineral wool and overlap a min of 1 in. (25 mm) onto gypsum board and steel deck on both sides PASSIVE FIRE PROTECTION PARTNERS - 3500SL 5100SP

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Last Updated on 2023-06-21

XHBN - Joint Systems

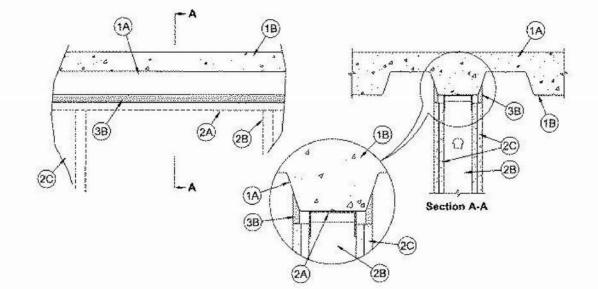
See General Information for Joint Systems

 $\langle X4 \rangle$

System No. HW-D-0210

June 26, 2023

Assembly Ratings — 1 and 2 Hr (See Item 2) Joint Width — 3/4 in. L Rating At Ambient — Less Than 1 CFM/Lin Ft L Rating At 400°F — Less Than 1 CFM/Lin Ft Class II Movement Capabilities — 25% Compression



1. Floor Assembly — The fire-rated fluted steel deck/concrete floor assembly shall be constructed of the materials and in the manner described in the individual Floor-Ceiling Design in the UL Fire Resistance Directory and shall include the following construction A. Steel Floor And Form Units* — Max 3 in. (76 mm) deep galv steel fluted floor units having a min valley width of 4-3/4 in. (121

B. Concrete — Min 2-1/2 in. (64 mm) thick reinforced concrete, as measured from the top plane of the floor units.

1A. Roof Assembly — (Not Shown) — As an alternate to the floor assembly (Item 1), a fire rated fluted steel deck roof assembly may be used. The roof assembly shall be constructed of the materials and in the manner described in the individual P900 Series Roof-Ceiling Design in the UL Fire Resistance Directory. The hourly fire rating of the roof assembly shall be equal to or greater than the hourly fire rating of the wall assembly. The roof assembly shall include the following construction features: A. Steel Roof Deck — Max 3 in. (76 mm) deep galv steel fluted roof deck having a min valley width of 4-3/4 in. (121 mm).

B. Roof Insulation — Min 2-1/4 in. (57 mm) thick poured insulating concrete, as measured from the top plane of the steel roof deck.

2. Wall Assembly — The 1 or 2 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described in the individual U400 or V400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include A. Steel Floor And Ceiling Runners — Floor and ceiling runners of wall assembly shall consist of galv steel channels sized to

accommodate steel studs. When deflection channel (Item 3A) is used, ceiling runner to be provided with min 2 in. (51 mm) flanges. Ceiling runner installed within the deflection channel with a 1/2 in. (13 mm) to 3/4 in. (19 mm) gap maintained between the top of the ceiling runner and the top of the deflection channel. When deflection channel is not used, flange height of ceiling runner shall be min 1/2 in. (13 mm) greater than nom joint width. Ceiling runner installed parallel to fluted steel deck, centered beneath valley, and secured with steel masonry anchors or welds spaced max 24 in. (610 mm) OC.

A1. Light Gauge Framing* — Slotted Ceiling Runner — As an alternate to the ceiling runner in Item 2A, ceiling runner to consist of galy steel channel with slotted flanges sized to accommodate steel studs (Items 2B). Slotted ceiling runner installed parallel to fluted steel deck, centered beneath valley, and secured with steel masonry anchors or welds spaced max 24 in. (610 mm) OC. When slotted ceiling runner is used, deflection channel (Item 3A) shall not be used. CEMCO, LLC — CST

CLARKDIETRICH BUILDING SYSTEMS — Type SLT, SLT-H

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Type SLT

QUAIL RUN BUILDING MATERIALS INC — Slotted Deflection Track

RAM SALES L L C — RAM Slotted Track

SCAFCO STEEL STUD MANUFACTURING CO STEELER INC — Steeler Slotted Ceiling Runner

TELLING INDUSTRIES L L C — True-Action Deflection Track

A2. Light Gauge Framing*- Notched Ceiling Runner — As an alternate to the ceiling runners in Items 2A and 2A1, notched ceiling runners to consist of C-shaped galv steel channel with notched return flanges sized to accommodate steel studs (Item 2B). Notched ceiling runner installed parallel to direction of fluted steel deck, centered beneath valley, and secured with steel masonry anchors spaced max 24 in. (610 mm) OC. When notched ceiling runner is used, deflection channel (Item 3A) shall not be used. OLMAR SUPPLY INC — Type SCR

B. Studs — Steel studs to be min 3-1/2 in. (89 mm) wide. Studs cut 1/2 in. (13 mm) to 3/4 in. (19 mm) less in length than assembly height with bottom nesting in and secured to floor runner. When deflection channel (Item 3A) is used, steel studs attached to ceiling runner with sheet metal screws located 1/2 in. (13 mm) below the bottom of the deflection channel. When deflection channel is not used, studs to nest in ceiling runner without attachment. When slotted ceiling runner (Item 2A1) is used, steel studs secured to slotted ceiling runner with No. 8 by 1/2 in. (13 mm) long wafer head steel screws at midheight of slot on each side of wall. Stud spacing not to exceed 24 in. (610 mm) OC.

B1. Light Gauge Framing* —Slotted Studs — Slotted steel stud to be used in conjunction with Light Gauge Framing* —Floor and

Ceiling Runners (Item 2A1). Slotted steel studs to be min 3-1/2 in. (89 mm) wide. Slotted steel studs cut 1/2 in. to 3/4 in. (13 to 19 mm) less in length than assembly height with bottom nesting in and secured to both ceiling and floor runners. Ceiling runner secured to preformed slot within steel stud by means of No. 10 by 3/4 in. (19 mm) long low profile head steel screw. Floor runner attached to bottom of steel stud by means of No. 8 by 1/2 in. (13 mm) long pan head steel screw. Slotted steel stud spacing not to exceed 24 in. STEELER INC — Steeler Slotted Stud

C. Gypsum Board* — Gypsum board sheets installed to a min total thickness of 5/8 in. (16 mm) and 1-1/4 in. (32 mm) on each side of wall for 1 and 2 hr fire rated assemblies, respectively. Wall to be constructed as specified in the individual Wall and Partition Design in the UL Fire Resistance Directory, except that a nom 3/4 in. (19 mm) gap shall be maintained between the top of the gypsum board and the bottom surface of the steel floor units. In addition, the top row of screws shall be installed into the steel studs 1/2 to 1 in. (13 to 25 mm) below the bottom edge of the ceiling runner flange.

The hourly fire rating of the joint system is equal to the hourly fire rating of the wall assembly in which it is installed.

3. Joint System — Max separation between bottom of floor or roof deck and top of wall is 3/4 in. (19 mm). The joint system is designed to accommodate a max 25 percent compression from its installed width. The joint system consists of the following: A. Deflection Channel — (Optional, Not Shown) — Max 2 in. (51 mm) deep min 24 gauge galv steel channel sized to accommodate ceiling runner (Item 2A). Deflection channel installed parallel to direction of fluted steel deck, centered beneath valley, and secured with steel masonry anchors or welds spaced max 24 in. (610 mm) OC. The ceiling runner is installed within the deflection channel to maintain a 1/2 in. to 3/4 in. gap (13 to 25 mm) between the top of the ceiling runner and the top of the deflection channel. The ceiling runner is not fastened to the deflection channel.

B. Forming Material — (Optional, Not Shown) — In 2 hr fire rated wall assemblies, foam backer rod friction fit into joint opening and recessed min 1/2 in. (13 mm) from each surface of wall.

C. Fill, Void or Cavity Material* — Sealant — Min 1/2 in. (13 mm) thickness of fill material applied within joint opening on both sides of wall, flush with both surfaces of wall. As an option in 1 hr fire rated walls, bond breaker tape applied to ceiling channel (Item 2A) or deflection channel (Item 3A) prior to installation of fill material. SPECIFIED TECHNOLOGIES INC — SpecSeal ES Elastomeric Sealant

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Last Updated on 2023-06-26

XHBN - Joint Systems XHBN7 - Joint Systems Certified for Canada

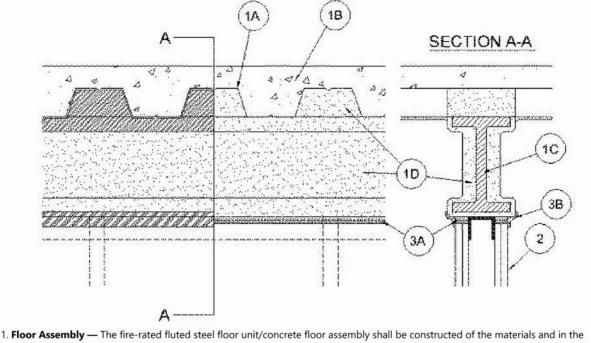
See General Information for Joint Systems See General Information for Joint Systems Certified for Canada

 $\langle X5 \rangle$

System No. HW-D-0259

June 23, 2023

ANSI/UL2079	CAN/ULC S115			
Assembly Ratings — 1 and 2 Hr (See Items 1 and 2)	F Ratings — 1 and 2 Hr (See Items 1 and 2)			
Nominal Joint Width - 1-1/2 In.	FT Ratings — 1 and 2 Hr (See Items 1 and 2)			
Class II Movement Capabilities — 50% Compression or Extension	FH Ratings — 1 and 2 Hr (See Items 1 and 2)			
L Rating At Ambient — Less Than 1 CFM/lin ft	FTH Ratings — 1 and 2 Hr (See Items 1 and 2)			
L Rating At 400 F — Less Than 1 CFM/lin ft	Nominal Joint Width - 1-1/2 In.			
	Class II Movement Capabilities — 50% Compression or Extension			
	L Rating At Ambient — Less Than 1 CFM/lin ft			
	L Rating At 400 F — Less Than 1 CFM/lin ft			



manner described in the individual Floor-Ceiling Design in the Fire Resistance Directory and shall include the following construction A. Steel Floor and Form Units* — Max 3 in. (76 mm) deep galv steel fluted floor units.

B. Concrete — Min 2-1/2 in. (64 mm) thick reinforced concrete, as measured from the top plane of the floor units.

C. Structural Steel Support — Steel beam, as specified in the individual D700 or D900 Series Floor-Ceiling Design, used to support steel floor units. Structural steel support centered over and parallel with wall assembly.

D. Spray-Applied Fire Resistive Material* — Steel floor units and structural steel beam to be sprayed with the thickness of material specified in the individual D700 Series Design or the structural steel supports to be sprayed in accordance with the specifications in the individual D900 Series Design. The flutes of the steel floor units are to be filled with material across the entire top flange of the steel beam. Additional material shall be applied to the web of the steel beam on each side of the wall. For a 1 hr Assembly Rating. the total thickness of material applied to each side of the steel beam web shall be min 13/16 in. (21 mm). For a 2 hr Assembly Rating, the total thickness of material applied to each side of the steel beam web shall be min 1-3/8 in. (35 mm). GCP APPLIED TECHNOLOGIES INC — Types MK-6-HY or MK-10HB

D1. Spray-Applied Fire Resistive Material* — Steel floor units and structural steel support to be sprayed with the min thickness of material specified in the individual D700 or D900 Series Design. The flutes of the steel floor units are to be filled with material across the entire top flange of the steel beam. Additional material shall be applied to the web of the steel beam on each side of the wall. For a 1 hr Assembly Rating, the total thickness of material applied to each side of the steel beam web shall be min 11/16 in. (18 mm). For a 2 hr Assembly Rating, the total thickness of material applied to each side of the steel beam web shall be min 1-1/2 in. (38 mm). ISOLATEK INTERNATIONAL — Type 300, Type 400

2. Wall Assembly* — The 1 or 2 h fire rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U400, V400 or W400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features: A. Steel Floor and Ceiling Runners — Floor and ceiling runners of wall assembly shall consist of min No. 25 gauge galv steel channels sized to accommodate steel studs (Item 2B). Flange height of ceiling runner shall be min 1/4 in. (6 mm) greater than max extended joint width. Ceiling runner centered beneath and parallel with steel beam (Item 1C). Ceiling runner secured to steel beam

through spray-applied fire resistive material with steel fasteners spaced max 24 in. (610 mm) OC.

A1. Light Gauge Framing* — Slotted Ceiling Runner As an alternate to the ceiling runner in Item 2A, slotted ceiling runner to consist of galv steel channel with slotted flanges sized to accommodate steel studs (Item 2B). Slotted ceiling runner centered beneath and parallel with steel beam (Item 1C). Slotted ceiling runner secured to steel beam with steel fasteners, steel fasteners or welds spaced max 24 in. (610 mm) OC.

CLARKDIETRICH BUILDING SYSTEMS — Type SLT, SLT-H

CEMCO, LLC — CST, CST325

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Type SLT

RAM SALES L L C — RAM Slotted Track

SCAFCO STEEL STUD MANUFACTURING CO

OLMAR SUPPLY INC — Type SCR

TELLING INDUSTRIES L L C — True-Action Deflection Track A2. Light Gauge Framing* — Vertical Deflection Ceiling Runner As an alternate to the ceiling runners in Item 2A and 2A1, vertical deflection ceiling runner to consist of galv steel channel with slotted vertical deflection clips mechanically fastened within runner.

steel beam with steel fasteners, steel fasteners or welds spaced max 24 in. (610 mm) OC.

A3. Light Gauge Framing*- Notched Ceiling Runner — As an alternate to the ceiling runners in Items 2A through 2A2, notched ceiling runners to consist of C-shaped galv steel channel with notched return flanges sized to accommodate steel studs (Item 2B). Notched ceiling runner installed perpendicular to direction of fluted steel deck and secured to valleys with steel masonry anchors, steel fasteners or welds spaced max 24 in. (610 mm) OC.

Slotted clips, provided with step bushings, for permanent fastening of steel studs. Flanges sized to accommodate steel studs (Item 2B).

Vertical deflection ceiling runner centered beneath and parallel with steel beam (Item 1C). Vertical Deflection ceiling runner secured to

A4. Light Gauge Framing* — Slotted Ceiling Runner — As an alternate to the ceiling runner in Item 2A through 2A3, ceiling runner to consist of galv steel channel with slotted flanges sized to accommodate steel studs (Item 2B). Flange height of slotted ceiling runner shall be 3-1/4 in. (83 mm) with 2 in. (51 mm) deep slots. Slotted ceiling runner centered beneath and parallel with steel beam (Item 1C). Slotted ceiling runner secured to steel beam with steel fasteners or welds spaced max 24 in. (610 mm) OC. SCAFCO STEEL STUD MANUFACTURING CO — Slotted Track-Type SDLT

B. Studs — Steel studs to be min 3-1/2 in. (89 mm) wide. Studs cut 3/4 in. to 1-1/4 in. (19 to 32 mm) less in length than assembly height with bottom nesting in, resting on and fastened to the floor runner and with top nesting in ceiling runner without attachment. When slotted ceiling runner (Item 2A1) is used, steel studs secured to slotted ceiling runner with No. 8 by 1/2 in. (13 mm) long wafer head steel screws at midheight of slot on each side of wall. When vertical deflection runner (Item 2A2) is used, studs secured to vertical clip through slip bushing, supplied, with No.8 by 1/2 in. (13 mm) steel screws at mid-height of slot of each slot. Stud spacing not to exceed 24 in. (610 mm) OC. When slotted ceiling runner (Item 2A4) is used, steel studs cut in lengths 3/4 to 1-3/4 in. (19 to 44 mm) less than floor to ceiling height and secured to slotted ceiling runner with No. 8 by 1/2 (13 mm) long wafer head steel screws at +/- 3/16 in. (5 mm) of the mid-height of slot on each side of wall.

layers an sheet orientation shall be as specified in the individual U400 or V400 Series Design in the Fire Resistance Directory, except that a max 1-1/2 in. (38 mm) gap shall be maintained between top edge of the gypsum board and the spray applied fire resistive material on the structural steel support. The top row of screws shall be installed into the studs 1-1/2 in. (38 mm) below the bottom of the ceiling runner. D. Steel Attachment Clips — (Optional - Not Shown) - As an alternate to steel fasteners, ceiling runner secured to steel beam with Zshaped clips formed from min 1 in. (25 mm) long strips of min 20 ga galv steel. Length of clips should not exceed the width (thickness)

of the wall. Clips to be sized to extend through the thickness of the spray-applied fire-resistive material on the bottom flange of the

of spray-applied fire-resistive materials) and top of ceiling runner with steel fasteners or welds. Clips spaced max 24in. (610 mm) OC.

steel beam with 1-1/2 or 2 in. (38 or 51 mm) long upper and lower legs. Legs of clips fastened to bottom of beam (prior to application

C. Gypsum Board* — 5/8 in. (16 mm) thick, 4 ft (1.22 m) wide with square or tapered edges. The gypsum board type, number of

The hourly ratings of the joint system are dependent on the hourly rating of the wall. 3. Joint System — Max separation between bottom of spray-applied fire resistive material on beam and top of gypsum board at time of installation is 1-1/2 in. (38 mm). The joint system is designed to accommodate a max 50 percent compression or

extension from its installed width. The joint system consists of a forming material and a fill material between the top of the gypsum

A. Forming Material* — Nominal 4 pcf (64 kg/m³) mineral wool forming material cut into strips to fill the gap between top of the gypsum board and bottom of beam. Width of the strips shall be equal to the total thickness of the gypsum board. The strips of mineral wool shall be compressed 50 percent in thickness and firmly packed into the gap between the top of gypsum board and

board and the bottom of the spray-applied fire resistive material on the beam, as follows:

bottom of beam. ROCK WOOL MANUFACTURING CO — Delta Board

ROCKWOOL — SAFE THERMAFIBER INC — Type SAF

A1. Forming Material* - Strips — (Optional) - Nom 5/8 in. (16 mm) and 1-1/4 in. (32 mm) wide by 2 in. (51 mm) high precut mineral wool strips for 1 and 2 hr rated assemblies respectively. The strips are compressed 50 percent and firmly packed, cut edge first, into the gap between the top of the gypsum board and bottom of the steel floor units on both sides of the wall. HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 767 Speed Strips

troweled on each side of wall to completely cover mineral wool forming material and to overlap 1/2 in (13 mm) onto gyosum board and 2 in. (51 mm) onto spray-applied fire resistive material on the structural steel support. HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP672 Firestop Spray or CFS-SP WB Firestop Joint Spray * Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification

(such as Canada), respectively.

B. Fill, Void or Cavity Material* — Min 1/16 in. (1.6 mm) dry thickness (min 1/8 in. or 3.2 mm wet thickness) of fill material sprayed or

Last Updated on 2023-06-26

CENTE CTURING **MANUFA** ANC

Dr,

DATE DESCRIPTION

AUGUST 13, 2024

PROJECT NO: 593101.2

UL ASSEMBLIES

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XHBN - Joint Systems XHBN7 - Joint Systems Certified for Canada

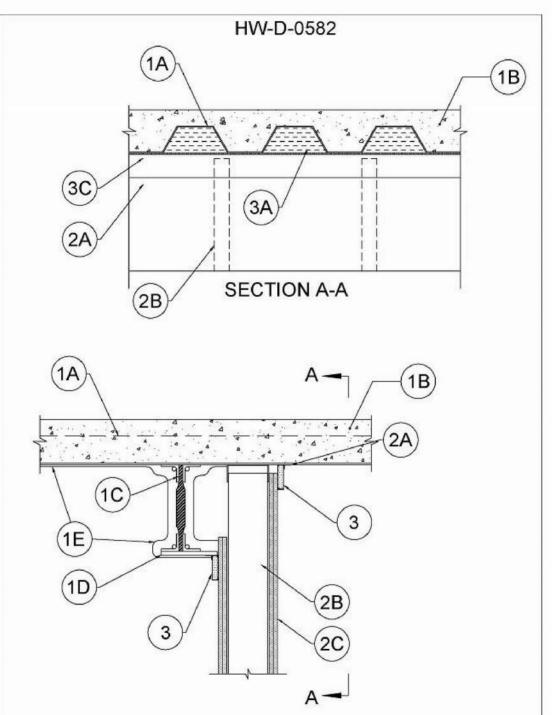
See General Information for Joint Systems See General Information for Joint Systems Certified for Canada

System No. HW-D-0582

June 21, 2023

ANSI/UL2079	CAN/ULC S115
Assembly Ratings — 1 and 2 Hr (See Item 2)	F Ratings — 1 and 2 Hr (See Item 2)
Nominal Joint Width 3/4 in., 1 in., 1-1/2 in. and 2 In. (See Items 2 and 3)	FT Ratings — 1 and 2 Hr (See Item 2)
Class II or III Movement Capabilities — See Item 3	FH Ratings — 1 and 2 Hr (See Item 2)
L Rating at Ambient — Less than 1 CFM/Lin Ft	FTH Ratings — 1 and 2 Hr (See Item 2)
L Rating at 400°F — Less than 1 CFM/Lin Ft	Nominal Joint Width — 19 mm, 25 mm, 38 mm and 51 mm (see Items 2 and 3)
	Class II or III Movement Capabilities — See Item 3
	L Rating at Ambient — Less than 1.55 L/s/m

L Rating at 204°C — Less than 1.55 L/s/m



1. Floor Assembly — The fire-rated fluted steel deck/concrete floor assembly shall be constructed of the materials and in the manner described in the individual D700 or D900 Series Floor-Ceiling Design in the UL Fire Resistance Directory and shall include the following A. Steel Floor And Floor Units* — Max 3 in. (76 mm) deep galv steel fluted floor units.

B. Concrete — Min 2-1/2 in. (64 mm) thick reinforced concrete, as measured from the top plane of the floor units.

C. Structural Steel Support — Steel beam, as specified in the individual D700 or D900 Series Floor-Ceiling Design, used to support steel floor units. Structural steel support oriented parallel to and 1 to 7 in. (25 to 178 mm) from wall assembly.

D. Steel Attachment Clips — Z-shaped clips formed from 1 in. (25 mm) wide strips of min 20 ga galv steel. Clips to be sized to extend through the thickness of the spray-applied fire-resistive material on the bottom flange of the steel beam with 1-1/2 in. (38 mm) long upper and lower legs. Legs of clips fastened to bottom of beam (prior to application of spray-applied fire-resistive materials) with steel fasteners or welds. Clips spaced max 16 in. (406 mm) OC and extend to within 1/4 in. (6 mm) from the surface of the wall.

E. Spray-Applied Fire Resistive Material* — After installation of the steel attachment clips, structural steel support and the steel floor units to be sprayed with the min thickness of material specified in the individual D700 Series Design. The flutes of the steel floor units are to be filled with material across the entire top flange of the steel beam. In addition, the flutes of the steel floor units immediately above the wall are to be filled with material to the full thickness of the wall (see Item 3B for alternate). The remainder of the steel floor units shall be sprayed as specified in the individual D700 design. ISOLATEK INTERNATIONAL — Type 300

GCP APPLIED TECHNOLOGIES INC — Type MK-6/HY

1A. Roof Assembly — (Not Shown) — As an alternate to the floor assembly, a fire-rated fluted steel deck roof assembly may be used. The roof assembly shall be constructed of the materials and in the manner described in the individual P700 or P900 Series Roof-Ceiling Design in the UL Fire Resistance Directory. The roof assembly shall include the following construction features: A. Steel Roof Deck — Max 3 in. (76 mm) deep galv steel fluted roof deck.

B. Roof Insulation — Min 2-1/4 in. (57 mm) thick poured insulating concrete, as measured from the top plane of the roof deck.

C. Spray-Applied Fire Resistive Material* — After installation of the steel attachment clips, structural steel support and the steel deck to be sprayed with the min thickness of material specified in the individual P700 or P900 Series Design. The flutes of the steel deck are to be filled with material across the entire top flange of the steel beam. In addition, the flutes of the steel deck immediately above the wall are to be filled with material to the full thickness of the wall (see Item 3B for alternate). The remainder of the steel floor units shall be sprayed when specified in the individual P700 design. ISOLATEK INTERNATIONAL — Type 300

GCP APPLIED TECHNOLOGIES INC — Type MK-6/HY

2. Wall Assembly — The 1 or 2 hr fire rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described in the individual U400 or V400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:

A. Steel Floor and Ceiling Runners — Floor and ceiling runners of wall assembly shall consist of min No. 20 gauge galv steel channels sized to accommodate steel studs (Item 2B). Ceiling runner to be provided with flanges that are min 1 in. (25 mm) longer than max extended joint width. For max ¾ in. nominal joint width, the non-slotted (3-1/4 in. or 83 mm deep) ceiling runners are provided with a fill, void or cavity material and are described in Item 3A. Ceiling runner installed perpendicular to direction of the fluted steel deck and secured through the spray-applied fire resistive material to steel deck valleys with steel masonry fasteners spaced max 24 in. (610 mm) OC or direct to steel fluted floor units where spray is not required.

A.1. Light Gauge Framing* — Slotted Ceiling Track — (Not Shown) - As an alternate to the Item 2A, a ceiling track consisting of galv steel channel with slotted flanges may be used when Item 3A fill material is utilized. Slotted ceiling track sized to accommodate steel studs (Item 2B). Legs are to be min 1/4 in. (6 mm) longer than the maximum joint width. Attached to steel deck with steel fasteners or welds spaced max 24 in. (610 mm) OC. CEMCO, LLC — CST, CST325

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Type SLT

runner without attachment.

B. Studs — Steel studs to be min 3-5/8 in. (92 mm) wide and spaced max 24 in. (610 mm) on center. Studs cut 1-1/4 to 2 in. (32 to 51 mm) less in length than assembly height with bottom nesting in and secured to floor runner. Steel studs nested in non-slotted ceiling B1. Framing Members - Steel Studs* — In lieu of Item 2B - Proprietary channel shaped studs, 3-5/8 in. (92 mm) wide spaced a max of 24 in. (610 mm) OC. Studs to be cut 1-1/4 to 2 in. (32 to 51 mm) less than the assembly height with bottom nesting in and secured to floor runner. For direct attachment of gypsum board only. Steel studs installed in non-slotted ceiling runner without attachment. CEMCO, LLC — ViperStud™

MARINO/WARE, DIV OF WARE INDUSTRIES INC — ViperStud™

C. Gypsum Board* — Gypsum board sheets installed to a min total 5/8 in. (16 mm) or 1-1/4 in. (32 mm) thickness on each side of wall for 1 and 2 hr fire rated assemblies, respectively. Gypsum board to extend min 3 in. (76 mm) above the bottom of Z clips on side of wall adjacent to beam. Wall to be constructed as specified in the individual U400 or V400 Series Design in the UL Fire Resistance Directory except that a max 2 in. (51 mm) gap shall be maintained between the top of the gypsum board and the bottom of the sprayapplied fire resistive material on steel floor or roof assembly on the full height wall side. The screws attaching the gypsum board to the studs along the top of the wall shall be located 1 to 3-1/2 in. (25 to 89 mm) below the bottom of the ceiling runner. No gypsum board attachment screws shall be driven into the ceiling runner.

The hourly rating of the joint system is equal to the lesser of the hourly ratings of the floor/roof-ceiling assembly and the wall assembly. 3. Joint System — Max separation between bottom of spray-applied fire resistive material on steel floor or roof unit and top

of wall (at time of installation of joint system) is 3/4 in. (19 mm), 1 in. (25 mm), 1-1/2 in. (38 mm) or 2 in. (51 mm). The joint system is designed to accommodate a max 80 percent compression and or 30 percent extension from its installed width when Item 3A is used. See Table 1 for movement for Joints outlined in Items 3C, C1 and C2. A. Fill, Void or Cavity Material* — Applies to 3/4 in. (19 mm) nominal joint width. Min. 25 ga composite steel angle with one 5/8 in. (16 mm) leg and one 2-1/2 in (64 mm) leg with a 5/8 in. (16 mm) strip of intumescent strip affixed along the inside 2-1/2 in (64

mm) leg. Steel angle is friction fit between the top web of the ceiling runner and the fluted steel deck on the full height gypsum board

than the height of the flutes and compressed into the fluted area of the steel floor or roof deck above the ceiling channel. The forming material shall be installed to extend over the full thickness of the wall and to outer edge of FireRip (when used). As an option, the

CEMCO, LLC — DDA (Deflection Drift Angle) B. Packing Material — Min 4 pcf (64 kg/m³) mineral wool batt insulation cut to the shape of the fluted deck, approx 33 percent larger

spray-applied fire resistive material described in Item 1 can be used in place of the packing material.

JOHNS MANVILLE — Safing

ROCK WOOL MANUFACTURING CO — Delta Safing Board

INDUSTRIAL INSULATION GROUP L L C — MinWool-1200 Safing

ROCKWOOL MALAYSIA SDN BHD — SAFE

THERMAFIBER INC — SAF

B1. Forming Material*-Plugs — (Not Shown) As an alternate to the forming material (Item 3B), mineral wool plugs preformed to the shape of the fluted floor units or roof deck, may be used within the flutes. Plugs shall be friction fitted to completely fill the flutes and extend to full thickness of wall or to outer edges of FireRip (when used). ROCK WOOL MANUFACTURING CO — Delta Deck Plugs

C. Fill, Void or Cavity Material* — For nom 1 in. (25 mm) or 2 in. (51 mm) joints, a nom 20 gauge steel angle encased on 3 sides over a nom 2-3/4 in. (70 mm) wide layer of 5/8 in. (16 mm) type X gypsum board. Angle to be secured to steel deck with steel masonry anchors spaced a max 24 in. (610 mm). Face of steel angle to be in contact with gypsum board on both sides of wall. Butt joints in FireRip to be offset min 12 in. (305 mm) on opposite sides of wall. At beam side of wall, the FireRip is to rest against the gypsum board on wall and be secured to steel attachment clips through the Item 3D gypsum board, with steel fasteners spaced 16 in. (406 mm) on center and of sufficient length to penetrate min ½ in. (13 mm) into the steel attachment clips.

CEMCO, LLC — FireRip-2

C1. Fill, Void or Cavity Material* - For nom 1-1/2 in. (38 mm) joints, a nom 20 gauge steel angle encased on 3 sides over a 3-3/4 in. (95 mm) wide layer of 5/8 in. (16 mm) Type X gypsum board. Angle to be secured to steel deck with steel masonry anchors spaced a max 24 in. (610 mm). Face of steel angle to be in contact with gypsum board on both sides of wall. Butt joints in FireRip to be offset min 12 in. (305 mm) on opposite sides of wall. At beam side of wall, the FireRip is to rest against the gypsum board on wall and be secured to steel attachment clips through the Item 3D gypsum board, with steel fasteners spaced 16 in. (406 mm) on center and of sufficient length to penetrate min ½ in. (13 mm) into the steel attachment clips.

CEMCO, LLC - FireRip-3

C2. Fill, Void or Cavity Material* - For nom 2 in. (51 mm) joints, a nom 20 gauge steel angle encased on 3 sides over a 4-3/4 in. (121 mm) wide layer of 5/8 in. (16mm) Type X gypsum board. Angle to be secured to steel deck with steel masonry anchors spaced a max 24 in. (610 mm). Face of steel angle to be in contact with gypsum board on both sides of wall. Butt joints in FireRip to be offset min 12 in. (305 mm) on opposite sides of wall. At beam side of wall, the FireRip is to rest against the gypsum board on wall and be secured to steel attachment clips through the Item 3D gypsum board, with steel fasteners spaced 16 in. (406 mm) on center and of sufficient length to penetrate min ½ in. (13 mm) into the steel

CEMCO, LLC - FireRip -4

attachment clips.

Model	Nominal Joint Size, in (mm)	Cycling Movement, %			
FireRip-2	1 (25)	Compression	100		
		Extension	100		
	2 (51)	Compression	100		
		Extension	0		
FireRip-3	1-1/2 (38)	Compression	100		
		Extension	100		
FireRip-4	2 (51)	Compression	100		
		Extension	50		

D. Gypsum Board* — Gypsum board sheets installed on underside of steel attachment clips (Item 1D) to a min total 5/8 in. (16 mm) or 1-1/4 in. (32 mm) thickness for 1 and 2 hr fire rated assemblies, respectively. Gypsum boards installed to completely cover the gap between steel beam and to within 1/4 in. (6 mm) of wall and secured to each steel attachment clips with a minimum of two steel drywall screws approximately 1 to 2 in. (25 to 51 mm) from each end of the clip.

D1. Gypsum Board* — Not applicable when Items 3C, C1 and C2 are used. Not shown as an alternate to D. Gypsum board Nom 3/8 in. (10 mm) diamond mesh expanded steel rib lath having a nom weight of 3.4 lb/yd² (1.8 kg/m²) shall be installed over and attached to the steel attachment clip bars or channels (Item 1D) to completely cover the exposed area from the flange tip of the steel beam to the end of the bar/channel framing extending beyond the wall surface. The lath shall be secured with steel fasteners or tie wire and shall be fully covered with spray applied fire resistive material (Item 1E).

E. Fill, Void or Cavity Material* — (Not Shown) When item 3A is utilized, a min 1/16 in. (1.6 mm) dry thickness (min 1/8 in. or 3.2 mm wet thickness) of fill material sprayed or brushed on one side of the joint system, completely covering item 3B mineral wool forming material of the joint system and overlapping a min of 1/2 in. (13 mm) onto the steel deck and item 3A DDA on one side of the wall. HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP672 Firestop Spray or CFS-SP WB. Firestop Joint Spray

SPECIFIED TECHNOLOGIES INC — SpecSeal AS200 Elastomeric Spray UNITED STATES GYPSUM CO — Type AS

F. Fill, Void or Cavity Material* (Not Shown) – Butt joints in the FireRip to be sealed with a min 1/4 in. (6 mm) bead of sealant. In addition, sealant shall be used to seal any voids and dimples within the fluted steel deck and at the beam shelf on both sides of wall to maintain L Ratings. **UNITED STATES GYPSUM CO – Type AS**

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Last Updated on 2023-06-21

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PROJECT NO: 593101.2 AUGUST 13, 2024

ATIO|

RENO

C

TURIN

Ш

NC

AD

AUGUST 13, 2024

REVISIONS

RIGID INSULATION

BATT INSULATION

DRAWING NUMBER WHERE ENLARGED PLAN OR WALL SECTION IS INDICATED

WALL OR MISC SECTION WHERE CUT

DETAIL OR ENLARGED PLAN WHERE CUT

DETAIL OR ENLARGED PLAN NUMBER

DRAWING NUMBER WHERE DETAIL

OR ENLARGED PLAN IS INDICATED

BUILDING SECTION WHERE CUT

- DRAWING NUMBER WHERE SECTION

INTERIOR OR EXTERIOR ELEVATION WHERE CUT

DRAWING NUMBER WHERE ELEVATION IS INDICATED

SECTION NUMBER

ELEVATION NUMBER

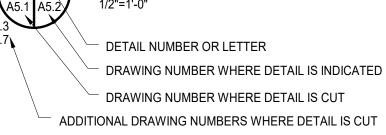
MULTIPLE ELEVATIONS

IS INDICATED

WALL SECTION NUMBER

DRAWING NUMBER WHERE

WALL SECTION IS INDICATED



ENLARGED PLAN OR WALL SECTION NUMBER

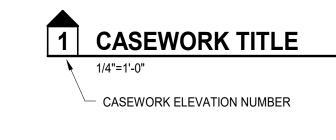


PLATE SURFACE MOUNT FEC: TOP OF CABINET AT 4'-0" AFF

FULLY-RECESSED FEC: T.O. MASONRY OPENING AT 4'-0" AFF BRACKET: MOUNT BRACKET AT 4'-0" AFF

- ONE SHALL BE AS BINDING AS IF REQUIRED BY ALL. IN THE CASE OF A CONFLICT DISAGREEMENT, OR AMBIGUITY, PROVIDE THE BETTER QUALITY. IN THE CASE OF A CONFLICT, DISAGREEMENT, OR AMBIGUITY, PROVIDE THE GREATER QUANTITY OF
- PLUMBING, FIRE PROTECTION, MECHANICAL, ELECTRICAL) ELSEWHERE WITHIN THE ARCHITECTURAL SERIES OF DRAWINGS AND/OR SPECIFICATIONS, OR IDENTIFIED OR COVERED BY DEFAULTS (e.g., SIZES, THICKNESS, SPACING, MATERIALS) IN THE SPECIFICATIONS MAY NOT BE ANNOTATED (NOTE OR KEYNOTED) ON THESE
- C. ELEMENTS IDENTIFIED IN "LEGENDS" AND/OR "GENERAL NOTES" MAY NOT BE NOTED IN DETAILS, OR SECTIONS, AS THESE ELEMENTS ARE IDENTIFIED IN THE LEGENDS
- D. REFER TO "ASSEMBLIES" FOR MATERIALS AND COMPONENTS THAT MAKE UP THAT PARTICULAR ASSEMBLY (e.g., EXTERIOR WALL ASSEMBLIES, ROOF ASSEMBLIES, AND FIRE-RATED ASSEMBLIES). ONCE A PARTICULAR ASSEMBLY HAS BEEN IDENTIFIED ON ONE DRAWING, THAT SAME ASSEMBLY GRAPHIC SHALL APPLY TO ALL OTHER SIMILAR LOCATIONS UNLESS SPECIFICALLY INDICATED OTHERWISE. PROVIDE THAT SAME ASSEMBLY AT THE SIMILAR LOCATION WHETHER THE ASSEMBLY GRAPHIC SYMBOL IS SHOWN OR NOT.
- E. VERIFY ALL DIMENSIONS, INCLUDING DIMENSIONS ON STRUCTURAL DRAWINGS AND OTHER ARCHITECTURAL DRAWINGS. IMMEDIATELY NOTIFY ARCHITECT OF ANY F. PROVIDE CONCRETE HOUSEKEEPING PADS FOR ALL EQUIPMENT INDICATED TO BE

REINFORCING REQUIREMENTS.

CONCRETE DOLYURETHANE PROJECT NO: 593101.2 WOOD SHIM /// FACE BRICK DATE DESCRIPTION SPLIT-FACE BLOCK WOOD BLOCKING -CONCRETE MASONRY UNIT FINISHED WOOD GROUTED SOLID CONCRETE MASONRY UNIT PLYWOOD NOTE: PROVIDE 100% SOLID, PLANT-GYPSUM BOARD / CAST UNITS WHERE CORE HOLES SHEATHING WOULD BE VISIBLE WITHIN FINISH SPACE (E.G., WINDOW SILLS) ARCHITECTURAL PRECAST CONCRETE ---- STONE CAST STONE MASONRY

ARCHITECTURAL MATERIALS LEGEND

POROUS FILL

KEYNOTES n KEYNOTE (1 TO 2 DIGITS) 1. KEYNOTES ARE GENERALLY ASSOCIATED WITH A SERIES OF DRAWINGS (e.g., A3.2.n, A5.1.n); THEREFORE KEYNOTE NUMBERS FROM SERIES TO SERIES WILL VARY (i.e., KEYNOTE NO. 1 IN THE A3.2.n SERIES WILL BE DIFFERENT FROM KEYNOTE (3 DIGITS ONLY) KEYNOTE NO. 1 IN THE A5.1.n SERIES). n n/n" SIZE; THICKNESS; OR OTHER **DESCRIPTIVE INFORMATION** ARCHITECTURAL GRAPHIC SYMBOL LEGEND SUPERVISOR'S SPACE REFER TO - SPACE NAME A3.0.1 FOR 100 SF SPACE NUMBER FINISH SQUARE FOOTAGE, IF INDICATED SCHEDULE BUILDING "PART" NUMBER IN MULTI-PART BUILDING REFER TO FIRE RATING IN MINUTES (IF INDICATED) A3 1 1 FOR SCHEDULE DOOR SUFFIX LETTER WHEN MORE THAN ONE DOOR PER SPACE SPACE NUMBER REFER TO A3.1.n STEEL FRAME NUMBER FOR TYPES REFER TO A3.1.n ALUMINUM WINDOW NUMBER FOR TYPES REFER TO A3.1.n ALUMINUM STOREFRONT NUMBER FOR TYPES REFER TO A3.1.n VINYL WINDOW NUMBER FOR TYPES REFER TO A3.1.n CURTAIN WALL NUMBER FOR TYPES REFER TO A3.1.n LOUVER NUMBER FOR TYPES **PLAN TITLE** REFER TO A3.1.n GLASS BLOCK NUMBER FOR TYPES REFER TO A0.2 **─**◀ FOR LEGEND -WALL PARTITION TYPE **ELEVATION OR BUILDING SECTION TITLE** -FIRE RESISTANCE RATING IN HOURS REFER TO -WALL PARTITION TYPE A0.2 FOR LEGEND -SB=SMOKE BARRIER **ELEVATION OR BUILDING SECTION LETTER** SP=SMOKE PARTITION ——— Xn-XX DRAWING NUMBER WHERE ELEVATION OR BUILDING SECTION IS INDICATED IU=INCIDENTAL USE DRAWING NUMBER WHERE ELEVATION OR BUILDING SECTION IS CUT ADDITIONAL DRAWING NUMBERS WHERE ELEVATION OR BUILDING SECTION IS CUT INTERIOR ARCHITECTURAL WOODWORK (CASEWORK) **ELEVATIONS** REFER TO A10.1 RFAn ROOF ASSEMBLY **ENLARGED PLAN OR WALL SECTION TITLE**

FIRE-RATED ASSEMBLY FOR LEGEND REFER TO A5.1.1 WAn WALL ASSEMBLY

FOR LEGEND REFER TO A7.1.1 TOILET ASSEMBLY FOR LEGEND REFER TO A3.1.n FOR LEGEND

ARCHITECTURAL ABBREVIATIONS

SHEET VINYL

SYMMETRICAL

TOP OF

TACKBOARD

TELEPHONE

THRESHOLD

TOP OF STEEL

TOP OF WALL

TACK STRIP

TELEVISION

TYPICAL

UNDERCUT

UNDERGROUND

VINYL ASBESTOS TILE

VINYL COMPOSITION TILE

VISUAL DISPLAY BOARD

VINYL FREE COMPOSITION TILE

VINYL FREE WALLCOVERING

VAPOR RETARDER

VINYL WINDOW

WIDE, WIDTH

WATER CLOSET

WITHOUT

WITH

WOOD

WINDOW

WAINSCOT

WEIGHT

VENT THROUGH ROOF

VINYL WALL COVERING

WOOD CEILING PANEL

WATERPROOFING

WORKING POINT

WOOD SPORTS FLOORING

WELDED WIRE FABRIC

EXTRUDED POLYSTYRENE

VAPOR BARRIER

VERTICAL

VESTIBULE

VINYL TILE

UNIT HEATER

TERRAZZO EPOXY

THICKNESS, THICK

TONGUE & GROOVE

SWM

SYM

TCF

TERR-C

TERR-E

TOW

VCT

VDB

VERT

VEST

VFCT

WCP

WDW

WSCT

WSF

VFWC

SECURITY WOVEN MESH / WOVEN ROD

TEXTILE COMPOSITE FLOORING

UNLESS NOTED (INDICATED) OTHERWISE

TERRAZZO CEMENTITIOUS

TERRAZZO RUBBERIZED

GLASS TILE

GYPSUM

HOSE BIBB

HARDENER

HARDWOOD

HARDWARE

HORIZONTAL

HOLLOW METAI

INCH, INCHES

INFORMATION

INSTALLATION

INSULATION

INTERIOR

JANITOR

JUNCTION

LENGTH/LONG

LABORATORY

LAMINATE

LAVATORY

LEFT HAND

LINOLEUM

LINEAR METAL CEILING

LAMINATE PANEL SYSTEM

LOCKER

LIGHT

LOUVER

METER

MACHINE

MASONRY

MATERIAL

MAXIMUM

MECHANICA

MEMBRANE

MINIMUM

MIRROR

MOLDING

MAP RAIL

MOUNTED

NUMBER

NOMINAL

NOT APPLICABLE

NOT IN CONTRACT

NOT TO SCALE

OPPOSITE HAND

PORCELAIN TILE

POURED IN PLACE

PLASTIC LAMINATE

PANEL, PANELING

POLYETHYLENE

PREFABRICATED

PREFINISHED

PARTITION

PAVEMENT

QUARRY TILE

RISER, RADIUS RIGHT OF WAY

RESILIENT BASE

ROOF DRAIN

REQUIRED

RIGHT HAND

RAIN LEADER

ROUGH OPENING

ROOFTOP UNIT

SCHEDULE

SHEATHING

SPRINKLER

SQUARE

STREET

STEEL

STANDARD

STRUCTURAL

SUSPENDED

SPECIFICATION

SQUARE FEET / FOOT

STAINLESS STEEL

SECONDARY ROOF DRAIN

SOLID SURFACE MATERIAL

SOUND TRANSMISSION COEFFICIENT

SIMILAR

SCH

SHTG

SIM

SPF

SQ FT

SRD

SSM

STD

STL

SUSP

STRUCT

RUBBER SHEET FLOORING

RESILIENT STAIR RISER

RESILIENT STAIR TREAD

SECURITY CEILING PLANK

SECURITY CEILING PANEL

SECURITY HOLLOW METAL

SQUARE FEET / FOOT

SOUND ATTENUATION BLANKET

SPRAYED FIRE RESISTANT MATERIAL

SPRAYED POLYURETHANE FOAM

REFRIGERATOR

QUANTITY

PLASTIC LAMINATE WOOD

POWER PROJECTION SCREEN

PREPARE / PREPARATION

PENCIL SHARPENER BLOCK

POUNDS PER SQUARE FOOT

POUNDS PER SQUARE INCH

PNEUMATIC TUBE SYSTEM

PERFORATED VINYL WALL COVERING

QUARTZ SURFACING MATERIAL

RESILIENT ATHLETIC FLOORING

REFLECTED CEILING PLAN

REINFORCING, REINFORCE(D)

RECESSED ENTRY MAT

RESINOUS FLOORING

RUBBER FLOOR TILE

POLYVINYL CHLORIDE

PROJECTION SCREEN

PRESSURE- OR PRESERVATIVE-TREATED

OVERHEAD

PRECAST

PERIMETER

PLASTER

PLYWOOD

PAIR

OUTSIDE DIAMETER

ON CENTER

OPENING

MOUNT

METAL

MANUFACTURER

MISCELLANEOUS

MASONRY OPENING

MEDIUM

MARKERBOARD

METAL CEILING PANEL

METAL COMPOSITE MATERIAL

MEDIUM DENSITY OVERLAY

MULTICOLOR INTERIOR FINISHING

MANUAL PROJECTION SCREEN

NOISE REDUCTION COEFFICIENT

PERFORATED, PERFORATION(S)

OWNER FURNISHED CONTRACTOR INSTALLED

LPS

LVR

MCP

OFCI

OPNG

OVHD

P-TILE

PERF

PLWD

PLYWD

PREFAB

OPP HD

JOINT

INCLUDE, INCLUDING

HIGH PERFORMANCE COATINGS

HIGH PERFORMANCE FLOOR PAINT

IMPACT RESISTANT WALL COVERING

LOCAL AUTHORITY HAVING JURISDICTION

INTERACTIVE WHITE BOARD

HEATING, VENTILATING, AIR CONDITIONING

HARDBOARD

HIGH

HDNR

HDWD

HDWR

GLAZED WALL TILE

HOLD DOWN CLIPS

ACCENT PAINT

ADJUSTABLE

ALTERNATE

ACCESS PANEL

ALUMINUM

AUTOMATIC

AVERAGE

BOARD

BLOCKING

BOTTOM

BEARING

CARPET

CABINET

CEMENT

BETWEEN

BUILT-UP ROOF

CARPET TILE

CHALKBOARD

CORNER GUARD

CONTROL JOINT

CLOSET

CEILING

CLEAR

CENTIMETER

CLEANOUT

CONCRETE

CONC-PMT CONCRETE WITH PIGMENT

CONC-SLR CONCRETE WITH CURE & SEAL

CONSTRUCTION

CONTRACTOR

CERAMIC TILE

CUBIC FEET / FOOT

CUSTODIAN / CUSTODIAL

ALUMINUM CURTAIN WALL

CONTINUOUS

CORRIDOR

DOUBLE

DEMOLITION

DETENTION

DOOR GRILLE

DIAMETER

DIAGONAL

DIMENSION

DOOR LOUVER

DAMPPROOFING

DISPLAY RAIL

DOWNSPOUT

DIVISION

DOWN

DETAIL

DRAWING

DRAWER

EXHAUST FAN

EXPANSION JOINT

ELEVATION

ELECTRICAL

EMERGENCY

EQUIPMENT

EXISTING

EXHAUST EXPANSION

EXTERIOR

FLOOR DRAIN

FOUNDATION

FIRE EXTINGUISHER

FINISHED FLOOR

FIRE HOSE CABINET

FIBERGLASS

FINISHED

FLOORING

FACE OF

FOOT, FEET

FOOTING

GAUGE

GALLON

GALVANIZED

GYPSUM BOARD

GLASS, GLAZING

GALLONS PER MINUTE

GLASS BLOCK

GROUT

FURNITURE

FIRE VALVE CABINET

FABRIC WALL COVERING

FRAME

FLOOR

FIRE HYDRANT

FIRE EXTINGUISHER BRACKET

FIRE EXTINGUISHER CABINET

FIRE HOSE VALVE CABINET

FIRE RETARDANT TREATED

FIBERGLASS REINFORCED PLASTIC

GYPSUM BOARD - ABUSE RESISTANT

GYPSUM BOARD - IMPACT RESISTANT

GLASS FIBER REINFORCED CONCRETE

GLASS FIBER REINFORCED GYPSUM

GLAZED STRUCTURAL FACING TILE

GYPSUM BOARD - SECURITY

ELEVATOR

EPOXY

EQUAL

ELASTOMERIC

EXTERIOR FINISH SYSTEM

EXPANDED POLYSTYRENE

EXISTING TO REMAIN

ELECTRIC WATER COOLER

EXPOSED CONSTRUCTION

ENHANCED VINYL COMPOSITION TILE

FLUID APPLIED ATHLETIC FLOORING

EXTERIOR INSULATION & FINISH SYSTEM

EACH

DRINKING FOUNTAIN

DETENTION HOLLOW METAL

CONCRETE WITH STAIN

CAST STONE MASONRY UNIT

COUNTERSINK, COUNTERSUNK

CEMENTITIOUS WOOD FIBER DECK

CONC-POL CONCRETE - POLISHED

COLUMN

CEMENT BOARD

CONTINUOUS INSULATION

CAST IN PLACE CONCRETE

CONCRETE MASONRY UNIT

CONCRETE MASONRY UNIT - ACOUSTICAL

CONCRETE MASONRY UNIT - GLAZED

CONCRETE MASONRY UNIT - SPLIT FACE

CONCRETE MASONRY UNIT - GROUND FACE

CONCRETE WITH LIQUID HARDENER/SEALER

ABS

ABV

ACP

ACT

ACW

ADJ

AHU

ALT

ALUM

ARC

AUTO

AVG

AW

AWP

BLDG

BLKG

BOT

BRG

BUR

C-TILE

CAB

CCTV

CEM

CG

CLG

CLR

CM

CMBD

CMU

COL

CONC

CONC-LH

CONST

CONT

CORR

CSMU

CTSK

CU FT

CUST

CW

DEMO

DETE

DTL

EFS

ELEV

EMER

EPS

EPX

EQ

ETR

EVCT

EWC

EXH

EXT

FD

FDN

FIN

FLR

FLRG

FURN

FVC

FWC

GA

GAL

GALV

GB-AR

GB-IR

GFRC

GL-BLK

GPM

GRT

GSFT

GB

ΕX

CMU-A

CMU-GLZ

CMU-SPLF

CFSF-NS

CB

REFER TO

2" RADIUS

(TYPICAL) -

11 1/2"

"ARCHITECT'S SIGN"

THIS DRAWING

BTWN

BD

AS

AIR BARRIER SYSTEM

ACOUSTICAL CEILING PANEL

ACOUSTICAL CEILING TILE

ALUMINUM CLAD WINDOW

ABOVE FINISHED FLOOR

AIR HANDLING UNIT

AUTHORITY HAVING JURISDICTION

ARCHITECTURAL PRECAST CONCRETE

ABUSE RESISTANT COATING

ACOUSTICAL WALL COVERING

BARRIER FREE (ADA or A117.1)

CLOSED CIRCUIT TELEVISION

COLD FORMED STEEL FRAMING, NON-STRUCTURAL

COLD FORMED STEEL FRAMING, STRUCTURAL

ACOUSTICAL WALL PANEL

ALUMINUM STOREFRONT

ALUMINUM WINDOW

GLAZING/GLASS TYPES

EQUIPMENT TYPE PLAN NORTH (MAY DIFFER FROM POLAR NORTH)

——— — MATCH LINE

WORKING POINT

DATUM POINT

CENTERLINE

SEMI-RECESSED FEC: T.O. MASONRY OPENING AT 4'-0" AFF

STRUCTURAL GRID LINE WITH DESIGNATIONS

8 CARRIAGE BOLTS LOCATED AS INDICATED (+). PAINT HEADS TO MATCH SIGN 3' - 4" BACKGROUND COLOR REFER TO "ARCHITECT'S SIGN" THIS CONTRACTOR'S SIGN - 3'-4"W X 1'-7"H W/ 2" RADIUS CORNERS. APPLIED PANEL OR DIRECT PAINTED AT CONTRACTOR'S 4x4 PPT - POSTS CUT TOPS THUS -

TITLE 1

TITLE 2

TITLE 3

TITLE 4

SIGN BACKGROUND SHALL BE PAINTED WHITE. TEXT

SHALL BE PAINTED TO MATCH PANTONE 432 (GRAY).

MOSELEYARCHITECTS

DESIGNING SOLUTIONS BUILDING TRUST ENRICHING LIVES

MOSELEYARCHITECTS.COM

"MOSELEY" TEXT IN LOGO AND WEB ADDRESS IS PMS 485. BULLETS ARE PMS 485,

FONT FOR "DESIGNING SOLUTIONS BUILDING TRUST ENRICHING LIVES" TEXT IS

- 6" RADIUS (TYPICAL)

— CONSTRUCTION GRADE

BACKGROUND SIGN, POSTS, & FASTENERS

SHALL RECEIVE 2 COATS EXTERIOR ENAMEL

ROLL-APPLIED PAINT (BACK SIDE OF SIGN 1

COAT ONLY), IN COLOR WHITE.

PROJECT NAME & OWNER, ETC. - REFER

3/4" MDO PLYWOOD - SECURE TO POSTS W/

TO "TEXT LAYOUT ELEVATION"

ALL OTHER TEXT AND BORDER IS PMS 432. BACKGROUND IS WHITE.

GENERAL NOTE:

TEXT LAYOUT ELEVATION

11 1/2"

ARCHITECT'S SIGN

SIZE: 1'-11" VERTICAL x 3'-4" HORIZONTAL

CALIBRI, ALL OTHER TEXT IS AVANTGARDE FONT.

1 1/2" = 1'-0"

PROJECT SIGN ELEVATION

ARCHITECTURAL GENERAL NOTES

A. THE CONTRACT DOCUMENTS ARE COMPLEMENTARY AND WHAT IS REQUIRED BY . ELEMENTS THAT ARE IDENTIFIED BY OTHER DISCIPLINES (e.g., CIVIL, STRUCTURAL

(e.g. FACE BRICK, CMU, WINDOWS)

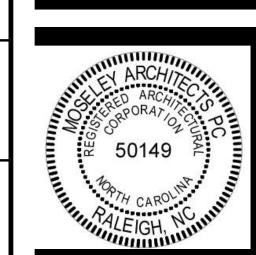
MOUNTED OR OTHERWISE REQUIRED TO BE MOUNTED TO THE FLOOR. WHERE PADS ARE NOT SHOWN. PROVIDE 6" THICK CONCRETE PADS W/ 3/4" CHAMFERED EDGES (ALL SIDES). REINFORCE WITH MESH EQUIVALENT TO FLOOR SLAB

INFORMATION

GENERAL

ARCHITECTURAL

WALL/PARTITION TYPES, WALL JOINTS



VATION RENO NE Ш TURIN MANUE,

ADVANCED

AND TERMINATIONS

- A. AT FIRE-, SMOKE-, AND ACOUSTICALLY RATED WALLS: SEAL ALL NON-OBSTRUCTED HEAD-OF-WALL CONDITIONS IN ACCORDANCE WITH JOINT SYSTEM MANUFACTURER'S RECOMMENDATIONS BASED ON CONDITION ENCOUNTERED (E.G., CMU-TO-DECK (PARALLEL OR PERPENDICULAR TO FLUTES); OR CFSF-TO-DECK (PARALLEL OR PERPENDICULAR TO FLUTES) TO MAINTAIN ASSEMBLY RATING CONSISTENT WITH WALL/PARTITION REQUIREMENTS. BRACE WALL AS INDICATED OR REQUIRED.
- B. AT ALL OTHER WALLS INDICATED TO EXTEND TO UNDERSIDE OF FLOOR/ROOF DECK/CAP: SEAL ALL NON-OBSTRUCTED HEAD-OF-WALL CONDITIONS IN ACCORDANCE WITH JOINT SYSTEM MANUFACTURER'S RECOMMENDATIONS BASED ON CONDITION ENCOUNTERED (E.G., CMU-TO-DECK (PARALLEL OR PERPENDICULAR TO FLUTES); OR CFSF-TO-DECK (PARALLEL OR PERPENDICULAR TO FLUTES). BRACE WALL AS INDICATED OR REQUIRED.

TERMINATION GENERAL NOTES

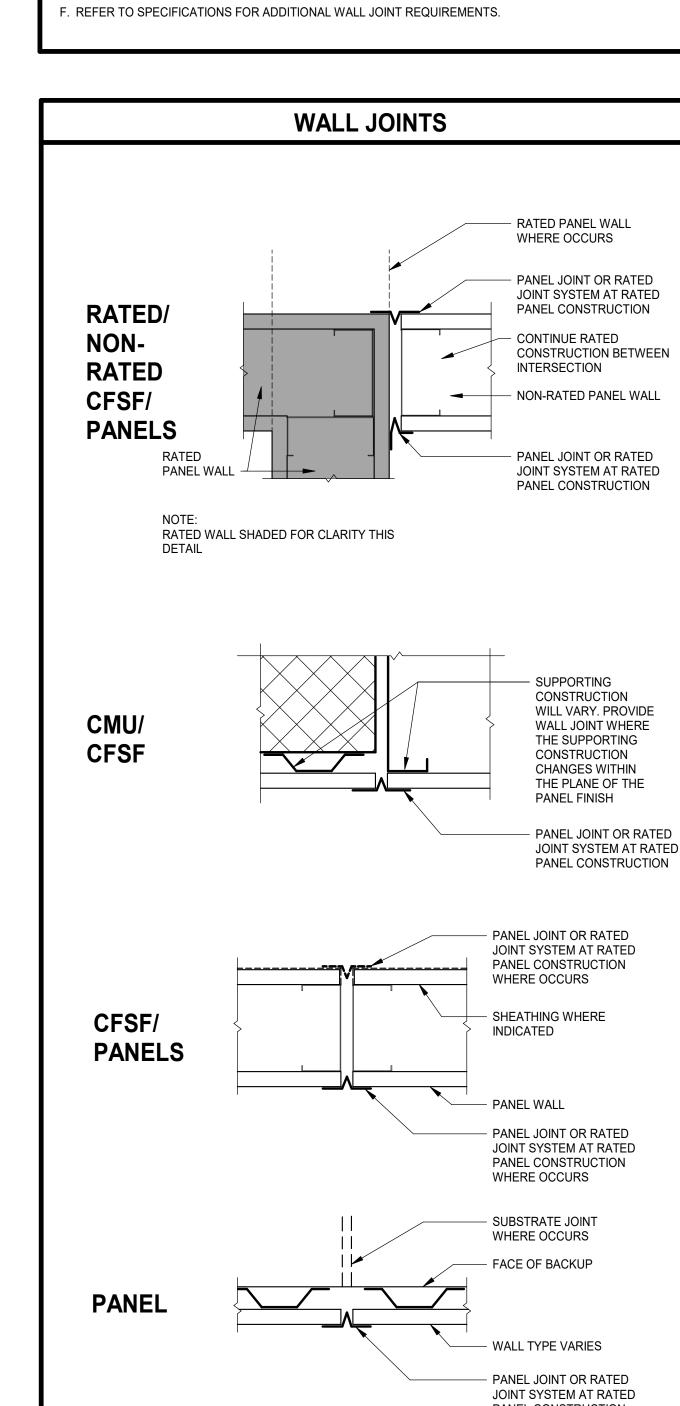
- C. AT ALL WALLS PREVENTED FROM TERMINATING AT THE UNDERSIDE OF FLOOR/ROOF DECK BY OBSTRUCTIONS, COMPLY WITH THE FOLLOWING:
- AT FIRE-, SMOKE-, AND ACOUSTICALLY-RATED WALLS: ENCASE OBSTRUCTION(S) TO MAINTAIN ASSEMBLY RATING CONSISTENT WITH WALL/PARTITION REQUIREMENTS.
- AT SECURITY WALLS: TERMINATE IN ACCORDANCE WITH SECURITY PARTITION REQUIREMENTS. AT OTHER WALLS: ENCASE OBSTRUCTION(S) ON ONE SIDE.
- SEAL ENCASEMENT TO WALL AND SEAL ENCASEMENT TO DECK IN ACCORDANCE WITH JOINT SYSTEM MANUFACTURER'S RECOMMENDATIONS AND TO MAINTAIN ASSEMBLY RATING CONSISTENT WITH WALL/PARTITION REQUIREMENTS.

FIRE WALLS.

WALLS/PARTITIONS.

H. SEAL AROUND ALL PENETRATIONS.

- A. LOCATE CONTROL JOINTS IN INTERIOR AND EXTERIOR WALLS AS INDICATED ON DRAWINGS.
- B. JOINTS ARE INDICATED THUS —— ON PLANS AND ELEVATIONS.
- WITH ACTUAL FIELD CONDITIONS.



WALL JOINT GENERAL NOTES

A. PLAN DIMENSIONS ARE TO FACE OF WALL OR PARTITION. WHERE APPLIED FINISHES OCCUR-SUCH AS CERAMIC TILE-DIMENSIONS ARE TO FACE OF APPLIED FINISH. FOR WAINSCOTS, FLOOR PLAN DIMENSIONS ARE TO FACE OF

IN THIS CASE DO NOT INCLUDE TRIM, BASE, AND ACOUSTIC WALL PANELS.

B. EXTEND WALL/PARTITION ASSEMBLY COMPONENTS FULL HEIGHT OF ASSEMBLY.

FLOOR DECK, ROOF DECK, STRUCTURAL ELEMENT ENCASEMENT OR SOLID CAP ABOVE.

C. ALL INTERIOR CFSF PANEL PARTITIONS: P2 UNLESS INDICATED OTHERWISE.

F. PARTITIONS THAT DO NOT EXTEND TO UNDERSIDE OF DECK OR CAP ABOVE:

WAINSCOT MATERIAL. APPLIED FINISHES ARE NOT ALLOWED TO REDUCE CLEAR DIMENSIONS. "APPLIED FINISHES"

D. THE TERMS "WALL" AND "PARTITION" MAY BE USED INTERCHANGEABLY THROUGHOUT THE CONTRACT DOCUMENTS.

SEAL AND TERMINATE IN ACCORDANCE WITH JOINT SYSTEM TESTED ASSEMBLIES FOR RESPECTIVE TYPE OF

• EXTEND 4 INCHES MINIMUM ABOVE HIGHEST ADJACENT FINISH CEILING UNLESS INDICATED OTHERWISE.

G. DO NOT CONNECT TIES, ANCHORS, OR REINFORCING TO SINGLE CANTILEVERED FIRE WALL OR BETWEEN DOUBLE

E. EXTEND ALL FIRE-, SMOKE-, INCIDENTAL USE-, AND ACOUSTICAL-RATED WALLS/PARTITIONS TO UNDERSIDE OF

WALL/PARTITION TYPE GENERAL NOTES

I. COMPLY WITH TERMINATION, WALL JOINT, AND MISCELLANEOUS DETAILS FOR THOSE CONDITIONS WHERE

APPLICABLE. COMPLY WITH REFERENCED STANDARDS WHERE DETAILS ARE NOT IDENTIFIED IN THE

K. FINISHED SPACES: PROVIDE CHASES AROUND ALL EXPOSED VERTICAL COMPONENTS, INCLUDING BUT NOT

LIMITED TO: DUCTWORK, PIPING, AND CONDUIT, UNLESS COMPONENTS ARE SPECIFICALLY INDICATED TO

• HOLD CHASES TIGHT TO COMPONENTS ALLOWING FOR ACCESS, INSULATION, AND TOLERANCES.

EXTEND CHASES FROM FLOOR TO 4 INCHES MINIMUM ABOVE FINISH CEILING OR IF NO CEILING IS

L. PROVIDE BACKER BOARD/UNIT OF SAME THICKNESS INDICATED IN LIEU OF GYPSUM BOARD PANEL AT

INDICATED, EXTEND CHASES TO UNDERSIDE OF FLOOR DECK, ROOF DECK, OR SOLID CAP ABOVE AND

PANEL WALL/PARTITION TYPES

INFORMATION

5/8" TYPE X GYPSUM WALL BOARD

---- 3 5/8" CFSF-NS

---- 3 1/2" SAB

5/8" GYPSUM WALL BOARD

---- 3 1/2" SAB

---- 3 1/2" SAB

5/8" GYPSUM WALL BOARD

5/8" GYPSUM WALL BOARD

— 3 1/2"SAB

----- 3 5/8" CFSF-NS

— 3 5/8" CFSF-NS ---- 3 1/2" SAB

— 3 5/8" CFSF-NS

- 1 5/8" CFSF-NS

— 6" CFSF-NS

---- 3 1/2" SAB

6 5/8"

— 1/2" RESILIENT CHANNEL

- 5/8" GYPSUM WALL BOARD

- 5/8" GYPSUM WALL BOARD

- 5/8" GYPSUM WALL BOARD

— 5/8" GYPSUM WALL BOARD

- 5/8" GYPSUM WALL BOARD

- 7/8" CFSF-NS FURRING

FACE OF WALL

---- 3 5/8" CFSF-NS

□ 5/8" GYPSUM WALL BOARD

5/8" GYPSUM WALL BOARD ---- 3 5/8" CFSF-NS

—— 5/8" GYPSUM WALL BOARD

— 3 5/8" CFSF-NS

REPRESENTED BY Xnn —

REMARKS

STC 50

STC 50

STC 45

NO SOUND BATTS

@ 5A

NO SOUND BATTS

@ P6A

 $\langle X2 \rangle$

J. WALL/PARTITION TYPES DO NOT ADDRESS WALL FINISHES. REFER TO FINISH SCHEDULE.

REMAIN EXPOSED. IF NOT OTHERWISE INDICATED, PROVIDE P5 CHASE CONSTRUCTION.

PORTIONS OF WALLS/PARTITIONS TO RECEIVE TILE.

FIRE RATED

ASSEMBLY

(REFER TO

LS 1.1 FOR

 $\langle X1 \rangle$

D3

P5A

LEGEND)

- C. WALLS AND JOINT TYPES/DETAILS ARE DIAGRAMMATIC. ADJUST JOINT TYPES/DETAILS IN ACCORDANCE
- D. PROVIDE TESTED JOINT ASSEMBLIES AT FIRE-, SMOKE-, AND ACOUSTICAL-RATED WALLS.
- E. WHEN USED HEREIN "RATED" MEANS: FIRE, SMOKE, AND/OR ACOUSTICAL.

WAL	L JOINTS	
!		— RATED PANEL WALL WHERE OCCURS
		— PANEL JOINT OR RATED

CONSTRUCTION BETWEEN

PANEL CONSTRUCTION WHERE OCCURS

¦ — — — 丿

─ CFSF-S W/ GYP BD IN LAYERS AS REQUIRED TO MAINTAIN ASSEMBLY RATING CONSISTENT WITH

TERMINATIONS

— REFER TO GENERAL NOTE 'C' ———

♀ OF OBSTRUCTION

WALL/PARTITION REQUIREMENTS —

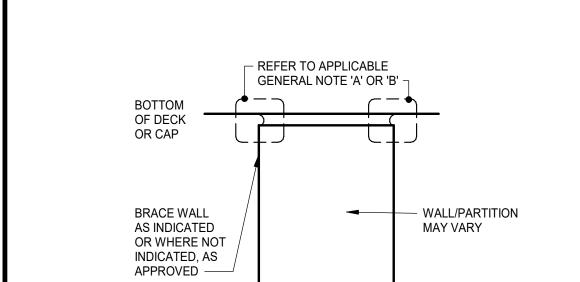
─ ENCASEMENT: BRACE WALL AS INDICATED, OR WHERE REFER TO GENERAL NOT INDICATED, AS APPROVED — _ _ _ _ -----

DO NOT SECURE **ENCASEMENT TO** SEALANT SYSTEM: REFER TO GENERAL NOTE 'C' —

MAY VARY

MAY VARY

HEAD-OF-WALL TERMINATION @ OBSTRUCTION OBSTRUCTION MAY VARY (BEAM, JOIST, GIRDER, CHANNEL, DUCTWORK, PIPING)



HEAD-OF-WALL TERMINATION @ NON-OBSTRUCTION

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DATE DESCRIPTION

SITE PLAN

REMOVE ALL EXISTING FINISH FLOORING.

REMOVE ALL EXISTING CEILINGS EXCEPT IN SPACES INDICATED BY KEYNOTE 6.

REFER TO PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS FOR

DAMAGE OCCURING DURING SCOPE OF WORK IS TO BE PATCHED, REPAIRED, AND FINISHED TO MATCH ADJACENT SIMILAR CONDITIONS.

DEMOLITION PLAN LEGEND
APPLIES TO DRAWINGS A1.2.1 - A1.2.n

REMOVE EXISTING PARTITION/WALL/ITEM

REMOVE EXISTING WINDOW ASSEMBLY AND FRAMING, INCLUDING ANCHORS

INFORMATION.

DEMOLITION PLAN GENERAL NOTES

DEMOLITION DRAWINGS OUTLINE IN GENERAL WHAT NEEDS TO BE REMOVED TO ACCOMPLISH THE RENOVATION WORK. THE WORK SHOWN IS DIAGRAMMATIC IN NATURE AND IS NOT INTENDED TO BE ALL INCLUSIVE. THE CONTRACTOR AND SUBCONTRACTORS ARE TO VERIFY EXISTING CONDITIONS AT THE SITE AND INCLUDE ALL WORK EVIDENT BY SITE INSPECTION, WHETHER OR NOT SHOWN IN THE DRAWINGS, TOACHIEVE THE DESIRED RESULTS INDICATED ON THE DOCUMENTS

VERIFY ALL ASSEMBLIES TO BE REMOVED ARE NON-STRUCTURAL.
NOTIFY THE ARCHITECT IN ADVANCE OF CUTTING, ALTERATION OR
EXCAVATION, WHICH MAY AFFECT THE STRUCTURAL STABILITY OF ANY

ACTUAL FIELD CONDITIONS THAT ARE CONCEALED BY EXISTING CONSTRUCTION MAY VARY FROM THOSE INDICATED. ALL WORK THAT RELATES TO, OR IS IN ANY WAY AFFECTED BY EXISTING CONDITIONS THAT VARY FROM THOSE INDICATED SHALL BE MODIFIED TO ACHIEVE THE REQUIREMENTS OF THE CONTRACT DOCUMENTS ACCORDING TO

FIELD ASSESSMENTS AND MEASUREMENTS. REPORT ANY DISCREPANCIES TO THE ARCHITECT BEFORE PROCEEDING WITH

AFFECTED ASPECTS OF DEMOLITION OR CONSTRUCTION.

FOR THE WORK.

PORTION OF THE BUILDING.

ADDITIONAL DEMOLITION REQUIRED.

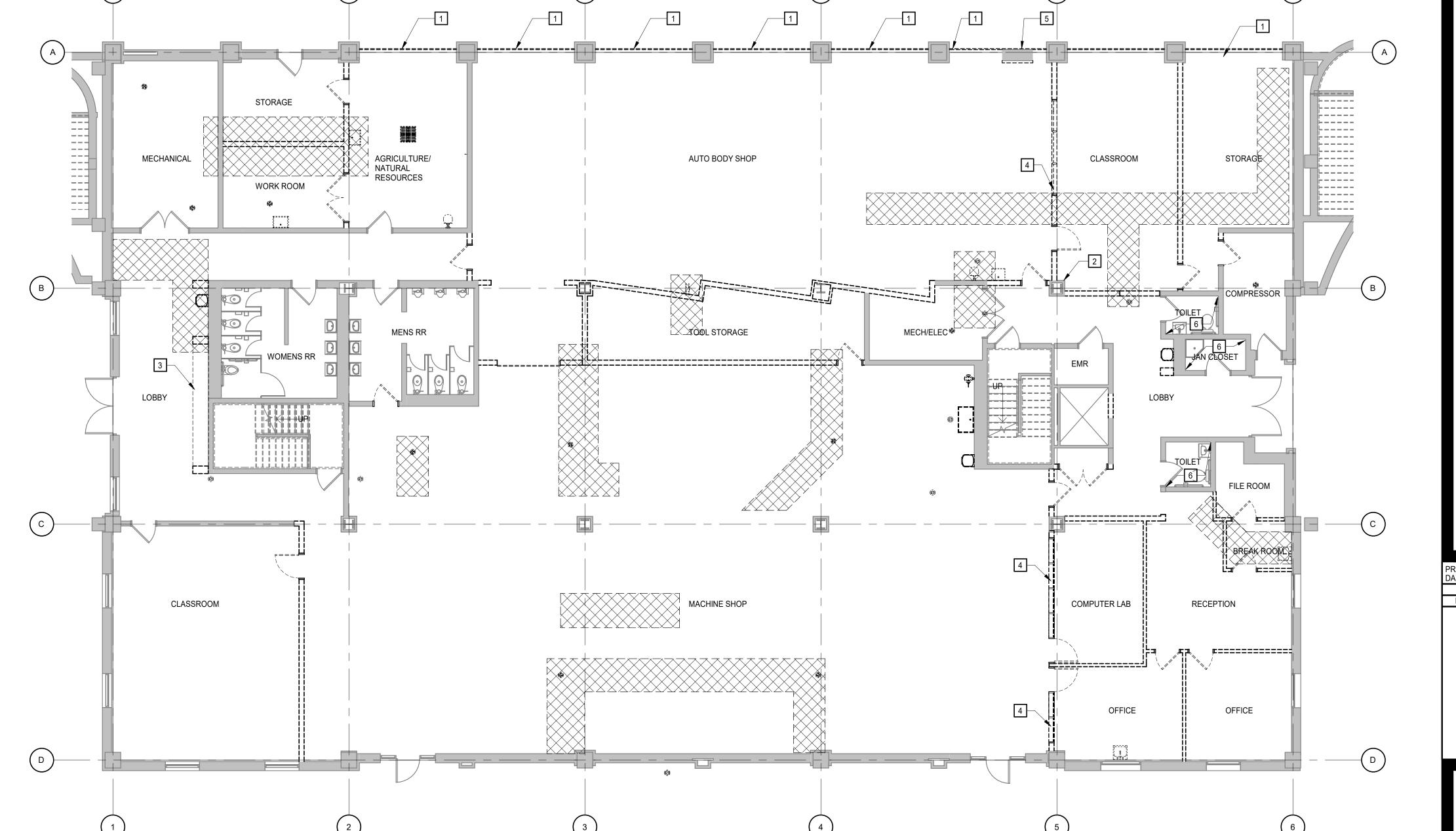
THRESHOLD (WHERE OCCURS).

EXISTING PARTITION/ WALL/ ITEM TO REMAIN

REMOVE EXISTING DOOR AND FRAME ASSEMBLY INCLUDING DOOR HARDWARE, ANCHORS, AND

REMOVE EXISTING PLUMBING FIXTURE. REFER TO PLUMBING DEMOLITION PLAN FOR ADDITIONAL

REMOVE EXISTING FLOOR SLAB TO ACCOMODATE PLUMBING DEMOLITION AND WORK. REFER TO PLUMBING FOUNDATION PLANS FOR ADDITIONAL INFORMATION



DEMOLITION FIRST FLOOR PLAN

1/8" = 1'-0"

DEMOLITION PLAN KEYNOTES
REPRESENTED BY n

APPLIES TO DRAWINGS A1.2.n SERIES

REMOVE WALL ABOVE TO ACCOMODATE LOUVER AND LINTEL INSTALLATION;

REMOVE GARAGE DOOR

REMOVE DISPLAY CASE

SALVAGE BRICK

EXISTING CEILING TO REMAIN

PROTECT EXISTING COLUMN WRAP

REMOVE STORFRONT AND HAND OVER TO OWNER

MANUFACTURING CENTER RENOVATION - AZALE

MMUNITY COLLEGE

ADVANCED

ADVANCED

ADVANCED

ADVANCED

ANAMA

ANAMA

BESCRIPTION

ANAMA

SCO# 16-15906

ANAMA

BESCRIPTION

DEMOLITION PLAN

& 8/13/2024 C

DOOR AND FRAME GENERAL NOTES

1. 1/4" CLEAR

2. 1" TINTED INSULATING 3. NOT USED

HDWR

RATING NOTES

20 MIN

20 MIN

20 MIN

20 MIN

20 MIN 20 MIN

20 MIN

20 MIN

20 MIN

20 MIN 20 MIN

20 MIN

20 MIN

20 MIN

20 MIN

20 MIN

4. MINIMUM 20 MINUTE CLEAR RATED GLASS TESTED IN ACCORDANCE WITH NFPA 257 OR UL 9 AND IN ACCORDANCE WITH THE HOSE STREAM TEST 716.6

3. GLAZE ALL OPENINGS IN FRAMES UNLESS SPECIFICALLY INDICATED OTHERWISE

4. ALL GLAZING SHALL BE SAFETY GLASS UNLESS INDICATED OTHERWISE

GLAZING TYPES

REPRESENTED BY (n)

1. ALL GLAZING IN INTERIOR FRAMES SHALL BE TYPE 1, UNO

2. ALL GLAZING IN EXTERIOR FRAMES SHALL BE TYPE 2, UNO

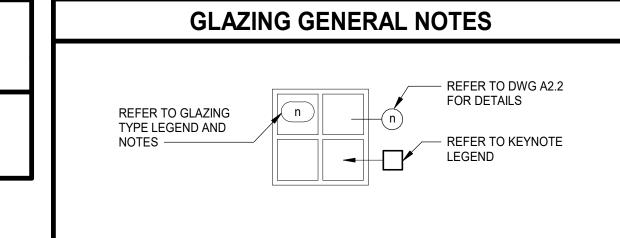
SCHEDULE FOR HEAD, JAMB AND SILL CONDITIONS REFER TO DRAWING A2.3 B. DOOR AND FRAME DETAILS INDICATE GENERAL CHARACTERISTICS OF DOOR AND FRAME SIZES AND COMPONENTS AND MAY NOT INDICATE EXACT FIELD CONDITIONS OR REQUIREMENTS. COORDINATE DETAILS WITH OTHER DRAWINGS AND SPECS TO DETERMINE ALL COMPONENTS (E.G., SEALANTS, ANCHORS, HARDWARE, LINTELS, CLIPS) REQUIRED FOR COMPLETE AND FUNCTIONAL INSTALLATION. C. DOOR SWINGS ON FLOOR PLANS TAKE PRECEDENCE OVER SWINGS INDICATED ELSEWHERE (E.G., ELEVATIONS).

A. UNLESS INDICATED OTHERWISE, ALL DETAIL NUMBERS IN THE DOOR AND FRAME

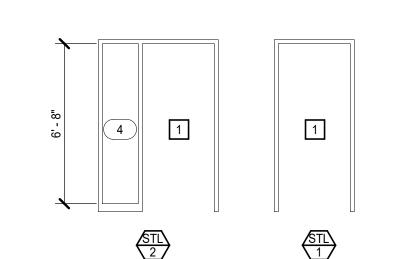
DOOR, FRAME AND GLAZING TYPE KEYNOTES REPRESENTED BY n APPLIES TO DRAWINGS A2.1

SIZE AS REQUIRED TO ACCOMMODATE DOOR, HARDWARE AND FRAME COMPONENTS

BACKBEND RETURN @ GB LOCATIONS ONLY.



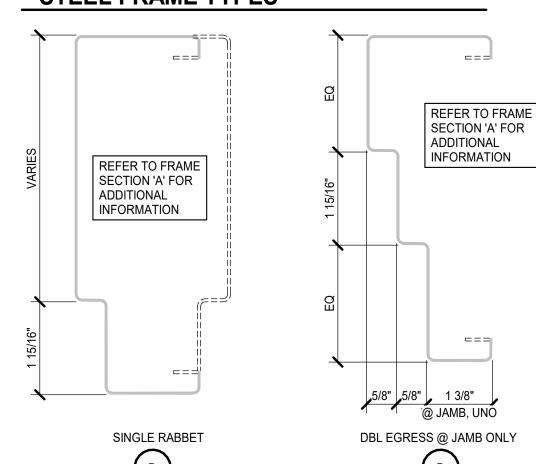
FULL GLASS (ENTRY DOOR) A2.2



ALUMINUM STOREFRONT TYPES

STEEL FRAME TYPES

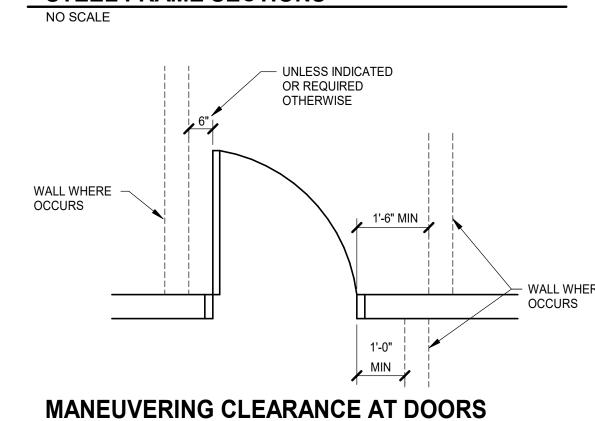
DOOR TYPES



HEAD SECTION SIMILAR MULLIONS WHERE OCCURS -REFER TO FRAME SECTION 'A' FOR ADDITIONAL INFORMATION

CASED OPENING 1. ALL FRAME/JAMB DEPTHS, OTHER THAN WRAP CONDITIONS, SHALL BE 2. ALL FRAME/JAMB DEPTHS AT WRAP CONDITIONS SHALL BE SIZED TO SUIT PARTITION. 3. DOORS, PANELS, GLAZING, STOPS, AND OTHER FRAME INFILLS ARE NOT SHOWN IN FRAME SECTIONS AS THEY VARY - PROVIDE SAME WHERE INDICATED.

STEEL FRAME SECTIONS



WALL WHERE **PLAN - WALL RECESS**

SECTION WALL RECESS

- SEALANT AND BACKER ROD

FLOOR PLAN GENERAL NOTES

A. PROVIDE CMU INFILL IN EXISTING CMU WALLS WHERE OPENINGS OCCUR FROM REMOVED DUCTWORK AND UTILITIES.

DOOR SCHEDULE

9/A2.2

9/A2.2 9/A2.2

9/A2.2

9/A2.2

9/A2.2

9/A2.2

9/A2.2

9/A2.2

9/A2.2

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9/A2.2

9/A2.2 9/A2.2 9/A2.2

9/A2.2 9/A2.2

9/A2.2 9/A2.2

9/A2.2

9/A2.2

9/A2.2

9/A2.2

9/A2.2

NUMBER TYPE SIZE (NOMINAL) MATL LOUVER UC GLAZING TYPE TYPE SECTIONS DETAIL DETAIL DETAIL DETAIL

STL-2 A

STL-2 A

STL-2 A

3'-0"x7'-0"x1-3/4"

3'-0"x7'-0"x1-3/4" WD

3'-0"x7'-0"x1-3/4" | WD

3'-0"x7'-0"x1-3/4" WD

FLOOR PLAN KEYNOTES

REPRESENTED BY n APPLIES TO DRAWINGS A2.1-A2.2

BARRIER FREE ACCESSIBLE FILTERED FUME HOOD WITH ACID STORAGE BASE

ALIGN FACE OF WALL

NIC EQUIPMENT

3-5/8" CFSF-S -

FRY REGLET "J" TRIM - TERMINATION OF GYP

EXISTING EQUIPMENT PROVIDED BY OWNER

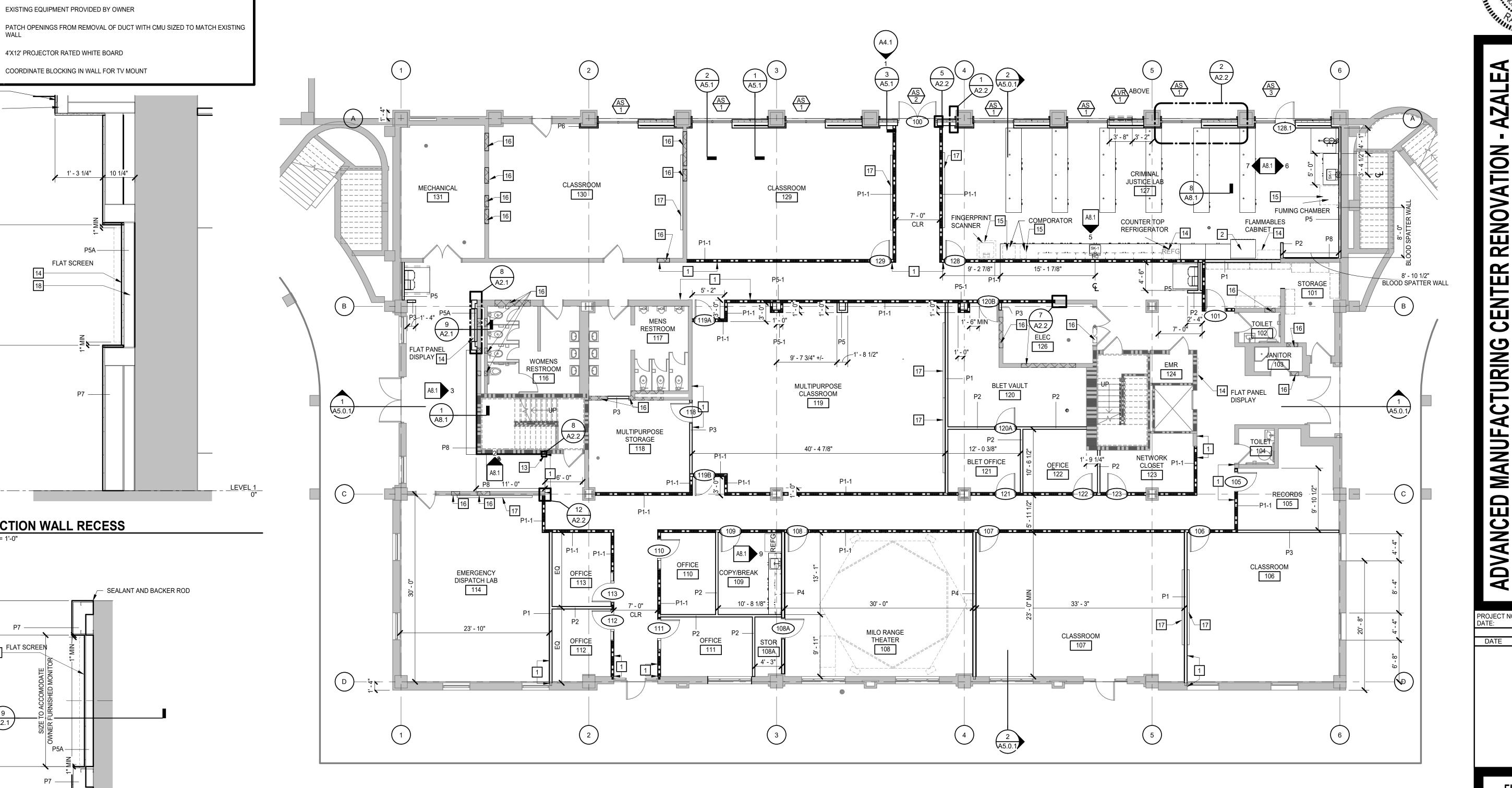
4'X12' PROJECTOR RATED WHITE BOARD

COORDINATE BLOCKING IN WALL FOR TV MOUNT

1' - 3 1/4"

FLAT SCREEN

3'-0"x7'-0"x1-3/4" ALUM

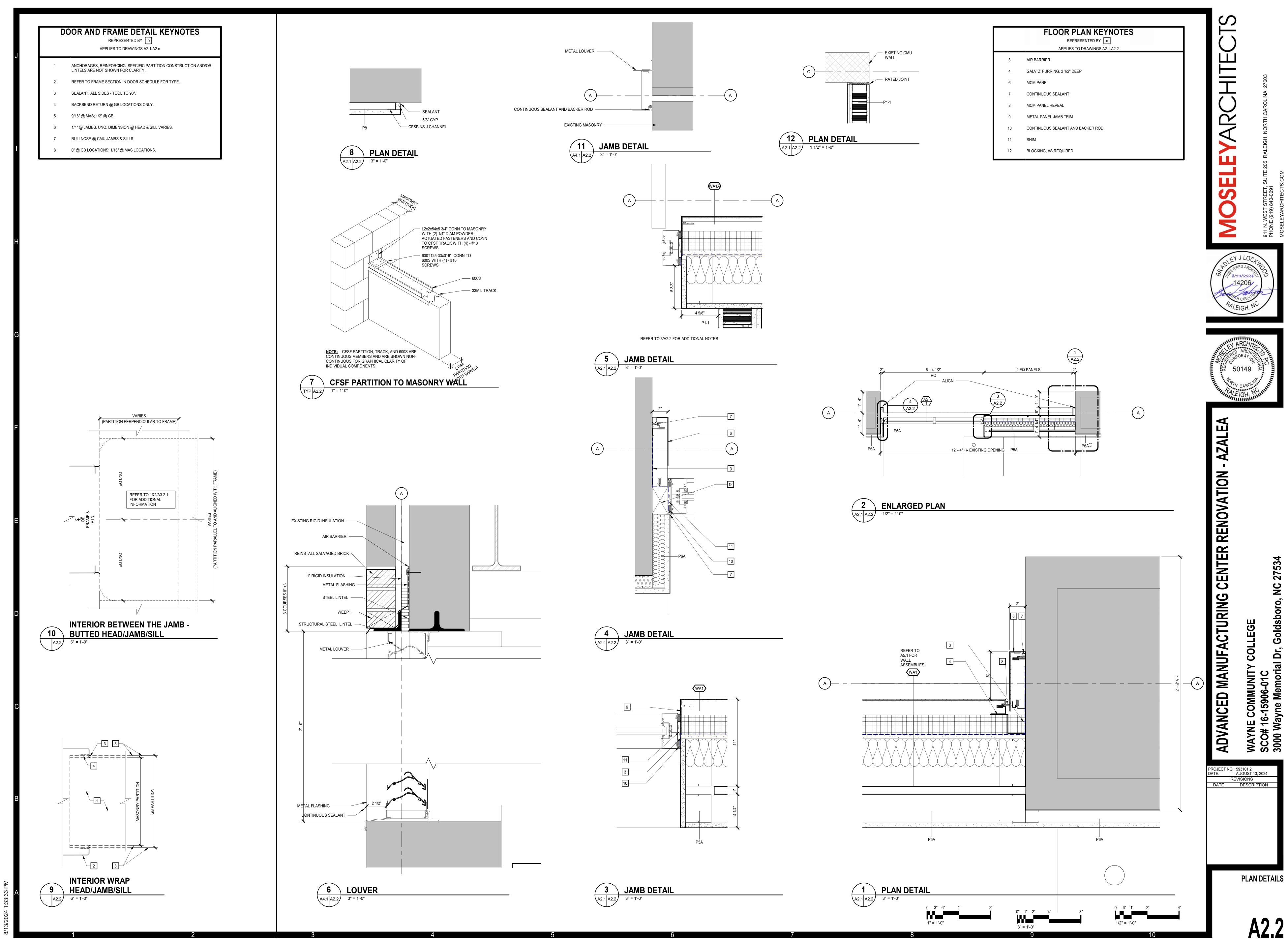


FIRST FLOOR PLAN

1/8" = 1'-0"

PROJECT NO: 593101.2 AUGUST 13, 2024 REVISIONS DATE DESCRIPTION

> FLOOR PLAN, DOOR SCHEDULE, GLAZING & FRAME TYPES



FINISH SCHEDULE GENERAL NOTES

A. FINISH SCHEDULE DESCRIBES ONLY THE BASIC OR PREDOMINANT SURFACE FINISH.

B. PROVIDE SAME FINISHES AS THE ADJACENT SPACE IN ALCOVES AND CONTINUOUS SPACES WITHOUT DESIGNATED SPACE NUMBERS.

C. CASEWORK FINISHES ARE NOT NOTED IN THE FINISH SCHEDULE. REFER TO CASEWORK ELEVATIONS AND SPECIFICATIONS FOR MATERIALS AND FINISHES.

D. DIRECTIONAL WALL FINISH INDICATORS (NORTH, EAST, SOUTH, WEST) REFER TO THE

F. PROVIDE CONTINUOUS SEALANT BETWEEN INTERIOR SLAB-ON-GRADE AND VERTICAL ELEMENT WHERE JOINT IS NOT CONCEALED BY FINISH BASE OR OTHER CONSTRUCTION

G. REFER TO SPECIFICATIONS FOR INFORMATION ON FINISH FIRE CLASSIFICATION RATING..

E. BULKHEADS AND SOFFITS MAY NOT BE INDICATED IN FINISH SCHEDULES. REFER TO RCP DETAILS, AND OTHER DOCUMENTS FOR EXTENT.

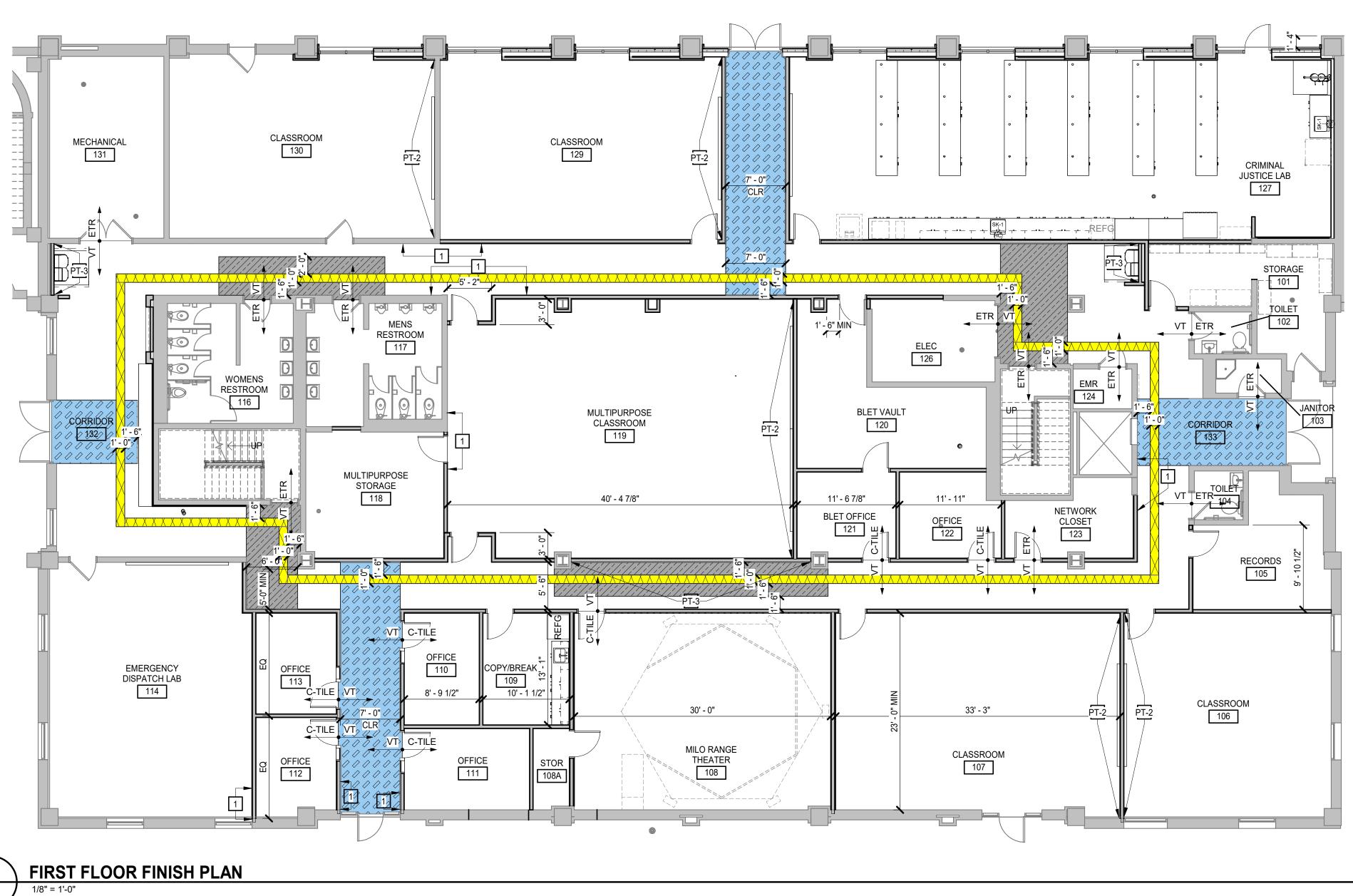
"PLAN" NORTH ORIENTATION.

ADVANCED MANUFACTURING CENTER RENOVATION

PROJECT NO: 593101.2
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DATE DESCRIPTION

SCHEDULE AND

FINISH PLAN,



FINISH PLAN LEGEND FLOOR FINISH WALL FINISH EXTENTS TRANSITION, CHANGE OF MATERIAL CORNER GUARD XXXXX LVT-B1 *UNO, HATCHES DO NOT INDICATE FLOOR INSTALLATION PATTERN, METHOD OR DIRECTION. HATCHES INDICATE START AND STOP OF

FINISH PLAN GENERAL NOTES

A. REFER TO A0.1 FOR ABBREVIATION LEGEND.

THE 'PLAN' NORTH ORIENTATION.

B. WHERE ONE FINISH IS LISTED ON ALL WALLS OF THE ROOM, THE FINISH PLANS DO NOT SHOW EXTENT OF FINISH. FINISH PLANS AND ELEVATIONS SHOW EXTENT OF MATERIALS WHERE FINISH SCHEDULE LISTS MULTIPLE FINISHES IN ONE ROOM C. DIRECTIONAL WALL FINISH INDICATORS (NORTH, SOUTH, EAST, WEST) REFER TO

	FINISH SCHEDULE									
					WALLS					
Room Finish Key	NUMBER	NAME	FLOOR	BASE	NORTH	EAST	SOUTH	WEST	CEILING	NOTES
CLASSRM	101	STORAGE	LVT	RB	PT	PT	PT	PT	ACP	
ETR	102	TOILET	ETR	ETR	ETR	ETR	ETR	ETR	ACP	
CORE	103	JANITOR	ETR	ETR	ETR	ETR	ETR	ETR	ETR	
TR	104	TOILET	ETR	ETR	ETR	ETR	ETR	ETR	ACP	
CLASSRM	105	RECORDS	LVT	RB	PT	PT	PT	PT	ACP	
CLASSRM	106	CLASSROOM	LVT	RB	PT	PT	PT	PT	ACP	
CLASSRM	107	CLASSROOM	LVT	RB	PT	PT	PT	PT	ACP	
none)	108	MILO RANGE THEATER	C-TILE-C	RB	PT	PT	PT	PT	ACP	
CLASSRM	108A	STOR	LVT	RB	PT	PT	PT	PT	ACP	
CLASSRM	109	COPY/BREAK	LVT	RB	PT	PT	PT	PT	ACP	
office	110	OFFICE	C-TILE-A	RB	PT	PT	PT	PT	ACP	
office	111	OFFICE	C-TILE-A	RB	PT	PT	PT	PT	ACP	
office	112	OFFICE	C-TILE-A	RB	PT	PT	PT	PT	ACP	
office	113	OFFICE	C-TILE-A	RB	PT	PT	PT	PT	ACP	
(none)	114	EMERGENCY DISPATCH LAB	C-TILE-C	RB	PT	PT	PT	PT	ACP	
ETR	116	WOMENS RESTROOM	ETR	ETR	ETR	ETR	ETR	ETR	ACP	
ETR	117	MENS RESTROOM	ETR	ETR	ETR	ETR	ETR	ETR	ACP	
CLASSRM	118	MULTIPURPOSE STORAGE	LVT	RB	PT	PT	PT	PT	ACP	
CLASSRM	119	MULTIPURPOSE CLASSROOM	LVT	RB	PT	PT	PT	PT	ACP	
CORE	120	BLET VAULT	ETR	ETR	ETR	ETR	ETR	ETR	ETR	
office	121	BLET OFFICE	C-TILE-A	RB	PT	PT	PT	PT	ACP	
	122	OFFICE	C-TILE-A	RB	PT	PT	PT	PT	ACP	
CORE	123	NETWORK CLOSET	ETR	ETR	ETR	ETR	ETR	ETR	ETR	
	124	EMR	ETR	ETR	ETR	ETR	ETR	ETR	ETR	
	126	ELEC	ETR	ETR	ETR	ETR	ETR	ETR	ETR	
	127	CRIMINAL JUSTICE LAB	RSF	RSF/M5	ARC	ARC/IRWC	ARC/IRWC	ARC	ACP	
,	129	CLASSROOM	LVT	RB	PT	PT	PT	PT	ACP	
	130	CLASSROOM	LVT	RB	PT	PT	PT	PT	ACP	
	131	MECHANICAL	ETR	ETR	ETR	ETR	ETR	ETR	ETR	
	132	CORRIDOR	LVT	RB	ARC		ARC	ARC	ACP	
,	133	CORRIDOR	LVT	RB	ARC	ARC	ARC	ARC	ACP	
	134	STAIR A			-	-		-		

	INTERIOR FINISH LEGEND								
SPECIFICATION	DESCRIPTION	MATERIAL	MANUFACTURER	PRODUCT - COLOR	NOTES				
	TURAL WOODWORK				7.00.00				
	EB-1	EDGEBAND (USE W/ PLAM1)	CHARTER INDUSTRIES	TBD					
	EB-2	EDGEBAND (USE W/ PLAM2)	CHARTER INDUSTRIES	TBD					
	PLAM1	PLASTIC LAMINATE (CABINETS)	WILSONART	WHITE DRIFTWOOD 8200K-16					
	SSM	SOLID SURFACE	WILSONART	NIGHT STARS 9105CS					
81416 FLUSH W			100000000000000000000000000000000000000	[
	M1	WOOD DOORS	LAMBTON	TBD					
95100 CEILINGS									
	ACP	ACOUSTICAL CEILING PANEL	ARMSTRONG	ULTIMA 1910; SIZE - 24"X24", COLOR - WHITE					
96513 RESILIEN	T BASE AND ACCESOR								
	M2	TRANSISTION STTRIP	TARKETT	TBD					
	RB	RESILIENT BASE	TARKETT	TBD					
96516 RESILIEN	SHEET FLOORING		<u> </u>	<u> </u>					
	RSF	RESINOUS SHEET FLOORING	ZANDUR	STYLE: SOPHROS; COLOR: CYGNUS SF5002					
96519 RESILIEN	Γ TILE FLOORING		I						
	LVT-A	LUXURY VINYL FLOOR TILE	MILLIKEN	STYLE - RELIC; COLOR - HEIRLOOM					
	LVT-B1	LUXURY VINYL FLOOR TILE	MANNINGTON	STYLE: STRIDE; COLOR: BUZZY YELLOW C124					
	LVT-B2	LUXURY VINYL FLOOR TILE	MANNINGTON	STYLE: STRIDE; COLOR: MIDNIGHT TWINKLE C128					
	LVT-B3	LUXURY VINYL FLOOR TILE	MANNINGTON	STYLE: STRIDE; COLOR: LAVA ROCK C163					
	LVT-B4	LUXURY VINYL FLOOR TILE	MANNINGTON	STYLE: STRIDE; COLOR: MISTY MOUNTAIN C161					
96813 TILE CARE	PETING			,					
	C-TILE-A	CARPET TILE	EF CONTRACT	STYLE: SURFACE; COLOR:ASPECT SUR56	INSTALLATION : QUATER TURN				
	C-TILE-B	CARPET TILE	TARKETT	STYLE: 2ND POWER II; COLOR: BALI BLUE 71616; SIZE: 24"X24"					
	C-TILE-C	CARPET TILE	J+J KINETEX	STYLE: REFLECTION 1855; COLOR: REPLICA 3509					
97200 WALL CO\				,					
	WC-1	GRAPHIC WALL COVERING	TO BE PROVIDED BY WCC	TO BE PROVIDED BY WCC					
7733 PREFINIS	HED WOOD PANELS-	- INTERIOR							
	WDP-1	MATCH EXISTING WOOD DOORS	MATCH EXISTING WOOD DOORS	MATCH EXISTING WOOD DOORS					
8430 SOUND AB	SORBING WALL UNITS	3	•						
	AWP-1	ACOUSTICAL WALL PANEL	TURF	PATTERN: SLAT S4-3-2.5; NRC .60	INSTALL HORIZONTALLY W/ Z-CLIPS				
99100 PAINTING									
	PT-1	PAINT	PPG	FIELD PAINT					
	PT-2	PAINT	PPG	ACCENT BLUE PAINT	MATCH WAYNE COMMUNITY COLLEGE SCHOOL COLORS, PANTON NUMBER TO BE PROVIDED BY WCC				
	PT-3	PAINT	PPG	ACCENT YELLOW PAINT	MATCH WAYNE COMMUNITY COLLEGE SCHOOL COLORS, PANTON NUMBER TO BE PROVIDED BY WCC				
01400 SIGNAGE									
	М3-А	INTERIOR SIGNAGE - BACKGROUND	SCOTT SIGNS	GUNMETAL GRAY					
	М3-В	INTERIOR SIGNAGE - TEXT	SCOTT SIGNS	WHITE					
02600 WALL & D	OOR PROTECTION								
	IRWC	WALL PROTECTION	INPRO CORP	CONTINUUM RIGID SHEET; SIZE 4'X10'X.080T	CHEMICAL, STAIN AND MOLD RESISTANCE; FIBERGLASS FREE				
	M4	TOP CAP	INPRO CORP	PRODUCT #61710; LENGTH 10'; FINISH S.S.					
	M5	HYGIENIC COVE BASE	INPRO CORP	PRODUCT #SCB-6SL-3396; SIZE: 8' LENGTH; FINISH: S.S.	FABRICATE PREFORMED CORNERS SHALL BE 90 DEGREE				
	M6	INSIDE CORNER	INPRO CORP	PRODUCT # 61910; LENGTH 10'; COLOR MATCHING					
	M7	OUTSIDE CORNER	INPRO CORP	PRODUCT # 62010; LENGTH 10'; COLOR MATCHING					
	1.40	VEDTICAL DIVIDED DADC	INDDO CODD	DDODLICT # C4040, LENCTH 401, COLOD MATCHING					

PRODUCT # 61810; LENGTH 10'; COLOR MATCHING

VERTICAL DIVIDER BARS

INPRO CORP

ELEVATION GENERAL NOTES

BUILDING ELEVATION KEYNOTES

REPRESENTED BY n APPLIES TO DRAWINGS A4.1 - A4.n

ALUM STOREFRONT SYSTEM

TOOTH IN SALVAGED BRICK

EXISTING BRICK

MCM PANEL COLOR A; ARCHITECT TO SELECT COLOR FROM MANUFACTURERS STANDARD COLORS

MCM PANEL COLOR B; ARCHITECT TO SELECT COLOR FROM MANUFACTURERS STANDARD COLORS

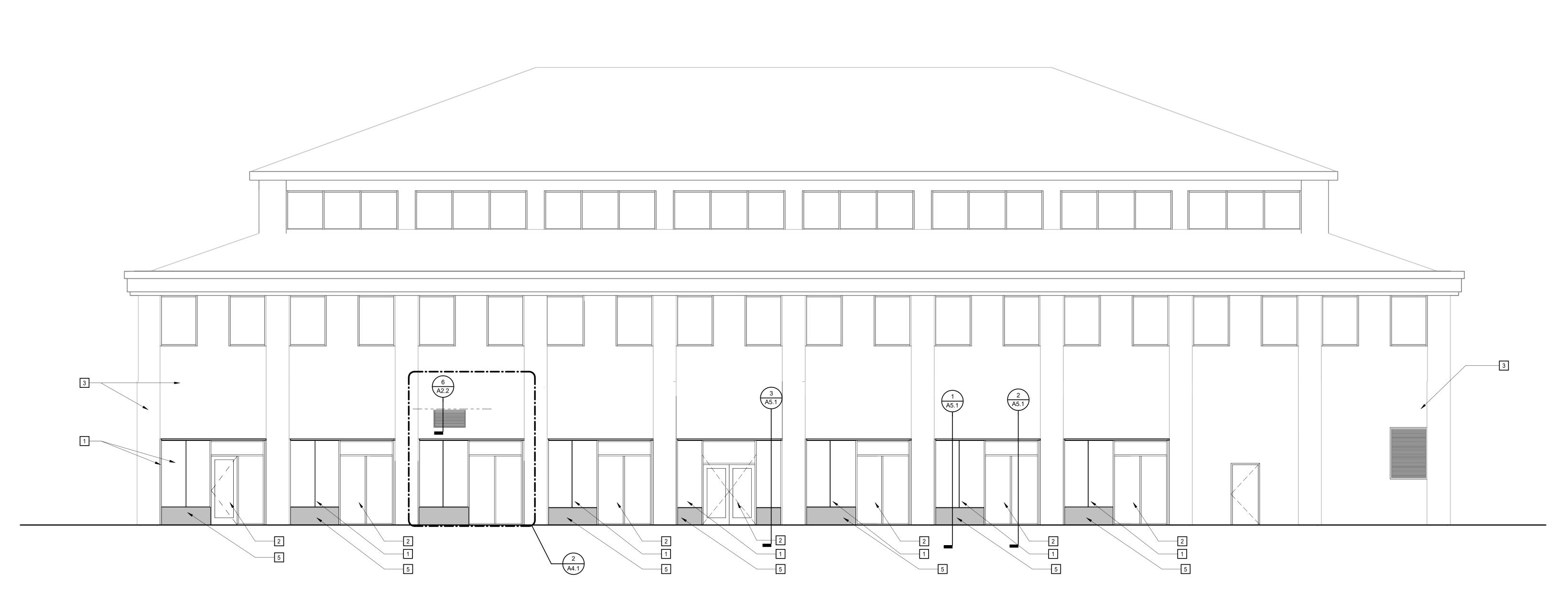
A. METAL PANEL JOINTS SHALL ALIGN WITH CONTROL JOINTS, MASONRY OPENINGS, ALUMINUM STOREFRONT, OR OTHER ADJACENT BUILDING ELEMENTS AS

BUILDING ELEVATIONS

______ 5

NORTH ELEVATION, ENLARGED

1/2" = 1'-0"



1 NORTH ELEVATION

A2.1 A4.1 3/16" = 1'-0"



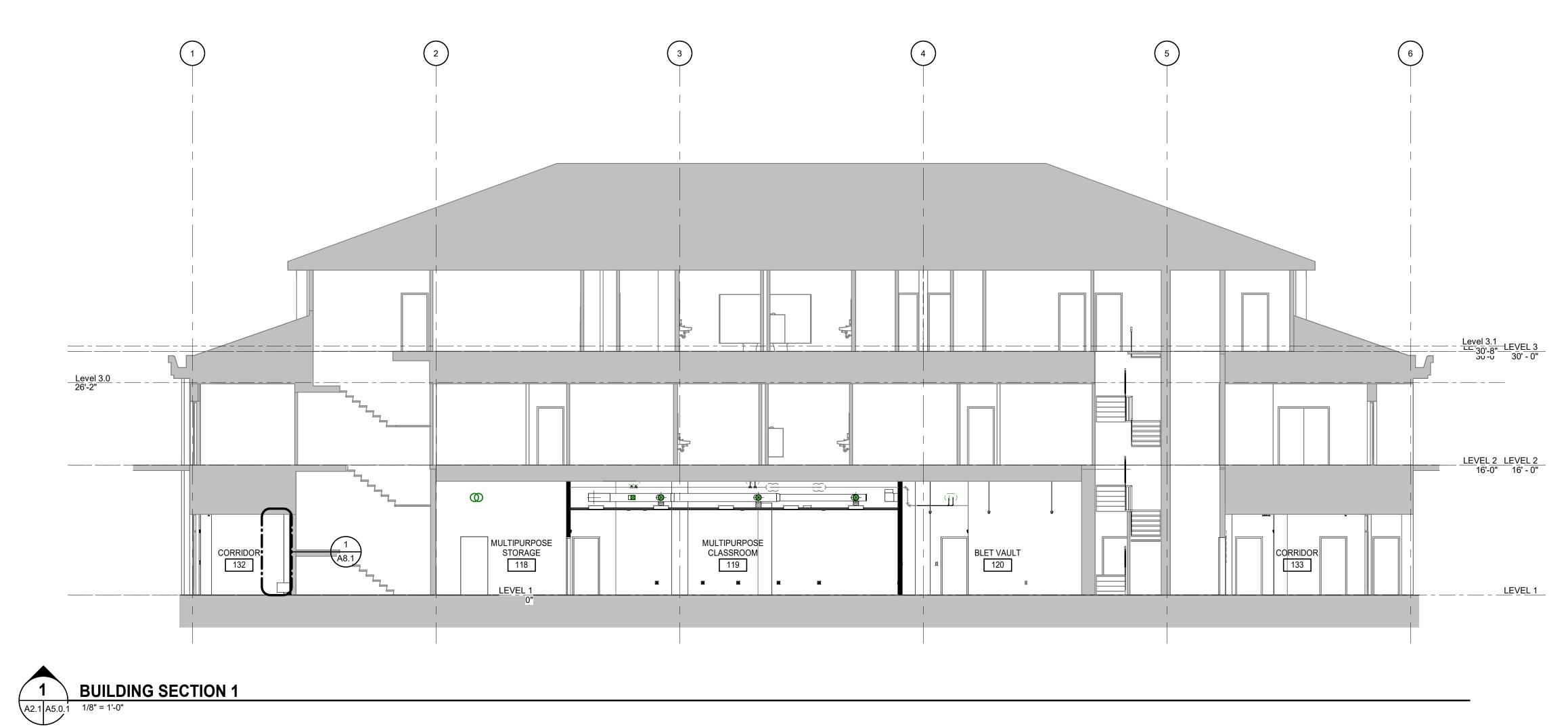
0" 1' 4' 3/16" = 1'-0"

ADVANCED MANUFACTURING CENTER RENOVATION -

PROJECT NO: 593101.2
DATE: AUGUST 13, 2024
REVISIONS
DATE DESCRIPTION

BUILDING SECTION

BLET OFFICE CORRIDOR BLET VAULT 120 CLASSROOM 107 ELEC 126 _ <u>LEVEL 1</u> 2 BUILDING SECTION 2
A2.1 A5.0.1 1/8" = 1'-0"



WALL SECTION KEYNOTES REPRESENTED BY n

APPLIES TO DRAWINGS A5.1- A5.2

1 EXISTING MASONRY

2 EXISTING CONCRETE APRON

EXISTING CONCRETE FLOOR SLAB ON GRADE

5/8" GYPSUM BOARD

STARTER TRACK WITH WEEP HOLES

MCM PANEL

7 AIR BARRIER BASE CLOSURE, SET IN FULL SEALANT BED

9 CONTINUOUS SEALANT

10 1/2" GYPSUM SHEATHING

11 2 1/2" RIGID INSULATION

13 CONTINUOUS TERMINATION BAR WITH CONTINUOUS SEAL ON TOP

MINERAL-FIBER INSULATION, FRICTION FIT FOR CONTINUOUS CLOSURE OF WALL CAVITY

15 PREFINISHED DRIP FLASHING WITH HEMMED EDGE

16 REMOVE EXISTING SEALANT; INSTALL SEALANT IN EXISTING CONTROL JOINT

18 BLOCKING, AS REQUIRED

17 GALV 'Z' FURRING, 2 1/2" DEEP

19 SELF ADHEARED TRANSITION FLASHING

20 CEILING, TYPE VARIES; REFER TO A9.1 RCOP PLAN AND A3.0.1 FINISH SCHEDULE FOR ADDITIONAL INFORMATION

21 EXISTING CONCRETE APRON

22 CONTINUOUS SEALANT AND BACKER ROD

23 LEVELING COMPOUND

FACE OF EXISTING PILASTER

WALL SECTION 11" = 1'-0"

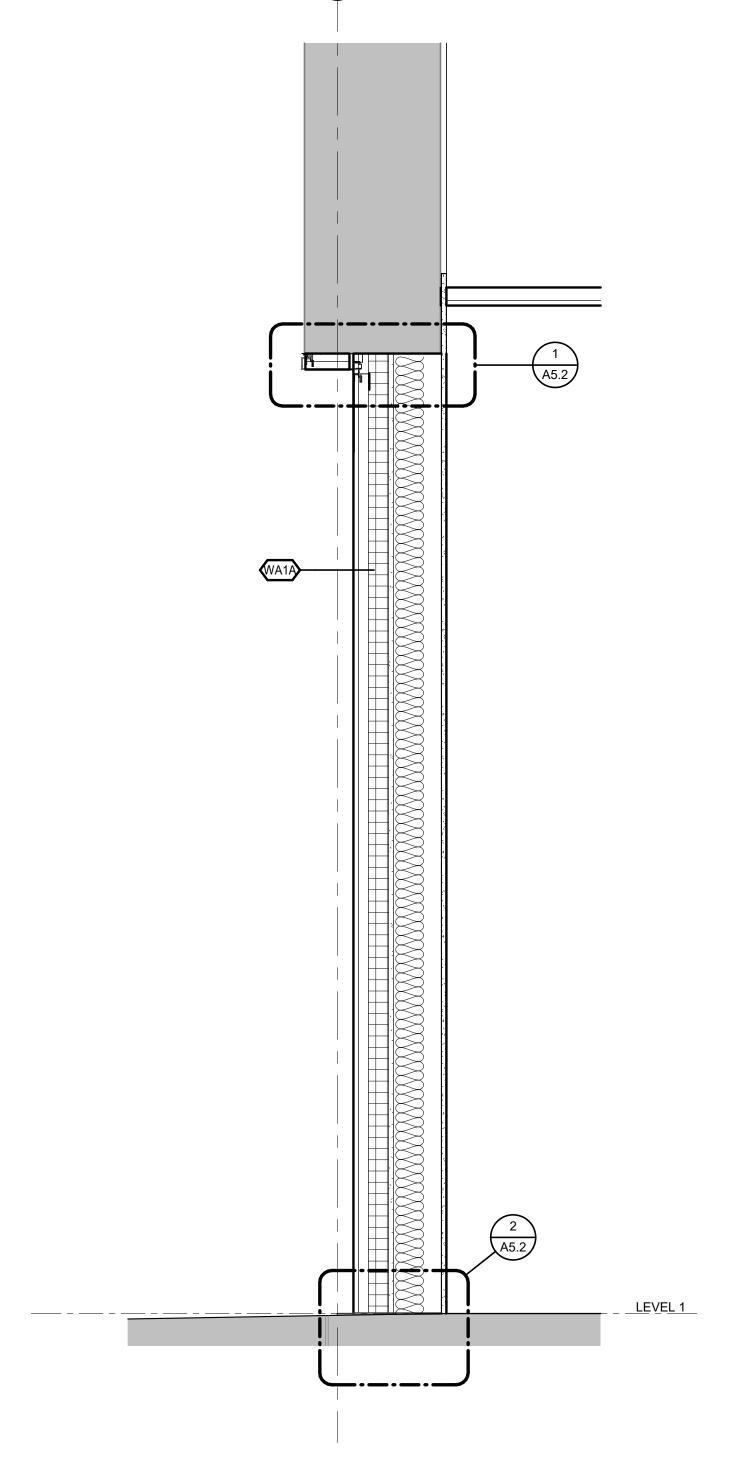


ADVANCED MANUFACTURING CENTER RENOVATION

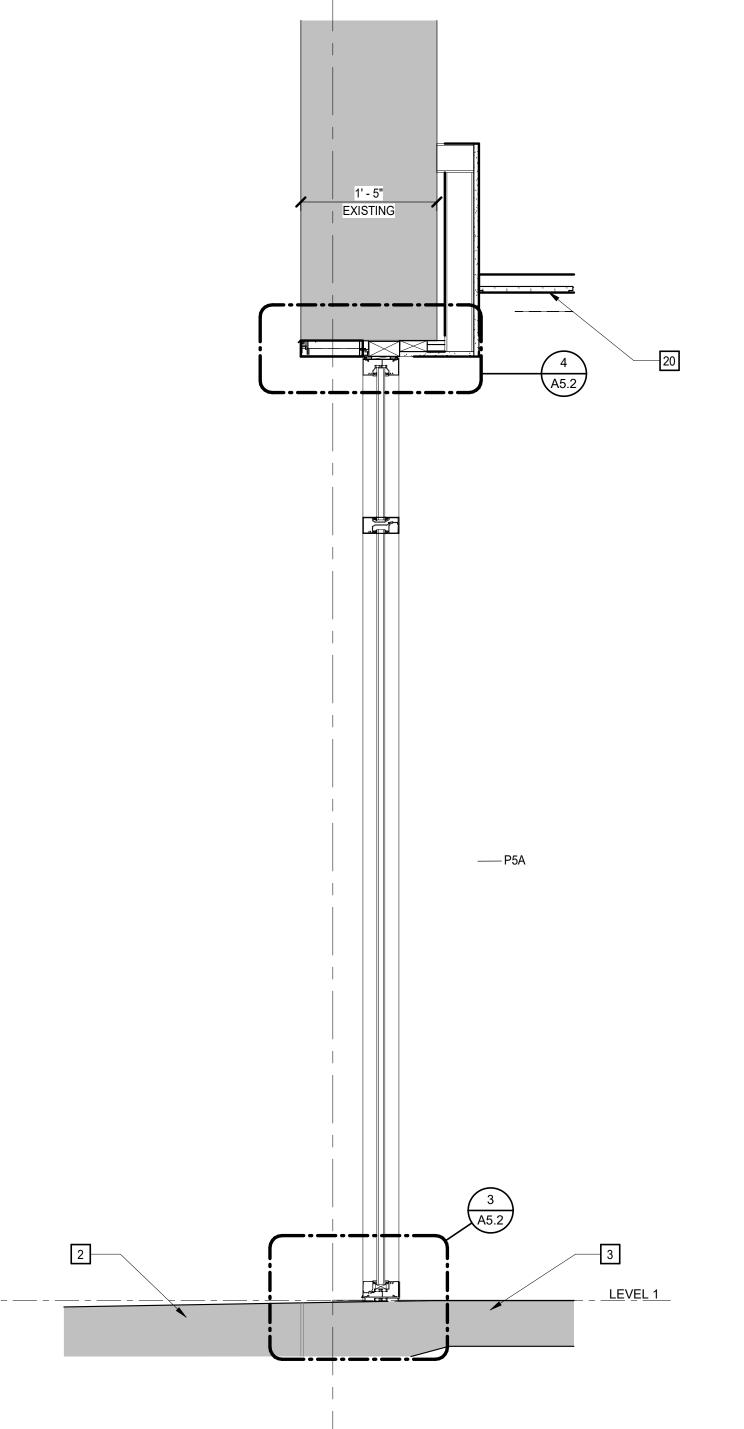
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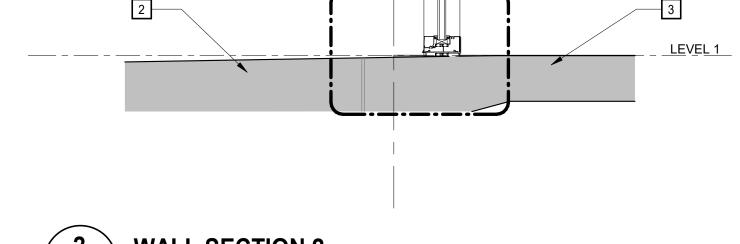
WALL SECTIONS

A5.1



3 WALL SECTION 3
A2.1 A5.1 1" = 1'-0"





WALL SECTION DETAILS

WALL SECTION KEYNOTES

REPRESENTED BY n APPLIES TO DRAWINGS A5.1- A5.2

1 EXISTING MASONRY

2 EXISTING CONCRETE APRON

3 EXISTING CONCRETE FLOOR SLAB ON GRADE

4 5/8" GYPSUM BOARD

5 STARTER TRACK WITH WEEP HOLES

6 MCM PANEL 7 AIR BARRIER

8 BASE CLOSURE, SET IN FULL SEALANT BED

9 CONTINUOUS SEALANT

10 1/2" GYPSUM SHEATHING 11 2 1/2" RIGID INSULATION

13 CONTINUOUS TERMINATION BAR WITH CONTINUOUS SEAL ON TOP

14 MINERAL-FIBER INSULATION, FRICTION FIT FOR CONTINUOUS CLOSURE OF WALL

15 PREFINISHED DRIP FLASHING WITH HEMMED EDGE

16 REMOVE EXISTING SEALANT; INSTALL SEALANT IN EXISTING CONTROL JOINT

17 GALV 'Z' FURRING, 2 1/2" DEEP

18 BLOCKING, AS REQUIRED

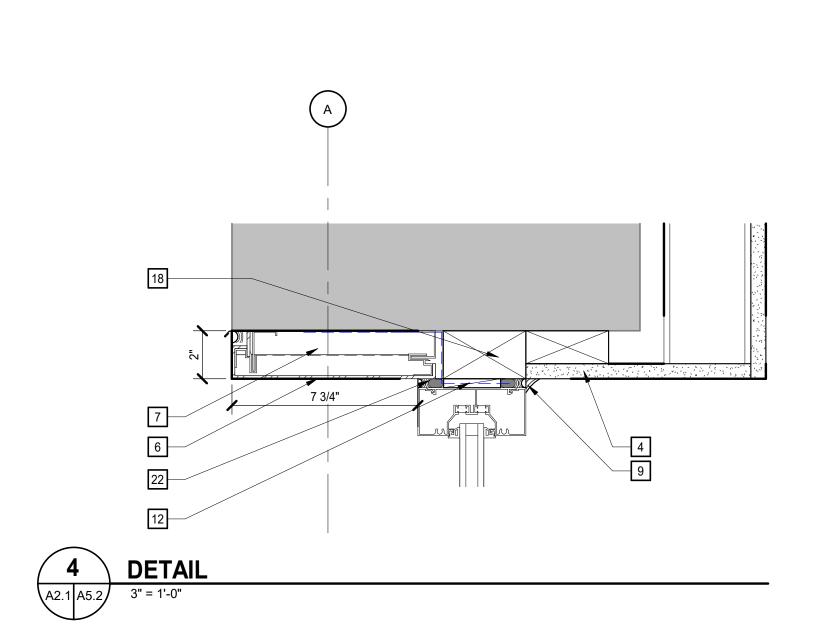
19 SELF ADHEARED TRANSITION FLASHING

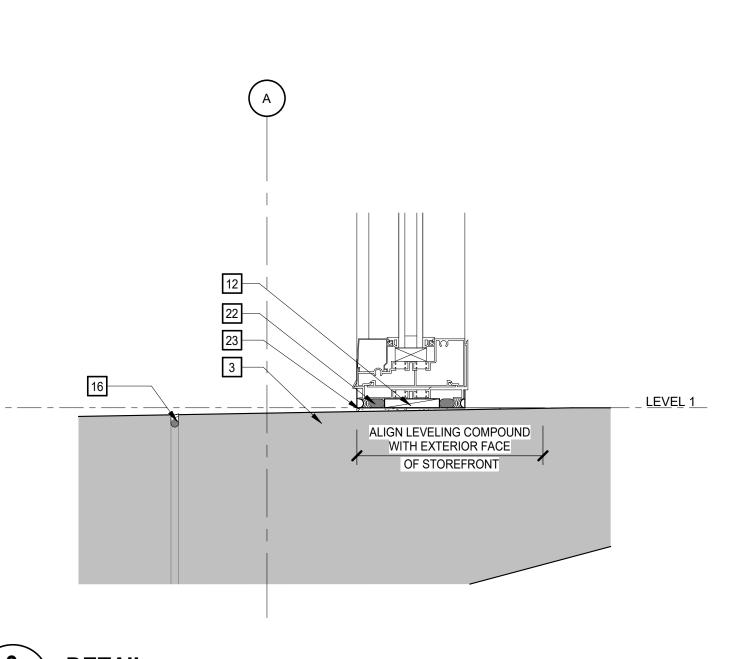
20 CEILING, TYPE VARIES; REFER TO A9.1 RCOP PLAN AND A3.0.1 FINISH SCHEDULE FOR ADDITIONAL INFORMATION

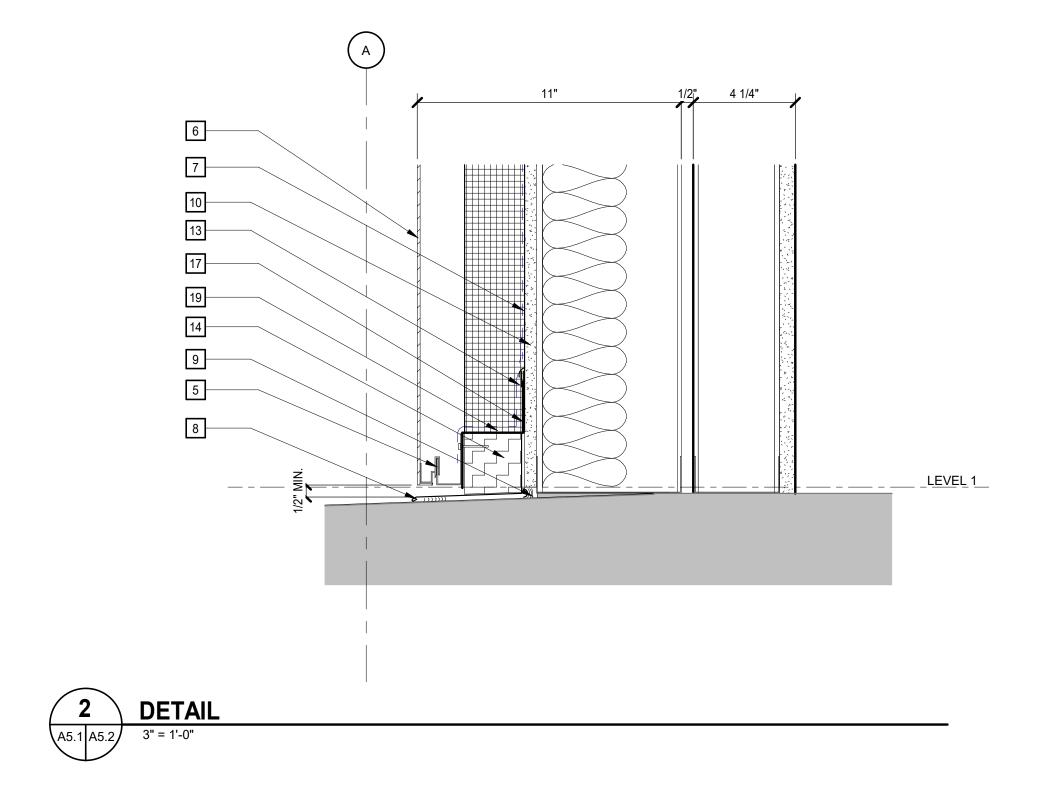
21 EXISTING CONCRETE APRON

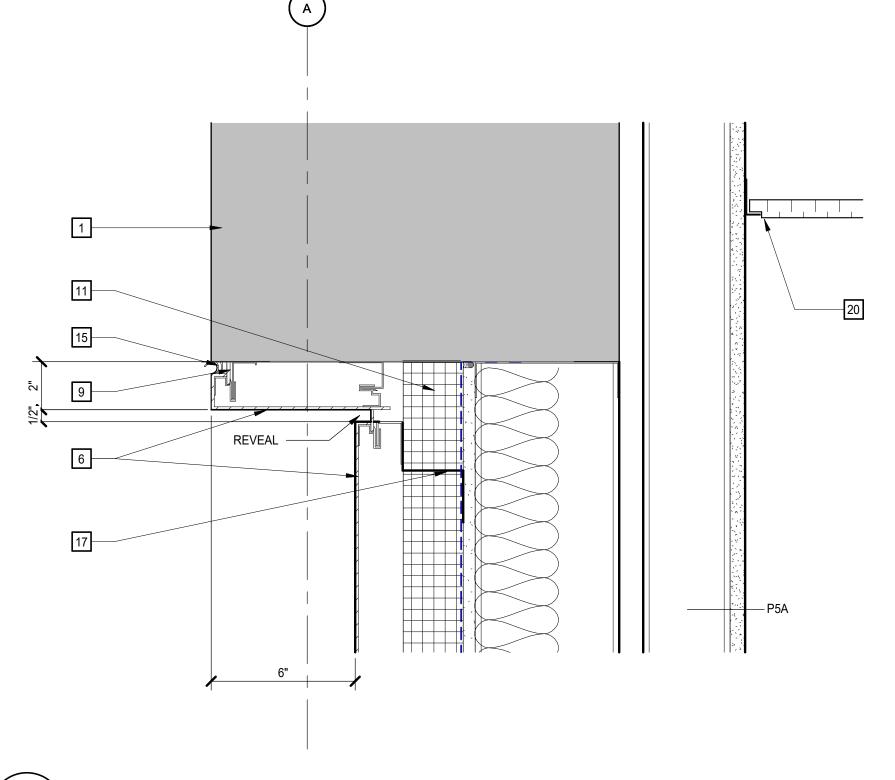
22 CONTINUOUS SEALANT AND BACKER ROD

23 LEVELING COMPOUND









1 DETAIL
A5.1 A5.2 3" = 1'-0"

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CASEWORK ELEVATIONS

CASEWORK KEYNOTES REPRESENTED BY n

APPLIES TO DRAWINGS A8.1

- 1 ADA SINK FRONT WITH ACCESSIBLE TOE KICK
 - REFRIGERATOR OWNER FURNISHED CONTRACTOR INSTALLED
- 3 OPEN KNEE SPACE
- 4 WOOD BENCH WITH RECESSED TOE KICK
- ACOUSTICAL WALL PANEL
- 6 VIDEO DISPLAY; NIC
- 7 HYGIENIC WALL CLADDING (IWRC)
- SEAL ALL EXPOSED EDGES & SEAMS AT IWRC W/ MANFACTURERS: TOP CAP, DIVIDER BAR, INSIDE & OUTSIDE CORNERS AND WALL BASE
- 9 PROVIDE (2) DUPLEX OUTLETS PER KNEE SPACE
- 10 12"H MODESTY PANEL
- 11 PROVIDE 3"DIA GROMMET HOLES; 2 PER KNEE SPACE; LOCATE 8" FROM THE BACK EDGE OF THE BENCH
- 12 GRAPHIC WALLCOVERING (WC-1) TO BE PROVIDED BY WCC; WC TO WRAP OUTSIDE CORNER AND TERMINATE AT INSIDE CORNER; WC TO BE CLASS A FIRE RATED.

3-5/8" CFSF-S FRAMING; COORDINATE FRAMING WITH LIGHT FIXTURE —

5/8" GYP BOARD

CONTINUOUS RIBBON LIGHT FIXTURE

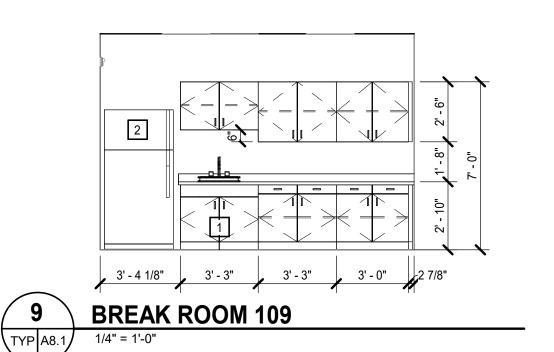
13 WOOD PANEL (WDP-1)

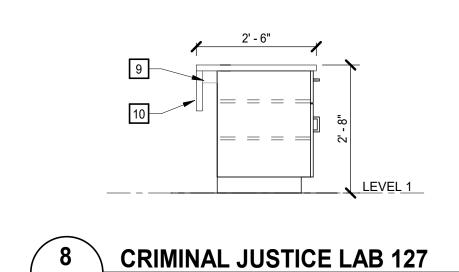
CASEWORK GENERAL NOTES

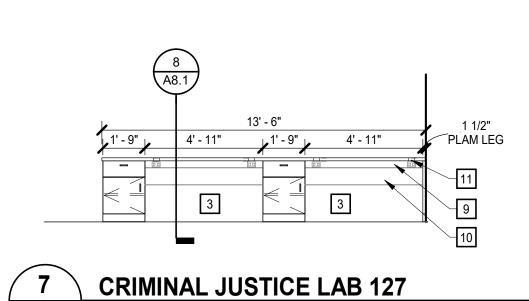
- 2'-10" AFF MAX OR 2'-10" MAX TO TOP OF RIM AT DROP-IN SINKS AND LAVATORIES WHERE OCCURS
- 2'-1" DEEP SOLID SURFACE IN BREAK ROOM CHEMICAL RESISTANT RESIN IN CRIMINAL JUSTICE
- BACKSPLASHES: 4" HIGH AT ALL SIDES AND BACK TO MATCH COUNTERTOP EXTEND COUNTERTOP 1/2" PAST BASE CABINET AT ALL EXPOSED CASEWORK ENDS VERIFY SLAB LEVELNESS AT CASEWORK PRIOR TO INSTALL. CONSTRUCTION TOLERANCES DO NOT APPLY TO ACCESSIBLITY DIMENSIONS; MAX DIMENSIONS SHALL BE MAINTAINED.
- B. BREAK ROOM CABINET(S): BASE CABINETS
- 2'-0" DEEP NOMINAL PLASTIC LAMINATE
- TOE KICKS: 4" NOMINAL HIGH (REDUCE AS NEEDED FOR TOLERANCES) & 3" DEEP SINK LOCATIONS: 3'-0" WIDE CLEAR KNEE SPACE FOR BARRIER FREE ACCESS
- 2. WALL CABINET(S): 1'-0 1/2" DEEP NOMINAL
- 2'-6" HIGH TOP AT 7'-0" AFF
- PLASTIC LAMINATE MINIMUM 11" CLEAR INTERIOR DEPTH
- A. CRIMINAL JUSTICE CABINET(S): BASE CABINETS
- PLASTIC LAMINATE TOE KICKS: 4" NOMINAL HIGH (REDUCE AS NEEDED FOR TOLERANCES) AND 3" SINK LOCATIONS: 3'-0" WIDE CLEAR KNEE SPACEFOR BARRIER FREE ACCESS
- 2. WALL CABINETS 1'-0 1/2" DEEP NOMINAL

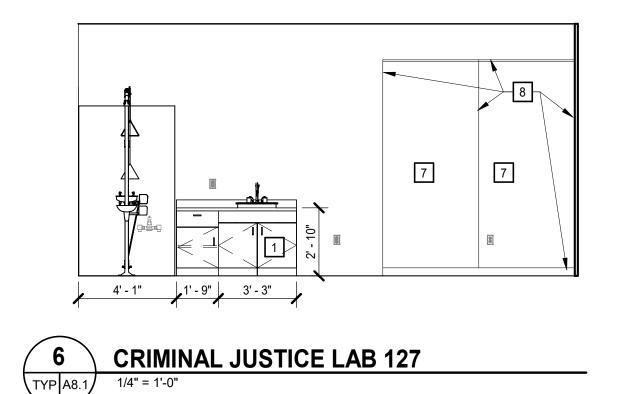
2'-6" DEEP NOMINAL

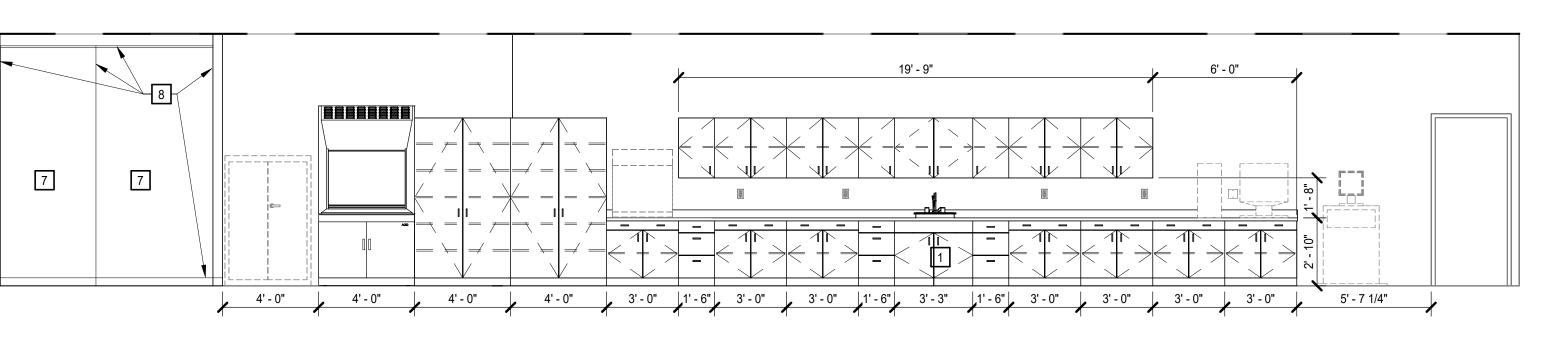
- 2'-6" HIGH TOP AT 7'-0" AFF PLASTIC LAMINATE
- MINIMUM 11" CLEAR INTERIOR DEPTH
- B. BUILT-IN EQUIPMENT: SIZE OPENING (HEIGHT, WIDTH, AND DEPTH) AND ROUGH-IN REQUIREMENTS AS REQUIRED BASED ON APPROVED MANUFACTURER SUBMITTED.
- C. ALL SHELVES: ADJUSTABLE UNLESS INDICATED OTHERWISE.
- D. PROVIDE FINISH END PANELS AT ALL EXPOSED CASEWORK ENDS.
- E. LOCKS: *[fill in where you want locks, if any]* UNLESS INDICATED OTHERWISE.

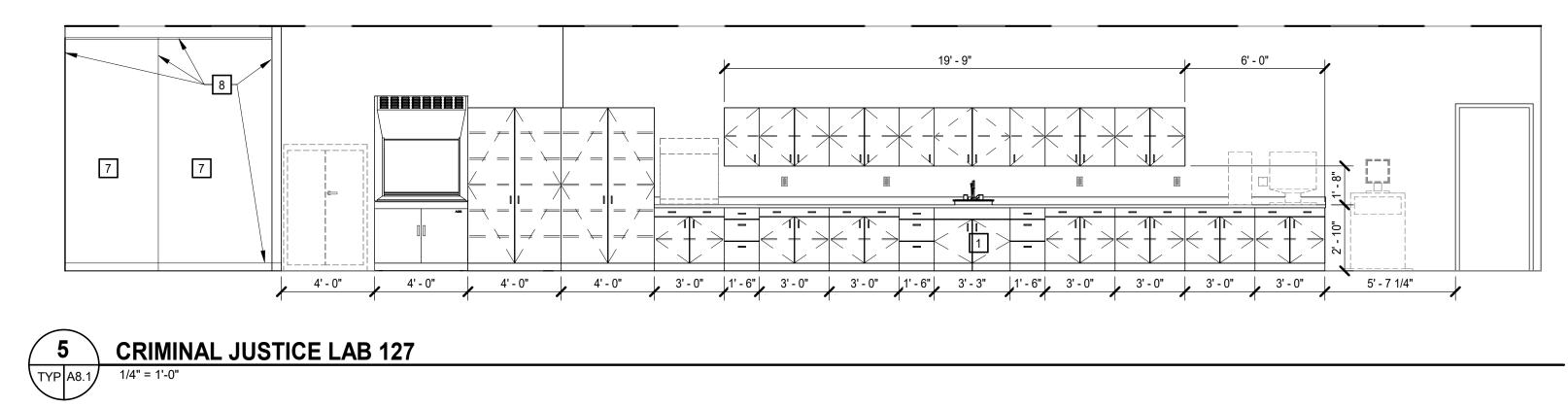


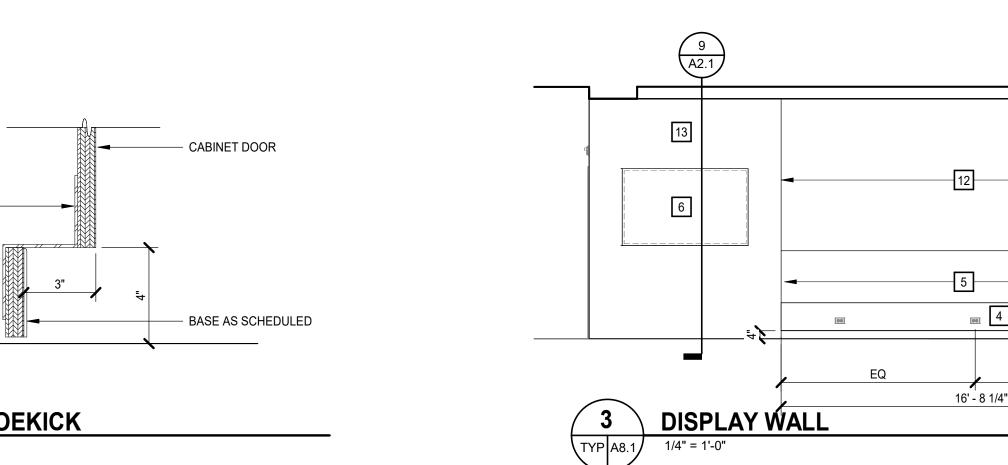


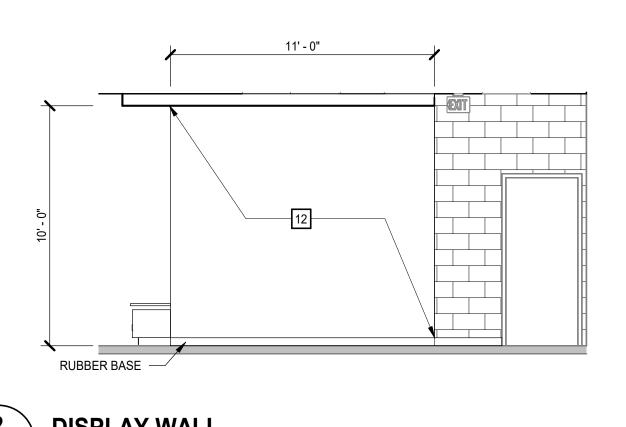


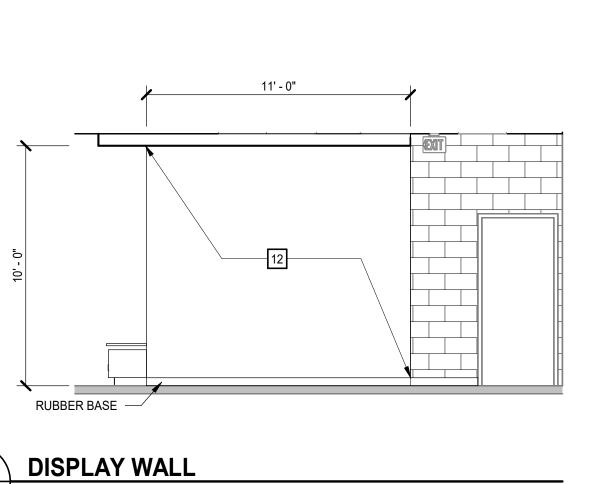


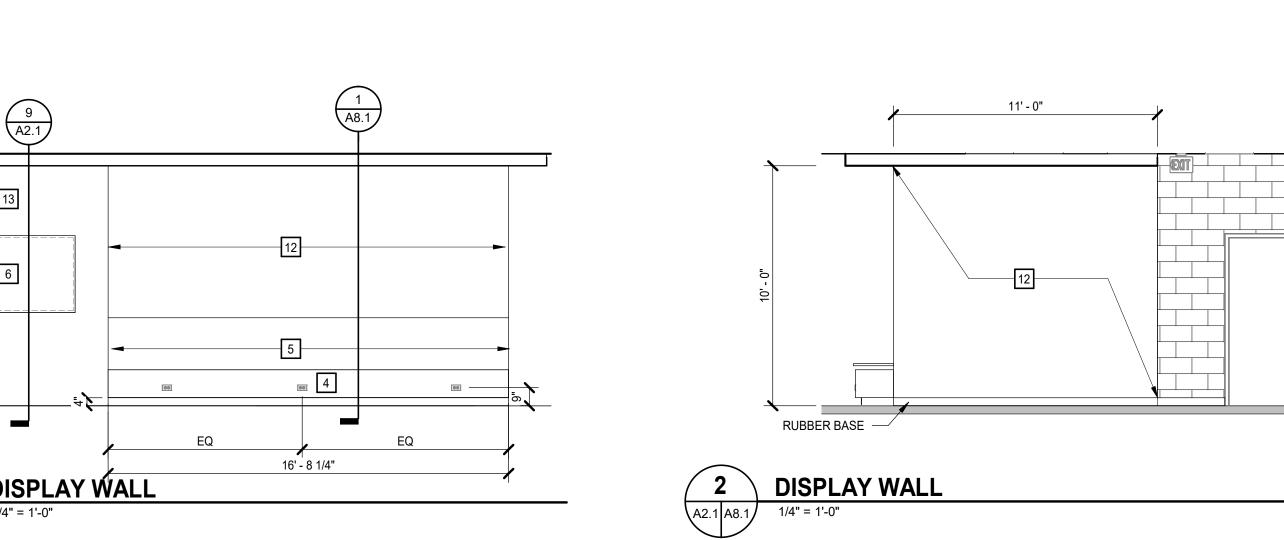


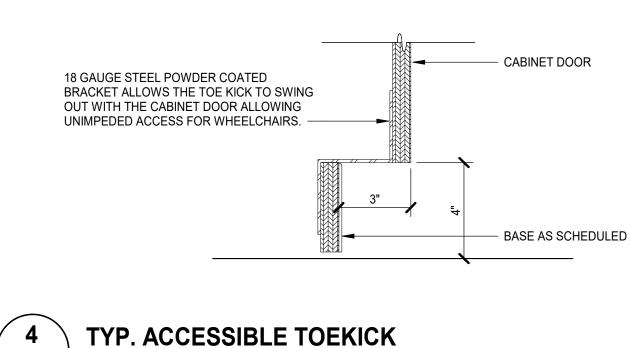












TYP A8.1 3" = 1'-0"

SOLID SURFACE ON (2)
 LAYERS OF 3/4" PLYWOOD

WOOD VENEER TO MATCH BLDG STD DOOR @ ALL

2' - 0"

1' - 7"

GYP BD: EXTEND FULL HEIGHT, UNLESS INDICATED OTHERWISE

5/8" GYP BD, TERMINATE 4" ABV FIN CLG

FIN CLG: FINISH AND/OR HEIGHT AFF VARIES

PROJECT NO: 593101.2 DATE: AUGUST 13, 2024 REVISIONS DATE DESCRIPTION

> REFLECTED CEILING PLAN

> > A9.1

BULKHEAD DETAILS NO SCALE

REFLECTED CEILING PLAN/DETAIL GENERAL NOTES

REFLECTED CEILING PLAN LEGEND APPLIES TO DRAWINGS A9.1.n - A9.1.n

REFER TO M, E & FP DRAWINGS FOR REFLECTED CEILING PLAN SYMBOLS NOT INDICATED BELOW

INTERIOR APPLICATIONS: GYPSUM BOARD CEILING

EXTERIOR APPLICATIONS: GYPSUM SOFFIT BOARD

2'-0" x 2'-0" LAY-IN ACOUSTICAL CEILING PANELS

EXISTING CEILING TO REMAIN; TYPE VARIES

EXTERIOR WALL

CEILING

EXISTING TO REMAIN, VERIFY VERTICAL EXTENTS WHERE THE HEIGHT IMPACTS THE WORK

INTERIOR WALL/PARTITION 4" MIN ABOVE HIGHEST ADJACENT CEILING. IF NECESSARY TO ACHIEVE

RESULTS DESIRED, EXTEND WALL HEIGHT SO WALL BRACING IS NOT EXPOSED TO VIEW IN FINISHED

INTERIOR WALL/PARTITION TO UNDERSIDE OF

A101 SPACE NUMBER

nn'-nn" CEILING HEIGHT, /

— CEILING HEIGHT, AFF UNO

OR GYPSUM SHEATHING

IN SUSPENDED GRID

ACCESS PANEL

======

WITH OPENING

WITH OPENING

WITH OPENING

1 CFSF-S

WITH OPENING

- A. ALL CEILING HEIGHTS SHALL BE 10-'6" AFF UNLESS INDICATED OTHERWISE.
- B. DRAWINGS INDICATE GRID LAYOUT DIAGRAMMATICALLY. REFER TO SPECIFICATIONS FOR SPECIFIC GRID LAYOUT CRITERIA AT PERIMETER CONDITIONS THAT MAY DIFFER FROM GRID LAYOUT INDICATED ON DRAWINGS.
- C. CENTER CEILING MOUNTED ITEMS WITHIN CEILING PANELS, UNLESS INDICATED OTHERWISE.
- D. ENSURE NO SMOKE DETECTORS ARE LOCATED LESS THAN 3'-0" FROM CEILING AIR SUPPLY/RETURN REGISTERS.
- E. MECHANICAL REGISTERS, LIGHTING, EXIT SIGNS, SMOKE DETECTORS, AND OTHER SYMBOLS NOT DEFINED IN THE ABOVE LEGEND ARE SHOWN FOR COORDINATION. REFER TO ELECTRICAL AND MECHANICAL PLANS AND SCHEDULES FOR LEGENDS AND ADDITIONAL

REFLECTED CEILING PLAN KEYNOTES

REPRESENTED BY n APPLIES TO DRAWINGS A9.1.1 - A9.1.n



FIRST FLOOR PLAN

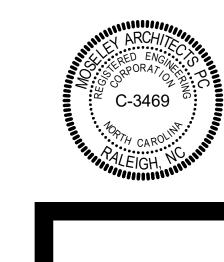
Inspections & Testing

construction

specifications

masonry.)

Compliance Document



4

PROJECT NO: 593101.2

AUGUST 13, 2024

REVISIONS

DATE DESCRIPTION

PLANS, AND DETAILS

GENERAL NOTES

Inspections & Testing	Continuous	Periodic	Y/N	Reference Standard or Compliance Document	Agent
Inspection Agents					
Special Inspection Engineer of Record:					
Inspection and Testing Agency: One I Testing Agency:					
Steel Fabricator's Quality Control Inspector: Use a Control Inspector: Structural Engineer of Record:					
Mechanical Engineer of Record:					
6. Electrical Engineer of Record:					
7. Smoke Control Inspector:					
1704.2.4 Report Requirement					
Special inspector to keep record of special inspections and furnish inspection reports to the building official and to the Registered Design Professional in responsible charge.	•		Y	IBC 1704.2.4	1
1704.4 Contractor Responsibility					
Each contractor responsible for the construction of a main wind- or seismic force resisting system, designated seismic system or a wind- or seismic-resisting component listed in the statement of special inspections shall submit a written statement of responsibility.		•	N	1704.4	-
1704.5 Submittals to the Building Official		ı			
Certificates of compliance for the fabrication of structural, load-bearing or lateral load-resisting members or assemblies on the premises of a registered and approval fabricator in accordance with Section 1704.2.5.1	•		Y	1704.5 1704.2.5.1	3,4
Certificates of compliance for the seismic qualification of nonstructural components, supports and attachments in accordance with Section 1705.13.2	•		N	1704.5 1705.13.2	3,4
Certificates of compliance for designated seismic systems in accordance with Section 1705.13.3	•		N	1704.5 1705.13.3	3,4
Reports of preconstruction tests for shotcrete in accordance with Section 1908.5 Certificates of compliance for open web steel joist and joist	•		N	1704.5, 1908.5	2,4
girders in accordance with Section 2207.5	•		Y	1704.5, 2207.5	3,4
Reports of material properties verifying compliance with the requirements of AWS D1.4 for weldability as specified in Section 26.5.4. of ACI 318 for reinforcing bar in concrete complying with a standard other than ASTM A 706 that are to welded	•		N	1704.5, AWS D1.4 26.6.4 of ACI 318 ASTM A 706	2,4
Reports of mill tests in accordance with Section 20.2.2.5 of ACI 318 for reinforcing bars complying with ASTM A 615 and used to resist earthquake-induced flexural or axial forces in the special moment frames, special structural walls or coupling beams connecting special structural walls of seismic force-resisting systems in structures assigned to Seismic Design Category B, C, D, E, or F	•		N	1704.5 20.2.2.5 of ACI 318 ASTM A 615	3,4
1704.6 Structural Observation					
The owner shall employ a registered design professional to perform structural observation. Prior to commencement of observation, the structural observer shall submit to the building official a written statement identifying frequency and extent of structural observations.				1704.6	
Seismic		•	N	1704.6.1	4
Wind		•	N	1704.6.2	4
1705.3 Concrete Construction		Г			
Inspect reinforcing steel, including prestressing tendons, and verify placement. Inspect reinforcing steel welding in accordance with steel		•	Y	Table 1705.3	2
construction section above			Y		2
Inspect anchors cast in concrete		•	Υ		2
Inspect anchors post-installed in hardened concrete members	•		Y		1,2
Verify use of approved design mix		•	Υ		2
Prior to placement fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete	•		Y		2
Inspect concrete and shotcrete placement for proper application techniques	•		Y		2
Inspect for maintenance of specified curing temperature	_	•	Υ		2
and techniques Inspect prestressed concrete for:					1,2
a. Application of prestressing forces	•		N		<u> </u>
b. Grouting of bonded prestressing tendons in the seismic-force-resisting system	•		N		
Inspect erection of precast structural members		•	N		1,2
Verify in-situ concrete strength, prior to stressing of tendons in post-tensioned concrete and prior to removal of shores and forms from beams and structural slabs		•	N		2
Inspect formwork for shape, location and dimensions of the			Υ		1,2

ing system				001100
east structural members	•	N	1,2	CONCRETE
strength, prior to stressing of	•	N	2	1. ALL CONCRETE WORK S

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE NORTH CAROLINA BUILDING CODE (NCBC),

ARCHITECTURAL DRAWINGS AND THE DRAWINGS OF THE OTHER ENGINEERING DISCIPLINES.

3. THE CONTRACT DOCUMENTS ARE COMPLEMENTARY AND WHAT IS REQUIRED BY ONE SHALL BE AS

BINDING AS IF REQUIRED BY ALL. IN THE CASE OF A CONFLICT, DISAGREEMENT, OR AMBIGUITY,

PROVIDE THE BETTER QUANTITY. IN THE CASE OF A CONFLICT, DISAGREEMENT, OR AMBIGUITY,

PURCHASED FOR THE PROJECT. COORDINATE REQUIREMENTS FOR SLEEVES, HANGERS, INSERTS,

COMMENCEMENT OF WORK. REFER TO PROJECT SPECIFICATIONS FOR SPECIFIC REQUIREMENTS.

GENERAL CONTRACTOR WILL CONDUCT THE MEETING AND SHALL BE RESPONSIBLE FOR THE

ATTENDANCE OF ALL REQUIRED TRADES AND SUBCONTRACTORS INCLUDING THE SPECIAL

1. ALL MASONRY WORK SHALL CONFORM TO THE REQUIREMENTS OF TMS 402 "BUILDING CODE

3. GROUT SHALL CONFORM TO ASTM C476 AND SHALL BE PROPORTIONED TO OBTAIN MINIMUM

PLACEMENT REQUIREMENTS OF TMS 602 SECTION 3.5 ARE MET. CONTRACTOR TO REVIEW

5. FILL COLLAR JOINTS OF COMPOSITE WALLS SOLID WITH MORTAR AS THE WALLS PROGRESS. BOND WYTHES OF COMPOSITE WALLS TOGETHER USING HORIZONTAL JOINT REINFORCING @ 16"

26 INCHES

34 INCHES

38 INCHES

45 INCHES

8. REINFORCING STEEL SHALL COMPLY WITH ASTM A615, GRADE 60.

10. NO SWITCHES OR BOXES WITHIN 20 INCHES OF A DOOR JAMB.

6. PROVIDE VERTICAL REINFORCING STEEL OF SIZE AND SPACING INDICATED. LAP SPLICE LENGTHS

7. PROVIDE POSITIONERS TO HOLD VERTICAL WALL REINFORCING STEEL IN PROPER ALIGNMENT.

9. AVOID PLACING CONDUIT IN CELLS CONTAINING STRUCTURAL REINFORCING, WHERE POSSIBLE.

11. MASONRY WALLS OF HOLLOW UNITS WHICH CHANGE THICKNESS SHALL HAVE A CONTINUOUS

12. FILL CMU CELLS WITH GROUT FROM TOP OF FOOTING TO TOP OF SLAB-ON-GRADE ELEVATION.

TO ARCHITECTURAL DRAWINGS FOR JOINT LOCATIONS AND DETAILS. COORDINATE JOINT

13. MASONRY WALL CONTROL JOINTS ARE NOT INDICATED ON THE STRUCTURAL DRAWINGS. REFER

LOCATIONS TO AVOID BEAM BEARING LOCATIONS. DO NOT BREAK BOND BEAM REINFORCEMENT

TRANSITION, THE COURSE ABOVE THE TRANSITION SHALL ALSO BE GROUTED SOLID.

GROUT FILLED COURSE BELOW THE TRANSITION. IF WALL THICKNESS IS GREATER ABOVE THE

CLEANOUT LOCATIONS FOR HIGH-LIFT GROUTING WITH ARCHITECT PRIOR TO COMMENCING

DETERMINED IN ACCORDANCE WITH THE UNIT STRENGTH METHOD PER TMS 602, UNLESS NOTED

4. PLACE GROUT IN ACCORDANCE WITH TMS 402. ALLOW A MINIMUM OF 4 HOURS FOR MASONRY TO SET PRIOR TO PLACING GROUT. HIGH LIFT GROUTING IS PERMITTED PROVIDED THE GROUT

REQUIREMENTS FOR MASONRY STRUCTURES WITH COMMENTARY" AND TMS 602

2. NET AREA COMPRESSIVE STRENGTH OF CONCRETE MASONRY(F'm), SHALL BE 2000 PSI,

4. VERIFY AND COORDINATE MECHANICAL UNIT SUPPORTS AND OPENINGS WITH EQUIPMENT

5. CONTRACTOR SHALL CONDUCT PRE-INSTALL MEETINGS ON PROJECT SITE PRIOR TO

ANCHORS AND ALL OTHER ITEMS TO BE SET IN STRUCTURAL WORK.

CONCRETE MASONRY UNITS (CMU)

"SPECIFICATIONS FOR MASONRY STRUCTURES WITH COMMENTARY".

ULTIMATE 28 DAY COMPRESSIVE STRENGTH OF 2500 PSI.

SHALL BE AS FOLLOWS:

#5 BAR

#7 BAR

AT CONTROL JOINTS.

#4 BAR AND SMALLER

2. THE STRUCTURAL DRAWINGS ARE INTENDED TO BE USED IN CONJUNCTION WITH THE

GENERAL

2018 EDITION, EFFECTIVE JANUARY 1, 2019.

PROVIDE THE GREATER QUANTITY OF WORK.

3. THE DURABILITY EXPOSURE CLASS IDENTIFIED BY THE ENGINEER OF RECORD, IN ACCORDANCE WITH ACI

318, FOR EACH MIX DESIGN/BUILDING ELEMENT AND EXPOSURE CLASS, IS BASED ON ASSUMED SEVERITY OF THE ANTICIPATED EXPOSURE. IF THE CONCRETE IS TO BE INSTALLED IN A LOCATION OR CONDITION THAT IS MORE SEVERE THAN THE EXPOSURE IDENTIFIED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OR ADJUST THE CONCRETE MIX REQUIREMENTS AS REQUIRED PER ACI 318.

 (F) FREEZE/THAW (S) SULFATE (W) WATER/PERMEABILITY

(C) CORROSION PROTECTION

DAY COMPRESSIVE STRENGTH OF 4,000 PSI (F'c).

Observe preparation of grout specimens, mortar

specimens and/or prisms

4. MAX W/C REFERS TO MAXIMUM WATER TO CEMENTITIOUS MATERIALS RATIO. MIXING WATER SHALL CONFORM TO ASTM C1602.

5. TARGET AIR ENTRAINMENT, ±1.5%. ALL EXTERIOR CONCRETE SHALL BE AIR-ENTRAINED. AIR ENTRAINMENT IS OPTIONAL FOR FOOTINGS AND GRADE BEAMS NOT EXPOSED TO FREEZING. 6. DRY UNIT WEIGHT ±5 PCF. AGGREGATES TO CONFORM TO ASTM C33 FOR NORMAL WEIGHT CONCRETE

(NWC) AND ASTM C330 FOR LIGHT WEIGHT CONCRETE (LWC). 7. CONCRETE BUILDING ELEMENTS IDENTIFIED WITH EXPOSURE CATEGORY F3 REQUIRE LIMITATIONS ON

CEMENTITIOUS MATERIALS AS FOLLOWS: MAX % OF TOTAL CEMENTITIOUS CEMENTITIOUS MATERIAL MATERIALS BY MASS

 FLY ASH (ASTM C618) SLAG CEMENT (ASTM C989) SILICA FUME (ASTM C1240) TOTAL FLY ASH, OTHER POZZOLANS AND SILICA FUME • TOTAL FLY ASH, OTHER POZZOLANS, SILICA FUME AND SLAG 50

8. SLABS NOT RECEIVING A HARD TROWEL FINISH MAY BE AIR-ENTRAINED. NORMAL WEIGHT SLABS RECEIVING A HARD TROWEL FINISH SHALL NOT BE AIR-ENTRAINED. FINISHING METHODS FOR AIR-ENTRAINED LIGHTWEIGHT SLABS SHALL BE SUBMITTED PRIOR TO THE PRE-INSTALLATION MEETING AND WILL BE REVIEWED AT THE MEETING.

9. COMBINED AGGREGATE GRADING SHALL BE AS FOLLOWS:

• FOR COARSE AGGREGATE WITH 1 1/2" NOMINAL MAXIMUM AGGREGATE SIZE, 8% TO 18% (BY WEIGHT) OF AGGREGATE SHALL BE RETAINED ON EACH SIEVE BELOW THE MAXIMUM AGGREGATE SIZE SIEVE AND FOR COARSE AGGREGATE WITH 3/4" OR 1" NOMINAL MAXIMUM AGGREGATE SIZE, 8% TO 22% (BY WEIGHT) OF AGGREGATE SHALL BE RETAINED ON EACH SIEVE BELOW THE MAXIMUM AGGREGATE SIZE SIEVE AND

10. MAX WATER SOLUBLE CHLORIDE ION CONTENT PERCENTAGE, BY WEIGHT OF CEMENT. 11 CONCRETE MIXTURE PROPORTIONS SHALL BE ESTABLISHED IN ACCORDANCE WITH ARTICLE 4.2.3 OF

ACI 301 OR BY AN ALTERNATIVE METHOD ACCEPTABLE TO THE ENGINEER OF RECORD. EACH MIX DESIGN SHALL IDENTIFY THE INTENDED LOCATION OF USE.

ASTM A706 LOW ALLOW STEEL REINFORCING BARS, DEFORMED

12. REINFORCING STEEL SHALL BE AS FOLLOWS:

WELDABLE REINFORCING BARS:

ASTM A615, GRADE 60, DEFORMED REINFORCING BARS: WELDED WIRE FABRIC: ASTM A1064, SHEET TYPE ONLY

 DEFORMED BAR ANCHORS (DBA) ASTM A1064, DEFORMED

WELDING PER AWS D1.4 STRUCTURAL WELDING CODE - REINFORCING STEEL

13. MINIMUM CONCRETE COVER OVER REINFORCING SHALL BE UNO: A. UNFORMED SURFACE CAST AGAINST EARTH B. FORMED SURFACE EXPOSED TO EARTH/WEATHER 2 IN C. FORMED SLABS AND WALLS NOT EXPOSED TO EARTH/WEATHER FOR #11 AND SMALLER BAR

D. ALL OTHER FORMED ELEMENTS NOT EXPOSED

TO EARTH/WEATHER 14. REQUIRED COMPRESSIVE STRENGTH OF STRUCTURAL PRECAST CONCRETE SHALL BE DETERMINED BY THE PRECAST CONCRETE MANUFACTURER'S ENGINEER, WITH THE MINIMUM COMPRESSIVE STRENGTH AS NOTED IN THE TABLE.

Property | Y / N | Reference Standard or Inspections & Testing Compliance Document Level C Quality Assurance (Table 5) Tests as follows: Verify f'm and f'aac in accordance with TMS 602-13/ACI 530.1-13/ASCE 6-13 Specification Article 1.4B prior to construction, and for every 5000 square feet during construction Verify proportions of materials in premixed or pre-blended mortar, prestressing group and grout other than selfconsolidation grout as delivered to the project site Verify slump flow and Visual Stability Index (VSI) as delivered to the project site in accordance with TMS 602-13/ACI 530.1-13/ASCE 6-13 Specification Article 1.5B.1.b.3 for self-consolidation grout Tests as follows: Verify compliance with approved submittals and project 1,4 specifications a. Proportions of site-prepared mortar, grout and prestressing grout for bonded tendons b. Grade, type, and size of reinforcement and anchor bolts, and prestressing tendons and anchorages c. Placement of masonry units and construction of mortar ioints d. Placement of reinforcement, connectors and prestressing tendons and anchorages e. Grout space prior to grouting f. Placement of grout and prestressing grout for bonded 2 g. Size and location of structural elements h. Type, size and location of anchors, including other details of anchorage of masonry to structural members, frames and other construction i. Welding of reinforcement j. Preparation, construction, and protection of masonry during cold weather (Temperature below 40°F) or hot weather (Temperature above 90°F) k. Application and measurement of prestressing force I. Placement of AAC masonry units and construction of thin-bed mortar joints m. Properties of thin-bed mortar for AAC masonry 2 Observe preparation of grout specimens, mortar specimens and/or prisms

. CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF ACI 318 "BUILDING CODE EQUIREMENTS FOR STRUCTURAL CONCRETE" AND ACI 301 "STANDARD SPECIFICATIONS FOR STRUCTURAL AISC 360 "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" RCSC'S "SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH STRENGTH BOLTS" 2. CONCRETE SHALL BE NORMAL WEIGHT (OR LIGHTWEIGHT AS INDICATED) AND SHALL OBTAIN ULTIMATE 28

2. STRUCTURAL STEEL SHALL COMPLY WITH THE FOLLOWING SPECIFICATIONS:

3. UNLESS NOTED OTHERWISE, CONNECTIONS SHALL BE DESIGNED IN ACCORDANCE WITH AISC MANUAL OF STEEL CONSTRUCTION, AS SIMPLE CONNECTIONS USING ALLOWABLE STRENGTH DESIGN (ASD). CONNECTIONS FOR NON-COMPOSITE BEAMS SHALL BE DESIGNED FOR THE UNIFORM LOAD CAPACITY INDICATED IN THE MAXIMUM TOTAL UNIFORM LOAD TABLES, PART 3, OF THE AISC MANUAL. CONNECTIONS FOR COMPOSITE STEEL BEAMS SHALL BE DESIGNED FOR THE REACTIONS INDICATED ON THE PLANS.

4. UNLESS NOTED OTHERWISE, THE TOP OF ALL STEEL COLUMNS SHALL HAVE A STEEL CAP PLATE WITH A MINIMUM THICKNESS OF 1/2". CAP PLATE DIMENSIONS SHALL MATCH COLUMN WIDTH AND DEPTH MINIMUM. WHERE JOISTS

5. BOLTED JOINTS SHALL BE "SNUG TIGHTENED", UNLESS OTHERWISE INDICATED.

7. WHERE STRUCTURAL STEEL IS EXPOSED BELOW GRADE, PROVIDE MINIMUM 3" CONCRETE COVER OR COAT WITH BITUMINOUS MASTIC.

8. STRUCTURAL STEEL EXPOSED TO WEATHER IN THE FINISHED WORK SHALL BE HOT DIPPED GALVANIZED IN

9. ARCHITECTURALLY EXPOSED STRUCTURAL STEEL INDICATED THUS (AESS), SHALL CONFORM TO THE REQUIREMENTS OF SECTION 10 OF THE AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES. ALL FABRICATION AND CONNECTIONS OF COMPONENTS EXPOSED AND VISIBLE IN THE FINISHED WORK SHALL BE MADE WITH CONTINUOUS WELDS. INTERMITTENT WELDS ARE ACCEPTABLE FOR NON-EXPOSED OR NON-VISIBLE LOCATIONS. WELD SIZE SHALL BE AS REQUIRED FOR STRUCTURAL STRENGTH BUT NOT LESS THAN 1/8" FILLET. HOLES BURNED

TEMPORARY SHORING

1. PROVIDE TEMPORARY SHORING AND BRACING TO MAINTAIN THE EXISTING STRUCTURE IN PROPER ALIGNMENT UNTIL PERMANENT CONSTRUCTION AND LATERAL BRACING IS IN PLACE.

2. THE TEMPORARY SHORING DIAGRAMS ARE CONCEPTUAL ONLY, DESIGN OF TEMPORARY SHORING SHALL BE PROVIDED BY THE CONTRACTOR. DESIGN CALCULATIONS AND SHORING DRAWINGS SHALL BE SUBMITTED FOR REVIEW AND SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NORTH

IF ANY CONDITIONS ARE DETECTED WHICH MAY AFFECT THE STABILITY OF THE EXISTING STRUCTURE OR THE

4. MONITOR THE PERFORMANCE OF THE TEMPORARY SHORING AT ALL TIMES DURING THIS WORK AND HAVE ADDITIONAL SHORING READILY AVAILABLE ON SITE IN THE EVENT OF DEFLECTION OR OTHER MOVEMENT OF THE

STRUCTURAL STEEL 1. ALL STRUCTURAL STEEL WORK SHALL CONFORM TO THE FOLLOWING AISC DOCUMENTS: AISC 303 "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES"

WIDE FLANGE SHAPES, CHANNELS AND MISC CHANNELS ASTM A992 (FY=50 KSI) ANGLES, S-SHAPES AND M-SHAPES PLATES & BARS (TO 4" THICK) ASTM A572 (FY=50 KSI) PLATES & BARS (OVER 4" THICK) ASTM A36 (FY=32 KSI) ASTM A572 (FY=50 KSI) HOLLOW STRUCTURAL SECTIONS (HSS) SQUARE & RECTANGLE ASTM A500, GRADE C (FY=50 KSI) ASTM A500, GRADE C (FY=50 KSI) HIGH STRENGTH BOLTS (CONVENTIONAL) ASTM F3125, GRADE A325 OR A490 (TYPE 1) WASHERS ASTM F436 (FLAT AND BEVELED) HEAVY HEX NUTS ASTM A563 TWIST OFF TENSION CONTROL BOLTS ASTM F3125, GRADE F1852 OR F2280 (TYPE 1) COMPRESSIBLE-WASHER DIRECT-TENSION INDICATORS ASTM F959 (TYPE 325 OR 490) ANCHOR RODS ASTM F1554, GRADE 55 INCLUDE SUPPLEMENT S1 WELDING ELECTRODES E70 (LOW HYDROGEN) AWS D1.1 CLAUSE 9, TYPE B (FY=51 KSI) HEADED SHEAR STUDS THREADED ROD ASTM A36 CLEVISES AISI C-1035, ASTM A668, CLASS A TURNBUCKLES AISI C-1035, ASTM A668, CLASS C RAISED-PATTERN FLOOR PLATES ASTM A786, COMMERCIAL GRADE ASTM A606, A1008 OR A1011

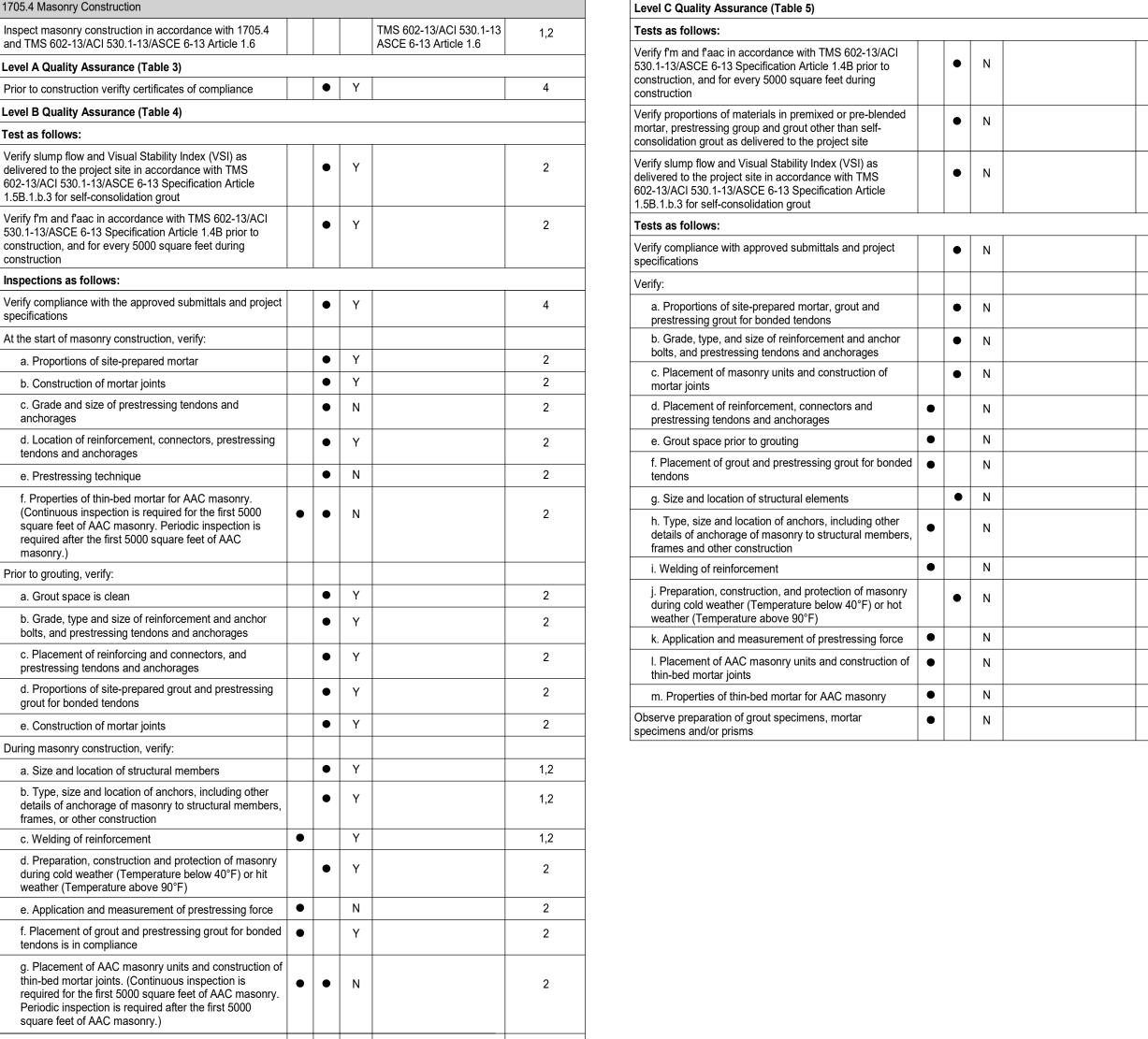
BEAR ON COLUMN, COORDINATE BEARING REQUIREMENTS WITH JOIST MANUFACTURER.

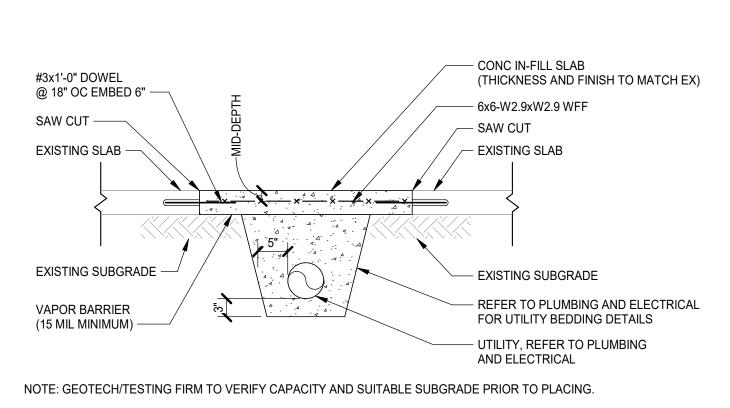
6. WELDING SHALL BE IN ACCORDANCE WITH AWS D1.1 "STRUCTURAL WELDING CODE - STEEL"

ACCORDANCE WITH ASTM A123, UNLESS NOTED OTHERWISE.

THROUGH STEEL DECK DURING WELDING SHALL NOT BE ALLOWED. REPLACEMENT OF DECK WILL BE REQUIRED.

3. CAREFULLY EVALUATE THE SITUATION WHICH EXISTS PRIOR TO COMMENCEMENT OF WORK, NOTIFY THE ARCHITECT





MECHANICAL OPENING -

EX BRICK ———

(1) L5x3 1/2x3/8

(LLV) LINTEL TO

BEAR 8" MIN. ON

BRICK AT EA END —

_ ==== + +==

PARTIAL FIRST FLOOR FRAMING PLAN

30'-0"

-3'-8" MAX OPENING

EX CMU WALL

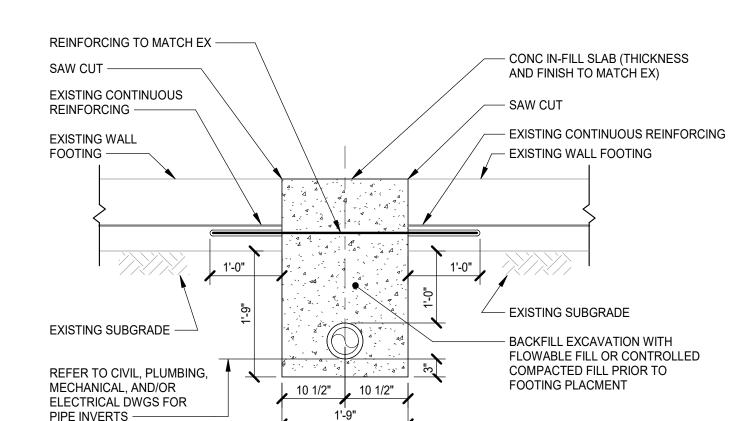
- (2) L3 1/2x3 1/2x3/8 LINTEL TO

EA END. CONTRACTOR MAY

BEAR 6" MIN. ON SOLID CMU AT

PROVIDE SOLID CMU BLOCK OR GROUT EX CMU FOR BEARING





PIPE TRENCH BACKFILL AT EXISTING FOOTING

PROJECT NO: 593101.2 DATE: MAY 15th, 2024 REVISIONS DATE DESCRIPTION

ABBREVIATIONS AND GENERAL NOTES

POINT OF CONNECTION TO EXISTING PIPE WITH SIZE AND SERVICE LIMIT OF DEMOLITION FLOW IN DIRECTION OF ARROW PITCH DOWN IN DIRECTION OF ARROW AT INDICATED SLOPE KEYNOTE PIPE CAP ————— PIPE TURNED DOWN STRUCTURAL GRID LINE WITH DESIGNATION — O PIPE TURNED UP ——O—— PIPE TEE UP SPACE IDENTIFICATION TAG SPACE NUMBER PIPE TEE DOWN BUILDING AREA (WHEN USED) ——— UNION CONCENTRIC PIPE REDUCTION **EQUIPMENT IDENTIFICATION TAG** END OF LINE CLEANOUT PLUG EQUIPMENT NUMBER ______ **CO** FLOOR CLEANOUT UNIT DESIGNATION WCO WALL CLEANOUT SECTION WHERE CUT CO (GCO) YARD CLEANOUT (CLEANOUT TO GRADE) A SECTION LETTER P6.1 DRAWING WHERE SECTION IS INDICATED FD-1 FLOOR DRAIN WITH TAG **ENLARGED PLAN WHERE CUT** FLOOR SINK WITH TAG 1 ENLARGED PLAN NUMBER P6.1 DRAWING WHERE ENALRGED PLAN IS INDICATED PRESSURE GAUGE WITH GAUGE COCK **DETAIL TAG** 1 DETAIL NUMBER P6.1 DRAWING WHERE DETAIL IS INDICATED LIQUID FILLED THERMOMETER SANITARY RISER TAG S1 SANITARY RISER IDENTIFIER P6.1 DRAWING WHERE SANITARY RISER IS TAGGED WATER HAMMER ARRESTOR (PLUMBING & DRAINAGE INSTITUTE SIZE INDICATED) **DOMESTIC RISER TAG** FLOW SWITCH D1 DOMESTIC RISER IDENTIFIER P6.1 DRAWING WHERE DOMESTIC RISER IS TAGGED TEMPERATURE/PRESSURE PLUG VALVE 1 DETAIL TITLE → VALVE IN RISER C DETAIL NUMBER DRAWING WHERE DETAIL IS INDICATED — DRAWING WHERE DETAIL IS CUT VENTURI FLOW METER ADDITIONAL DRAWING REFERENCES ———— MANUAL BALANCING VALVE SANITARY RISER DIAGRAM SWING CHECK VALVE SANITARY RISER DIAGRAM IDENTIFIER The Drawing where sanitary riser is indicated PRESSURE REDUCING VALVE ➤ DRAWING WHERE SANITARY RISER IS TAGGED ADDITIONAL DRAWING REFERENCES SOLENOID OPERATED VALVE D1 DOMESTIC RISER DIAGRAM TEMPERATURE AND PRESSURE RELIEF VALVE DOMESTIC RISER DIAGRAM IDENTIFIER
DRAWING WHERE DOMESTIC RISER IS INDICATED BACKWATER VALVE → DRAWING WHERE DOMESTIC RISER IS TAGGED HOSE BIBB OR WALL HYDRANT — ADDITIONAL DRAWING REFERENCES REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER DOUBLE CHECK BACKFLOW PREVENTER

GRAPHICS SYMBOLS LEGEND

V	AT	EWC	ELECTRIC WATER COOLER	OSD	OPEN SITE DRAIN
	AROVE	EWH	ELECTRIC WATER HEATER	PC DCF	PRECAST
	ABOVE	EX	EXISTING	PCF	POUNDS PER CUBIC FOOT
	AIR COMPRESSOR DESIGNATION	EXP	EXPANSION EL COR OLI FANOLIT	PD	PUMP DISCHARGE
ı	ADDITIONAL	FCO	FLOOR CLEANOUT	PLUMB	PLUMBING PLYMOOD
-	ADDITIONAL	FD	FLOOR DRAIN	PLYWD	PLYWOOD BOLVETLIN ENE
	ABOVE FINISHED FLOOR	FDC	FIRE DEPARTMENT CONNECTION	POLY	POLYETHYLENE
	ABOVE FINISHED GRADE	FF	FINISHED FLOOR	PPT	PRESSURE PRESERVATIVE TREATED
	AIR HANDLING UNIT	FFE	FINISHED FLOOR ELEVATION	PREFAB	PREFABRICATE(D)
	ALTERNATE	FG	FINISHED GRADE	PROJ	PROJECT
Л	ALUMINUM	FH	FIRE HYDRANT	PSF	POUNDS PER SQUARE FOOT
	ACCESS PANEL	FHC	FIRE HOSE CABINET	PSI	POUNDS PER SQUARE INCH
₹	APPROXIMATE	FHS	FIRE HOSE STATION	PV	PROPANE VENT
Н	ARCHITECTURAL	FHVC	FIRE HOSE VALVE CABINET	PVC	POLYVINYL CHLORIDE
)	AUTOMATIC	FIX	FIXTURE	PVMT	PAVEMENT
	AVERAGE	FLR	FLOOR	R	RISER
	BELOW FINISHED FLOOR	FLSHG	FLASHING	RAD	RADIUS
	BELOW FINISHED GRADE	FOR	FUEL OIL RETURN	RCP-X	RECIRCULATION PUMP DESIGNATION
;	BUILDING	FOS	FUEL OIL SUPPLY	RD	ROOF DRAIN (BOTTOM OUTLET)
	BOTTOM OF	FOV	FUEL OIL VENT	RDS	ROOF DRAIN (SIDE OUTLET)
	BOTTOM	FS	FLOOR SINK	REF	REFERENCE
					REPERENCE REQUIRED
	BASEMENT	FSD	FOUNDATION SUB-DRAIN	REQD	
I	BETWEEN	FT	FOOT OR FEET	REQMT	REQUIREMENTS
	COMPRESSED AIR	FVC	FIRE VALVE CABINET	RL	RAIN LEADER
	CAST IRON	G	GAS	RM	ROOM
	CAST-IN-PLACE CONCRETE	GCO	GRADE CLEANOUT	RO	ROUGH OPENING
	CENTERLINE	GWH	GAS WATER HEATER	RV	RADON VENT
	CEILING	HB	HOSE BIBB	S	SOUTH
	CLEAR	HORIZ	HORIZONTAL	SAN	SANITARY
	CORRUGATED METAL PIPE	HP	HORSEPOWER	SCH	SCHEDULE
₹	COUNTER	HR-X	HOSE REEL DESIGNATION	SD	STORM DRAINAGE PIPING
	CLEANOUT	HTG	HEATING	SDN	STORM DRAIN NOZZLE
	COLUMN	HW	HOT WATER	SF	SQUARE FOOT/FEET
С	CONCRETE	HWR	HOT WATER HOT WATER RETURN	SHT	SHEET
DS ETB	CONDENSATE CONSTRUCT/(ON)	HWS	HOT WATER SUPPLY	SIM	SIMILAR SEALANT
STR -	CONSTRUCT(ION)	ID	INSIDE DIAMETER	SLT	SEALANT
T 	CONTINUATION	IN	INCH	SOG	SLAB ON GRADE
TR	CONTRACT(-OR)	INSUL	INSULATE OR INSULATION	SP	SUMP PUMP
₹	CORRIDOR	INV	INVERT	SPEC	SPECIFICATION
	CIRCULATING PUMP	JAN	JANITOR	SPR	SPRINKLER
	CLASSROOM	KIT	KITCHEN	SQ	SQUARE
	COOLING TOWER	KW	KITCHEN WASTE	SRD	SECONDARY ROOF DRAIN
	COPPER	LAB	LABORATORY	SS	STAINLESS STEEL
Т	CUBIC FEET	LAV	LAVATORY	SSD	SECONDARY STORM DRAINAGE PIPING
' D	CUBIC YARD	LBS	POUNDS	STD	STANDARD
_	COLD WATER	LF	LINEAR FOOT (FEET)	STL	STEEL
		LF LP	,		
	DRY BULB		PROPANE VENT	STOR	STORAGE
_	DOMESTIC COLD WATER	LPV	PROPANE VENT	STRUCT	STRUCTURAL
)	DEMOLISH OR DEMOLITION	MATL	MATERIAL	SUSP	SUSPENDED
	DRINKING FOUNTAIN	MAX	MAXIMUM	TD	TRENCH DRAIN
	DOMESTIC HOT WATER RETURN	MECH	MECHANICAL	THK	THICK(-NESS)
140)	DOMESTIC HOT WATER RETURN (140°)	MED	MEDIUM	TLT	TOILET
	DOMESTIC HOT WATER	MFR	MANUFACTURER	TMV	THERMOSTATIC MIXING VALVE
(140)	DOMESTIC HOT WATER (140°)	MH	MANHOLE	TOSL	TOP OF SLAB
-	DROP INLET	MIN	MINIMUM	TW	DOMESTIC TEMPERED WATER (90° F)
	DIAMETER	MISC	MISCELLANEOUS	TYP	TYPICAL
	DUCTILE IRON PIPE	MTD	MOUNTED	UG	UNDERGROUND
	DOWN	N	NORTH	UNO	UNLESS NOTED (INDICATED) OTHERWISE
	COMPRESSED AIR DRYER DESIGNATION	N/A	NOT APPLICABLE/AVAILABLE	V	VENT
			NOT APPLICABLE/AVAILABLE NORMALLY CLOSED		
	DOWNSPOUT	NC NC		VAC	VACUUM
	DRAIN TILE	NG NOV	NATURAL GAS	VB	VACUUM BREAKER
	DETAIL	NGV	NATURAL GAS VENT	VERT	VERTICAL
	DOMESTIC TEMPERED WATER	NIC	NOT IN CONTRACT	VIF	VERIFY IN FIELD
	DRAWING	NO	NORMALLY OPEN	VTR	VENT THROUGH ROOF
	DOMESTIC WATER BOOSTER PUMP	NO., (#)	NUMBER	W	WEST
	EAST	NOM	NOMINAL	W/	WITH
	EMERGENCY SECONDARY ROOF DRAIN	OC	ON CENTER	W/O	WITHOUT
;	ELECTRICAL	OD	OUTSIDE DIAMETER	WB	WATER HAMMER ARRESTER
,	ELEVATION	OFCI	OWNER FURNISHED CONTRACTOR INSTALLED	WC	WATER CLOSET
)	ELECTRICAL PANELBOARD	OFF	OFFICE	WCO	WALL CLEANOUT
-	EQUAL	OH	OVERHEAD	WSHP	WATER SOURCE HEAT PUMP
D					WELDED WIRE FABRIC
Р	EQUIPMENT	OPNG	OPENING	VVVF	
	EXISTING TO REMAIN	OPP	OPPOSITE	WWM XFMR	WELDED WIRE MESH
				メドバロ	TRANSFORMER

ABBREVIATIONS

LIFE SAFETY SYMBOL LEGEND **DESIGNATOR MATRIX** PARTITION 1 HR FIRE EX 2 HR FIRE 1. WALL DESIGNATIONS ON THE LS SERIES OF DRAWINGS ARE FOR GRAPHICAL PURPOSES ONLY AND MAY NOT REPRESENT THE ACTUAL WALL/PARTITION CONSTRUCTION. 2. REFER TO THE CONTRACT DOCUMENTS, INCLUDING THE LIFE SAFETY SYMBOLS LEGEND AND A0, A1 AND, A2 SERIES OF DRAWINGS, FOR ACTUAL WALL/PARTITION TYPES AND CONSTRUCTION REQUIREMENTS 3. INDICATED RATINGS AT EXISTING WALLS ARE EXISTING TO REMAIN, AND ARE BASED ON INFORMATION PROVIDED BY THE OWNER.

EXISTING 1F BUILDING	S DATA	1F RENOVATION DATA
PLUMBING GENERAL	DATA	PLUMBING GENERAL DA
Item	Value	ltem V
SERVICE SIZING		SERVICE SIZING
INSTANTANEOUS DEMAND (GPM)	80	INSTANTANEOUS DEMAND (GPM)
SUPPLY FIXTURE UNITS (SFU)	147	SUPPLY FIXTURE UNITS (SFU)
DRAINAGE FIXTURE UNITS (DFU)	65	DRAINAGE FIXTURE UNITS (DFU)
STORM DRAINAGE AREA OF ROOF (SQUARE FEET) AREA OF WALL ABOVE/ADJACENT TO ROOF (SQUARE FEET)	N.I.S. N.I.S.	STORM DRAINAGE AREA OF ROOF (SQUARE FEET) AREA OF WALL ABOVE/ADJACENT TO ROOF (SQUARE FEET)
AREA OF ROOF (SQUARE FEET)		AREA OF ROOF (SQUARE FEET) AREA OF WALL ABOVE/ADJACENT TO ROOF

- A. THE CONTRACT DOCUMENTS ARE COMPLEMENTARY AND WHAT IS REQUIRED BY ONE SHALL BE AS BINDING AS IF REQUIRED BY ALL. IN THE CASE OF A CONFLICT, DISAGREEMENT, OR AMBIGUITY, PROVIDE THE BETTER QUALITY. IN THE CASE OF A
- CONFLICT, DISAGREEMENT, OR AMBIGUITY, PROVIDE THE GREATER QUANTITY OF WORK. B. COORDINATE PIPING LOCATIONS AND INSTALLATION WITH EACH TRADE TO AVOID
- CONFLICTS WITH OTHER TRADES.
- C. PROVIDE FLOOR CLEANOUTS INDICATED FLUSH WITH FLOOR FINISHES. D. PROVIDE CLEANOUTS WHERE INDICATED AND ADDITIONAL CLEANOUTS AS REQUIRED BY
- E. REFER TO DRAWINGS FROM EACH DISCIPLINE BEFORE ROUGHING-IN PLUMBING
- F. OBTAIN DIMENSIONS AND ROUTING IN FIELD BEFORE INSTALLATION OF PLUMBING AND
- G. INSTALL ALL DRAINAGE PATTERN FITTINGS AND PIPING IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL CODES. H. REFER TO STRUCTURAL DRAWINGS FOR DETAILS AND MAXIMUM SPACING
- REQUIREMENTS REGARDING HANGER ATTACHMENTS TO STEEL BAR JOISTS. PROVIDE ISOLATION VALVES IN ACCORDANCE WITH DIAGRAMS, DETAILS, AND DIVISION 22 SPECIFICATIONS.

PLUMBING DEMO FOUNDATION KEYNOTES

APPLIES TO DRAWING P1.2
REPRESENTED BY

2. REMOVE EXIISTING CATCH BASIN AND DRAINAGE UP TO WHERE SHOWN. PRIOR TO REPAIRING SLAB, POUR CONCRETE IN THE ABANDONED DRAIN. REFER TO ABANDONED DRAIN DETAIL.

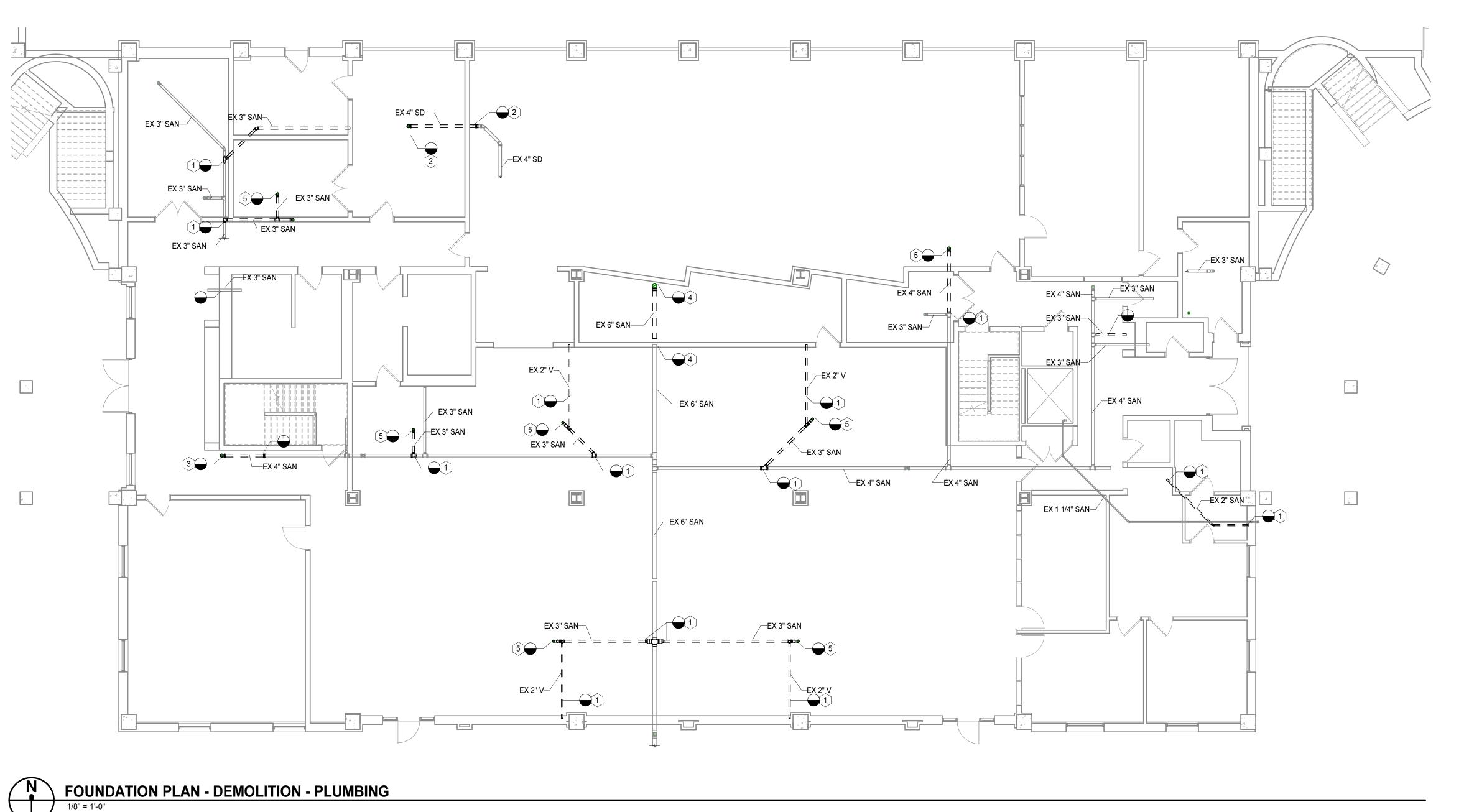
3. REMOVE DRAIN & FLOOR CLEAN OUT IN CONFLICT WITH ARCHITECTURAL LAYOUT. REMOVE AND PREPARE FOR RELOCATION OF DRAINAGE CONNECTION & FLOOR

4. REMOVE 6" DRAINAGE LATERAL FROM SPACE ABOVE. REFER TO PLUMBING PLAN FOR RISER TAG & RE-ROUTED DRAIN LOCATION.

5. REMOVE FLOOR DRAIN/FLOOR CLEAN-OUT IN CONFLICT WITH ARCHITECTURAL

1. REMOVE DRAINAGE LATERAL/VENT PIPING NO LONGER IN USE.

DEMOLITION



PLUMBING FOUNDATION KEYNOTES

APPLIES TO DRAWING P1.3

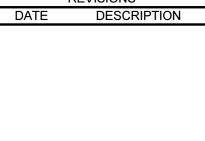
REPRESENTED BY n

1. RE-CONNECT DRAINAGE LATERAL TO EXISTING DRAINAGE LATERAL.

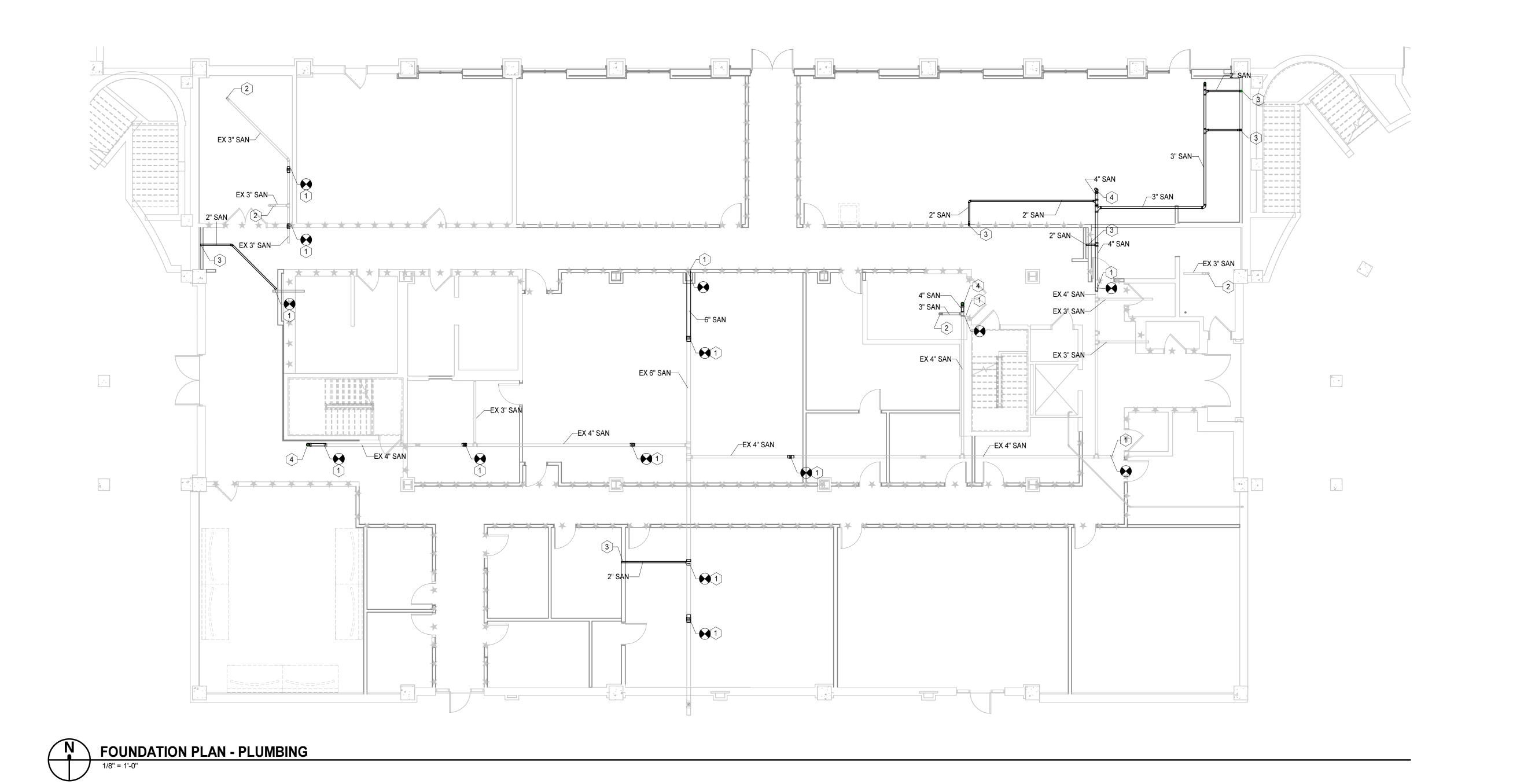
4. FLOOR CLEAN OUT, REFER TO DRAIN SCHEDULE ON SHEET P6.1.

2. UP TO EXISTING FLOOR DRAIN.

3. 2" SAN UP.



FOUNDATION PLAN



PLUMBING DEMO KEYNOTES

APPLIES TO DRAWING P2.1
REPRESENTED BY

1. REMOVE COMPRESSED AIR PIPING, PIPE SUPPORTS, AIR-DROPS & HOSE REELS. RETURN TO FACILITY.

3. REMOVE EXISTING AIR COMPRESSOR & RETURN TO FACILITIES.

6. REMOVE WATER PIPING AS INDICATED. CAP FOR NEXT PHASE.

8. REMOVE EXISTING DOMESTIC WATER BACKFLOW PREVENTER.

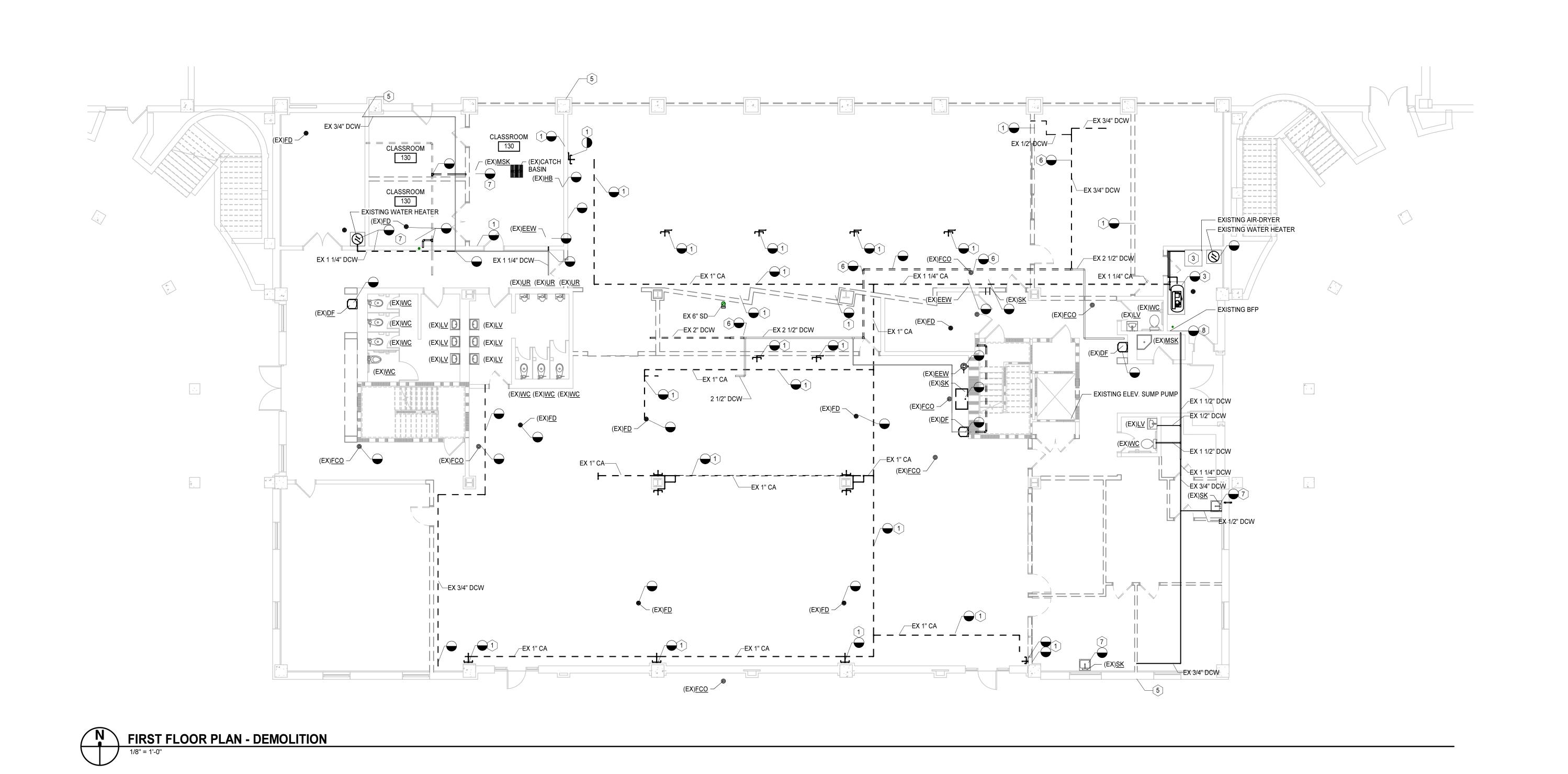
2. REMOVE EXISTING WATER HEATER.

5. EXISTING HOSEBIBB TO REMAIN.

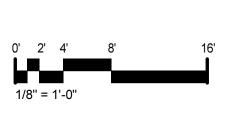
7. REMOVE EXISTING SINK.

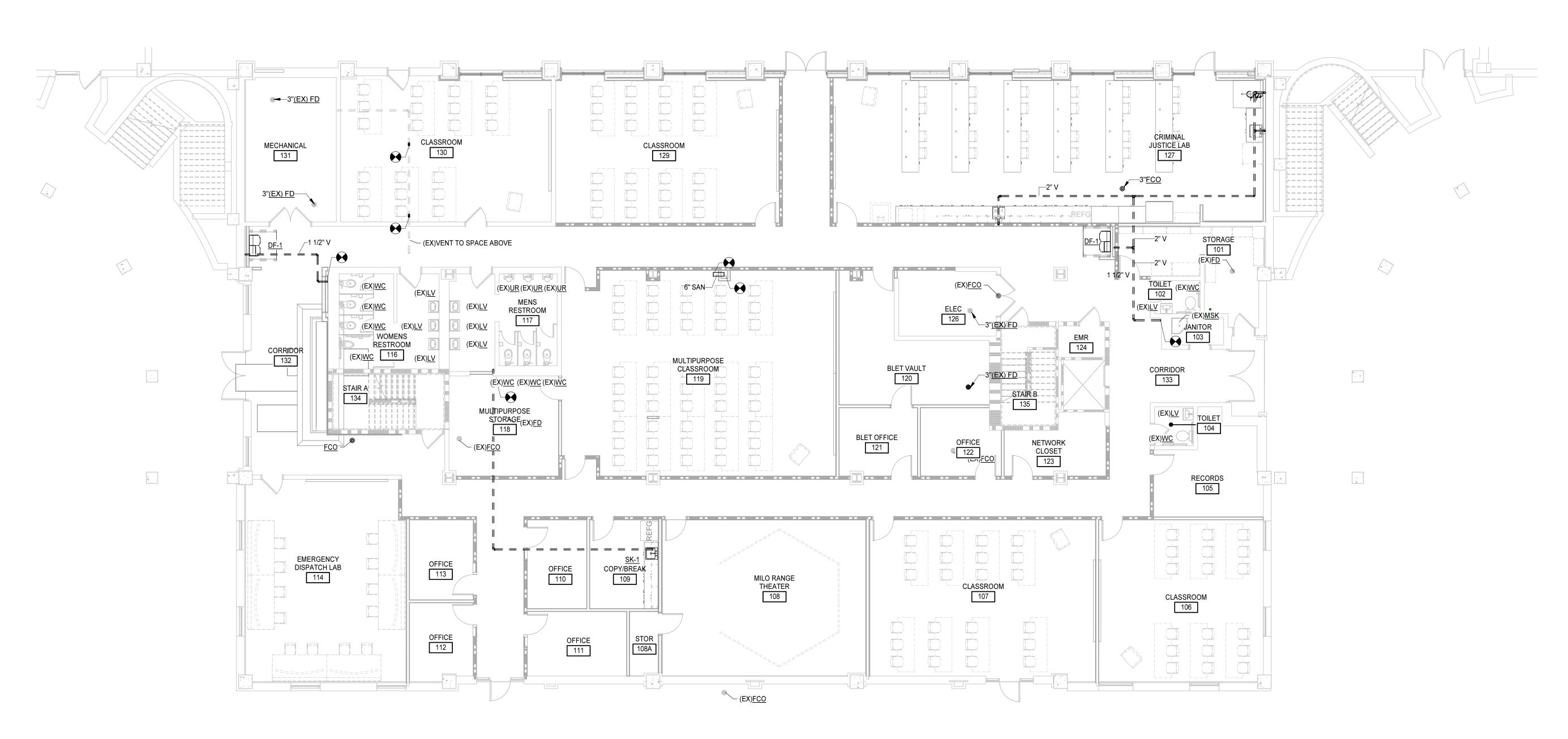
4. REMOVE AIR DRYER & RETURN TO FACILITIES.

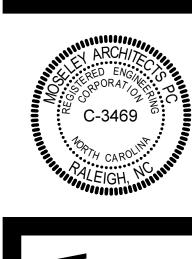
PLUMBING FLOOR PLANS - DEMOLITION



PLUMBING FLOOR **PLANS - SANITARY**





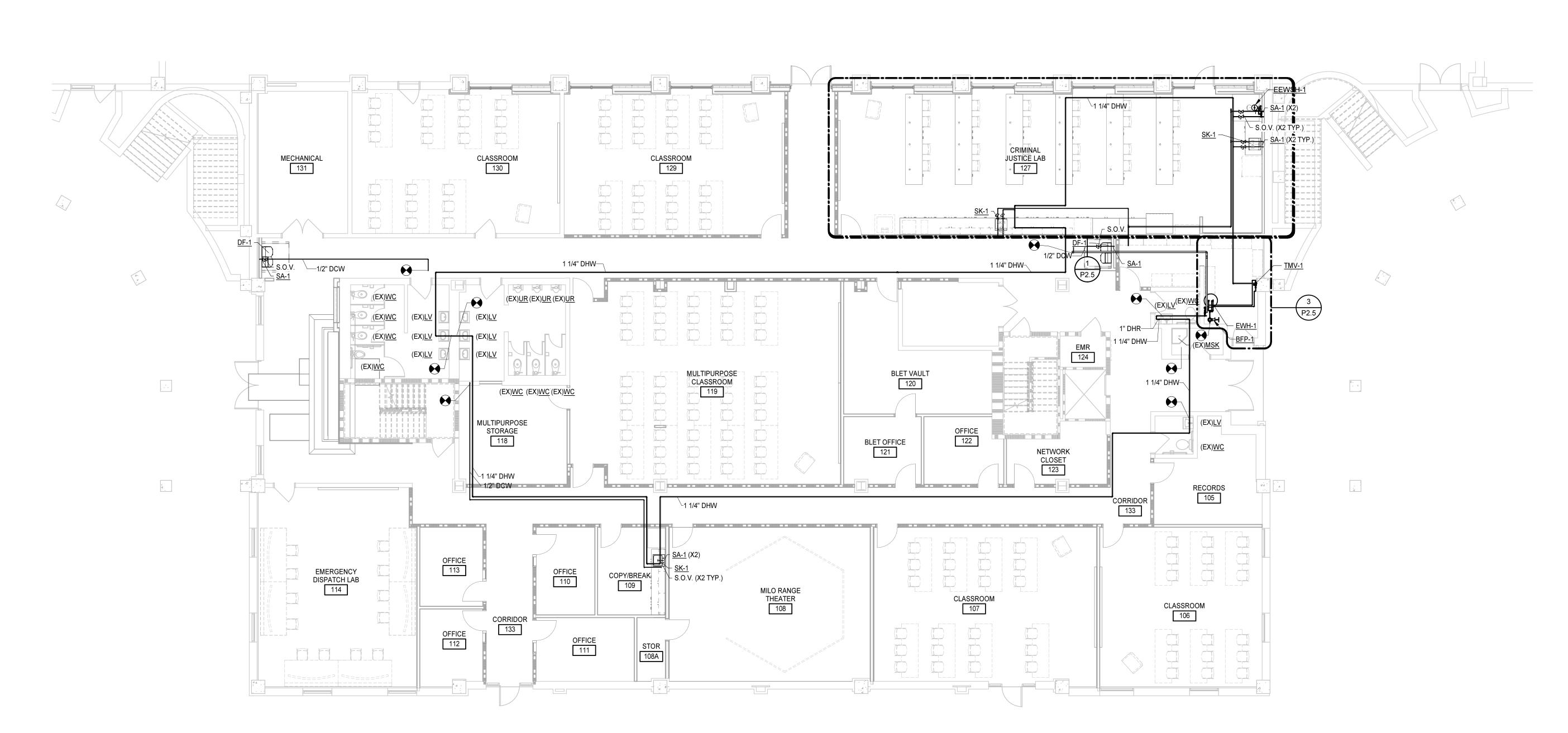






PROJECT NO: 593101.2 DATE: MAY 15th, 2024 REVISIONS
DATE DESCRIPTION

PLUMBING FLOOR **PLANS - DOMESTIC**



FIRST FLOOR PLAN - DOMESTIC

PROJECT NO: 593101.2
DATE: MAY 15th, 2024
REVISIONS
DATE DESCRIPTION

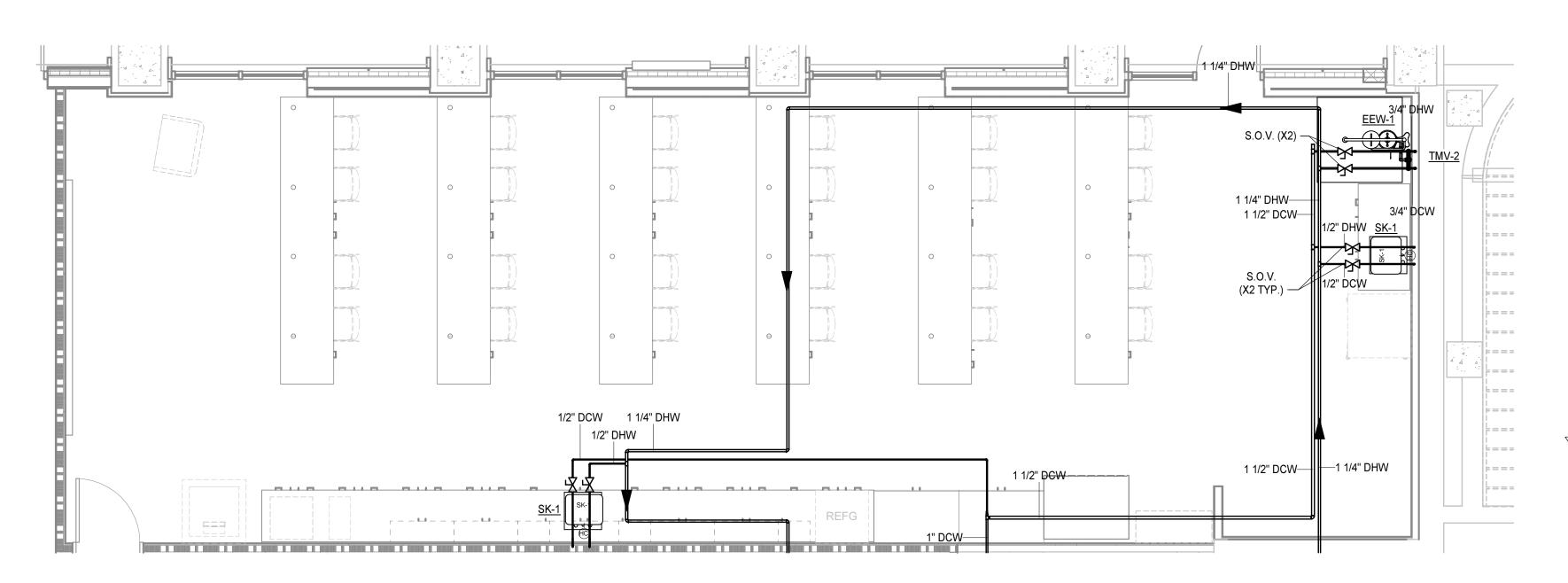
PLUMBING ENLARGED **FLOOR PLANS & RISER DIAGRAMS**

REFER TO SANITARY FLOOR PLAN FOR VENT-HEADER CONTINUATION REFER TO FOUNDATION PLAN FOR _ CSI LAB DRAIN CONTINUATION

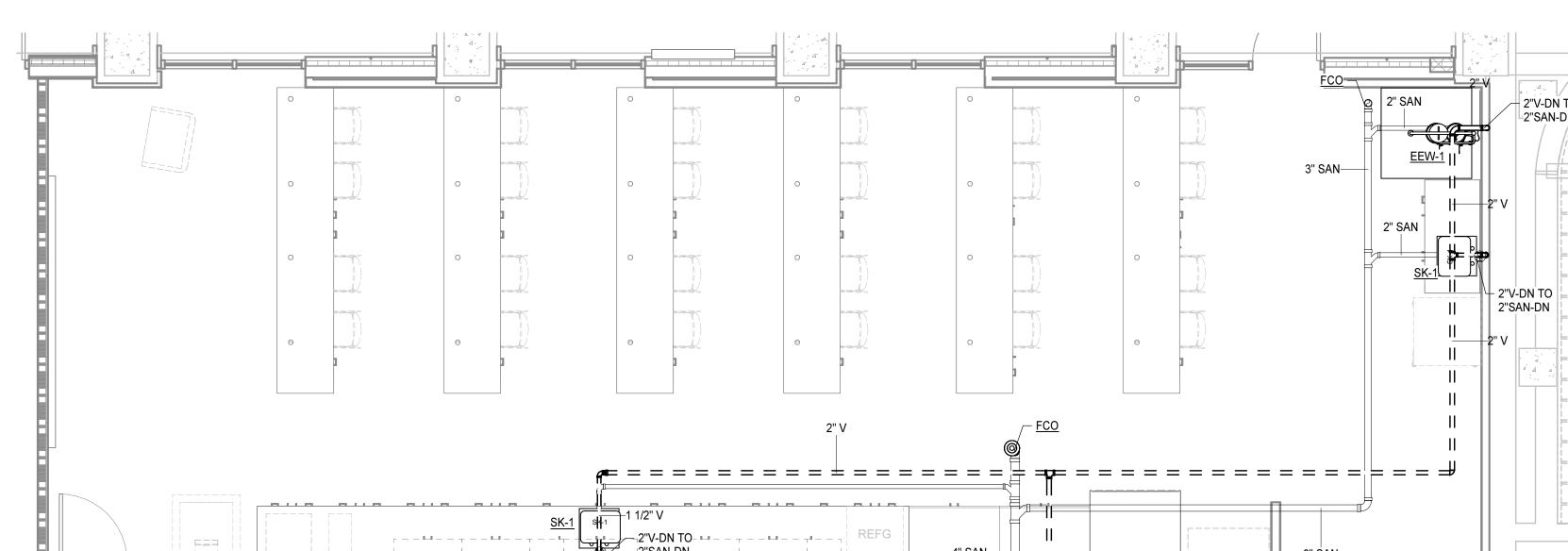
1ST FLOOR, RECIRCULATED DOMESTIC HOT WATER SUPPLY LOOP

5 CSI CLASSROOM DOMESTIC WATER RISER DIAGRAM
NO SCALE

CSI CLASSROOM SANITARY RISER DIAGRAM
NO SCALE



ENLARGED CSI CLASSROOM - DOMESTIC

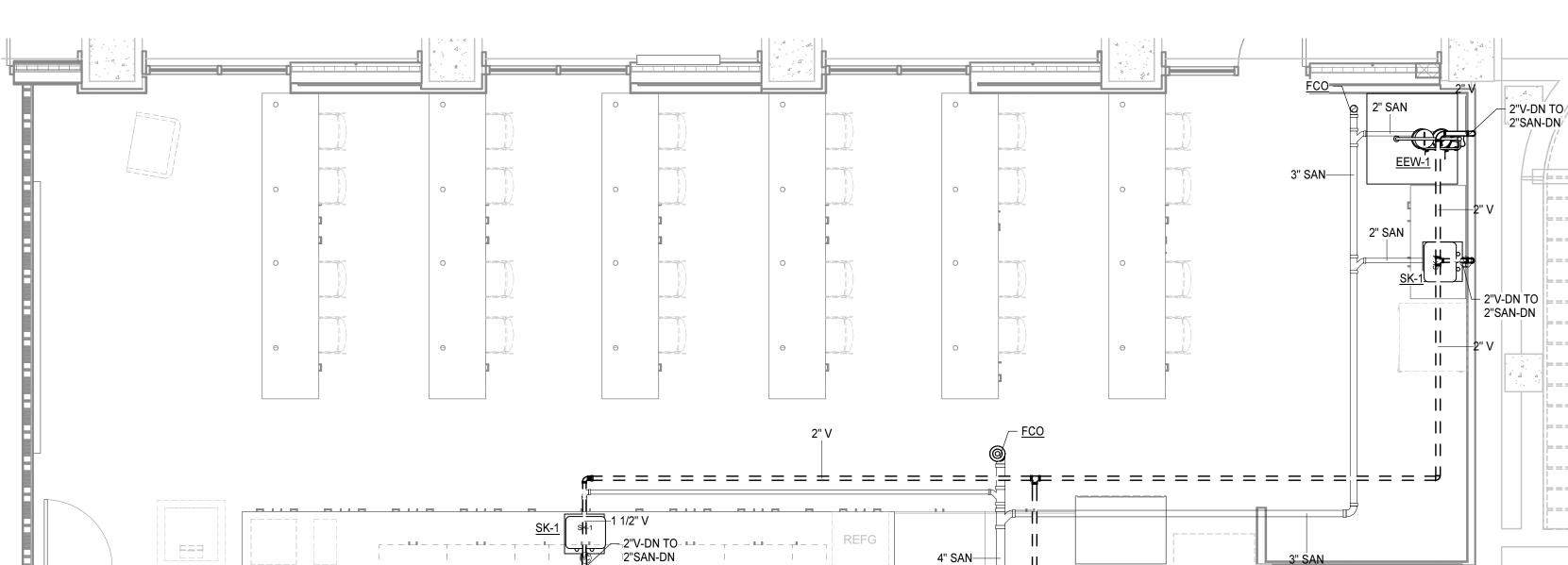


WATER HEATING RISER DIAGRAM
NO SCALE

REPLACE BACKFLOW PREVENTER, ADD MAIN SHUT-OFF-VALVE, RECONNECT TO 2ND FLOOR, VERTICAL SUPPLY DISTRIBUTION RISER PIPING.

REPLACE BACKFLOW PREVENTER, ADD
MAIN SHUT-OFF-VALVE, RECONNECT TO
2ND FLOOR, VERTICAL SUPPLY
DISTRIBUTION RISER PIPING.

EX 2 1/2" DCW-



ENLARGED CSI CLASSROOM - SANITARY

–1 1/4" DHW

FIRST FLOOR PLAN - PLUMBING - STORAGE 101

STORAGE 101

PROJECT NO: 593101.2 MAY 15th, 2024 REVISIONS DATE DESCRIPTION

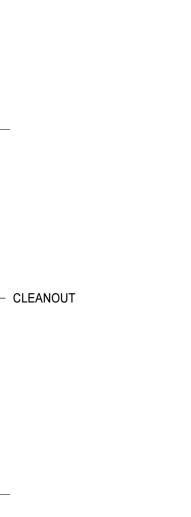
PLUMBING DETAILS

REMOVE EXISTING ─ FILL REMAINDER OF DRAIN BODY WITH STRAINER AND GRATE -HYDRAULIC CEMENT AND FINISH TO RECEIVE FLOOR TOPPING AND FINISHES FLOOR TOPPING **EXISTING CONCRETE** FLOOR SLAB ON GRADE FILL P-TRAP AND FLOOR DRAIN BODY WITH COMPACTED SAND UP TO BOTTOM OF STRAINER BODY ----

HERMAL EXPANSION TANK PIPE SUPPORTED OR FLOOR MOUNTED. REFER TO MFGRS. RECOMMENDATIONS VACUUM RELIEF VALVE AND REQUIREMENTS (ET-1) TEMPERATURE GUAGE ISOLATION VALVE (TYP) - CHECK VALVE (TYP) THERMOSTATIC MIXING VALVE TMV-1 RECIRCULATION PUMP CP-1 - CHECK VALVE DHW 140°F -- PRESSURE AND TEMPERATURE RELIEF VALVE (SETTING BY MANUFACTURÈR OR HEATER) — FULL SIZE OF VALVE OUTLET ELECTRIC WATER HEATER DRAIN VALVE ROUTE VALVE OUTLET TO DRAIN PAN/MOP SINK - 2" HIGH DRAIN PAN

3 FLOOR MOUNTED ELECTRIC BOTTOM FEED WATER HEATER DETAIL
NO SCALE

— 4" HOUSEKEEPING PAD



WALL CLEANOUT DETAIL

NOTE:
PROVIDE INCREASERS AND DECREASERS AS REQUIRED. PIPING ARRANGEMENTS

SHALL MATCH MANUFACTURER'S RECOMMENDED PIPING METHOD

DHW(110F) SUPPLY TO

WATER HEATER(S) ──►

FINISHED WALL MAY VARY IN MATERIAL.

REFER TO ARCHITECTURAL DRAWINGS

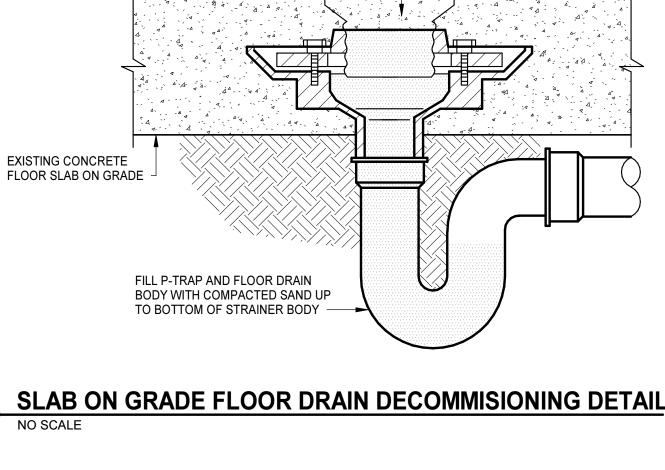
ACCESS COVER SECURING SCREW -

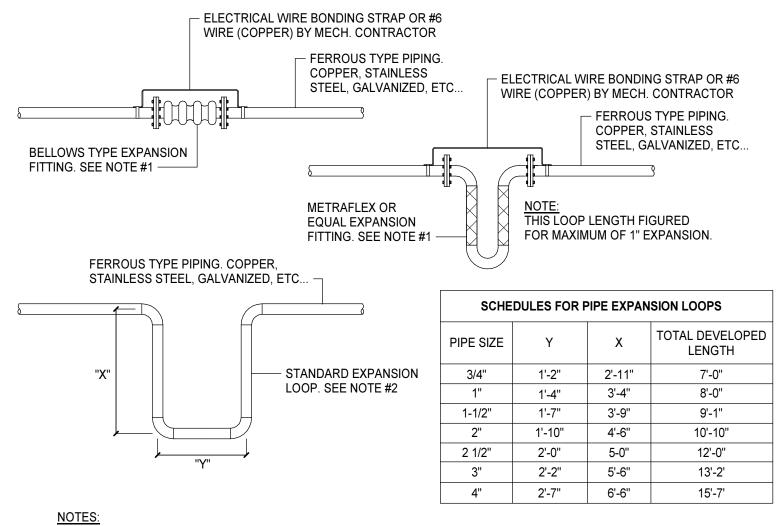
1'-4" AFF

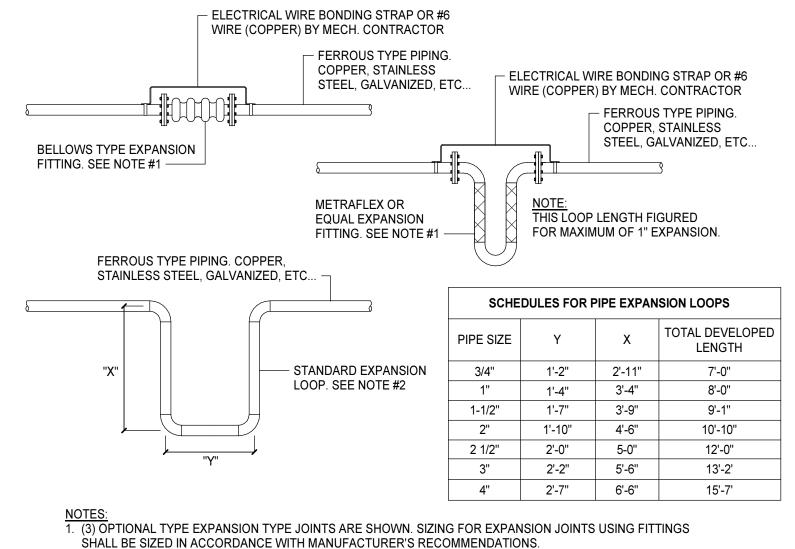
FOR WALL AND PARTITION TYPE

DESIGNATIONS -

FINISHED FLOOR





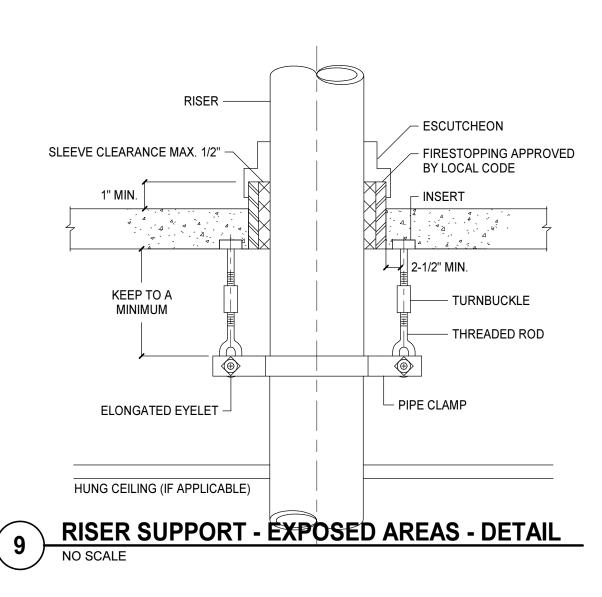


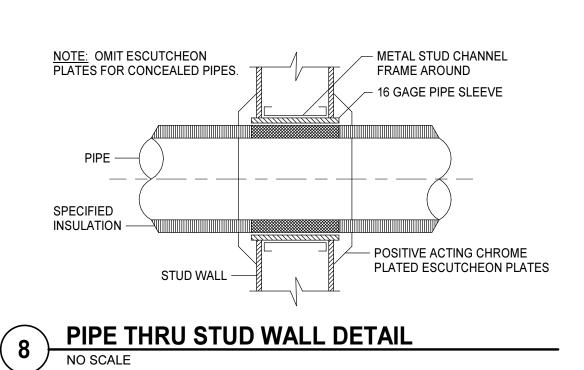
2. EXPANSION LOOP TYPE JOINTS SHALL BE SIZED IN ACCORDANCE WITH STANDARD ENGINEERING PRACTICES.

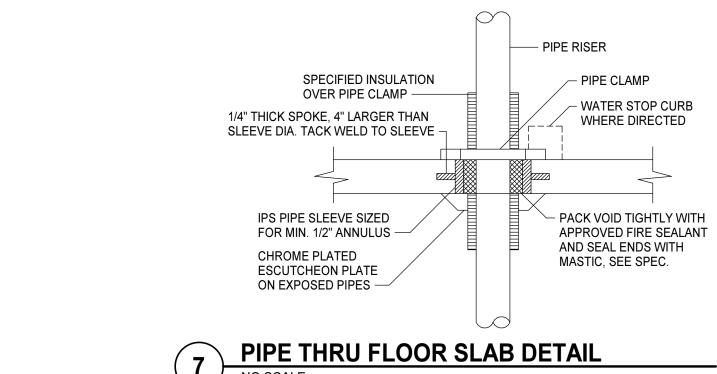
3. PIPE ANCHORS AND GUIDES FOR ALL EXPANSION JOINTS AND LOOPS SHALL BE AS REQUIRED BY

MANUFACTURER'S RECOMMENDATIONS AND STANDARD ENGINEERING PRACTICES.

PIPE EXPANSION JOINT TYPE DETAIL







NOTES:

1. FLOW SWITCH ALARM SYSTEM EQUIPMENT BY THE EMERGENCY

MIXING VALVE (TMV-2) —

PULL HANDLE

47"AFF (ADA) -

67-7/8"AFF —

EMERGENCY THERMOSTATIC

86-1/2"AFF

SHALL IDENTIFY WHICH UNIT IS IN ALARM.

LOCKABLE TYPE BALL VALVES

FINISHED FLOOR

FROM HOT

WATER HEATER ' TO HOT WATER

CIRCULATING PUMP (

RECIRCULATION PUMP (RCP) -

TO THERMOSTATIC MASTER MIXING VALVE - WHERE REQUIRED

BALANCING VALVE

CIRCULATION PUMP DETAIL

TO WATER HEATER , COLD WATER SUPPLY CIRCUIT SETTER -

LOCKED IN THE OPEN POSITION TYPICAL ALL ISOLATION VALVES

FOR SERVING EMERGENCY FIXTURES

SHOWER/EYEWASH MANUFACTURER. ALARM SIGNAL TO BUILDING AUTOMATION SYSTEM (BAS). WHEN MULTIPLE EMERGENCY FIXTURES ARE INSTALLED, ALARM

WATER SUPPLY PIPE - ALTERNATE WALL-MOUNTED INSTALLATION SHOWN FOR

- STROBE LIGHT

- AUDIBLE ALARM

- FLOW SWITCH

1-1/2" WATER SUPPLY INLET

OPTIONAL WATER

- BOWL DUST COVER

WITH PUSH PLATE

VISUAL AIR GAP

1/2"TW(85F)

EYEWASH BOWL AND HEAD ASSEMBLY

- STAY-OPEN BALL VALVE

SUPPLY INLET

- 2" VENT

- 120V POWER SUPPLY

TEMPERATURE GAUGE - TYP.

1-1/2"TW(85F) -

STAY-OPEN

BALL VALVE

WASTE OUTLET -

2" WASTE OUTLET —► 🛄

→ TO FIXTURES

- ISOLATION VALVE - TYPICAL

- CHECK VALVE - TYPICAL

CONTROL WIRING

─ PROBE AND SEPARATE WELL

AQUASTAT - IMMERSION

TEMPERATURE PUMP CONTROLLER

THERMOMETER - TYPICAL

→ BUILDING RECIRCULATION

CAPILARY TUBING

HOT WATER RECIRCULATION BRANCH CONNECTION DETAIL

EMERGENCY FIXTURE

1 EMERGENCY COMBINATION EYEWASH/SHOWER DETAIL
NO SCALE

BASE ANCHORED TO FLOOR

2. ACTUAL MOUNTING OF ALARM SYSTEM ASSEMBLY SHALL BE TO 1-1/2" TEPID

2-1/2"DHW -• 3/4"DHR — COMBINATION T/P GAUGE - 1 2-1/2"DCW WALL MOUNTED STAINLESS STEEL EXPOSED CABINET - OPTIONAL 5'-0" AFF — PIPING ASSEMBLY THERMOMETER - TYPICAL ISOLATION VALVE - TYPICAL CHECK VALVE - TYPICAL FRONT VIEW THERMOSTATIC MIXING VALVE DETAIL

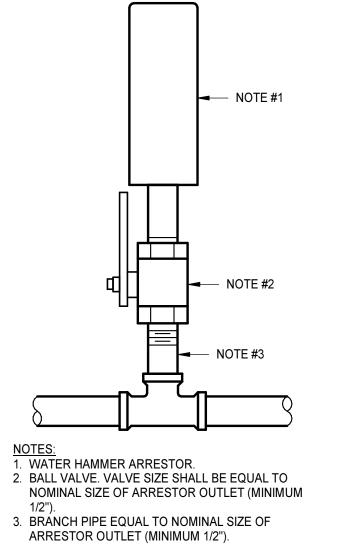
NO SCALE

DHR RETURN

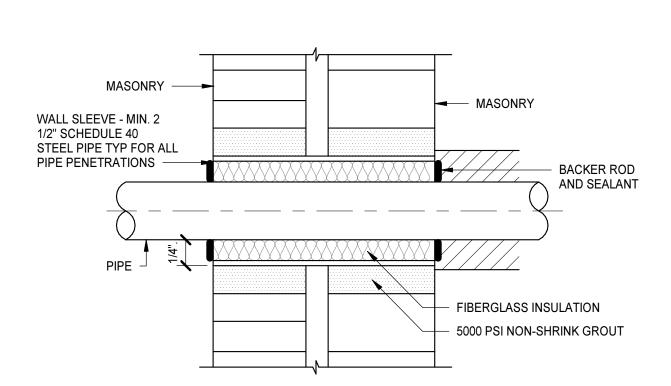
FROM FIXTURES

REVISIONS
DATE DESCRIPTION

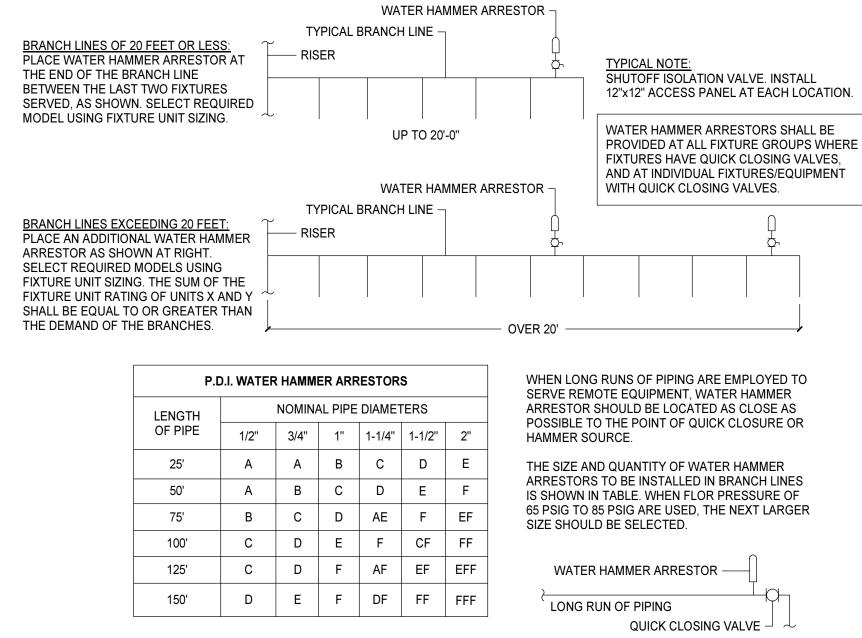
PLUMBING DETAILS



WATER HAMMER ARRESTOR DETAIL

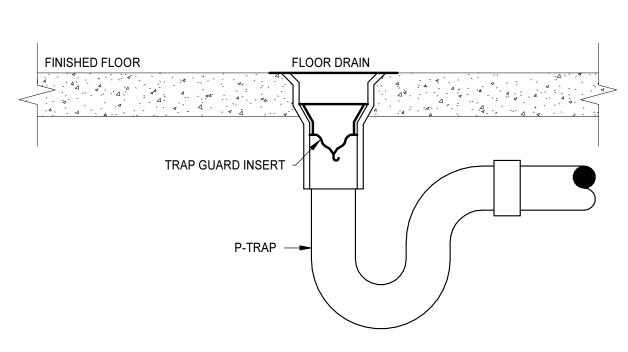






CONN. SIZE	PDI SIZE	FIXTURE UNIT CAPACITY	CUBIC INCH VOLUME	SH	OCK ABSORBER SEL	ECTION
1/2"	Α	1 TO 11	5	CODE	PDI SIZE	FIXTURE
3/4"	В	12 TO 32	7	SA-1	A	1-1
			·	SA-2	В	12-3
1"	С	33 TO 60	11	SA-3	С	33-6
1"	D	61 TO 113	20	SA-4	D	61-1
1"	Е	114 TO 154	29	SA-5	E	114-
1"	F	155 TO 330	34	SA-6	F	155-3
TE: MATC	H TOTAL		OF BRANCH LINE	SHOO	K ABSORBER SELECT	FION TABLE

WATER HAMMER ARRESTOR INSTALLATION & SIZING DETAIL
NO SCALE



FIXTURE UNITS

12-32

33-60

61-113 114-154 155-330

TRAP GUARD INSERT DETAIL

TRAP PRIMER ASSEMBLY DETAILS

NO SCALE

CLEVIS HANGER

PIPE INSULATION -

CARRIER PIPE

- TYPE 40 PROTECTION SHIELD - COVERS LOWER

- CLEVIS HANGER

- PIPE INSULATION

HALF (180°)

CLEVIS HANGER

PIPE SUPPORT AND THERMAL SHIELD DETAILS
NO SCALE

UPPER HALF OF PIPE

HALF (180°) OF PIPE

HIGH DENSITY INSULATION

INSERT - COVERS LOWER

INSULATION.

PIPE INSULATION -

CARRIER PIPE —

1. FOR COLD PIPE MAINTAIN INTEGRITY OF VAPOR BARRIER AT SEAM BETWEEN INSERT AND PIPE

UPPER HALF OF PIPE -

HIGH DENSITY INSULATION

— TYPE 40 PROTECTION

HALF (180°)

PIPE INSULATION

— INSERT

CHANNEL SUPPORT SYSTEM

UNISTRUT OR EQUAL

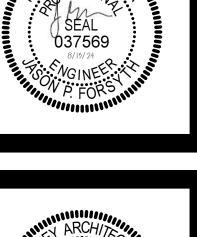
UNISTRUT OR EQUAL
 CHANNEL SUPPORT SYSTEM

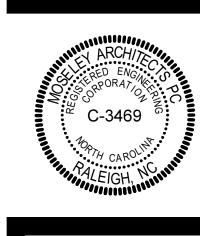
TRAPEZE SYSTEM

SHIELD - COVERS LOWER

INSERT - COVERS LOWER

HALF (180°) OF PIPE —





ADVANCED MANUFACTURING CENTER RENOVATION - AZALEA

WAYNE COMMUNITY COLLEGE SCO# 16-15906-01C 3000 Wayne Memorial Dr, Goldsboro, NC 27534

PLUMBING SCHEDULES

			INSULATION SC	HEDULE								PLUMBING FIX	TURE SCHEDULE		
SERVICE	LOCATION	TEMPERATURE	INSULATION	JACKETING	WEATHERPROOFING	MINIMUM INSULA PIPES SIZE (IN)	THICKNESS (IN)	NOTES		TAG	FIXTURE	HEIGHT A.F.F.	BASIS OF DESIGN	COLD WATER	Н
DOMESTIC COLD WATER	INDOORS	40°F - 60°F	ELASTOMERIC	ASJ	NONE	0.50-4.00	1.00			DF-1	BI-LEVEL WATER COOLER (ACCESSIBLE)	TOP OF BUBBLER AT 39", LOWER AT 34"		1/2"	+
DOMESTIC HOT WATER AND HOT WATER RETURN	INDOORS	100°F - 200°F	MOLDED FIBERGLASS	ASJ	NONE	0.50-1.00 1.25-1.50	1.00 1.50			EEWSH-1	COMBINATION DRENCH SHOWER / EYEWASH UNIT	FLOOR MOUNTED	FIXTURE: BRADLEY S19-310UU	1-1/2"	
						2.00-4.00	2.00			SK-1	SINK - SINGLE BASIN	COUNTER MOUNTED REFER TO ARCH DWGS		1/2"	
		60°F - 90°F				0.50-1.00	1.00								
TEPID WATER AND TEPID WATER RETURN	INDOORS		MOLDED FIBERGLASS	ASJ	NONE	1.25-1.50	1.50		4	TIUC ACCEC	CIDLE FIXTURE ACCECCORIEC AND INCTALLATION	LCHALL CONFORM TO THE HORO			
						2.00-4.00	2.00				SIBLE FIXTURE, ACCESSORIES, AND INSTALLATION DA STANDARDS FOR ACCESSIBLE DESIGN.	N SHALL CONFORM TO THE USBC			
STORM DRAINAGE	INDOORS	40°F - 60°F	MOLDED FIBERGLASS	ASJ	NONENONE	2.00-12.00	1.00	1			SSE-1070 CERTIFIED MIXING VALVE IN STAINLESS S	TEEL WALL CABINET ABOVE			
EXTERIOR DOMESTIC COLD WATER	OUTDOORS	40°F - 60°F	MOLDED FIBERGLASS	ASJ	ALUMINUM JACKET	0.50-4.00	2.00	2			BELOW FIXTURE ACCESSIBLE BUT CONCEALED F				
HEAT EXCHANGER	INDOORS	250°F	CALCIUM SILICATE	ALUMINUM JACKET	NONE	N/A	N/A	3							

1. PROVIDE INSULATION FOR INDOOR HORIZONTAL STORM DRAINAGE PIPING INCLUDING DRAIN BODY AND OVERFLOW SECONDARY STORM PIPING. 2. PROVIDE OUTDOOR PIPING, EXPOSED TO FREEZE CONDITIONS, TO RECEIVE HEAT TRACING, INSULATION, AND ALUMINUM JACKETING. 3. REFER TO SPECIFICATIONS FOR FIELD APPLIED INSULATION.

I	DRAIN AND	CLEANOU [*]	T SCHEDULE	=
TAG	BASIS OF	DESIGN	STRAINER/GRATE	NOTES
IAG	MANUFACTURER	MODEL	STRAINENGRATE	NOTES
FCO	JOSAM	55000-1	FLOOR CLEANOUT	

	PUMP SCHEDULE															
	BASIS OF I	BASIS OF DESIGN						OPERATING DATA	4		ELECTRICAL DATA			CONNECTION SIZE		
TAG	MANUFACTURER	MODEL	LOCATION	SYSTEM TYPE	PUMP TYPE	FLOW (GPM)	PRESSURE (FT)	EFFICIENCY	POWER (HP)	SPEED (RPM)	VOLTS	PHASE	HERTZ	INLET (IN)	OUTLET (IN)	NOTES
RP-1	TACO	L1614 - 1	STORAGE 101	DOM WATER	CIRCULATION	0	0		.125	3250	120	1	60	1"	1"	

- 1. PROVIDE ECM-CONTROLLED RECIRCULATION PUMP WITH INTEGRAL TEMPERATURE AND PRESSURE SENSORS AND LOGIC. UNIT SHALL BE FULLY ADJUSTABLE FOR VARYING FIELD
- PROVIDE FULLY-PACKAGED, NSF-61 COMPLIANT, VFD OR ECM CONTROLLED, DOMESTIC WATER BOOSTER PUMP SKID WITH EACH PUMP SIZED FOR 50% OF THE TOTAL LOAD. OUTLET
- PRESSURE SHALL BE SET TO MAINTAIN 70PSIG.

 3. PROVIDE OIL-SENSING ELEVATOR SUMP PUMP IN ELEVATOR SUMP PIT WITH AUDIBLE AND VISUAL ALARMS, REMOTE PANEL, AND LINKED TO BAS; MINIMUM FLOW SHALL BE 50GPM PER ELEVATOR CAR/CAB.

ſ			E	BACKFLO	W PREVE	ENTER SO	CHEDULE		
Ī	TAG	BASIS OF DESIGN		LOCATION	SYSTEM	SIZE	DESIGN FLOW RATE	PRESSURE DROP (PSI)	NOTES
	IAG	MANUFACTURER	MODEL	LOCATION	STOTEIVI	SIZE	(GPM)	PRESSURE DRUP (PSI)	NOTES
	BFP-1	J. R. SMITH	5005	STORAGE 101	DOM WATER	2 1/2"	100	7.00	

PLUMBING FIXTURE SCHEDULE														
TAG	FIXTURE	HEIGHT A.F.F.	BASIS OF DESIGN		PIPE	SIZE		NOTES						
IAG	FIXTURE	HEIGHT A.F.F.	BASIS OF DESIGN	COLD WATER	HOT WATER	VENT	SOIL WASTE	NOTES						
DF-1	BI-LEVEL WATER COOLER (ACCESSIBLE)	TOP OF BUBBLER AT 39", LOWER AT 34"		1/2"		1 1/2"	1 1/2"							
EEWSH-1	COMBINATION DRENCH SHOWER / EYEWASH UNIT	FLOOR MOUNTED	FIXTURE: BRADLEY S19-310UU	1-1/2"	1"	1 1/4"	1 1/4"							
SK-1	SINK - SINGLE BASIN	COUNTER MOUNTED REFER TO ARCH DWGS		1/2"	1/2"	1 1/2"	1 1/2"							

	TANK SCHEDULE													
TAG	BASIS OF D MANUFACTURER	ESIGN MODEL	LOCATION	SYSTEM TYPE	TANK TYPE	CAPACITY (GAL)	OPERATING DATA CAPACITY (GAL) ACCEPTANCE AIR PRE-CHARGE PRESSURE (PSI)			CONNECTINLET (IN)	OUTLET (IN)	NOTES		
EX-1	AMTROL	ST-20V-C	STORAGE 101	DOM WATER	EXPANSION	8	3.2	55	YES	3/4"	3/4"			

- REFER TO MANUFACTURERS RECOMMENDATIONS FOR FINAL PIPING ARRANGEMENT. PROVIDE EQUAL LEG PIPING FOR INLETS AND OUTLETS OF MANIFOLDED STORAGE TANKS TO PROVIDE EVEN DISTRIBUTION AND DRAWOFF.
- HYDRO-PNEUMATIC TANK BASED ON MINIMUM PUMP OPERATING FLOW OF 13.00 GPM, 75 PSIG CUT-OUT, 65 PSIG CUT-IN, 65 PSIG AIR PRECHARGE PRESSURE, 3.00 MINUTE MINIMUM RUNTIME, AND DRAWDOWN FACTOR OF 0.111. VERIFY FINAL REQUIRED HYDRO-PNEUMATIC TANK VOLUME WITH FINAL PACKAGED PUMP SELECTION AND PERFORMANCE CHARATERISTICS.

	THERMOSTATIC MIXING VALVE SCHEDULE														
TAG	BASIS OF DESIGN		DESIGN FLOW	FLOW RANGE MAX P.D. AT DESIGN		HW SYSTEM TE	MPERATURES	CONNECT	NOTES						
IAG	MANUFACTURER	MODEL	(GPM)	(GPM)	FLOW (PSI)	INLET (°F)	OUTLET (°F)	INLET (IN)	OUTLET (IN)	NOTES					
TMV-1	POWERS	LFMM432-1	19	19-66	5	200	160	3/4"	1"						
TMV-2	POWERS	LFSH1432-4	19	19-66	5	200	160	3/4"	1"						

PROVIDE ASSE-1070 VALVE FOR ALL PUBLIC LAVATORIES AND SINKS. UNIT SHALL BE MOUNTED CONCEALED FROM VIEW BELOW FIXTURE.

			E	LECTR	C WATE	R HEATER	RSCHEDI	JLE	ELECTRIC WATER HEATER SCHEDULE														
	BASIS OF DESIGN			CADACITY	DECOVEDV	TEMPERATURE	TEMPERATURE	ELECTRICAL DATA															
TAG	MANUFACTURER	MODEL	LOCATION	(GALLONS)	RECOVERY RATE (GPH)	RISE (°F)	SETTING (°F)	INPUT RATE (kW)	VOLTAGE	PHASE	HERTZ	NOTES											
EWH-1	AO SMITH	DEN-80	STORAGE 101	80	24	100	140	6	480	3	60												

- 1. kW INPUT RATE FOR ELECTRIC WATER HEATERS BASED ON FULL LOAD SIMULTANEOUS

A SCO WAY| 3000 AD AUGUST 13, 2024 REVISIONS

PROJECT NO: 593101.2 DATE DESCRIPTION

CEILINGS AND/OR FURRED SPACES UNLESS OTHERWISE INDICATED. I. ALL EQUIPMENT, VALVES, DAMPERS, DAMPER AND VALVE OPERATORS SHALL BE PROVIDED WITH ADEQUATE ACCESS FOR SERVICING, MAINTENANCE, AND

J. SIZE ALL SPLIT-SYSTEM REFRIGERANT PIPING IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

G. PROVIDE TRAPPED DRAIN PIPING FROM DRAIN PANS OF ALL COOLING COILS.

H. INSTALL PIPING, DUCTWORK, AND CONDUIT CONCEALED IN AREAS HAVING

SINK, OR OTHER LOCATION APPROVED BY THE ARCHITECT.

FANS AND OTHER ACTIVE DRAINS EXPOSED TO SYSTEM AIRSTREAM, PROVIDE

UNIT OPERATING PRESSURE. DIRECT DRAINS TO NEAREST FLOOR DRAIN, MOP

TRAP AT CONNECTION WITH WATER SEAL DEPTH ONE INCH GREATER THAN

ARCHITECT. DUCT DIMENSIONS ARE IN INCHES AND INSIDE CLEAR.

L. FOR LOCATION OF REGISTERS, GRILLES, AND DIFFUSERS WITHIN CEILING GRID, REFER TO ARCHITECTURAL REFLECTED CEILING PLANS.

M. ELEVATION INDICATED FOR RECTANGULAR DUCT, GRILLE AND LOUVER OPENINGS IS TO THE TOP OF ROUGH OPENING UNLESS OTHERWISE INDICATED.

N. BRANCH PIPING RUNOUTS TO TERMINAL UNITS SHALL BE 3/4" DIAMETER UNLESS INDICATED OTHERWISE.

ECCENTRIC REDUCER

EQUIPMENT IDENTIFICATION AHU AIR-HANDLING UNIT AS AIR SEPARATOR B BOILER BCU BLOWER COIL UNIT CCC CLOSED-CIRCUIT COOLING TOWER CH CHILLER CHWP CHILLED WATER PUMP CRAC COMPUTER ROOM AIR CONDTIONER CT COOLING TOWER CUH CABINET UNIT HEATER CWP CONDENSER WATER PUMP ECH ELECTRIC CEILING HEATER ERU ENERGY RECOVERY UNIT ERV ENERGY RECOVERY VENTILATOR ET EXPANSION TANK EUH ELECTRIC UNIT HEATER EWH ELECTRIC WALL HEATER FCU FAN COIL UNIT HP HEAT PUMP HWP HOT WATER PUMP HX HEAT EXCHANGER MAU MAKEUP AIR UNIT OAU OUTDOOR AIR UNIT P PUMP PTAC PACKAGED TERMINAL AIR CONDITIONER PTHP PACKAGED TERMINAL HEAT PUMP RTU ROOFTOP UNIT SSI SPLIT-SYSTEM INDOOR UNIT SSO SPLIT-SYSTEM OUTDOOR UNIT TU TERMINAL UNIT UH UNIT HEATER WSHP WATER-SOURCE HEAT PUMP

CONTROLS ABBREVIATIONS AIRFLOW ANALOG INPUT TO CONTROLLER ALARM ALM AIRFLOW MEASURING STATION ANALOG OUTPUT FROM CONTROLLER AVERAGING TEMPERATURE SENSOR ATS BAS BUILDING AUTOMATION SYSTEM BINARY INPUT TO CONTROLLER BINARY OUTPUT FROM CONTROLLER CARBON DIOXIDE SENSOR CURRENT-SENSING RELAY DAMPER MOTOR DIFFERENTIAL PRESSURE DIFFERENTIAL PRESSURE TRANSMITTER FLOW METER FREEZESTAT HUMIDITY SENSOR POS POSITION RELAY SMOKE DETECTOR SPD SS START/STOP STATUS STS TEMPERATURE SENSOR VARIABLE-FREQUENCY DRIVE

A-WEIGHTED DECIBELS DCW DOMESTIC COLD WATER DIAMETER DOWN DWG DRAWING EXHAUST AIR ENTERING AIR TEMPERATURE ENERGY EFFICIENCY RATIO EXTERNAL STATIC PRESSURE ENTERING WATER TEMPERATURE EXISTING DEGREES FAHRENHEIT FAIL CLOSED FIRE DAMPER FULL LOAD AMPS FAIL OPEN FEET PER MINUTE FOOT, FEET GAUGE GALLON(S) GALLONS PER HOUR GPM GALLONS PER MINUTE HORSEPOWER **HPWR** HEAT PUMP WATER RETURN **HPWS** HEAT PUMP WATER SUPPLY HEATING HOT WATER RETURN HOT WATER SUPPLY HEAT EXCHANGER HERTZ INCH INTEGRATED PART-LOAD VALUE KILOWATT(S) LEAVING AIR TEMPERATURE POUNDS LEAVING WATER TEMPERATURE MAX MAXIMUM ONE THOUSAND BTUH MCA MINIMUM CIRCUIT AMPACITY MANUFACTURER MINIMUM MOCP MAXIMUM OVERCURRENT PROTECTION MOD MOTOR-OPERATED DAMPER NORMALLY CLOSED (FOR PLANS, DETAILS) NOISE CRITERIA (FOR SCHEDULES) NOT IN CONTRACT NORMALLY OPEN OUTSIDE AIR ON CENTER OWNER FURNISHED CONTRACTOR INSTALLED POUNDS PER SQUARE INCH GAUGE RETURN AIR REFRIGERANT DISCHARGE RELATIVE HUMIDITY REFRIGERANT LIQUID REVOLUTIONS PER MINUTE REFRIGERANT SUCTION SUPPLY AIR SEASONAL ENERGY EFFICIENCY RATIO TRANSFER DUCT TYPICAL UNLESS NOTED (INDICATED) OTHERWISE VOLTAGE, VOLTS **VOLUME DAMPER** VARIABLE FREQUENCY DRIVE WITH WITHOUT WET BULB TEMPERATURE WATER COLUMN WATER PRESSURE DROP WELDED WIRE MESH

ABBREVIATIONS

AMPERE(S)

ALTERNATE

COOLING

COMMON

DRAIN

CFM

CHWR

CHWS

COM

CWS

ACCESS DOOR

ABOVE FINISHED FLOOR

AIR PRESSURE DROP

BRAKE HORSEPOWER

CUBIC FEET PER MINUTE

CHILLED WATER RETURN

CHILLED WATER SUPPLY

CONDENSER WATER RETURN

CONDENSER WATER SUPPLY

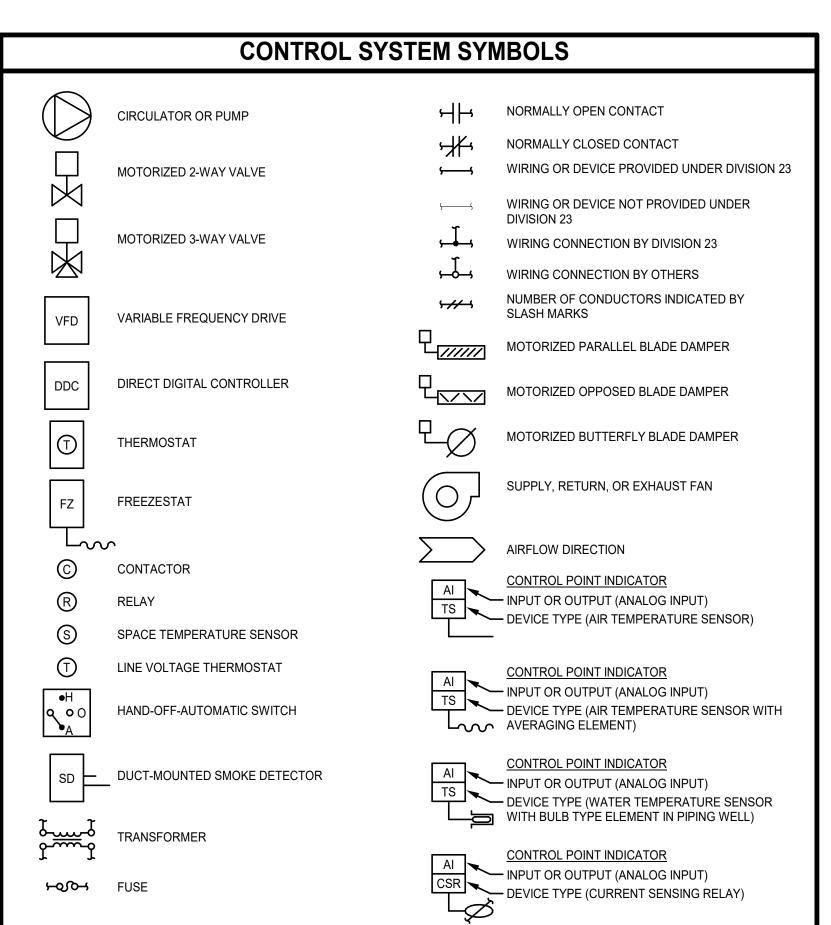
DRY BULB TEMPERATURE

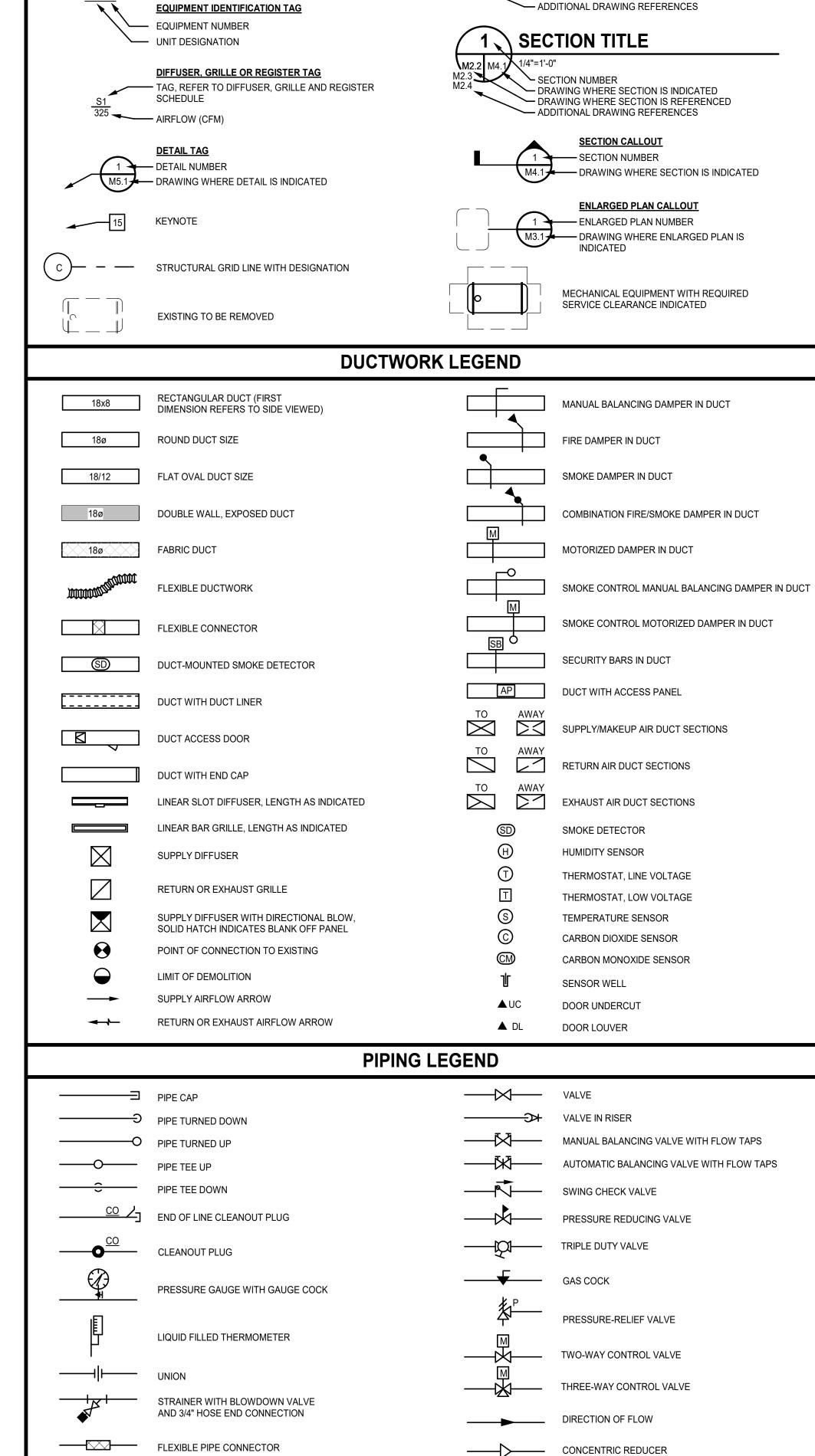
BRITISH THERMAL UNITS PER HOUR

LIFE SAFETY SYMBOL LEGEND DESIGNATOR MATRIX PARTITION EX 2 HR FIRE NOTES: . WALL DESIGNATIONS ON THE LS SERIES OF DRAWINGS ARE FOR GRAPHICAL PURPOSES ONLY AND MAY NOT REPRESENT THE ACTUAL WALL/PARTITION CONSTRUCTION. REFER TO THE CONTRACT DOCUMENTS, INCLUDING THE LIFE SAFETY SYMBOLS LEGEND AND A0, A1 AND, A2 SERIES OF DRAWINGS, FOR ACTUAL WALL/PARTITION TYPES AND CONSTRUCTION REQUIREMENTS.

3. INDICATED RATINGS AT EXISTING WALLS ARE EXISTING TO REMAIN,

AND ARE BASED ON INFORMATION PROVIDED BY THE OWNER.





GRAPHICS SYMBOLS LEGEND

SPACE IDENTIFICATION TAG

BUILDING AREA (WHEN USED)

SPACE NUMBER

DETAIL TITLE

➤ DRAWING WHERE DETAIL IS INDICATED

DRAWING WHERE DETAIL IS REFERENCED

.3 DETAIL NUMBER

GENERAL NOTES

REPLACEMENT.

A. THE CONTRACT DOCUMENTS ARE COMPLEMENTARY AND WHAT IS REQUIRED BY ONE SHALL BE AS BINDING AS IF REQUIRED BY ALL. IN THE CASE OF A CONFLICT, DISAGREEMENT, OR AMBIGUITY, PROVIDE THE BETTER QUALITY. IN THE CASE OF A CONFLICT, DISAGREEMENT, OR AMBIGUITY, PROVIDE THE GREATER QUANTITY OF

MANUAL AIR VENT

B. DRAWINGS ARE DIAGRAMMATIC AND INTENDED TO CONVEY SCOPE AND GENERAL ARRANGEMENT ONLY, DO NOT SCALE DRAWINGS, LOCATIONS OF ALL ITEMS NOT DEFINITIVELY FIXED BY DIMENSIONS ARE APPROXIMATE. COORDINATE CONTRACT DOCUMENTS PROJECT REQUIREMENTS, WORK OF OTHERS, AND EQUIPMENT AND MATERIALS PURCHASED WITH FIELD DIMENSIONS, MANUFACTURER'S REQUIREMENTS FOR INSTALLATION, OPERATION, AND MAINTENANCE, CONTRACTOR'S INTENDED MEANS AND METHODS OF INSTALLATION, AND CONTRACTOR'S FABRICATED ITEMS TO ENSURE A PROPER FIT AND INSTALLATION.

E. MAINTAIN MAXIMUM HEADROOM AND SPACE CONDITIONS AT ALL POINTS. WHERE HEADROOM AND SPACE CONDITIONS APPEAR INADEQUATE, NOTIFY THE ARCHITECTS PRIOR TO PROCEEDING WITH INSTALLATION. MAINTAIN A MINIMUM OF 7'-0" CLEARANCE ABOVE FINISHED FLOOR TO UNDERSIDE OF PIPES, DUCTS, CONDUITS, SUSPENDED EQUIPMENT, ETC., THROUGHOUT ACCESS ROUTES IN MECHANICAL

STRUCTURE WITH GENERAL CONSTRUCTION WORK.

MANUFACTURER'S RECOMMENDATIONS, CONTRACT DOCUMENTS, AND APPLICABLE CODES AND REGULATIONS. F. COORDINATE LOCATIONS AND SIZES OF ALL FLOOR, WALL, AND ROOF OPENINGS WITH

ALL OTHER TRADES. COORDINATE ALL PIPING AND EQUIPMENT SUPPORTED FROM

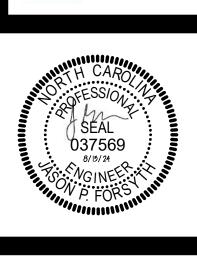
D. FIELD VERIFY AND COORDINATE ALL DUCT AND PIPING DIMENSIONS BEFORE

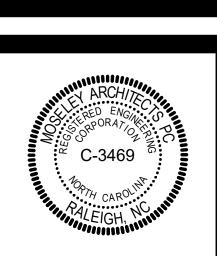
FABRICATION. MAKE MODIFICATIONS IN THE LAYOUT AS NEEDED TO PREVENT CONFLICT WITH WORK OF OTHER TRADES OR FOR PROPER EXECUTION OF THE . INSTALL ALL EQUIPMENT AND APPURTENANCES IN ACCORDANCE WITH

K. DUCT DIMENSIONS MAY BE MODIFIED ONLY WITH PRIOR APPROVAL FROM

ELEVATION INDICATED FOR ROUND DUCTWORK AND PIPING IS TO CENTERLINE.

O. REFER TO STRUCTURAL DRAWINGS FOR DETAILS AND MAXIMUM SPACING REQUIREMENTS REGARDING HANGER ATTACHMENTS TO STEEL BAR JOISTS. ABBREVIATIONS AND **GENERAL NOTES**







MANUFACTURING

PROJECT NO: 593101.2 DATE: AUGUST 13, 2024 REVISIONS DATE DESCRIPTION

SCHEDULES

AIR HANDLING UNIT SCHEDULE HYDRONIC HEATING COIL | Substitution | Subs DESIGN AIRFLOW (CFM) 10,000 MANUFACTURER MODEL NUMBER
TRANE UCCA-21

					FAN SC	HEDULE										
					AIRFLOW	ESP	FAN WHEEL			CONTROL	MOTOR	ELE	CTRICAL D		WEIGHT	
TAG	MANUFACTURER	MODEL NUMBER	SERVING	TYPE	(CFM)	(IN WC)	(RPM)	DRIVE TYPE	SONES	METHOD	(HP)	(V)	(PH)	(HZ)	(LBS)	NOTES
F-1	GREENHECK	SQ-120-VG	127 CRIMINAL JUSTICE LAB	INLINE CENTRIFUGAL	1,300	0.40	1378	DIRECT	9	BAS SCHEDULE	1/2	120	1	60	67	1
F-2	GREENHECK	SQ-95-VG	126 ELEC	INLINE CENTRIFUGAL	500	0.40	1472	DIRECT	7.4	BAS SENSOR	1/6	120	1	60	44	1
NOTES: 1. PROVIDE M	MOTORIZED DAMPER AND INT	ERLOCK WITH FAN OPERAT	TION.													

								FAN	POWER	ED TERM	IINAL UN	IT SCHE	DULE											
				AIR \	VALVE				FAN					COIL						ELECTRIC	CAL DATA			
			INLET	MAXIMUM AIR	MINIMUM AIR	APD AT MAXIMUM AIR					DESIGN					WATER PRESSURE						SERVICE		1
TAG	MANUFACTURER	MODEL NUMBER	DIAMETER (IN)	FLOW (CFM)	FLOW (CFM)	FLOW (IN WC)	FAN SIZE	MOTOR (HP)	AIRFLOW (CFM)	ESP (IN WC)	AIRFLOW (CFM)	CAPACITY (BTUH)	EAT (°F)	LAT (°F)	FLOW RATE (GPM)	DROP (FT WC)	ROWS (NO)	FLA (A)	MCA (A)	MOCP (A)	V	PH	HZ	WEIGH (LBS)
TU1-1	TRANE	VPWF	8	770	400	0.19	03SQ	1/3	370	0.25	770	23,610	62.2	90.5	1.00	0.26	1	4.5	5.6	15	120	1	60	105
TU1-2	TRANE	VPWF	10	960	340	0.09	03SQ	1/3	620	0.25	960	24,640	64.6	88.6	1.00	0.26	1	4.5	5.6	15	120	1	60	105
TU1-3	TRANE	VPWF	10	1,170	430	0.13	03SQ	1/3	740	0.25	1,170	31,680	64.4	89.6	1.50	0.55	1	4.5	5.6	15	120	1	60	105
TU1-5	TRANE	VPWF	10	1,010	290	0.10	03SQ	1/3	720	0.25	1,010	24,860	65.7	88.4	1.00	0.26	1	4.5	5.6	15	120	1	60	105
TU1-7	TRANE	VPWF	8	530	160	0.09	03SQ	1/3	370	0.25	530	13,730	65.5	89.4	0.50	0.21	1	4.5	5.6	15	120	1	60	91
TU1-8	TRANE	VPWF	10	1,110	330	0.11	03SQ	1/3	770	0.25	1,100	25,500	65.5	86.9	1.00	0.26	1	4.5	5.6	15	120	1	60	105
TU1-9	TRANE	VPWF	8	775	400	0.19	03SQ	1/3	375	0.25	775	23,650	62.3	90.4	1.00	0.26	1	4.5	5.6	15	120	1	60	105
TU1-11	TRANE	VPWF	8	720	375	0.16	03SQ	1/3	345	0.25	720	19,850	62.2	87.6	0.75	0.15	1	4.5	5.6	15	120	1	60	10
TU1-12	TRANE	VPWF	10	910	430	0.08	03SQ	1/3	480	0.25	910	24,680	62.9	87.8	1.00	0.26	1	4.5	5.6	15	120	1	60	10
TU1-13	TRANE	VPWF	10	1,240	520	0.14	03SQ	1/3	720	0.25	1,240	32,540	63.7	87.9	1.50	0.55	1	4.5	5.6	15	120	1	60	10

						TERMI	NAL UNIT	[SCHED	ULE						
				AIR V	ALVE					COIL					
TAG	MANUFACTURER	MODEL NUMBER	INLET DIAMETER (IN)	MAXIMUM AIRFLOW (CFM)	MINIMUM AIRFLOW (CFM)	APD AT MAX AIR FLOW (IN-WC)	DESIGN AIRFLOW (CFM)	CAPACITY (BTUH)	EAT (°F)	LAT (°F)	FLOW RATE (GPM)	FLUID PRESSURE DROP (FT WC)	ROWS (NO)	WEIGHT (LBS)	NOTE
TU1-4	TRANE	VCWF	4	210	100	0.06	100	6,150	55	111.7	0.5	0.50	1	21	-
TU1-6	TRANE	VCWF	5	290	100	0.09	100	6,150	55	111.7	0.5	0.50	1	21	-
TU1-10	TRANE	VCWF	10	1,040	760	0.42	760	29,880	55	91.3	1.0	0.18	2	29	-
TU1-14	TRANE	VCCF	6	400	200	0.09								21	1
TU1-15	TRANE	VCCF	5	300	60	0.01								21	1

					PUM	P SCHED	ULE										
							OPERATING DATA	1		DISCHARGE				ELECTRICAL DATA			
						FLOW	HEAD	EFFICIENCY	SUCTION SIZE	SIZE	IMPELLER SIZE		MOTOR				
TAG	MANUFACTURER	MODEL NUMBER	SERVING	LOCATION	TYPE	(GPM)	(FT WC)	(%)	(IN)	(IN)	(IN)	MOTOR RPM	(HP)	V	PH	HZ	
P-3	BELL & GOSSETT	2BC	HOT WATER LOOP	124 MECHANICAL	BASE MOUNTED	131.0	65	71.4	2.5	2.0	8.500	1800	5	480	3	60	
P-4	BELL & GOSSETT	e1510-21/2BB	CHILLED WATER LOOP	124 MECHANICAL	BASE MOUNTED	267.0	75	77.3	3.0	2.5	9.500	1800	10	480	3	60	

	G	RILLE, REGIS	STER, & DIFFU	SER SCHE	DULE		
TAG	MANUFACTURER	MODEL NUMBER	MOUNTING STYLE	NECK SIZE	FACE SIZE	MAX NC LEVEL	NOT
S1	PRICE	ASCD	LAY-IN	6"	24x24	30	-
S2	PRICE	ASCD	LAY-IN	8"	24x24	30	-
S3	PRICE	ASCD	LAY-IN	10"	24x24	30	-
S4	PRICE	VPD-HC	LAY-IN	6"	24x24	30	-
S5	PRICE	610-F-L	SURFACE	6x6	8x8	30	-
S6	PRICE	610-F-L	SURFACE	12x8	14x10	30	-
S7	PRICE	SDBI-100-2	LAY-IN	8"	-	30	1
R1	PRICE	635-TB-L	LAY-IN	22x22	24x24	30	-
R2	PRICE	635-F-L	SURFACE	12x12	14x14	30	-
E1	PRICE	635-F-L	SURFACE	12x12	14x14	30	-
E2	PRICE	635-TB-L	LAY-IN	22x22	24x24	30	-
T1	PRICE	635-TB-L	LAY-IN	22x22	24x24	30	-
T2	PRICE	635-TB-L	LAY-IN	22x10	24x12	30	-

AHU-1 A	AIR BALA	NCE SCH	IEDULE	
SYSTEM NAME	SUPPLY AIRFLOW (CFM)	OUTSIDE AIRFLOW (CFM)	TOTAL EXHAUST AIRFLOW (CFM)	RETURN AIRFLOW (CFM)
AHU-1 SUPPLY	10,000	4,300	3,395	5,700

Project Name: 593101.2 - WCC Azalea Loads Prepared by: Moseley

1. Summary		
Ventilation Sizing Method	ASHRAE Std 62.1-2010	
Design Condition		
Occupant Diversity (D)		
Uncorrected Outdoor Air Intake (Vou)	2913	CFM
System Ventilation Efficiency (Ev)	0.700	
Outdoor Air Intake (Vot)		CFM

2. Space Ventilation Analysis		Minimum Supply Air (CFM)	Area	Area Outdoor Air Rate (CFM/ft²)	Time Averaged Occupancy (Occupants)	People Outdoor Air Rate (CFM/person)	Air Distribution	Space Outdoor Air (CFM)	Breathing Zone Outdoor Air (CFM)	Space Ventilation Efficiency
Zone Name / Space Name	Mult.	(Vpz)	(Az)	(Ra)	(Pz)	(Rp)	(Ez)	(Voz)	(Vbz)	(Evz)
Zone 1			3	A 50	-		į I	= 4		11111
133a Corridor	1	144	1717.0	0.06	0.0	0.00	0.8	129	103	0.920
101 Storage	1	31	218.0	0.00	0.0	0.00	0.8	0	0	1.393
102 Toilet	1	1	32.0	0.00	0.0	0.00	0.8	0	0	1.393
103 Janitor	1	1	31.0	0.00	0.0	0.00	0.8	0	0	1.393
104 Toilet	1	1	33.0	0.00	0.0	0.00	0.8	0	0	1.393
105 Records	1	28	194.0	0.00	0.0	0.00	0.8	0	0	1.393
Zone 2										
106 Classroom	1	338	586,0	0.12	20.0	10.00	0.8	338	270	0.849
Zone 3										
107 BLET Classroom	1	428	767.0	0.12	25.0	10.00	0.8	428	342	0.812
Zone 4								- 3	1	
120 BLET Vault	1	12	294.0	0.00	0.0	0.00	0.8	0	0	1.700
121 BLET Office	1	16	115.0	0.06	1.0	5.00	0.8	15	12	0.753
122 Office	1	16	115.0	0.06	1.0	5.00	0.8	15	12	0.753
Zone 5										
108 MILO Range Theater	1	244	689.0	0.12	10.0	10.00	0.8	228	183	0.882
108A Storage	1	7	39.0	0.00	0.0	0.00	0.8	0	0	1.442
Zone 6		· · · · · · · · · · · · · · · · · · ·								
109 Copy/Break	1	51	132.0	0.12	5.0	5.00	0.8	51	41	0.700
110 Office	1	16	115.0	0.06	1.0	5.00	0.8	15	12	0.753
113 Office	1	16	111.0	0.06	1.0	5.00	0.8	15	12	0.762
Zone 7										
111 Office	1	82	139.0	0.06	1.0	5.00	0.8	17	13	1.276
112 Office	1	27	105.0	0.06	1.0	5,00	0.8	14	11	1.115
133c Corridor	1	49	168.0	0.06	0.0	0.00	0.8	13	10	1.249
Zone 8										
114 Emergency Dispatch L	1	329	705.0	0.12	12.0	10.00	0.8	256	205	0.981
Zone 9										
132 Corridor	1	213	515.0	0.06	0.0	0.00	0.8	39	31	1.293

Project Name: 593101.2 - WCC Azalea Loads

Hourly Analysis Program 5.11

117 Men	1 1	o	216.0	0.00	0.0	0.00	0.8	ol	0	1.387
Zone 10	1 1	3	210.0	0.00	0.0	0.00	0.0			1.507
118 Multipurpose Storage	1	10	233.0	0.00	0.0	0.00	0.8	0	0	1.700
119 Multipurpose Classro	1	753	1187.0	0.12	46.0	10.00	0.8	753	602	0.700
Zone 11										
130 Classroom	1	373	655.0	0.12	22.0	10.00	0.8	373	299	0.806
Zone 12							Ü			
129 Classroom	1	417	699.0	0.12	25.0	10.00	0.8	417	334	0.815
133b Corridor	1	26	154.0	0.06	0.0	0.00	0.8	12	9	1.190
Zone 13										
127 Criminal Justice Lab	1	515	1349.0	0.12	25.0	10.00	0.8	515	412	0.841
Totals (incl. Space Multipliers)		4162						- 1	2913	0.700

KEYNOTES1

APPLIES TO THIS DRAWING

REMOVE EXISTING AIR HANDLING UNIT AND ALL ACCESSORIES AND CONTROLS.

REMOVE EXISTING PUMP AND ALL ASSOCIATED ACCESSORIES AND CONTROLS.

REMOVE EXISTING TERMINAL UNIT AND ALL ASSOCIATED CONTROLS. REMOVE EXISTING PIPING ACCESSORIES AND CAP PIPE.

4 REMOVE EXISTING CANOPY HOOD AND ASSOCIATED FAN.

5 EX 3" HWS & HWR UP.

6 EX 2-1/2" CHWS & CHWR UP.

7 EX 4" CHWS & CHWR UP.

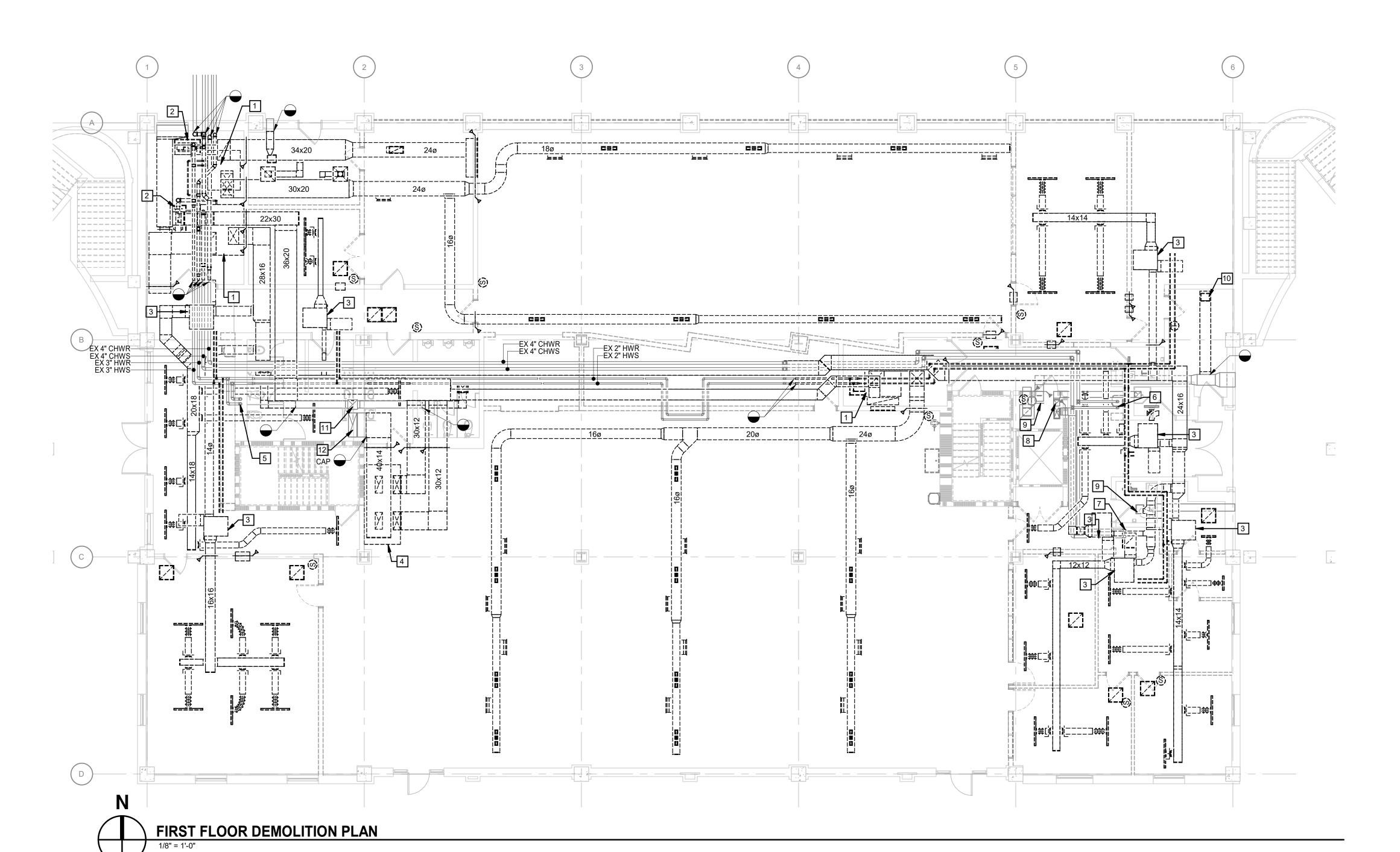
8 EX 10x10 UP.

9 EXISTING CEILING FAN TO REMAIN.

10 REMOVE EXISTING CEILING FAN AND ASSOCIATED CONTROLS.

11 EX 16x16 UP.

12 EX 14x40 UP.

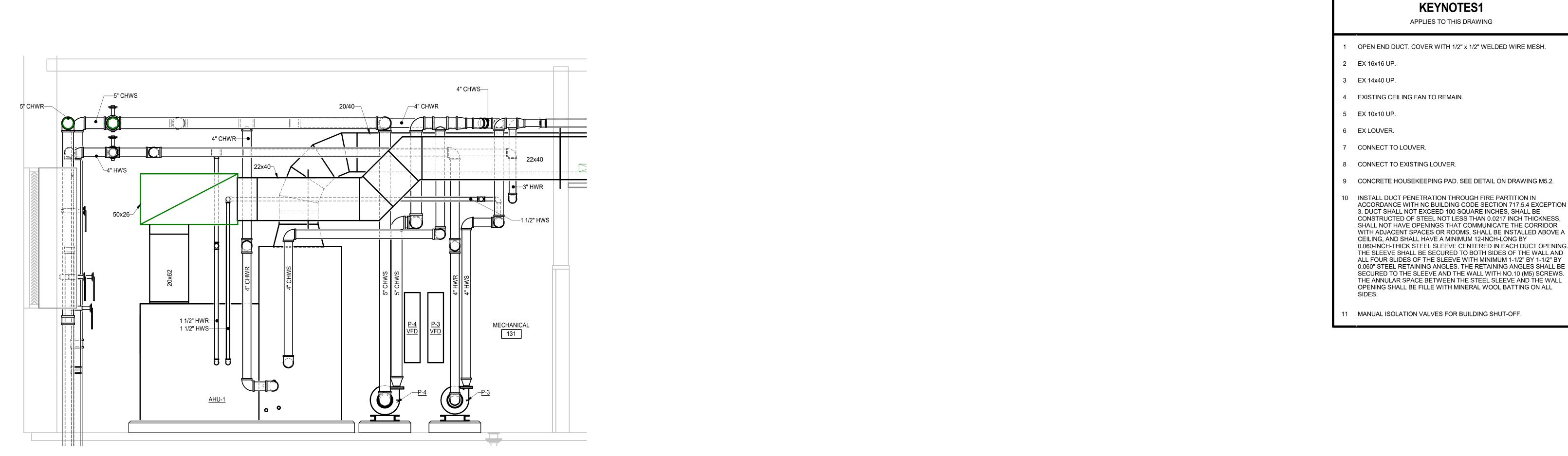


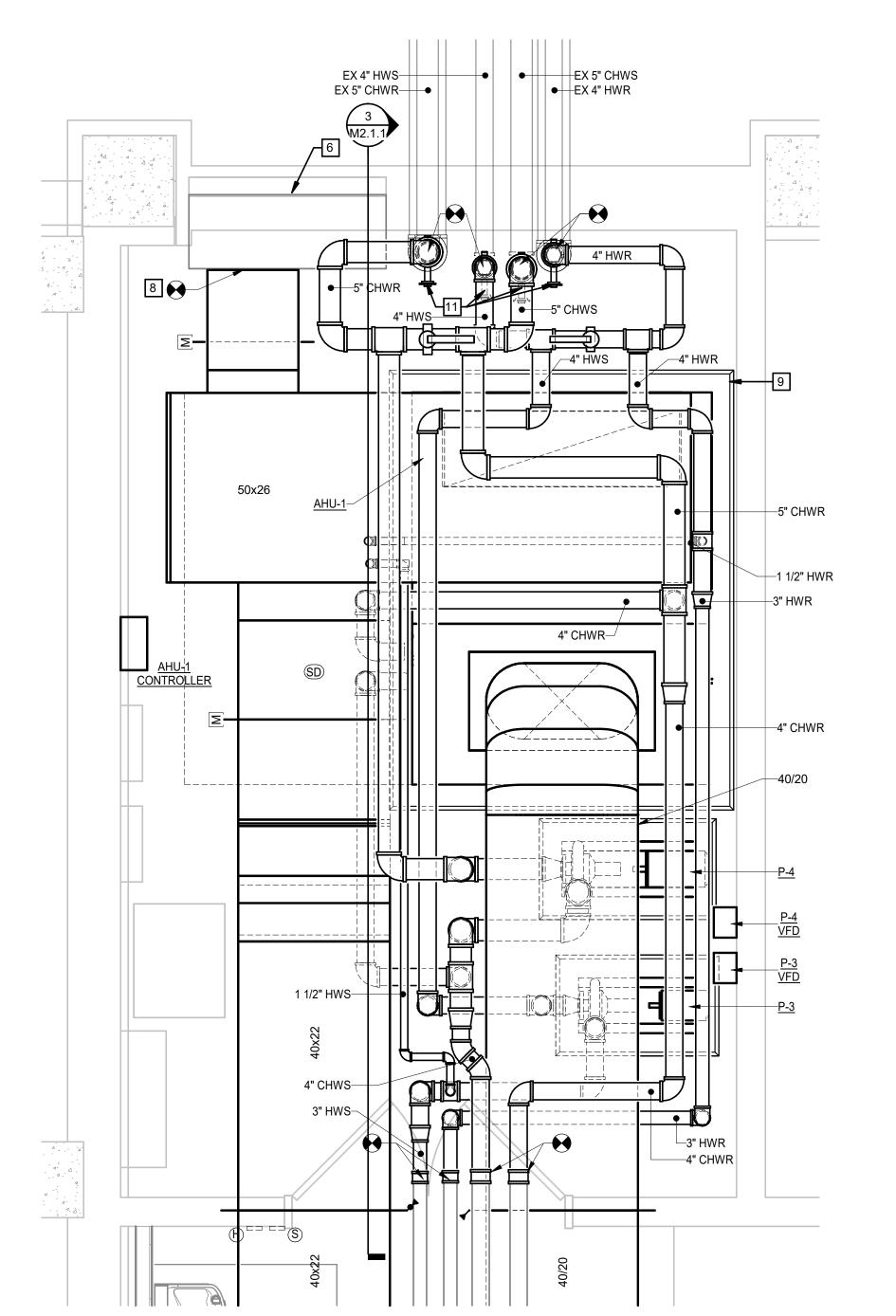
PROJECT NO: 593101.2 DATE: AUGUST 13, 2024

CLASSROOM 107

CLASSROOM 106

FIRST FLOOR PLAN -**DUCTWORK**





MECHANICAL ROOM ENLARGED PLAN



8ø S2 185 185

FIRST FLOOR PLAN -

KEYNOTES1

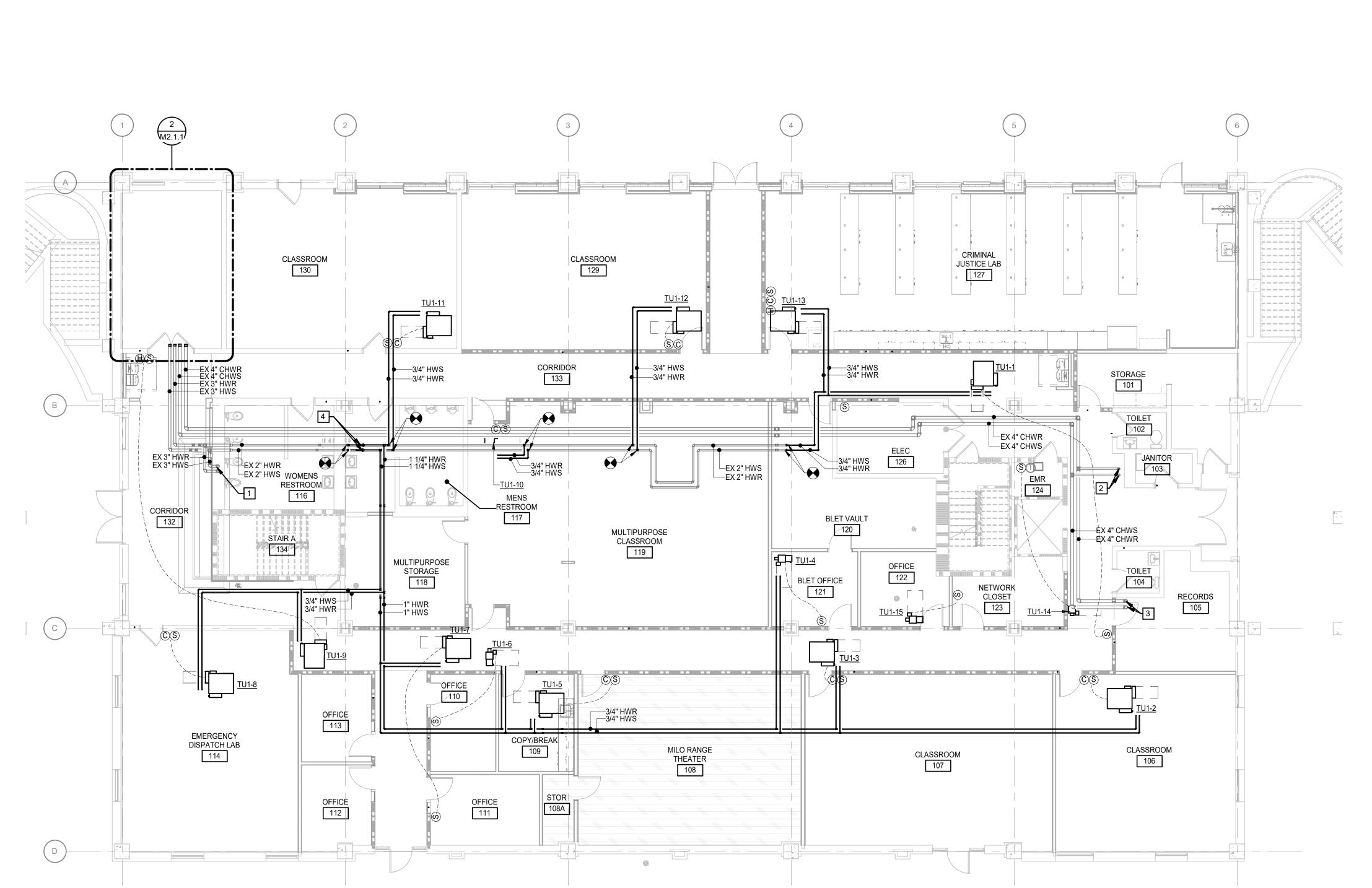
APPLIES TO THIS DRAWING

1 EX 3" HWS & HWR UP.

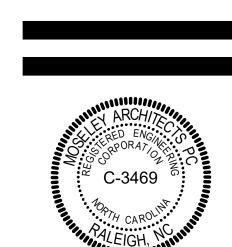
2 EX 2-1/2" CHWS & CHWR UP.

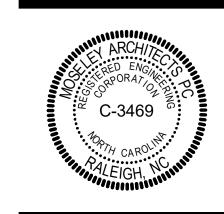
3 EX 4" CHWS & CHWR UP.

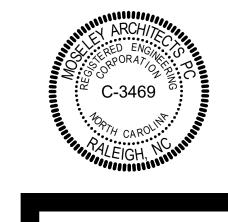
4 MANUAL ISOLATION VALVES FOR FIRST FLOOR.













RENOVATION

CENTER

MANUFACTURING

/ANCED

PROJECT NO: 593101.2 DATE: AUGUST 13, 2024

REVISIONS DATE DESCRIPTION



HANDLING UNITS AND FANS UNLESS OTHERWISE INDICATED

NOTE: THIS DETAIL APPLIES TO ALL DUCT CONNECTIONS TO AIR

- INSULATION JOINT. PLACE ON SIDE OF DUCT.

VAPOR-RETARDER MASTIC

EQUIPMENT DUCT CONNECTION

COLLAR OR OPENING

REFER TO SPECIFICATION SECTION

230700 FOR ADDITIONAL

DUCT INSULATION JOINT DETAIL

INFORMATION.

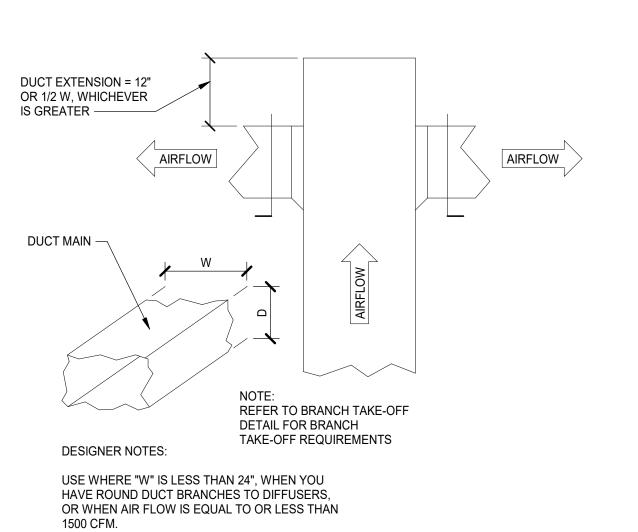
INSULATION -

NO SCALE

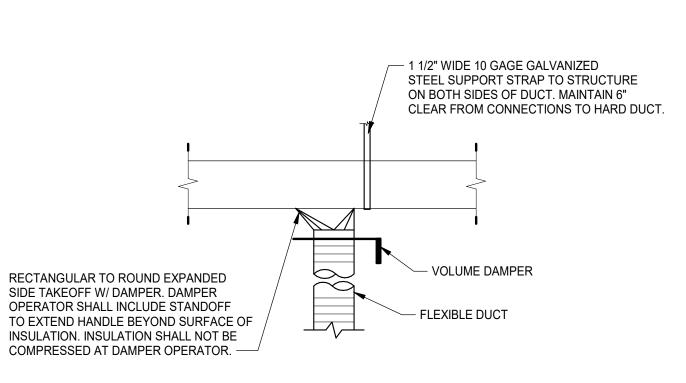
SYSTEM DUCT -

FLEXIBLE CONNECTION —

DUCT -

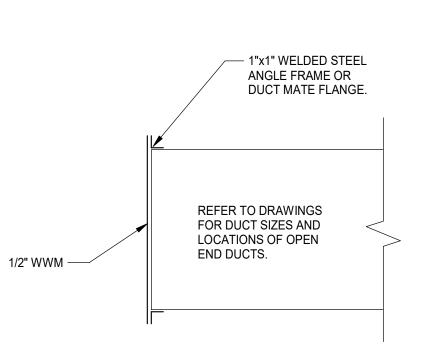


DUCT SPLIT WITHOUT VANES DETAIL

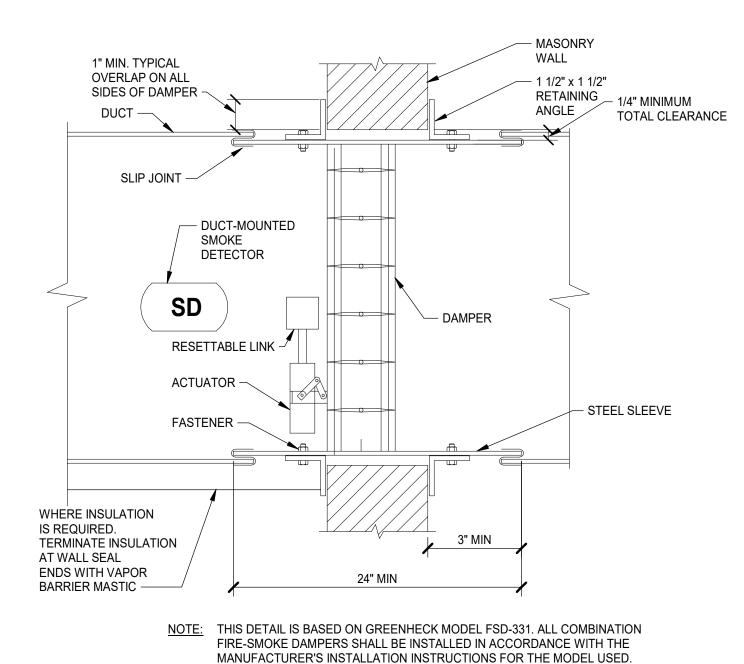


- FLEXIBLE DUCT SHALL BE INSTALLED OVER METAL DUCT (BEAD/LIP ON METAL DUCT) AND ANCHORED W/ A SINGLE NYLON MECHANICAL BAND. - IN EXPOSED AREAS PROVIDE RIGID GALVANIZED STEEL DUCTWORK IN LIEU OF FLEXIBLE DUCTWORK INDICATED. SUPPORT IN ACCORDANCE WITH REQUIREMENTS SPECIFIED FOR STEEL DUCTWORK.

BRANCH TAKEOFF TO DIFFUSER-BOTTOM

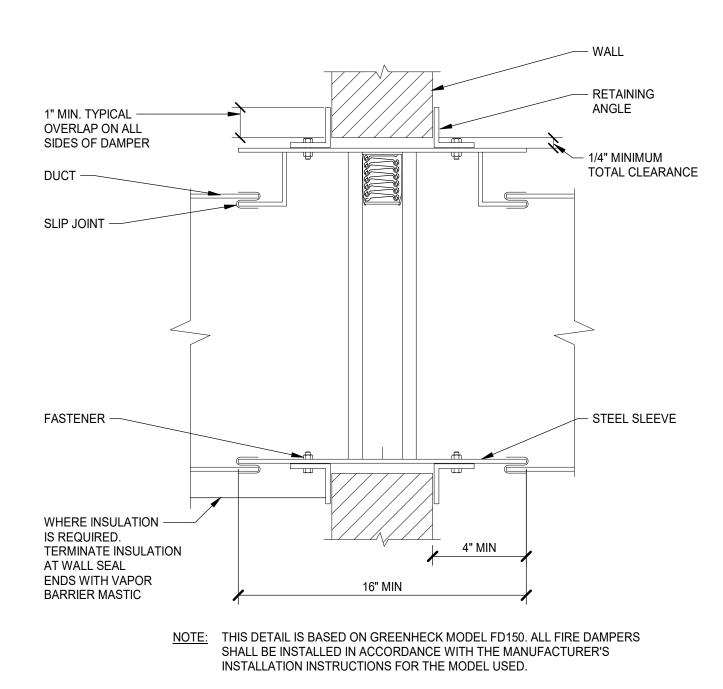


OPEN END DUCT DETAIL



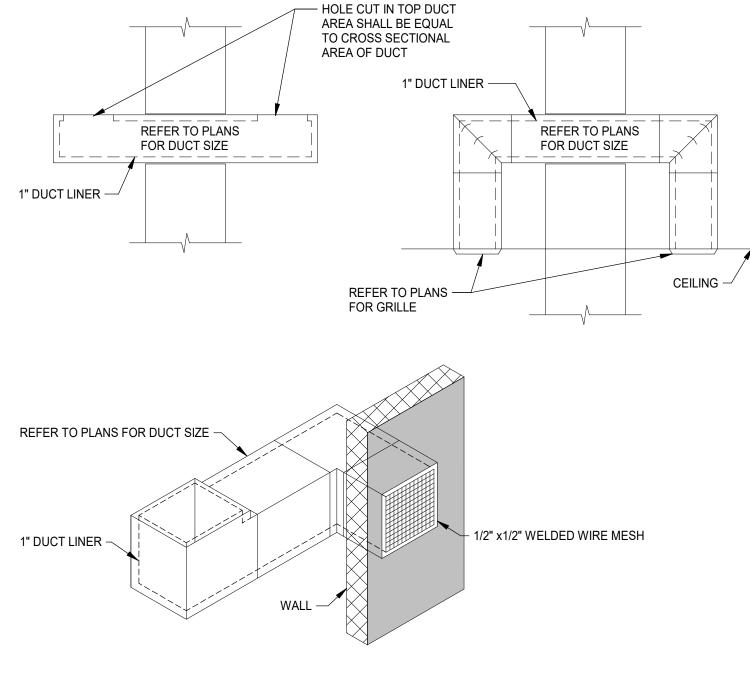
NO SCALE

COMBINATION FIRE-SMOKE DAMPER INSTALLATION DETAIL

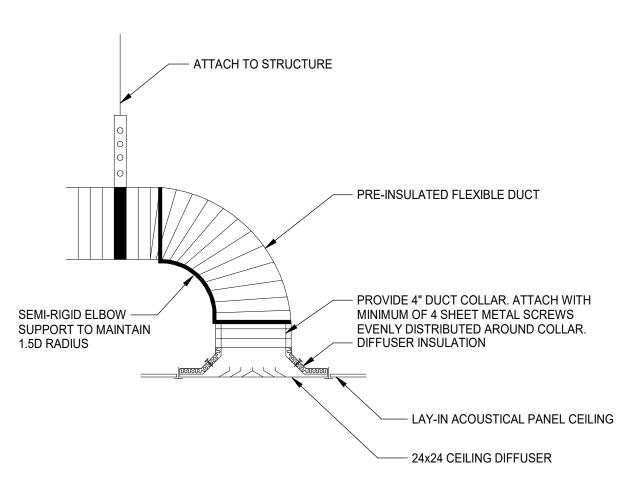


FIRE DAMPER INSTALLATION DETAIL - TYPE B (VERTICAL)

NO SCALE



TRANSFER DUCT DETAIL NO SCALE



SUPPLY DIFFUSER CONNECTION LAY-IN-COLLAR

REFER TO BRANCH TAKE-OFF

DETAIL FOR BRANCH TAKE-OFF REQUIREMENTS

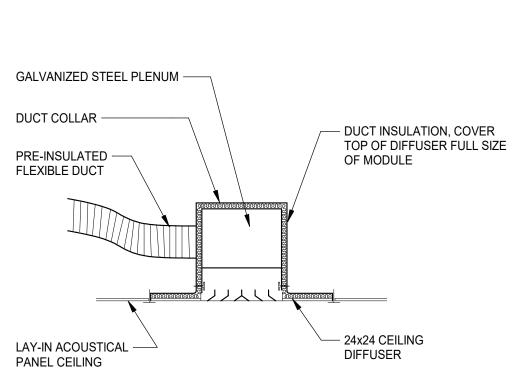
DESIGNER NOTES:

MAY BE PROPORTIONAL

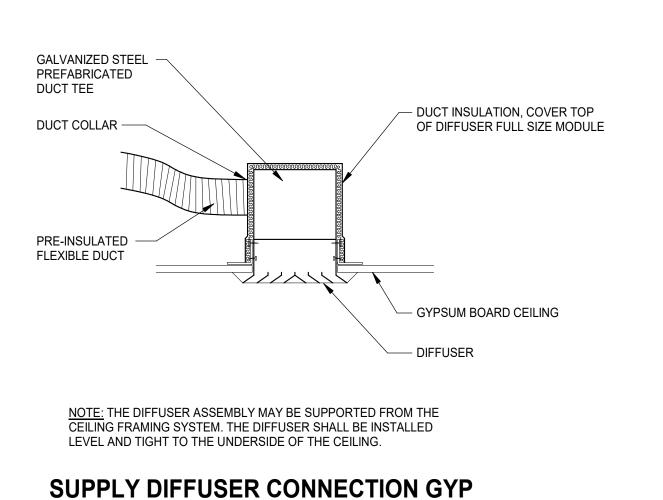
USE WHERE "W" EXCEEDS 24" OR WHEN

DUCT SPLIT WITH VANES DETAIL

AIR FLOW IS IN EXCESS OF 1500 CFM.



SUPPLY DIFFUSER CONNECTION LAY-IN



DUCT END OF MAIN DETAIL

REFER TO BRANCH TAKE-OFF

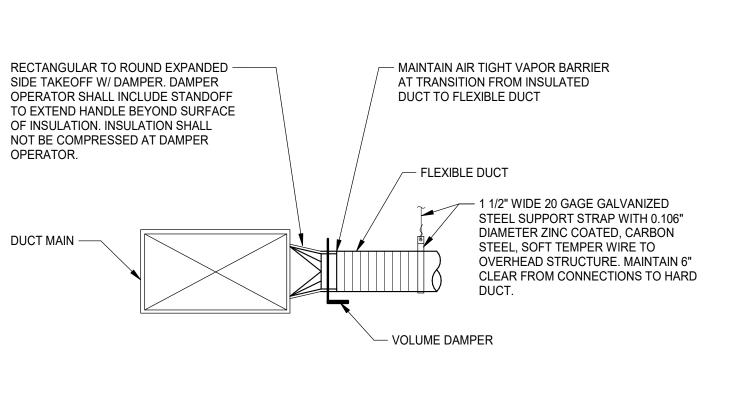
TAKE-OFF REQUIREMENTS

DETAIL FOR BRANCH

DUCT EXTENSION = 12"

OR 1/2 W, WHICHEVER IS GREATER ———

DUCT MAIN —



- FLEXIBLE DUCT SHALL BE INSTALLED OVER METAL DUCT (BEAD/LIP ON METAL DUCT) AND ANCHORED W/ A SINGLE NYLON MECHANICAL BAND. - IN EXPOSED AREAS PROVIDE RIGID GALVANIZED STEEL DUCTWORK IN LIEU OF FLEXIBLE DUCTWORK INDICATED. SUPPORT IN ACCORDANCE WITH REQUIREMENTS SPECIFIED FOR STEEL DUCTWORK.

BRANCH TAKEOFF TO DIFFUSER-SIDE



DETAILS

DETAILS

FRAME OPENING IN WALL WITH METAL STUDS. PROVIDE ANNULAR SPACE — STEEL RETAINING ANGLE BETWEEN 1"-1.5" — SLIP JOINT — - PACK ANNULAR SPACE TIGHT WITH MINERAL WOOL BATTTING FASTENERS — - STEEL SLEEVE WHERE INSULATION IS REQUIRED TERMINATE INSULATION AT RETAINING ANGLE ——

FIRE PARTITION DUCT PENETRATION DETAIL

DRAIN SHALL BE FULL SIZE

1 MECHANICAL EQUIPMENT

MECHANICAL CONTRACTOR.

- MANUAL BYPASS FOR SYSTEM

- INSTALL UNIONS AT ELEVATION

ABOVE EQUIPMENT CONTAINING COIL TO ALLOW FOR COIL PULL

HYDRONIC COIL

FLUSHING DURING CONSTRUCTION

(2) CONDUIT AND WIRING BY MECHANICAL CONTRACTOR.

3 IF AN ADDITIONAL DISCONNECT IS REQUIRED BY NEC, IT SHALL BE PROVIDED AND INSTALLED BY THE EQUIPMENT CONTRACTOR. 4 A COMBINATION STARTER OR VFD MAY BE USED IN LIEU OF A SEPARATE DISCONNECT SWITCH AND STARTER. LOCATE

ADJACENT TO EQUIPMENT. 5 FEEDER CIRCUIT WIRING AND CONDUIT IN ELECTRICAL WORK. SEE ELECTRICAL DRAWINGS.

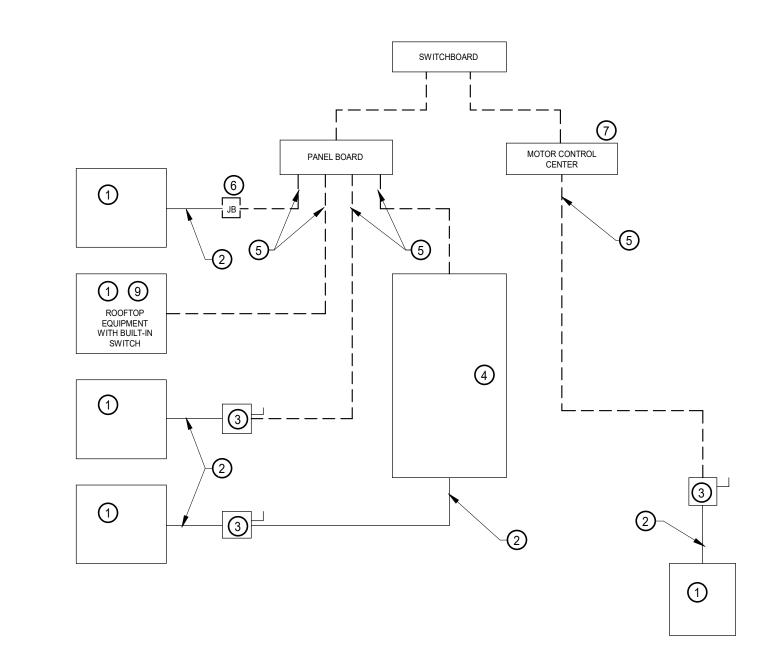
6 JUNCTION BOX MAY BE SHOWN ON ELECTRICAL PLANS FOR SOME EQUIPMENT. IF NO STARTER OR DISCONNECT IS SUPPLIED, A JUNCTION BOX SHALL BE INSTALLED ADJACENT TO EQUIPMENT. THE ELECTRICAL CONTRACTOR SHALL PROVIDE LINE SIDE WIRING TO THE JUNCTION BOX. LOAD SIDE WIRING WILL BE PROVIDED BY

7 PROJECTS UTILIZING AN MCC: THE STARTER, JB, OR VFD IN THE MCC ARE PROVIDED BY THE ELECTRICAL DRAWINGS.

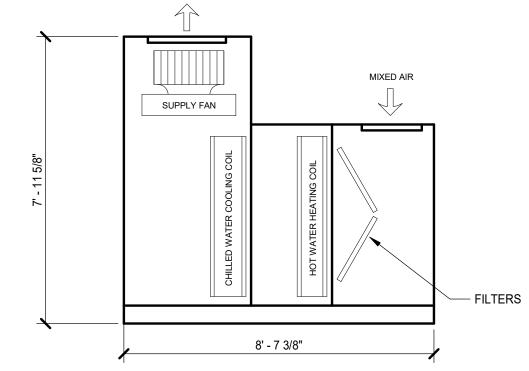
(8) IN ALL CASES, THE EQUIPMENT CONTRACTOR SHALL MAKE FINAL CONNECTIONS, START UP, AND TEST EQUIPMENT.

IF THE ROOFTOP FAN IS NOT PROVIDED WITH A BUILT-IN SWITCH,
THE ELECTRICAL CONTRACTOR SHALL PROVIDE A DISCONNECT

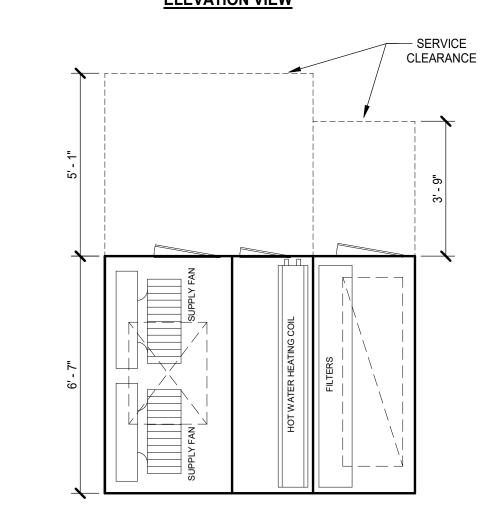
(10) IN A SINGLE PRIME CONTRACT, IT IS THE RESPONSIBILITY OF THE PRIME CONTRACTOR TO COORDINATE BETWEEN THE ELECTRICAL AND OTHER TRADES.



DIVISION 23 AND 26 COORDINATION DETAIL



ELEVATION VIEW



PLAN VIEW

AHU-1 LAYOUT

OF DRAIN CONNECTION — CAP OR PLUG, HAND TIGHTEN, TYPICAL — SLOPE TO NEAREST ROOF/FLOOR DRAIN UNIT

K = 1" FOR EACH 1" OF MAXIMUM NEGATIVE STATIC PRESSURE + 1" L = H + K + PIPE DIAMETER + INSULATION

NEGATIVE PRESSURE

CONDENSATE DRAIN DETAIL

1. LOCATE TRAP AS CLOSE AS POSSIBLE TO UNIT

OUTLET WITH BOTTOM BELOW SUPPORT STRUCTURE. 2. COORDINATE MOUNTING/CURB HEIGHT AS REQUIRED TO PROVIDE PROPER CONDENSATE DRAINAGE/TRAP HEIGHT.

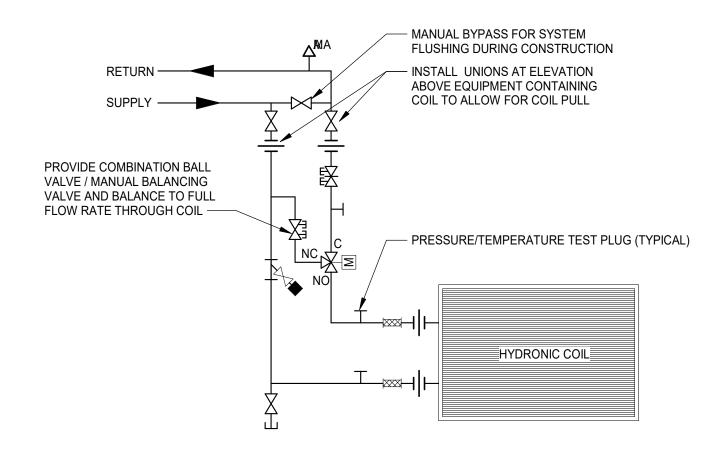
3. NOTIFY ARCHITECT BEFORE FABRICATION IF PHYSICAL CONDITIONS PREVENT INSTALLATION OF DEPTH INDICATED.

PROVIDE COMBINATION BALL VALVE / MANUAL BALANCING VALVE AND BALANCE TO FULL FLOW RATE THROUGH COIL —

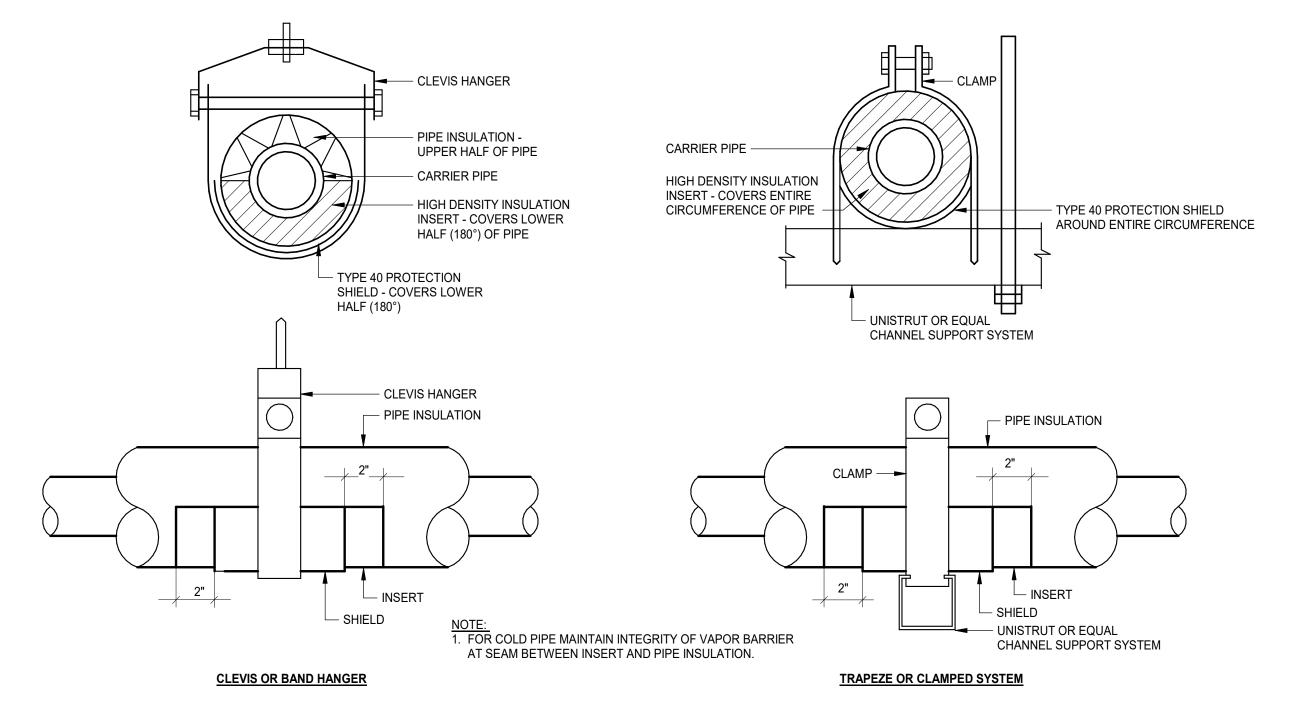
RETURN ——

SUPPLY —

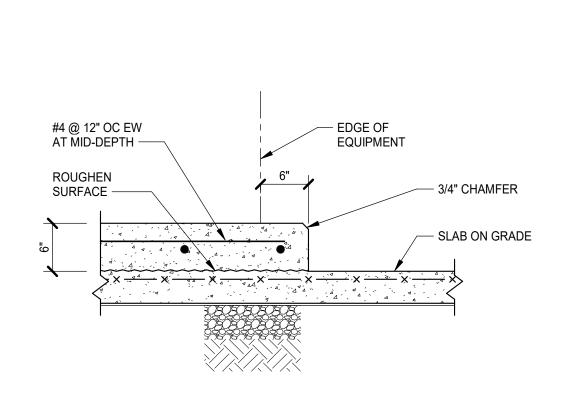
HYDRONIC COIL PIPING DIAGRAM - AHU



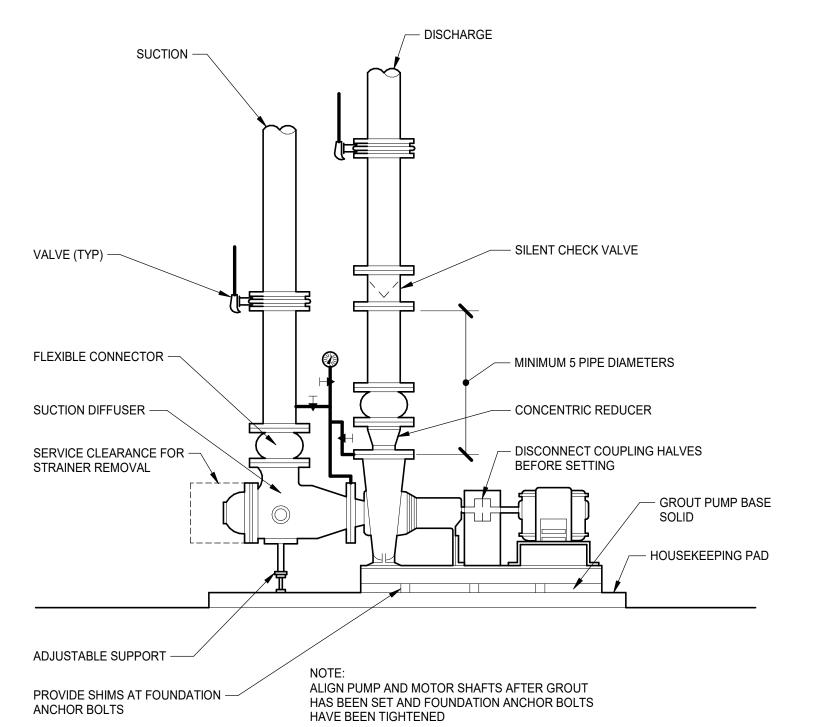
HYDRONIC COIL PIPING DIAGRAM - TERMINAL EQUIPMENT







HOUSEKEEPING PAD DETAIL



PUMP DETAIL

CHILLED WATER RETURN

TEMPERATURE

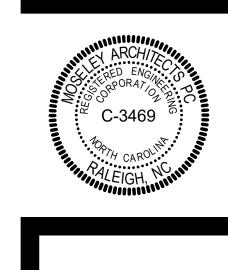
CHILLED WATER
DIFFERENTIAL
PRESSURE

CHILLED WATER SUPPLY

TEMPERATURE

CHILLED WATER RETURN TO CAMPUS LOOP

CHILLED WATER SUPPLY FROM CAMPUS LOOP





PROJECT NO: 593101.2
DATE: AUGUST 13, 2024
REVISIONS
DATE DESCRIPTION

CONTROLS

CENTER RENOVATION

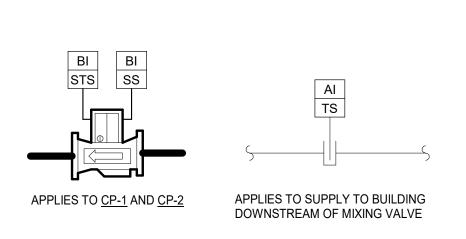
CHILLED WATER RETURN FROM SYSTEM

CHILLED WATER SUPPLY TO SYSTEM

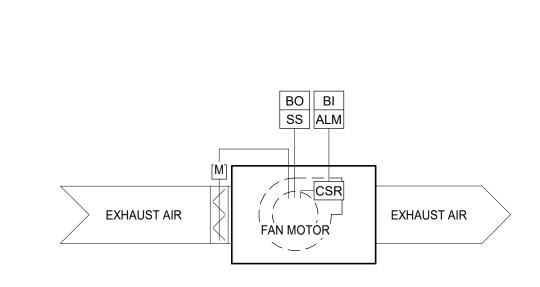
ADVANCED MANUFACTURING

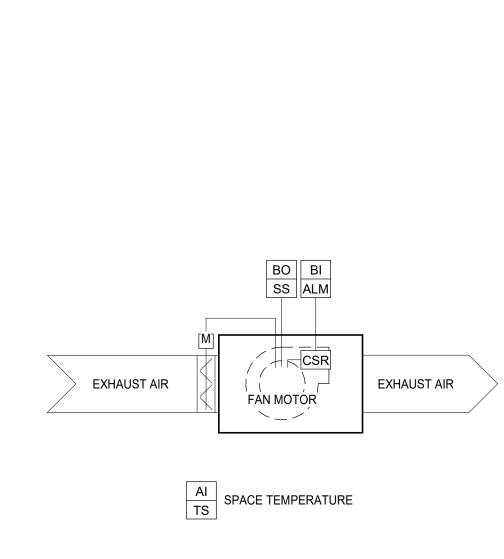
EXHAUST AIR EXHAUST AIR FAN MOTOR AI SPACE TEMPERATURE EXHAUST AIR EXHAUST AIR FAN MOTOR **EXHAUST FAN - CONTROLLED BY** HOT WATER PUMP CONTROLS

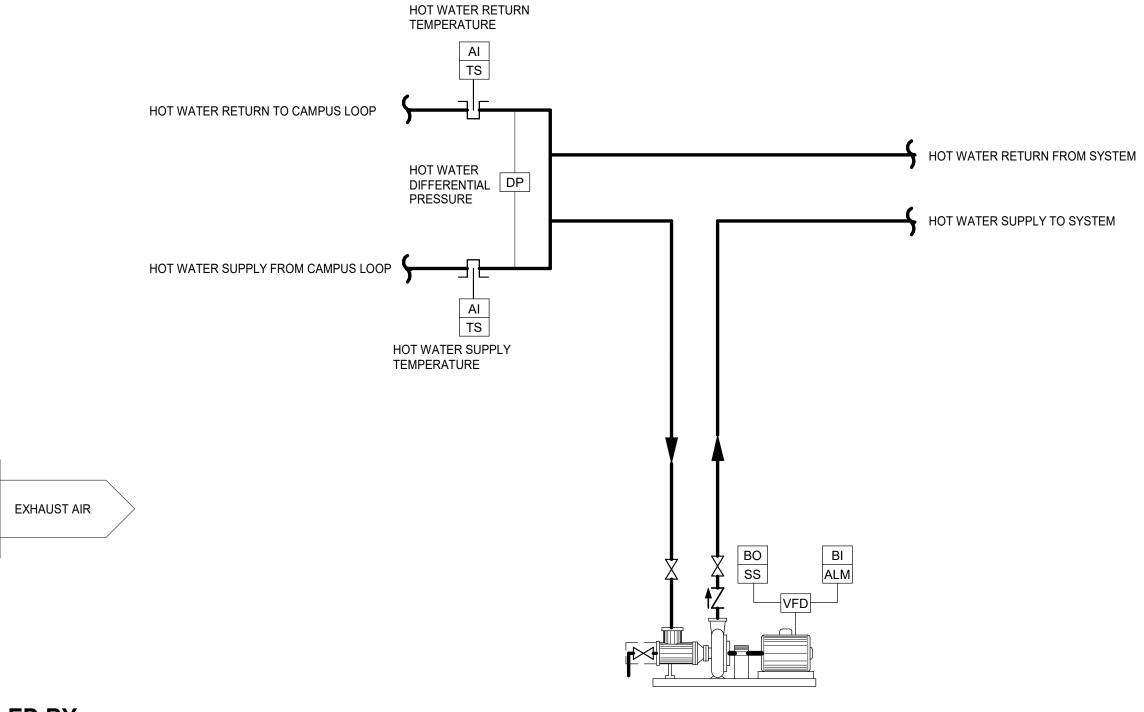
NO SCALE SPACE TEMPERATURE CHILLED WATER PUMP CONTROLS **EXHAUST FAN - CONTROLLED BY BAS SCHEDULE** OUTDOOR AIR STATIC PRESSURE -SENSOR TO ACT AS A LOW STATIC LIMIT BI AO BO BI CONTROL FOR HOT WATER VALVE RETURN AIR FROM PLENUM CONTROL FOR HOT WATER CONTROL VALVE. STATIC PRESSURE — SENSOR LOCATED DOWNSTREAM OF SUPPLY FAN TO ACT AS A HIGH STATIC LIMIT BI CONDENSATE DRAIN PAN ALARM UNIT ——— CONTROL PANEL UNIT —— CONTROL PANEL - HOT WATER HEATING COIL AI SPACE TEMPERATURE - HOT WATER COIL UNIT —— CONTROL PANEL DUCT STATICPRESSURE MODULATING --VALVE MODULATING VALVE — SPACE TEMPERATURE AI SPACE HUMIDITY (REFER TO FLOOR PLANS FOR LOCATION AND QUANTITY) SENSOR LOCATED TWO-THIRDS DOWN DUCT AI SPACE TEMPERATURE AI SPACE CARBON DIOXIDE (REFER TO FLOOR PLANS FOR LOCATION AND QUANTITY)

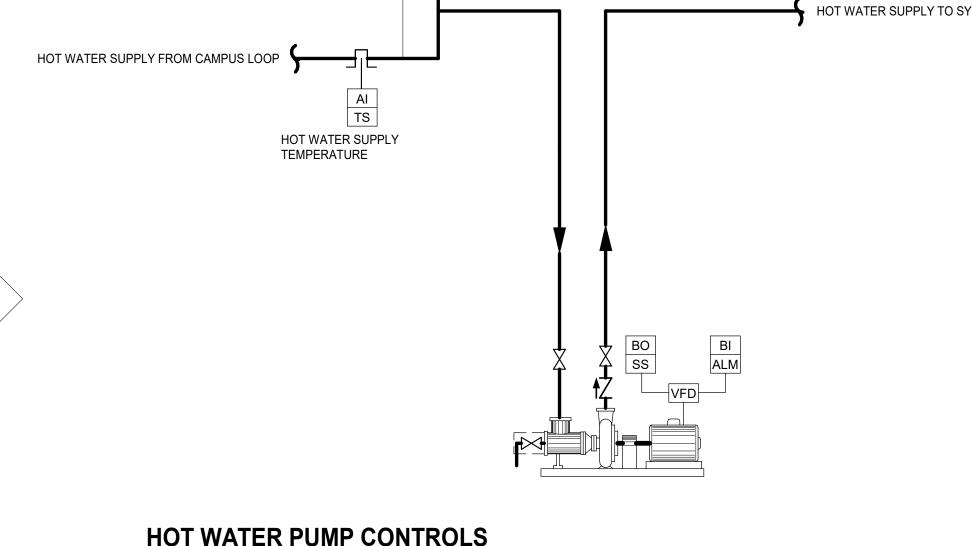


DOMESTIC WATER PUMP AND TEMPERATURE MONITORING

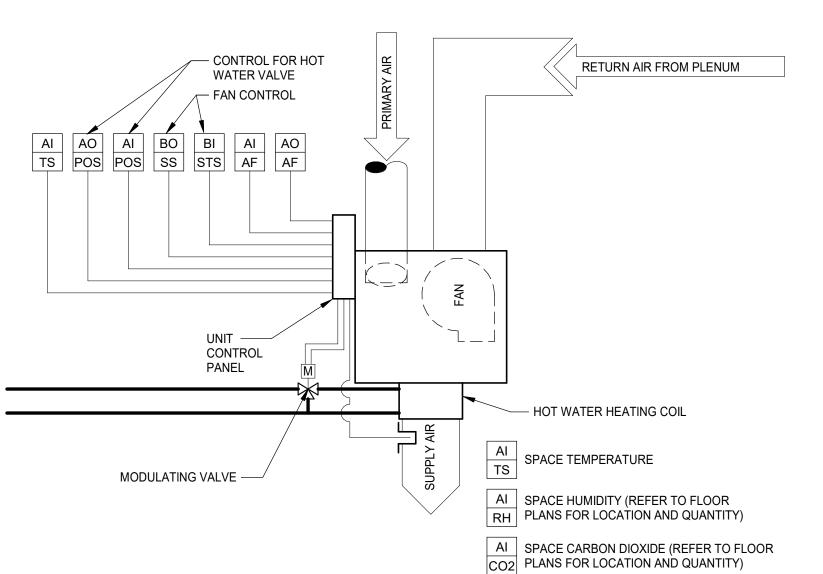








TERMINAL UNIT WITH MODULATING **CONTROL OF HOT WATER HEAT**



VAV AHU SERVING TERMINAL UNITS

TERMINAL UNIT - COOLING ONLY

E. LOCATED ALL SWITCHES FOR LOCAL CONTROL OF LIGHTING ON STRIKE SIDE OF SINGLE DOORS UNLESS

. PROVIDE SPECIFIC BREAKER ARRANGEMENT FOR THE PANEL BOARDS WHEREVER PHYSICALLY POSSIBLE.

TYPEWRITTEN PANELBOARD DIRECTORIES INDICATING ACTUAL BRANCH CIRCUIT ARRANGEMENT. HAND

H. ALL CONDUIT RUNS INDICATED ARE DIAGRAMMATIC, COORDINATE ROUTING IN ALL SPACES WITH OTHER

ALL PANELBOARDS INDICATED ARE HOUSED IN A SINGLE WIDTH ENCLOSURE, UNO. THE CONTRACTOR SHALL

FIELD VERIFY ROOM LAYOUT AND ADJUST ACCORDINGLY, AT NO COST TO THE OWNER, IF PROVIDING ANY

. WHERE POWER AND COMMUNICATION OUTLETS ARE INDICATED IN CLOSE PROXIMITY ON THE DRAWINGS.

.. WHEN GROUPING MULTIPLE LINE TO NEUTRAL BRANCH CIRCUITS IN A CONDUIT, PROVIDE DEDICATED

COLOR CODED NEUTRAL CONDUCTORS FOR EACH CIRCUIT. DO NOT USE BREAKER TIES AND SHARED

M. PROVIDE A 2" WIDE YELLOW LINE PAINTED ON THE FLOOR INDICATING THE ELECTRICAL WORKING SPACE. IN

FRONT OF ALL ELECTRICAL PANELS IN ELECTRICAL ROOMS. REFER TO PLANS FOR ELECTRICAL WORKING

SPACE DETAILS. STENCIL "NO STORAGE" IN 2" HIGH, YELLOW LETTERS CENTERED IN THE OUTLINED AREA.

ABBREVIATIONS

PROVIDE AS-BUILT DRAWINGS INDICATING ACTUAL BRANCH CIRCUIT ARRANGEMENT. PROVIDE TYPE

WRITTEN PANELBOARD DIRECTORIES INDICATING ACTUAL BRANCH CIRCUIT ARRANGEMENT.

3. PROVIDE AS-BUILT DRAWINGS INDICATING ACTUAL BRANCH CIRCUIT ARRANGEMENT. PROVIDE

FIELD COORDINATE THE LOCATIONS TO PLACE THE OUTLETS ADJACENT TO EACH OTHER.

K. ALL EXTERIOR RECEPTACLES SHALL BE LABELED "WR" - WEATHER RESISTANT.

OTHERWISE INDICATED.

WRITTEN SCHEDULES ARE NOT ACCEPTABLE.

NEUTRALS EVEN THOUGH PERMITTED BY NEC.

SINGLE PHASE

THREE PHASE

ALUMINUM

BREAKER

CONDUIT

CEILING

COMPANY

COMBINATION

DISCONNECT

EMPTY CONDUIT

DIVISION

DRAWING

FLEVATOR

EXTERIOR

FIRE ALARM

FULL LOAD AMPS

HOUSEKEEPING PAD

HIGH PRESSURE SODIUM

IN ACCORDANCE WITH

ISOLATED GROUND

JUNCTION BOX

KILOVOLT AMPS

LIGHT EMITTING DIODE

MINIMUM CIRCUIT AMPACITY

MAIN CIRCUIT BREAKER

METAL HALIDE

MAIN LUG ONLY

NORMALLY CLOSED

NORMALLY OPEN

PANELBOARD

RECEPTACLE SECURITY

SPECIFICATION(S)

SWITCH

TELECOM TELECOMMUNICATIONS

TYPICAL

VOLTS

WATTS

WITH

WIRE GUARD

WEATHERPROOF

SWBD SWITCHBOARD

TGB

VFD

PROTECTIVE DEVICE

SURGE PROTECTIVE DEVICE

TELECOMMUNICATIONS CLOSET

VARIABLE FREQUENCY DRIVE

MOUNTED

NEUTRAL

NUMBER

MEGAHERTZ

MOTOR CONTROL CENTER

MASS NOTIFICATION SYSTEM

MAXIMUM OVER CURRENT PROTECTION.

OWNER FURNISHED CONTRACTOR INSTALLED

TELECOMMUNICATIONS BONDING BACKBONE

TELECOMMUNICATIONS GROUNDING BUS BAR

TMGB TELECOMMUNICATIONS MAIN GROUNDING BUS BAR

UNLESS NOTED (INDICATED) OTHERWISE

PILOT LIGHT (AT THE SWITCH HANDLE)

KILOHERTZ

LIGHTING

LIGHTS

HORSEPOWER

COMMUNICATIONS

CLEAR

CLR

ELEV

EPO

FAGP

FAXP

FPND

KHFSS

WEATHERPROOF (NEMA 3R)

AUTOMATIC TRANSFER SWITCH

COMMUNITY ANTENNA TELEVISION (CABLE)

ABOVE FINISHED FLOOR

BELOW FINISHED CEILING

BELOW FINISHED GRADE

CLOSED CIRCUIT TELEVISION

ELECTRIC BASEBOARD HEATER

EMERGENCY POWER OFF

ELECTRIC WATER COOLER

FIRE ALARM ANNUNCIATOR PANEL

FIRE ALARM CONTROL PANEL

FIRE ALARM GRAPHIC PANEL

FUSE PER NAMEPLATE DATA

FIRE ALARM EXTENDER PANEL

FIRE FIGHTER'S SMOKE CONTROL PANEL

GROUND FAULT CIRCUIT INTERRUPT

KITCHEN HOOD FIRE SUPPRESSION SYSTEM

FUSE PER MANUFACTURERS REQUIREMENTS/RECOMMENDATIONS

GROUND FAULT PROTECTION FOR EQUIPMENT, 6-50mA PER NEC 427.22 (PROVIDE ACCESSORY FOR

LOCKOUT TO PREVENT UNAUTHORIZED SWITCHING (PROVIDE ACCESSORY FOR INDICATED BREAKER)

ROUTE CIRCUIT TO LOAD VIA LIGHTING CONTACTOR, REFER TO LC SCHEDULE

MAINTENANCE LOCK (PROVIDE ACCESSORY FOR INDICATED BREAKER)

SHUNT TRIP, 120V COIL (PROVIDE ACCESSORY FOR INDICATED BREAKER)

GROUND FAULT PROTECTION FOR PERSONNEL, 4-6mA (PROVIDE ACCESSORY FOR INDICATED

EXISTING TO REMAIN

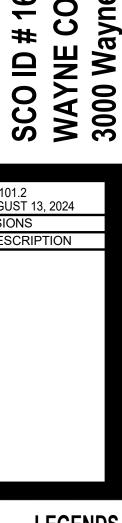
EMERGENCY COMMUNICATIONS STATION

CIRCUIT BREAKER

AUGUST 13, 2024 REVISIONS DESCRIPTION

PROJECT NO: 593101.2

ABBREVIATIONS AND **GENERAL NOTES**



COMMUNICATIONS LEGEND

NOTE: REFER TO 'TYPICAL COMMUNICATION OUTLET DETAIL' FOR BOX & CONDUIT REQUIREMENTS. REFER TO TELECOMMUNICATION DEVICE DETAILS FOR CABLING AND TERMINAL JACK REQUIREMENTS.

APPLIANCE RECEPTACLE, MOUNT AT +1'-6" AFF. PROVIDE NEMA CONFIGURATION TO MATCH PLUG FOR SYMBOL DESCRIPTION

 $\nabla_{\mathbf{y}}$ TELECOMMUNICATIONS OUTLET, NUMBER INDICATES QTY OF CABLES. MOUNT AT +3'-10"AFF. TELECOMMUNICATIONS OUTLET, NUMBER INDICATES QTY OF CABLES. MOUNT AT +1'-6"AFF.

TELECOMMUNICATIONS OUTLET, NUMBER INDICATES QTY OF CABLES. MOUNT AT +7'-6"AFF. RECESSED FLOOR MOUNT DEVICE COMPLETE WITH FITTINGS FOR FLOOR COVERING.

INTERCOM STATION WITH PUSHBUTTON, MOUNT AT +4'-6"AFF.

PROVIDE PROTECTIVE WIRE GUARD.

[MISC COMMUNICATIONS OUTLET], MOUNT AT +4'-6"AFF. PUSHBUTTON SWITCH, MOUNT AT +4'-6"AFF. SUBSCRIPT "E" INDICATES EMERGENCY FUNCTIONS. CATV OUTLET, MOUNT AT +[1'-6"] [7'-6"]AFF.

WALL CLOCK, MOUNT AT +7'-6"AFF. SUBSCRIPT "D" INDICATES DOUBLE FACE CLOCK. WALL CLOCK, CEILING MOUNT. SUBSCRIPT "D" INDICATES DOUBLE FACE CLOCK. ARROWS INDICATE FACE DIRECTION.

ന്ന#ഹ# MICROPHONE OUTLET, WALL MOUNT AT +1'-6"AFF, FLUSH FLOOR MOUNT. SUBSCRIPT NUMBER INDICATES NUMBER OF JACKS TO PROVIDE IN OUTLET. SOUND SYSTEM SPEAKER, RECESS WALL MOUNT AT +7'-6"AFF. 'WG' WHERE PRESENT INDICATES

SOUND SYSTEM SPEAKER, RECESS CEILING MOUNT. 'WG' WHERE PRESENT INDICATES PROVIDE PROTECTIVE WIRE GUARD. POWER/COMMUNICATIONS RECESSED FLOOR BOX. SUBSCRIPT LETTER INDICATES OUTLET TYPE.

REFER TO "TYPICAL COMMUNICATION OUTLET DETAIL" FOR BOX AND CONDUIT REQUIREMENTS. POWER/COMMUNICATIONS RECESSED FLOOR BOX ON EMERGENCY POWER. SUBSCRIPT LETTER INDICATES OUTLET TYPE. REFER TO "TYPICAL COMMUNICATION OUTLET DETAIL" FOR BOX AND POWER/COMMUNICATIONS POKE-THRU FLOOR BOX. SUBSCRIPT LETTER INDICATES OUTLET TYPE. (2)

CONNECT, UNO. REFER TO 'TYPICAL COMMUNICATION OUTLET DETAIL.' POWER/COMMUNICATIONS POKE-THRU FLOOR BOX ON EMERGENCY POWER. SUBSCRIPT LETTER INDICATES OUTLET TYPE. (2) 3/4" CONDUITS, (1) EACH AT OPPOSITE SIDES, TO STUB-UP AT NEAREST COMMUNICATION CROSS-CONNECT, UNO. REFER TO 'TYPICAL COMMUNICATION OUTLET DETAIL.' SYSTEM FURNITURE COMMUNICATIONS CONNECTIONS VIA FLOOR BOX. PROVIDE 1.25" CONDUIT BELOW

3/4" CONDUITS, (1) EACH AT OPPOSITE SIDES, TO STUB-UP AT NEAREST COMMUNICATION CROSS-

SLAB TO STUB-UP AT NEAREST COMMUNICATION BACK BOARD. COORDINATE WITH FURNITURE PROVIDER PRIOR TO ROUGH-IN. SYSTEM FURNITURE COMMUNICATIONS CONNECTION VIA FLUSH WALL BOX MOUNTED +4"AFF. PROVIDE 1.25" CONDUIT WITH BUSHING FROM BOX TO ABOVE CEILING. COORDINATE WITH FURNITURE PROVIDER

TELECOMMUNICATON FOR CEILING MOUNTED VIDEO PROJECTOR. PROVIDE QUANTITY OF CABLES INDICATED.

PROVIDE (2) HDMI CABLES TO PROJECTOR LOCATION. SYSTEM FURNITURE COMMUNICATIONS CONNECTION VIA POWER POLE FURNISHED WITH SYSTEM FURNITURE. COORDINATE WITH FURNITURE PROVIDER PRIOR TO ROUGH-IN.

WIRELESS ACCESS POINT TELECOMMUNICATIONS EQUIPMENT RACK. 2" EMT CONDUIT SLEEVE WITH NYLON BUSHING EACH END UNO, THRU WALL AT +6" ABOVE FINISHED

TG TELECOMMUNICATIONS GROUND BUS BAR, MOUNT AT +1'-6"AFF. TELECOMMUNICATIONS MAIN GROUND BUS BAR, MOUNT AT +1'-6"AFF CABLE TRAY, MOUNT AT +6" ABOVE FINISHED CEILING.

LIGHTING LEGEND

SYMBOL DESCRIPTION LIGHT SWITCH, RATED 120/277 VOLTS, 20-AMPS, MOUNT AT +3'-10"AFF. SUBSCRIPT/SUPERSCRIPT LETTERS, NUMBERS, AND SYMBOLS INDICATES SWITCH TYPE AS FOLLOWS:

INDICATES 3-WAY LIGHT SWITCH **INDICATES 4-WAY LIGHT SWITCH** INDICATES DIMMER SWITCH INDICATES PILOT LIGHT, ON WHEN SWITCH IS ON

INDICATES KEY OPERATED LIGHT SWITCH INDICATES SWITCH WITH INTEGRAL OCCUPANCY SENSOR INDICATES DIMMER SWITCH WITH INTEGRAL OCCUPANCY SENSOR INDICATES DUAL RELAY INTEGRAL OCCUPANCY SENSOR, WIRED FOR MULTI-LEVEL SWITCHING

LOWER CASE LETTER INDICATES LIGHT FIXTURE CONTROL DESIGNATION

\$\$ INDICATES SWITCHES WIRED FOR INBOARD/OUTBOARD SWITCHING. OMNI-DIRECTIONAL LIGHTING CONTROL OCCUPANCY DETECTOR, CEILING MOUNT.

DIRECTIONAL LIGHTING CONTROL OCCUPANCY DETECTOR, WALL MOUNT AT 6" BELOW FINISHED CEILING. (PE) PHOTOELECTRIC CELL FOR LIGHTING CONTROL. WALL MOUNT AT +10-0"AFF. AIM NORTH.

LIGHT FIXTURE, CEILING MOUNT.

 LIGHT FIXTURE ON EMERGENCY POWER, CEILING MOUNT ○ ☐ LIGHTING FIXTURE.

LIGHTING FIXTURE ON EMERGENCY POWER. WALL WASHER LIGHTING FIXTURE. IGHT FIXTURE, WALL MOUNT, HEIGHT AS INDICATED.

EMERGENCY EGRESS LIGHTING FIXTURE, WITH BATTERY PACK, WALL MOUNT AT +8'-0"AFF

⊗ EXIT SIGN, CEILING MOUNT. DIRECTIONAL ARROWS AS INDICATED. SHADING INDICATES FACE(S) OF SIGN. EXIT SIGN, WALL MOUNT. DIRECTIONAL ARROWS AS INDICATED. SHADING INDICATES FACE(S) OF SIGN. TRACK LIGHTS.

■ LIGHT FIXTURE, POLE MOUNT. SPORTS LIGHTING POLE

SYMBOL DESCRIPTION REMOVE DEVICES, EQUIPMENT, IN ACCORDANCE

WITH THE GENERAL DEMOLITION NOTES.

DEVICES ARE EXISTING TO REMAIN.

BUT NOT LIMITED TO LIGHT FIXTURES, SWITCHING SYSTEMS, RECEPTACLES, DATA OUTLETS, CLOCK, SPEAKERS & FIRE ALARM UNLESS OTHERWISE NOTED. EXCLUDE ELECTRICAL DEVICES ON EXTERIOR WALLS UNLESS OTHERWISE NOTED.

LIFE SAFETY SYMBOL LEGEND DESIGNATOR MATRIX PARTITION 1 HR FIRE X 2 HR FIRE

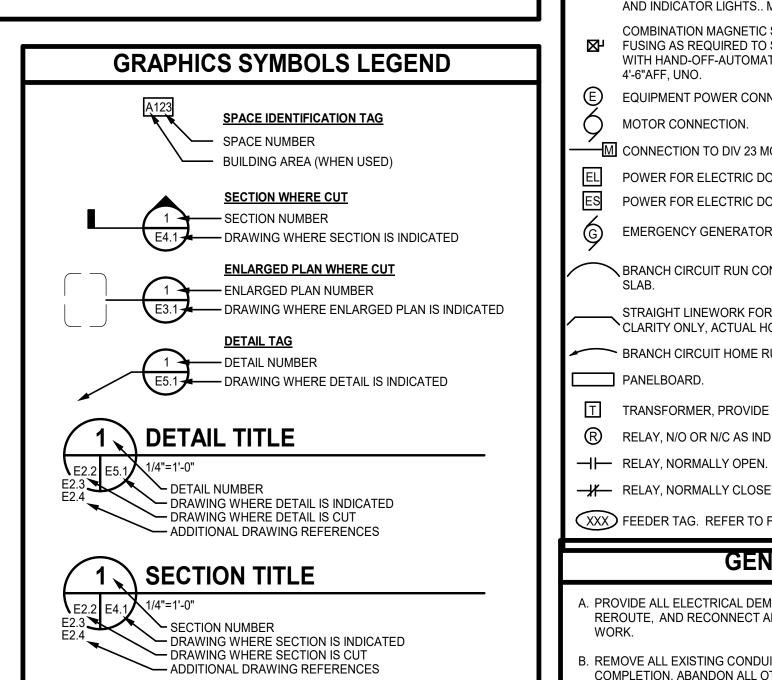
WALL/PARTITION CONSTRUCTION.

SYMBOLS LEGEND AND A0, A1 AND, A2 SERIES OF DRAWINGS, FOR

FIRE ALARM AUDIO/VISUAL NOTIFICATION DEVICE, MOUNT AT 80" AFF AND NOT MORE THAN 96". I_{xx} SUBSCRIPT NUMBER INDICATES STROBE CANDELA RATING. APPLIANCE RECEPTACLE, MOUNT AT +1'-6"AFF. PROVIDE NEMA CONFIGURATION TO MATCH PLUG FOR EQUIPMENT SERVED. CONNECT TO EMERGENCY POWER, PROVIDE RED DEVICE. FIRE ALARM VISUAL STROBE NOTIFICATION DEVICE, 80" AFF AND NOT MORE THAN 96". SUBSCRIPT DUPLEX RECEPTACLE, NEMA 5-20R, MOUNT AT +1'-6"AFF. FIRE ALARM AUDIO/VISUAL NOTIFICATION DEVICE WITH DEVICE GUARD, 80" AFF AND NOT MORE THAN DUPLEX RECEPTACLE WITH USB PORTS, NEMA 5-20R, REFERENCE ARCHITECTURAL DRAWINGS FOR 96". SUBSCRIPT NUMBER INDICATES STROBE CANDELA RATING. # / # INDICATES STROBE SETTING AND MOUNTING HEIGHT. $ldsymbol{ldsymbol{ldsymbol{ldsymbol{ldsymbol{\mathsf{L}}}}}_{\mathsf{XX}}$ reduced effective output when device guard is present. DUPLEX RECEPTACLE, NEMA 5-20R, MOUNT AT +1'-6"AFF. CONNECT TO EMERGENCY POWER, PROVIDE FIRE ALARM VISUAL STROBE NOTIFICATION DEVICE, 80" AFF AND NOT MORE THAN 96". SUBSCRIPT NUMBER INDICATES STROBE CANDELA RATING. # / # INDICATES STROVE SETTING AND REDUCED DUPLEX RECEPTACLE, NEMA 5-20R, MOUNT AT +3'-10"AFF. XX EFFECTIVE OUTPUT WHEN DEVICE GUARD IS PRESENT. DUPLEX RECEPTACLE, NEMA 5-20R, MOUNT AT +3'-10"AFF. CONNECT TO EMERGENCY POWER, FIRE ALARM AUDIO/VISUAL NOTIFICATION DEVICE, CEILING MOUNTED. SUBSCRIPT NUMBER PROVIDE RED DEVICE. X INDICATES STROBE CANDELA RATING. DUPLEX RECEPTACLE, NEMA 5-20R, MOUNT AT +7'-6"AFF. FIRE ALARM VISUAL STROBE NOTIFICATION DEVICE, CEILING MOUNTED. SUBSCRIPT NUMBER DUPLEX RECEPTACLE, NEMA 5-20R, MOUNT AT +7'-6"AFF. CONNECT TO EMERGENCY POWER, PROVIDE XX INDICATES STROBE CANDELA RATING. DUPLEX RECEPTACLE, NEMA 5-20R, RECESS FLOOR MOUNT. FIRE ALARM AUDIO/VISUAL NOTIFICATION DEVICE WITH DEVICE GUARD, CEILING MOUNTED. SUBSCRIPT NUMBER INDICATES STROBE CANDELA RATING. # / # INDICATES STROBE SETTING AND REDUCED GFCI DUPLEX RECEPTACLE, NEMA 5-20R, MOUNT AT +1'-6"AFF. PROVIDE NEMA 3R "WHILE IN USE" EFFECTIVE OUTPUT WHEN DEVICE GUARD IS PRESENT. GFCI DUPLEX RECEPTACLE, NEMA 5-20R, MOUNT AT +1'-6"AFF. FIRE ALARM VISUAL STROBE NOTIFICATION DEVICE, CEILING MOUNTED. SUBSCRIPT NUMBER INDICATES STROBE CANDELA RATING. # / # INDICATES STROVE SETTING AND REDUCED EFFECTIVE GFCI DUPLEX RECEPTACLE, NEMA 5-20R, MOUNT AT +1'-6"AFF. CONNECT TO EMERGENCY POWER, OUTPUT WHEN DEVICE GUARD IS PRESENT. GFCI DUPLEX RECEPTACLE, NEMA 5-20R, MOUNT AT +3'-10"AFF. F FIRE ALARM MANUAL PULL STATION, MOUNT AT +3'-10"AFF. GFCI DUPLEX RECEPTACLE, NEMA 5-20R, MOUNT AT +3'-10"AFF. CONNECT TO EMERGENCY POWER, FK FIRE ALARM KEY OPERATED MANUAL PULL STATION, MOUNT AT +3'-10"AFF. PROVIDE RED DEVICE. DOUBLE DUPLEX RECEPTACLE, NEMA 5-20R, MOUNT AT +1'-6"AFF. FIRE ALARM DUCT SMOKE DETECTOR, FURNISH AND CONNECT UNDER DIVISION 28. INSTALL UNDER DIVISION 23. VERIFY LOCATION WITH DIVISION 23 PRIOR TO ROUGH-IN. PROVIDE ACCESSIBLE KEY DOUBLE DUPLEX RECEPTACLE, NEMA 5-20R, MOUNT AT +1'-6"AFF. CONNECT TO EMERGENCY POWER, OPERATED REMOTE TEST SWITCH FOR EACH DETECTOR. PROVIDE RED DEVICE. (S) SMOKE DETECTOR, CEILING MOUNT. SUBSCRIPT 'G' WHEN PRESENT INDICATES PROVIDE DEVICE GUAR DOUBLE DUPLEX RECEPTACLE, NEMA 5-20R, MOUNT AT +3'-10"AFF. (H) HEAT DETECTOR, CEILING MOUNT. SUBSCRIPT 'G' WHEN PRESENT INDICATES PROVIDE DEVICE GUARD DOUBLE DUPLEX RECEPTACLE, NEMA 5-20R, MOUNT AT +3'-10"AFF. CONNECT TO EMERGENCY POWER, PROVIDE RED DEVICE. (TS) FIRE ALARM TAMPER SWITCH, PROVIDE UNDER DIVISION 23, MONITOR UNDER DIVISION 28. DOUBLE DUPLEX RECEPTACLE, NEMA 5-20R, RECESS FLOOR MOUNT. (FS) FIRE ALARM FLOW SWITCH, PROVIDE UNDER DIVISION 23, MONITOR UNDER DIVISION 28. Ψ SINGLE RECEPTACLE, NEMA 5-20R, MOUNT AT +1'-6"AFF. (PV) POST INDICATOR VALVE SWITCH, PROVIDE UNDER DIVISION 23, MONITOR UNDER DIVISION 28. $m \mu$ SINGLE RECEPTACLE, NEMA 5-20R, MOUNT AT +3'-10"AFF. FIRE ALARM PRESSURE SWITCH, PROVIDE UNDER DIVISION 23, MONITOR UNDER DIVISION 28. SPD DUPLEX RECEPTACLE, NEMA 5-20R, MOUNT AT +1'-6"AFF. POWER/COMMUNICATIONS RECESSED FLOOR BOX. SUBSCRIPT NUMBER INDICATES OUTLET TYPE. (RI) FIRE ALARM REMOTE INDICATOR, CEILING MOUNT. REFER TO DETAIL ON E4 SERIES DRAWINGS. (M) FIRE ALARM MONITOR MODULE. NOT ALL MONITOR MODULES ARE INDICATED ON DRAWINGS. PROVIDE POWER/COMMUNICATIONS RECESSED FLOOR BOX. CONNECT TO EMERGENCY POWER, PROVIDE RED QUANTITY AND IN LOCATIONS REQUIRED TO ACCOMPLISH SPECIFIED MONITORING FUNCTIONS. DEVICES. SUBSCRIPT NUMBER INDICATES OUTLET TYPE. REFER TO DETAIL ON E4 SERIES DRAWINGS. FIRE ALARM CONTROL MODULE. NOT ALL CONTROL MODULES ARE INDICATED ON DRAWINGS. POWER/COMMUNICATIONS POKE THRU FLOOR BOX. SUBSCRIPT NUMBER INDICATES OUTLET TYPE. PROVIDE QUANTITY AND IN LOCATIONS REQUIRED TO ACCOMPLISH SPECIFIED CONTROL FUNCTIONS. REFER TO DETAIL ON E4 SERIES DRAWINGS. POWER/COMMUNICATIONS POKE THRU FLOOR BOX. CONNECT TO EMERGENCY POWER, PROVIDE RED DEVICES. SUBSCRIPT NUMBER INDICATES OUTLET TYPE. REFER TO DETAIL ON E4 SERIES DRAWINGS. FIRE ALARM SPRINKLER BELL, MOUNT AT +10'-0"AFF. FIRE ALARM MAGNETIC DOOR HOLDER, WALL MOUNT DEVICE AT 6" BELOW TOP OF DOOR. PROVIDE SYSTEM FURNITURE FLEX POWER CABLE CONNECTION VIA FLOOR BOX. COORDINATE W/ SYSTEM FURNITURE PROVIDER PRIOR TO ROUGH-IN. HINGED MAGNETIC CATCH PLATE ON DOOR TO MATE WITH DEVICE, COORDINATE LOCATION AND LENGTH WITH DIVISION 08. PROVIDE CONCEALED 120-VOLT POWER CONNECTION AND FIRE ALARM SYSTEM FURNITURE FLEX POWER CABLE CONNECTION VIA FLUSH WALL BOX MOUNTED 4" AFF. COORDINATE W/FURNITURE PROVIDER PRIOR TO ROUGH-IN. CONTROL MODULE IF REQUIRED FOR PROPER OPERATION. 1 FIRE ALARM DOOR HOLDER/CLOSER HARDWARE UNDER DIVISION 08, MONITOR AND CONTROL INTERFACE WITH FIRE ALARM UNDER DIVISION 28. POWER FOR CEILING MOUNTED VIDEO PROJECTOR. PROVIDE CEILING MOUNTED DUPLEX RECEPTACLE FIRE ALARM/POWER CONNECTION TO DIVISION 23 SMOKE OR FIRE/SMOKE DAMPER. COORDINATE FLUSH WITH CEILING. COORDINATE FINAL LOCATION PRIOR TO ROUGH IN. WITH DIVISION 23. REFER TO TYPICAL FIRE/SMOKE DAMPER DIAGRAM. POWER/COMMUNICATIONS POWER POLE, FURNISHED WITH (NIC) SYSTEM FURNITURE. PROVIDE J-BOX MTD TO STRUCTURE ABOVE CLG. AND FLEXIBLE CONDUIT CONNECTION TO J-BOX MTD TO TOP OF POLE AND CONNECTED TO PIGTAIL(S) FURNISHED WITH POLE. POLE LOCATION IS APPROXIMATE, ONE LINE DIAGRAM LEGEND COORDINATE WITH SYSTEM FURNITURE PROVIDER. LINE VOLTAGE THERMOSTAT. DIVISION 23 FURNISH, DIVISION 26 INSTALL. REFER TO DIVISION 23 SYMBOL DESCRIPTION DRAWINGS FOR LOCATIONS AND QUANTITY. PUSHBUTTON CONTROLLER. CIRCUIT BREAKER PUSHBUTTON. CORD REEL OUTLET, CEILING MOUNT. FUSED SWITCH [NON-] METALLIC SURFACE RACEWAY, DEVICES AS INDICATED, MOUNT AT +1'-6"AFF, UNO. J) JUNCTION BOX, CONCEALED ABOVE CEILING, UNO. TRANSFORMER JUNCTION BOX, UNDER FLOOR MOUNT. CB ENCLOSED CIRCUIT BREAKER, CHARACTERISTICS AS INDICATED. TRANSFER SWITCH MUSHROOM SWITCH, HEAVY DUTY WITH LEGEND PLATE. MOUNT W/HANDLE AT +3'-10" AFF, UNO. MANUAL MOTOR STARTER, OVERLOAD PROTECTION AS REQUIRED PER NAME PLATE RATINGS, WITH FEEDER DESIGNATION 'ON' INDICATOR PILOT LIGHT. FLUSH MOUNT W/HANDLE AT +3'-10"AFF, UNO.

FIRE ALARM LEGEND

YMBOL DESCRIPTION



CURRENT TRANSFORMER

→ PT POTENTIAL TRANSFORMER

(XXX) FEEDER TAG. REFER TO FEEDER SCHEDULE ON DWG E5.1 **GENERAL DEMOLITION NOTES**

DISCONNECT SWITCH, FUSIBLE OR NON-FUSIBLE AS INDICATED. MOUNT W/HANDLE AT +4'-6"AFF, UNO.

MAGNETIC MOTOR STARTER, WITH OVERLOAD RELAYS AS REQUIRED TO SERVE MANUFACTURER

COMBINATION MAGNETIC STARTER AND DISCONNECT SWITCH. WITH OVERLOAD ELEMENTS AND

FUSING AS REQUIRED TO SERVE MANUFACTURER REQUIREMENTS OF EQUIPMENT SERVED. PROVIDE

WITH HAND-OFF-AUTOMATIC SELECTOR SWITCH AND INDICATOR LIGHTS.. MOUNT W/HANDLE AT +

BRANCH CIRCUIT RUN CONCEALED, UNO. DASHED INDICATES CIRCUITRY REQUIRED TO BE RUN BELOW

STRAIGHT LINEWORK FOR CIRCUITRY INDICATES ON EMERGENCY POWER CIRCUIT. INDICATED FOR

`CLARITY ONLY, ACTUAL HOMERUN DESIGNATION OVERRIDES THIS SYMBOLOGY.

TRANSFORMER, PROVIDE CONCRETE HOUSEKEEPING PAD UNLESS NOTED OTHERWISE.

BRANCH CIRCUIT HOME RUN TO PANELBOARD AND CIRCUIT INDICATED.

REQUIREMENTS OF EQUIPMENT SERVED. PROVIDE WITH HAND-OFF-AUTOMATIC SELECTOR SWITCH

AND INDICATOR LIGHTS.. MOUNT W/HANDLE AT +4'-6"AFF, UNO.

 $\overline{\hspace{0.1in}}$ Connection to DIV 23 motorized damper, verify location.

POWER FOR ELECTRIC DOOR LOCK CONNECTION.

POWER FOR ELECTRIC DOOR STRIKE CONNECTION

E) EQUIPMENT POWER CONNECTION.

EMERGENCY GENERATOR.

RELAY, N/O OR N/C AS INDICATED.

RELAY, NORMALLY CLOSED.

MOTOR CONNECTION.

POWER LEGEND

SYMBOL DESCRIPTION

. PROVIDE ALL ELECTRICAL DEMOLITION WORK REQUIRED TO INSTALL THE WORK INDICATED. REMOVE. REROUTE, AND RECONNECT ALL BRANCH CIRCUITS THAT WILL REMAIN IN USE BUT INTERFERES WITH THE

3. REMOVE ALL EXISTING CONDUITS THAT WILL NOT BE REUSED AND WHERE THEY WILL BE EXPOSED AFTER COMPLETION, ABANDON ALL OTHERS IN THE WALLS ONLY. DISCONNECT ALL WIRING INDICATED AND/OR REQUIRED TO BE REMOVED FROM ALL POWER SOURCES. REMOVE ALL WIRING FROM ABANDONED

CONDUITS AND PROVIDE BLANK COVER PLATES FOR BOXES NOT UTILIZED FOR THE WORK. . MAINTAIN CONTINUITY OF ALL EXISTING CIRCUITS TO REMAIN OR PORTIONS THEREOF AFFECTED BY THE

D. BEFORE DEMOLITION, VERIFY WITH THE OWNER ALL EQUIPMENT TO BE SALVAGED TO OWNER AND NOT REMOVED FROM THE SITE. FOR ALL REMAINING EQUIPMENT INDICATED FOR REMOVAL (AND NOT

RELOCATED), REMOVE AND DISPOSE IN A LEGAL MANNER. E. EXERCISE CARE IN REMOVING DEMOLITION ITEMS. REPAIR OR REPLACE ALL DAMAGE CAUSED TO EXISTING CONSTRUCTION AND EQUIPMENT TO REMAIN.

DRAWINGS ARE BASED UPON EXISTING PLANS AND FIELD INVESTIGATION WITHOUT DEMOLITION. VISIT THE EXISTING BUILDING AND BECOME FAMILIAR WITH ALL EXISTING CONDITIONS AND EXAMINE ALL DRAWINGS

G. WHERE DEMOLITION OF TELECOMMUNICATIONS DEVICES OCCUR, REMOVE CABLING NOT INDICATED TO REMAIN BACK TO POINT OF ORIGIN.

H. DEMOLITION FLOOR PLANS ARE PROVIDED FOR REFERENCE ONLY TO AID IN DEFINING THE SCOPE OF

DEMOLITION LEGEND

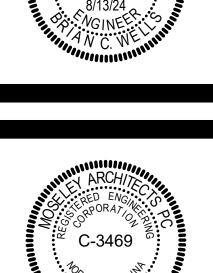
WITHIN HATCHED AREAS, DISCONNECT AND REMOVE ALL ELECTRICAL DEVICES INCLUDING

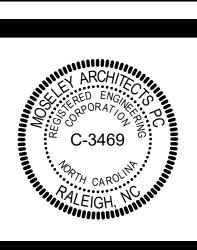
. WALL DESIGNATIONS ON THE LS SERIES OF DRAWINGS ARE FOR GRAPHICAL PURPOSES ONLY AND MAY NOT REPRESENT THE ACTUAL

. REFER TO THE CONTRACT DOCUMENTS, INCLUDING THE LIFE SAFET ACTUAL WALL/PARTITION TYPES AND CONSTRUCTION REQUIREMENTS. . INDICATED RATINGS AT EXISTING WALLS ARE EXISTING TO REMAIN,

XFER TRANSFER AND ARE BASED ON INFORMATION PROVIDED BY THE OWNER. XFMR TRANSFORMER

DISPOSE OF ALL LAMPS SCHEDULED TO BE DEMOLISHED IN ACCORDANCE WITH NC GENERAL STATUES G.S.







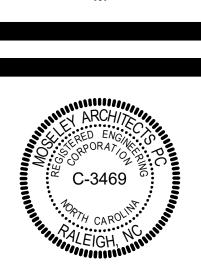
CENTER RENOVATION MANUFACTURING

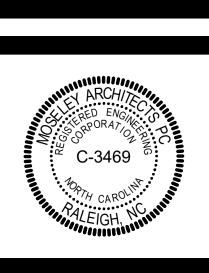
PROJECT NO: 593101.2
DATE: AUGUST 13, 2024
REVISIONS
DATE DESCRIPTION

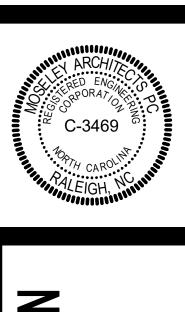
FIRST FLOOR PLAN -**DEMOLITION**

/E-757-3E-757-3E

FIRST FLOOR PLAN - DEMOLITION







ADVANCED MANUFACTURING CENTER RENOVATION

PROJECT NO: 593101.2
DATE: AUGUST 13, 2024
REVISIONS
DATE DESCRIPTION

FIRST FLOOR PLAN -

MENS AF-3
RESTROOM
117
L2
AF-3
AF-3
AF-3 F-3 WOMENS
RESTROOM L2 O L2 O AF-2 EMR 124 L2 AF-2 L2 AF-2 CORRIDOR 132 L2 AF-3 L2 O AF-Z BLET VAULT 11'0" AFF NETWORK CLOSET _ 123 AF-3 AF-3

MULTIPURPOSE

STORAGE

118

L
AF-3

AF-3

AF-3 BLET OFFICE L2 AF-2 L2 AF-2 L2 AF-2 DSbS a b L1 AF-4 a L1 AF-4 L1 O AF-4
MILO RANGE
THEATER
108 AF-4 b L1 AF-4 a O AF-4 b 0 b L1 AF-4

EMERGENCY
DISPATCH LAB

b 114

L1 AF-4

AF-4

AF-4

AF-4 AF-4 AF-4

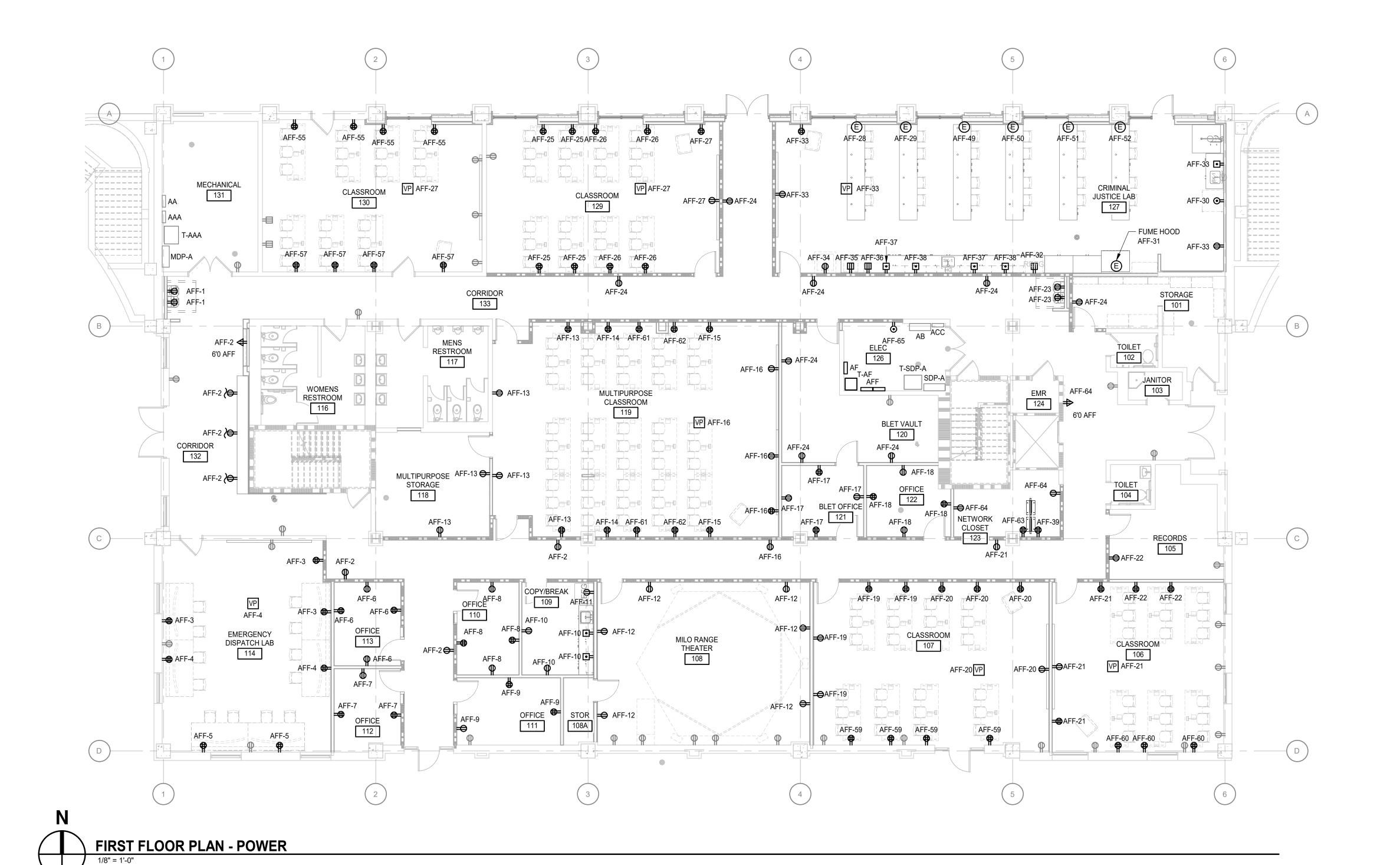
AF-4 AF-4 COPY/BREAK a L1 AF-4 b O AF-4 CLAS b L1 AF-4 L1 O b L1 AF-4 L1 O a L1 O AF-4 b L1 AF-4 b L1 AF-4 AF-4 OFFICE
112

AF-4

AF-4 L2 AF-2 X1 AF-2 AF-4 & STOR 108A L1 AF-4 L1 O b L1 O AF-4 a L1 AF-4 b L1 O AF-4 L3 AF-4 b L1 AF-4 b O L1 AF-4 a O L1 AF-4 b L1 O AF-4 b L1 O AF-4 8'0" AFF 8'0" AFF

FIRST FLOOR PLAN - LIGHTING

FIRST FLOOR PLAN -**POWER**



GENERAL NOTES

. LAY EXISTING CABLE INTO CABLE TRAY WHERE LEFT OVER FROM DEMOLITION.

KEYNOTES

APPLICABLE TO THIS DRAWING

IF FOUND TO NOT BE EXISTING AND BOND TO GROUND BUS INTERIOR TO PANEL MDP-A. PROVIDE #6 GND FROM TGB TO NEAREST BUILDING STEEL VIA EXOTHERMIC CONNECTION.

PROVIDE #6 GND FROM TGB TO INTERSYSTEM BONDING TERMINAL (IBT) EXTERIOR TO PANEL MDP-A. CONTRACTOR SHALL PROVIDE IBT

B. CONNECT ALL FIRE ALARM DEVICES INDICATED TO EXISTING EDWARDS EST-3 PANEL. PROVIDE ADDITIONAL NAC & SLC CIRCUITS AS REQUIRED. PERFORM FIRE ALARM REACCEPTANCE TESTING PER NFPA 72 REQUIREMENTS.

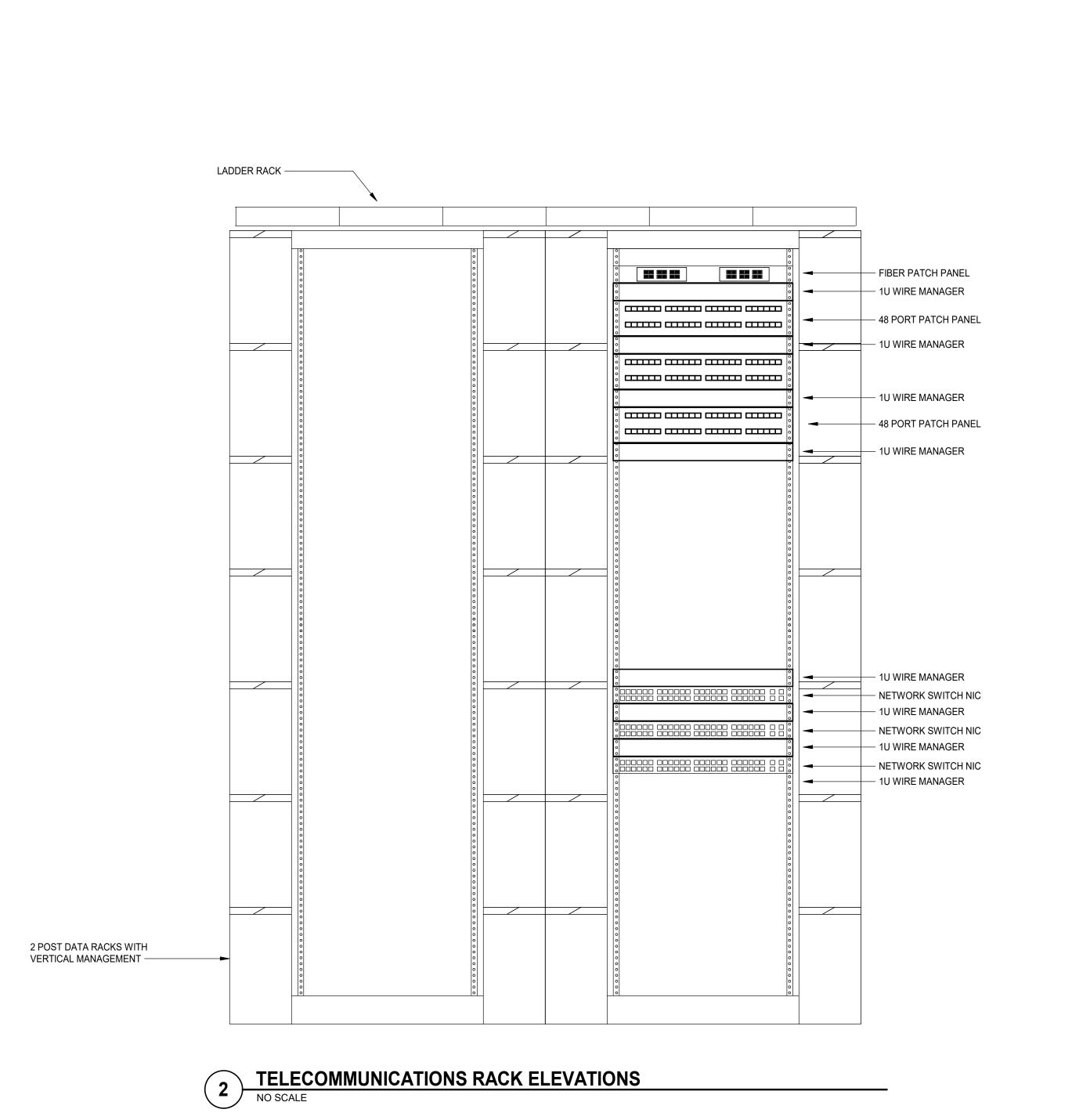
C. PROVIDE 1 1/2" C SLEEVES AT ALL NECESSARY WALL PENETRATIONS FOR HORIZONTAL CABLING.

PROJECT NO: 593101.2 DATE: AUGUST 13, 2024 REVISIONS

FIRST FLOOR PLAN -COMMUNICATIONS

NOTIFICATION / ACTION CONTROL UNIT ANNUNCIATION SLC INTELLIGENT LOOP 1 **EXISTING** FIRE ALARM CONTROL NOTIFICATION PANEL (FACP) FIRE ALARM FIRE ALARM CONTROL PANEL APPLIANCE DIGITAL ANNUNCIATOR CIRCUIT MODULE PANEL (FACP) **BATTERY** CHARGER **BATTERIES** AUDIBLE NAC L_______ PROVIDE QUANTITIES AS REQUIRED PROVIDE MINIMUM (1) SLC TERMINAL CABINET & (1) NAC MODULE PER FLOOR FIRE ALARM RISER DIAGRAM
NO SCALE

FIRST FLOOR PLAN - COMMUNICATIONS



FIRE ALARM

INPUT/OUTPUT MATRIX

1 MANUAL PULL STATION 2 SMOKE DETECTOR

6 DUCT SMOKE DETECTOR

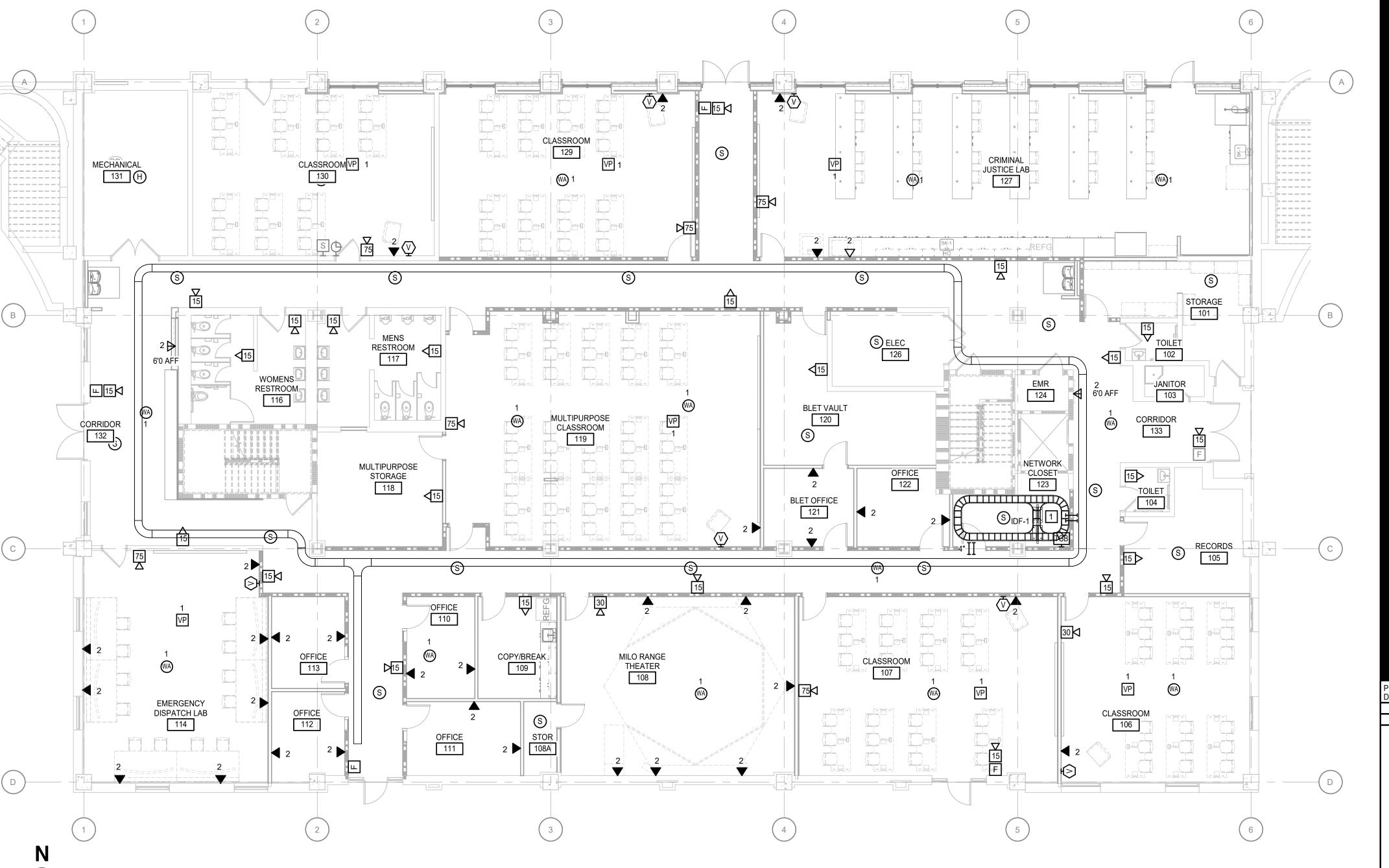
13 FIRE ALARM GROUND FAULT

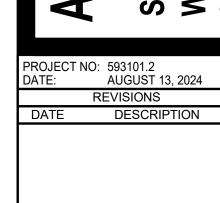
7 HEAT DETECTOR

3 SMOKE DETECTOR - ELEVATOR FIRST FLOOR

4 SMOKE DETECTOR - ELEVATOR SECOND FLOOR

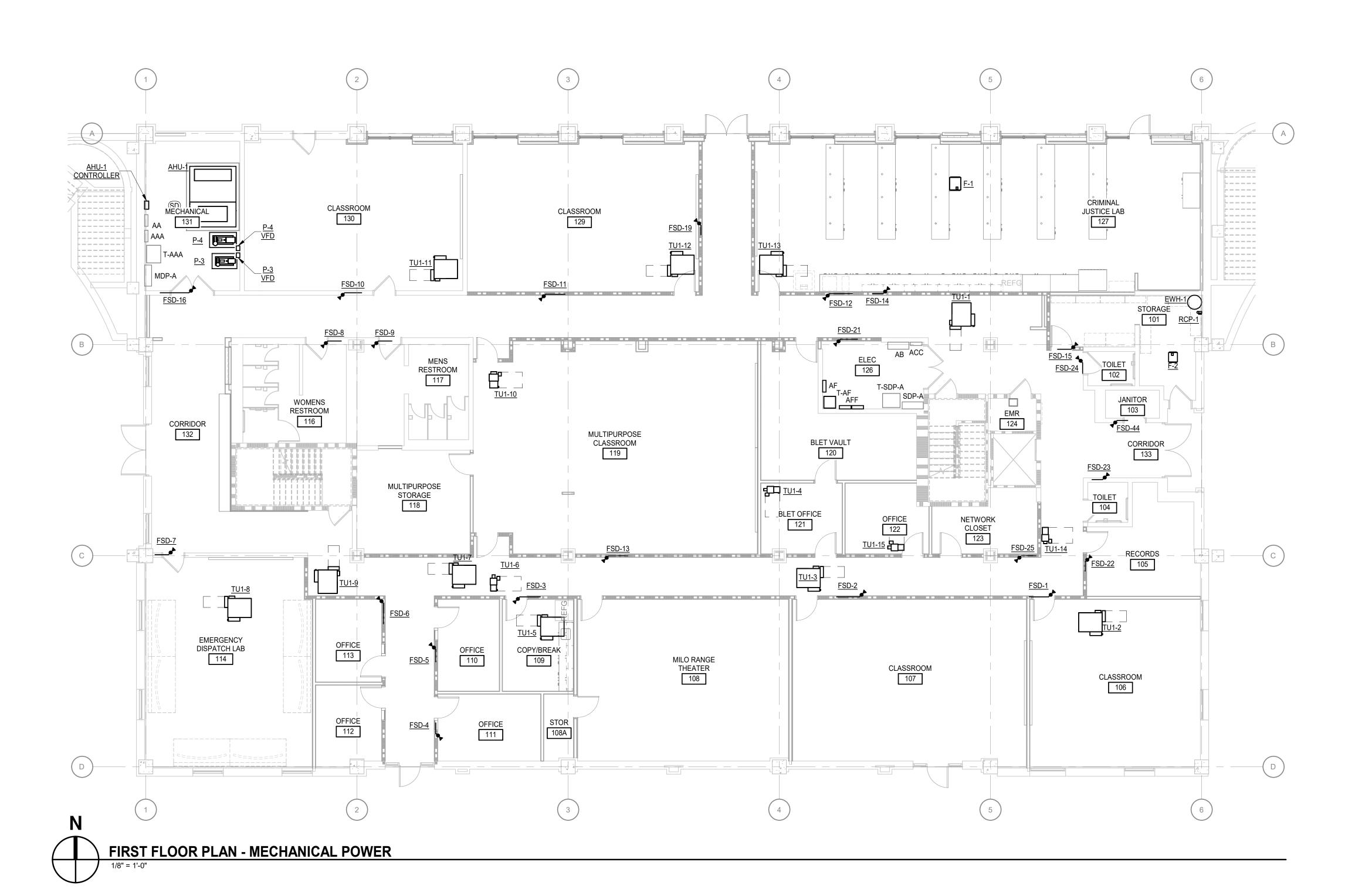
14 FIRE ALARM NOTIFICATION APPLIANCE CIRCUIT SHORT





FIRST FLOOR PLAN -**MECHANICAL POWER**

DIV 23 ELECTRICAL CONNECTION SCHEDULE E2.4 VOLTAGE POLES LOAD PANEL CCT# DISCONNECTING MEANS REMARKS 480 V 3 17.6 kVA AF 5,7,9 (4) #6, (1) #10 E.G IN 1"C 60A/NF NEMA 1 120 V 1 0.1 kVA AFF 42 (2) #12, (1) #12 E.G IN 3/4"C MOTOR RATED SWITCH AHU-1 CONTROLLER 208 V 3 10.0 kVA AFF 54,56,58 60A/NF NEMA 1 120 V 1 1.2 kVA AFF 43 (2) #12, (1) #12 E.G IN 3/4"C MOTOR RATED SWITCH 120 V 1 0.5 kVA AFF 48 (2) #12, (1) #12 E.G IN 3/4"C MOTOR RATED SWITCH REFER TO SMOKE DAMPER DETAIL 120 V 1 0.1 kVA AFF 40 (2) #12, (1) #12 E.G IN 3/4"C FSD-2 120 V 1 0.1 kVA AFF 40 (2) #12, (1) #12 E.G IN 3/4"C REFER TO SMOKE DAMPER DETAIL 0.1 kVA AFF 40 (2) #12, (1) #12 E.G IN 3/4"C REFER TO SMOKE DAMPER DETAIL 0.1 kVA AFF 40 (2) #12, (1) #12 E.G IN 3/4"C REFER TO SMOKE DAMPER DETAIL 120 V 1 0.1 kVA AFF 40 (2) #12, (1) #12 E.G IN 3/4"C 120 V 1 0.1 kVA AFF 40 (2) #12, (1) #12 E.G IN 3/4"C REFER TO SMOKE DAMPER DETAIL REFER TO SMOKE DAMPER DETAIL 120 V 1 0.1 kVA AFF 40 (2) #12, (1) #12 E.G IN 3/4"C REFER TO SMOKE DAMPER DETAIL REFER TO SMOKE DAMPER DETAIL 120 V 1 0.1 kVA AFF 41 (2) #12, (1) #12 E.G IN 3/4"C FSD-9 120 V 1 0.1 kVA AFF 41 (2) #12, (1) #12 E.G IN 3/4"C REFER TO SMOKE DAMPER DETAIL 0.1 kVA AFF 41 (2) #12, (1) #12 E.G IN 3/4"C REFER TO SMOKE DAMPER DETAIL 120 V 1 0.1 kVA AFF 41 (2) #12, (1) #12 E.G IN 3/4"C 120 V 1 0.1 kVA AFF 41 (2) #12, (1) #12 E.G IN 3/4"C 120 V 1 0.1 kVA AFF 40 (2) #12, (1) #12 E.G IN 3/4"C REFER TO SMOKE DAMPER DETAIL REFER TO SMOKE DAMPER DETAIL REFER TO SMOKE DAMPER DETAIL 120 V 1 0.1 kVA AFF 41 (2) #12, (1) #12 E.G IN 3/4"C REFER TO SMOKE DAMPER DETAIL 120 V 1 0.1 kVA AFF 41 (2) #12, (1) #12 E.G IN 3/4"C REFER TO SMOKE DAMPER DETAIL REFER TO SMOKE DAMPER DETAIL 120 V 1 0.1 kVA AFF 41 (2) #12, (1) #12 E.G IN 3/4"C 120 V 1 0.1 kVA AFF 41 (2) #12, (1) #12 E.G IN 3/4"C REFER TO SMOKE DAMPER DETAIL 120 V 1 0.1 kVA AFF 41 (2) #12, (1) #12 E.G IN 3/4"C REFER TO SMOKE DAMPER DETAIL 120 V 1 0.1 kVA AFF 40 (2) #12, (1) #12 E.G IN 3/4"C 120 V 1 0.1 kVA AFF 40 (2) #12, (1) #12 E.G IN 3/4"C 120 V 1 0.1 kVA AFF 40 (2) #12, (1) #12 E.G IN 3/4"C 120 V 1 0.1 kVA AFF 40 (2) #12, (1) #12 E.G IN 3/4"C REFER TO SMOKE DAMPER DETAIL 0.1 kVA AFF 40 (2) #12, (1) #12 E.G IN 3/4"C 480 V 3 6.3 kVA AF 6,8,10 (3) #12, (1) #12 E.G IN 3/4"C MOTOR RATED SWITCH ROUTE FEED THROUGH VFD 480 V 3 11.6 kVA AF 11,13,15 (3) #12, (1) #12 E.G IN 3/4"C MOTOR RATED SWITCH ROUTE FEED THROUGH VFD 1 1.1 kVA AFF 53 (2) #12, (1) #12 E.G IN 3/4"C MOTOR RATED SWITCH 0.5 kVA AFF 44 (2) #12, (1) #12 E.G IN 3/4"C MOTOR RATED SWITCH 0.5 kVA AFF 44 (2) #12, (1) #12 E.G IN 3/4"C MOTOR RATED SWITCH 0.5 kVA AFF 44 (2) #12, (1) #12 E.G IN 3/4"C MOTOR RATED SWITCH 120 V 1 0.5 kVA AFF 47 (2) #12, (1) #12 E.G IN 3/4"C MOTOR RATED SWITCH 120 V 1 0.5 kVA AFF 47 (2) #12, (1) #12 E.G IN 3/4"C MOTOR RATED SWITCH 120 V 1 0.5 kVA AFF 46 (2) #12, (1) #12 E.G IN 3/4"C MOTOR RATED SWITCH 120 V | 1 | 0.5 kVA | AFF | 46 | (2) #12, (1) #12 E.G IN 3/4"C | MOTOR RATED SWITCH 120 V 1 0.5 kVA AFF 46 (2) #12, (1) #12 E.G IN 3/4"C MOTOR RATED SWITCH 0.1 kVA AFF 47 (2) #12, (1) #12 E.G IN 3/4"C MOTOR RATED SWITCH 0.5 kVA AFF 45 (2) #12, (1) #12 E.G IN 3/4"C MOTOR RATED SWITCH 0.5 kVA AFF 45 (2) #12, (1) #12 E.G IN 3/4"C MOTOR RATED SWITCH TU1-13 120 V 1 0.5 kVA AFF 45 (2) #12, (1) #12 E.G IN 3/4"C MOTOR RATED SWITCH 120 V 1 0.5 kVA AFF 44 (2) #12, (1) #12 E.G IN 3/4"C MOTOR RATED SWITCH 120 V 1 0.5 kVA AFF 44 (2) #12, (1) #12 E.G IN 3/4"C MOTOR RATED SWITCH



COPPER FEEDER SCHEDULE

CONDUIT SIZE

3/4"

3/4"

1 1/4"

1 1/4"

1 1/4"

1 1/4"

1 1/2"

1 1/2"

2"

2 1/2"

2 1/2"

2 1/2"

2 1/2"

2 1/2"

1. ELECTRICAL CONTRACTOR TO VERIFY CONDUIT SIZE REQUIRED IF WIRE TYPES OTHER

LOCATION: ELEC 126

BUILDING WIRE

THHN - DRY

TYPE THWN - WET

4#10,#10 G

4#8,#10 G

4#8,#10 G

4#6,#10 G

4#6,#10 G

4#4,#10 G

4#4,#8 G

4#3,#8 G

4#2,#8 G

4#1,#8 G

4#2,#6 G

4#1,#6 G

4#1/0,#6 G

4#2/0,#6 G

4#3/0,#6 G

4#4/0,#4 G

4-250kCM,#4 G

4-350kCM,#4 G

4#2/0,#3 G

4#3/0,#3 G

4#4/0,#2 G

4-250kCM,#2 G

4-350kCM,#1 G

4-500kCM,#1/0 G

4-350kCM,#1/0 G

4-500kCM,#2/0 G

4-350kCM,#3/0 G

FED FROM: T-AF

POLE BRKR CKT

1 20 A 12

1 20 A 14

1 20 A 16

1 20 A 18 1 20 A 20

1 15 A 48

1 20 A 50

1 20 A 52

1 20 A 80 1 20 A 82 1 20 A 84

Panel Totals

Total Conn. Load: 63.7 kVA

LOAD CALCULATION

Total Est. Demand: 50.8 kVA

Total Conn. Current: 177 A

Total Est. Demand... 141 A

EXISTING SERVICE LOAD + 125%

EXISTING SERVICE SIZE @ 480/277V 3PH

CONDUIT SIZE

3/4"

3/4"

3/4"

1"

1 1/4"

1 1/4"

1 1/4"

1 1/4"

1 1/2"

1 1/2"

2"

2 1/2"

2 1/2"

2 1/2"

2 1/2"

2 1/2"

FEEDER # OF QUANTITY & SIZE TYPE MINIMUM

SETS

(30Y)

(40Y)

(45Y)

(50Y)

(80Y)

(90Y)

(110Y)

(125Y)

(150Y)

200Y

(225Y)

250Y)

(300Y)

350Y

(400Y)

(450Y)

(500Y)

(700Y)

(800Y)

(1200Y)

MOUNT: SURFACE PANEL ASSEMBLY RATED (KAIC): 10 KAIC

0.2 1.1 RECEPTACLES MILO RANGE...

RIMINAL JUSTICE LAB 127

C FUME CHAMBER 127

C COMPORATOR 127

CRIMINAL JUSTICE LAB 127

RIMINAL JUSTICE LAB 127

AHU-1 CONTROLLER

C REFRIDERATOR 127 (GP C FINGERPRINT SCANNER 1

0.4 1.4 REC 134, 133, 120, 101

BUILDING WIRE

THHN - DRY

TYPE THWN - WET

3#10,#10 G

3#8,#10 G

3#8,#10 G

3#6,#10 G

3#6,#10 G

3#4,#10 G

3#4,#8 G

3#3,#8 G

3#2,#8 G

3#1,#8 G

3#2,#6 G

3#1,#6 G

3#1/0,#6 G

3#2/0,#6 G

3#3/0,#6 G

3#4/0,#4 G

3-250kCM,#4 G

3-350kCM,#4 G

3#2/0,#3 G

3#3/0,#3 G

3#4/0,#2 G

3-250kCM,#2 G

3-350kCM,#1 G

3-500kCM,#1/0 G

3-350kCM,#1/0 G

3-500kCM,#2/0 G

3-350kCM,#3/0 G

FEEDER SIZES BASED ON TABLE 310.15(B)(16), 75° C.

THAN THOSE LISTED ABOVE ARE USED.

3. SIZES ADJUSTED PER NEC 110.14.

1.4 0.7

0.5 0.5

0.5 0.5

1.4 3.3

0.4 0.5

0.0 0.0

24 kVA 22 kVA 17 kVA

Connected Load | Demand Factor | Estimated Demand

63.75%

0.00%

0.00%

0.00%

0.00%

100.00%

100.00% 19040 VA

23180 VA

0 VA

0 VA

0 VA

0 VA

6020 VA

FEEDER | # OF | QUANTITY & SIZE TYPE | MINIMUM

SETS

(30)

(45)

50

(80)

90

(110)

(125)

150

200

225

250

350

(400)

(450)

(700)

(1200)

NOTES:

PANELBOARD SCHEDULE

11 20 A 1 REC REFRIDGERATOR 109 (GP)

15 20 A 1 RECEPTACLES MULTIPURPOSE

31 | 20 A | 1 | FUME HOOD 127

45 20 A 1 TU1-10,11,12,13

55 20 A 1 REC 130 57 20 A 1 REC 130 59 20 A 1 REC 107

61 20 A 1 REC 119

75 20 A 1 SPARE 77 20 A 1 SPARE 79 20 A 1 SPARE 81 20 A 1 SPARE

83 20 A 1 SPARE

Load Classification

/ HEAT PUMP

LECTRIC HEAT

VELDING

CORRIDOR/INTERIOR

QUIPMENT

47 20 A 1 TU1-5,10,6 49 20 A 1 CRIMINAL JUSTICE LAB 127 51 20 A 1 MISCELLANEOUS CRIMINAL...

63 20 A 1 RECEPTACLES NETWORK...

(GE) = PROVIDE GFCI BREAKER FOR EQUIPMENT, 6-50mA PER NEC 427.22 DED. NEUTRAL

36360 VA

0 VA

0 VA

0 VA

19040 VA

(GP) = PROVIDE GFCI BREAKER FOR PERSONNEL, 4-6mA PER NEC 210.8. DED. NEUTRAL

L) = PROVIDE LOCKOUT BREAKER TO PREVENT UNAUTHORIZED SWITCHING. LC) = ROUTE TO LOAD VIA LIGHTING CONTACTOR, REF DETAIL ON DWG E4.X (ML) = PROVIDE BREAKER WITH MAINTENANCE LOCKOUT, LOCKABLE OFF.

65 | 20 A | 1 | RECEPTACLES ELEC 126

13 20 A 1 REC 118, 119

120/208 Wye

225 AMP MCB

CKT BRKR POLE

K

AC MANO ANC

SCO WAYI 3000 AD AUGUST 13, 2024 REVISIONS DESCRIPTION

PROJECT NO: 593101.2

DIAGRAMS, SCHEDULES, & **DETAILS**

LIGHT FIXTURE SCHEDULE MOUNTING OPTIONS COMMENTS COLOR TEMP. MANUFACTURER SERIES NO. VOLTAGE WATTAGE **DESCRIPTION** LUMENS STRIP LIGHTING URRENT LIGHTING 5412 lm 4000 K SUSPENDED EM BATTERY WHERE INDICATED ARCHITECTURAL TROFFER 2X4 CURRENT LIGHTING 277 V RECESSED EM BATTERY WHERE INDICATED 5784 lm 4000 K CURRENT LIGHTING ARCHITECTURAL TROFFER 2X2 4000 K RECESSED EM BATTERY WHERE INDICATED 3764 lm CURRENT LIGHTING 4000 K ARCHITECTURAL TROFFER 2X4 5026 lm RECESSED EM BATTERY WHERE INDICATED 277 V 3548 lm 4000 K MUD MOUNTING, FLUSH LENS, ASYMMETRIC WATTAGE AND LUMENS SHOWN IN 4 FT INCREMENTS 2 INCH RECESSED LINEAR ALW LIGHTPLANE 2R RECESSED EM BATTERY WHERE INDICATED **EXTERIOR WALL PACK** CURRENT LIGHTING 277 V 4025 lm 4000 K URRENT LIGHTING UNIVERSAL EXIT SIGN 90 MIN BATTERY

1) MECHANICAL EQUIPMENT

ELECTRICAL DRAWINGS.

(2) CONDUIT AND WIRING BY MECHANICAL CONTRACTOR.

(3) IF AN ADDITIONAL DISCONNECT IS REQUIRED BY NEC, IT SHALL BE PROVIDED AND INSTALLED BY THE EQUIPMENT CONTRACTOR. (4) A COMBINATION STARTER OR VFD MAY BE USED IN LIEU OF A

SEPARATE DISCONNECT SWITCH AND STARTER. LOCATE

ADJACENT TO EQUIPMENT. (5) FEEDER CIRCUIT WIRING AND CONDUIT IN ELECTRICAL WORK. SEE

(6) JUNCTION BOX MAY BE SHOWN ON ELECTRICAL PLANS FOR SOME EQUIPMENT. IF NO STARTER OR DISCONNECT IS SUPPLIED, A JUNCTION BOX SHALL BE INSTALLED ADJACENT TO EQUIPMENT. THE ELECTRICAL CONTRACTOR SHALL PROVIDE LINE SIDE WIRING TO THE JUNCTION BOX. LOAD SIDE WIRING WILL BE PROVIDED BY MECHANICAL CONTRACTOR.

(7) PROJECTS UTILIZING AN MCC: THE STARTER, JB, OR VFD IN THE MCC ARE PROVIDED BY THE ELECTRICAL DRAWINGS.

(8) IN ALL CASES, THE EQUIPMENT CONTRACTOR SHALL MAKE FINAL CONNECTIONS, START UP, AND TEST EQUIPMENT.

(9) IF THE ROOFTOP FAN IS NOT PROVIDED WITH A BUILT-IN SWITCH, THE ELECTRICAL CONTRACTOR SHALL PROVIDE A DISCONNECT

(10) IN A SINGLE PRIME CONTRACT, IT IS THE RESPONSIBILITY OF THE PRIME CONTRACTOR TO COORDINATE BETWEEN THE ELECTRICAL AND OTHER TRADES.

DIVISION 23 AND 26 COORDINATION DETAIL

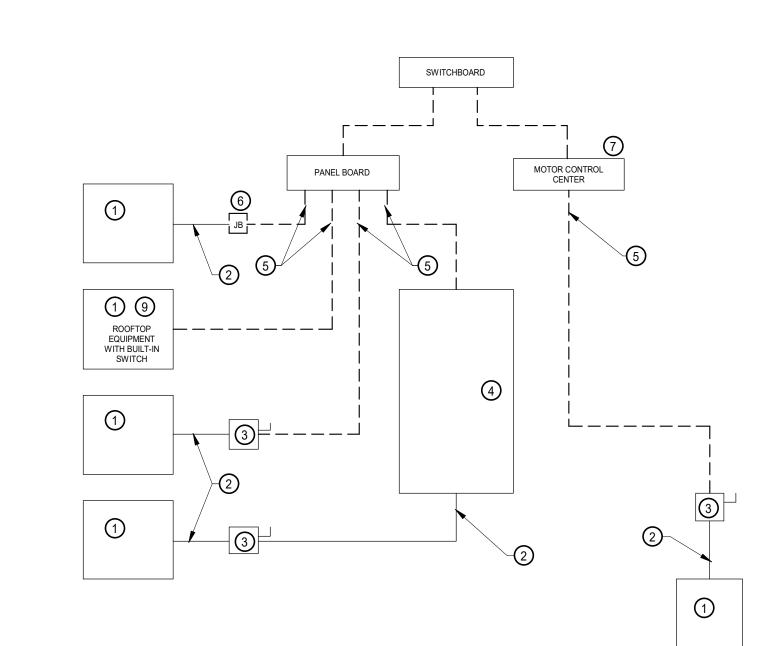


ABB SDP-A ELEVATOR T-AEE T-SDP-A **▼** 75 kVA BUSWAY AAA PROVIDE 225A/3P BREAKER IN EXISTING G.E. PANELBOARD MATCH EXISTING KAIC RATING OF EXISTING BREAKERS. — EX. MEDIUM VOLTAGE PRIMARY 400A/3P 225A/3P $\triangleleft > -$ EX 500KVA PAD MOUNTED TRANSFORMER

ONE LINE DIAGRAM

DEDICATED **ELECTRICAL** SPACE ELECTRICAL **EQUIPMENT** REFER TO NEC ARTICLE 110-26 FOR ADDITIONAL INFORMATION

EQUIPMENT CLEARANCES

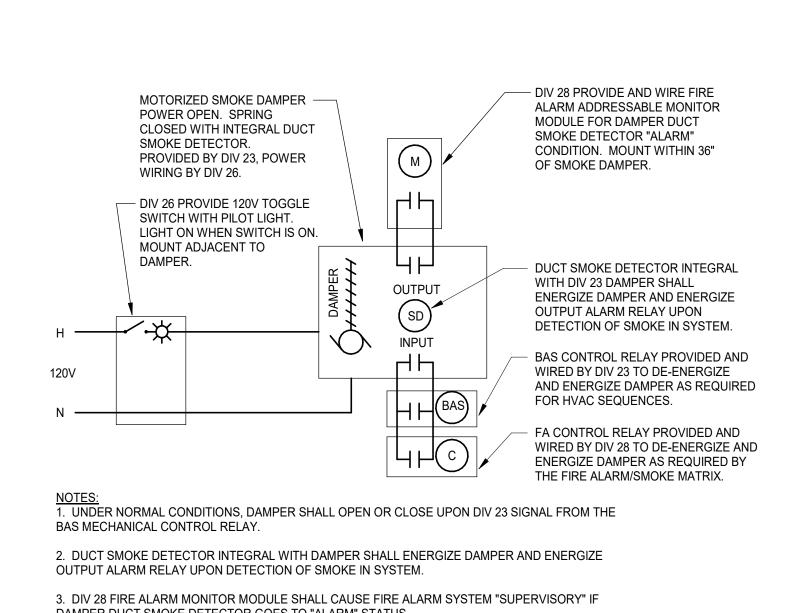
CATEGORY 6A DATA JACK FOR —

INDICATED ON FLOOR PLANS)

DATA COMMUNICATIONS

(TYPICAL OF QUANTITY

2-GANG BACKBOX WITH SINGLE-GANG PLASTER RING AND COVER



DAMPER DUCT SMOKE DETECTOR GOES TO "ALARM" STATUS. 4. VERIFY DAMPER LOCATIONS AND QUANTITY WITH DIV 23. FIRE/SMOKE DAMPER & SMOKE DAMPER WIRING DIAGRAM

TERMINATE CONCEALED 6" ABOVE

- 2.5" DEEP 2-GANG OUTLET BOX

WITH SINGLE GANG PLASTER RING

UNLESS OTHERWISE INDICATED

FLOOR BOX

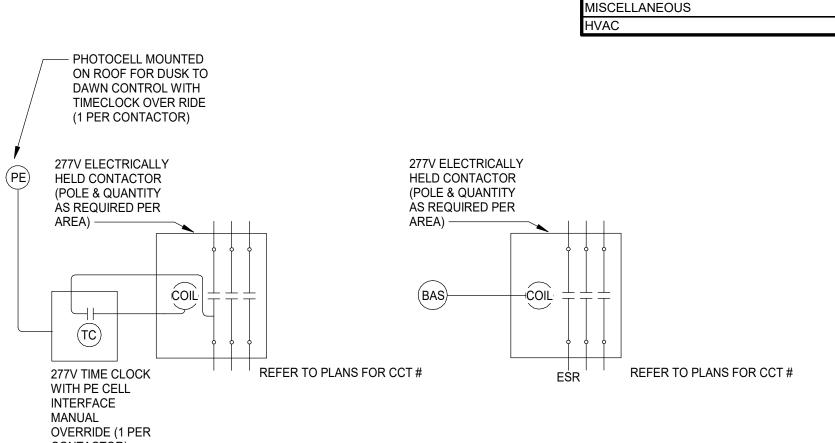
ACCESSIBLE CEILING IN SAME ROOM AS

FLOOR BOX. PROVIDE NYLON BUSHING.

25 AI	MP MCE	3	480/277 Wye	3 F	PH 4 W		MOI	JNT: SU	RFACE	PANEL ASSEMBLY RATE	D (KAIC): 1	0 KAIC	
СКТ	BRKR	POLE	LOAD		A	ı	В	(C	LOAD	POLE	BRKR	СКТ
1	20 A	1	INTERIOR LIGHTING	1406	1360					INTERIOR LIGHTING (LC)	1	20 A	2
3	20 A	1	INTERIOR LIGHTING			1420	2048			INTERIOR LIGHTING	1	20 A	4
5								0 VA	2107				6
7	45 A	3	AHU-1	0 VA	2107					P-3	3	15 A	8
9						0 VA	2107						10
11								3877	2417				12
13	20 A	3	P-4	3877	2210					T-AF	3	125 A	14
15						3877	1739						16
17	20 A	1	EXTERIOR LIGHTING (LC)	0.144	0.1/4			252 VA	0 VA	SPARE	1	20 A	18
19	20 A	1	SPARE	0 VA	0 VA					SPARE	1	20 A	20
21	20 A	1	SPARE			0 VA	0 VA			SPARE	1	20 A	22
23	20 A	1	SPARE					0 VA	0 VA	SPARE	1	20 A	24
25	20 A	1	SPARE	0 VA	0 VA					SPARE	1	20 A	26
27	20 A	1	SPARE			0 VA	0 VA			SPARE	1	20 A	28
29	20 A	1	SPARE					0 VA	0 VA	SPARE	1	20 A	30
31	20 A	1	SPARE	0 VA	0 VA					SPARE	1	20 A	32
33	20 A	1	SPARE			0 VA	0 VA			SPARE	1	20 A	34
35	20 A	1	SPARE					0 VA	0 VA	SPARE	1	20 A	36
37	20 A	1	SPARE	0 VA	0 VA					SPARE	1	20 A	38
39	20 A	1	SPARE			0 VA	0 VA			SPARE	1	20 A	40
41	20 A	1	SPARE					0 VA	0 VA	SPARE	1	20 A	42
GP) = _) = F	PROVI PROVIDI	DE GFO	CI BREAKER FOR EQUIPMENT, 6 CI BREAKER FOR PERSONNEL, 4 OUT BREAKER TO PREVENT UN AD VIA LIGHTING CONTACTOR,	11 -50mA PEF -6mA PER AUTHORIZ	NEC 21 ZED SWI	97 27.22 DE 0.8. DEI TCHING	D. NEUT	11: TRAL.	kVA 2 A				

ad Classification	Connected Load	Demand Factor	Estimated Demand	
ERIOR LIGHTING	6234 VA	100.00%	6234 VA	
TERIOR LIGHTING	252 VA	100.00%	252 VA	
CEPTACLES	36360 VA	63.75%	23180 VA	·
/ HEAT PUMP	17950 VA	100.00%	17950 VA	Te
ECTRIC HEAT	0 VA	0.00%	0 VA	Т
CHEN	0 VA	0.00%	0 VA	
SCELLANEOUS	6020 VA	100.00%	6020 VA	

ΑĮ	1	INTERIOR LIGHTING			1420	2048			INTERIOR LIGHTING	1	20 A	4
							0 VA	2107				6
Α	3	AHU-1	0 VA	2107					P-3	3	15 A	8
					0 VA	2107						10
							3877	2417				12
A	3	P-4	3877	2210					T-AF	3	125 A	14
					3877	1739						16
A	1	EXTERIOR LIGHTING (LC	<i>'</i>				252 VA	0 VA	SPARE	1	20 A	18
A	1	SPARE	0 VA	0 VA					SPARE	1	20 A	20
A	1	SPARE			0 VA	0 VA			SPARE	1	20 A	22
A	1	SPARE					0 VA	0 VA	SPARE	1	20 A	24
Α	1	SPARE	0 VA	0 VA					SPARE	1	20 A	26
Α	1	SPARE			0 VA	0 VA			SPARE	1	20 A	28
Α	1	SPARE					0 VA	0 VA	SPARE	1	20 A	30
Α	1	SPARE	0 VA	0 VA					SPARE	1	20 A	32
Α	1	SPARE			0 VA	0 VA			SPARE	1	20 A	34
Α	1	SPARE					0 VA	0 VA	SPARE	1	20 A	36
Α	1	SPARE	0 VA	0 VA					SPARE	1	20 A	38
Α	1	SPARE			0 VA	0 VA			SPARE	1	20 A	40
Α	1	SPARE					0 VA	0 VA	SPARE	1	20 A	42
			31			kVA		κVA				
			113	3 A	97	7 A	11:	2 A				
		I BREAKER FOR EQUIPM										
		CI BREAKER FOR PERSON COUT BREAKER TO PREVE					RAL.					
		AD VIA LIGHTING CONTAC										
VII	DE BRE	EAKER WITH MAINTENANG	CE LOCKOUT, LO	CKABLE	OFF.							
ific	ation		Connected Loa	d De	mand Fa	actor	Estimate	d Dema	nd Panel Tot	als		$\overline{}$
LIG	HTING		6234 VA		100.009	%	623	34 VA				$\neg \neg$
LIC	SHTING	3	252 VA		100.009			.1 kVA	VA			
CLES		36360 VA		63.75%		23180 VA		Total Est. Demand: 75.2 kVA			ı	
PUMP		17950 VA		100.00%		17950 VA		Total Conn. Current: 106 A				
ΗE	AT		0 VA		0.00%		0	VA	Total Est. Demand 90	Α		
			0 VA		0.00%			VA				
NΕ	DUS		6020 VA		100.009	%	602	20 VA				



TRANSFORMER SCHEDULE

kVA TYPE PRIMARY SECONDARY COPPER PRIMARY COPPER SECONDARY BONDING

15 kVA | LINEAR | 480V-3Ø | 208Y/120V

30 kVA | LINEAR | 480V-3Ø | 208Y/120V

45 kVA | LINEAR | 480V-3Ø | 208Y/120V

75 kVA | LINEAR | 480V-3Ø | 208Y/120V

12.5 kVA | LINEAR | 480V-3Ø | 208Y/120V

FEEDER

3#10, #10 G, 3/4" C.

3#6, #10 G, 1" C

3#4, #8 G, 1-1/4" C.

3#2/0, #6 G, 2" C.

FEEDER

4#4, #8 G, 1-1/4" C.

4#1, #6 G, 1-1/2" C.

4#1/0, #6 G, 2" C.

(2 SETS) 4-3/0,

#2 G, 2-1/2" C.

3#1, #6 G, 1-1/2" C. 4-250kCM, #2 G, 2-1/2" C.

CONDUCTOR

CONTACTOR)

		(WA)
7	WIRELESS ACCESS POINT CABLING	DETAIL
(')	NO SCALE	

TWO CATEGORY 6A, 8- POSITIOIN -

MODULAR CONNECTOR FOR

DATA COMMUNICATIONS.





PROVIDE TEN FEET OF CAT 6A

CABLE COILED UP ABOVE THE

CEILING WITH THE CAT 6A JACK AS INDICATED ON THE DRAWING.

1.25" CONDUIT WITH BUSHING TO

DATA

DATA

 $\nabla \nabla lacksquare$

CABLE TRAY

TELECOMMUNICATIONS OUTLET CONDUIT DETAIL

1.25" CONDUIT MINIMUM

■ WALL/PARTITION FACE

SIZE OR AS INDICATED

- WALL/PARTITION CAVITY

(2) 1" CONDUITS

FINISHED CEILING

EXTERIOR & INTERIOR LIGHTING CONTACTOR DETAIL

EXTERIOR

(WA)

ADDED LOAD 89A 552A NET SERVICE LOAD

1000A