



Addendum 02

Date: March 21,2025

Project #: 1328-23

Owner:

Muskegon Area Intermediate School District
683 Harvey Street
Muskegon, MI 49442

Project Name:

MAISD South – Office Renovations
684 Harvey Street
Muskegon, MI 49442

Purpose: Addendum 02

This document shall form part of the bidding documents. Changes, additions, clarifications or deletions herein supersede the drawings and specifications. Bidders shall include on the proposal form, the acknowledgement of this Addendum.

Attachments:

A1.01, A2.01, A7.01, A8.01, M1, and P1

Item #1 Door Allowance Clarification:

To Clarify – this allowance is to be used at the owner’s discretion if they feel any of the existing doors that are to be reused, are damaged and they want it replaced. The project should be bid as if this money does not exist. It is only a place holder in everyone’s bid to cover the unknown as the doors were already removed and are stacked in the building.

Item #2 Mechanical Clarifications, missing grill designations :

See attached Sheet M1 for missing grill designations, North West corner of plan, bubbled.

Item #3 Mother’s Room 137 Relocation :

See attached revised drawings. Mother’s Room 137 to be relocated to former Closet 153. New cabinetry and sink to move to West wall of former closet. 15” drawer base added. Former Mother’s room to become a Meeting room.
Create new Closet 123C. See door and finish schedules.
Revise door hardware: Door 153 – Set 05, Door 137 – Set 10. Add new 30 x 70 door at new Closet 123A. Door 123C – Set 13.
Revise Plumbing for new sink and abandon piping from old sink in 153.
Revise lighting as follows: Meeting 137 to get (2) ‘B’ fixtures with occupancy sensor switch, Mothers 153 to get (2) ‘C’ fixtures with Dimmer switch.
Revise Power as follows: Meeting 137 – provide (3) outlets and (1) data drop(East wall), Mothers 153 – Provide outlet for undercounter refrig and (1) GFI outlet above counter(42”) with one additional outlet at east wall.



Addendum 02

Item #4 Detail 19 Sheet A7.01 Mislabeled :

See attached Sheet A7.01 – Detail #19 was mislabeled. It should read T. 129 – SOUTH.

Item #5 LVT – location / Area in Break Area 122 :

See attached Sheet A1.01 for clarification on location of LVT in Break Area 122.
Approx. 120 SF

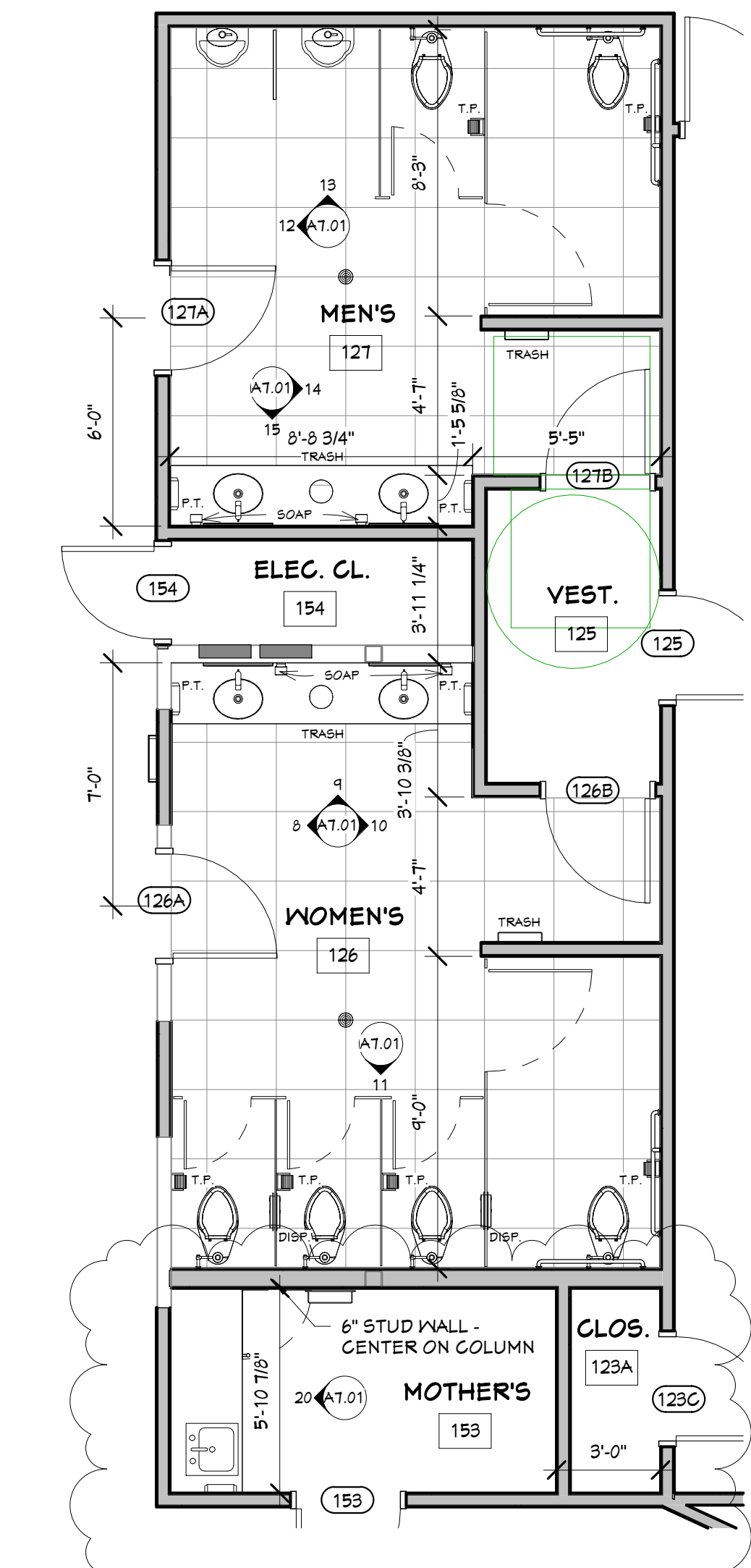
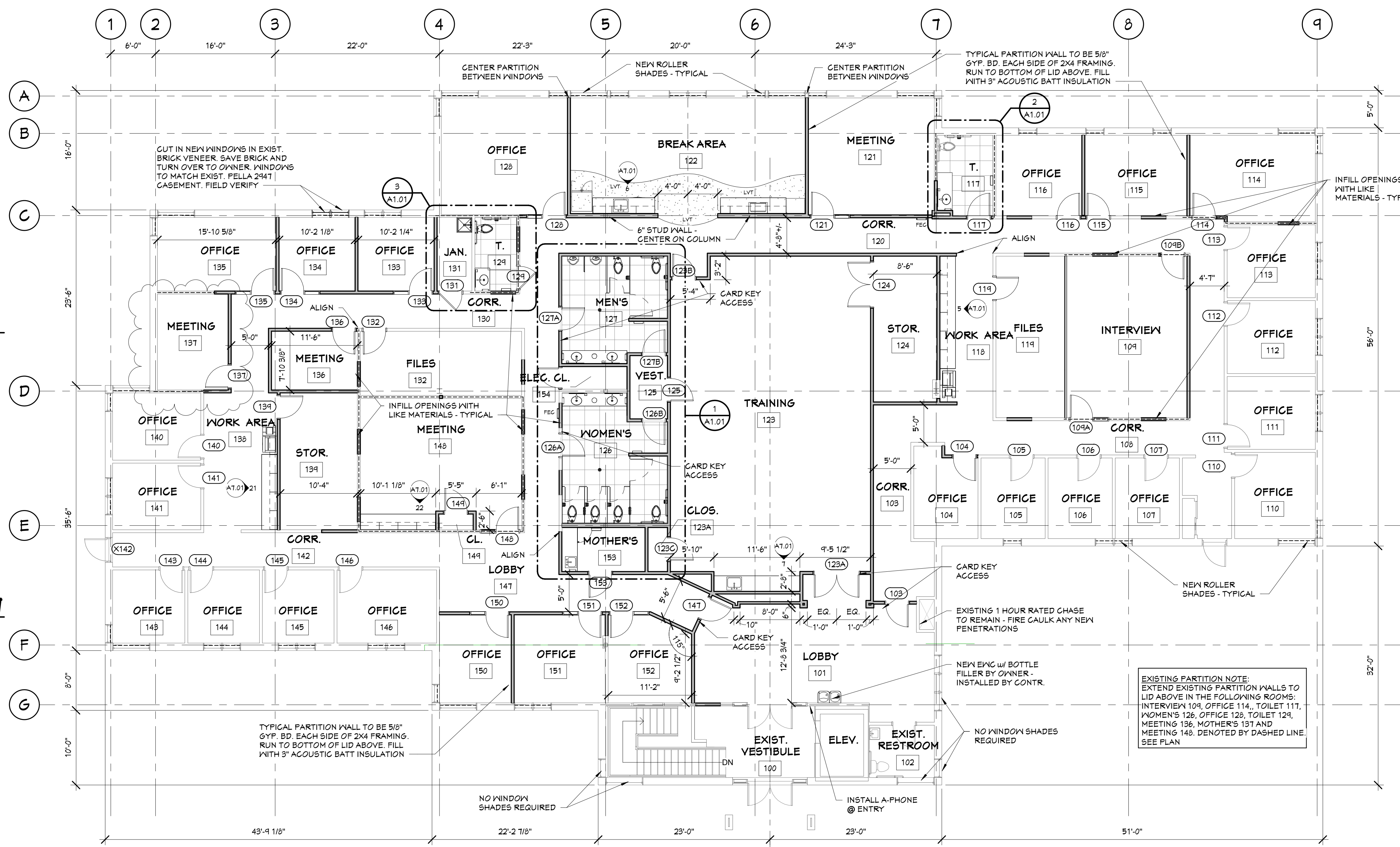
Item #6 Secification Section 06 10 00 clarification:

In Specification Section 06 10 00 – Rough carpentry, delete / ignore the reference to Section 01 74 19 Construction Waste Management and Disposal.

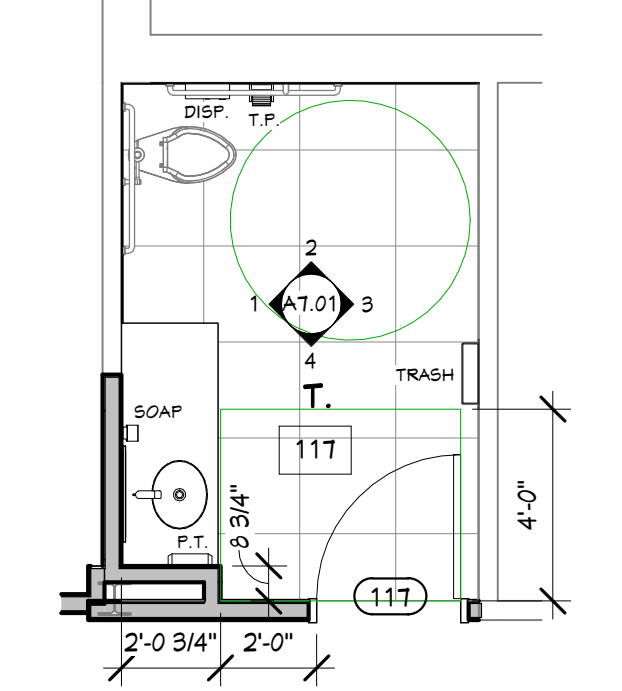
Item #7 Controls Contractor:

The Owner uses Control Resources for their Controls Contractor and manages the current systems. The Contact is Denny Moline. 616.784.4040 dmoline@hurstind.com

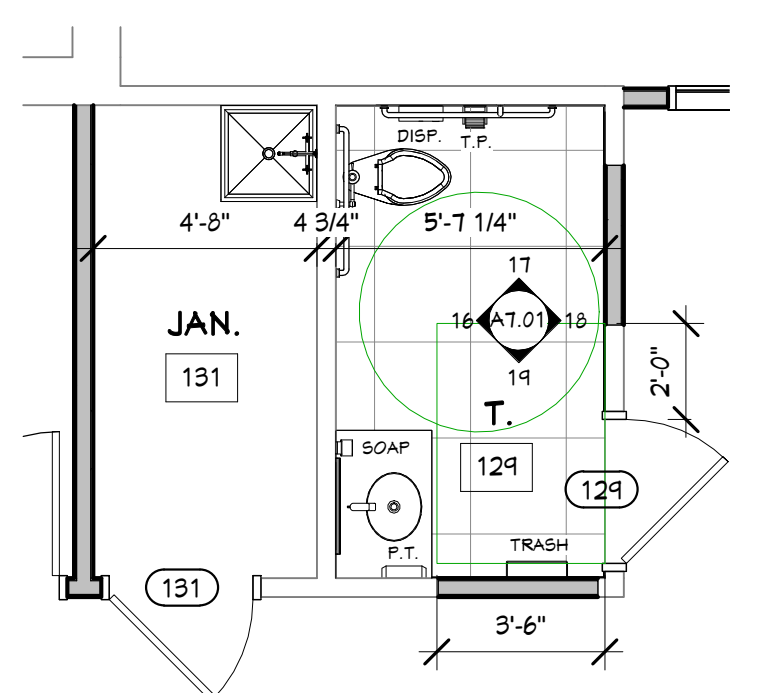
- GENERAL NOTES**
1. ALL TRADES TO COORDINATE TO AVOID INTERFERENCES.
 2. CONTRACTOR TO FIELD VERIFY FIELD CONDITIONS AND DIMENSIONS PRIOR TO PROCEEDING WITH WORK. REPORT SIGNIFICANT DISCREPANCIES BETWEEN DRAWINGS AND ACTUAL CONDITIONS.
 3. PATCH & REPAIR, & PREP ALL EXISTING WALLS, FLOORS & CEILING FOR NEW FINISHES.
 4. PROPER FIRE ASSEMBLIES REQUIRED FOR ALL PENETRATIONS THROUGH FIRE RATED WALLS, FLOOR AND CEILING. INCLUDE FIRE CAULKING, FIRE COLLARS AND FIRE SLEEVES.
 5. INSTALLATION SHALL MEET THE REQUIREMENTS OF ALL APPLICABLE CODES AND REGULATIONS.
 6. ALL NEW PARTITION WALLS TO RUN TIGHT TO STRUCTURE / GYP. BD. LID ABOVE. APPROX. 10'-10" FILL CAVITY WITH SOUND BATT INSULATION



1 ENLARGED RESTROOM PLAN
 A1.01 1/4" = 1'-0"



2 ENLARGED PLAN - TOILET 117
 A1.01 1/4" = 1'-0"



3 ENLARGED PLAN - TOILET 129
 A1.01 1/4" = 1'-0"

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

SEE DEMOLITION PLAN FOR CONSTRUCTION PHASING

FINISH KEY

FLOORING:	WALL FINISH:
F-1 CARPET	WF-1 PAINT
F-2 CERAMIC TILE	WF-2 CERAMIC TILE
F-3 L.V.T.	
F-4 WALK-OFF CPT.	CEILING MATERIAL:
F-5 EXIST. CONC.	C-1 2x2 SUSPENDED CEILING TILE
	C-2 GYPSUM BOARD (PAINTED)
BASE:	
B-1 6" VINYL	
B-2 CERAMIC TILE	

MATERIALS

CARPET TO BE:
TARKETT - COROLLARY #1157T WITH POWERBOND BACKING.
MODULAR (24" X 24"), COLOR: VARIFORM

LVT TO BE EQUAL TO:
TARKETT TANDUS / CENTIVA 18"X18" - COLOR: TBD

RUBBER BASE TO BE EQUAL TO:
JOHNSONITE - 6" STRAIGHT, COLOR: TBD

PORCELAIN CERAMIC FLOOR TILE TO BE:
DAL TILE 'PORTFOLIO' 24X24, MATTE FINISH - COLOR IRON GREY
STACK BOND - GROUT TO MATCH TILE
PROVIDE 6"X12" COVE BASE OF SAME MATERIAL

PORCELAIN CERAMIC WALL TILE TO BE:
DAL TILE 'PORTFOLIO', 12X24 MATTE FINISH - COLOR WHITE
1/8" RUNNING BOND HORIZ. - GROUT TO MATCH TILE

CEILING TILE - USG 'ASTRO' # 8223 (24X24)

PAINT: COLORS TBD

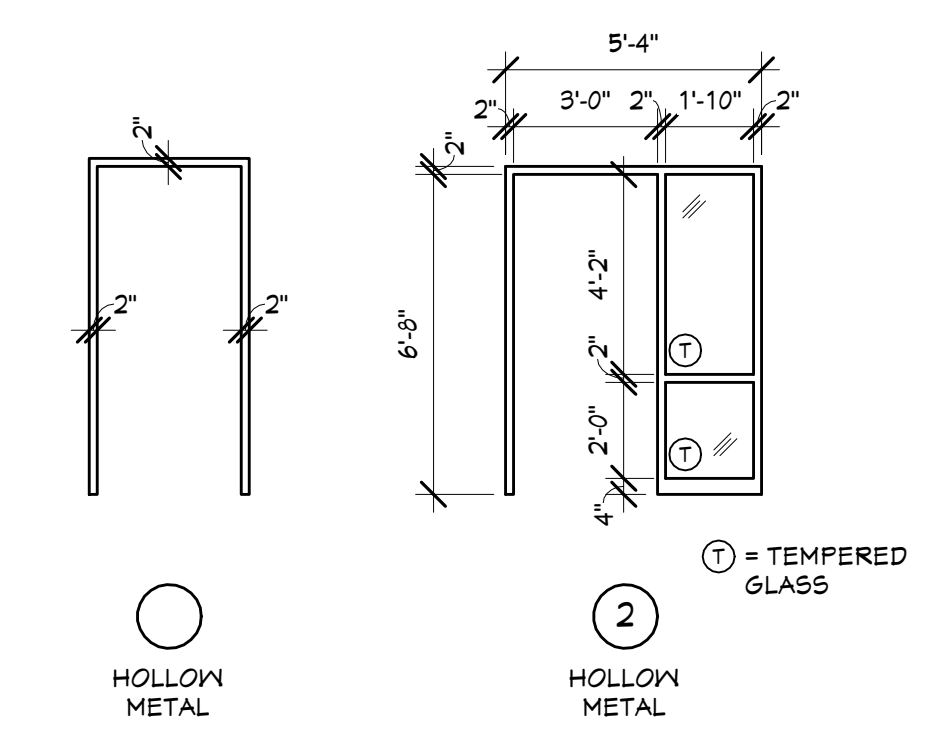
WINDOW TREATMENTS: PROVIDE ROLLER SHADES AT ALL WINDOWS
UNLESS NOTED OTHERWISE.
18 OPENINGS @ 21" X 45" (FIELD VERIFY)
21 OPENINGS @ 57" X 45" (FIELD VERIFY)

Room Finish Schedule

No.	Name	Floor	Base	Wall Fin.	Ceiling	Clg. Ht.	Comments
100	EXIST. VESTIBULE						EXIST. FINISHES TO REMAIN
101	LOBBY						EXIST. FINISHES TO REMAIN
102	EXIST. RESTROOM						EXIST. FINISHES TO REMAIN
103	CORR.	F-1	B-1	WF-1	C-1	8'-0"	
104	OFFICE	F-1	B-1	WF-1	C-1	8'-0"	
105	OFFICE	F-1	B-1	WF-1	C-1	8'-0"	
106	OFFICE	F-1	B-1	WF-1	C-1	8'-0"	
107	OFFICE	F-1	B-1	WF-1	C-1	8'-0"	
108	CORR.	F-1	B-1	WF-1	C-1	8'-0"	
109	INTERVIEW	F-1	B-1	WF-1	C-1	8'-6"	
110	OFFICE	F-1	B-1	WF-1	C-1	8'-0"	
111	OFFICE	F-1	B-1	WF-1	C-1	8'-0"	
112	OFFICE	F-1	B-1	WF-1	C-1	8'-0"	
113	OFFICE	F-1	B-1	WF-1	C-1	8'-0"	
114	OFFICE	F-1	B-1	WF-1	C-1	8'-0"	
115	OFFICE	F-1	B-1	WF-1	C-1	8'-0"	
116	OFFICE	F-1	B-1	WF-1	C-1	8'-0"	
117	T.	F-2	B-2	WF-1/WF-2	C-1	8'-0"	SEE INTERIOR ELEVATIONS FOR WALL FINISHES
118	WORK AREA	F-1	B-1	WF-1	C-1	8'-0"	
119	FILES	F-1	B-1	WF-1	C-1	8'-0"	
120	CORR.	F-1	B-1	WF-1	C-1	8'-0"	
121	MEETING	F-1	B-1	WF-1	C-1	8'-0"	
122	BREAK AREA	F-1/F-3	B-1	WF-1	C-1	8'-0"	
123	TRAINING	F-1	B-1	WF-1	C-1/G-2	9'-0"	
123A	CLOS.	F-1	B-1	WF-1	C-2	10'-10"	
124	STOR.	F-1	B-1	WF-1	C-1	8'-0"	
125	VEST.	F-2	B-2	WF-1	C-1	8'-0"	
126	WOMEN'S	F-2	B-2	WF-1/WF-2	C-1	8'-0"	SEE INTERIOR ELEVATIONS FOR WALL FINISHES
127	MEN'S	F-2	B-2	WF-1/WF-2	C-1	8'-0"	SEE INTERIOR ELEVATIONS FOR WALL FINISHES
128	OFFICE	F-1	B-1	WF-1	C-1	8'-0"	
129	T.	F-2	B-2	WF-1/WF-2	C-1	8'-0"	SEE INTERIOR ELEVATIONS FOR WALL FINISHES
130	CORR.	F-1	B-1	WF-1	C-1	8'-0"	
131	JAN.	F-5	B-1	WF-1	C-1	8'-0"	
132	FILES	F-1	B-1	WF-1	C-1	8'-0"	
133	OFFICE	F-1	B-1	WF-1	C-1	8'-0"	
134	OFFICE	F-1	B-1	WF-1	C-1	8'-0"	
135	OFFICE	F-1	B-1	WF-1	C-1	8'-0"	
136	MEETING	F-1	B-1	WF-1	C-2	10'-10"	
137	MEETING	F-1	B-1	WF-1	C-1	8'-0"	
138	WORK AREA	F-1	B-1	WF-1	C-1	8'-0"	
139	STOR.	F-1	B-1	WF-1	C-1	8'-0"	
140	OFFICE	F-1	B-1	WF-1	C-1	8'-0"	
141	OFFICE	F-1	B-1	WF-1	C-1	8'-0"	
142	CORR.	F-1	B-1	WF-1	C-1	8'-0"	
143	OFFICE	F-1	B-1	WF-1	C-1	8'-0"	
144	OFFICE	F-1	B-1	WF-1	C-1	8'-0"	
145	OFFICE	F-1	B-1	WF-1	C-1	8'-0"	
146	OFFICE	F-1	B-1	WF-1	C-1	8'-0"	
147	LOBBY	F-1	B-1	WF-1	C-1	8'-0"	
148	MEETING	F-1	B-1	WF-1	C-1/G-2	8'-6"	
149	CL.	F-1	B-1	WF-1	C-1	8'-0"	
150	OFFICE	F-1	B-1	WF-1	C-1	8'-0"	
151	OFFICE	F-1	B-1	WF-1	C-1	8'-0"	
152	OFFICE	F-1	B-1	WF-1	C-1	8'-0"	
153	MOTHERS	F-1	B-1	WF-1	C-1	8'-0"	
154	ELEC. CL.	F-1	B-1	WF-1	C-2	10'-10"	

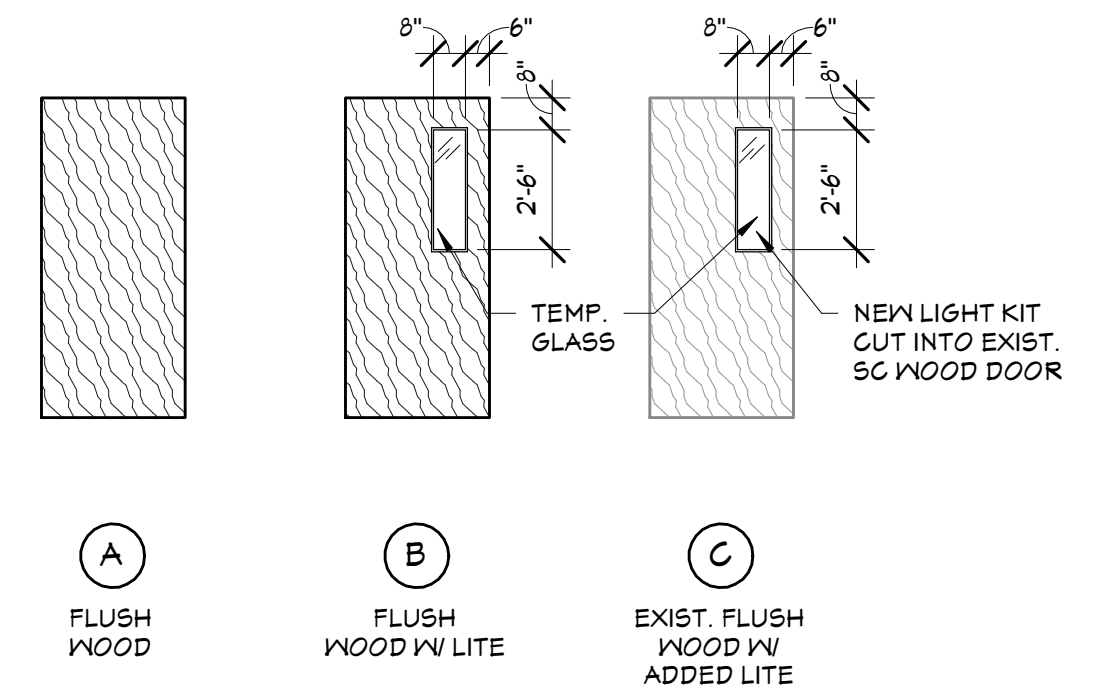
Door Schedule

No.	Width	Height	Thickness	Door Type	Frame Type	Fire Rating	Hdur.	Comments
103	3'-0"	6'-8"	3/4"	B			14	GARD KEY ACCESS
104	3'-0"	6'-8"	3/4"	A	2		02	
105	3'-0"	6'-8"	3/4"	C			04	NEW LIGHT IN EXIST. DOOR
106	3'-0"	6'-8"	3/4"	C			04	NEW LIGHT IN EXIST. DOOR
107	3'-0"	6'-8"	3/4"	C			04	NEW LIGHT IN EXIST. DOOR
109A	3'-0"	6'-8"	3/4"	A	2		02	
109B	3'-0"	6'-8"	3/4"	B			02	
110	3'-0"	6'-8"	3/4"	C			03	NEW LIGHT IN EXIST. DOOR
111	3'-0"	6'-8"	3/4"	C			03	NEW LIGHT IN EXIST. DOOR
112	3'-0"	6'-8"	3/4"	C			03	NEW LIGHT IN EXIST. DOOR
113	3'-0"	6'-8"	3/4"	C			03	NEW LIGHT IN EXIST. DOOR
114	3'-0"	6'-8"	3/4"	B			02	
115	3'-0"	6'-8"	3/4"	B			02	
116	3'-0"	6'-8"	3/4"	B			02	
117	3'-0"	6'-8"	3/4"	A			05	
119	3'-0"	6'-8"	3/4"	A			15	GARD KEY ACCESS
121	3'-0"	6'-8"	3/4"	A	2		02	
123A	3'-0"	6'-8"	3/4"	B			20	GARD KEY ACCESS
123B	3'-0"	6'-8"	3/4"	B			17	GARD KEY ACCESS - ALARM
123C	3'-0"	6'-8"	3/4"	A			13	
124	3'-0"	6'-8"	3/4"	A			03	
125	3'-0"	6'-8"	3/4"	B			11	
126A	3'-0"	6'-8"	3/4"	A			16	GARD KEY ACCESS
126B	3'-0"	6'-8"	3/4"	A			01	
127A	3'-0"	6'-8"	3/4"	A			16	GARD KEY ACCESS
127B	3'-0"	6'-8"	3/4"	A			01	
128	3'-0"	6'-8"	3/4"	A	2		02	
129	3'-0"	6'-8"	3/4"	A			06	
131	3'-0"	6'-8"	3/4"	A			13	
132	3'-0"	6'-8"	3/4"	A			14	GARD KEY ACCESS
133	3'-0"	6'-8"	3/4"	A	2		02	
134	3'-0"	6'-8"	3/4"	A	2		02	
135	3'-0"	6'-8"	3/4"	A	2		02	
136	3'-0"	6'-8"	3/4"	B			02	
137	3'-0"	6'-8"	3/4"	A			10	
139	3'-0"	6'-8"	3/4"	A			04	
140	3'-0"	6'-8"	3/4"	C			03	NEW LIGHT IN EXIST. DOOR
141	3'-0"	6'-8"	3/4"	C			03	NEW LIGHT IN EXIST. DOOR
143	3'-0"	6'-8"	3/4"	C			03	NEW LIGHT IN EXIST. DOOR
144	3'-0"	6'-8"	3/4"	C			03	NEW LIGHT IN EXIST. DOOR
145	3'-0"	6'-8"	3/4"	C			03	NEW LIGHT IN EXIST. DOOR
146	3'-0"	6'-8"	3/4"	C			03	NEW LIGHT IN EXIST. DOOR
147	3'-0"	6'-8"	3/4"	B			18	GARD KEY ACCESS
148	3'-0"	6'-8"	3/4"	A	2		02	
149	3'-0"	6'-8"	3/4"	A			07	
150	3'-0"	6'-8"	3/4"	A	2		02	
151	3'-0"	6'-8"	3/4"	A	2		02	
152	3'-0"	6'-8"	3/4"	A	2		02	
153	3'-0"	6'-8"	3/4"	A			05	
154	2'-8"	6'-8"	3/4"	A			12	



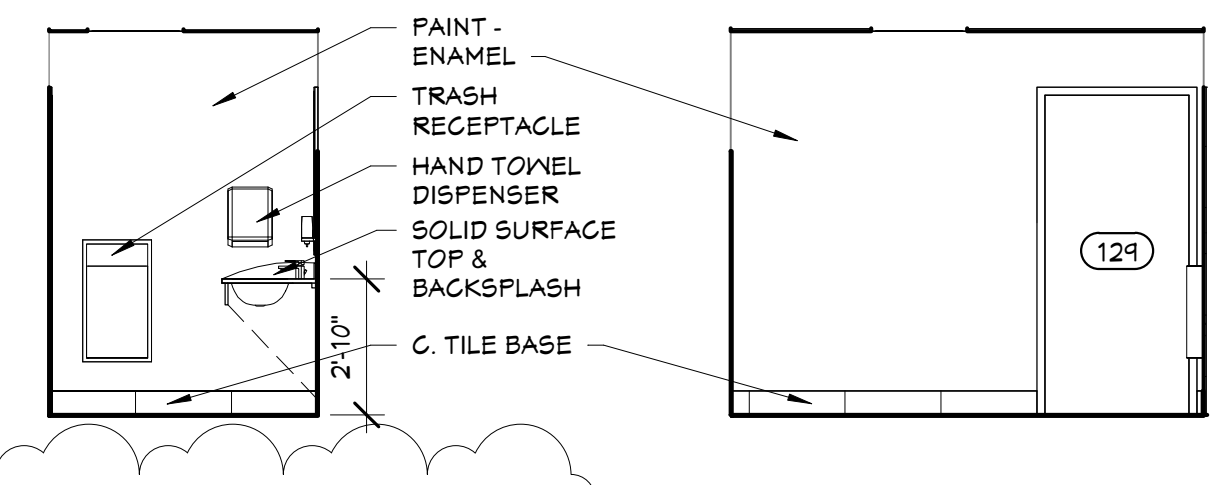
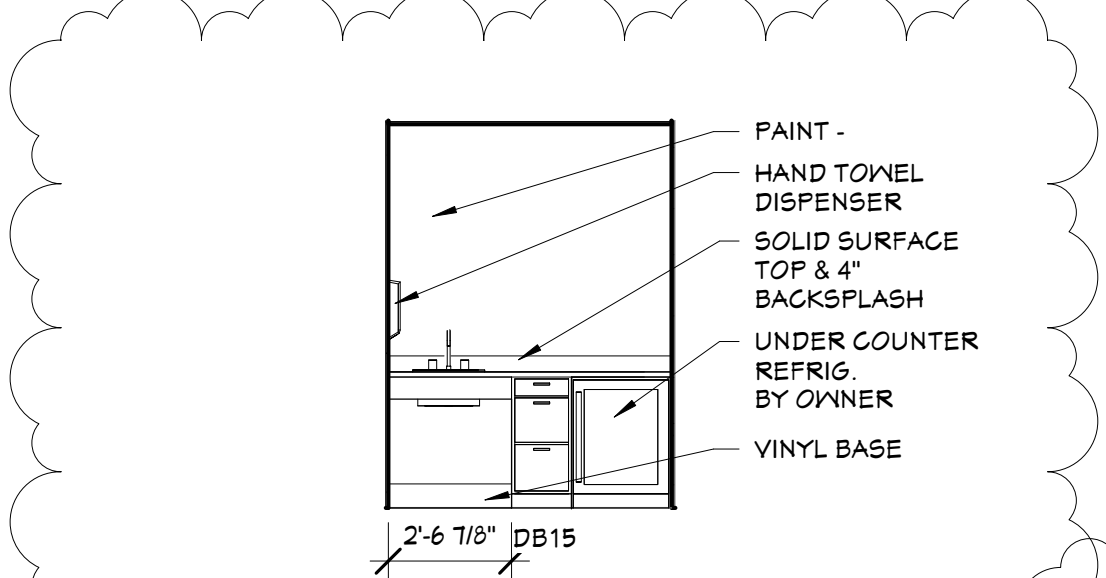
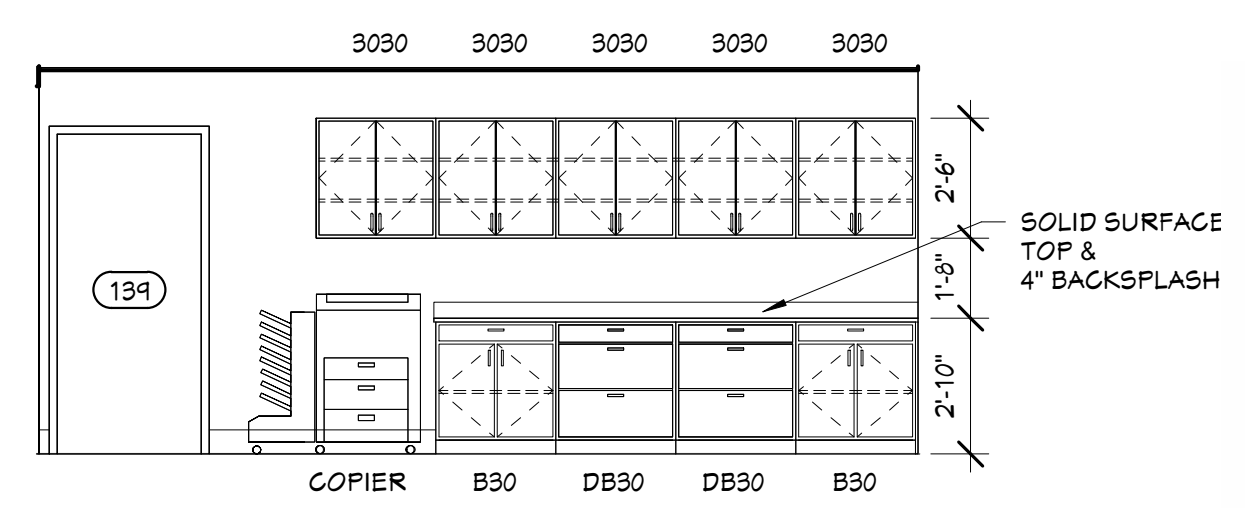
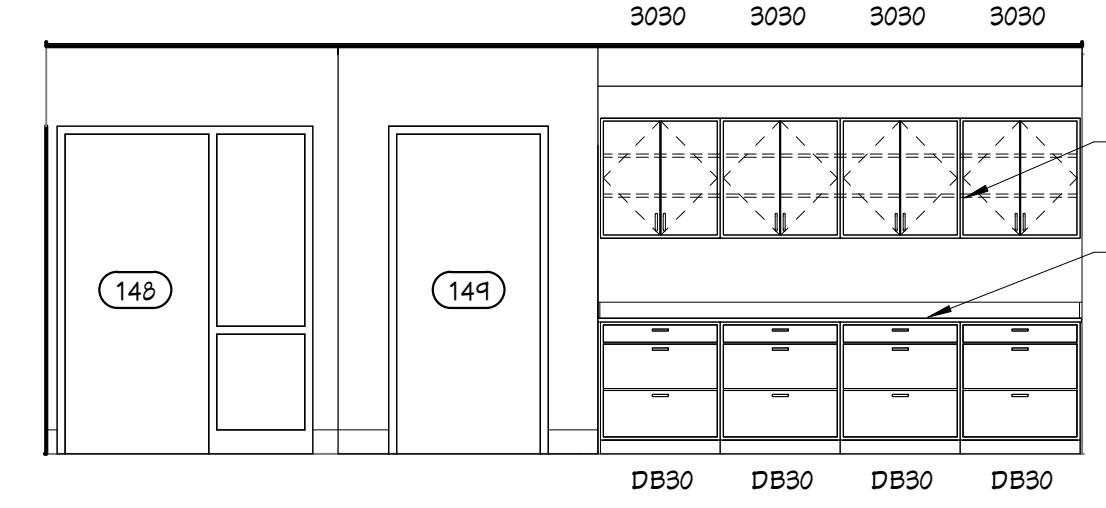
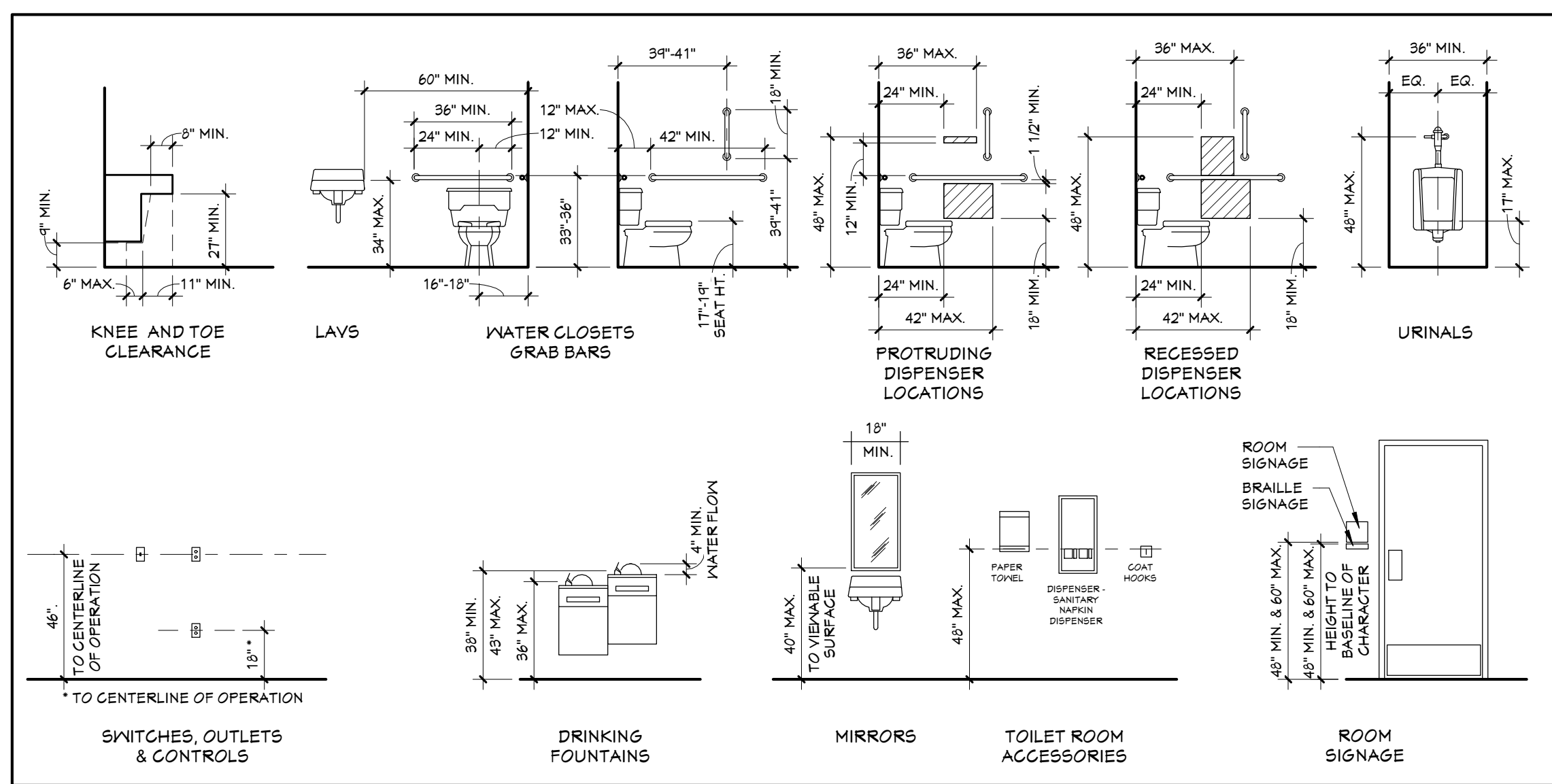
FRAME TYPES

1/4" = 1'-0"

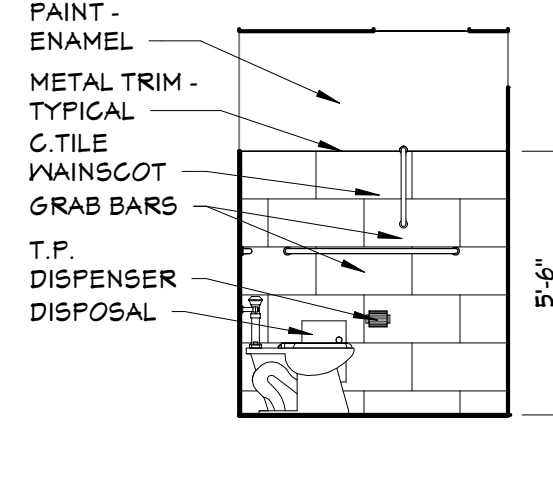


DOOR TYPES

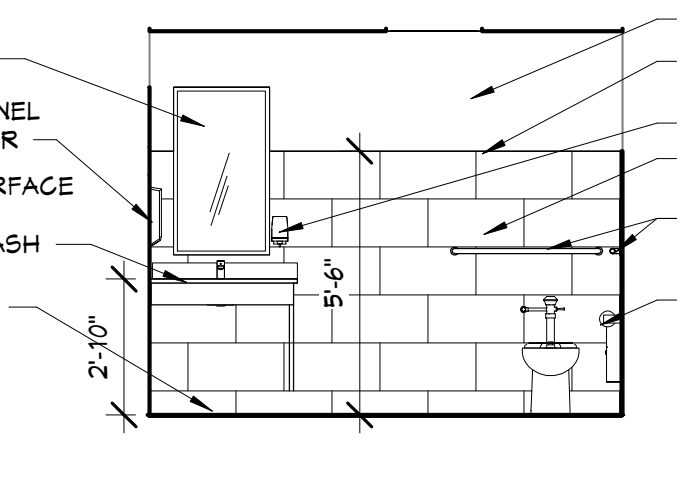
1/4" = 1'-0"



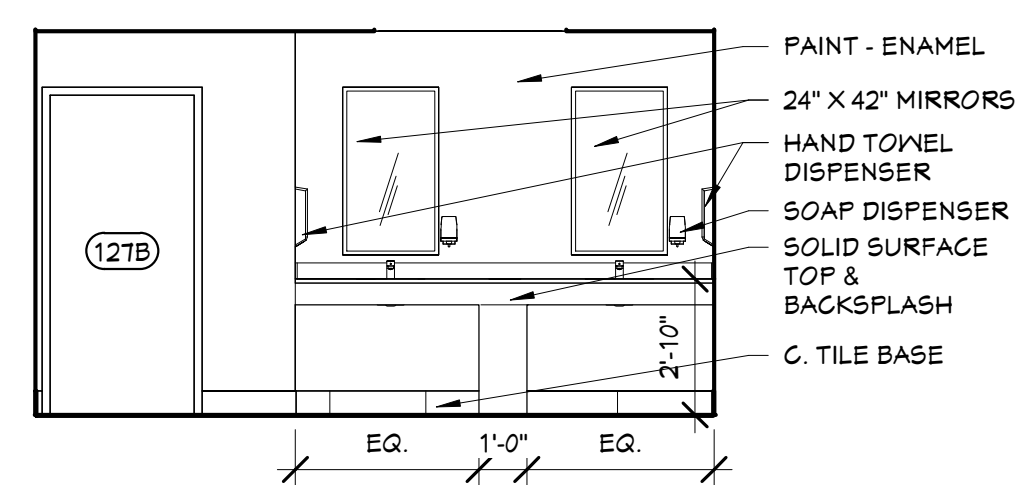
18 T.129 - EAST
A7.01 1/4" = 1'-0"



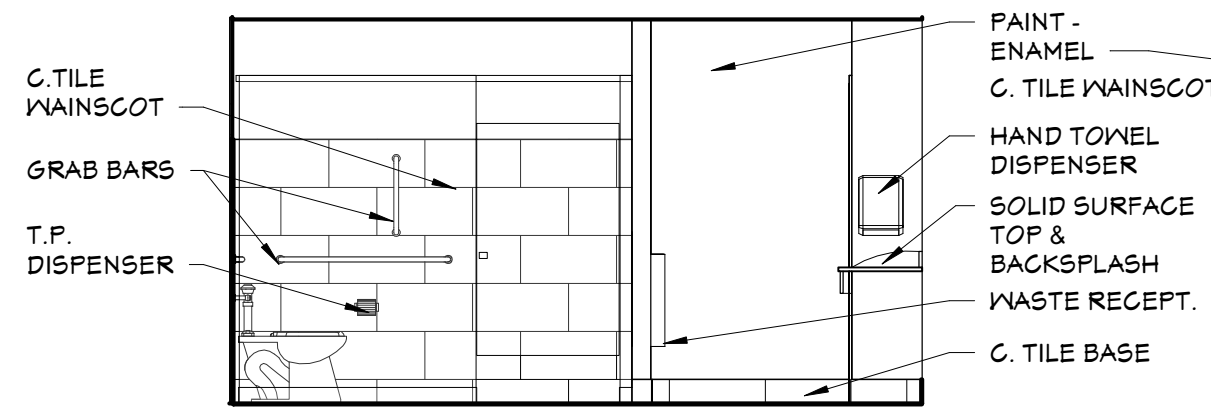
17 T. 129 - NORTH
A7.01 1/4" = 1'-0"



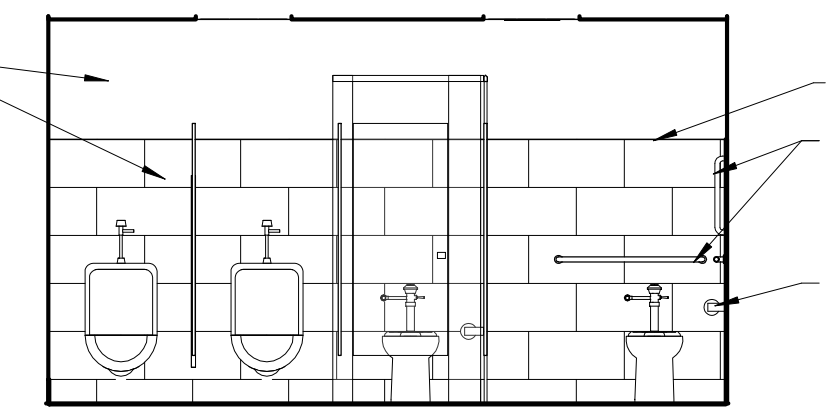
16 T. 129 - WEST
A7.01 1/4" = 1'-0"



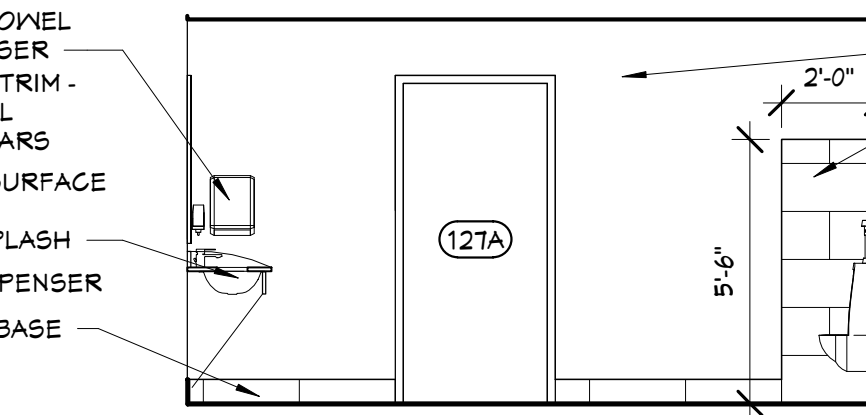
15 MEN'S 127 SOUTH
A7.01 1/4" = 1'-0"



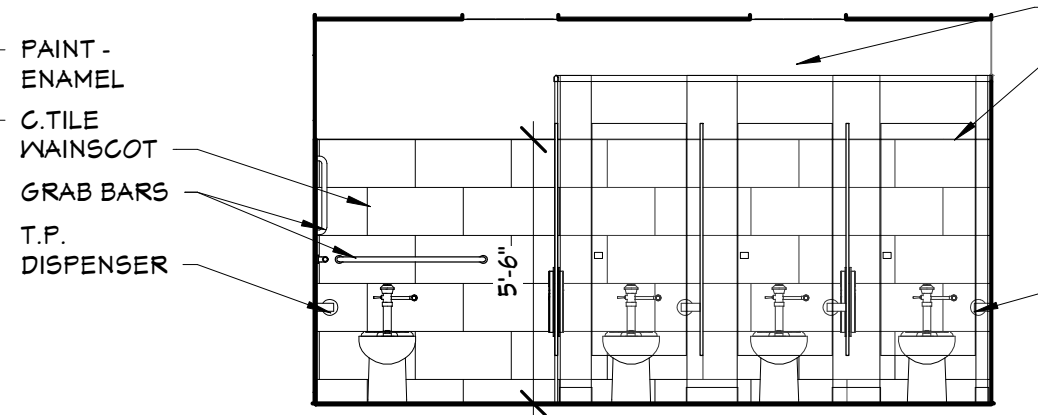
14 MEN'S 127 - EAST
A7.01 1/4" = 1'-0"



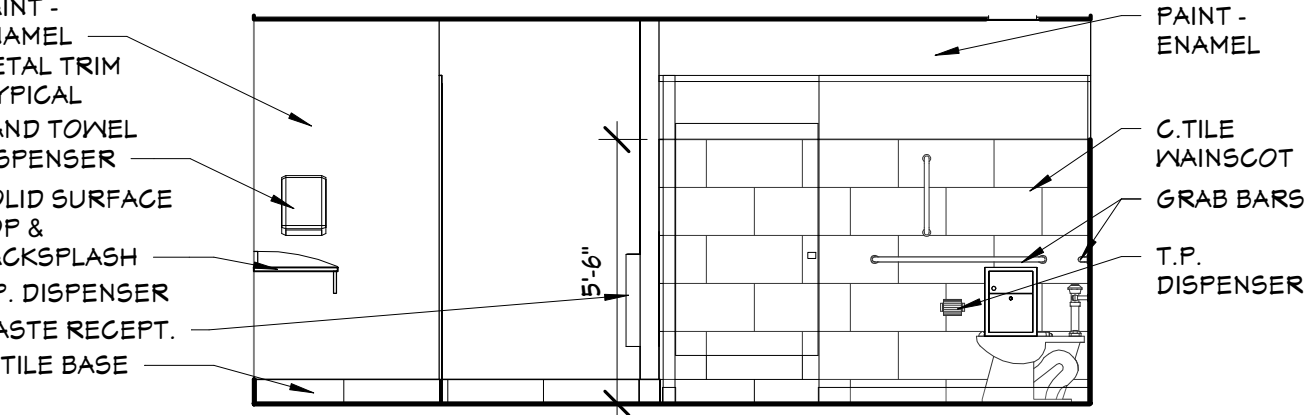
13 MEN'S 127 - NORTH
A7.01 1/4" = 1'-0"



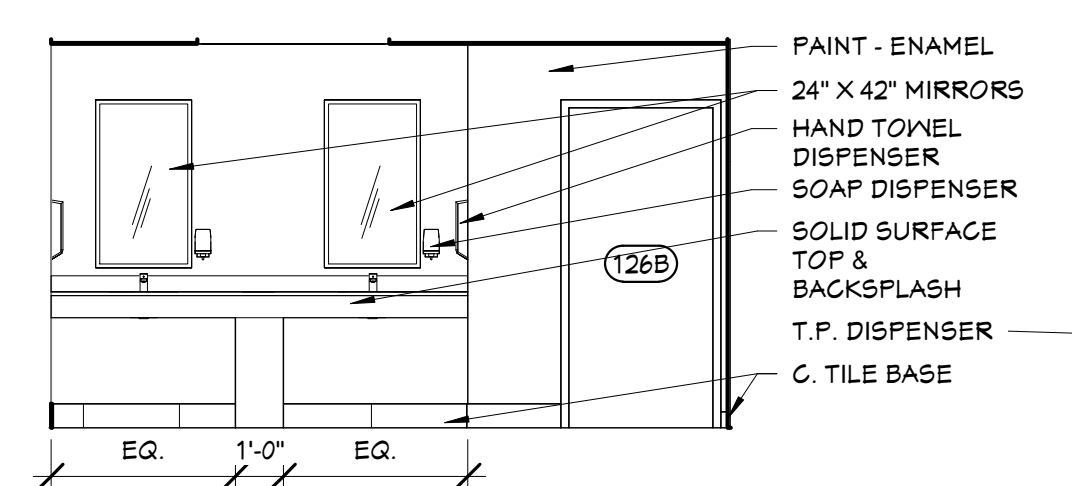
12 MEN'S 127 - WEST
A7.01 1/4" = 1'-0"



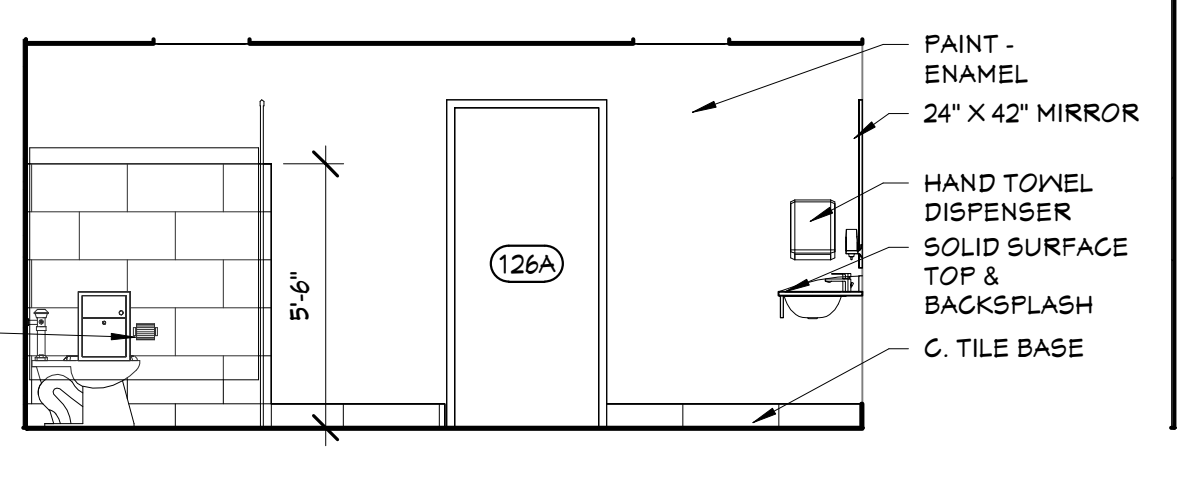
11 WOMEN'S 126 - SOUTH
A7.01 1/4" = 1'-0"



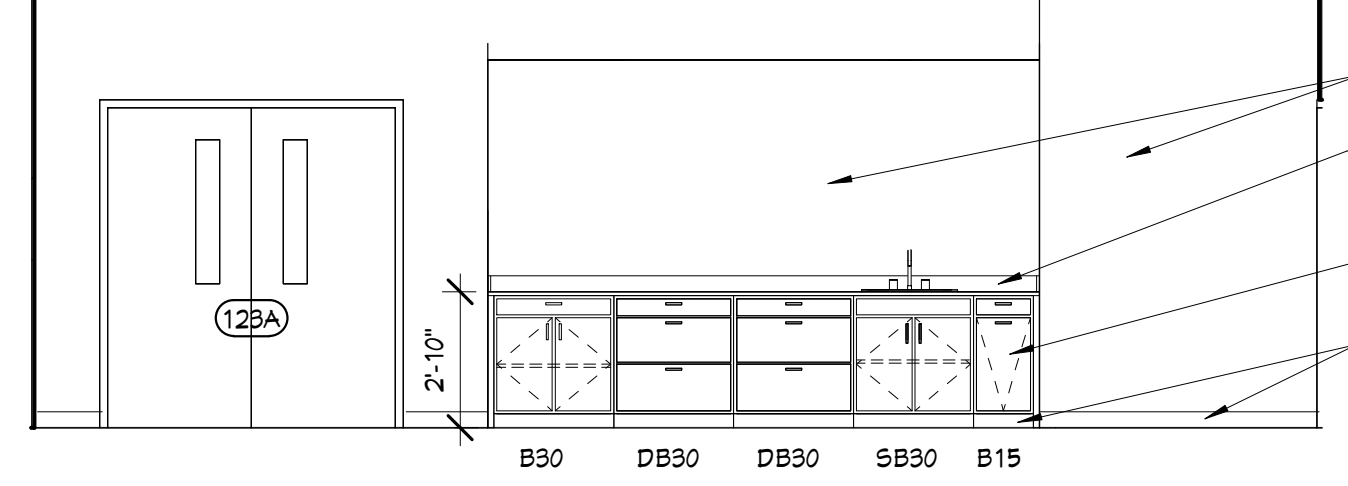
10 WOMEN'S 126 - EAST
A7.01 1/4" = 1'-0"



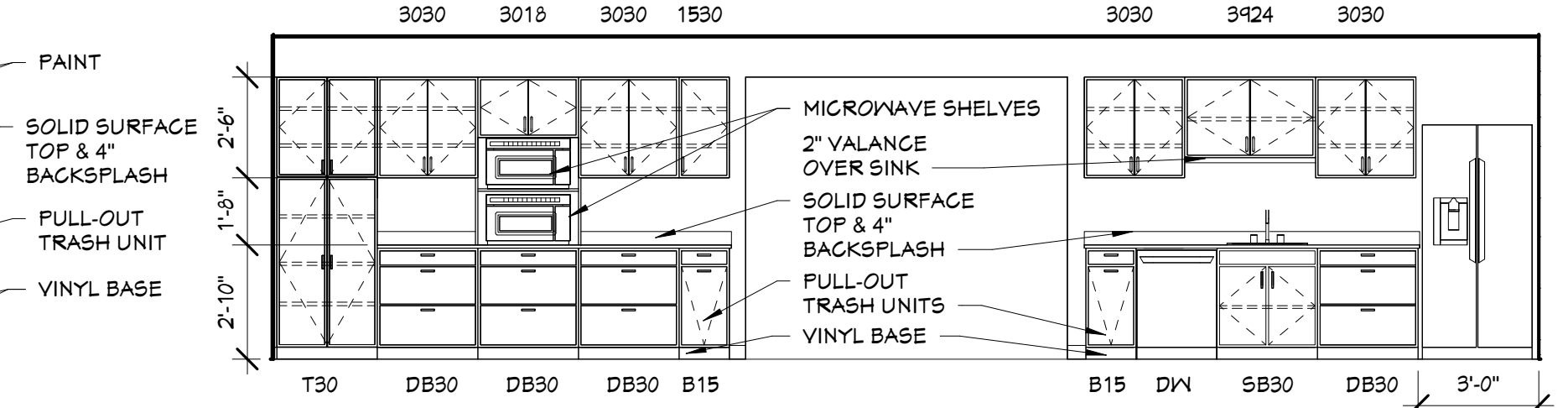
9 WOMEN'S 126 - NORTH
A7.01 1/4" = 1'-0"



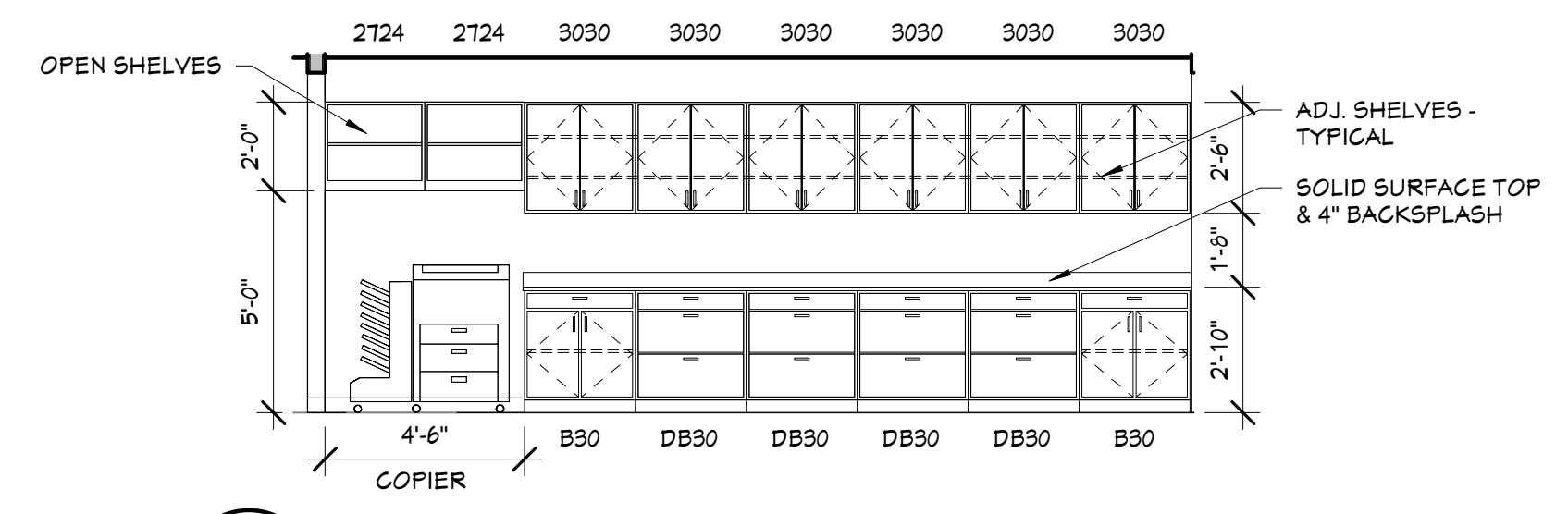
8 WOMEN'S 126 - WEST
A7.01 1/4" = 1'-0"



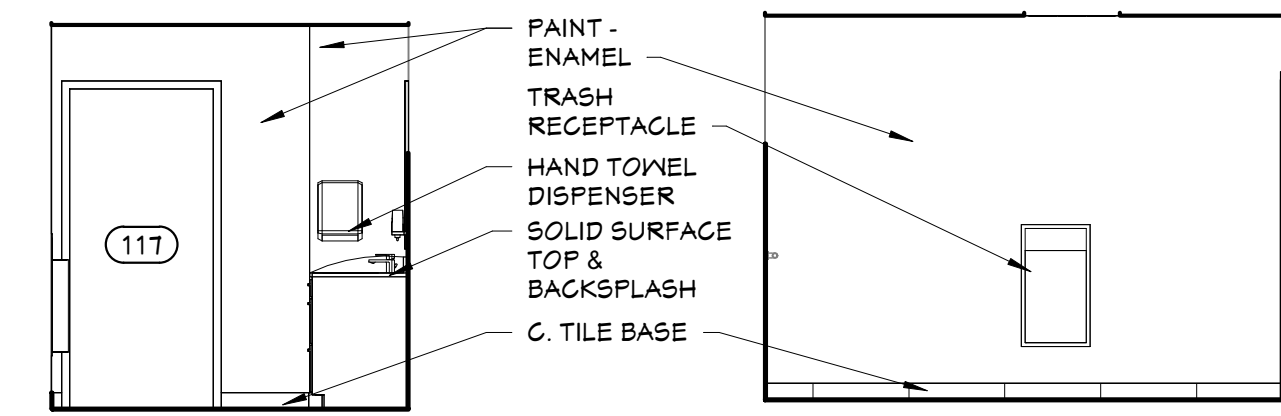
7 TRAINING 123 - SOUTH
A7.01 1/4" = 1'-0"



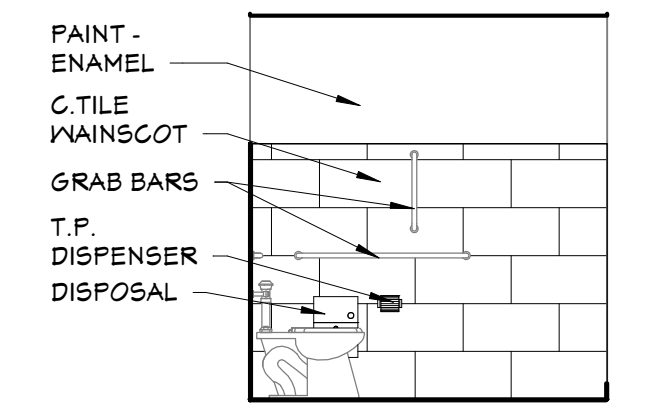
6 BREAK AREA 122 - SOUTH
A7.01 1/4" = 1'-0"



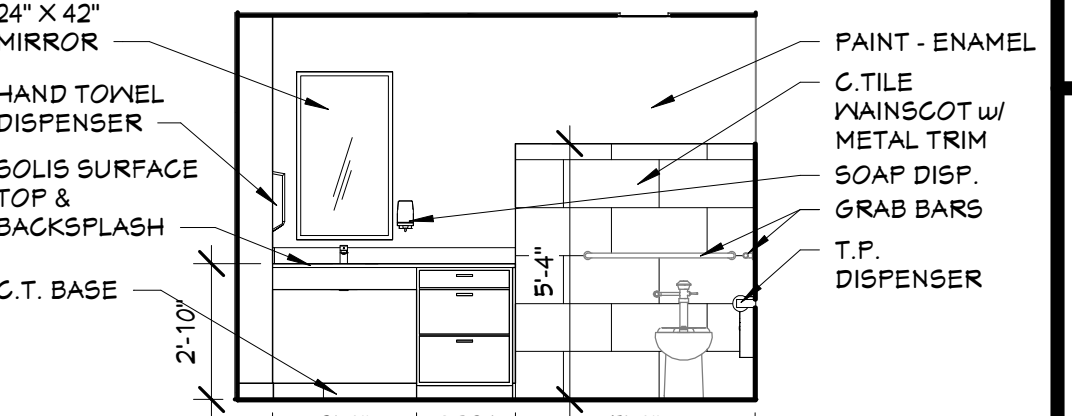
5 WORK ROOM 118 - WEST
A7.01 1/4" = 1'-0"



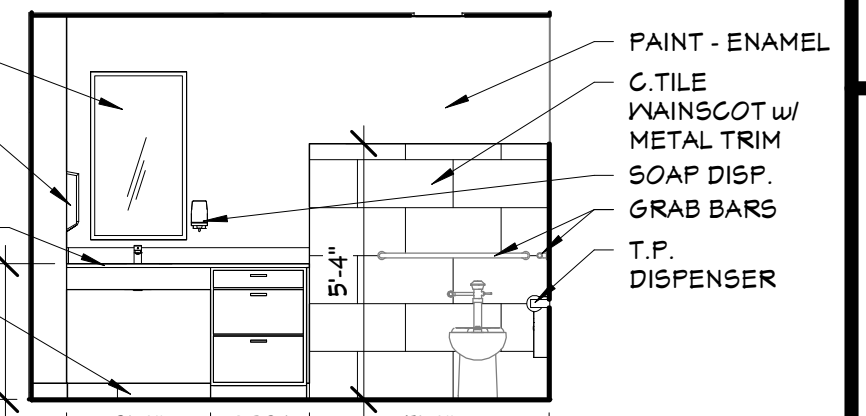
4 T. 117 - SOUTH
A7.01 1/4" = 1'-0"



3 T. 117 - EAST
A7.01 1/4" = 1'-0"



2 T. 117 - NORTH
A7.01 1/4" = 1'-0"



1 T. 117 - WEST
A7.01 1/4" = 1'-0"

GENERAL FIRE PROTECTION NOTES:

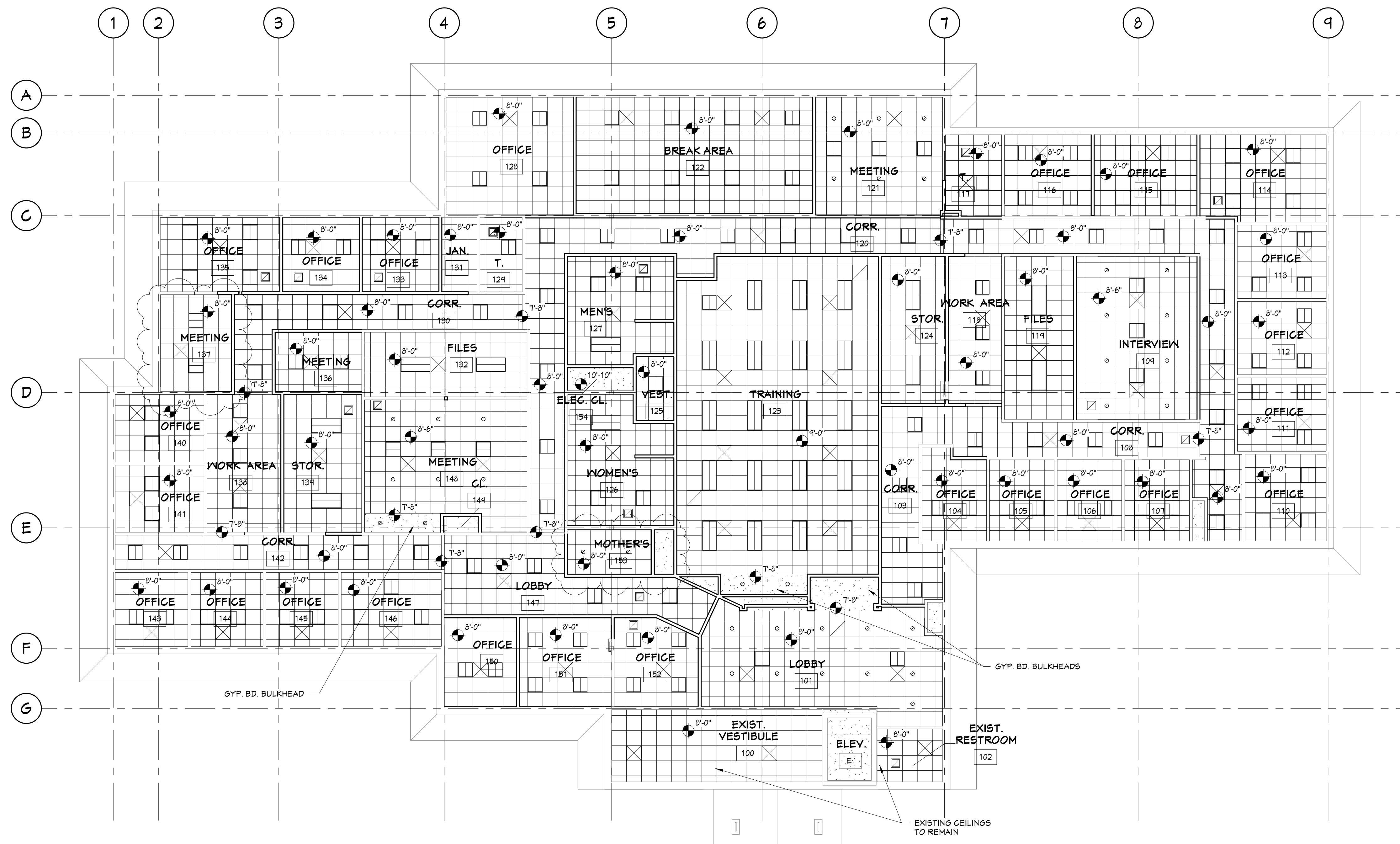
1. FIRE PROTECTION CONTRACTOR TO PROVIDE CODE COMPLIANT REVISED / UPDATED DESIGN BASED ON NEW OFFICE LAYOUT.
2. PROVIDE NEW HEADS TO MATCH EXISTING WHERE POSSIBLE, REPLACE ANY HEADS THAT ARE DAMAGED OR DO NOT MEET CURRENT CODE.
3. COORDINATE WORK / RE-WORK WITH MECHANICAL AND ELECTRICAL CONTRACTORS.

GENERAL CEILING NOTES, ACOUSTICAL TILE:

1. CONTRACTOR SHALL FOLLOW GRID PATTERN ESTABLISHED ON THE REFLECTED CEILING PLAN. ANY VARIATIONS SHALL BE APPROVED BY THE ARCHITECT
2. CEILING TILE TYPE AS SPECIFIED. CEILING HEIGHTS NOTED ON REFLECTED CEILING PLANS. CEILING ELEVATIONS ARE FROM THAT ROOM'S FINISH FLOOR.
3. WIRE CEILING FROM STRUCTURE ABOVE AND WIRE FOR ADDITIONAL LOAD AT LIGHTS AND CEILING DIFFUSERS
4. UNLESS OTHERWISE NOTED, CEILING TO BE SUSPENDED METAL TEE AND ACOUSTICAL TILE 2'-0" X 2'-0" TYPICAL. SEE SPECIFICATIONS FOR MANUFACTURER AND STYLE.
5. PENDANT MOUNTED FIXTURES CENTERED ON GRID REQUIRE GRID TO BE CUT AND SUPPORTED ON EACH SIDE.
6. MOUNT SPEAKERS AND SUPPLY AIR DIFFUSERS IN THE CENTER OF INHOLE CEILING PANELS. ADHERE A RIGID PANEL BACKER TO PANELS AT LOCATIONS WHICH INDICATE SPEAKERS, DIFFUSERS, LIGHTS, SMOKE DETECTORS, EXIT LIGHTS AND FIRE PROTECTION SPRINKLERS.
7. PROVIDE 2'-0" CEILING GRID CROSS-TEE AT EACH RETURN AIR GRILLE
8. REFER TO THE MECHANICAL DRAWINGS FOR LOUVERS REQUIRED TO BE FRAMED IN GYPSUM BOARD BULKHEADS.
9. PROVIDE AN ADDITIONAL CROSS-TEE AT EACH SLOT DIFFUSER
10. ALL CEILING HEIGHTS ARE SUBJECT TO CHANGE TO ACCOMMODATE UNFORESEEN FIELD CONDITIONS. COORDINATE CHANGES WITH ARCHITECT & AFFECTED DISCIPLINES.
11. SOME CORRIDOR CEILING PANEL LAYOUTS HAVE BEEN ADJUSTED AT A CHANGE IN CORRIDOR DIRECTION TO ACCOMMODATE LIGHTING LAYOUT.

CEILING LEGEND

	GLT DECKING		SINGLE FACE EXIT SIGN
	2 X 2 ACT		DOUBLE FACE EXIT SIGN
	GYPSUM BOARD CEILING		WALL-MOUNTED EXIT SIGN
	METAL SOFFIT		OCCUPANCY SENSOR
	RECESSED 2x2 LIGHT FIXTURE		FIRE ALARM - VISUAL
	RECESSED CAN LIGHT FIXTURE		FIRE ALARM - AUDIOVISUAL
	SURFACE / PENDANT MOUNT FIXTURE		PA SPEAKER
	PENDANT MOUNT FIXTURE		SMOKE DETECTOR
	SURFACE MOUNT FIXTURE		SUPPLY GRILLE / DIFFUSER
	SURFACE / PENDANT MOUNT FIXTURE		RETURN GRILLE / DIFFUSER
	EMERGENCY FIXTURE		SLOT DIFFUSER
			MECHANICAL EQUIPMENT
			ACCESS DOOR
			C.J. CONTROL JOINT



REFLECTED CEILING PLAN
1/8" = 1'-0"

PROJECT #	1326-23
ISSUANCES	
BIDDING & PERMITS	03.06.2025
ADDENDUM #2	03.21.2025

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DRAWN BY: Author

SHEET TITLE
REFLECTED CEILING PLAN

SHEET NO.
A8.01

WATER SOURCE HEAT PUMP SCHEDULE

MARK	MANUF. & MODEL	RATED CFM @ 0.45" S.P.	OUTSIDE AIR CFM	RATED GPM	COOLING		HEATING		MCA / MAX. FUSE	VOLTAGE	CONTROLLER BY	DISCONNECT BY	REMARKS
					TOTAL RTU/HR	EER	TOTAL RTU/HR	COP					
HP-1	EXIST.	1000	150										
HP-2	DAIKIN WSDH030	1000	150	7.5	32,300	15.0	35,700	4.4	19.2/30	208-230/1 ϕ	MC	EC	①②③④⑤
HP-3	DAIKIN WSDH024	800	100	6.0	26,100	14.9	30,000	4.6	15.2/25	208-230/1 ϕ	MC	EC	①②③④⑤
HP-4	DAIKIN WSDH042	1400	200	10.5	45,800	15.5	51,500	4.8	32/50	208-230/1 ϕ	MC	EC	①②③④⑤
HP-5	EXIST.	1200	200										
HP-6	EXIST.	600	50										
HP-7	DAIKIN WSDH036	1200	200	9.0	37,600	15.2	42,800	5.0	22.3/35	208-230/1 ϕ	MC	EC	①②③④⑤
HP-8	DAIKIN WSDH030-036	1000	150	7.5	32,300	15.0	35,700	4.4	19.2/30	208-230/1 ϕ	MC	EC	①②③④⑤
HP-9	DAIKIN WSDH024-036	800	100	6.0	26,100	14.9	30,000	4.6	15.2/25	208-230/1 ϕ	MC	EC	①②③④⑤
HP-10	DAIKIN WSDH030-036	1000	150	7.5	32,300	15.0	35,700	4.4	19.2/30	208-230/1 ϕ	MC	EC	①②③④⑤
HP-11	DAIKIN WSDH030-036	1000	150	7.5	32,300	15.0	35,700	4.4	17.2/25	208-230/1 ϕ	MC	EC	①②③④⑤

- ① INCLUDE MICROTCH UNIT BACKUP CONTROLLER, 50 VA CONTROL TRANSFORMER WITH THERMOSTAT CONTROL AND ALARM RELAY. THERMOSTATS TO BE PROVIDED AND INSTALLED BY CONTROLS CONTRACTOR.
- ② FIELD VERIFY EXISTING DRAIN PAN, REPLACE IF NECESSARY. PROVIDE CONDENSATE OVERFLOW SWITCH.
- ③ PROVIDE 24" STAINLESS STEEL BRAIDED HOSE KITS WITH BALL VALVES, PRESS./TEMP. PORTS, AUTOMATIC FLOW CONTROL AND STRAINER WITH PLUG BLOW DOWN.
- ④ SEE TYPICAL HEAT PUMP MANUFACTURE WIRING DIAGRAMS FOR SIZING OF EC PROVIDED FUSED DISCONNECTS.
- ⑤ PROVIDE FILTER KITS WITH FILTERS FOR ALL NEW HEAT PUMPS.

DIFFUSER, GRILLE & LOUVER SCHEDULE

TAG	DESCRIPTION	MODEL NO.	FINISH	DAMPER	MAT'L	REMARKS
S-1	SUPPLY DIFFUSER	TDC	WHITE	NO	STEEL	① ② 24" x 24" LOUVER FACE ROUND NECK, SIZE AS INDICATED ON DRAWINGS.
S-2	SUPPLY DIFFUSER	TDC	WHITE	YES	STEEL	① 24" x 24" LOUVER FACE SURFACE MOUNT ROUND NECK, SIZE AS INDICATED ON DRAWINGS, INCLUDE OPTIONAL DAMPER.
R-1	RETURN GRILLE	50F	WHITE	NO	ALUM	① LAY-IN
R-2	RETURN GRILLE	35ORL	WHITE	NO	STEEL	① SURFACE MOUNT
E-1	EXHAUST GRILLE	50F	WHITE	NO	ALUM	① LAY-IN
L-1	LOUVER	350FL	WHITE	NO	ALUM	① SURFACE MOUNT ON SOFFIT

- ① BASED ON TITUS
- ② LAY-IN

EXHAUST FAN SCHEDULE

TAG	CFM	SP	SONES	INPUT HP/WATTS	ELECT.	CONTROL	MANUFACTURER AND MODEL NO.	REMARKS
EF-1,2	200	.25"	1050	77W	115/1 ϕ	BY E.C.	COOK ACE-D 90C100H	①

- ① FAN INCLUDES INTEGRAL BACKDRAFT DAMPER, SHALL BE OPERATED DURING OCCUPIED HOURS, BY E.C.

ENERGY RECOVERY UNIT SCHEDULE

MARK	MANUFACTURER AND MODEL NO.	SUPPLY CFM	OUTSIDE AIR CFM	VOLTS	PHASE	MOP	AMPS	WEIGHT	REMARKS
ERV	RENEWAIRE HD7IN-EE	380	380	208/230	1	--	2.6	310	①

- ① PROVIDE STANDARD EC MOTOR AND RENEWAIRE WALL MOUNT OCCUPANCY SENSOR #MC-W, 24 VAC POWER REQUIREMENT, ERV SHALL OPERATE WITH MOTION DETECTED, SET TIME DELAY OFF AT 5 MINUTES.

VENTILATION REQUIREMENTS

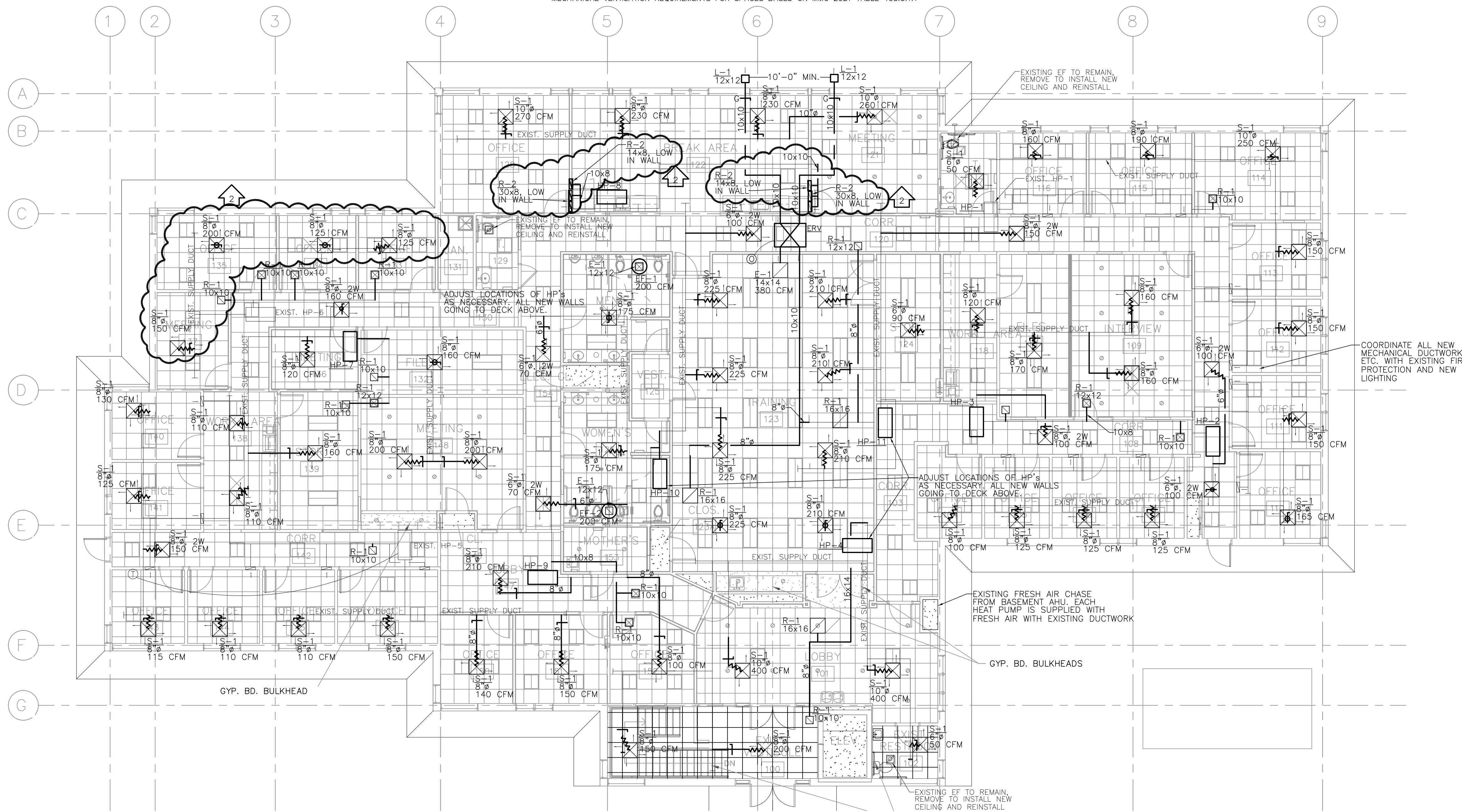
ROOM	OCCUPANCY	VENTILATION/PERSON (CFM)	AREA SQ.FT.	VENTILATION/SQ.FT. (CFM)	TOTAL VENTILATION REQUIRED (CFM)
GENERAL OFFICE SPACE	52	5	10,255	0.06	875
TRAINING ROOM 123	41	7.5	1162	0.12	550

HP-1 THRU HP-9 = 1300 CFM O.A.
HP-10 & HP-11 ERV = 680 CFM O.A.

- MECHANICAL VENTILATION REQUIREMENTS FOR SPACES BASED ON MMC 2021 TABLE 403.3.1.1

MECHANICAL SPECIFICATIONS & GENERAL NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR COORDINATING THEIR WORK WITH THE WORK OF ALL OTHER TRADES AND MAKING ANY NECESSARY MODIFICATIONS TO THEIR WORK AT NO ADDITIONAL COST, INCLUDING ANY OFFSETS REQUIRED.
2. ALL WORK SHALL BE IN ACCORDANCE WITH ALL LOCAL CODES. THESE CODES SHALL BE FOLLOWED AS A MINIMUM. PROVIDE A HIGHER GRADE OF MATERIAL AND WORKMANSHIP WHERE REQUIRED BY THESE DOCUMENTS. PROVIDE ALL TESTS REQUIRED BY LOCAL CODES.
3. ALL PERMITS, FEES, LICENSES, APPROVALS AND OTHER ARRANGEMENTS FOR WORK SHALL BE OBTAINED AND PAID FOR BY THE CONTRACTOR.
4. SUBMIT EQUIPMENT SPECIFICATIONS FOR REVIEW AND APPROVAL PRIOR TO PURCHASE.
5. SUBMIT ASSEMBLED PRINTED INSTRUCTIONS FOR THE OPERATION AND MAINTENANCE OF EACH ITEM INSTALLED ALONG WITH EQUIPMENT CUTS AND CONTROL WIRING DIAGRAMS.
6. CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIAL FOR ONE YEAR AFTER FINAL ACCEPTANCE AGAINST ALL DEFECTS OF MATERIAL, EQUIPMENT AND WORKMANSHIP.
7. THE DRAWING INDICATES GENERAL CHARACTER AND LOCATION OF WORK INCLUDED, BUT HAVING MINOR SPECIALTIES WHICH ARE TO BE PROVIDED AT NO ADDITIONAL COST.
8. ALL EQUIPMENT SHALL BE CLEANED AND ADJUSTED AS REQUIRED TO OPERATE SATISFACTORILY.
9. THERMOSTATS TO BE PROVIDED AND INSTALLED BY CONTROLS CONTRACTOR.
10. ALL SUPPLY AND RETURN AIR DUCTWORK SHALL BE GALVANIZED SHEET METAL INSTALLED PER SMACNA STANDARDS.
11. INSTALL DUCTWORK WITHIN THE JOIST SPACE AND DOWN TO LOW WALL RETURNS.
12. TESTING AND BALANCING OF MECHANICAL SYSTEMS SHALL CONFORM TO THE ABC OR NEBB STANDARDS. SEE SPECIFICATIONS.



MECHANICAL SYMBOLS	
SYMBOLS	DESCRIPTION
⊙	OCCUPANCY SENSOR
⌞	GRAVITY DAMPER
~	FLEXIBLE DUCT

ENGINEER:
GOODSPEED ENGINEERING, LLC
 7101 RIVERWOOD LN SE
 GRAND RAPIDS, MI. 49546
 PH: 616-481-1399

Mark	Description	Date
Owner review		02/25/25
Issued for Bids & Permits		03/06/25
Addendum #2		03/21/25

MAISD South
 Main Floor Renovations

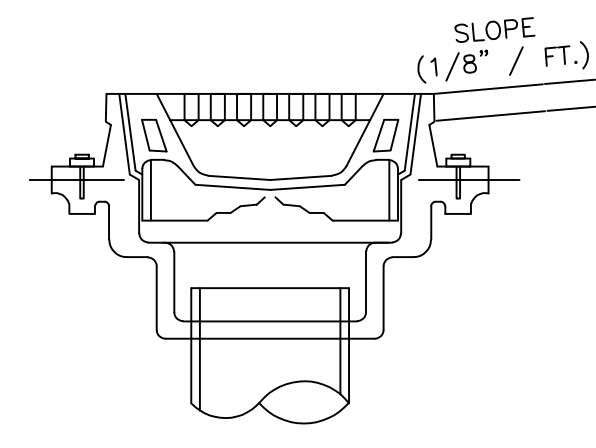
684 Harvey Street
 Muskegon, MI

MECHANICAL PLAN

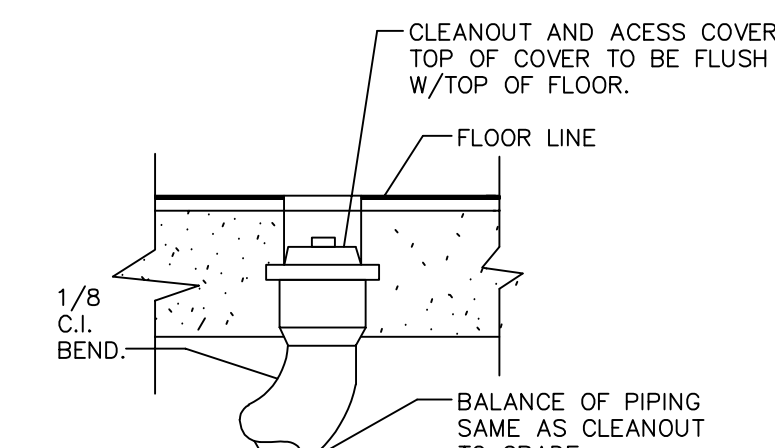
Issued _____ Drawing No. **M1**
 Project No. _____

PLUMBING FIXTURE SCHEDULE

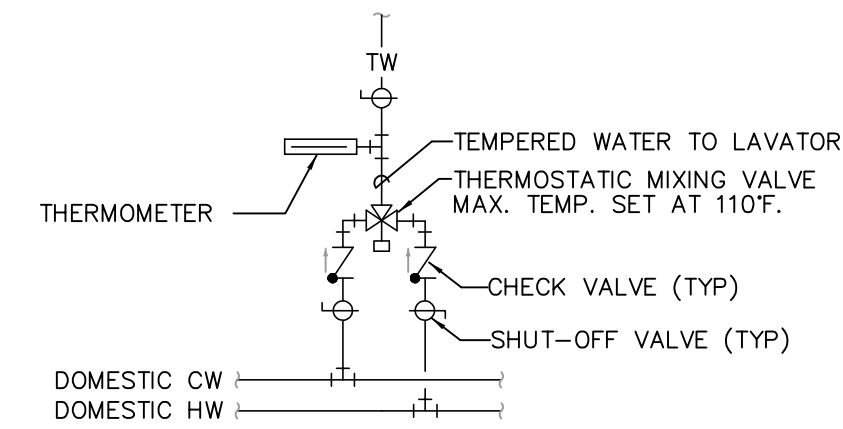
FIXTURE	ITEM	WASTE	TRAP	VENT	CW	HW	REMARKS
WATER CLOSET	WC-1	4"	INT.	2"	1/2"	----	American Standard "Champion Pro", standard height, tank type, model 211CA.004.020, Champion flushing system, elongated bowl, standard white color, 1.6 gpf. American Standard "EverClean" bowl surface, standard white color, 10 year chinaware and trim warranty. Bemis elongated white open front seat model 1955CT000.
WATER CLOSET (BF)	WC-2	4"	INT.	2"	1/2"	----	American Standard "Champion Pro Right Height" tank type, model 211AA.004.020, Champion flushing system, elongated bowl, standard white color, 1.28 gpf. American Standard "EverClean" bowl surface, standard white color, 10 year chinaware and trim warranty. Bemis elongated white open front seat model 1955CT000.
URINAL	UR-1	2"	INT.	2"	3/4"	----	American Standard "TRIMBROOK" #6561.017 std. white color with Sloan Crown II #186 (0.5 gpf) flush valve. Mount lip 20" AFF.
URINAL (BF)	UR-2	2"	INT.	2"	3/4"	----	American Standard "TRIMBROOK" #6561.017 std. white color with Sloan Crown II #186 (0.5 gpf) flush valve. Mount lip 17" AFF.
LAVATORY (BF)	LAV	2"	INT.	2"	1/2"	1/2"	American Standard "Aqualyn" oval, self-rimming countertop, model 0476.028.020, faucet holes on 4" centers. Faucet - Delta 501-TP with Delta RPS202 - 0.5 gpm flow restrictor. Grid drain by others.
KITCHEN SINK	S-1	2"	INT.	2"	1/2"	1/2"	Elkay #LRAD 252165, 1-compartment stainless steel sink, 25x21x6.5" depth, 1 hole. Faucet - Elkay LK5000CR single-lever kitchen faucet with pull-down spray. 1.5 GPM flow, chrome finish, bottom grids by others.
TRAINING ROOM SINK	S-2	2"	INT.	2"	1/2"	1/2"	Elkay "Lustertone" #LRAD-1716-65-1, stainless steel sink, 14"x10"x6.375" single centered faucet hole, center drain. Faucet - Elkay #LK-4060N04L2. Bottom grid by others.
SERVICE SINK	SS	2"	INT.	2"	1/2"	1/2"	"Mustee" #63M DuraStone, floor mounted mop basin, 24"x24"x10"; #65.700 hose holder; #65.600 mop hanger; #63.401 vinyl bumper. T & S Brass #B-0665-BSTR faucet with adjustable wall bracket, rough chrome plated finish, v.b. nozzle, hose thread, pail hook.
FLOOR DRAIN	FD	2"	1-1/2"	----	----	----	Zurn #ZN415-3NH-5BZ1-P Cast iron floor drain, two-piece body, 5" polished nickel bronze strainer, provide "SureSeal" inline floor drain trap sealer, model SS2009.
FLOOR CLEAN OUT	FCO	Varies	----	----	----	----	JOSAM 55000 series coated with cast iron "KLEENATRON" clean out plug, round adjustable top.
ELECTRIC WATER COOLER (BF)	EW	1-1/4"	1-1/4"	2"	3/8"	----	"Elkay" EZSTL-8-WSLK EZH2O; wall mounted cabinet with bottle filler, handicapped trim, 8 gpm capacity, 3.7 amps, 325 watts, standard color.



FLOOR DRAIN
NOT TO SCALE



FLOOR CLEANOUT
NOT TO SCALE

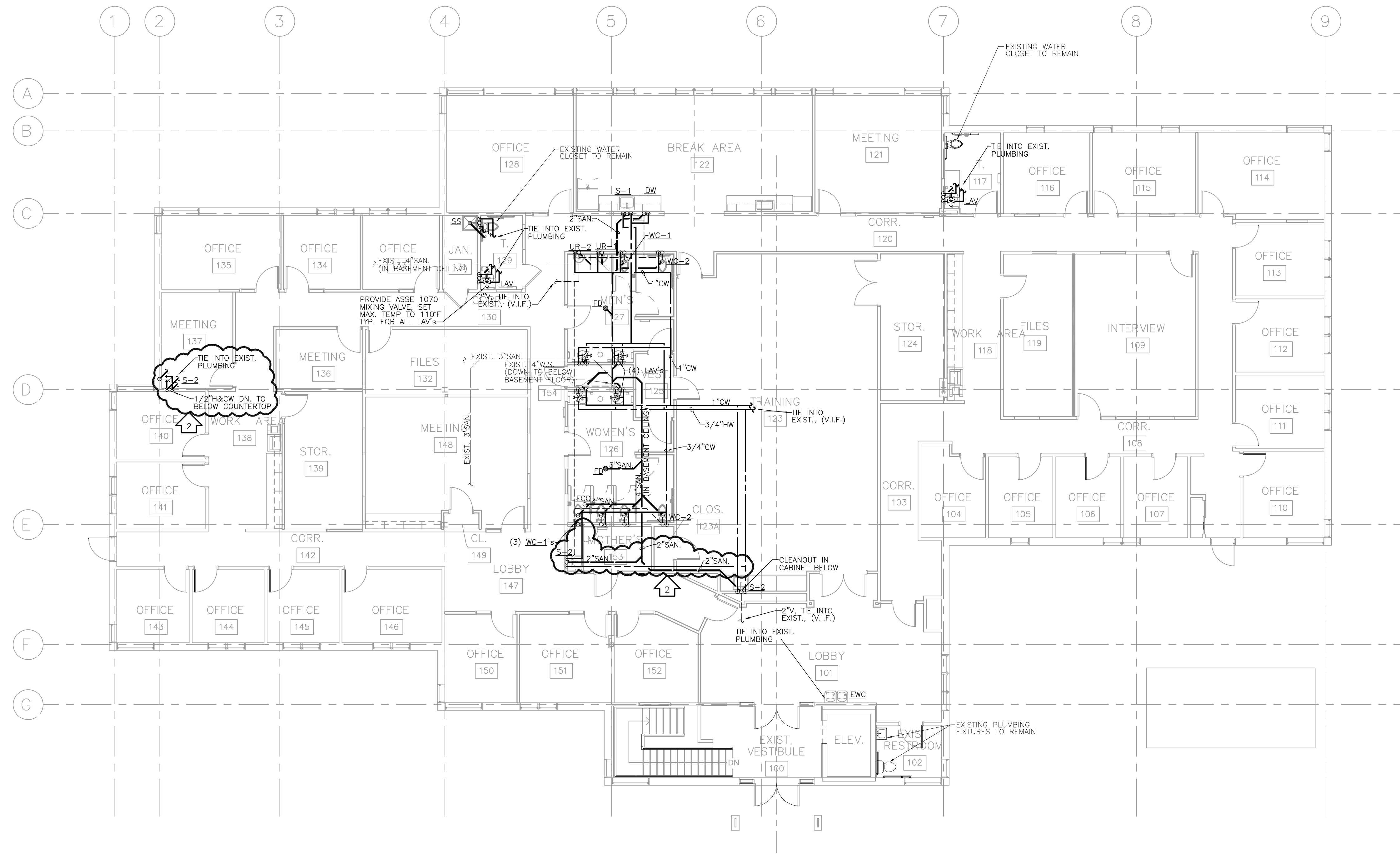


MIXING VALVE DETAIL
NOT TO SCALE

PLUMBING SPECIFICATIONS AND GENERAL NOTES:

- CONTRACTOR IS RESPONSIBLE FOR COORDINATING THEIR WORK WITH THE WORK OF ALL OTHER TRADES AND MAKING ANY NECESSARY MODIFICATIONS TO THEIR WORK AT NO ADDITIONAL COST, INCLUDING ANY OFFSETS REQUIRED.
- ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH LOCAL CODES. THESE CODES SHALL BE FOLLOWED AS MINIMUM PROVIDING HIGHER GRADES OF MATERIAL AND WORKMANSHIP WHERE REQUIRED BY THESE DOCUMENTS. PROVIDE ALL TESTS REQUIRED BY LOCAL CODES.
- ALL PERMITS, FEES, LICENSES, APPROVALS AND OTHER ARRANGEMENTS FOR WORK SHALL BE OBTAINED BY THE CONTRACTOR AT HIS OWN EXPENSE.
- SUBMIT ASSEMBLED PRINTED INSTRUCTIONS FOR THE OPERATION AND MAINTENANCE OF EACH ITEM INSTALLED ALONG WITH EQUIPMENT CUTS AND CONTROL WIRING DIAGRAMS.
- CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIAL FOR ONE YEAR AFTER COMPLETION AGAINST ALL DEFECTS OF MATERIAL, EQUIPMENT AND WORKMANSHIP.
- FOR EXACT LOCATION OF PLUMBING FIXTURES REFER TO ARCHITECTURAL PLANS AND ELEVATIONS.
- INSULATION: DOMESTIC HOT WATER PIPING SHALL BE INSULATED WITH 1" THICK INSULATION WITH MAXIMUM FLAME SPREAD INDEX OF 25 AND A SMOKE DEVELOPED INDEX NOT EXCEEDING 50. COLD WATER, IF PEX-A MATERIAL DOES NOT REQUIRE INSULATION.
- PLUMBING MATERIAL:
 - DOMESTIC WATER PIPING SHALL MEET OR EXCEED NSF/ANSI 61 DRINKING WATER SYSTEM COMPONENTS UTILIZING PEX-A PIPING AND ASTM F1960 COLD EXPANSION FITTINGS.
 - SANITARY WASTE, AND VENT PIPING SHALL BE PVC SCHEDULE 40.
- PLUMBING ACCESSORIES:
 - ALL VALVES FOR SHUT-OFFS SHALL BE "BALL" TYPE AS MANUFACTURED BY MILWAUKEE OR NIBCO. PROVIDE INDIVIDUAL COLD AND HOT WATER SHUT-OFFS FOR EACH FIXTURE GROUP.
- PLUMBING FIXTURES:
 - FURNISH AND INSTALL PLUMBING FIXTURES INDICATED. FIXTURES TO BE FIRST QUALITY, CONNECTED, CLEANED AND READY FOR USE. PROVIDE WOOD BACKING, PROPERLY SECURED TO WALLS AND FLOORS AS REQUIRED.
 - PROVIDE TRAPS AND SUPPLIES WITH STOPS, MAKE ALL FINAL CONNECTION TO EACH FIXTURE, FAUCET, TAILPIECE, SINK FRAMES, ETC FOR ALL FIXTURES.
- ALL STORM PIPING TO BE INSTALLED AS HIGH AS POSSIBLE & THROUGH JOIST WEBS WHENEVER POSSIBLE.
- NEW BUILDING SHALL HAVE FIRE PROTECTION SYSTEM AND DESIGN/BUILT BY FP CONTRACTOR TO MEET NFPA-13.

PLUMBING SYMBOLS		
SYMBOLS	ABBREVIATION	DESCRIPTION
---	CW	DOMESTIC COLD WATER
----	HW	DOMESTIC HOT WATER
----	SAN	SANITARY WASTE (BURIED)
----	V	VENT



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

ENGINEER:
GOODSPEED ENGINEERING, LLC
7101 RIVERWOOD LN SE
GRAND RAPIDS, MI. 49546
PH: 616-481-1399

Mark	Description	Date
Owner review		02/25/25
Issued for Bids & Permits		03/06/25
Addendum #2		03/21/25

MAISD South
Main Floor Renovations

684 Harvey Street
Muskegon, MI

PLUMBING PLAN	
Issued	Drawing No.
Project No.	P1