

# WEST MIDDLE SCHOOL SERVERY REMODEL - BID PACKAGE 2: CONSTRUCTION

## PORTAGE PUBLIC SCHOOLS Portage, Michigan CONSTRUCTION DOCUMENTS

### DESIGN TEAM

#### ARCHITECT/ENGINEER

**TowerPinkster**  
Architecture · Engineering · Interiors

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KALAMAZOO, MICHIGAN 49007  
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### REFERENCED CODES

BUILDING: 2015 MICHIGAN BUILDING CODE AND 2012 NFPA 101 LIFE SAFETY CODE  
ENERGY: 2015 MICHIGAN ENERGY CODE  
PLUMBING: 2018 MICHIGAN PLUMBING CODE  
MECHANICAL: 2015 MICHIGAN MECHANICAL CODE  
FUEL GAS: (IFGC) 2015 INTERNATIONAL FUEL GAS CODE  
ELECTRICAL: 2017 NATIONAL ELECTRICAL CODE WITH MICHIGAN AMENDMENTS  
BARRIER-FREE: 2015 MICHIGAN BUILDING CODE AND 2009 ICC & C A117.1  
USE GROUP: E  
CONSTRUCTION TYPE: II-B  
AUTOMATIC SPRINKLERS: YES

#### PROJECT AREA

TOTAL FINISHED PROJECT: 1,540 SQ. FT.

### DRAWING INDEX

GENERAL  
G 001 COVER SHEET

ARCHITECTURAL GENERAL  
AG 001 GENERAL ARCHITECTURAL NOTES, INTERIOR PARTITION  
TYPES AND DEVICE ALIGNMENT GUIDELINES

ARCHITECTURAL DEMOLITION  
AD 101 FIRST FLOOR DEMOLITION PLAN & REFLECTED CEILING  
DEMOLITION PLAN

ARCHITECTURAL  
A 101 FIRST FLOOR PLAN & REFLECTED CEILING PLAN

INTERIORS GENERAL  
IG 001 TYPICAL SYMBOLS & GENERAL NOTES  
IG 002 MATERIAL SELECTION SCHEDULE & TYPICAL DETAILS

INTERIORS  
I 101 FIRST FLOOR FINISH PLAN

FOOD SERVICE  
FSE-1 FOOD SERVICE EQUIPMENT FLOOR PLAN  
FSE-2 FOOD SERVICE EQUIPMENT SCHEDULE  
FSE-3 FOOD SERVICE ELECTRICAL FLOOR PLAN  
FSE-4 FOOD SERVICE PLUMBING FLOOR PLAN

MECHANICAL & PLUMBING GENERAL  
MG 001 MECHANICAL & PLUMBING GENERAL NOTES,  
ABBREVIATIONS, AND SYMBOLS

PLUMBING DEMOLITION  
PD 001 FOUNDATION PLUMBING DEMOLITION PLAN  
PD 101 PLUMBING FIRST FLOOR DEMOLITION PLAN

MECHANICAL DEMOLITION  
MD 101 FIRST FLOOR MECHANICAL DEMOLITION PLAN

PLUMBING  
P 001 FOUNDATION PLUMBING PLAN  
P 101 FIRST FLOOR PLUMBING PLAN

MECHANICAL  
M 101 FIRST FLOOR SHEET METAL PLAN  
M 150 ROOF MECHANICAL PLAN  
M 201 FIRST FLOOR HVAC PIPING PLAN  
M 501 MECHANICAL SCHEDULES AND DETAILS

ELECTRICAL GENERAL  
EG 001 ELECTRICAL SYMBOLS AND GENERAL NOTES

ELECTRICAL DEMOLITION  
ED 101 FIRST FLOOR ELECTRICAL DEMOLITION PLAN

ELECTRICAL  
E 101 FIRST FLOOR POWER PLAN  
E 201 FIRST FLOOR LIGHTING PLAN  
E 401 ELECTRICAL ONE-LINE DIAGRAMS

TECHNOLOGY GENERAL  
TG 001 TECHNOLOGY SYMBOLS AND GENERAL NOTES

TECHNOLOGY DEMO  
TD 101 FIRST FLOOR TECHNOLOGY DEMOLITION PLAN

TECHNOLOGY  
T 101 OVERALL FIRST FLOOR TECHNOLOGY PLAN  
T 101A FIRST FLOOR TECHNOLOGY PLAN  
T 401 TECHNOLOGY DETAILS

#### FOOD SERVICE CONSULTANT



401 HALL ST SW, SUITE 185H  
GRAND RAPIDS, MI 49503  
PHONE: 616.454.4433

#### SITE ADDRESS

WEST MIDDLE SCHOOL  
7145 MOORSBRIDGE RD.  
PORTAGE, MI 49024

ISSUED FOR DATE

PROJECT TITLE  
WEST MIDDLE SCHOOL SERVERY  
REMODEL - BID PACKAGE 2:  
CONSTRUCTION

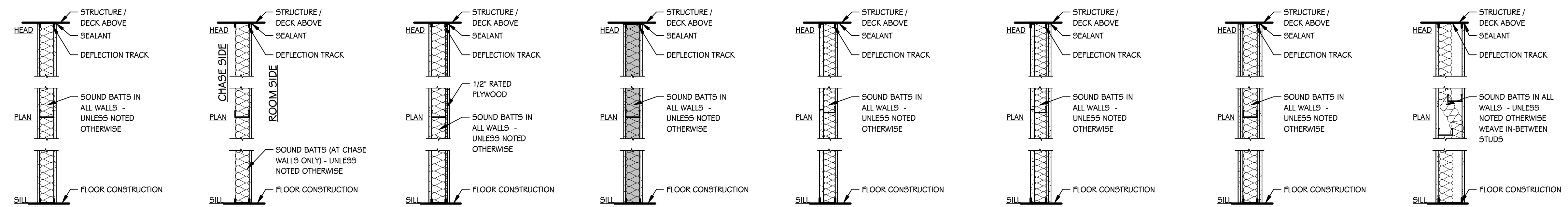
OWNER  
PORTAGE PUBLIC SCHOOLS

Portage, Michigan

DATE  
JANUARY 16, 2024

SHEET TITLE  
COVER SHEET

SHEET NUMBER  
G 001  
23-186.00



14 METAL STUDS @ 16" O.C. WITH 5/8" GYPSUM BOARD BOTH SIDES; (1 HOUR FIRE) U.L. ASSEMBLY U465 WHERE NOTED ON PLANS  
**METAL STUD WALL**

15 METAL STUDS @ 16" O.C. WITH 5/8" GYPSUM BOARD ON ROOM SIDE - BRACE WALL @ 4'-0" O.C. MAXIMUM.  
**METAL STUD CHASE WALL OR FURRING**

16 METAL STUDS @ 16" O.C. WITH 1/2" RATED PLYWOOD ONE SIDE AND 5/8" GYPSUM BOARD ON BOTH SIDES.  
**METAL STUD WALL WITH PLYWOOD BACKING**

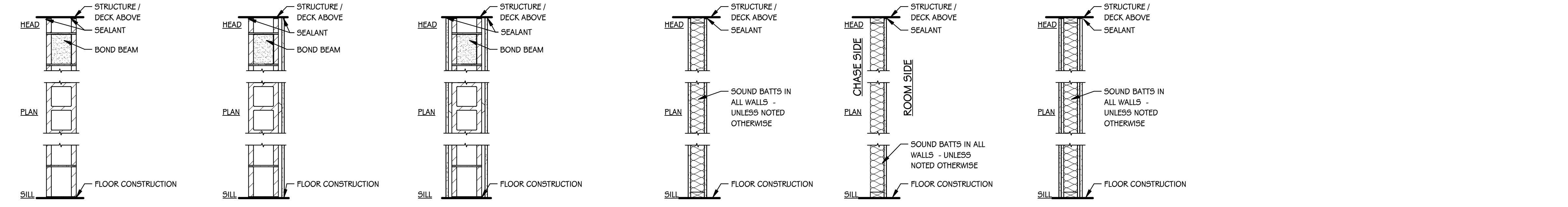
17 METAL STUDS @ 16" O.C. WITH 5/8" TYPE "X" GYPSUM BOARD ON ROOM SIDE AND 1" TYPE "X" GYPSUM BOARD ON CHASE SIDE  
**STRUCTURAL METAL STUD WALL**

18 METAL CH STUDS @ 16" O.C. WITH 5/8" TYPE "X" GYPSUM BOARD ON ROOM SIDE AND 1" TYPE "X" GYPSUM BOARD ON CHASE SIDE  
**METAL STUD CHASE WALL (1 HOUR FIRE) U.L. ASSEMBLY U415**

19 METAL CH STUDS @ 16" O.C. WITH (2) LAYERS 5/8" TYPE "X" GYPSUM BOARD ON ROOM SIDE AND 1" TYPE "X" GYPSUM BOARD ON CHASE SIDE  
**METAL STUD CHASE WALL (2 HOUR FIRE) U.L. ASSEMBLY U438**

20 METAL STUDS @ 16" O.C. WITH (2) LAYERS 5/8" TYPE "X" GYPSUM BOARD BOTH SIDES  
**METAL STUD WALL (2 HOUR FIRE) U.L. ASSEMBLY U425**

21 6" TOP AND BOTTOM TRACK WITH 3 5/8" METAL STUD FRAMING @ 16" O.C. (OFFSET) WITH 5/8" GYPSUM BOARD BOTH SIDES  
**METAL STUD SOUND WALL**



22 4" CONCRETE MASONRY UNITS  
**CMU WALL (1 AND 2 HOUR FIRE) U.L. ASSEMBLY - U905**

23 4" CONCRETE MASONRY UNITS WITH METAL FURRING AND 5/8" GYPSUM BOARD  
**CMU WALL WITH FURRING**

24 4" CONCRETE MASONRY UNITS WITH METAL FURRING AND 5/8" GYPSUM BOARD - BOTH SIDES  
**CMU WALL WITH FURRING BOTH SIDES**

25 4" CONCRETE MASONRY UNITS WITH METAL FURRING AND 5/8" GYPSUM BOARD - BOTH SIDES  
**WOOD STUD WALL**

26 4" CONCRETE MASONRY UNITS WITH METAL FURRING AND 5/8" GYPSUM BOARD - BOTH SIDES  
**WOOD STUD CHASE WALL**

27 4" CONCRETE MASONRY UNITS WITH METAL FURRING AND 5/8" GYPSUM BOARD - BOTH SIDES  
**WOOD STUD WALL (2 HOUR FIRE) U.L. ASSEMBLY U301**

**INTERIOR PARTITION TYPES**  
 3/4" = 1'-0"

**GENERAL NOTES - ARCHITECTURAL - PARTITIONS**

- NOT ALL WALL TYPES MAY BE USED ON PROJECT.
- REFER TO CODE COMPLIANCE PLANS FOR LOCATIONS OF SMOKE AND FIRE-RATED PARTITIONS.
- ALL PARTITIONS EXTEND TO BOTTOM OF STRUCTURE, UNLESS NOTED OTHERWISE.
- LINE OF STRUCTURE/DECK AS SHOWN AT THE HEAD CONDITION OF EACH PARTITION TYPE IS DIAGRAMMATIC ONLY AND DOES NOT INDICATE EXACT CONSTRUCTION CONDITIONS. TERMINATE RATED PARTITIONS AT UNDERSIDE OF STRUCTURAL DECK TO MAINTAIN RATING. PROVIDE APPROPRIATE FRAMING AND GYPSUM BOARD TO OFFSET AROUND STRUCTURE OR OTHER OBSTRUCTIONS, SUCH AS PIPING OR DUCTWORK.
- PARTITIONS MAY TERMINATE AT STRUCTURAL MEMBERS WITH A RATING GREATER THAN OR EQUAL THE PARTITION, PROVIDED THAT RATING IS CONTINUOUS TO STRUCTURAL DECK ABOVE.
- NON-RATED PARTITIONS THAT EXTEND TO STRUCTURE SHALL TERMINATE AT UNDERSIDE OF STRUCTURAL DECK TO MAINTAIN A CONTINUOUS PLANE OF GYPSUM BOARD AS A NOISE, SMOKE OR OTHER TYPE OF BARRIER.
- ALL PARTITIONS EXTENDING TO STRUCTURE ABOVE SHALL TERMINATE WITH DEFLECTION TRACK - SEE TYPICAL DETAILS ON THIS SHEET.
- ALL GYPSUM BOARD PARTITIONS NOT EXTENDING TO THE STRUCTURE MUST BE BRACED.
- UL DESIGN NUMBERS REFER TO THE FIRE RESISTANCE DIRECTORY; UNDERWRITERS LABORATORY, LATEST EDITION.
- MISCELLANEOUS NON-RATED CHASES TO BE 5/8" GYPSUM BOARD ON 3 5/8" METAL STUD FRAMING AT 16" O.C., UNLESS NOTED OTHERWISE.
- MISCELLANEOUS FURRING AROUND COLUMNS TO BE 5/8" GYPSUM BOARD ON 1 1/2" STUDS, UNLESS NOTED OTHERWISE.
- FIRE-RATED PARTITIONS TO HAVE FIRE-STOPPING SEALANTS AT HEAD, SILL, UNCLURE WITH DISSIMILAR MATERIALS, ETC. AND AROUND ALL PENETRATIONS AND OPENINGS.
- CONSTRUCT ALL PARTITIONS WITH SOUND ATTENUATION BATTS WITH THE FOLLOWING SOUND BATT THICKNESS: 2 1/2" OR LESS METAL STUD - 1 1/2" THICKNESS, 3 5/8" OR LARGER METAL STUD - 3" THICKNESS, UNLESS NOTED OTHERWISE.

**GENERAL NOTES - ARCHITECTURAL - DEMOLITION**

- CONTRACTORS ARE REQUIRED TO INSPECT/REVIEW THE EXISTING BUILDING PRIOR TO RELATED DEMOLITION WORK. UNLESS NOTED OTHERWISE, REMOVAL OF ANY WALL, FLOOR OR CEILING INCLUDES ALL GENERAL MECHANICAL AND ELECTRICAL ITEMS WHICH ARE A PART OF, OR ATTACHED TO IT.
- CONTRACTOR SHALL VERIFY ALL EXISTING JOB SITE CONDITIONS AND DIMENSIONS AND BE RESPONSIBLE FOR THE SAME. ADVISE CONSTRUCTION MANAGER OF ANY AND ALL DISCREPANCIES.
- PATCH FLOORS, WALLS AND CEILINGS DAMAGED DURING CONSTRUCTION AND DEMOLITION AS REQUIRED. FINISH TO MATCH EXISTING.
- ACCOMMODATE NEW CONSTRUCTION IF NOT INDICATED.
- PROTECT ALL EXISTING FINISHES THROUGHOUT PROJECT.
- REFER TO DEMOLITION ELEVATIONS, SECTIONS AND DETAILS FOR ADDITIONAL INFORMATION.
- REFER TO STRUCTURAL, MECHANICAL, PLUMBING AND ELECTRICAL PLANS FOR ADDITIONAL DEMOLITION NOTES.
- SALVAGE ALL UNISTRUT AND PROTECT FOR RE-USE IN NEW CONSTRUCTION, IF REQUIRED.
- AT LOCATIONS OF REMOVED WALLS, ALL ASSOCIATED ITEMS ATTACHED TO THE WALL ARE TO BE REMOVED. SUCH AS: DOORS, WINDOWS, FRAMES, MARKERBOARDS, TACKBOARDS, TACK STRIPS, ETC.

**GENERAL NOTES - ARCHITECTURAL - NEW CONSTRUCTION**

- THE OWNER RESERVES THE RIGHT TO REMOVE ANY ITEM FROM THE PROJECT PRIOR TO COMMENCEMENT OF CONTRACTED DEMOLITION WORK.
- ALL EXISTING CONDITIONS SHOULD BE FIELD VERIFIED BEFORE WORK BEGINS.
- DIMENSIONS GIVEN ARE ACTUAL AND ARE TO THE FACE OF MASONRY UNITS OR TO THE FACE OF STUD FRAMING, UNLESS NOTED OTHERWISE.
- DETAILS SHOWN ILLUSTRATE DESIGN INTENT, NOT ALL POSSIBLE CONDITIONS. FOR CONDITIONS NOT SHOWN, USE DETAILS CLOSEST TO CONDITION IN QUESTION.
- EXTEND ALL INTERIOR WALL PARTITIONS FROM FLOOR TO STRUCTURE/DECK ABOVE UNLESS NOTED OR DETAILED OTHERWISE.
- WITHIN BUILDING INTERIOR PROVIDE BULLNOSE BLOCK IN CMU WALL ASSEMBLIES AT ALL EXPOSED OUTSIDE CORNERS, INCLUDING WINDOW AND DOOR JAMBS, UNLESS NOTES OR DETAILED OTHERWISE. PROVIDE SQUARE CORNERS AT ALL LOCATIONS FINISHED WITH WALL TILE. REFER TO FINISH PLANS (100 SHEETS) FOR LOCATIONS.
- TOOTH-IN MASONRY AT NEW OPENINGS IN EXISTING WALLS.
- TOOTH-IN NEW MASONRY INFILL INTO EXISTING OPENINGS AT ALL BULLNOSE BLOCK LOCATIONS.
- STUD WALLS SPANNING OVER 12'-0" IN HEIGHT SHALL BE A MINIMUM OF 20 GAGE.
- STUD WALL SUPPORTING WALL CABINETS SHALL BE A MINIMUM OF 20 GAGE.
- DOORS ARE TO BE 4" FROM CORNER OF ROOM, UNLESS NOTED OR DIMENSIONED OTHERWISE.
- FIRESTOP ALL INTERCONNECTIONS BETWEEN VERTICAL AND HORIZONTAL SPACES AND CONCEALED WALL SPACES AT CEILING, FLOOR AND ROOF LEVELS.
- FIRESEAL ALL PENETRATIONS, SUCH AS, PIPES, DUCTS, CONDUITS, ETC. THROUGH FIRE AND/OR SMOKE RATED ASSEMBLIES.
- FOR CONTROL JOINT (C.J.) LOCATIONS REFER TO EXTERIOR ELEVATIONS AND/OR FLOOR PLANS.
- PAINT ALL ELECTRICAL PANEL COVERS AND ACCESS PANELS TO MATCH ADJACENT FINISHES. USING OIL-BASED PAINT, NOT LATEX WALL PAINT.
- PROVIDE WOOD BLOCKING IN WALLS THAT REQUIRE WALL MOUNTED EQUIPMENT OR ACCESSORIES. COORDINATE WITH EQUIPMENT OR ACCESSORY MANUFACTURER.
- REMOVE ALL ASSOCIATED CURBS FOR ROOF TOP EQUIPMENT AND MECHANICAL ROOF TOP UNITS. LARGE VOIDS BELOW THE AIR HANDLING UNITS SHALL BE FILLED WITH INSULATION AS SPECIFIED FOR NOISE CONTROL.
- ALL EXISTING ROOF TOP PENETRATIONS BEING REMOVED REQUIRE ROOF PATCHING TO MATCH EXISTING ADJACENT.

**PARTITION STUD KEY - METAL, CH, AND WOOD**

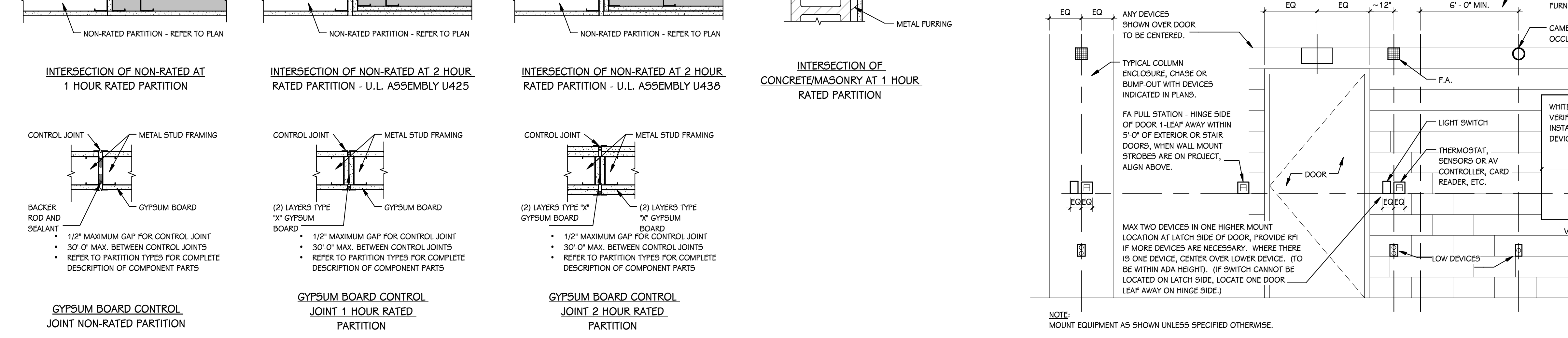
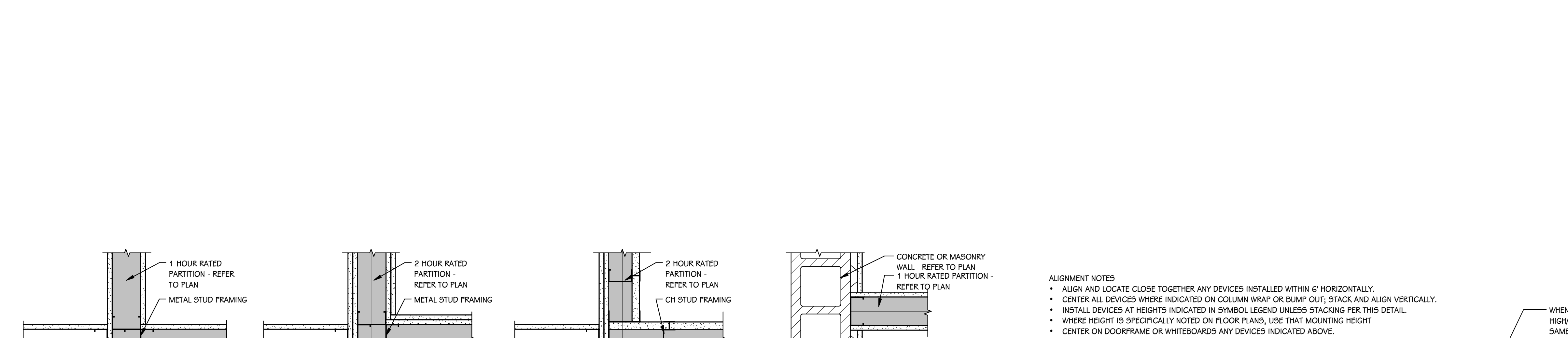
DESIGNATION	SIZE
A	GYPSUM BOARD DIRECT APPLIED TO CMU
B	7/8"
C	1 1/2"
D	1 5/8"
E	2 1/2"
F	3 1/2"
G	3 5/8"
H	4"
J	5 1/2"
K	6"
L	8"
M	10"
N	12"
P	OPEN
Q	OPEN

DESIGNATION	SIZE
R	2 1/2"
S	4"
T	6"

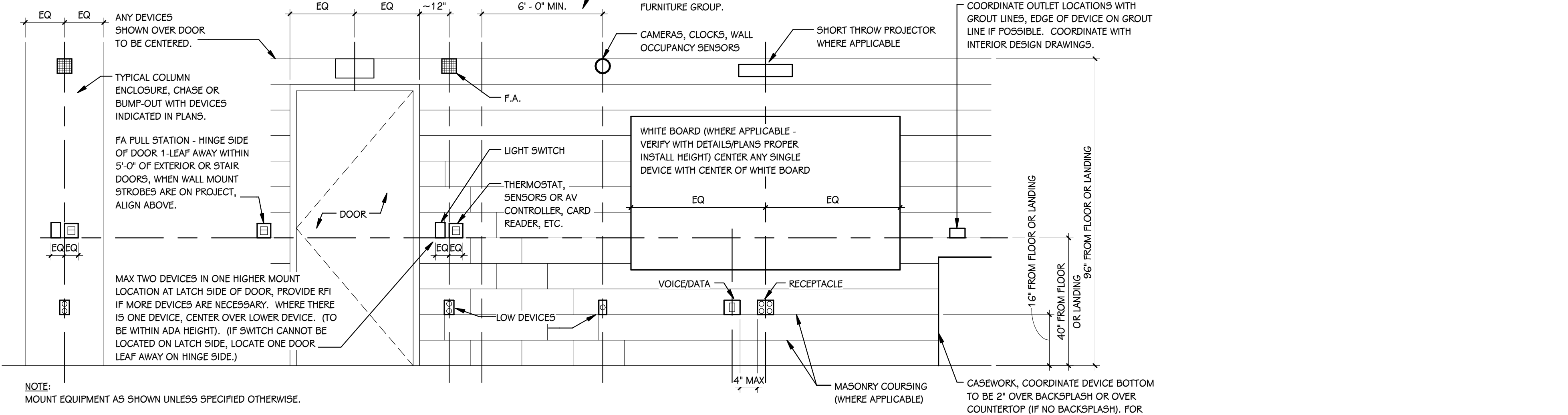
DESIGNATION	SIZE
U	2"x4"
V	2"x6"
W	2"x8"

**PARTITION TYPE TAG (REFER TO FLOOR PLANS)**

PARTITION TYPE NUMBER      STUD SIZE DESIGNATION  
 FIRE RATING, IF REQUIRED



**FIRE RATED WALL PLAN DETAILS**  
 SCALE: NONE



**DEVICE ALIGNMENT GUIDELINES**  
 SCALE: NONE

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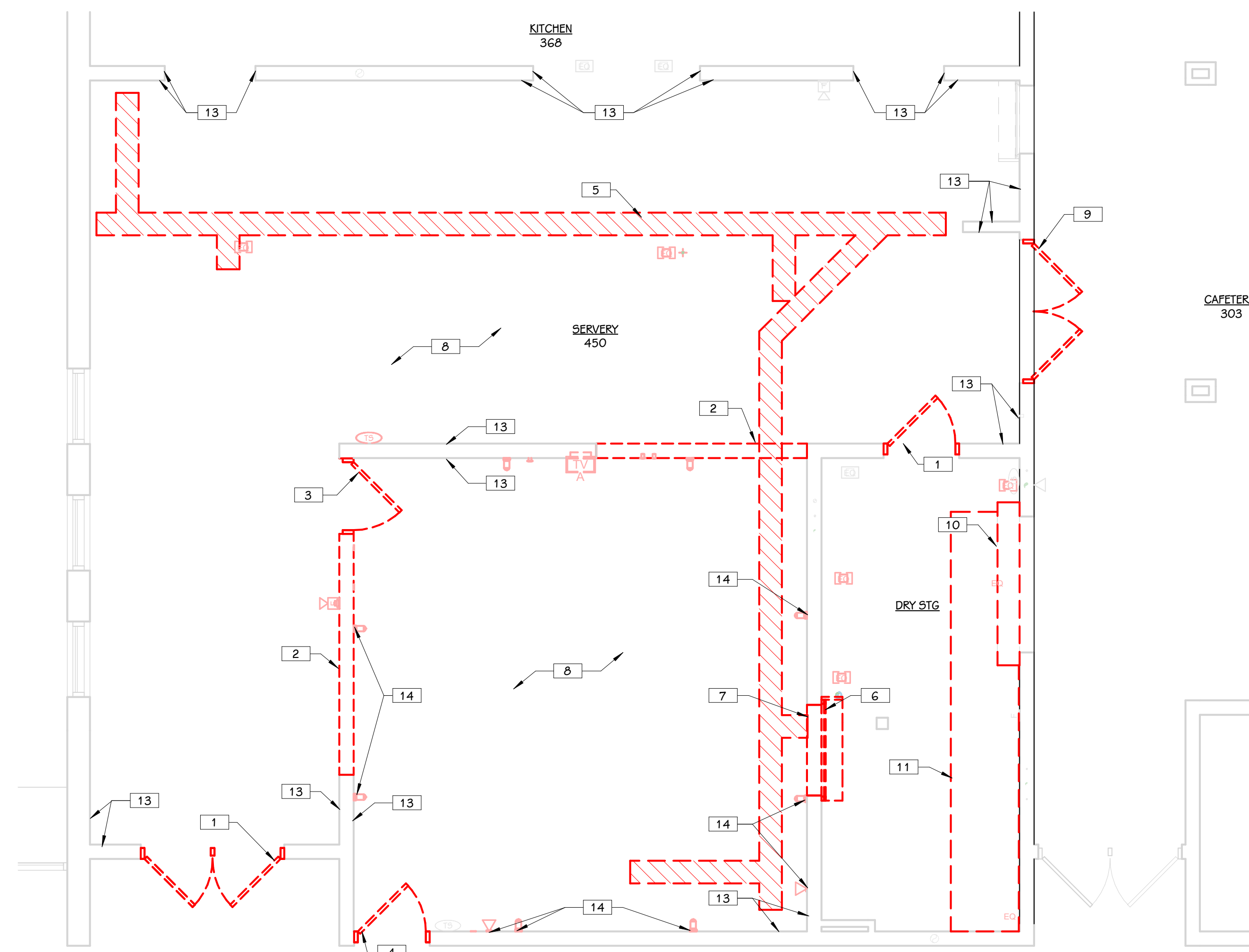
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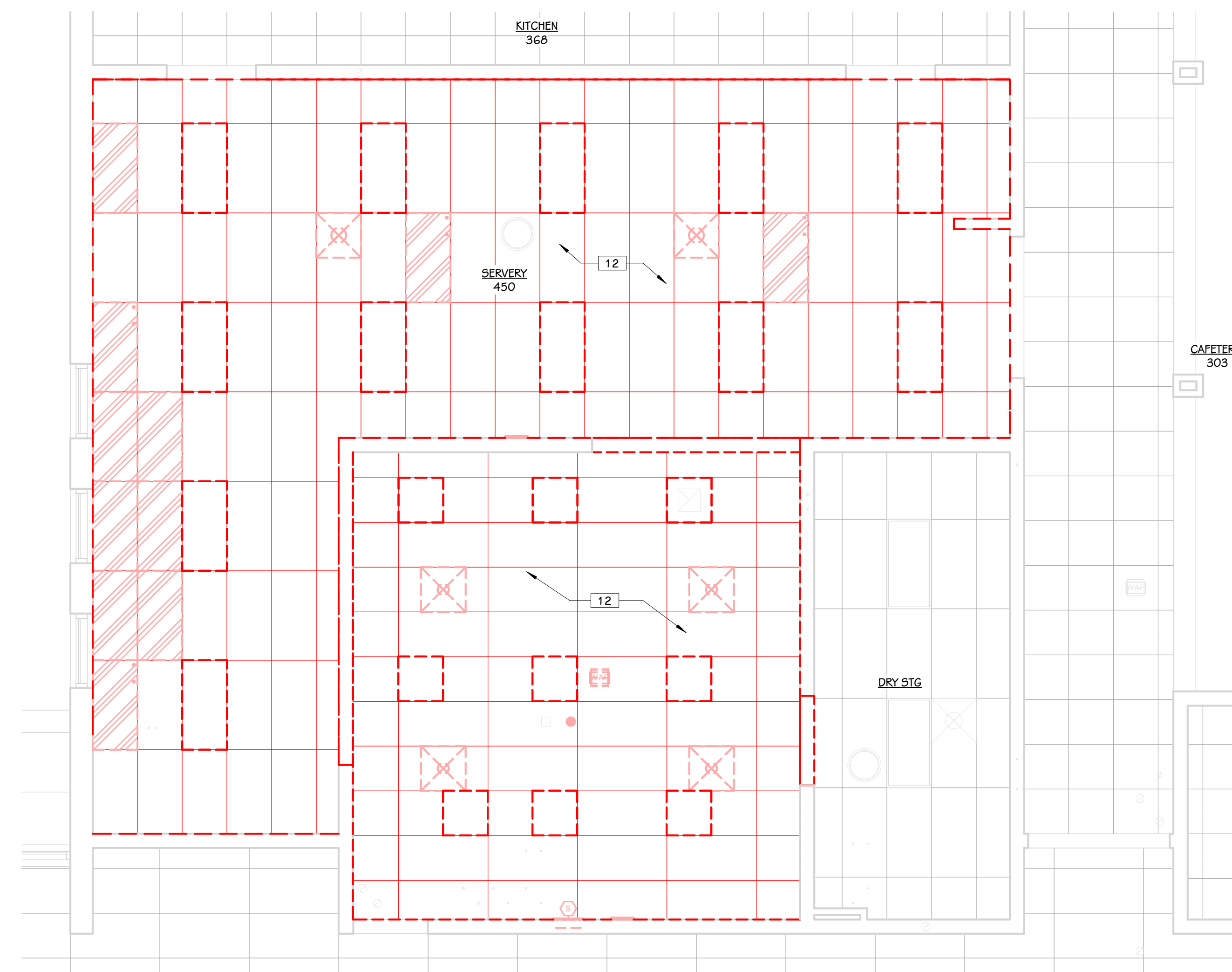
**LIST OF ABBREVIATIONS**

ACP	ACOUSTICAL PANEL CEILING
AFF	ABOVE FINISH FLOOR
ALUM	ALUMINUM
ANOD	ANODIZED
CFMF	COLD FORMED METAL FRAMING
CMU	CONCRETE MASONRY UNIT
CONC	CONCRETE
DCMU	DECORATIVE CONCRETE MASONRY UNIT
EIPS	EXTERIOR INSULATION AND FINISH SYSTEM
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FRT	FIRE RESISTANT TREATED
FV	FIELD VERIFY
GYP BD	GYPSUM BOARD
HM	HOLLOW METAL
LVL	LAMINATED VENEER LUMBER
MCM	METAL COMPOSITE MATERIAL WALL PANEL
ON CENTER	ON CENTER
PT	PRESERVATIVE TREATED
PNT	PAINT
SS	STAINLESS STEEL
SSM	SOLID SURFACE MATERIAL
TYP	TYPICAL
VF	VERIFY IN FIELD
WD	WOOD

KEYED NOTES - ARCHITECTURAL - DEMOLITION	
1	REMOVE DOORS AND HARDWARE, FRAME TO REMAIN, PREPARE FRAME FOR NEW DOORS AND HARDWARE
2	REMOVE AND DISCARD CMU WALL, COORDINATE WITH NEW CONSTRUCTION FOR EXTENTS OF DEMOLITION
3	REMOVE AND DISCARD DOOR, FRAME, AND WALL ABOVE
4	REMOVE AND DISCARD DOOR, TRANSOM, AND FRAME, PREPARE OPENING FOR CMU INFILL
5	SAWCUT AND REMOVE CONCRETE SLAB FOR NEW PIPE AND CONDUIT RUNS, REFER TO MECHANICAL AND ELECTRICAL FOR LOCATION AND DEPTH
6	REMOVE AND DISCARD OH COUNTER DOOR AND ATTACHMENTS
7	REMOVE AND DISCARD CMU WALL FROM FLOOR TO DECK, EXTENTS WIDTH OF OPENING, PREPARE FOR NEW CONSTRUCTION
8	PREPARE FLOOR FOR NEW FINISH, COORDINATE WITH INTERIORS
9	REMOVE AND DISCARD DOORS AND TRANSOM GLAZING, FRAME TO REMAIN
10	REMOVE AND DISCARD STAINLESS STEEL COUNTER AT OH DOOR, PATCH WALL AS REQD, THIS SIDE ONLY, DOOR TO REMAIN
11	REMOVE AND DISCARD ALL FLOOR MOUNTED WORKSURFACES, THIS ROOM ONLY, PATCH AND SMOOTH HOLES IN FLOOR
12	REMOVE AND DISCARD CEILING PANELS, GRID, AND SUSPENSION SYSTEM
13	REMOVE ALL TILE BASE, PREP AND SMOOTH FOR NEW RESILIENT BASE
14	PATCH AND SMOOTH ALL HOLES IN WALLS, PREPARE FOR NEW FINISH



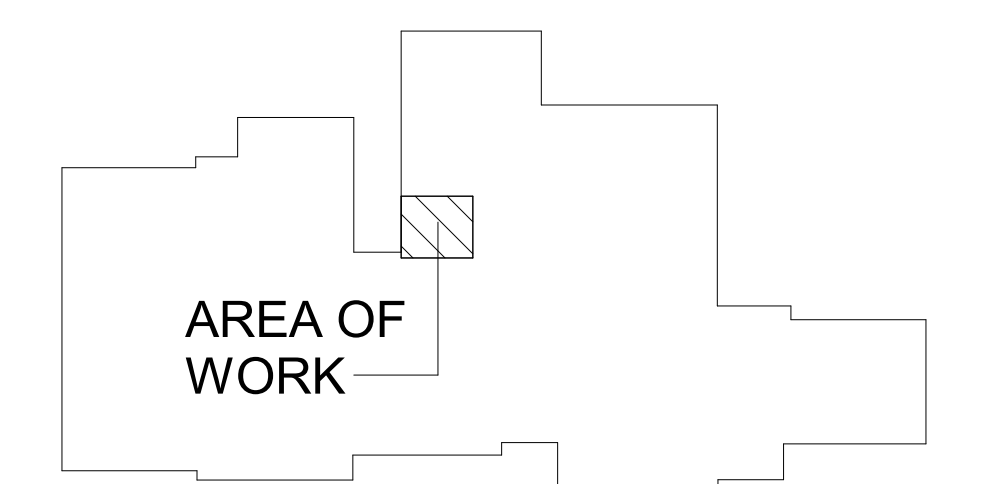
**OVERALL FIRST FLOOR DEMOLITION PLAN**  
1/4" = 1'-0"



**FIRST FLOOR REFLECTED CEILING DEMOLITION PLAN**  
1/4" = 1'-0"

**THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEARS IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING**

**PORTAGE WEST MIDDLE SCHOOL**



**KEY PLAN**  
SCALE: NONE

ISSUED FOR: DATE:

PROJECT TITLE  
WEST MIDDLE SCHOOL SERVERY  
REMODEL

OWNER  
PORTAGE PUBLIC SCHOOLS

Portage, Michigan

SHEET TITLE  
FIRST FLOOR DEMOLITION PLAN &  
REFLECTED CEILING DEMOLITION PLAN

DATE  
JANUARY 16, 2024

SHEET NUMBER  
AD 101  
23-186.00

- KEYED NOTES - ARCHITECTURAL - CONSTRUCTION**
- PATCH CONCRETE LEVEL WITH EXISTING FLOOR, PREPARE FOR NEW FINISH, TYP.
  - INFILL WALL OPENING WITH CMU, PAINT TO MATCH ADJACENT
  - INSTALL STAINLESS STEEL PLATE TO COVER OPENING AT DEMOD CLOCK ABOVE, VERIFY SIZE OF PLATE IN FIELD
- KEY - REFLECTED CEILING**
- GYPSUM BOARD
  - LAY-IN ACOUSTICAL TILE GRID
  - LIGHTING - REFER TO ELECTRICAL LIGHTING PLAN
  - MECHANICAL - REFER TO MECHANICAL SHEET METAL PLAN
- GENERAL NOTES - REFLECTED CEILING**
- WHERE CEILING TILE IS LESS THAN 3" AT PERIMETER OF ROOM PROVIDE A CUT 2x4 TILE IN LIEU OF FULL 2x2 TILE AND SMALL PIECE OF TILE OR DOUBLE GRID - MATCH 2x2 FOR STYLE AND COLOR.

ISSUED FOR DATE

PROJECT TITLE  
WEST MIDDLE SCHOOL SERVERY  
REMODEL

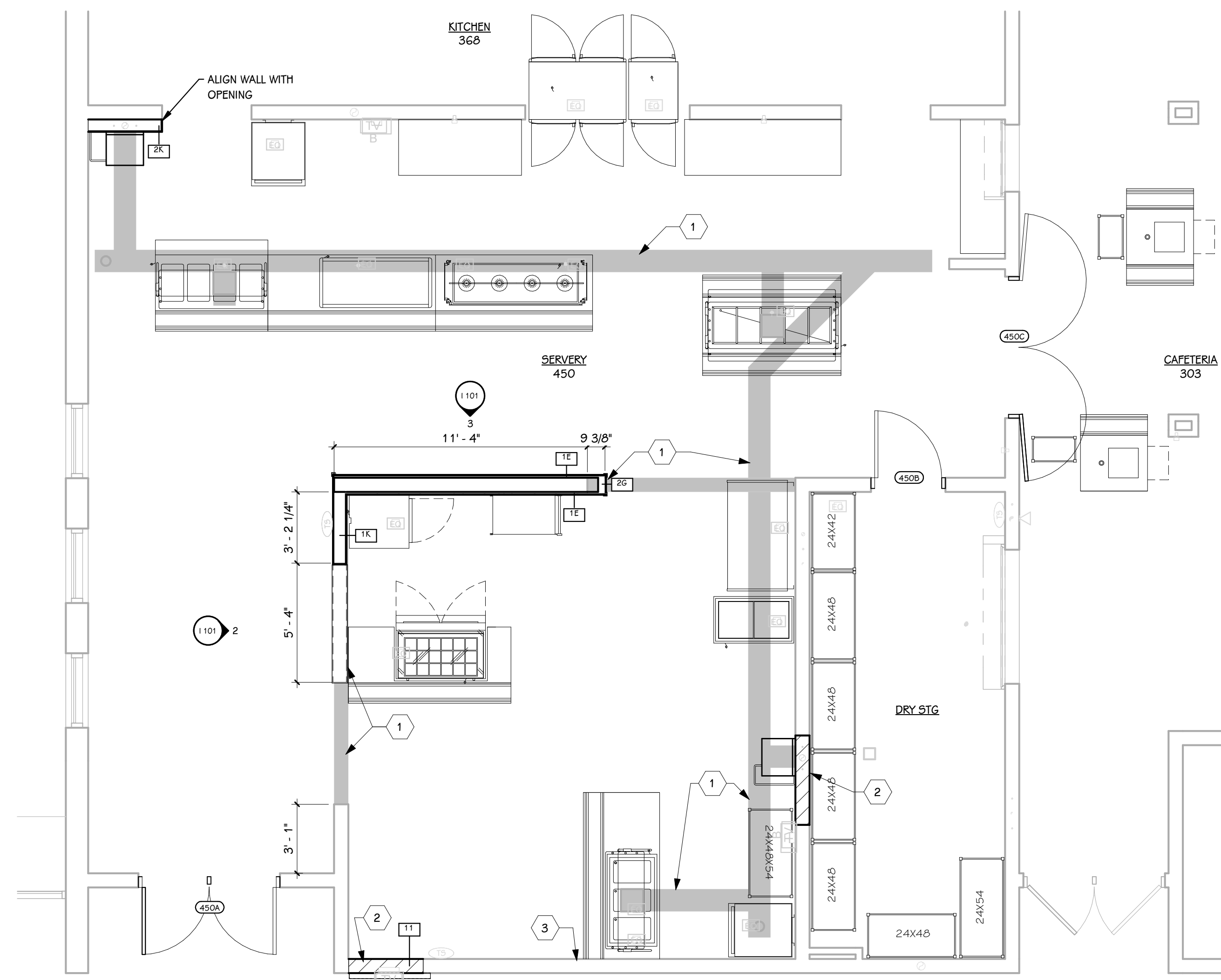
OWNER  
PORTAGE PUBLIC SCHOOLS

Portage, Michigan

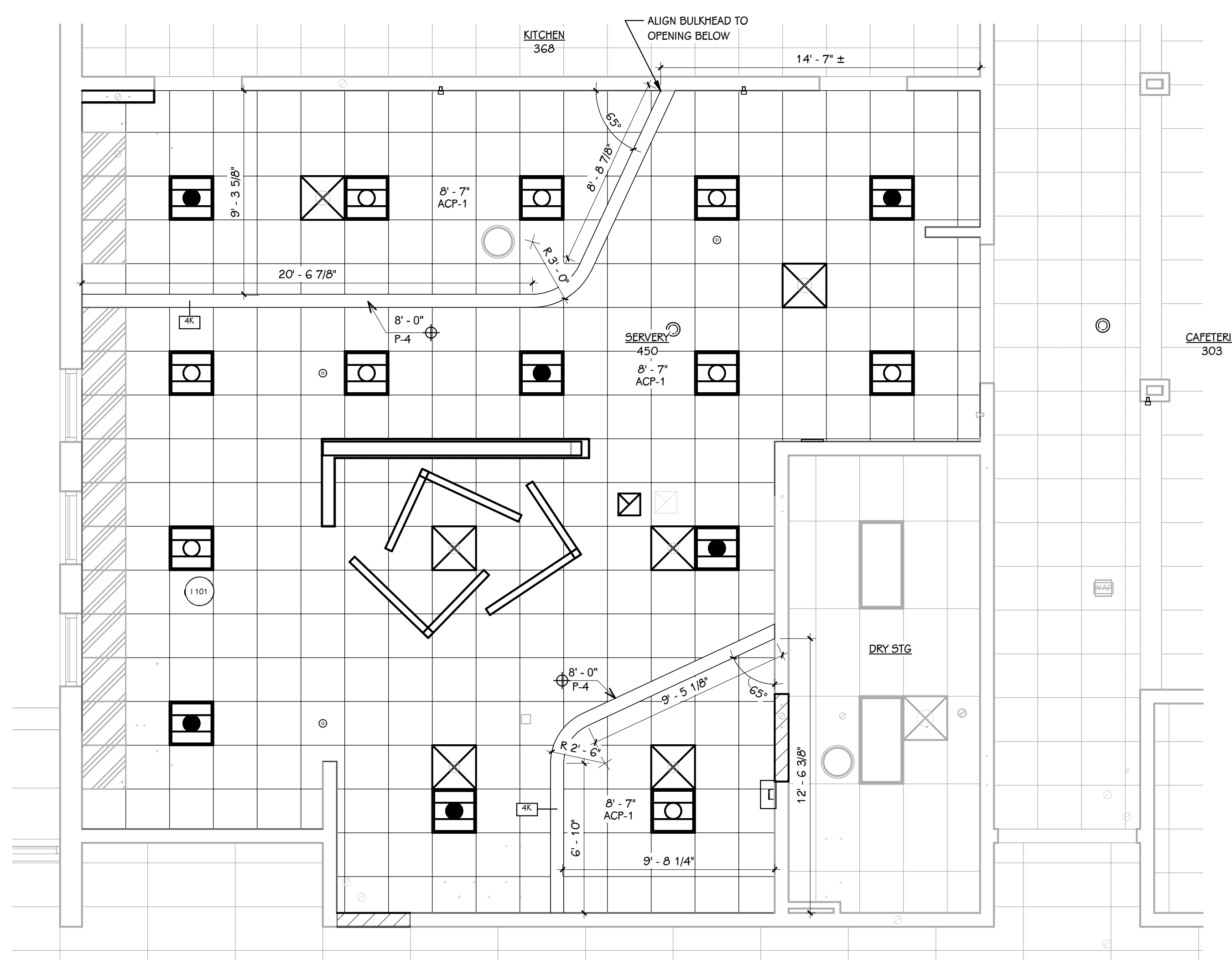
SHEET TITLE  
FIRST FLOOR PLAN & REFLECTED  
CEILING PLAN

DATE  
JANUARY 16, 2024

SHEET NUMBER  
A 101  
23-186.00



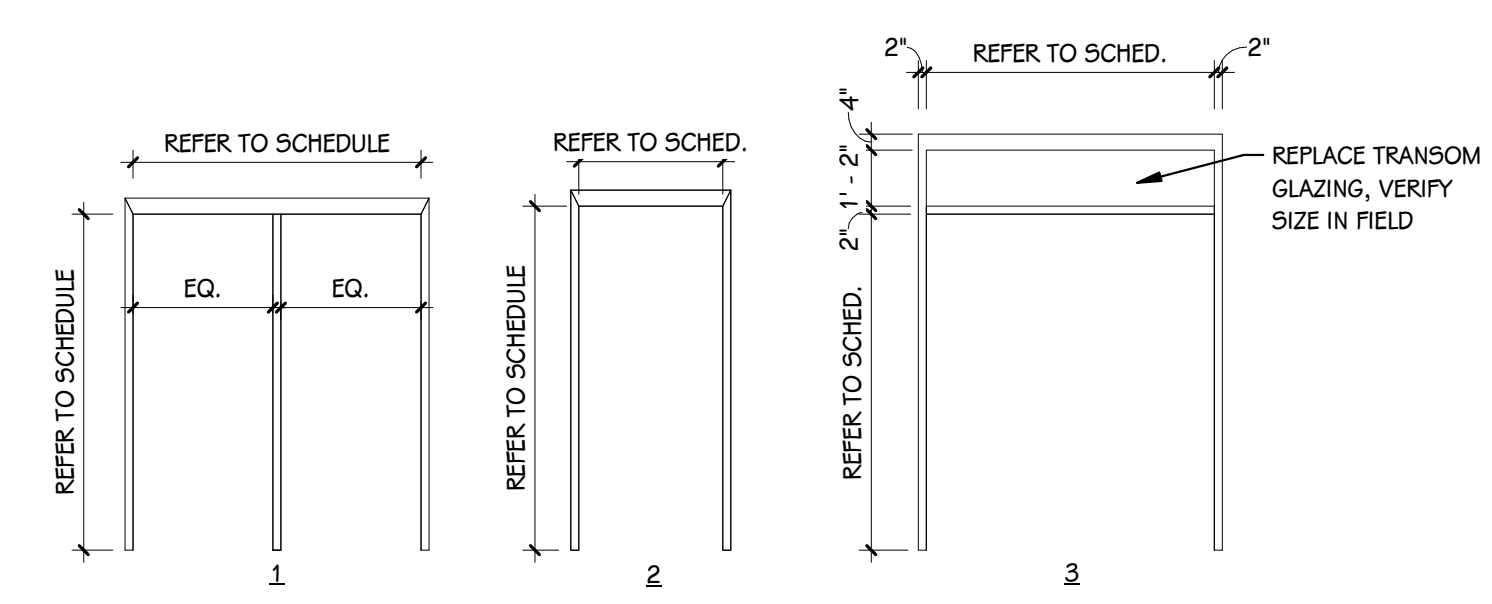
**FIRST FLOOR PLAN**  
1/4" = 1'-0"



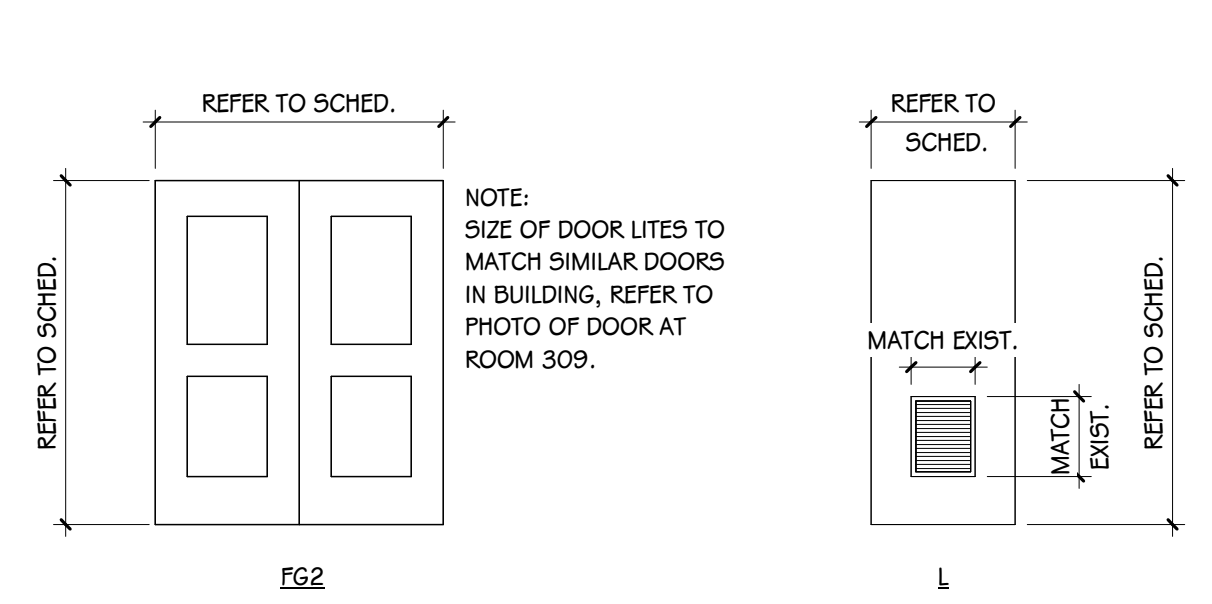
**FIRST FLOOR REFLECTED CEILING PLAN**  
1/4" = 1'-0"

**FIRST FLOOR DOOR SCHEDULE**

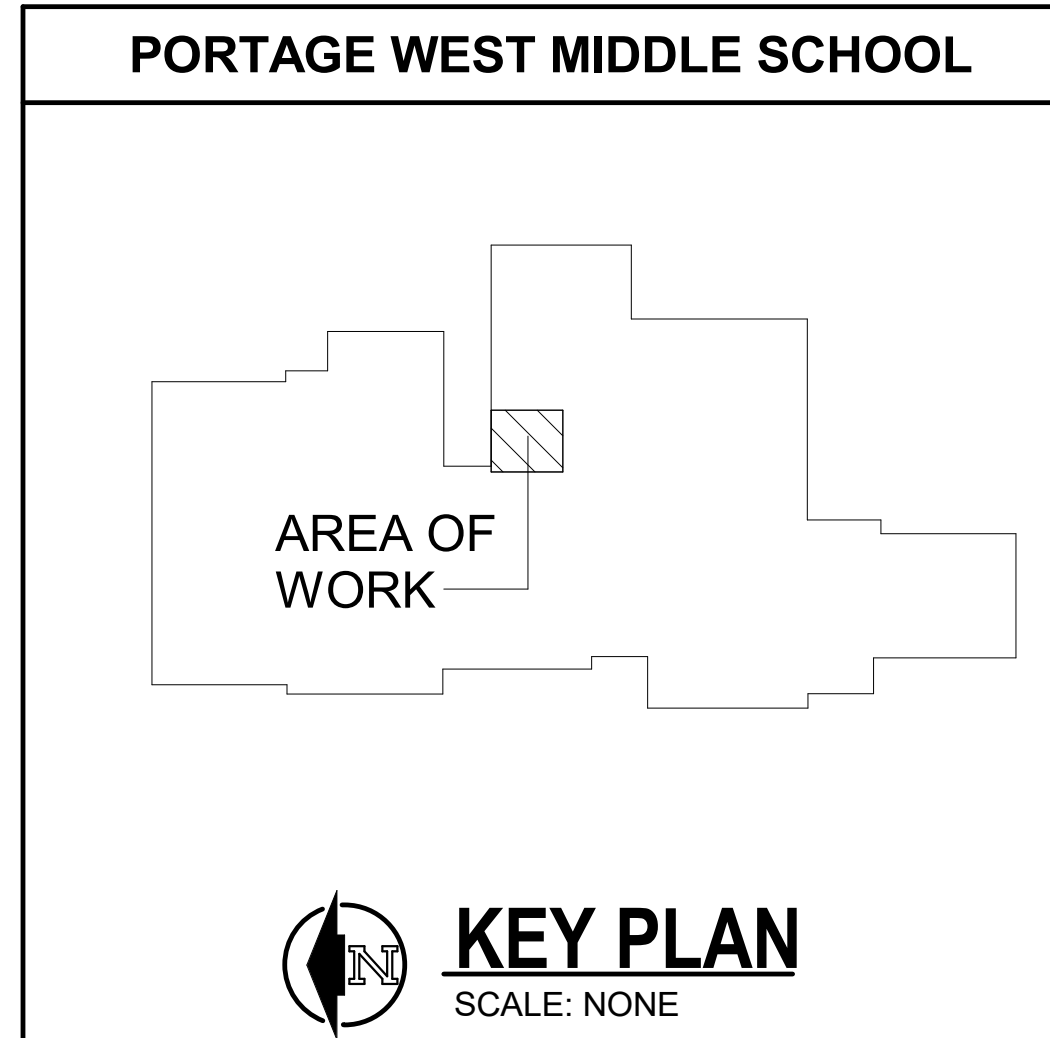
DOOR	ROOM	ROOM NAME	FIRE RATING		DOOR			SIZE			FRAME			GLASS	ACCESS CONTROLS					REMARKS			
			DOOR	FRAME	TYPE	MAT	FIN	WIDTH	HEIGHT	ELEV	MAT	FIN	HEAD		JAMB	SILL	A-PHONE	BARRIER-F REE	CARD READER		ELEC. LOCK HDWR.	MAG HOLD	HDWR. SET
450A	450	SERVERY	-	-	FG2	WD	PREFIN	6'-0"	7'-0"	1	EXIST.	P-3	-	-	-	SAFETY	No	No	No	No	No	1.0	INSTALL DOOR INTO EXISTING FRAME
450B	450	SERVERY	-	-	L	WD	PREFIN	3'-0"	7'-0"	2	EXIST.	P-3	-	-	-	-	No	No	No	No	No	2.0	INSTALL DOOR INTO EXISTING FRAME
450C	450	SERVERY	-	-	FG2	WD	PREFIN	6'-0"	7'-0"	3	EXIST.	P-3	-	-	-	SAFETY	No	No	No	No	No	3.0	INSTALL DOOR & TRANSOM GLAZING INTO EXISTING FRAME



**EXISTING FRAME ELEVATIONS (VERIFY IN FIELD)**  
1/4" = 1'-0"



**DOOR PANEL ELEVATIONS (VERIFY IN FIELD)**  
1/4" = 1'-0"



**INTERIOR - TYPICAL SYMBOLS AND REFERENCES**

	INDICATES MATERIAL TYPE
	INDICATES CORRESPONDING SELECTION IN MATERIAL SELECTION SCHEDULE
	INDICATES WALL FINISH
	INDICATES BASE FINISH
	INDICATES FLOOR FINISH
	WHERE HEIGHTS ARE NOT INDICATED REFER TO TYPICAL DETAIL OR ELEVATION
	INDICATES UPPER WALL FINISH
	INDICATES LOWER WALL FINISH
	INDICATES BASE FINISH
	INDICATES FLOOR FINISH
	INDICATES COUNTERTOP FINISH
	INDICATES CABINET FINISH (BASE AND UPPER)
	INDICATES EXTENT OF ATYPICAL FINISH (WALL, BASE, OR FLOOR)
	INDICATES DISSIMILAR FLOOR MATERIAL FINISHES, REFER TO TYPICAL FLOOR TRANSITION DETAILS
	INDICATES MULTIPLE MATERIALS, REFER TO ENLARGED PLANS OR ELEVATIONS
	INDICATES PATTERNED INSTALLATION OF A SINGLE MATERIAL TYPE, REFER TO DETAIL OR ELEVATION
	INDICATES PATTERN INTENT, REFER TO DETAIL OR ELEVATION
	INDICATES VISUAL DISPLAY BOARD, REFER TO VISUAL DISPLAY BOARD SCHEDULES
	INDICATES CORNER GUARD, REFER TO MATERIAL SELECTION SCHEDULE
	INDICATES WINDOW TREATMENT, REFER TO WINDOW TREATMENT SCHEDULE
	INDICATES INSTALLATION OF GRAIN

- NOTES - INTERIORS**
- REFER TO MATERIAL SELECTION SCHEDULE FOR FINISH INFORMATION.
  - REFER TO ARCHITECTURAL FLOOR PLANS AND SPECIFICATION FOR ADDITIONAL INFORMATION ON CONSTRUCTION MATERIALS.
  - REFER TO ARCHITECTURAL ENLARGED STAIR PLANS FOR RAILINGS, GUARD RAILS, FINISH COLORS OF ANY PAINTED METALS. COORDINATE STAIR DETAILS WITH FLOORING TYPES INDICATED ON FINISH PLANS.
  - REFER TO ARCHITECTURAL FLOOR PLANS FOR LOCKER LOCATIONS AND QUANTITIES.
  - REFER TO ARCHITECTURAL GENERAL SHEETS FOR BARRIER-FREE MOUNTING HEIGHT REQUIREMENTS AND CODE-REQUIRED SIGNAGE.
  - REFER TO ARCHITECTURAL ENLARGED TOILET ROOM PLANS FOR TOILET ACCESSORIES, PARTITIONS, ETC.
  - REFER TO REFLECTED CEILING PLANS FOR CEILING FINISH AND HEIGHTS.
  - WALL MOUNTED DIFFUSERS, GRILLES, ACCESS PANELS, ELECTRICAL PANELS, ETC. ARE TO BE PAINTED WITH AN OIL-BASED PAINT TO MATCH THE ADJACENT WALL FINISH.
  - AT AREAS OF EXPOSED CEILING WHERE DUCTWORK AND DIFFUSERS ARE TO BE PAINTED, COORDINATE WITH MECHANICAL SPECIFICATIONS AND REFER TO THE REFLECTED CEILING PLANS FOR PAINT COLORS.
  - CEILING ACCESS PANELS ARE TO BE PAINTED TO MATCH ADJACENT CEILING FINISH.
  - REFER TO DOOR SCHEDULE FOR FINISH ON DOORS AND FRAMES.
  - REFER TO FINISH PLANS FOR VISUAL DISPLAY BOARD LOCATIONS.
  - REFER TO INTERIOR ELEVATION SHEETS FOR REQUIREMENTS, GENERAL NOTES, ABBREVIATIONS, AND HARDWARE/ACCESSORY SELECTIONS FOR CASEWORK.
  - REFER TO INTERIORS TYPICAL DETAIL SHEETS FOR TILE TRIM DETAILS, FLOORING TRANSITIONS, WAINSCOT DETAILS, AND TYPICAL TILE PATTERN REQUIREMENTS.
  - ALL FLOOR SUPPORTED STORAGE RACKS, CABINETS, BOOKCASES, ETC. WHEN ADJACENT TO THE WALL SHALL BE FASTENED TO BOTH THE FLOOR AND WALL.
  - PROVIDE BLOCKING AS REQUIRED FOR ATTACHMENT OF CASEWORK, MILLWORK, SHELVING, EQUIPMENT, SPECIALTY FINISHES, ETC.
  - DETAILS SHOWN ILLUSTRATE DESIGN INTENT, NOT ALL POSSIBLE CONDITIONS, FOR CONDITIONS NOT SHOWN USE DETAILS CLOSEST TO CONDITION IN QUESTION.

**DEFINITIONS/ABBREVIATIONS - INTERIORS**

A.F.F.	ABOVE FINISHED FLOOR
BF	BARRIER FREE
CL	CENTER LINE
EX.	EXISTING
HOLD	HOLD DIMENSION
MIN.	MINIMUM CODE ALLOWABLE DIMENSION
OC	ON CENTER
OPP	OPPOSITE
SIM	SIMILAR
TYP.	TYPICAL
V.I.F.	VERIFY IN FIELD

**THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEARS IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING**

ISSUED FOR \_\_\_\_\_ DATE \_\_\_\_\_

PROJECT TITLE  
**WEST MIDDLE SCHOOL SERVERY REMODEL**

OWNER  
**PORTAGE PUBLIC SCHOOLS**

Portage, Michigan

SHEET TITLE  
**TYPICAL SYMBOLS & GENERAL NOTES**

DATE  
**JANUARY 16, 2024**

SHEET NUMBER  
**IG 001**  
23-186.00

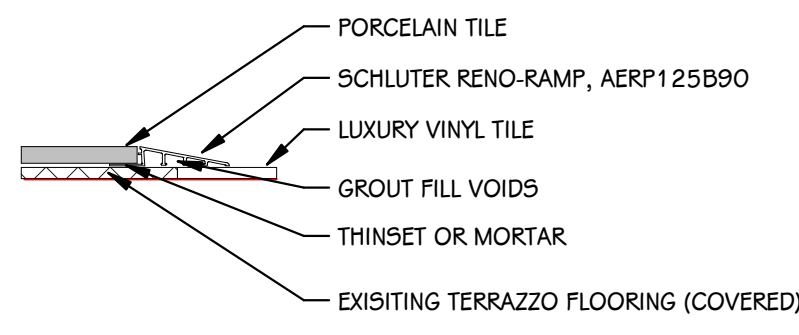
# MATERIAL SELECTION SCHEDULE

ABBREV	ITEM	MANUFACTURER	PATTERN	COLOR	PRODUCT NO.	SIZE	SINGLE SOURCE	BASIS OF DESIGN	ADDITIONAL MANUFACTURERS	REMARKS
ACP-1	ACOUSTIC CEILING PANEL	ARMSTRONG CEILINGS	KITCHEN ZONE	WHITE	G73	24" X 24" X 5/8"		X	CERTAINTED, ROCKFON, USG	15/16 SQUARE LAY IN   LRV: .89   CAC: 33   SCRUBBABLE PAINTED FINISH   SMOOTH TEXTURE
CG-1	CORNER GUARD	CONSTRUCTION SPECIALTIES	ADROVYN CORNER GUARD	STAINLESS STEEL	CO-8	8" H X 2.5" WING - CUT TO 6'-8"		X	CONSTRUCTION SPECIALTIES, PAWLING, KOROGUARD	
GVC-1	GRAPHIC VINYL WALL COVERING	MDC WALL COVERINGS	DIGITALLY PRINTED WALLCOVERING	CUSTOM GRAPHIC	--		X			STANDARD VINYL TEXTURES   TYPE II WALL COVERING   PROTECTIVE FINISH   ARCHITECT TO COORDINATE FINAL DESIGN WITH OWNER AND MANUFACTURER   REFER TO QUOTE NUMBER 53132
IRWP-1	IMPACT RESISTANT WALL PROTECTION	INPRO	PALLADIUM RIGID SHEET	CLAM SHELL	O154	4' x 8'		X		FULL HEIGHT
P-1	PAINT	SHERWIN WILLIAMS	--	DRIFT OF MIST	5W 9166	--	X			FIELD PAINT
P-2	PAINT	SHERWIN WILLIAMS	KRYLON	CHALKBOARD PAINT - BRUSH ON	--	--		X	BENJAMIN MOORE, PITTSBURGH PAINTS	CHALKBOARD PAINT
P-3	PAINT	SHERWIN WILLIAMS	--	GAUNTLET GREY	5W 7019	--	X			DOOR FRAMES
P-4	PAINT	SHERWIN WILLIAMS	--	INKY BLUE	5W 9149	--	X			BULKHEADS
PT-1	PORCELAIN TILE	ATLAS CONCORDE USA	HOMELAND	RYE	--	6" X 40", NOMINAL		X		1/3 BOND INSTALLATION
RB-1	RUBBER BASE	JOHNSONITE	MANDALAY MILLWORK WALL BASE	MOON ROCK	MW-29-H	4.5" H X .375" DEPTH		X		
SSM-1	SOLID SURFACE MATERIAL	CORIAN	--	ARTISTA DUST	--	REFER TO DETAILS		X		
VG-1	VINYL GRAPHIC	--	CUSTOM VINYL GRAPHIC	WHITE	--	REFER TO ELEVATIONS		X	AGIO IMAGING, KALBLUE	VINYL LETTERING TO BE SURFACE APPLIED. ARCHITECT TO COORDINATE FONT, COLORS, AND FINAL GRAPHIC WITH OWNER.
WVC-1	VINYL WALL COVERING	WOLF GORDON	RAMPART ENNIS	BREEZE	G0H 32810125	52" WIDTH	X		TYPE III	

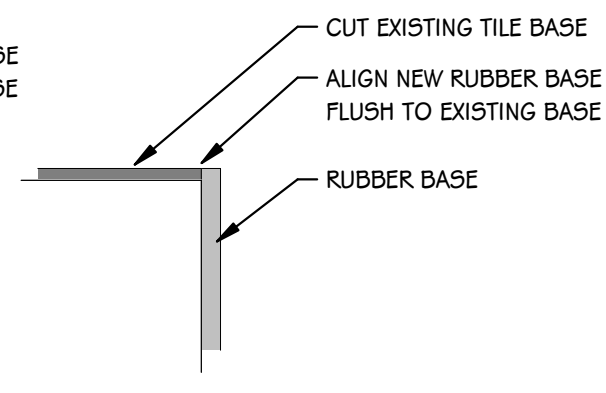
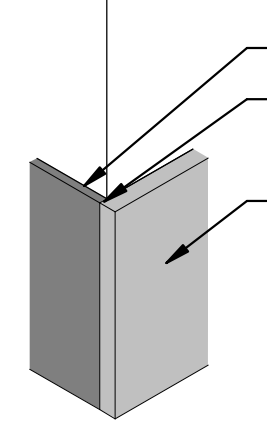
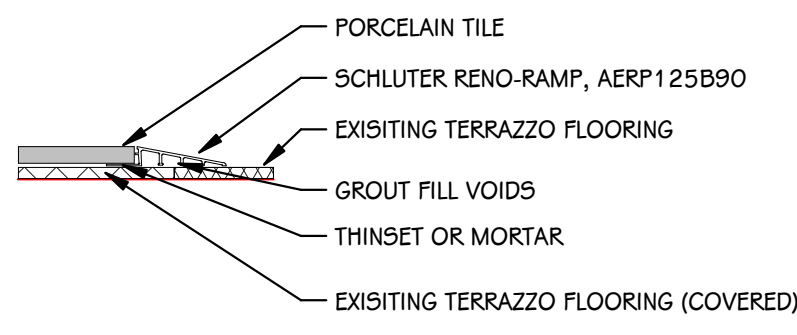
## GENERAL NOTES - MATERIAL SELECTION SCHEDULE

- NO COMPARABLE PRODUCTS OR PRODUCT SUBSTITUTIONS WILL BE REVIEWED FOR PRODUCTS DESIGNATED AS SINGLE SOURCE.
- COMPARABLE PRODUCTS WILL BE REVIEWED FOR ITEMS LISTED AS BASIS OF DESIGN. COMPARABLE PRODUCTS ARE REQUIRED TO MEET ANY MINIMUM PERFORMANCE REQUIREMENTS LISTED IN REMARKS AND APPEARANCE OF SPECIFIED PRODUCT.
- REFER TO TYPICAL DETAILS AND PRODUCT SPECIFICATION FOR TRIMS AND ACCESSORIES ASSOCIATED WITH SPECIFIED PRODUCTS ABOVE.

PORCELAIN TILE TO LUXURY VINYL TILE



PORCELAIN TILE TO TERRAZZO



1 TYPICAL FLOORING TRANSITIONS  
3' = 1'-0"

2 RUBBER BASE AT EXISTING TILE BASE  
3' = 1'-0"

ISSUED FOR DATE

PROJECT TITLE  
WEST MIDDLE SCHOOL SERVERY  
REMODEL

OWNER  
PORTAGE PUBLIC SCHOOLS

SHEET TITLE  
MATERIAL SELECTION SCHEDULE &  
TYPICAL DETAILS

Portage, Michigan

DATE  
JANUARY 16, 2024

SHEET NUMBER  
IG 002

23-186.00

ISSUED FOR DATE

PROJECT TITLE  
WEST MIDDLE SCHOOL SERVERY  
REMODEL

OWNER  
PORTAGE PUBLIC SCHOOLS

Portage, Michigan

SHEET TITLE  
FIRST FLOOR FINISH PLAN

DATE  
JANUARY 16, 2024

SHEET NUMBER  
I 101  
23-186.00

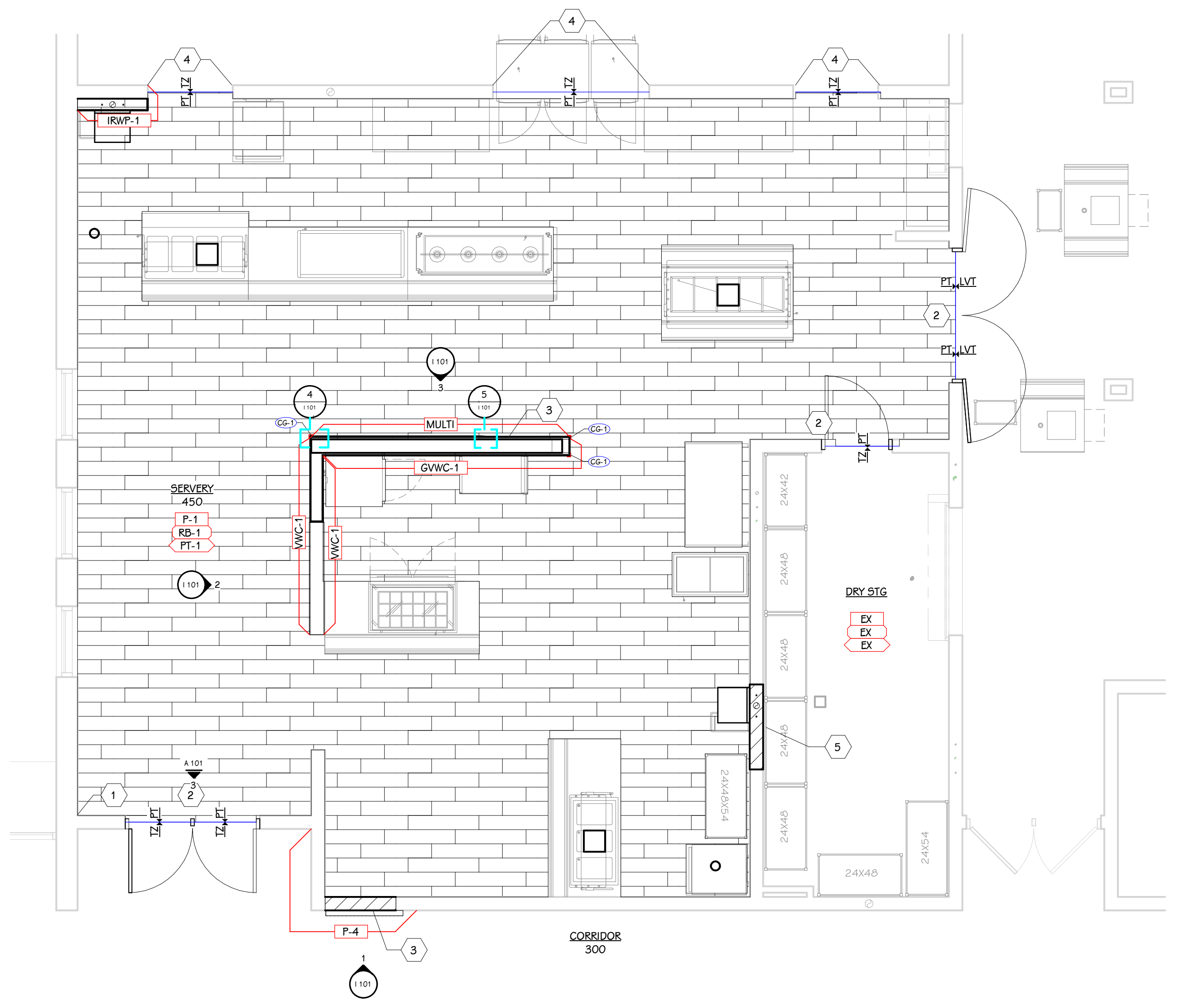
NOTES - FINISH PLANS	
1	FINISH TAGS APPLY TO LIKE MATERIALS IN ENTIRE ROOM. I.E. CASEWORK TAG MAY ONLY CALLOUT ONE RUN OF CASEWORK, BUT ALL CASEWORK IN ROOM RECEIVE THE SAME FINISHES, UNLESS TAGGED DIFFERENTLY.
2	CASEWORK FINISH TAGS DO NOT APPLY TO CUSTOM MILLWORK PIECES. REFER TO ENLARGED MILLWORK DETAILS FOR FINISH MATERIALS.
3	REFER TO ENLARGED FINISH PLANS AND PATTERN PLANS FOR ADDITIONAL FINISH DETAILS.
4	DASHED LINE INDICATES LINE OF CEILING ABOVE, REFER TO REFLECTED CEILING PLANS.
5	WHERE NO FINISH TAG IS SHOWN ALL EXISTING FINISHES ARE TO REMAIN, UNLESS OTHERWISE NOTED.

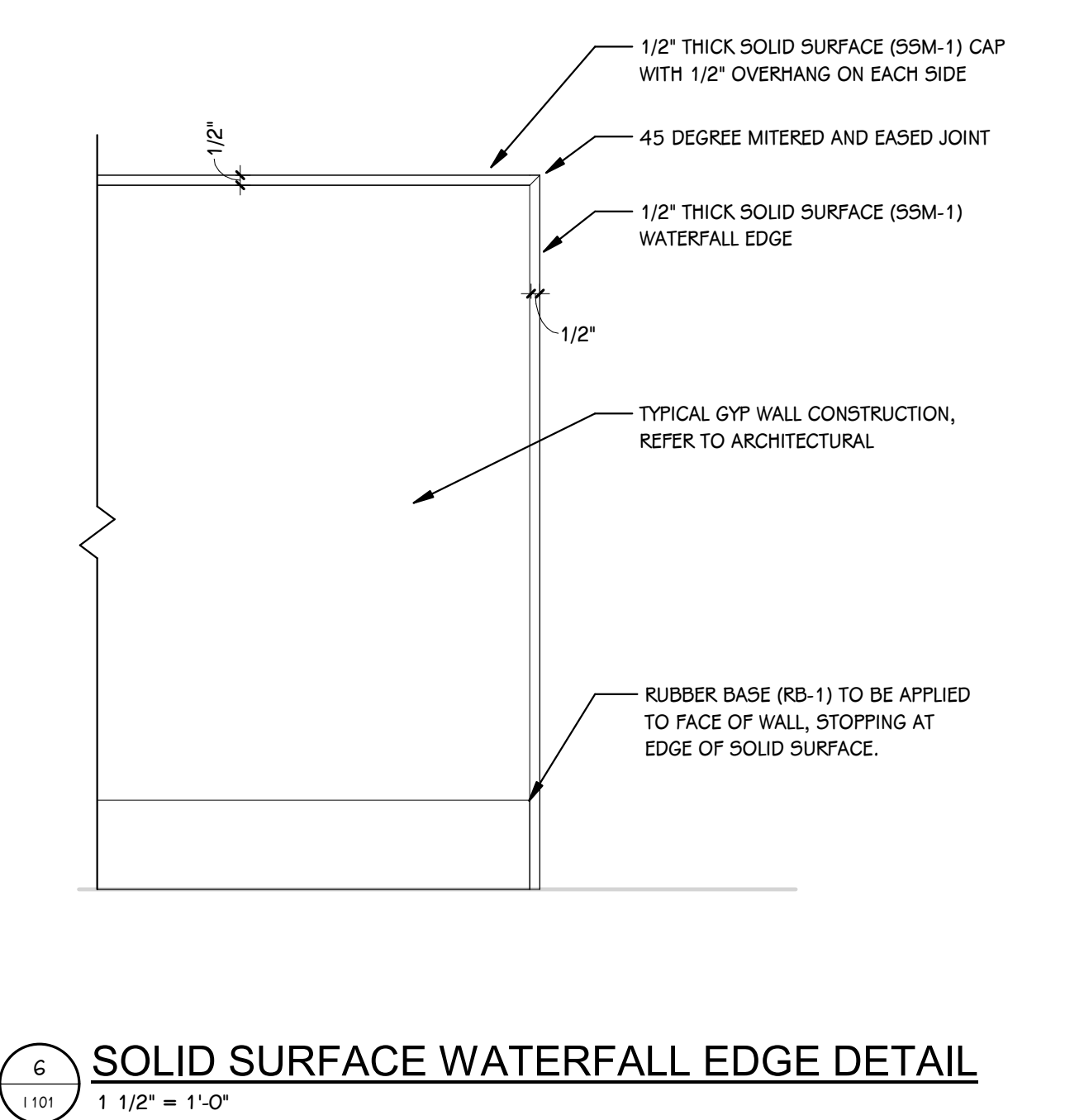
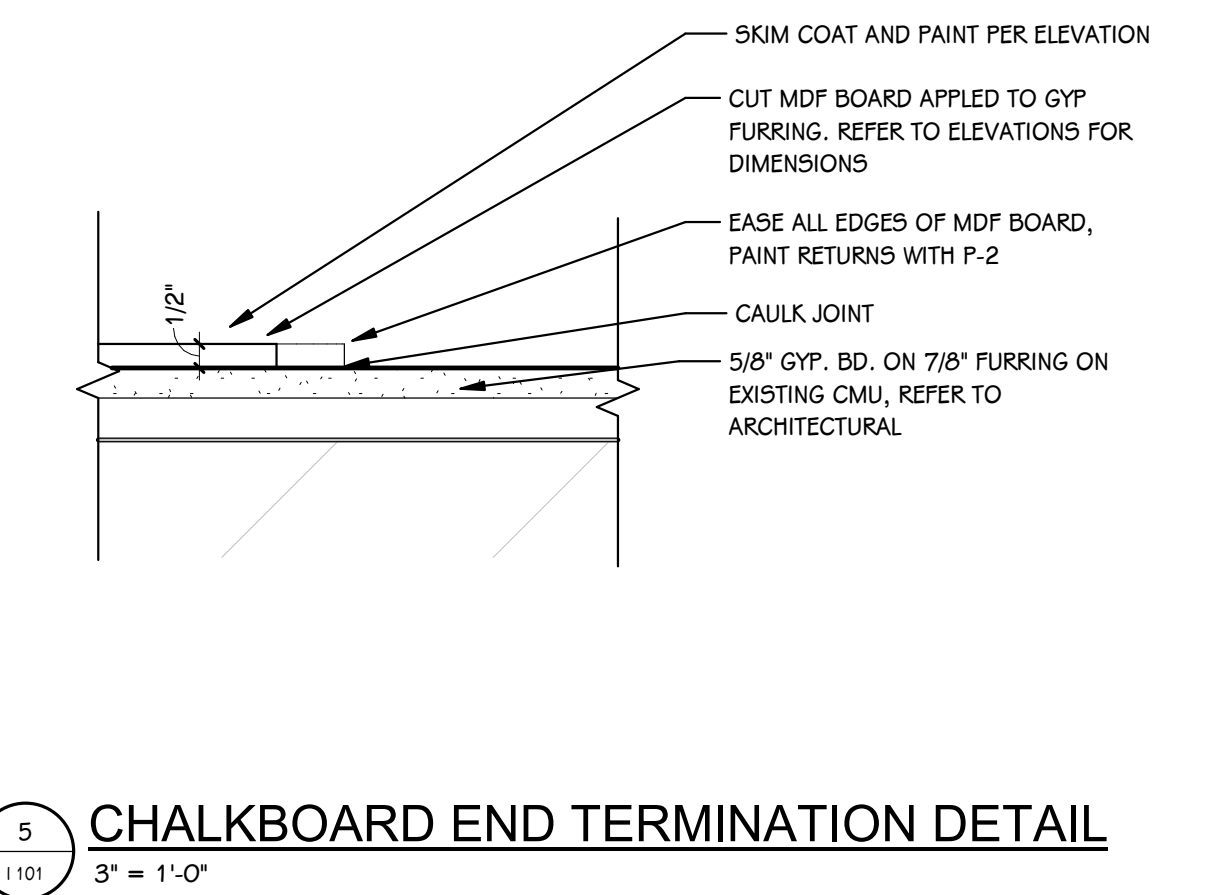
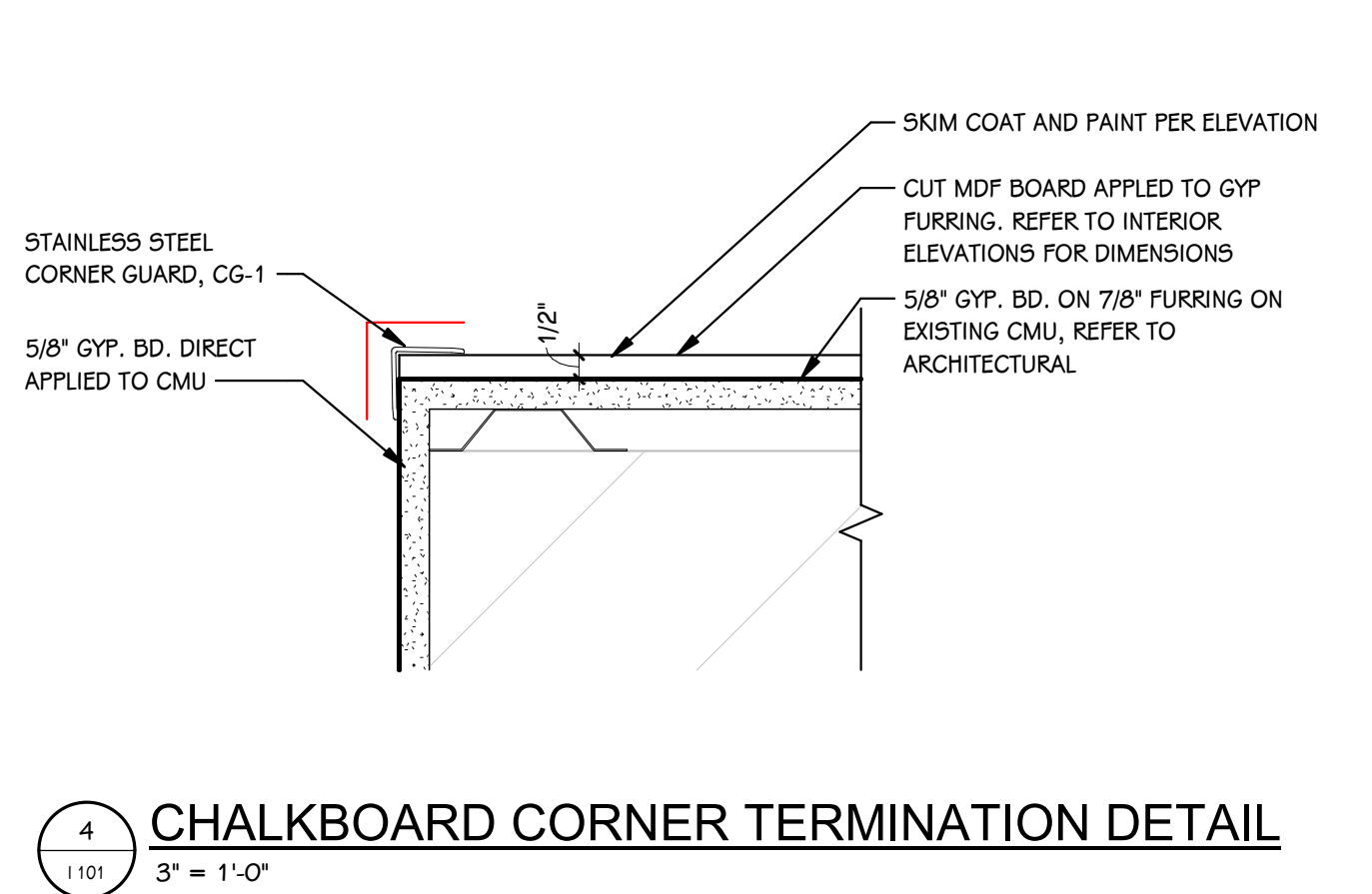
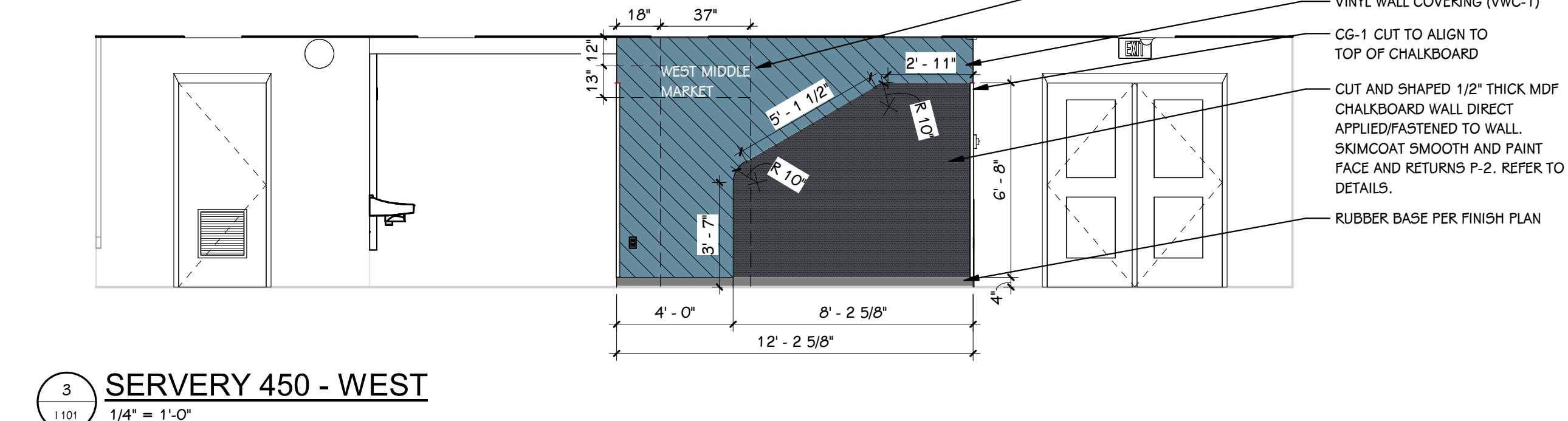
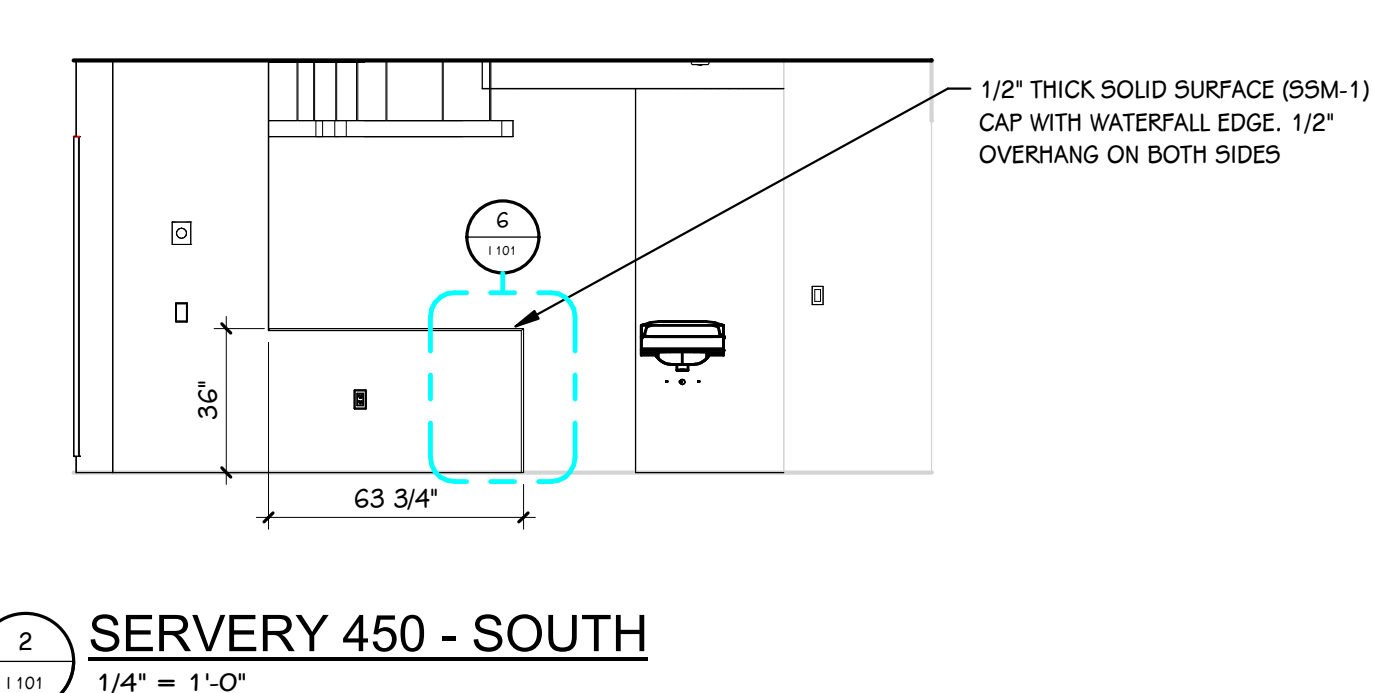
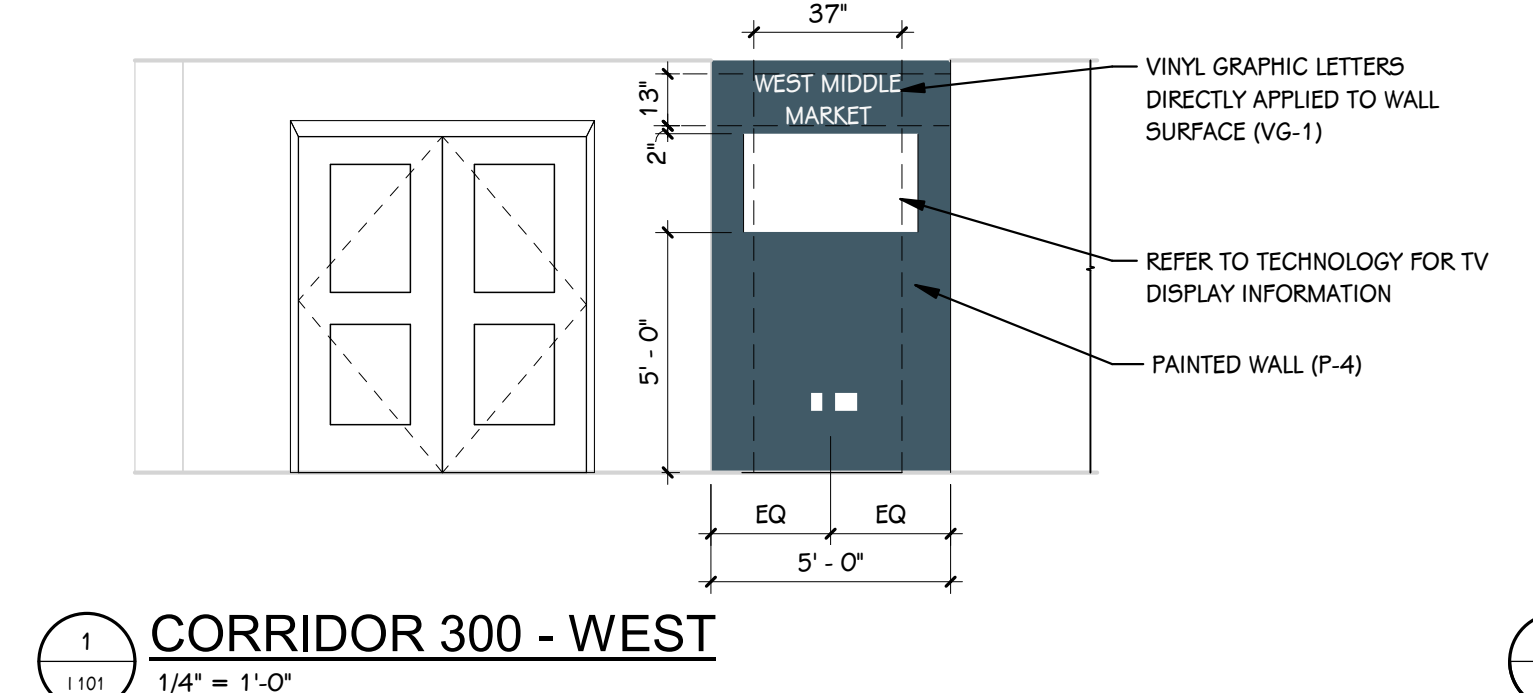
KEYED NOTES - INTERIOR - FINISH PLAN	
1	TILE PATTERN ORIGIN
2	PREPARE DOOR FRAMES FOR NEW PAINT, P-3
3	CUT VINYL APPLIED GRAPHIC. ARCHITECT TO PROVIDE ARTWORK TO AWARDED BIDDER. REFER TO ELEVATIONS
4	CARRY WALL FINISH AND RUBBER BASE ON RETURN OF OPENINGS
5	PATCH AND PAINT INFILL TO MATCH EXISTING ADJACENT PAINT

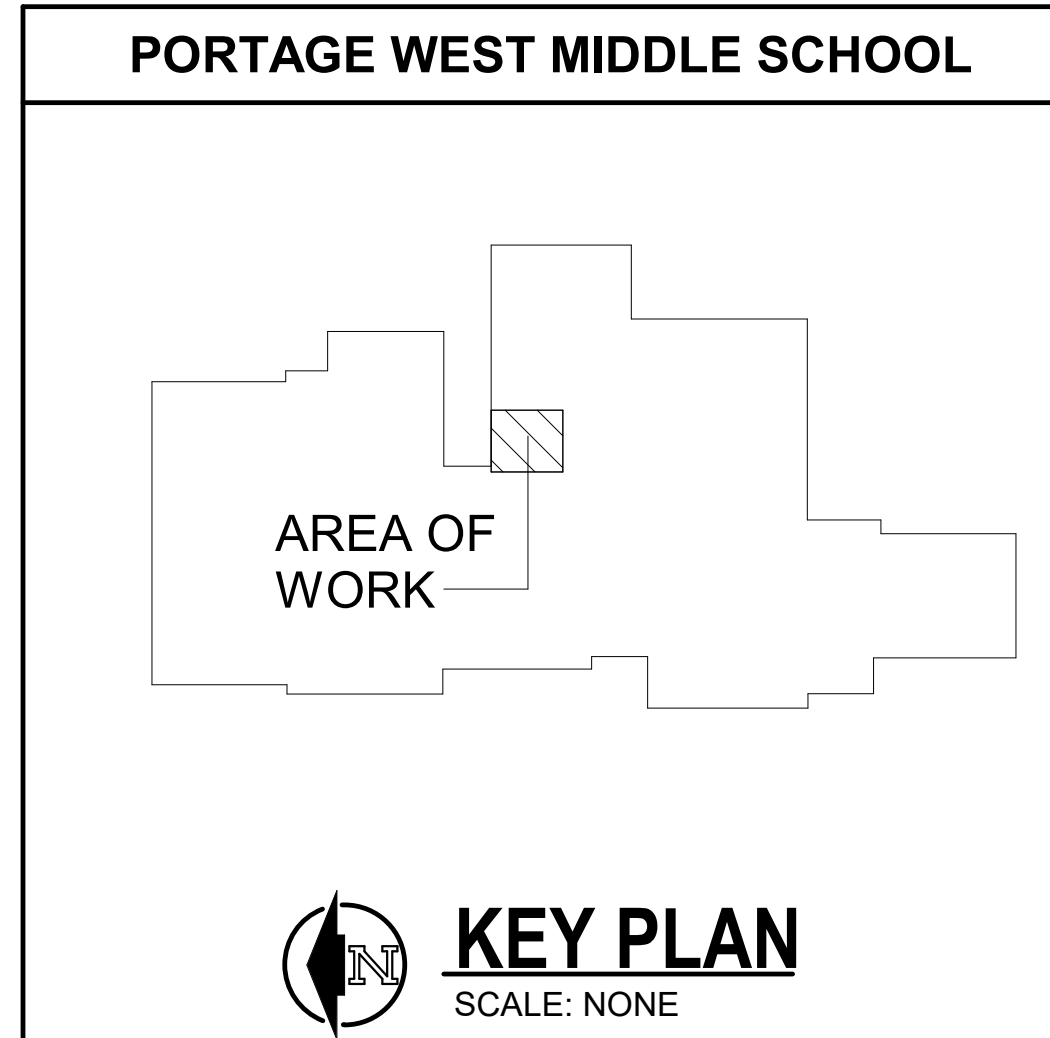
WALL FINISH KEY	
	WVC-1
	P-2
	P-4



**FIRST FLOOR FINISH PLAN**  
1/4" = 1'-0"



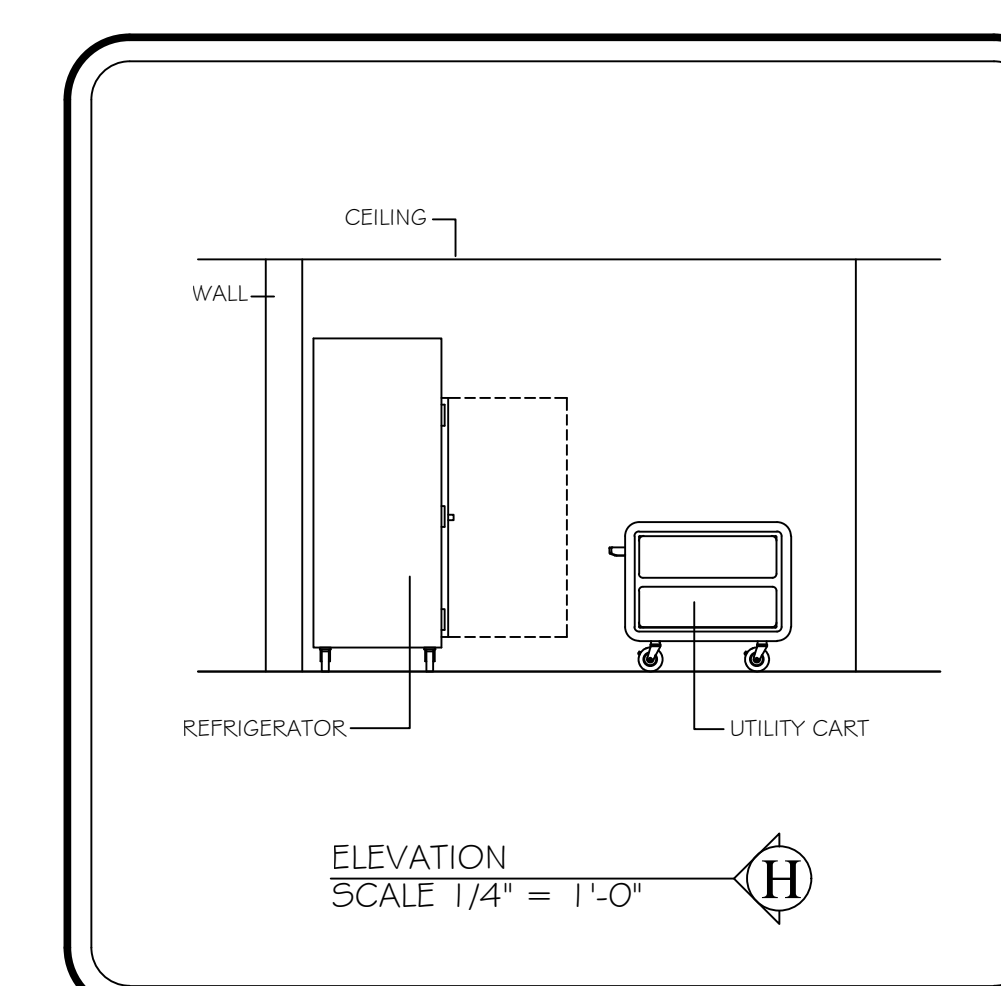
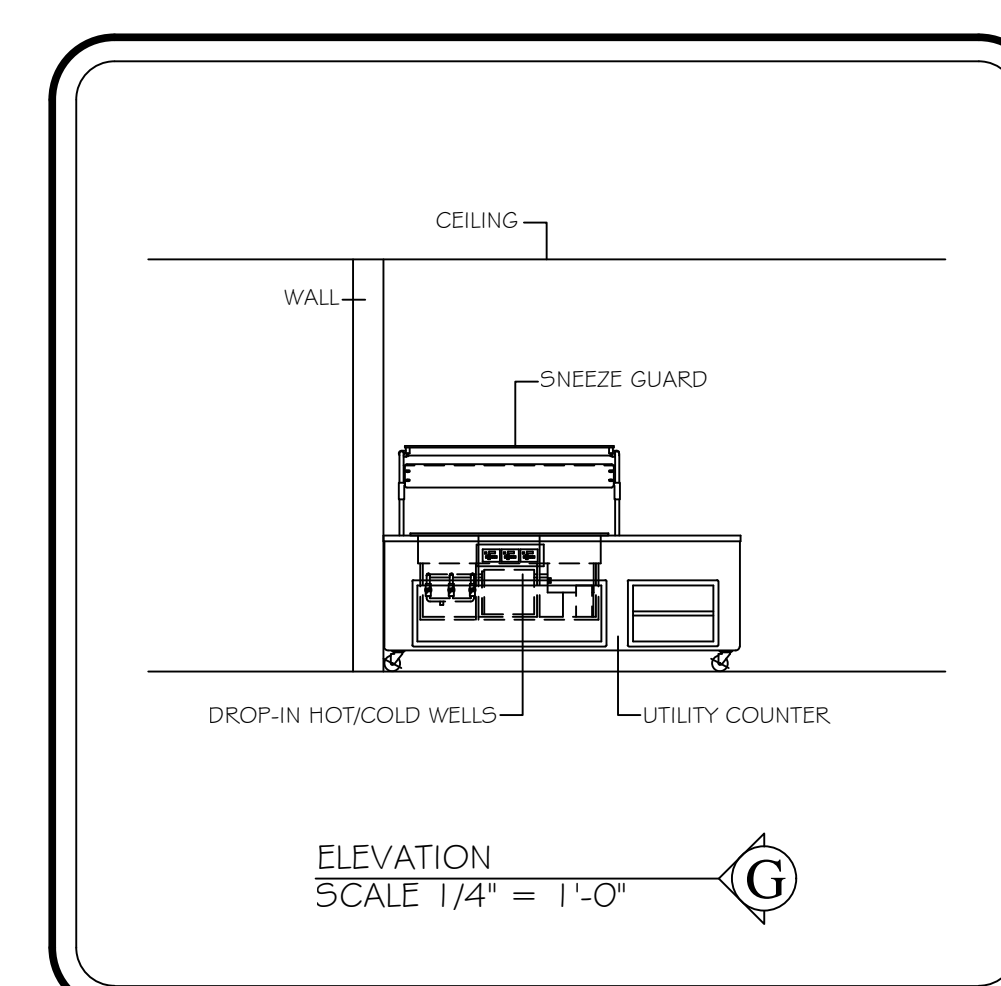
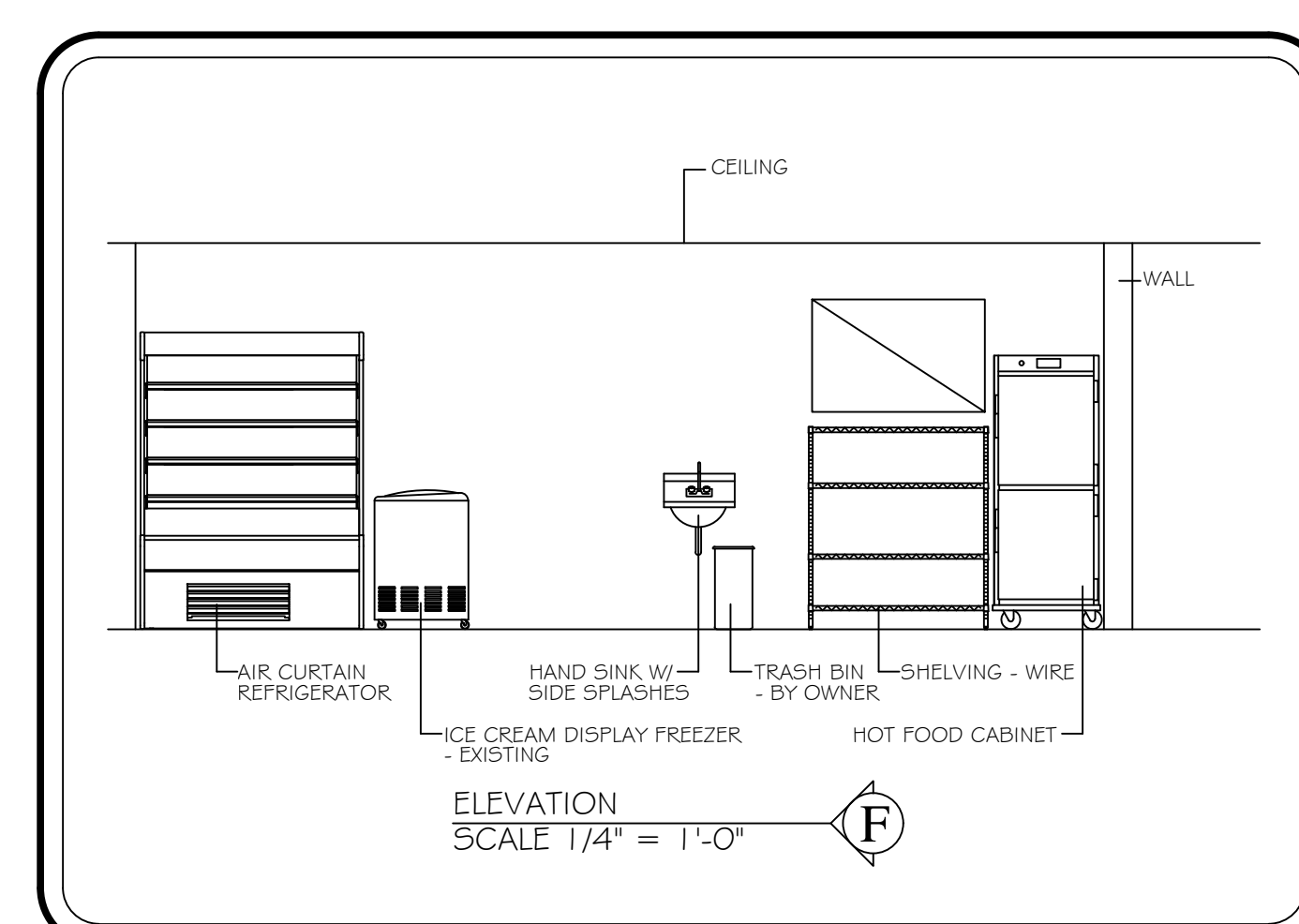
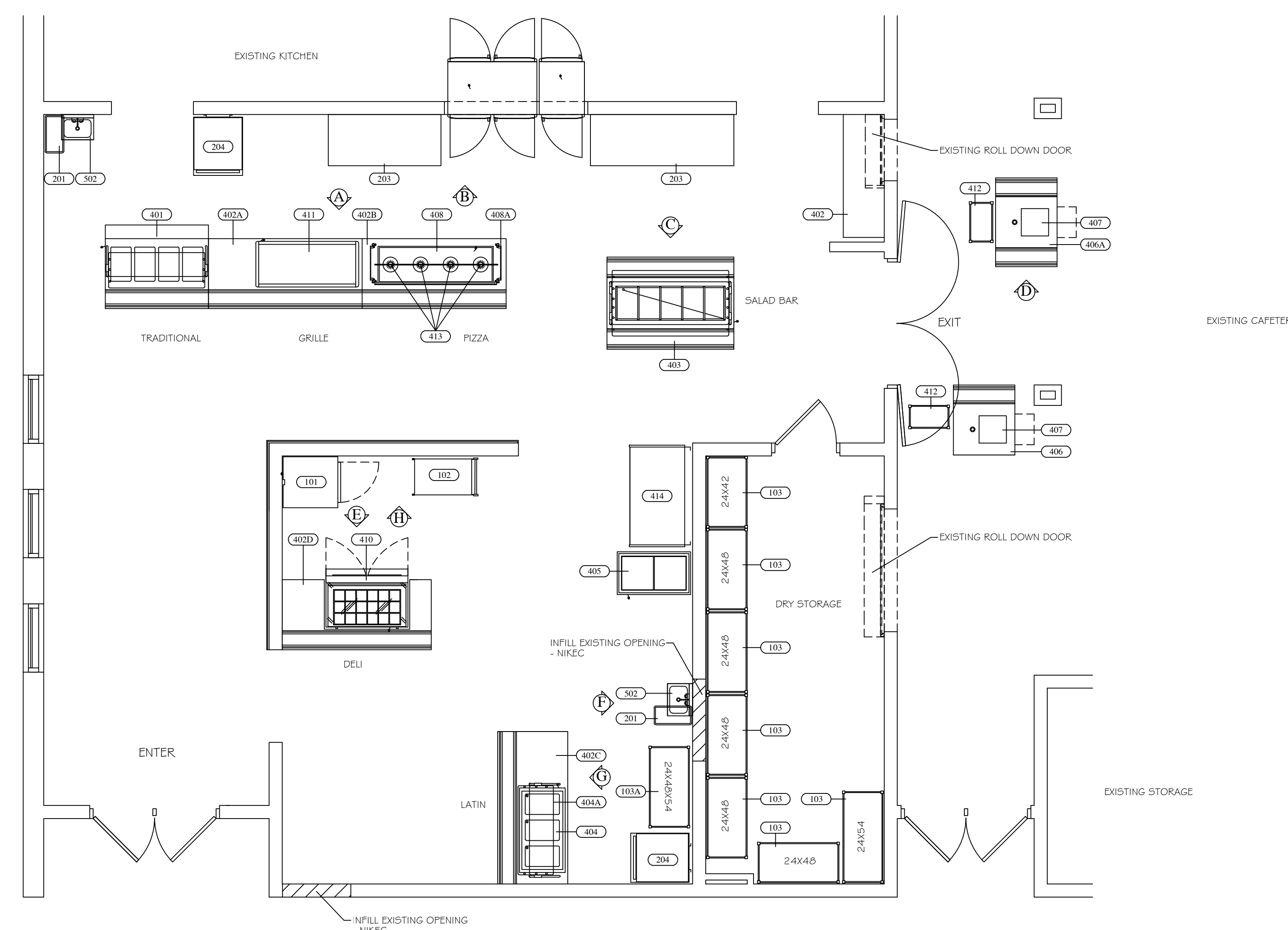
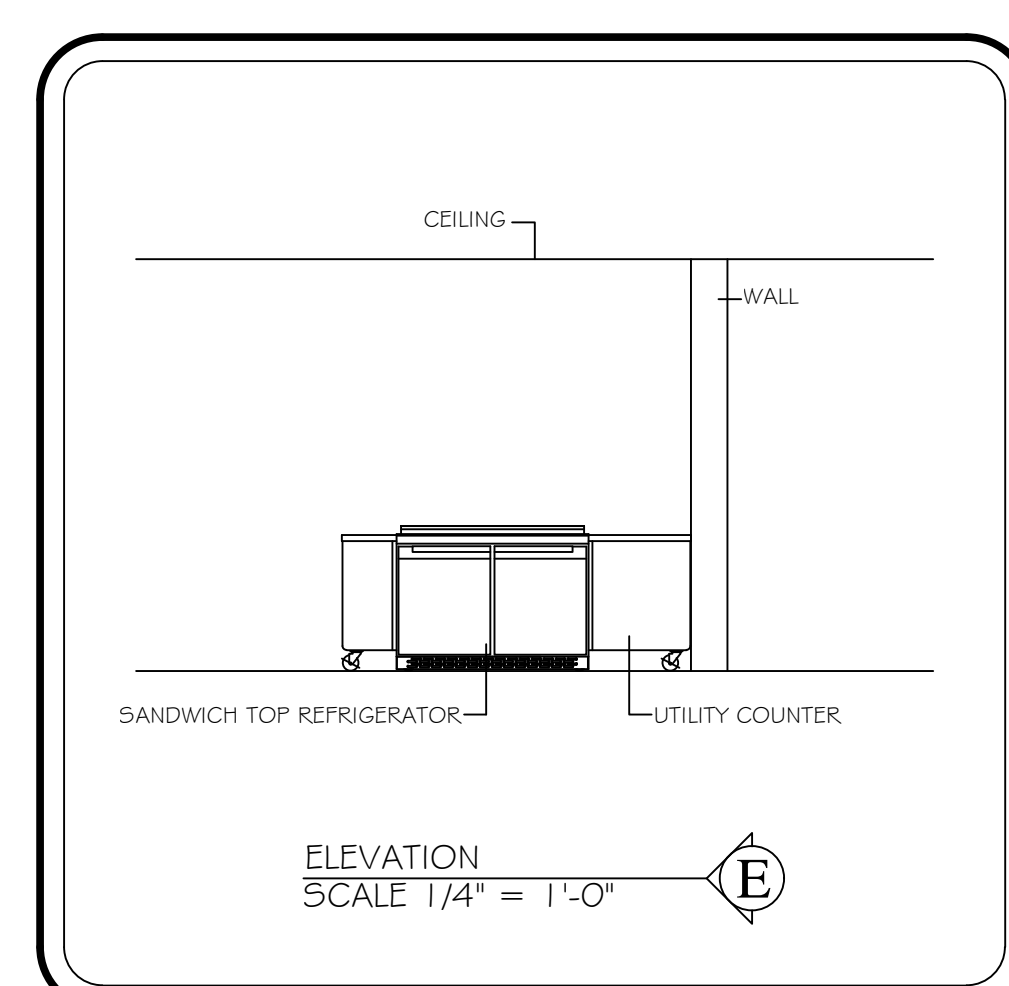
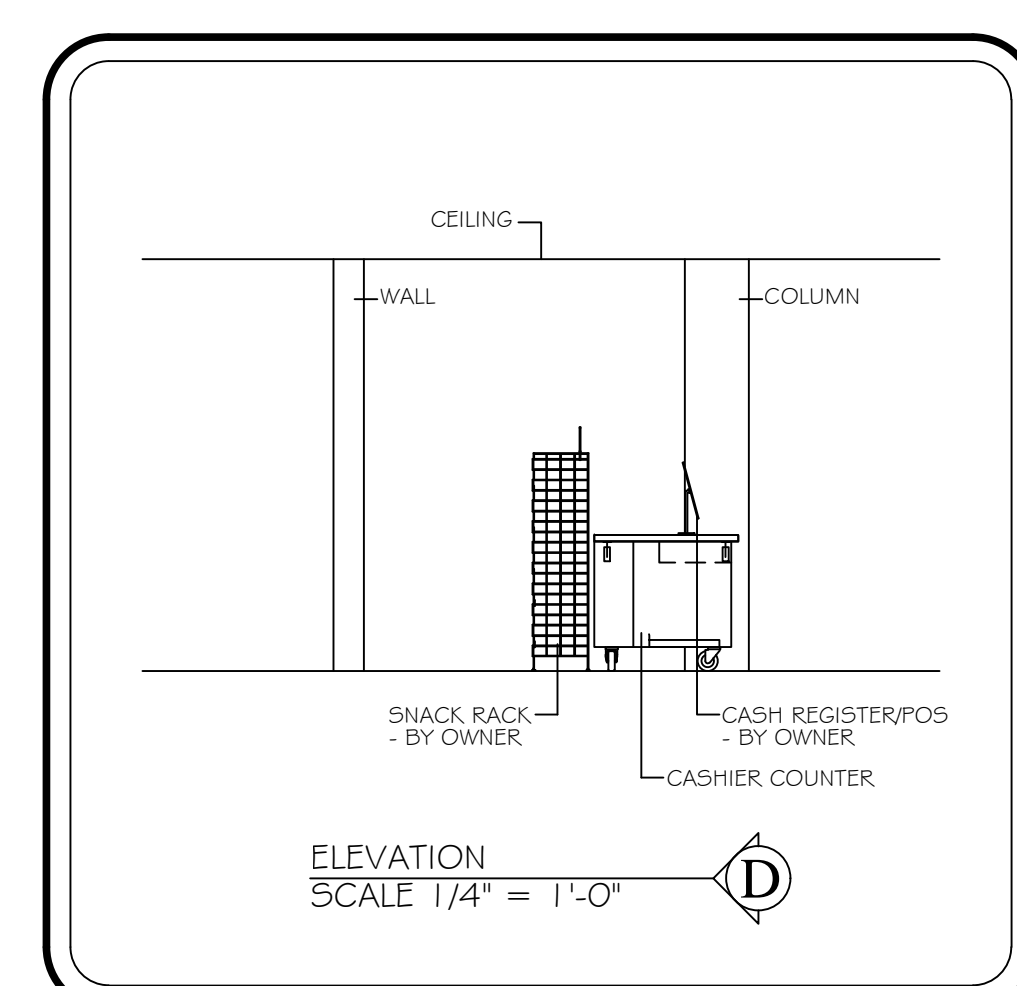
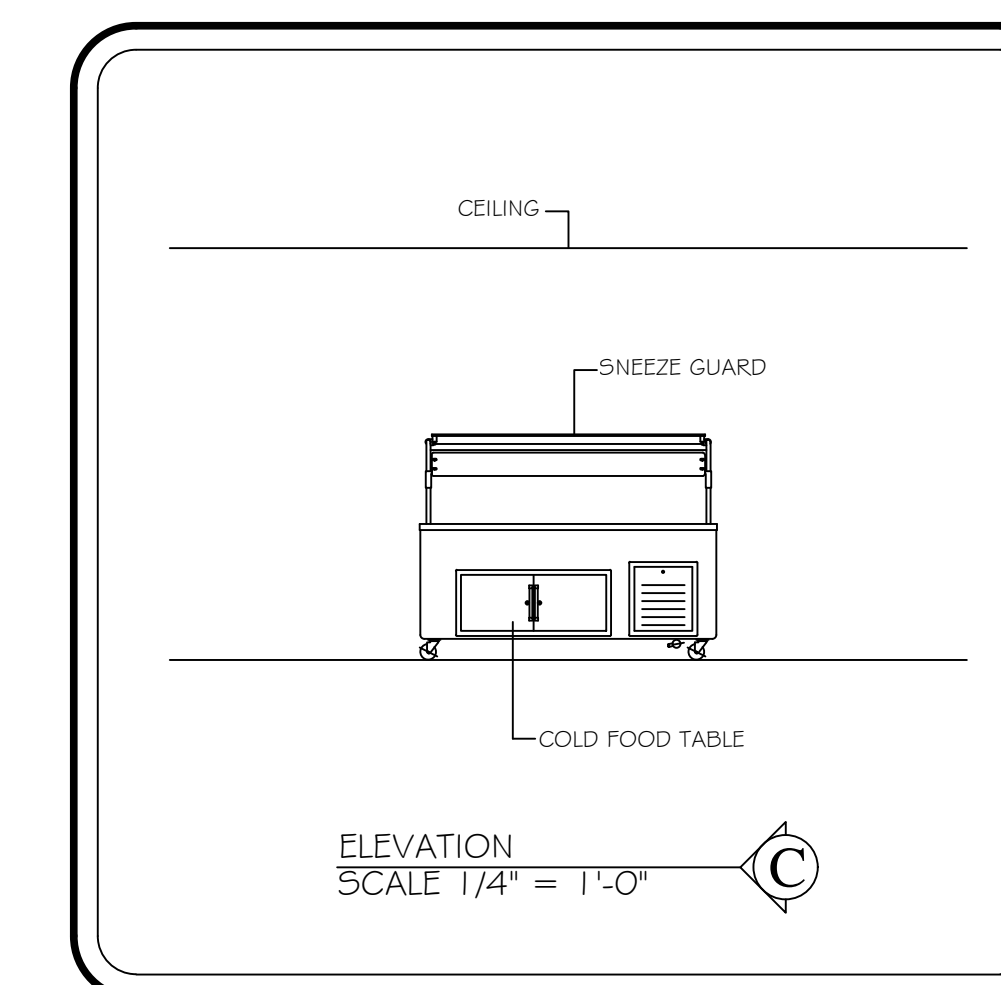
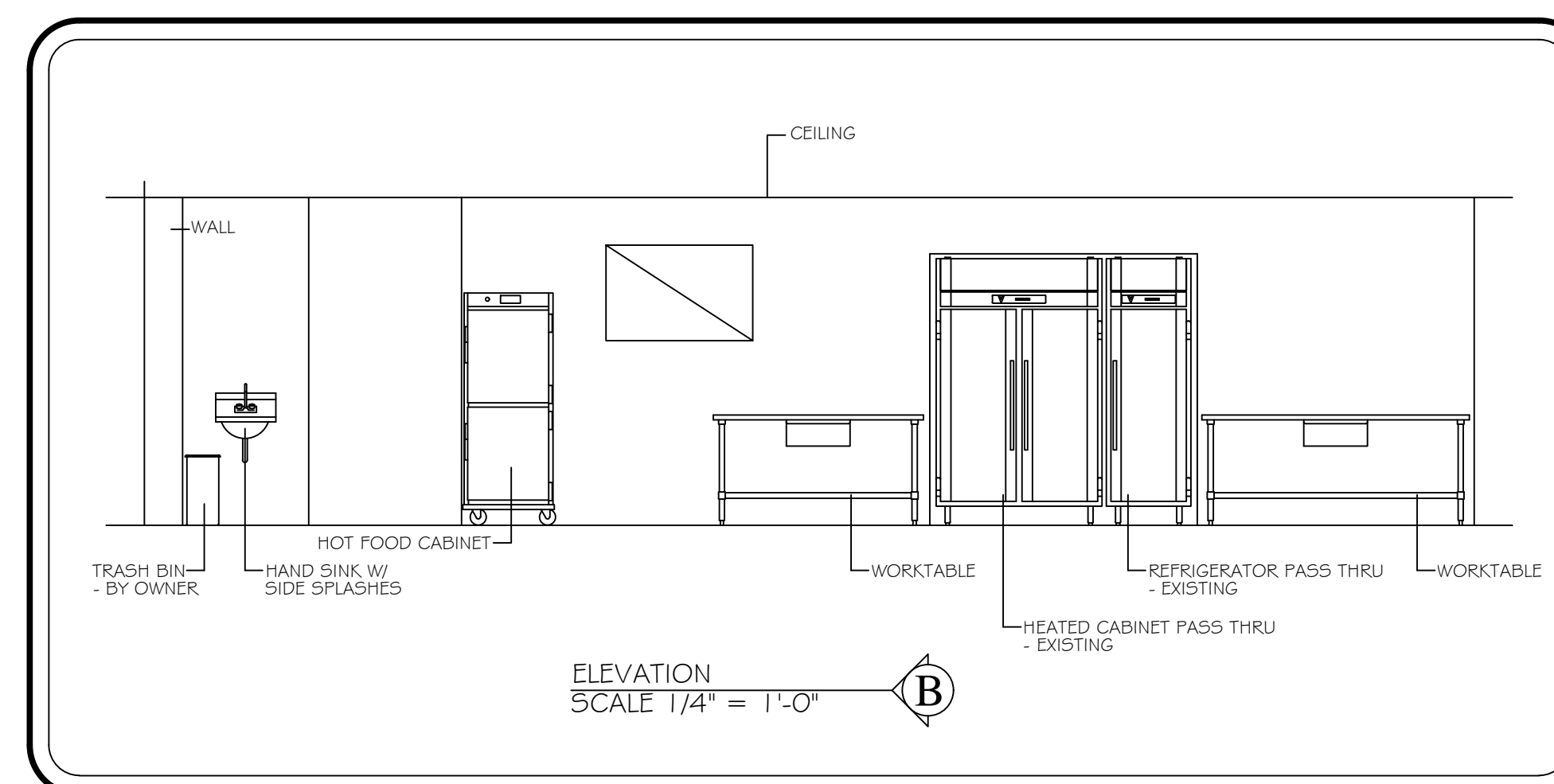
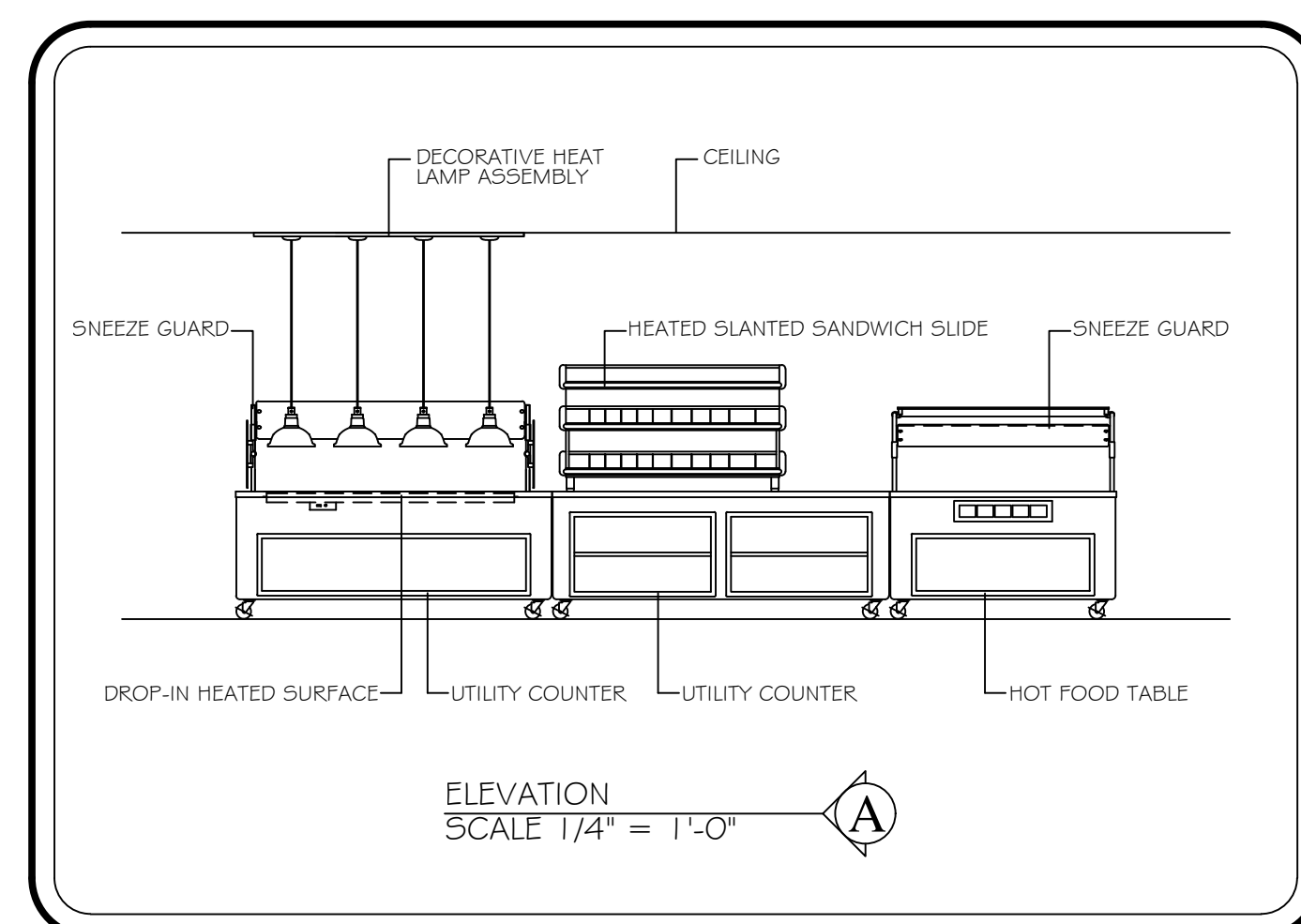
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FOODSERVICE  
DESIGN BY:



**Food Service  
Consultants**  
JRA FOOD SERVICE CONSULTANTS, LLC  
401 HALL STREET SW - SUITE 105H  
GRAND RAPIDS, MI 49503  
PH: (616) 454-4433



**NOTE:**

1. VERIFY ROUGHIN REQUIREMENTS FOR FUTURE, PURVEYOR SUPPLIED, OWNERS RELOCATED EQUIPMENT, OWNER SUPPLIED EQUIPMENT, ETC.
2. REUSE EXISTING ROUGHINS WHERE APPLICABLE.
3. DISCONNECT, REMOVE, STORE & RECONNECT ANY EXISTING EQUIPMENT AS REQUIRED FOR CONSTRUCTION PURPOSES.
4. EQUIPMENT NOT BEING REUSED TO BE DISCONNECTED AND STORED OR DISCARDED AS DIRECTED BY OWNER.
5. EQUIPMENT DESIGNATED AS RELOCATED SHALL BE DISCONNECTED AND RELOCATED AS PER PLANS AND SPECIFICATIONS.

BID PACKAGE 1

ISSUED FOR DATE

PROJECT TITLE  
WEST MIDDLE SCHOOL SERVERY  
REMODEL

OWNER  
PORTAGE PUBLIC SCHOOLS

Portage, Michigan

SHEET TITLE  
FOOD SERVICE EQUIPMENT FLOOR  
PLAN

DATE  
DECEMBER 21, 2023

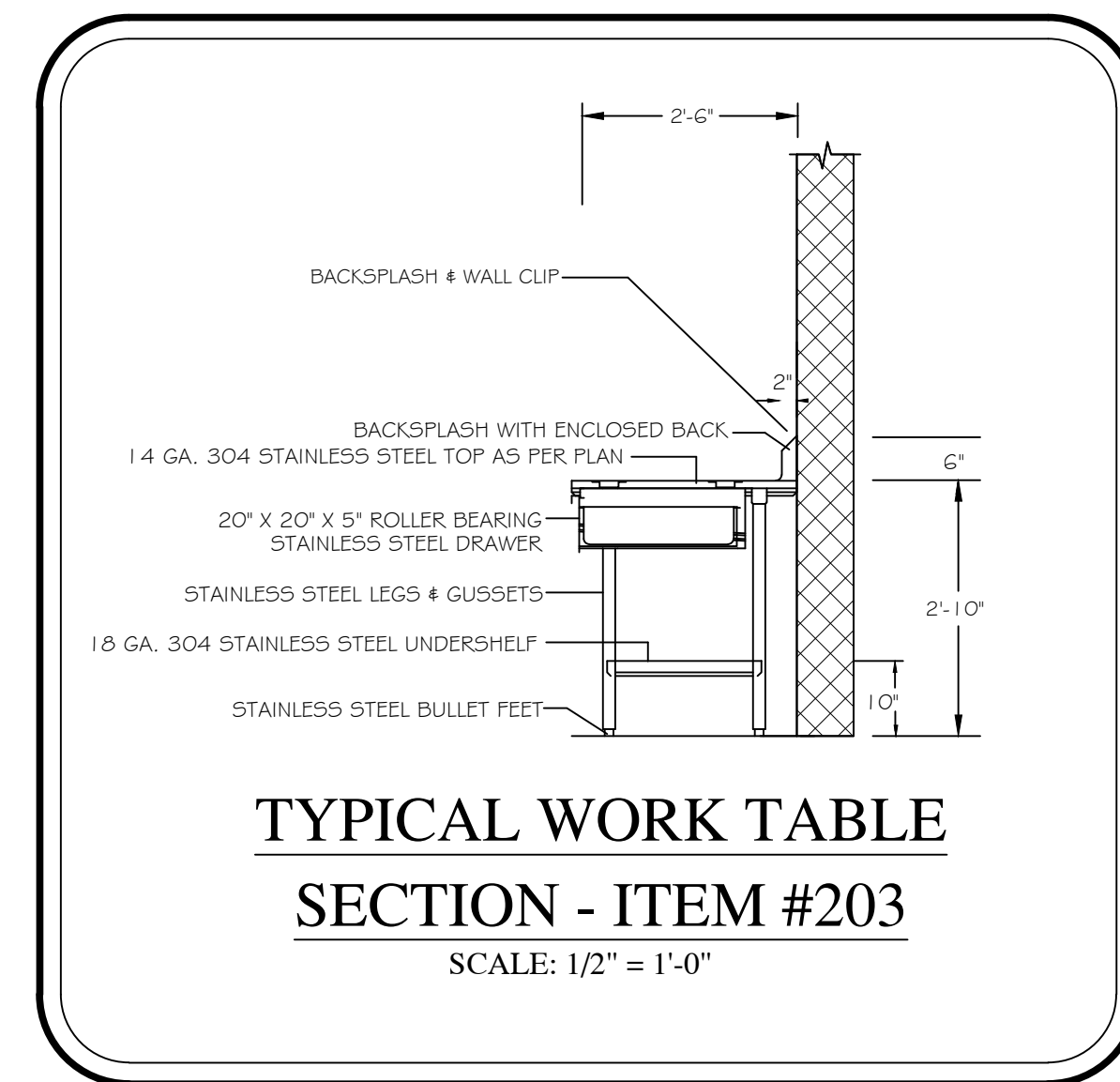
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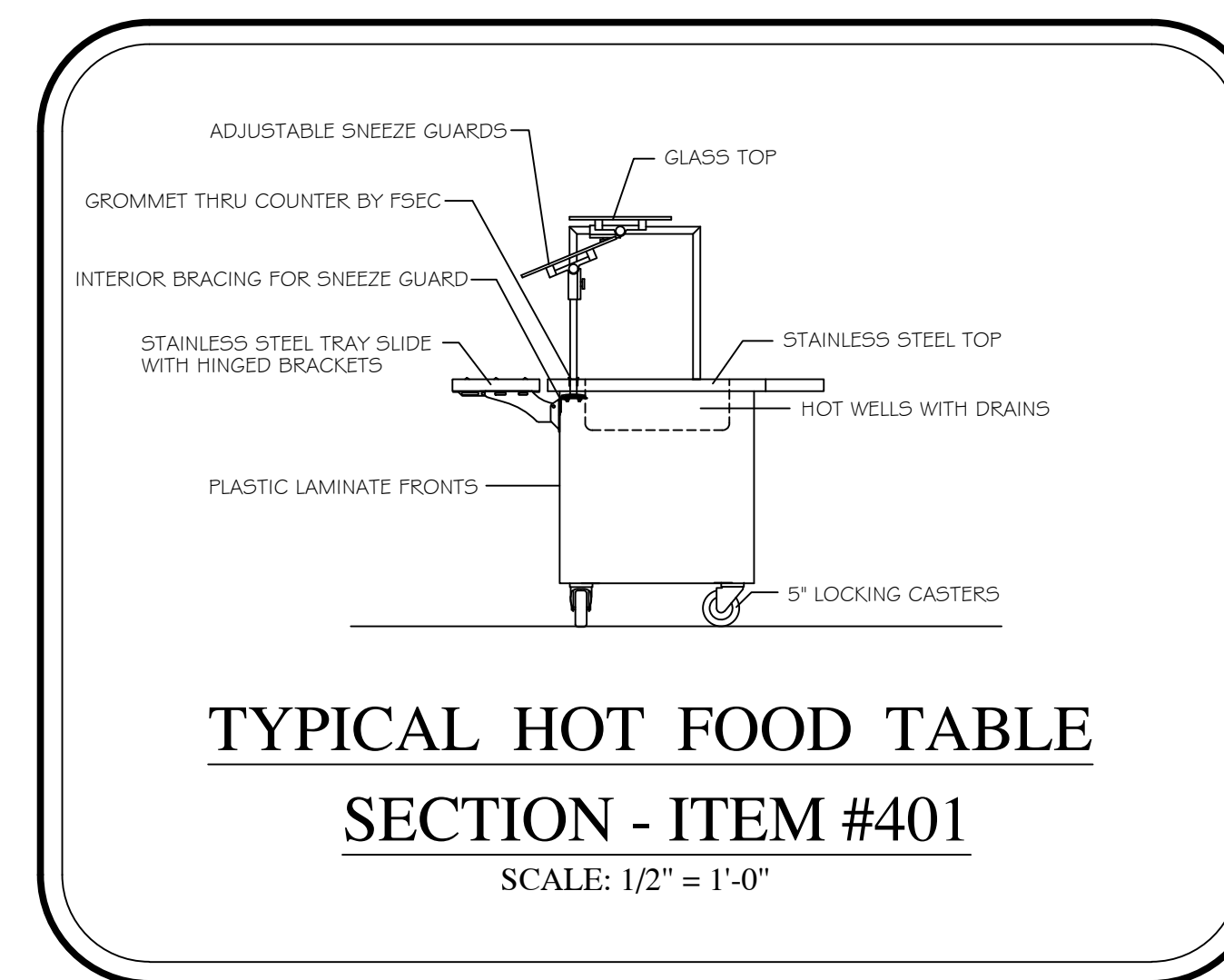
FOODSERVICE  
DESIGN BY:



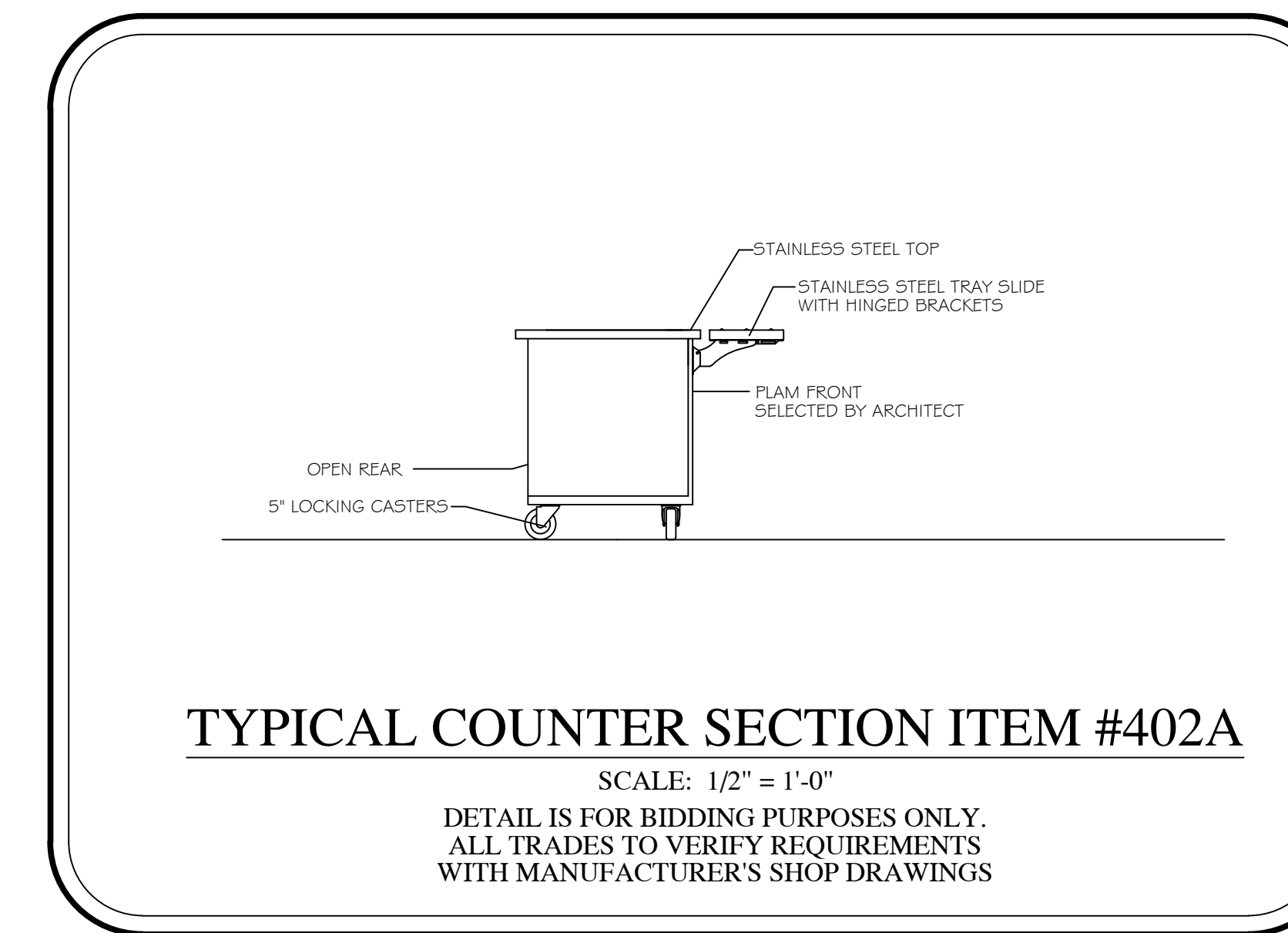
**Food Service  
Consultants**  
JRA FOOD SERVICE CONSULTANTS, LLC  
401 HALL STREET SW - SUITE 1050  
GRAND RAPIDS, MI 49503  
PH: (616) 454-4433



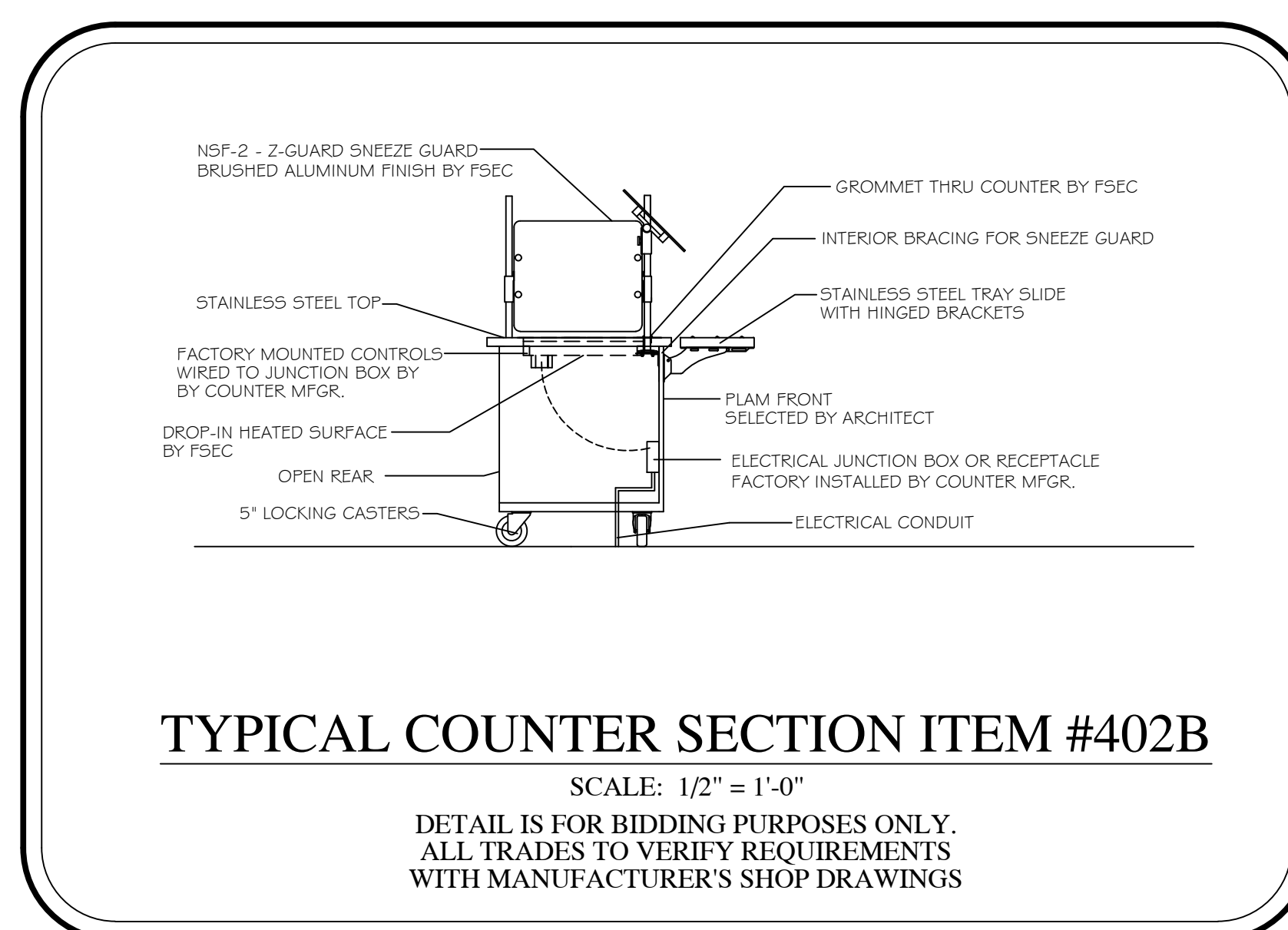
**TYPICAL WORK TABLE  
SECTION - ITEM #203**  
SCALE: 1/2" = 1'-0"



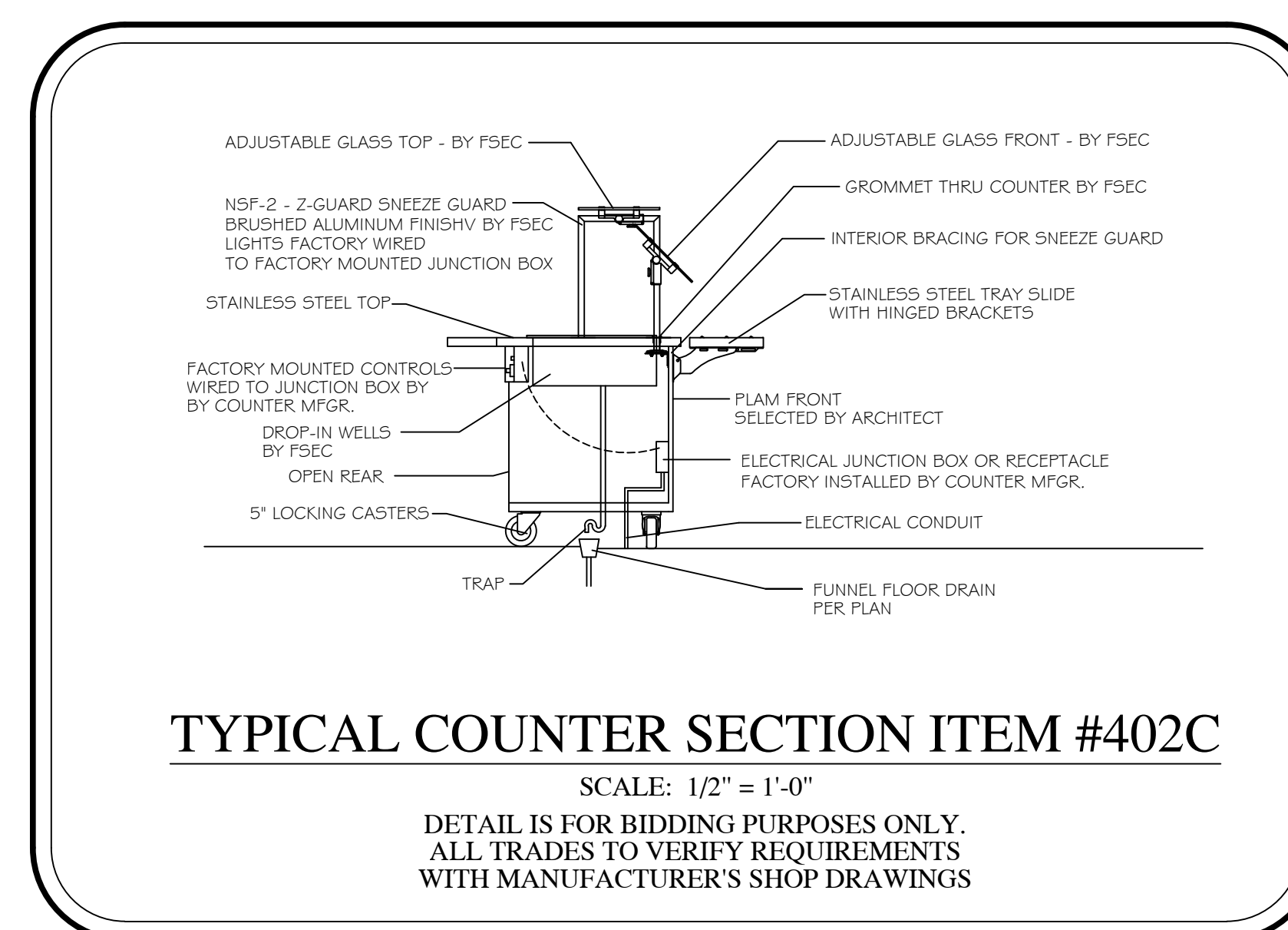
**TYPICAL HOT FOOD TABLE  
SECTION - ITEM #401**  
SCALE: 1/2" = 1'-0"



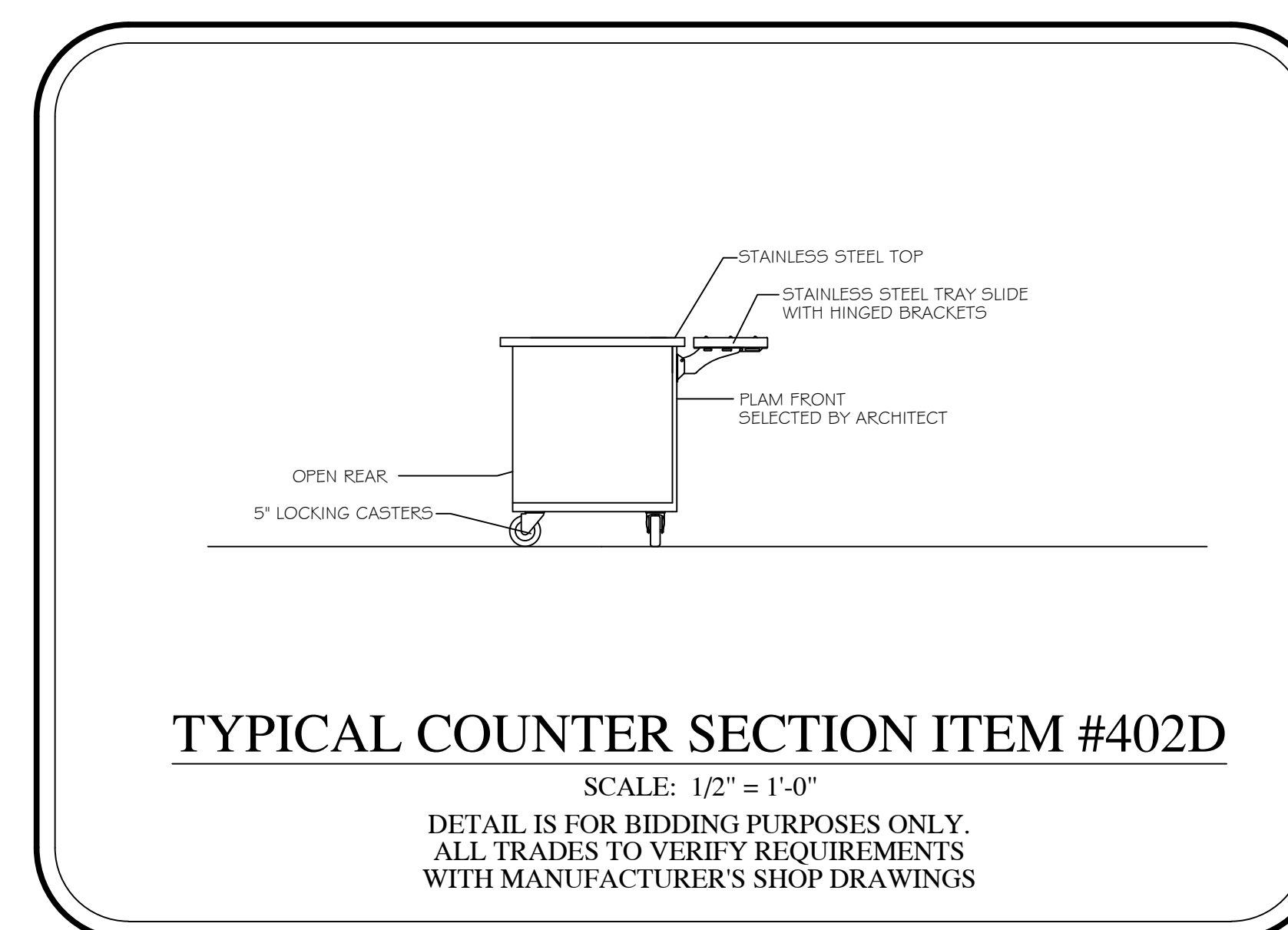
**TYPICAL COUNTER SECTION ITEM #402A**  
SCALE: 1/2" = 1'-0"  
DETAIL IS FOR BIDDING PURPOSES ONLY.  
ALL TRADES TO VERIFY REQUIREMENTS  
WITH MANUFACTURER'S SHOP DRAWINGS



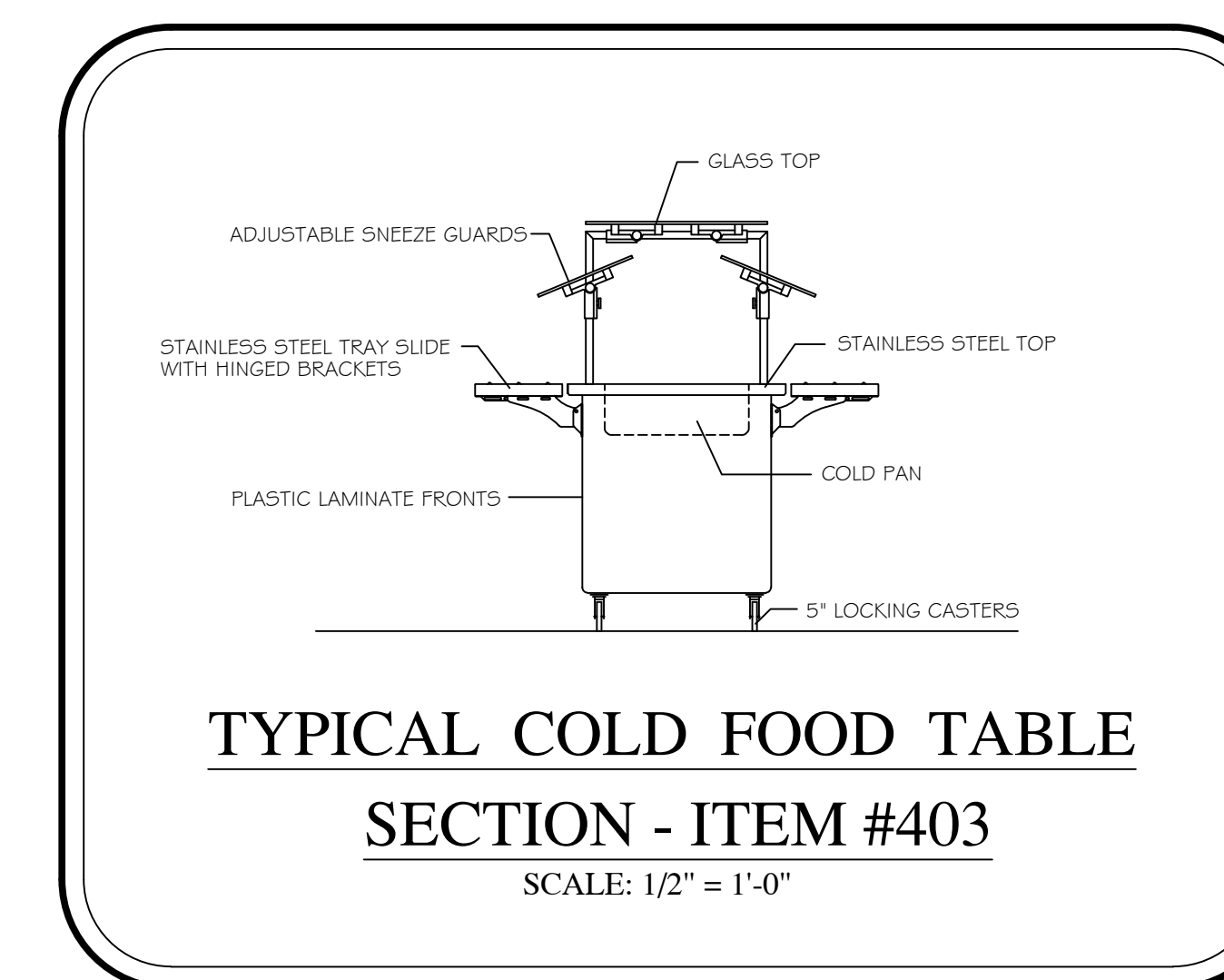
**TYPICAL COUNTER SECTION ITEM #402B**  
SCALE: 1/2" = 1'-0"  
DETAIL IS FOR BIDDING PURPOSES ONLY.  
ALL TRADES TO VERIFY REQUIREMENTS  
WITH MANUFACTURER'S SHOP DRAWINGS



**TYPICAL COUNTER SECTION ITEM #402C**  
SCALE: 1/2" = 1'-0"  
DETAIL IS FOR BIDDING PURPOSES ONLY.  
ALL TRADES TO VERIFY REQUIREMENTS  
WITH MANUFACTURER'S SHOP DRAWINGS



**TYPICAL COUNTER SECTION ITEM #402D**  
SCALE: 1/2" = 1'-0"  
DETAIL IS FOR BIDDING PURPOSES ONLY.  
ALL TRADES TO VERIFY REQUIREMENTS  
WITH MANUFACTURER'S SHOP DRAWINGS



**TYPICAL COLD FOOD TABLE  
SECTION - ITEM #403**  
SCALE: 1/2" = 1'-0"

**NOTE:**

1. VERIFY ROUGHIN REQUIREMENTS FOR FUTURE, PURVEYOR SUPPLIED, OWNERS RELOCATED EQUIPMENT, OWNER SUPPLIED EQUIPMENT, ETC.
2. REUSE EXISTING ROUGHINS WHERE APPLICABLE.
3. DISCONNECT, REMOVE, STORE & RECONNECT ANY EXISTING EQUIPMENT AS REQUIRED FOR CONSTRUCTION PURPOSES.
4. EQUIPMENT NOT BEING REUSED TO BE DISCONNECTED AND STORED OR DISCARDED AS DIRECTED BY OWNER.
5. EQUIPMENT DESIGNATED AS RELOCATED SHALL BE DISCONNECTED AND RELOCATED AS PER PLANS AND SPECIFICATIONS.

EQUIPMENT SCHEDULE																
Item	Qty	DESCRIPTION	CW (in)	HW (in)	INDIRECT DRAIN	DIRECT DRAIN (IN)	GAS (in)	MBTUH	EXH DUCT	EXH CFM	MUA DUCT	MUA CFM	Volts	Ph	Amps load	Equipment Remarks
101	1	REFRIGERATOR											120	1	4.9	
102	1	UTILITY CART														
103	7	SHELVING - WIRE														4 TIER
103A	1	SHELVING - WIRE														4 TIER
201	2	TRASH BIN - BY OWNER														
202	1	SPARE NUMBER														
203	2	WORK TABLE														
204	2	HOT FOOD CABINET											120	1	12.0	UNIVERSAL ANGLES
301	1	SPARE NUMBER														
401	1	HOT FOOD TABLE				FL SK							120/208	1	20.4	
* 402	1	UTILITY COUNTER														
402A	1	UTILITY COUNTER														
402B	1	UTILITY COUNTER														
402C	1	UTILITY COUNTER														
402D	1	UTILITY COUNTER														
403	1	COLD FOOD TABLE				FL SK							120	1	9.5	
404	1	DROP-IN HOT/COLD WELLS				FL SK							120	1	18.2	
404A	1	SNEEZE GUARD											120	1	1.0	
** 405	1	ICE CREAM DISPLAY FREEZER											120	1	4.8	
406	1	CASHIER COUNTER														
406A	1	CASHIER COUNTER														
407	2	CASH REGISTER/POS - BY OWNER											120	1	10.0	DEDICATED CIRCUIT & DATA
408	1	DROP-IN HEATED SURFACE											120	1	11.1	
408A	1	SNEEZE GUARD														
409	1	SPARE NUMBER														
410	1	SANDWICH TOP REFRIGERATOR											120	1	4.8	
411	1	HEATED SLANTED SANDWICH SLIDE											120/208	1	18.4	
412	2	SNACK RACK - BY OWNER														
413	1	DECORATIVE HEAT LAMP ASSEMBLY											120	1	8.0	
414	1	AIR CURTAIN REFRIGERATOR											208	1	15.3	IF UNIT CANNOT BE CONNECTED TO GFCI BREAKER, THEN IT MUST BE HARD WIRED
501	1	SPARE NUMBER														
502	2	HAND SINK W/ SIDE SPLASHES	0.5	0.5		1.5										SOAP & TOWEL DISPENSER - BY OWNER

\* OWNER'S EXISTING EQUIPMENT TO REMAIN  
\*\* OWNER'S EXISTING EQUIPMENT TO BE RELOCATED

# BID PACKAGE 1

ISSUED FOR DATE

PROJECT TITLE  
WEST MIDDLE SCHOOL SERVERY  
REMODEL

OWNER  
PORTAGE PUBLIC SCHOOLS

Portage, Michigan

SHEET TITLE  
FOOD SERVICE EQUIPMENT SCHEDULE

DATE  
DECEMBER 21, 2023

SHEET NUMBER  
FSE-2  
23-186.00

**TRADE & FSEC NOTES:**

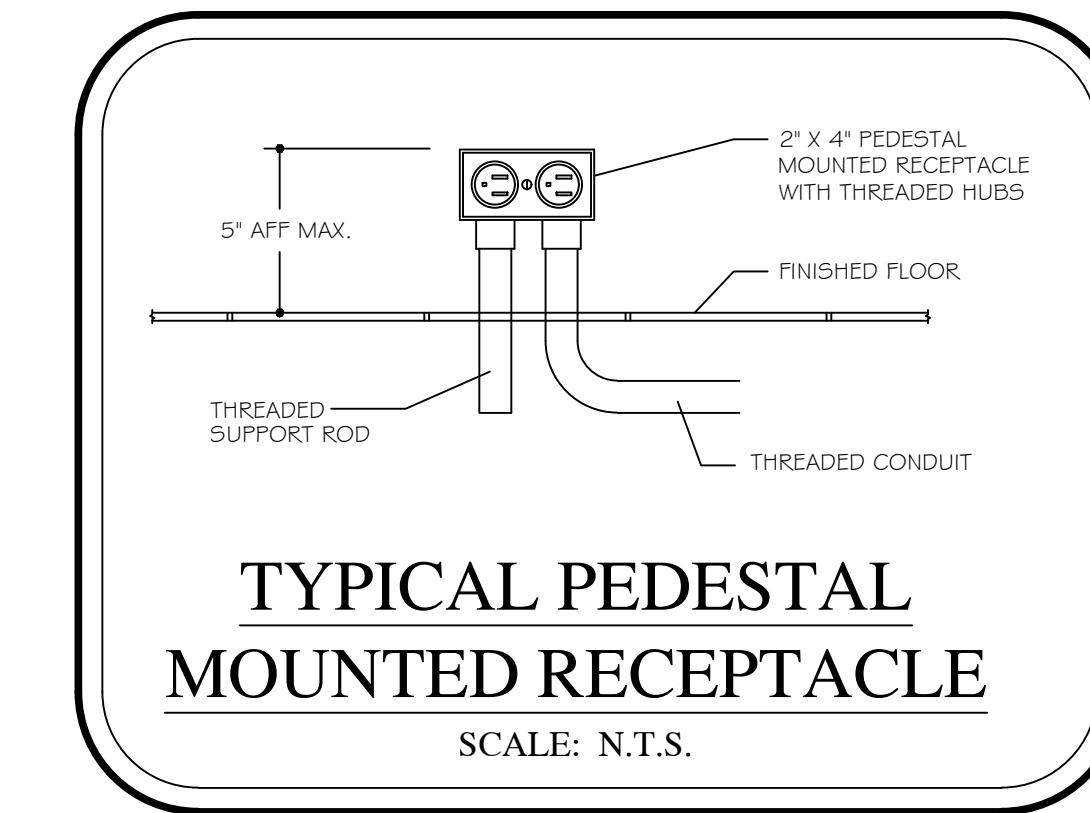
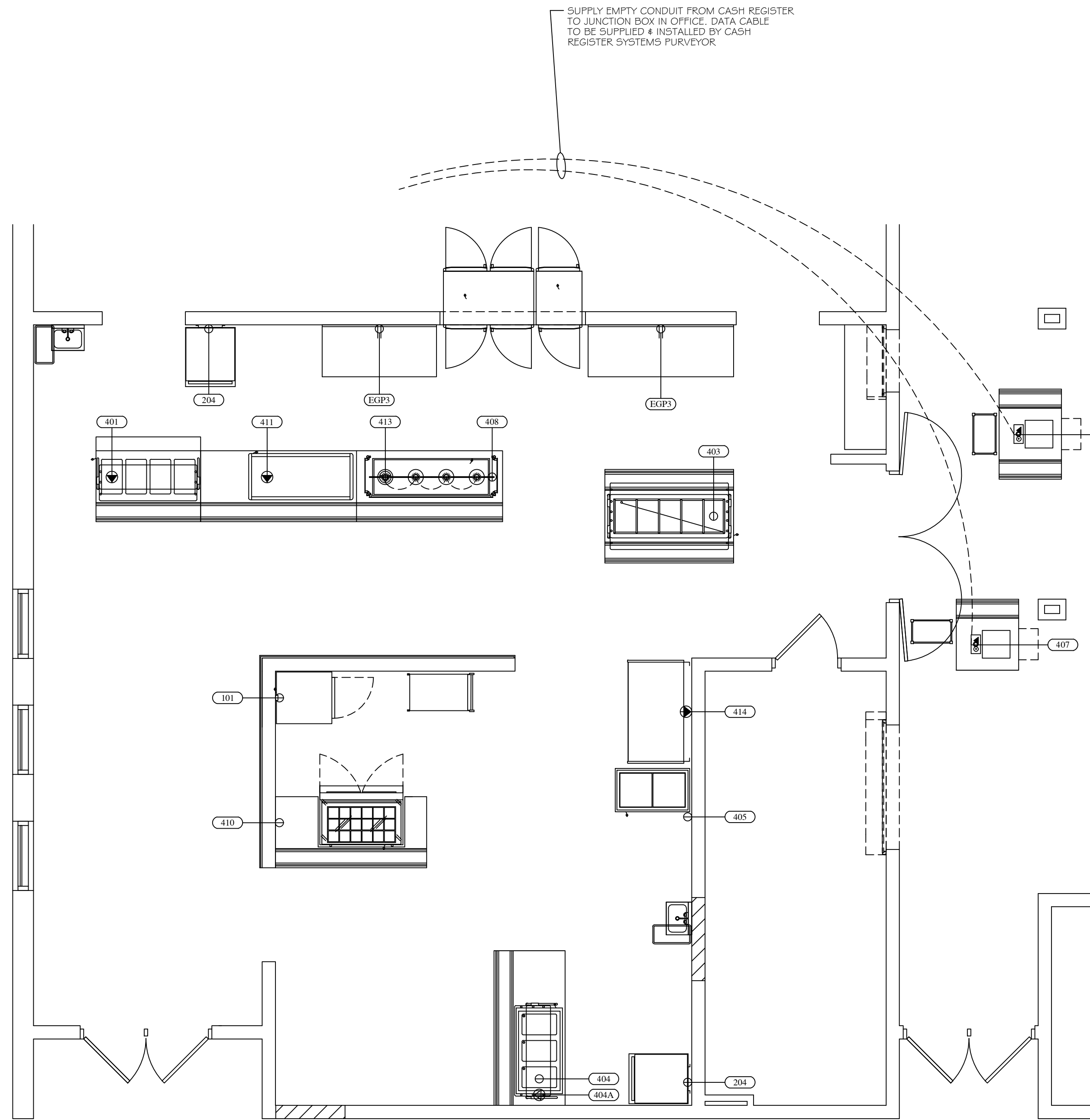
- KITCHEN EQUIPMENT SHALL BE DELIVERED AND ERECTED
- DO NOT ROUGH-IN FROM THIS DRAWING. REFER TO F.S.E.C. DIMENSIONED ROUGH-IN DRAWINGS AND SHOP DRAWINGS FOR ACTUAL REQUIREMENTS.
- SHALL MAKE ALL FINAL CONNECTIONS BETWEEN EQUIPMENT AND ROUGH-IN POINT, AND FURNISH ALL WIRING, SWITCHES, CONTROLS, SERVICE VALVES, PIPING, ETC AS REQUIRED. FURNISH DRAIN WATER TEMPERING KIT(S).
- FURNISH AND INSTALL ALL EQUIPMENT ACCESSORIES (FAUCETS, SWITCHES, CORDS, VALVES, GAS HOSES, ETC.)
- SLOPES TO FDS SHOULD BE HELD TO A MINIMUM DIMENSION.
- ALL "ROUGH-INS" SHOULD BE "UP-WITHIN" AND THEN "OUT-OF" WALLS WHERE POSSIBLE TO KEEP FLOORS AS CLEAN AS POSSIBLE. ROUGH-INS ARE SHOWN AT TERMINATION POINT TO ALLOW WIRING/PIPING TO FIXTURE.
- PROVIDE CHASES/REWORK OF WALLS, FLOORS, CEILINGS FOR UTILITIES, FLOOR GRATES, WALKINS, DUCTS, ETC.
- PROVIDE ACCESS HOLES IN EQUIPMENT FOR UTILITIES, PIPING, POS, BEVERAGE LINES, ETC.
- PROVIDE VENTILATION, STRUCTURAL SUPPORT, CEILING WORK, ROOF PENETRATIONS AND FIRE PROOFING AS REQUIRED.
- EXHAUST HOOD SHALL BE USED FOR VENTILATION OF COOKING EQUIPMENT ONLY. PROVIDE ROOM VENTILATION (AC RECOMMENDED) AS REQUIRED
- PROVIDE ADEQUATE VENTILATION FOR REFRIGERATION COMPRESSORS, WHETHER AIR OR WATER COOLED.
- REVIEW ALL ROUGHINS AND SHOP DRAWINGS FROM F.S.E.C. AND ADVISE PRIOR TO ROUGHING IN IF ANY CHANGES ARE REQUIRED.
- COORDINATE ROUGHIN REQUIREMENTS FOR OWNER SUPPLIED, RELOCATED, OR EXISTING EQUIPMENT WITH ALL TRADES
- REUSE EXISTING ROUGHINS IF APPLICABLE
- EQUIPMENT NOT BEING RE-USED TO BE DISCONNECTED.
- EQUIPMENT NOT BEING RE-USED SHALL BE DISCARDED.
- IF OWNER REQUESTS EXISTING EQUIPMENT BE SALVAGED TURN OVER TO OWNER.
- EQUIPMENT DESIGNATED AS RELOCATED SHALL BE DISCONNECTED FROM UTILITIES.
- EQUIPMENT DESIGNATED AS RELOCATED SHALL BE REMOVED FROM SITE, CLEANED, MADE READY FOR HEALTH DEPARTMENT AND RETURNED TO THE SITE.
- EQUIPMENT DESIGNATED AS RELOCATED SHALL BE RE-CONNECTED.
- VERIFY VENTILATION DATA WITH HOOD MFG. SHOP DRAWINGS.

FOODSERVICE  
DESIGN BY:



**Food Service Consultants**  
JRA FOOD SERVICE CONSULTANTS, LLC  
401 HALL STREET SW - SUITE 103H  
GRAND RAPIDS, MI 49503  
PH: (616) 454-4433

ISSUED FOR DATE



MECHANICAL / ELECTRICAL NOTES	
⬆	120 V - 20 AMP DUPLEX RECEPTACLE - GFIC VERTICALLY MOUNTED
⬆	120 V - 20 AMP SIMPLEX OUTLET - GFIC VERTICALLY MOUNTED
⬆	120 VOLT - 30 AMP QUAD OUTLET
SR	SPECIAL RECEPTACLE - 120 VOLT
SR	SPECIAL RECEPTACLE - 208/240 VOLT
W.T.	W.T. FLUSH FLOOR POWER/COMMUNICATIONS RECEPTACLE
DC	DATA CONNECTION
WTF	WATER/TIGHT FLUSH FLOOR DUPLEX - 20 AMP - GFIC
JB	JUNCTION BOX
LT	LIGHT FIXTURE
A	AMPS
AFP	ABOVE FINISHED FLOOR
BTC	BRANCH TO CONNECTION BY TRADES
DFA	DROP FROM ABOVE
GP	GENERAL PURPOSE
HP	HORSEPOWER
IW	INDIRECT/AIR GAPPED WASTE TO FL DR OR FL SK
KW	KILOWATT
PH	PHASE
UNO	UNLESS OTHERWISE NOTED
VIF	VERIFY IN FIELD
V	VOLTS
HW	HOT WATER - 25 PSI - 115 DEGREES
CW	COLD WATER - 25 PSI
G	NATURAL GAS - 7\"/>
W	WASTE DRAIN - DIRECT CONNECTION
FD	FLOOR DRAIN - 3\"/>
FFD	FUNNEL FLOOR DRAIN FOR IW - 3\"/>
FL SK	FLOOR SINK FOR IW - 12\"/>
EVC	EXHAUST VENT CONNECTION
MUA	MAKE UP AIR DUCT CONNECTION
CFM	CUBIC FEET MINUTE
SP	STATIC PRESSURE
BC	BEVERAGE CONDUIT WITH 18\"/>
TFT	TEMPERED FLOOR TROUGH
NKFC	NOT IN KITCHEN EQUIPMENT CONTRACT

- NOTE:**
- VERIFY ROUGHIN REQUIREMENTS FOR FUTURE, PURVEYOR SUPPLIED, OWNERS RELOCATED EQUIPMENT, OWNER SUPPLIED EQUIPMENT, ETC.
  - REUSE EXISTING ROUGHINS WHERE APPLICABLE.
  - DISCONNECT, REMOVE, STORE & RECONNECT ANY EXISTING EQUIPMENT AS REQUIRED FOR CONSTRUCTION PURPOSES.
  - EQUIPMENT NOT BEING REUSED TO BE DISCONNECTED AND STORED OR DISCARDED AS DIRECTED BY OWNER.
  - EQUIPMENT DESIGNATED AS RELOCATED SHALL BE DISCONNECTED AND RELOCATED AS PER PLANS AND SPECIFICATIONS.

EQUIPMENT SCHEDULE								
Item	EQUIPMENT DESCRIPTION	VOLTS	PH	AMPS LOAD	DIRECT BY EC	CORDSET BY FSEC	AFF (in)	REMARKS
101	REFRIGERATOR	120	1	4.9		X	90	
204	HOT FOOD CABINET	120	1	12.0		X	72	
401	HOT FOOD TABLE	120/208	1	20.4		X	5	PEDESTAL MOUNTED RECEPTACLE
403	COLD FOOD TABLE	120	1	9.5		X	5	PEDESTAL MOUNTED RECEPTACLE
404	DROP-IN HOT/COLD WELLS	120	1	18.2		X	5	PEDESTAL MOUNTED RECEPTACLE
404A	SNEEZE GUARD	120	1	1.0	X		5	PEDESTAL MOUNTED JUNCTION BOX
405	ICE CREAM DISPLAY FREEZER - EXISTING	120	1	4.8		X	16	
407	CASH REGISTER/POS - BY OWNER	120	1	10.0		X	5	INTERWIRE TO OFFICE/CPU - VIF
408	DROP-IN HEATED SURFACE	120	1	11.1		X	5	PEDESTAL MOUNTED RECEPTACLE
410	SANDWICH TOP REFRIGERATOR	120	1	4.8		X	16	
411	HEATED SLANTED SANDWICH SLIDE	120/208	1	18.4		X	5	PEDESTAL MOUNTED RECEPTACLE
413	DECORATIVE HEAT LAMP ASSEMBLY	120	1	8.0	X		DFA	
414	AIR CURTAIN REFRIGERATOR	208	1	15.3		X	16	IF UNIT CANNOT BE CONNECTED TO GFCT BREAKER, THEN IT MUST BE HARD WIRED
EGP3	GENERAL PURPOSE DUPLEX	120	1	10.0		X	48	

PROJECT TITLE  
WEST MIDDLE SCHOOL SERVERY  
REMODEL

OWNER  
PORTAGE PUBLIC SCHOOLS

SHEET TITLE  
FOOD SERVICE ELECTRICAL FLOOR  
PLAN

Portage, Michigan

DATE  
DECEMBER 21, 2023

SHEET NUMBER  
FSE-3  
23-186.00

BID PACKAGE 1

**TRADE & FSEC NOTES:**

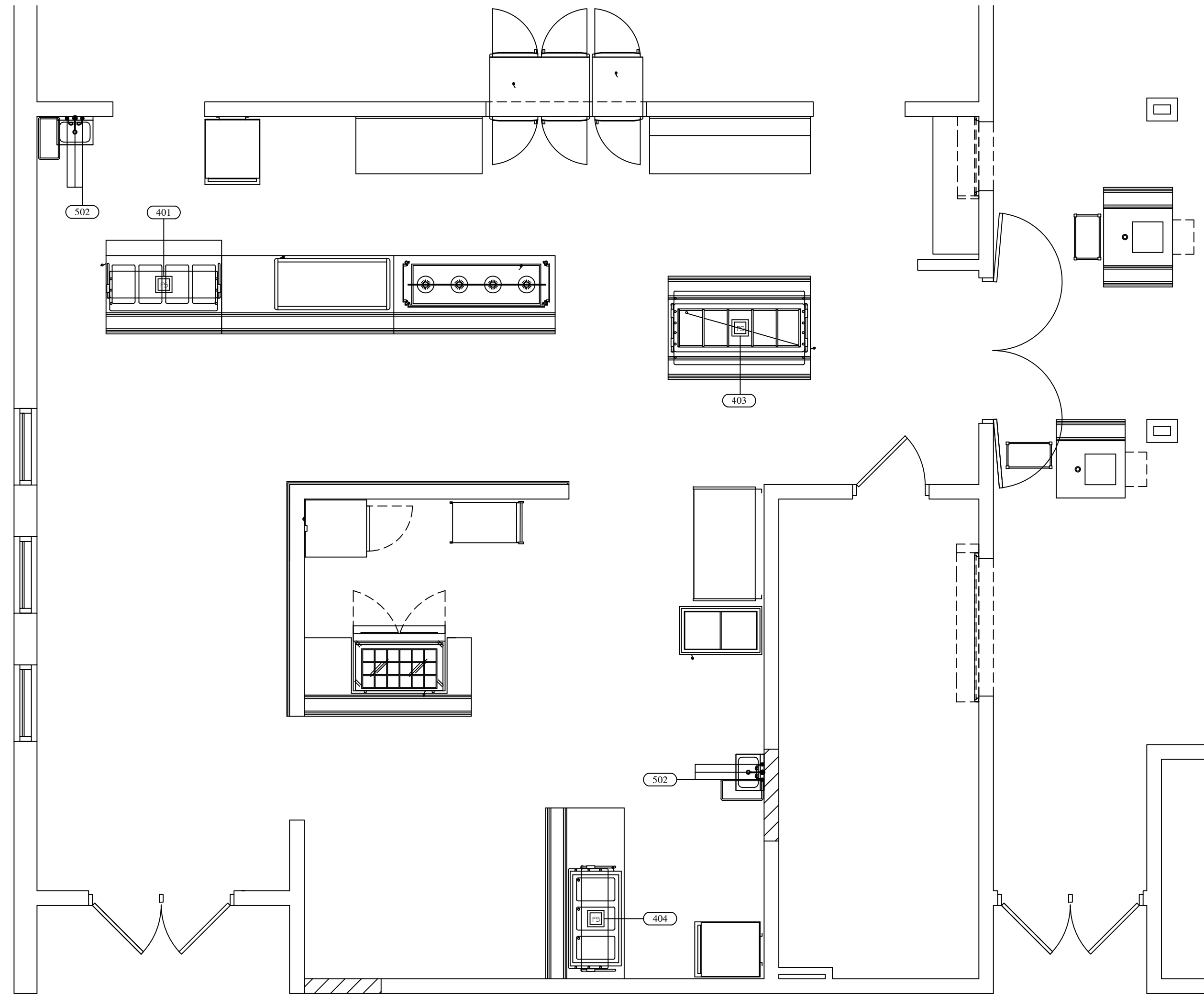
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4. FURNISH AND INSTALL ALL EQUIPMENT ACCESSORIES (FAUCETS, SWITCHES, CORDS, VALVES, GAS HOSES, ETC.).
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7. PROVIDE CHASES/REWORK OF WALLS, FLOORS, CEILINGS FOR UTILITIES, FLOOR GRATES, WALKINS, DUCTS, ETC.
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21. VERIFY VENTILATION DATA WITH HOOD MFG. SHOP DRAWINGS.

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MECHANICAL / ELECTRICAL NOTES	
	120 V - 20 AMP DUPLEX RECEPTACLE - GFC VERTICALLY MOUNTED
	120 V - 20 AMP SIMPLEX OUTLET - GFC VERTICALLY MOUNTED
	120 VOLT - 30 AMP QUAD OUTLET
	SR SPECIAL RECEPTACLE - 120 VOLT
	SR SPECIAL RECEPTACLE - 208/240 VOLT
	W.T. FLUSH FLOOR POWER/COMMUNICATIONS RECEPTACLE
	DATA CONNECTION
	WATER TIGHT FLUSH FLOOR DUPLEX - 20 AMP - GFC
	JB JUNCTION BOX
	LT LIGHT FIXTURE
	A AMPS
	AFF ABOVE FINISHED FLOOR
	BTC BRANCH TO CONNECTION BY TRADES
	DFA DROP FROM ABOVE
	GP GENERAL PURPOSE
	HP HORSEPOWER
	IW INDIRECT/AIR GAPPED WASTE TO FL DR OR FL SK
	KW KILOWATT
	PH PHASE
	UNLESS OTHERWISE NOTED
	VIF VERIFY IN FIELD
	V VOLTS
	HW HOT WATER - 25 PSI - 115 DEGREES
	CW COLD WATER - 25 PSI
	G NATURAL GAS - 7" W.C. OR LP GAS - 11" W.C. - VIF
	W WASTE DRAIN - DIRECT CONNECTION
	FD FLOOR DRAIN - 3" MINIMUM DRAIN - MINIMUM PITCH
	FFD FLANNELED FLOOR DRAIN FOR IW - 3" MINIMUM DRAIN
	FL SK FLOOR SINK FOR IW - 12" SQ. - HALF GRATE - 3" MIN.
	EVC EXHAUST VENT CONNECTION
	MUA MAKE UP AIR DUCT CONNECTION
	CFM CUBIC FEET MINUTE
	SP STATIC PRESSURE
	BC BEVERAGE CONDUIT WITH 1/8" SWEEP ENDS BY TRADES - VIF
	TFT TEMPERED FLOOR TROUGH
	NIKEC NOT IN KITCHEN EQUIPMENT CONTRACT

PROJECT TITLE  
WEST MIDDLE SCHOOL SERVERY  
REMODEL

OWNER  
PORTAGE PUBLIC SCHOOLS

Portage, Michigan

SHEET TITLE  
FOOD SERVICE PLUMBING FLOOR  
PLAN

DATE  
DECEMBER 21, 2023

SHEET NUMBER  
FSE-4  
23-186.00

**NOTE:**

1. VERIFY ROUGHIN REQUIREMENTS FOR FUTURE, PURVEYOR SUPPLIED, OWNERS RELOCATED EQUIPMENT, OWNER SUPPLIED EQUIPMENT, ETC.
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EQUIPMENT SCHEDULE											
Item	EQUIPMENT DESCRIPTION	CW (in)	HW (in)	AFF (in)	DIRECT DRAIN (in)	AFF (in)	INDIRECT AIR GAP	GAS (in)	AFF (in)	MBTUH	REMARKS
401	HOT FOOD TABLE						FL SK				
403	COLD FOOD TABLE						FL SK				
404	DROP-IN HOT/COLD WELLS						FL SK				
502	HAND SINK W/ SIDE SPLASHES	0.5	0.5	18	1.5	16					SOAP & TOWEL DISPENSER - BY OWNER

**BID PACKAGE 1**

ISSUED FOR \_\_\_\_\_ DATE \_\_\_\_\_

PROJECT TITLE  
**WEST MIDDLE SCHOOL SERVERY  
REMODEL**

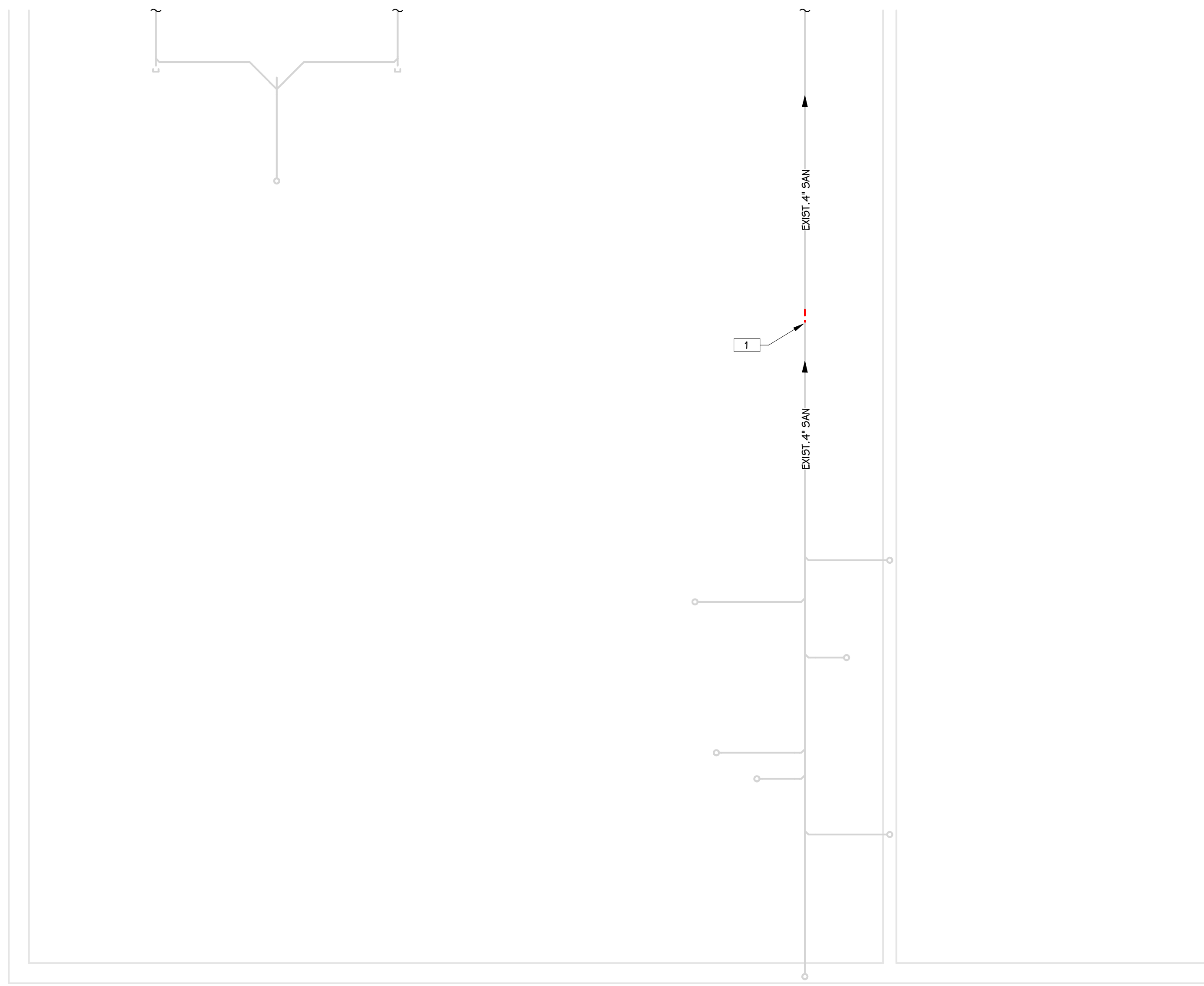
OWNER  
**PORTAGE PUBLIC SCHOOLS**

Portage, Michigan

SHEET TITLE  
**MECHANICAL & PLUMBING GENERAL  
NOTES, ABBREVIATIONS, AND SYMBOLS**

SHEET NUMBER  
**MG 001**  
DATE  
**JANUARY 16, 2024**  
23-186.00

ABBREVIATIONS	MECHANICAL SYMBOLS	GENERAL NOTES - MECHANICAL - NEW CONSTRUCTION
A.C.D. AUTOMATIC CONTROL DAMPER A.F.F. ABOVE FINISHED FLOOR A.G. ABOVE GRADE A.P.D. AIR PRESSURE DROP B.D. BALANCING DAMPER B.D.D. BACKDRAFT DAMPER B.F. BARRELS FREE BTUH BRITISH THERMAL UNIT PER HOUR B.V. BALANCING VALVE C.B. CATCH BASIN C.B.V. CALIBRATED BALANCING VALVE C.F.H. CUBIC FEET PER HOUR C.F.M. CUBIC FEET PER MINUTE C.H. CABINET HEATER C.I. CAST IRON C.M. CEILING MOUNTED C.O. CLEAN OUT C.V. CONTROL VALVE D.F. DRINKING FOUNTAIN DN. DOWN D.S. DOWN SPOUT E.A. EXHAUST AIR E.A.T. ENTERING AIR TEMPERATURE E.D.B. ENTERING DRY BULB E.F. EXHAUST FAN E.S.P. EXTERNAL STATIC PRESSURE E.W.B. ENTERING WET BULB E.W.C. ELECTRIC WATER COOLER E.W.T. ENTERING WATER TEMPERATURE EXIST. EXISTING E.I.R. EXISTING TO REMAIN F.C. FLEXIBLE CONNECTION F.D. FLOOR DRAIN (FD) FIRE DAMPER F.H.C. FIRE HOSE CABINET F.I. FIELD INSTALLED F.M. FLOOR MOUNTED F.P.M. FEET PER MINUTE F.R. FIN RADIATION G.P.M. GALLONS PER MINUTE H.B. HOSE BIBB HP HORSE POWER I.E. INVERT ELEVATION L.A.T. LEAVING AIR TEMPERATURE LAV. LAVATORY L.D.B. LEAVING DRY BULB LOUV. LOUVER L.W.B. LEAVING WET BULB L.W.T. LEAVING WATER TEMPERATURE M.A. MIXED AIR M.A.T. MIXED AIR TEMPERATURE MAX. MAXIMUM M.B. MOP BASIN MBH BRITISH THERMAL UNIT PER HOUR (THOUSANDS) MFR.(S) MANUFACTURER(S) M.H. MAINFOLD MIN. MINIMUM MTG. MOUNTING M.V. MANUAL AIR VENT N.C. NORMALLY CLOSED N.F.W.H. NON-FREEZE WALL HYDRANT N.I.C. NOT IN CONTRACT N.O. NORMALLY OPEN O.A. OUTSIDE AIR O.A.I. OUTSIDE AIR INTAKE OCT. OCTAVE P.A. PIPE ANCHOR P.D. PRESSURE DROP P.I.V. POST INDICATOR VALVE P.R.V. PRESSURE REDUCING VALVE P.T. PRESSURE TEMPERATURE TAPPING R.A. RETURN AIR R.D. ROOF DRAIN R.H. RELATIVE HUMIDITY R.I.O. ROUGH IN ONLY R.P.M. REVOLUTIONS PER MINUTE RPRP REDUCED PRESSURE PRINCIPAL BACKFLOW PREVENTER R.V. RELIEF VALVE S.A. SUPPLY AIR SENS. SENSIBLE SHR. SHOWER SK. SINK S.O.V. SHUT-OFF VALVE S.P. STATIC PRESSURE S.SK. SERVICE SINK TEMP. TEMPERATURE TOT. TOTAL T.R. TEMPERATURE RISE T.S. TIP SPEED T.S.P. TOTAL STATIC PRESSURE T.U. TERMINAL UNIT BOX T.W.C. TEPID WATER CONNECTION U.H. UNIT HEATER URN. URINAL V. VENT VEL. VELOCITY V.I. VIBRATION ISOLATORS V.I.F. VERIFY IN FIELD V.S. VENT STACK V.T.R. VENT THRU ROOF W. WASTE W.C. WATER CLOSET W.M. WALL MOUNTED W.P.D. WATER PRESSURE DROP W.SK. WASH SINK	—AW— ACID WASTE —AWV— ACID WASTE VENT —BAL— BALANCING VALVE —B— BUTTERFLY VALVE —CAL— CALIBRATED BALANCING VALVE —CAP— CAP —CO2— CARBON DIOXIDE —CV— CHECK VALVE —CR— CHILLER RETURN —CS— CHILLER SUPPLY —CWR— CHILLED WATER RETURN —CWS— CHILLED WATER SUPPLY —CWD— COLD WATER (DOMESTIC) —A— COMPRESSED AIR —COND— CONDENSATE —CD— CONDENSATE DRAIN —CV— CONTROL VALVE —CTR— COOLING TOWER RETURN —CTS— COOLING TOWER SUPPLY —DI— DEIONIZED WATER —FD— FIRE DAMPER (HORIZONTAL) —FDV— FIRE DAMPER (VERTICAL) —FSD— FIRE/SMOKE DAMPER —FP— FIRE PROTECTION —FM— FLOW METER (PROBE TYPE) —FMV— FLOW METER (WAFFER TYPE) —FS— FLOW SWITCH —FD— FOOTING DRAIN —FOR— FUEL OIL RETURN —FOS— FUEL OIL SUPPLY —G— GAS —GC— GAS COCK —GLR— GROUND LOOP WATER RETURN —GLS— GROUND LOOP WATER SUPPLY —HR— HEATING HOT WATER RETURN —HS— HEATING HOT WATER SUPPLY —HPR— HEAT PUMP RETURN —HPS— HEAT PUMP SUPPLY —HWR— HOT WATER RETURN (DOMESTIC) —HWS— HOT WATER SUPPLY (DOMESTIC) —HUM— HUMIDISTAT —MA— MEDICAL AIR —MVAC— MEDICAL VACUUM —N— NITROGEN —N2O— NITROUS OXIDE —OSV— OUTSIDE STEM AND YOKE VALVE —O2— OXYGEN —PG— PRESSURE GAUGE —PRV— PRESSURE REDUCING VALVE —PRV— PRESSURE RELIEF VALVE —PT— PRESSURE TEMPERATURE TAPPING —PHR— PRIMARY HEATING HOT WATER RETURN —PHS— PRIMARY HEATING HOT WATER SUPPLY —PC— PUMPED CONDENSATE —RPP— REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER —LIQ— LIQUID —SUCTION— REFRIGERANT LINE (SUCTION) —SAN— SANITARY SEWER (ABOVE FLOOR) —SAN— SANITARY SEWER (BELOW FLOOR) —SHV— SHUT-OFF VALVE —SD— SMOKE DAMPER —SCW— SOFT COLD WATER —SHW— SOFT HOT WATER —SHWR— SOFT HOT WATER RETURN —SCV— SPRING CHECK VALVE —STM (#)— STEAM —ST— STEAM TRAP —ST— STORM SEWER (ABOVE FLOOR) —ST (OP)— STORM SEWER (OVERFLOW SYSTEM) —ST— STORM (BELOW FLOOR) —STR— STRAINER —SMR— SNOWMELT RETURN —SMS— SNOWMELT SUPPLY —TS— TEMPERATURE SENSOR —TW— TEPID WATER —TWR— TEPID WATER RETURN —THERM— THERMOMETER —THERM— THERMOSTAT —TRV— THREE-WAY CONTROL VALVE —TRV— THROTTLING VALVE —TRV— TRIPLE DUTY VALVE (ANGLE) —TRV— TRIPLE DUTY VALVE (STRAIGHT) —UNION— UNION —VAC— VACUUM —VB— VACUUM BREAKER —V— VENT	1 DETAILS SHOWN ILLUSTRATE DESIGN INTENT, NOT ALL POSSIBLE CONDITIONS. DRAWINGS ARE NOT TO BE CONSIDERED FABRICATION DRAWINGS. 2 IF THE CONTRACTOR ELECTS TO PROVIDE EQUIPMENT OTHER THAN BASIS OF DESIGN, THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE THE LAYOUT AND CLEARANCE REQUIREMENTS IN ALL SPACES CONTAINING EQUIPMENT AND PROVIDE EQUIPMENT MEETING THE SPECIFICATIONS AND ACHIEVING CODE REQUIRED CLEARANCES WITHIN THE SPACE PROVIDED. CONTRACTOR IS REQUIRED TO COVER ALL ELECTRICAL COSTS FOR OTHER THAN BASIS OF DESIGN PRODUCTS SUCH AS DIFFERENT VOLTAGE OR DIFFERENT SIZE MOTOR. 3 COORDINATE ALL NEW CONSTRUCTION WORK OR ACTIVITY WITH THAT WHICH IS REQUIRED BY OTHER TRADES OR INSTALLERS IN ORDER TO PROVIDE A COMPLETE SYSTEM INCLUDING ALL NECESSARY COMPONENTS, FITTINGS, AND OFFSETS. 4 INSTALLER SHALL VERIFY ALL EXISTING JOBSITE CONDITIONS AND DIMENSIONS AND BE RESPONSIBLE FOR THE SAME. NOTIFY THE ENGINEER OF DISCREPANCIES PRIOR TO COMMENCING WORK. 5 FIRE SEAL ALL PENETRATIONS, SUCH AS PIPES, DUCTS, CONDUIT, ETC. THROUGH FIRE AND/OR SMOKE RATED ASSEMBLIES. 6 MECHANICAL INSTALLER IS RESPONSIBLE FOR PATCHING OF WALLS, CEILINGS, AND FLOORS WHERE FIXTURES, MECHANICAL EQUIPMENT, SHEET METAL, OR PIPING HAS BEEN REMOVED, RELOCATED, OR INSTALLED. 7 ALL PIPING AND DUCTWORK SHALL AVOID LOCATIONS DIRECTLY ABOVE ALL ELECTRICAL EQUIPMENT. COORDINATE WITH ELECTRICAL. 8 ALL LOW VOLTAGE CABLING SHALL BE RUN IN CONDUIT BETWEEN DEVICE AND CABLE TRAY OR TECHNOLOGY RACK. NO CABLING SHALL BE VISIBLE IN EXPOSED CEILING SPACES AND SHALL BE ROUTED IN CONDUIT THAT IS PAINTED TO MATCH SURFACE. IT IS SUPPORTED FROM. CABLING THAT IS ROUTED ABOVE AN ACCESSIBLE CEILING SPACE CAN BE INDEPENDENTLY SUPPORTED WITH COMM HOOKS OR RINGS. 9 COORDINATE ALL TEMPERATURE SENSOR LOCATIONS WITH ELECTRICAL DEVICES ALIGNMENT GUIDELINES' DETAIL ON SHEET G 001. 10 WHERE SPACE PERMITS, ALL HYDRONIC BRANCH PIPING SHALL TAP OFF OF BOTTOM OR SIDE OF PIPING MAINS PER BRANCH PIPING TAKE-OFF PIPING DETAIL THIS SHEET. MANUAL AIR VENTS SHALL BE INSTALLED AT THE TOP OF ALL HYDRONIC SYSTEMS. 11 ALL EXISTING CLOSED SYSTEMS SHALL BE ISOLATED AND FLUSHED/CLEANED PRIOR TO CONNECTION TO NEW SYSTEMS. 12 ALL BRANCH PIPING SHALL BE FURNISHED WITH SHUT-OFF VALVES IN AN ACCESSIBLE LOCATION NEAR MAIN CONNECTION.
<b>CONTROL SYMBOLS</b>		<b>GENERAL NOTES - MECHANICAL - DEMOLITION</b>
—CV— CONTROL VALVE —FM— FLOW METER (PROBE TYPE) —TRV— THREE-WAY CONTROL VALVE —F— FREEZE STAT —M— MOTORIZED ACTUATOR —HS— HUMIDITY SENSOR —TS— TEMPERATURE SENSOR —CO2— CARBON DIOXIDE SENSOR —DP— DIFFERENTIAL PRESSURE SENSOR —AS— AIRFLOW SENSOR —MS— MOISTURE SENSOR —DS— DUCT SMOKE SENSOR	—LIQ— REFRIGERANT LINE (LIQUID) —SUCTION— REFRIGERANT LINE (SUCTION) —SAN— SANITARY SEWER (ABOVE FLOOR) —SAN— SANITARY SEWER (BELOW FLOOR) —SHV— SHUT-OFF VALVE —SD— SMOKE DAMPER —SCW— SOFT COLD WATER —SHW— SOFT HOT WATER —SHWR— SOFT HOT WATER RETURN —SCV— SPRING CHECK VALVE —STM (#)— STEAM —ST— STEAM TRAP —ST— STORM SEWER (ABOVE FLOOR) —ST (OP)— STORM SEWER (OVERFLOW SYSTEM) —ST— STORM (BELOW FLOOR) —STR— STRAINER —SMR— SNOWMELT RETURN —SMS— SNOWMELT SUPPLY —TS— TEMPERATURE SENSOR —TW— TEPID WATER —TWR— TEPID WATER RETURN —THERM— THERMOMETER —THERM— THERMOSTAT —TRV— THREE-WAY CONTROL VALVE —TRV— THROTTLING VALVE —TRV— TRIPLE DUTY VALVE (ANGLE) —TRV— TRIPLE DUTY VALVE (STRAIGHT) —UNION— UNION —VAC— VACUUM —VB— VACUUM BREAKER —V— VENT	1 ALL DUCTWORK, PIPING AND EQUIPMENT SHOWN DASHED SHALL BE REMOVED. PROTECT EXISTING WORK WHICH IS TO REMAIN IN PLACE FOR REUSE WITH TEMPORARY COVERS, SHORING, BRACING AND SUPPORTS. VERIFY LOCATIONS OF AND PROTECT EXISTING INTERIOR ELECTRICAL AND MECHANICAL UTILITIES AND SERVICES EXCEPT WHERE INDICATED OTHERWISE. ALL MATERIALS AND EQUIPMENT REMOVED AND NOT REUSED SHALL BECOME PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE. THE OWNER RESERVES THE RIGHT TO KEEP, OR TO SALVAGE PARTS FROM, ANY EQUIPMENT PRIOR TO BEING REMOVED FROM SITE. ALL MATERIALS AND EQUIPMENT REQUIRING REMOVAL AND RELOCATION FOR REUSE SHALL BE CAREFULLY REMOVED AND STORED TO PREVENT DAMAGE AND REINSTALLED AS THE WORK PROGRESSES. 2 CONTRACTOR SHALL PROTECT ALL WALLS, CEILINGS, FLOORS, LIGHTS AND OTHER FINISHED SURFACES NOT BEING DEMOED. IF DAMAGED, THE CONTRACTOR SHALL REPAIR TO MATCH EXISTING CONDITIONS. 3 MODIFICATIONS TO THE ROOFING SYSTEM FOR DEMOLITION, OR INSTALLATION OF NEW EQUIPMENT, SHALL BE DONE IN A MANNER TO MAINTAIN OWNERS ROOFING WARRANTY. 4 FOR ALL EXISTING ROOF CURBS WHICH ARE NOT BEING REUSED AND ARE RECEIVING NEW ROOF CAPS, IF THE MAXIMUM DIMENSIONS OF THE CURB EXCEED 30" IN EITHER DIRECTION THEN PROVIDE AND INSTALL 1.1/2" x 1.1/2" x 1/4" SUPPORT ANGLES TO SPAN ACROSS TOP OF ROOF CURB OPENING BELOW ROOF CAP. SPACING BETWEEN ANGLES SHALL NOT EXCEED 24" ON CENTER. 5 PERFORM PRE-DEMOLITION TESTS. MEASURE AND RECORD VALUES INDICATED, SUBMIT REPORT TO THE ENGINEER. ALL MEASUREMENTS SHALL BE TAKEN WITH THE EQUIPMENT OPERATING AT FULL DESIGN CAPACITY. MEASURE AND RECORD GRILLE, REGISTER, OR DIFFUSER AIRFLOW AND NECK SIZE. MEASURE AND RECORD AIRFLOW, INLET STATIC PRESSURE, SUPPLY AIR TEMPERATURE, CFM, AND ENTHALPY OF ASSOCIATED TERMINAL UNIT. MEASURE AND RECORD OA AND SA CFM OF THE ASSOCIATED AIR HANDLING UNIT. MEASURE AND RECORD SPACE AND OUTDOOR TEMPERATURE AND HUMIDITY.



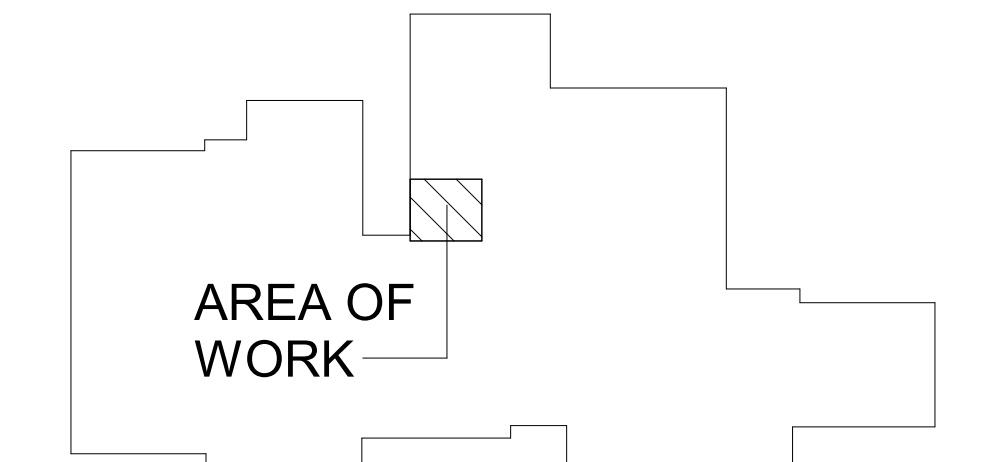
 **FOUNDATION PLUMBING DEMOLITION PLAN**  
1/4" = 1'-0"

**KEYED NOTES - PLUMBING - DEMO**

- 1 CUT EXISTING SANITARY PIPING AND PREPARE FOR NEW SANITARY TIE-IN.
- 2 PREPARE EXISTING PIPING FOR CONNECTION TO NEW BRANCH. REFER TO NEW CONSTRUCTION PLANS.

THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEARS IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING

**PORTAGE WEST MIDDLE SCHOOL**



 **KEY PLAN**  
SCALE: NONE

ISSUED FOR \_\_\_\_\_ DATE \_\_\_\_\_

PROJECT TITLE  
**WEST MIDDLE SCHOOL SERVERY  
REMODEL**

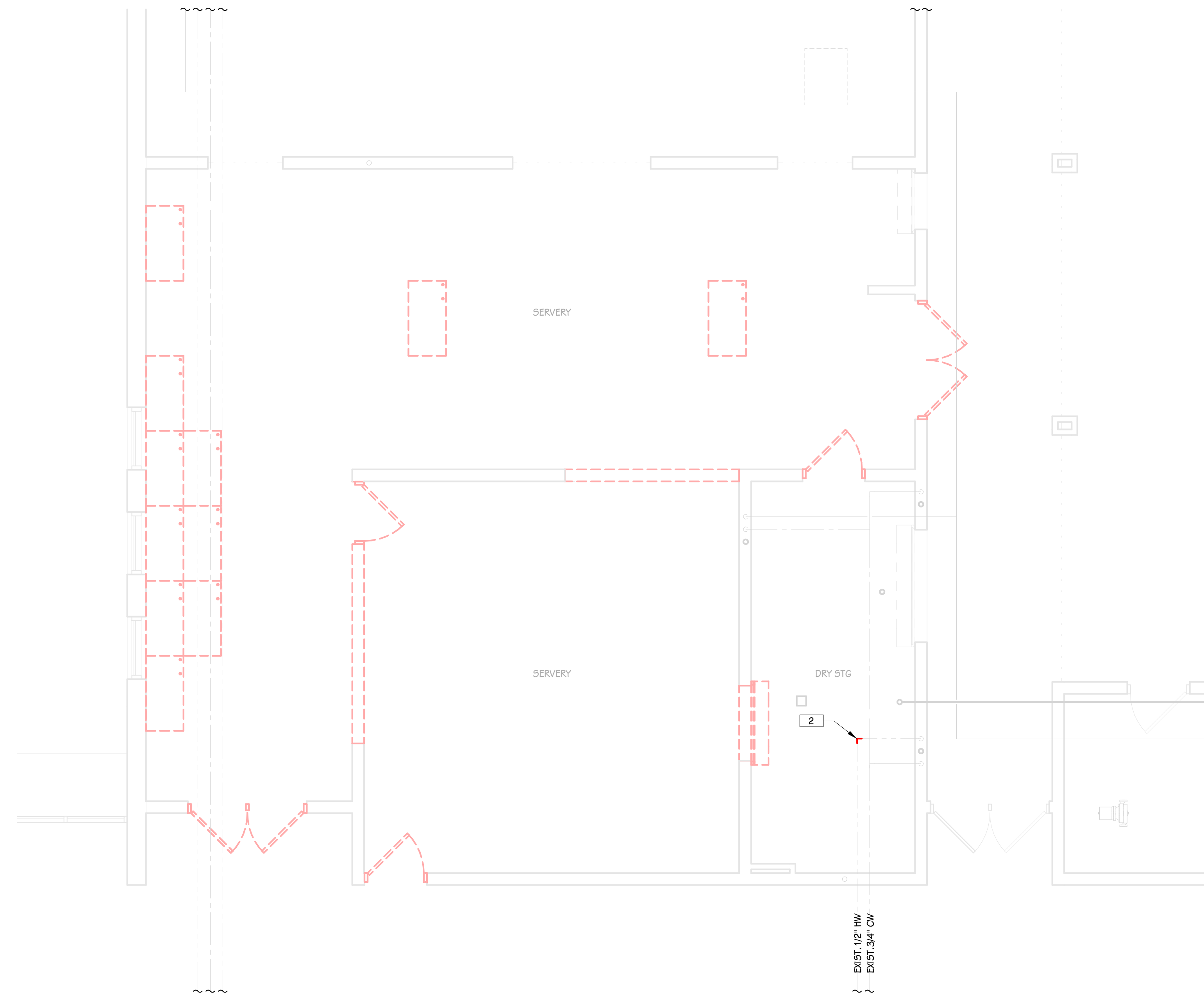
OWNER  
**PORTAGE PUBLIC SCHOOLS**

Portage, Michigan

SHEET TITLE  
**FOUNDATION PLUMBING DEMOLITION  
PLAN**

DATE  
**JANUARY 16, 2024**

SHEET NUMBER  
**PD 001**  
23-186.00



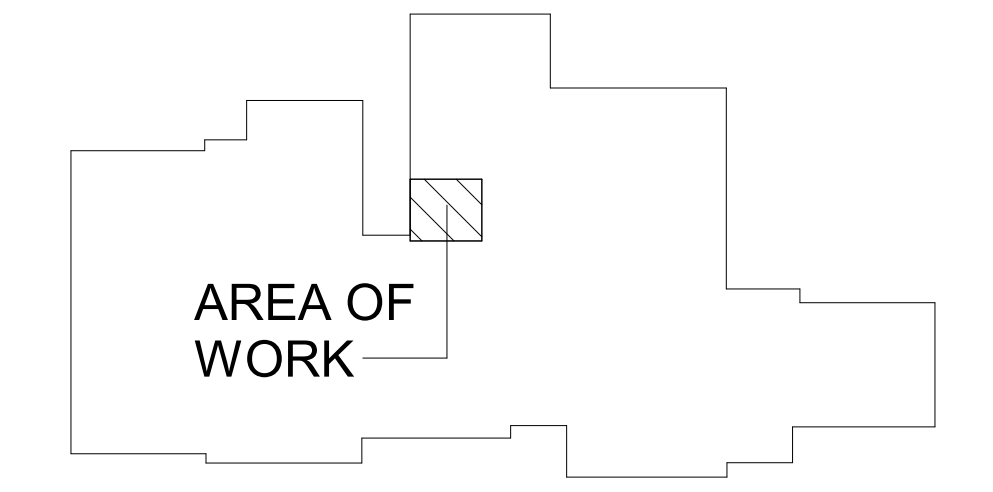
**FIRST FLOOR PLUMBING DEMOLITION PLAN**  
 1/4" = 1'-0"

**KEYED NOTES - PLUMBING - DEMO**

- 1 CUT EXISTING SANITARY PIPING AND PREPARE FOR NEW SANITARY TIE-IN.
- 2 PREPARE EXISTING PIPING FOR CONNECTION TO NEW BRANCH. REFER TO NEW CONSTRUCTION PLANS.

THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEARS IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING

**PORTAGE WEST MIDDLE SCHOOL**



**KEY PLAN**  
 SCALE: NONE

ISSUED FOR: \_\_\_\_\_ DATE: \_\_\_\_\_

PROJECT TITLE  
 WEST MIDDLE SCHOOL SERVERY  
 REMODEL

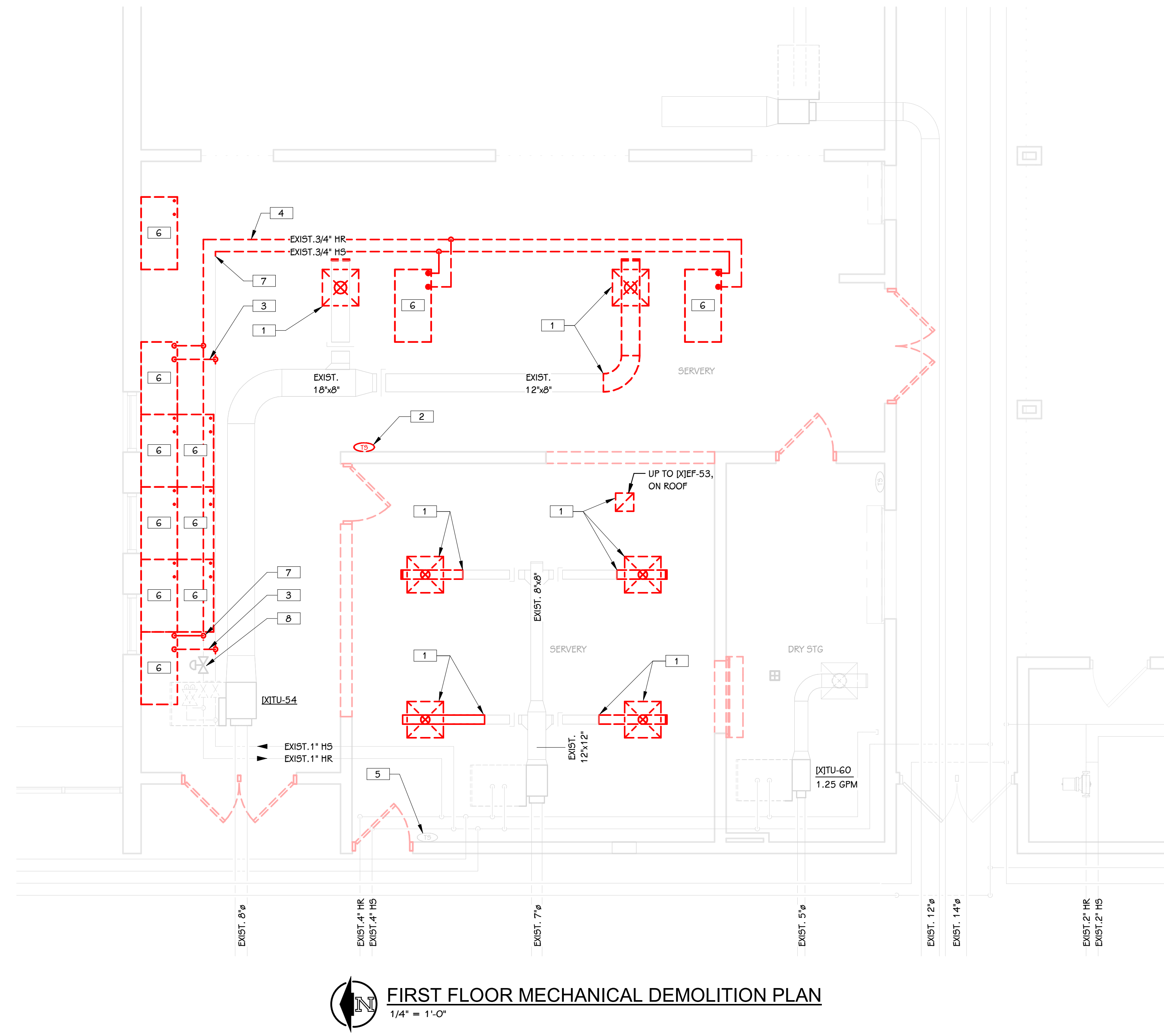
OWNER  
 PORTAGE PUBLIC SCHOOLS

Portage, Michigan

SHEET TITLE  
 PLUMBING FIRST FLOOR DEMOLITION  
 PLAN

DATE  
 JANUARY 16, 2024

SHEET NUMBER  
**PD 101**  
 23-186.00



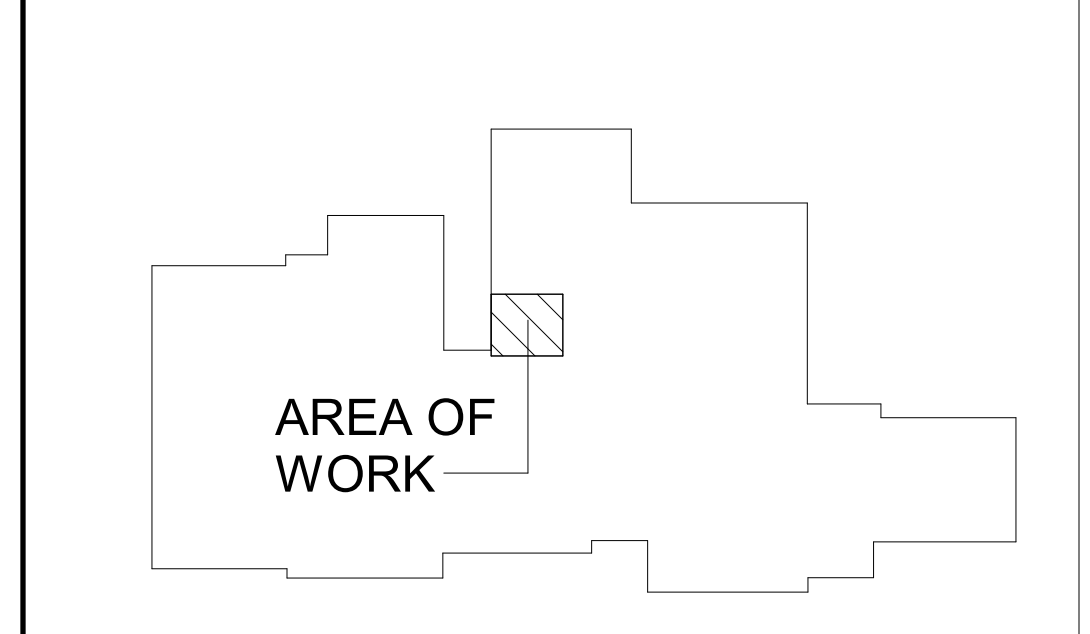
**FIRST FLOOR MECHANICAL DEMOLITION PLAN**  
 1/4" = 1'-0"

**KEYED NOTES - MECHANICAL - DEMOLITION**

- 1 DEMO EXISTING AIR TERMINAL. DEMO EXISTING DUCTWORK AS NECESSARY TO FACILITATE CONNECTION TO NEW AIR TERMINAL IN NEW CEILING.
- 2 EXISTING TEMPERATURE SENSOR TO BE DEMOED AND REINSTALLED IN NEW LOCATION. PATCH WALL TO MATCH.
- 3 DEMO EXISTING PIPING BRANCH BACK TO MAIN.
- 4 DEMO HEATING WATER SUPPLY AND RETURN PIPING AS INDICATED. PREPARE HEATING WATER RETURN PIPING FOR CONNECTION TO NEW BRANCH.
- 5 EXISTING TEMPERATURE SENSOR TO REMAIN.
- 6 DEMO EXISTING RADIANT CEILING PANELS. DEMO PIPING NOT BEING REUSED. PREPARE FOR NEW CONNECTIONS.
- 7 PREPARE PIPING FOR CONNECTION TO NEW PIPING BRANCH. REFER TO NEW CONSTRUCTION PLANS.
- 8 EXISTING CONTROL VALVE, BALANCE VALVES, AND OTHER ACCESSORIES SERVING EXISTING RADIANT CEILING PANELS TO REMAIN AND BE REUSED.

THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEARS IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING

**PORTAGE WEST MIDDLE SCHOOL**



**KEY PLAN**  
 SCALE: NONE

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ISSUED FOR: \_\_\_\_\_ DATE: \_\_\_\_\_

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PROJECT TITLE: WEST MIDDLE SCHOOL SERVERY REMODEL

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OWNER: PORTAGE PUBLIC SCHOOLS

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DATE: JANUARY 16, 2024

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SHEET NUMBER: MD 101  
 23-186.00

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OWNER: PORTAGE PUBLIC SCHOOLS

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DATE: JANUARY 16, 2024

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SHEET NUMBER: MD 101  
 23-186.00

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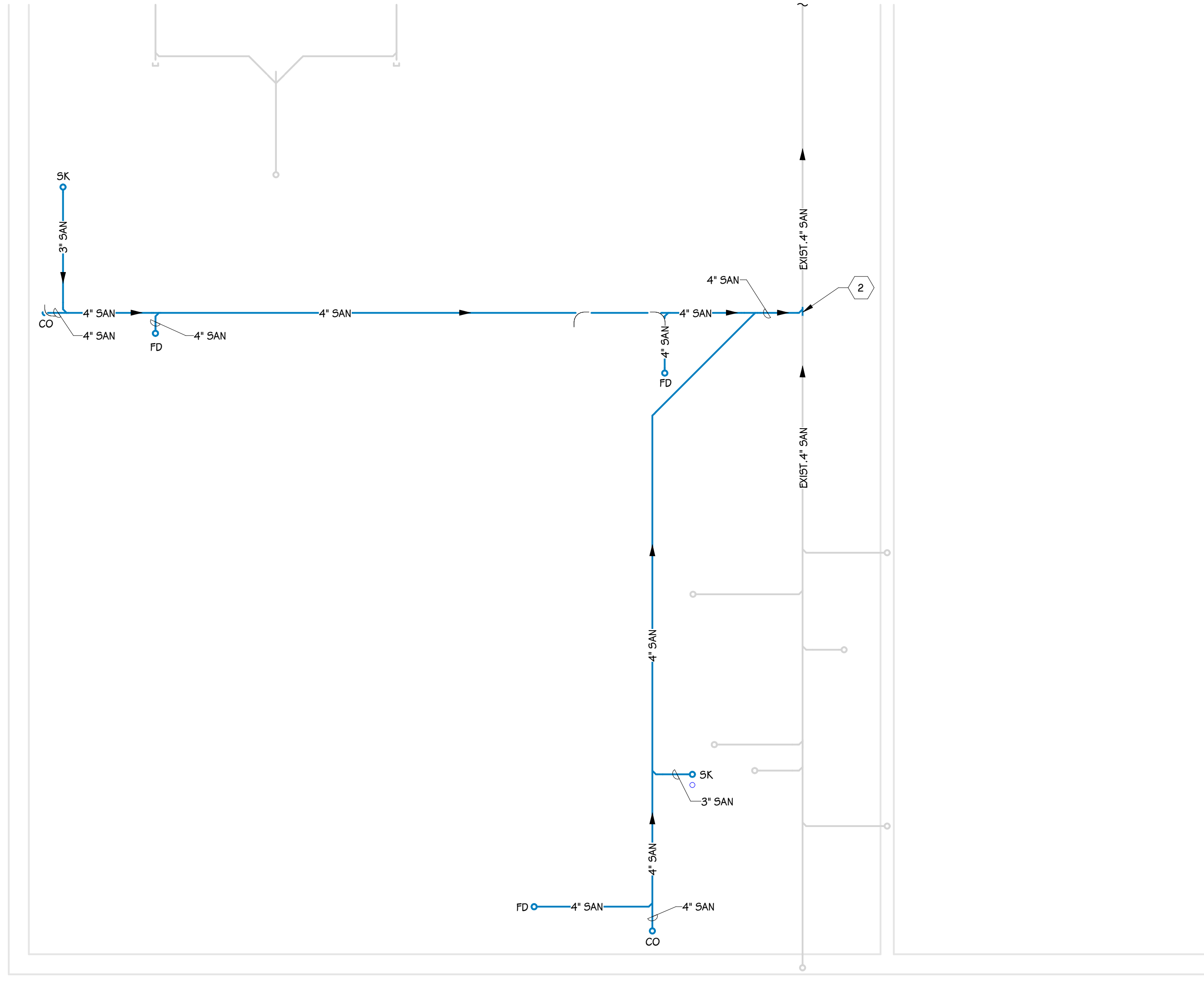
OWNER: PORTAGE PUBLIC SCHOOLS

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DATE: JANUARY 16, 2024

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SHEET NUMBER: MD 101  
 23-186.00

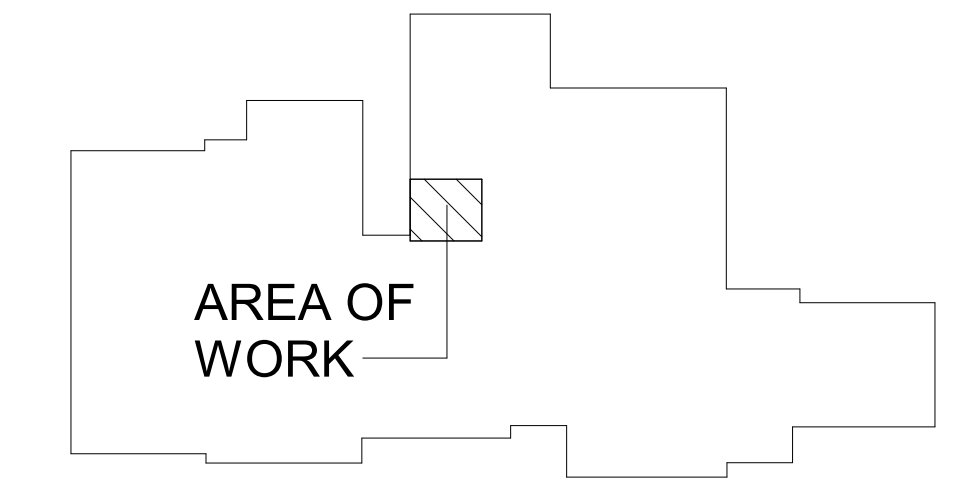


**FOUNDATION PLUMBING PLAN**  
 1/4" = 1'-0"

**KEYED NOTES - PLUMBING - DOMESTIC**

- 1 LAV; 1/2" H/W, 1-1/2" SAN DN, 1-1/4" VENT UP.
- 2 CONNECT TO EXISTING.
- 3 3" SAN DN, 3" UP.

THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEARS IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING



**KEY PLAN**  
 SCALE: NONE

SHEET TITLE  
**FOUNDATION PLUMBING PLAN**

OWNER  
**PORTAGE PUBLIC SCHOOLS**

PROJECT TITLE  
**WEST MIDDLE SCHOOL SERVRY  
 REMODEL**

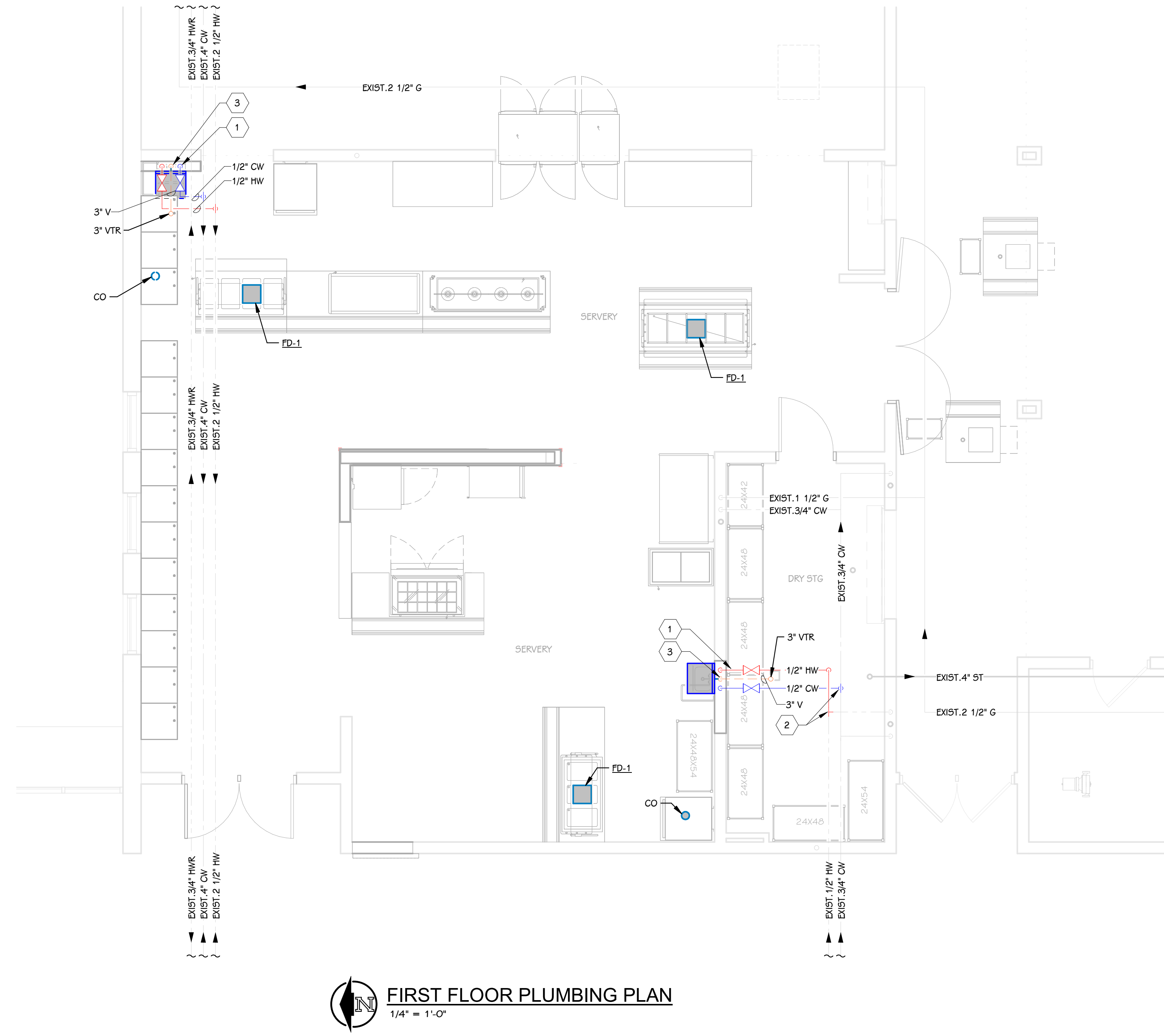
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SHEET NUMBER  
**P 001**  
 23-186.00

DATE  
**JANUARY 16, 2024**

Portage, Michigan





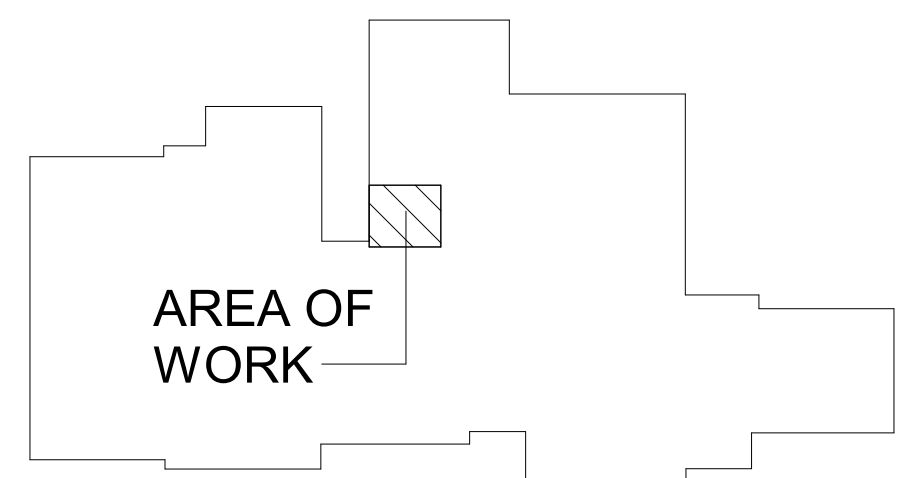
**FIRST FLOOR PLUMBING PLAN**  
1/4" = 1'-0"

**KEYED NOTES - PLUMBING - DOMESTIC**

- 1 LAV; 1/2" HCW, 1-1/2" SAN DN, 1-1/4" VENT UP.
- 2 CONNECT TO EXISTING.
- 3 3" SAN DN, 3" UP.

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**PORTAGE WEST MIDDLE SCHOOL**



**KEY PLAN**  
SCALE: NONE

SHEET TITLE  
**FIRST FLOOR PLUMBING PLAN**

OWNER  
**PORTAGE PUBLIC SCHOOLS**

PROJECT TITLE  
**WEST MIDDLE SCHOOL SERVERY  
REMODEL**

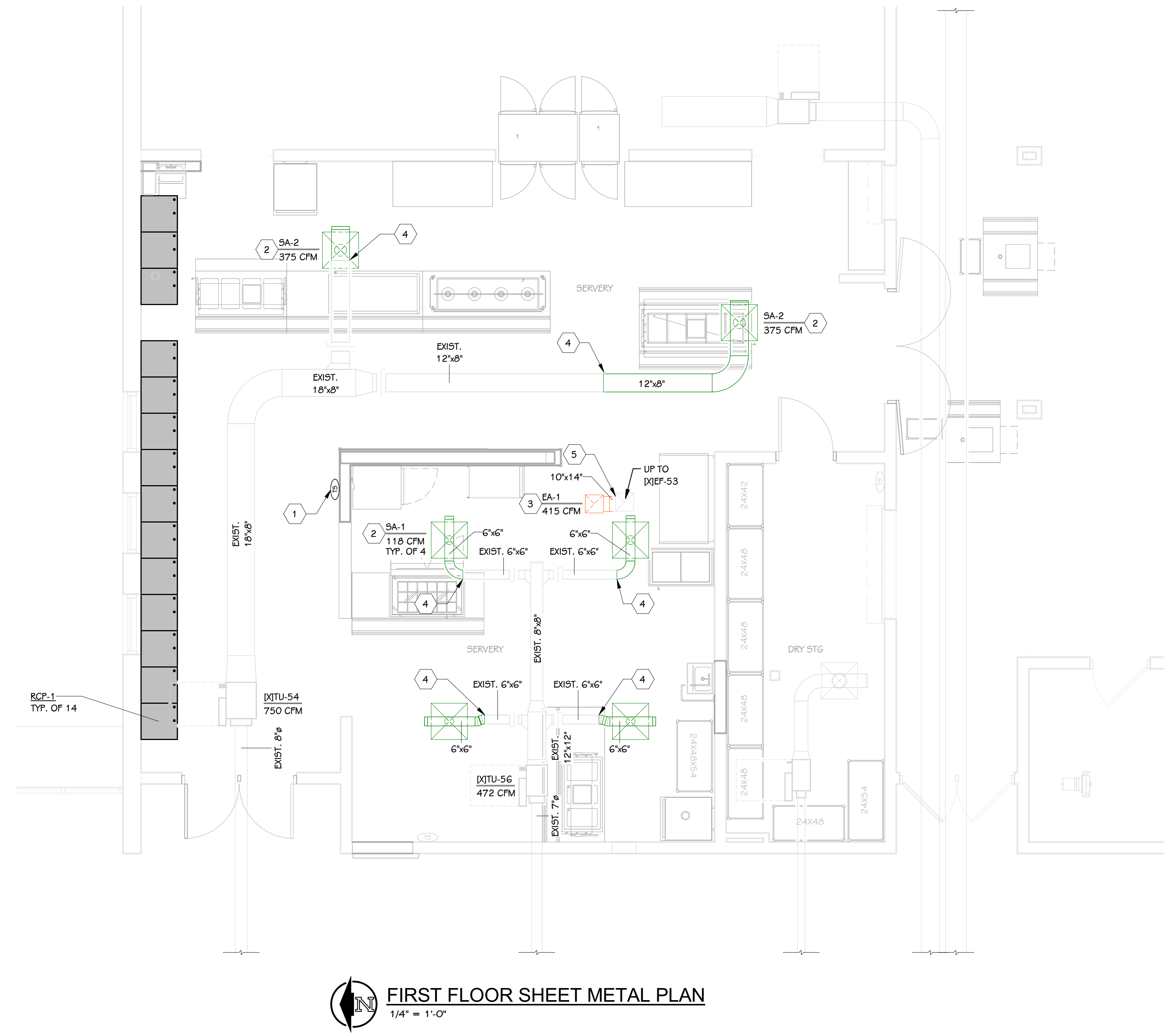
ISSUED FOR

SHEET NUMBER  
**P 101**  
23-186.00

DATE  
**JANUARY 16, 2024**

Portage, Michigan

DATE



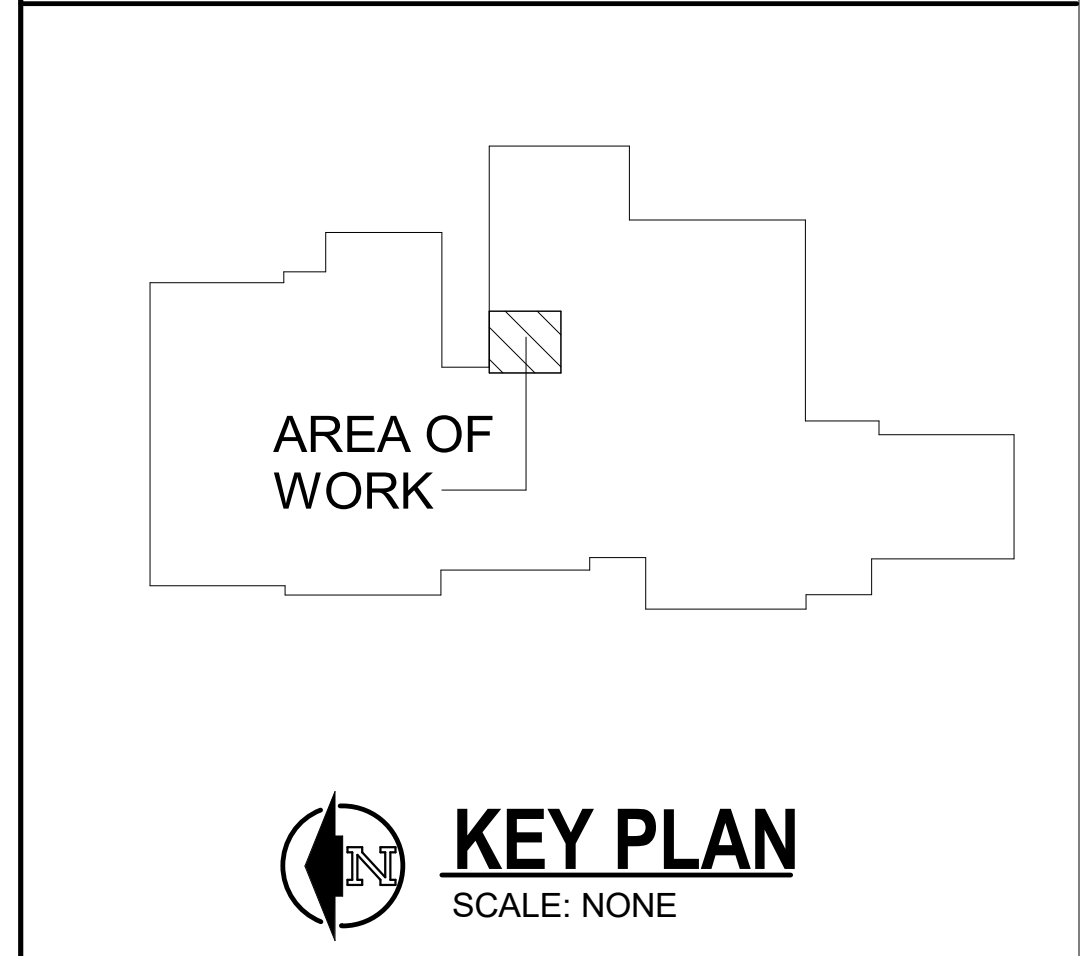
**FIRST FLOOR SHEET METAL PLAN**  
1/4" = 1'-0"

**KEYED NOTES - MECHANICAL - SHEET METAL**

- 1 RELOCATED TEMPERATURE SENSOR.
- 2 CONNECT NEW SUPPLY AIR DIFFUSERS TO EXISTING DUCTWORK. COORDINATE PLACEMENT OF NEW DIFFUSERS IN CEILING GRID - REFER TO REFLECTED CEILING PLANS.
- 3 CONNECT NEW RETURN AIR GRILLE TO EXISTING DUCTWORK. COORDINATE PLACEMENT OF NEW DIFFUSERS IN CEILING GRID - REFER TO REFLECTED CEILING PLANS.
- 4 EXTEND DUCTWORK TO NEW DIFFUSER.
- 5 EXTEND DUCTWORK TO NEW AIR TERMINAL.

THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEARS IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING

**PORTAGE WEST MIDDLE SCHOOL**



**KEY PLAN**  
SCALE: NONE

ISSUED FOR: \_\_\_\_\_ DATE: \_\_\_\_\_

PROJECT TITLE  
**WEST MIDDLE SCHOOL SERVORY  
REMODEL**

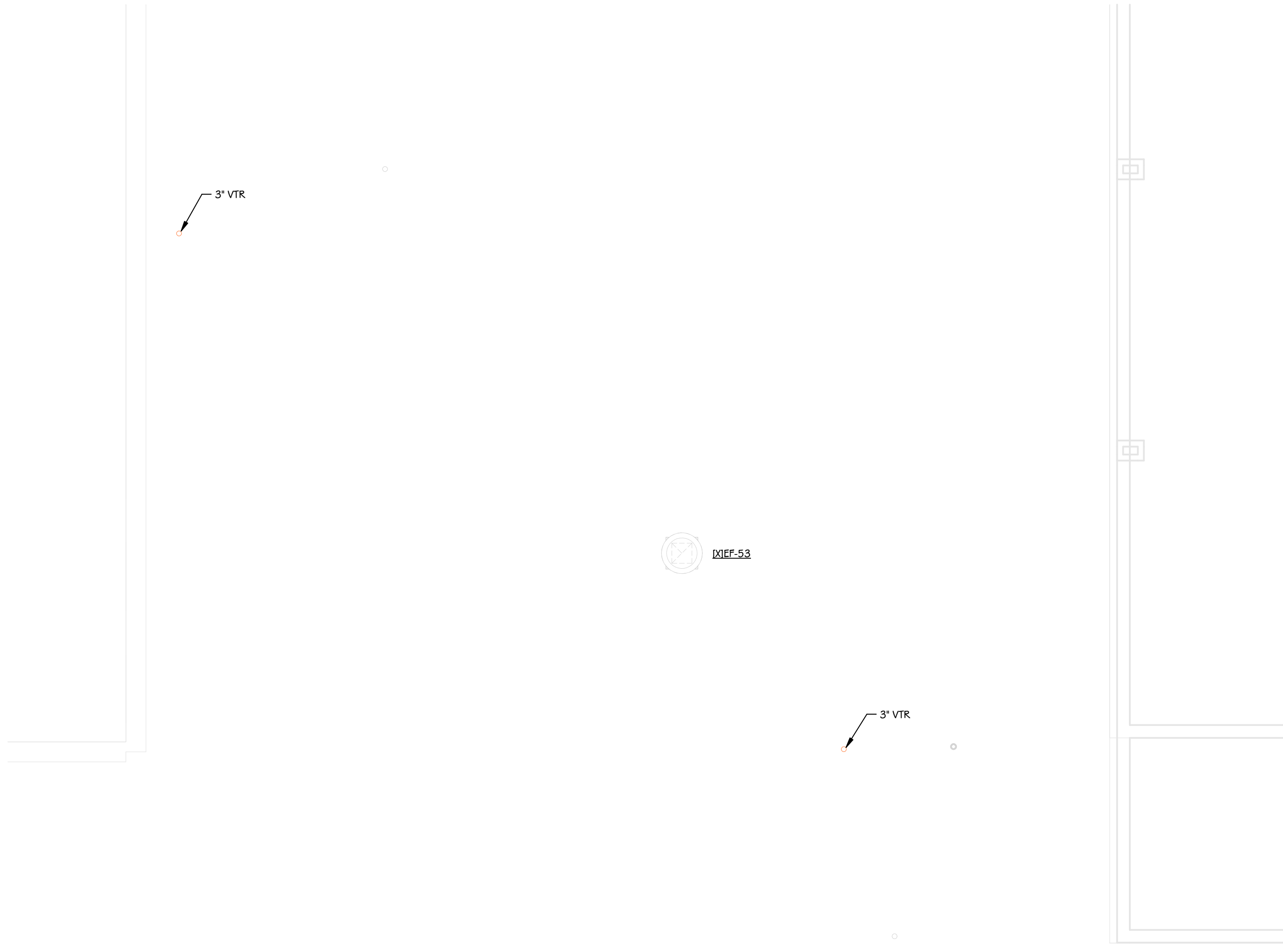
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Portage, Michigan

SHEET TITLE  
**FIRST FLOOR SHEET METAL PLAN**

DATE  
**JANUARY 16, 2024**

SHEET NUMBER  
**M 101**  
23-186.00

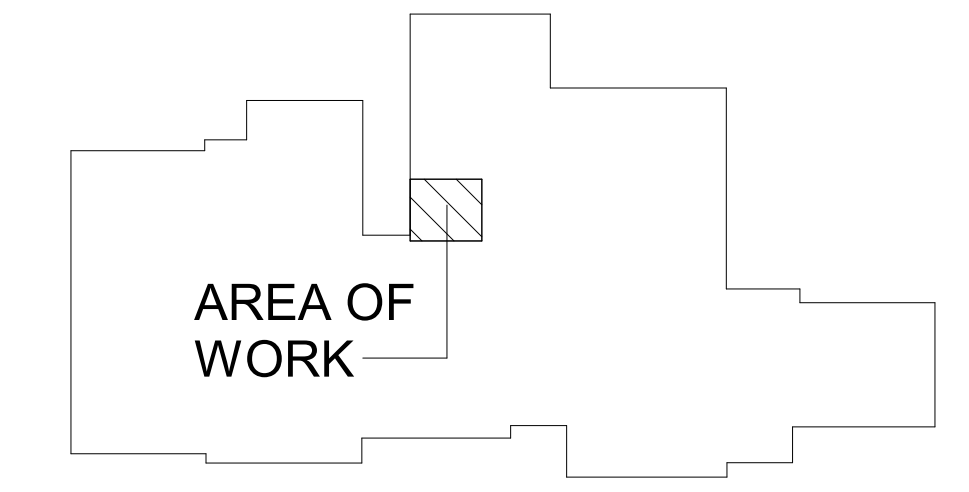


MEF-53

**ROOF MECHANICAL PLAN**  
1/4" = 1'-0"

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**PORTAGE WEST MIDDLE SCHOOL**



**KEY PLAN**  
SCALE: NONE

ISSUED FOR DATE

PROJECT TITLE  
WEST MIDDLE SCHOOL SERVERY  
REMODEL

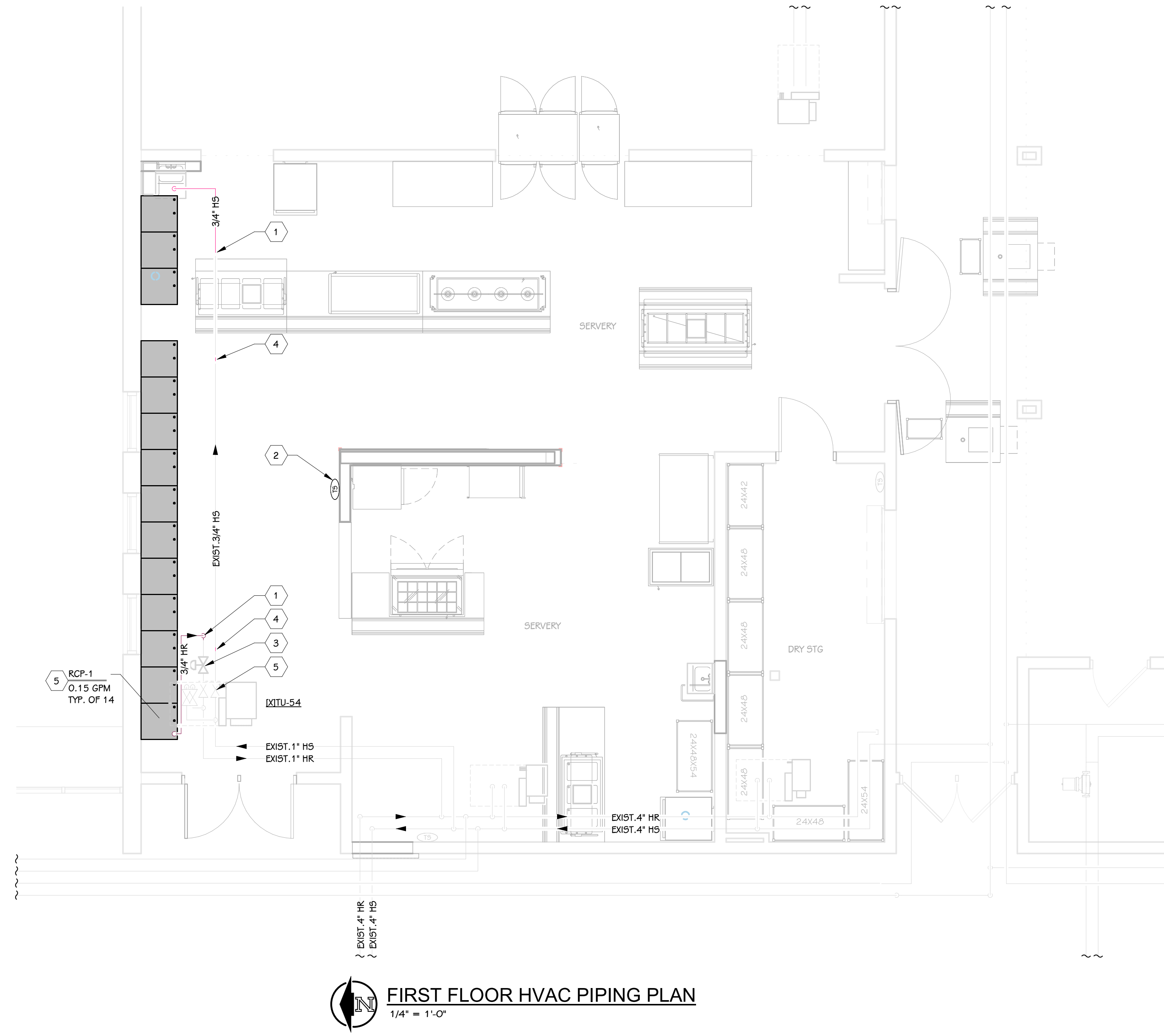
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Portage, Michigan

SHEET TITLE  
ROOF MECHANICAL PLAN

DATE  
JANUARY 16, 2024

SHEET NUMBER  
**M 150**  
23-186.00



**KEYED NOTES - MECHANICAL - HVAC PIPING**

- 1 EXTEND HEATING WATER PIPING TO NEW HEATING WATER PIPING TO NEW RADIANT CEILING PANELS. REFER TO DETAIL.
- 2 RELOCATED TEMPERATURE SENSOR.
- 3 REINSTALL EXISTING CONTROL VALVE SERVING RADIANT CEILING PANELS.
- 4 RECONNECT EXISTING PIPING.
- 5 RADIANT CEILING PANELS TO EXTEND ENTIRE LENGTH OF EXTERIOR WALL. PROVIDE FILLER PANELS FOR UNUSED PORTIONS OF CEILING GRIDS TO COORDINATE WITH EQUIPMENT MANUFACTURER AND ALL TRADES.

ISSUED FOR \_\_\_\_\_ DATE \_\_\_\_\_

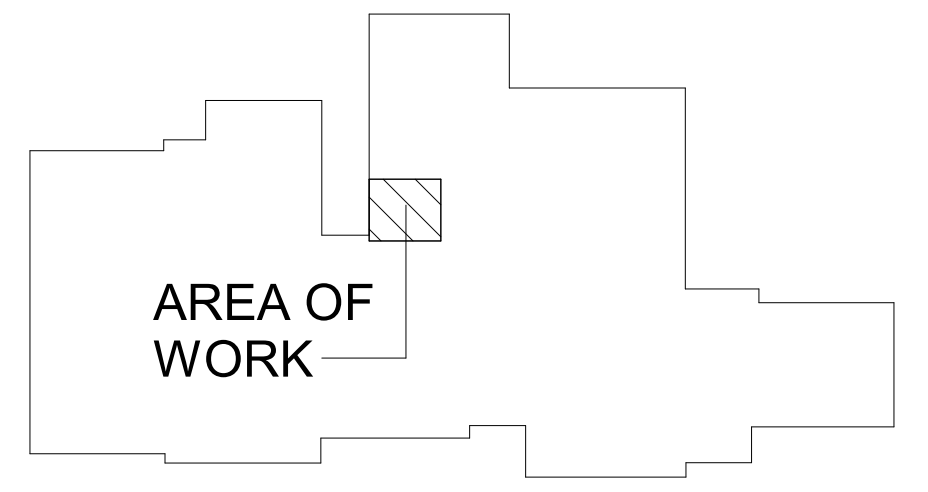
PROJECT TITLE  
WEST MIDDLE SCHOOL SERVERY  
REMODEL

OWNER  
PORTAGE PUBLIC SCHOOLS

Portage, Michigan

THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEARS IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING

**PORTAGE WEST MIDDLE SCHOOL**



**KEY PLAN**  
SCALE: NONE

SHEET TITLE  
FIRST FLOOR HVAC PIPING PLAN

DATE  
JANUARY 16, 2024

SHEET NUMBER  
**M 201**  
23-186.00

**GRILLES, REGISTERS, & DIFFUSERS**

**BASED ON PRICE**

MARK	PANEL SIZE	FACE SIZE	NECK SIZE	MODEL	CFM RANGE	VCD	THROW	MATERIAL	FINISH	INSTALLATION	REMARKS
SA-1	24x24	-	6" Ø	ASDA	120-200	NO	-	ALUMINUM	WHITE	LAY-IN	
SA-2	24x24	-	8" Ø	ASDA	175-315	NO	-	ALUMINUM	WHITE	LAY-IN	
EA-1	12x12	-	12x12	80	0-500	NO	-	ALUMINUM	WHITE	SURFACE	

**RADIANT CEILING PANEL - HOT WATER**

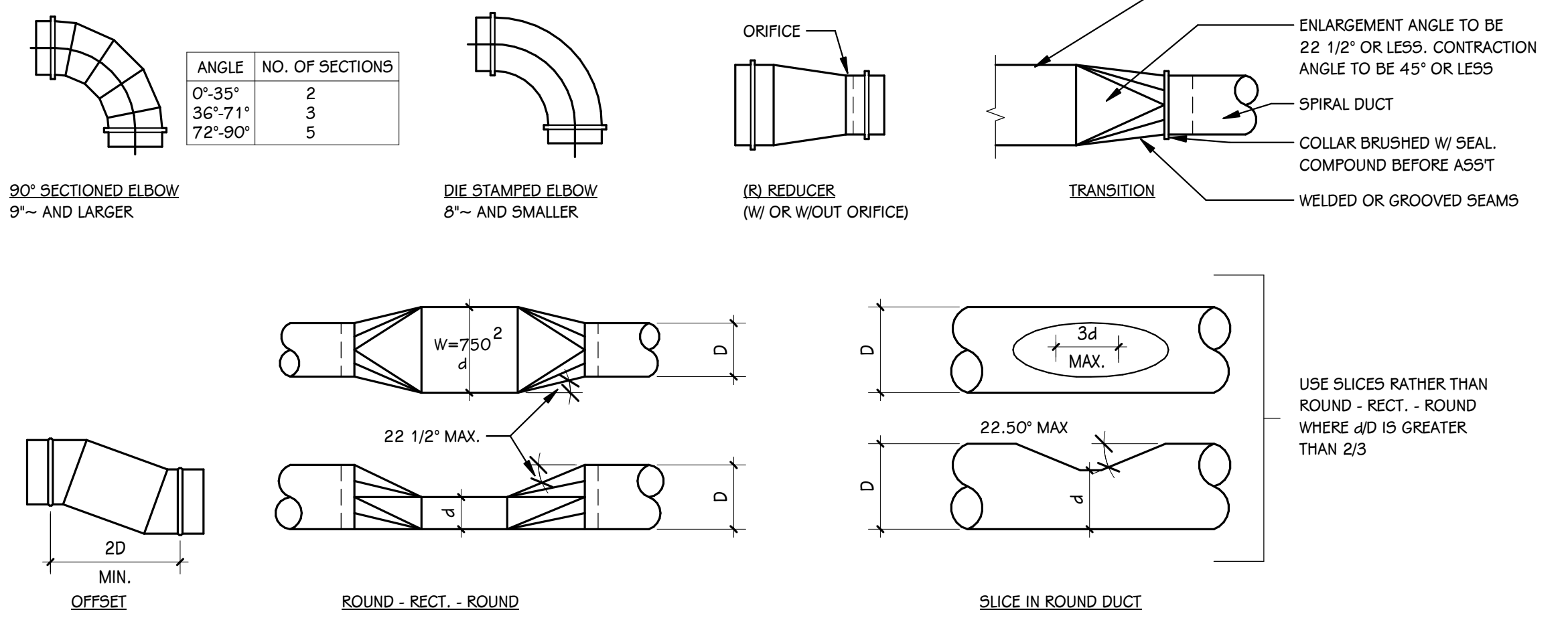
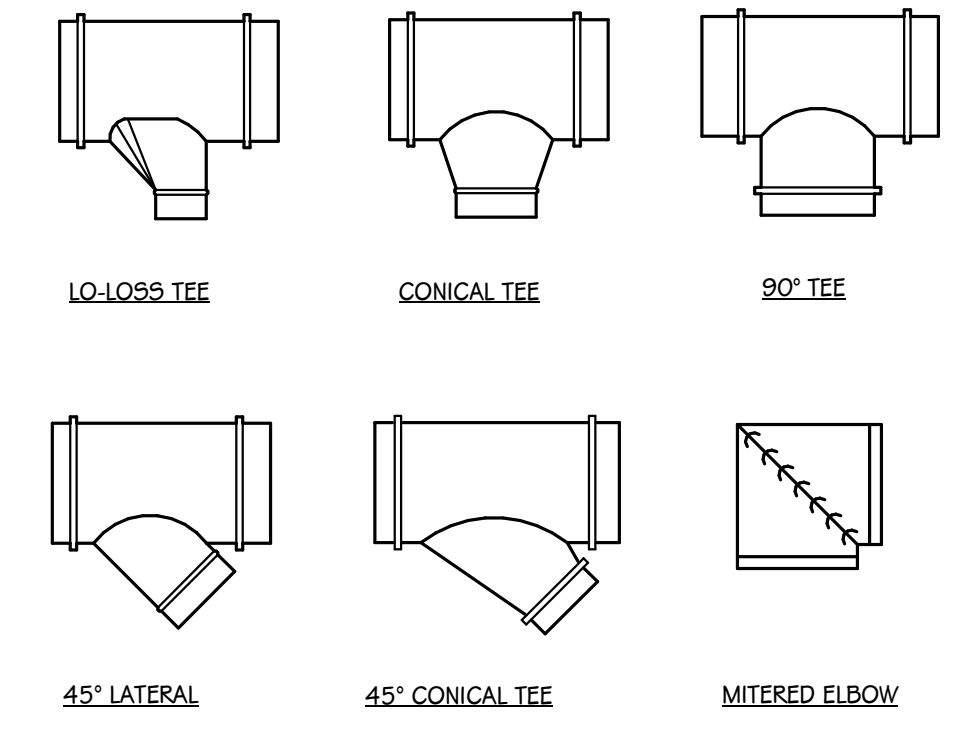
**BASED ON AERO-TECH**

MARK	MODEL	WIDTH	LENGTH	GPM	BTU/SQ FT	EWT	TYPE	PANEL SURFACE	REMARKS
RCP-1	RLFM	24"	2' - 0"	0.15	190	180	LAY-IN	WHITE	
RCP-1	RLFM	24"	2' - 0"	0.15	190	180	LAY-IN	WHITE	
RCP-1	RLFM	24"	2' - 0"	0.15	190	180	LAY-IN	WHITE	
RCP-1	RLFM	24"	2' - 0"	0.15	190	180	LAY-IN	WHITE	
RCP-1	RLFM	24"	2' - 0"	0.15	190	180	LAY-IN	WHITE	
RCP-1	RLFM	24"	2' - 0"	0.15	190	180	LAY-IN	WHITE	
RCP-1	RLFM	24"	2' - 0"	0.15	190	180	LAY-IN	WHITE	
RCP-1	RLFM	24"	2' - 0"	0.15	190	180	LAY-IN	WHITE	
RCP-1	RLFM	24"	2' - 0"	0.15	190	180	LAY-IN	WHITE	
RCP-1	RLFM	24"	2' - 0"	0.15	190	180	LAY-IN	WHITE	
RCP-1	RLFM	24"	2' - 0"	0.15	190	180	LAY-IN	WHITE	
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RCP-1	RLFM	24"	2' - 0"	0.15	190	180	LAY-IN	WHITE	
RCP-1	RLFM	24"	2' - 0"	0.15	190	180	LAY-IN	WHITE	
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RCP-1	RLFM	24"	2' - 0"	0.15	190	180	LAY-IN	WHITE	
RCP-1	RLFM	24"	2' - 0"	0.15	190	180	LAY-IN	WHITE	

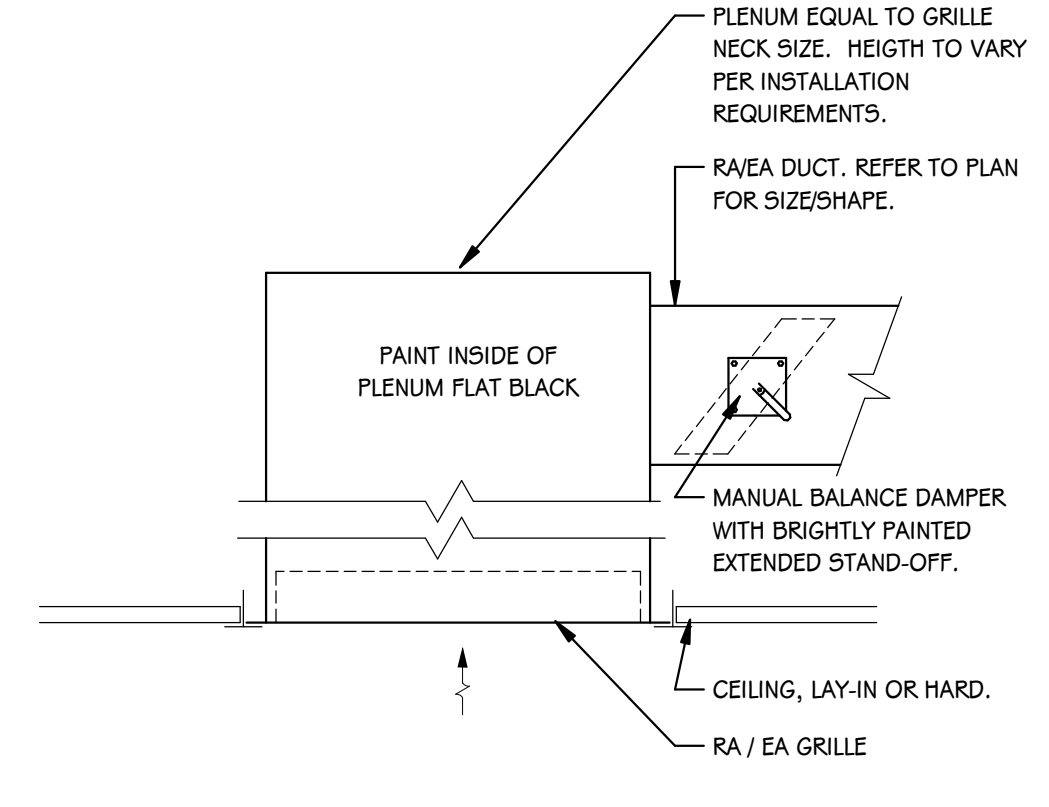
- NOTES:
1. BASED ON 180°F EWT, 160°F LWT, AND 70° F EAT.
  2. VERIFY ALL LENGTHS IN FIELD.
  3. PROVIDE MANUFACTURER FILLER PANELS TO EXTEND RADIANT CEILING PANELS WALL-TO-WALL.

**DUCTWORK GENERAL NOTES**

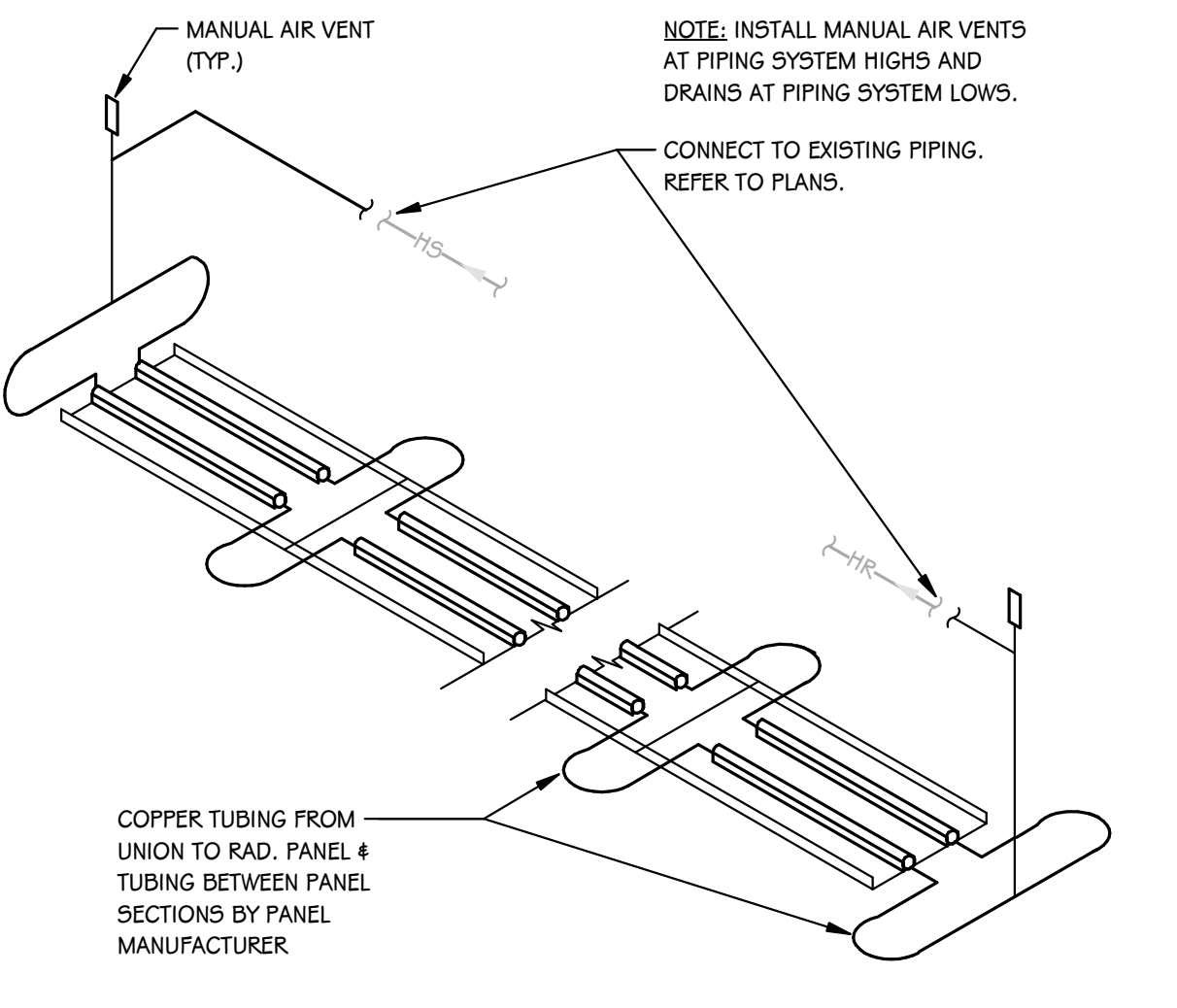
1. ALL JOINTS, CORNERS AND SEAMS TO BE FULLY SEALED WITH SMACNA APPROVED DUCTWORK SEALANT.
2. ALL DUCTWORK IS TO BE LEAK TESTED AT PRESSURES SPECIFIED.
3. ALL RADIUS ELBOWS SHALL HAVE MINIMUM 1.5 CENTERLINE RADIUS
4. USE MITERED ELBOW WITH TURNING VANES WHEN CENTERLINE RADIUS IS LESS THAN 1.5.



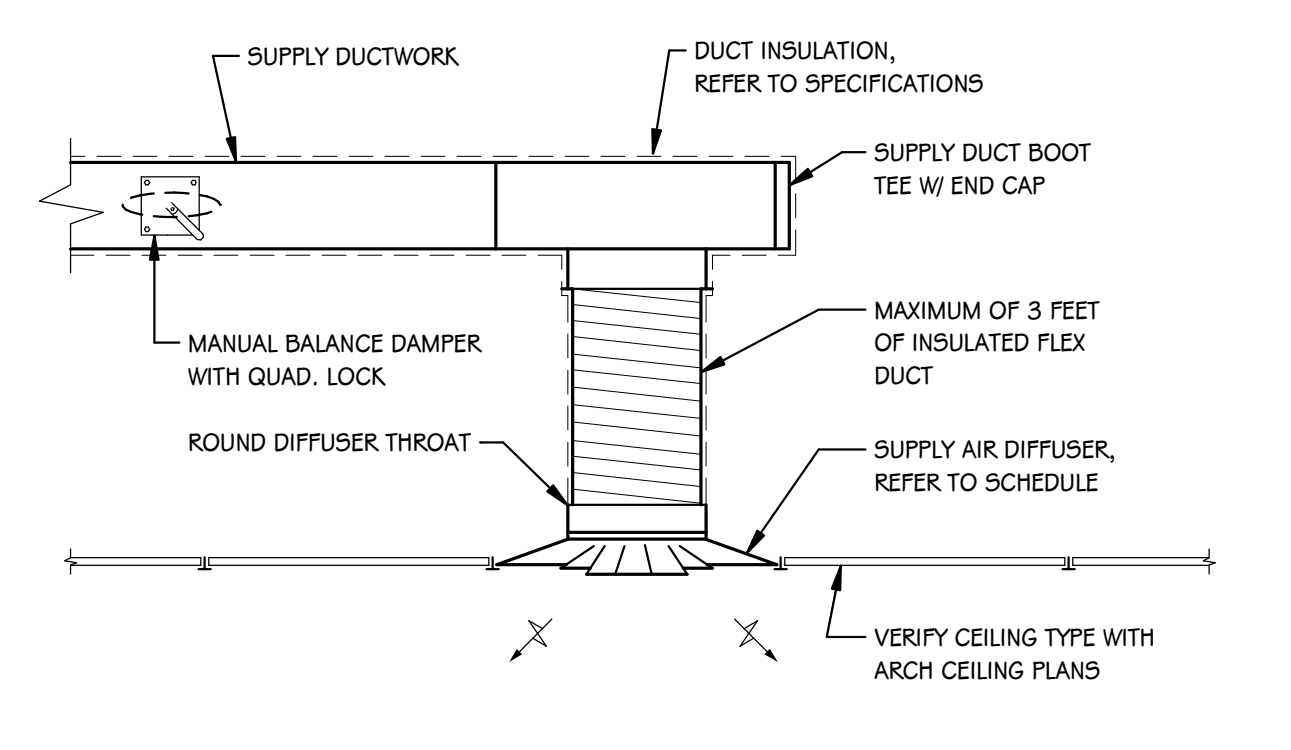
**DUCTWORK FITTING DETAILS - ROUND/OVAL**  
SCALE: NONE



**RETURN / EXHAUST AIR GRILLE PLENUM DETAIL**  
SCALE: NONE



**RADIANT CEILING PANEL PIPING DETAIL - LINEAR**  
SCALE: NONE



**CEILING MOUNTED SUPPLY DIFFUSER DETAIL - TYPICAL**  
SCALE: NONE

ISSUED FOR DATE

PROJECT TITLE  
WEST MIDDLE SCHOOL SERVERY  
REMODEL

OWNER  
PORTAGE PUBLIC SCHOOLS

SHEET TITLE  
MECHANICAL SCHEDULES AND DETAILS

Portage, Michigan

DATE  
JANUARY 16, 2024

SHEET NUMBER  
M 501  
23-186.00

STRUCTURED CABLING	MOUNTING HEIGHTS	LIGHTING SYMBOLS	MOUNTING HEIGHTS	POWER SYMBOLS	MOUNTING HEIGHTS	GENERAL NOTES - LIGHTING	
 DATAVOICE OUTLET  DATAVOICE OUTLET - SURFACE BACKSPASH  SECURITY CONTROLS PATHWAY  WIREFLESS ACCESS POINT  GROUNDING BUS BAR  CABLE TRAY  CLOCK  MASTER CLOCK PANEL  PAGING SYSTEM HEAD END  NETWORK COMMUNICATION RACK  4'X8'X3/4" FIRE-RATED PLYWOOD  CONDUIT SLEEVE	REFER TO TECHNOLOGY DRAWINGS, DETAILS AND PLANS FOR LOCATIONS AND ROUGH-IN DATA.	 S SINGLE POLE SWITCH 40'  SOS OCCUPANCY SENSOR (SET TO VACANCY MODE) - SWITCH MOUNTED 40'  OS OCCUPANCY SENSOR (SET TO VACANCY MODE) CEILING MOUNTED  L MTD. LIGHT FIXTURE  RF RECTANGULAR LIGHT FIXTURE  REL RECTANGULAR EMERGENCY LIGHT FIXTURE ON EMERGENCY POWER, SWITCHABLE  ES EXIT SIGN - CEILING MOUNTED  ESW EXIT SIGN - WALL MOUNTED		 PB PANELBOARD 72" TO TOP  DPB DISTRIBUTION PANELBOARD 72" TO TOP  EEC ELECTRICAL EQUIPMENT CONNECTION - REFER TO CONNECTION SCHEDULES FOR FEEDER SIZE, BREAKERS, DISCONNECT MEANS ETC.  CB CIRCUIT BREAKER  CB-ET CIRCUIT BREAKER - ELECTRONIC TRIP  TR TRANSFORMER		1 ALL OCCUPANCY SENSORS AND PHOTOCELLS MOUNTED IN THE SAME ROOM SHALL BE CONNECTED TOGETHER AND OPERATE AS ONE SYSTEM. DAYLIGHT HARVESTING SHALL BE SEIT CONTAINED WITHIN EACH ROOM AND SHALL BE FIELD ADJUSTED WITH ENGINEER. MANUFACTURER SHALL PROVIDE FLOOR PLANS DURING SHOP DRAWING PHASE SHOWING EXACT LOCATIONS AND QUANTITIES AS REQUIRED FOR A COMPLETE SYSTEM. 2 ALL OCCUPANCY SENSOR WIRING SHALL BE CONCEALED WITHIN CONDUIT WHERE EXPOSED. NO LOW VOLTAGE WIRING SHALL BE EXPOSED. 3 ALL CONDUITS SHALL RUN AS TIGHT TO DECK AS PERMITTED BY CODE. CONDUITS SHALL BE RUN IN A NEAT MANNER. MAINTAIN THE SAME SPACING WHEN CONDUITS ARE RUN TOGETHER. CONCEAL JUNCTION BOXES OVER LAY-IN CEILING AND USE EMT DROPS DOWN TO CLOUDS. LOCATE CONDUIT DROPS TO CLOUDS AND CEILING ELEMENTS IN LEAST VISIBLE LOCATION. NO MC-CABLE TO LIGHT FIXTURES SHALL BE VISIBLE FROM ANY ANGLE. 4 RECESS NEW DEVICES AND ASSOCIATED CONDUIT AND BACKBOX IN EXISTING WALL. CUT AND PATCH AS REQUIRED. 5 COORDINATE LIGHTING RUNS FOR LINEAR FIXTURES ALL TRADES. NO PIPES, DUCTS, CONDUIT, CABLE TRAY OR ANY OTHER SYSTEMS SHALL BE ROUTED UNDER LIGHTS.  <b>GENERAL NOTES - POWER</b> 1 ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING REQUIRED FOR NEW WORK OR WHERE DEVICES ARE REMOVED AND NOT REPLACED. 2 ELECTRICAL CONTRACTOR SHALL VERIFY VOLTAGE OF TRANSFORMER OR ANY MECHANICAL OR OTHER EQUIPMENT PRIOR TO ORDERING ELECTRICAL EQUIPMENT. FOR A PRIMARY TRANSFORMER, CONTRACTOR TEST AND CHECK EXISTING VOLTAGE OR GET LETTER FROM UTILITY STATING VOLTAGE AND CONFIGURATION OF INCOMING SERVICE PRIOR TO ORDERING EQUIPMENT. 3 ELECTRICAL CONTRACTOR SHALL COORDINATE WITH G-SERIES SHEETS DEVICE COORDINATION DETAIL. DEVICES ARE TO ALIGN VERTICALLY AND HORIZONTALLY AND FOLLOW THE RULES OF THIS DETAIL CONSISTENTLY. A PRE-INSTALL DEVICE COORDINATION MEETING FOR DEVICE FINISHES AND LAYOUT MAY BE REQUIRED IN THE SPECIFICATION FOR THIS PROJECT. 4 PATCH ALL PENETRATIONS AS REQUIRED TO MAINTAIN FIRE RATING. 5 REFER TO INTERIOR ELEVATIONS, SECTIONS, ARCHITECTURAL ELEVATIONS AND RELATED DRAWINGS FOR EXACT DEVICE LOCATIONS AND MOUNTING HEIGHTS. WHERE DEVICES ARE MOUNTED UNDER OR ABOVE TACK BOARDS, DOORS, WINDOWS, OR ANY PIECE OF EQUIPMENT, THE ELECTRICAL SHOP SHALL BE CENTERED AS SHOWN. COORDINATE LOCATION OF FURNITURE CONNECTIONS AND/OR RECEPTACLES AND DATA RACEWAYS WITH APPROVED FURNITURE SHOP DRAWINGS, FINAL CONNECTIONS TO FURNITURE BY ELECTRICAL CONTRACTOR. 6 ALL CONDUITS SHALL RUN AS NEAR TO DECK AS PERMITTED BY CODE. SOME CONDUITS WILL BE EXPOSED AND SHALL BE RUN IN A NEAT MANNER. MAINTAIN THE SAME SPACING WHEN CONDUITS ARE RUN TOGETHER. CONCEAL JUNCTION BOXES OVER LAY-IN CEILING AND USE EMT DROPS DOWN TO CLOUDS. LOCATE CONDUIT DROPS TO CLOUDS AND CEILING ELEMENTS IN LEAST VISIBLE LOCATION. 7 WHEN CEILINGS ARE REMOVED ELECTRICAL CONTRACTOR SHALL PROPERLY SUPPORT ALL CONDUIT AND LOW VOLTAGE WIRING AS REQUIRED PER NEC. 8 REMOVE CEILINGS AND GRID AS REQUIRED. REPLACE ANY DAMAGED CEILINGS. 9 ALL KITCHEN RECEPTACLES, BATHROOM RECEPTACLES, OUTDOOR RECEPTACLES, OUTLETS WITHIN 6' OF SINK AND ANY OTHER REQUIRED BY 210.88 TO BE GFCI PROTECTED PER NEC REQUIREMENTS. PROVIDE REMOTE GFCI TESTING DEVICE FOR INACCESSIBLE GFCI DEVICES. 10 ALL FIRE ALARM CABLING SHALL BE RUN IN CONDUIT. FIRE ALARM CABLING IS PERMITTED TO BE IN CABLE TRAY WITH SEPARATION FROM BUILDING AND COMMUNICATION CABLING. 11 THE FIRE ALARM CONTRACTOR SHALL SUBMIT FINAL FIRE ALARM SHOP DRAWINGS AS A DELEGATED DESIGN SUBMITTAL TO THE AUTHORITY HAVING JURISDICTION 12 FIRE ALARM DEVICES SHOWN ON PLANS ARE INDICATED TO ILLUSTRATE GENERAL DESIGN INTENT TO ASSIST THE CONTRACTOR IN SCOPING, PRICING, AND COORDINATION WITH OTHER SYSTEMS 13 FIRE ALARM DEVICES SHOWN ARE NOT INTENDED TO REPRESENT A COMPLETE ENGINEERED FIRE ALARM DESIGN 14 THE FIRE ALARM CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ALL NECESSARY DEVICES AND ACCESSORIES FOR A COMPLETE SYSTEM, COMPLIANT WITH APPLICABLE CODES AND JURISDICTIONAL REQUIREMENTS, EVEN IF SUCH DEVICES ARE NOT INDICATED IN THESE DOCUMENTS 15 THE FIRE ALARM CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH MECHANICAL CONTRACTOR AND ALL OTHER TRADES NECESSARY FOR DOOR HOLDS, SMOKE DAMPERS, DUCT DETECTORS, FLOW / TAMPER SWITCHES AND ANY OTHER DEVICES 16 NEW FIRE ALARM DEVICES (IF APPLICABLE) ARE TO BE TIED INTO THE EXISTING FIRE ALARM SYSTEM 17 THE FIRE ALARM CONTRACTOR SHALL RESPONSIBLE FOR FIELD VERIFYING EXISTING DEVICES AND CONDITIONS 18 ALL LOW VOLTAGE CABLING SHALL BE RUN IN CONDUIT BETWEEN DEVICE AND CABLE TRAY OR TECHNOLOGY RACK. NO CABLING SHALL BE VISIBLE IN EXPOSED CEILING SPACES. EXPOSED CONDUIT SHALL BE PAINTED TO MATCH SURFACE IT IS SUPPORTED FROM. WIRING ROUTED IN ACCESSIBLE CEILING SPACES SHALL BE INDEPENDENTLY SUPPORTED WITH COMM HOOKS OR RINGS. 19 CONNECT POWER TO ALL VAV, TERMINAL UNITS AND MISCELLANEOUS MECHANICAL DAMPERS AND VALVES PROVIDED WITH LOW VOLTAGE TRANSFORMERS. PROVIDE AT LEAST A CIRCUIT FOR EVERY 4 UNITS TO BE ON A TRANSFORMER, COORDINATE EXACT LOCATIONS AND TRANSFORMER QUANTITIES WITH BUILDING AUTOMATION SYSTEM AND MECHANICAL CONTRACTORS AND REFER TO MECHANICAL CONTROLS AND SEQUENCE OF OPERATIONS DETAIL. THESE ITEMS ARE NOT SHOWN ON ELECTRICAL DRAWINGS. DO NOT USE SPARE BREAKERS INDICATED IN PANEL SCHEDULES FOR THESE CIRCUITS, NOTIFY PANELBOARD MANUFACTURERS OF QUANTITIES OF THESE BREAKERS REQUIRED 20 PROVIDE MINIMUM 2" CABLE ROUTE (UNLESS OTHERWISE NOTED ON PLANS) FROM EACH TECHNOLOGY/DATA DROP INDICATED ON PLANS TO NEAREST CABLE TRAY OR TECHNOLOGY CLOSET. AT ANY DEMISING WALL, PROVIDE 2" SLEEVE ABOVE ACCESSIBLE CEILING ABOVE LATCH SIDE OF EACH DOOR INTO ROOM. SLEEVES TO BE MINIMUM 12" ON EACH SIDE OF WALL WITH BUSHINGS. FULL UNSUED CONDUITS PRIOR TO COMPLETION OF CONSTRUCTION. EXTEND SLEEVE AND GROUND TO NEAREST CABLE TRAY). 21 RECESS NEW DEVICES AND ASSOCIATED CONDUITS AND BACKBOX IN EXISTING WALLS WHERE POSSIBLE. CUT AND PATCH AS REQUIRED WHERE SURFACE MOUNT IS REQUIRED, UTILIZE WIREMOLD AND CAULK TO WALLS. 22 PROVIDE FINAL CONNECTION TO ALL OWNER/CONTRACTOR PROVIDED EQUIPMENT. COORDINATE RECEPTACLE SIZES, HEIGHTS, AND TYPE WITH EQUIPMENT, ADJUST CIRCUIT SIZE AS REQUIRED.  <b>FIRE ALARM NOTES</b> THE FIRE ALARM CONTRACTOR SHALL SUBMIT FINAL FIRE ALARM SHOP DRAWINGS AS A DELEGATED DESIGN SUBMITTAL TO THE AUTHORITY HAVING JURISDICTION FIRE ALARM DEVICES SHOWN ON PLANS ARE INDICATED TO ILLUSTRATE GENERAL DESIGN INTENT TO ASSIST THE CONTRACTOR IN SCOPING, PRICING, AND COORDINATION WITH OTHER SYSTEMS FIRE ALARM DEVICES SHOWN ARE NOT INTENDED TO REPRESENT A COMPLETE ENGINEERED FIRE ALARM DESIGN THE FIRE ALARM CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ALL NECESSARY DEVICES AND ACCESSORIES FOR A COMPLETE SYSTEM, COMPLIANT WITH APPLICABLE CODES AND JURISDICTIONAL REQUIREMENTS, EVEN IF SUCH DEVICES ARE NOT INDICATED IN THESE DOCUMENTS THE FIRE ALARM CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH MECHANICAL CONTRACTOR AND ALL OTHER TRADES NECESSARY FOR DOOR HOLDS, SMOKE DAMPERS, DUCT DETECTORS, FLOW / TAMPER SWITCHES AND ANY OTHER DEVICES NEW FIRE ALARM DEVICES ARE TO BE TIED INTO THE EXISTING FIRE ALARM SYSTEM THE FIRE ALARM CONTRACTOR SHALL RESPONSIBLE FOR FIELD VERIFYING EXISTING DEVICES AND CONDITIONS	
<b>AUDIO/VISUAL</b>  TV TV WALL BACKBOX  PO PROJECTOR (OUTLET WITHIN 16" OF PROJECTOR LOCATION)  AV WALL STATION BOXES  TS TECHNOLOGY OR TEACHERS STATION BOXES  MJ MICROPHONE JACK  CB CEILING BOX  BD BLUETOOTH DEVICE  AN ANTENNA  PS PROJECTOR SCREEN  LC LOUDSPEAKER CEILING MOUNTED  LW LOUDSPEAKER WALL MOUNTED  VOLUME CONTROL	REFER TO TECHNOLOGY DRAWINGS, DETAILS AND PLANS FOR LOCATIONS AND ROUGH-IN DATA.						
<b>SECURITY SYMBOLS</b>  SC SECURITY CAMERA  SCS SECURITY CAMERA  SCP SECURITY CABLING PATHWAY  ACP ACCESS CONTROL PANEL  RB RELEASE BUTTON  IS INTERCOM MASTER STATION  LB LOCKDOWN BUTTON  DAP DURESS ALARM PUSH BUTTON  CR CARD READER  CRM CARD READER, MULLION MOUNT  KP KEY PAD  LSD LOCKDOWN STROBE   ACDI ACCESS CONTROL DETAIL INDICATOR: REFER TO ACCESS CONTROL DETAILS AND SCHEDULE	REFER TO SECURITY DRAWINGS, DETAILS AND PLANS FOR LOCATIONS AND ROUGH-IN INFORMATION.						
<b>NOTES:</b> MOUNT DEVICES AT HEIGHTS INDICATED UNLESS INDICATED OTHERWISE ON PLANS. HEIGHTS ARE TO BOTTOM OF DEVICE.							
<b>ELECTRICAL ABBREVIATIONS</b> (#) # INDICATES QUANTITIES (I.E. (4) 3" CONDUITS MEANS FOUR 3" DIAMETER CONDUITS) (E) EXISTING AFC ABOVE FINISHED CEILING AFCI ARC FAULT CIRCUIT INTERRUPTER AFF ABOVE FINISHED FLOOR AHJ AUTHORITY HAVING JURISDICTION AIC AMPERE INTERRUPTING CAPACITY AL ALUMINUM AWG AMERICAN WIRE GAUGE BAS BUILDING AUTOMATION SYSTEM BMS BUILDING MANAGEMENT SYSTEM C CONDUIT CT CURRENT TRANSFORMER CU COPPER DFA DROP FROM ABOVE DW DISHWASHER EM EMERGENCY ET ELECTRONIC TRIP EWC ELECTRIC WATER COOLER FDS FUSIBLE DISCONNECT SWITCH GAP GENERATOR ANNUNCIATOR PANEL GD GARBAGE DISPOSAL GEC GROUNDING ELECTRODE CONDUCTOR GFCI GROUND FAULT CIRCUIT INTERRUPTER, 5mA GFP GROUND FAULT PROTECTION OF EQUIPMENT, 30mA GRND GROUND IAWF IN ACCORDANCE WITH IC INSULATION CONTACT IDF INTERMEDIATE DISTRIBUTION FRAME JB JUNCTION BOX KMIL THOUSANDS OF CIRCULAR MILS LCP LIGHTING CONTROL PANEL MDF MAIN DISTRIBUTION FRAME NFD5 NON-FUSIBLE DISCONNECT SWITCH NIC NOT IN CONTRACT NL NIGHT LIGHT NLS NOT TO SCALE OC ON CENTER FB FULL BOX REF REFRIGERATOR RT RAIN TIGHT SPD SURGE PROTECTIVE DEVICE TR TAMPER RESISTANT TTB TELECOMMUNICATIONS TERMINAL BOARD TX TRANSFORMER TYP TYPICAL UL5E UL SERVICE ENTRANCE RATED UNO UNLESS OTHERWISE NOTED WP WEATHERPROOF							
		<b>RECEPTACLE SYMBOLS</b>  DR DUPLEX RECEPTACLE 16"  DRS DUPLEX RECEPTACLE - SURFACE MOUNTED #MM500  DRW DUPLEX RECEPTACLE - WET LOCATION ENCLOSURE WITH GFCI  RECEPTACLES VARIATIONS - HEIGHT PER ABOVE UNLESS INDICATED ON DRAWINGS:  DDR DOUBLE DUPLEX RECEPTACLE  DRS DUPLEX RECEPTACLE - SURFACE MOUNTED #MM500  DER DUPLEX RECEPTACLE - EMERGENCY  DRGFI DUPLEX RECEPTACLE - WITH GFI  DREGFI DUPLEX RECEPTACLE - FOR ELECTRIC WATER COOLER, WITH GFI  DRUSB DUPLEX RECEPTACLE - WITH (2) USB OUTLETS BETWEEN POWER  DRH DUPLEX RECEPTACLE - HORIZONTAL MOUNTING  DRSTA DUPLEX RECEPTACLE - STACK ALIGNED BELOW DEVICE ABOVE (DEVICE ALIGNMENT IS NOT LIMITED TO THOSE LABELED, REFER TO ELECTRICAL DEVICE ALIGNMENT GUIDELINES)					<b>GENERAL NOTE - ELECTRICAL - DEMOLITION</b> 1 FIXTURES, DEVICES AND EQUIPMENT SHOWN DASHED OR WITH AN "X" ARE TO BE REMOVED. FIXTURES, DEVICES AND EQUIPMENT SHOWN LIGHTLY OR WITH AN "EX" ARE EXISTING TO REMAIN UNDISTURBED. 2 DEVICES SHOWN WITH AN "R" ARE EXISTING TO BE REPLACED WITH NEW DEVICE AND COVERPLATE. REUSE EXISTING CODE COMPLIANT WIRING. 3 REMOVE ALL LIGHT FIXTURES, DEVICES, WIRING AND EXPOSED CONDUIT FROM WALL AND CEILINGS TO BE DEMOLISHED. COORDINATE WITH ARCHITECTURAL. REMOVE ABANDONED EXPOSED CONDUIT AND ABANDONED WIRING BACK TO SOURCE. RE-LABEL CIRCUIT BREAKER AS A SPARE. 4 TEMPORARILY SUPPORT EXISTING CEILING DEVICES TO REMAIN IN EXISTING CEILINGS TO BE REPLACED. REINSTALL DEVICES INTO NEW CEILING. 5 CONTRACTOR SHALL BE RESPONSIBLE FOR PROJECT PHASING. TEMPORARY POWER, EGRESS LIGHTING, EXIT SIGNAGE, PULL STATIONS AND BATTERY BACKUP LIGHTING SHALL BE PROVIDED AS REQUIRED WHILE BUILDING IS OCCUPIED BETWEEN PHASES OF CONSTRUCTION. 6 PATCH AND REPAIR ANY MATERIALS TO MATCH ADJACENT FOR ANY EQUIPMENT OR LIGHT FIXTURES REMOVED OR MATERIALS DAMAGED IN REMOVAL.
		<b>FIRE ALARM SYMBOLS</b>  FASD FIRE ALARM SMOKE DETECTOR - CEILING TYPE  FASD-E FIRE ALARM SMOKE DETECTOR - ELEVATOR TYPE, CONNECT TO FIRE ALARM SYSTEM AND TO ELEVATOR CONTROL PANEL. COORDINATE WITH ELEVATOR MANUFACTURER.  FASD-H FIRE ALARM HEAT DETECTOR - CEILING TYPE  FASD-H-D FIRE ALARM HEAT DETECTOR - DUCT TYPE  FASD-H-D-RTS FIRE ALARM DUCT DETECTOR REMOTE TEST STATION 60"  SFD SMOKE/FIRE DAMPER, PROVIDE WITH DUCT DETECTOR AND 120V POWER  FSH FIRE SHUTTER  MDH MAGNETIC DOOR HOLDER, PROVIDE WITH SMOKE DETECTOR WITHIN 5' OF DOOR ON EACH SIDE, COORDINATE MOUNTING WITH DOOR HARDWARE.  FASMP FIRE ALARM MANUAL PULL STATION 40"  FASMP-K FIRE ALARM MANUAL PULL STATION - INSTITUTIONAL WKEY 40"  BD BEAM DETECTOR  FASD-A-V-75 FIRE ALARM AUDIOVISUAL ALARM, WALL MTD., CANDELA INDICATED 60"  FASD-V-75 FIRE ALARM - VISUAL ALARM, CANDELA INDICATED 60"  FASD-A-C-15 FIRE ALARM AUDIOVISUAL ALARM, CEILING MTD., CANDELA INDICATED  FASD-V-C-15 FIRE ALARM - VISUAL ALARM, CEILING MTD., CANDELA INDICATED  FASD-S FIRE ALARM SPEAKER  FASD-SFS FIRE ALARM - SPRINKLER SYSTEM FLOW SWITCH  FASD-B FIRE ALARM - BELL  FASD-SVMS FIRE ALARM - SPRINKLER VALVE MONITOR SWITCH  FASD-FM FIRE ALARM CONTROL PANEL - FLUSH MTD. 72" TO TOP  FASD-FM-PA FIRE ALARM ANNUNCIATOR PANEL REMOTE - FLUSH MTD. 60" TO TOP  FASD-SP FIRE ALARM STROBE PANEL 72" TO TOP					

ISSUED FOR DATE

PROJECT TITLE  
 WEST MIDDLE SCHOOL SERVERY  
 REMODEL

OWNER  
 PORTAGE PUBLIC SCHOOLS

Portage, Michigan

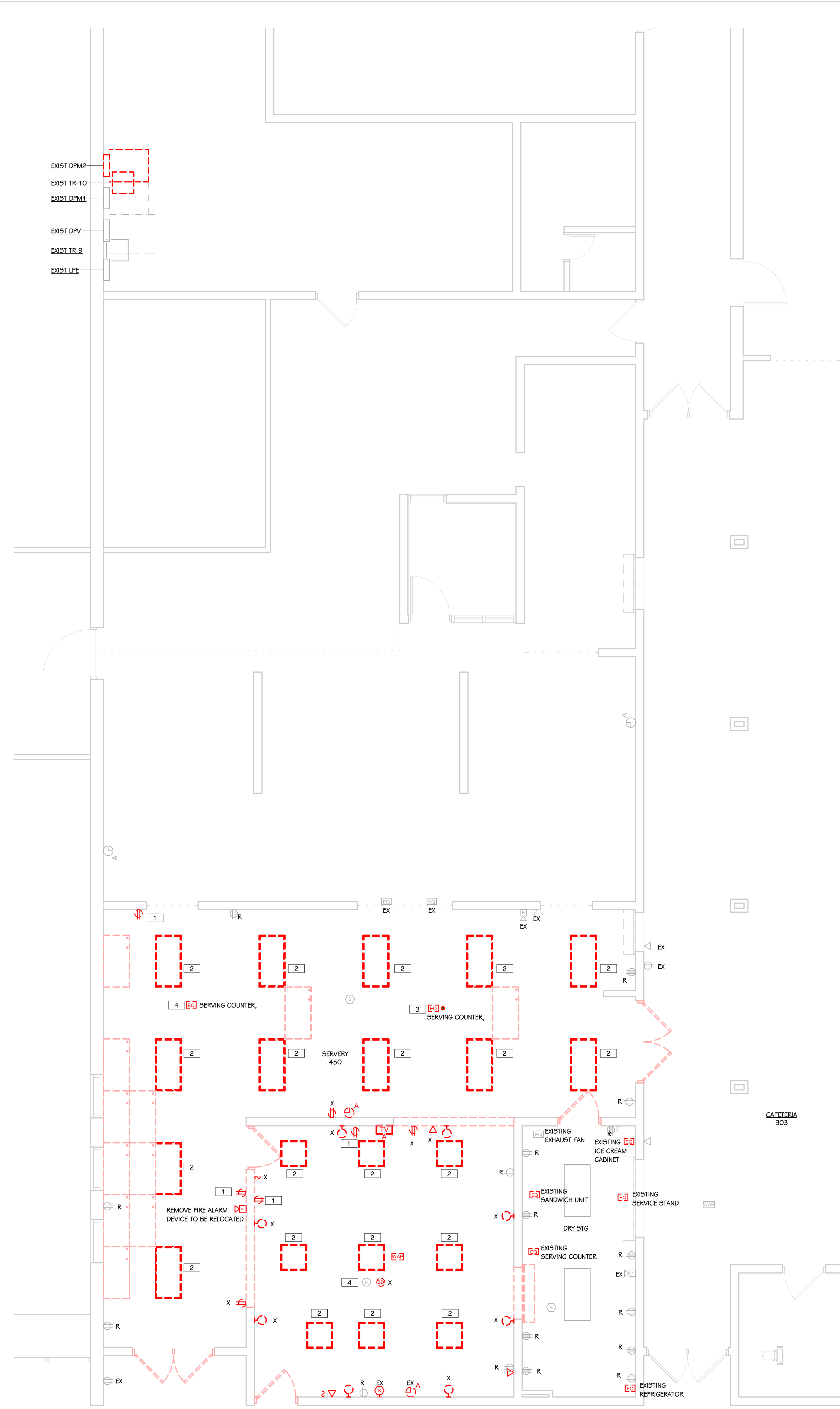
SHEET TITLE  
 FIRST FLOOR ELECTRICAL DEMOLITION  
 PLAN

DATE  
 JANUARY 16, 2024

SHEET NUMBER  
**ED 101**  
 23-186.00

**KEYED NOTES - ELECTRICAL - DEMOLITION**

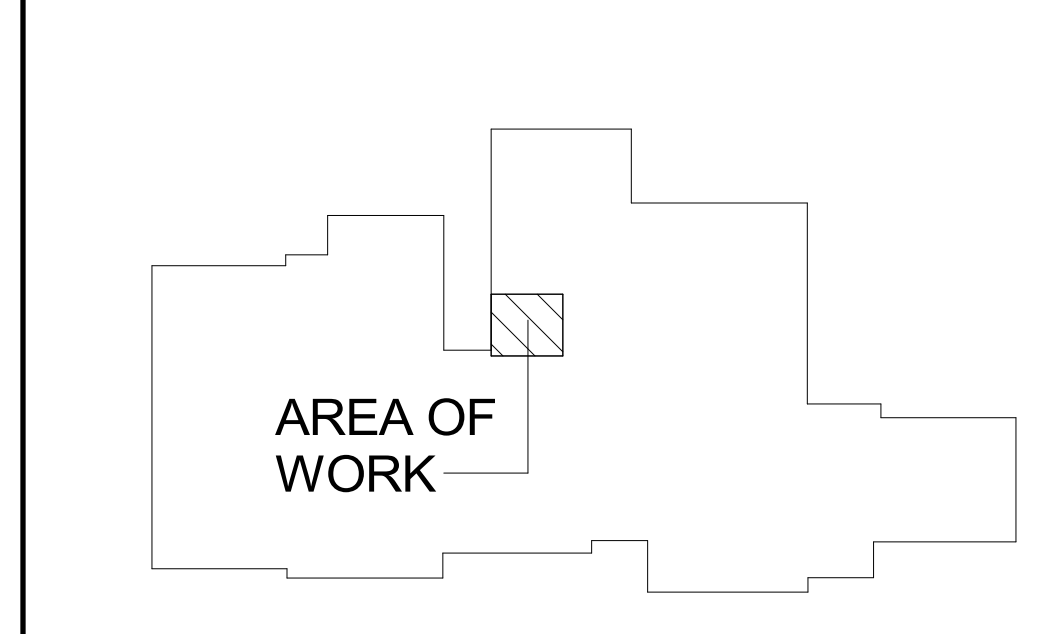
- 1 REMOVE RECEPTACLE, ALL ASSOCIATED RACEWAY, ACCESSIBLE CONDUIT, AND WIRE BACK TO NEAREST ACTIVE JUNCTION BOX. RETAIN EXISTING CIRCUIT FOR NEW CONSTRUCTION.
- 2 REMOVE LIGHT FIXTURE AND RETURN TO OWNER. REMOVE LIGHTING CIRCUIT, CONDUIT, AND WIRE BACK TO NEAREST ACTIVE JUNCTION BOXES. RETAIN EXISTING CIRCUIT FOR REUSE.
- 3 REMOVE ELECTRICAL EQUIPMENT AND CONDUIT STUBS ALONG WITH ALL ASSOCIATED WIRE BACK TO SOURCE. RETAIN IN SLAB CONDUIT FOR REUSE AND EXTENSION TO NEW LOAD.
- 4 REMOVE CONNECTION TO EQUIPMENT TO BE REMOVED, RETAIN FEED FOR REUSE.



**FIRST FLOOR ELECTRICAL DEMOLITION PLAN**  
 1/4" = 1'-0"

**THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEARS IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING**

**PORTAGE WEST MIDDLE SCHOOL**



**KEY PLAN**  
 SCALE: NONE

**KEYED NOTES - ELECTRICAL - POWER**

- CONNECT NEW RECEPTACLE TO NEAREST UNSWITCHED 120V CIRCUIT.
- EXTEND CONDUIT TO NEW LOCATION AND STUB UP TO PEDESTAL MOUNTED RECEPTACLE AS DETAILED IN FOOD SERVICE PLANS.
- REINSTALL DEVICE IN NEW CEILING. REWORK AND EXTEND CIRCUIT AS REQUIRED.

**PANELBOARD " DPM2" LOAD SCHEDULE**

PANEL: DPM2 MOUNTING: SURFACE VOLTAGE: 208/120V, 3PH, 4W  
 LOCATION: KITCHEN STORAGE 62 / Level 1 AMPS: 225 A MLO FED FROM: DPM1  
 ADDED ACCESSORIES: FEED-THRU LUGS... No A.I.C. VALUE: (PROVIDE 25% HIGHER A.I.C. RATING)

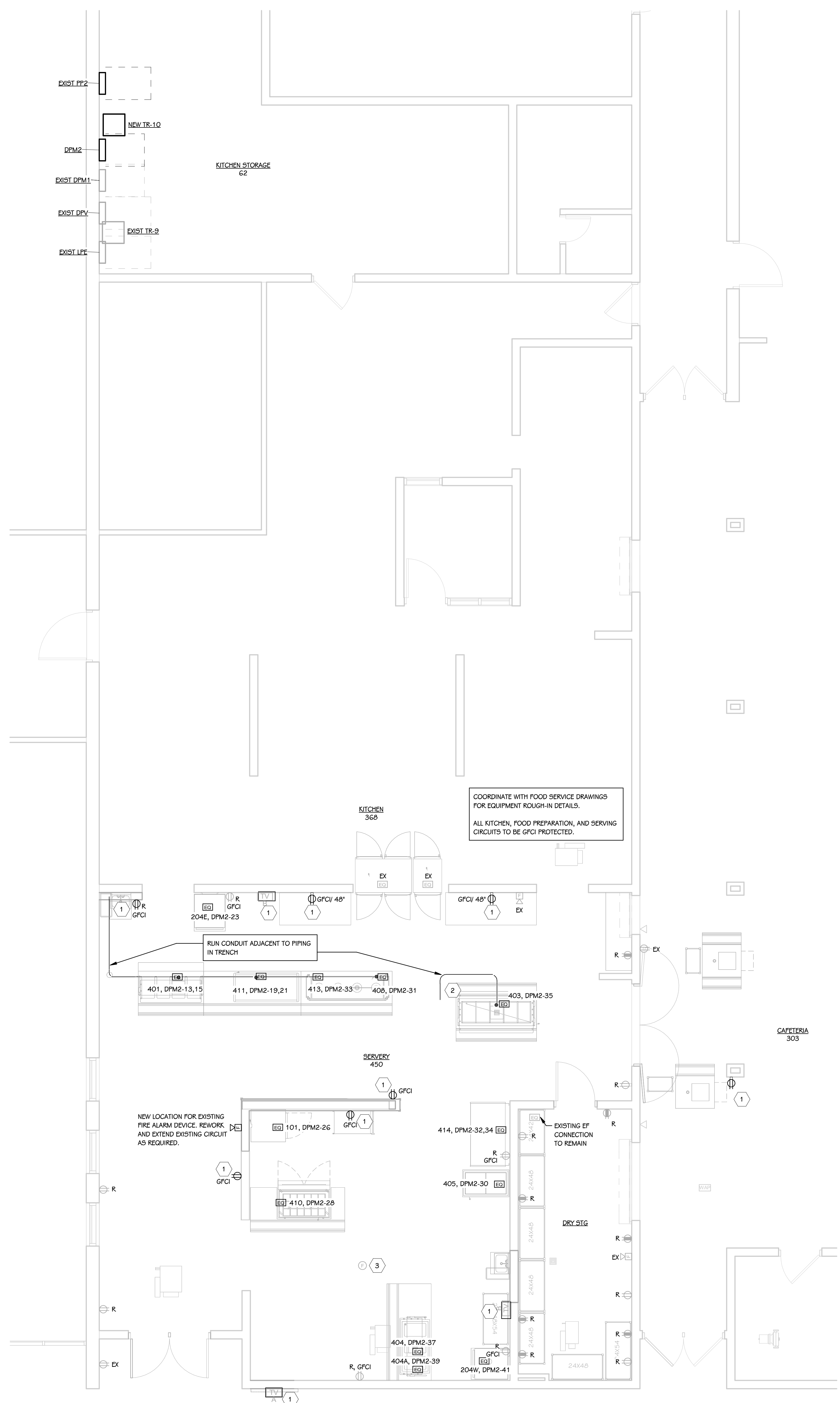
CIRCUIT DESCRIPTION	TRIP (A)	POLES	A (VA)	B (VA)	C (VA)	POLES	TRIP (A)	CIRCUIT DESCRIPTION		
1 EXISTING - RECEPT. SNACK/FACULTY ROOM	20	1	180	800			2	40	EXISTING - FREEZER	2
3 EXISTING - RECEPT. N. SERVING AREA ENTRY	20	1		180	800					4
5 EXISTING - RECEPT. S.E. COR. SNACK AREA	20	1			180	240	1	20	EXISTING - FREEZER LIGHT/RECEPT.	6
7 SPACE	--	1	--	0			1	20	SPARE	8
9 SPACE	--	1	--	0			1	20	EXISTING - WALK IN COOLER CONTROL	10
11 EXISTING - RECEPT. S.W. COR. SNACKS	20	1			180	0	2	20	SPARE	12
13 KITCHEN - 401 - HOT FOOD TABLE	30	2	2122	0			--	--		14
15 --	--	--		2122	0		2	20	SPARE	16
17 EXISTING - MILK COOLERS SERVING AREA	20	1			600	0	--	--		18
19 KITCHEN - 411 - HEATED SLANTED SANDWICH...	30	2	1872	4000			3	100	EXISTING - CAFE/HOUSE LITE DIMMER	20
21 --	--	--		1872	4000		--	--		22
23 KITCHEN - 204E - HOT FOOD CABINET	20	1			1440	4000	--	--		24
25 EXISTING - HEATED PASS TRU	20	2	250	576			1	20	KITCHEN - 101 - REFRIGERATOR	26
27 --	--	--		250	576		1	20	KITCHEN - 410 - SANDWICH SLIDE	28
29 SPACE	--	1	--	0			2	20	KITCHEN - 405 - ICE CREAM DISPLAY FREEZER	30
31 KITCHEN - 408 - DROP-IN HEATED SURFACE	20	1	1332	1591			2	20	KITCHEN - 414 - AIR CURTAIN REFRIGERATOR	32
33 KITCHEN - 413 - HEAT LAMP ASSEMBLY	20	1		960	1591		--	--		34
35 KITCHEN - 403 - COLD FOOD TABLE	20	1			1140	0	1	20	SPARE	36
37 KITCHEN - 404 - DROP-IN HOT/COLD WELLS	30	1	2184	0			1	20	SPARE	38
39 KITCHEN - 404A - SNEEZE GUARD	20	1		120			1	--	SPACE	40
41 KITCHEN - 204W - HOT FOOD CABINET	20	1			1440	--	1	--	SPACE	42
TOTAL LOAD:			14907 VA	12471 VA	9796 VA					
ADDITIONAL FEED THRU LUGS LOAD (IF APPLICABLE):			0 VA	0 VA	0 A					
TOTAL AMPS:			128 A	107 A	82 A					
LOAD CLASSIFICATION		CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS					
Spare		15660 VA	100.00%	15660 VA	TOTAL CONNECTED LOAD: 37173 VA					
KITCHEN -		21513 VA	100.00%	21513 VA	TOTAL ESTIMATED DEMAND: 37173 VA					
					TOTAL CONNECTED LOAD (A): 103 A					
					TOTAL ESTIMATED DEMAND... 103 A					

NOTES:  
 PROVIDE SPD BREAKER PER ONELINE SCHEDULE. RECEPTACLE DEMAND FACTOR = FIRST 10kVA X 100% + 50% OF REMAINDER  
 AIC RATING IS CALCULATED VALUE. PROVIDE IC RATING AT LEAST 25% HIGHER AS PER SPECIFICATIONS.

**ELECTRICAL KITCHEN FEEDER SCHEDULE**

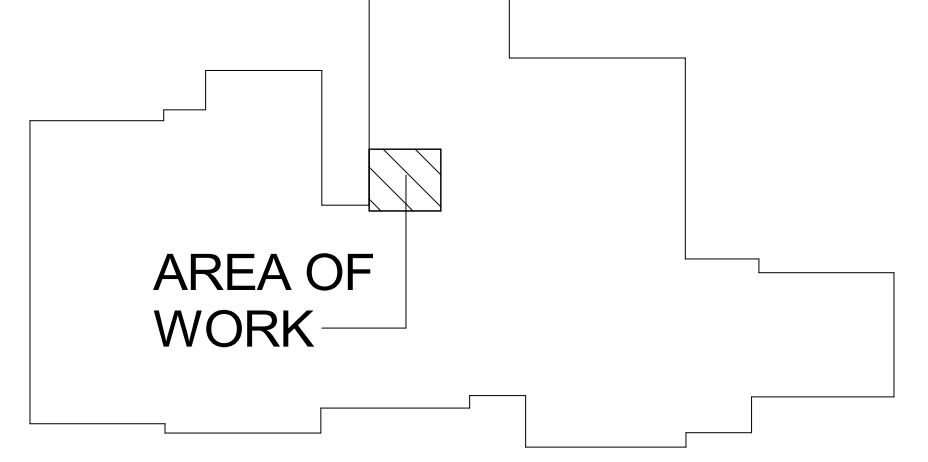
DESCRIPTION	FED FROM	CURRENT (FLA)	DEMAND (FLA)	BREAKER / POLES	# OF SETS	FEEDER			NOTES
						WIRE	GROUND	EMT	
208 V									
KITCHEN - 401 - HOT FOOD TABLE	DPM2	20 A	20 A	30 A / 2	1 SET	3 #10	#10 GND.	3/4"	1
KITCHEN - 411 - HEATED SLANTED SANDWICH SLIDE	DPM2	18 A	18 A	30 A / 2	1 SET	3 #10	#10 GND.	3/4"	1
KITCHEN - 414 - AIR CURTAIN REFRIGERATOR	DPM2	15 A	15 A	20 A / 2	1 SET	3 #12	#12 GND.	3/4"	1
120 V									
KITCHEN - 101 - REFRIGERATOR	DPM2	5 A	5 A	20 A / 1	1 SET	2 #12	#12 GND.	3/4"	
KITCHEN - 204E - HOT FOOD CABINET	DPM2	12 A	12 A	20 A / 1	1 SET	2 #12	#12 GND.	3/4"	
KITCHEN - 204W - HOT FOOD CABINET	DPM2	12 A	12 A	20 A / 1	1 SET	2 #12	#12 GND.	3/4"	
KITCHEN - 403 - COLD FOOD TABLE	DPM2	10 A	10 A	20 A / 1	1 SET	2 #12	#12 GND.	3/4"	
KITCHEN - 404 - DROP-IN HOT/COLD WELLS	DPM2	18 A	18 A	30 A / 1	1 SET	2 #10	#10 GND.	3/4"	
KITCHEN - 404A - SNEEZE GUARD	DPM2	1 A	1 A	20 A / 1	1 SET	2 #12	#12 GND.	3/4"	
KITCHEN - 405 - ICE CREAM DISPLAY FREEZER	DPM2	5 A	5 A	20 A / 1	1 SET	2 #12	#12 GND.	3/4"	
KITCHEN - 408 - DROP-IN HEATED SURFACE	DPM2	11 A	11 A	20 A / 1	1 SET	2 #12	#12 GND.	3/4"	
KITCHEN - 410 - SANDWICH SLIDE	DPM2	5 A	5 A	20 A / 1	1 SET	2 #12	#12 GND.	3/4"	
KITCHEN - 413 - HEAT LAMP ASSEMBLY	DPM2	8 A	8 A	20 A / 1	1 SET	2 #12	#12 GND.	3/4"	

NOTES:  
1. PROVIDE GFCI BREAKER



**FIRST FLOOR POWER PLAN**  
1/4" = 1'-0"

**PORTAGE WEST MIDDLE SCHOOL**



**KEY PLAN**  
SCALE: NONE

ISSUED FOR DATE

PROJECT TITLE  
WEST MIDDLE SCHOOL SERVERY  
REMODEL

OWNER  
PORTAGE PUBLIC SCHOOLS

Portage, Michigan

SHEET TITLE  
FIRST FLOOR POWER PLAN

DATE  
JANUARY 16, 2024

SHEET NUMBER  
E 101  
23-186-00



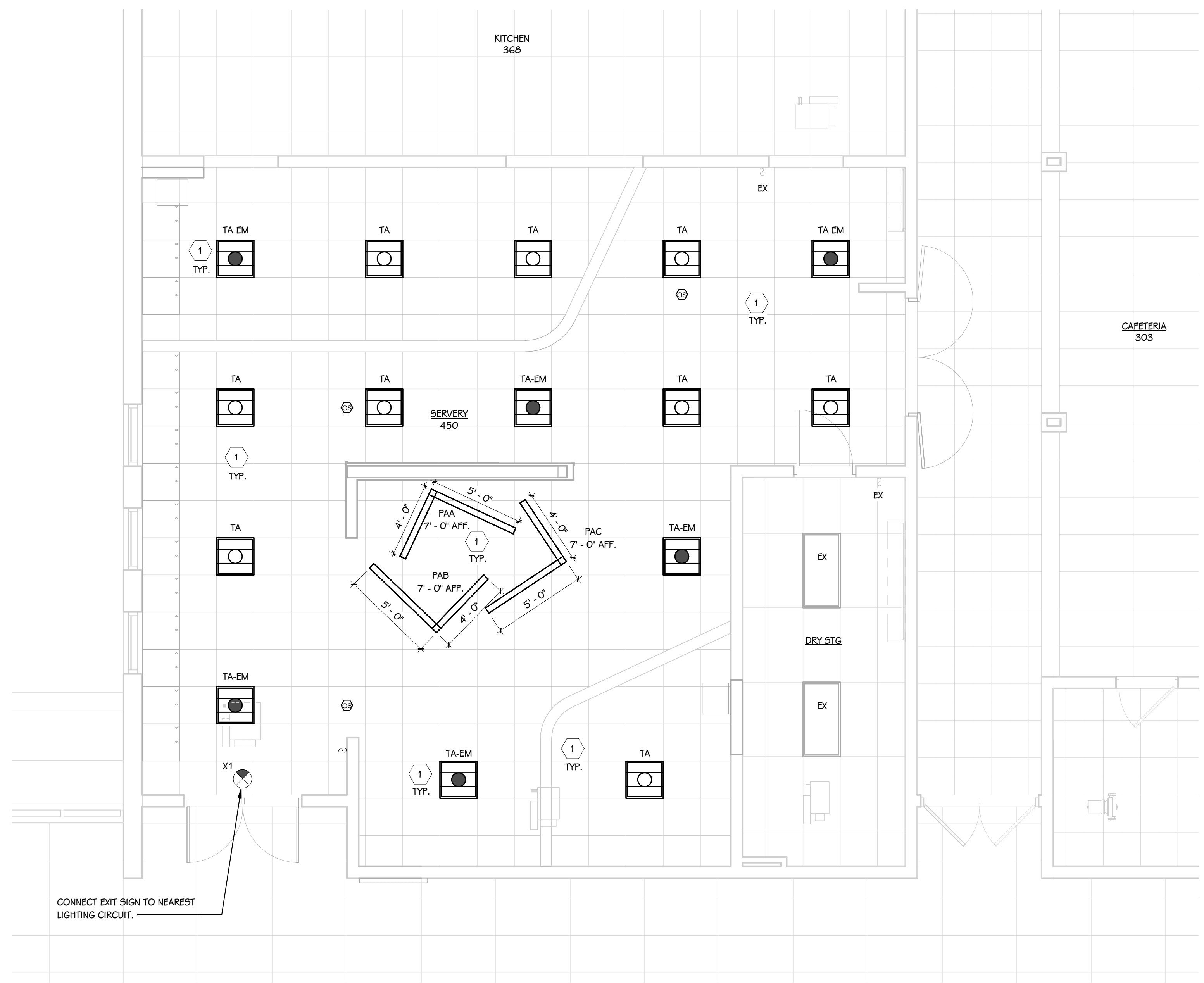
LIGHT FIXTURE SCHEDULE									
TYPE	SERIES	DESCRIPTION	MOUNTING	CEILING TYPE	DRIVER	WATTS	MANUFACTURER		NOTES
TA	TA	2X2 TROFFER, 2' - 0" LONG	RECESSED	ACOUSTIC GRID	0-10V	37 VA	FINELITE #HPR-LED-F-2V2-DCO-B-840-MVOLT-SC-C1		1, 2
TA-EM	TA-EM	2X2 TROFFER, 2' - 0" LONG	RECESSED	ACOUSTIC GRID	0-10V	37 VA	FINELITE #HPR-LED-F-2V2-DCO-B-840-MVOLT-SC-C1-LGD10W		1, 2
X1	X1	EXIT SIGN - EDGE LIT	SURFACE	ACOUSTIC GRID		5 VA	LITHONIA #EDG-1-RMR-EL		1, 2

LIGHT FIXTURE SCHEDULE - CUSTOM MITERED ASSEMBLIES										
CUSTOM	SERIES	ESTIMATED TOTAL LENGTH	DESCRIPTION	MOUNTING	CEILING TYPE	DRIVER	WATTS	MANUFACTURER		NOTES
PAA	PA	9' - 0"	PENDANT LINEAR	PENDANT	ACOUSTIC GRID	0-10V	90 VA	OCL #9L15-P1EM-W-ANS-(LENGTH)-MM-(FINISH)-LED140K-UNV-DM1		1, 2, 3
PAB	PA	9' - 0"	PENDANT LINEAR	PENDANT	ACOUSTIC GRID	0-10V	90 VA	OCL #9L15-P1EM-W-ANS-(LENGTH)-MM-(FINISH)-LED140K-UNV-DM1		1, 2, 3
PAC	PA	9' - 0"	PENDANT LINEAR	PENDANT	ACOUSTIC GRID	0-10V	90 VA	OCL #9L15-P1EM-W-ANS-(LENGTH)-MM-(FINISH)-LED140K-UNV-DM1		1, 2, 3

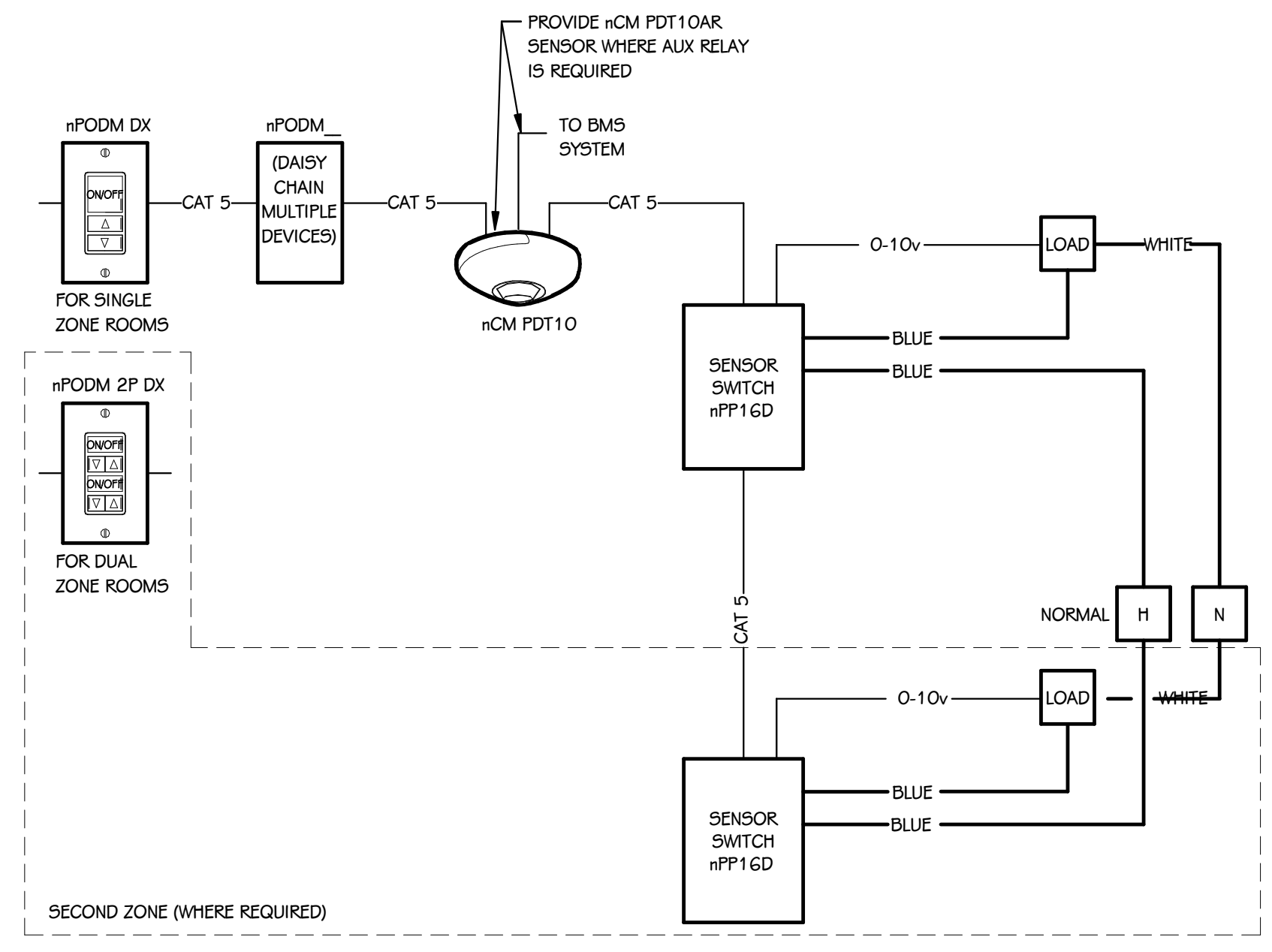
- \* FIELD COORDINATE AND FIELD MEASURE FOR CUSTOM LENGTH FIXTURES, LENGTHS PROVIDED ARE ROUNDED AND DEPEND ON FIELD CONDITIONS.
- 1 ALL LED FIXTURES TO HAVE WARRANTY TO MEET OR EXCEED WARRANTY INCLUDED IN BASIS OF DESIGN. FIXTURES LISTED AS EQUALS SHALL MEET DELIVERED LUMENS, CRI, EFFICACY AND OPTIONS OF THAT SPECIFIED. REFER TO SPECIFICATIONS 265100 AND 265600 FOR ADDITIONAL REQUIREMENTS.
- 2 THE MOUNTING DESCRIPTION IS GENERAL. REFER TO SHOP DRAWINGS AND MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR SPECIFIC MOUNTING DETAILS.
- 3 ONLY SUBMIT ONE SET OF LINEAR FIXTURE INFORMATION PER FIXTURE SERIES WHERE VARIOUS LENGTH FIXTURES OF SAME SERIES ARE USED.
- 4 FIXTURE LENGTH PER LIGHTING FLOOR PLANS. FIELD VERIFY BEFORE ORDERING AND COORDINATE WITH FRAMING CONTRACTOR FOR HOLD DIMENSIONS.
- 5 EXIT SIGNS DIRECTIONAL ARROWS TO BE CONFIRMED ON PLANS PRIOR TO ORDERING. ARROWS ON GRAPHICS MAY NOT MATCH THOSE OF DESCRIPTION DUE TO FACE DIRECTION IN REFERENCE.
- 6 FIXTURES WITH THE CENTER CIRCLE SHADED SHALL HAVE A SELF-CONTAINED EMERGENCY BATTERY PACK OPERATING TWO LAMPS AT A MINIMUM OF 1100 LUMENS FOR 90 MINUTES. FIXTURES WITH THE CENTER CIRCLE COMPLETELY SHADED SHALL BE ON 24 HOURS. ON WIRE BATTERY AND BALLAST SO FIXTURE TURNS 'ON' WHEN POWER FAILS.

**KEYED NOTES - ELECTRICAL - LIGHTING**

1 CONNECT NEW LIGHT FIXTURES TO EXISTING LIGHTING CIRCUIT.



**FIRST FLOOR LIGHTING PLAN**  
1/4" = 1'-0"



**OCCUPANCY SENSOR WIRING DIAGRAM**  
SCALE: NONE

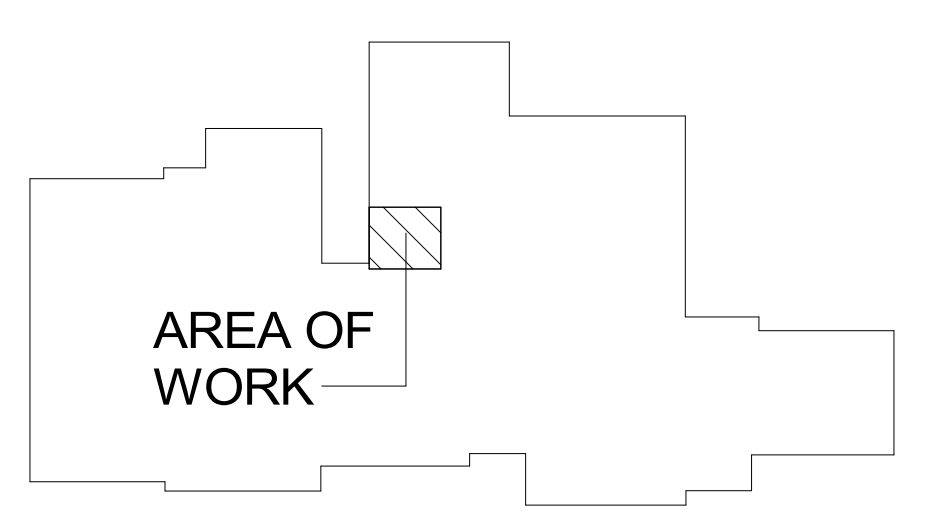
ISSUED FOR DATE

PROJECT TITLE  
WEST MIDDLE SCHOOL SERVERY  
REMODEL

OWNER  
PORTAGE PUBLIC SCHOOLS

Portage, Michigan

**PORTAGE WEST MIDDLE SCHOOL**

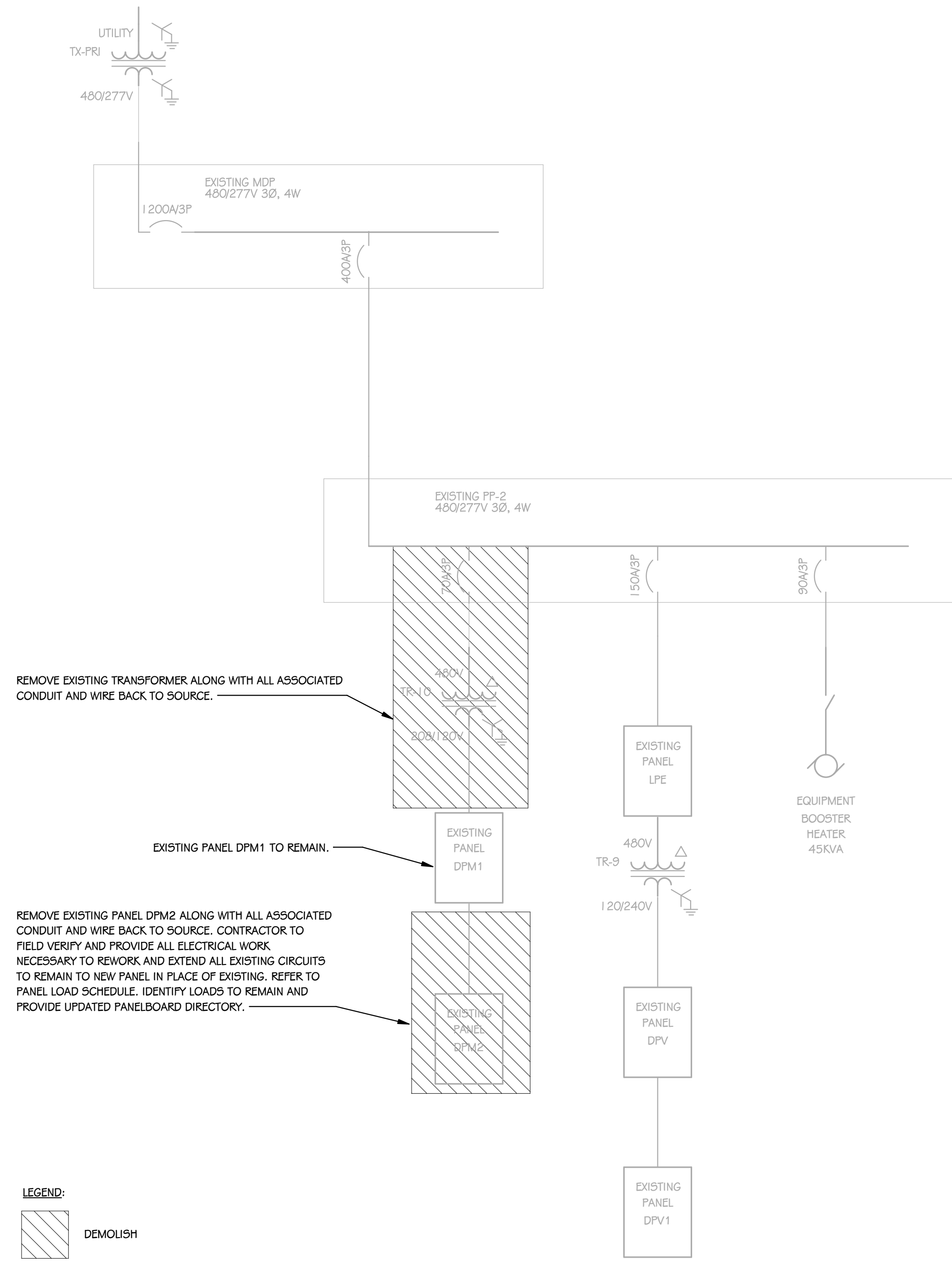


**KEY PLAN**  
SCALE: NONE

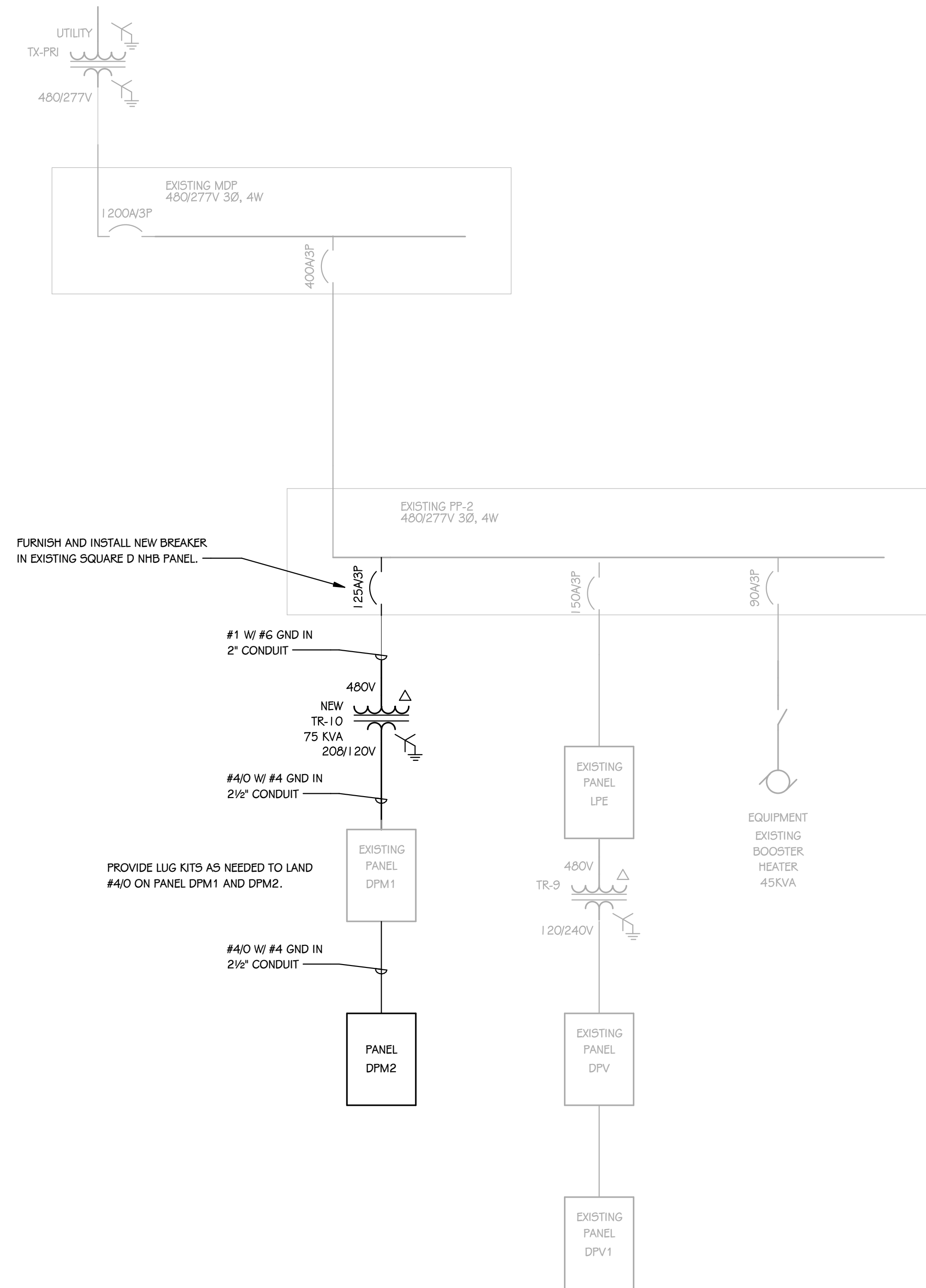
SHEET TITLE  
FIRST FLOOR LIGHTING PLAN

DATE  
JANUARY 16, 2024

SHEET NUMBER  
E 201  
23-186.00



**PARTIAL ONE-LINE DIAGRAM - DEMOLITION**  
SCALE: NONE

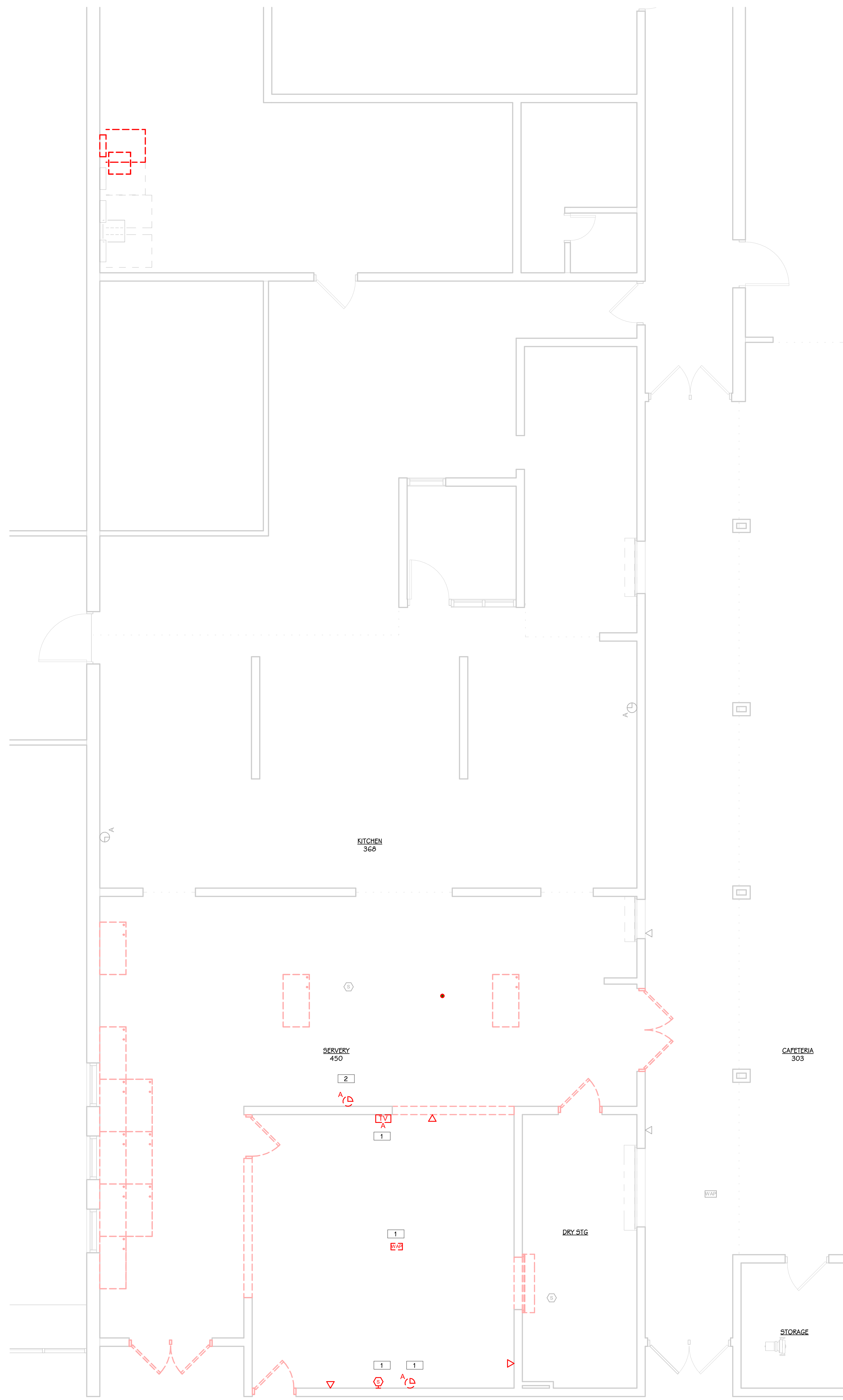


**PARTIAL ONE-LINE DIAGRAM - NEW CONSTRUCTION**  
SCALE: NONE

PANEL PP2 ELECTRICAL LOAD CALCULATION:	
CIRCUIT:	LOAD:
PANEL LPE	120A
BOOSTER HEATER	54A
TR-10	63.75A
<b>TOTAL:</b>	<b>237.7A @ 480V/3Ø</b>

ELECTRICAL LOAD CALCULATION:	
<b>ESTIMATED REMOVED LOADS:</b>	
120V ITEM:	LOAD:
MILK COOLER	7A
ICE CREAM CABINET	5.8A
SERVICE STAND	5.8A
REFRIGERATOR	7.2A
SANDWICH UNIT	5.8A
<b>TOTAL:</b>	<b>35.5A @ 208V/3Ø</b>
<b>NEW LOADS ADDED:</b>	
120V ITEM:	LOAD:
REFRIGERATOR	4.9A
HOT FOOD CABINET	12.0A
COLD FOOD TABLE	9.5A
DROP-IN HOT/COLD WELLS	18.2A
SNEEZE GUARD	1.0A
CASH REGISTERS	10.0A
DROP-IN HEATED SURFACE	11.1A
SANDWICH TOP REFRIGERATOR	4.8A
DECORATIVE HEAT LAMP ASSEMBLY	8.0A
208V/1Ø ITEM:	LOAD:
HOT FOOD TABLE	20.4A
HEATED SLANTED SANDWICH SLIDE	16.4A
AIR CURTAIN REFRIGERATOR	15.3A
<b>TOTAL:</b>	<b>57.7A @ 208V/3Ø</b>

STRUCTURED CABLING	MOUNTING HEIGHTS	GENERAL NOTES - PAGING AND CLOCK	GENERAL NOTES - TECHNOLOGY
DATA/VOICE OUTLET - 4 SQ BOX, 5G COVER, 1" CONDUIT STUB DATA/VOICE OUTLET - 4 SQ BOX, 5G COVER, SURFACE #MM500 DATA/VOICE OUTLET - 4 SQ BOX, 5G COVER, 1" CONDUIT STUB 4" ABOVE BACKSPASH SECURITY CONTROLS PATHWAY - 4 SQ BOX, 5G COVER WITH BRUSH PLATE, 1" CONDUIT STUB WIRELESS ACCESS POINT (REFER TO DETAILS) GROUNDING BUS BAR WITH DEDICATED GROUND, (REFER TO DETAILS) CABLE TRAY, (12"x4" UNLESS NOTED OTHERWISE) CLOCK (REFER TO DETAILS) MASTER CLOCK PANEL PAGING SYSTEM HEAD END NETWORK COMMUNICATION RACK - FLOOR STANDING 3' CLEAR ON BOTH SIDES 48"x34" FIRE-RATED PLYWOOD, AC FINISH, MOUNT VERTICALLY CONDUIT SLEEVE IN ACCESSIBLE CEILING (2" CONDUIT UNLESS NOTED OTHERWISE, ONLY SHOWN ON PLANS INDICATING SPECIFIC CONDITIONS, REFER TO GENERAL NOTES FOR SLEEVES THAT ARE REQUIRED INTO ALL SPACES)	<p>16"</p> <p>16"</p> <p>16"</p> <p>90" TO CENTER</p> <p>12"</p> <p>12"</p> <p>40"</p> <p>40"</p>	<p>1 FOR CLOCKS REQUIRING A MANUFACTURER-SPECIFIC IN-WALL ROUGH-IN BOX, THE CLOCK CONTRACTOR SHALL PROVIDE THE ROUGH-IN BOX TO ELECTRICIAN FOR WALL INSTALLATION. THE CLOCK CONTRACTOR AND ELECTRICIAN SHALL COORDINATE AHEAD OF SCHEDULED WALL INSTALLATIONS. COORDINATE WITH CONSTRUCTION MANAGER.</p> <p>2 PAGING AND CLOCK CONTROLLERS SHALL BE PROPERLY CONFIGURED FOR TIME SYNCHRONIZATION WITH OWNER'S NETWORK TIME PROTOCOL (NTP) SOURCE. COORDINATE NTP ADDRESS WITH OWNER.</p> <p>3 PAGING SPEAKER CABLING SHALL BE SIZED APPROPRIATELY FOR CABLE LENGTH AND POWER LOAD OF A GIVEN CIRCUIT.</p> <p>4 FOR WIRELESS CLOCK SYSTEMS THAT REQUIRE FCC LICENSURE, THE CLOCK INTEGRATOR SHALL COORDINATE ANY REQUIRED LICENSE APPLICATION FORMS THAT ARE REQUIRED TO BE COMPLETED BY THE OWNER.</p> <p>5 THE CLOCK INTEGRATOR SHALL BE RESPONSIBLE FOR REVIEW OF THE PROJECT ARCHITECTURAL ELEVATIONS AND ADHERE TO CLOCK PLACEMENT/ALIGNMENT GUIDELINES. ANY PLACEMENT CLARIFICATION REQUESTS SHALL BE MADE BY RFI.</p> <p>6 FOR INTEGRATION OF NEW PAGING HEADEND HARDWARE TO PRE-EXISTING PAGING CIRCUITS, THE PAGING INTEGRATOR SHALL PERFORM A PRE-INSTALLATION SPEAKER TEST OF ALL EXISTING SPEAKERS. ANY FAULTY EXISTING SPEAKERS SHALL BE NOTED AND COMMUNICATED TO THE CM/ARCHITECT PRIOR TO THE INSTALLATION OF NEW EQUIPMENT.</p> <p>7 THE PAGING SYSTEM INTEGRATOR SHALL PROVIDE INTERCONNECTION CABLING TO THE PRIMARY FIRE ALARM PANEL TO ALLOW THE FIRE ALARM SYSTEM TO OVERRIDE PAGING. CONNECTION AT THE FIRE PANEL SHALL BE BY THE FIRE ALARM INTEGRATOR. COORDINATE WITH OTHER TRADES.</p> <p>8 THE PAGING SYSTEM RISER DETAIL IS INTENDED TO BE DIAGRAMMATICAL FOR THE PURPOSE OF UNDERSTANDING THE BASIC SYSTEM ARCHITECTURE. THE PAGING INTEGRATOR SHALL PROVIDE ALL COMPONENTS, CABLES AND ADAPTERS REQUIRED FOR A FULLY FUNCTIONAL SYSTEM, REGARDLESS IF SHOWN ON THE DIAGRAM.</p>	<p>1 TECHNOLOGY CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING REQUIRED FOR NEW WORK OR WHERE DEVICES ARE REMOVED AND NOT REPLACED.</p> <p>2 TECHNOLOGY CONTRACTOR SHALL COORDINATE WITH G SERIES SHEETS DEVICE COORDINATION DETAIL. DEVICES ARE TO ALIGN VERTICALLY AND HORIZONTALLY AND FOLLOW THE RULES OF THIS DETAIL CONSISTENTLY. A PRE-INSTALL DEVICE COORDINATION MEETING FOR DEVICE FINISHES AND LAYOUT MAY BE REQUIRED IN THE SPECIFICATION FOR THIS PROJECT.</p> <p>3 REFER TO TECHNOLOGY, ELECTRICAL AND ARCHITECTURAL DETAILS AND ELEVATIONS FOR SYMBOL INFORMATION AND ELEVATION DETAIL.</p> <p>4 DEVICES AND EQUIPMENT SHOWN DASHED OR WITH AN "X" ARE TO BE REMOVED. FIXTURES, DEVICES AND EQUIPMENT SHOWN LIGHTLY OR WITH AN "E" ARE EXISTING TO REMAIN UNDISTURBED.</p> <p>5 DEVICES SHOWN WITH AN "R" ARE EXISTING TO BE REPLACED WITH NEW DEVICE AND COVERPLATE.</p> <p>6 TEMPORARILY SUPPORT EXISTING CEILING DEVICES TO REMAIN IN EXISTING CEILINGS TO BE REPLACED. REINSTALL DEVICES INTO NEW CEILING.</p> <p>7 CONTRACTOR SHALL BE RESPONSIBLE FOR PROJECT PHASING. TEMPORARY WIRING TO KEEP SYSTEMS RUNNING SHALL BE PROVIDED AS REQUIRED WHILE BUILDING IS OCCUPIED BETWEEN PHASES OF CONSTRUCTION.</p>
<b>AUDIOVISUAL</b>		<b>GENERAL NOTES - STRUCTURED CABLE</b>	
TV WALL RECESSED 75R" BACKBOX, (REFER TO DETAILS) PROJECTOR, (REFER TO DETAILS) AV WALL STATION BOXES. USE F5R MUDRING MUD-2G-1" FOR 2-GANG OPENINGS (REFER TO DETAILS) TECHNOLOGY OR TEACHER'S STATION BOXES. USE F5R MUDRING MUD-2G-1" FOR 2-GANG OPENINGS (REFER TO DETAILS) MICROPHONE JACK CEILING BOX, (REFER TO DETAILS) BLUETOOTH DEVICE - DEEP 4 SQ BOX, 1-G OPENING, (REFER TO DETAILS) ANTENNA, (REFER TO DETAILS) PROJECTOR SCREEN, (REFER TO DETAILS) LOUDSPEAKER CEILING - MOUNTED LOUDSPEAKER WALL - MOUNTED VOLUME CONTROL	<p>16"</p> <p>40"</p> <p>40"</p> <p>40"</p> <p>40"</p>	<p>1 AUDIO SYSTEM SHALL BE FREE OF NOISE, RATTLE, HUM, BUZZ, OR ANY OTHER AUDIO DISTORTIONS</p> <p>2 SECURE CABLES UTILIZING VELCRO STRAPS. WIRE "ZIP TIES" SHALL NOT BE USED</p> <p>3 ROUTE ALL CABLES IN A MANNER THAT WILL ENSURE SIGNAL INTEGRITY AND WILL NOT INTRODUCE CROSSTALK</p> <p>4 PROVIDE A SERVICE LOOP FOR RACKS AND EQUIPMENT SUITABLE TO EASILY PLUG AND UNPLUG EQUIPMENT FOR TROUBLESHOOTING OR REPLACEMENT</p> <p>5 NEATLY DRESS ALL CABLING INSTALLED INSIDE AND OUTSIDE OF RACKS IN A SUITABLE HARNESS TO KEEP CABLES CLEAN, NEAT, AND TIDY</p> <p>6 COMMISSION AUDIO SYSTEM USING AUDIO MEASUREMENT MICROPHONE AND SOFTWARE (SMAART OR EASERA)</p> <p>7 ADJUST EQ AND CROSSOVER SETTINGS IN AMPLIFIER AND/OR DSP TO PROVIDE FLAT FREQUENCY RESPONSE, FULL RANGE AUDIO WITH PROTECTIVE LIMITING</p> <p>8 USE SPEECH, HIGH QUALITY REFERENCE AUDIO, AND SINE WAVE SWEEPS TO TEST THE SYSTEM - CORRECT ANY ABNORMALITIES</p> <p>9 VERIFY PROPER FUNCTION OF ALL INSTALLED EQUIPMENT (NEW AND EXISTING)</p> <p>10 TURN OVER EXISTING UNUSED EQUIPMENT TO OWNER - NEATLY ORGANIZED</p> <p>11 COORDINATE WITH OWNER FOR LABELING OF EQUIPMENT AND AUDIO CONSOLE CHANNELS AND BUSES AS WELL AS CONSOLE CONFIGURATION</p> <p>12 REMOTE MOUNT ALL ANTENNAS AS REQUIRED FOR MAXIMUM PERFORMANCE</p> <p>13 CONFIGURE DELAYS ON ANY SPEAKERS THAT ARE STAGGERED IN A LISTENING PLANE TO TIME-ALIGN AUDIO</p> <p>14 CONNECT COMPONENTS TO POWER SEQUENCER IN SUCH A WAY AS TO MITIGATE POPPING AND SYSTEM DAMAGE DURING SYSTEM POWER UP AND POWER DOWN</p>	<p>1 BICSI TECHNICIAN (TECH) CERTIFICATION IS REQUIRED FOR THE LEAD INSTALLER THAT WILL BE ONSITE AT ALL TIMES.</p> <p>2 EACH INSTALLER IS REQUIRED TO BE CERTIFIED BY THE MANUFACTURER OF THE PRODUCTS THAT ARE INSTALLED (I.E. PANDUIT, BELDEN, HUBBELL, COMMSCOPE, ETC.).</p> <p>3 VALID BICSI TECH AND MANUFACTURER INSTALLER CERTIFICATES SHALL BE INCLUDED IN SUBMITTAL PACKAGE.</p> <p>4 ALL CERTIFICATION TEST RESULTS OF THE STRUCTURED CABLING SYSTEM SHALL BE SUBMITTED TO TOWERPINKSTER AS PART OF THE CLOSEOUT PACKAGE.</p> <p>5 STRUCTURED CABLING INTEGRATOR SHALL PROVIDE A MANUFACTURER'S 25 YEAR WARRANTY AT PROJECT COMPLETION.</p> <p>6 ALL CABLES SHALL HAVE A MINIMUM OF 5FT SERVICE LOOP AT OUTLET LOCATION OR AS NOTED ON DRAWINGS.</p> <p>7 ALL DATA CABLES SHALL HAVE A MINIMUM OF 5FT SERVICE LOOP IN THE TELECOMMUNICATIONS ROOM.</p> <p>8 DATA CABLES SHALL NOT BE BUNDLED IN GROUPS OF MORE THAN 24 WITHIN A TELECOMMUNICATIONS ROOM.</p> <p>9 STRUCTURED CABLING INTEGRATOR SHALL PROVIDE THE MINIMUM REQUIRED QUANTITY OF PATCH PANELS NEEDED FOR ALL DATA CABLES PLUS HAVE CAPACITY FOR A MINIMUM OF 20 FUTURE DATA CABLES.</p> <p>10 ALL DATA FACEPLATES SHALL MATCH THE COLOR, STYLE AND MATERIAL (I.E. STAINLESS STEEL, PLASTIC, ETC.) OF THE ELECTRICAL DEVICE FACEPLATE WITHIN EACH SPACE.</p> <p>11 ALL HORIZONTAL CABLES (CATEGORY CABLE, COAX, FIBER, ETC.) SHALL BE CERTIFIED BY USING A MINIMUM OF A LEVEL III CERTIFICATION TESTER THAT IS WITHIN MANUFACTURER'S CALIBRATION PERIOD.</p> <p>12 ALL BACKBONE FIBER STRANDS SHALL BE CERTIFIED BY USING A MINIMUM OF A LEVEL III CERTIFICATION TESTER THAT IS WITHIN MANUFACTURER'S CALIBRATION PERIOD.</p>
<b>SECURITY SYMBOLS</b>		<b>GENERAL NOTES - AUDIO SYSTEM</b>	
SECURITY CAMERA - WALL SECURITY CAMERA - CEILING SECURITY CABLING PATHWAY, 4 SQ, 5G BRUSH PLATE, 1" CONDUIT STUB ACCESS CONTROL PANEL (REFER TO DETAILS) RELEASE BUTTON INTERCOM MASTER STATION LOCKDOWN BUTTON DURESS ALARM PUSH BUTTON - UNDER DESK CARD READER - 4 SQ BOX, 5G COVER, 3/4" CONDUIT STUB CARD READER, MILLION MOUNT, 3/4" CONDUIT STUB LOCKDOWN STROBE (REFER TO DETAILS) KEY PAD - 4 SQ BOX, 5G COVER, 3/4" CONDUIT STUB INTERCOM - 4 SQ BOX, 5G COVER, 3/4" CONDUIT STUB ACCESS CONTROL DETAIL INDICATOR. REFER TO ACCESS CONTROL DETAILS AND SCHEDULE	<p>16"</p> <p>40"</p> <p>40"</p> <p>40"</p> <p>40"</p>	<p>1 INSTALLED VIDEO SYSTEMS SHALL NOT HAVE NOISE, FLICKER, UNEVEN BRIGHTNESS, OR ANY OTHER VISUAL ANOMOLIES OR DEFICIENCIES</p> <p>2 EDID SHALL BE MANAGED AND MAINTAINED TO ENSURE PROPER DISPLAY IDENTIFICATION BY SOURCES</p> <p>3 HDCP SHALL BE MAINTAINED FROM ALL SOURCES TO ALL SINKS</p> <p>4 COORDINATE ALL NETWORK NEEDS WITH OWNER INCLUDING IP ADDRESSING, PROTOCOLS REQUIRED FOR EQUIPMENT OPERATION, AND BANDWIDTH IMPLICATIONS</p>	<b>GENERAL NOTES - SECURITY CAMERA</b>
<b>NOTES:</b> MOUNT DEVICES AT HEIGHTS INDICATED UNLESS INDICATED OTHERWISE ON PLANS. HEIGHTS ARE TO BOTTOM OF DEVICE.		<b>GENERAL NOTES - VIDEO SYSTEM</b>	



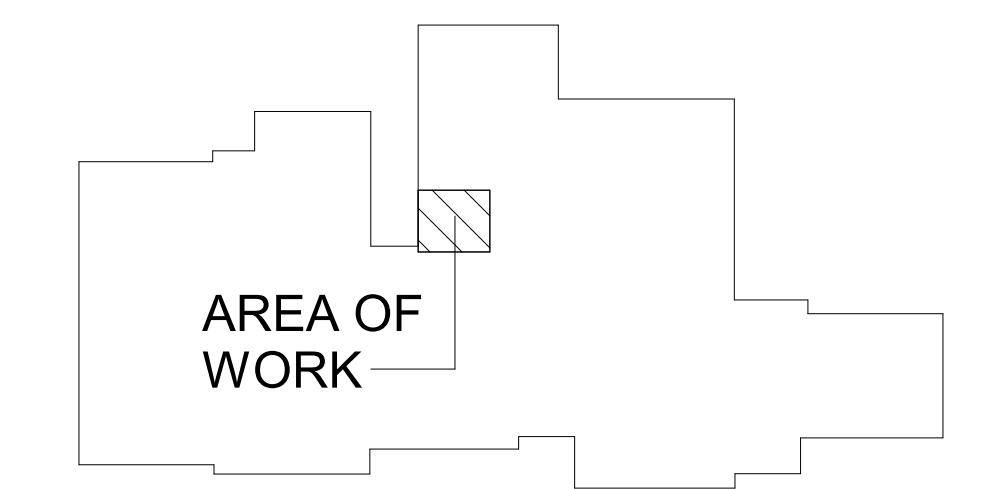
**FIRST FLOOR TECHNOLOGY DEMOLITION PLAN**  
1/4" = 1'-0"

**KEYED NOTES - TECHNOLOGY - DEMOLITION**

- 1 REMOVE DEVICE, MOUNTING HARDWARE, ALL ASSOCIATED RACEWAY, AND CABLING. RETURN DEVICE AND MOUNTING HARDWARE TO OWNER.
- 2 REMOVE DEVICE, ROUGH-IN, ALL ASSOCIATED RACEWAY, AND CABLING. KEEP EXISTING DEVICE FOR REUSE IN ANOTHER LOCATION.

**THIS DRAWING SHEET IS INTENDED TO BE PLOTTED IN COLOR. IF THIS TEXT APPEARS IN BLACK AND WHITE, IT IS PLOTTED INCORRECTLY. DISCARD AND OBTAIN AN ACCURATE DRAWING**

**PORTAGE WEST MIDDLE SCHOOL**



**KEY PLAN**  
SCALE: NONE

SHEET TITLE  
**FIRST FLOOR TECHNOLOGY  
DEMOLITION PLAN**

OWNER  
**PORTAGE PUBLIC SCHOOLS**

PROJECT TITLE  
**WEST MIDDLE SCHOOL SERVERY  
REMODEL**

ISSUED FOR DATE

Portage, Michigan

DATE  
**JANUARY 16, 2024**

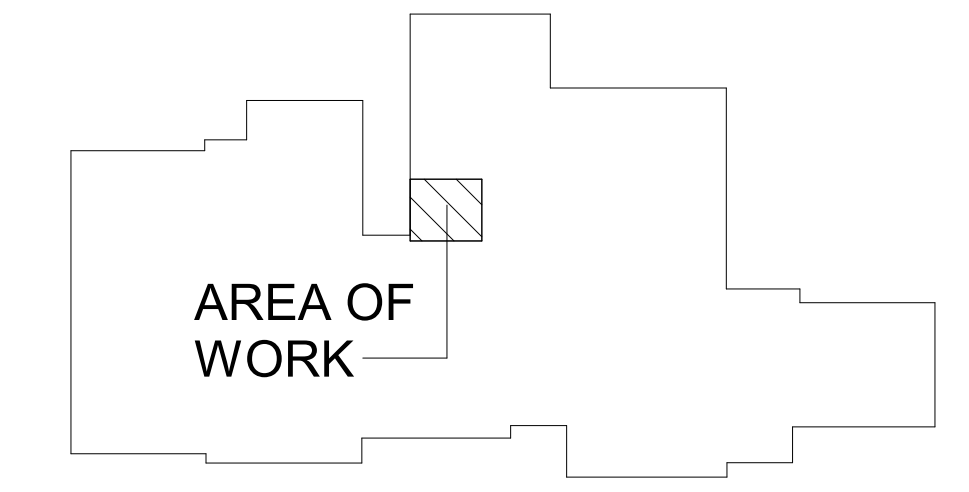
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**TD 101**  
23-186.00



 **OVERALL FIRST FLOOR TECHNOLOGY PLAN**  
3/64" = 1'-0"

**KEYED NOTES - TECHNOLOGY - CONSTRUCTION**

1 PROVIDE NEW ROUGH-IN IN EXISTING WALL. REUSE EXISTING CLOCK.



 **KEY PLAN**  
SCALE: NONE

**SHEET TITLE**  
OVERALL FIRST FLOOR TECHNOLOGY PLAN

**SHEET NUMBER**  
T 101  
23-186.00

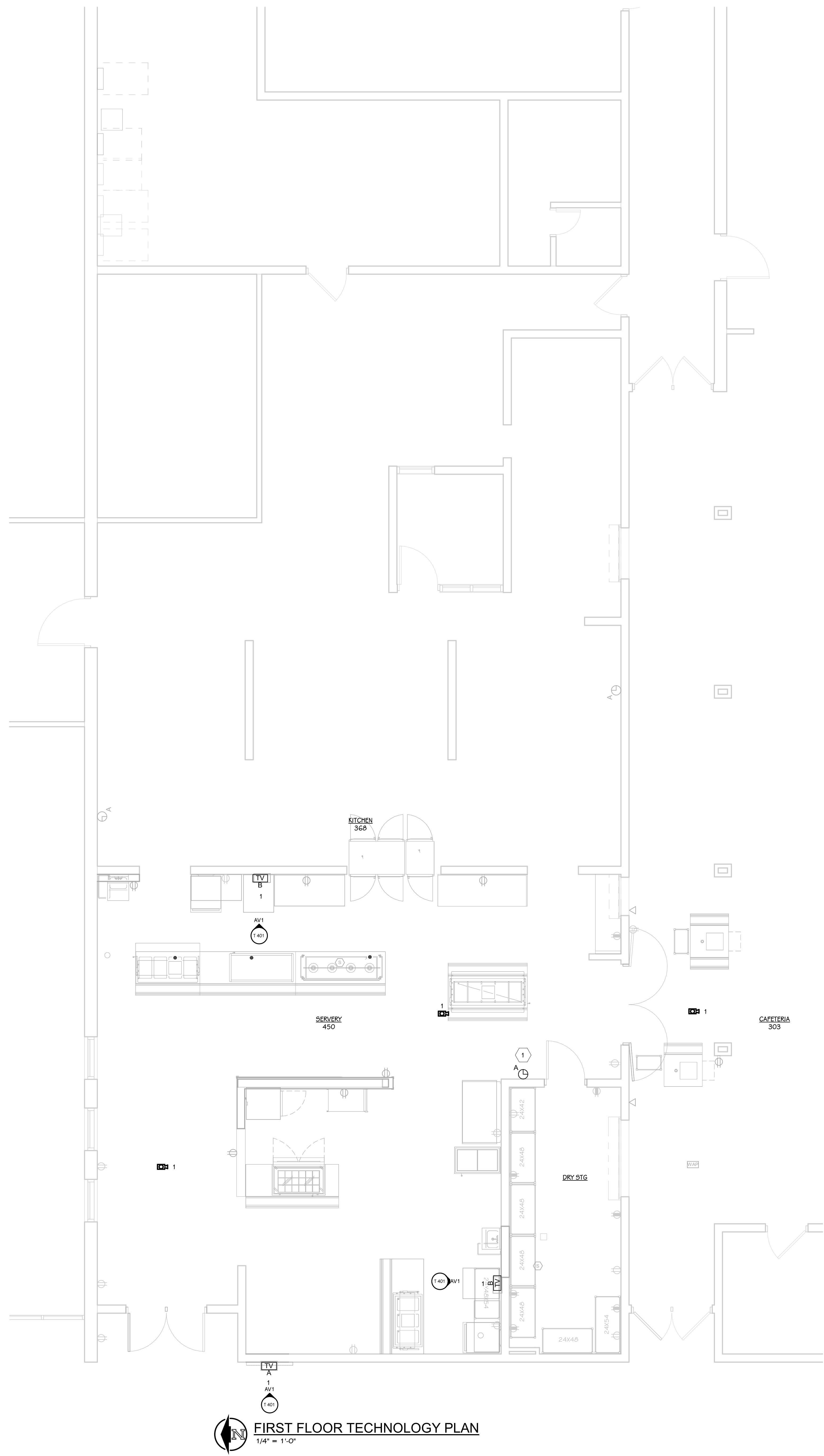
**DATE**  
JANUARY 16, 2024

**OWNER**  
PORTAGE PUBLIC SCHOOLS

Portage, Michigan

**PROJECT TITLE**  
WEST MIDDLE SCHOOL SERVERY REMODEL

**ISSUED FOR** \_\_\_\_\_ **DATE** \_\_\_\_\_

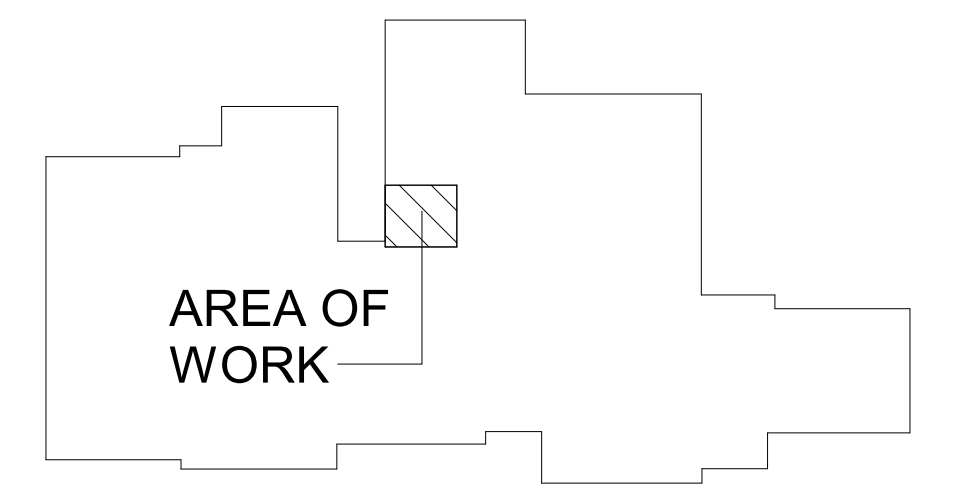


**FIRST FLOOR TECHNOLOGY PLAN**  
1/4" = 1'-0"

**KEYED NOTES - TECHNOLOGY - CONSTRUCTION**

1 PROVIDE NEW ROUGH-IN IN EXISTING WALL. REUSE EXISTING CLOCK.

**PORTAGE WEST MIDDLE SCHOOL**



**KEY PLAN**  
SCALE: NONE

ISSUED FOR DATE

PROJECT TITLE  
WEST MIDDLE SCHOOL SERVERY  
REMODEL

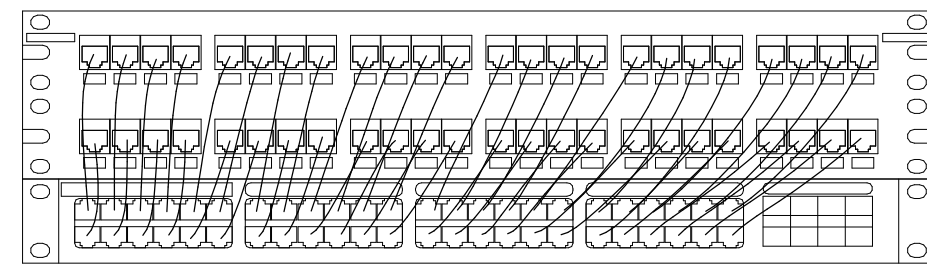
OWNER  
PORTAGE PUBLIC SCHOOLS

Portage, Michigan

SHEET TITLE  
FIRST FLOOR TECHNOLOGY PLAN

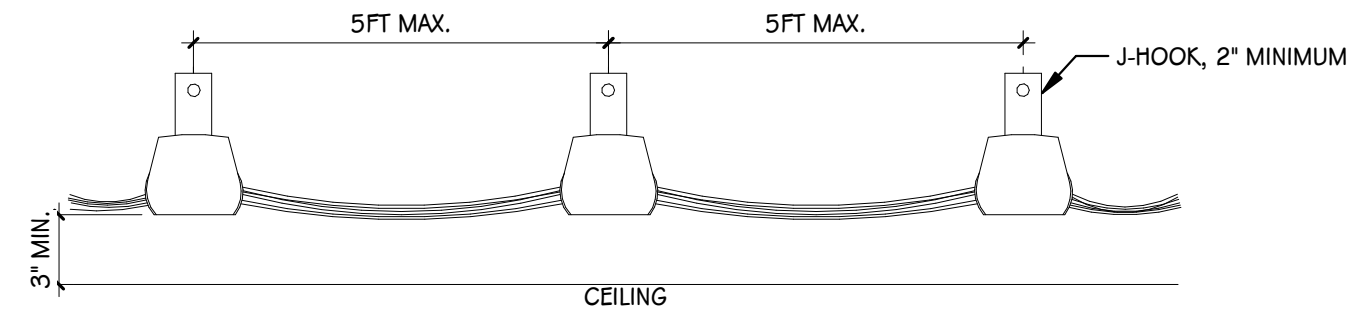
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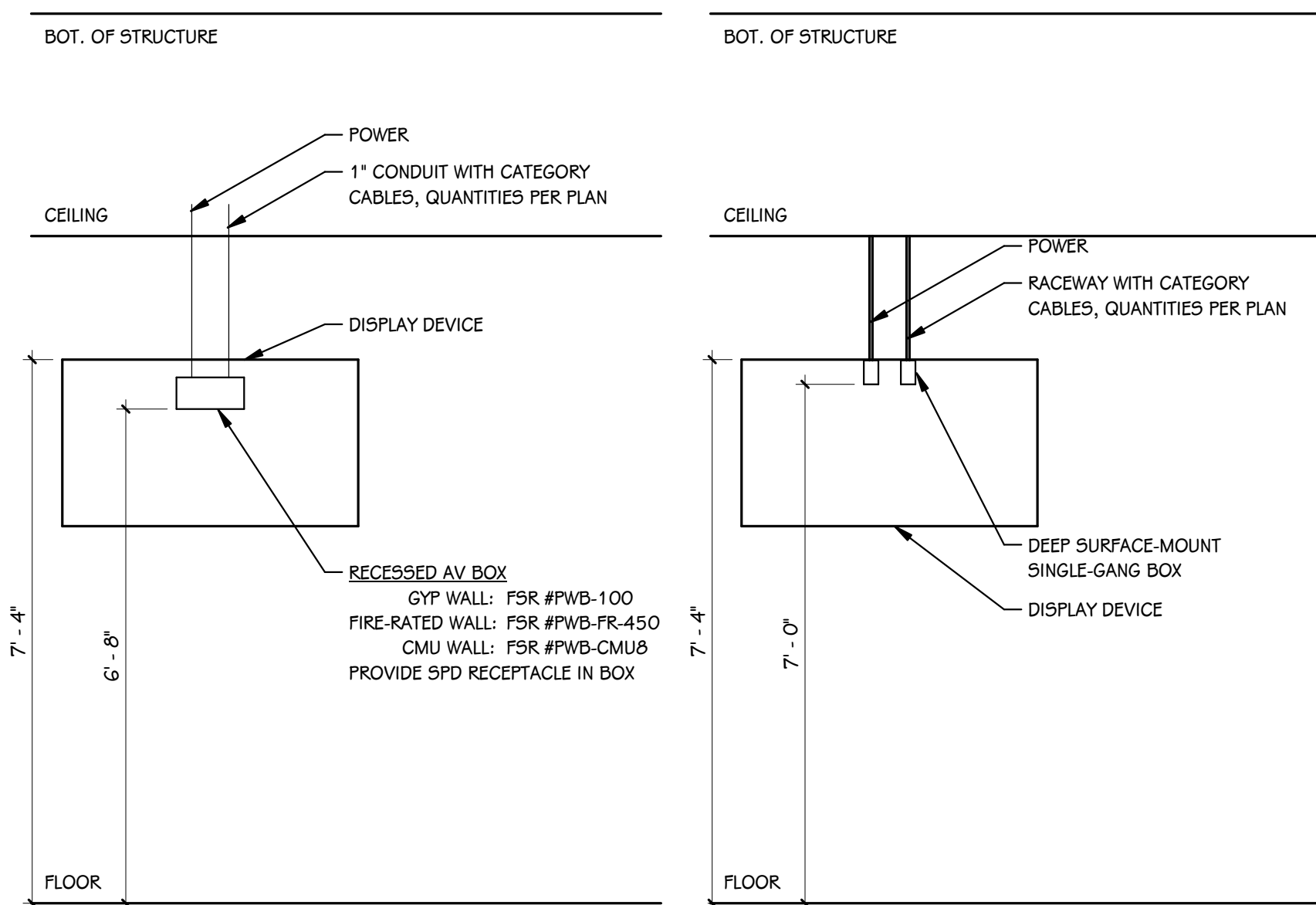


PATCH PANEL SHALL BE NUMBERED IN THE SAME PATTERN AS THE SWITCH. SWITCH PORT NUMBER SHALL CONNECT TO SAME PORT NUMBER ON PATCH PANEL.

**SWITCH - PATCH PANEL CROSS CONNECT SAMPLE**  
SCALE: NONE



**CABLE SUPPORT DETAIL**  
SCALE: NONE



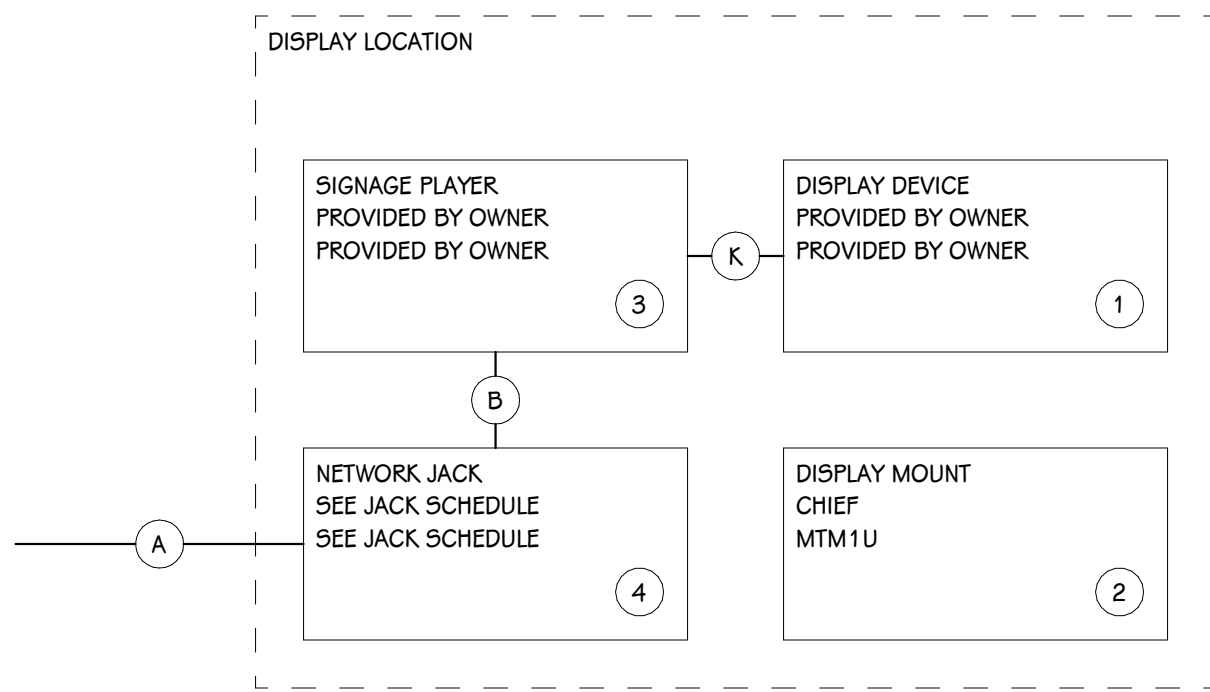
**TELEVISION "A" DETAIL**  
1/2" = 1'-0"

**TELEVISION "B" DETAIL**  
SCALE: NONE

DATA CABLE SCHEDULE						
COLOR	RATING	TYPE	PURPOSE	MANUFACTURER	PART #	
RED	RISER	CAT6	DATA BACKBONE	GENERAL CABLE	7133804	
ORANGE	RISER	CAT6	CLOCKS AND PAGING	GENERAL CABLE	7133805	
YELLOW	RISER	CAT6A	ACCESS POINTS	GENERAL CABLE	7143802	
GREEN	RISER	CAT6	POTS BACKBONE	GENERAL CABLE	7133806	
BLUE	RISER	CAT6	GENERAL DATA	GENERAL CABLE	7133800	
VIOLET	RISER	CAT6	SECURITY CAMERAS	GENERAL CABLE	7133809	
BLACK	RISER	CAT6	AV	GENERAL CABLE	7133807	
PINK	RISER	CAT6	HVAC	GENERAL CABLE	7133808	

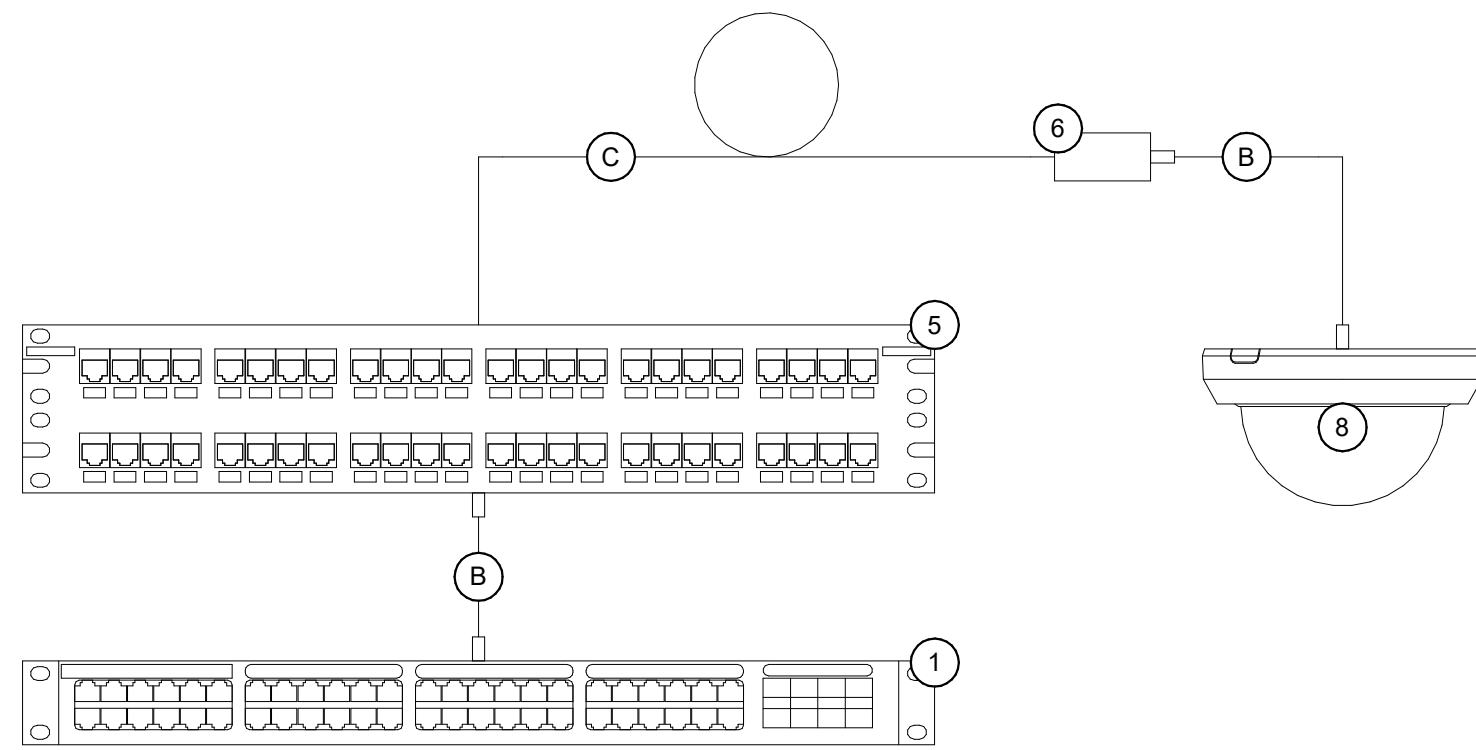
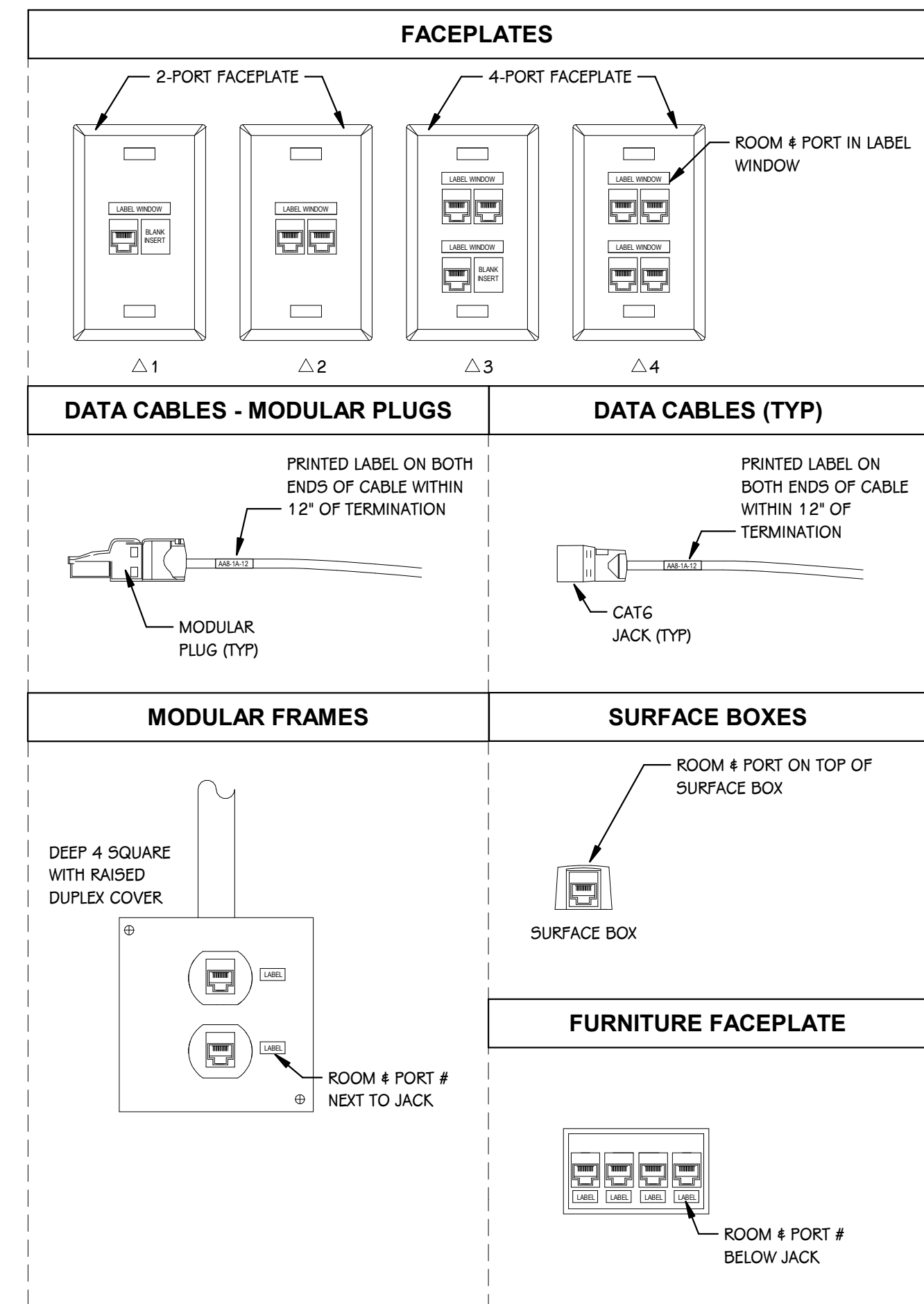
DATA JACK SCHEDULE			
COLOR	PURPOSE	MANUFACTURER	PART #
RED	DATA BACKBONE	PANDUIT	CJ688TGRD
ORANGE	CLOCKS AND PAGING	PANDUIT	CJ688TGOR
YELLOW	ACCESS POINTS	PANDUIT	CJ6X88TGYL
GREEN	POTS BACKBONE	PANDUIT	CJ688TGGR
BLUE	GENERAL DATA	PANDUIT	CJ688TGBU
VIOLET	SECURITY CAMERAS	PANDUIT	CJ688TGVL
BLACK	AV	PANDUIT	CJ688TGBL

FACEPLATE & SURFACE BOX SCHEDULE			
COLOR	TYPE	MANUFACTURER	PART #
MATCH ELEC	1-PORT FACEPLATE, SINGLE-GANG	PANDUIT	CFPL1**Y
MATCH ELEC	2-PORT FACEPLATE, SINGLE-GANG	PANDUIT	CFPL2**Y
MATCH ELEC	3-PORT FACEPLATE, SINGLE-GANG	PANDUIT	CFPL3**Y
MATCH ELEC	4-PORT FACEPLATE, SINGLE-GANG	PANDUIT	CFPL4**Y
MATCH ELEC	6-PORT FACEPLATE, SINGLE-GANG	PANDUIT	CFPL6**Y
MATCH ELEC	1-PORT SURFACE BOX	PANDUIT	CBX11W-A
MATCH ELEC	2-PORT SURFACE BOX	PANDUIT	CBX21W-AY
MATCH FURNITURE	4-PORT FURNITURE PLATE	PANDUIT	VARIES



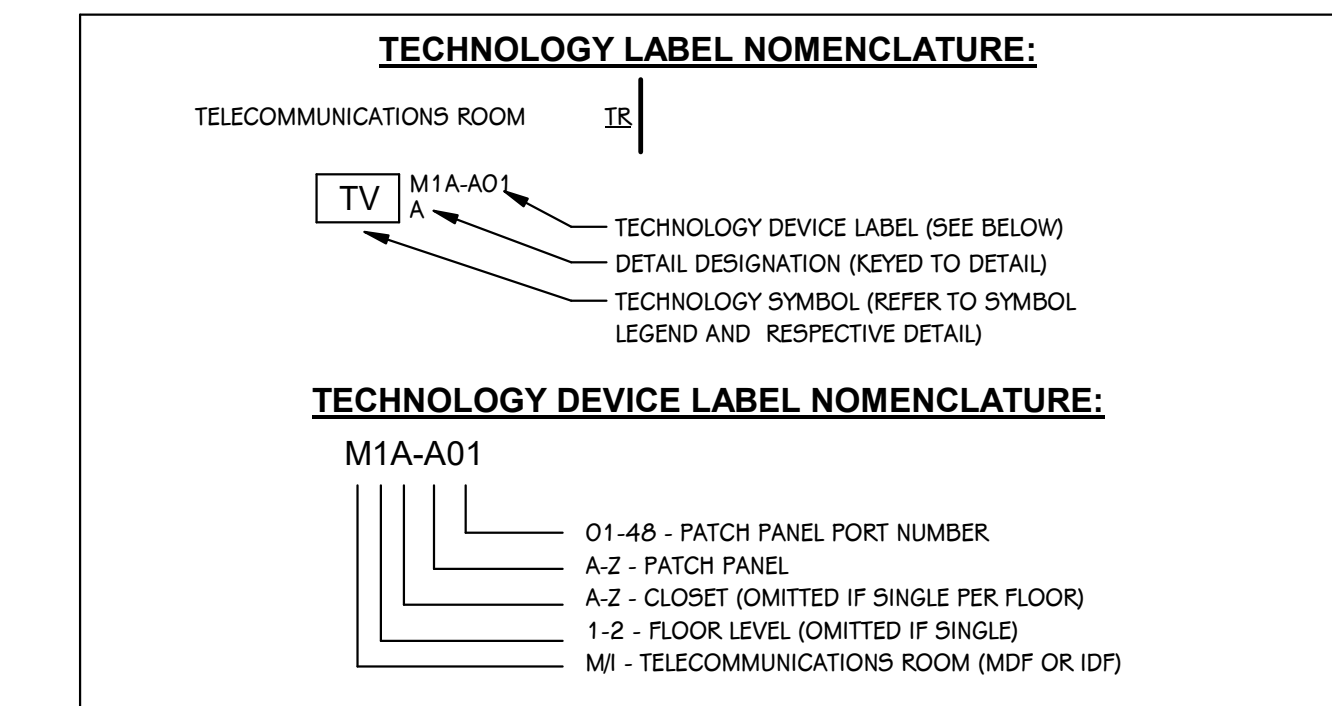
**AV1 RISER**  
SCALE: NONE

AV1 EQUIPMENT SCHEDULE				
KEY #	DESCRIPTION	MANUFACTURER	PART #	COMMENTS
1	DISPLAY DEVICE	PROVIDED BY OWNER	PROVIDED BY OWNER	
2	DISPLAY MOUNT	CHIEF	MTM1U	COORDINATE LOCATION OF MOUNT WITH OWNER PROVIDED DISPLAY TO ACHIEVE MOUNTING HEIGHT INDICATED ON DRAWINGS.
3	SIGNAGE PLAYER	PROVIDED BY OWNER	PROVIDED BY OWNER	
4	NETWORK JACK	SEE JACK SCHEDULE	SEE JACK SCHEDULE	PROVIDE SURFACE-MOUNT BISCUIT. SEE FACEPLATE SCHEDULE.
A	CAT6 CABLE	SEE CABLE SCHEDULE.		LENGTH AS REQUIRED FOR APPLICATION.
B	CAT6 PATCH CORD	SEE CABLE SCHEDULE.		LENGTH AS REQUIRED FOR APPLICATION.
K	HDMI CORD	KRAMER	C-HM/HM/PICO[XX]-[##]	LENGTH AS REQUIRED FOR APPLICATION WITH "[##]" MATCH COLOR WITH "XX". USE C-HM/HM/PRO-[##] FOR LENGTHS OVER 9 FEET.



**INTERIOR SECURITY CAMERA CABLING DETAIL**  
SCALE: NONE

INTERIOR CAMERA EQUIPMENT SCHEDULE				
KEY #	DESCRIPTION	MANUFACTURER	PART #	COMMENTS
1	NETWORK SWITCH	PROVIDED BY OWNER	PROVIDED BY OWNER	
5	PATCH PANEL	REFER TO RACK SCHEDULE	REFER TO RACK SCHEDULE	
6	SURFACE MOUNT BOX	PANDUIT	CBX1**A	
8	CAMERA	PROVIDED BY OWNER	PROVIDED BY OWNER	
B	PATCH CORD	REFER TO SCHEDULE	REFER TO SCHEDULE	
C	CATEGORY CABLE	REFER TO SCHEDULE	REFER TO SCHEDULE	INCLUDE MINIMUM 15FT SERVICE LOOP



ISSUED FOR DATE

PROJECT TITLE  
WEST MIDDLE SCHOOL SERVERY  
REMODEL

OWNER  
PORTAGE PUBLIC SCHOOLS  
Portage, Michigan

SHEET TITLE  
TECHNOLOGY DETAILS

SHEET NUMBER  
**T 401**  
DATE  
JANUARY 16, 2024  
23-186.00