

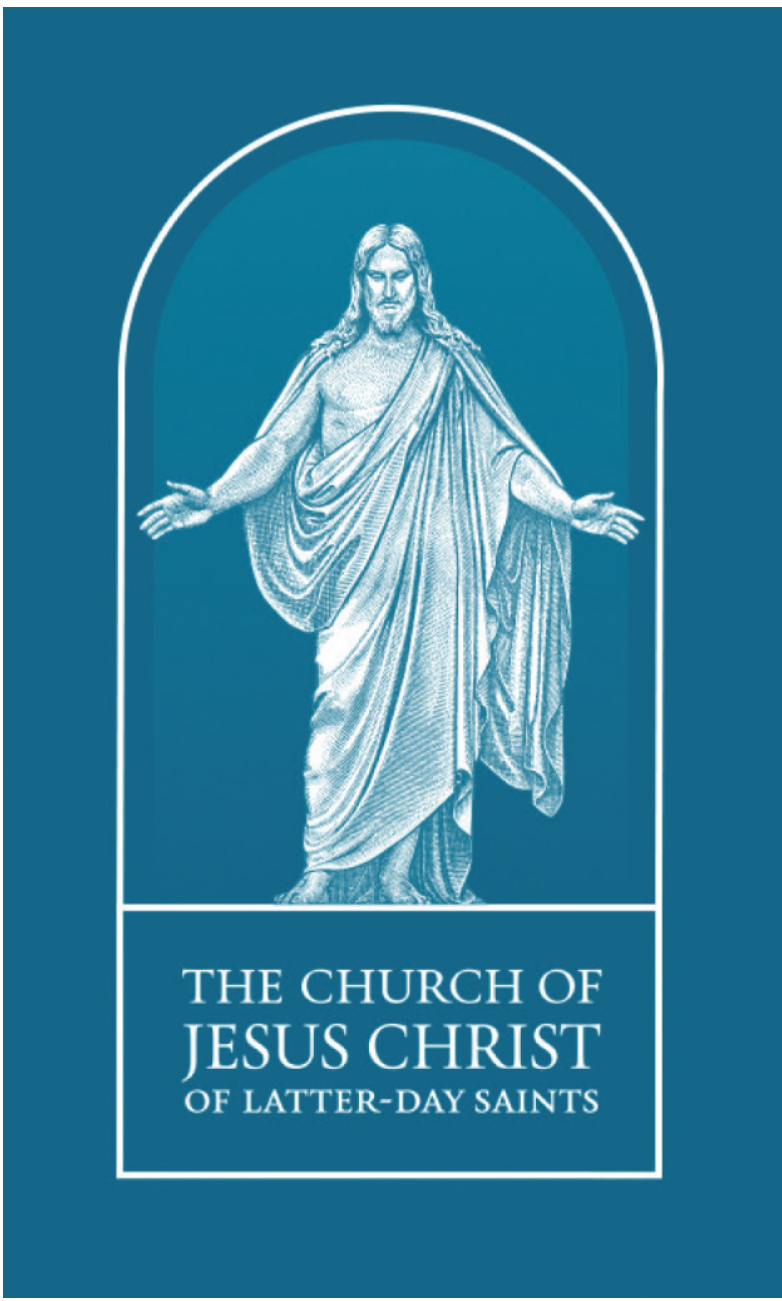
SHEET INDEX

NOTE: THE CONSTRUCTION DOCUMENTS FOR THIS PROJECT ARE COMPOSED OF SETS OF DRAWINGS AND SPECIFICATIONS, AND THEREFORE SHALL BE USED AND MAINTAINED IN THEIR ENTIRETY. ANY CONTRACTOR, SUBCONTRACTOR, VENDOR OR PARTY PARTICIPATING IN OR BIDDING ON THIS PROJECT SHALL BE EXPECTED TO PERFORM DUE DILIGENCE TO ENSURE THEIR BID, WORK PERFORMED, AND MATERIALS PROVIDED CONFORMS TO THE INFORMATION PROVIDED WITHIN ANY AND ALL SHEETS OF DRAWINGS AND SPECIFICATIONS, INCLUDING, BUT NOT LIMITED TO, ANY SUBSEQUENT ADDENDA OR CLARIFICATIONS THAT MAY BE ISSUED RELEVANT TO THEIR SCOPE OF WORK. PROJECT SCOPE MAY BE DEFINED WITHIN SPECIFICATIONS AND/OR DRAWINGS.

ADDITIONALLY, DRAWINGS MAY NOT BE RE-SCALED WHEN PRINTED. WRITTEN DIMENSIONS SHALL HAVE PRECEDENCE, AND LARGER SCALE DRAWINGS SHALL HAVE PRECEDENCE OVER SMALLER SCALE DRAWINGS.

ANY DEVIATION FROM OR CONFLICT WITHIN THE DRAWINGS AND/OR SPECIFICATIONS, MUST BE SUBMITTED VIA REQUEST FOR INFORMATION (RFI) AND RESPONDED TO BY THE ARCHITECT PRIOR TO BID OR BEFORE CONTINUING THAT PORTION OF WORK.

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DESIGN TEAM

ARCHITECTURAL

DESIGN WEST ARCHITECTS
255 SOUTH 300 WEST - 795 NORTH 400 WEST
LOGAN, UT 84321 - SALT LAKE CITY, UT 84103
PHONE: 435.752.7031 - 801.539.8221
EMAIL: ryanl@designwestarchitects.com
CONTACT: RYAN W. LEMON

OWNER

CHURCH OF JESUS CHRIST OF LATTER DAY
SAINTS
4185 N MONTANA AVE, SUITE 1
HELENA, MT 59602
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EMALE: KingLC@churchofjesuschrist.org
CONTACTY: LOGAN KING

MECHANICAL & ELECTRICAL

BRENKMAN & COMPANY
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EMALE: henk.brenkman@brenkmanandcompany.com
CONTACT: HENK BRENKMAN

BID ALLOWANCE
PROVIDE IN YOUR BID A BID ALLOWANCE OF
\$25,000 FOR DEMOLITION AND RESTORATION
OF THE PREVIOUS DISTRIBUTION STORE LOCATION.

ABBREVIATIONS

ABR.	DESCRIPTION	ABR.	DESCRIPTION	ABR.	DESCRIPTION
AB	ANCHOR BOLT	EXIST	EXISTING	PART BD	PARTICLE BOARD
ABS	ACRYLONITRILE-BUTADIENE -STYRENE	EXP	EXPANSION	PART'N	PARTITION
AC	ACOUSTIC, ACOUSTICAL	EXT	EXTERIOR	P-LAM	PLASTIC LAMINATE PLATE
ACC STA	ACCESSIBLE STATION	FD	FLOOR DRAIN	PLYWD	PLYWOOD
AD	ADDENDUM	FDN	FOUNDATION	PROJ	PROJECTION
ADJ	ADJUSTABLE	FEC	FIRE EXTINGUISHER CABINET	PREFAB	PREFABRICATED
AFF	ABOVE FINISH FLOOR	FIN	FINISH	PT	PRESERVATIVE TREATED
ALT	ALTERNATE	FLR	FLOOR	PVC	POLYVINYL CHLORIDE
ALUM	ALUMINUM	FTG	FOOTING	QT	QUARRY TILE
ASI	ARCHITECT SUPPLEMENTAL INSTRUCTION	GA	GAUGE	R/	ROUND
ASPH	ASPHALT	GALV	GALVANIZED	RAD	RADIUS
		GI	GALVANIZED IRON	RD	ROOF DRAIN
		GYP BD	GYP SUM BOARD	REF	REFRIGERATOR
		HDWD	HARDWOOD	REINF	REINFORCE
		HM	HOLLOW METAL	REV	REVISION
BB	BASKETBALL	HORIZ	HORIZONTAL	RFI	REQUEST FOR INFORMATION
BD	BOARD	HT	HEIGHT	RO	ROUGH OPENING
BLDG	BUILDING	ID	INSIDE DIAMETER	SCHED	SCHEDULE
BLKG	BLOCKING	INSUL	INSULATION	SHT	SHEET
BM	BENCH MARK	INT	INTERIOR	SIM	SIMILAR
B.O.	BOTTOM OF	JT	JOINT	SPEC	SPECIFICATION
BRG	BEARING	KD	KNOCK DOWN	SQ	SQUARE
BSMT	BASEMENT	KO	KNOCK OUT	SS	STAINLESS STEEL
B.U.R.	BUILT UP ROOF	L	ANGLE	STD	STANDARD
C	CHANNEL	LLV	LONG LEG VERTICAL	STL	STEEL
CB	CHALKBOARD	MAX	MAXIMUM	STOR	STORAGE
C	CENTER LINE	MB	MARKER BOARD	STRUCT	STRUCTURAL
CLG	CEILING	MECH	MECHANICAL	SUSP	SUSPENDED, SUSPENSION
CMU	CONCRETE MASONRY UNIT	MFR	MANUFACTURER	SYS	SYSTEM
CO	CLEAN OUT	MH	MANHOLE	T & B	TOP AND BOTTOM
COL	COLUMN	MIN	MINIMUM	TB	TACKBOARD
CONC	CONCRETE	MISC	MISCELLANEOUS	TEMP	TEMPORARY
CONN	CONNECTION	MO	MASONRY OPENING	TEL	TELEPHONE
CONT	CONTINUOUS	MT	MOUNT	THRES	THRESHOLD
CONTR	CONTRACTOR	MTL	METAL	TS	TUBE STEEL
CT	CERAMIC TILE	(N)	NEW	T.O.	TOP OF
d	PENNY	NIC	NOT IN CONTRACT	TOIL	TOILET
DIM	DIMENSION	NTS	NOT TO SCALE	TV	TELEVISION
DS	DOWNSPOUT	O.C.	ON CENTER	TYP	TYPICAL
DWG	DRAWING	OD	OUTSIDE DIAMETER	VERT	VERTICAL
(E)	EXISTING	OH	OVERHEAD	UNLESS NOTED OTHERWISE	
EA	EACH	OF/CI	OWNER FURNISHED / CONTRACTOR INSTALLED	W	WIDE FLANGE
EIFS	EXTERIOR INSULATION FINISH SYSTEM	OF/OI	OWNER FURNISHED / OWNER INSTALLED	W/	WITH
ELECT	ELECTRICAL	OPNG	OPENING	WC	WATER CLOSET
ELEV	ELEVATION	OPP	OPOSITE	WD	WOOD
EQ	EQUAL	O.T.S.	OPEN TO STRUCTURE	WM	WATER METER
EQUIP	EQUIPMENT			W/O	WITHOUT
EW	ELECTRIC WATER COOLER			WWF	WELDED WIRE FABRIC

SYMBOLS LEGEND

DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL
BUILDING SECTION		DRAWING TAG	
WALL SECTION		WINDOW TYPES	
DETAIL		WALL TYPES	
SECTION DETAIL ENLARGED PLAN		DOOR TAG	
ELEVATION LEVEL		KEYNOTES	
ELEVATIONS		REVISIONS	
ROOM TAG		GRID BUBBLE	
ROOM FINISH TAG		EQUIPMENT TAG	
		FINISH TAG	
		NORTH ARROW	

MATERIALS LEGEND

MATERIAL	SYMBOL
EARTH	
ASPHALT PAVING	
COMPACTED GRANULAR FILL	
CONCRETE	
CONCRETE MASONRY UNITS	
BRICK	
STEEL	
CONTINUOUS WOOD	
WOOD BLOCKING	
PLYWOOD / OSB	
PARTICLE BOARD	
INSULATION	
RIGID INSULATION	
GYP SUM BOARD	
GLU-LAMINATE BEAM	
GLASS	
FINISH WOOD	
ALUMINUM	
WOOD STUD WALL	

VICINITY MAP



BID/PERMIT SET

DISTRIBUTION CENTER STORE
4185 N MONTANA AVE, SUITE 1
HELENA, MT 59602

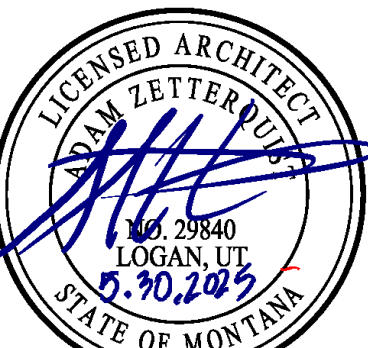
THE CHURCH OF JESUS CHRIST OF LATTER DAY SAINTS

DESIGN
WEST

LOGAN, UTAH
(435) 752-7031
SALT LAKE CITY, UTAH
(801) 539-8221

MARK: DATE: DESCRIPTION:

PROJECT #: 224098
DRAWN BY: HH
CHECKED BY: AZ
ISSUED: 05.30.2025

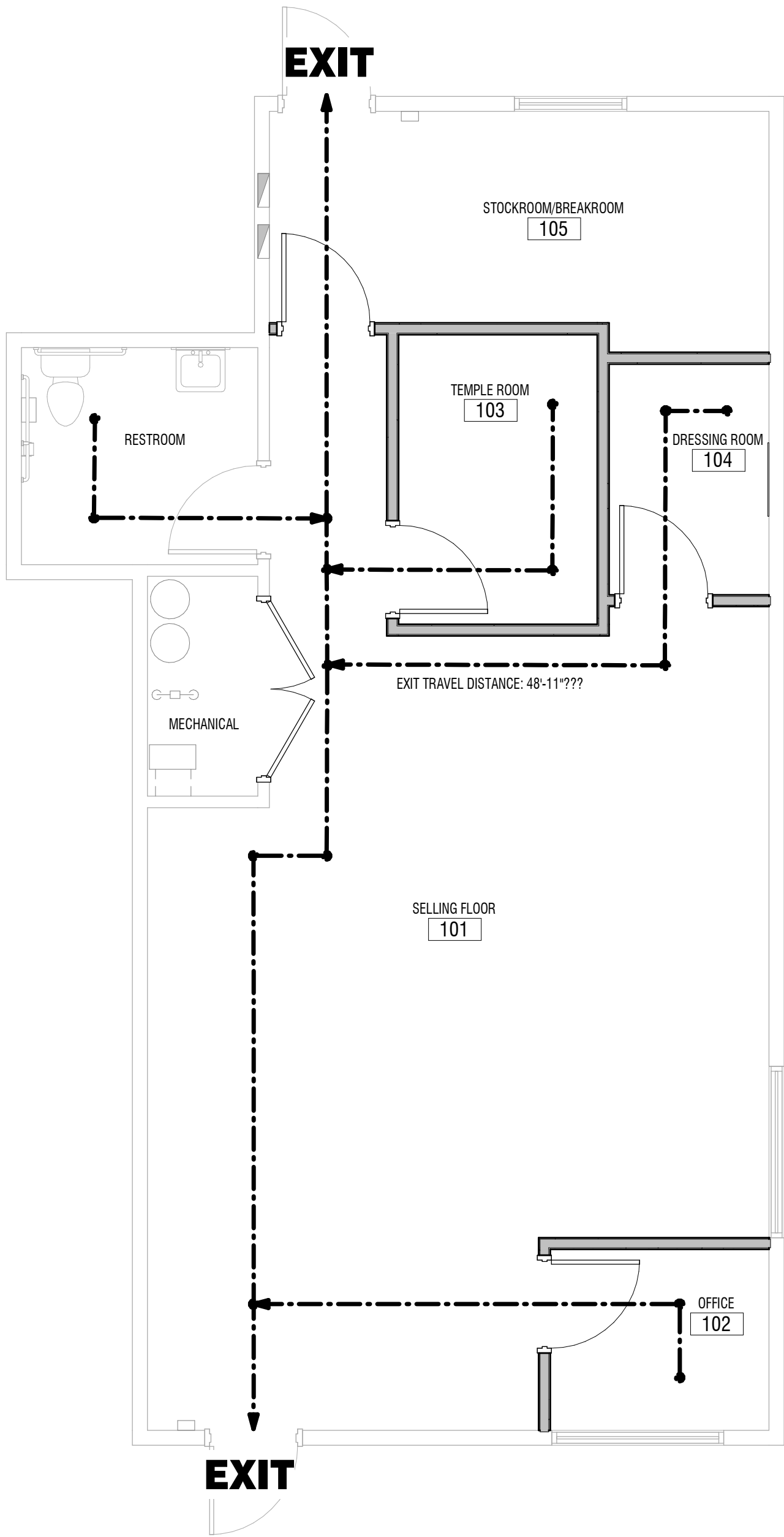
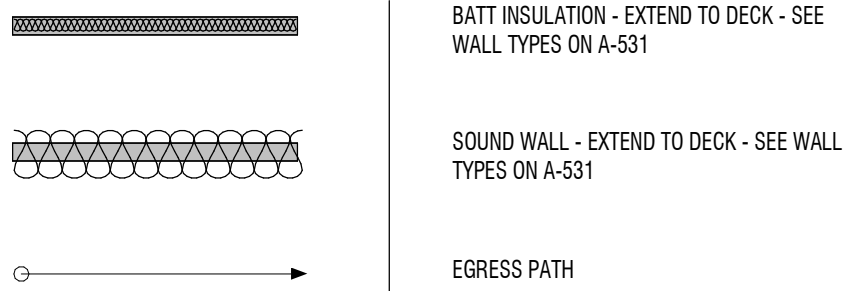


PROJECT
INFORMATION

G-001

15/03/2023 3:47:28 PM AutoCAD Docx (224098) - Distribution Center Store - Distribution Center Store_R24 - HighViewR231.rvt

LEGEND



A2 PLAN - LIFE & SAFETY

1/4" = 1'-0"



CODE REVIEW

JURISDICTION
Helena, MT

CODE
2021 INTERNATIONAL EXISTING BUILDING CODE
2021 INTERNATIONAL BUILDING CODE
2021 INTERNATIONAL MECHANICAL CODE
2021 INTERNATIONAL PLUMBING CODE
2021 COMMERCIAL ENERGY CONSERVATION CODE
2020 NATIONAL ELECTRICAL CODE
2017 ICC ANSI A117.1, 2017

OCCUPANCY CLASSIFICATION (301)
GROUP DESCRIPTION
(M) RETAIL SALE

MIXED OCCUPANCY (506, 508.2)
NO

HIGH-HAZARD GROUP (307)
YES

TYPE OF CONSTRUCTION (601)
GROUP CONSTRUCTION TYPE
(M) VB

AUTOMATIC SPRINKLER SYSTEM (CH9)
GROUP
(M) NO SPRINKLERS

BUILDING HEIGHT (504.3)
UNCHANGED

NUMBER OF STORIES (504.4)
UNCHANGED

BUILDING AREA (506)
GROUP ALLOWABLE PROPOSED (TENANT SPACE) PROPOSED (TOTAL BUILDING)
(M) 9,000 844 SF <4,000

FIRE RESISTIVE REQUIREMENTS (TABLE 601)
CONSTRUCTION TYPE: VB
PRIMARY STRUCTURAL FRAME 0 HR RATING
BEARING WALLS
EXTERIOR 0 HR RATING (601, 602 EXTERIOR WALL 705)
INTERIOR 0 HR RATING (FIRE PARTITIONS 708)
NON BEARING WALLS 0 HR RATING (2304.11.2)
FLOOR CONSTRUCTION 0 HR RATING (601, HORIZONTAL ASSEMBLY 711)
ROOF CONSTRUCTION 0 HR RATING
SHAFT WALLS 0 HR RATING (713.4, FIRE BARRIER 707)
CORRIDORS 0 HR RATING (1020.1, FIRE PARTITIONS 708, 708.3, 713)

OCCUPANT LOAD CALCULATION (1004.1.2)
SPACE FUNCTION SOFT LOAD/FACTOR OCCUPANTS
RETAIL SALES MERCANTILE 884 SF 60 14.7 (15)

EGRESS WIDTH (1005.1, 1010.1.1, 1011.2, 1020.2)
TYPE CODE REQUIRED PROVIDED
EXIT DOORS 2' x 15=3' 32" EA. 38" EA.

PLUMBING FIXTURE REQUIREMENTS (2902.1)
FIXTURE CALCULATIONS (2902.1.1)
GROUP CALCULATION
(M) 884/60=14.7 (15 OCCUPANTS)

WATER CLOSETS
GROUP TABLE VALUE / CALCULATION REQUIRED PROVIDED
(M) 1:500 1 TOTAL 1 TOTAL

LAVATORIES
GROUP TABLE VALUE / CALCULATION REQUIRED PROVIDED
(M) 1:1000 1 TOTAL 1 TOTAL

SERVICE SINKS (2902.1-J)
REQUIRED PROVIDED
0 0

DESIGN
WEST

LOGAN, UTAH
(435) 752-7031
SALT LAKE CITY, UTAH
(801) 539-8221

DISTRIBUTION CENTER STORE
4185 N MONTANA AVE, SUITE 1
HELENA MT 59602

THE CHURCH OF JESUS CHRIST OF LATTER DAY SAINTS

MARK: DATE: DESCRIPTION:

PROJECT #: 224098
DRAWN BY: HH
CHECKED BY: AZ
ISSUED: 05.30.2025



BID/PERMIT SET

CODE REVIEW

G-002

HELENA, MT 59602

THE CHURCH OF JESUS CHRIST OF LATTER DAY SAINTS

1. THE DEMOLITION DRAWINGS ARE INTENDED TO SHOW THE GENERAL NATURE & SCOPE OF THE WORK REQUIRED. ON-SITE OBSERVATIONS SHOULD BE MADE AND REPORT ANY ABNORMAL CONDITIONS TO ARCHITECT. SOME INCIDENTAL ITEMS REQUIRING REMOVAL MAY NOT BE SPECIFICALLY CALLED OUT. REMOVAL OF ALL ITEMS NECESSARY FOR THE COMPLETION OF WORK IS THE RESPONSIBILITY OF THE CONTRACTOR.

FIELD VERIFY EXISTING CONDITIONS AND THEIR COMPATIBILITY WITH NEW CONSTRUCTION PRIOR TO THE COMMENCEMENT OF WORK. SEE ARCHITECTURAL, STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING DRAWINGS FOR ADDITIONAL DEMOLITION PLANS AND SCOPE. REFER TO SHEET INDEX FOR DEMOLITION DRAWINGS. COORDINATE DISCREPANCIES WITH ARCHITECT PRIOR TO PROCEEDING WITH WORK.

ADDITIONALLY, KEYNOTES RETAIN THEIR ASSIGNED VALUE UNIVERSALLY THROUGHOUT THE ARCHITECTURAL SET. THE KEYNOTES LISTED BELOW, REPRESENT THE KEYNOTES FOUND AND UTILIZED ON THIS SHEET AND EACH LIST WILL DIFFER RESPECTIVE TO ITS' SHEET. THEREFORE, BASED ON ACTUAL KEYNOTES UTILIZED ON A GIVEN SHEET OF DRAWINGS, GAPS IN THE SEQUENCING WILL OCCUR.

3. ALL INTERIOR DIMENSIONS ARE TO/FROM FACE OF FINISH. ALL EXTERIOR DIMENSIONS ARE TO/FROM FACE OF FINISH MATERIAL OR GRID WHERE SHOWN. CONTRACTOR SHALL COORDINATE EXISTING DIMENSIONS WITH PROPOSED SCOPE AND REPORT DISCREPANCIES WHERE FOUND.

4. PROTECT ALL SURFACES THAT ARE TO REMAIN OR THAT ARE EXPOSED, AND PROVIDE DUST BARRIERS TO PROTECT ADJACENT AREAS FROM DUST AND DEBRIS DURING SELECTIVE DEMOLITION OPERATIONS.

5. PATCH AND REPAIR DAMAGE IN WALLS, CEILINGS, AND FLOORS RESULTING FROM DEMOLITION OF EXISTING ITEMS OR CONSTRUCTION OF NEW ITEMS AND/OR REPLACE WITH NEW TO MATCH EXISTING. CLEAN AND PREPARE TO RECEIVE NEW FINISH. PROVIDE PAINT/FINISH TOUCHUP AT ALL DEMO LOCATIONS. CLEAN WORK AREA OF DUST, DIRT, AND DEBRIS CAUSED BY SELECTIVE DEMOLITION OPERATIONS. RETURN ADJACENT AREAS TO CONDITION EXISTING BEFORE SELECTIVE DEMOLITION OPERATIONS BEGIN.

6. TRANSPORT DEMOLISHED MATERIALS OFF OWNER'S PROPERTY AND LEGALLY DISPOSE OF DEBRIS

7. IN LOCATIONS WHERE NEW FLOOR FINISHS ARE BEING INSTALLED, EXISTING FLOORING WILL BE DEMOED AND SUB-FLOORING PREPPED TO RECEIVE NEW FINISHES AS INDICATED ON FINISH SCHEDULE.

8. DEMOLISH EXISTING FLOORING WHERE SHOWN, INCLUDING: SETTING BEDS, ADHESIVES AND OTHER VARIANCES IN THE EXISTING FLOOR. PREPARE FLOOR TO RECEIVE NEW FLOORING AS REQUIRED BY CONTRACT DOCUMENTS.

9. WALLS, DOORS, CABINETS, WINDOWS, CEILINGS, ETC. WHERE SHOWN DASHED ARE TO BE REMOVED.

11. REMOVE GENERAL FINISHES, SIGNAGE, FIXTURES, HARDWARE, ETC. THROUGHOUT AREA OF WORK, U.N.O.

12. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER'S REPRESENTATIVE TO DETERMINE IF ANY PARTS OR EQUIPMENT ARE DESIRED TO BE KEPT BY THE OWNER. THE OWNER SHALL HAVE THE RIGHT OF FIRST REFUSAL. ANY ITEM NOT WISHED TO BE RETAINED, SHALL BE DISPOSED OF AT THE RESPONSIBILITY OF THE CONTRACTOR.

MARK	DESCRIPTION
02.01	EXISTING CEILING DIFFUSER TO BE REMOVED
02.02	EXISTING CEILING SPEAKER TO BE REMOVED
02.03	EXISTING WALL SPEAKER TO BE REMOVED
02.04	EXISTING LIGHT FIXTURE TO BE REMOVED
02.05	EXISTING SECURITY KEY PAD TO REMAIN
02.06	EXISTING ATTIC ACCESS DOOR TO REMAIN
02.07	EXISTING GYP BOARD CEILING TO REMAIN
02.08	EXISTING WALL TO BE REMOVED
02.09	EXISTING DOOR TO BE REMOVED
02.10	EXISTING WINDOW TO BE REMOVED
02.11	EXISTING COUNTER TO BE REMOVED
02.12	EXISTING VANITY LIGHT TO BE REMOVED
02.13	REMOVE AND STORE FOR REINSTALLATION PLUMBING FIXTURES, GRAB BARS, MIRROR AND DISPENSERS IN RESTROOM
02.14	REMOVE ALL WOOD TRIM AT DOORS AND WINDOWS

EXISTING TO REMAIN

TO BE DEMOLISHED

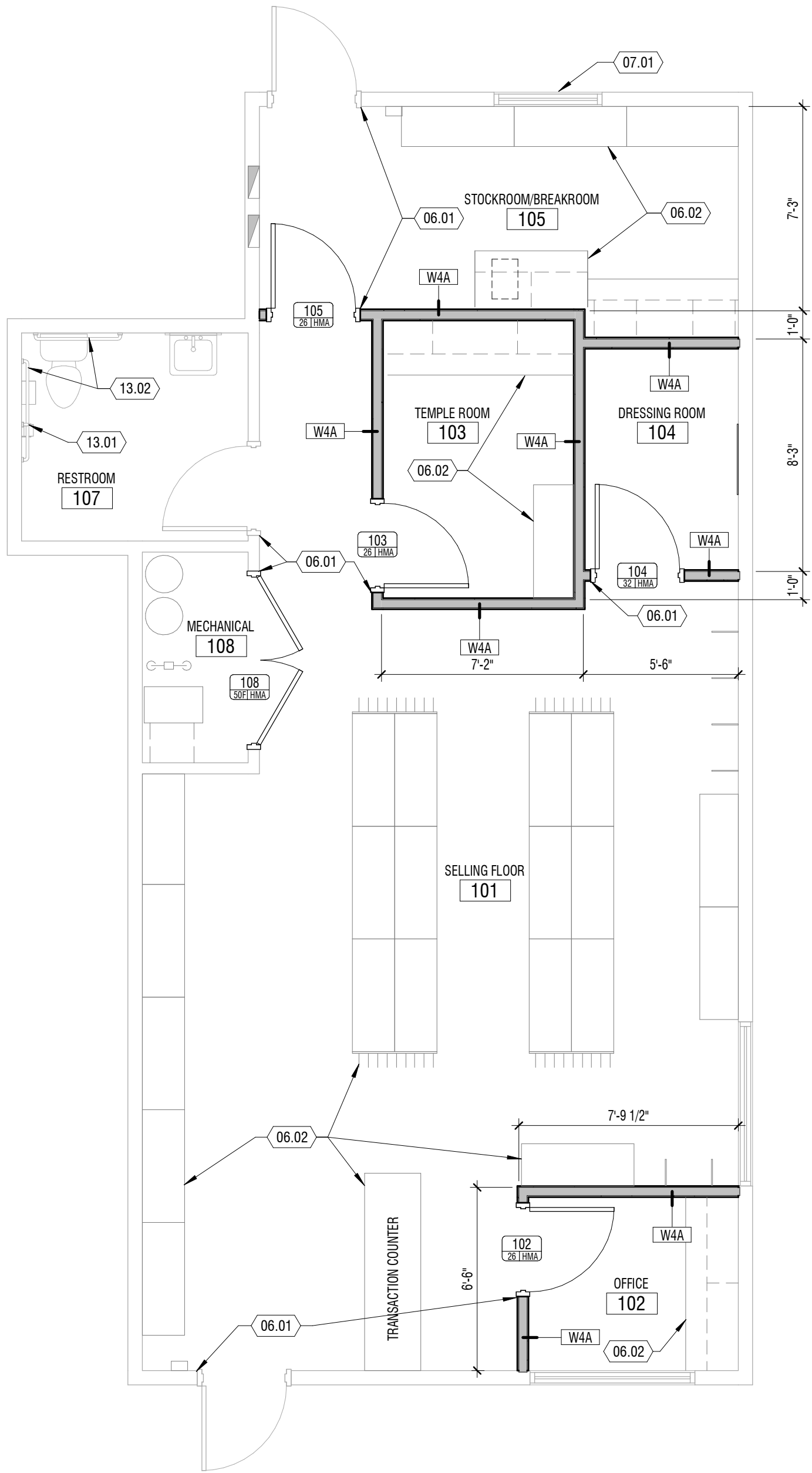
$$1/4'' = 1'-0''$$

$$1/4'' = 1'-0''$$

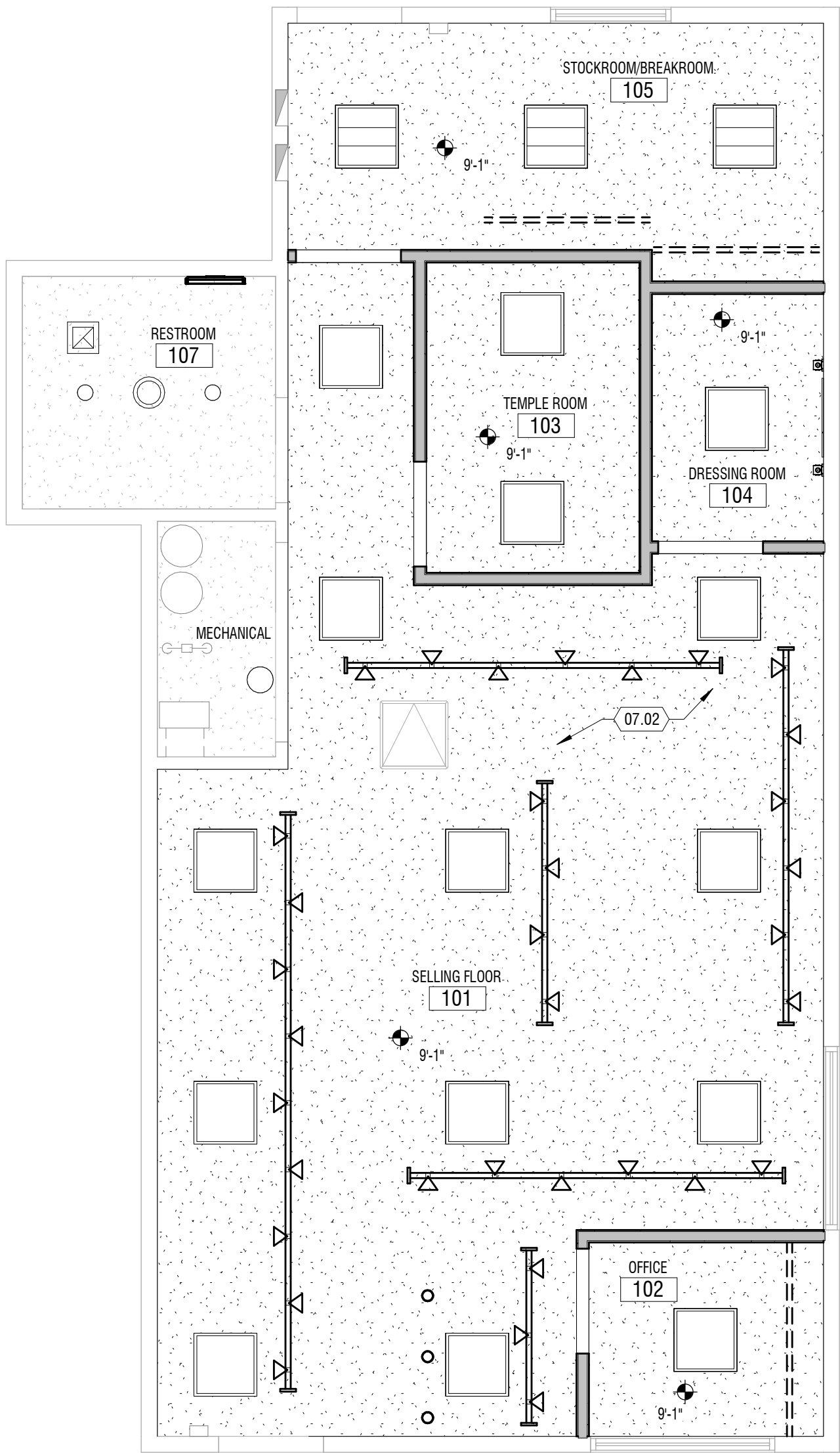

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A
B
C
D

A1 FLOOR PLAN
1/4" = 1'-0"
DIMENSION - ANNOTATION



A3 REFLECTED CEILING
1/4" = 1'-0"



R.C.P. GENERAL NOTES

- KEYNOTES: THE FIRST TWO NUMBERS REPRESENT THE RELATED CSI MASTER FORMAT DIVISION. THE SECOND SET OF NUMBERS REPRESENTS AN IDENTIFYING MARK VALUE. NOT ALL VALUES MAY BE USED OR OCCUR IN THE DOCUMENT SET.

ADDITIONALLY, KEYNOTES RETAIN THEIR ASSIGNED VALUE UNIVERSALLY THROUGHOUT THE SET. THE KEYNOTES LISTED BELOW, REPRESENT THE KEYNOTES FOUND AND UTILIZED ON THIS SHEET AND EACH LIST WILL DIFFER RESPECTIVE TO ITS' SHEET. THEREFORE, BASED ON ACTUAL KEYNOTES UTILIZED ON A GIVEN SHEET OF DRAWINGS, GAPS IN THE SEQUENCING WILL OCCUR.
- CONTRACTOR SHALL COORDINATE LAY-OUT OF STRUCTURAL, MECHANICAL, SPRINKLER AND ELECTRICAL. NOTIFY ARCHITECT OF ANY CONFLICTS.
- ALL INTERIOR DIMENSIONS ARE TO FROM FACE OF STUD / MASONRY. ALL EXTERIOR DIMENSIONS ARE TO FROM FACE OF GRID FOUNDATION. DIMENSIONS MARKED 'CLR' OR 'CLR' ARE FROM FACE OF FINISH TO FACE OF FINISH AND SHALL BE MAINTAINED AND CANNOT BE FIELD ADJUSTED WITHOUT PRIOR APPROVAL OF THE ARCHITECT.
- SEE A-801 LEGEND FOR FINISH LEGEND
- CEILING HEIGHT IS 8'-0". FINISHED CEILING HEIGHT ABOVE FINISHED FLOOR
- MEASUREMENTS SPECIFYING "EQ" = EQUAL LENGTH OR WIDTH TO FILL REMAINDER OF LENGTH REQUIRED
- LIGHT FIXTURES WITH NO DIMENSIONS ARE TO BE CENTERED ON ROOM UNLESS OTHERWISE NOTED
- ROLLER SHADES PER FINISH PLANS, COORDINATE MANUAL AND POWER LOCATIONS WITH THE ELECTRICAL AND FINISH PLANS.

GENERAL NOTES

- KEYNOTES: THE FIRST TWO NUMBERS REPRESENT THE RELATED CSI MASTER FORMAT DIVISION. THE SECOND SET OF NUMBERS REPRESENTS AN IDENTIFYING MARK VALUE. NOT ALL VALUES MAY BE USED OR OCCUR IN THE DOCUMENT SET.

ADDITIONALLY, KEYNOTES RETAIN THEIR ASSIGNED VALUE UNIVERSALLY THROUGHOUT THE SET. THE KEYNOTES LISTED BELOW, REPRESENT THE KEYNOTES FOUND AND UTILIZED ON THIS SHEET AND EACH LIST WILL DIFFER RESPECTIVE TO ITS' SHEET. THEREFORE, BASED ON ACTUAL KEYNOTES UTILIZED ON A GIVEN SHEET OF DRAWINGS, GAPS IN THE SEQUENCING WILL OCCUR.
- CONTRACTOR SHALL BE FAMILIARIZED WITH THE LAY-OUT OF STRUCTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS. ANY QUESTIONS SHALL BE SUBMITTED VIA REQUEST FOR INFORMATION (RFI).
- MIN CLEARANCE REQUIRED ON LATCH SIDE OF DOORS SHALL CONFORM TO ADA REQUIREMENTS
- HINGE SIDE OF DOORS AT PERPENDICULAR WALLS TO HAVE 3\"/>
- ALIGN FURRED WALLS AND STUD WALL FINISH FACE TYPICAL U.N.O.
- ADA RESTROOMS MUST COMPLY WITH ADA WATER CLOSET MEASUREMENTS ON SHEET A1/A-501
- DOOR AND WINDOWS OPENINGS ARE INDICATED WITH ANNOTATION SYMBOLS AND ARE FURTHER IDENTIFIED ON DOOR AND WINDOW SCHEDULES. SEE BOTH FLOOR PLANS AND EXTERIOR ELEVATIONS FOR ALL REFERENCES.
- PROVIDE CONTINUOUS WOOD BLOCKING FOR ANY WALL MOUNTED OR SUPPORTED ITEMS.
- FEC = FIRE EXTINGUISHER IN SEMI-RECESSED CABINET.
- A1/A-101 INDICATES INTERIOR ROOM ELEVATIONS ON SHEET REFERENCED.
- WALL TYPES SHOWN AS ARE SHOWN ON SHEET A-501.
- SEE FINISH PLANS FOR SIGNAGE LOCATION, SIGNAGE SYMBOL.

KEYNOTES

MARK	DESCRIPTION
06.01	INSTALL 4" SQUARE STOCK WOOD TRIM AT ALL DOORS AND WINDOWS
06.02	OWNER PROVIDED AND INSTALLED MILLWORK
07.01	ADD WHITE OPAQUE FILM TO INSIDE OF GLAZING. ADD RIGID INSULATION TIGHT TO GLAZING. THICKNESS OF INSULATION TO BE ~ 5" (FULL DEPTH OF WINDOW RECESS). FILL ALL GAPS/VOIDS AROUND INSULATION
07.02	REPLACE ANY DISTURBED/REMOVED ATTIC INSULATION AS REQUIRED TO ACCOMPLISH NEW WORK. TYPICAL ALL SPACES
13.01	INSTALL NEW VERTICAL GRAB BAR
13.02	REINSTALLATION PLUMBING FIXTURES, GRAB BARS, MIRROR AND DISPENSORS IN RESTROOM

LEGEND

MATERIALS

	2'-0" x 2'-0" SUSPENDED ACOUSTICAL LAY-IN CEILING SYSTEM
	PAINTED GYPSUM BOARD CEILINGS WITH LIGHT KNOCK-DOWN TEXTURE TYPICAL, U.N.O.

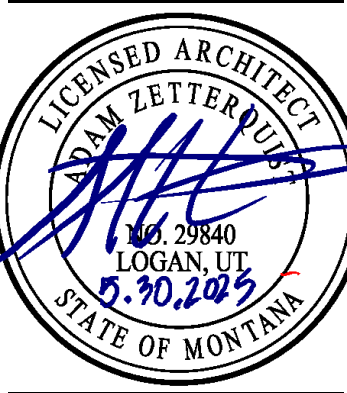
SYMBOLS

	LIGHTING FIXTURES: 2x2 TROFFERS
	VANITY LIGHT
	6" LED CAN LIGHT
	TRACK LIGHTING
	ROUND PENDANT FIXTURE
	UNDER CABINET LED
	WALL SCONCE
	SENSORS/SIGNS/ELEC./DATA: EXIT SIGN - SEE ELECTRICAL DRAWINGS
	AIR GRILLES/ACCESS PANELS: EXHAUST
	SUPPLY / FRESH
	RETURN / RELIEF
	ACCESS PANEL

BID/PERMIT SET

DISTRIBUTION CENTER STORE
4185 N MONTANA AVE, SUITE 1
HELENA MT 59602
THE CHURCH OF JESUS CHRIST OF LATTER DAY SAINTS

MARK	DATE	DESCRIPTION
PROJECT #:	224098	
DRAWN BY:	HH	
CHECKED BY:	AZ	
ISSUED:	05.30.2025	



FLOOR PLAN &
REFLECTED CEILING
PLAN

A-101

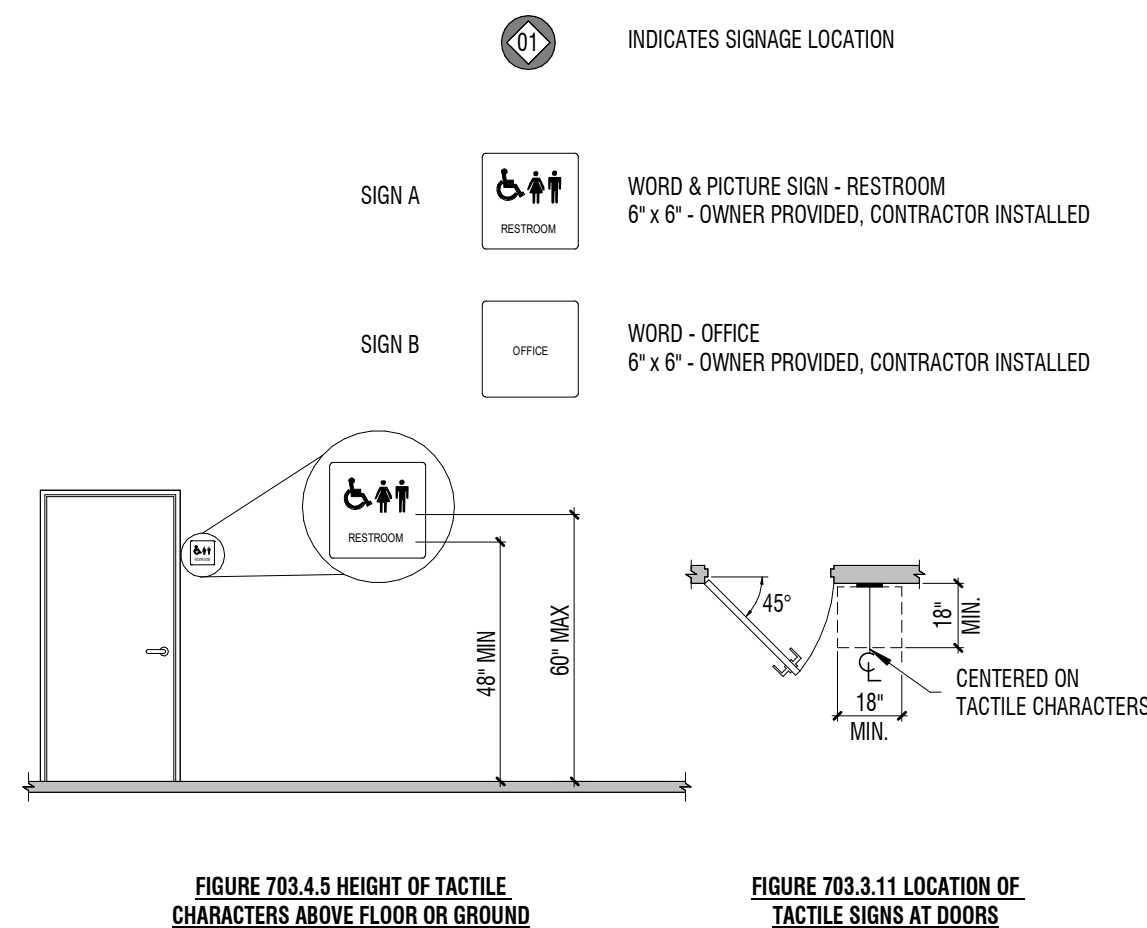
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D

C

B

A



D2 SIGNAGE MOUNTING DETAIL

1/4" = 1'-0"

SIGNAGE GENERAL NOTES

- SEE FINISH PLANS FOR SIGNAGE LOCATIONS. SIGNAGE INDICATED WITH SYMBOL ON PLAN. NUMBER REFERS TO SIGNAGE SCHEDULE, LETTER IN SCHEDULE REFERS TO SIGNAGE GRAPHICS
- MAINTAIN MIN 1/2" EDGE DISTANCE FROM ALL COPY/IMAGES
- FINAL SIGN TEXT TO BE APPROVED BY OWNER AND ARCHITECT
- PROVIDE ALL SIGNAGE REQUIRED BY CODE AND COMPLY WITH ANSI SECTION 703
- FINAL COPY AND LAY OUT OF SIGNAGE TO BE COORDINATED W/ ARCHITECT. SIZES AND MATERIALS, ESTABLISHED COPY TO BE DETERMINED BY OWNER AND SUPPLIED FOR SHOP DRAWINGS
- WHEN SIGN IS MOUNTED ON GLASS, PROVIDE BLANK BACKER PLATE THAT MATCHES SIZE AND STYLE ON OTHER SIDE OF GLASS

SIGNAGE SCHEDULE

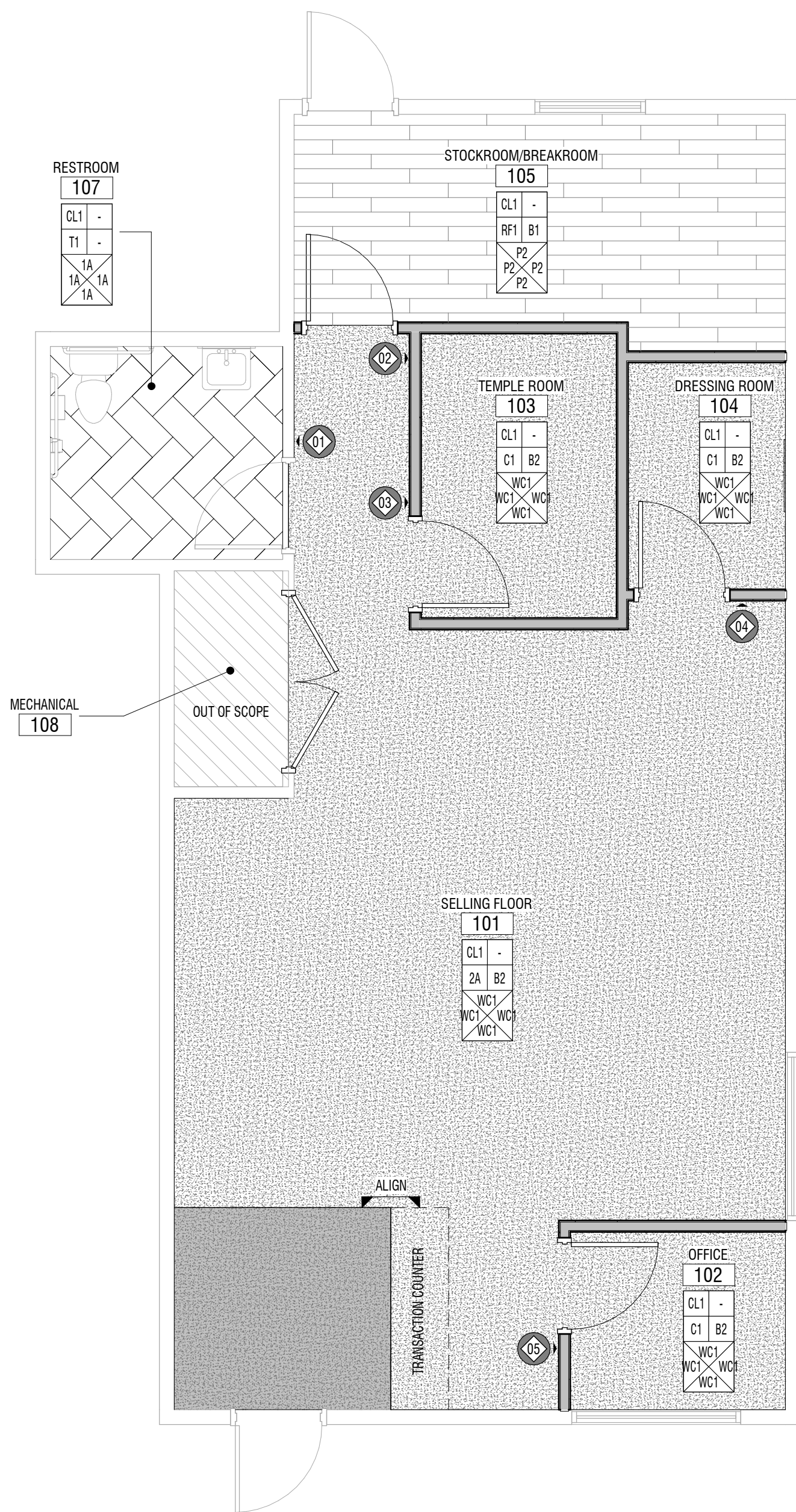
MARK	SIGNAGE TYPE	REQUIRED TEXT
01	TYPE A	RESTROOM
02	TYPE B	STOCKROOM/BREAKROOM
03	TYPE B	TEMPLE ROOM
04	TYPE B	DRESSING ROOM
05	TYPE B	OFFICE

GENERAL NOTES

- ROOM FINISH TAGS FOR EACH ROOM REPRESENT TYPICAL FINISHES. SPECIFIC WALLS IN SELECTED AREAS MAY HAVE MULTIPLE FINISHES WHICH WILL BE INDICATED IN INTERIOR ELEVATIONS.
- FIELD VERIFY ALL DIMENSIONS PRIOR TO FABRICATION OF CASEWORK AND FINISH ASSEMBLIES
- SEE INTERIOR ELEVATIONS FOR ADDITIONAL FINISH INFORMATION
- SEE REFLECTED CEILING PLANS FOR ADDITIONAL FINISH INFORMATION
- FOR FINISH SCHEDULE SEE SHEET A-601.
- FLOOR MATERIAL TRANSITIONS WILL OCCUR BELOW DOORS, U.N.O.
- FOR TYPICAL TRANSITION/FINISH DETAILS SEE SHEET A-102
- SEE SHEET A-102 FOR SIGNAGE TYPES AND DESCRIPTIONS
- TILED WALLS TO BE FULL HEIGHT OF WALL, U.N.O.
- POLISHED OR SEALED CONCRETE DOES EXTEND UNDER CASEWORK OR MILLWORK
- FLOOR COVERING DOES NOT EXTEND UNDER MILLWORK OR CASEWORK, U.N.O.
- INSTALL FLOOR TILE EXPANSION JOINTS AS PER TCNA.

FINISH LEGEND

CEILING FLOOR WALL WALL	MILLWORK BASE WALL WALL	ROOM FINISH TAG
C1		FINISH TAG - INDICATES SPECIFIC APPLIED FINISH
C1		INDICATES FINISH IS APPLIED TO AREA BETWEEN ARROWS
C1		INDICATES FINISH IS APPLIED TO FACE OF SURFACE(S)
RS		INDICATES A MANUAL ROLLER SHADE.
CG		INDICATES CORNER GUARD
		TILE FLOOR - T1
		LVT FLOOR - RF1
		CARPET - C1
		WALK-OFF CARPET - C2



A3 FINISH PLAN

1/4" = 1'-0"



DESIGN
WEST

LOGAN, UTAH
(435) 752-7031
SALT LAKE CITY, UTAH
(801) 539-8221

DISTRIBUTION CENTER STORE
4185 N MONTANA AVE, SUITE 1
HELENA, MT 59602

THE CHURCH OF JESUS CHRIST OF LATTER DAY SAINTS

MARK: DESCRIPTION:

DATE:

PROJECT #: 224098

DRAWN BY: HH

CHECKED BY: AZ

ISSUED: 05.30.2025



FINISH PLAN

A-102

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BID/PERMIT SET

INTERIOR WALL ASSEMBLIES

W4A

DESCRIPTION	ASSEMBLY	FIRE RATING
N/A	5/8" TYPE 'X' GYPSUM BOARD	N/A
	3-1/2" WOOD STUD FRAMING @16" O.C.	TESTING SOURCE
	5/8" TYPE 'X' GYPSUM BOARD	N/A
		STC RATING
		N/A
		TESTING SOURCE
		N/A

NOTE: SEE CODE PLAN FOR CAVITY INSULATION LAYOUT.

GENERAL NOTES

1. WALL TYPE ASSEMBLIES ARE NOT INTENDED TO LOCATE INSULATION FOR ALL CONDITIONS. THE CODE PLANS ARE USED TO MORE CLEARLY INDICATE THE LOCATION FOR INSULATION FOR THERMAL OR SOUND ISOLATION. SEE CODE PLANS FOR A GENERAL LAYOUT AND DETAILS FOR ADDITIONAL OCCURANCES.
2. SEE SOURCE OF TESTED ASSEMBLIES FOR SEAM OVERLAPS, TAPING, AND FASTENING REQUIREMENTS OF RATED WALL TYPES.

DOOR SCHEDULE

MARK	LEAF SIZING (1)			DOOR TYPE (2)	CONSTRUCTION (3)	FINISH (4)	GLAZING (5)	RATING (6)	FRAME TYPE (7)	DETAILS (8)			HARDWARE (9)	NOTES (10)
	W	H	D							HEAD	JAMB	SILL		
102	3'-0"	7'-0"	1 3/4"	WD01	SC		-	-	HMA	C4/A-502	B4/A-502	A4/A-502	26	
103	3'-0"	7'-0"	1 3/4"	WD01	SC		-	-	HMA	C4/A-502	B4/A-502	A4/A-502	26	
104	3'-0"	7'-0"	1 3/4"	WD01	SC		-	-	HMA	C4/A-502	B4/A-502	A4/A-502	32	
105	3'-0"	7'-0"	1 3/4"	WD01	SC		-	-	HMA	C4/A-502	B4/A-502	A4/A-502	26	
108	6'-0"	7'-0"	1 3/4"	WD02	SC				HMA	C4/A-502	B4/A-502	A4/A-502	50F	

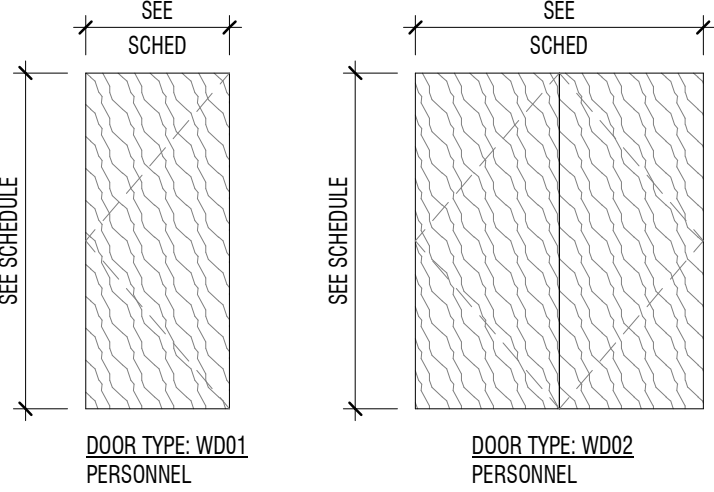
GENERAL NOTES

1. PROVIDE SEALANT AT JOINTS AT DISSIMILAR MATERIAL CONNECTIONS, ISOLATE DISSIMILAR METALS.
2. ALL DIMENSIONS FOR DOOR AND WINDOW OPENINGS TO BE FIELD VERIFIED PRIOR TO MANUFACTURING AND INSTALLATION.
3. UNLESS NOTED OTHERWISE, WHERE OCCURS ALL WINDOWS AND TRANSOMS THAT OCCUR IN RATED CORRIDOR WALL TO BE RATED 45 MIN.
4. PRE-PAINT ALL FRAMES PRIOR TO INSTALLATION.
5. BRAILLE SIGNAGE REQUIRED ON STRIKE SIDE OF FRAME.

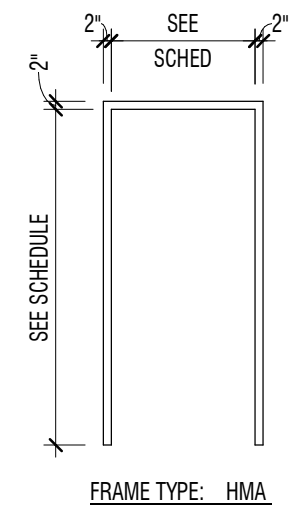
SCHEDULE NOTES

- IF SCHEDULE FIELD SHOWS A HYPHEN (-) OR IS BLANK, THERE ARE NO ITEMS APPLICABLE OR IS DETERMINED BY MANUFACTURER.
- SWING LINES SHOWN BELOW ARE REPRESENTATIONAL AND DO NOT INDICATE ACTUAL SWING. SEE PLANS FOR INDIVIDUAL SWINGS.

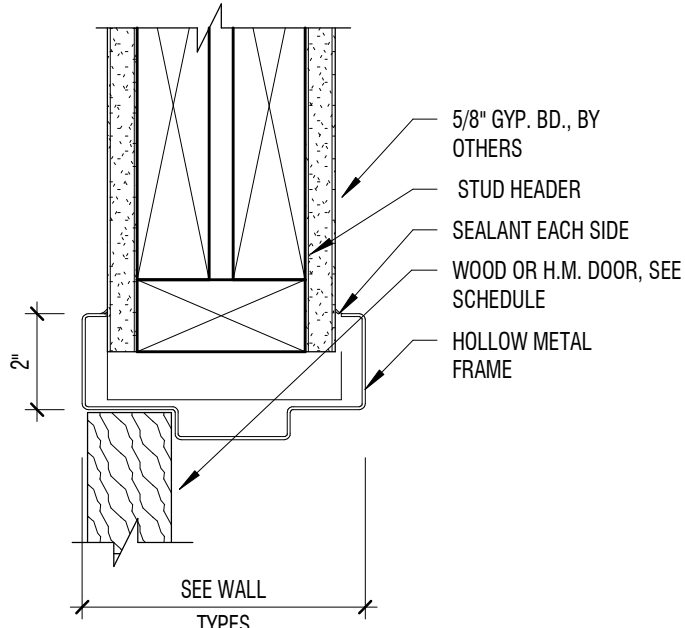
1. LEAF SIZING: SEE SCHEDULE
2. DOOR TYPES:



3. CONSTRUCTION:
GL GLASS
AL ALUMINIUM
HM HOLLOW METAL, INSULATED
HM HOLLOW METAL
SC SOLID CORE
4. FINISH: SEE DOOR FINISHES ON SHEET A-691
5. GLAZING: (DOOR AND WINDOW)
SG SAFETY GLASS (TEMPERED OR LAMINATED)
SGI SAFETY GLASS INSULATED, LOW E
CG CLEAR FLOAT GLASS
CGI CLEAR FLOAT GLASS INSULATED - LOW E
SP SPANDREL PANEL
6. RATING: 20, 45, 60 AND ETC. INDICATES FIRE RATING
NOTE: ALL FIRE RATED DOORS SHALL BE AUTOMATIC CLOSING OR SELF-CLOSING AS PROVIDED IN THE IBC. IN ADDITION SEE THE IBC FOR SPECIAL PROVISIONS RELATING TO DOORS.
7. FRAME TYPE: (NUMBER(S) INDICATE(S) FRAME TYPE(S) SHOWN

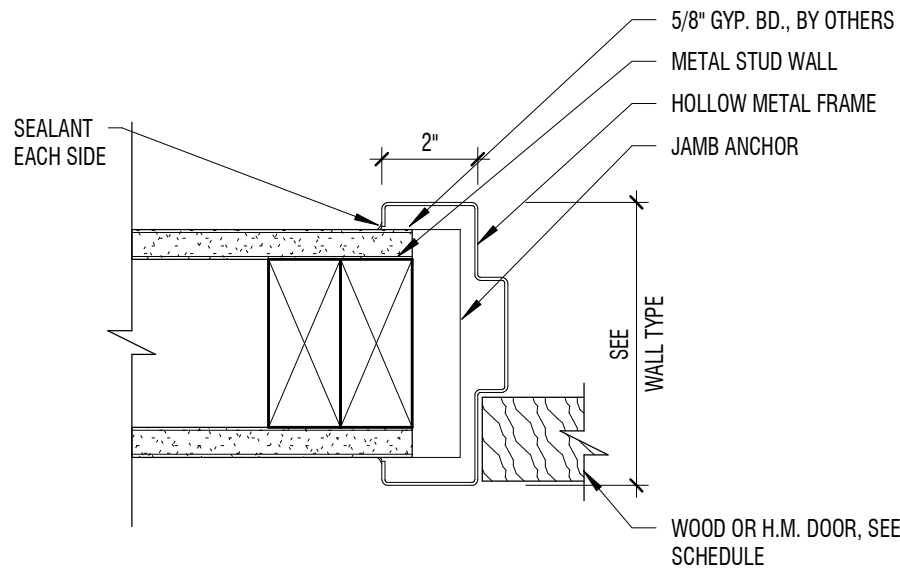


8. DETAILS: (REFER TO SHEETS INDICATED FOR DOOR AND WINDOW DETAILS)
9. HARDWARE: (GROUP #, SEE SPECIFICATIONS FOR HARDWARE GROUPS)
10. NOTES:



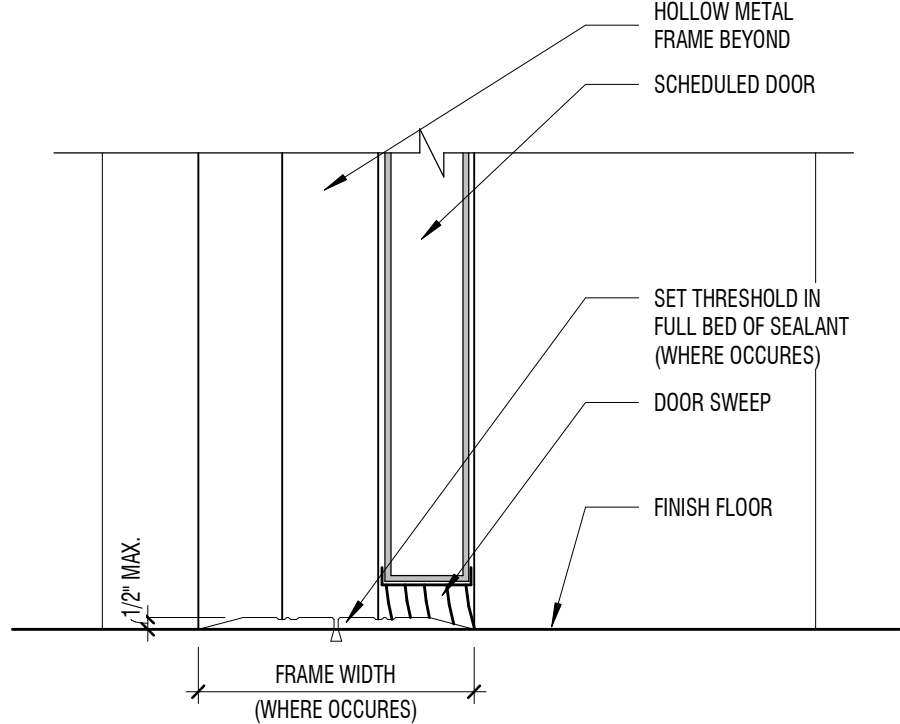
C4 DETAIL - HEAD

3" = 1'-0"



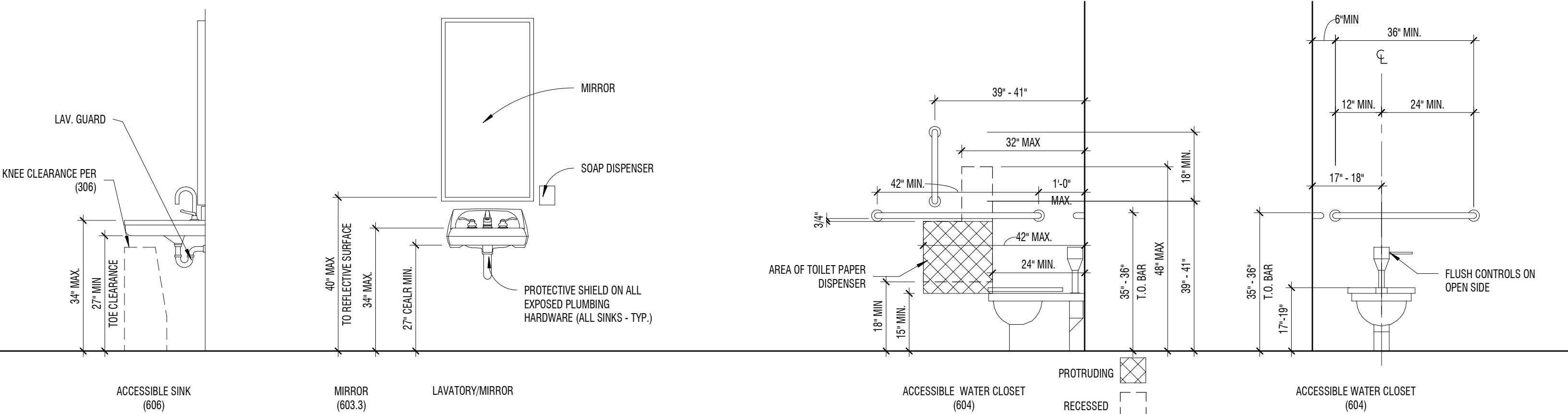
B4 DETAIL - JAMB

3" = 1'-0"



A4 DETAIL - THRESHOLD

3" = 1'-0"



A1 ADA 3/D2 ADA RESTROOM FIXTURE DETAILS

1/2" = 1'-0"

DESIGN
WEST

LOGAN, UTAH
(435) 752-7031
SALT LAKE CITY, UTAH
(801) 539-8221

DISTRIBUTION CENTER STORE
4185 N MONTANA AVE, SUITE 1
HELENA, MT 59602

THE CHURCH OF JESUS CHRIST OF LATTER DAY SAINTS

MARKS: DESCRIPTION: DATE:

PROJECT #: 224098
DRAWN BY: HH
CHECKED BY: AZ
ISSUED: 05.30.2025



SCHEDULE - DOOR & DETAILS

A-501

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1/30/2023 8:47:23 PM - AutoCAD Docx (224098) - Distribution Center Store_Rev_1.dwg - HighQuality3D.plt

D

C

B

A

FINISH SCHEDULE

CARPET

MARK:	C1	C2
TYPE:	POWERBOND - BROADLOOM	WALK-OFF CARPET
MANUFACTURER:	TARKETT	TARKETT
COLLECTION:	GARDEN WALK	ASSERTIVE
SERIES:	SPLENDOR 11364	ASSERTIVE ACTION 04837
COLOR:	ALDER BARK 67512	FUSION 26217
SIZE:	105" x 6'	24" x 24"
INSTALL:	SEE PLANS FOR LOCATIONS	SEE PLANS FOR LOCATIONS
NOTES:		

RESILIENT FLOORING

MARK:	RF1
TYPE:	LVT - PLANK
MANUFACTURER:	TARKETT
COLLECTION:	ID LATITUDE
SERIES:	ID LATITUDE WOOD
COLOR:	BUTTERNUT 7536
SIZE:	6" x 48"
INSTALL:	SEE PLANS FOR LOCATIONS
NOTES:	BREAKROOM/STOCKROOM

TILE

MARK:	T1	T2	T3
MANUFACTURER:	DALTILE	DALTILE	DALTILE
COLLECTION:	CORE FUNDAMENTALS	COLOR WHEEL	COLOR WHEEL
SERIES:	PRIME TIER	COLOR WHEEL LINEAR	COLOR WHEEL LINEAR
COLOR:	RL21 - DYNAMIC BEIGE	ARCHITECTURAL GRAY	ARCTIC WHITE
SIZE:	12" x 24"	4" x 12"	4" x 12"
INSTALL:	HERRINGBONE PATTERN	B.O. BAND @ 72" AFF, ONE HORIZONTAL ROW	HORIZONTAL STACKED
GROUT:		UZIN - XTRACOLOR - IVORY 114	UZIN - XTRACOLOR - BRILLIANT WHITE 101
NOTES:	RESTROOM - FLOOR	RESTROOM - WALL (CONTRASTING BAND)	RESTROOM - WALL

TRANSITIONS

MARK:	TR1	TR2	TR3
TYPE:	ALUMINUM FLOOR TRANSITION	ALUMINUM FLOOR TRANSITION	ALUMINUM COVE
MANUFACTURER:	JOHNSONITE/TARKETT	FUTURA TRANSITIONS	SCHLUTER SYSTEMS
COLOR:	179 STEEL	EA (ETCHED ALUMINUM)	SATIN ANNOODZED
MODEL:	METALEEDGE 001 - ME001	3/8" EDGE TEK CARPET TUCK - 415383	DILEX-AHK AHKS100AE
LOCATION:	CARPET TO LVT	CARPET TO TILE	TILE WALL TO TILE FLOOR
NOTES:	@ DOOR TO STOCKROOM/BREAKROOM	@ DOOR TO RESTROOM	RESTROOM

FINISH COMBINATIONS

WALL COMBINATIONS

MARK:	1A
LOCATION:	RESTROOM
DESCRIPTION:	T3 IN A HORIZONTAL 1/2 OFFSET PATTERN UP TO 72" AFF. W/ (1) HORIZONTAL LAYER OF T2 ABOVE (CONTINUE 1/2 OFFSET). T3 FROM 78" AFF UP TO CEILING.

CEILING

MARK:	CL1
TYPE:	GYP SUM (PATCH, REPAIR, AND PAINT)
MANUFACTURER:	EXISTING
MODEL:	EXISTING
SIZE:	5/8" THICK
COLOR:	P1
NOTES:	LIGHT KNOCK DOWN TEXTURE

PAINT

MARK:	P1	P2
MANUFACTURER:	BENJAMIN MOORE	BENJAMIN MOORE - SCUFF-X
COLOR:	6098 - PACE WHITE	6098 - PACE WHITE
SHEEN:	FLAT	SEMI-GLOSS
NOTES:	CEILING	WALLS

WALL COVERINGS

MARK:	WC1
TYPE:	TYPE II
MANUFACTURER:	MDC INTERIOR SOLUTIONS
STYLE:	LEN-TEX CONTRACT - BARISTA
COLOR:	RISTRETTO 37008A
NOTES:	GENERAL WALLCOVERING - ALL AREAS EXCEPT STOCKROOM, RESTROOM, AND MECHANICAL

BASE

MARK:	B1	B2
TYPE:	RUBBER	CARPET
MANUFACTURER:	JOHNSONITE - TARKETT	TARKETT - FSI
COLOR:	CASTAWAY	GARDEN WALK - SPLENDOR (MATCH C1)
SIZE:	4 1/8" - W/ TOE	3-3/4" TALL
STYLE:	CB TA3 4 X 4 1/8 TOE	
NOTES:		INSTALL ON OPEN WALLS AND BASE OF ALL CABINERY & FIXTURES (AFTER CABINERY HAS BEEN INSTALLED ITSELF)

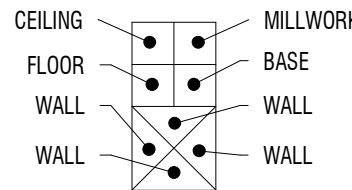
FLOOR COMBINATIONS

MARK:	2A
LOCATION:	SELLING FLOOR
DESCRIPTION:	C1 AND C2 - SEE FINISH PLAN FOR FLOORING LAYOUT

GENERAL NOTES

- ROOM FINISH TAGS FOR EACH ROOM REPRESENT TYPICAL FINISHES. SPECIFIC WALLS IN SELECTED AREAS MAY HAVE MULTIPLE FINISHES WHICH WILL BE INDICATED IN INTERIOR ELEVATIONS.
- FIELD VERIFY ALL DIMENSIONS PRIOR TO FABRICATION OF CASEWORK AND FINISH ASSEMBLIES
- SEE INTERIOR ELEVATIONS FOR ADDITIONAL FINISH INFORMATION
- SEE REFLECTED CEILING PLANS FOR ADDITIONAL FINISH INFORMATION
- FOR FINISH SCHEDULE SEE SHEET A-601.
- FLOOR MATERIAL TRANSITIONS WILL OCCUR BELOW DOORS. U.N.O.
- FOR TYPICAL TRANSITION/FINISH DETAILS SEE SHEET A-102
- SEE SHEET A-102 FOR SIGNAGE TYPES AND DESCRIPTIONS
- TILED WALLS TO BE FULL HEIGHT OF WALL, U.N.O.
- POLISHED OR SEALED CONCRETE DOES EXTEND UNDER CASEWORK OR MILLWORK
- FLOOR COVERING DOES NOT EXTEND UNDER MILLWORK OR CASEWORK, U.N.O.
- INSTALL FLOOR TILE EXPANSION JOINTS AS PER TONA.

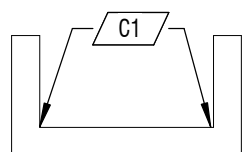
FINISH LEGEND



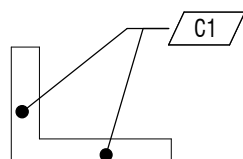
ROOM FINISH TAG

C1

FINISH TAG - INDICATES SPECIFIC APPLIED FINISH



INDICATES FINISH IS APPLIED TO AREA BETWEEN ARROWS



INDICATES FINISH IS APPLIED TO FACE OF SURFACE(S)



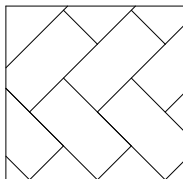
INDICATES A MANUAL ROLLER SHADE.



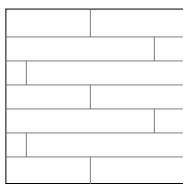
INDICATES SIGNAGE LOCATION

CG

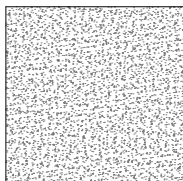
INDICATES CORNER GUARD



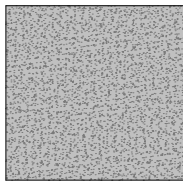
TILE FLOOR - T1



LVT FLOOR - RF1



CARPET - C1



WALK-OFF CARPET - C2

BID/PERMIT SET

DESIGN
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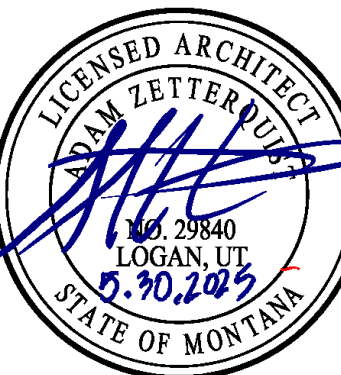
MARK: DATE: DESCRIPTION:

PROJECT #: 224098

DRAWN BY: HH

CHECKED BY: AZ

ISSUED: 05.30.2025



SCHEDULE - FINISH

A-601

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D

- C

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- A

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- 1

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- 1

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- 1

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- 1

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- 1

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- 1

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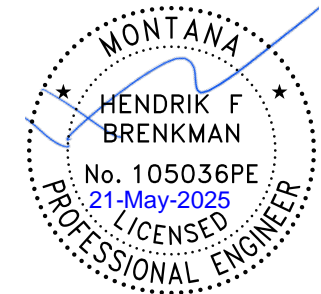
4

4

4

4

4



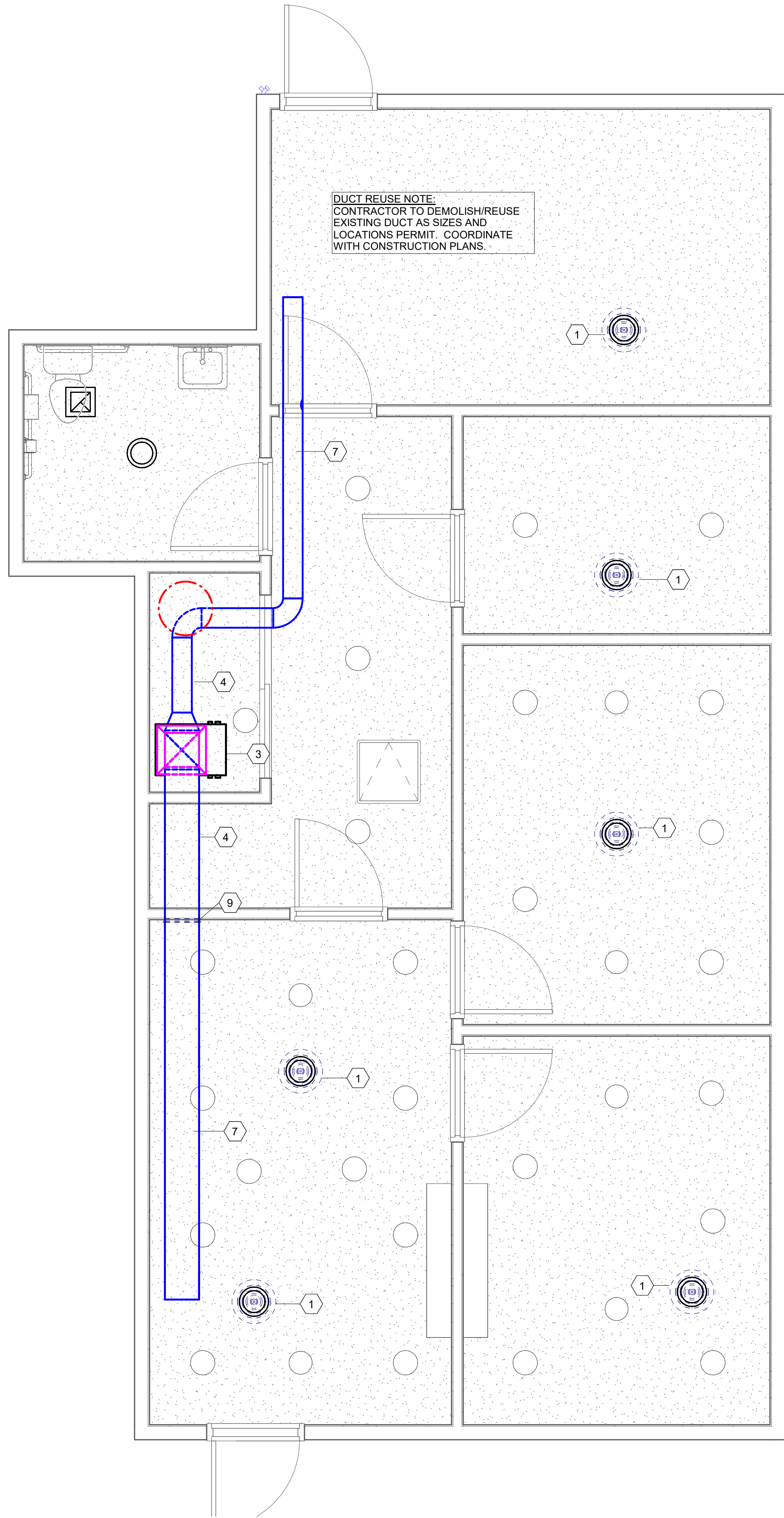
5/19/2025 8:23:35
C:\024\United States\Projects\1026 - Distribution Center (Temple Clothing)\2 - Design\1 - Revit\1026 - Distribution Center (Temple Clothing) - rvt

D

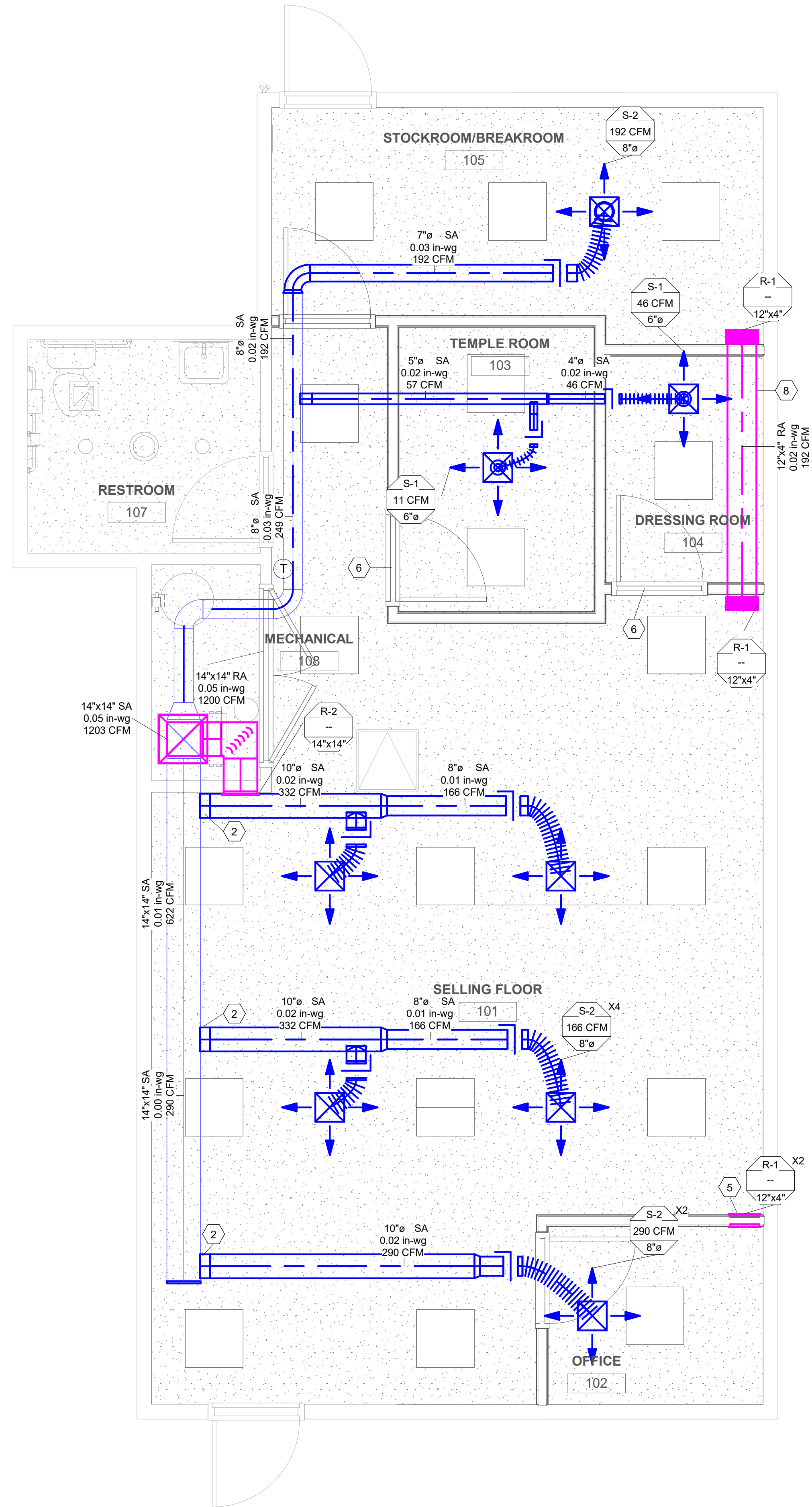
C

B

A



1 - MAIN FLOOR MECHANICAL - DEMOLITION
3/8" = 1'-0"



2 - MAIN FLOOR MECHANICAL - CONSTRUCTION
3/8" = 1'-0"

KEYNOTES

- | ID | DESCRIPTION |
|----|---|
| 1 | DEMOLISH EXISTING DIFFUSER AND PREPARE DUCT FOR CONNECTION INTO NEW DIFFUSER. |
| 2 | CONNECT NEW DUCT INTO EXISTING DUCT. |
| 3 | EXISTING FURNACE TO REMAIN. |
| 4 | EXISTING MAIN DUCT TRUNK TO REMAIN. |
| 5 | INSTALL TRANSFER GRILLE AT LOW LEVEL IN WALL. INSTALL OPPOSITE TRANSFER GRILLE AT HIGH LEVEL IN WALL. KEEP STUD CAVITY UNOBSTRUCTED. SEE DETAILS. |
| 6 | UNDERCUT DOOR 1 INCH. |
| 7 | REUSE EXISTING DUCT IF SIZES MATCH CONSTRUCTION DRAWINGS. |
| 8 | INSTALL ACCOUSTICAL LINER IN RETURN DUCT. SEE SPECIFICATIONS. |
| 9 | DEMOLISH EXISTING RETURN SYSTEM AND PREPARE TO INSTALL NEW RETURN. SEE CONSTRUCTION PLAN. |

**DESIGN
WEST**

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DISTRIBUTION CENTER STORE
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MARK: DATE: DESCRIPTION:

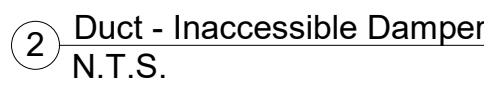
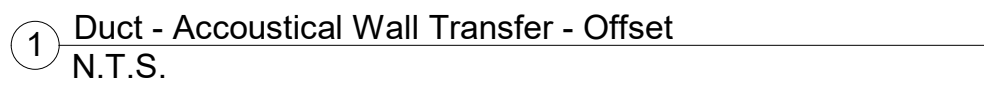
PROJECT #: 1026
DRAWN BY: ZR
CHECKED BY: HB
ISSUED: 4/22/25

PERMIT SET

MECHANICAL
PLAN

M101

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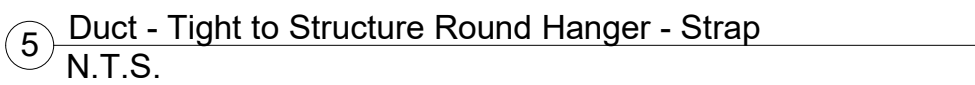
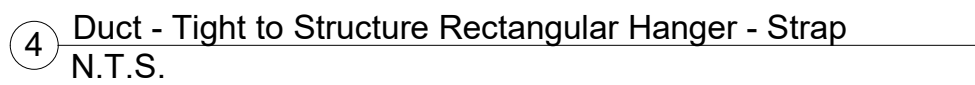
METAL FASTENERS:

1. OMARK INSUL-PINS,
DURO DYNE
FASTENERS OR GRIP
NAILS.
2. GRIP NAILS SHALL BE
INSTALLED BY
"GRIPNAIL AIR
HAMMER" OR BY
"AUTOMATIC
FASTENER EQUIP."

SEE SMACNA Seismic Restraint Manual Guidelines for Mechanical Systems,
3RD EDITION FOR SPACING OF BRACES AND SEISMIC NOTES
SUPPLIED WITH THESE DRAWINGS.

BRACE DUCTS AS PER SMACNA Seismic Restraint Manual Guidelines for Mechanical Systems, 3RD EDITION. OBTAIN SHL VALUE FROM ENGINEER.

SEE SMACNA Seismic Restraint Manual Guidelines for Mechanical Systems,
3RD EDITION FOR SPACING OF BRACES AND SEISMIC NOTES
SUPPLIED WITH THESE DRAWINGS.



AIR TERMINAL SCHEDULE					
TAG	MANUFACTURER	MODEL	NECK SIZE	QTY	Description
R-1	Price Industries	535	12"x4"	4	Louvered Steel Return Grille. For Surface Mount.
R-2	Price Industries	535	14"x14"	1	Louvered Steel Return Grille. For Surface Mount.
S-1	Price Industries	SMD-6 4 Way Diffuser	6"ø	2	For Surface Mount.
S-2	Price Industries	SMD-6 4 Way Diffuser	8"ø	6	For Surface Mount.

EXISTING FURNACE SCHEDULE																		
Mark	IDENTITY		MECHANICAL									ELECTRICAL				FUEL		
	Manufacturer	Model	Supply Air	Return Air	Outside Air	Relief Air	Heat Input	Heat Load	External Static Pressure	Efficiency Rating	Cooling Capacity (Tons)	Voltage	MCA	MOP	Phase	Flue Connection	Fuel	Gas Connection
F-2	International Comfort Products	NTG9075FGA2	1,200 CFM	1,130 CFM	153 CFM	83 CFM	75,000 Btu/h	27,300 Btu/h	0.5 in-wg	98	3	120 V	8 A	15 A	1	2"	NG	1/2"

D

C

B

A

GENERAL PLUMBING NOTES

- GENERAL
 - Contractor is responsible for all permits, licenses, fees and charges as required by authority having jurisdiction for the performance of the work as outlined in these contract documents. The contractor shall be responsible for installing a complete and functional system in accordance to the intent of the plans.
 - All Plumbing shall be in accordance with local regulations and the Uniform Plumbing Code of 2021.
 - Contractor to coordinate work with other disciplines.
 - Drawing is diagrammatic and is not to be scaled. Refer to architectural plans or field measurements for dimensions.
 - Contractor shall verify all existing construction prior to submitting his bid. No extras will be paid due to unanticipated existing conditions.
 - Extra charges - any discrepancies and omissions discovered shall be reported to the engineer immediately and prior to tender closing for rectification by addendum.
 - Shop drawings - submit 1 copy in pdf format to the engineer for approval. Provide 2 printed copies of reviewed shop drawings to owner in 2 Q&M manuals. The contractor shall ensure that equals for the major equipment fit in the allocated space and meet codes and specifications.
 - Maintenance manuals - contractor shall provide 2 copies complete with shop drawings. Three ringer binder style is acceptable. Provide on-site operating seminar to familiarize owner with all functions of new equipment.
 - Warranty - mechanical contractor shall provide written warranty on his system for one full year from time of acceptance by the owner.
 - Excavation - plumbing contractor shall excavate for his work and back fill to 2" above pipes with sand.
 - Structural - Misc. Steel support hangers for unit heaters, fans, heat pumps, etc. Shall be by the mechanical with clamps to structure, not welded. Structural reinforcing for equipment is by general contractor.
 - As-built drawings - mechanical contractor shall keep on site an extra set of drawings and specifications on which changes shall be noted daily. As-built drawings shall also be provided showing location of access doors, clean-outs, and any deviation from design drawings.
 - Potable water copper piping shall use lead-free solder. testing inside water lines shall hold 100 psi air for 1 hour.
 - Natural gas - plumber shall provide low pressure gas lines to appliances complete with yellow paint coating on pipe where exposed to outdoors. Confirm meter size with local gas utility company. Utility upgrade costs to be borne by owner.
 - Plumbing contractor shall be on site to sleeve Plumbing openings through concrete, to flash and counter flash and to coordinate joist locations away from mechanical shafts.
 - Design documents - these design documents are prepared solely for the use by the party with whom the design professional has entered into a contract and there are no representations of any kind made by the design professional to any party with whom the design professional has not entered into a contract.
 - The written book specification takes precedence over these notes.

GENERAL PIPING NOTES

- Piping material shall be as follows (Unless otherwise indicated in specification).
 - Underground water service: PEX-AL-HDPE with oxygen barrier.
 - Above ground hot and cold water piping: Copper type L in exposed areas or Standard PEX in concealed areas.
 - Drain waste and vent piping: Schedule 40 PVC DR22..
 - Gas piping: to ASTM A106 schedule 40.
 - Poolroom/Pool Equipment Room: Stainless Steel 316 (to NSF 61 and one of the following ASTM A312 or ASTM A778), CPVC Schedule 40 (to NSF 61 and one of the following ASTM D2846, ASTM F441, ASTM F442, CSA B137.6) or Polypropylene plastic (PP to NSF 14 and one of the following ASTM F2369 or CSA B137.11) pipe rated for pool rooms (AquaThermBlue for non-potable service) SDR 7.4 or heavier. AquaThermBlue pipe shall be marked as "NOT POTABLE".
- Domestic hot, hot water recirculation and hydronic lines shall have minimum 1" thermal insulation with minimum R-value of R-4 (unless otherwise indicated) c/w vapor barrier. Joints to be taped throughout facility. Hangers to have guides to allow for complete pipe insulation. Pipe insulation in plenums to be plenum rated. See note: PLUMBING IN RETURN AIR PLENUMS.
- Contractor is responsible for routing water piping around zones that would be prone to freezing. The contractor will be responsible for any repairs and corrections to water lines not appropriately routed around freeze prone zones.
- Valves on water lines shall be bronze ball valves. Do not use gate or globe valves. Valve size shall be the same than the inlet pipe size.
- Install water hammer arrestors as indicated by code and where shown on plans. Concealed location arrestors are to be rated.
- All hot and cold domestic water lines to fixtures shall be minimum 1/2". Unless a hot water recirculation system has been called for in the contract documents, domestic hot water lines shall be equipped with a heat-trace heating system in compliance with Table C404.5.1 of the current state approved International Energy Conservation Code. Heat trace at 21 Watts/Linear foot.
- Plumbing piping shall not be installed above electrical panels. Provide required clearances per "N.E.C." coordinate work with electrical contractor. Caulk all pipe penetrations through fire rated walls. All caulking on building penetrations shall be a 1-component non-sag urethane sealant.
- Provide intumescent pipe donuts at all penetrations of combustible piping form main floor ceiling space and main floor fire separations.
- After completion of construction all water supply systems must be purged of all deleterious matter and disinfected. as per IPC 602.3.4 and IPC 610.

GENERAL PLUMBING FIXTURE NOTES

- All plumbing fixtures shall be furnished c/w necessary traps, stops, tail pieces, trim, shut-off valves, circuit setters on hot water recirc. etc.
- Plumbing contractor to supply and coordinate all plumbing fixture voltage and power requirements with electrical contractor.
- All water heaters and hot water storage tanks shall have a drain valve installed at the bottom of the tank as required by code. All water heaters shall be seismically anchored as per code.
- Provide sanitary venting piping for all fixtures.

IECC CLOSE OUT REQUIREMENTS

- Contractor to provide to the owner and design engineer a preliminary equipment testing report prior to final mechanical inspection.
- Contractor to provide to the owner the following items within 90 days of receiving certificate of occupancy.
 - As-Built drawings showing installed equipment.
 - Operating and maintenance manuals including routine maintenance requirements, name and address of servicing agency, narrative of controls, and recommended operating setpoints.
 - System balancing report.
 - Equipment testing report.

GAS APPLIANCES AND REGULATIONS NOTES

- All gas piping shall comply with the international Fuel Gas Code of 2021.
- Provide step-down regulators at all appliances and size as per International Fuel Gas Code of 2021.
- Vent natural gas regulators to outdoors. Terminate min. 3 ft from building openings and 10ft from mechanical intakes.

GENERAL PLUMBING PROTECTION NOTES

- Install backflow preventers in each water supply to mechanical equipment and systems and to other equipment and systems and to other equipment and water systems that may be sources of contamination. Comply with authorities having jurisdiction.
- Locate backflow preventers in same room as connected equipment or system.
- Install drain for backflow preventers with atmospheric-vent drain connection with air-gap fitting, fixed air-gap fitting, or equivalent positive pipe separation of at least two pipe diameters in drain piping and pipe-to-floor drain. Locate air-gap device attached to or under backflow preventer. Simple air breaks are unacceptable for this application.
- Do not install bypass piping around backflow preventers.
- Provide water pressure regulator when required by authority having jurisdiction and in compliance with the Uniform Plumbing Code of 2021.

SEISMIC CONTROL NOTES

- Install tight to structure.
- Seismic control measures not to jeopardize noise and vibration isolation systems. Provide 1/4" to 3/8" clearance during normal operation of equipment and systems between seismic restraint and equipment.
- Incorporate seismic restraints into vibration isolation system to resist complete isolator unloading.

PLUMBING IN RETURN AIR PLENUMS

- Treat all ceiling spaces as return air plenums.
- All materials used in return air plenums must have flame-spread index of 25 or less, and smoke-developed index of 50 or less when tested in accordance with ASTM E84 or UL 723 (be plenum rated).






GENERAL SANITARY NOTES

- Provide chrome escutcheon cover plates at all pipe penetrations of finished wall surfaces.
- Vents through roof shall be min. 3" diameter at penetration unless otherwise indicated. Provide all required flashing to make vent penetration waterproof.
- Space floor cleanouts no more than 100ft. Provide floor cleanouts in horizontal drains where the direction change by more than 45 degrees. Cleanout size shall be the same than the piping served.
- Provide a trap guard for all floor drains.
- Mount wall cleanouts at all wall mounted plumbing fixture drains.

PLUMBING ALTERNATE NOTE

- Alternate plumbing equipment is acceptable. Alternates must be equal or better in performance, durability, and warranty.

REFER TO BOOK SPEC. WHERE THERE IS ANY DISCREPANCY, GIVE PRECEDENCE TO BOOK SPECIFICATIONS

- | | | |
|---|---|----------------------------------|
|  | = | GAS METER |
|  | = | WALL CLEANOUT |
|  | = | BALL VALVE |
|  | = | PLUG VALVE |
|  | = | PRESSURE REGULATOR |
| DCW | = | DOMESTIC COLD WATER |
| DHW | = | DOMESTIC HOT WATER |
| DHWR | = | DOMESTIC HOT WATER RECIRCULATION |
| SAN | = | SANITARY |
| V | = | VENT |
| S | = | STORM |
| SH | = | NON-POTTABLE SHOP COLD WATER |
| AIR | = | AIR LINE |
| GR-SAN | = | GREASE SANITARY LINE |

PLUMBING LEGEND



AREA OF SCOPE

SHEET LIST - PLUMBING

Sheet Number	Sheet Name	Current Issue	Current Revision Description
P100	PLUMBING OVERVIEW		
P101	PLUMBING PLAN		
P102	PLUMBING DETAILS		

DESIGN
WEST

LOGAN, UTAH
(435) 752-7031
SALT LAKE CITY, UTAH
(801) 539-8221



DISTRIBUTION CENTER STORE
4185 N MONTANA AVE, SUITE 1
HELENA, MT

THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS

MARK: DATE: DESCRIPTION:

PROJECT #:	1026
DRAWN BY:	ZR
CHECKED BY:	HB
ISSUED:	4/22/25

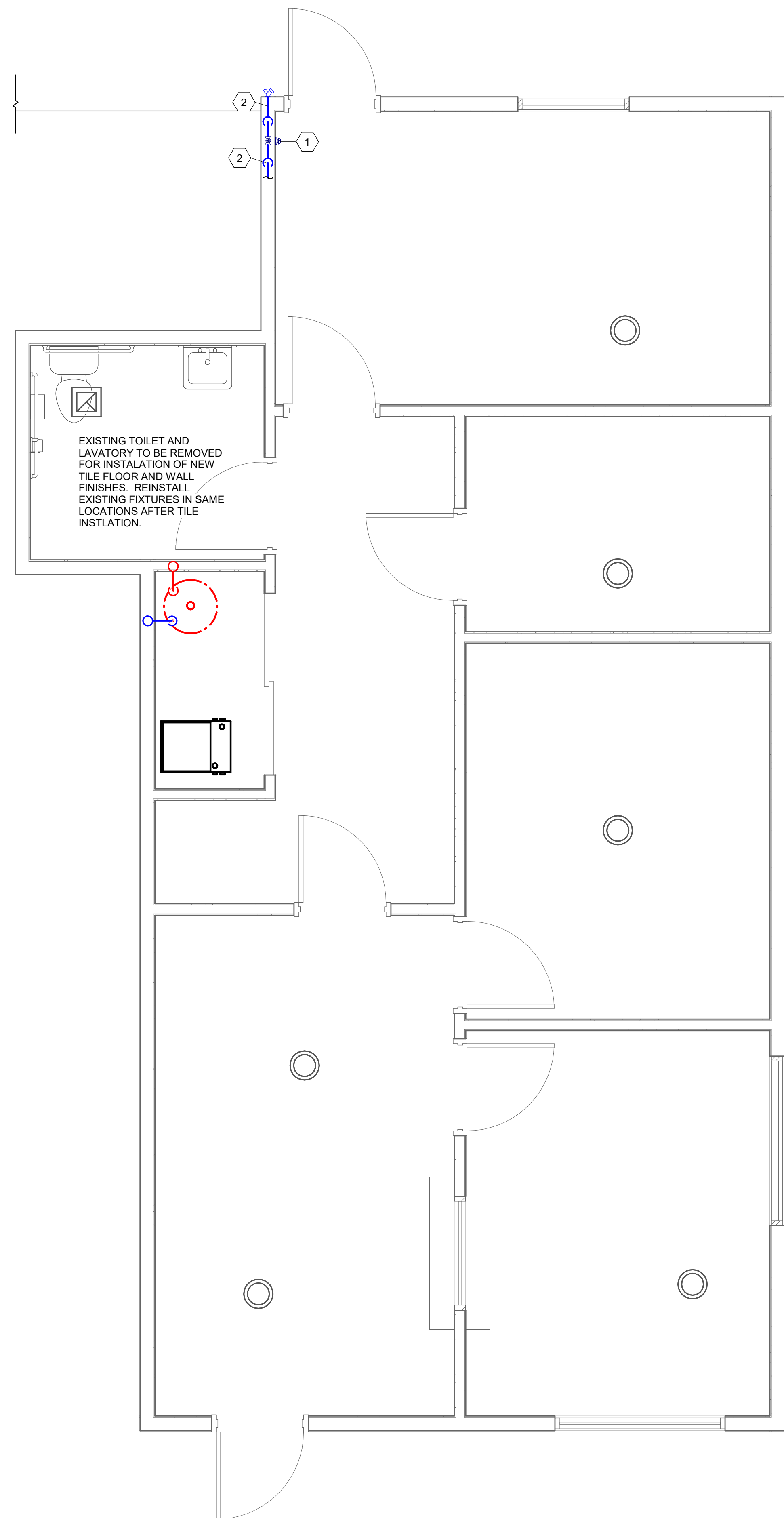
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PLUMBING
OVERVIEW

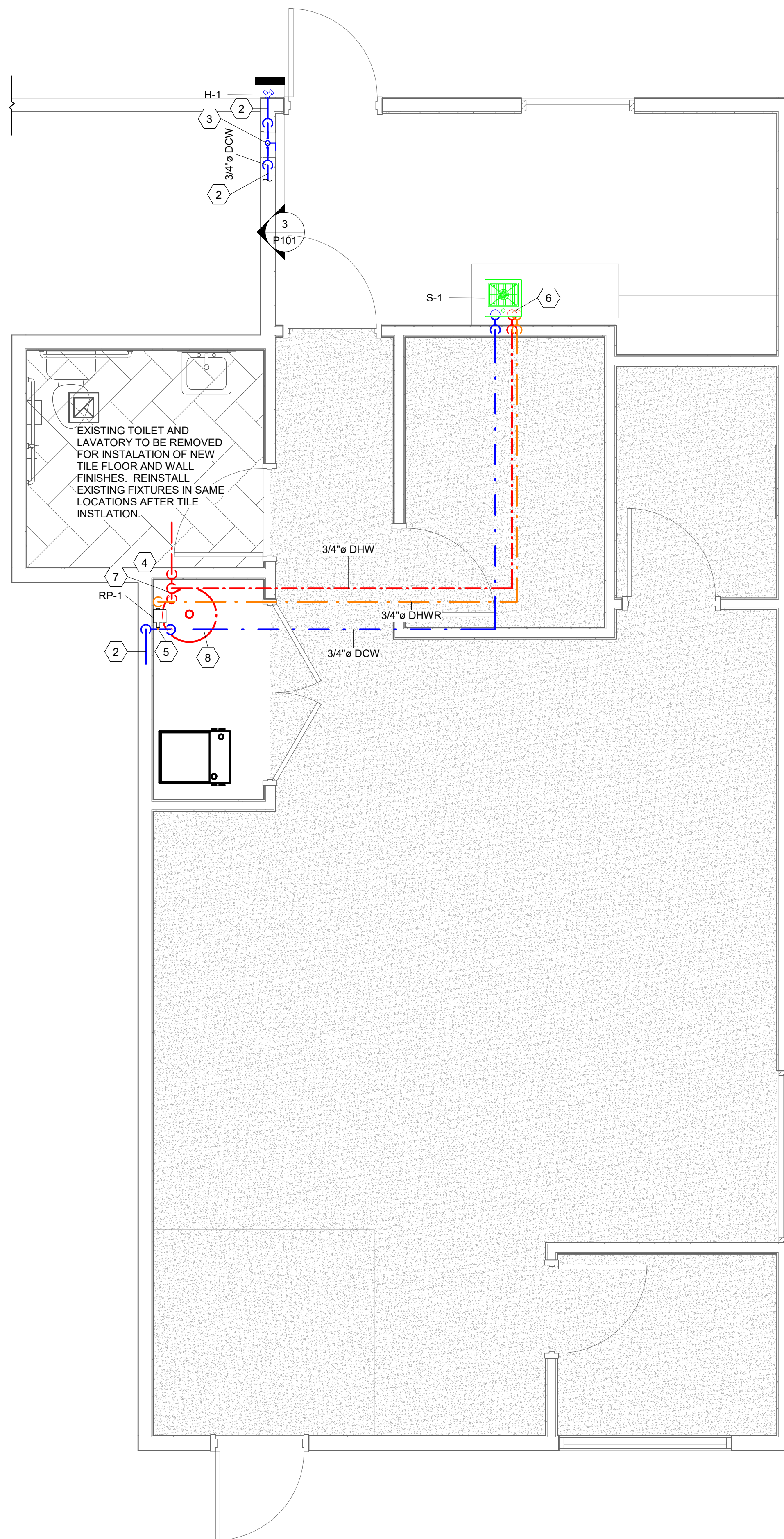
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HELENA, MT
THE CHURCH OF JESUS CHRIST OF LATTER DAY SAINTS

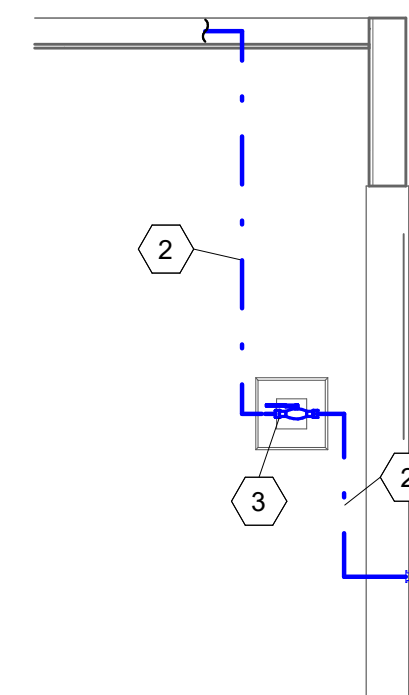
KEYNOTES	
ID	DESCRIPTION
1	DEMOLISH EXISTING SHOWER WALL. VALVE AND PREPARE TO INSTALL IN WALL SHUT-OFF VALVE. SEE CONSTRUCTION PLANS.
2	EXISTING DCW LINE.
3	INSTALL NEW BALL ISOLATION VALVE IN LOCKING WALL BOX. PROVIDE C/W LOCKING WALL BOX.
4	EXISTING DHW LINE.
5	CONNECT DHW RECIRCULATION LINE INTO HOT WATER HEATER FEED LINE.
6	CONNECT DHW RECIRCULATION LINE INTO DHW LINE. CONNECTION MUST BE MAX. 6" FROM PLUMBING FIXTURE. SEE DETAILS.
7	RUN NEW DHW LINE BACK TO EXISTING WATER HEATER AND CONNECT.
8	CONNECT NEW DCW INTO EXISTING DCW.



1 1 - PLUMBING - DEMOLITION
3/8" = 1'-0"



② 1 - DCW/DHW - CONSTRUCTION
3/8" = 1'-0"



③ WALL ISOLATION VALVE
3/8" = 1'-0"

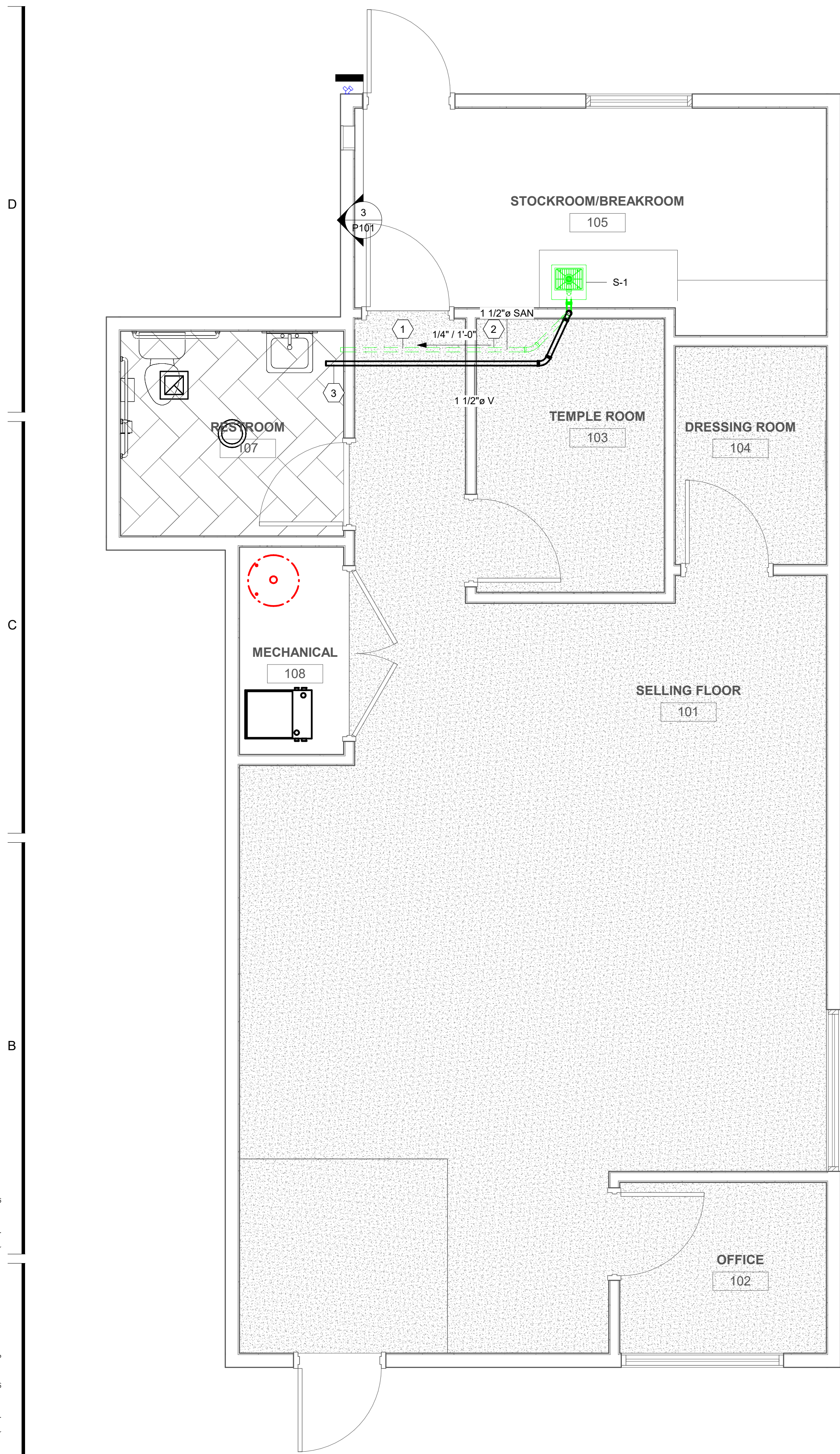
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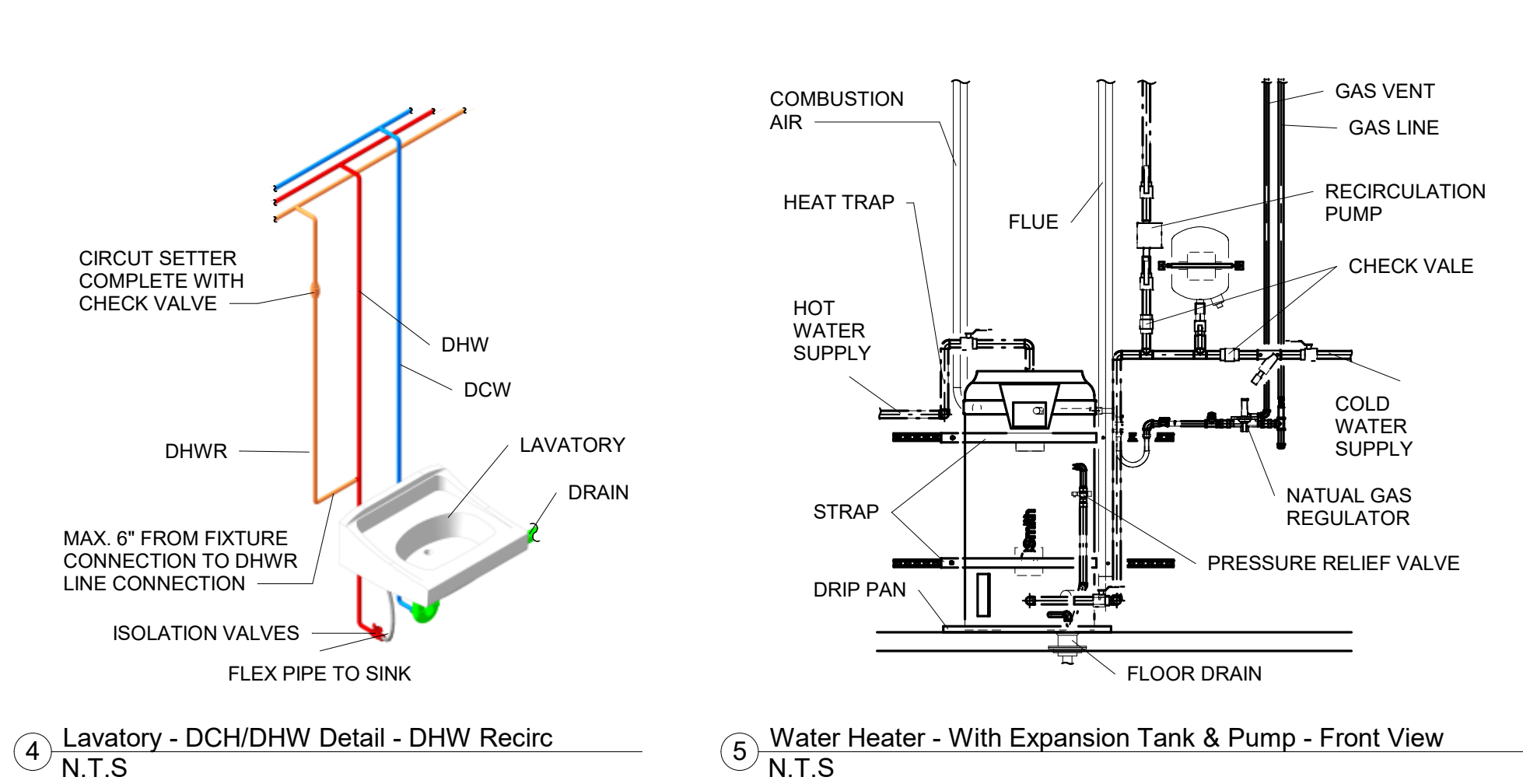
PLUMBING PLAN

P101

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C:\0244\United States\Projects\1026 - Distribution Center (Temple Clothing)\2 - Design\1 - Revit\1026 - Distribution Center (Temple Clothing) - v1.rvt

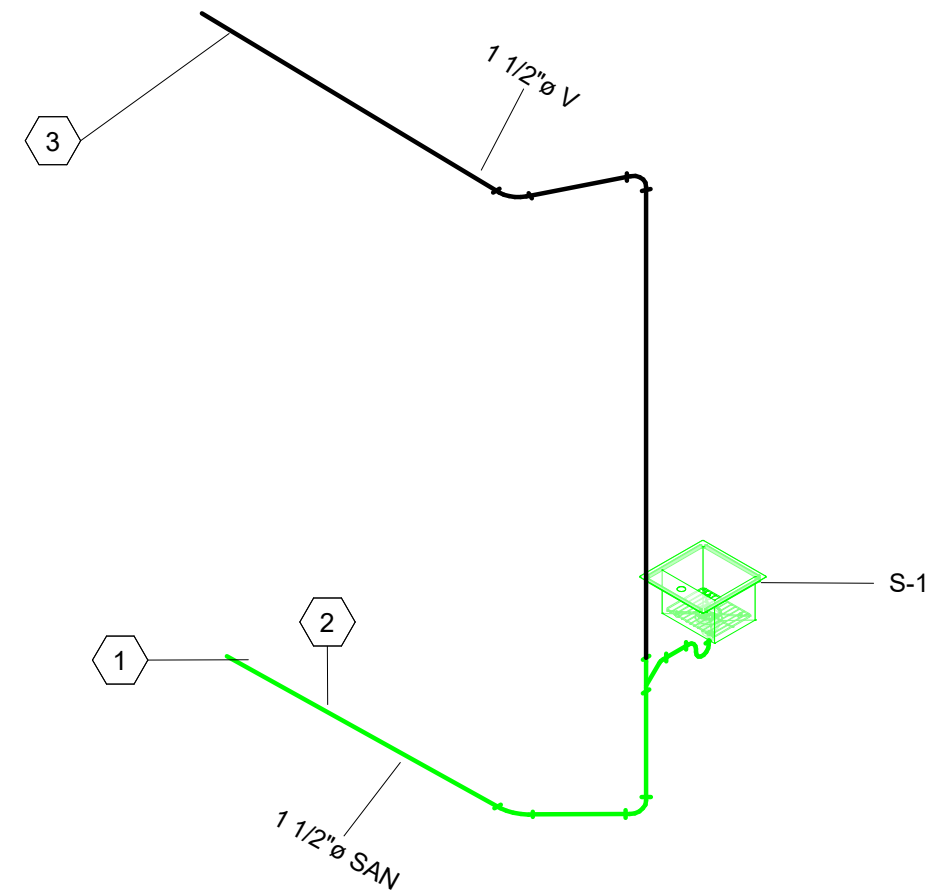


1 - SAN/VENT - CONSTRUCTION
3/8" = 1'-0"

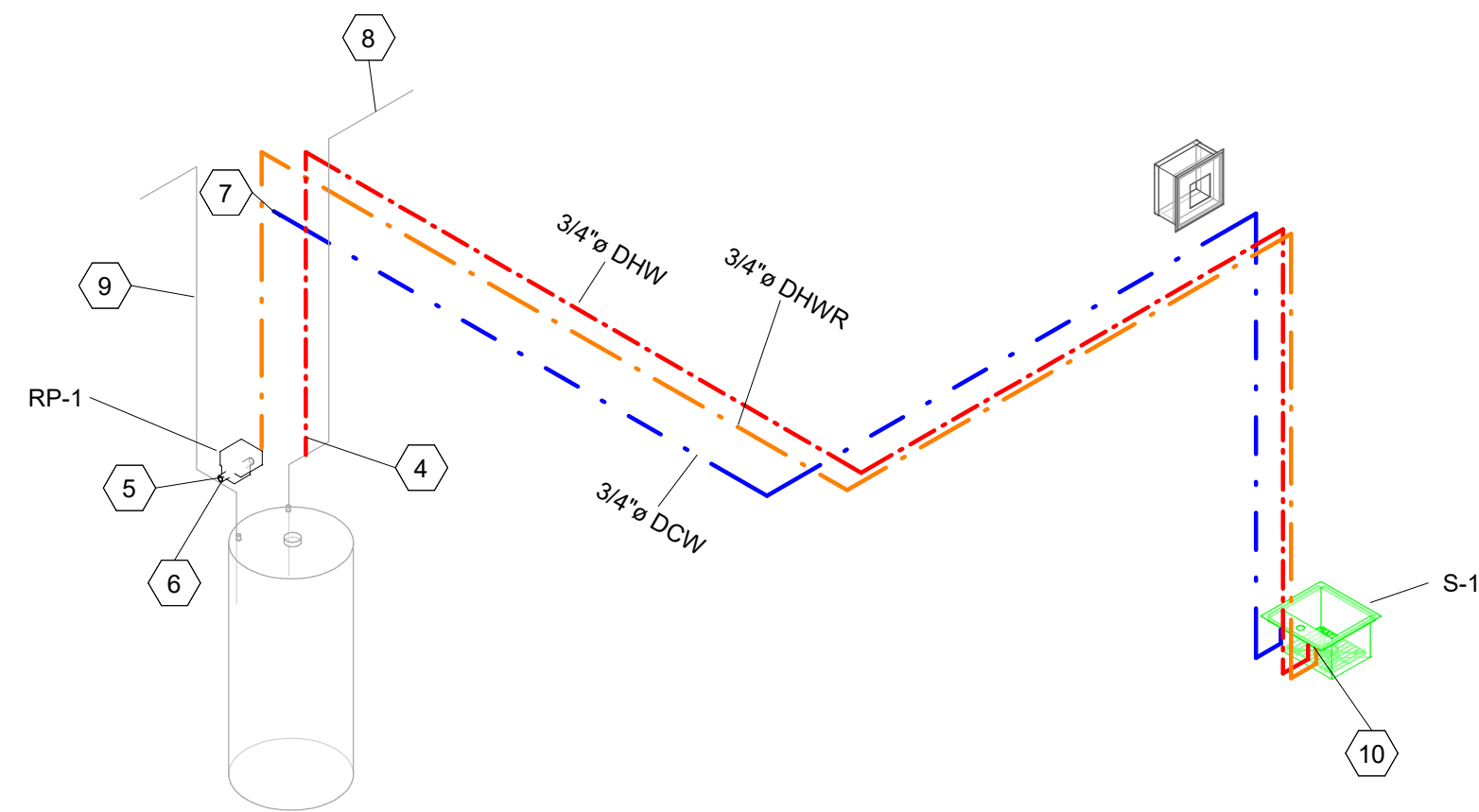


4 - Lavatory - DCH/DHW Detail - DHW Recirc
N.T.S

5 - Water Heater - With Expansion Tank & Pump - Front View
N.T.S



3 - SAN/VENT ISOMETRIC



2 - DCW/DHW ISOMETRIC

RECIRCULATION PUMP SCHEDULE									
Mark	Manufacturer	Model	Flow Rate	Head	Phase	Voltage	MCA	MOP	Frequency
RP-1	Grundfos	UP 15-10 SU7P TLC	1	6' - 0"	1	120 V	0.23 A	2.00 A	60

PLUMBING FIXTURE SCHEDULE												
Mark	Manufacturer	Model	Style	ADA Compliant	Material	Color	Trim	Accessories	Count	Sanitary Connection	DCW Connection	DHW Connection
S-1	Modena	Ruvati 12" Bar Sink RVM5912	Undermount	Yes	Stainless	Stainless	Faucet: Modena K-131 Pull Down with dual function kitchen faucet.	Provide c/w drain, p-trap, faucet supplies, thermostatic valve, and ball isolation.	1	1 1/4"	1/2"	1/2"

KEYNOTES

- | ID | DESCRIPTION |
|----|--|
| 1 | TIE NEW SANITARY LINE INTO EXISTING SEWER. CONTRACTOR TO VERIFY LOCATION AND DEPTH OF EXISTING SEWER. DEPTH MUST ALLOW FOR MIN SLOPE AS INDICATED. CONTACT ENGINEER IF DEPTH OF EXISTING LINE IS NOT SUITABLE. |
| 2 | SAW CUT FLOOR TO RUN NEW SEWER LINE. PATCH FLOOR AND MAKE AS NEW AFTER INSTALL IS COMPLETE. COORDINATE WITH ARCHITECT/GENERAL. |
| 3 | CONNECT NEW VENT INTO EXISTING VENT SYSTEM. |
| 4 | RUN NEW DHW LINE BACK TO EXISTING WATER HEATER AND CONNECT. |
| 5 | INSTALL NEW RECIRC PUMP ACCORDING TO MANUFACTURER'S INSTRUCTIONS. SEE DETAILS. |
| 6 | CONNECT DHW RECIRCULATION LINE INTO HOT WATER HEATER FEED LINE. |
| 7 | CONNECT NEW DCW INTO EXISTING DCW. |
| 8 | EXISTING DHW LINE. |
| 9 | EXISTING DCW LINE. |
| 10 | CONNECT DHW RECIRCULATION LINE INTO DHW LINE. CONNECTION MUST BE MAX. 6" FROM PLUMBING FIXTURE. SEE DETAILS. |

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PERMIT SET

PLUMBING
DETAILS

P102

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ELECTRICAL SPECIFICATIONS		
1. SCOPE A. THE DESCRIPTIONS OF WORK UNDER THIS SECTION SHALL INCLUDE ALL LABOR, MATERIALS AND EQUIPMENT TO COMPLETE THE ELECTRICAL INSTALLATION AS SHOWN ON THE ACCOMPANYING DRAWINGS. a. THE ELECTRICAL CONTRACTOR SHALL INCLUDE ANY CONDITIONS REQUESTED DURING THE BIDDING REQUIREMENTS. B. THE CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH THE ACCOMPANYING DRAWINGS AND SPECIFICATIONS. C. ALL LABOR, MATERIAL, OR EQUIPMENT NEEDED FOR THE INSTALLATION AND COMPLETION OF THE ELECTRICAL WORK DESCRIBED IN THE ACCOMPANYING DRAWINGS AND SPECIFICATIONS SHALL BE PROVIDED EVEN IF NOT SHOWN ON THE ACCOMPANYING DRAWINGS. a. ELECTRICAL SERVICE AND FEEDERS b. BRANCH WIRING AND GROUNDING c. WIRING DEVICES d. ELECTRICALLY OPERATED MOTORS AND EQUIPMENT HOOK-UP e. HVAC EQUIPMENT HOOK-UP f. ELECTRICAL DISTRIBUTION EQUIPMENT g. LIGHTING FIXTURES WITH LAMPS h. COMMUNICATION RACEWAY AND LOW VOLTAGE SYSTEMS AS SHOWN i. GENERATOR, EMERGENCY DISTRIBUTION AND EMERGENCY BRACH WIRING j. FIRE ALARM SYSTEM 2. MATERIALS AND EQUIPMENT A. ALL MATERIALS AND EQUIPMENT FURNISHED AND INSTALLED SHALL BE UL LISTED. B. ELECTRICAL CONTRACTOR SHALL SUBMIT A SET OF SHOP DRAWINGS AND CATALOG CUT SHEETS ON THE FOLLOWING ITEMS TO THE ARCHITECT AND GENERAL CONTRACTOR FOR APPROVAL. C. DISTRIBUTION EQUIPMENT D. LIGHTING FIXTURES a. DEVICES b. SYSTEMS E. IF A SUBSTITUTION OF ANY MATERIALS IS PROPOSED BY THE ARCHITECT OR GENERAL CONTRACTOR, IT MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO ANY CHANGES BEING MADE. 3. STANDARD OF INSTALLATION A. THE CURRENT EDITION OF THE NATIONAL ELECTRICAL CODE, THE CITY, STATE, OR ANY LOCAL ORDINANCES AND UTILITY REGULATIONS ARE A PART OF THIS SPECIFICATION. 4. PERMITS AND UTILITY COSTS A. ANY CITY, STATE, OR LOCAL ORDINANCE ELECTRICAL PERMITS AND INSPECTIONS SHALL BE OBTAINED AND PAID FOR BY THE ELECTRICAL CONTRACTOR UNLESS THE ELECTRICAL PERMIT IS OBTAINED THROUGH THE GENERAL CONTRACTOR. UTILITY CONNECTION FEES ARE NOT INCLUDED IN ELECTRICAL CONTRACT UNLESS SPECIFICALLY NOTED ON THE DRAWINGS. 5. DRAWINGS A. THE ELECTRICAL DRAWINGS ARE INTENDED TO SHOW THE APPROXIMATE LOCATIONS AND SCOPE OF WORK TO BE PERFORMED AND ARE NOT CONSIDERED AS COMPLETE. THE ELECTRICAL CONTRACTOR SHALL INSTALL ALL WORK INDICATED ON DRAWINGS AND SPECIFICATIONS WITHOUT ADDITIONAL COST. B. BEFORE STARTING WORK THE ELECTRICAL CONTRACTOR SHALL EXAMINE THE PLANS AND INFORM THE ENGINEER OF ANY DISCREPANCIES BETWEEN THEM AND THE SPECIFICATIONS. IF DISCREPANCIES ARE FOUND HE SHALL REPORT THEM TO THE ENGINEER IN WRITING SO THE ENGINEER CAN PRODUCE INSTRUCTIONS FOR CHANGES IN WORK. DISCREPANCIES SHOULD BE SUBMITTED PRIOR TO BID AS TO RESOLVE ISSUES PRIOR TO CONSTRUCTION. 6. TESTS A. THE ELECTRICAL CONTRACTOR SHALL COMPLETE ALL TESTS REQUIRED BY THE AUTHORITIES HAVING JURISDICTION. B. THE COSTS OF ALL TESTS, THE REPLACING AND REPAIRING OF ANY DAMAGE RESULTING FROM TESTS AND ANY WORK NEEDED TO ADDRESS TEST RESULTS, ETC. NOT IN ACCORDANCE WITH ELECTRICAL CODE, SPECIFICATIONS, AND THE ACCOMPANYING DRAWINGS, SHALL BE THE ELECTRICAL CONTRACTOR RESPONSIBILITY. C. SHOULD THE ELECTRICAL CONTRACTOR REFUSE OR NEGLECT TO MAKE ANY TESTS NECESSARY TO SATISFY THE ENGINEER OR HIS REPRESENTATIVE, THE ENGINEER MAY RUN THE TESTS AND ALL COSTS WILL BE THE ELECTRICAL CONTRACTORS RESPONSIBILITY. 7. GUARANTEE A. THE ELECTRICAL CONTRACTOR SHALL GUARANTEE ALL WORK EXCEPT FOR LIGHT FIXTURE LAMPS UNDER THIS CONTRACT, TO BE FREE FROM DEFECTS FOR A PERIOD OF ONE (1) YEAR FROM THE PROJECT COMPLETION DATE. ALL DEFECTS OF ELECTRICAL SCOPE WITHIN THAT (1) YEAR PERIOD WILL BE HANDLED BY THE ELECTRICAL CONTRACTOR AT HIS OWN EXPENSE. B. LIGHT FIXTURE LAMPS SHALL CARRY THE STANDARD FACTORY GUARANTEE. 8. IDENTIFICATION A. ALL PANELBOARD'S, STARTERS, DISCONNECT SWITCHES, MAIN CIRCUIT BREAKERS, MAJOR JUNCTION BOXES AND OTHER SPECIALTY EQUIPMENT ITEMS INSTALLED BY THE ELECTRICAL CONTRACTOR SHALL BE IDENTIFIED WITH PERMANENTLY ATTACHED ENGRAVED PLASTIC NAMEPLATE. B. THE LABEL SHALL IDENTIFY THE EQUIPMENT NAME ON THE FIRST LINE AND THE PANEL IT IS FED FROM ON THE SECOND. 9. ELECTRICAL SERVICE A. COORDINATE AND ASSIST THE UTILITY COMPANY IN THE INSTALLATION OF THE ELECTRICAL SERVICE BASED OFF THE ACCOMPANYING DRAWINGS. VERIFY LOCATION, REQUIREMENTS AND ELECTRICAL SERVICE SIZE AS INDICATED BY THE DRAWINGS. B. PROVIDE METERING CONDUIT AND EQUIPMENT AS REQUIRED BY LOCAL UTILITY COMPANY. 10. GROUNDING A. PROVIDE GROUNDING FOR ENTIRE ELECTRIC INSTALLATION AS INDICATED BY DRAWINGS AND SPECIFICATIONS. B. PROVIDE GROUNDING FOR ELECTRICAL SERVICE, EQUIPMENT, ENCLOSURES, CONDUITS, SWITCHBOARDS, MCC'S, PANELBOARDS, TRANSFORMERS, LOW VOLTAGE CABINETS, ETC. C. GROUNDING-SIZE AND TYPE OF GROUND CONDUCTOR AS PER NATIONAL ELECTRICAL CODE, ARTICLE 250. CONNECTIONS SHALL BE MADE WITH APPROVED CLAMPS AT MAIN WATERLINE SERVICE ENTRANCE. D. MEET ALL GROUNDING REQUIREMENTS AS PER THE CURRENT N.E.C..	11. ELECTRIC WIRING A. GENERAL a. ROUTING OF CONDUIT SHALL BE SUITED TO THE JOB CONDITIONS AND UP TO THE ELECTRICAL CONTRACTOR UNLESS OTHERWISE NOTED. ALL TRADES DRAWINGS SHOULD BE CLOSELY REVIEWED FOR TYPE OF CONSTRUCTION AND RUNNING OF CONDUITS. NO STRUCTURAL MEMBERS WILL BE CUT WITHOUT APPROVAL FROM STRUCTURAL ENGINEER. ALL CONDUIT WILL BE INSTALLED AT RIGHT ANGLES TO THE BUILDING. b. ROUGH-IN OF ELECTRICALLY OPERATED UNITS SHALL BE COORDINATED WITH THE SUPPLIERS OF EQUIPMENT. c. HEIGHTS AND LOCATIONS OF SWITCHES, PLUGS WALL FIXTURES, ETC. SHALL BE COORDINATED WITH ARCHITECTURAL DRAWINGS, GENERAL CONTRACTOR, AND ALL SUBCONTRACTORS AS REQUIRED. B. RACEWAYS OR CONDUITS a. ALL CONDUIT EXPOSED TO MECHANICAL DAMAGE SHALL BE RIGID GALVANIZED STEEL, IMC, OR AS NOTED ON THE DRAWINGS. ALL OTHER CONDUITS MAY BE ELECTRICAL METALLIC TUBING. PVC CONDUIT SHALL BE SCHEDULE 40 OR AS NOTED ON DRAWINGS. EXPANSION COUPLINGS SHALL BE USED AT ALL EXPANSION JOINTS. b. ALL CONDUIT SHALL BE INSTALLED IN A NEAT WORKMANLIKE MANNER AND SHALL BE ANCHORED EVERY (8') BY MEANS OF AN APPROVED METHOD OF CONDUIT SUPPORTING. c. ALL CONDUIT SIZES SHALL BE IN STRICT ADHERENCE WITH THE CURRENT NATIONAL ELECTRICAL CODE, UNLESS WHERE THE DRAWINGS HAVE OVER SIZED THE MINIMUM REQUIREMENTS, THEN THE LARGER SIZE SHALL APPLY. C. WIRE a. ALL CONDUCTORS RATED UNDER 100A SHALL BE COPPER, UNLESS NOTED OTHERWISE ON THE DRAWINGS. ALL ALUMINUM WIRE TERMINATIONS WILL HAVE NOLOX OR EQUAL ANTI-OXIDANT JOINT COMPOUND APPLIED TO THE TERMINATION. b. ALL WIRE SIZES #14 TO #10 SHALL BE TYPE THWN/THHN. THHN RATED WIRE SHALL NOT BE USED IN AREAS SUBJECT TO WATER SUCH AS IN CONDUITS BELOW GRADE. c. ALL WIRE SIZES #8 OR LARGER SHALL BE TYPE THWN OR THW STRANDED UNLESS NOTED OTHERWISE. d. WIRE INSTALLED IN FIXTURE PANS SHALL BE TYPE AWM OR THHN. e. FURNISH AND INSTALL GROUND CONDUCTOR PER THE CURRENT NEC WHEN NON-METALLIC CONDUIT IS USED OR AS NOTED ON THE DRAWINGS. f. PROVIDE METALLIC SHEATH CABLE, MC OR AC AS PER THE CURRENT N.E.C. ARTICLE 333 AND 334. MC OR AC CABLE SHALL ONLY BE USED INSIDE FRAMED WALLS OR ABOVE HARD LID/T-GRID CEILINGS. g. BRANCH CIRCUITS FOR WHICH THE DISTANCE FROM PANELBOARD TO THE NEAREST DEVICE ARE MORE THAN 100' THE ELECTRICAL CONTRACTOR MUST UPSIZE HIS BRANCH WIRING ACCORDING TO THE VOLTAGE DROP TABLE ON THE ACCOMPANYING DRAWINGS. D. BOXES AND FITTINGS a. ALL CONDUIT BOXES AND ASSOCIATED MATERIAL SHALL BE GALVANIZED AND UL LISTED. b. ALL CONDUIT CONNECTORS OR CONDUIT CONNECTION POINTS MUST BE INSULATED TO PROVIDE PROTECTION TO THE WIRING. c. ALL FITTINGS FOR CONDUIT SHALL BE WATER TIGHT OR STEEL SET SCREW. d. CURSTS IN PLASTERED PANELS AND FURRED FINISH SHALL BE EQUIPPED WITH PLASTERED RINGS AND EXTENSION OF SUCH DEPTH TO BRING OUTLET FLUSH WITH SURFACE FINISH. e. SURFACE MOUNTED BOXES IN DAMP OR WET LOCATIONS, AND BOXES MOUNTED ON A CONDUIT STUB-UP SHALL BE TYPE "FS" OR "FP" BOXES WITH THREADED HUBS, MOUNTING EARS AND WEATHERPROOF COVERS. E. WIRING PROCEDURE a. ALL WIRING IN CONDUIT SHALL HAVE NO MORE THAN THREE (3) CIRCUITS PER HOME RUN, UNLESS DERATED AS PER NEC 310-15- NOTE 8. b. THE ARCHITECT / ENGINEER RESERVES RIGHT TO MAKE ANY REASONABLE CHANGES IN THE LOCATION OF OUTLETS BEFORE ROUGH-IN WITHOUT ADDITIONAL EXPENSES TO THE OWNER. c. THE LAYOUT OF THE WIRING SYSTEM AS INDICATED IS GENERALLY SCHEMATIC AND LOCATION OF OUTLETS SHALL BE CHECKED WITH MILL WORK, EQUIPMENT SUPPLIERS, AND GENERAL CONTRACTOR. 12. MOTORS AND ELECTRICALLY OPERATED EQUIPMENT A. IT IS THE INTENT OF THESE SPECIFICATIONS THAT ALL EQUIPMENT REQUIRING ELECTRICAL CONNECTIONS SHALL BE WIRED UNDER THE ELECTRICAL CODE AND AS NOTED ON THE ELECTRICAL DRAWINGS. B. CHECK SUPPLIERS EQUIPMENT FOR COMPLETE WIRING DETAILS. C. CONNECT ALL MOTORS WITH FLEXIBLE CONDUIT AS PER THE CURRENT NEC. D. CHECK MOTOR STARTER FOR HEATER SIZES AND FUSED DISCONNECTS FOR FUSE SIZES. 13. HEATING AND VENTILATING EQUIPMENT A. THE ELECTRICAL CONTRACTOR SHALL PERFORM ALL LINE VOLTAGE CONNECTIONS FOR ALL HVAC AND BUILDING EQUIPMENT AS PER THE ELECTRICAL EQUIPMENT HOOK-UP SCHEDULE. B. ALL HVAC CONTROL WIRING AND RELATED EQUIPMENT FOR HEATING AND VENTILATING SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR UNLESS OTHERWISE NOTED. C. THE HEATING AND VENTILATING SPECIFICATIONS SHALL BE A PART OF THESE SPECIFICATIONS AND THE MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL STARTERS FOR MECHANICAL EQUIPMENT WHICH ARE NOT SPECIFICALLY DESIGNATED AS BEING FURNISHED BY THE ELECTRICAL CONTRACTOR. SEE ELECTRICAL EQUIPMENT SCHEDULE. D. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL DISCONNECT SWITCHES THAT ARE REQUIRED BY THE NATIONAL ELECTRICAL CODE FOR ALL MECHANICAL EQUIPMENT AS PER ELECTRICAL EQUIPMENT SCHEDULE UNLESS FACTORY FURNISHED WITH MECHANICAL EQUIPMENT.	14. LIGHTING FIXTURES A. ALL LIGHTING FIXTURES SHALL BE FURNISHED WITH THE PROPER MOUNTING ACCESSORIES TO SUIT INTENDED APPLICATION. a. ALL OUTDOOR FIXTURES SHALL BE RATED FOR THE APPROPRIATE CONDITIONS. b. ALL LIGHTING FIXTURES SHALL BE UL LISTED. c. BEFORE ORDERING LIGHT FIXTURES THE ELECTRICAL CONTRACTOR WILL VERIFY EACH FIXTURES MOUNTING EQUIPMENT AND INFORM THE ENGINEER IF THERE ARE DISCREPANCIES WITH THE MOUNTING HARDWARE AND THE MOUNTING SURFACE OF THE LIGHT FIXTURE. IF THIS IS NOT DONE THE COSTS TO CHANGE THE MOUNTING EQUIPMENT AND LABOR WILL BE THE ELECTRICAL CONTRACTOR RESPONSIBILITY. d. RECESSED FIXTURES SHALL BE SECURED TO THE BUILDING STRUCTURE. DROP IN FIXTURES SHALL BE SUPPORTED WITH WIRE SUPPORTS WITH A MINIMUM OF TWO (2) PER FIXTURE WITH ONE AT OPPOSITE ENDS OF EACH OTHER. WIRES TO BE SECURED TO THE BUILDING STRUCTURE AND PROVIDE FOUR (4) EARTHQUAKE CLIPS PER FIXTURE. e. ELECTRICAL CONTRACTOR TO VERIFY WITH GENERAL CONTRACTOR IF FIRE RATED BOOTS ARE REQUIRED FOR RECESSED LIGHT FIXTURES PRIOR TO BID. NO EXTRAS WILL BE ALLOWED FOR THIS WORK. B. LAMPS SHALL BE SUPPLIED WITH FIXTURES AND SHALL BE THE TYPE AS SHOWN ON LIGHT FIXTURE SCHEDULE AND AS MANUFACTURED BY GENERAL ELECTRIC, PHILLIPS, SYLVANIA. 15. PANELBOARDS A. PANEL BOARDS AND SWITCHBOARDS SHALL BE SQUARE D, SIEMENS, G.E. OR CUTLER HAMMER. THE PANELS SHALL BE HOUSED IN A GALVANIZED STEEL CAN WITH HINGED COVER DOOR. THE DOOR SHALL BE KEVED DOOR LOCK WITH ALL KEYS ALIKE. ALL PAINTED SURFACES SHALL BE BONDERIZED AND PAINTED WITH THREE (3) COATS OF PRIMER AND FINISH PAINT. THE PANELS SHALL BE TOP OR BOTTOM FEED AS REQUIRED. THE PANEL SHALL HAVE A SOLID BUSING AND NEUTRAL TERMINAL PLATE, AND SHALL BE BRACED TO WITHSTAND THE MAXIMUM SHORT CIRCUIT INTERRUPTING CAPACITY OF ANY DEVICE MOUNTED THEREIN. B. A WRITTEN CIRCUIT DATA SHALL BE PROVIDED IDENTIFYING OUTLET AND EQUIPMENT CONTROLLED PER CIRCUIT NUMBER ON CARD PROVIDED WITH PANEL. DIRECTORY HOLDER SHALL BE FURNISHED ON INNER FACE OF HINGED DOOR. CONTRACTOR SHALL PROVIDE TYPED CIRCUIT DIRECTORY CARD AT COMPLETION OF PROJECT. C. ALL PANEL BOARDS SHALL HAVE A GROUND BUS WITH LUGS AS REQUIRED. FURNISH ALL FUSES, SPARE FUSES AND FUSE CABINET AS NOTED ON DRAWINGS. 16. WIRING DEVICES A. RELATED DOCUMENTS: THE GENERAL PROVISIONS OF THE CONTRACT AND THE GENERAL CONDITIONS APPLY TO THE WORK SPECIFIED IN THIS SECTION. B. DUPLEX RECEPTACLES a. DUPLEX RECEPTACLES SHALL BE 3-POLE GROUNDING TYPE TYPE 15 & 20 AMP, 120/277 VAC AND SHALL BE P&S, HUBBELL, LEVITON OR APPROVED EQUAL TO. C. TOGGLE SWITCHES a. ALL TOGGLE SWITCHES SHALL BE COMMERCIAL/INDUSTRIAL TYPE 15 & 20 AMP, 120/277 VAC AND SHALL BE P&S, HUBBELL, LEVITON OR APPROVED EQUAL TO. D. WIRING DEVICE COVERS a. COVERS SHALL BE P&S TYPE TP SERIES COLOR AS SELECTED BY ARCHITECT TO MATCH DEVICE(S) COVERED. EXCEPT THAT OUTLETS MOUNTED IN TOE SPACE OR NEXT TO FLOOR SHALL HAVE STAINLESS STEEL COVERS. SURFACE OUTLETS SHALL HAVE GALVANIZED COVERS. b. WIRING DEVICE COVER PLATES LOCATED ON EXTERIOR WALLS OR IN AREAS OF EXCESSIVE MOISTURE SHALL BE WEATHER PROOF. c. ALL FLOOR RECEPTACLES SHALL INCLUDE CARPET OR TILE FLANGE COMPLETE. 17. DRY-TYPE TRANSFORMERS A. RELATED DOCUMENTS: RELATED DOCUMENTS: THE GENERAL PROVISIONS OF THE CONTRACT AND THE GENERAL CONDITIONS APPLY TO THE WORK SPECIFIED IN THIS SECTION. B. GENERAL a. FURNISH AND INSTALL DRY-TYPE TRANSFORMERS AS INDICATED ON THE PLANS AND AS SPECIFICATIONS. C. DESCRIPTION a. TRANSFORMERS SHALL HAVE A MINIMUM 4-1/2% FULL CAPACITY PRIMARY TAPS. b. TRANSFORMERS SHALL BE 150°C TEMPERATURE RISE ABOVE 40 C AMBIENT. c. PROVIDE TRANSFORMERS 500 KVA AND LARGER WITH A VIBRATION ISOLATING SYSTEM DESIGNED TO PROVIDE A PERMANENT FASTENING AT THE CORE AND COIL OF THE ENCLOSURE. SOUND LEVEL SHALL BE GUARANTEED BY THE MANUFACTURER NOT TO EXCEED NEMA AND ANSI STANDARDS 18. MOTOR STARTERS A. STARTERS SHALL BE LINE VOLTAGE, NON-REVERSING, 3-POLE TYPE WITH THERMAL OVERLOAD, SINGLE-PHASE, AND LOW VOLTAGE PROTECTION WITH A NORMALLY OPEN AND CLOSED AUXILIARY CONTACT AND RESET BUTTON IN THE FACE. THE COIL VOLTAGE SHALL BE RATED FOR 120 VAC. PROVIDE FUSED CONTROL TRANSFORMER WHEN 120 VAC IS NOT AVAILABLE. SEE ELECTRICAL EQUIPMENT SCHEDULE AND DRAWINGS FOR H.O.A.'S, PILOT LIGHTS, ETC. 19. SAFETY SWITCHES A. ALL SAFETY SWITCHES 30 AMPS AND LARGER SHALL BE HORSE POWER RATED, EXTERNALLY OPERATED WITH PROVISION FOR PADLOCK, QUICK MAKE-QUICK BREAK AND SHALL BE FUSIBLE / NON-FUSIBLE / NEMA 1 / NEMA 3R AS NOTED ON DRAWINGS. EACH SAFETY SWITCH SHALL BE CLEARLY MARKED FOR MAXIMUM VOLTAGE / CURRENT / HORSEPOWER RATING.

ABBREVIATIONS	
AIC	AMPERE INTERRUPTING CAPACITY
AFF	ABOVE FINISHED FLOOR
AWG	AMERICAN WIRE GAUGE
ALUM	ALUMINUM
AR	AS REQUIRED
CKT	CIRCUIT
CND	CONDUIT
/CND	PER CONDUIT
CT	CURRENT TRANSFORMER
CU	COPPER
DS	DISCONNECT SWITCH
EA	EACH
EMT	ELECTRICAL METALLIC TUBING
EQUIP	EQUIPMENT
EX	EXISTING
KWH	KILOWATT HOURS
FLA	FULL LOAD AMPS
QTY	QUANTITY
GND	GROUND
kVA	KILOVOLT AMPERE
KW	KILOWATT
KWH	KILOWATT HOUR
MAX	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MDP	MAIN DISTRIBUTION PANELBOARD
MLO	MAIN LUGS ONLY
NA	NOT APPROVED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NTS	NOT TO SCALE
PH	PHASE
PNL	PANEL
QTY	QUANTITY
R	REMOVE
TRP	TYPICAL
V	VOLTS
VA	VOLT AMPERE
W/O	WITHOUT
XFMR	TRANSFORMER

DEFINITIONS	
1.	INDICATED: THE TERM "INDICATED" REFERS TO GRAPHIC REPRESENTATIONS, NOTES, OR SCHEDULES ON THE DRAWINGS, OTHER PARAGRAPHS OR SCHEDULES IN THE SPECIFICATIONS AND SIMILAR REQUIREMENTS IN THE CONTRACT DOCUMENTS, WHERE TERMS SUCH AS "SHOWN", "NOTED", "SCHEDULED" AND "SPECIFIED" ARE USED, IT IS TO HELP THE READER LOCATE THE REFERENCE. NO LIMITATION ON LOCATION IS INTENDED.
2.	DIRECTED: TERMS SUCH AS "DIRECTED", "REQUESTED", "AUTHORIZED", "SELECTED", "APPROVED", "REQUIRED" AND "PERMITTED" MEAN "DIRECTED BY THE ENGINEER", REQUESTED BY THE ENGINEER" AND SIMILAR PHRASES.
3.	APPROVED: THE TERM "APPROVED", WHERE USED IN CONJUNCTION WITH THE ENGINEERS ACTION ON THE CONTRACTOR'S SUBMITTALS, APPLICATIONS AND REQUESTS, IS LIMITED TO THE ENGINEER'S DUTIES AND RESPONSIBILITIES AND DOES NOT ALLEVATE THE CONTRACTOR FROM COMPLIANCE WITH THE REQUIREMENTS ON LOCAL CODES, STANDARDS OR THE CONTRACT DOCUMENTS.
4.	INSTALL: THE TERM "INSTALL" IS USED TO DESCRIBE OPERATIONS AT PROJECT SITE INCLUDING THE ACTUAL "UNLOADING, UNPACKING, ASSEMBLY, ERECTION, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING AND SIMILAR OPERATIONS."
5.	PROVIDE: THE TERM "PROVIDE" MEAN "TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE."

BRANCH CIRCUIT VOLTAGE DROP TABLE				
CONDUCTOR	MAX CONDUCTOR LENGTH AT LOAD INDICATED			
	15A	12A	9A	6A
120V CIRCUITS				
#12 AWG CU	60 FT	75 FT	100 FT	150 FT
#10 AWG CU	100 FT	125 FT	166 FT	249 FT
#8 AWG CU	153 FT	192 FT	256 FT	384 FT
#6 AWG CU	245 FT	306 FT	408 FT	612 FT
#4 AWG CU	287 FT	483 FT	644 FT	967 FT
277V CIRCUITS				
#12 AWG CU	130 FT	173 FT	230 FT	350 FT
#10 AWG CU	230 FT	285 FT	380 FT	590 FT
#8 AWG CU	350 FT	440 FT	590 FT	900 FT
#6 AWG CU	550 FT	700 FT	940 FT	1420 FT
#4 AWG CU	890 FT	1116 FT	1450 FT	2200 FT

ELECTRICAL SYMBOL LEGEND	
SYMBOL	SYMBOL DESCRIPTION
	DUPLEX RECEPTACLE, NEMA 5-20R
	GFCI RECEPTACLE
	4 PLEX RECEPTACLE
	4 PLEX GFCI RECEPTACLE
	"A" INDICATES RECEPTACLE IS INSTALLED ABOVE COUNTER.
	"C" INDICATES RECEPTACLE IS INSTALLED ABOVE CEILING.
	GFCI RECEPTACLE WITH WEATHER PROOF WHILE IN USE COVER.
	SPECIAL RECEPTACLE TO MATCH EQUIPMENT PLUG.
	JUNCTION BOX
	DATA OUTLET
	TELEPHONE OUTLET
	DATA TELEPHONE OUTLET
	EQUIPMENT CONNECTION WITH DISCONNECT
	EQUIPMENT CONNECTION WITH FUSED DISCONNECT
	EQUIPMENT CONNECTION WITH NO DISCONNECT
	EQUIPMENT CONNECTION W/THERMAL SWITCH
	EQUIPMENT INDICATOR, SEE EQUIPMENT SCHEDULE.
	SINGLE POLE SWITCH
	LOW VOLTAGE SWITCH
	WALL OCCUPANCY SENSOR
	LIGHTING CONTROL SYSTEM PHOTO CELL. X INDICATES ZONE
	LIGHTING CONTROL SYSTEM OCCUPANCY SENSOR. X INDICATES ZONE
	LIGHTING CONTROL ROOM/ZONE CONTROLLER.
	LIGHTING CONTROL LOW VOLTAGE WIRING
	BRANCH CIRCUIT HOME RUN. ARROWS INDICATE NUMBER OF CIRCUITS. LETTER AND NUMBERS INDICATED PANEL AND CIRCUIT NUMBERS. USE #12 CONDUCTORS UNLESS OTHERWISE INDICATED.
	CONDUIT & CONDUCTOR "CC" SCHEDULE INDICATOR. REFER TO ONELINE DIAGRAM.
	EQUIPMENT CONDUIT & CONDUCTOR, SEE SCHEDULE
	EXIT SIGN
	EMERGENCY LIGHT
	LIGHT FIXTURE TYPE INDICATOR. SEE FIXTURE SCHEDULE.
	FIRE ALARM HORN STROBE
	FIRE ALARM BELL
	FIRE ALARM SMOKE DETECTOR
	FIRE ALARM CO DETECTOR
	TAMPER SWITCH
	FLOW SWITCH
	FIRE ALARM CONTROL PANEL
	"CAT 6" DROPS. *** NUMBER OF DROPS AND LOCATIONS

4 SYMBOL LEGEND
N.T.S.

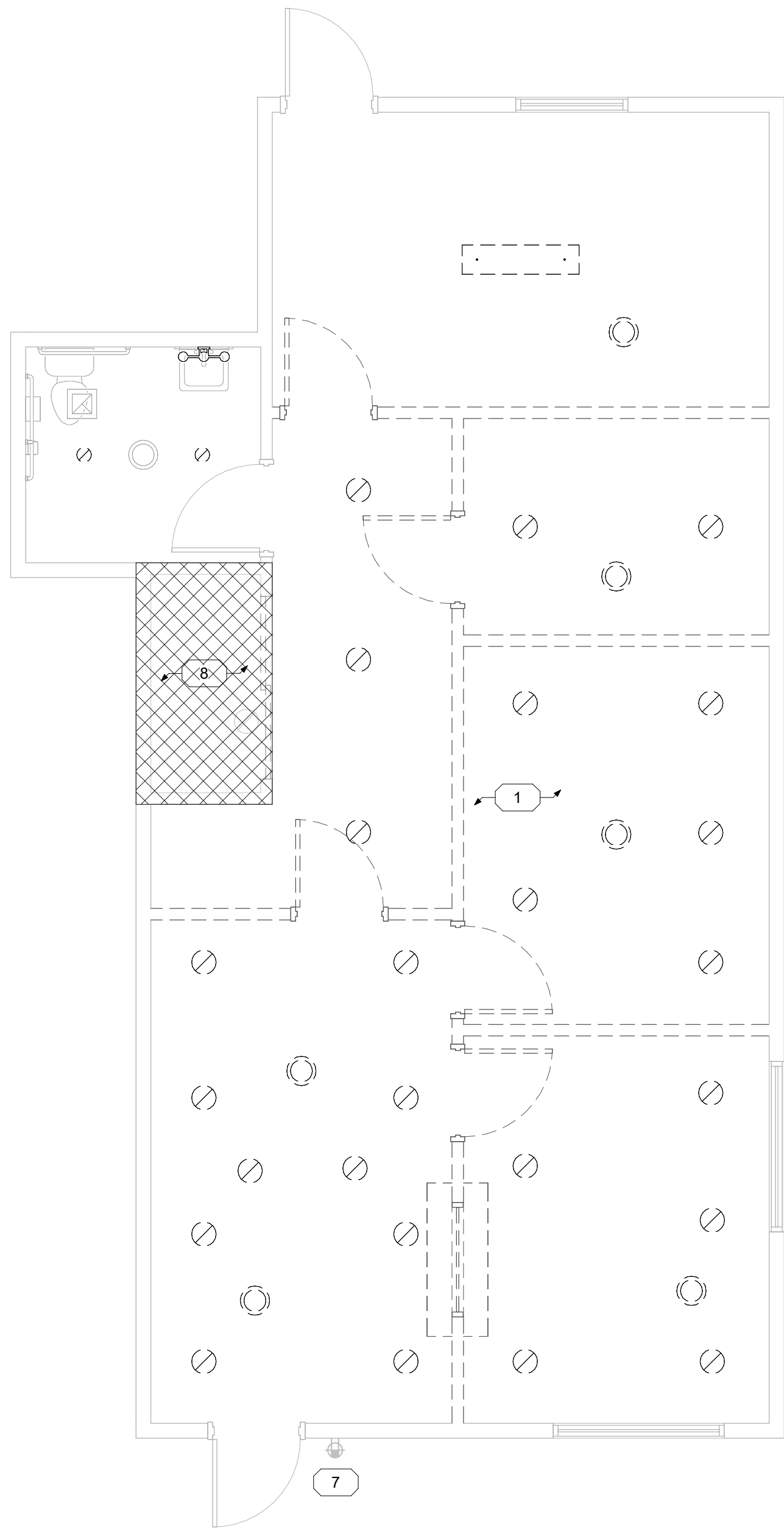
SHEET LIST - ELECTRICAL

Sheet Number	Sheet Name	Current Revision	Current Revision Description
E100	ELECTRICAL COVER SHEET		
E101	ELECTRICAL LIGHTING		
E201	ELECTRICAL CONSTRUCTION		
E301	ELECTRICAL DETAILS		
E401	ELECTRICAL SCHEDULES		

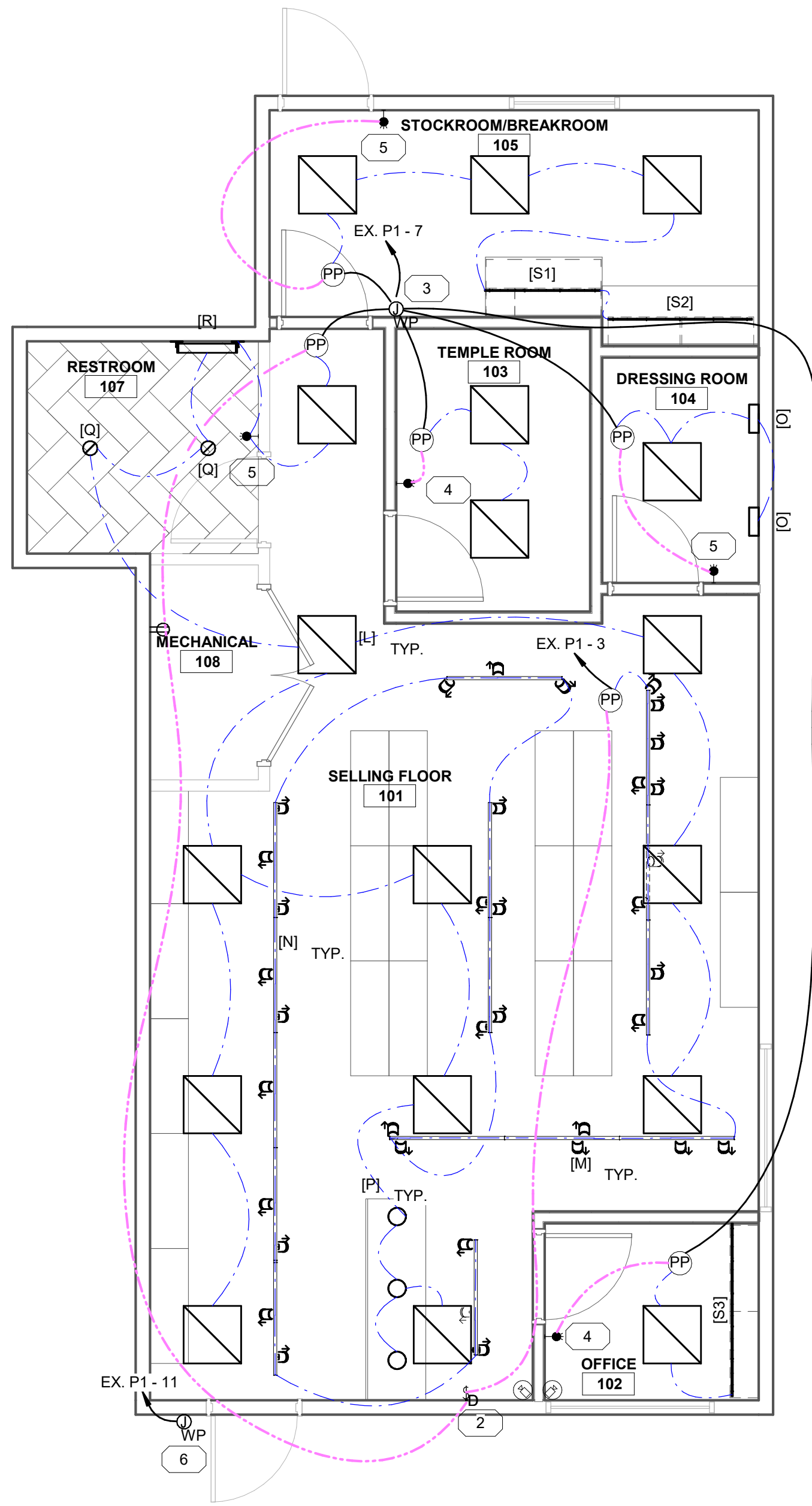
GENERAL ELECTRICAL NOTES	
1.	CLARIFICATION METHODS:
2.	AT THE TIME OF BIDDING, BIDDERS SHALL FAMILIARIZE THEMSELVES WITH THE DRAWINGS AND SPECIFICATIONS. ANY QUESTIONS, MISUNDERSTANDINGS, CONFLICTS, DELETIONS, DISCONTINUED PRODUCTS, CATALOG NUMBER DISCREPANCIES, DISCREPANCIES BETWEEN THE EQUIPMENT SUPPLIED AND THE INTENT OR FUNCTION OF THE EQUIPMENT, ETC, SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER IN WRITING FOR CLARIFICATION PRIOR TO ISSUANCE OF THE FINAL ADDENDUM AND BIDDING OF THE PROJECT.
3.	WHERE DISCREPANCIES OR MULTIPLE INTERPRETATIONS OCCUR, THE MOST STRINGENT (WHICH IS GENERALLY RECOGNIZED AS THE MOST COSTLY) THAT MEETS THE INTENT OF THE DOCUMENTS SHALL BE ENFORCED.
4.	ALL ELECTRICAL WORK SHALL COMPLY WITH THE LATEST ADOPTED NATIONAL ELECTRICAL CODE.
5.	EXPOSED STRUCTURE AREAS (EXCLUDING MECHANICAL, ELECTRICAL AND COMMUNICATIONS SPACES):
6.	INSTALL RACEWAYS BETWEEN DECK AND STRUCTURE WHEREVER POSSIBLE IN EXPOSED STRUCTURE CEILING AREAS. ROUTE RACEWAYS IN CONCEALED AREAS WHEREVER POSSIBLE.
7.	REFER ALL CONDITIONS WHERE RACEWAYS MUST BE INSTALLED WHICH CANNOT COMPLY WITH THESE REQUIREMENTS TO THE ENGINEER.
8.	VERIFY ALL EQUIPMENT DIMENSIONS AND LOCATIONS BEFORE BEGINNING ROUGH-IN. CONSULT ALL APPLICABLE CONTRACT DRAWINGS AND SHOP DRAWINGS. INSURE CLEARANCES AROUND ALL ELECTRICAL EQUIPMENT PER N.E.C. BEFORE ROUGH-IN. NOTIFY ARCHITECT / ENGINEER AND GENERAL CONTRACTOR IMMEDIATELY UPON FINDING ANY DISCREPANCIES.
9.	ALL CONDUITS PENETRATING ROOF SHALL BE SEALED WITH PITCH POCKETS.
10.	ELECTRICAL BOXES SHALL NOT BE LOCATED IN MASONRY COLUMNS, IN BLOCK WALLS OR IN GROUDED CEILS ADJACENT TO OPENINGS. COORDINATE LOCATION OF BOXES WITH MASONRY CONTRACTOR.
11.	ALL PENETRATIONS OF FIRE RATED FLOORS, WALLS, AND CEILINGS BY CONDUITS SHALL BE SEALED WITH APPROVED MATERIAL TO MAINTAIN FIRE RATING OF SURFACES PENETRATED. VERIFY WITH ARCHITECT. ALL LIGHT FIXTURES REQUIRING SHEET ROCK BOOT TO RETAIN RATING. CEILING RATING SHOULD BE COORINATED WITH GENERAL CONTRACTOR BEFORE BID. SHEET ROCK BOOT TO BE PROVIDED BY OTHERS.
12.	PROVIDE ONE PIECE GALVANIZED FLAT ROLLED SHEET STEEL OUTLET BOXES WITH STAMPED KNOCKOUTS. MINIMUM DEPTH OF 1-1/2" WITH BOXES WITH THREE OR MORE CONDUIT ENTRIES AND SHALL BE 4-SQUARE WITH 1 OR 2 GANG EXTENSION RING. JUNCTION BOXES SHALL BE SHEET STEEL WITH SCREW-ON COVERS.
13.	PROVIDE COLOR CODING FOR CONDUCTORS AS FOLLOWS:
14.	BROWN/ORANGE/YELLOW/GRAY FOR 277/480 V.
15.	BLACK/RED/BLUE/WHITE FOR 120/208 V.
16.	UNLESS OTHERWISE INDICATED CONDUITS SHALL BE EMT. CONDUITS SHALL BE SUPPORTED WITH CONDUIT CLAMPS TRAPEZE HANGERS AND THREADED ROD ATTACH TO STRUCTURE AT INTERVALS NOT TO EXCEED 8 FEET. PROVIDE FLEXIBLE CONDUIT WITH GROUND CONDUCTOR BETWEEN DISCONNECT AND MOTOR. PROVIDE EXPANSION FITTINGS AS REQUIRED BY N.E.C.
17.	CLEAN UP ALL EQUIPMENT, CONDUIT, PACKING CARTONS, ETC. AND OTHER DEBRIS RESULTING FROM THIS INSTALLATION. CLEAN INTERIORS AND EXTERIORS OF ALL EQUIPMENT AND REPLACE, OR REPAIR ALL ELECTRICAL EQUIPMENT UPON REQUEST AT SUBSTANTIAL COMPLETION.
18.	DIMENSIONS INDICATING LOCATIONS OF DEVICES ARE TO BE TO THE CENTER OF DEVICE BOX.
19.	PROVIDE SEISMIC BRACING FOR ALL ELECTRICAL EQUIPMENT, CONDUITS, CABLES, LIGHT FIXTURES, CABLE TRAY, ETC. SEISMIC BRACING SHALL BE AS PER IBC 1621.1.13.

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② 1 - ELECTRICAL - LIGHTING DEMOLITION
1/4" = 1'-0"



① 1 - ELECTRICAL - LIGHTING
1/4" = 1'-0"



KEYNOTES

- 1 DISCONNECT ALL LIGHTS, SWITCHES, RECEPTACLES AND ANY OTHER ELECTRICAL EQUIPMENT C/W WIRING. COORDINATE WITH GC TO REMOVE AND DISPOSE OF ALL DISCONNECTED ELECTRICAL EQUIPMENT.
- 2 DIMMABLE LOW VOLTAGE OVERRIDE SWITCH FOR OCCUPANCY SENSOR. 3 BUTTON 2 ZONE WITH ON/OFF AND WAVELINK WIRED DIMMING SWITCHPACK.
- 3 PROVIDE INSTALL AND A JUNCTION BOX WITH BLANK COVER IN ACCESSIBLE CEILING SPACE (COORDINATE WITH GC) AS PER NEC REQUIREMENTS. J/BOX SHALL SUPPORT 122 THWN CONDUCTORS AND UP TO FIVE 3/4" EMT CONDUITS TO LIGHTING CONTROL MODULES AND FIXTURES.
- 4 WALL MOUNT OCC SENSOR SHALL BE DUAL TECH DIMMABLE (GREENGATE OSWP010) OR EQUIVALENT.
- 5 WALL MOUNT DUAL TECH OCC SENSOR (GREENGATE ONW D 1001 M) OR EQUIVALENT.
- 6 PROVIDE A WEATHER PROOF JUNCTION BOX FOR TENANT S/NAGE. COORDINATE ELECTRICAL REQUIREMENTS WITH SIGN VENDOR AND EXACT LOCATION WITH OWNER PRIOR TO ROUGH-IN.
- 7 DEMOLISH AND REMOVE FROM SITE EXISTING EXTERIOR RECEPTACLES C/W WIRING AND CONDUIT. PROVIDE WEATHERPROOF ROUGH-IN BOX WITH CONDUIT STUBBED TO ACCESSIBLE LOCATION, C/W WEATHERPROOF BLANK COVER UNTIL FINAL DEVICE INSTALLATION.
- 8 EXISTING ELECTRICAL EQUIPMENT TO REMAIN.

**DESIGN
WEST**

LOGAN, UTAH
(435) 752-7031
SALT LAKE CITY, UTAH
(801) 539-8221

DISTRIBUTION CENTER STORE
4185 N MONTANA AVE, SUITE 1
Helena, MT 59601

MARK DESCRIPTION

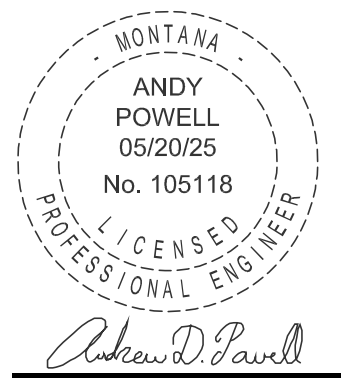
DATE

PROJECT #: 1026

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CHECKED BY: AP

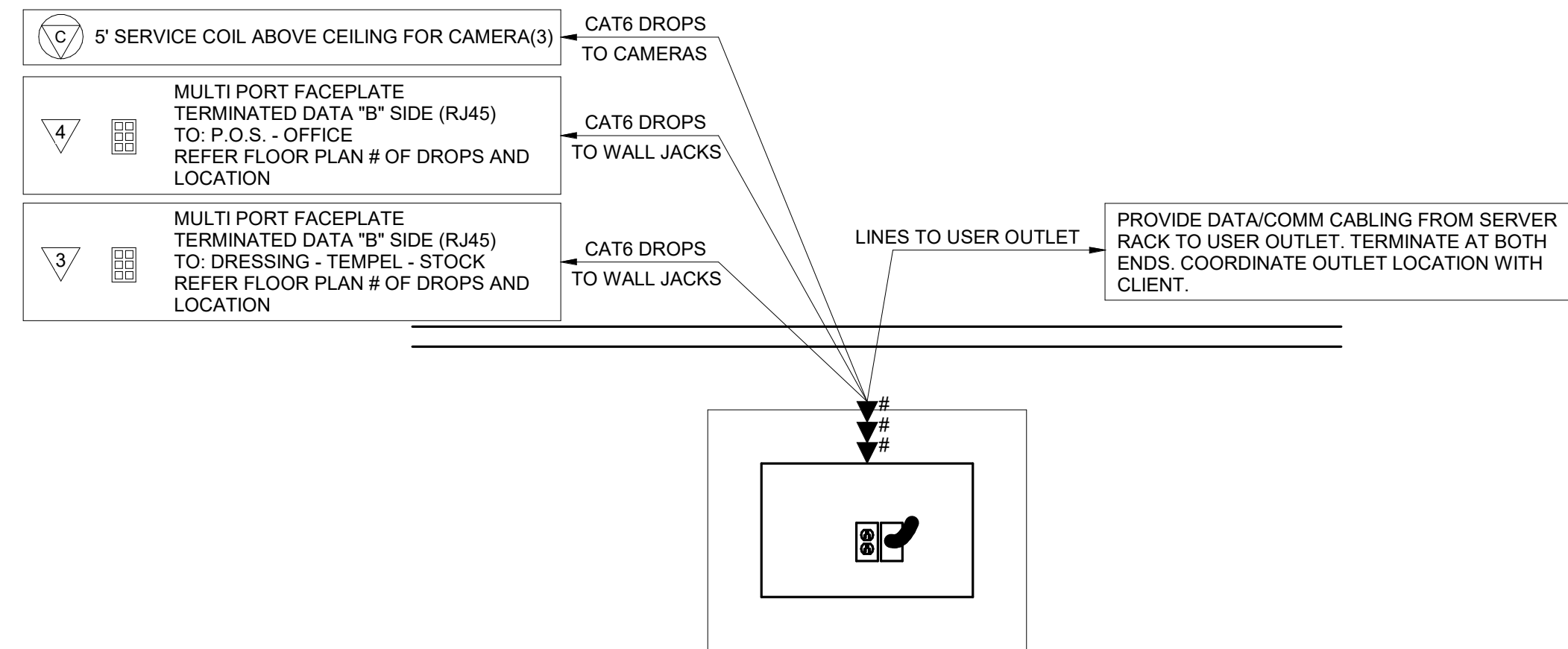
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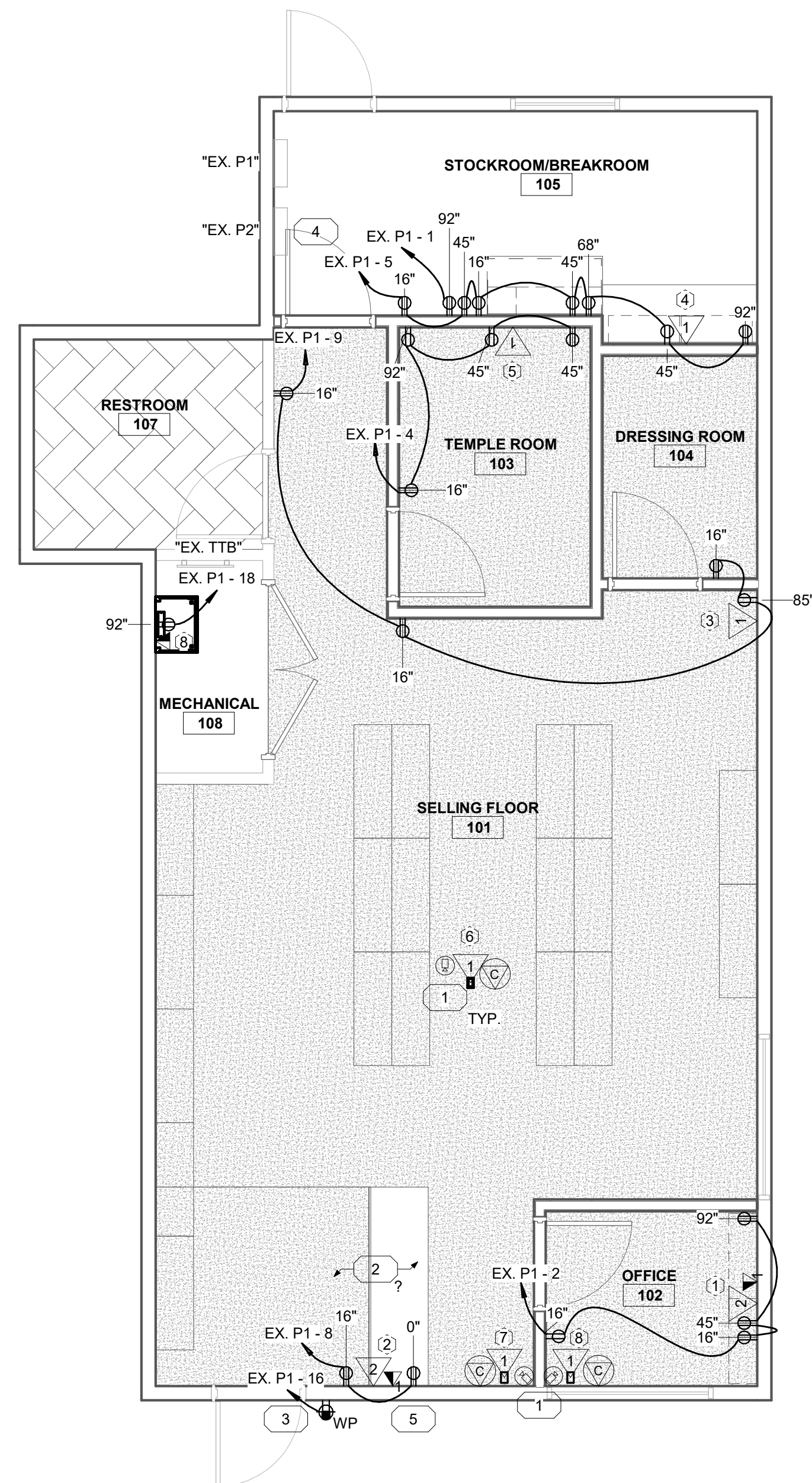
**ELECTRICAL
LIGHTING**

E101

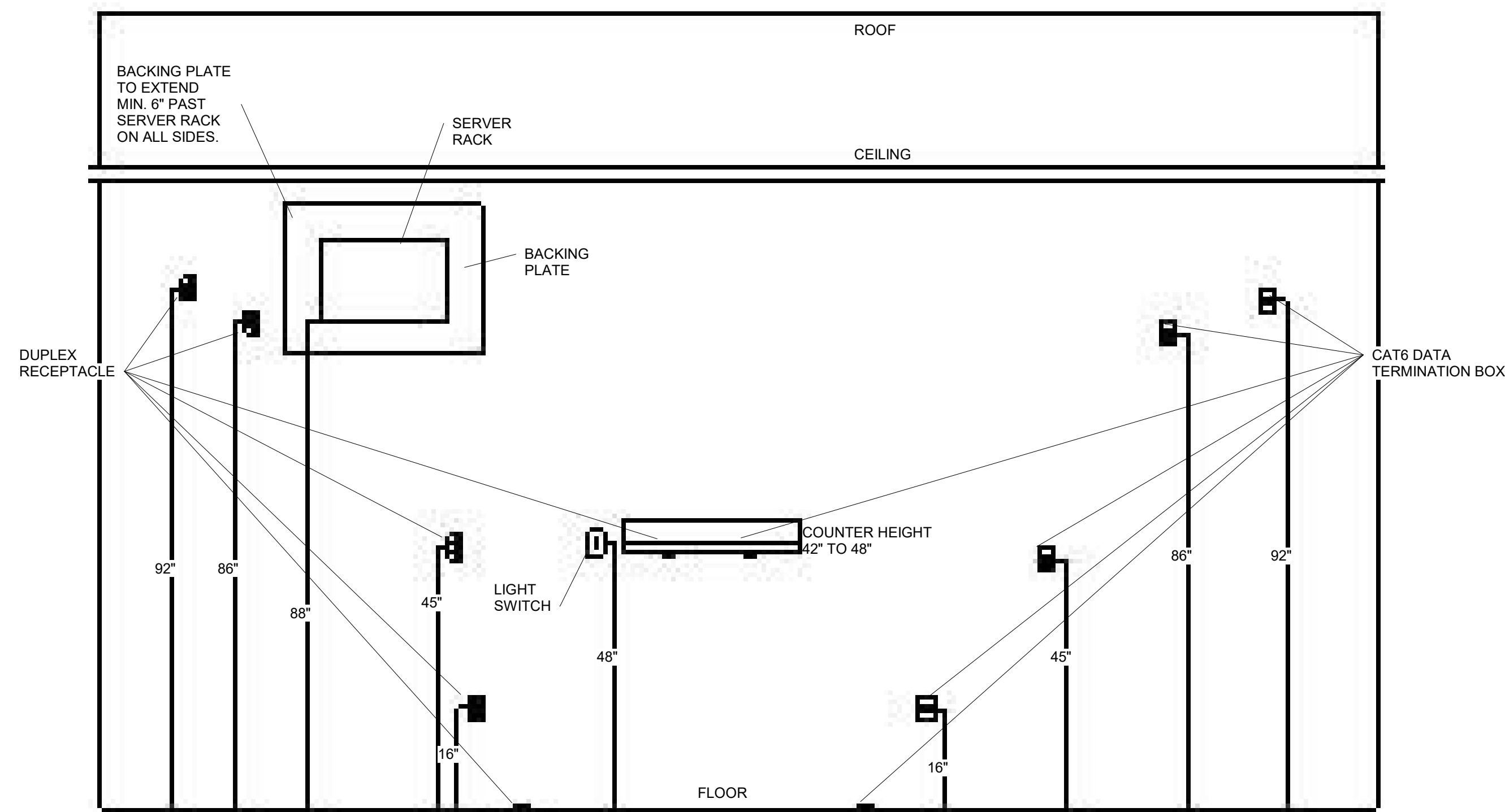
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3	DATA DETAIL
	N.T.S.



1 - ELECTRICAL - CONSTRUCTION
1/4" = 1'-0"



② Receptacle & Data Box Heights
1 1/2" = 1'-0"

1	<p>CAT6 TO OFFICE</p> <p>A. 2 CAT6 - FROM NETWORK RACK TO OFFICE:</p> <ul style="list-style-type: none"> • MIN. 5' SERVICE COIL IN CEILING. MALE DATA (RJ45) • PATCH PANEL PORT: #X-X • DROP IN OFFICE TO DOUBLE CONNECTOR BOX @ 45" HEIGHT <p>B. 1 CAT6 TELEPHONE DROP TO OFFICE:</p> <ul style="list-style-type: none"> a. MIN. 5' SERVICE COIL IN CEILING • DROP IN OFFICE TO SINGLE CONNECTOR BOX @ 45" HEIGHT
2	<p>CAT6 TO P.O.S.</p> <p>A. 2 CAT6 - FROM NETWORK RACK TO P.O.S.:</p> <ul style="list-style-type: none"> a. MIN. 5' SERVICE COIL IN CEILING AND 5' SERVICE COIL @ CONNECTOR BOX. MALE DATA (RJ45) • PATCH PANEL PORT: #X-X • DROP AT P.O.S. TO DOUBLE CONNECTOR BOX @ 0" HEIGHTS <p>B. 1 CAT6 TELEPHONE DROP TO P.O.S.</p> <ul style="list-style-type: none"> a. MIN. 5' SERVICE COIL IN CEILING AND 5' SERVICE COIL @ BOX. • DROP @ P.O.S. TO SINGLE CONNECTOR BOX @ 0" HEIGHT
3	<p>CAT6 TO DRESSING ROOM</p> <p>A. 1 CAT6 - FROM NETWORK RACK TO OUTSIDE DRESSING ROOM:</p> <ul style="list-style-type: none"> a. MIN. 5' SERVICE COIL IN CEILING. MALE DATA (RJ45) • PATCH PANEL PORT: #X-X • DROP AT DRESSING ROOM TO DOUBLE CONNECTOR BOX @ 86" HEIGHT
4	<p>CAT6 TO STOCKROOM/BREAKROOM</p> <p>A. 1 CAT6 - FROM NETWORK RACK TO STOCKROOM/BREAKROOM:</p> <ul style="list-style-type: none"> a. MIN. 5' SERVICE COIL IN CEILING. MALE DATA (RJ45) • PATCH PANEL PORT: #X-X • DROP AT STOCKROOM/BREAKROOM TO SINGLE CONNECTOR BOX @ 45" HEIGHT
5	<p>CAT6 TO TEMPLE ROOM</p> <p>A. 1 CAT6 - FROM NETWORK RACK TO TEMPLE ROOM:</p> <ul style="list-style-type: none"> a. MIN. 5' SERVICE COIL IN CEILING. MALE DATA (RJ45) • PATCH PANEL PORT: #X-X • DROP AT TEMPLE ROOM TO SINGLE CONNECTOR BOX @ 45" HEIGHT
6	<p>CAT6 TO SALES FLOOR</p> <p>A. 1 CAT6 - FROM NETWORK RACK TO SALES FLOOR CAMERA:</p> <ul style="list-style-type: none"> a. MIN. 5' SERVICE COIL IN CEILING. MALE DATA (RJ45) • PATCH PANEL PORT: #X-X • INSTALL JUNCTION BOX WITH CAT6 FEMALE CONNECTOR(RJ45) FOR CAMERA CONNECTION
7	<p>CAT6 TO SALES FLOOR</p> <p>A. 1 CAT6 - FROM NETWORK RACK TO SALES FLOOR P.O.S. CAMERA:</p> <ul style="list-style-type: none"> a. MIN. 5' SERVICE COIL IN CEILING. MALE DATA (RJ45) • PATCH PANEL PORT: #X-X • INSTALL JUNCTION BOX WITH CAT6 FEMALE CONNECTOR(RJ45) FOR CAMERA CONNECTION
8	<p>CAT6 TO SALES FLOOR</p> <p>A. 1 CAT6 - FROM NETWORK RACK TO OFFICE CAMERA:</p> <ul style="list-style-type: none"> a. MIN. 5' SERVICE COIL IN CEILING. MALE DATA (RJ45) • PATCH PANEL PORT: #X-X • INSTALL JUNCTION BOX WITH CAT6 FEMALE CONNECTOR(RJ45) FOR CAMERA CONNECTION

KEYNOTES

- 1 PROVIDE A JUNCTION BOX AND 3/4" C FROM CAMERA TO SECURITY HEADEND.
COORDINATE WITH OWNER ON EXACT LOCATION.
- 2 ALL DATA LINES TO GO BACK TO BUILDING ITB. LOCATED IN THE MECHANICAL ROOM.
- 3 REPLACE EXISTING WEATHER PROOF RECEPTACLE.
- 4 EX. P2 REMAINING AS IS C/W EXISTING CIRCUITS.
- 5 PROVIDE A 5' WHIP WITH RECEPTACLE ON END TO BE LOCATED IN MILLWORK.

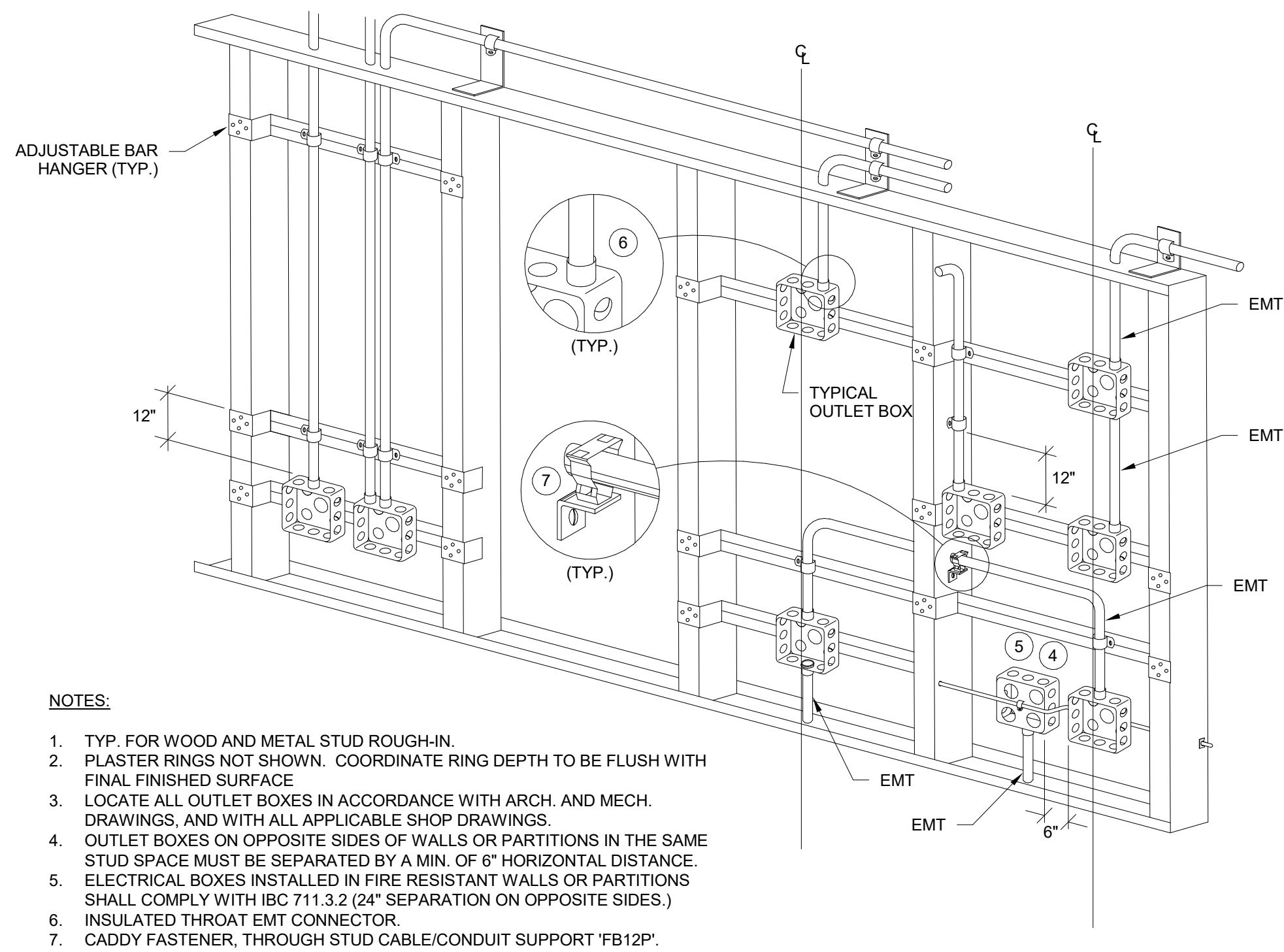
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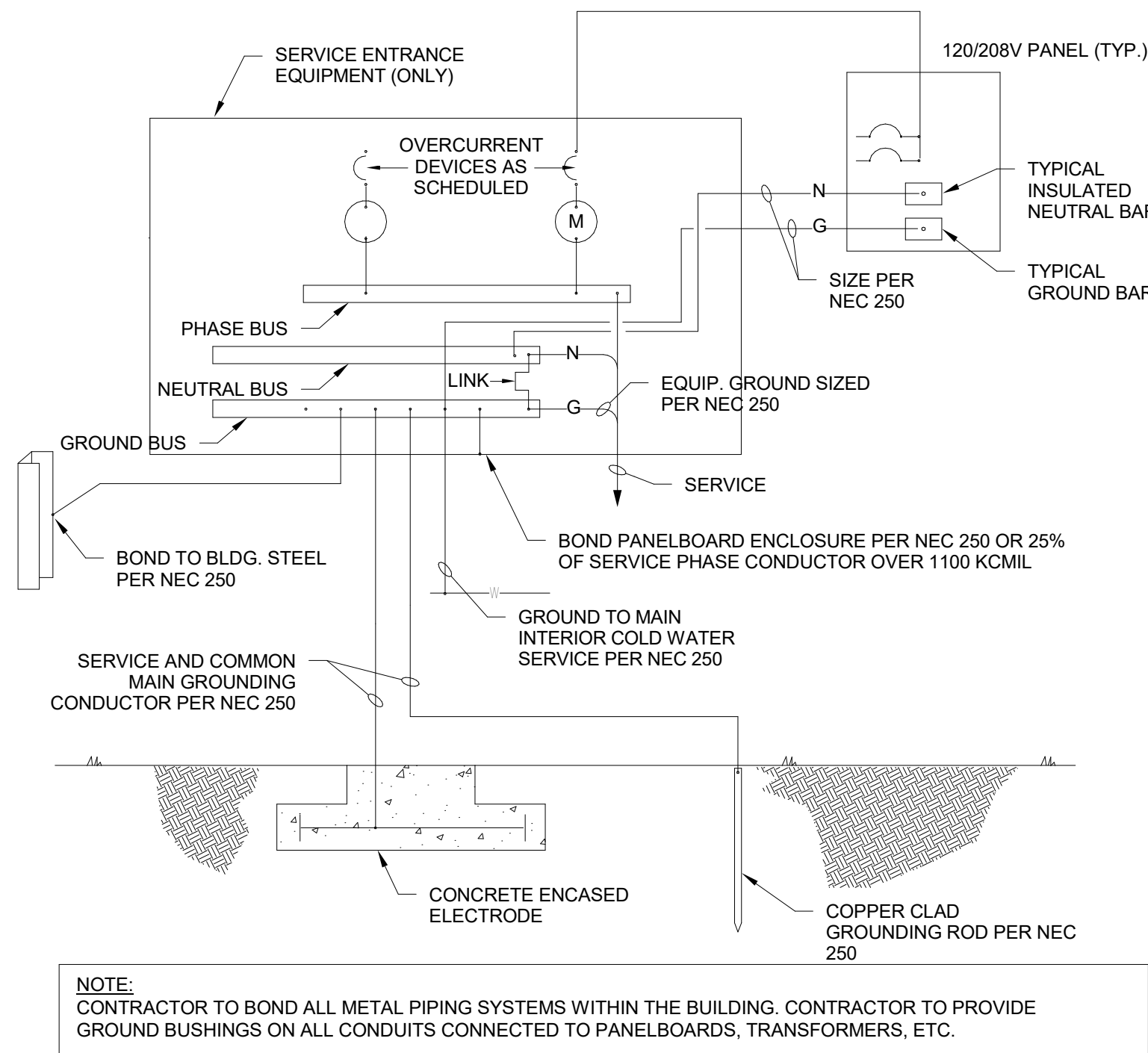
C

B

A



1 Typical Rough-In Details
1/2" = 1'-0"



2 Typical 208/120V Grounding/Bonding Detail
1/2" = 1'-0"

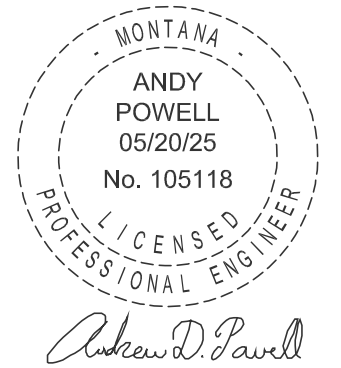
DESIGN
WEST

LOGAN, UTAH
(435) 752-7031
SALT LAKE CITY, UTAH
(801) 539-8221

DISTRIBUTION CENTER STORE
4185 N MONTANA AVE, SUITE 1
Helena, MT 59601

MARK DESCRIPTION:
DATE:

PROJECT #: 1026
DRAWN BY: MB
CHECKED BY: AP
ISSUED: Issue Date



ELECTRICAL
DETAILS

E301

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D

C

B

A

Branch Panel: EX. P2

Location: STOCKROOM/BREAKROOM...

Supply From:

Mounting: Surface

Enclosure: Type 1

Volts: 120/208 Wye

Phases: 3

Wires: 4

A.I.C. Rating:

Mains Type:

Mains Rating: 100 A

MCB Rating: 1 A

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	Front Lights	20 A	1	0 kW	0 kW					1	20 A	Parking Lot Lights	2
3	Back Lights	20 A	1			0 kW	0 kW			1	20 A	Spare	4
5	Well	20 A	2					0 kW	--	1	--	Space	6
7	--	--	--	0 kW	--					1	--	Space	8
9	Space	--	1			--	--			1	--	Space	10
11	Space	--	1					--	--	1	--	Space	12
13	Space	--	1	--	--					1	--	Space	14
15	Space	--	1			--	--			1	--	Space	16
17	Space	--	1					--	--	1	--	Space	18
19	Space	--	1	--	--					1	--	Space	20
21	Space	--	1			--	--			1	--	Space	22
23	Space	--	1					--	--	1	--	Space	24
Total Load:				0 kW		0 kW		0 kW					
Total Amps:				0 A		0 A		0 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
				Total Conn. Load: 0 kW
				Total Est. Demand: 0 kW
				Total Conn.: 0 A
				Total Est. Demand: 0 A

Notes:

Branch Panel: EX. P1

Location: STOCKROOM/BREAKROOM...

Supply From:

Mounting: Surface

Enclosure: Type 1

Volts: 120/208 Wye

Phases: 3

Wires: 4

A.I.C. Rating:

Mains Type:

Mains Rating: 100 A

MCB Rating: 100 A

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	RECEPTACLES SERVER RACK **	20 A	1	180 W	720 W					1	20 A	RECEPTACLES OFFICE **	2
3	TRACK LIGHTS **	20 A	1			216 W	720 W			1	20 A	RECEPTACLES TEMPLE ROOM **	4
5	RECEPTACLES STOCK/BREAKROOM **	20 A	1					1,260 W	1,200 W	1	20 A	Furnace *	6
7	CEILING LIGHTS **	20 A	1	988 W	360 W					1	20 A	RECEPTACLES P.O.S. **	8
9	S/FLOOR & D/ROOM RECEPT. **	20 A	1			720 W	1,000 W			1	20 A	GFI Bathroom *	10
11	SIGNAGE **	20 A	1					1,200 W	2,500 W	2	20 A	AC *	12
13	Water Heater *	30 A	2	3,500 W	2,500 W					--	--		14
15	--	--	--			3,500 W	180 W			1	20 A	RECEPTACLES GFCI WEATHERPROOF **	16
17	Space	--	1					--	360 W	1	20 A	DEDICATED SERVER RACK RECEPTACLES	18
19	Space	--	1	--	--					1	--	Space	20
21	Space	--	1			--	--			1	--	Space	22
23	Space	--	1					--	--	1	--	Space	24
Total Load:				8 kW		6 kW		7 kW					
Total Amps:				69 A		53 A		55 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Lighting - Dwelling Unit	0 kW	100.00%	0 kW		
Other	0 kW	0.00%	0 kW	Total Conn. Load:	21 kW
Spare	14 kW	100.00%	14 kW	Total Est. Demand:	21 kW
Lighting	2 kW	100.00%	2 kW	Total Conn.:	59 A
RECEPTACLES	5 kW	100.00%	5 kW	Total Est. Demand:	59 A

Notes:

*** CIRCUITS REMAINING. EC TO VERIFY CIRCUITS ARE WORKING AND CODE COMPLIANT.

**** NEW CIRCUITS TO BE INSTALLED.

REMOVE ANY OTHER REMAINING CIRCUITS AND ASSIGN BREAKERS AS SPARE

LIGHT FIXTURE SCHEDULE									
ID	DESCRIPTION	MANUFACTURER	CATALOG NUMBER	LAMP / COLOR	VOLTAGE	WATTS	MOUNTING	NOTES	
L	WHITE 2x2 LAY-IN BACKLIT FLAT PANEL	METALUX	22CGTX45-L940	LED	120 V	37 W	CEILING RECESSED	GLARE REDUCTION FLAT PANEL IN T-GRID APPLICATIONS	Luminous Flux
M	WHITE LOW PROFILE CYLINDRICAL TRACK HEAD	HALO	L815SML05FL940MB	LED	120 V	6 W	STASIS TRACK		Initial Color Temperature
N	WHITE SINGLE CIRCUIT TRACK	HALO	L650P				CEILING	PROVIDE COMPONENTS AND ACCESSORIES FOR A FULL WORKING SYSTEM	
O	POLISHED CHROME ADA COMPLIANT WALL SCONCE 11.75"x8"	OXYGEN	3-521-14-4000K	LED	120 V	15 W	WALL MOUNTED	TURN SCONCE ON/OFF WITH CEILING LIGHTS.	
P	POLISHED CHROME DECORATIVE CLEAR-GLASS PENDANT WITH BRAIDED POWER CORD	OXYGEN	3-656-14-4000K	LED	120 V	8 W	CEILING PENDANT	PROVIDE COMPONENTS AND ACCESSORIES FOR A FULL WORKING SYSTEM	
Q	RECESSED LED DOWNLIGHT, 6" APERTURE, 1500LM	LITHONIA	LDN6RV 30/15 LR6AR LD	A-19	120 V	18 W	CEILING RECESSED		
R	BATHROOM VANITY LIGHT FIXTURE - POLISHED CHROME	Oxygen	Orion 3-543-14	LED	120 V	12 W	WALL MOUNTED		
S1	Slim, flexible LED luminaire for uniform, tunable white light	Color Kinetics	316-200019-01	LED	120 V	24 W	UNDER CABINET	PROVIDE COMPONENTS AND ACCESSORIES FOR A FULL WORKING SYSTEM	
S2	Slim, flexible LED luminaire for uniform, tunable white light	Color Kinetics	316-200019-01	LED	120 V	30 W	UNDER CABINET	PROVIDE COMPONENTS AND ACCESSORIES FOR A FULL WORKING SYSTEM	
S3	Slim, flexible LED luminaire for uniform, tunable white light	Color Kinetics	316-200019-01	LED	120 V	36 W	UNDER CABINET	PROVIDE COMPONENTS AND ACCESSORIES FOR A FULL WORKING SYSTEM	

MARK

DATE

PROJECT #: 1026

DRAWN BY: MB

CHECKED BY: AP

ISSUED: Issue Date

