FLOOR PLAN - LEVEL 8 OVERALL

3/32" = 1'-0"

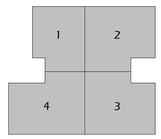
1
A280

N

DATE	REASON
01-31-2024	BULLETIN 01
04-01-2022 8.2	PERMIT RESUBMITTAL
03-21-2022 8.1	PERMIT RESUBMITTAL
02-02-2022	PERMIT SUBMITTAL
11-15-2021	DESIGN DEVELOPMENT
08-27-2021	SCHEMATIC DESIGN

PROJECT NO 21-117-23

KEY PLAN



TENANT IMPROVEMENTS
CONSTRUCTION DOCUMENTS

SHEET TITLE

FLOOR PLAN - LEVEL 8 OVERALL

SHEET NUMBER

A280

CP-8

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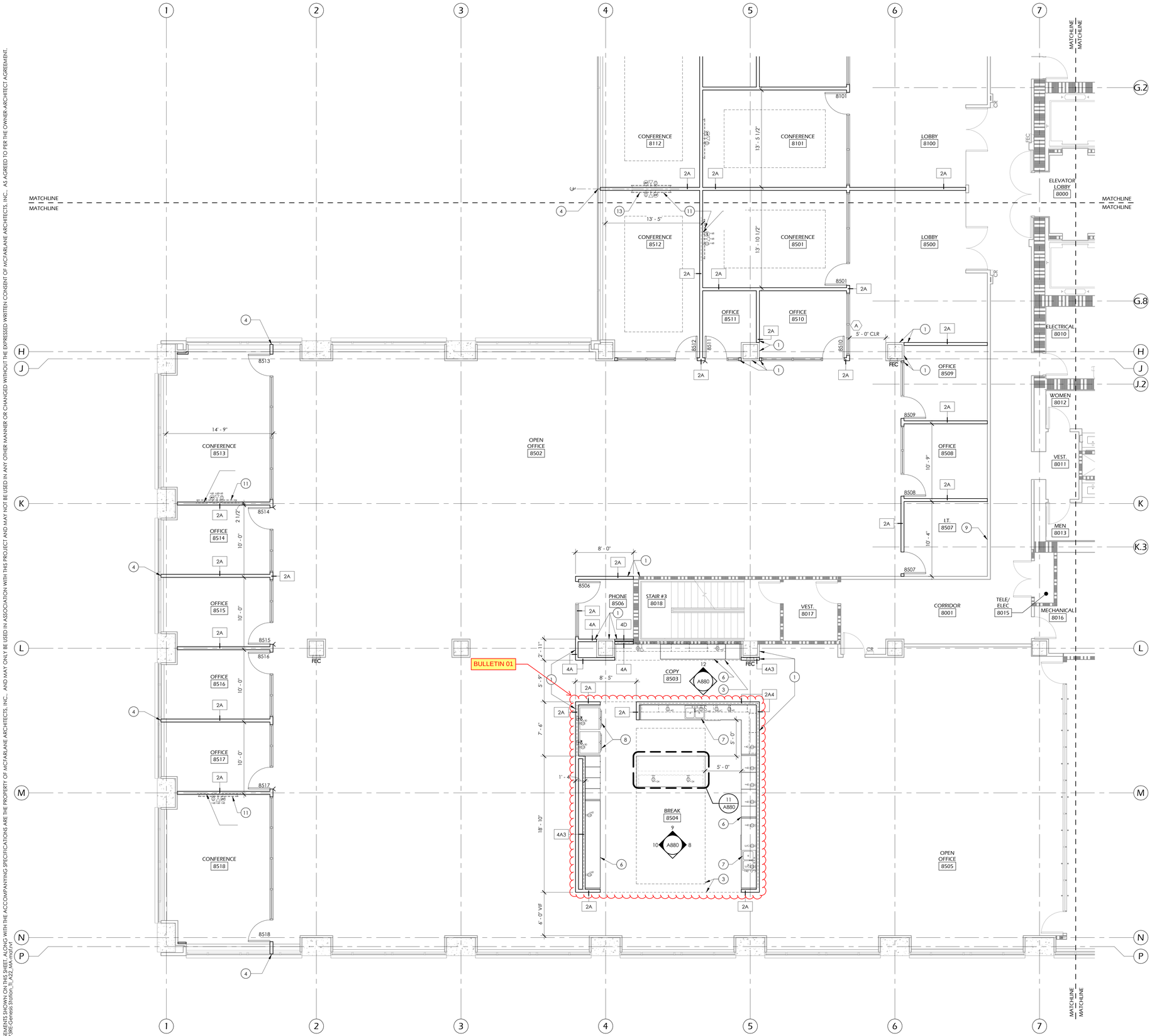

GENERAL NOTES

1. CONTRACTOR TO VERIFY EXISTING DIMENSIONS, ELEVATIONS, & UTILITY LOCATIONS IN FIELD PRIOR TO START OF WORK. NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES BETWEEN THE DOCUMENTS AND EXISTING CONDITIONS.
2. SEE WALL TYPE & WALL FRAMING DETAIL SHEETS FOR TYPICAL WALL TYPES AND FRAMING DETAILS.
3. DIMENSIONS ARE TO OUTSIDE FACE OF DRYWALL, UNO - PANELING, TILE & OTHER ATTACHMENTS ARE IN ADDITION THEREOF.
4. SEE STRUCTURAL, MECHANICAL, PLUMBING, & ELECTRICAL DRAWINGS FOR RELATED WORK. CONTRACTOR TO COORDINATE ALL SUB-TRADES.
5. CONTRACTOR TO FILL AND PATCH ALL LOCATIONS OF EXISTING & NEW UTILITY PENETRATIONS THRU THE FLOOR.
6. SCREENED LINES INDICATE EXISTING CONSTRUCTION. CONTRACTOR TO VERIFY CONDITION OF EXISTING WALLS. PATCH / REPAIR AS REQUIRED AND PAINT PER FINISH SCHEDULE.
7. SEE DRAWINGS WITH 'F' SUFFIX FOR FINISH INFORMATION.
8. ALL WALLS SHALL BE LEVEL 4 DRYWALL FINISH UNO.
9. ALL ROOMS REQUIRING A ROOM IDENTIFICATION SIGN SHALL BE PROVIDED WITH BRAILLE IN COMPLIANCE WITH CBC 11B-703. SEE MOUNTING HEIGHTS SCHEDULE SHEET.
10. ALL ELECTRICAL, PHONE, & DATA OUTLETS TO BE MOUNTED AT 18" AFF UNO.
11. CONTRACTOR TO PROVIDE JOINT SEALANT AS REQUIRED BY CODE AND INDUSTRY STANDARD INCLUDING BUT NOT LIMITED TO THE FOLLOWING LOCATIONS:
    AT EXPOSED JOINTS BETWEEN RECESSED ELEMENTS, PLUMBING FIXTURES, WINDOW/DOOR FRAMES, SURFACE MOUNTED RACEWAYS, & EXPOSED SURFACES SUCH AS WALLS, FLOORS, CEILINGS, OR COUNTERTOPS. PROVIDE MILDEW RESISTANT SEALANT AT ALL WET LOCATIONS.

SYMBOL LEGEND

- CR — CARD READER; CONTRACTOR TO PROVIDE RING & STRING AND JUNCTION BOX FOR FUTURE TFTI DEVICE & WIRING. SEE MOUNTING HEIGHT SCHEDULE SHEET, HARDWARE GROUP, & ELECTRICAL DRAWINGS
- XXX — WALL TYPE - SEE WALL TYPE SHEET
- X — WINDOW TYPE - SEE WINDOW SCHEDULE SHEET
- X — LAB BENCH TYPE - SEE LAB INTERIOR ELEVATIONS SHEET
- EXISTING NON-RATED WALL ASSEMBLY TO REMAIN
- EXISTING 1 HOUR FIRE BARRIER TO REMAIN
- EXISTING 2 HOUR FIRE BARRIER TO REMAIN
- NON-RATED WALL, SEE REFERENCED WALL TYPE & REFLECTED CEILING PLAN FOR FULL HEIGHT WALLS
- 1 HOUR FIRE BARRIER - SEE REFERENCED WALL TYPE
- 2 HOUR FIRE BARRIER - SEE REFERENCED WALL TYPE
- FIRE SPRINKLERS AT EACH SIDE OF GLAZING, ALTERNATE 2-HOUR FIRE RESISTIVE RATING PER ESR 2397
- CONTROL JOINT - SEE DETAIL 8/A011
- CORNER & WALL CAP GUARDS, AS SHOWN - SEE DETAILS 1/A931 & 2/A931
- PROVIDE FLATSTRAP WALL BACKING AT THE FOLLOWING LOCATIONS
  1. WALL MOUNTED LCD SCREENS - SEE DETAIL 3/A011
  2. WALL MOUNTED SHELVING - SEE DETAIL 3/A011
  3. WALL MOUNTED UPPER CASEWORK - SEE DETAIL 3/A011
- FEC — RECESSED FIRE EXTINGUISHER CABINET; SEE FIRE DEPARTMENT NOTES & DETAIL 6/A011
- FE — WALL MOUNTED FIRE EXTINGUISHER; SEE FIRE DEPARTMENT NOTES FOR TYPE
- XXXX — SCHEDULED DOOR; SEE DOOR SCHEDULE
- DUPLEX OUTLET; SEE ELECTRICAL DRAWINGS
  +XX INDICATES SPECIFIC MOUNTING HEIGHT (IN INCHES), WHERE SHOWN
- RECEPTACLE ON EMERGENCY STANDBY POWER - WHERE SHOWN QUAD RECEPTACLE - SEE ELECTRICAL DRAWINGS
  +XX INDICATES SPECIFIC MOUNTING HEIGHT (IN INCHES), WHERE SHOWN
- DATA CONNECTION; RECESSED IN WALL - SEE ELECTRICAL
  +XX INDICATES SPECIFIC MOUNTING HEIGHT (IN INCHES), WHERE SHOWN
- AV BOX; RECESSED IN WALL - SEE ELECTRICAL
  +XX INDICATES SPECIFIC MOUNTING HEIGHT (IN INCHES), WHERE SHOWN
- THERMOSTAT; RECESSED IN WALL - SEE MECHANICAL
- CW — RECESSED COLD WATER ICE MAKER BOX; SEE PLUMBING DRAWINGS
- SMR — SURFACE MOUNTED RACEWAY, DUAL-CHANNEL, CENTER MOUNTED AT +44" AFF (EXCEPT AT PERIMETER EXTERIOR WALLS, ALIGN TOP OF RACEWAY WITH TOP OF LOW WALL FURRING). CAULK TO WALL WITH PAINTABLE, MOLD AND MILDEW RESISTANT SILICONE CAULKING, SEE DETAIL: 4/A941; WITH RECEPTACLES:
  (1) DUPLEX, 5-20R, NORMAL POWER @ EVERY 2' - 0" OC
  (1) DUPLEX, 5-20R, EMERGENCY POWER @ EVERY 8' - 0" OC
  (1) DATA DROP @ EVERY 6' - 0" OC
  SPECIAL POWER PER PLAN
- EMERGENCY SHOWER & EYEWASH STATION; RECESSED - SEE PLUMBING DRAWINGS & DETAILS 1/A941, 2/A941, & 3/A941
- MOP SINK - SEE PLUMBING DRAWINGS
- iLAB SINK
  - EYEWASH - SEE PLUMBING FOR PIPING & CONNECTIONS
  - HW/CW FITTING
  - BLADE HANDLES AT ADA-DESIGNATED SINKS, AS SHOWN
  - DI FITTING, AS SHOWN - FOR TFTI UNDER COUNTER DI UNIT
  - LAB SINK, CRD55; 25W X 15"D X 10"D - SEE PLUMBING FOR PIPING & CONNECTIONS
  - FOOT PEDALS, WHERE OCCURS
- XX==XX — DUAL SIDED DECK MOUNTED LAB GAS TURRET - SEE LAB INTERIOR ELEVATIONS FOR LAB FURNISHING ABBREVIATIONS

KEYNOTES

1. ALIGN NEW WALL CONSTRUCTION WITH EXISTING AND/OR NEW CONSTRUCTION - CREATE A SEAMLESS INTERFACE BETWEEN NEW AND EXISTING CONSTRUCTION WHERE OCCURS
2. PROVIDE 5/8" TYPE 'X' GPDW OVER METAL STUD FRAMING OR HAT CHANNELS AS REQUIRED TO FLUSH OUT WALL W/ ADJACENT COLUMN FURRING - SEE ALSO ADJACENT WALL TYPES
3. SOFFIT ABOVE - SEE REFLECTED CEILING PLAN
4. PROVIDE FALSE COMPRESSION MULLION WITH AN STC OF 38 MIN TO MATCH EXISTING EXTERIOR WINDOW SYSTEM PER DETAIL 19/A011
5. iLAB MOBILE CASEWORK - PROVIDE (1) SET OF COMPRESSED AIR AND VACUUM TURRETS AT EACH SIDE OF THE "SHORT" WIDTH SIDE OF THE LIMBULICAL:
   - 8'-0" LONG BENCH - PROVIDE (2) NORMAL POWER 20 AMP & (1) STANDBY POWER CIRCUITS PER ISLAND BENCH
   14'-0" - 18'-0" LONG BENCH - PROVIDE (2) NORMAL POWER 20 AMP & (1) STANDBY POWER CIRCUITS PER ISLAND BENCH
   - 20'-0" - 24'-0" LONG BENCH - PROVIDE (3) NORMAL POWER 20 AMP & (1) STANDBY POWER CIRCUITS PER ISLAND BENCH
   SEE ALSO LAB BENCH ELEVATIONS & PLUMBING AND ELECTRICAL DRAWINGS
6. ARCHITECTURAL MILLWORK - SEE ARCHITECTURAL INTERIOR ELEVATIONS
7. DOUBLE BASIN SINK WITH GARBAGE DISPOSAL - SEE PLUMBING DRAWINGS
8. CFCI REFRIGERATOR WITH CFCI WATER BOX FOR ICE MAKER AND FILTERED WATER AT REFRIGERATOR - SEE ELECTRICAL AND PLUMBING FOR CONNECTIONS
9. 3/4" FIRE-RETARDANT-TREATED PLYWOOD BACKER BOARD - MOUNT (1) 4X8 SHEET VERTICAL ON WALL W/ BOTTOM @ 12" AFF
10. 6'-0" NOMINAL WIDE CHEMICAL FUME HOOD, CFCI, WITH:
    - (1) VACUUM TURRET PER POLE
    - (1) COMPRESSED AIR PER POLE
    - NORMAL POWER WITH (1) DUPLEX PER POLE
    - (1) 3'-0" FLAMMABLE CABINET & (1) 3'-0" ACID CABINET
    SEE LAB INTERIOR ELEVATIONS AND DETAIL 10/A941 - FOR ANCHORAGE, SEE DETAIL 12/A941
11. TENANT PROVIDED FLAT SCREEN W/ CFCI POWER, DATA, & HDMI CONNECTIONS - SEE DETAIL 11/A931
12. CURB AT MOP SINK PER DETAIL 13/A941
13. PROVIDE PORTABLE ASSISTIVE-LISTENING SYSTEM PER CBC 11B-219 & ALSO PROVIDE A SIGN THAT STATES "ASSISTIVE-LISTENING SYSTEM AVAILABLE" POSTED IN A PROMINENT PLACE AT OR NEAR THE ASSEMBLY ENTRANCE PER CBC 11B-216.10

DATE	REASON
01-31-2024	BULLETIN 01
04-01-2022 8.2	PERMIT RESUBMITTAL
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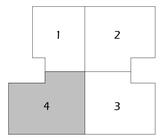
02-02-2022	PERMIT SUBMITTAL
11-15-2021	DESIGN DEVELOPMENT
08-27-2021	SCHEMATIC DESIGN
PROJECT NO	21-117-23

KEY PLAN



TENANT IMPROVEMENTS
CONSTRUCTION DOCUMENTS
SHEET TITLE

FLOOR PLAN - LEVEL 8 ENLARGED AREA 4

SHEET NUMBER

A284

CP-8

FLOOR PLAN - LEVEL 8 ENLARGED AREA 4

3/16" = 1'-0"

1 / A284

REFLECTED CEILING PLAN - LEVEL 8 OVERALL

3/32" = 1'-0"

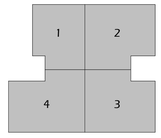
1 A680

N

DATE		REASON
01-31-2024		BULLETIN 01
04-01-2022	8.2	PERMIT RESUBMITTAL
03-21-2022	8.1	PERMIT RESUBMITTAL
02-02-2022		PERMIT SUBMITTAL
11-15-2021		DESIGN DEVELOPMENT
08-27-2021		SCHEMATIC DESIGN

PROJECT NO 21-117-23

KEY PLAN



TENANT IMPROVEMENTS
CONSTRUCTION DOCUMENTS

SHEET TITLE

REFLECTED CEILING PLAN - LEVEL 8 OVERALL

SHEET NUMBER

A680

CP-8

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FLOOR PLAN - LEVEL 7 OVERALL

3/32" = 1'-0"

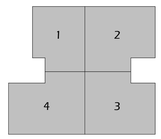
1
A270

N

DATE	REASON
01-31-2024	BULLETIN 01
04-01-2022 7.2	PERMIT RESUBMITTAL
03-21-2022 7.1	PERMIT RESUBMITTAL
02-02-2022	PERMIT SUBMITTAL
11-15-2021	DESIGN DEVELOPMENT
08-27-2021	SCHEMATIC DESIGN

PROJECT NO 21-117-23

KEY PLAN



TENANT IMPROVEMENTS
CONSTRUCTION DOCUMENTS

SHEET TITLE

FLOOR PLAN - LEVEL 7 OVERALL

SHEET NUMBER

A270

CP-7

REFLECTED CEILING PLAN - LEVEL 7 OVERALL

3/32" = 1'-0"

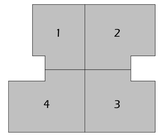
1 A670

N

DATE		REASON
01-31-2024		BULLETIN 01
04-01-2022	7.2	PERMIT RESUBMITTAL
03-21-2022	7.1	PERMIT RESUBMITTAL
02-02-2022		PERMIT SUBMITTAL
11-15-2021		DESIGN DEVELOPMENT
08-27-2021		SCHEMATIC DESIGN

PROJECT NO 21-117-23

KEY PLAN



TENANT IMPROVEMENTS
CONSTRUCTION DOCUMENTS

SHEET TITLE

REFLECTED CEILING PLAN - LEVEL 7 OVERALL

SHEET NUMBER

A670

CP-7

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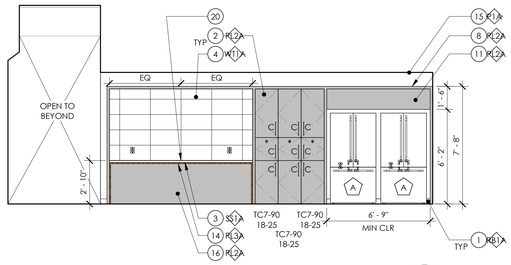
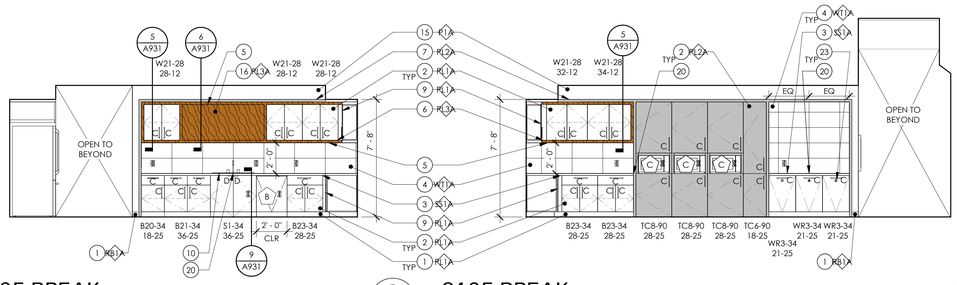
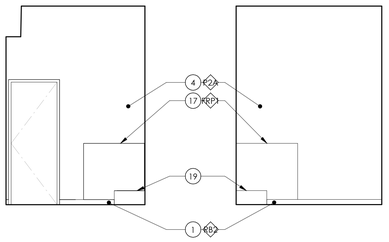


8105 BREAK (3 / A880)
SCALE: 1/4" = 1'-0"



8105 BREAK (2 / A880)
SCALE: 1/4" = 1'-0"

8105 BREAK (1 / A880)
SCALE: 1/4" = 1'-0"



8203 JANITOR (7 / A880)
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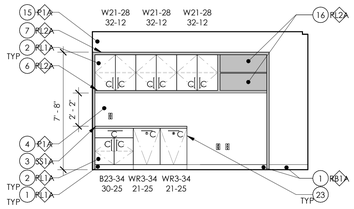

8203 JANITOR (6 / A880)
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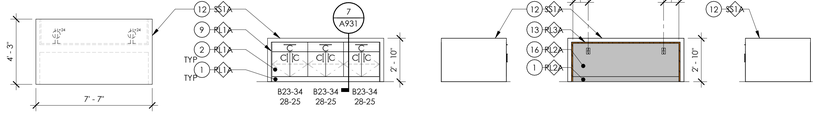
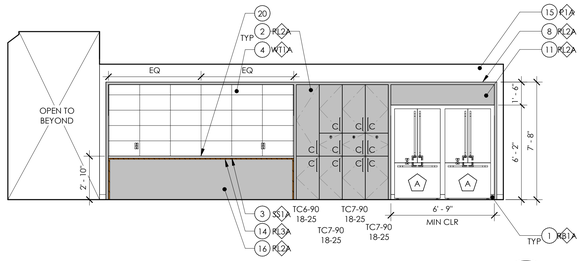
8103 COPY (5 / A880)
SCALE: 1/4" = 1'-0"



8105 BREAK COUNTER (4 / A880)
SCALE: 1/4" = 1'-0"

BULLETIN 01



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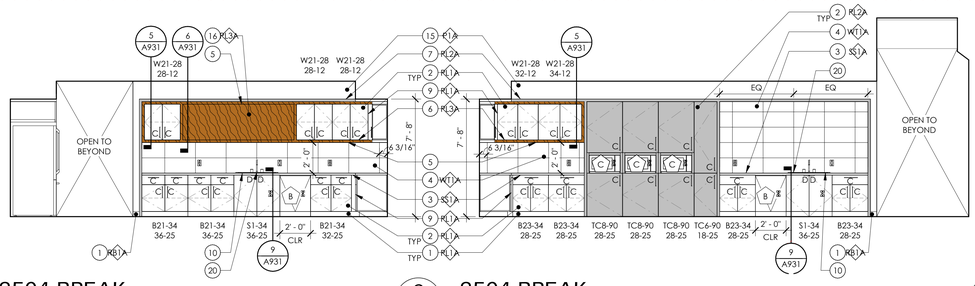
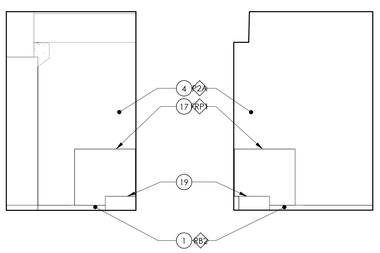
SCALE: 1/4" = 1'-0"



8504 BREAK (9 / A880)
SCALE: 1/4" = 1'-0"

8504 BREAK (8 / A880)
SCALE: 1/4" = 1'-0"



8603 JANITOR (14 / A880)
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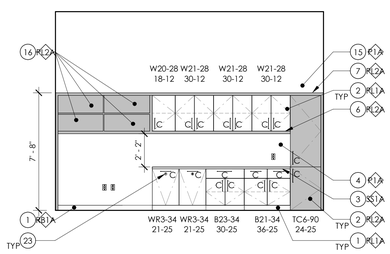
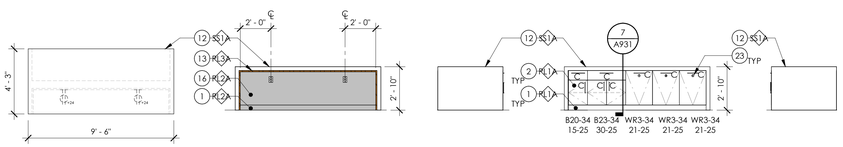


8603 JANITOR (13 / A880)
SCALE: 1/4" = 1'-0"

8503 COPY (12 / A880)
SCALE: 1/4" = 1'-0"

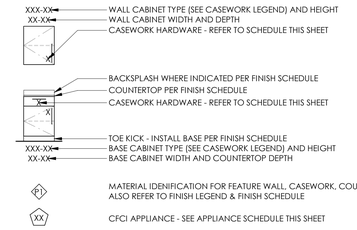


8504 BREAK COUNTER (11 / A880)
SCALE: 1/4" = 1'-0"

GENERAL NOTES

1. SEE 'I' SERIES SHEETS FOR GENERAL NOTES, ABBREVIATIONS AND SYMBOL LEGEND.
2. ALL SCREEN LINES INDICATE EXISTING CONSTRUCTION TO REMAIN, UNO.
3. CONTRACTOR TO VERIFY EXISTING DIMENSIONS, ELEVATIONS AND UTILITY LOCATIONS IN FIELD PRIOR TO START OF WORK. NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES BETWEEN THE DOCUMENTS AND EXISTING CONDITIONS.
4. CONTRACTOR TO COORDINATE WITH ALL SUB-TRADES FOR RELATED WORK.
5. CONTRACTOR IS RESPONSIBLE FOR PROVIDING WALL BASE AT ALL ARCHITECTURAL AND LAB CASEWORK FIXED BASE CABINETS (INCLUDING KNEE SPACES) PER FINISH SCHEDULE.
6. SURFACE MOUNTED RACEWAYS TO BE MOUNTED AT 44" AFF OR DIRECTLY ABOVE THE CASEWORK BACKSPLASH WHERE OCCURS (EXCEPT AT PERIMETER EXTERIOR WALLS, ALIGN WITH TOP OF LOW WALL FURRING), UNO - SEE ELECTRICAL DRAWINGS.
7. DIMENSIONS ARE TO FACE OF FINISH, UNO.
8. CONTRACTOR TO PROVIDE BACKING IN WALL BEHIND ALL WALL MOUNTED CASEWORK & EQUIPMENT, SEE TYPICAL DETAIL
9. SEE SHEET A1021 FOR CASEWORK LEGEND & MOUNTING HEIGHT SCHEDULE.
10. ALL ELECTRICAL, PHONE, & DATA OUTLETS TO BE MOUNTED AT 18" AFF, UNO, SEE FLOOR PLANS FOR HEIGHTS.

SYMBOL LEGEND



ARCHITECTURAL CASEWORK HARDWARE SCHEDULE

MARK	DESCRIPTION	MANUFACTURER	MODEL #
C	LADDER/ROD PULL: TYPICAL FOR ALL ARCHITECTURAL CASEWORK, UNO	EPCO - ENGINEERED PRODUCTS. PULL WIDTH DETERMINED BY WIDTH OF CABINET DRAWER:	
		12" WIDE - 156MM PULL	BP096-SS
		15" WIDE - 250MM PULL	BP192-SS
		18" WIDE - 336MM PULL	BP256-SS
		24" WIDE - 496MM PULL	BP416-SS
		30" WIDE - 624MM PULL	BP544-SS
		36" WIDE - 720MM PULL	BP640-SS
		TYP. VERTICAL CAB - 188MM PULL	BP128-SS
		96" VERTICAL CAB - 720MM PULL	BP640-SS
D	PLATE PULL	CABINET DOORS, MOCKETT - 6" ALIGNED W/ DOOR STRIKE EDGE	DP3C
		CABINET DRAWERS, MOCKETT - 12" CENTERED	DP3F

APPLIANCE SCHEDULE

MARK	APPLIANCE	MANUFACTURER	MODEL #
A	REFRIGERATOR	LG	LFXS28968S STAINLESS STEEL
B	DISHWASHER (ADA)	ASKO	30 SERIES (32 1/4"H) DBI663IS STAINLESS STEEL
C	MICROWAVE	GE	PES7227SLSS STAINLESS STEEL

DATE		REASON
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02-02-2022		PERMIT SUBMITTAL
11-15-2021		DESIGN DEVELOPMENT
08-27-2021		SCHEMATIC DESIGN

PROJECT NO 21-117-23

KEYNOTES

1. SCHEDULED BASE - SEE FINISH SCHEDULE
2. ARCHITECTURAL CASEWORK - SEE FLOOR PLANS, FINISH SCHEDULE, & CASEWORK LEGEND
3. COUNTERTOP WITH 4" BACKSPLASH WHERE OCCURS - SEE FLOOR PLANS, FINISH SCHEDULE, & CASEWORK LEGEND
4. SCHEDULED WALL FINISH - SEE FINISH SCHEDULE
5. UNDER CABINET TAPE LIGHTING
6. 2" THICK SHELF/ARCHITECTURAL CASEWORK SURROUND - 12" DEEP TO ALIGN WITH FACE OF UPPER CABINETS
7. 2" THICK ARCHITECTURAL CASEWORK SURROUND - 25" DEEP TO ALIGN WITH FACE OF COUNTERTOP
8. 2" THICK ARCHITECTURAL CASEWORK SURROUND - 36" DEEP
9. ARCHITECTURAL CASEWORK FILLER PANEL
10. DOUBLE BASIN SINK WITH GARBAGE DISPOSAL - SEE PLUMBING DRAWINGS
11. ARCHITECTURAL CASEWORK FILLER PANEL @ SURROUND
12. 3" THICK COUNTERTOP WITH 3" THICK WATERFALL EDGE
13. 1" THICK ARCHITECTURAL CASEWORK SURROUND - 16" DEEP TO ALIGN WITH FACE OF COUNTERTOP
14. 1" THICK ARCHITECTURAL CASEWORK SURROUND - 25" DEEP TO ALIGN WITH FACE OF COUNTERTOP
15. GYPSUM BOARD SOFFIT - SEE REFLECTED CEILING PLANS & FINISH PLANS
16. ARCHITECTURAL PLAM PANEL PER FINISH SCHEDULE & LEGEND
17. FIBER REINFORCED PANEL - SEE FINISH SCHEDULE & LEGEND, AND DETAIL 3/A931
18. MOP SINK CURB PER DETAIL 13/A941
19. MOP SINK PER FLOOR PLANS & PLUMBING
20. STARTING POINT OF FULL TILE
21. 2" THICK SHELF - 8" DEEP
22. RECESSED TELEVISION POCKET- VERIFY SIZE OF TELEVION TO FIT WITHIN, WITH TENANT PROVIDED FLAT SCREEN W/ CFCI POWER, DATA, & HDMI CONNECTIONS - SEE DETAIL 11/A931
23. WASTE RECEPTACLE CASEWORK WITH IDENTIFICATION MEDALLIONS - SEE ARCHITECTURAL CASEWORK LEGEND, FINISH SCHEDULE & LEGEND, AND DETAIL 4/A931

TENANT IMPROVEMENTS
CONSTRUCTION DOCUMENTS
SHEET TITLE
INTERIOR ELEVATIONS - ARCHITECTURAL

SHEET NUMBER
A880
CP-8

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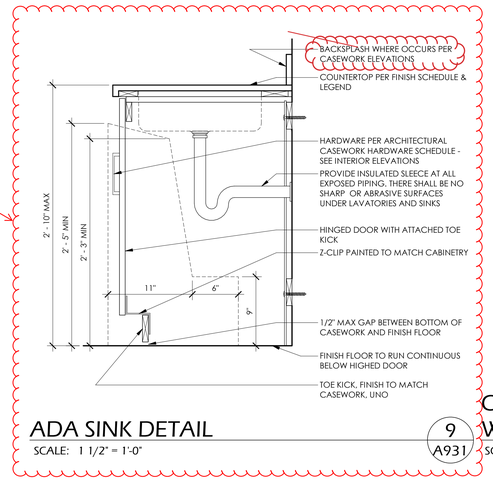
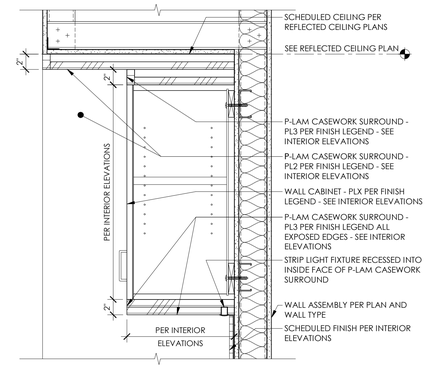
BULLETIN 01



ADA SINK DETAIL

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

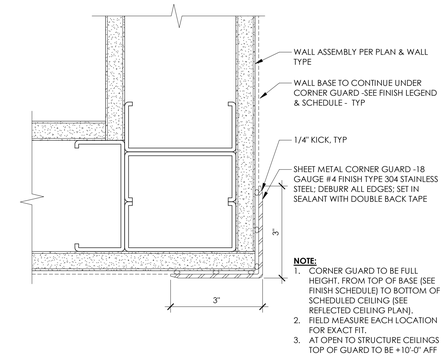
9 / A931



CASEWORK SURROUND @ CABINET W/ UNDER CABINET LIGHTING

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

5 / A931

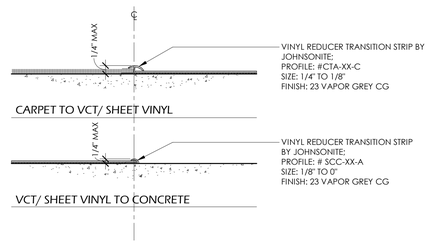


NOTE:
1. CORNER GUARD TO BE FULL HEIGHT, FROM TOP OF BASE (SEE FINISH SCHEDULE) TO BOTTOM OF SCHEDULED CEILING (SEE REFLECTED CEILING PLAN).
2. FIELD MEASURE EACH LOCATION FOR EXACT FIT.
3. AT OPEN TO STRUCTURE CEILINGS TOP OF GUARD TO BE +10'-0" AFF

CORNER GUARD

SCALE: 6" = 1'-0"

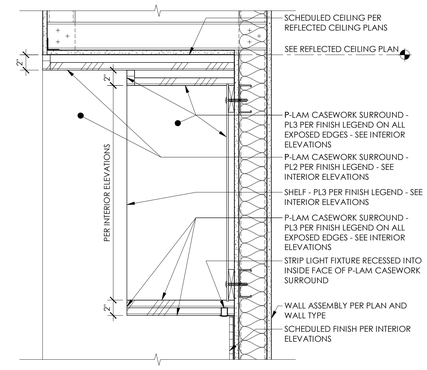
1 / A931



FLOORING TRANSITIONS

SCALE: 3" = 1'-0"

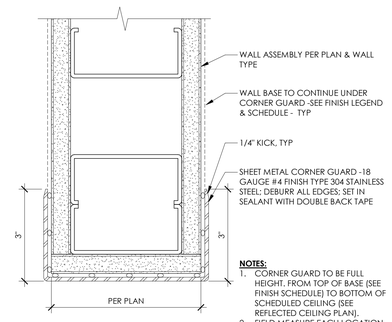
10 / A931



CASEWORK SURROUND @ SHELF W/ UNDER CABINET LIGHTING

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

6 / A931

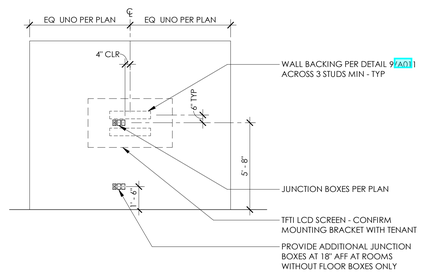


NOTES:
1. CORNER GUARD TO BE FULL HEIGHT, FROM TOP OF BASE (SEE FINISH SCHEDULE) TO BOTTOM OF SCHEDULED CEILING (SEE REFLECTED CEILING PLAN).
2. FIELD MEASURE EACH LOCATION FOR EXACT FIT.
3. AT OPEN TO STRUCTURE CEILINGS TOP OF GUARD TO BE +10'-0" AFF

CORNER GUARD

SCALE: 6" = 1'-0"

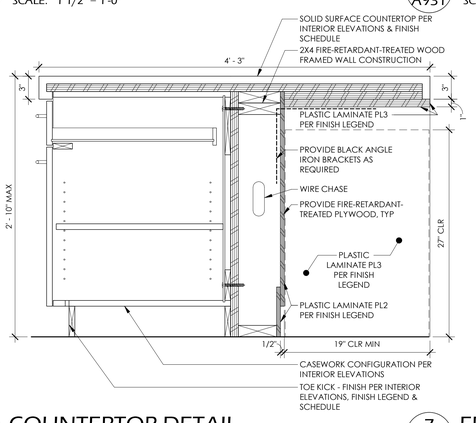
2 / A931



CONFERENCE ROOM WALL BACKING & J-BOX FOR TFTI LCD SCREEN

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

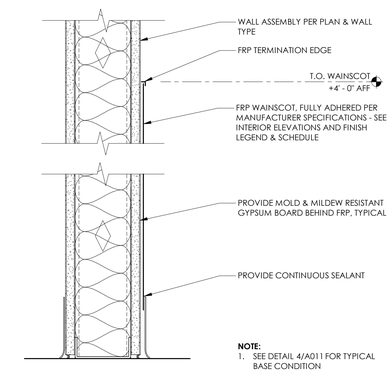
11 / A931



COUNTERTOP DETAIL

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

7 / A931

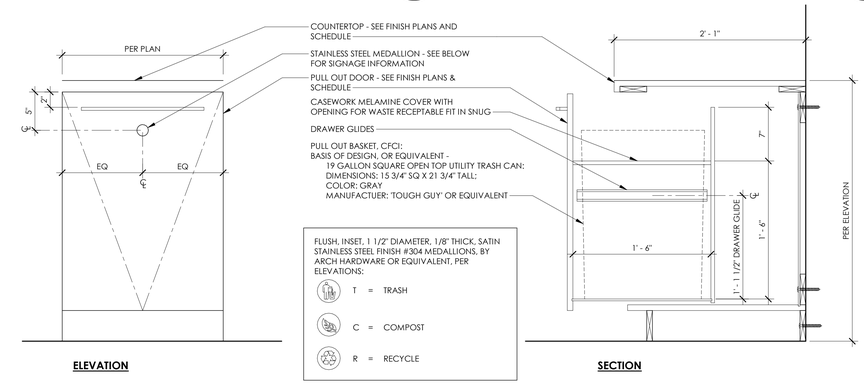


NOTE:
1. SEE DETAIL 4/A011 FOR TYPICAL BASE CONDITION

FRP WALL BASE/ WAINSCOT DETAIL

SCALE: 3" = 1'-0"

3 / A931



PULLOUT TRASH / RECYCLE CABINET

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

4 / A931

DATE		REASON
01-31-2024		BULLETIN 01
04-01-2022	8.2	PERMIT RESUBMITTAL
03-21-2022	8.1	PERMIT RESUBMITTAL
02-02-2022		PERMIT SUBMITTAL
11-15-2021		DESIGN DEVELOPMENT
08-27-2021		SCHEMATIC DESIGN

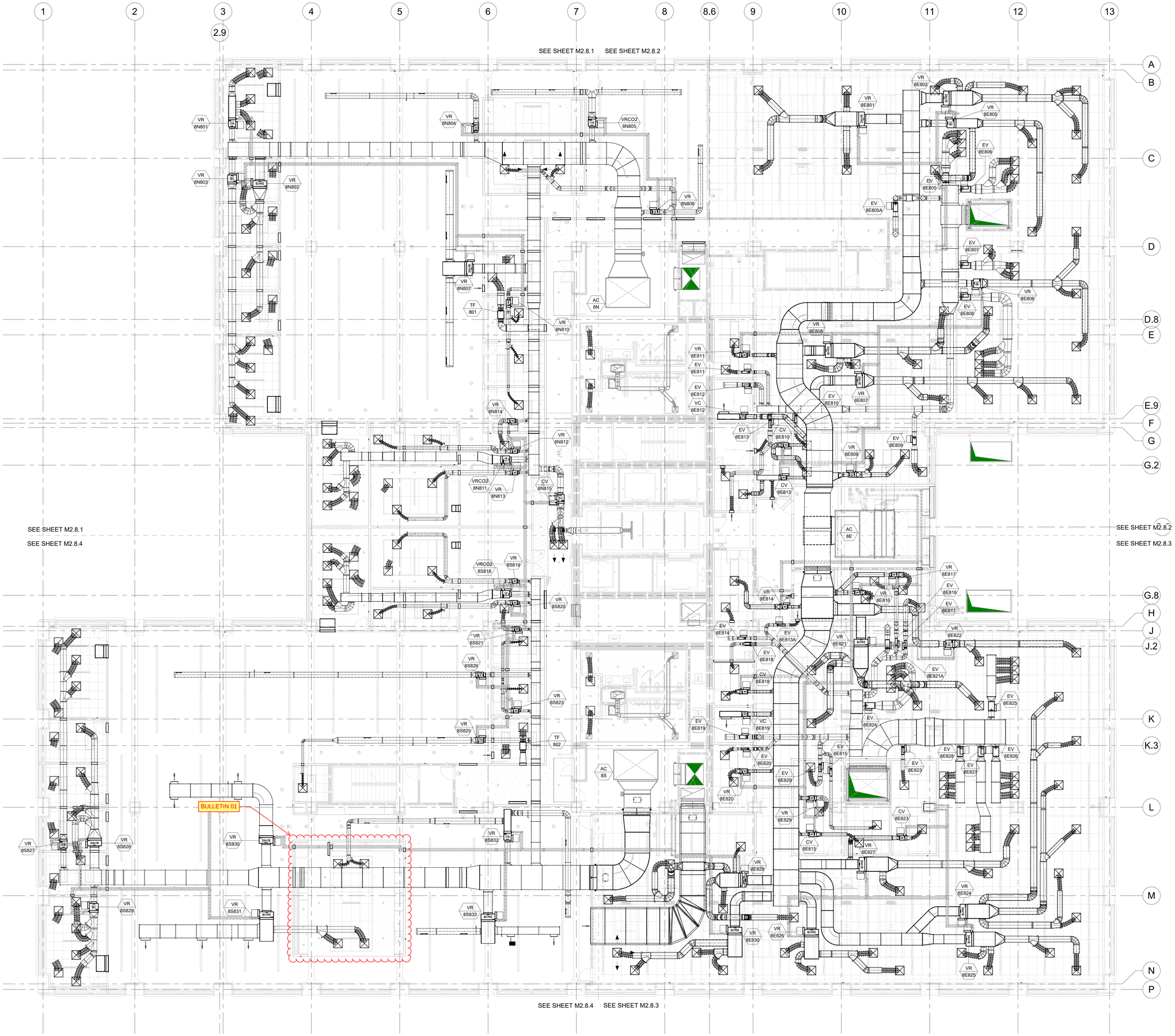
PROJECT NO 21-117-23

TENANT IMPROVEMENTS
CONSTRUCTION DOCUMENTS
SHEET TITLE

DETAILS - CASEWORK, FINISHES & SIGNAGE

SHEET NUMBER
A931

CP-8

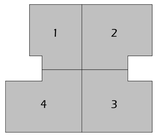


2 LEVEL 08 - OVERALL MECHANICAL FLOOR PLAN
1/8" = 1'-0"

DATE	REASON
01-31-2024	BULLETIN 01
03-21-22 8.1	PERMIT RESUBMITTAL
02-02-2022	PERMIT SUBMITTAL
11-15-2021	DESIGN DEVELOPMENT
08-27-2021	SCHEMATIC DESIGN

PROJECT NO 21-117-23

KEY PLAN



L8 - TENANT IMPROVEMENTS
CONSTRUCTION DOCUMENTS

SHEET TITLE

LEVEL 08 - OVERALL MECH FLOOR PLAN

SHEET NUMBER

M2.8.0

CP-8

PIPE SCHEDULE

SERVICE	LOCATION	TYPE L COPPER	TYPE L COPPER	NO-HUB CAST IRON (8.1)	NO-HUB CAST IRON	SCHEDULE 40 POLYPROPELENE	SCHEDULE 40 POLYPROPELENE	SCHEDULE 40 BLACK STEEL	SCHEDULE 40 BLACK STEEL	FITTINGS: SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION
		MATERIALS								
DOMESTIC WATER	INSIDE BLDG. ALL SIZES		•							SOLDERED, BRAZED OR PRESS FITTINGS
	INSIDE BLDG. 2" & SMALLER (PUBLIC)		•							SOLDERED, BRAZED OR PRESS FITTINGS (8.1)
GRAVITY WASTE & VENT, STORM DRAIN AND GREASE WASTE	BELOW GRADE			•						PROVIDE CISPI 310/ASTM C1277 COUPLINGS OR HEAVY DUTY ON HORIZONTAL COLLECTION
	ABOVE GROUND				•					PROVIDE CISPI 310/ASTM C1277 COUPLINGS OR HEAVY DUTY ON HORIZONTAL COLLECTION
GRAVITY LAB WASTE & LAB VENT	ABOVE GROUND						•			NOT IS POLYPROPYLENE PIPE AUTHORIZED WITH FLAME RETARDANT FUSION JOINTS (8.2)
INDIRECT WASTE	INSIDE BLDG.		•							95-5 SOLDERED, PRESS AND DRAINAGE FITTINGS
CONDENSATE DRAIN	INSIDE BLDG.		•							95-5 SOLDERED, PRESS AND DRAINAGE FITTINGS
TRAP PRIMER	INSIDE BLDG.		•							95-5 SOLDERED FITTINGS OR PRESS FITTINGS
GAS	INSIDE BLDG. (BRANCH AND RISER)							•		THREADED, WELDED JOINTS OR PRESS FITTINGS
	INSIDE BLDG. (EQUIPT. CONNECTION)								•	THREADED, WELDED JOINTS OR PRESS FITTINGS
LAB AIR (CDA)	INSIDE BLDG.	•								SOLDERED, BRAZED OR PRESS FITTINGS (FACTORY OR FIELD CLEANED & SEALED)
LAB VACUUM	INSIDE BLDG.		•							SOLDERED, BRAZED OR PRESS FITTINGS

HOT WATER PIPING INSULATION

FLUID TEMPERATURE RANGE (°F)	105° - 140°								
NOMINAL PIPE DIA. (INCHES)	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"-3"	4"	5" TO 8"	10" & UP
MIN. INSULATION THICKNESS (INCHES)	1.5	1.5	1.5	1.5	1.5	2.0	2.0	2.0	2.0

TABLE 313.3
HANGERS AND SUPPORTS

MATERIALS	TYPES OF JOINTS	HORIZONTAL	VERTICAL
Cast	Lead and Oakum	5 feet, except 10 feet where 10 foot lengths are installed[1, 2, 3]	Base and each floor, not to exceed 15 feet
	Compression Gasket	Every other joint, unless over 4 feet then support each joint[1, 2, 3]	Base and each floor, not to exceed 15 feet
Cast-Iron Hubless	Shielded Coupling	Every other joint, unless over 4 feet then support each joint[1,2,3,4]	Base and each floor, not to exceed 15 feet
Copper & Copper Alloys	Soldered, Brazed, Threaded, or Mechanical	1½ inches and smaller, 6 feet; 2 inches and larger, 10 feet	Each floor, not to exceed 10 feet[5]
Steel Pipe for Water or DWV	Threaded or Welded	¾ inch and smaller, 10 feet; 1 inch and larger, 12 feet	Every other floor, not to exceed 25 feet[5]
Steel Pipe for Gas	Threaded or Welded	½ inch, 6 feet; ¾ inch and 1 inch, 8 feet; 1¼ inches and larger, 10 feet	½ inch, 6 feet; ¾ inch and 1 inch, 8 feet; 1¼ inches every floor level
Schedule 40 PVC and ABS DWV	Solvent Cemented	All sizes, 4 feet; allow for expansion every 30 feet[3]	Base and each floor; provide mid-story guides; provide for expansion every 30 feet
CPVC	Solvent Cemented	1 inch and smaller, 3 feet; 1¼ inches and larger, 4 feet	Base and each floor; provide mid-story guides
Lead	Wiped or Burned	Continuous Support	Not to exceed 4 feet
Steel	Mechanical	In accordance with standards acceptable to the Authority Having Jurisdiction	
PEX	Cold Expansion, Insert and Compression	1 inch and smaller, 32 inches; 1¼ inches and larger, 4 feet	Base and each floor; provide mid-story guides
PEX-AL-PEX	Metal Insert and Metal Compression	½ inch, ¾ inch, 1 inch } All sizes 98 inches	Base and each floor; provide mid-story guides
PE-AL-PE	Metal Insert and Metal Compression	½ inch, ¾ inch, 1 inch } All sizes 98 inches	Base and each floor; provide mid-story guides
PE-RT	Insert and Compression	1 inch and smaller, 32 inches; 1¼ inches and larger, 4 feet	Base and each floor; provide mid-story guides
Polypropylene (PP)	Fusion weld (socket, butt, saddle, electrofusion), threaded (metal threads only), or mechanical	1 inch and smaller, 32 inches; 1¼ inches and larger, 4 feet	Base and each floor; provide mid-story guides

PLUMBING LEGEND

SYMBOL	ABBR.	DESCRIPTION
	S OR W	SANITARY SEWER OR WASTE ABOVE FLOOR OR GRADE (8.1)
	S OR W	SANITARY SEWER OR WASTE BELOW FLOOR OR GRADE
	V	SANITARY VENT
	SD OR OD	STORM DRAIN OR OVERFLOW DRAINAGE ABOVE FLOOR OR GRADE
	SD OR OD	STORM DRAIN OR OVERFLOW DRAINAGE BELOW FLOOR OR GRADE
	CW	DOMESTIC COLD WATER (8.1)
	HW	DOMESTIC HOT WATER
	HWR	DOMESTIC HOT WATER RETURN
OR	S.O.V	SHUT OFF VALVE
	C.V.	CHECK VALVE
	BAL	CIRCUIT SETTER
W.H.A	W.H.A.	WATER HAMMER ARRESTOR
		UNION
	FCO	FLOOR CLEAN OUT
	WCO	WALL CLEAN OUT
		90 ELBOW
		RISER
		TEE DOWN
		TEE UP
x%		SLOPE IN DIRECTION OF FLOW
	P.O.C	POINT OF CONNECTION
	FD/ED	FLOOR OR EMERGENCY DRAIN
	FS	FLOOR SINK
	CP	INLINE CIRCULATING PUMP
		CAP
		BREAK LINE
	HB	HOSE BIBB
		RISER VALVE
		TEE RISER VALVE
		AIR RELEASE VALVE
	ABV.	ABOVE
	A.P.	ACCESS PANEL
	BEL.	BELOW
	CONT.	CONTINUATION
	DN.	DOWN
	FLR.	FLOOR
	NTS.	NOT TO SCALE
	UP	UP
	TP.	TRAP PRIMER
	VTR.	VENT THRU ROOF

PLUMBING SYSTEM SINGLE & DOUBLE LINE

SINGLE LINE	DOUBLE LINE	DESCRIPTION
		SANITARY SEWER OR WASTE
		SANITARY VENT
		STORM DRAIN
		DOMESTIC COLD WATER, IRRIGATION
		DOMESTIC HOT WATER
		DOMESTIC HOT WATER RETURN
		CONDENSATE DRAIN
		MEDIUM PRESSURE NATURAL GAS (5 PSIG)
		NATURAL GAS (8" WC)
		TRAP PRIMER

SHEET INDEX TI

SORT	SHEET NUMBER	SHEET NAME	100%DD	For Permit
PLUMBING	P000	SHEET INDEX, GENERAL NOTES, ABBRE. & LEGEND	11/15/2021	3/21/2022
PLUMBING	P001	PLUMBING SYMBOLS	11/15/2021	3/21/2022
PLUMBING	P002	FIXTURE & EQUIPMENT SCHEDULES	11/15/2021	3/21/2022
PLUMBING	P004	NRCC-PLB DOCUMENTS	-	3/21/2022
PLUMBING	P208	LEVEL 8 PLUMBING FLOOR PLAN	11/15/2021	3/21/2022
PLUMBING	P301	LABORATORY COMPRESSED AIR RISER DIAGRAM	11/15/2021	3/21/2022
PLUMBING	P302	LABORATORY COMPRESSED AIR RISER DIAGRAM	11/15/2021	3/21/2022
PLUMBING	P303	LABORATORY VACUUM RISER DIAGRAM	11/15/2021	3/21/2022
PLUMBING	P304	LABORATORY VACUUM RISER DIAGRAM	11/15/2021	3/21/2022
PLUMBING	P305	LABORATORY DOMESTIC WATER RISER DIAGRAM	11/15/2021	3/21/2022
PLUMBING	P306	LABORATORY DOMESTIC WATER RISER DIAGRAM	11/15/2021	3/21/2022
PLUMBING	P307	LABORATORY WASTE & VENT RISER DIAGRAM	11/15/2021	3/21/2022
PLUMBING	P308	LABORATORY WASTE & VENT RISER DIAGRAM	11/15/2021	3/21/2022
PLUMBING	P309	SANITARY WASTE & VENT RISER DIAGRAM	11/15/2021	3/21/2022
PLUMBING	P402	PLUMBING ENLARGED PLAN LEVEL 8 NORTH	-	3/21/2022
PLUMBING	P403	PLUMBING ENLARGED PLAN LEVEL 8 SOUTH	-	3/21/2022
PLUMBING	P410	PLUMBING ENLARGED PLANS	-	3/21/2022
PLUMBING	P500	PLUMBING DETAILS	-	3/21/2022
PLUMBING	P501	PLUMBING DETAILS	-	3/21/2022

PLUMBING ABBREVIATIONS

ABV	ABOVE	OD	OVERFLOW DRAIN
ABV CLG	ABOVE CEILING	OP WT	OPERATING WEIGHT
AFF	ABOVE FINISHED FLOOR		
AP	ACCESS PANEL	PG	PRESSURE GAUGE
ARCH	ARHITECTURAL	PH	PHASE (ELECTRICAL)
@	AT	POC	POINT OF CONNECTION
		POD	POINT OF DISCONNECTION
BEL	BELOW	PRESS	PRESSURE
BFP	BACKFLOW PREVENTER	PRV	PRESSURE REDUCING VALVE
BLV	BALL VALVE	PS	RPESSURE SWITCH
BV	BALANCING VALVE	PSI	POUNDS PER SQUARE INCH
		PSIG	PSI GAUGE
CD	CONDENSATE	PSIA	PSI ABSOLUTE
CFH	CUBIC FEET PER HOUR	PP	POLYPROPYLENE PIPE
CFM	CUBIC FEET PER MINUTE	PVC	POLYVINYL CHLORIDE
CI	CAST IRON		
CDA	COMPRESSED DRY AIR	RD	ROOF DRAIN
CO	CLEANOUT	RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
CONN	CONCRETE	RPM	REVOLUTIONS PER MINUTE
CONT	CONNECT OR CONNECTION	RV	RELEIF VALVE
COTG	CLEANOUT TO GRADE		
CW	COLD WATER	SAN	SANITARY
CV	CHECK VALVE	SCH.	SCHEDULE
		SD	STORM DRAIN
DF	DRINKING FOUNTAIN	SHT	SHEET
DFU	DRAINAGE FIXTURE UNITS	SK	SINK
DI	DIAMETER/DUCTILE IRON	SOV	SHUT-OFF VALVE
DN	DOWN	SPEC	SPECIFICATION
DR	DRAIN	SS	SERVICE SINK/SANITARY SEWER
DWG	DRAWING	ST	STRAINER
(E)	EXISTING	TDH	TOTAL DYNAMIC HEAD
ELEV	ELEVATION	TEMP	TEMPERATURE
ELEC	ELECTRICAL	TP	TRAP PRIMER
		TYP.	TYPICAL
FC	FLEXIBLE CONNECTION		
FCO	FLOOR CLEANOUT	UL	UNDERWRITER'S LABORATORY
FD	FLOOR DRAIN	U	URINAL
FLR	FLOOR		
FOC	FACE OF CURB	V	VENT
FPS	FEET PER SECOND	VB	VACUUM BREAKER
FS	FLOOR SINK	VAC	VACUUM
FT	FEET	VTR	VENT THRU ROOF
FU	FIXTURE UNITS		
		W	WASTE
G	GAS - LOW PRESSURE	W/	WITH
GAL	GALLON	WH	WATER HEATER
GC	GAS COCK	WHA	WATER HAMMER ARRESTOR
GI	GREASE INTERCEPTOR	W/O	WITHOUT
GLV	GLOVE VALVE	WTR	WATER
GM	GAS METER	WCO	WALL CLEANOUT
GPM	GALLONS PER MINUTE	WC	WATER CLOSET
GPR	GAS PRESSURE REGULATOR	WSFU	WATEE SUPPLY FIXTURE UNITS
GW	GREASE WASTE	WT	WEIGHT
HB	HOSE BIB	YB	YARD BOX
HP	HORSEPOWER		
HTR	HEATER	DWV	DRAIN, WASTE & VENT
HW	HOT WATER	MV	MIXING VALVE
HWR	HOT WATER RETURN	BP	BOOSTER PUMP
		CP	CIRCULATING PUMP
IE	INVERT ELEVATION	ET	EXPANSION TANK
ICW	INDUSTRIAL COLD WATER	HPT	HYDROPNEUMATIC TANK
IHW	INDUSTRIAL HOT WATER	ESEW	EMERGENCY SHOWER & EYEWASH
IHWR	INDUSTRIAL HOT WATER RETURN	LS	LABORATORY SINK
KW	KILOWATT		
LBS	POUNDS		
L	LAVATORY		
LV	LABORATORY VENT		
LW	LABORATORY WASTE		
MBH	THOUSAND BTU PER HOUR		
MIN	MINIMUM		
MG	MEDIUM PRESSURE GAS		
NC	NORMALLY CLOSED		
NO	NORMALLY OPEN		
No.	NUMBER		
NTS	NOT TO SCALE		

PLUMBING GENERAL NOTES

1. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF ALL PLUMBING FIXTURES, DRAINS, PIPE CHASES AND FURRING.
2. SEPARATE WATER SUBMETERS SHALL BE INSTALLED IN DESIGNATED POINT ON CONNECTIONS TO EXISTING CAPPED DOMESTIC WATER SUPPLY PIPES.
3. ALL VALVES SHALL BE LOCATED SO AS TO BE ACCESSIBLE.
4. PROVIDE A BRASS NIPPLE WHEN JOINING DISSIMILAR METALS.
5. ALL PIPING PENETRATIONS THRU A FIRE RATED WALL SHALL BE INSTALLED WITH AN APROVED FIRESTOP SYSTEM.
6. COORDINATE ALL LOCATIONS, SIZES AND ELEVATIONS OF ALL SLEEVES THRU WALLS AND SLABS WITH STRUCTURAL AND ARCHITECTURAL DRAWINGS.
7. WATER HEATING EQUIPMENT SHALL MEET ALL OF THE REQUIREMENTS OF THE APPLICABLE AGENCY STANDARDS AND SHALL BE CURRENTLY LISTED AS CERTIFIED BY THE CALIFORNIA ENERGY COMMISSION.
8. ALL ACCESSIBLE FIXTURES SHALL BE FURNISHED AND INSTALLED IN STRICT COMPLIANCE WITH THE BULDING CODE.
9. STORM AND OVERFLOW DRAIN SYSTEM SHALL BE SIZED BASED ON A 1.5 INCHES PER HOUR RAINFALL RATE. COMBINED STORM AND OVERFLOW DRAIN SHALL BE SIZED USING 3 INCHES PER HOUR RAINFALL RATE.
10. ALL HORIZONTAL STORM DRAIN AND OVERFLOW DRAIN LINES SHALL BE RUN AT A SLOPE OF 1% WITH THE APPROVAL OF THE AUTHORITY HAVING JURISDICTION. (AHJ).
11. AT EACH HOSE BIB OR OTHER TYPE OF OUTLET ON THE NON-POTABLE INDUSTRIAL COLD WATER (NPC) SYSTEM SHALL BE POSTED AN APPROVED TYPE SIGN STATING "CAUTION NON-POTABLE WATER, DO NOT DRINK".
12. ALL DEVISES AND/OR COMPONENTS THAT COME IN CONTACT WITH POTABLE DOMESTIC WATER SERVICE SHALL COMPLY WITH CALIFORNIA AB 1953/NSF 61.
13. CONFORM TO THE 2019 CALIFORNIA PLUMBING CODE AND ALL APPLICABLE AMENDMENTS.
14. FOR ALL EQUIPMENT PADS, REFERENCE THE STRUCTURAL PLANS FOR DETAILS.
15. ALL FIXTURES, EQUIPMENT, PIPING AND MATERIALS SHALL BE LISTED BY APPROVED LISTING AGENCIES.
16. ALL FAUCETS IN THE PUBLIC RESTROOMS SHALL BE SELF-CLOSING METERING FAUCETS OR SENSOR ACTIVATED.
17. PUBLIC LAVATORIES SHALL HAVE CONTROLS TO LIMIT THE WATER TEMPERATURE TO A MAXIMUM OF 120 DEGREE F IN ACCORDANCE TO ASSE 1070.
18. WATER CLOSET(S) SHALL BE SERVED BY A MINIMUM 3" DRAIN AND 2" VENT.
19. FIELD VERIFY ALL PROPOSED CONNECTIONS TO EXISTING SANITARY WASTE & VENT, DOMESTIC WATER PIPING.
20. EVERY WASTE AND VENT STACK SHALL BE CONNECTED AS CLOSE AS POSSIBLE BELOW THE LOWEST SERVED FIXTURE.
21. NO VENT SHALL BE CONNECTED IN SUCH A WAY THAT, IN THE EVENT OF AN OBSTRUCTION TO PASSAGE OF WASTE AT ANY POINT IN ANY DRAINAGE PIPE, (1) WASTE MAY BACK UP INTO ANY VENT STACK, ABOVE THE FLOOD LEVEL OF THE LAST FIXTURE SERVED, AND (2) THAT WOULD PREVENT THE FIXTURE IMMEDIATELY UP STREAM OF THE OBSTRUCTION LOCATION FROM BEING THE FIRST SOURCE OF FLOODING.

Murray Company
MECHANICAL CONTRACTORS
SINCE 1910

CORPORATE HEADQUARTERS
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NORTHERN CALIFORNIA BRANCH • THOUSAND OAKS BRANCH • SAN DIEGO BRANCH

SAFETY • QUALITY

DATE		REASON
01-31-2024		BULLETIN 01
4/1/22	8.2	PERMIT RESUBMITTAL
3/21/22	8.1	PERMIT RESUBMITTAL
2/2/22		PERMIT SET
11/15/21		DESIGN DEVELOPMENT

PROJECT NO 21115

REGISTERED PROFESSIONAL ENGINEER
JOHN A. BOUTROS
M35490
Exp. 6/30/23
MECHANICAL
STATE OF CALIFORNIA

TENANT IMPROVEMENTS
CONSTRUCTION DOCUMENTS
SHEET TITLE
SHEET INDEX, GENERAL NOTES, ABBRE. & LEGEND

SHEET NUMBER
P000
CP-8

Autodesk Docs://21115 DC 310ton/MC_P_SKE Genesis 310ton_R_P22.rvt

GRAVITY RISER SYMBOLS

UNIT 888 888 **SS-1** FU:3 **MOP SINK**	ROOM NAME RM No. **U-1** FU:2 **URINAL**	ROOM NAME RM No. **LS-1** FU:1.5 **SINK OR LAV**
ROOM NAME RM No. **SH-1** FU:2 **SHOWER DRAIN**	ROOM NAME RM No. **BT-1** FU:2 **BATHTUB**	ROOM NAME RM No. **FD-1** FU:0 **FLOOR DRAIN**
ROOM NAME RM No. **FS-1** FU:4 **FLOOR SINK**	ROOM NAME RM No. **WC-1** FU:4 **(4 FIXTURE UNIT)** **WALL MOUNT WATER CLOSET**	ROOM NAME RM No. **WC-1** FU:3 **(3 FIXTURE UNIT)** **FLOOR MOUNT WATER CLOSET**
ROOM NAME RM No. **TP-1** FU:XX **TRAP PRIMER**	UNIT 888 888 **GI-1** FU:171 **GREASE INTERCEPTOR**	

PRESSURE RISER SYMBOLS

ROOM NAME RM No. **U-1** FU:4 **URINAL**	ROOM NAME RM No. **LS-1** FU:1.5 **SINK OR LAV**	UNIT 888 888 **WHA-1** FU:0 **WATER HAMMER**
ROOM NAME RM No. **SH-1** FU:2 **SHOWER**	ROOM NAME RM No. **BT-1** FU:2 **BATHTUB**	ROOM NAME RM No. **IMB** FU:XX **ICE MAKING BOX**
ROOM NAME RM No. **DW** FU:- **DISH WASHER**	ROOM NAME RM No. **WC-1** **(2.5 FU FOR FLUSH TANK** **5 FU FOR FLUSH VALVE)** **WATER CLOSET**	
ROOM NAME RM No. **XX** FU:XX GAS **WATER HEATER GAS**		

STORM DRAIN RISER SYMBOLS

HIGH ROOF **RD-1** XXX SF **ROOF STORM DRAIN**	HIGH ROOF **OD-1** XXX SF **ROOF OVERFLOW DRAIN**	HIGH ROOF **AD-1** XXX SF **AREA DRAIN**

PLUMBING SYMBOLS

SYMBOL	DESCRIPTION
	VACUUM RELIEF VALVE
	PRESSURE RELIEF VALVE
	BACK PRESSURE REGULATOR INTERNAL PRESSURE TAP
	BACK PRESSURE REGULATOR EXTERNAL PRESSURE TAP
	PRESSURE-REDUCING REGULATOR
	HOSE BIBB
	INLINE CIRCULATING PUMP
W	**WATER HAMMER ARRESTOR**
M	**METER**
	POINT OF CONNECTION
	POINT OF DISCONNECTION
	90 ELBOW - DOWN
	90 ELBOW - UP
	TEE - DOWN
	TEE - UP
	ROOF STORM DRAIN
	OVERFLOW DRAIN
	ROUND FLOOR DRAIN OR EMERGENCY FLOOR DRAIN
	SQUARE FLOOR DRAIN OR EMERGENCY FLOOR DRAIN
	TRENCH DRAIN
	FLOOR SINK OR ROOF RECEPTOR
	SUD RELIEF

ANNOTATION SYMBOLS

SYMBOL	DESCRIPTION	
EQUIPMENT **EQUIPMENT No.**	**EQUIPMENT DESIGNATION**	P 01
KEY NOTE No.	**SHEET KEYNOTE**	01
RISER **RISER No.**	**RISER CALL OUT**	W 01
DETAIL No. **REF DWG No.**	**DETAIL CALL OUT**	1 P2.01
1 P2.01 **DETAIL NAME** **SCALE: NOT TO SCALE**	**TITLE DETAIL CALL OUT**	
1 P2.01	**SECTION CALL OUT**	
1 P2.01	**DETAIL BOUNDARY**	
REVISION No.	**REVISION DELTA**	1
	REVISION CLOUD	

PLUMBING SYMBOLS

SYMBOL	DESCRIPTION
	SLOPE
	FLOW ARROW
	PIPE BREAK
	PIPE SPECIFICATION BREAK
	INSULATION
	DOUBLE-CONTAINED
	QUICK DISCONNECT
	FLANGED CONNECTION
	UNION
	FLOOR CLEANOUT, CLEANOUT TO GRADE
	WALL CLEANOUT
	TRIPLE DUTY VALVE
	BASKET STRAINER
	REDUCED PRESSURE BACKFLOW PREVENTER
	BACKFLOW PREVENTER
	NEEDLE VALVE
	CIRCUIT SETTER VALVE
	BELLOWS
	FLEX CONNECTOR
	ECCENTRIC REDUCER
	CONCENTRIC REDUCER
	STRAINER
	GATE VALVE
	GLOBE VALVE
	SAFETY ANGLE VALVE
	THREE-WAY VALVE
T	**THERMAL MIXING VALVE**
	BUTTERFLY VALVE
	BALL VALVE
	BACKWATER VALVE
	PLUG VALVE
	SWING CHECK VALVE
	SPRING-DIAPHRAGM ACTUATOR
	PRESSURE-BALANCED DIAPHRAGM ACTUATOR
	LINEAR PISTON ACTUATOR
M	**ROTARY MOTOR OPERATED ACTUATOR**
S	**SOLINOID VALVE**
	SPRING OR WEIGHT ACTUATED RELIEF OR SAFETY VALVE ACTUATOR
A	**AQUASTAT**
TS	**PRESSURE TRANSDUCOR**

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SAFETY • QUALITY

DATE		REASON
01-31-2024		BULLETIN 01
4/1/22	8.2	PERMIT RESUBMITTAL
3/21/22	8.1	PERMIT RESUBMITTAL
2/2/22		PERMIT SET
11/15/21		DESIGN DEVELOPMENT

PROJECT NO 21115

REGISTERED PROFESSIONAL ENGINEER
JONATHAN A. BURDICK
M36869
MECHANICAL
STATE OF CALIFORNIA

TENANT IMPROVEMENTS
CONSTRUCTION DOCUMENTS
SHEET TITLE

PLUMBING SYMBOLS

SHEET NUMBER
P001
CP-8

CIRCULATING PUMP SCHEDULE

SYMBOL	MANUFACTURER	MODEL	SERVICE	LOCATION	TYPE	QTY.	PERFORMANCE		ELECTRICAL DATA						OPERATING WEIGHT (LBS)	REMARK / DESCRIPTION
							GPM	FT/HD	RPM	HP	FLA	VOLT	PHASE	HZ		
CP-8-1N	GRUNDFOS	UPS 15-35 SFC	HOT WATER RETURN	JAN ROOM	CIRC PUMP	1	2	5	-	110 WATTS	-	115	1	60	6	STAINLESS STEEL HOUSING
CP-8-1S	GRUNDFOS	UPS 15-35 SFC	HOT WATER RETURN	JAN ROOM	CIRC PUMP	1	2	5	-	110 WATTS	-	115	1	60	6	STAINLESS STEEL HOUSING
CP-8-2N	GRUNDFOS	UPS 15-35 SFC	HOT WATER RETURN	JAN ROOM	CIRC PUMP	1	2	5	-	110 WATTS	-	115	1	60	6	STAINLESS STEEL HOUSING
CP-8-2S	GRUNDFOS	UPS 15-35 SFC	HOT WATER RETURN	JAN ROOM	CIRC PUMP	1	2	5	-	110 WATTS	-	115	1	60	6	STAINLESS STEEL HOUSING

WATER HEATER SCHEDULE

SYMBOL	MANUFACTURER	MODEL	SERVICE	LOCATION	TYPE	CAPACITY		PRESSURE DROP (PSI)	RECOVERY RATE @ 80°F (GPH)	INLET TEMP. (°F)	OUTLET TEMP. (°F)	ELECTRICAL DATA			OPERATING WEIGHT (LBS)	REMARK / DESCRIPTION
						INPUT(KW)	GALLON					VOLT	PHASE	HZ		
EWH-8-1N	AO SMITH	DRE 80	DOMESTIC HOT WATER	JAN ROOM	FLOOR MOUNTED	27 KW	80	-	138	50	130	480	3	60	1000	WITH QUICK STRAP #QS-50 FROM HOLDRITE
EWH-8-1S	AO SMITH	DRE 80	DOMESTIC HOT WATER	JAN ROOM	FLOOR MOUNTED	27 KW	80	-	138	50	130	480	3	60	1000	WITH QUICK STRAP #QS-50 FROM HOLDRITE
EWH-8-2N	AO SMITH	DRE 52	INDUSTRIAL HOT WATER	JAN ROOM	FLOOR MOUNTED	9 KW	50	-	46	50	130	208	3	60	750	WITH QUICK STRAP #QS-50 FROM HOLDRITE
EWH-8-2S	AO SMITH	DRE 52	INDUSTRIAL HOT WATER	JAN ROOM	FLOOR MOUNTED	13.5 KW	50	-	69	50	130	208	3	60	750	WITH QUICK STRAP #QS-50 FROM HOLDRITE
EWH-POU-1	EEMAX	HA018240	DOMESTIC HOT WATER	BREAK ROOM	WALL MOUNTED	13 KW	POU	-	-	50	-	208	3	60	11.5	LOCATED BELOW BREAK ROOM SINKS

PLUMBING FIXTURE SCHEDULE

SYMBOL	FIXTURE	MANUFACTURER	TYPE	BRANCH CONNECTION					FIXTURE UNIT		FIXTURE COUNT	REMARK / DESCRIPTION
				WASTE	TRAP	VENT	CW	HW	CWFU	DFU		
BS-1	BREAK ROOM SINK	KOHLER K-4015-4	TOP-MOUNTED	2"	INT	2"	1/2"	1/2"	1.5	2		WITH PULL-DOWN SINGLE HANDLE KITCHEN SINK FAUCET MODEL K-22972 CRUE, 1.5 GPM. ADA SINK AND FAUCET.
ESEW	EMERGENCY SH & EW	GUARDIAN GBF2152	FLOOR-MOUNTED	-	-	-	1"	1"	0	0		WITH G6040 THERMOSTATIC MIXING VALVE WITH 20 GPM AT 10 PSI PRESSURE DROP. A 8.1
FS-1	FLOOR SINK	ZURN Z1910	FLOOR MOUNTED	2"	2"	2"	-	-	0	0		HALF GRATE (FOR LEVEL 5 JANITOR'S ROOM 5602)
HB	HOSE BIB	ACORN	-	-	-	-	3/4"	-	0	0		ACORN MODEL 8125-LF
IMB-1	ICE MAKER OUTLET BOX	SIOUX CHIEF	WALL-MOUNTED	-	-	-	1/2"	-	0	0		1/4" O.D. COMPRESSION OUTLET CONNECTION
JS-1	JANITOR'S SINK	FLORESTONE MODEL 5 TERAZZO	FLOOR-MOUNTED	3"	INT	2"	3/4"	3/4"	3	3		WITH CHICAGO FAUCET 897-RCF. ADA.
LS-1	LABORATORY SINK	CASEWORK CONTRACTOR	BENCH MOUNTED	2"	INT	2"	1/2"	1/2"	1.5	2		BASIN AND FAUCET PROVIDED BY OTHERS
LS-2	LABORATORY SINK	CASEWORK CONTRACTOR	WALL-MOUNTED	2"	INT	2"	1/2"	1/2"	1.5	2		BASIN AND FAUCET PROVIDED BY OTHERS
SM-1	SUB METER	BADGER METER	-	-	-	-	1"	-	0	0		BADGER METER MODEL NUMBER M70
SM-2	SUB METER	BADGER METER	-	-	-	-	3/4	-	0	0		BADGER METER MODEL NUMBER M35
SM-3	SUB METER	BADGER METER	-	-	-	-	5/8	-	0	0		BADGER METER MODEL NUMBER M25

EXPANSION TANK SCHEDULE

SYMBOL	MANUFACTURER	MODEL	SERVICE	LOCATION	TYPE	QTY.	VOLUME (Gals)	MAX. ACCEPT. VOLUME	DIMENSION		PRESSURE (PSIG)	SHIPPING WEIGHT (LBS)	MAX. OPERATING WEIGHT (LBS)	REMARK / DESCRIPTION
									DIA (IN)	HEIGHT (IN)				
ET-8-1N	THERM X TROL	ST-12	HWR	JAN ROOM	DIAPHRAGM	1	4.4	3.2	11	15	150	9	36	3/4 NPTF CONNECTION
ET-8-1S	THERM X TROL	ST-12	HWR	JAN ROOM	DIAPHRAGM	1	4.4	3.2	11	15	150	9	36	3/4 NPTF CONNECTION
ET-8-2N	THERM X TROL	ST-12	HWR	JAN ROOM	DIAPHRAGM	1	4.4	3.2	11	15	150	9	36	3/4 NPTF CONNECTION
ET-8-2S	THERM X TROL	ST-12	HWR	JAN ROOM	DIAPHRAGM	1	4.4	3.2	11	15	150	9	36	3/4 NPTF CONNECTION

BACKFLOW PREVENTER SCHEDULE

SYMBOL	MANUFACTURER	MODEL	SERVICE	LOCATION	TYPE	QTY	GPM	VALVE SIZE (INCH)	MAX. WORKING PRESSURE (PSIG)	REMARK / DESCRIPTION
RPBP-8N	ZURN	375XL	DOMESTIC WATER	JAN ROOM	REDUCED PRESSURE	1	-	1 1/2	175	LEAD FREE
RPBP-8S	ZURN	375XL	DOMESTIC WATER	JAN ROOM	REDUCED PRESSURE	1	-	1 1/2	175	LEAD-FREE

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SAFETY • QUALITY

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2/2/22		PERMIT SET
11/15/21		DESIGN DEVELOPMENT

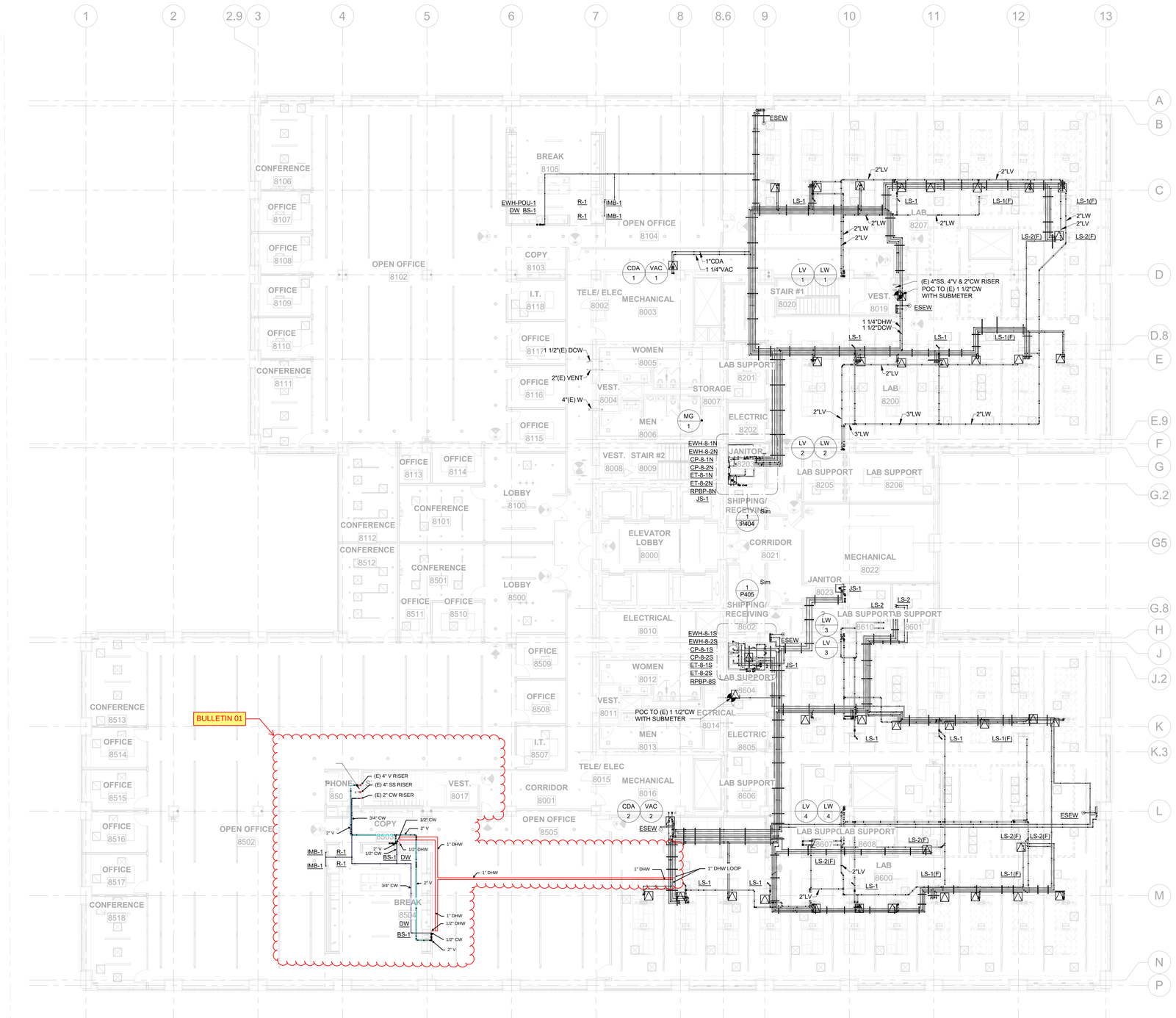
PROJECT NO 21115

REGISTERED PROFESSIONAL ENGINEER
NATHAN A. BURGER
M36893
EXP. 12-31-24
MECHANICAL
STATE OF CALIFORNIA

TENANT IMPROVEMENTS
CONSTRUCTION DOCUMENTS
SHEET TITLE

FIXTURE & EQUIPMENT SCHEDULES

SHEET NUMBER
P002
CP-8



1 LEVEL 8
3/32" = 1'-0"

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SAFETY • QUALITY

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2/2/22		PERMIT SET
11/15/21		DESIGN DEVELOPMENT

PROJECT NO 21115

REGISTERED PROFESSIONAL ENGINEER
STEVEN A. BOURGEOIS
M36492
Exp. 12/31/24
MECHANICAL
STATE OF CALIFORNIA

TENANT IMPROVEMENTS
CONSTRUCTION DOCUMENTS

SHEET TITLE

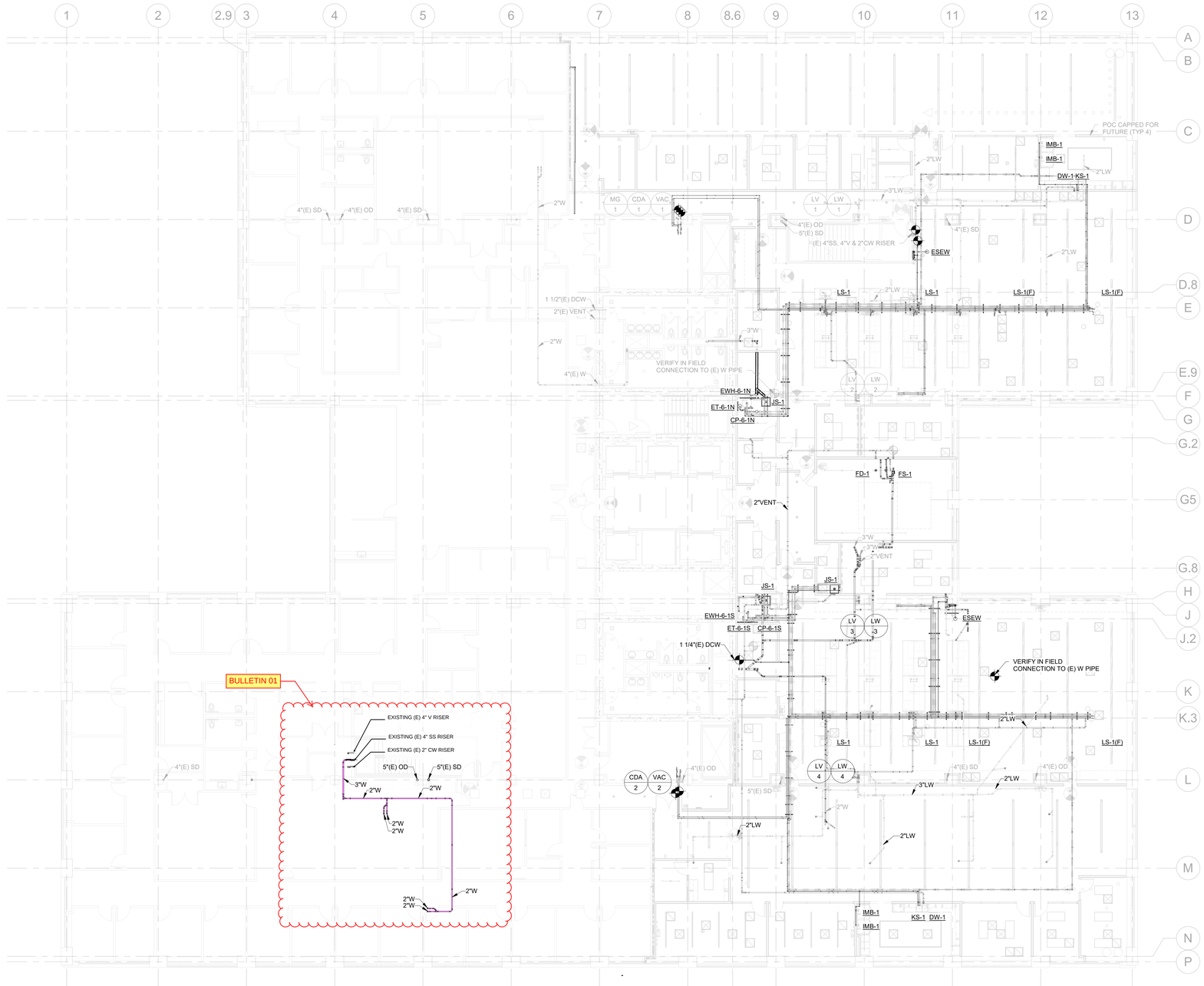
LEVEL 8 PLUMBING FLOOR PLAN

SHEET NUMBER

P208

CP-8

AUtodesk Docs://21115 DC 310Bldn/MC_P3IE-Genesis 310bldn_PL_P22.rvt



1 LEVEL 6
3/32" = 1'-0"

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SAFETY • QUALITY

DATE			REASON
01-31-2024			BULLETIN 01
02-10-2023	I	7.1.1	PERMIT RESUBMITTAL
01-13-2023	0	7.3	PLAN REVISION 7.1
12-22-2022			PERMIT SUBMITTAL
11-17-2022			DESIGN DEVELOPMENT

PROJECT NO 21-117-74

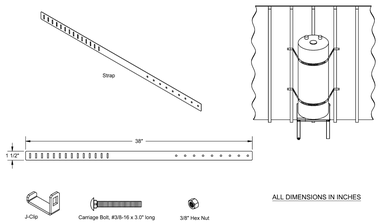
TENANT IMPROVEMENTS
CONSTRUCTION DOCUMENTS

SHEET TITLE
LEVEL 7 PLUMBING FLOOR PLAN

SHEET NUMBER
P207

CP-7

PRODUCT SPECIFICATION DRAWING
QUICK STRAP® #QS-50
Seismic support for water heaters



The QUICK STRAP® #QS-50 is a seismic/earthquake support system for water heaters up to 80 U.S. gallons in size. The system includes: (4) Straps, (2) J-Clips, (2) 3/8" Carriage Bolts and (2) 3/8" Hex Nuts. The Quick Link® system allows for full adjustment from the front side of the water heater.

Product Information:

- Material: Strap, 24 gage CRS, galvanized
- California Division State Architect (DSA) approval #97-010
- UPC / IPC / IAPMO listed

OSHPD PREAPPROVED OPA-PRE-APPROVAL No. 97-010

IAPMO EQUIVALENT UPC

THIS INFORMATION IS PROPRIETARY TO HOLDRITE AND IS SUBJECT TO CHANGE W/ THOUT NOTICE. IT MAY NOT BE REPRODUCED IN PART OR WHOLE WITHOUT WRITTEN AUTHORIZATION.

Product Submittal
Job Name:
Date:
Part Number: Qty:
Architect / Owner:
Contractor:
Notes:

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CONVERTING MAKESHIFT METHODS INTO ENGINEERED SOLUTIONS™
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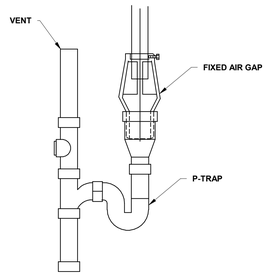
spec_QS-50_Rev1

WATER HEATER STRAPS

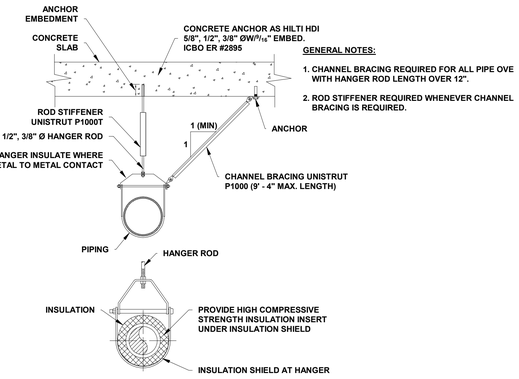
SCALE NONE | 9



8.1

FIXED AIR GAP (AG-1)

SCALE NONE | 6



GENERAL NOTES:

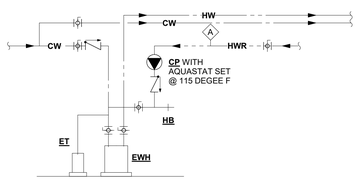
1. CHANNEL BRACING REQUIRED FOR ALL PIPE OVE WITH HANGER ROD LENGTH OVER 12".
2. ROD STIFFENER REQUIRED WHENEVER CHANNEL BRACING IS REQUIRED.

ADJUSTABLE CLEVIS FOR LOW TEMPERATURE PIPE

MAXIMUM PIPE/TUBING SUPPORT SPACING, FEET									
PIPE SIZE	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"
PIPE	7	7	7	7	9	10	11	12	14
TUBE	6	6	6	7	8	8	9	10	12
ROD THICKNESS	3/8"	3/8"	3/8"	3/8"	3/8"	1/2"	1/2"	1/2"	1/2"

PIPE SUPPORT AND SEISMIC BRACING

SCALE NONE | 3

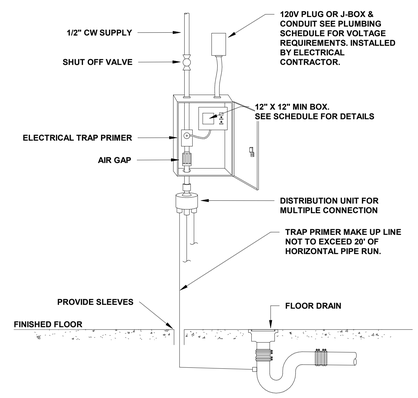


WATER HEATER PIPING DIAGRAM

SCALE NONE | 8

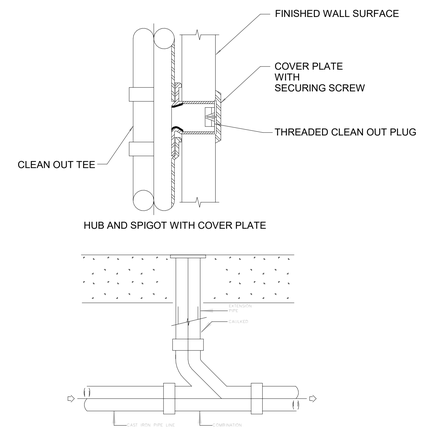
GENERAL NOTES:

1. SEE MATERIAL MATRIX FOR PIPE MATERIAL AND JOINING METHOD.
2. SEE SPECIFICATIONS FOR FLOOR PENETRATIONS
3. SEE SCHEDULE FOR MANUFACTURER AND MODEL NUMBER INFORMATION



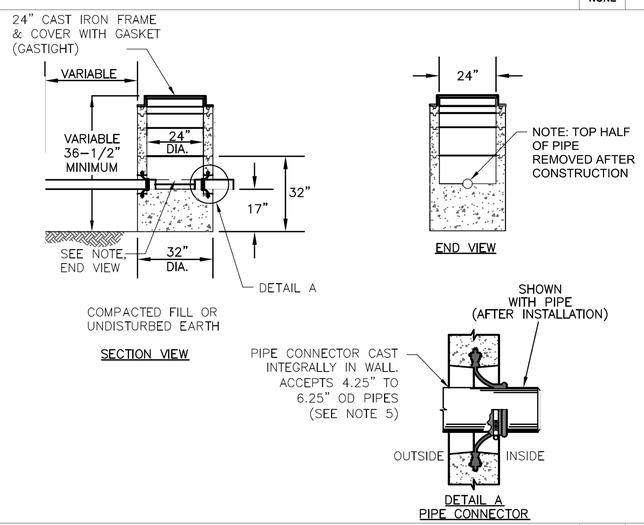
ELECTRONIC TRAP PRIMER (TP-2)

SCALE NONE | 5



WALL/FLOOR CLEAN OUT

SCALE NONE | 2

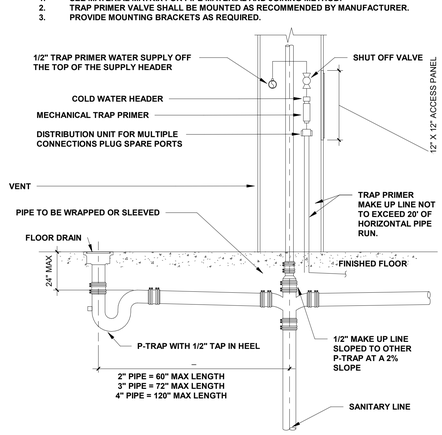


LABORATORY WASTE SAMPLE PORT

SCALE NONE | 7

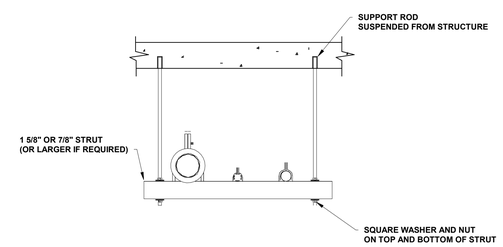
GENERAL NOTES:

1. SEE MATERIAL MATRIX FOR PIPE MATERIAL AND JOINING METHOD.
2. TRAP PRIMER VALVE SHALL BE MOUNTED AS RECOMMENDED BY MANUFACTURER.
3. PROVIDE MOUNTING BRACKETS AS REQUIRED.



GRAVITY TRAP PRIMER (TP-1)

SCALE NONE | 4



TRAPEZE HANGER PIPE SUPPORT

SCALE NONE | 1

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PROJECT NO 21115

REGISTERED PROFESSIONAL ENGINEER
ALEXANDER P. BOGDANOV
M36402
Exp. 12/31/24
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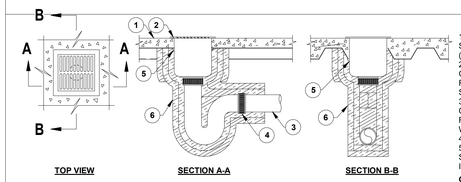
STATE OF CALIFORNIA

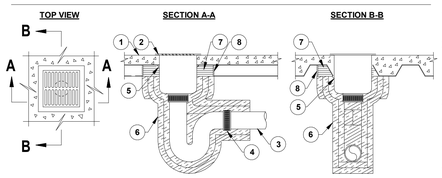
TENANT IMPROVEMENTS
CONSTRUCTION DOCUMENTS
SHEET TITLE
PLUMBING DETAILS

SHEET NUMBER
P500
CP-8



TOP VIEW SECTION A-A SECTION B-B

CONFIGURATION B



TOP VIEW SECTION A-A SECTION B-B

CONFIGURATION A

NOTES:
F-RATING = 2-HR
T-RATING = 2-HR
L-RATING = LESS THEN 1CFM/SQ.FT

1. STEEL FLOOR UNIT/FLOOR ASSEMBLY (UL D700 OR D900 SERIES) - LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE (MINIMUM 2-1/2" THICK) (2-HR. FIRE-RATING).
2. MAXIMUM 12" X 12" X 10" DEEP CAST IRON FLOOR SINK CAST OR GROUTED INTO FLOOR. SINK FLANGES TO BEAR ON TOP PLANE OF FLOOR GRATING TO BE INSTALLED ON TOP OF SINK. METAL DOME STRAINER MAY BE USED IN SINK DRAIN.
3. MAXIMUM 4" NOMINAL DIAMETER CAST IRON PIPE SECURED TO OUTLET OF FLOOR SINK WITH NO-HUB COUPLING. PIPE TO BE RIGIDLY SUPPORTED BENEATH FLOOR AWAY FROM FLOOR SINK WITH SUITABLE HANGERS.
4. CORRUGATED STAINLESS STEEL "NO-HUB" CONNECTOR.
5. MINIMUM 1/2" BEAD HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT APPLIED AROUND PERIPHERY OF FLOOR SINK AT FLOOR INTERFACE.

CONFIGURATION A:

6. TWO LAYERS (NOMINAL 1-1/2" THICK) FACED OR UNFACED FIREMASTER FAST WRAP XL, FIREMASTER FASTWRAP+, OR PYROSCAT DUCTWRAP XL (MANUFACTURED BY THERMAL CERAMICS) TIGHTLY WRAPPED AROUND SINK AND DRAIN PIPE. TOP ENDS OF BOTH LAYERS TO BE CUT TO THE CONTOUR OF THE FLUTED DECK AND EXTEND MINIMUM 24" BEYOND THE BOTTOM SURFACE OF FLOOR AND HELD IN POSITION USING 16 GA. STEEL WIRE TIES SPACED MAXIMUM 8" ON CENTER AND MAXIMUM 1" FROM ENDS OF LAYERS. AN ADDITIONAL LAYER OF DUCT WRAP CUT TO THE CONTOUR OF THE FLUTED DECK AND EXTEND MINIMUM 5" BELOW FLOOR AND HELD IN POSITION USING 16 GA. STEEL TIE WIRES SPACED MAXIMUM 1" FROM ENDS OF LAYER.

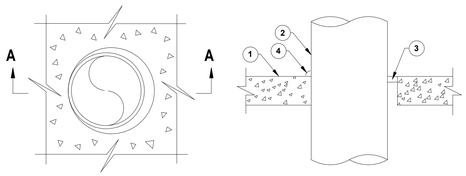
CONFIGURATION B:

6. TWO LAYERS (NOMINAL 1-1/2" THICK) FACED OR UNFACED FIREMASTER FAST WRAP XL, FIREMASTER FASTWRAP+, OR PYROSCAT DUCTWRAP XL (MANUFACTURED BY THERMAL CERAMICS) TIGHTLY WRAPPED AROUND SINK AND DRAIN PIPE AND EXTEND MINIMUM 24" BEYOND THE BOTTOM SURFACE OF FLOOR AND HELD IN POSITION USING 16 GA. STEEL WIRE TIES SPACED MAXIMUM 8" ON CENTER AND MAXIMUM 1" FROM ENDS OF LAYERS. AN ADDITIONAL LAYER OF DUCT WRAP TO EXTEND MINIMUM 6" BELOW FLOOR AND HELD IN POSITION USING 16 GA. STEEL TIE WIRES SPACED MAXIMUM 1" FROM ENDS OF LAYER.
7. ADDITIONAL PIECES OF (NOMINAL 1-1/2" THICK) FACED OR UNFACED FIREMASTER FAST WRAP XL, FIREMASTER FASTWRAP+, OR PYROSCAT DUCTWRAP XL (MANUFACTURED BY THERMAL CERAMICS) CUT TO CONTOUR OF FLUTE AND FRICTION FIT TO FILL THE SPACE BETWEEN THE DUCT WRAP LAYERS (ITEM NO. 6) AND FLUTED DECK. RECESS INSULATION TO ACCOMMODATE FIRESTOP SEALANT.
8. MINIMUM 1/4" DEPTH HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT APPLIED OVER THE DUCT WRAP WITHIN FLUTED AREA FLUSH WITH OUTER LAYER.

HILTI - UL/cUL SYSTEM NO.F-A-1137
(OR STI F-A-1138 OR EQUAL)

CAST IRON FLOOR SINK THRU CONCRETE FLOOR OR METAL DECKING ASSEMBLY

SCALE NONE **8**



TOP VIEW SECTION A-A

1. CONCRETE FLOOR ASSEMBLY (2-HR. FIRE-RATING):
   A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR (MINIMUM 2-1/2" THICK).
   B. STEEL FLOOR UNIT/FLOOR ASSEMBLY - NORMAL WEIGHT CONCRETE FLOOR (MINIMUM 2-1/2" THICK) OVER METAL DECKING.

2. PENETRATING ITEM TO BE ONE OF THE FOLLOWING:
   A. MAXIMUM 30" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 10 OR HEAVIER).
   B. MAXIMUM 30" NOMINAL DIAMETER CAST IRON PIPE.
   C. MAXIMUM 6" NONINAL DIAMETER COPPER PIPE.
   D. MIAXIMUM 4" NOMINAL DIAMETER STEEL CONDUIT.
   E. MAXIMUM 4" NOMINAL DIAMETER EMT.

3. MINIMUM 1/2" DEPTH HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT.

4. MINIMUM 1/4" BEAD HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT AT POINT OF CONTACT.

NOTES:

1. MAXIMUM DIAMETER OF OPENING = 30-7/8".

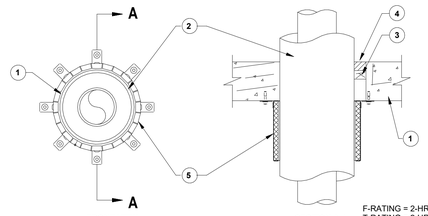
2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 7/8".

F-RATING = 2-HR
T-RATING = 0-HR
L-RATING = LESS THEN 1CFM/SQ.FT

UL/cUL SYSTEM NO. F-A-1029
(OR STI-C-AJ-1240 OR EQUAL)

METAL PIPE THRU CONCRETE FLOOR OR CONCRETE FLOOR OVER METAL DECKING

SCALE NONE **4**



FRONT VIEW SECTION A-A

F-RATING = 2-HR.
T-RATING = 2-HR.

1. FLOOR AND WALL ASSEMBLY - MIN 4-1/2". (114 MM) THICK REINFORCED LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF OR 1600-2400 KG/M3) CONCRETE. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS. MAX DIAMETER OF OPENING IS 10 IN. (254 MM).

2. THROUGH PENETRANT - ONE NONMETALLIC PIPE TO BE INSTALLED EITHER CONCENTRAICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE BETWEEN PIPE, AND THE PERIPHERY OF THE OPENING SHALL BE MIN 0 IN. (POINT CONTACT) TO MAX 1-5/8 IN. (35MM). PIPE TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF THE WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF NONMETALLIC PIPES MAY BE USED.
   A. POLYPROPYLENE (PP) PIPE - NOM 8 IN. (203 MM) DIAMETER PP PIPE WITH A NOM 4 IN. (102 MM) DIAMETER PP PIPE CENTERED AND INTEGRALLY CAST WITHIN FOR USE IN CLOSED (PROCESS OR SUPPLY) PIPPING SYSTEMS.

3. FORMING MATERIALS - MIN 1 IN. (25 MM) THICKNESS FOAMED INTO OPENING AS A PERMANENT FORM. FORMING MATERIAL APPLIED WITHIN THE ANNULUS RECESSED 1 IN. (25 MM) FROM THE TOP SURFACE OF FLOOR OR BOTH SURFACES OF WALL.

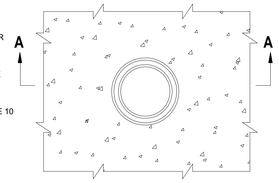
4. FILL, VOID OR CAVITY MATERIAL - MIN 1 IN. (25 MM) THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS FLUSH WITH TOP SURFACE OF FLOOR OR BOTH SURFACES OF WALL.

5. FIRESTOP DEVICES - FIRESTOP COLLAR - FIRESTOP COLLAR SHALL BE INSTALLED IN ACCORDANCE WITH THE ACCOMPANYING INSTALLATION INSTRUCTIONS. COLLAR TO BE INSTALLED AROUND THE PIPE AND SECURED TO THE UNDERSIDE OF THE FLOOR OR BOTH SIDES OF THE WALL USING ANCHOR HOOKS PROVIDED WITH COLLAR. THE ANCHOR HOOKS ARE TO BE SECURED WITH 1/4 IN. (6 MM) DIAMETER BY MIN 1-1/2 IN. (38 MM) LONG STEEL EXPANSION BOLTS OR EQUIVALENT, IN CONJUNCTION WITH STEEL NUTS AND 1/4 BY 3/4 IN. (6 BY 19 MM) DIAMETER STEEL WASHERS.

UL/cUL SYSTEM NO. C-AJ-2285

PP PIPE THRU PENETRANT

SCALE NONE **5**



TOP VIEW

1. CONCRETE FLOOR OR WALL ASSEMBLY (2-HR FIRE-RATING):
   A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR OR WALL (MINIMUM 4-1/2" THICK).
   B. ANY UL/ULC CLASSIFIED CONCRETE BLOCK WALL.

2. OPTIONAL: MAXIMUM 20" NOMINAL DIAMETER STEEL PIPE SLEEVE (SCHEDULE 10 OR HEAVIER).

3. PENETRATION ITEM TO BE ONE OF THE FOLLOWING:
   A. MAXIMUM 12" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 10 OR HEAVIER).
   B. MAXIMUM 6" NOMINAL DIAMETER COPPER PIPE.

4. MAXIMUM 2" THICK GLASS FIBER INSULATION.

5. MINIMUM 4" THICKNESS MINERAL WOOL (MIN. 4 PCF DENSITY) TIGHTLY PACKED.

6. MINIMUM DEPTH HLITI FS-ONE INTUMESCENT FIRESTOPS SEALANT.

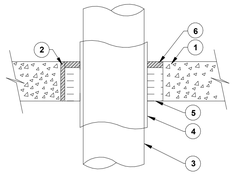
NOTES:

1. MAXIMUM DIAMETER OF OPENING = 20".

2. ANNULAR SPACE = MINIMUM 1/2", MAXIMUM 2-1/4".

3. MINIMUM 1/2" DEPTH HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT IS REQUIRED ON BOTH SIDES OF A WALL

F RATING = 2-HR
T RATING = 1-HR
L RATING AT AMBIENT = 4 CFM/SQ.FT.
L RATING AT 400°F = LESS THAN 1 CFM/SQ.FT.

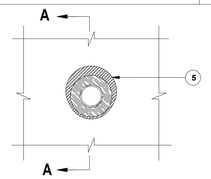


SECTION A-A

UL/cUL SYSTEM C-AJ-5091
(OR C-AJ-5087 OR EQUAL)

INSULATED METAL PIPE THRU CONCRETE FLOOR, WALL OR BLOCK WALL

SCALE NONE **3**



TOP VIEW

1. GYPSUM WALL ASSEMBLY (UL/ULC CLASSIFIED U300 OR U400 SERIES) (1-HR, OR 2-HR. FIRE RATING) (2-HR. SHOWN).

2. (NOT SHOWN). WOOD STUDS TO CONSIST OF NOMINAL 2" X 4" LUMBER. STEEL STUDS TO BE MINIMUM 2-1/2" WIDE.

3. PENETRATING ITEM TO BE ONE OF THE FOLLOWING:
   A. MAXIMUM 12" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 10 OR HEAVIER).
   B. MAXIMUM 6" NOMINAL DIAMETER COPPER PIPE.

4. MAXIMUM 2" THICK GLASS-FIBER PIPE INSULATION.

5. HILTI FS-ONE MAX OR FS-ONE INTUMESCENT FIRESTOP SEALANT. MINIMUM 5/8" DEPTH REQUIRED FOR 1-HR OR 2-HR FIRE RATING.

6. MINIMUM 1/2" BEAD HILTI FS-ONE HIGH PERFORMANCE INTUMESCENT FIRESTOP SEALANT AT POINT OF CONTRACT.

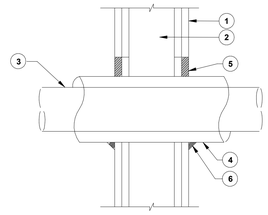
NOTES:

1. MAXIMUM DIAMETER OF OPENING = 18".

2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 1-7/8".

3. NOT TO BE USE FOR ACOUSTICALLY RATED WALL.

F RATING = 1-HR. AND 2-HR.
T RATING = 1/2-HR., 3/4", 1-HR., AND 1-3/4"HR.
(SEE U.L. FIRE RESISTANCE DIRECTORY)
L RATING AT AMBIENT = 4 CFM/SQ.FT.
L RATING AT 400°F = LESS THAN 1 CFM/SQ.FT

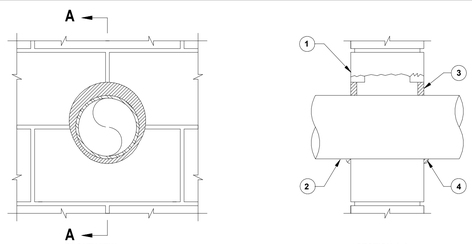


SECTION A-A

UL/cUL SYSTEM NO. WL-5029
(OR STI W-L-5014 OR EQUAL)

INSULATED METAL PIPE THRU 1HR/2HR GYPSUM WALL ASSEMBLY

SCALE NONE **2**



FRONT VIEW SECTION A-A

1. CONCRETE FLOOR OR WALL ASSEMBLY (1-HR. 2-HR, FIRE-RATING):
   A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE WALL (MIN. 3-3/4" THICK, FOR 1-HR. FIRE-RATING.
   B. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE WALL (MIN. 5" THICK, FOR 2-HR. FIRE RATING).
   C. ANY UL/ULC CLASSIFIED CONCRETE BLOCKWALL.

2. PENETRATING ITEM TO BE ONE OF THE FOLLOWING:
   A. MAXIMUM 30" NOMINAL DIAMETERS STEEL PIPE (SCHEDULE 10 OR HEAVIER).
   B. MAXIMUM 30" NOMINAL DIAMETER CAST IRON PIPE.
   C. MAXIMUM 6" NOMINAL DIAMETER COPPER PIPE.
   D. MAXIMUM 6" NOMINAL DIAMETER STEEL CONDUIT.
   E. MAXIMUM 4" NOMINAL DIAMETER EMT.

3. MINIMUM 5/8" DEPTH HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT.

4. MINIMUM 1/2" BEAD HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT AT POINT OF CONTACT.

NOTES:

1. MAXIMUM DIAMETER OF OPENING = 32-1/4".

2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 2-1/4".

3. PIPE MAY BE INSTALLED WITH CONTINUOUS POINT OF CONTACT.

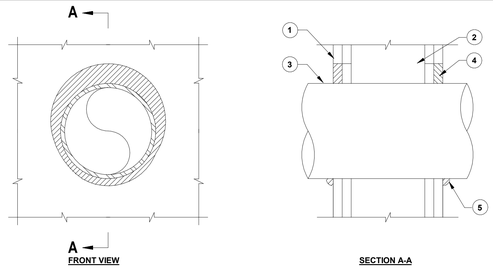
4. PIPE MAY BE INSTALLED AT AN ANGLE NOT GREATER THAN 45° FROM PERPENDICULAR.

F-RATING = 1-HR. OR 2-HR.
T-RATING = 0-HR.
L-RATING AT AMBIENT = LESS THAN 1 CFM/SQ.FT.
L-RATING AT 400°F = 4 CFM/SQ.FT

UL/cUL SYSTEM NO. W-J-1067
(OR STI C-AJ1080 OR EQUAL)

METAL PIPE THRU 1-HR OR 2-HR CONRETE WALL OR CONCRETE BLOCK ASSEMBLY

SCALE NONE **7**



FRONT VIEW SECTION A-A

1. GYPSUM WALL ASSEMBLY (UL/ULC CLASSIFIED U300 OR U400 SERIES) (1-HR. OR 2-HR. FIRE-RATING). (2-HR. SHOWN).

2. (NOT SHOWN) WOOD STUDS TO CONSIT OF NOMINAL 2" X 4" LUMBER STEEL STUDS TO BE MINIMUM 2-1/2" WIDE.

3. PENETRATING ITEM TO BE ONE OF THE FOLLOWING:
   A. MAXIMUM 30" DIAMETER STEEL PIPE (SCHEDULE 10 OR HEAVIER).
   B. MAXIMUM 30" DIAMETER CAST IRON PIPE.
   C. MAXIMUM 6" NOMINAL DIAMETER COPPER PIPE.
   D. MAXIMUM 6" NOMINAL DIAMETER STEEL CONDUIT.
   E. MAXIMUM 4" NOMINAL DIAMETER EMT.

4. MINIMUM 5/8" DEPTH HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT.

5. MINIMUM 1/2" BEAD HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT AT POINT OF CONTACT.

NOTES:

1. MAXIMUM DIAMETER OF OPENING:
   A. 32-1/4" FOR STEEL STUD WALLS.
   B. 14-1/2" FOR WOOD STUD WALLS.

2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 2-1/4".

3. PIPE MAY BE INSTALLED WITH CONTINUOUS POINT OF CONTACT.

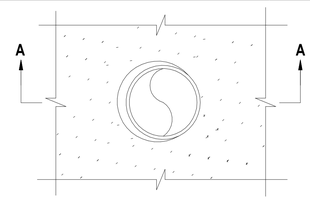
4. PIPE MAY BE INSTALLED AT AN ANGLE NOT GREATER THAN 45° FROM PERPENDICULAR.

F-RATING = 1-HR. OR 2-HR.
T-RATING = 0-HR.
L-RATING AT AMBIENT = LESS THAN 1 CFM/SQ.FT.
L-RATING AT 400°F = 4 CFM/SQ.FT

UL/cUL SYSTEM NO. W-L-1054
(OR STI W-L-1049 OR EQUAL)

METAL PIPE THRU 1-HR OR 2-HR GYPSUM WALL ASSEMBLY

SCALE NONE **6**



TOP VIEW

1. CONCRETE FLOOR OR WALL ASSEMBLY (2-HR. FIRE-RATING):
   A. ANY LIGHTWEIGHT OR NORMAL WEIGHT FLOOR OR WALL (MINIMUM 4-1/2" THICK).
   B. ANY UL/ULC CLASSIFIED CONCRETE BLOCK WALL.

2. PENETRATING ITEM TO BE ONE OF THE FOLLOWING:
   A. MAXIMUM 10" NOMINAL DIAMETERS STEEL PIPE (SCHEDULE 10 OR HEAVIER).
   B. MAXIMUM 4" NOMINAL DIAMETER COPPER PIPE.
   C. MAXIMUM 4" NOMINAL DIAMETER STEEL CONDUIT.
   D. MAXIMUM 4" NOMINAL DIAMETER EMT.

3. MINIMUM 3" THICKNESS MINERAL WOOL (MIN. 4 PCF DENSITY) TIGHTLY PACKED FOR NOMINAL 4" DIAMETER (AND SMALLER), AND MINIMUM 4" THICKNESS MINERAL WOOL (MIN. 4 PCF DENSITY) THIGHTLY PACKED FOR PIPES GREATER THAN NOMINAL 4" DIAMETER.

4. MINIMUM 1/2" DEPTH HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT, CP 606 FLEXIBLE FIRESTOP SEALANT OR CP 601S ELASTOMERIC FIRESTOP SEALANT.

5. MINIMUM 1/2" BEAD HILTI FS-ONE INTUMESCENT SEALANT, CP 606 FLEXIBLE FIRESTOP SEALANT OR CP 601S ELASTOMERIC FIRESTOP SEALANT APPLIED AT POINT OF CONTACT.

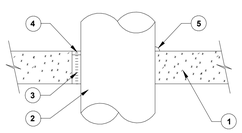
NOTES:

1. MAXIMUM DIAMETER OF OPENING = 12".

2. ANNULAR SPACE = MINIMUM 3/8", MAXIMUM 1-1/4". MINIMUM 1/2" DEPTH HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT CP 606 FLEXIBLE FIRESTOP SEALANT OR CP-601S ELASTOMERIC FIRESTOP SEALANT IS REQUIRED ON BOTH SIDES OF A WALL ASSEMBLY.

3. L-RATING ONLY APPLY WHEN HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT IS USED.

F RATING = 2-HR.
T RATING = 0-HR.
L RATING AT AMBIENT = LESS THAN 1 CFM/SQ.FT.
L RATING AT 400°F = 4 CFM/SQ.FT.



SECTION A-A

UL/cUL SYSTEM NO. C-AJ-1149
(OR STI C-AJ-1240 OR EQUAL)

METAL PIPE THRU CONCRTE FLOOR WALL OR BLOCK WALL

SCALE NONE **1**

Murray Company
MECHANICAL CONTRACTORS
SINCE 1911
CORPORATE HEADQUARTERS
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P 800.468.7729 • www.murraycompany.com
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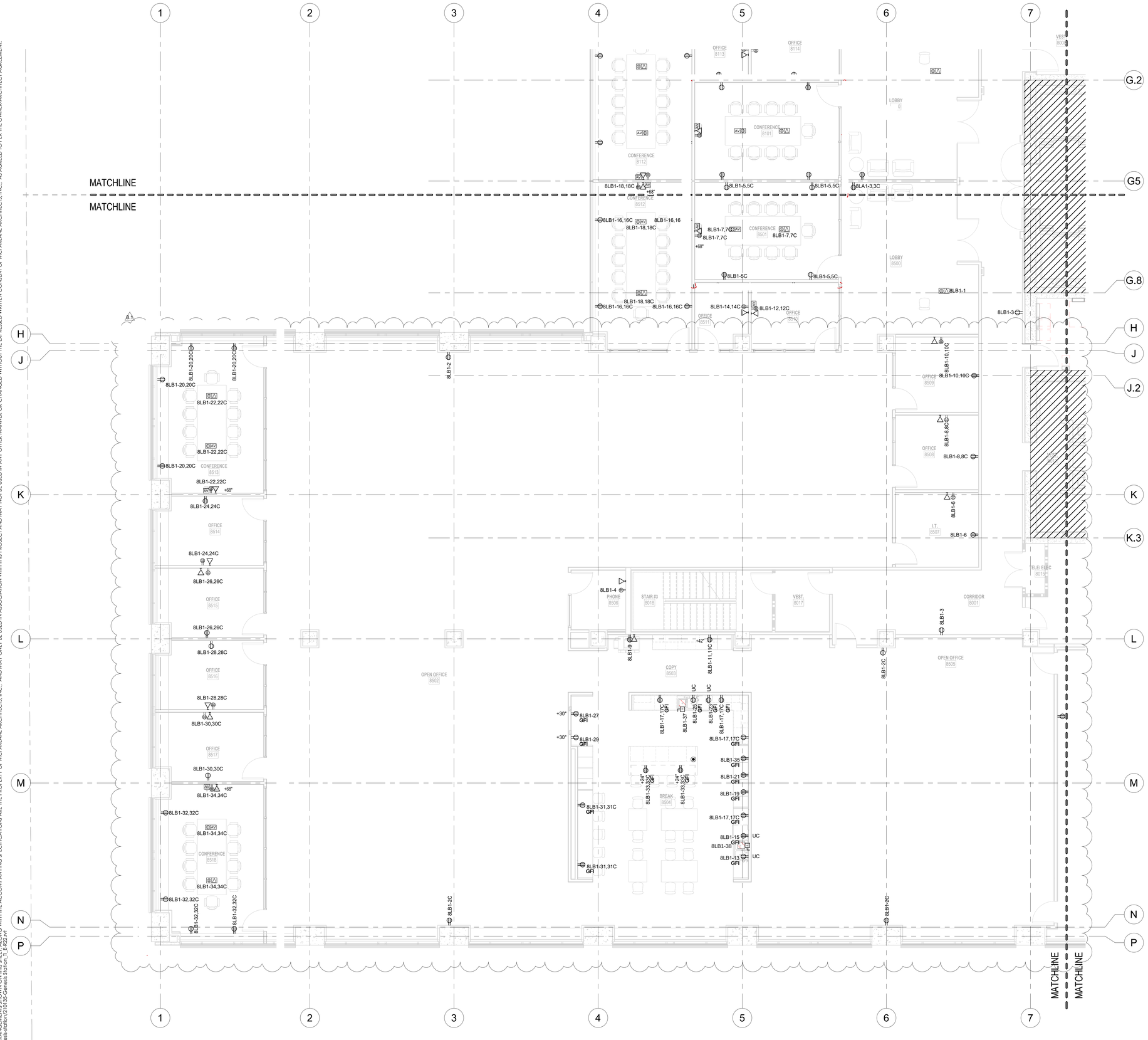
SAFETY • QUALITY

DATE		REASON
01-31-2024		BULLETIN 01
4/1/22	8.2	PERMIT RESUBMITTAL
3/21/22	8.1	PERMIT RESUBMITTAL
2/2/22		PERMIT SET
11/15/21		DESIGN DEVELOPMENT

PROJECT NO 21115

TENANT IMPROVEMENTS
CONSTRUCTION DOCUMENTS
SHEET TITLE
PLUMBING DETAILS

SHEET NUMBER
P501
CP-8



1 LEVEL 8 - POWER AND DATA PLAN - AREA 4
3/16" = 1'-0"

WALL DEVICE SYMBOLS

- SPECIAL RECEPTACLES L5-20 FOR UMBILICAL OVERHEAD CONNECTIONS TO PRE-WIRED LAB BENCHES
- FLOOR BOX - POWER , DATA AND AV
- FLOOR BOX - POWER AND DATA
- AV BOX
- FUME HOOD J-BOX
- DOUBLE DUPLEX RECEPTACLES
- DUPLEX RECEPTACLES
- DATA RECEPTACLES
- TELEPHONE DATA RECEPTACLES
- GFI DUPLEX RECEPTACLES
- SMR — SURFACE WIREMOLD

GRAPHIC LEGEND

NOT IN CONTRACT

GENERAL NOTES

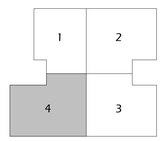
1. THE HEIGHT OF THE RECEPTACLES IS 18" TO THE CENTER, UNLESS OTHERWISE NOTED.

2. THE HEIGHT OF THE GFI RECEPTACLES IN BREAK ROOMS IS 42" TO THE CENTER, UNLESS OTHEWISE NOTED.

DATE	REASON
03-21-2022 8.1	PERMIT RESUBMITTAL
02-02-2022	PERMIT SUBMITTAL
11-15-2021	DESIGN DEVELOPMENT
08-27-2021	SCHEMATIC DESIGN

PROJECT NO 21-117-23

KEY PLAN



TENANT IMPROVEMENTS
CONSTRUCTION DOCUMENTS

SHEET TITLE

POWER AND DATA PLAN - LEVEL 8 ENLARGED AREA 4

SHEET NUMBER

E384

CP-8

Branch Panel: 8LB1

Location:
Supply From: (E)8DP
Mounting: Surface
Enclosure: Type 1

Volts: 208/120 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 22000
Bus Rating: 225 A
Mains Type: MLO
MCB Rating: N/A

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	LOBBY-8500 RECEPT.	20 A	1	180	720					1	20 A	OPEN OFFICE-8505 RECEPT.	2
3	CORRIDOR-8001 RECEPT.	20 A	1			360	360			1	20 A	PHONE-8506 RECEPT.	4
5	CONFERENCE-8501 RECEPT.	20 A	1					720	540	1	20 A	I.T.-8507 RECEPT.	6
7	CONFERENCE-8501 FLOORBOXES	20 A	1	720	540					1	20 A	OFFICE-8508 RECEPT.	8
9	COPY-8503 COPIER	20 A	1			500	540			1	20 A	OFFICE-8509 RECEPT.	10
11	COPY-8503 RECEPT.	20 A	1					180	540	1	20 A	OFFICE-8510 RECEPT.	12
13	BREAK-8504 GARBAGE DISPOSAL	20 A	1	1200	540					1	20 A	OFFICE-8511 RECEPT.	14
15	BREAK-8504 DISHWASHER	20 A	1			1200	720			1	20 A	CONFERENCE-8512 RECEPT.	16
17	BREAK-8504 KITCHEN RECEPT.	20 A	1					720	720	1	20 A	CONFERENCE-8512 FLOORBOXES	18
19	BREAK-8504 REFRIGERATOR	20 A	1	1000	720					1	20 A	CONFERENCE-8513 RECEPT.	20
21	BREAK-8504 MICROWAVE	20 A	1			1000	720			1	20 A	CONFERENCE-8513 FLOORBOXES	22
23	BREAK-8504 DISHWASHER	20 A	1					1200	540	1	20 A	OFFICE-8514 RECEPT.	24
25	BREAK-8504 GARBAGE DISPOSAL	20 A	1	1200	900					1	20 A	OFFICE-8515 RECEPT.	26
27	BREAK-8504 REFRIGERATOR	20 A	1			960	540			1	20 A	OFFICE-8516 RECEPT.	28
29	BREAK-8504 REFRIGERATOR	20 A	1					960	540	1	20 A	OFFICE-8517 RECEPT.	30
31	BREAK-8504 KITCHEN. RECEPT.	20 A	1	360	720					1	20 A	CONFERENCE-8518 RECEPT.	32
33	BREAK-8504 KITCHEN. RECEPT.	20 A	1			360	720			1	20 A	CONFERENCE-8518 FLOORBOXES	34
35	BREAK-8504 MICROWAVE	20 A	1					1000	564	1	20 A	CONF.8501/8512 - LTG	36
37	SPACE	20 A	1	440	118					1	20 A	SPACE	38
39	SPACE	20 A	1			0	1080			1	20 A	JANITOR-8023 RECEPT.	40
41	SPACE	20 A						0	220	1	20 A	CP-8-1S & CP-8-2S	42
			Total Load:	23758 VA		23460 VA		22844 VA					
			Total Amps:	199 A		196 A		190 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Lighting	682 VA	100.00%	682 VA		
Motor	660 VA	108.33%	715 VA	**Total Conn. Load:**	70062 VA
Power	43200 VA	100.00%	43200 VA	**Total Est. Demand:**	62357 VA
Receptacle	25520 VA	69.59%	17760 VA	**Total Conn.:**	194 A
				Total Est. Demand:	173 A

Notes:

Branch Panel: 8LB2

Location:
Supply From: 8LB1
Mounting: Surface
Enclosure: Type 1

Volts: 208/120 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 22000
Bus Rating: 225 A
Mains Type: MLO
MCB Rating: N/A

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	LAB-8600 LAB BENCH	20 A	1	1200	1200					1	20 A	LAB-8600 LAB BENCH	2
3	LAB-8600 LAB BENCH	20 A	1			1200	1200			1	20 A	LAB-8600 LAB BENCH	4
5	LAB-8600 LAB BENCH	20 A	1					1200	1200	1	20 A	LAB-8600 LAB BENCH	6
7	LAB-8600 LAB BENCH	20 A	1	1200	1200					1	20 A	LAB-8600 LAB BENCH	8
9	LAB-8600 LAB BENCH	20 A	1			1200	1200			1	20 A	LAB-8600 LAB BENCH	10
11	LAB-8600 LAB BENCH	20 A	1					1200	1200	1	20 A	LAB-8600 LAB BENCH	12
13	LAB-8600 LAB BENCH	20 A	1	1200	1200					1	20 A	LAB-8600 LAB BENCH	14
15	LAB-8600 LAB BENCH	20 A	1			1200	1200			1	20 A	LAB-8600 LAB BENCH	16
17	LAB-8600 LAB BENCH	20 A	1					1200	1200	1	20 A	LAB-8600 LAB BENCH	18
19	LAB-8600 LAB BENCH	20 A	1	1200	1200					1	20 A	LAB-8600 LAB BENCH	20
21	LAB-8600 LAB BENCH	20 A	1			1200	1200			1	20 A	LAB-8600 LAB BENCH	22
23	LAB-8600 LAB BENCH	20 A	1					1200	1200	1	20 A	LAB-8600 LAB BENCH	24
25	LAB-8600 LAB BENCH	20 A	1	1200	1200					1	20 A	LAB-8600 LAB BENCH	26
27	LAB-8600 LAB BENCH	20 A	1			1200	1200			1	20 A	LAB-8600 LAB BENCH	28
29	LAB-8600 LAB BENCH	20 A	1					1200	1200	1	20 A	LAB-8600 LAB BENCH	30
31	LAB-8600 LAB BENCH	20 A	1	1200	0					1	20 A	SPARE	32
33	LAB-8600 LAB BENCH	20 A	1			1200	0			1	20 A	SPARE	34
35	LAB-8600 LAB BENCH	20 A	1					1200	0	1	20 A	SPACE	36
37	LAB-8600 LAB BENCH	20 A	1	1200	0					1	20 A	SPACE	38
39	LAB-8600 LAB BENCH	20 A	1			1200	0			1	20 A	SPACE	40
41	LAB-8600 LAB BENCH	20 A	1					1200	0	1	20 A	SPACE	42
			Total Load:	14400 VA		14400 VA		14400 VA					
			Total Amps:	120 A		120 A		120 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power	43200 VA	100.00%	43200 VA		
				Total Conn. Load:	43200 VA
				Total Est. Demand:	43200 VA
				Total Conn.:	120 A
				Total Est. Demand:	120 A

Notes:

Branch Panel: 8LB3

Location:
Supply From:
Mounting: Surface
Enclosure: Type 1

Volts: 208/120 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 22,000
Bus Rating: 400 A
Mains Type: MLO
MCB Rating: N/A

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	LAB-8600 LAB BENCH	20 A	1	1200	720					1	20 A	LAB-8600 WIRE MOLD	2
3	LAB-8600 LAB BENCH	20 A	1			1200	720			1	20 A	LAB-8600 WIRE MOLD	4
5	LAB-8600 LAB BENCH	20 A	1					1200	720	1	20 A	LAB-8600 WIRE MOLD	6
7	LAB-8600 LAB BENCH	20 A	1	1200	720					1	20 A	LAB-8600 WIRE MOLD	8
9	LAB-8600 LAB BENCH	20 A	1			1200	720			1	20 A	LAB-8600 WIRE MOLD	10
11	LAB-8600 LAB BENCH	20 A	1					1200	720	1	20 A	LAB-8600 WIRE MOLD	12
13	LAB-8600 LAB BENCH	20 A	1	1200	720					1	20 A	LAB-8600 WIRE MOLD	14
15	LAB-8600 LAB BENCH	20 A	1			1200	720			1	20 A	LAB-8600 WIRE MOLD	16
17	LAB-8600 LAB BENCH	20 A	1					1200	720	1	20 A	LAB-8600 WIRE MOLD	18
19	LAB-8600 LAB BENCH	20 A	1	1200	720					1	20 A	LAB-8600 WIRE MOLD	20
21	LAB-8600 LAB BENCH	20 A	1			1200	720			1	20 A	LAB-8600 WIRE MOLD	22
23	LAB-8600 LAB BENCH	20 A	1					1200	720	1	20 A	LAB-8600 WIRE MOLD	24
25	LAB-8600 LAB BENCH	20 A	1	1200	540					1	20 A	LAB-8600 WIRE MOLD	26
27	LAB-8600 LAB BENCH	20 A	1			1200	360			1	20 A	LAB-8600 WIRE MOLD	28
29	LAB-8600 LAB BENCH	20 A	1					1200	540	1	20 A	LAB-8600 WIRE MOLD	30
31	LAB-8600 LAB BENCH	20 A	1	1200	360					1	20 A	LAB-8600 WIRE MOLD	32
33	LAB-8600 LAB BENCH	20 A	1			1200	720			1	20 A	LAB-8606 WIRE MOLD	34
35	LAB-8600 LAB BENCH	20 A	1					1200	900	1	20 A	LAB-8606 WIRE MOLD	36
37	LAB-8600 RECEPT.	20 A	1	540	720					1	20 A	LAB-8606 RECEPT.	38
39	LAB-8600 RECEPT.	20 A	1			540	900			1	20 A	LAB/ELEC/MECH. 8604/8605/8016 -...	40
41	LAB-8600 RECEPT.	20 A	1					1080	900	1	20 A	LAB SUPPORT-8604 RECEPT.	42
			Total Load:	19443 VA		21243 VA		19803 VA					
			Total Amps:	162 A		177 A		165 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	13510 VA	125.00%	16888 VA		
Power	21600 VA	100.00%	21600 VA	**Total Conn. Load:**	60490 VA
Receptacle	25380 VA	69.70%	17690 VA	**Total Est. Demand:**	56178 VA
				Total Conn.:	168 A
				Total Est. Demand:	156 A

Notes:

Branch Panel: 8LB4

Location:
Supply From: 8LB3
Mounting: Surface
Enclosure: Type 1

Volts: 208/120 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 22000
Bus Rating: 400 A
Mains Type: MLO
MCB Rating: N/A

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	FUTURE OFFICE 8505 DESK	20 A	1	0	540					1	20 A	LAB 8607 - WIREMOLD	2
3	FUTURE OFFICE 8505 DESK	20 A	1			0	360			1	20 A	LAB 8607 - WIREMOLD	4
5	FUTURE OFFICE 8505 DESK	20 A	1					0	720	1	20 A	LAB 8607 - RECEPT	6
7	FUTURE OFFICE 8505 DESK	20 A	1	0	540					1	20 A	LAB 8609 - WIREMOLD	8
9	FUTURE OFFICE 8502 DESK	20 A	1			0	360			1	20 A	LAB 8609 - WIREMOLD	10
11	FUTURE OFFICE 8502 DESK	20 A	1					0	1080	1	20 A	LAB 8609 - RECEPT	12
13	FUTURE OFFICE 8502 DESK	20 A	1	0	540					1	20 A	LAB 8608 - WIREMOLD	14
15	FUTURE OFFICE 8502 DESK	20 A	1			0	900			1	20 A	LAB 8608 - WIREMOLD	16
17	FUTURE OFFICE 8502 DESK	20 A	1					0	0	1	20 A	-	18
19	FUTURE OFFICE 8502 DESK	20 A	1	0	540					1	20 A	LAB 8610 - WIREMOLD	20
21	FUTURE OFFICE 8502 DESK	20 A	1			0	1260			1	20 A	LAB 8610 - WIREMOLD	22
23	FUTURE OFFICE 8502 DESK	20 A	1					0	0	1	20 A	-	24
25	FUTURE OFFICE 8502 DESK	20 A	1	0	540					1	20 A	LAB 8601 - WIREMOLD	26
27	FUTURE OFFICE 8502 DESK	20 A	1			0	1260			1	20 A	LAB 8601 - WIREMOLD	28
29	FUTURE OFFICE 8502 DESK	20 A	1					0	0	1	20 A	FUTURE LAB SUPPORT	30
31	FUTURE OFFICE 8502 DESK	20 A	1	0	0					1	20 A	FUTURE LAB SUPPORT	32
33	FUTURE OFFICE 8502 DESK	20 A	1			0	0			1	20 A	FUTURE LAB SUPPORT	34
35	SPARE	20 A	1					0	0	1	20 A	FUTURE LAB SUPPORT	36
37	EWH-8-2S	50 A	3	4503	0					1	20 A	FUTURE LAB SUPPORT	38
39	--	--	--			4503	0			1	20 A	FUTURE LAB SUPPORT	40
41	--	--						4503	0	1	20 A	FUTURE LAB SUPPORT	42
			Total Load:	7203 VA		8643 VA		6303 VA					
			Total Amps:	61 A		73 A		53 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	13510 VA	125.00%	16888 VA		
Power	0 VA	0.00%	0 VA	**Total Conn. Load:**	22150 VA
Receptacle	8640 VA	100.00%	8640 VA	**Total Est. Demand:**	25528 VA
				Total Conn.:	61 A
				Total Est. Demand:	71 A

Notes:

Branch Panel: O8LB1

Location:
Supply From:
Mounting: Surface
Enclosure: Type 1

Volts: 208/120 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 22000
Bus Rating: 100 A
Mains Type: MLO
MCB Rating: N/A

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	LAB-8600 FUME HOOD	20 A	1	1000	1200					1	20 A	LAB-8600 LAB BENCH	2
3	LAB-8600 LAB BENCH	20 A	1			1200	1200			1	20 A	LAB-8600 LAB BENCH	4
5	LAB-8600 LAB BENCH	20 A	1					1200	1200	1	20 A	LAB-8600 LAB BENCH	6
7	LAB-8600 LAB BENCH	20 A	1	1200	1200					1	20 A	LAB-8600 LAB BENCH	8
9	LAB-8600 LAB BENCH	20 A	1			1200	1200			1	20 A	LAB-8600 LAB BENCH	10
11	LAB-8600 LAB BENCH	20 A	1					1200	1200	1	20 A	LAB-8600 LAB BENCH	12
13	LAB-8600 LAB BENCH	20 A	1	1200	1200					1	20 A	LAB-8600 LAB BENCH	14
15	LAB-8600 LAB BENCH	20 A	1			1200	1200			1	20 A	LAB-8600 LAB BENCH	16
17	LAB-8600 WIRE MOLD	20 A	1					360	1200	1	20 A	LAB-8600 LAB BENCH	18
19	LAB-8600 WIRE MOLD	20 A	1	360	1200					1	20 A	LAB-8600 LAB BENCH	20
21	LAB-8600 WIRE MOLD	20 A	1			360	1200			1	20 A	LAB-8600 LAB BENCH	22
23	LAB-8601 WIRE MOLD	20 A	1					360	360	1	20 A	LAB-8600 WIRE MOLD	24
25	LAB-8610 WIRE MOLD	20 A	1	360	360					1	20 A	LAB-8600 WIRE MOLD	26
27	LAB-8604 WIRE MOLD	20 A	1			360	360			1	20 A	LAB-8600 WIRE MOLD	28
29	LAB-8606 WIRE MOLD	20 A	1					360	360	1	20 A	LAB-8600 WIRE MOLD	30
31	LAB-8607 WIRE MOLD	20 A	1	360	360					1	20 A	LAB-8600 WIRE MOLD	32
33	LAB-8608 WIRE MOLD	20 A	1			360	0			1	20 A	SPARE	34
35	LAB-8609 WIRE MOLD	20 A	1					360	0	1	20 A	SPARE	36
37	SPACE	--	1	--	0					1	20 A	SPARE	38
39	SPACE	--	1			--	0			1	20 A	SPARE	40
41	SPACE	--	1					--	0	1	20 A	SPARE	42
			Total Load:	10000 VA		9840 VA		8160 VA					
			Total Amps:	85 A		84 A		68 A					

Legend:

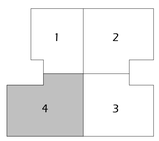
Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power	22600 VA	100.00%	22600 VA		
Receptacle	5400 VA	100.00%	5400 VA	**Total Conn. Load:**	28000 VA
				Total Est. Demand:	28000 VA
				Total Conn.:	78 A
				Total Est. Demand:	78 A

Notes:

DATE	REASON
03-21-2022 8.1	PERMIT RESUBMITTAL
02-02-2022	PERMIT SUBMITTAL
11-15-2021	DESIGN DEVELOPMENT
08-27-2021	SCHEMATIC DESIGN

PROJECT NO 21-117-23

KEY PLAN



TENANT IMPROVEMENTS
CONSTRUCTION DOCUMENTS

SHEET TITLE
PANEL SCHEDULES

8LB1 8LB2 8LB3
8LB4 O8LB1

SHEET NUMBER
E682
CP-8