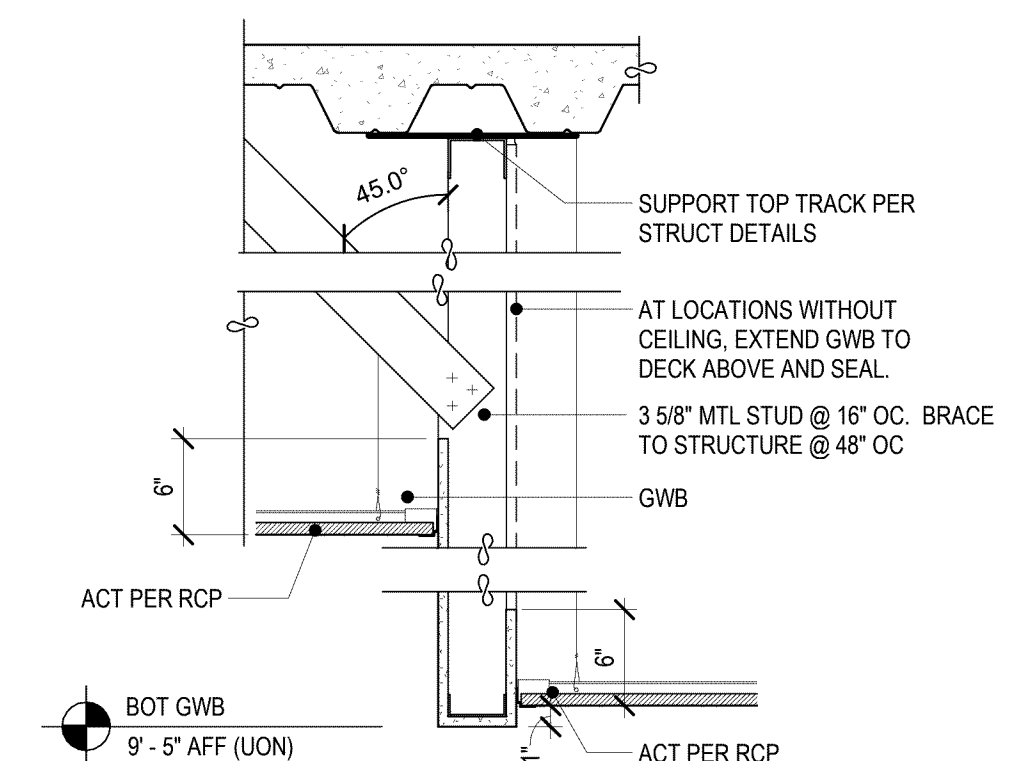
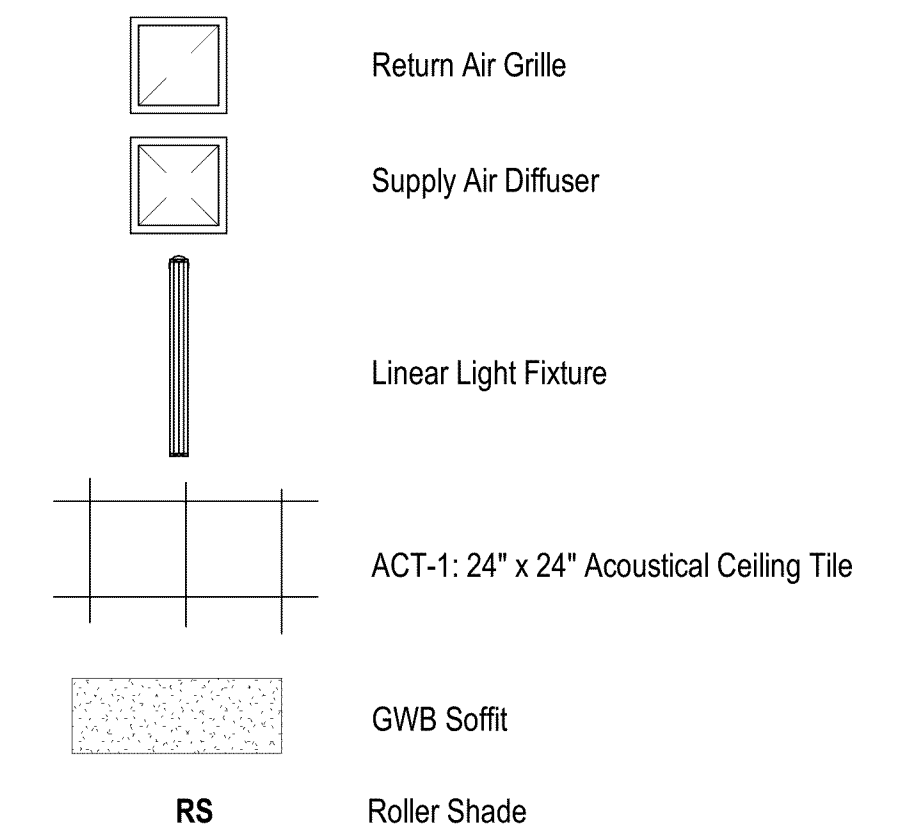
 **Second Floor Ceiling Plan - Partial**
Scale: 1/4" = 1'-0"

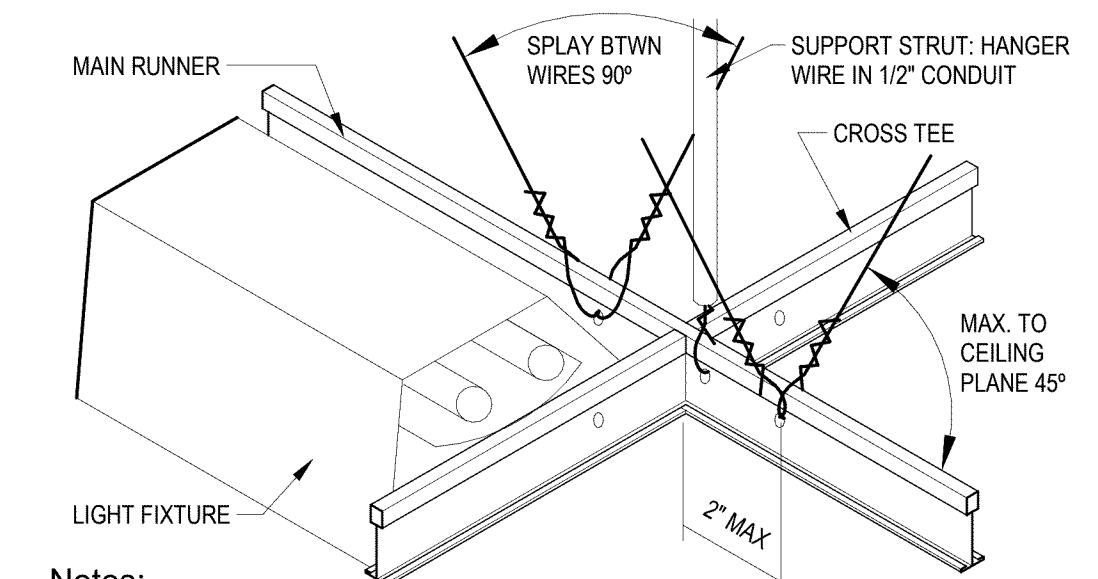
Ceiling Plan Notes

1. Architectural Reflected Ceiling Plans indicate general light fixture location and orientation with respect to architectural elements. Fixtures not related to architectural elements may not be depicted. See Electrical lighting plans for fixture types, any fixture locations not depicted herein, and mounting conditions.
2. Architectural Reflected Ceiling Plans indicate general mechanical diffuser and grille locations and orientation. See Mechanical drawings for types and mounting conditions.
3. Contractor shall coordinate light fixture locations to assure adequate clearance with mechanical equipment and architectural/structural elements.
4. Access doors for mechanical and electrical equipment are typically not indicated. Refer to specifications for general requirements and provide to full extent necessary. Coordinate locations and sizes with Architect prior to installation.
5. Paint all exposed piping and conduit to match adjacent finish surface color.

Reflected Ceiling Plan Legend



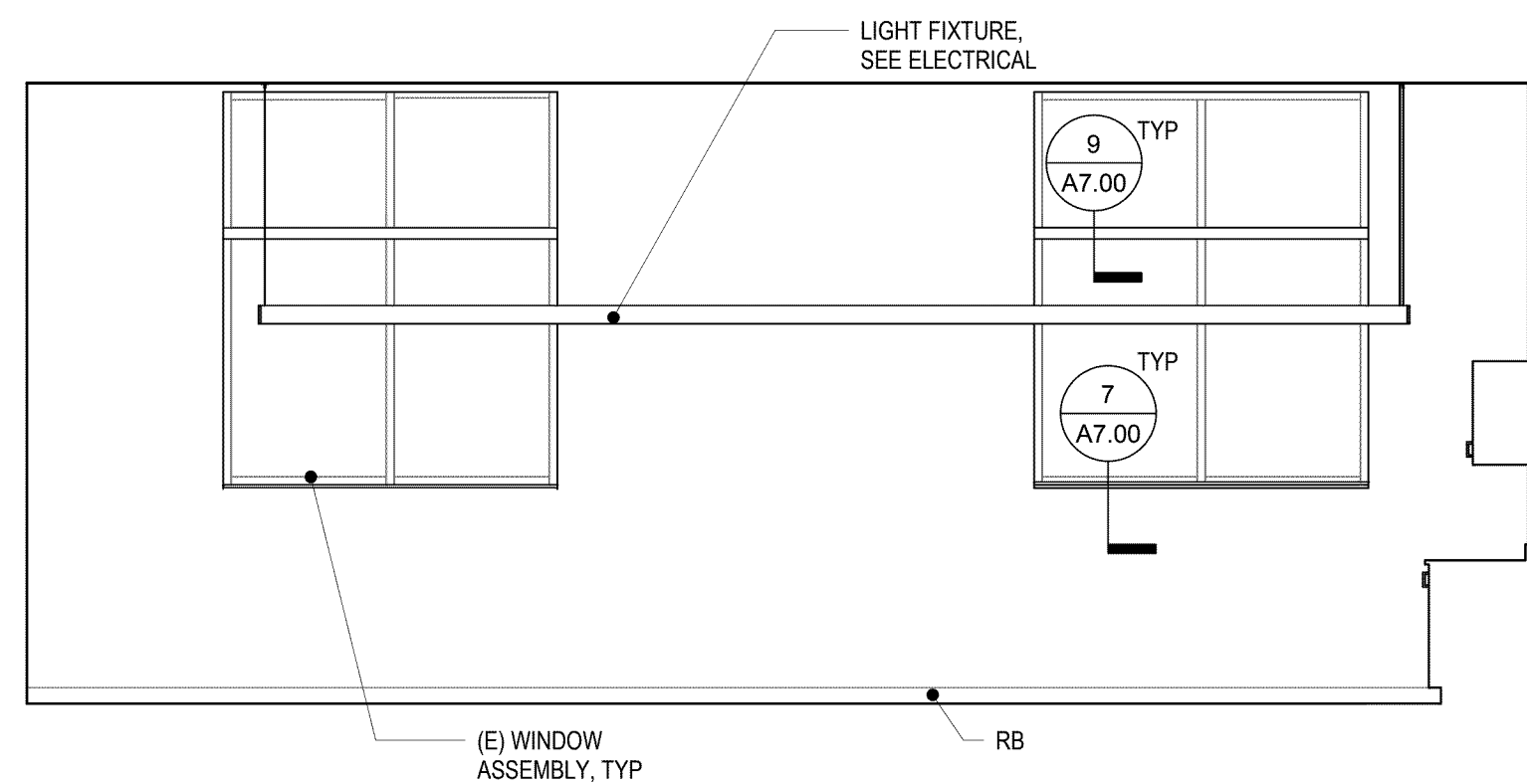
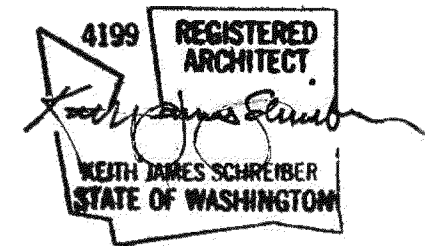
2 Ceiling Detail - Typical Soffit at Ceiling Transition



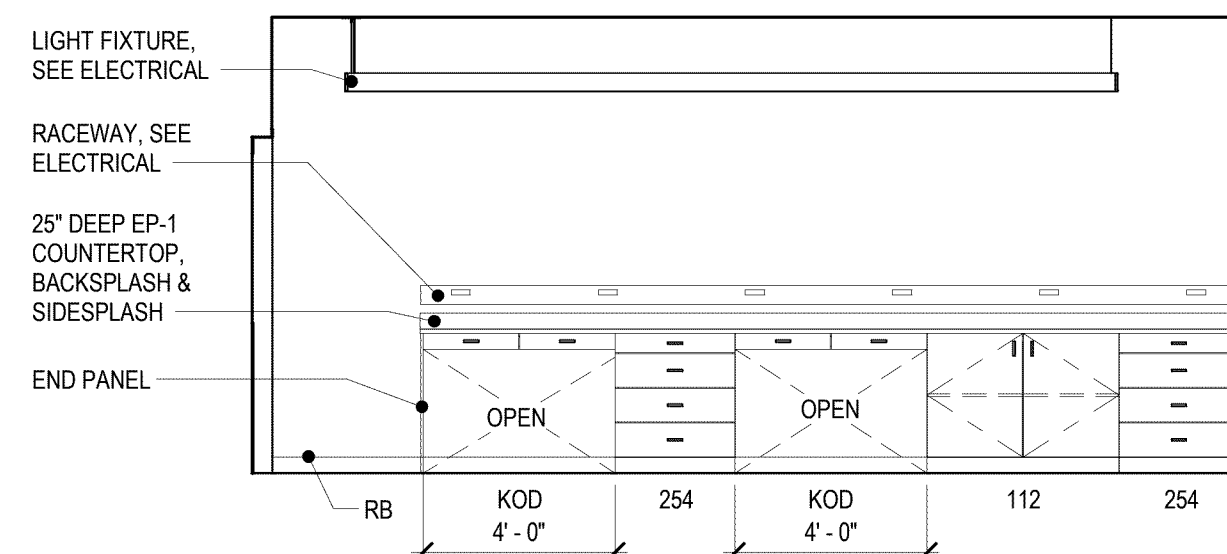
Notes:

1. Provide grid & fixture installation in accordance with IBC 2506.2.1, ASTM C 635, Section 13.5.6 of ASCE 7 & UL fire resistance directory.
2. Support strut and splay wire assembly to be spaced no more than 12' on center and 6 feet max. from wall. Center at corridors.
3. In lieu of 2" wall angle, install BERC2 clips and 7/8" edge molding per manufacturer's instructions.
4. Install additional hanger wires @ all members within 8" of the ceiling perimeter.

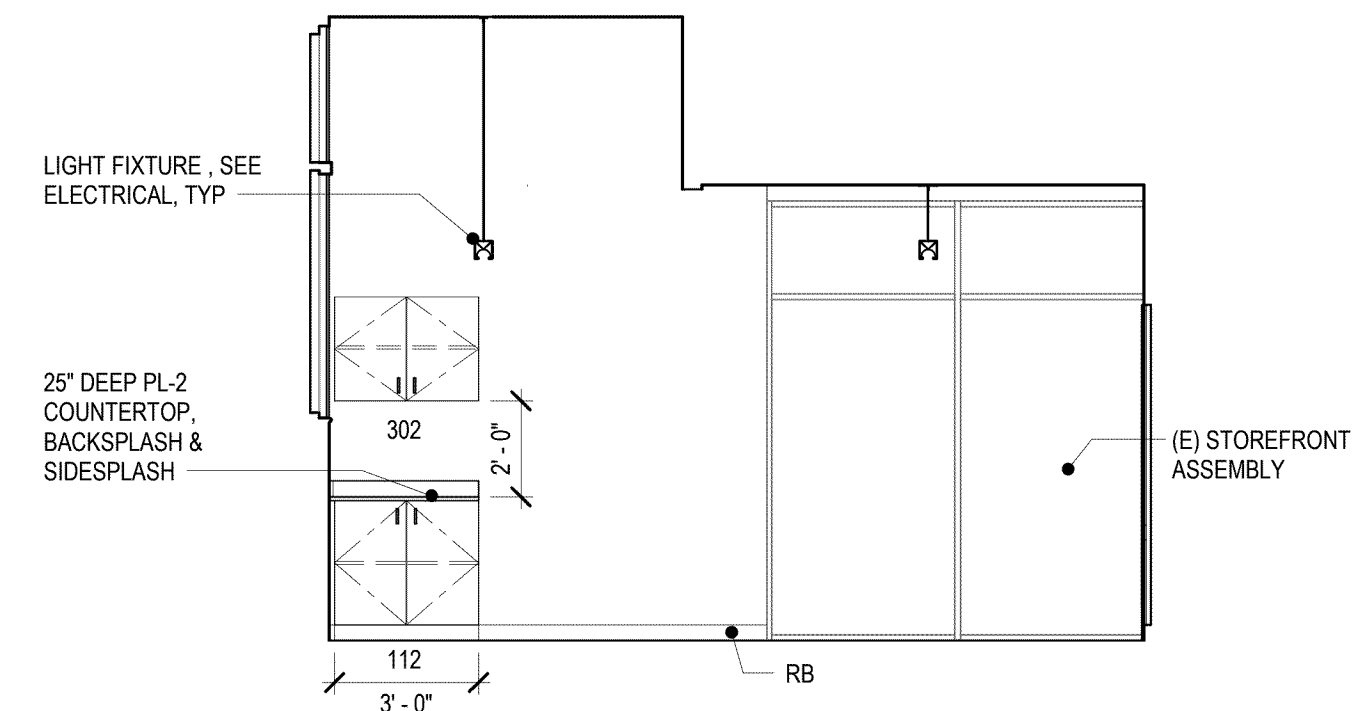
3 Typical Seismic Brace at ACT Ceilings
A3.03 Scale: 1 1/2" = 1'-0"



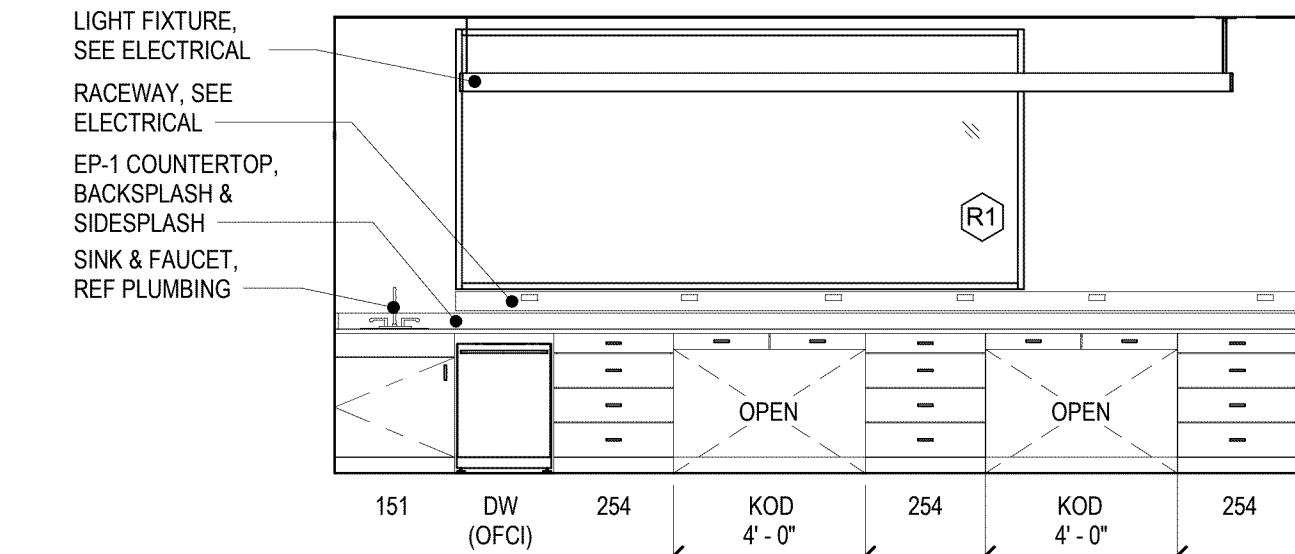
8 Office - S Elevation
A4.00 Scale: 1/4" = 1'-0"



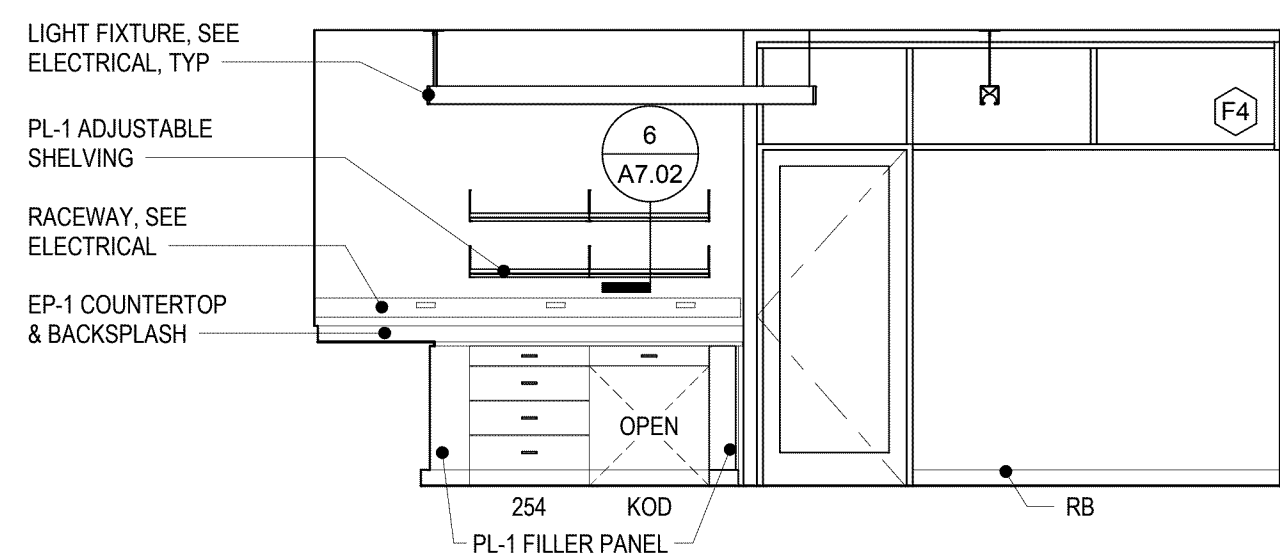
6 Post AMP - W Elevation
A4.00 Scale: 1/4" = 1'-0"



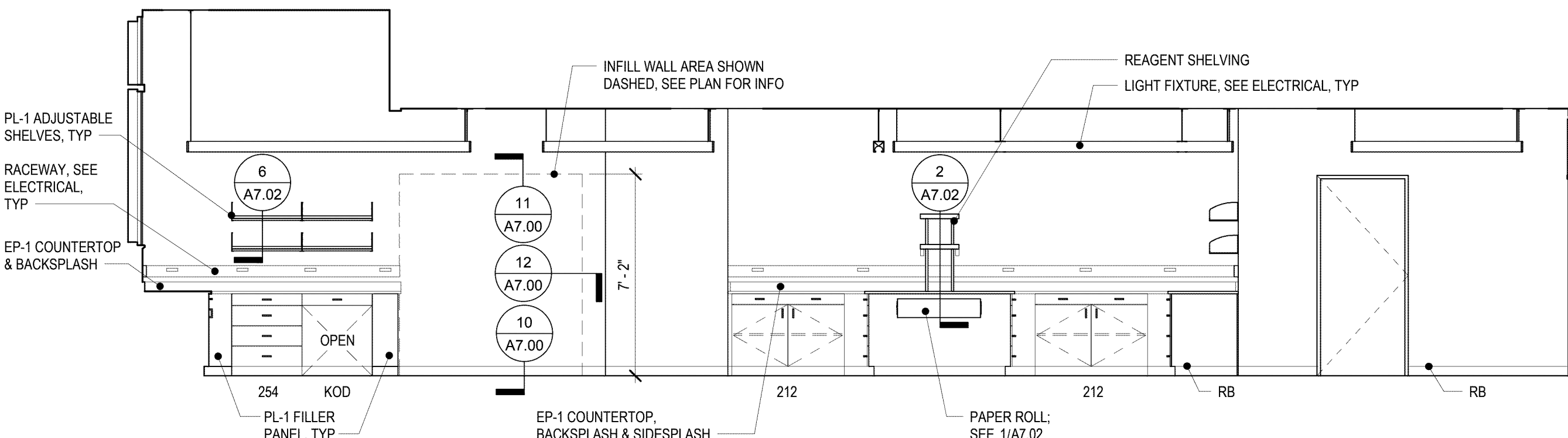
7 Office - W Elevation
A4.00 Scale: 1/4" = 1'-0"



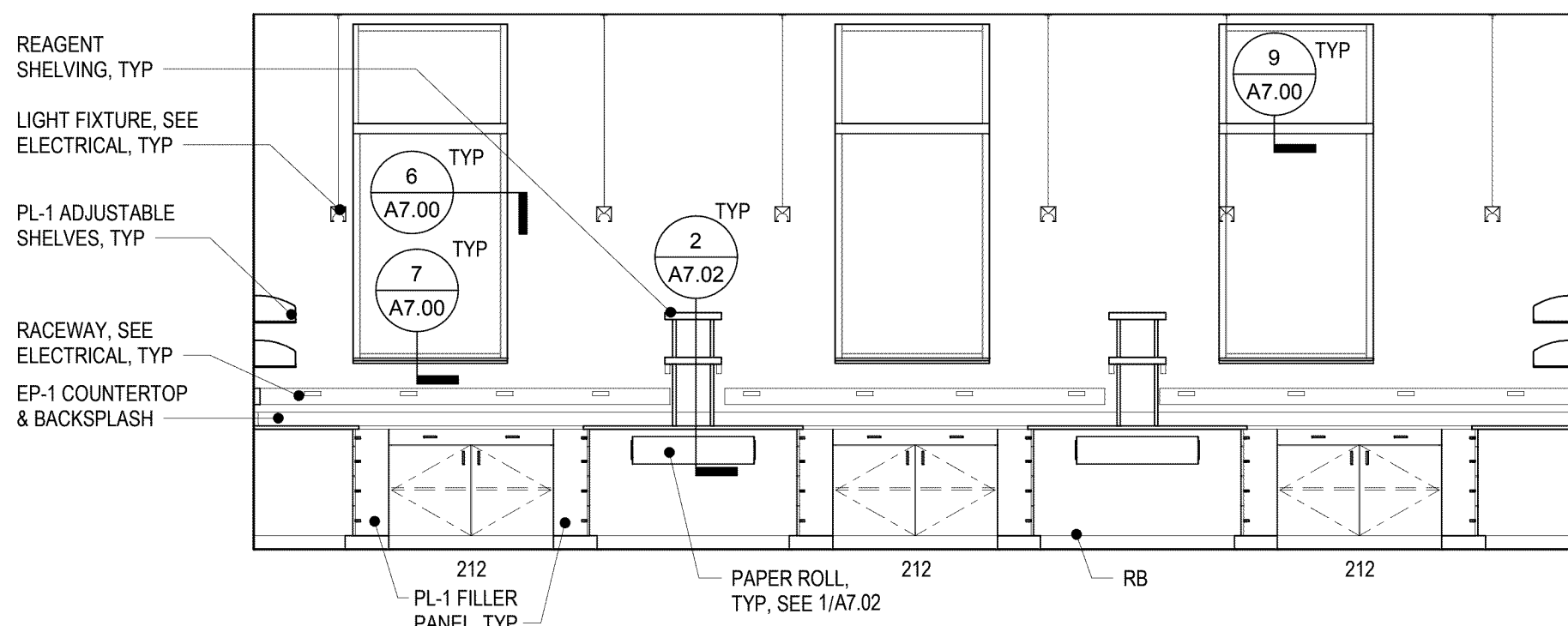
5 Post AMP - E Elevation
A4.00 Scale: 1/4" = 1'-0"



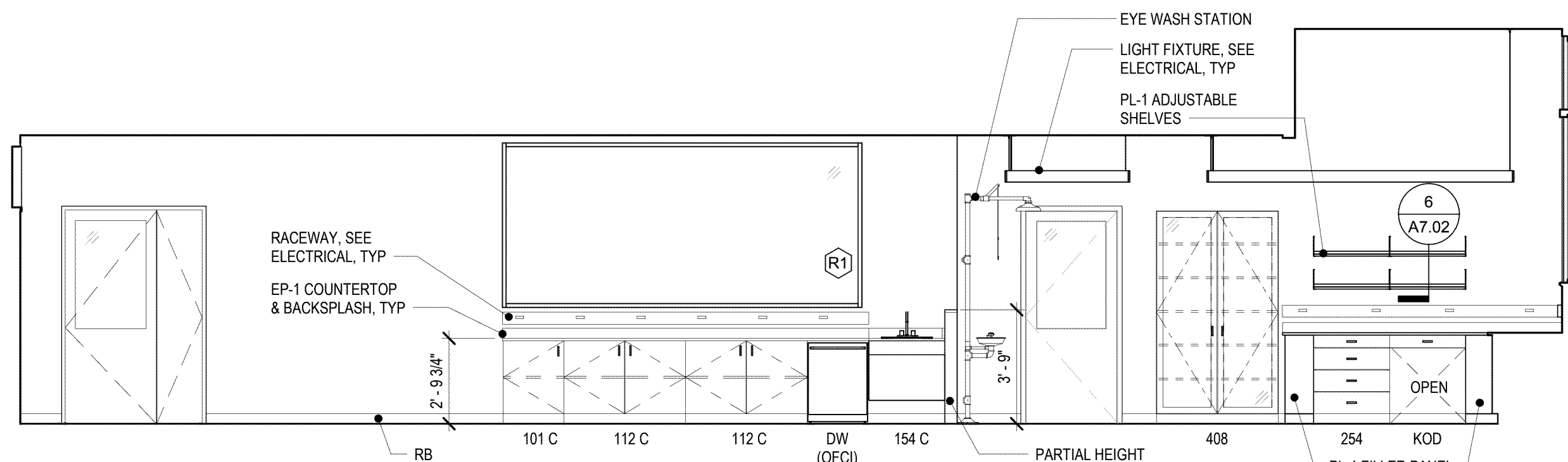
4 DNA Lab - S Elevation
A4.00 Scale: 1/4" = 1'-0"



3 DNA Lab - E Elevation
A4.00 Scale: 1/4" = 1'-0"



2 DNA Lab - N Elevation
A4.00 Scale: 1/4" = 1'-0"



1 DNA Lab - W Elevation
A4.00 Scale: 1/4" = 1'-0"



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Bid Documents

Interior Elevations

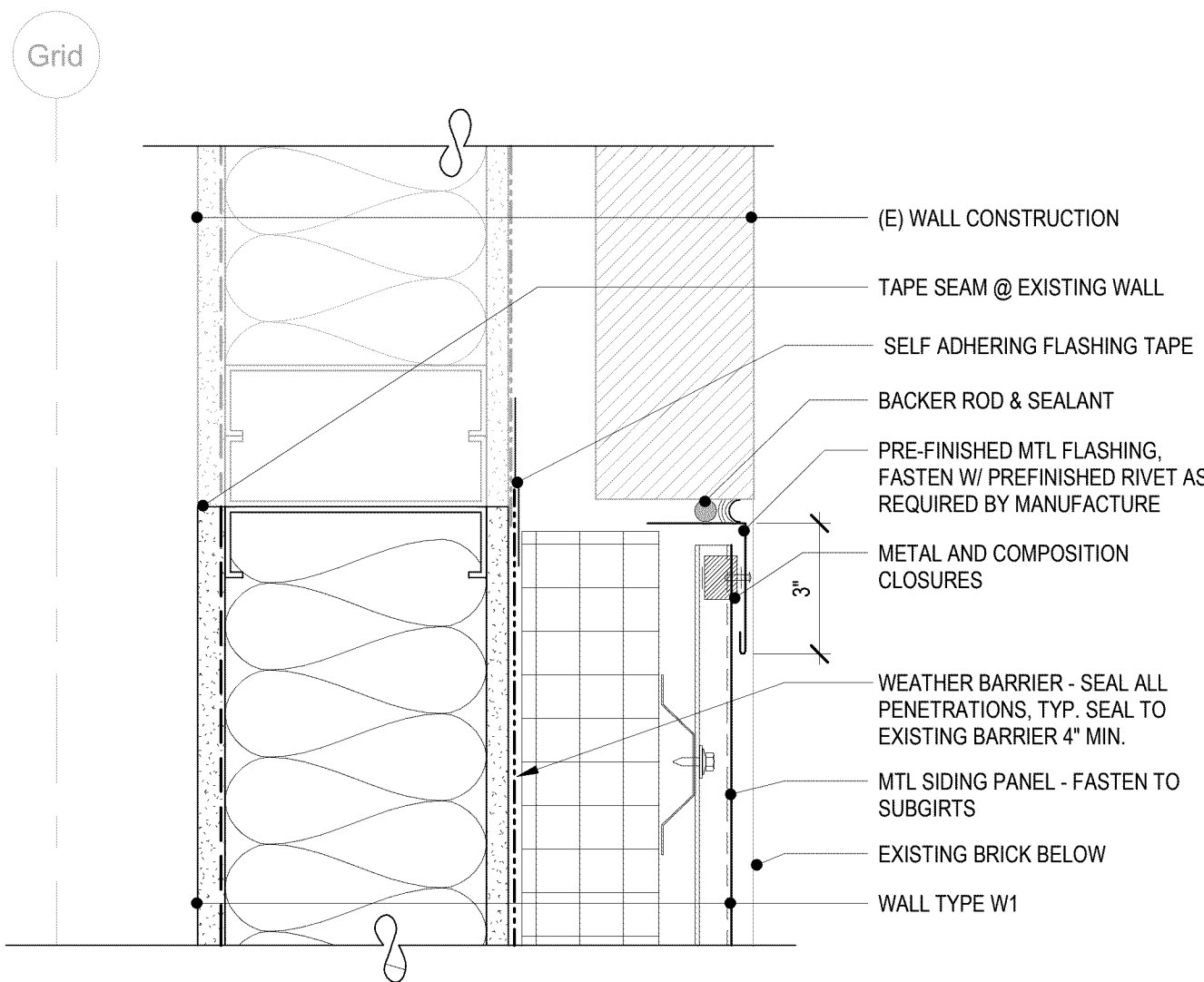
Client Project 2019-093

SSW Architects 18054

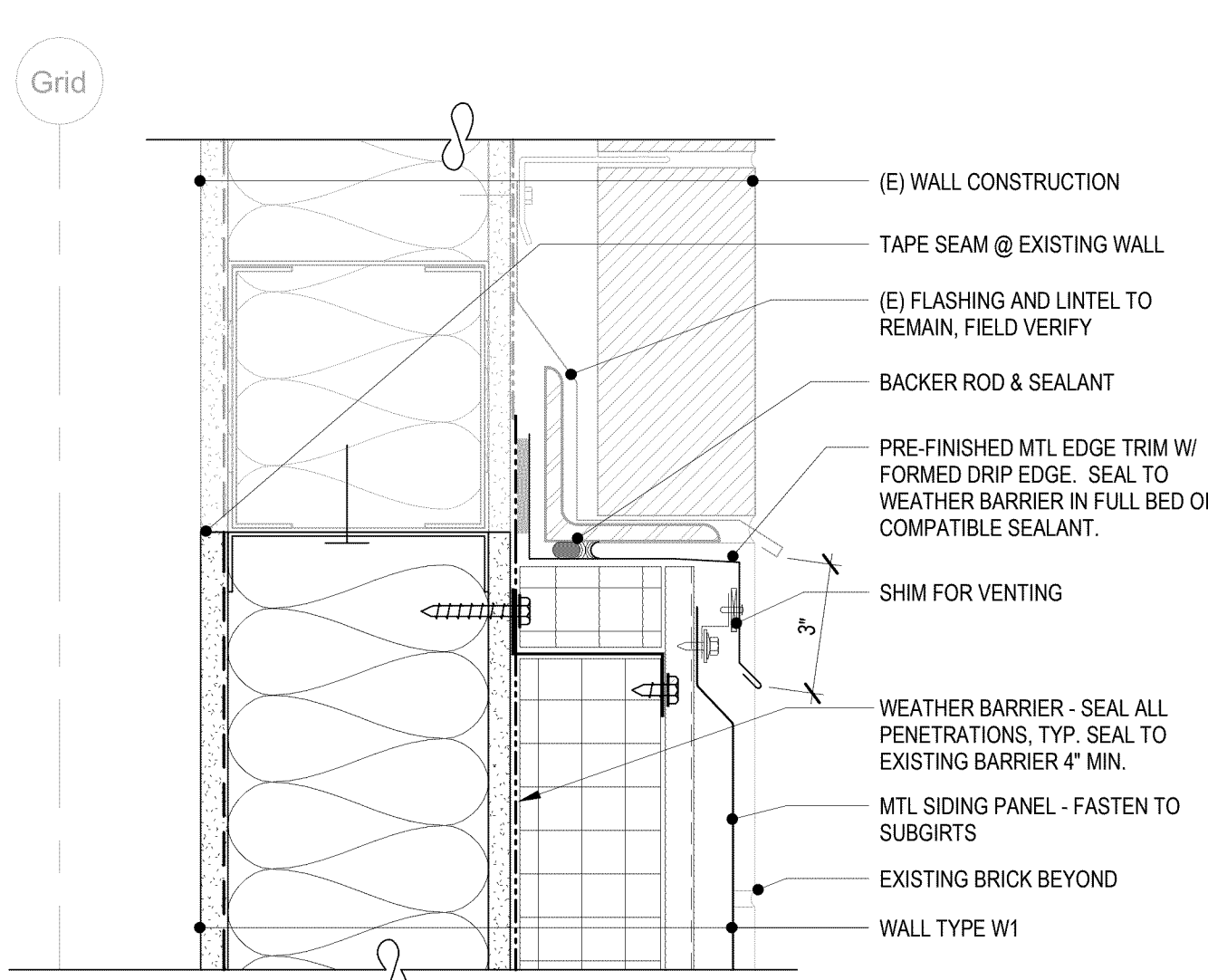
Project No.: 18054

Date 09/16/19

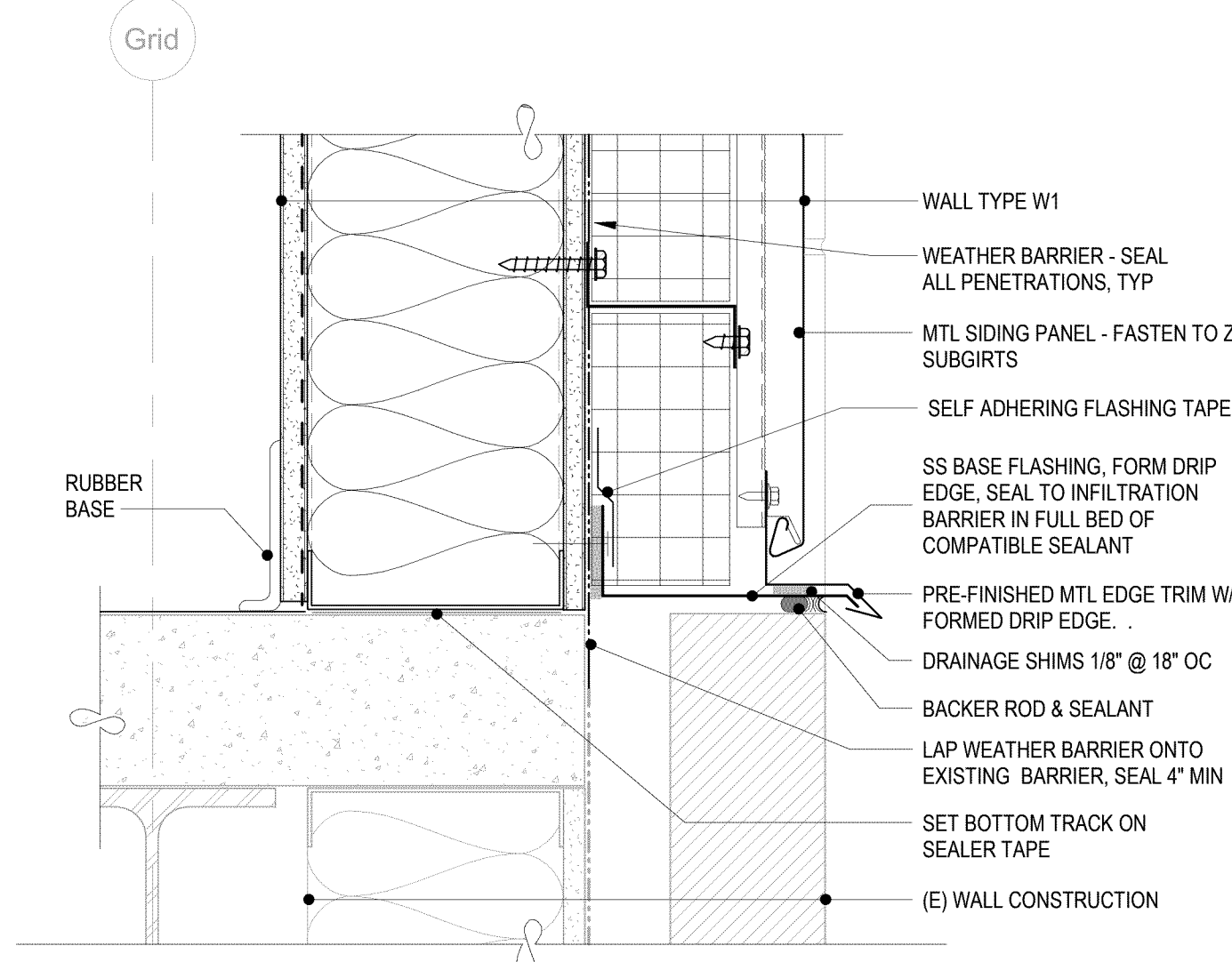
A4.00



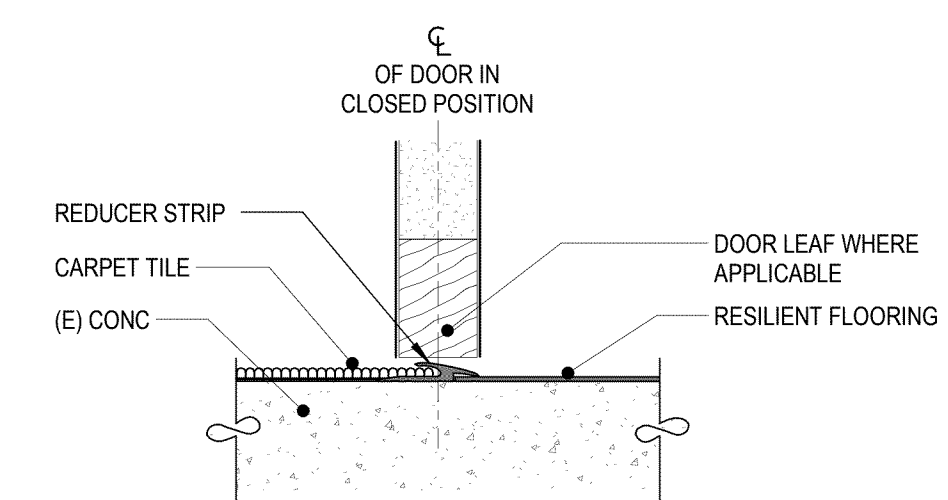
12 Exterior Jamb @ Wall Type W1
A7.00 Scale: 3" = 1'-0"



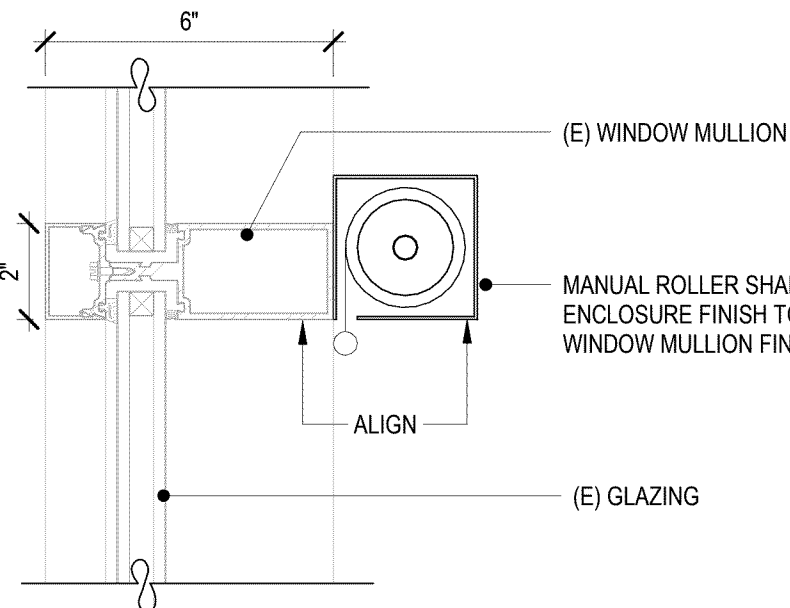
11 Exterior Head @ Wall Type W1
A7.00 Scale: 3" = 1'-0"



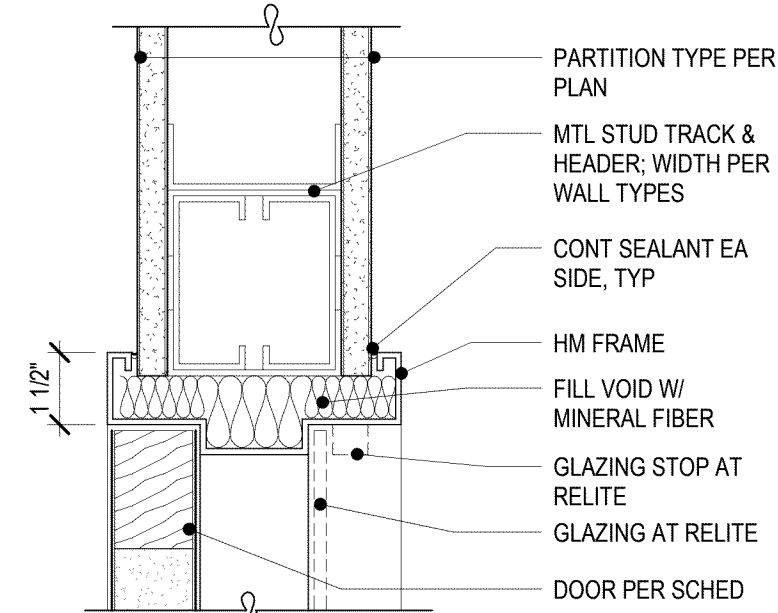
10 Exterior Threshold @ Wall Type W1
A7.00 Scale: 3" = 1'-0"



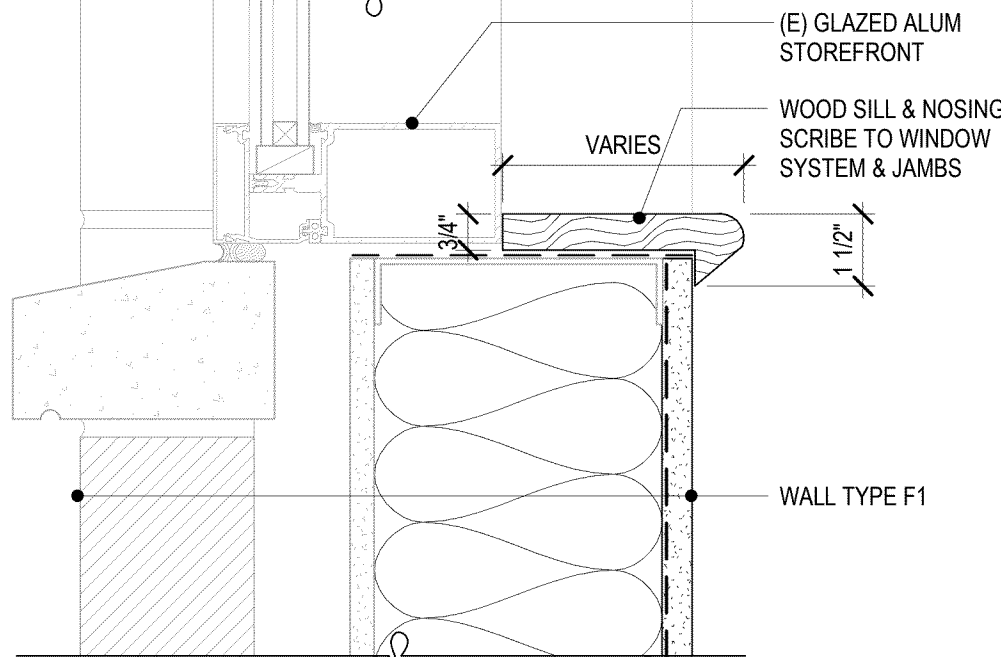
13 Floor Transition - Carpet / Resilient Floor
A7.00 Scale: 3" = 1'-0"



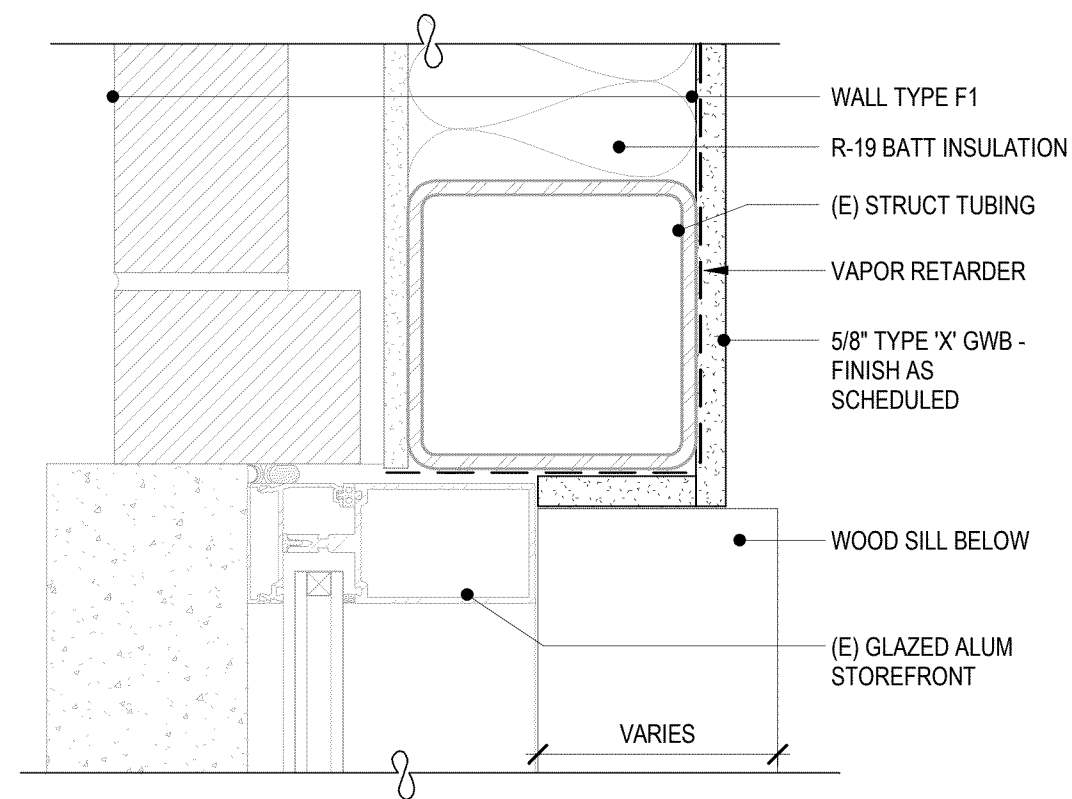
9 Shade @ Intermediate Mullion
A7.00 Scale: 3" = 1'-0"



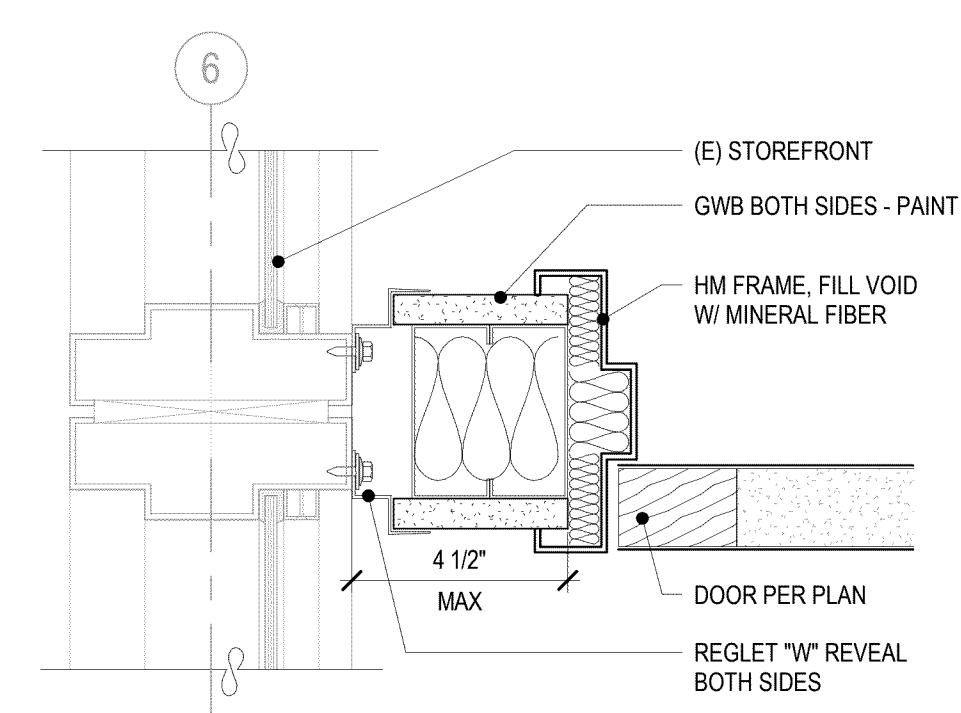
8 HM Frame - Typical Head/Jamb
A7.00 Scale: 3" = 1'-0"



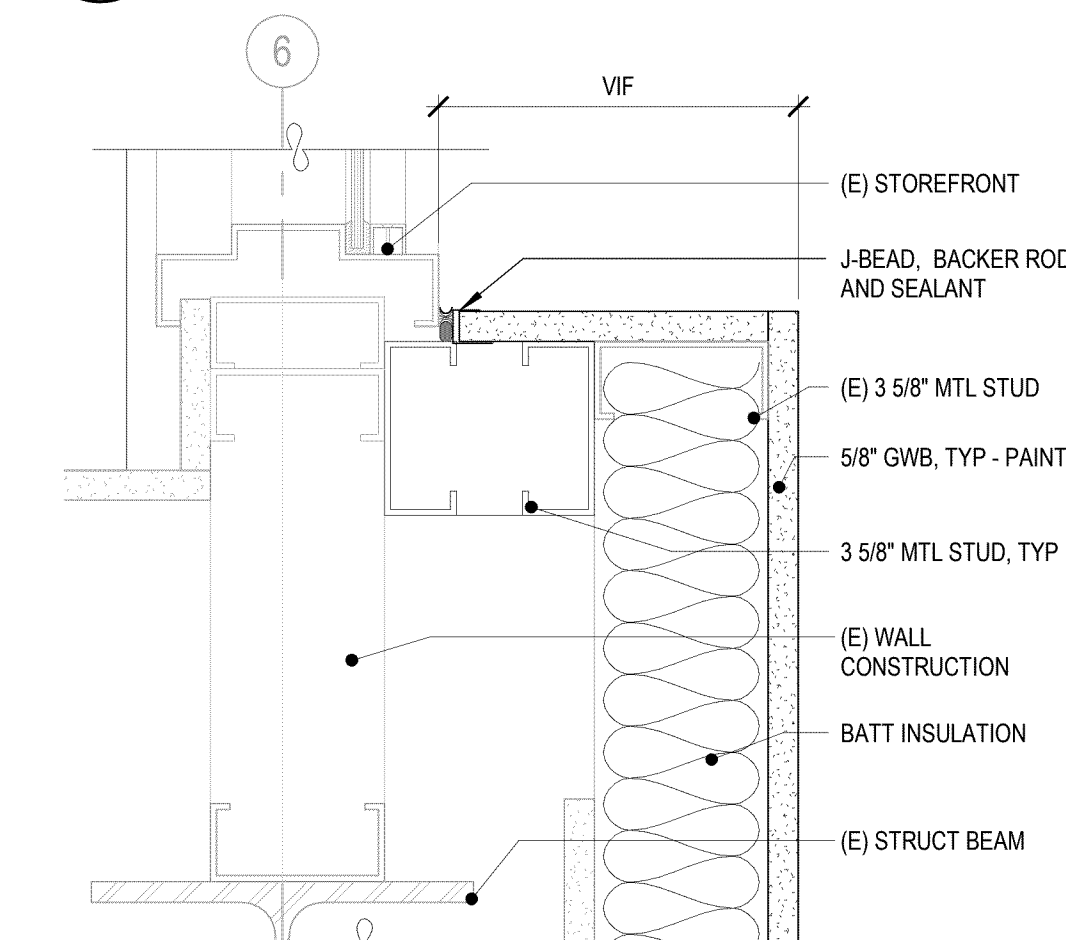
7 Window - Typical Elevated Sill at Wall Type F1
A7.00 Scale: 3" = 1'-0"



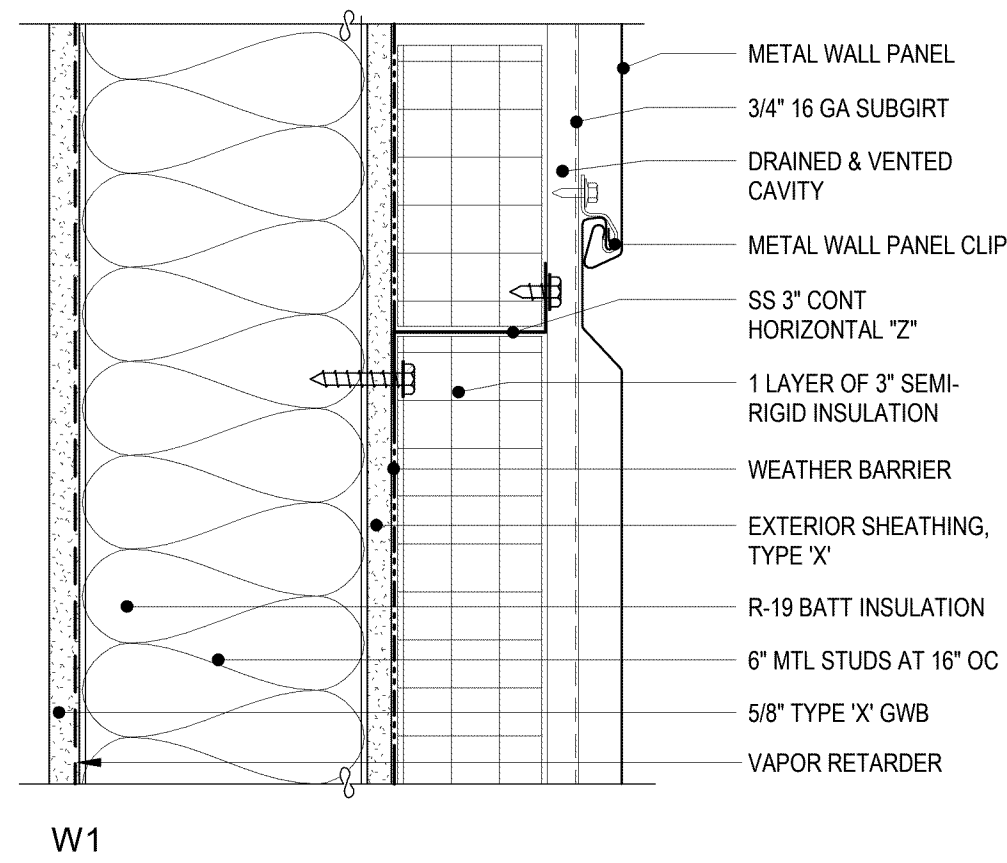
6 Window - Typical Elevated Jamb at Wall Type F1
A7.00 Scale: 3" = 1'-0"



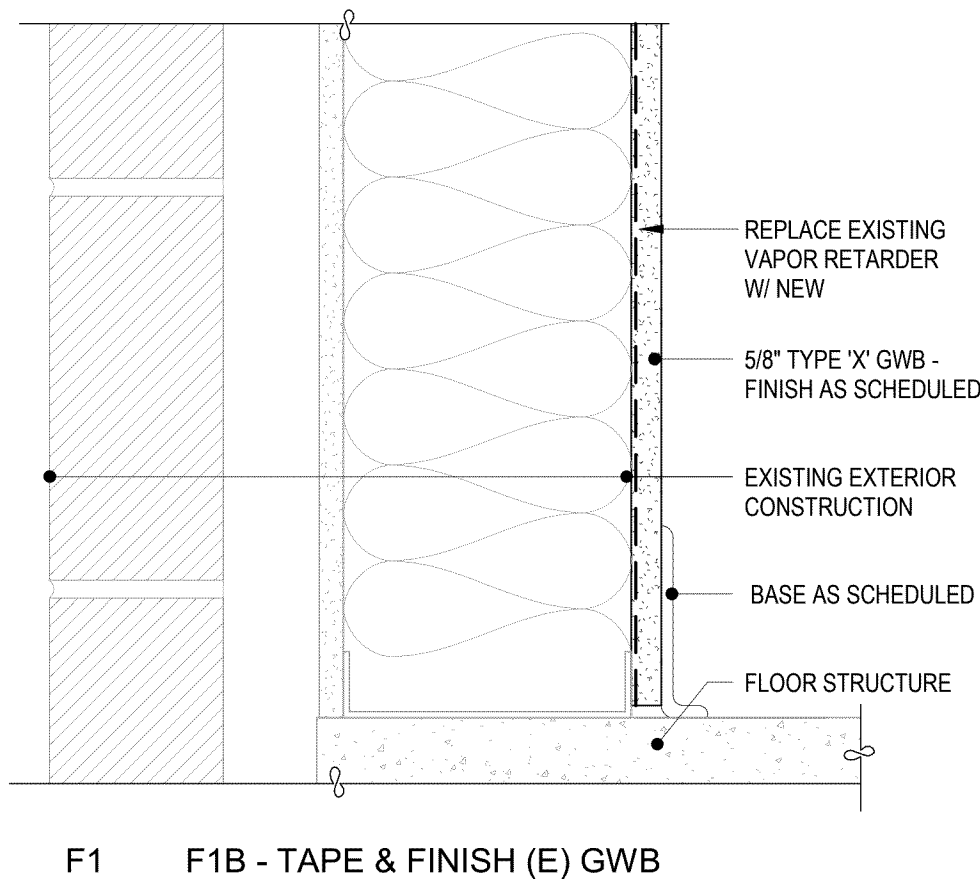
5 Enlarged Plan - Wall Connection @ Storefront
A7.00 Scale: 3" = 1'-0"



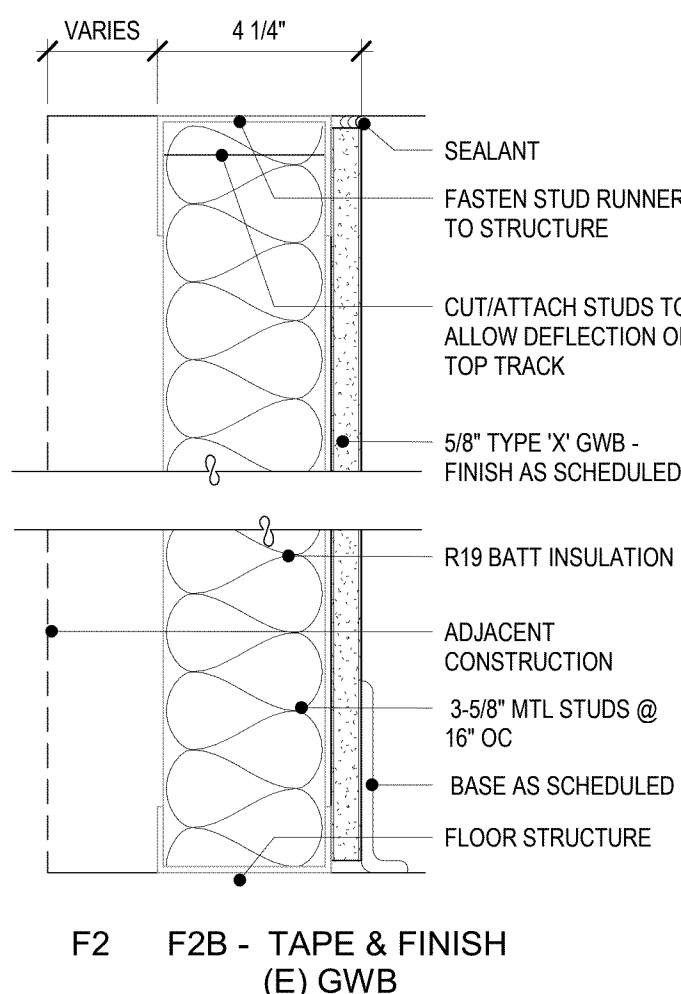
4 Enlarged Plan - Furring at Structural Beam
A7.00 Scale: 3" = 1'-0"



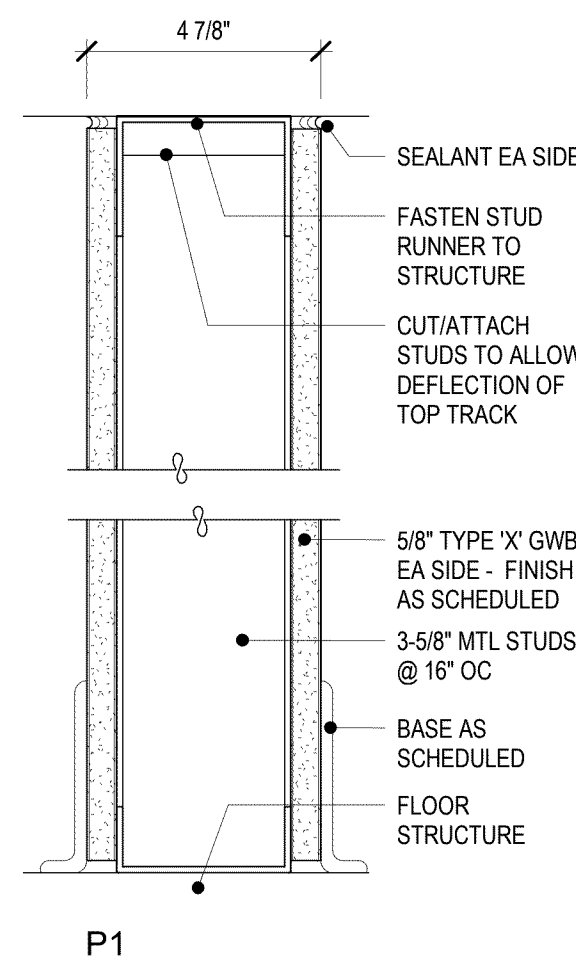
3 Exterior Wall Types
A7.00 Scale: 3" = 1'-0"



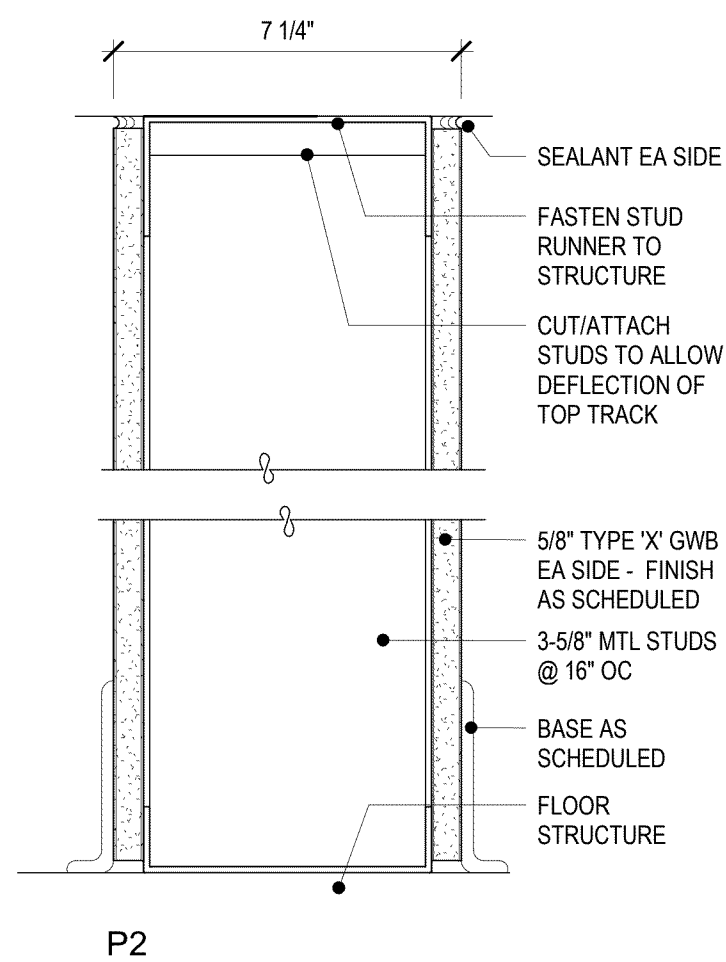
2 Interior Partition Types
A7.00 Scale: 3" = 1'-0"



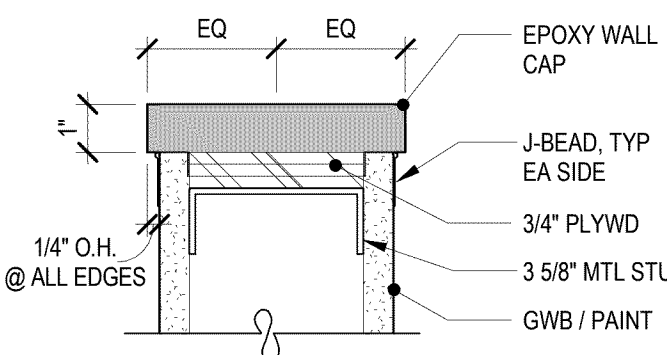
F2B - TAPE & FINISH (E) GWB



P1



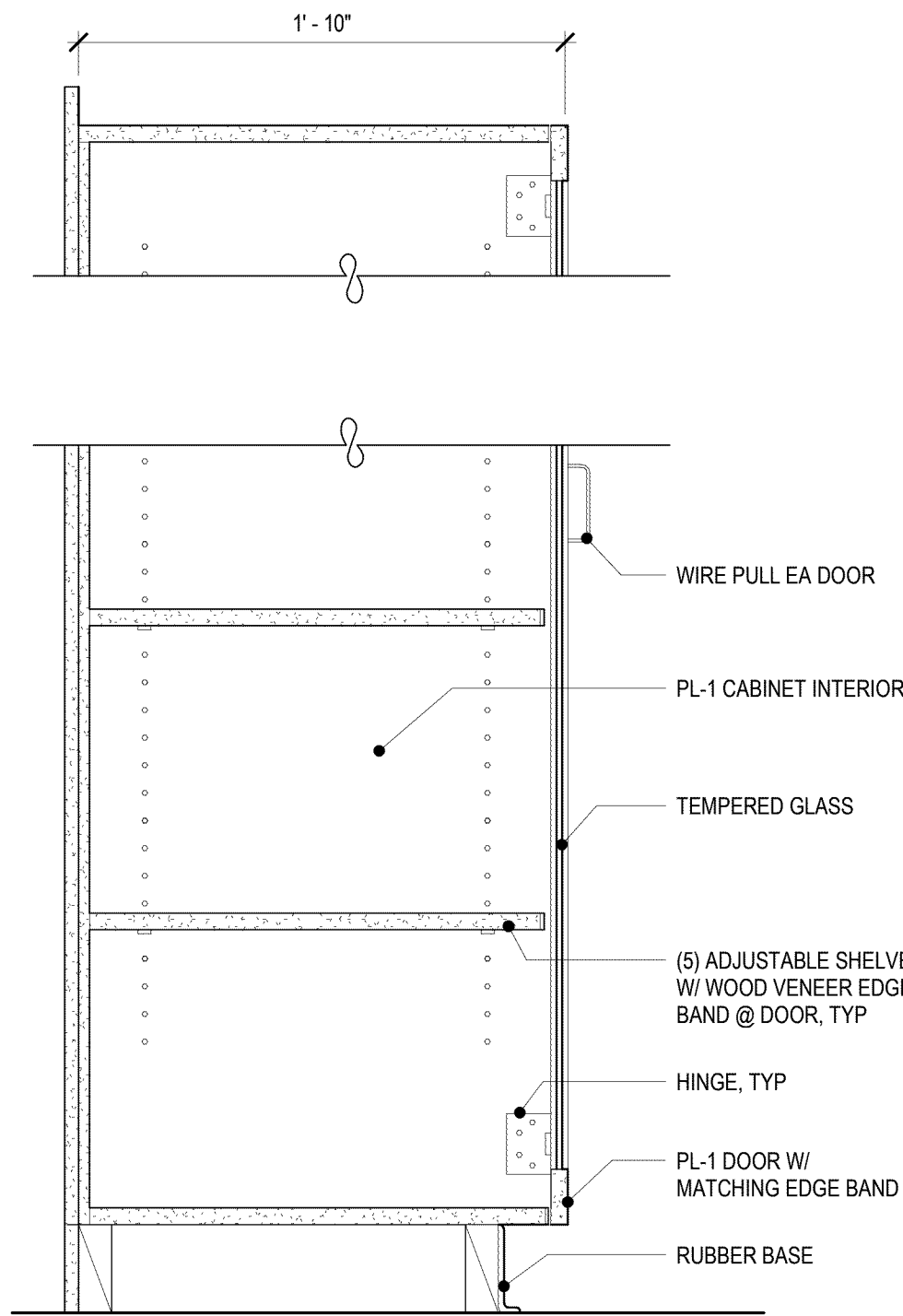
P2



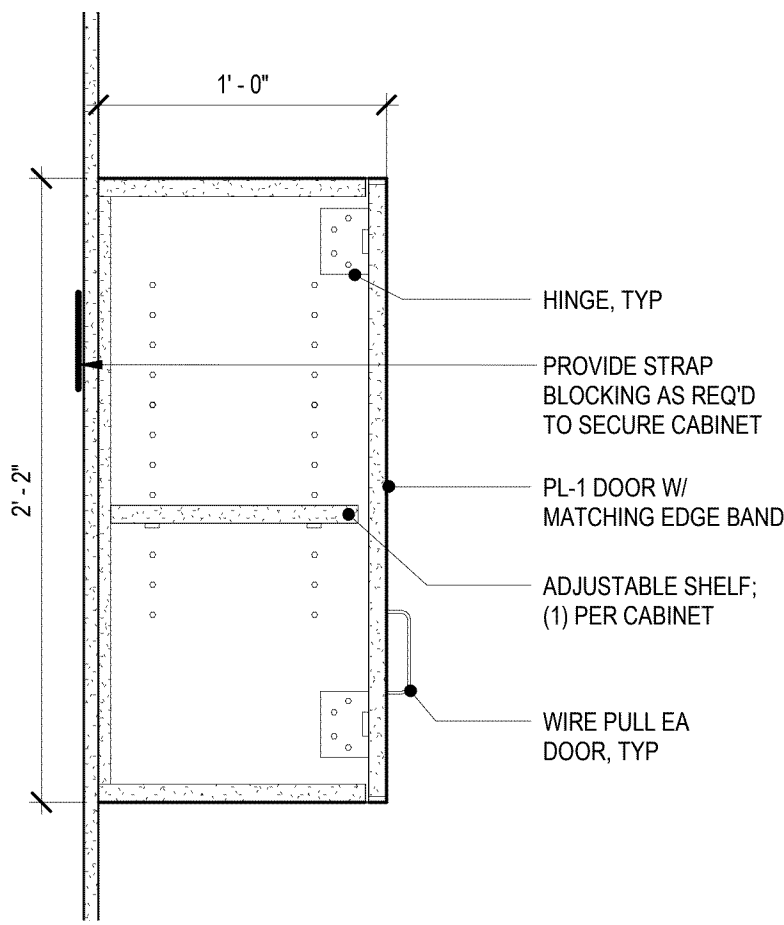
1 Wall Cap @ Partial Height Wall
A7.00 Scale: 3" = 1'-0"

Interior Partition Notes

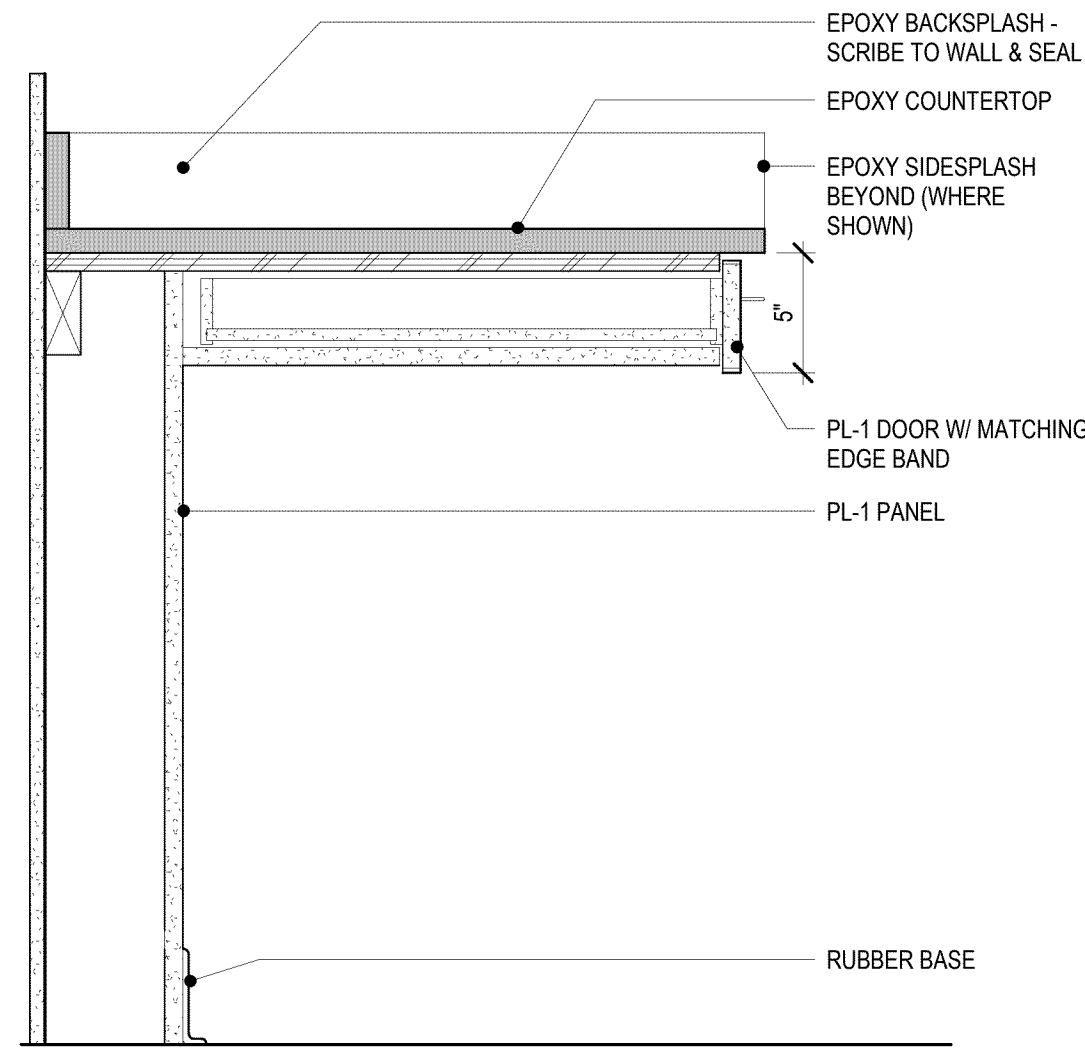
- All interior partitions to be full-height, slab-to structure, UON.
- Brace partitions, in concealed locations, as necessary to sustain imposed loads without excessive deflection.
- All rated partitions shall comply with UL-tested and approved assemblies.
- All penetrations (of pipes, conduit, ducts, beams, joists, bracing) through rated partitions shall be firestopped. All firestopping shall comply with UL-tested and approved assemblies.
- For sound-retardant partitions, see Sound Retardant Partition Notes, also on this sheet.
- All GWB shall be Type X, UON.



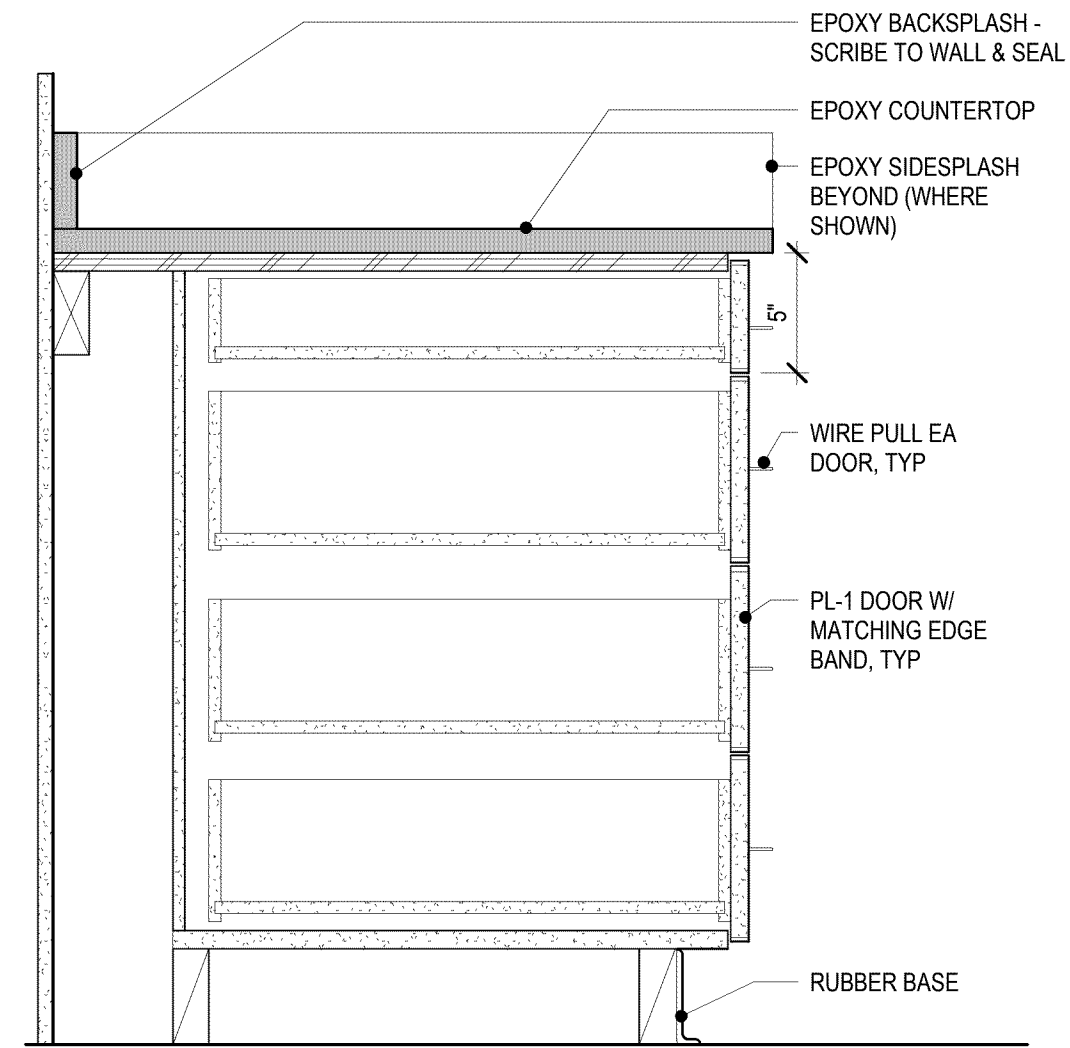
12 Casework - 408
A7.01 Scale: 1 1/2" = 1'-0"



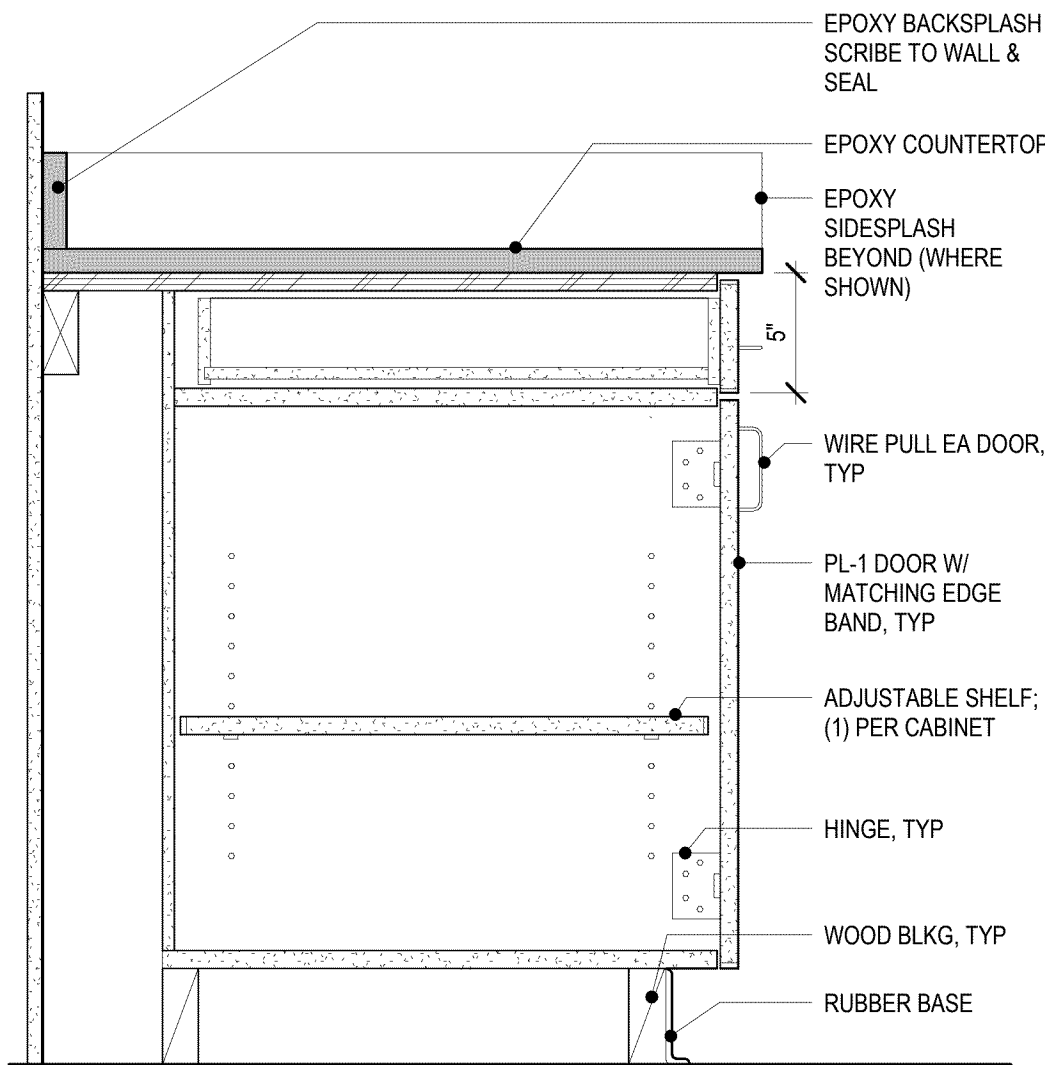
11 Casework - 302
A7.01 Scale: 1 1/2" = 1'-0"



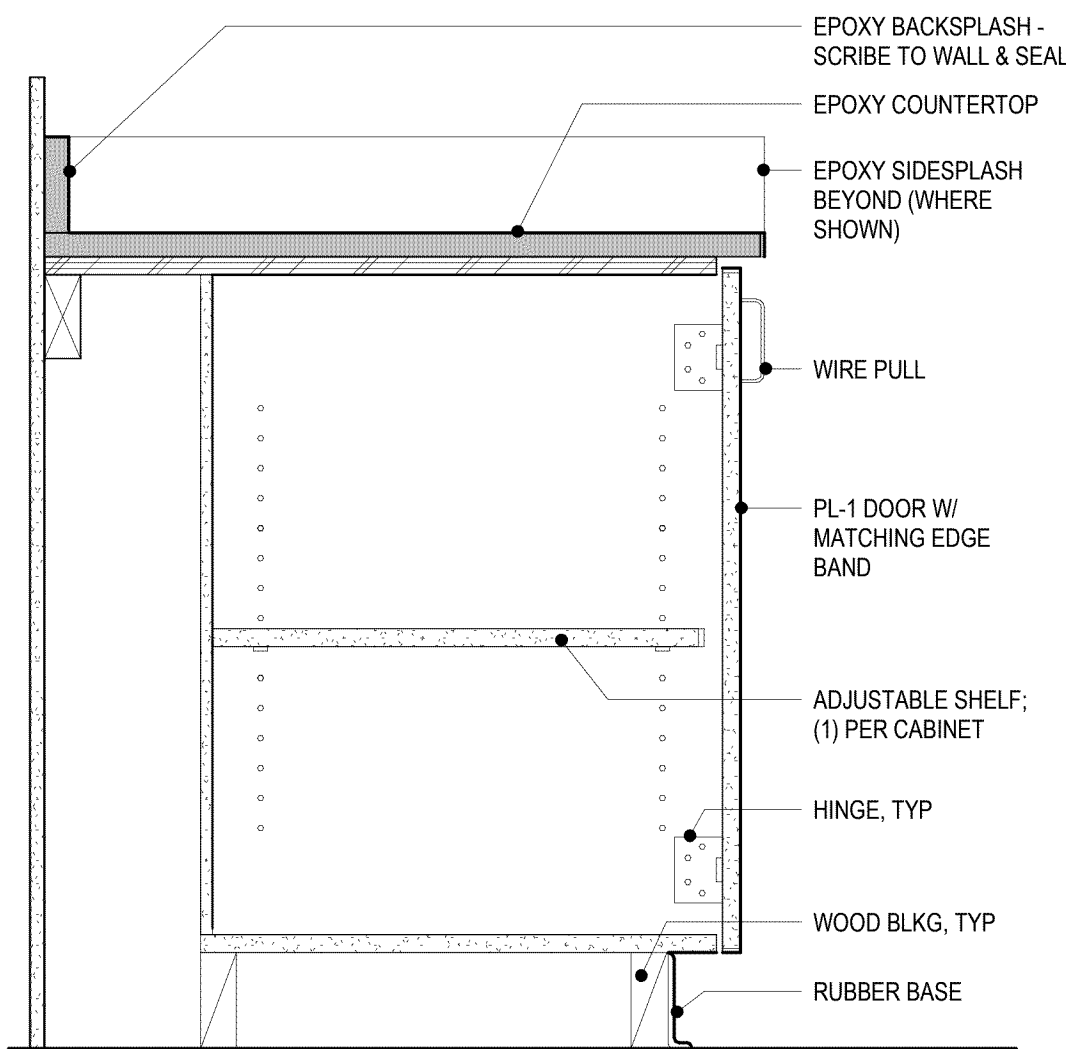
10 Casework - KOD
A7.01 Scale: 1 1/2" = 1'-0"



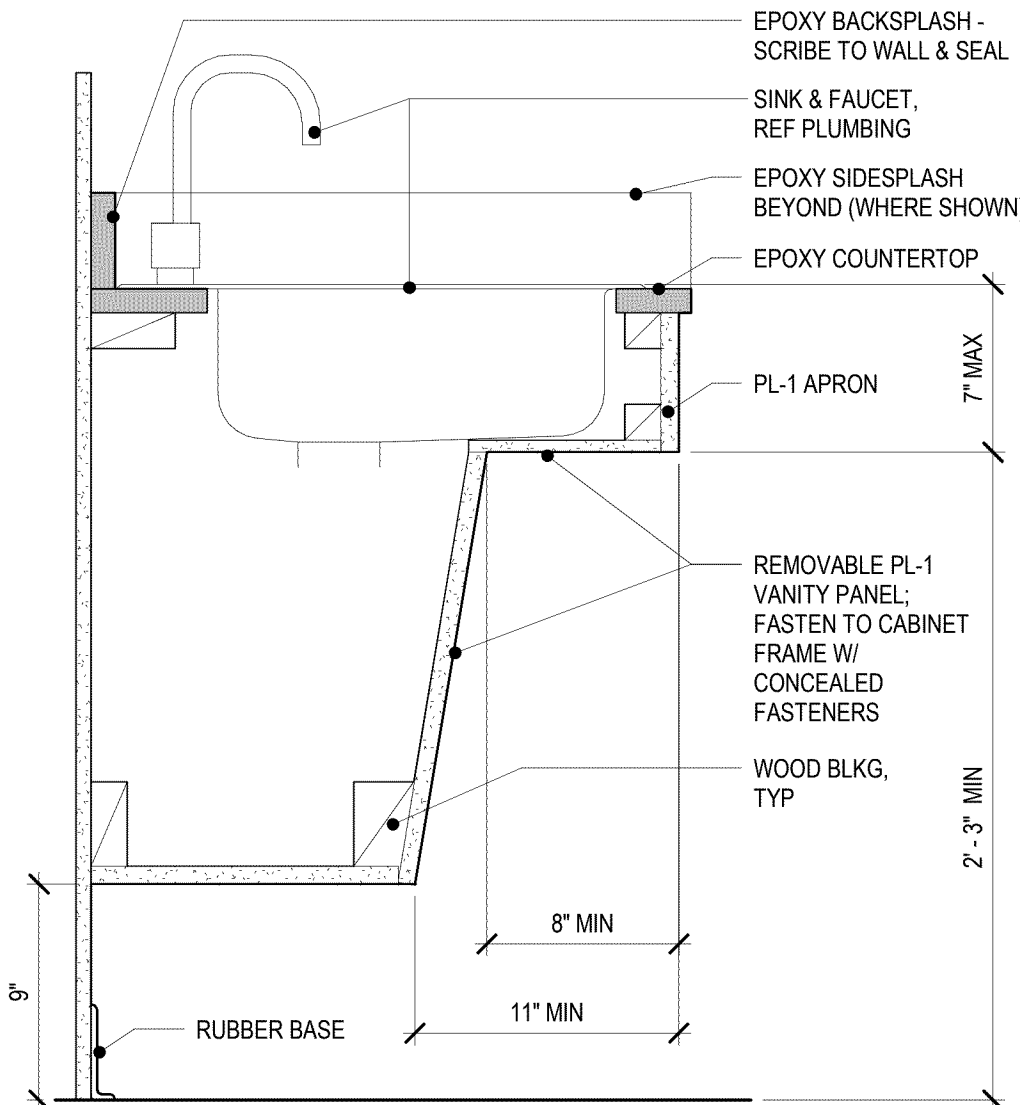
9 Casework - 254
A7.01 Scale: 1 1/2" = 1'-0"



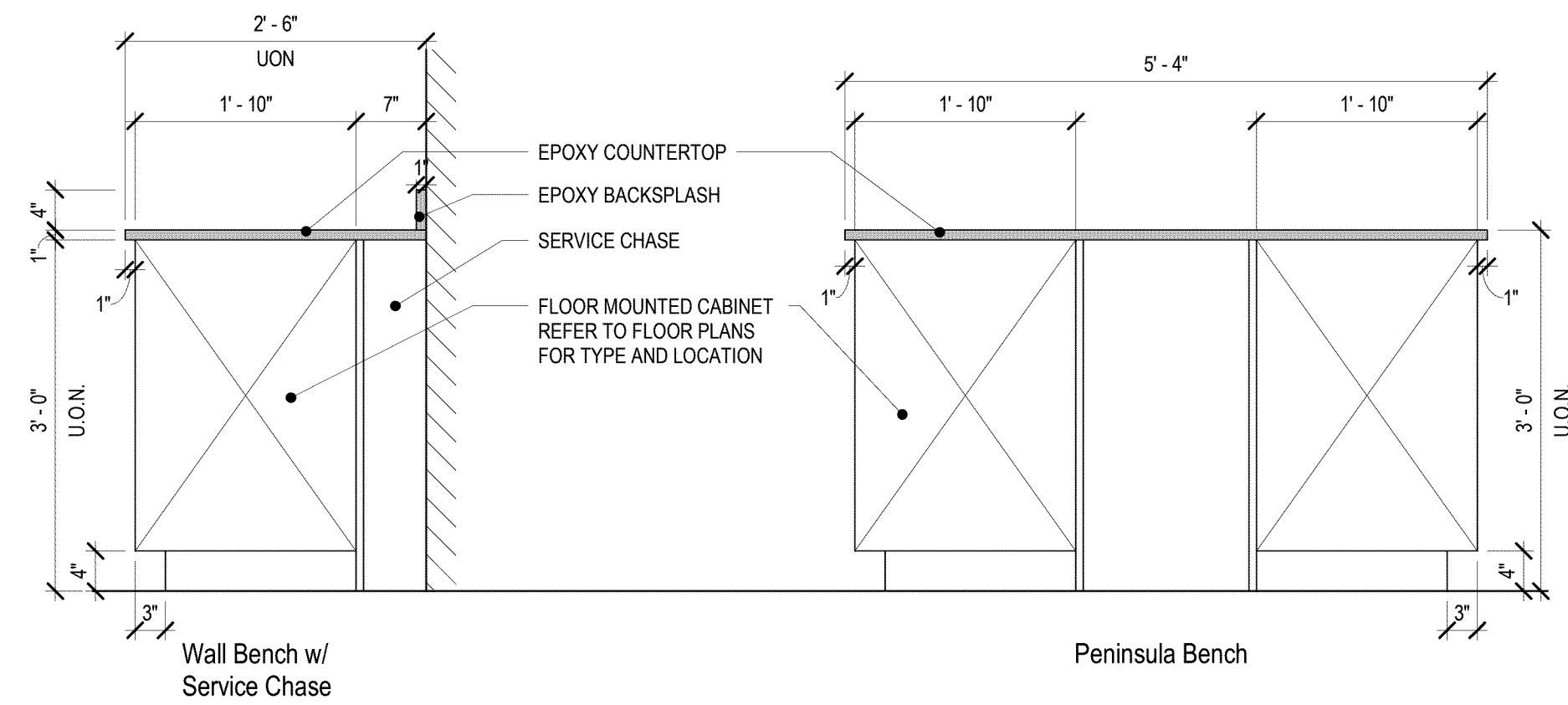
8 Casework - 212
A7.01 Scale: 1 1/2" = 1'-0"



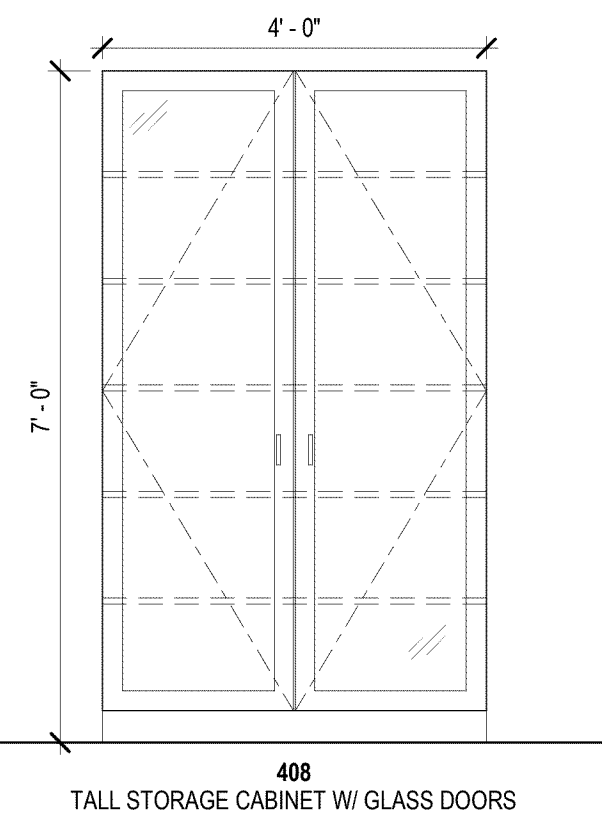
7 Casework - 101 / 112
A7.01 Scale: 1 1/2" = 1'-0"



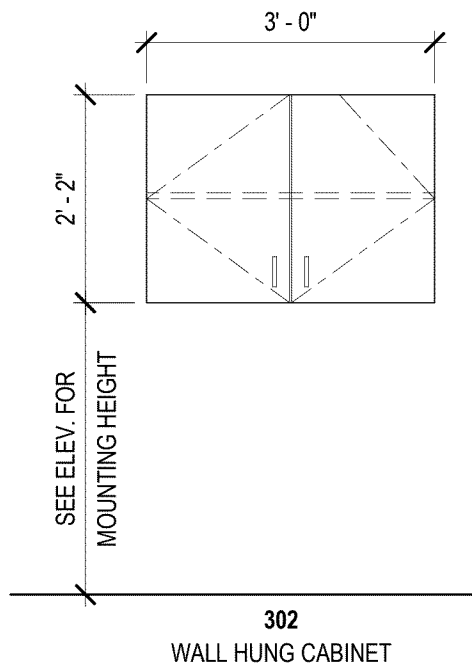
6 Casework - 154 C
A7.01 Scale: 1 1/2" = 1'-0"



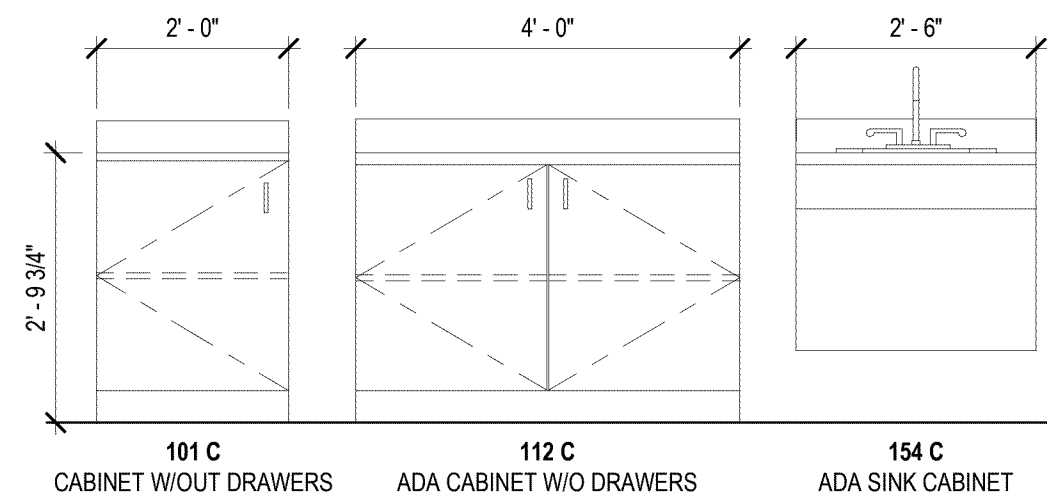
5 Typical Laboratory Bench Sections
A7.01 Scale: 3/4" = 1'-0"



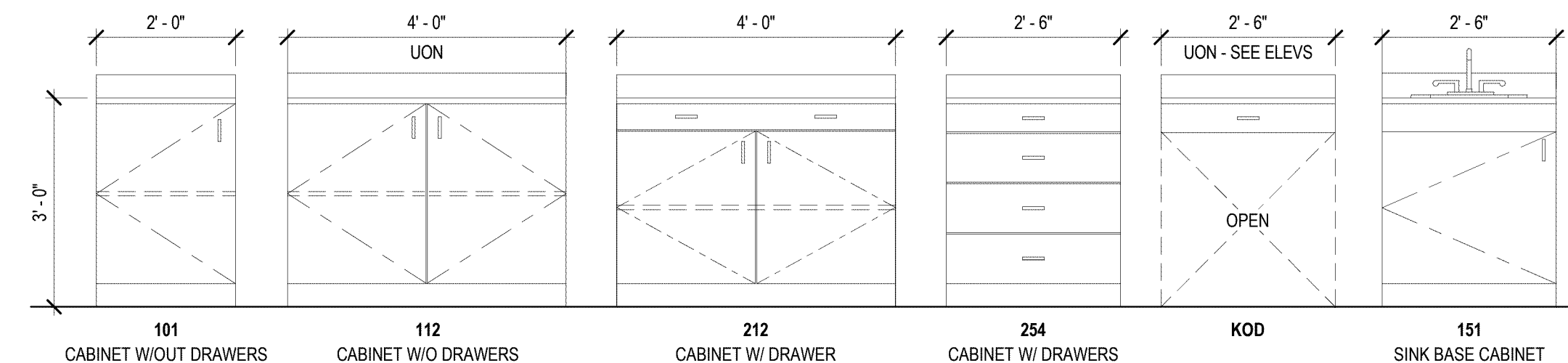
4 Tall Storage Cabinets
A7.01 Scale: 1/2" = 1'-0"



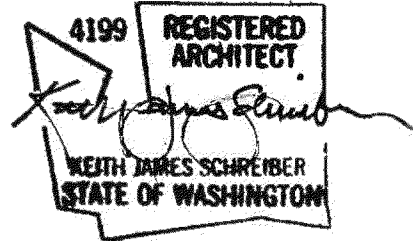
3 Wall Hung Cabinets
A7.01 Scale: 1/2" = 1'-0"



2 ADA Cabinets
A7.01 Scale: 1/2" = 1'-0"



1 Standing Height Cabinets
A7.01 Scale: 1/2" = 1'-0"



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Bid Documents

Details

Client Project 2019-093

SSW Architects

Project No.: 18054

Date 09/16/19

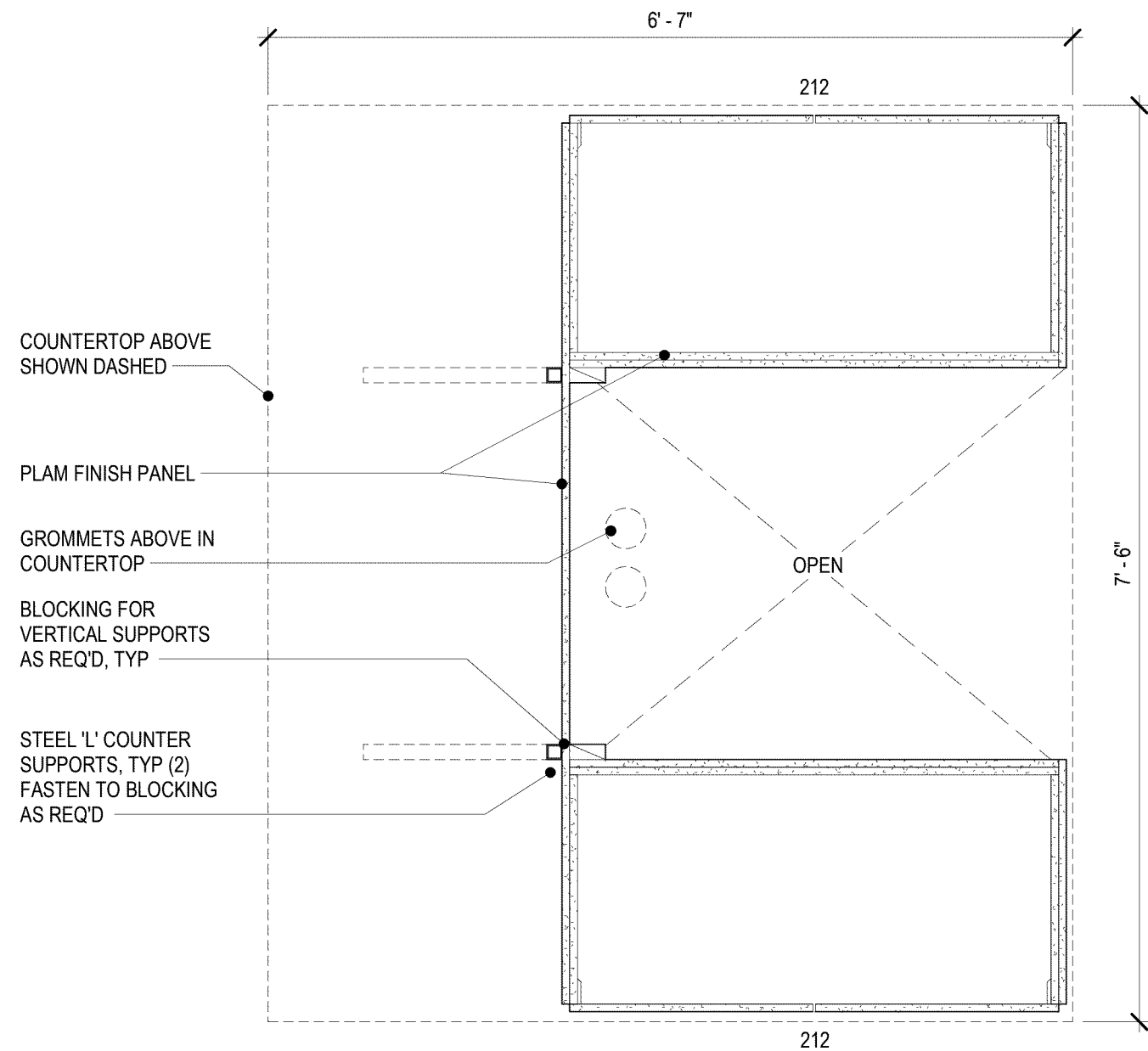
A7.02



4
A7.02

Island Workstation - Base Cabinet Plan

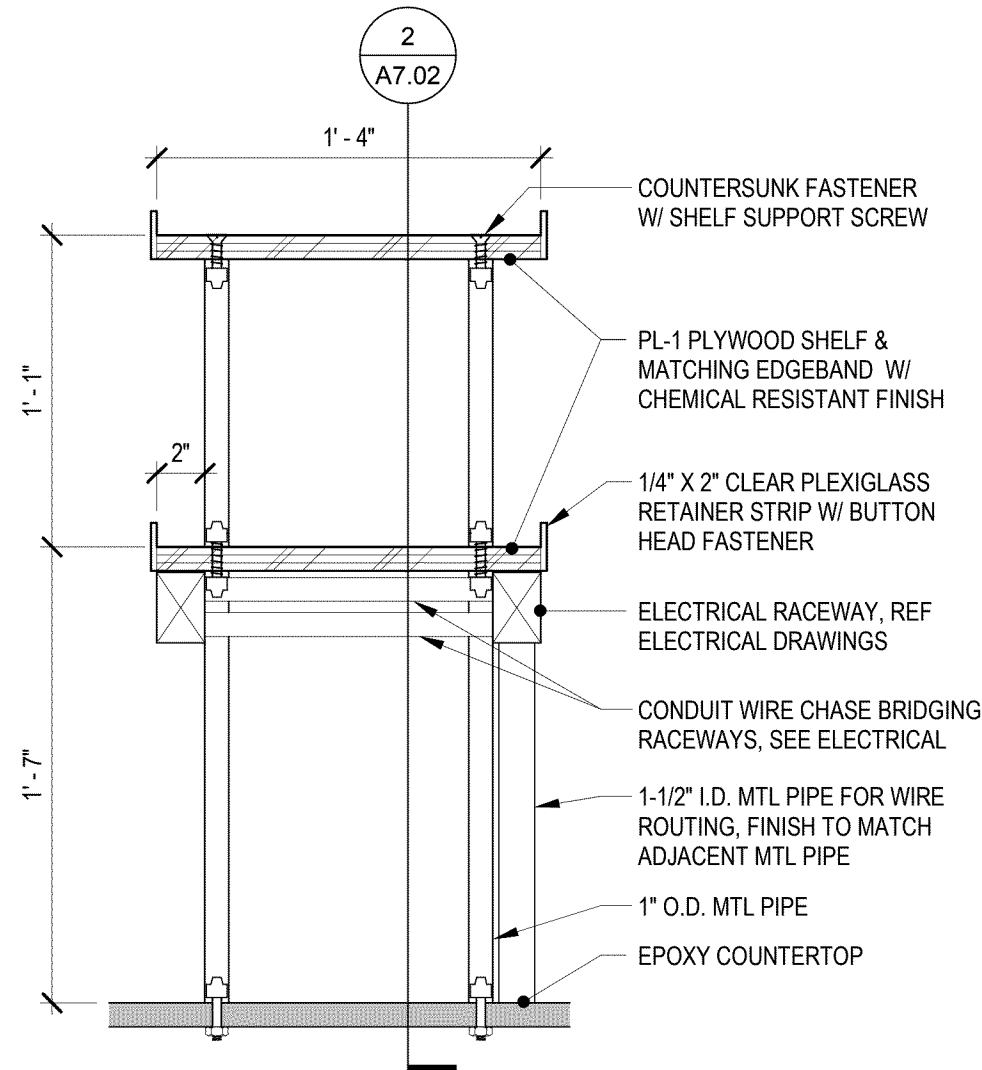
Scale: 3/4" = 1'-0"



3
A7.02

Reagent Shelving - Section 2

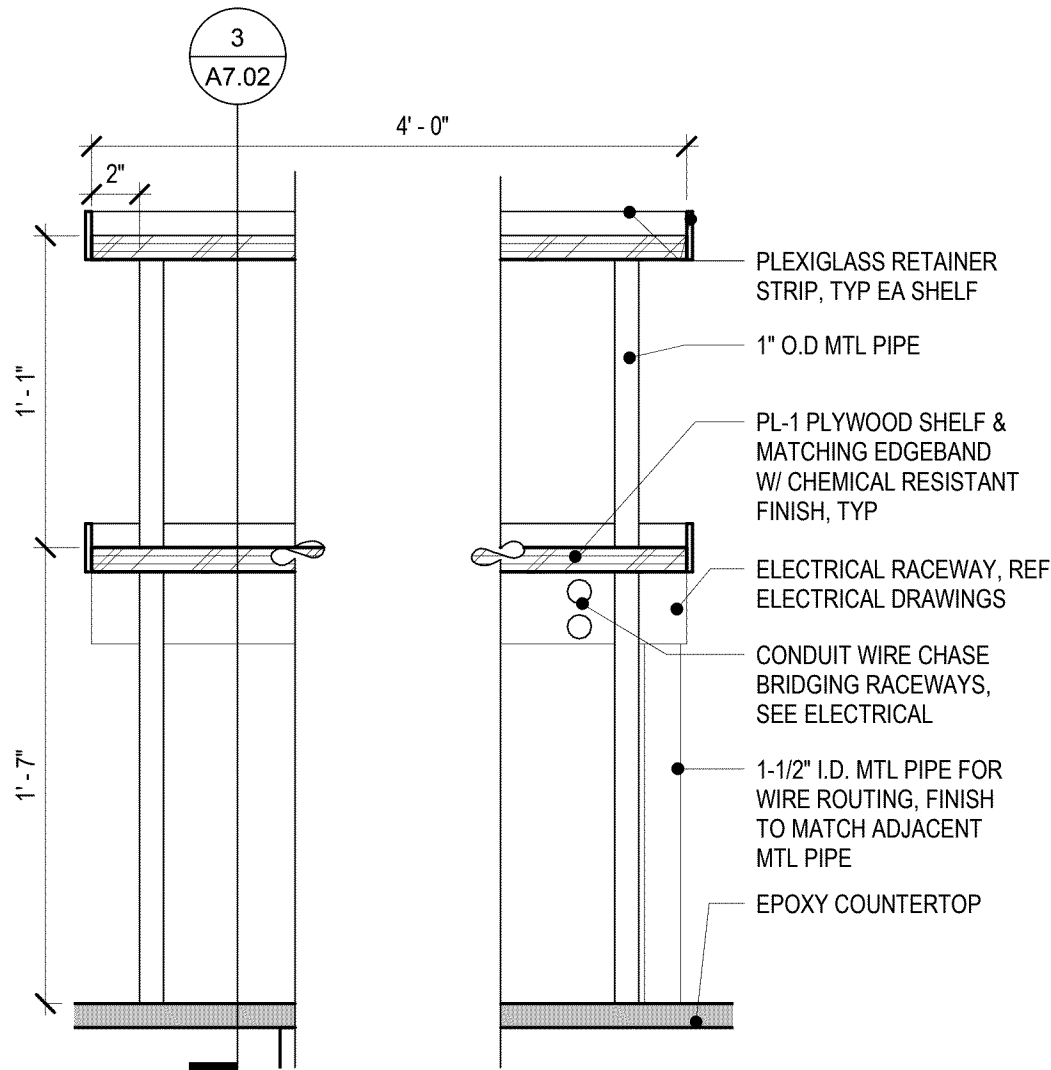
Scale: 1 1/2" = 1'-0"



2
A7.02

Reagent Shelving - Section 1

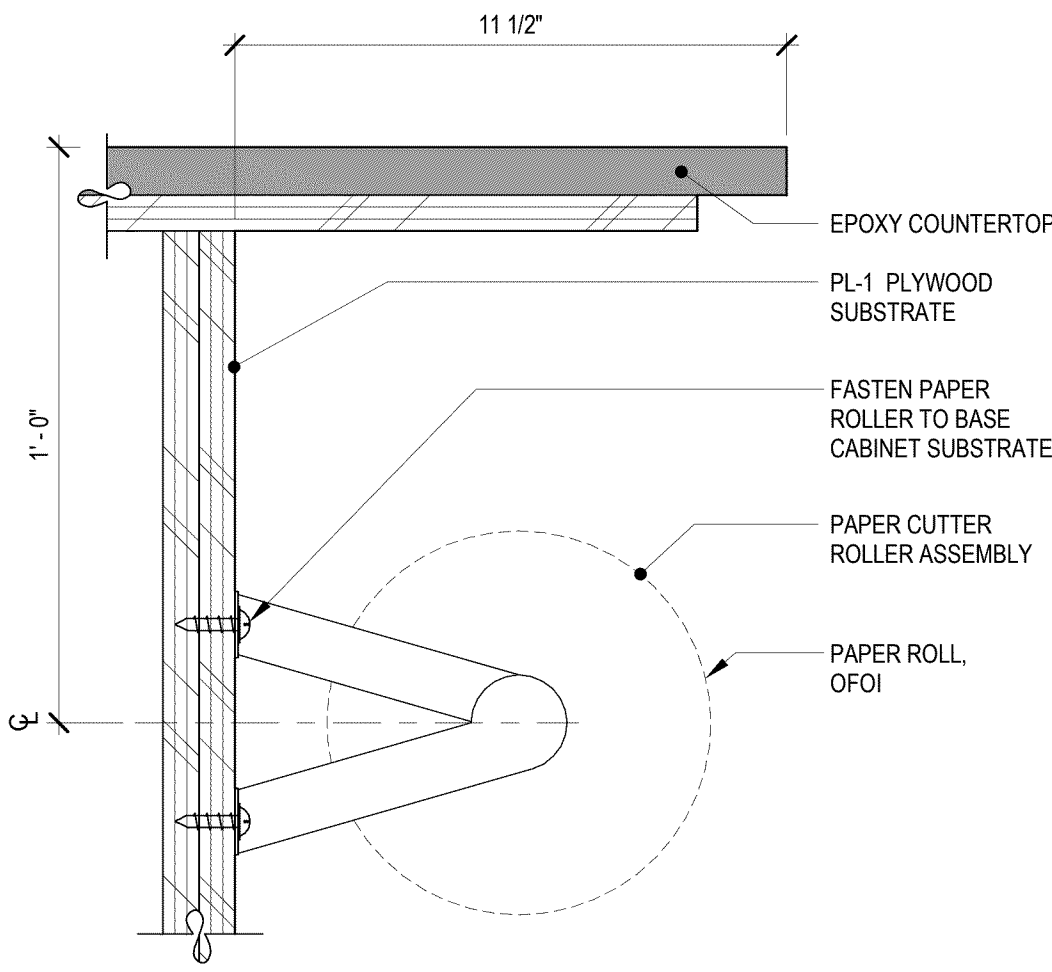
Scale: 1 1/2" = 1'-0"



1
A7.02

Paper Roll Cutter Assmbeby

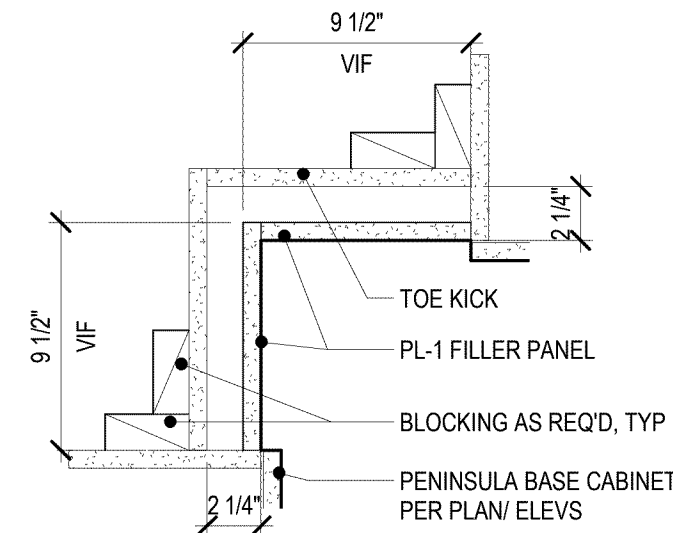
Scale: 3" = 1'-0"



7
A7.02

Casework - Interior Corner Detail Plan

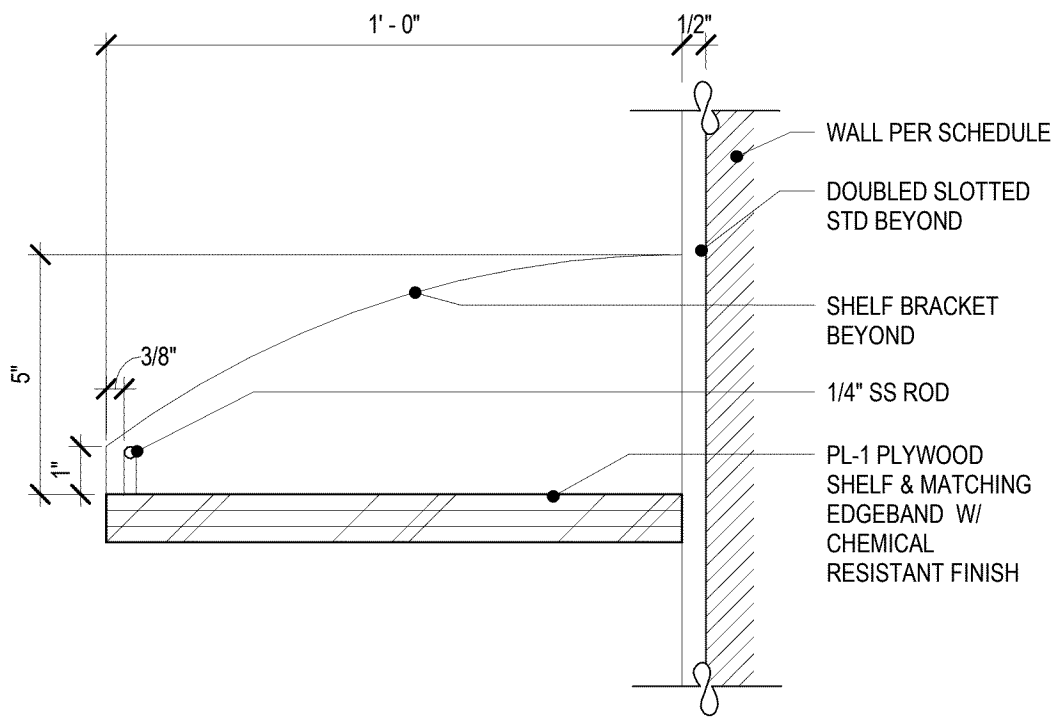
Scale: 1 1/2" = 1'-0"



6
A7.02

Adjustable Wall Shelving - Section

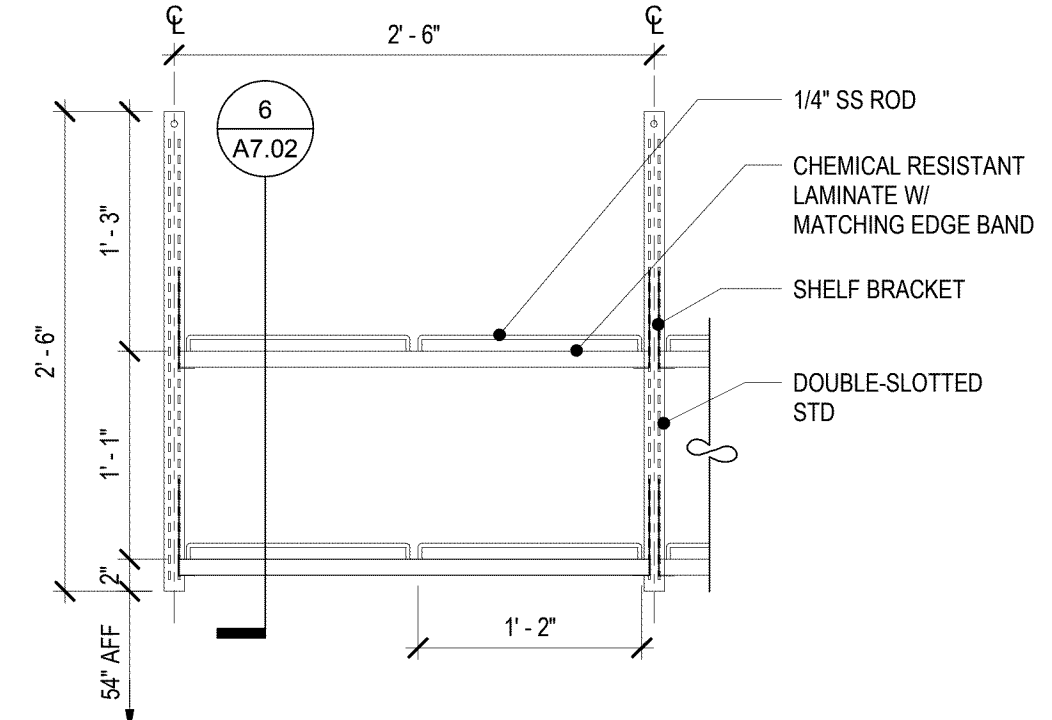
Scale: 3" = 1'-0"



5
A7.02

Adjustable Wall Shelving - Elevation

Scale: 1" = 1'-0"






ELECTRICAL SYMBOL LIST

NOTE: This is a standard symbol list and not all items listed may be used.




Abbreviations

(E)	EXISTING
(N)	NEW
(R)	RELOCATE
(X)	DEMOLISH
A	AMPERES
AFF	ABOVE FINISHED FLOOR
AHJ	AUTHORITY HAVING JURISDICTION
AIC	AVAILABLE INTERRUPTING CAPACITY
AWG	AMERICAN WIRE GAUGE
C	CONDUIT, CLOSE, CONTROL
CAT	CATEGORY
CFCI	CONTRACTOR FURNISHED CONTRACTOR INSTALLED
CU	COPPER
EM	EMERGENCY LIGHT
EMT	ELECTRICAL METALLIC TUBING
FMC	FLEXIBLE METAL CONDUIT
G, GND	GROUND
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
KVA	KILOVOLT AMPERES
KW	KILOWATT
NEC	NATIONAL ELECTRIC CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
OC	ON CENTER
OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
OS	OCCUPANCY SENSOR
PH	PHASE
RM	ROOM
TYP	TYPICAL
UL	UNDERWRITERS LABORATORIES
UNO	UNLESS OTHERWISE NOTED
W	WIRE, WHITE





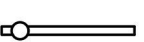
Connections / Equipment

	WALL-MOUNTED JUNCTION BOX
	JUNCTION BOX WITH FLEX CONNECTION TO EQUIPMENT
	RELAY (UL 924)



General

	EXISTING WORK
	NEW WORK
	DETAIL NUMBER AND SHEET LOCATION

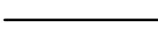
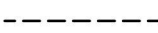
Lighting

	EXIT SIGN CEILING MOUNTED, ARROW(S) INDICATES DIRECTION IF SHOWN
	EXIT SIGN WALL MOUNTED, ARROW(S) INDICATES DIRECTION IF SHOWN
	SURFACE OR PENDANT MOUNTED 1' X 4' LUMINAIRE
	SURFACE OR PENDANT MOUNTED 1' X 4' LUMINAIRE CONNECTED TO EMERGENCY/LIFE SAFETY CIRCUIT
	SURFACE OR PENDANT MOUNTED 6' X 8' LUMINAIRE








Miscellaneous

	BRANCH CIRCUIT WIRING. ARROW INDICATES HOME RUN TO PANEL WITH CIRCUITS AS NOTED. WIRE SIZE IS #12 AWG MINIMUM UNLESS NOTED OTHERWISE. SHORT TICK MARKS INDICATE PHASE CONDUCTORS. LONG TICK MARKS INDICATE NEUTRAL CONDUCTORS. A SINGLE CURVED TICK MARK INDICATES INSULATED GREEN GROUND CONDUCTOR. SECOND CURVED TICK MARK INDICATES "ISOLATED GROUND" (GREEN INSULATION WITH YELLOW STRIPE) CONDUCTOR.
	BRANCH PANEL

Raceways

	CONDUIT CONCEALED IN WALL OR CEILING SPACE
	CONDUIT ROUTED BELOW FLOOR / GRADE




Switches and Receptacles

	DUPLEX RECEPTACLE (MULTIPLE LETTERS INDICATE MULTIPLE OPTIONS) G = GROUND FAULT CIRCUIT INTERRUPTER
	DOUBLE DUPLEX RECEPTACLE. SEE LETTER CODE LIST AT DUPLEX RECEPTACLE FOR OPTIONS
	FLUSH POKE-THRU WITH DOUBLE DUPLEX RECEPTACLE
	CEILING MOUNTED OCCUPANCY SENSOR P = PASSIVE INFRARED D = DUAL TECHNOLOGY U = ULTRASONIC, 360 DEG RANGE H = ULTRASONIC, HALLWAY PATTERN V (LOWERCASE) = VACANCY CONTROL DESIGNATION
	WALL MOUNTED OCCUPANCY SENSOR/ SWITCH S = PASSIVE INFRARED WITH INTEGRAL "OFF" SWITCH T = DUAL RELAY PASSIVE INFRARED WITH TWO INTEGRAL "OFF" SWITCHES D = PASSIVE INFRARED WITH INTEGRAL DIMMER TO OFF. V (LOWERCASE) = VACANCY CONTROL DESIGNATION
	MULTIPLE CHANNEL SURFACE METAL RECEPTACLE RACEWAY WITH LOW VOLTAGE DIVIDERS, LENGTH AND RECEPTACLES AS INDICATED
	SINGLE POLE SWITCH 2 = DOUBLE POLE SWITCH 3 = THREE-WAY SWITCH # THRU z (LOWERCASE) = LUMINAIRE CONTROL DESIGNATION D = DIMMER






TECHNOLOGY SYMBOL LIST

NOTE: This is a standard symbol list and not all items listed may be used.

Electronic Security

	CEILING MOUNTED MOTION DETECTION SENSOR WITH 3/4" C TO ACCESSIBLE CEILING AND CABLING TO NEAREST TELECOM ROOM
	ELECTRIC LATCH CONNECTION WITH 3/4" C TO ACCESSIBLE CEILING AND CABLING TO NEAREST TELECOM ROOM
	ELECTRIC STRIKE DOOR LOCKS WITH 3/4" C TO ACCESSIBLE CEILING AND CABLING TO NEAREST TELECOM ROOM
	REQUEST TO EXIT DEVICE WITH 3/4" C TO ACCESSIBLE CEILING AND CABLING TO NEAREST TELECOM ROOM
	WALL MOUNTED ACCESS CONTROL CARD READER WITH 3/4" C TO ACCESSIBLE CEILING AND CABLING TO NEAREST TELECOM ROOM
	WALL MOUNTED MOTION DETECTION SENSOR WITH 3/4" C TO ACCESSIBLE CEILING AND CABLING TO NEAREST TELECOM ROOM

Telecommunications

	STANDARD COMMUNICATIONS OUTLET WITH (2) CAT6 CABLE(S) TO NEAREST MDF/IDF AND 1" C. TO ACCESSIBLE CEILING SPACE.
	TELEPHONE OUTLET WITH (1) CAT6 CABLE TO NEAREST MDF/IDF AND 3/4" C. TO ACCESSIBLE CEILING SPACE.
	ALTERNATE COMMUNICATIONS OUTLET (X): A = ABOVE COUNTER WITH (2) CAT6 CABLES TO NEAREST TELECOM ROOM AND 1" C. TO ACCESSIBLE CEILING SPACE. W = LOCATION FOR FLUSH MOUNT WIRELESS ACCESS POINT OUTLET WITH (2) CAT6 CABLES TO NEAREST TELECOM ROOM AND 1" C. TO ACCESSIBLE CEILING SPACE. UN. # = XX CAT 6 CABLES TO NEAREST TELECOM ROOM AND 1" C. TO ACCESSIBLE CEILING SPACE
	OUTLET WITH 1" C. FLEX CONNECTION TO FURNITURE SYSTEM OR CASEWORK. "X" DENOTES QUANTITY OF CAT6 CABLES.
	POKE-THRU COMBINATION TELE/DATA OUTLET, WITH (4) CAT6 CABLE(S) TO NEAREST MDF/IDF, UN.

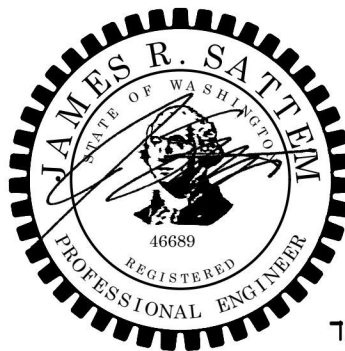


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WHITEHEAD

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206-682-8300
SSWARCHITECTS.COM



PROJECT 2019-0146
CONTACT Jeffrey Glanville
100 SW Main Street, Suite 1600
Portland, OR 97204
TEL 503.382.2266
www.interfaceengineering.com



DNA Lab
Remodel

Bid Documents

SYMBOLS LIST & GENERAL
NOTES - ELECTRICAL

SHEET INDEX

E0.01	COVER SHEET - ELECTRICAL
E2.02	SECOND FLOOR PLAN - LIGHTING
E3.02	SECOND FLOOR PLAN - POWER & SIGNAL
E4.01	ONE-LINE DIAGRAM - ELECTRICAL
E5.01	DETAILS & SCHEDULES - ELECTRICAL

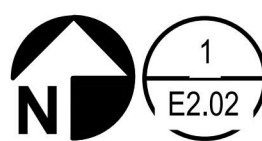
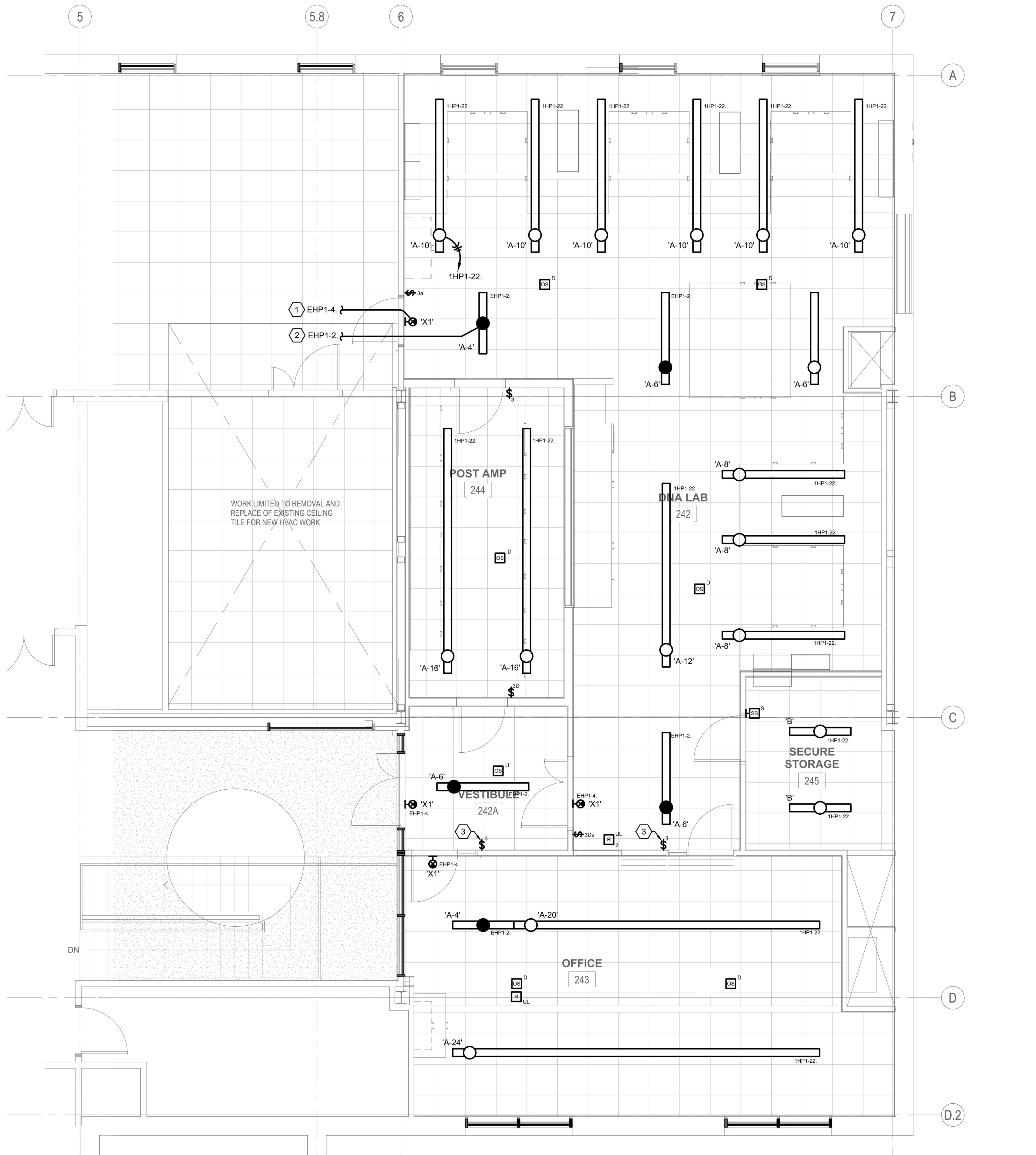
LUMINAIRE SCHEDULE											
TYPE	DESCRIPTION	HOUSING	SHIELDING	MOUNTING	FINISH	UL/IP RATING	POWER SOURCE	LIGHT SOURCE(S)	INPUT WATTS	MFG/CATALOG #	NOTES
A-XX	PENDANT MOUNTED LINEAR LED; 80% INDIRECT DISTRIBUTION; 40% DIRECT DISTRIBUTION	NOMINAL 3-INCH WIDE BY 5-INCH HIGH IN LENGTHS AS INDICATED ON DRAWINGS (XX) EXTRUDED ALUMINUM	INDIRECT LED DUST COVER; DIRECT ACRYLIC SATIN LENS (MEDIUM DIFFUSE)	SUSPENDED. MOUNT BOTTOM OF LUMINAIRE AT 8'-0" AFF; UNLESS OTHERWISE NOTED.	WHITE		0-10 VOLT, ELECTRONIC DIMMING DRIVER	NOMINAL 1216 LUMENS PER FOOT, 3500K, 90 CRI	12 WATTS PER FOOT	GAMMALUX GBEAM SERIES, FOCAL POINT, LUMENVERX OR APPROVED.	LUMINAIRE LENGTHS (XX) - 4', 6', 8', 10', 12', 16', 24', 26'.
B	SUSPENDED LED STRIP LIGHT	NOMINAL 3-INCH WIDE BY 4-INCH HIGH BY 48-INCH LONG STEEL	ROUND LENSE	SUSPENDED. MOUNT BOTTOM OF LUMINAIRE AT 8'-0" AFF; UNLESS OTHERWISE NOTED.	WHITE		INTEGRAL ELECTRONIC DRIVER	NOMINAL 2344 WATTTIS, 3500K	16 WATTS	METALLUX SNLED, CREE, LITHONIA	
X1	UNIVERSAL MOUNTED THIN PROFILE EDGE LIT EXIT SIGN; SINGLE FACE	NOMINAL 14-INCH WIDE BY 8-INCH HIGH DIE CAST ALUMINUM AND ACRYLIC HOUSING	NA	CONTRACTOR TO VERIFY BACKBOX REQUIREMENTS DURING ROUGH-IN, COORDINATE MOUNTING HEIGHT WITH ARCHITECTURAL DRAWINGS	WHITE		INTEGRAL ELECTRONIC DRIVER	RED LED	NOMINAL 2 WATTS	LITHONIA LIGHTING LRP W	PROVIDE DIRECTIONAL ARROWS AS SHOWN ON DRAWINGS
NOTES:											
1	THIS LUMINAIRE SCHEDULE IS NOT COMPLETE WITHOUT A COPY OF THE PROJECT MANUAL CONTAINING THE ELECTRICAL SPECIFICATIONS.										
2	DIMMING CONTROL PROTOCOL (0-10VDC, LINE VOLTAGE, DALI, ETC.) COMPATIBLE WITH LIGHTING CONTROL SYSTEM AS SPECIFIED AND SHOWN ON DRAWINGS.										
3	PROVIDE +/- 12 INCH ADJUSTABILITY IN AIRCRAFT CABLE LENGTH WHERE USED.										
4	COORDINATE ALL CEILING TYPES WITH LUMINAIRE LOCATIONS PRIOR TO ORDERING LUMINAIRES. COORDINATE INSTALLATION WITH REFLECTED CEILING PLAN.										
5	SPECIFIED MANUFACTURER IS APPROVED TO SUBMIT BID. INCLUSION DOES NOT RELIEVE MANUFACTURER FROM SUPPLYING PRODUCT AS DESCRIBED.										
6	PROVIDE SUBMITTALS THAT INCLUDE THE LUMINAIRE, LAMP AND DRIVER INFORMATION OF EACH LUMINAIRE, WITH APPLICABLE OPTIONS CLEARLY CHECKED OR HIGHLIGHTED. SUBMITTALS NOT INCLUDING THIS INFORMATION WILL BE RETURNED AS REJECTED BY THE ENGINEER OF RECORD.										
7	REMOTE BALLASTSDRIVERS: UL LISTED FOR THEIR APPLICATION. BALLASTSDRIVERS MARKED AS UL RECOGNIZED COMPONENT BUT NOT UL LISTED ARE SUBJECT TO REMOVAL AND REPLACEMENT AT NO COST TO OWNER.										

Client Project No.: 2019-093

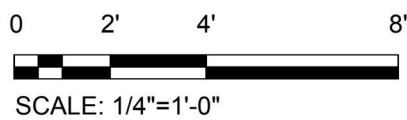
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E0.01



SECOND FLOOR PLAN - LIGHTING



GENERAL SHEET NOTES

- A. EXISTING FLUORESCENT LUMINAIRES (TOTAL OF 10) IN SHELL SPACE (AREA OF WORK) TO BE REMOVED. CONNECT ALL EXIT SIGNS TO UNSWITCHED LEG OF EMERGENCY CIRCUIT NOTED. EXIT SIGNS TO BE ILLUMINATED AT ALL TIMES.

SHEET KEYNOTES

- 1 INTERCEPT AND EXTEND EXISTING, UNSWITCHED EMERGENCY CIRCUIT SERVING SECOND FLOOR EXIT SIGNS. CONNECT ALL EXIT SIGNS TO THIS CIRCUIT. SIGNS TO BE ILLUMINATED AT ALL TIMES.
- 2 INTERCEPT AND EXTEND EXISTING SECOND FLOOR EGRESS LIGHTING CIRCUIT.
- 3 PROVIDE PERMANENT LABEL AT SWITCH TO READ: 'OFFICE LIGHTING'.

SSW ARCHITECTS

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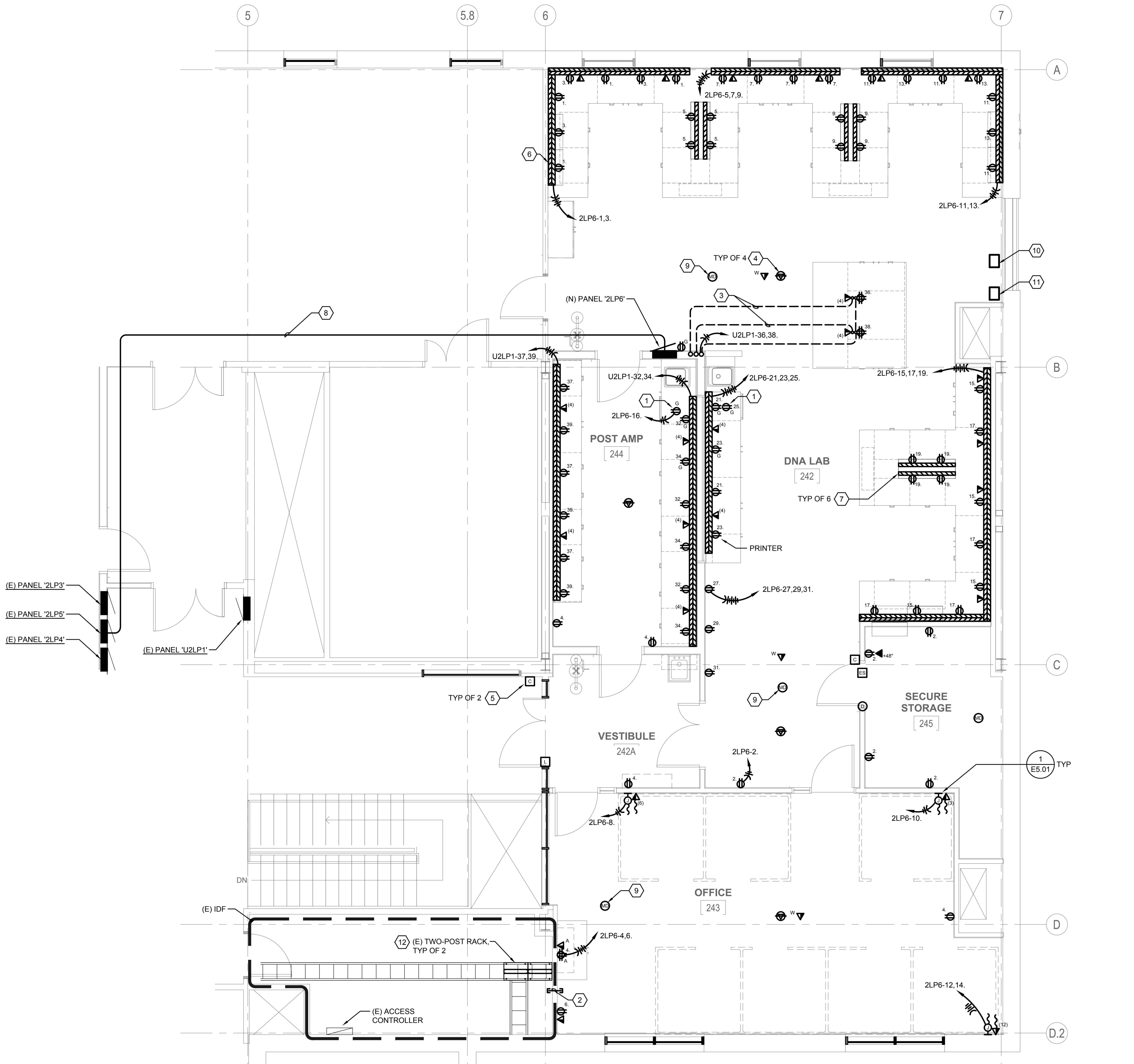
DNA Lab Remodel

Bid Documents

Second Floor Plan
- Lighting

Client Project No.: 2019-093
SSW Architects
Project No.: 18054
Date: 09/16/19

E2.02



1 SECOND FLOOR PLAN - POWER & SIGNAL
E3.02 Scale: 1/4" = 1'-0"

0 2' 4' 8'
SCALE: 1/4"=1'-0"

SHEET KEYNOTES

- 1 PROVIDE DEDICATED RECEPTACLE BELOW COUNTER FOR CONNECTION TO DISHWASHER.
- 2 PROVIDE (2) 4" E-Z PATH FIRE-RATED PATHWAYS FOR DATA CABLING.
- 3 PROVIDE 1-1/4"C. IN ACCESSIBLE CEILING BELOW, TO FULL HEIGHT WALL AND INTO ACCESSIBLE CEILING SPACE FOR DATA CABLING.
- 4 PROVIDE PAGING SPEAKER MOUNTED FLUSH IN CEILING. SPEAKER TO MATCH EXISTING MANUFACTURER. PROVIDE LOW VOLTAGE WIRING TO EXISTING PAGING HEAD END UNIT AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.
- 5 PROVIDE CARD READER TO MATCH EXISTING BUILDING STANDARD (HID). PROVIDE LOW VOLTAGE WIRING TO EXISTING ACCESS CONTROLLER IN IDF AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.
- 6 PROVIDE DUAL CHANNEL RACEWAY MOUNTED ON WALL ABOVE LAB BENCH. TYPICAL. COORDINATE MOUNTING HEIGHT WITH ARCHITECTURAL ELEVATIONS.
- 7 PROVIDE SINGLE CHANNEL RACEWAY, MOUNTED TO ABOVE COUNTER SHELVING UNIT. FEED RACEWAY VIA EMT CONDUIT, ROUTED THROUGH CASEWORK BELOW. COORDINATE WITH ARCHITECTURAL DETAIL 7/A7.01.
- 8 ROUTE FEEDER TO NEW FLUSH-MOUNTED PANELBOARD THROUGH ACCESSIBLE CEILING SPACE IN EXISTING VESTIBULE AND LAB AS SHOWN. SEE ONE-LINE DIAGRAM FOR FEEDER INFORMATION.
- 9 PROVIDE NEW MOTION DETECTOR TO MATCH EXISTING BUILDING STANDARD. TIE INTO EXISTING SECURITY SYSTEM IN EXISTING IDF.
- 10 NEW LOCATION OF EXISTING AHU #3 VARIABLE FREQUENCY DRIVE, RELOCATED FROM SOUTH OF ADJACENT SHAFT. INTERCEPT AND EXTEND EXISTING WIRING TO VFD AND FROM VFD TO MOTOR TO MAINTAIN CONTINUITY OF EXISTING EQUIPMENT CONNECTION. COORDINATE WITH DIVISION 23.
- 11 NEW LOCATION OF EF #5 VARIABLE FREQUENCY DRIVE, RELOCATED FROM SOUTH OF ADJACENT SHAFT. INTERCEPT AND EXTEND EXISTING WIRING TO VFD AND FROM VFD TO MOTOR TO MAINTAIN CONTINUITY OF EXISTING EQUIPMENT CONNECTION. COORDINATE WITH DIVISION 23.
- 12 PROVIDE NEW PATCH PANEL IN EXISTING RACK TO ACCOMMODATE NEW CABLING. PATCH PANEL TO MATCH EXISTING, SEE SPECIFICATION 25 17 00.

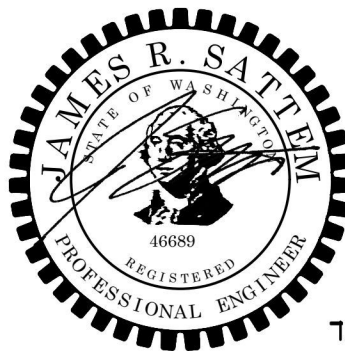


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DNA Lab Remodel

Bid Documents

SECOND FLOOR PLAN
- POWER & SIGNAL

Client Project No.: 2019-093

SSW Architects
Project No.: 18054

Date: 09/16/19

E3.02

1004 4 #2 CU, 1 #8 CU GND., IN 1-1/4" C.

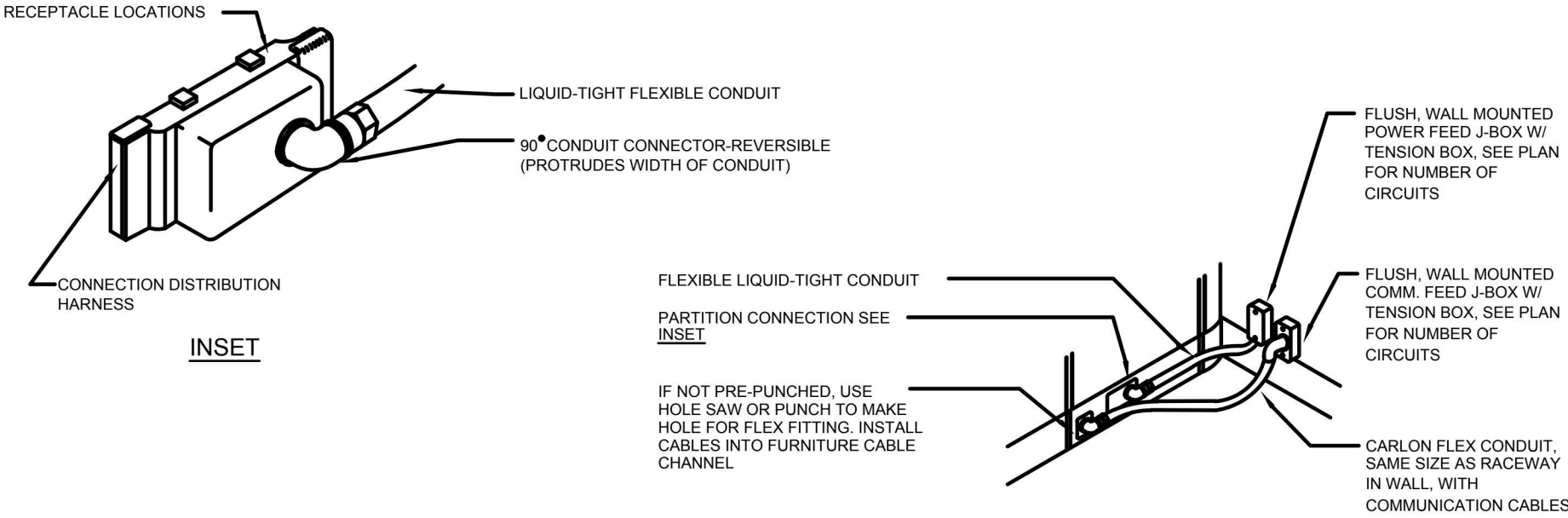


NO SCALE

DNA Lab Remodel

ONE-LINE DIAGRAM -
ELECTRICAL

E4.01



1. SYSTEM FURNITURE CONNECTION

NO SCALE

Panel 'U2LP1'											
120/208V, 3 Ph., 4 W.; 125A Bus with 125A Main Circuit Breaker Flush Mounted Panelboard											
Ckt. No.	Description / Location	Load (VA)/Type	C.B. A/Pole	Note	Ph.	Note	C.B. A/Pole	Load (VA)/Type	Description / Location	Ckt. No.	
1	THERMACYCLER 238		20/1	A			20/1		DED. RECEPT. 227	2	
2	THERMACYCLER 238		20/1	B			20/1		DED. RECEPT. 227	4	
3	THERMACYCLER 238		20/1	C			20/1		DED. RECEPT. 227	6	
7	THERMACYCLER 238		20/1	A			20/1		DED. RECEPT. 227	8	
9	THERMACYCLER 238		20/1	B			20/1		DED. RECEPT. 227	10	
11	THERMACYCLER 238		20/1	C			20/1		DED. RECEPT. 227	12	
13	DED. RECEPT. 238		20/1	A			30/2		DED. RECEPT. 238	14	
15	DED. RECEPT. 238		20/1	B						16	
17	DED. RECEPT. 238		30/2	C			30/2		DED. RECEPT. 238	18	
19	---			A						20	
21	DED. RECEPT. 238		30/2	B			20/1		DED. RECEPT. 238	22	
23	---			C			20/1		DED. RECEPT. 238	24	
25	DED. RECEPT. 238		20/1	A			20/1		DED. RECEPT. 238	26	
27	DED. RECEPT. 238		20/1	B			20/1		DED. RECEPT. 238	28	
29	DED. RECEPT. 238		20/1	C			20/1		DED. RECEPT. 230	30	
31	DED. RECEPT. 238		20/1	A	1		20/1	540 R	R - DNA LAB POST AMP	32	
33	DED. RECEPT. 238		30/2	B	1		20/1	540 R	R - DNA LAB POST AMP	34	
35	---			C	1		20/1	1,400 R	R - DNA LAB ROBOT TABLE	36	
37	R - DNA LAB POST AMP	540 R	20/1	1	A				SPACE	38	
39	R - DNA LAB POST AMP	540 R	20/1	1	B				SPACE	40	
41	SPACE				C				SPACE	42	
Total Connected Load:		Ph. A	1,080 VA	9 Amps				Panel Connected Load:	3.6 KVA	9.9 Amps	
Total Connected Load:		Ph. B	1,080 VA	9 Amps				Sub-Fed Connected Load:	0.0 KVA	0.0 Amps	
Total Connected Load:		Ph. C	1,400 VA	12 Amps				Total Demand Load:	3.6 KVA	9.9 Amps	
Notes:											
1. CONNECT NEW LOAD TO EXISTING SPARE BREAKER.											
Accessories:											
2.											
3.											
4.											
5.											

Panel '2LP3'											
120/208V, 3 Ph., 4 W.; 225A Bus with 225A Main Circuit Breaker Flush Mounted Panelboard											
Ckt. No.	Description / Location	Load (VA)/Type	C.B. A/Pole	Note	Ph.	Note	C.B. A/Pole	Load (VA)/Type	Description / Location	Ckt. No.	
1	RECEPT 239	720 R	20/1	A			20/1	720 R	RECEPT 239	2	
3	DED. RECEPT PURIF 235	360 R	20/1	B			20/1	720 R	RECEPT 239	4	
5	RECEPT 239	720 R	20/1	C			20/1	720 R	RECEPT 239	6	
7	RECEPT 239	540 R	20/1	A			20/1	540 R	RECEPT 238	8	
9	RECEPT 239	540 R	20/1	B			20/1	540 R	RECEPT 238	10	
11	RECEPT 239	540 R	20/1	C			20/1	540 R	RECEPT 239	12	
13	DED. RECEPT 239	540 R	20/1	A			20/1	500 R	DED. RECEPT BSC 233	14	
15	DED. RECEPT 235	500 G	20/2	B			20/1	500 R	DED. RECEPT BSC 233	16	
17	---	800 G	---	C			20/1	500 G	FUME HOOD 235	18	
19	RECEPT 235	540 R	20/1	A			20/1	540 R	RECEPT 233	20	
21	RECEPT 235	540 R	20/1	B			20/1	540 R	RECEPT 233	22	
23	RECEPT 235	540 R	20/1	C			20/1	1,000 G	DED. RECEPT. REFRIGERATOR 233	24	
25	DED. RECEPT 235	180 R	20/1	A			20/1	1,000 G	DED. RECEPT. REFRIGERATOR 233	26	
27	RECEPT 235	720 R	20/1	B			20/1		SPACE	28	
29	DED. RECEPT 235	180 R	20/1	C			20/1		SPACE	30	
31	DISHWASHER 235	1,000 G	20/1	A					SPACE	32	
33	SPARE		20/1	B					SPACE	34	
35	SPARE		20/1	C					SPACE	36	
37	SPARE		30/3	A			20/1		SPACE	38	
39	---		-	B			20/1		SPACE	40	
41	---			C			20/1		SPACE	42	
Total Connected Load:		Ph. A	18,460 VA	154 Amps				Panel Connected Load:	17.0 KVA	47.2 Amps	
Total Connected Load:		Ph. B	14,340 VA	119 Amps				Sub-Fed Connected Load:	30.0 KVA	83.3 Amps	
Total Connected Load:		Ph. C	14,220 VA	118 Amps				Total Demand Load:	36.6 KVA	101.5 Amps	
Notes:											
Accessories: Provide Feed Thru Lugs											
1.											
2.											
3.											
4.											
5.											

Panel '2LP5'											
120/208V, 3 Ph., 4 W.; 225A Bus with Main Lug Only Flush Mounted Panelboard											
Ckt. No.	Description / Location	Load (VA)/Type	C.B. A/Pole	Note	Ph.	Note	C.B. A/Pole	Load (VA)/Type	Description / Location	Ckt. No.	
1	RECEPT 238	720 R	20/1	A			20/1	540 R	RECEPT 238	2	
3	DED. RECEPT 238	800 G	20/1	B			20/1	540 R	RECEPT 238	4	
5	DED. RECEPT 238	800 G	20/1	C			20/1	1,000 G	DED. RECEPT 238	6	
7	RECEPT 238	540 R	20/1	A			20/1	1,000 G	GLASSWASHER 238	8	
9	RECEPT 238	540 R	20/1	B			20/1	500 G	DED. RECEPT 238	10	
11	RECEPT 238	540 R	20/1	C			20/1	540 R	RECEPT 238	12	
13	RECEPT HALL 225	720 R	20/1	A			20/1		SPARE	14	
15	SECURITY IDF 202	500 C	20/1	B			20/1	720 R	RECEPT HALL 225	16	
17	FIRE ALARM IDF 202	500 C	20/1	C			20/1		SPARE	18	
19	SPARE		20/1	A			20/1		SPARE	20	
21	SPARE		20/1	B			20/1		SPARE	22	
23	SPARE		20/1	C			20/1		SPARE	24	
25	SPARE		20/1	A			20/1		SPARE	26	
27	SPARE		20/1	B			20/1		SPARE	28	
29	SPARE		20/1	C			20/1		SPARE	30	
31	SPARE		20/1	A			20/1		SPARE	32	
33	SPARE		20/1	B			20/1		SPARE	34	
35	SPARE		20/1	C			20/1		SPARE	36	
37	SPACE			A	1		100/3	S	PANEL ZLP6	38	
39	SPACE			B				5,780 S	---	40	
41	SPACE			C				5,600 S	---	42	
Total Connected Load:		Ph. A	11,640 VA	97 Amps				Panel Connected Load:	10.5 KVA	29.1 Amps	
Total Connected Load:		Ph. B	9,380 VA	78 Amps				Sub-Fed Connected Load:	19.5 KVA	54.1 Amps	
Total Connected Load:		Ph. C	8,860 VA	75 Amps				Total Demand Load:	Refer to ZLP3		
Notes:											
1. PROVIDE NEW 100/3P BREAKER IN EXISTING BUSSED SPACE. BREAKER TO MATCH EXISTING AIC RATING AND MANUFACTURER.											
2.											
3.											
4.											
5.											

Panel '2LP6'

120/208V, 3 Ph., 4 W.; 100A Bus with Main Lug Only Flush Mounted Panelboard

2019-0146 WSP

Ckt. No.	Description / Location	Load (VA)/Type	C.B. A/Pole	Note	Ph.	Note	C.B. A/Pole	Load (VA)/Type	Description / Location	Ckt. No.	
1	R - DNA LAB	900 R	20/1	A			20/1	900 R	R - DNA LAB, DNA VAULT	2	
3	R - DNA LAB	720 R	20/1	B			20/1	720 R	R - DNA OFFICE	4	
5	R - DNA LAB	720 R	20/1	C			20/1	1,000 G	DNA OFFICE COPIER	6	
7	R - DNA LAB	720 R	20/1	A			20/1	1,000 R	R - DNA OFFICE SYSTEM FURNITURE	8	
9	R - DNA LAB	720 R	20/1	B			20/1	540 R	R - DNA OFFICE SYSTEM FURNITURE	10	
11	R - DNA LAB	720 R	20/1	C			20/1	1,000 R	R - DNA OFFICE SYSTEM FURNITURE	12	
13	R - DNA LAB	720 R	20/1	A			20/1	1,000 R	R - DNA OFFICE SYSTEM FURNITURE	14	
15	R - DNA LAB	720 R	20/1	B			20/1	1,000 G	R - DNA POST AMP DISHWASHER	16	
17	R - DNA LAB	720 R	20/1	C			20/1		SPARE	18	
19	R - DNA LAB	720 R	20/1	A			20/1		SPARE	20	
21	R - DNA LAB	360 R	20/1	B			20/1		SPARE	22	
23	R - DNA LAB	360 R	20/1	C			20/1		SPARE	24	
25	DNA LAB DISHWASHER	1,000 G	20/1	A			20/1		SPARE	26	
27	DNA LAB REFRIGERATOR	1,000 G	20/1	B			20/1		SPARE	28	
29	DNA LAB REFRIGERATOR	1,000 G	20/1	C			20/1		SPARE	30	
31	DNA LAB REFRIGERATOR	1,000 G	20/1	A			20/1		SPARE	32	
33	SPARE		20/1	B			20/1		SPARE	34	
35	SPARE		20/1	C			20/1		SPARE	36	
37	SPACE			A					SPACE	38	
39	SPACE			B					SPACE	40	
41	SPACE			C					SPACE	42	
Total Connected Load:		Ph. A	8,120 VA	68 Amps				Panel Connected Load:		19.5 KVA	54.1 Amps
Total Connected Load:		Ph. B	5,780 VA	48 Amps				Sub-Fed Connected Load:		0.0 KVA	0.0 Amps
Total Connected Load:		Ph. C	5,600 VA	47 Amps				Total Demand Load:		17.8 KVA	49.3 Amps
<div>Notes:</div> <div>1.</div> <div>2.</div> <div>3.</div> <div>4.</div> <div>5.</div> <div>6.</div> <div>7.</div> <div>8.</div> <div>9.</div> <div>10.</div> <div>11.</div> <div>12.</div> <div>13.</div> <div>14.</div> <div>15.</div> <div>16.</div> <div>17.</div> <div>18.</div> <div>19.</div> <div>20.</div> <div>21.</div> <div>22.</div> <div>23.</div> <div>24.</div> <div>25.</div> <div>26.</div> <div>27.</div> <div>28.</div> <div>29.</div> <div>30.</div> <div>31.</div> <div>32.</div> <div>33.</div> <div>34.</div> <div>35.</div> <div>36.</div> <div>37.</div> <div>38.</div> <div>39.</div> <div>40.</div> <div>41.</div> <div>42.</div>											

Accessories:

NOTE: This is a standard symbol list and not all items listed may be used.

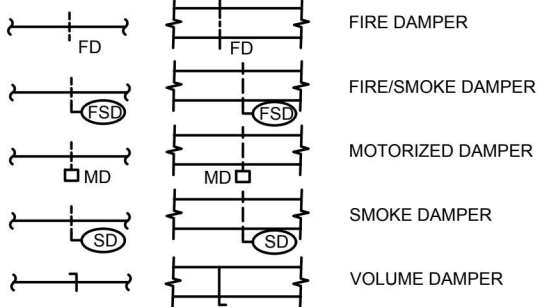
Abbreviations

A/C	AIR CONDITION(ED)
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
BDD	BACKDRAFT DAMPER
BFF	BELOW FINISHED FLOOR
BFP	BACKFLOW PREVENTER
BHP	BRAKE HORSEPOWER
CD	CEILING DIFFUSER
CD	CONDENSATE DRAIN
CONT.	CONTINUATION
COP	COEFFICIENT OF PERFORMANCE
CU	CONDENSING UNIT
CV	CHECK VALVE
CW	COLD WATER
D	DROP
DB	DECIBEL
DB	DRY BULB
DIA	DIAMETER
DX	DIRECT EXPANSION
EAT	ENTERING AIR TEMPERATURE
EER	ENERGY EFFICIENCY RATING
EF	EXHAUST FAN
EFF	EFFICIENT
ELECT	ELECTRICAL
EWT	ENTERING WATER TEMPERATURE
EXH	EXHAUST
F	FAHRENHEIT
FD	FIRE DAMPER
FLA	FULL LOAD AMPS
FT	FEET
GAL	GALLONS
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
HD	HEAD
HP	HORSEPOWER
HTG	HEATING
HTR	HEATER
HWC	HOT WATER COIL
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IN	INCHES
KW	KILOWATT
LAT	LEAVING AIR TEMPERATURE
LBS.	POUNDS
LH	LATENT HEAT
MA	MIXED AIR
MAX	MAXIMUM
MBH	THOUSAND BTU'S PER HOUR
MD	MOTORIZED DAMPER
MIN	MINIMUM
N/A	NOT APPLICABLE
NIC	NOT IN CONTRACT
NO.	NUMBER
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OBD	OPPOSED BLADE DAMPER
OC	ON CENTER
OD	OUTSIDE DIAMETER
PD	PRESSURE DROP
PH	PHASE
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
QTY	QUANTITY
R	RISE
RA	RETURN AIR
RET	RETURN
RPM	REVOLUTIONS PER MINUTE
SA	SUPPLY AIR
SEER	SEASONAL ENERGY EFFICIENCY RATING
SF	SQUARE FEET
SH	SENSIBLE HEAT
SOV	SHUT OFF VALVE
SP	STATIC PRESSURE
T, TEMP	TEMPERATURE

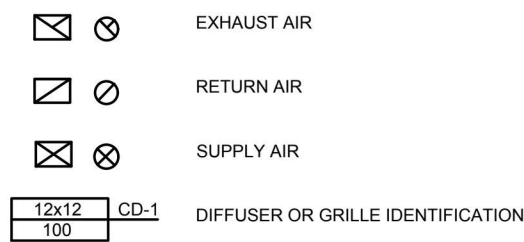
MECHANICAL SYMBOL LIST

TD	TEMPERATURE DIFFERENCE
TH	TOTAL HEAT
TP	TOTAL PRESSURE
V	VOLT
W/	WITH
W	WATT
WB	WET BULB
WC	WATER COLUMN

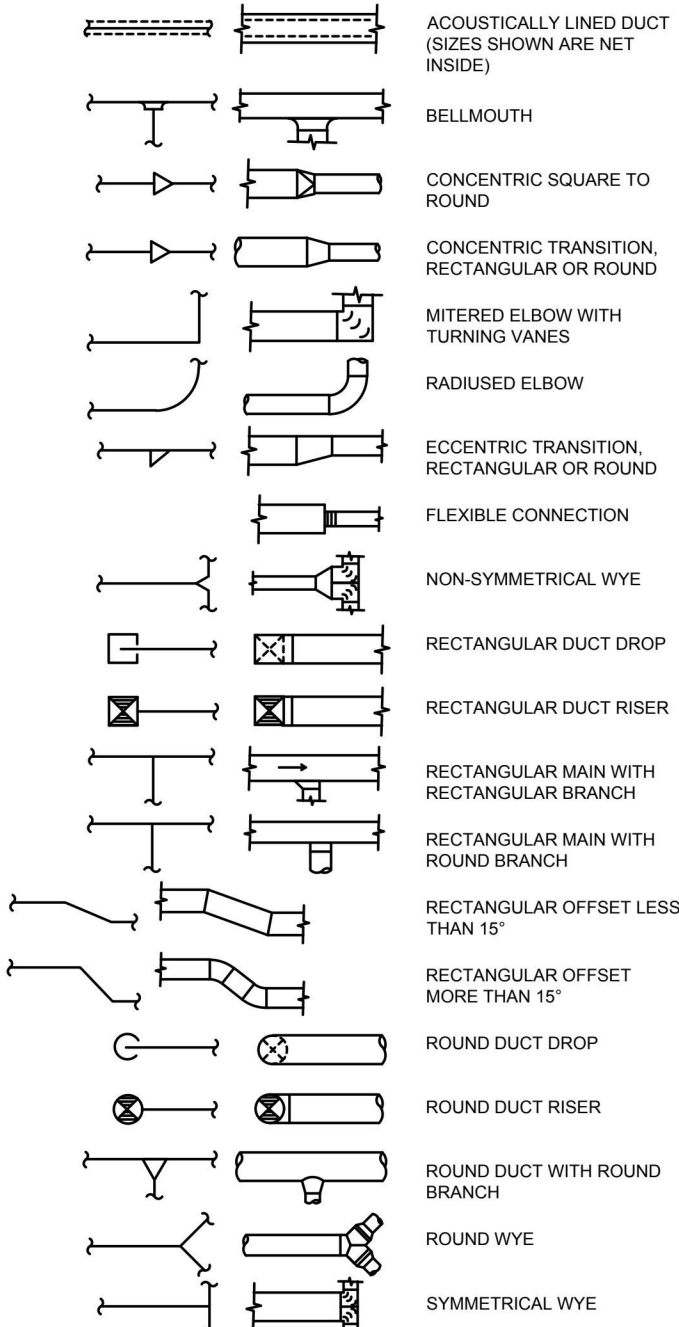
Dampers



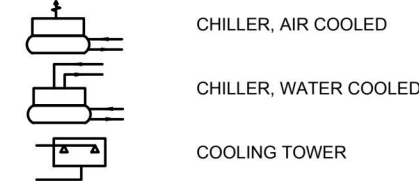
Diffusers and Grilles



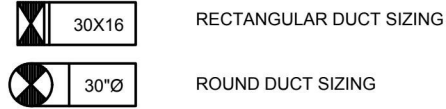
Ductwork Fittings



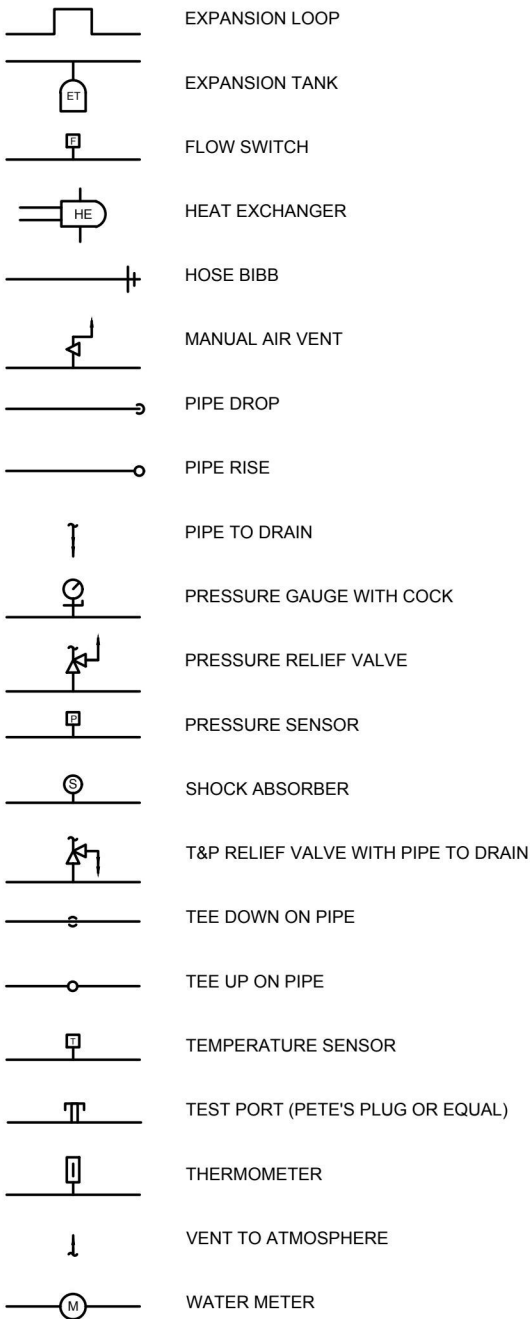
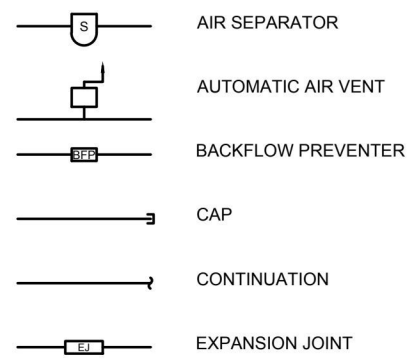
Equipment



General



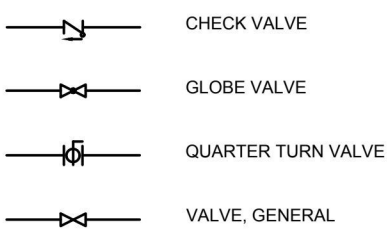
Piping Fittings, Appurtenances and Equipment



Piping Systems



Piping Valves



AIR VALVE SCHEDULE

SYMBOL	AREA SERVED	BASIS OF DESIGN		INLET SIZE (IN)	COOLING AIRFLOW			HTG CAP (MBH)	WATER FLOW (GPM)	HOT WATER HEATING COIL				NOTES
		MFR	MODEL		MAX CFM	MIN CFM	CFM			EWT (°F)	LWT (°F)	EAT (°F)	LAT (°F)	
SAV-213	OFFICE	SIEMENS	SVV	10	735	150	445	16821	1.7	140	120	55	90	
SAV-214	POST AMP	SIEMENS	SVV	8	325	325	325	5265	0.5	140	120	55	70	
SAV-215	DNA LAB N	SIEMENS	SVV	8	615	125	370	13986	1.4	140	120	55	90	
SAV-216	DNA LAB S	SIEMENS	SVV	12	1080	195	580	9396	0.9	140	120	55	70	
EAV-216	POST AMP	SIEMENS	SVV	8	425	425	-	-	-	-	-	-	-	
EAV-217	DNA LAB N	SIEMENS	SVV	8	615	125	-	-	-	-	-	-	-	
EAV-218	OFFICE	SIEMENS	SVV	10	735	150	-	-	-	-	-	-	-	
EAV-219	DNA LAB S	SIEMENS	SVV	12	1080	195	-	-	-	-	-	-	-	

NOTES:

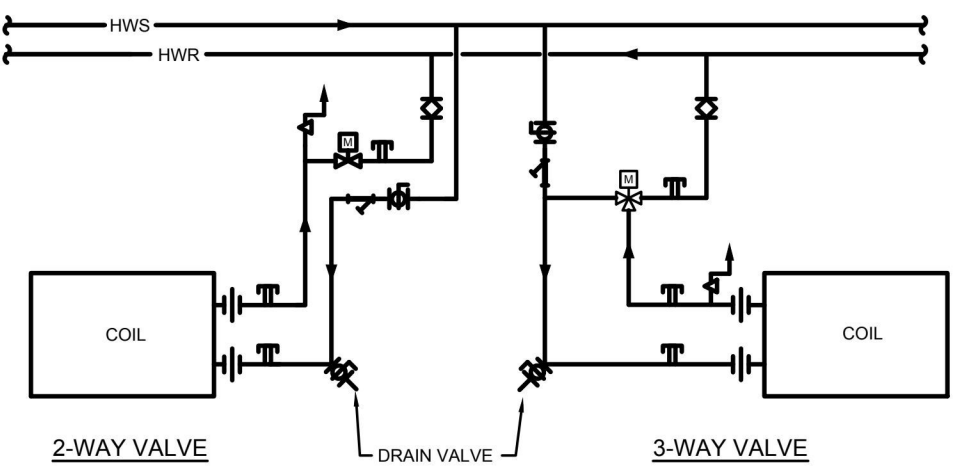
DIFFUSER, REGISTER AND GRILLE SCHEDULE

SYMBOL	TYPE	FACE	FRAME	DAMPER	FINISH	BASIS OF DESIGN	NOTES
CD-1	CEILING SUPPLY DIFFUSER	PERFORATED	LAY IN	NONE	WHITE	TITUS PCS	
CEG-1	CEILING EXHAUST DIFFUSER	PERFORATED	LAY IN	NONE	WHITE	TITUS PAR	

NOTES:

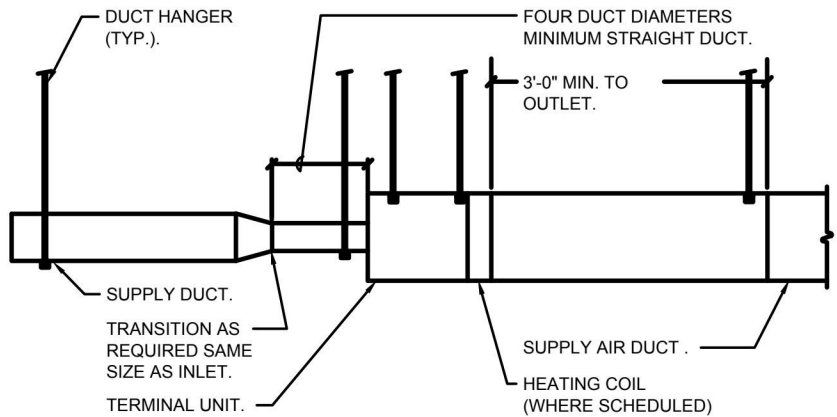
GENERAL DETAIL NOTES

- A. TWO-WAY VALVES TYPICAL. USE THREE-WAY VALVES WHERE NOTED.
B. TYPICAL FOR FAN COIL UNITS, REHEAT COILS, UNIT HEATERS, AND CONVECTORS.



1 HEATING COIL PIPING

NO SCALE



2 TERMINAL UNIT

NO SCALE MP1VEQ003A.dwg

SHEET INDEX

M0.1	COVER SHEET - MECHANICAL
M2.02	SECOND FLOOR - DEMO - MECHANICAL
M3.02	SECOND FLOOR - MECHANICAL



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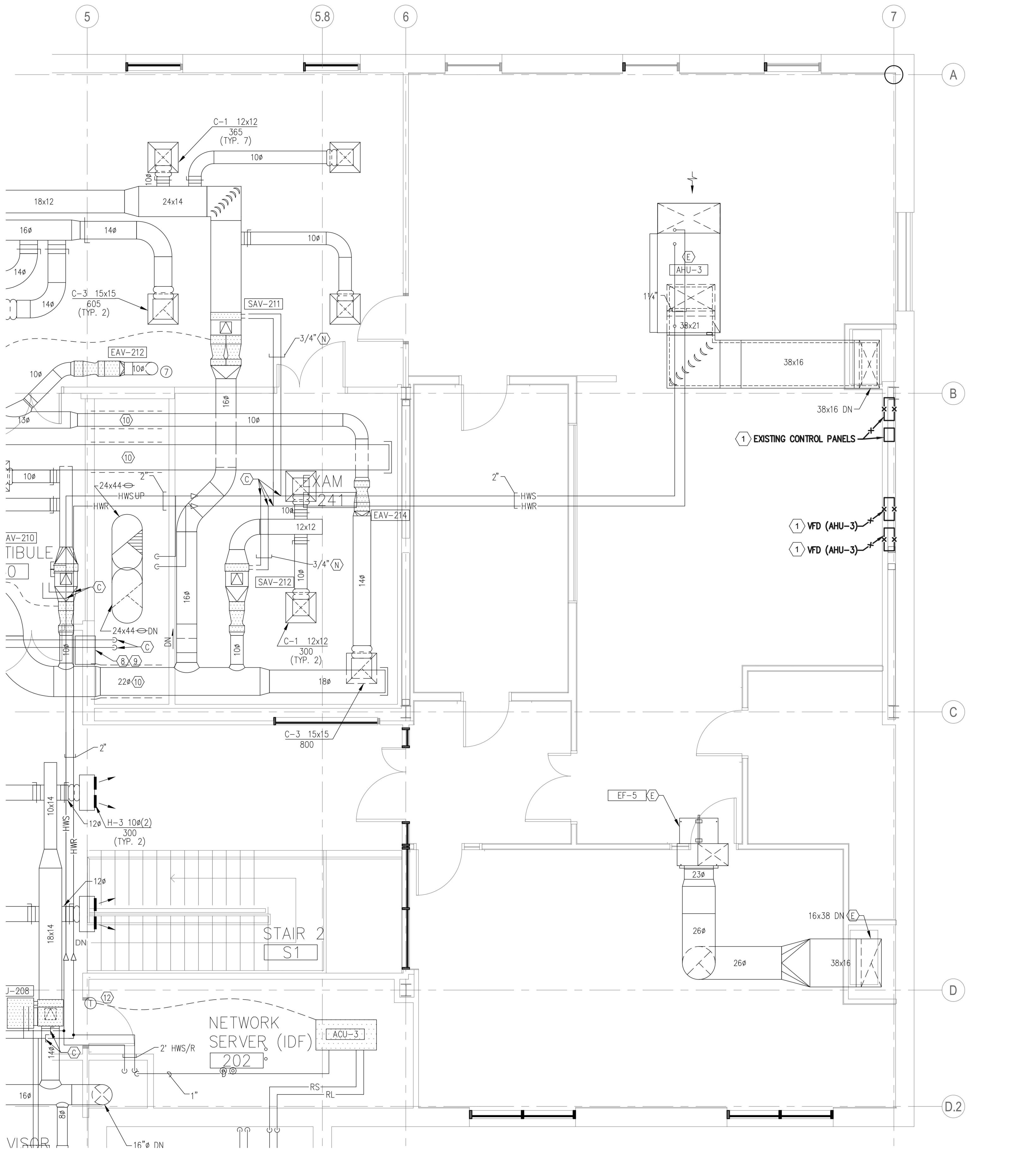
SYMBOLS LIST & GENERAL
NOTES - MECHANICAL

Client Project No.: 2019-093

SSW Architects
Project No.: 18054

Date: 09/16/19

M0.1



SHEET KEYNOTES

- 1 EXISTING CONTROL PANELS AND VFD'S TO BE RELOCATED. SEE M3.02 FOR NEW LOCATION.

1 Second Floor - DEMO - MECHANICAL
M2.02 Scale: 1/4" = 1'-0"

0 2' 4' 8'
SCALE: 1/4"=1'-0"



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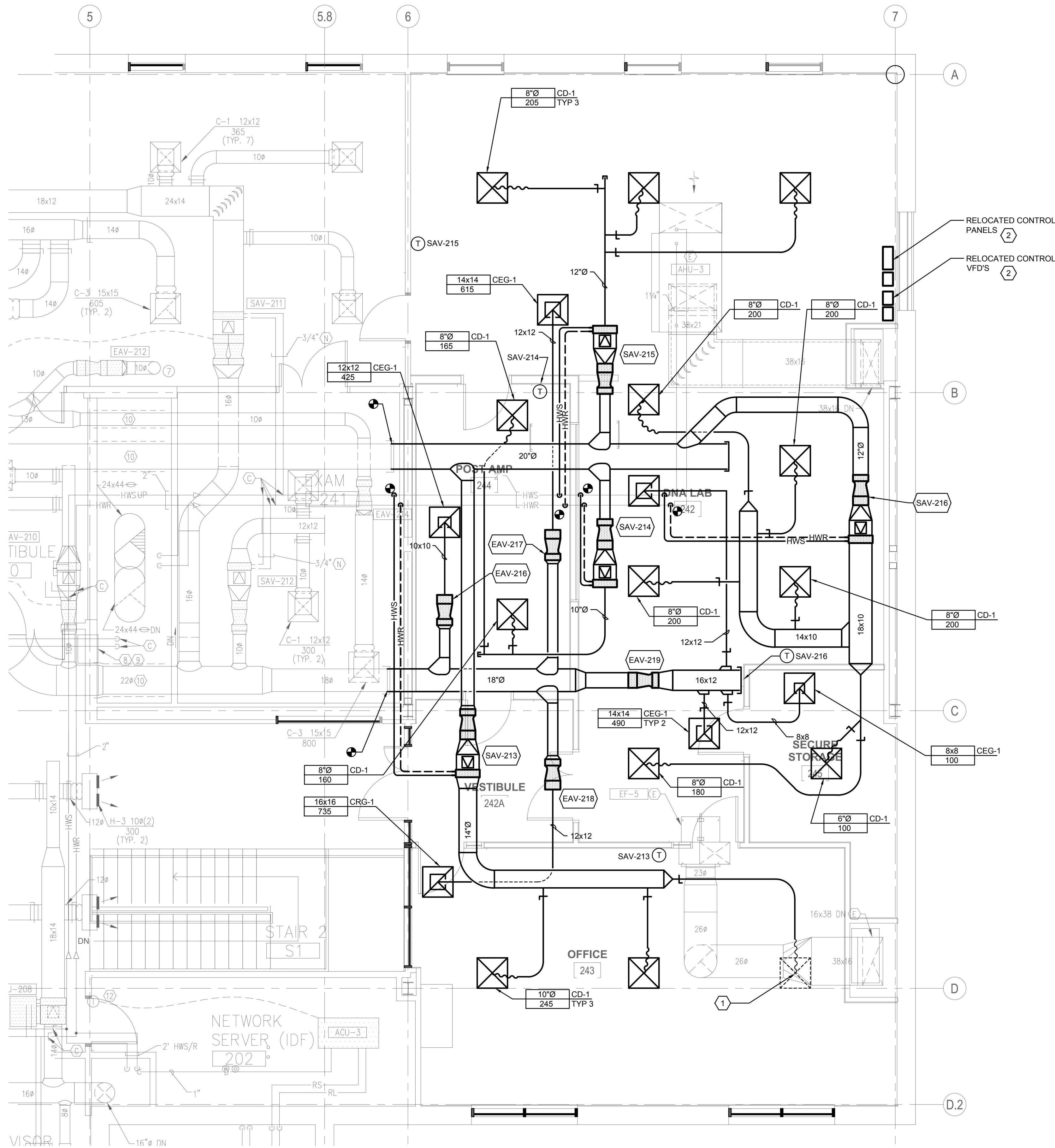
SECOND FLOOR DEMO
- MECHANICAL

Client Project No.: 2019-093

SSW Architects
Project No.: 18054

Date: 09/16/19

M2.02



NOTE: This is a standard symbol list and not all items listed may be used.

Abbreviations			General		
#	NUMBER		INV	INVERT ELEVATION	
&	AND		IW	INDIRECT WASTE	
(A)	ABANDON IN PLACE		KW	KILOWATT	
(E)	EXISTING		L	LAVATORY	
(F)	FUTURE		MAX	MAXIMUM	
(N)	NEW		MH	MOUNTING HEIGHT, MANHOLE	
(R)	RELOCATE / RELOCATED LOCATION		MIN	MINIMUM	
(X)	DEMOLISH		MS	MOP SINK	
@	AT		MW	MAKE-UP WATER	
'	FOOT, FEET		MX	MIXING VALVE	
A	AQUASTAT, ARCHITECT, ANCHOR, AMPHERE		N/A	NOT APPLICABLE	
AFF	ABOVE FINISHED FLOOR		N	NORTH	
AP	ACCESS PANEL		NIC	NOT IN CONTRACT	
AR	ACID-RESISTANT		NO.	NUMBER	
BF	BLIND FLANGE		NOP	NORMALLY OPEN	
BFF	BELOW FINISHED FLOOR		NPCW	NON-POTABLE COLD WATER	
BFP	BACKFLOW PREVENTER		NTS	NOT TO SCALE	
BLDG	BUILDING		OD	OVERFLOW DRAIN, OUTSIDE DIAMETER	
BTUH	BRITISH THERMAL UNITS PER HOUR		OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED	
BV	BALANCING VALVE		OFOI	OWNER FURNISHED, OWNER INSTALLED	
CD	CONDENSATE DRAIN		P	PLUMBING, PUMP	
CFH	CUBIC FEET PER HOUR		PD	PRESSURE DROP, PLUMBING DEMOLITION, PUMPED DISCHARGE	
CFS	CUBIC FEET PER SECOND		PG	PRESSURE GAUGE	
CO	CLEANOUT		PH	PHASE	
CONT.	CONTINUATION		PLBG	PLUMBING	
CV	CHECK VALVE		POC	POINT OF CONNECTION	
CW	COLD WATER		PRV	PRESSURE REDUCING VALVE	
D	DRAIN		PS	PRESSURE SWITCH	
DCVA	DOUBLE CHECK VALVE ASSEMBLY		PSI	POUNDS PER SQUARE INCH	
DET	DOMESTIC EXPANSION TANK		QTY	QUANTITY	
DF	DRINKING FOUNTAIN		RD	ROOF DRAIN	
DFU	DRAINAGE FIXTURE UNIT		RPBP	REDUCED PRESSURE BACKFLOW PREVENTER	
DN	DOWN		RPM	REVOLUTIONS PER MINUTE	
DS	DOWNSPOUT		RV	RELIEF VENT, RELIEF VALVE	
DSN	DOWNSPOUT NOZZLE		RWL	RAINWATER LEADER	
DW	DISHWASHER, DOMESTIC WATER		S, SK	SINK	
DWV	DRAINAGE, WASTE AND VENT		SA	SHOCK ARRESTOR	
EEW	EMERGENCY EYE WASH		SAN	SANITARY	
EJ	EXPANSION JOINT		SB	SERVICE BOX	
ELECT	ELECTRICAL		SD	STORM DRAIN	
ESH	EMERGENCY SHOWER		SF	SQUARE FEET	
ESV	ELECTRONIC SOLENOID VALVE		SH	SHOWER	
EW	ELECTRIC WATER COOLER		SHT	SHEET	
EW	ELECTRIC WATER COOLER		SJ	SEISMIC JOINT	
EW	ELECTRIC WATER COOLER		SOV	SHUT OFF VALVE	
F	FIRE, FAHRENHEIT		SP	SUMP PUMP, STATIC PRESSURE	
FC	FLEXIBLE CONNECTOR		SS	SERVICE SINK	
FCO	FLOOR CLEANOUT		T&P	TEMPERATURE AND PRESSURE	
FD	FLOOR DRAIN		T	TEMPERATURE, THERMOMETER	
FFE	FINISHED FLOOR ELEVATION		TD	TRENCH DRAIN	
FL	FLOOR		TEMP	TEMPERATURE	
FPS	FEET PER SECOND		TP	TRAP PRIMER, TOTAL PRESSURE	
FS	FLOOR SINK, FLOW SWITCH		TYP	TYPICAL	
FT	FEET		U, UR	URINAL	
FV	FLUSH VALVE		V	VACUUM, VENT, VOLT	
GD	GARBAGE DISPOSER, GARAGE DRAIN		VFD	VARIABLE FREQUENCY DRIVE	
GPH	GALLONS PER HOUR		VS	VENT STACK	
GPM	GALLONS PER MINUTE		VTR	VENT THRU ROOF	
GW	GREASE WASTE		WI	WITH	
GWH	GAS WATER HEATER		W	WASTE	
HB	HOSE BIBB		WB	WASHER BOX	
HD	HEAD, HUB DRAIN		WC	WATER COLUMN	
HG	MERCURY		WC	WATER COLUMN, WATER CLOSET	
HP	HEAT PUMP, HORSE POWER, HOUSEKEEPING PAD		WCO	WALL CLEANOUT	
HVAC	HEATING, VENTILATING AND AIR CONDITIONING		WH	WATER HEATER, WALL HYDRANT	
HW	HOT WATER		WHA	WATER HAMMER ARRESTOR	
HWFU	HOT WATER FIXTURE UNIT		WS	WASTE STACK	
HWR	HOT WATER RETURN		WSFU	WATER SUPPLY FIXTURE UNIT	
HZ	HERTZ				
IN, "	INCHES				

	VACUUM RELIEF
	VTR VENT THROUGH ROOF
	WCO WALL CLEANOUT

Piping Systems

	140° HW 140° HOT WATER PIPING
	140° HWR 140° HOT WATER RETURN PIPING
	AV ACID RESISTANT VENT PIPING
	AW ACID RESISTANT WASTE ABOVE GRADE
	AW ACID RESISTANT WASTE BELOW GRADE
	COLD WATER PIPING
	CA COMPRESSED AIR PIPING
	CONDENSATE / INDIRECT DRAIN PIPING
	DIR DE-IONIZED WATER RETURN
	DIS DE-IONIZED WATER SUPPLY
	F FIRE PROTECTION PIPING
	HOT WATER PIPING
	HOT WATER RETURN PIPING
	NP NON-POTABLE COLD WATER PIPING
	NP NON-POTABLE HOT WATER PIPING
	NP NON-POTABLE HOT WATER RETURN PIPING
	OD OVERFLOW DRAIN PIPING ABOVE GRADE OR FINISHED FLOOR
	PD PUMPED DISCHARGE
	SANITARY VENT PIPING
	SANITARY WASTE OR SOIL PIPING ABOVE GRADE OR FINISHED FLOOR
	SANITARY WASTE OR SOIL PIPING BELOW GRADE OR FINISHED FLOOR
	SD STORM DRAIN PIPING ABOVE GRADE OR FINISHED FLOOR
	SD STORM DRAIN PIPING BELOW GRADE OR FINISHED FLOOR
	TW TEMPERED WATER PIPING
	TP TRAP PRIMER PIPING

Valves

	BACKFLOW PREVENTER
	BACKWATER VALVE
	BALANCING VALVE
	CHECK VALVE
	ELECTRONIC SOLENOID VALVE
	HOSE END DRAIN VALVE
	PRESSURE REDUCING VALVE
	SHUTOFF VALVE, GENERAL

PLUMBING FIXTURE SCHEDULE

SYMBOL	FIXTURE TYPE	DESCRIPTION	MFR	MODEL	BASIS OF DESIGN		CONNECTION				NOTES
					ACCESSORIES		W	V	CW	HW	
EEW-1	EMERGENCY EYE WASH	DECK MOUNTED, RIGHT SWING ACTIVATION	GUARDIAN	G1805	MIXING VALVE: (EMV-1) SEE PLUMBING DEVICES SCHEDULE		--	--	1/2"	1/2"	
EEW-2	EMERGENCY EYE WASH	DECK MOUNTED, LEFT SWING ACTIVATION	GUARDIAN	G1805LH	MIXING VALVE: (EMV-1) SEE PLUMBING DEVICES SCHEDULE		--	--	1/2"	1/2"	
ESEW-1	EMERGENCY SHOWER / EYE WASH	BARRIER FREE, FLOOR MOUNTED, ABS PLASTIC EYE WASH BOWL, SHOWER HEAD, WATER STRAINER FOR EYE WASH	GUARDIAN	GBF1909PCC	MIXING VALVE: (EMV-2) SEE PLUMBING DEVICES SCHEDULE ALARM		1-1/2"	1-1/2"	1-1/4"	1-1/4"	
S-1	SINK ADA	WALL MOUNT, SINGLE BOWL, 18 GAUGE 304 STAINLESS STEEL, 19-INCHES X 23-INCHES X 4-INCHES DEEP, SIZE, 3-HOLE PUNCH	ELKAY	WCLW01923OSD-3	FAUCET (5-INCH GOOSENECK WRISTBLADE): CHICAGO 786-E35-319ABCP, MIXING VALVE: (LMV-1)SEE PLUMBING DEVICES SCHEDULE		2"	1-1/2"	1/2"	1/2"	
S-2	SINK ADA	COUNTERTOP, SINGLE BOWL, 18 GAUGE STAINLESS STEEL, 15-INCHES X 17-1/2-INCHES X 6-1/2-INCHES DEEP, 19-INCH MINIMUM CABINET SIZE, 3-HOLE PUNCH, BARRIER FREE	ELKAY	LRAD172265PD	FAUCET (5-INCH GOOSENECK WRISTBLADE): CHICAGO 50-E35-317XXABCP		2"	1-1/2"	1/2"	1/2"	PROVIDE WATER AND DRAIN TO ASSOCIATED WITH DISWASHER
NOTES:											
1	SEE ARCHITECTURAL DRAWINGS FOR ALL FIXTURE MOUNTING HEIGHTS AND LOCATIONS.										
*	UNLESS NOTED OTHERWISE ON DRAWINGS										

PLUMBING DEVICES SCHEDULE

SYMBOL	FIXTURE TYPE	DESCRIPTION	MFR	MODEL	BASIS OF DESIGN	ACCESSORIES		CONNECTION			NOTES
						W	V	CW	HW		
EMV-1	EMERGENCY MIXING VALVE - EYEWASHES	BRONZE BODY, INTERNAL COLD WATER BYPASS, ADJUSTABLE TEMPERATURE LIMIT STOP, CHECK STOPS, DIAL THERMOMETER, 4 GPM AT 30 PSI.	LEONARD	TA-300			---	---	1/2"	1/2"	
EMV-2	EMERGENCY MIXING VALVE - MULTIPLE EMERGENCY SHOWERS	BRONZE BODY, INTERNAL COLD WATER BYPASS, ADJUSTABLE TEMPERATURE LIMIT STOP, CHECK STOPS, DIAL THERMOMETER, 40 GPM AT 30 PSI.	LEONARD	TM-5100			---	---	1-1/4"	1-1/4"	
LMV-1	LAVATORY MIXING VALVE	THERMOSTATIC MIXING VALVE, ASSE 1070 COMPLIANT, INTEGRAL CHECK VALVES, LEAD FREE: WATTS LFMV	WATTS	LFMV			---	---	1/2"	1/2"	
NOTES:											

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7/22/19

WASHINGTON STATE PATROL
WSP

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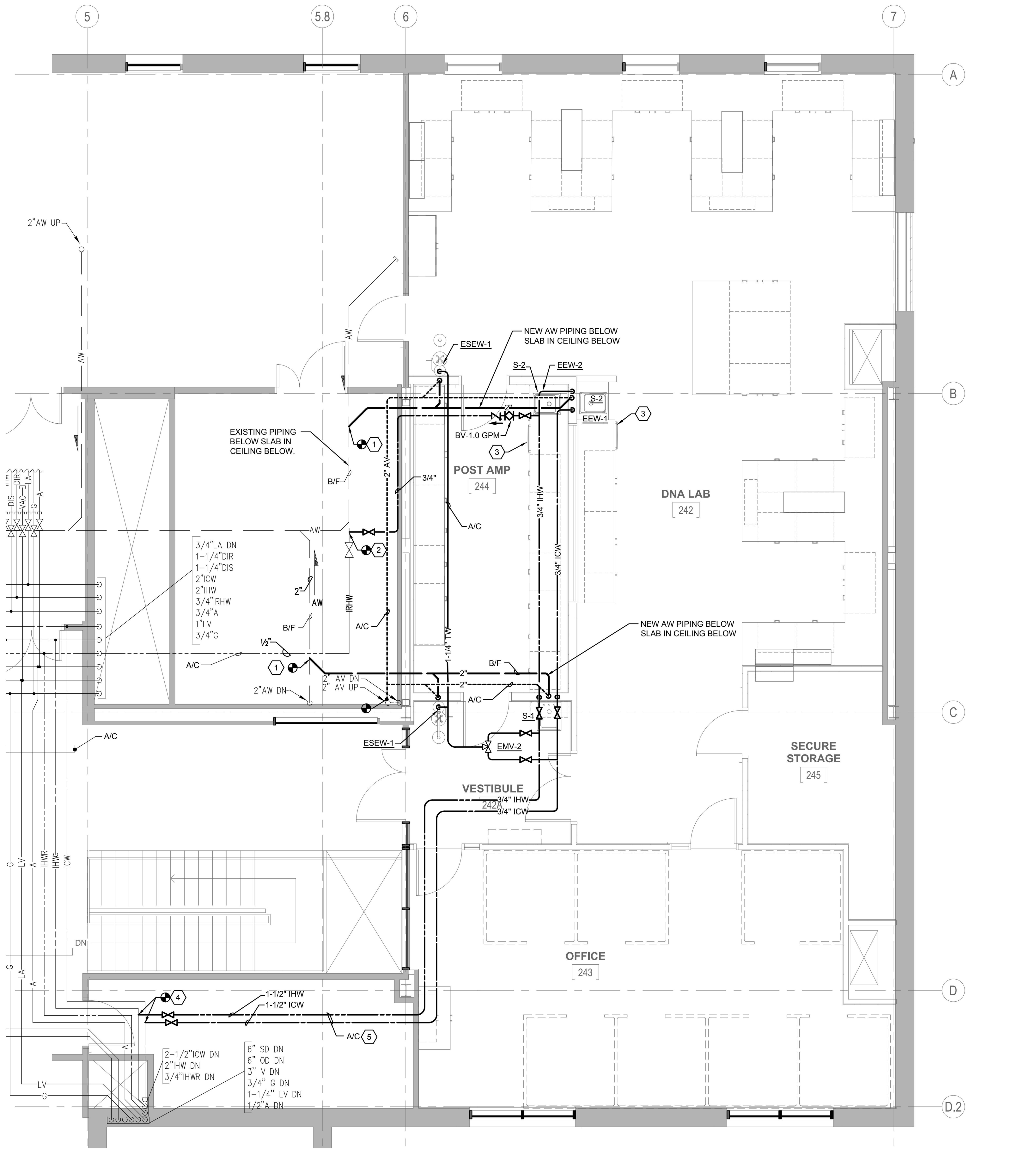
Bid Documents
SYMBOLS LIST &
SCHEDULES - PLUMBING

Client Project No.:	2019-093
SSW Architects	18054
Project No.:	
Date:	09/16/19

P0.1

SHEET INDEX

P0.1	SYMBOLS LIST & SCHEDULES - PLUMBING
P3.02	SECOND FLOOR - PLUMBING



GENERAL SHEET NOTES

- CONTRACTOR SHALL FIELD VERIFY THE EXACT LOCATION OF POINT OF CONNECTION TO EXISTING PIPING PRIOR TO BE WORK.
- INSTALL NEW INDUSTRIAL WATER PIPING AND ACID WASTE PIPING AS REQUIRED TO SERVE NEW PLUMBING FIXTURES. CONNECT TO EXISTING AWW AND IHW/ICW PIPING AT CLOSEST MAIN. SEE PLUMBING FIXTURE SCHEDULE FOR PIPE SIZES.

SHEET KEYNOTES

- CONTRACTOR SHALL CONNECT NEW 2" ACID WASTE PIPING TO THE EXISTING 2" ACID WASTE PIPING IN THE CEILING OF LEVEL 1 AT THIS APPROXIMATE LOCATION. CONTRACTOR TO VERIFY EXACT POINT OF CONNECTION PRIOR TO BEGINNING WORK.
- CONNECT 1/2" IHW TO EXISTING 1/2" IHW PIPING ABOVE THE CEILING AT THIS APPROXIMATE LOCATION.
- CONNECT DISHWASHER DRAIN TO ADJACENT SINK TAILPIECE. PROVIDE HOT/COLD WATER CONNECTION TO DISHWASHER.
- CONNECT NEW IHW/ICW PIPING TO EXISTING PIPING ABOVE THE CEILING AT THIS APPROXIMATE LOCATION.
- PROVIDE DRIP PAN UNDER PIPING THROUGH TELECOM ROOM. PIPE DRAIN DOWN SHAFT AND TO FLOOR DRAIN LOCATED IN BOILER ROOM DIRECTLY BELOW.

DNA Lab Remodel

Bid Documents

SECOND FLOOR
- PLUMBING

Client Project No.: 2019-093

SSW Architects

Project No.: 18054

Date: 09/16/19



East wall

6 View to East Wall
R1.0



From SE corner

5 View North & East Walls
R1.0



From SW corner

4 View to North & West Walls
R1.0



West wall

3 View to West Wall
R1.0



From NW corner

2 View to South & East Walls
R1.0

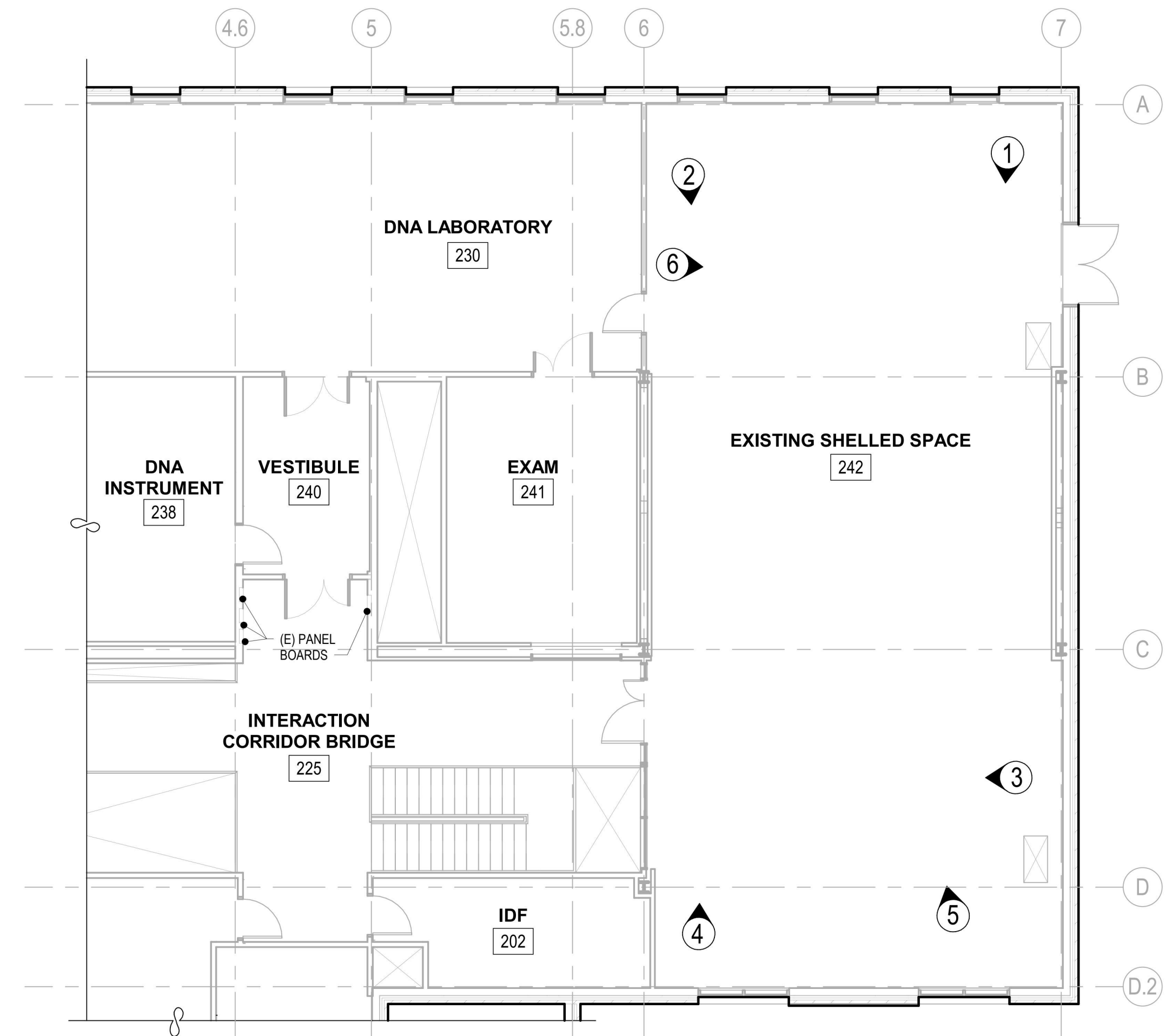


From NE corner

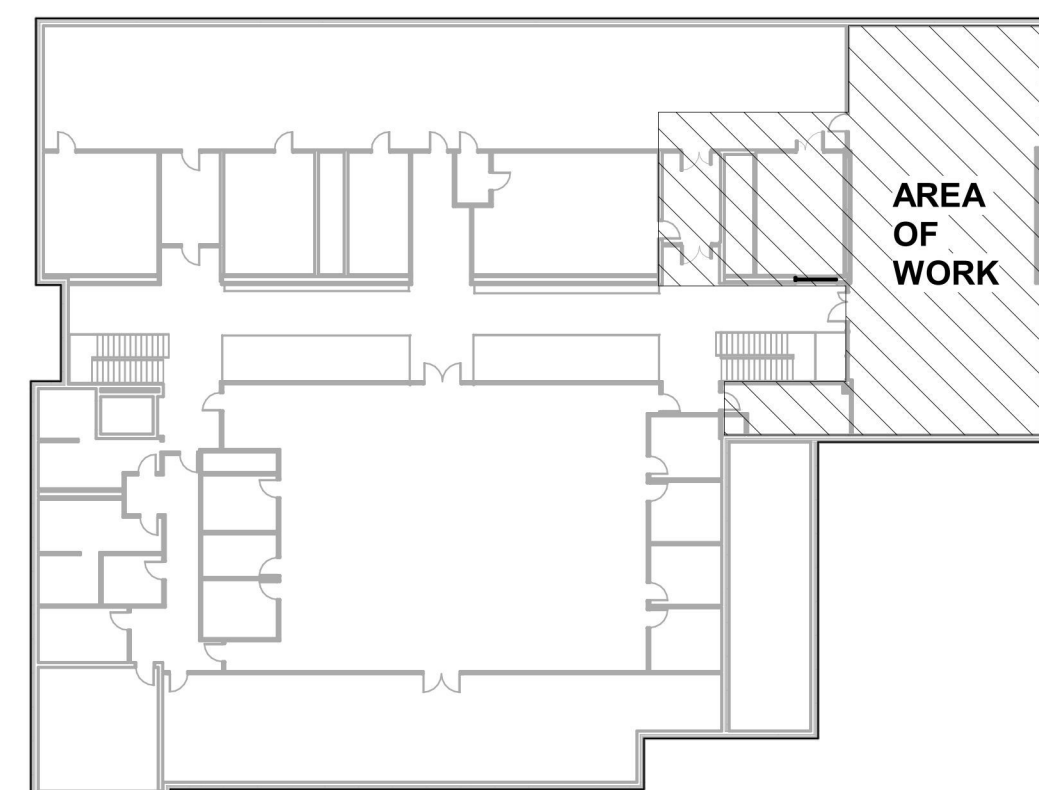
1 View to South & West Walls
R1.0

Site Notes

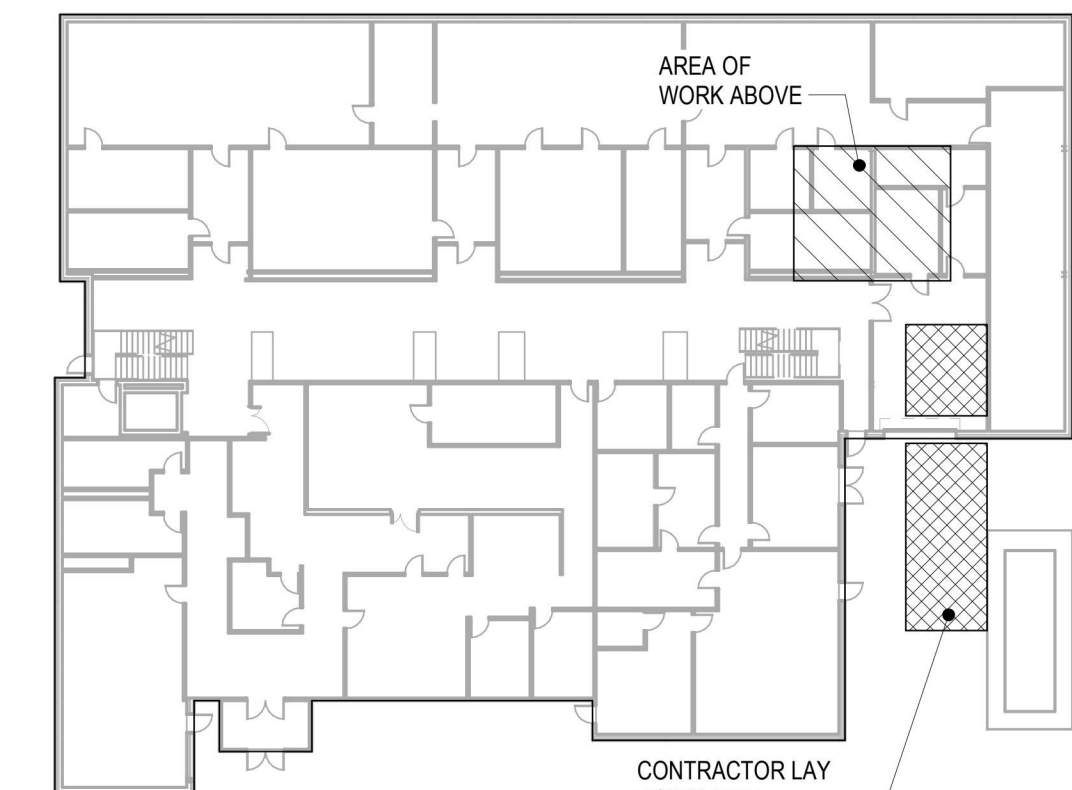
1. Field verify all relevant existing conditions and dimensions prior to the start of Work. Notify Architect immediately of any discrepancies.
2. Protect all existing conditions to remain on site and adjacent to Work area. Notify Architect of any damage to existing conditions to remain and restore or replace to original condition.
3. Confirm location of adjacent overhead utilities and protect all existing conditions to remain.
4. Existing shelled space has been cleared of stored materials.



9 Second Floor Plan- Photo Reference
R1.00 Scale: 1/8" = 1'-0"



8 Second Floor Reference Plan
R1.00 Scale: 1/32" = 1'-0"



7 First Floor Reference Plan
R1.00 Scale: 1/32" = 1'-0"

Washington State Patrol
High Throughput DNA Laboratory T.I.
Vancouver, Washington

Abbreviations: Terminology (SEE LEGENDS & NOTES FOR EACH DISCIPLINE FOR ADDITIONAL ABBREVIATIONS)

Units of Measure:	E	east	OFCI	owner furnished /
AWG	EA	each	contractor installed	
BTU	EF	each face; exhaust fan	OFOI	owner furnished /
CF	EJ	expansion joint	owner installed	
CU IN	ELEC	electrical	OH	overhead
CY	EQ	equal	OPNG	opening
FT	EST	estimated	OPP	opposite
GA	EUT	extended utility tunnel	PATT	pattern
GAL	EW	electric water cooler	PERF	perforated
IN	(E)/EX	existing	PERM	permanent
LB	EXH	exhaust	PIV	post indicator valve
LF	EXP	expansion; exposed	PLAM	plastic laminate
MIN	EXT	exterior	PLBG	plumbing
MAX			PT	paint
PSF	FACP	fire alarm control panel	PR	pair
PSI	FCR	future card reader	PT	pressure treated
R VALUE	FD	floor drain	PTD	painted
SF	FDC	fire department	PTN	partition
SQ IN		connection	PV	photovoltaic
U VALUE	FDN	foundation	PVC	polyvinylchloride
V	FE	fire extinguisher	PVMT	pavement
VAC	FEC	fire extinguisher cabinet	PLYWD	plywood
VDC	FH	fire hydrant		
W	FHA	fire hydrant assembly	RA	relief angle
YD	FIN	finish(ed)	RB	resilient base
	FLG	flooring	RD	roof drain
	FLR	floor	REF	reference, refer
Terminology:	FOS	face of stud	REIN	reinforced
@	FPA	fall protection anchor	REQ'D	required
&	FURN	furnish	REV	revise, revision,
AB			reverse	
ACOUST			recessed floor box	
ACP	GA	gauge	RFB	radiant heat panel
ACT	GALV	galvanized	RHP	reveal joint
ACM	GEN	generator, general	RJ	rain leader
ADA	GFR	glass fiber reinforced	RL	room
ADJ	GL	glass	RO	rough opening
A/E	GWB	gypsum wallboard		
AESS	GYP	gypsum	S	sink cabinet
			SAN	sanitary
AFF	HB	hose bibb	SB	standing height
AHJ	HDWR	hardware		base cabinet
ALUM	HGT	height, high	SCHED	schedule
ANCH	HID	high intensity discharge	SF	supply fan
ANOD	HM	hollow metal	SGL	single
APPROX	HORIZ	horizontal	SIM	similar
AVG	ID	inside diameter	SJC	siesmic joint cover
AWP	INCL	include(d)	SMB	sliding marker
	INSUL	insulation	SP	board
B	INT	interior	ST	stand pipe
BB	INV	invert	SPEC	specification
BD			SQ	square
BF	JB	junction box - electrical,	SS	stainless steel
BLDG		AV, or communications	STD	standard
BLKG	JST	joist	STL	steel
BOT	JT	joint	STRUCT	structural
BR			SURF	surface
BRG	LAM	laminare	SUSP	suspended
BTF	LAV	lavatory		
BTWN	LB	light bollard	T	toilet
	LF	light fixture	TB	tackboard
CB	LIN	linear	TC	tall cabinet
CD	LOCS	locations	TEMP	temporary
CEM	LPS	laptop storage area	TESC	temporary erosion
CFCI			&	sediment control
			T/O	top of
CG	MACH	machine	TOC	top of concrete
CIP	MAS	masonry	TOS	top of steel;
CJ	MATL	material		top of structure
CLG	MAX	maximum	TOW	top of wall
CLR	MB	marker board	TP	toilet partition
CMU	MDF	medium density	TYP	typical
COL		fiberboard	UH	unit heater
CONC	MDO	medium density overlay	UNEX	unexcavated
CONT	MECH	mechanical	UNFIN	unfinished
CONT	MFR	manufacturer	UON	unless otherwise
COORD	MH	manhole	noted	
CPT	MIN	minimum		
CR	MISC	miscellaneous	VB	vapor barrier
CT	MO	masonry opening	VEH	vehicle
CTR	MT	mount	VERT	vertical
CUST	MTD	mounted	VIF	verify in field
CW	MWP	manufactured wall panel	VOL	volume
CWC				
CWP				
	N	north	W	west
DA	NAT	natural	W/	wall cabinet
DBL	NIC	not in contract	WC	water closet
DC	NOM	nominal	WD	wood
DET	NRC	noise reduction	WF	wide flange
DF	NTS	coefficient	WH	water heater;
DIAG		not to scale		wall hydrant
DIM				wind load
DN	O/	over	WL	without
DS	OC	on center; overcurrent	W/O	weatherproof /
DWG	OD	outside diameter	WP	waterproof

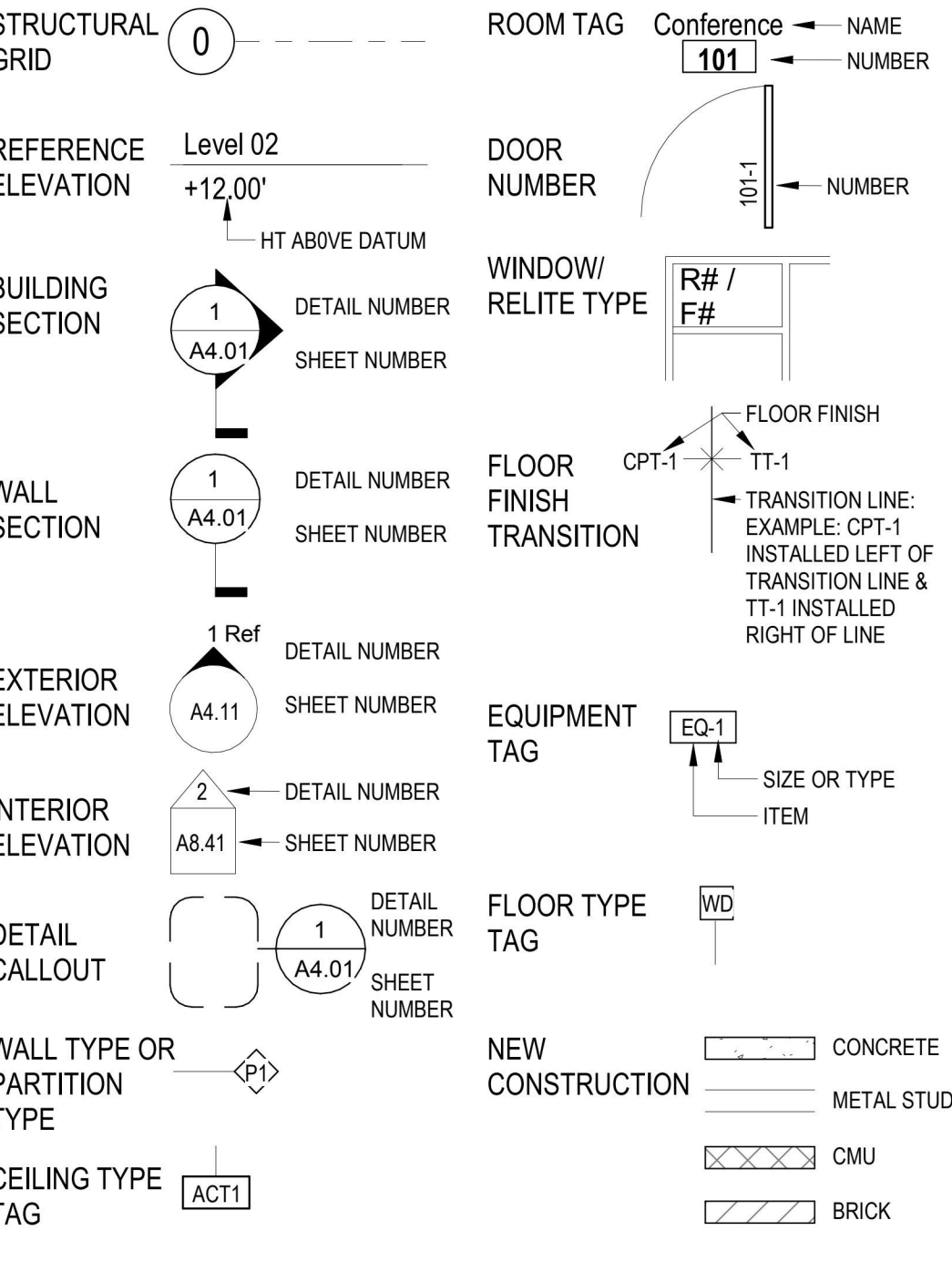
Sheet Index

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A3.03	Second Floor Ceiling Plan
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A7.00	Details
A7.01	Details
A7.02	Details
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E2.02	Second Floor Plan - Lighting
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M0.1	Symbols List & General Notes - Mechanical
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M3.02	Second Floor - Mechanical
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P3.02	Second Floor - Plumbing

General Notes

- These drawings are intended to provide a general description of the scope of work and must be reviewed for intent as well as specific information. It is the sole responsibility of the Contractor to execute the work with generally accepted standards of quality construction to provide a completed project for intended purpose.
- Field-verify all relevant dimensions and existing conditions.
- 2015 IBC governs. Verify with agency having jurisdiction prior to start of work.
- Call for all inspections required by public officials and agencies having jurisdiction at the project site.
- DO NOT SCALE DRAWINGS.
- Items shown in half tone are not in contract.
- Contractor is responsible for building security at all times during the construction phase of this project.

Symbols Legend



Legal Description

Tax Assessor Number: 47210000

Applicable Codes

Wahinton State Building Code 2015 Edition (2015 IBC w/ Amendments)
Jursidiction is State of Washington, City of Vancouver

Occupancy Classification

Group B Occupancy

Scope of Work

The scope of work includes interior remodel of a portion of the second floor of the Vancouver Crime Lab (which is currently a shelled space) to provide for high-throughput DNA processing. The area of the proposed project totals approximately 2,150-sf.

Vicinity Map

