ABBREVIATIONS

Ø	ROUND	HW	HOT WATER
AC	AIR CONDITIONING UNIT	HWP	HEATING WATER PUMP
ACC	AIR COOLING CONDENSER	HX	HEAT EXCHANGER
ACCU	AIR COOLING CONDENSING UNIT	HYD	HYDRANT
AD	AREA DRAIN	ID	INDIRECT
ADD	ADDENDUM	IN	INCH
AFF	ABOVE FINISHED FLOOR	INV	INVERT
AHU	AIR HANDLING UNIT	LB	POUND
ALT	ALTERNATE	LP	LOW PRESSURE
AP	ACCESS PANEL	LPG	LIQUEFIED PETROLEUM GAS
ARCH	ARCHITECT/ARCHITECTURAL	LVR	LOUVER
AS	AIR SEPARATOR	MAX	MAXIMUM
B	BOILER	MBH	ONE THOUSAND BTU PER HOUR
BFF	BELOW FINISHED FLOOR	MCF	ONE THOUSAND CUBIC FEET
BTU	BRITISH THERMAL UNITS	MECH	MECHANICAL
BTUH	BRITISH THERMAL UNITS PER HOUR	MFR	MANUFACTURER
CAP	CAPACITY	MIN	MINIMUM
CB	CATCH BASIN	MISC	MISCELLANEOUS
CFM	CUBIC FEET PER MINUTE	MUA	MAKE-UP/AIR
CH	CHILLER	NIC	NOT IN CONTRACT
CO	CLEAN OUT	NO	NUMBER
CT	COOLING TOWER	NTS	NOT TO SCALE
CUH	CABINET UNIT HEATER	O	OXYGEN
CW	COLD WATER	ORD	OVERFLOW ROOF DRAIN
CWP	CONDENSER WATER PUMP	PD	PRESSURE DROP
CHWP	CHILLED WATER PUMP	PIV	POST INDICATOR VALVE
D	DEGREE	PRESS	PRESSURE
DB	DRY BULB	PRV	PRESSURE REDUCING VALVE
DBP	DOMESTIC WATER BOOSTER PUMP	PSI	POUNDS PER SQUARE INCH
DCP	DOMESTIC WATER CIRCULATING PUMP	PSIG	POUNDS PER SQUARE INCH GAUGE
DIA	DIAMETER	PWR	POWER
DN	DOWN	(R)	RELOCATE
DW	DISTILLED WATER	RD	ROOF DRAIN
(E)	EXISTING	REC	RECESSED
ELEC	ELECTRICAL	RED	REDUCER
EQUIP	EQUIPMENT	RH	RELATIVE HUMIDITY
ET	EXPANSION TANK	RL/A	RELIEF AIR
EWC	ELECTRIC WATER COOLER	RM	ROOM
EWH	ELECTRIC WATER HEATER	RPM	REVOLUTIONS PER MINUTE
°F	DEGREES FAHRENHEIT	RTU	ROOF TOP UNIT
FCO	FLOOR CLEAN OUT	RW	RAIN WATER
FCU	FAN COIL UNIT	SF	SQUARE FOOT
FD	FLOOR DRAIN	SAN	SANITARY
FDV	FIRE DEPARTMENT VALVE	SEP	SEWAGE EJECTOR PUMP
FL	FLOOR	SF	SQUARE FOOT
FO	FUEL OIL	SP	STANDPIPE
FOV	FUEL OIL VENT	SP	STATIC PRESSURE
FOR	FUEL OIL RETURN	SP	SUMP PUMP
FOS	FUEL OIL SUPPLY	STM	STEAM
FP	FIRE PUMP	T	THERMOSTAT
FPM	FEET PER MINUTE	TD	TEMPERATURE DROP
FS	FLOOR SINK	TDR	TRENCH DRAIN
FT	FOOT/FEET	TEMP	TEMPERATURE
FU	FIXTURE UNITS	TYP	TYPICAL
FV	FLUSH VALVE	UG	UNDERGROUND
GAL	GALLON	VAC	VACUUM
GC	GENERAL CONTRACTOR	V	VENT
GI	GREASE INTERCEPTOR	VENT	VENTILATION
GPM	GALLONS PER MINUTE	VTR	VENT THROUGH ROOF
GW	GREASE WASTE	W	WASTE
HB	HOSE BIB	WCO	WALL CLEAN OUT
HP	HORSE POWER	WH	WALL HYDRANT
HRU	HEAT RECOVERY UNIT	WH	WATER HEATER
HPWH	HEAT PUMP WATER HEATER	(X)	DEMOLITION

PLUMBING GENERAL NOTES

1. THE CONTRACTOR SHALL PROVIDE COMPLETE PLUMBING SYSTEMS AS DETAILED IN THESE DRAWINGS. WORK CONSISTS OF FURNISHING ALL MATERIALS, EQUIPMENT, AND SERVICES REQUIRED FOR COMPLETE SYSTEMS. INCLUDE ANY INCIDENTAL APPARATUS, APPLIANCES, MATERIAL LABOR AND SERVICES NECESSARY TO MAKE NEW WORK COMPLETE IN ALL RESPECTS AND FULLY READY FOR OPERATION.
2. UPON COMPLETION OF THE WORK UNDER THIS CONTRACT, THE CONTRACTOR SHALL SUBMIT TO OWNER A COMPLETE O&M MANUAL, LISTING ALL EQUIPMENT AND FIXTURES INSTALLED.
3. FINAL PRODUCT SHALL CONFORM TO ALL REQUIREMENTS OF APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING BUT NOT LIMITED TO THE UNIFORM PLUMBING CODE AND/OR INTERNATIONAL PLUMBING CODE WITH PRIOR AHJ APPROVAL.
4. ALL MATERIALS INSTALLED MUST HAVE PROPER LISTING REQUIRED BY APPLICABLE CODES INCLUDING BUT NOT LIMITED TO UPC/IAPMO, NSF UNLESS RECEIVING PRIOR APPROVAL IN WRITING FROM AUTHORITY HAVING JURISDICTION (AHJ).
5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW MANUFACTURER RECOMMENDED INSTALLATION INSTRUCTIONS AND START-UP PROCEDURES ON ANY EQUIPMENT SPECIFIED SUCH AS BOILERS, PUMPS AND FIXTURES. ANY DAMAGE TO EQUIPMENT OR PREMISES, PERSONAL INJURY OR EQUIPMENT FAILURE DUE TO NOT FOLLOWING MANUFACTURER INSTRUCTIONS IS THE INSTALLER'S RESPONSIBILITY.
6. UPON COMPLETION OF THE WORK UNDER THIS CONTRACT, THE CONTRACTOR SHALL REMOVE ALL TOOLS, APPLIANCES, SURPLUS MATERIALS, AND SCRAP. ALL IDENTIFIED EXISTING EQUIPMENT TO BE REMOVED SHALL BE TURNED OVER TO THE OWNER.
7. THESE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS AND EQUIPMENT. FINAL LOCATIONS OF EQUIPMENT SHALL BE FIELD DETERMINED. ALL DISCREPANCIES IN THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IN WRITING BEFORE SUBMISSION.
8. EQUIPMENT FOR OTHER DISCIPLINES MAY BE SHOWN FOR REFERENCE ONLY. REFER TO OTHER DISCIPLINES' DRAWINGS FOR MORE DETAIL REGARDING EQUIPMENT SPECIFICATIONS AND INFORMATION.
9. THE CONTRACTOR SHALL BE FAMILIAR WITH ALL CONDITIONS; BOTH EXISTING AND THOSE ILLUSTRATED BY THESE DOCUMENTS, AS WELL AS THOSE THAT CAN BE REASONABLY ANTICIPATED INCLUDING, BUT NOT LIMITED TO ARCHITECTURAL, ELECTRICAL, VENTILATION, PLUMBING, AND OTHER SYSTEMS INVOLVED IN THIS PROJECT.
10. THE CONTRACTOR SHALL COORDINATE WORK WITH OTHER TRADES TO ENSURE ANY CONFLICT IN LAYOUT, NEEDED SPACE, SHARED EQUIPMENT REQUIREMENTS ETC. IS ADDRESSED BEFORE INSTALLATION, SO ADJUSTMENTS CAN BE MADE, IF NECESSARY.
11. LOCATION AND INVERTS OF SITE UTILITIES SHALL BE FIELD VERIFIED BEFORE INSTALLATION. ROUTE DOMESTIC WATER, SANITARY SEWER, AND STORM SEWER SERVICES TO SITE UTILITIES 5'-0" FROM BUILDING UNLESS NOTED OTHERWISE. REFER TO CIVIL PLANS FOR CONTINUATION. FIRE PROTECTION DESIGN IS BY OTHERS.
12. REFER TO ARCHITECTURAL PLANS FOR THE EXACT LOCATION OF PLUMBING FIXTURES AND FLOOR DRAINS.
13. LOCATE PIPING AND EQUIPMENT AWAY FROM THE SPACE ABOVE ELECTRICAL PANELS, TRANSFORMERS AND OTHER ELECTRICAL EQUIPMENT.
14. INSTALL EXPOSED PIPING AS HIGH AS PRACTICAL IN ROOMS WITHOUT CEILINGS.
15. WHERE VALVES OCCUR ABOVE DRYWALL OR PLASTER OR ARE CONCEALED BEHIND WALLS, THE CONTRACTOR SHALL FURNISH AND INSTALL ACCESS PANELS. COORDINATE LOCATION, SIZE, COLOR AND STYLE WITH ENGINEER/ARCHITECT.
16. PROVIDE FIREPROOFING FOR ALL PENETRATIONS OF FIRE-RATED ASSEMBLIES. FIREPROOFING MUST BE EQUIVALENT OR HIGHER TO THAT OF THE PENETRATED ASSEMBLY. REFER TO ARCHITECTURAL PLANS FOR LOCATION OF FIRE-RATED ASSEMBLIES.
17. COORDINATE UNDERGROUND PIPE ROUTING WITH CIVIL AND STRUCTURAL PLANS.
18. CONSULT STRUCTURAL ENGINEER OF RECORD FOR ALL STRUCTURAL PENETRATIONS.
19. COORDINATE LOCATION OF PLUMBING VENTS WITH MECHANICAL INTAKES AND ARCHITECTURAL PLANS. NO VENT THROUGH ROOF SHALL TERMINATE CLOSER THAN 10'FT TO ANY OUTSIDE AIR INTAKE OR VENTILATION LOUVERS, DOORS, WINDOWS, AND OTHER BUILDING OPENINGS. GROUP PLUMBING VENTS TOGETHER WHERE PRACTICAL.
20. WHERE FLOOR DRAINS OCCUR WITHIN THE LIMITS OF CONSTRUCTION, PREVENT CONSTRUCTION DEBRIS FROM ENTERING THE DRAIN BODY BY SEALING THE DRAIN OPENING BEFORE START OF WORK. UNSEAL DRAINS AT COMPLETION OF CONSTRUCTION.
21. FLOOR DRAINS SHALL BE PROVIDED WITH TRAP PRIMERS WHERE REQUIRED BY CODE.
22. PIPE SIZES SHOWN SHALL BE CONTINUED IN THE DIRECTION OF FLOW UNTIL ANOTHER SIZE IS SHOWN.
23. SANITARY WASTE PIPING SHALL BE SLOPED UNIFORMLY NOT LESS THAN 1/4 INCH PER FOOT. WHERE NOTED AND DEEMED NECESSARY AND APPROVED BY AHJ AND ENGINEER OF RECORD, WASTE PIPING 4" AND LARGER, MAY BE SLOPED NOT LESS THAN 1/8 INCH PER FOOT.
24. ALL SANITARY AND WATER PIPING UNDERGROUND SHALL BE A MINIMUM OF 12" BELOW GRADE OR FINISHED FLOOR UNLESS NOTED OTHERWISE.
25. WASTE AND VENT PIPING BELOW THE FLOOR AND THROUGH THE FLOOR SHALL BE 2" MINIMUM.
26. CLEANOUTS SHALL BE PROVIDED AS SHOWN AND WHERE REQUIRED BY CODE. INSTALL CLEANOUT IN ACCESSIBLE LOCATION AT THE BASE OF ALL WASTE PLUMBING RISERS BEFORE THE ENTRANCE TO BELOW GRADE. PROVIDE ALL SINKS AND LAVATORIES WITH SLIP JOINT TRAP FITTINGS FOR CLEANOUT.
27. PROVIDE LOW POINT DRAINS IN MAIN CW AND HW LINES WHEN SHUT OFF, MAY BE DRAINED TO ELIMINATE THE RISK OF FLOODING IN THE EVENT OF FUTURE UPGRADE OR REPAIR.
28. BALL VALVES SHALL BE INSTALLED SO THAT WHEN OPEN, THE HANDLE POINTS IN DIRECTION OF FLOW.
29. ALL HOT WATER PIPING SHALL BE INSULATED PER THE GOVERNING ENERGY CODE.
30. PROVIDE DIELECTRIC UNIONS AT ALL CONNECTIONS BETWEEN ELECTROLYSIS-PRODUCING DISSIMILAR PIPING METALS.
31. PROVIDE HAMMER ARRESTORS AT ALL FAST-CLOSING VALVES.
32. PROVIDE DISINFECTION OF POTABLE WATER PIPING SYSTEMS PER CODE REQUIREMENTS.

* NOTE *
ALL OF THE GENERAL NOTES ON THIS SHEET ARE TO BE APPLIED TO ALL OTHER DRAWINGS IN THIS SET. THE SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET MAY OR MAY NOT BE USED IN THIS SET OF DRAWINGS.

PIPING SYSTEMS

	2"	PIPE SIZE TAG (DIAMETER)
		ABOVE GROUND PIPING
		BELOW GROUND PIPING
	(E)	EXISTING PIPE TAG
		PIPING BEING DEMOLISHED
	CD	CONDENSATE DRAINAGE
	G	NATURAL GAS
	MG	NATURAL GAS (MEDIUM PRESSURE)
	GV	NATURAL GAS VENT
	PG	PROPANE GAS
	PGV	PROPANE GAS VENT
	CA	COMPRESSED AIR
	CW	DOMESTIC COLD WATER
	F-CW	FILTERED COLD WATER
	RO	REVERSE OSMOSIS WATER
	HW	HOT WATER
	HW 140°	HOT WATER 140°
	HW-R	HOT WATER RECIRCULATION
	HW-R 140°	HOT WATER RECIRCULATION 140°
	GV	GREASE VENT
	GW	GREASE WASTE
	IW	INDIRECT WASTE
	OW	OIL WASTE
	OV	OIL WASTE VENT
	PD	PUMP DISCHARGE
	V	SANITARY VENT
	W	SANITARY SEWER (WASTE)
	SHWR	SOLAR HOT WATER RETURN
	SHWS	SOLAR HOT WATER RETURN
	SD	STORM DRAINAGE
	OSD	OVERFLOW STORM DRAINAGE

MISC. FITTINGS & SYMBOLS

	PIPE CONTINUATION
	RISER
	ELBOW UP TO LEVEL ABOVE
	ELBOW UP
	ELBOW DOWN TO LEVEL BELOW
	DROP TO LOWER ELEVATION
	TEE DOWN
	DIRECTION OF FLOW
1/4"/FT	1/4" PIPE SLOPE TAG
1/8"/FT	1/8" PIPE SLOPE TAG
	PIPE SLEEVE
	HEAT TRACE
	PIPE REDUCER
	90 DEGREE ELBOW
	45 DEGREE ELBOW
	CAP
	JOINT OR COUPLING POINT
	UNION

PLUMBING FIXTURES

	HOSE BIBB
	WALL HYDRANT
	FLOOR DRAIN
	AREA DRAIN
	PARKING DECK DRAIN
	HUB DRAIN (FUNNEL TYPE)
	FLOOR CLEANOUT
	CLEANOUT TO GRADE
	VENT THROUGH ROOF
	ROOF DRAIN
	OVERFLOW DRAIN
	COMBINATION DRAIN
	TRENCH DRAIN
	WALL CLEANOUT
	DOWNSPOUT NOZZLE
	OUTLET BOX
	CONDENSATE BOX

PLUMBING VALVES

	SWING CHECK
	CHECK VALVE
	BALANCING VALVE
	CIRCUIT SETTER
	GATE VALVE
	BALL VALVE
	FLUID STRAINER
	EMERGENCY GAS SHUTOFF
	PLUG VALVE
	GAS SHUTOFF COCK
	PRESSURE REGULATOR
	THERMOSTATIC VALVE
	TRAP PRIMER
	ELECTRIC TRAP PRIMER
	ELEC. CONTROL VALVE
	MIXING VALVE
	SOLENOID VALVE
	TEMP/PRESSURE RELIEF
	WATER METER
	GAS METER
	IRRIGATION METER
	DOUBLE CHECK VALVE
	REDUCED PRESSURE ZONE

SYMBOLS

1	KEYNOTE
1	REVISION TAG
	REVISION CLOUD
	MATCHLINE
	POINT OF CONNECTION
	POINT OF DEMOLITION
	REMOVE EXISTING PIPE
	REMOVE EXISTING EQUIPMENT
	AREA NOT IN SCOPE

PLUMBING TAGS

EQUIPMENT
XX-XXX — UNIT NUMBER
FLOOR UNIT IS LOCATED ON EQUIPMENT TYPE

FIXTURE
2" X-XX — FIXTURE TYPE/NUMBER
XX DFU — FIXTURE UNITS

RISER
WTR 0 — SYSTEM TYPE
DWV 0 — RISER NUMBER

DETAIL CALLOUT
X / XXX — VIEW NUMBER OR DETAIL NUMBER / SHEET NUMBER

EQUIPMENT BY OTHERS
XXX — TAG NUMBER

APPENDIX M EQUIPMENT TAG
PIPE SIZE & SYSTEM TYPE
TOTAL # OF UNITS IN BUILDING
NODE / LOCATION
XXX NODE XXX
XXX XXX XXX
XXX XXX XX%
TOTAL # OF FIXTURES IN CALC
PEAK PERIOD HUNTER NUMBER
STAGNATION PROBABILITY
GALLONS PER MINUTE (GPM)
OF UNITS IN CALC

PLUMBING SHEET INDEX

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WASHINGTON STATE BUILDING CODE CHAPTER 11 ACCESSIBILITY

NOTE	DESCRIPTION
1	WATER CLOSETS: THE HEIGHT OF WATER CLOSETS SHALL BE A MINIMUM OF 17 INCHES AND A MAXIMUM OF 19 INCHES MEASURED TO THE TOP OF THE SEAT. SEATS SHALL NOT SPRING TO RETURN TO A LIFTED POSITION. THE FORCE TO ACTIVATE FLUSH VALVES SHALL NOT BE HIGHER THAN 5 POUNDS AND SHALL PERMIT OPERATION BY WRIST OR ARM PRESSURE ON THEACCESS SIDE OF THE FIXTURE.
3	LAVATORIES AND SINKS: FAUCET CONTROL HANDLES SHALL BE LOCATED NOT MORE THAN 17 INCHES FROM THE FRONT EDGE OF THE LAVATORY/SINK OR COUNTER. THE FORCE TO ACTIVATE VALVES SHALL NOT BE GREATER THAN 5 POUNDS AND SHALL PERMIT OPERATION BY WRIST OR ARM PRESSURE. SELF-CLOSING VALVES SHALL REMAIN OPEN FOR AT LEAST 10 SECONDS PER OPERATION. HOT WATER AND DRAIN PIPES EXPOSED UNDER LAVATORIES AND SINKS SHALL BE INSULATED.

PIPING VOLUME AND MAXIMUM PIPING LENGTHS

NOMINAL PIPE SIZE (IN)	VOLUME (LIQUID OUNCES PER FOOT LENGTH)	MAXIMUM PIPING LENGTH (FT)	
		PUBLIC LAVATORY FAUCETS	OTHER FIXTURES & APPLIANCES
1/4	0.33	6	50
5/16	0.5	4	50
3/8	0.75	3	50
1/2	1.5	2	43
5/8	2	1	32
3/4	3	0.5	21
7/8	4	0.5	16
1	5	0.5	13
1-1/4	8	0.5	8
1-1/2	11	0.5	6
2 OR LARGER	18	0.5	4

GENERAL NOTES:
A. TABLE IS BASED TABLE C404.3.1 FROM WSEC AND LEED v4 FOR HOMES.

MINIMUM PIPE INSULATION (HOT AND COLD WATER SYSTEMS)

SYSTEM	FLUID OPERATING TEMPERATURE RANGE (°F)	INSULATION CONDUCTIVITY		NOMINAL PIPE OR TUBE DIAMETER (IN)			
		CONDUCTIVITY (BTU-IN/(HR-SF-°F))	MEAN RATING TEMPERATURE (°F)	< 1	1 TO < 1-1/2	1-1/2	> 2
NOMINAL INSULATION THICKNESS (IN)							
DOMESTIC HOT WATER SUPPLY/RETURN	105 - 140	0.21 - 0.28	100	1.0	1.0	1.5	2.0
DOMESTIC COLD WATER, ABOVE & BELOW GRADE TRAPS AND TRAP PRIMER LINES (UNHEATED SPACES)	40 - 60	0.21 - 0.27	75	0.5	0.5	1.0	1.0

GENERAL NOTES:
A. MINIMUM PIPE INSULATION PER CURRENT ASHRAE 90.1, LOCAL ENERGY AND PLUMBING CODES.
B. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
C. FOR PIPING SMALLER THAN 1-1/2 INCH AND LOCATE IN PARTITIONS WITHIN CONDITIONED SPACES, REDUCTION FOR THESE THICKNESSES BY 1 INCH (25 MM) SHALL BE PERMITTED (BEFORE THICKNESS ADJUSTMENT REQUIRED IN NOTE 1) BUT NOT TO A THICKNESS LESS THAN 1 INCH.
D. FOR DIRECT-BURIED HEATING AND HOT WATER SYSTEM PIPING, REDUCTION OF THESE THICKNESSES BY 1-1/2 INCHES SHALL BE PERMITTED (BEFORE THICKNESS ADJUSTMENT REQUIRED IN NOTE D) BUT NOT TO THICKNESSES LESS THAN 1 INCH.

DISINFECTION OF POTABLE WATER SYSTEM

NEW OR REPAIRED POTABLE WATER SYSTEMS SHALL BE DISINFECTED PRIOR TO USE WHERE REQUIRED BY THE AUTHORITY HAVING JURISDICTION. THE METHOD TO BE FOLLOWED SHALL BE THAT PRESCRIBED BY THE HEALTH AUTHORITY OR, IN CASE NO METHOD IS PRESCRIBED BY IT, THE FOLLOWING:

THE PIPE SYSTEM SHALL BE FLUSHED WITH CLEAN, POTABLE WATER UNTIL POTABLE WATER APPEARS AT THE POINT OF THE OUTLET.

THE SYSTEM OF PARTS THEREOF SHALL BE FILLED WITH A WATER-CHLORINE SOLUTION CONTIANING NOT LESS THAN 50 PARTS PER MILLION OF CHLORINE, AND THE SYSTEM OR PART THEREOF SHALL BE VALVED-OFF AND ALLOWED TO STAND FOR 24 HOURS; OR, THE SYSTEM OR PART THEREOF SHALL BE FILLED WITH A WATER-CHLORINE SOLUTION CONTIANING NOT LESS THAN 200 PARTS PER MILLION OF CHLORINE AND ALLOWED TO STAND FOR 3 HOURS.

FOLLOWING THE ALLOWED STANDING TIME, THE SYSTEM SHALL BE FLUSHED WITH CLEAN, POTABLE WATER UNTIL THE CHLORINE RESIDUAL IN THE WATER COMING FROM THE SYSTEM DOES NOT EXCEED THE CHLORINE RESIDUAL IN THE FLUSHING WATER.

THE PROCEDURE SHALL BE REPEATED WHEN A STANDARD BACTERIOLOGICAL TEST FOR DRINKING WATER, PERFORMED BY A LABORATORY CERTIFIED FOR DRINKING WATER IN WASHINGTON STATE, SHOWS UNSATISFACTORY RESULTS INDICATING THAT CONTAMINATION PERSISTS IN THE SYSTEM.

PLUMBING DESIGN CRITERIA

DOMESTIC WATER PIPING SYSTEM:
BASIS OF DESIGN: 2021 WASHINGTON STATE PLUMBING CODE, APPENDIX A 'RECOMMENDED RULES FOR SIZING THE WATER SUPPLY SYSTEM'. PIPING SIZED ON 4 PSI/100 FT. DROP, VELOCITIES NOT TO EXCEED 8 FT./SEC. (COLD WATER) AND NOT TO EXCEED 5 FT./SEC. (HOT WATER).

WASTE AND VENT PIPING SYSTEM:
BASIS OF DESIGN: 2021 WASHINGTON STATE PLUMBING CODE, CHAPTER 7, 'SANITARY DRAINAGE'.
ALL WASTE PIPING SIZED AT 1/4"/FT. SLOPE UNLESS OTHERWISE NOTED.

PLUMBING FIXTURE SCHEDULE

ID	ADA (Y/N)	TYPE	DESCRIPTION	BASIS OF DESIGN MANUFACTURER & MODEL NUMBER			ROUGH-IN SIZE (IN)				GPM	GPF	NOTES
				COMPONENT	MANUFACTURER	MODEL	W	V	CW	HW			
WC-1	N	WATER CLOSET	WALL MOUNTED BOWL; CHROME PLATED MANUAL FLUSH VALVE	BOWL	AMERICAN STANDARD	2257.101	4	2	1-1/4	-	-	1.28	3,4,6
				VALVE	SLOAN ROYAL	111 MANUAL							
WC-2	Y	WATER CLOSET	WALL MOUNTED BOWL; CHROME PLATED MANUAL FLUSH VALVE	BOWL	AMERICAN STANDARD	2257.101	4	2	1-1/2	-	-	1.28	3,4,5,6
				VALVE	SLOAN ROYAL	111 MANUAL							
LV-1	Y	LAVATORY SINK	WALL MOUNTED, BATTERY OPERATED SENSOR FAUCET	BOWL	AMERICAN STANDARD	356.015	1-1/2	1-1/4	1/2	1/2	0.5	-	1,2,6
				FAUCET	DELTA	591T258							

GENERAL NOTES:
A. FINAL FIXTURE SELECTION TO BE COORDINATED WITH ARCHITECT AND OWNER.
B. MAXIMUM ALLOWABLE PLUMBING FIXTURE FLOW RATES PER STATE OF WASHINGTON, WAC 51-56-0400 INDICATED BELOW. THE JURISDICTION OF THE PROJECT LOCATION SHALL DICTATE MAXIMUM ALLOWABLE FLOW RATES.
WATER CLOSET FLUSH VALVES = 1.28 GALLONS (EXCEPTIONS FOR DAYCARE, BED PAN WASHERS AND BLOWOUT BOWL STYLE WATER CLOSETS = 3.5 GALLONS)
RESIDENTIAL COMMON LAVATORY = .5 GPM

NOTES:
1. PROVIDE UNDER-LAV TRAP PROTECTOR.
2. PROVIDE A THERMOSTATIC MIXING VALVE (TMV-1) FOR HAND WASHING SINK.
3. PROVIDE HAMMER ARRESTOR ON COLD WATER LINE SERVING FLUSH VALVE FIXTURE PER PLUMBING CODE. PROVIDE ACCESS PANEL AND COORINDATE FINAL LOCATION WITH OWNER AND ARCHITECT.
4. PROVIDE WITH BEMIS 1955CT TOILET SEAT.
5. INSTALL FLUSH HANDLE TOWARDS OPEN SIDE OF ROOM.
6. MOUNT AT HEIGHT SPECIFIED BY ARCHITECTURAL DETAILS.

COPPER PIPE SIZING

	PIPE SIZE (IN)	MAX FLOW (GPM)	FLUSH TANK MAXIMUM FIXTURE UNITS	FLUSH VALVE MAXIMUM FIXTURE UNITS
ALL WATER SIZES PER 2021 UPC	COLD WATER			
	1/2	1.75	0	-
	3/4	4.3	4	-
2" MAIN IS REQUIRED WITH A	1	9	12	-
VELOCITY UNDER 8 FT/SEC	1-1/4	17	24	
	1-1/2	26	44	9
	2	54	146	57
	2-1/2	100	380	245
VELOCITY:	3	160	692	631
COLD WATER: UNDER 8 FT/SEC	4	320	1926	1926
HOT WATER: UNDER 5 FT/SEC	HOT WATER			
RECIRC HOT WATER: UNDER 2 FT/SEC	1/2	1.75	0	-
	3/4	4.3	4	-
4 PSI PRESSURE DROP PER 100 FT LENGTH	1	9	12	-
	1-1/4	17	24	-
	1-1/2	26	44	9
	2	49	123	46
	2-1/2	78	264	140
	3	120	479	365
	RECIRC HOT WATER			
	1/2	1.2	-	-
	3/4	2.9	-	-
	1	4.9	-	-
	1-1/4	6.8	-	-
	1-1/2	12	-	-
	2	20	-	-
	2-1/2	31	-	-
	3	42	-	-

NOTES:
A. SIZING BASED ON 2021 UPC APPENDIX A RECOMMENDED RULES FOR SIZING THE WATER SUPPLY SYSTEM. CHART A105.1 (3).

DRAINS AND CLEANOUTS SCHEDULE

ID	DESCRIPTION	MANUFACTURER & MODEL	TRAP PRIMER CONNECTION (Y/N)	NOTES
FD-1	FLOOR DRAIN	SIOUX CHIEF 832-XPNR	Y	FINISHED AREAS, SET FLUSH WITH FINISH FLOOR. PRIME TRAP PER LOCAL CODE. USE 833-2PNR IF WATER SEALING MEMBRANE IS REQUIRED. SEE PLAN FOR SIZE.
FCO-1	FLOOR CLEANOUT	SIOUX CHIEF 832-C3PNR	-	CAST IRON BODY, TAPERED BRONZE PLUG, FLASHING FLANGE, VANDAL RESISTANT
WCO-1	WALL CLEANOUT	SIOUX CHIEF 873 SERIES	-	CAST IRON BODY, TAPERED BRONZE PLUG, HUBLESS CONNECTIONS, SS COVER WITH SCREW

GENERAL NOTES:
A. PROVIDE TRAP PRIMER TO ALL FLOOR DRAINS NOT RECEIVING DISCHARGE FROM A LISTED PLUMBING FIXTURE.

THERMOSTATIC MIXING VALVE SCHEDULE

ID	LOCATION	SERVICE	SERVICE	MANUFACTURER	MODEL	FLOW (GPM)		DESIGN		INLET SIZE (IN)	OUTLET SIZE (IN)	COLD WATER INLET TEMP (F)	HOT WATER INLET TEMP (F)	OUTLET SETPOINT (F)	NOTES
						MIN	MAX	FLOW (GPM)	PRESSURE DROP (PSI)						
TMV-1	FAUCETS	HAND WASH SINKS	THERMOSTATIC	CALEFFI	5212	0.35	2.3	0.5	0.9	3/8	3/8	50	120	105	1, 2

NOTES:
1. PROVIDE MIXING VALVE COMPLIANT WITH ASSE 1070.
2. INSTALL MIXING VALVE ON ALL HAND WASHING SINKS INCLUDING LAVATORY FAUCETS IN RESTROOMS PER CODE AND ADDITIONALLY AS INIDCATED ON PLANS.

TRAP PRIMER SCHEDULE

ID	LOCATION	SERVICE	MANUFACTURER	MODEL	WATER SOURCE	WATER CONNECTION SIZE (IN)	# TRAPS CONNECTED	NOTES
TP-101	ACCESSIBLE RR 107	FLOOR DRAINS	SIOUX CHIEF	695-ER5	COLD WATER	1/2	1-5	1, 2
TP-102	ACCESSIBLE RR 104	FLOOR DRAINS	SIOUX CHIEF	695-ER5	COLD WATER	1/2	1-5	1, 2

GENERAL NOTES:
A. PROVIDE ACCESS PANELS IN AREAS THAT WILL BE COVERED.
NOTES:
1. PROGRAM PER MANUFACTURERS RECOMMENDATIONS.
2. COORDINATE WITH DIVISION 26 TO PROVIDE 120V/1P PLUG.

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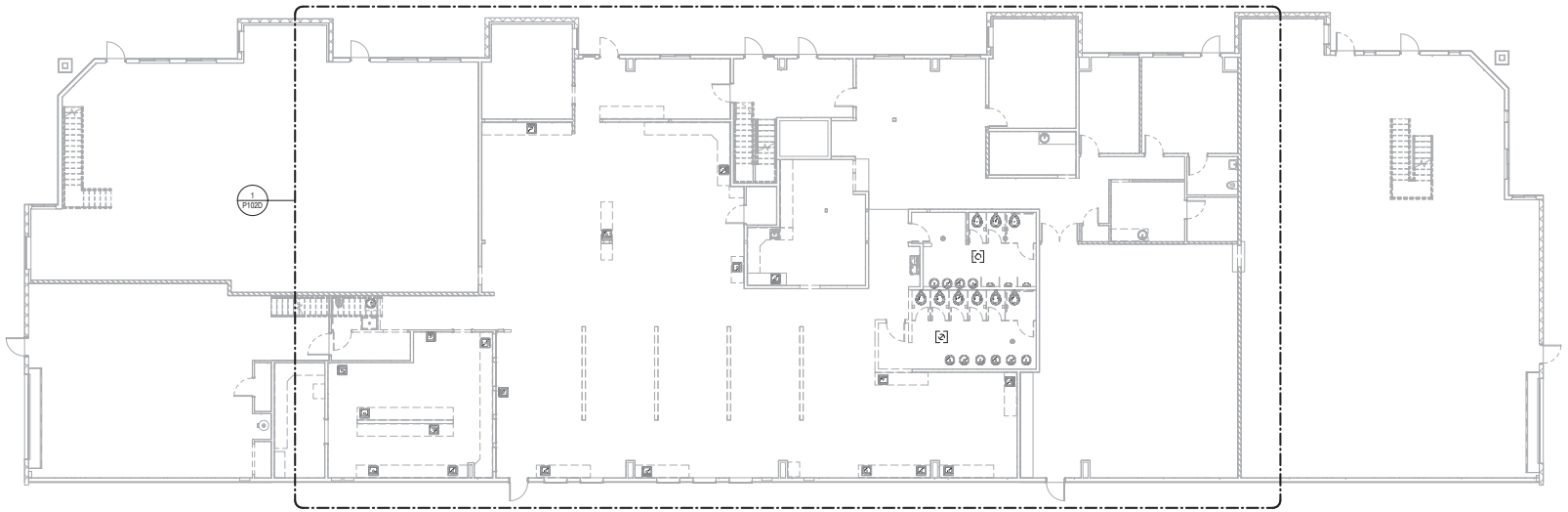

1 DEMO FLOOR PLAN - OVERALL - PLUMBING
SCALE: 1" = 10'-0"

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DEMO FLOOR PLAN OVERALL

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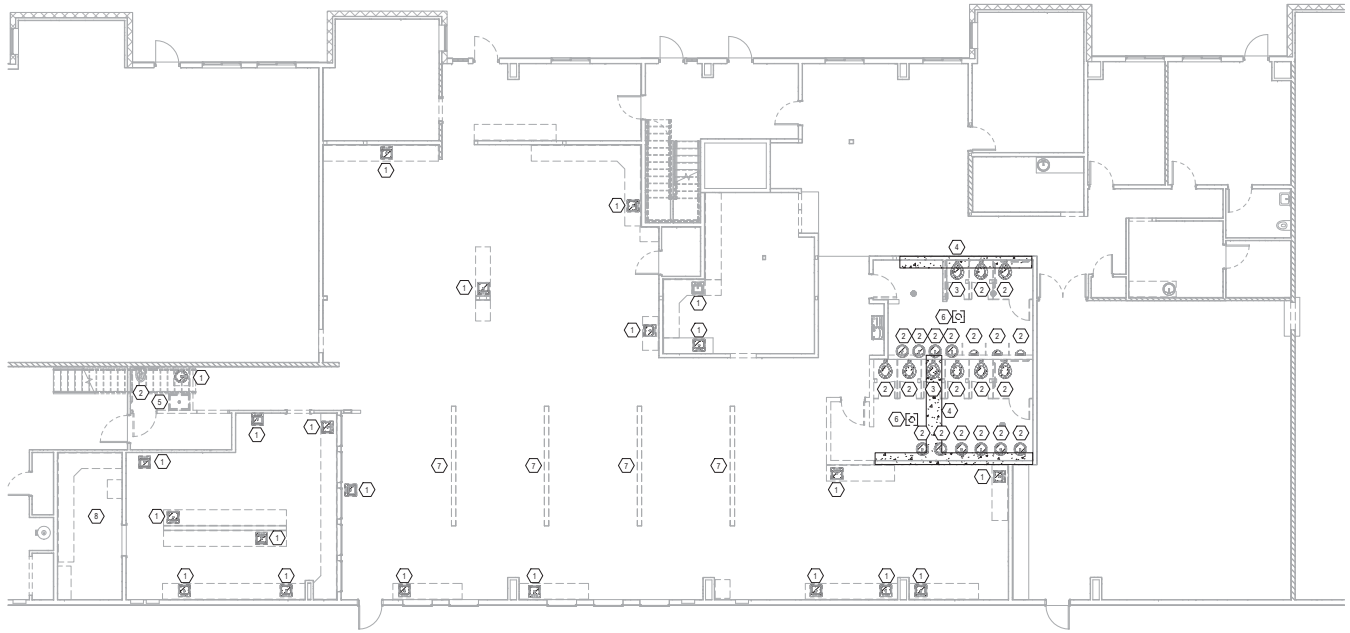

1 DEMO FLOOR PLAN - ENLARGED - PLUMBING
SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES:

A. EXISTING DENTAL LAB SPACE IS TO BE DEMOLISHED AND CONVERTED TO AN ESD 112 LEARNING CENTER.

B. ALL WATER PIPING SERVING DEMOLISHED PLUMBING FIXTURES IS TO BE DEMOED BACK TO THE MAIN AND CAPPED TO ELIMINATE THE RISK OF CREATING A DEAD LEG. ABANDONED EXISTING PIPING IN PLACE WHERE ABLE.

C. ALL WASTE PIPING SERVING DEMOLISHED FIXTURES IS TO BE HARD CAPPED IN WALL OR FLOOR TO ALLOW FOR FINISH COVER UNLESS NOTED OTHERWISE (UNO).

D. CUT AND CAP MEDICAL GAS LINES IN WALL. CONTRACTOR TO VERIFY THAT SYSTEM IS SHUTDOWN AND DEPRESSURIZED BEFORE DOING WORK.

E. THESE DRAWINGS ARE INTENDED FOR PERMIT REVIEW ONLY AND ARE NOT TO BE USED FOR BIDDING OR CONSTRUCTION. ANY USE OF THESE DRAWINGS FOR PURPOSES OTHER THAN PERMIT REVIEW SHALL BE THE RESPONSIBILITY OF THE USER. REFER TO THE OWNER FOR INFORMATION REGARDING BIDDING AND CONSTRUCTION DOCUMENTS.

KEYNOTES:

1 DEMOLISH EXISTING PLUMBING FIXTURE.
2 DEMOLISH EXISTING WATER CLOSET AND CAP WASTE PIPING BELOW FINISH FLOOR ELEVATION TO ALLOW FOR NEW FLOORING TO COVER ABANDONED WASTE PIPING. DEMO VENT PIPING ABOVE CEILING AND HARD CAP. PREPARE VENT THROUGH ROOF LOCATIONS FOR CONNECTION TO NEW VENT PIPING.
3 DEMOLISH EXISTING WATER CLOSET AND PREPARE WASTE PIPING FOR NEW CONNECTION.
4 OUTLINE INDICATES EXPECTED SAW CUTTING AREA TO ROUTE NEW WASTE PIPING TO IN WALL CARRIER SYSTEM.
5 DEMOSLISH AND SAVE EXISTING MOP SINK AND CAP WASTE PIPING BELOW FINISH FLOOR ELEVATION TO ALLOWS FOR NEW FLOORING TO COVER ABANDONED WASTE PIPING. CAP EXISTING CONDENSATE PIPING INDIRECT DRAINING TO MOP SINK AT CEILING. PREPARE PIPING FOR REROUTING TO NEW MOP SINK LOCATION. COORDINATE WORK WITH OWNER AND ARCHITECT TO ENSURE EQUIPMENT SERVED BY CONDENSATE PIPING IS NOT OPERATIONAL WHILE PIPING IS CAPPED.
6 DEMOLISH EXISTING FLOOR DRAIN AND CAP WASTE PIPING BELOW GRADE. POUR BACK AS NECESSARY TO PREPARE SUB-FLOOR FOR NEW FLOORING.
7 REMOVE WATER AND MEDICAL AIR PIPING TO PONY WALL AND CAP IN CEILING.
8 DEMOLISH EXISTING NATURAL GAS PIPING IN THIS AREA BACK TO CEILING AND HARD CAP.

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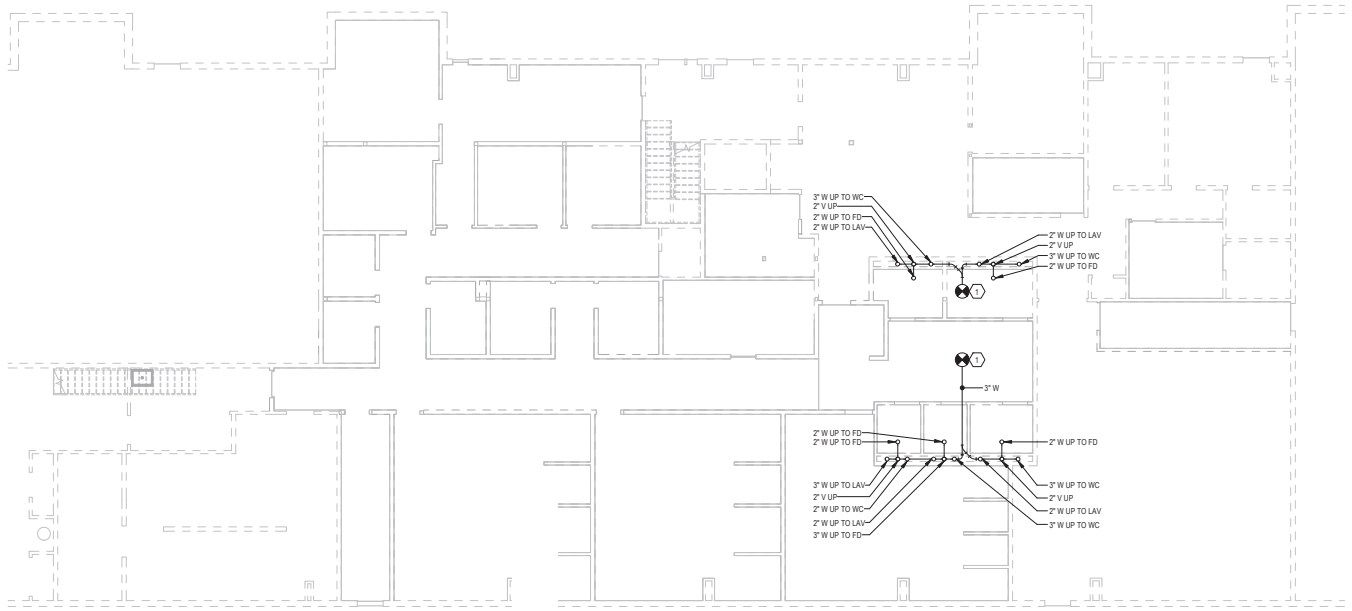

1 UNDERFLOOR PLAN - PLUMBING
SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES:

A. EXISTING DENTAL LAB SPACE IS TO BE DEMOLISHED AND CONVERTED TO AN ESD 112 LEARNING CENTER.

B. THESE DRAWINGS ARE INTENDED FOR PERMIT REVIEW ONLY AND ARE NOT TO BE USED FOR BIDDING OR CONSTRUCTION. ANY USE OF THESE DRAWINGS FOR PURPOSES OTHER THAN PERMIT REVIEW SHALL BE THE RESPONSIBILITY OF THE USER. REFER TO THE OWNER FOR INFORMATION REGARDING BIDDING AND CONSTRUCTION DOCUMENTS.

KEYNOTES:

1 CONNECT NEW WASTE PIPING TO PIPING SERVING EXISTING RESTROOM. PROVIDE FLOOR CLEAN OUT FCO-1 AT POINT OF CONNECTION FOR TESTING PURPOSES. EXISTING WASTE LINE EXPECTED TO BE 4".

KEY PLAN

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UNDERFLOOR PLAN

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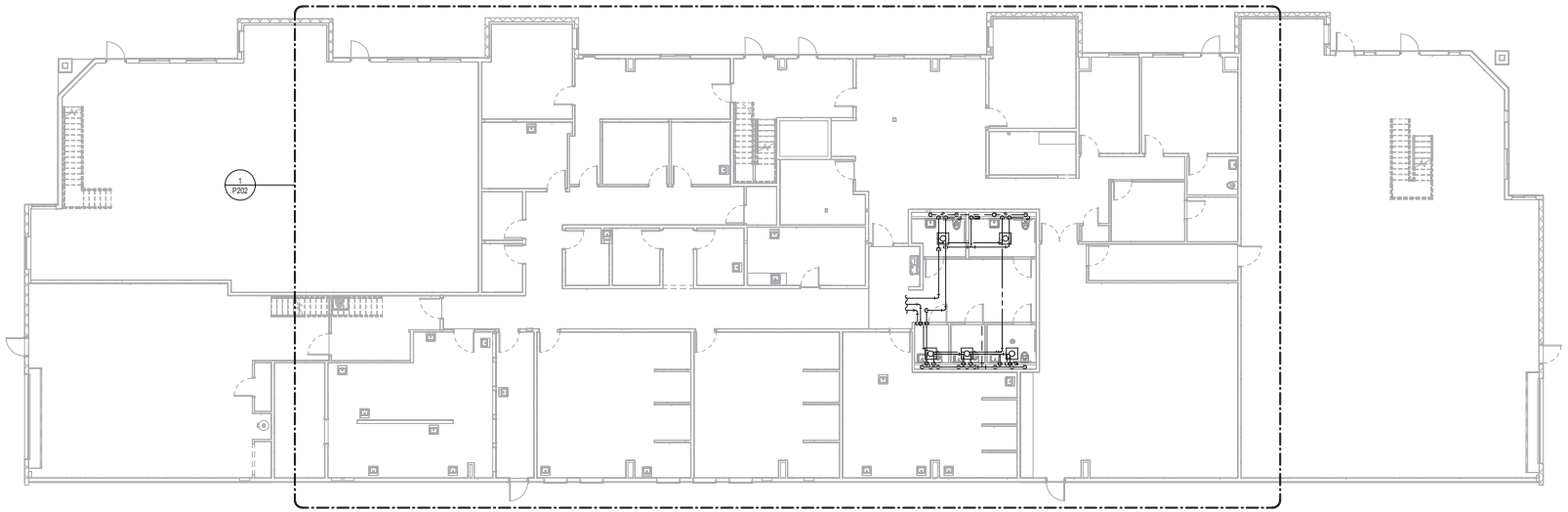

1 FLOOR PLAN - OVERALL - PLUMBING
SCALE: 1" = 10'-0"

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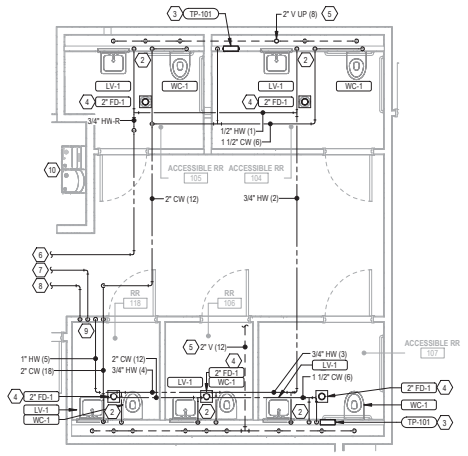
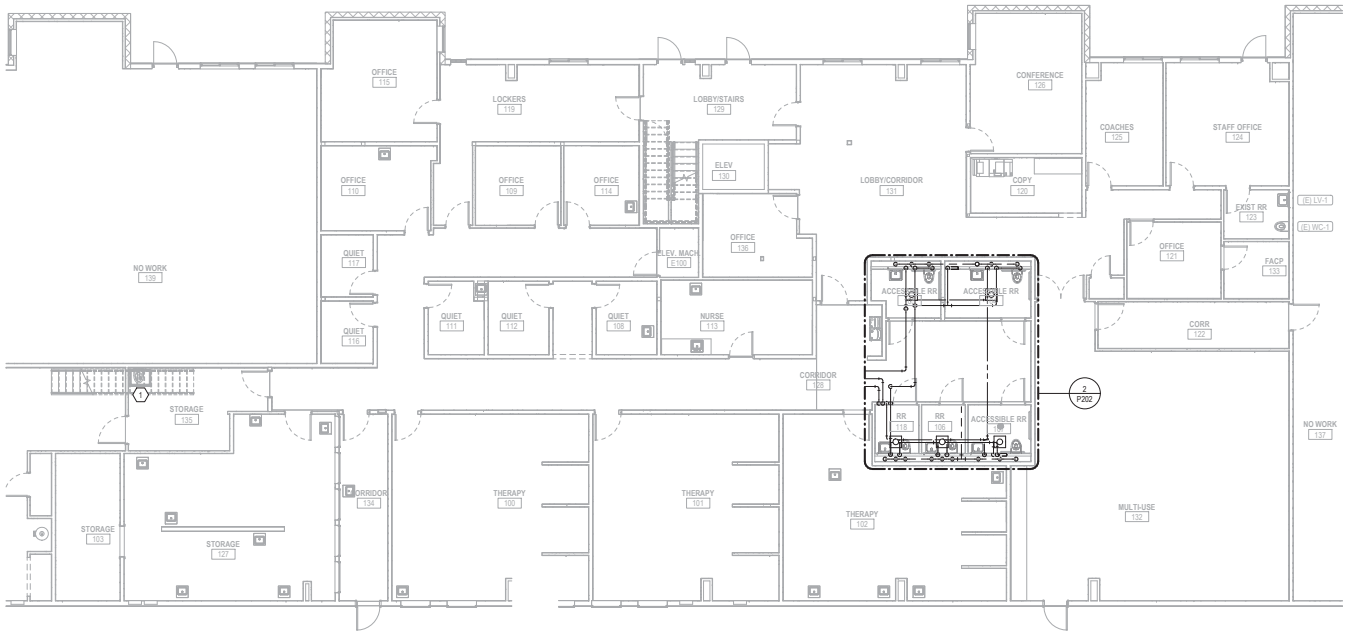


2 FLOOR PLAN - ENLARGED - PLUMBING - RESTROOMS
SCALE: 1/4" = 1'-0"



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

GENERAL SHEET NOTES:

A. EXISTING DENTAL LAB SPACE IS TO BE DEMOLISHED AND CONVERTED TO AN ESD 112 LEARNING CENTER.

B. CONTRACTOR TO VERIFY ALL PLUMBING POINTS OF CONNECTION AND CONNECT ALL NEW PLUMBING FIXTURES TO THE EXISTING PLUMBING SYSTEM.

C. THESE DRAWINGS ARE INTENDED FOR PERMIT REVIEW ONLY AND ARE NOT TO BE USED FOR BIDDING OR CONSTRUCTION. ANY USE OF THESE DRAWINGS FOR PURPOSES OTHER THAN PERMIT REVIEW SHALL BE THE RESPONSIBILITY OF THE USER. REFER TO THE OWNER FOR INFORMATION REGARDING BIDDING AND CONSTRUCTION DOCUMENTS.

D. NUMBERS IN PARENTHESIS () ARE WATER SUPPLY FIXTURE UNITS (WSFU) FOR WATER PIPING AND DRAINAGE FIXTURE UNITS (DFU) FOR WASTE PIPING.

KEYNOTES:

1 INSTALL RELOCATED MOP SINK USING DEMOLISHED WATER CLOSET WASTE AND COLD WATER PIPING. ROUTE HOT WATER LINE FROM THE EXISTING HOT WATER LINE SERVING THE MOP SINK AND LAVATORY. REROUTE EXISTING CONDENSATE PIPING TO THE NEW MOP SINK LOCATION.

2 PROVIDE SHUTOFF VALVES FOR 1-1/2" CW AND 1/2" HW SERVING LAVATORY AND WATER CLOSET IN THIS RESTROOM LOCATED IN WALL CAVITY. PROVIDE AND INSTALL LOCKING WALL ACCESS PANEL. COORDINATE FINAL LOCATION IN RESTROOM WITH OWNER AND ARCHITECT. VALVE MOUNTING HEIGHT TO BE 6' FROM FINISHED FLOOR.

3 PROVIDE ACCESS PANEL IN ACCESSIBLE RR 107 FOR TRAP PRIMER LOCATED IN WALL CAVITY. PROVIDE WITH LOCKING ACCESS PANEL AND COORDINATE FINAL MOUNTING HEIGHT WITH ARCHITECT AND OWNER. MOUNTING HEIGHT TO ALLOW FOR PROPER GRADE TO ALL SERVED FLOOR DRAINS.

4 CONNECT FLOOR DRAIN TO TRAP PRIMER (TP-101) LOCATED IN RR 107.

5 CONNECT NEW VENT TO EXISTING VENT SERVING RESTROOM OF SUFFICIENT SIZE AND CAPACITY.

6 CONNECT 3/4" RECIRC LINE TO EXISTING RECIRCULATION LINE SERVING THE EXISTING RESTROOMS. CONTRACTOR TO VERIFY AND PROVIDE PROPER BALANCING VALVE IF REQUIRED BEFORE CONNECTING TO EXISTING RECIRCULATION PIPING.

7 CONNECT 1" HOT WATER LINE TO EXISTING HOT WATER LINE SERVING EXISTING RESTROOM. CONTRACTOR TO VERIFY EXISTING HOT WATER PIPE SIZING AND ROUTE NEW PIPING TO THE AREA IF REQUIRED FROM THE CLOSEST PIPING OF SUFFICIENT CAPACITY.

8 CONNECT 2" COLD WATER LINE TO EXISTING COLD WATER SERVING EXISTING RESTROOM. CONTRACTOR TO VERIFY EXISTING COLD WATER PIPING SIZING AND ROUTE NEW PIPING TO THE AREA IF REQUIRED FROM THE CLOSEST PIPING OF SUFFICIENT CAPACITY.

9 PROVIDE METAL LOCKING ACCESS PANEL FOR RESTROOM MAIN SHUTOFF VALVES LOCATED IN WALL CAVITY. CORRIDINATE FINAL HEIGHT AND LOCATION WITH ARCHITECT & OWNER.

10 EXISTING DRINKING FOUNTAIN TO REMAIN. CONTRACTOR TO ENSURE A WATER CONNECTION IS MAINTAINED TO THE FIXTURE.

KEY PLAN

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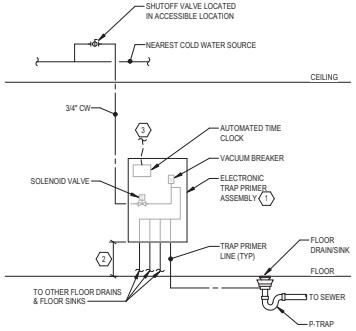


GENERAL NOTES:

A. ALL FLOOR DRAINS, FLOOR SINKS AND SIMILAR TRAPS SHALL BE PRIMED.

B. WHERE PRIMING VALVES ARE INSTALLED IN FINISHED ROOMS, CONCEAL IN LOCKABLE CABINET. REFER TO SPECIFICATION 22 40 00 AND PLUMBING EQUIPMENT SCHEDULE FOR TRAP PRIMER TYPE (SURFACE OR RECESSED) AND QUANTITIES.

C. COORDINATE LOCATION OF ELECTRONIC TRAP PRIMER STATIONS WITH ELECTRICAL CONTRACTOR FOR 120V SERVICE.

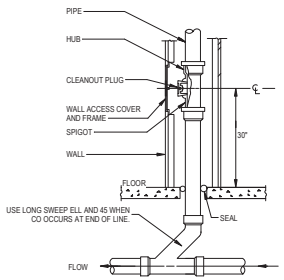
D. REFER TO SPECIFICATIONS FOR ALLOWABLE TRAP PRIMER LINE PIPE MATERIALS.

E. COORDINATE TRAP PRIMER LOCATION(S) AND ACCESS CLEARANCE WITH ARCHITECT.

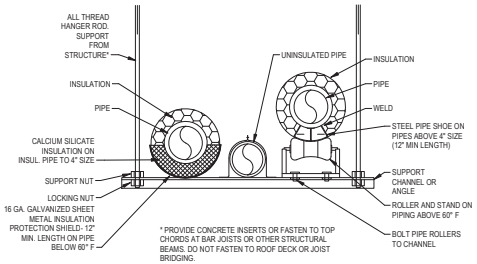
KEYNOTES:

1. MANIFOLD SHOWN TO SERVE 4 TRAPS. CONTRACTOR TO VERIFY QUANTITY OF TRAPS TO BE SERVED FROM EACH TRAP PRIMER STATION AND PROVIDE APPROPRIATE NUMBER OF OUTLETS ON MANIFOLD.
2. REFER TO MANUFACTURER LITERATURE FOR MINIMUM MOUNTING HEIGHT.
3. WIRING BY DIVISION 22.

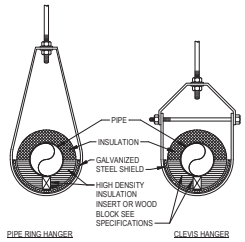
5 ELECTRONIC TRAP PRIMER DETAIL
SCALE: NOT TO SCALE



4 WALL CLEAN OUT DETAIL
NOT TO SCALE



3 TRAPEZE PIPE HANGER DETAIL
NOT TO SCALE



1 INSULATED PIPE AT HANGER DETAIL
NOT TO SCALE

[W] 707.4 LOCATION.
EACH HORIZONTAL DRAINAGE PIPE SHALL BE PROVIDED WITH A CLEANOUT AT ITS UPPER TERMINAL, AND EACH RUN OF PIPING, THAT IS MORE THAN 100 FEET (30,480 MM) IN TOTAL DEVELOPED LENGTH, SHALL BE PROVIDED WITH A CLEANOUT FOR EACH 100 FEET (30,480 MM), OR FRACTION THEREOF, IN LENGTH OF SUCH PIPING. AN ADDITIONAL CLEANOUT SHALL BE PROVIDED IN A DRAINAGE LINE FOR EACH AGGREGATE HORIZONTAL CHANGE IN DIRECTION EXCEEDING 135° (2.36 RAD).

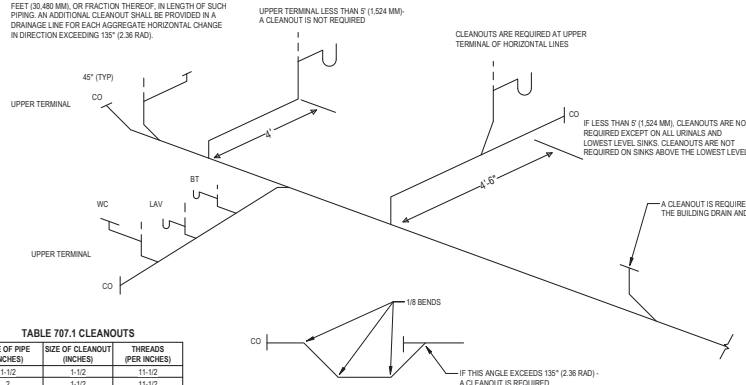


TABLE 707.1 CLEANOUTS

SIZE OF PIPE (INCHES)	SIZE OF CLEANOUT (INCHES)	THREADS (PER INCHES)
1-1/2	1-1/2	11-1/2
2	1-1/2	11-1/2
2-1/2	2-1/2	8
3	2-1/2	8
4 & LARGER	3-1/2	8

EXCEPTIONS:

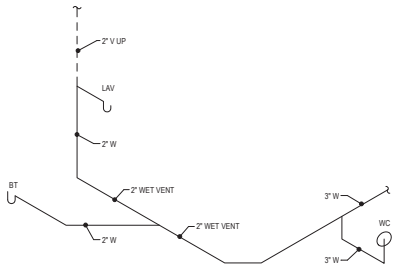
A. CLEANOUTS SHALL BE PERMITTED TO BE OMITTED ON A HORIZONTAL DRAIN LINE LESS THAN 5' (1,524 MM) IN LENGTH UNLESS SUCH LINE IS SERVING SINKS OR URINALS.

B. CLEANOUTS SHALL BE PERMITTED TO BE OMITTED ON A HORIZONTAL DRAINAGE PIPE INSTALLED ON A SLOPE OF 72° (1.26 RAD) OR LESS FROM THE VERTICAL ANGLE (ONE-FIFTH BEND).

C. EXCEPT FOR THE BUILDING DRAIN, ITS HORIZONTAL BRANCHES, AND URINALS, A CLEANOUT SHALL NOT BE REQUIRED ON A PIPE OR PIPING THAT IS ABOVE THE FLOOR LEVEL OF THE LOWEST FLOOR OF THE BUILDING.

D. AN APPROVED TYPE OF TWO-WAY CLEANOUT FITTING, INSTALLED INSIDE THE BUILDING WALL NEAR THE CONNECTION BETWEEN THE BUILDING DRAIN AND THE BUILDING SEWER OR INSTALLED OUTSIDE OF A BUILDING AT THE LOWER END OF A BUILDING DRAIN AND EXTENDED TO GRADE, SHALL BE PERMITTED TO BE SUBSTITUTED FOR AN UPPER TERMINAL CLEANOUT.

7 SANITARY CLEANOUTS
NOT TO SCALE



GENERAL NOTES:

A. ONLY BATHROOM GROUPS CAN BE VENTED BY A HORIZONTAL WET VENT SYSTEM.

B. THE WATER CLOSET MUST BE THE MOST DOWNSTREAM FIXTURE IN THE WET VENT SYSTEM.

C. THE MINIMUM SIZE WET VENT IN 2 INCHES. THE DRY VENT EXTENSION MUST BE 2 INCHES SINCE THE VENT SERVES THE WATER CLOSET.

D. THE BATHTUB TRAP MUST BE LOCATED WITHIN THE ALLOWABLE DISTANCE FROM THE TRAP TO THE VENT WHICH IS 3'-6" FOR A 1-1/2" DRAIN AND 5' FOR A 2 INCH DRAIN.

6 TYPICAL UPC HORIZONTAL WET VENT DETAIL
NOT TO SCALE

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GENERAL PROJECT NOTES

A. THESE DOCUMENTS AND NOTES ARE INTENDED TO BE SUPPLEMENTED BY AN OWNER/CONTRACTOR AGREEMENT. THE CONTRACTOR SHALL GUARANTEE ALL WORK AGAINST DEFECTS FOR THE LENGTH OF TIME SPECIFIED IN THE OWNER/CONTRACTOR AGREEMENT.

B. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING SUBCONTRACTORS WITH ALL INFORMATION IN REGARDS TO FULL SCOPE OF PROJECT AND THEIR RESPECTIVE TRADES.

C. EVERY EFFORT HAS BEEN MADE TO ENSURE THESE DOCUMENTS ARE CONCISE AND COORDINATED. KEEP IN MIND THAT AN INDIVIDUAL SUBCONTRACTOR'S, TRADE'S, SUPPLIER'S OR MANUFACTURER'S SCOPE OF WORK MAY BE DEFINED IN VARIOUS PLACES THROUGH THESE AND OTHER DISCIPLINE'S DRAWINGS. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE DRAWINGS OF ALL OTHER DISCIPLINES AS WELL AS ALL SPECIFICATIONS AND CONTRACT DOCUMENTS TO UNDERSTAND THE FULL SCOPE OF WORK FOR THE PROJECT. ALL USERS OF THESE DRAWINGS SHOULD REVIEW THE DRAWINGS AND SPECIFICATIONS IN THEIR ENTIRETY.

D. ALL WORK SHALL CONFORM TO APPLICABLE BUILDING CODES AND ORDINANCES. IN CASE OF ANY CONFLICT WHEREIN THE METHODS OR STANDARDS OF INSTALLATION OR THE MATERIALS SPECIFIED DO NOT EQUAL OR EXCEED THE REQUIREMENTS OF THE LAWS OR ORDINANCES, THE LAWS OR ORDINANCES SHALL GOVERN.

E. CONFORM TO AGENCY INSPECTOR'S COMMENTS AND CORRECTIONS. NOTIFY THE ARCHITECT OF ALL CONFLICTS IMMEDIATELY AND BEFORE PROCEEDING, AND ESPECIALLY IF INSPECTOR REQUIREMENTS CHANGE OR ADD TO APPROVED PLANS AND CONTRACT DOCUMENTS.

F. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BECOME FULLY AWARE OF ANY AND ALL CONDITIONS RELATED TO THE SITE AND EXISTING BUILDING CONDITIONS THAT MAY AFFECT THE COST OR SCHEDULING OF CONSTRUCTION ACTIVITIES, PRIOR TO SUBMITTING A BID OR COMMENCING WORK.

G. VERIFY ALL DIMENSIONS AND CONDITIONS AT THE JOB SITE, INCLUDING THOSE SHOWN ON ANY RECORD DRAWINGS PROVIDED, AND CONDITIONS RELATED TO THE LOCATION OF EXISTING UTILITIES AND SERVICES BEFORE COMMENCING WORK AND BE RESPONSIBLE FOR THE ABOVE. ALL DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT IMMEDIATELY.

H. THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND SHALL RESOLVE, AT NO COST TO THE OWNER AND TO THE SATISFACTION OF THE ARCHITECT, ANY AND ALL CONFLICTS BETWEEN THE WORK OF VARIOUS TRADES ARISING FROM ERRORS IN COORDINATION BETWEEN TRADES.

I. DO NOT SCALE DRAWINGS OR DETAILS. USE GIVEN DIMENSIONS. CHECK DETAILS FOR LOCATION OF ALL ITEMS NOT DIMENSIONED ON PLANS.

J. THE DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY DETAILED BUT ARE OF SIMILAR CHARACTER TO OTHER DETAILS PROVIDED, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND THE STRUCTURAL ENGINEER.

K. BUILDING SYSTEMS AND COMPONENTS NOT SPECIFICALLY DETAILED SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. NOTIFY THE ARCHITECT OF ANY RESULTING CONFLICTS PRIOR TO COMMENCING WORK.

L. COORDINATE ALL CONSTRUCTION LOGISTICS AND OPERATIONS SUCH AS MATERIAL STORAGE AREAS, ACCESS TO AND FROM WORK, AND TIMING OF WORK WITH THE ARCHITECT AND OWNER. THE GENERAL CONTRACTOR IS TO MAINTAIN AND PREVENT INTERFERENCE WITH EXISTING OCCUPIED AREAS AND ADJACENT PROPERTIES DURING CONSTRUCTION. HOURS OF OPERATION AND CONSTRUCTION ARE TO BE IN COMPLIANCE WITH LOCAL CODES AND ORDINANCES AND TO BE COORDINATED WITH THE OWNER. COORDINATE WITH OWNER FOR REQUIRED PARKING AND BUILDING ACCESS.

M. INSTALL DUST BARRIERS, BARRICADES, GUARDS AND OTHER PROTECTION AS REQUIRED TO PROTECT INSTALLED FINISHES AND FACILITIES, AS WELL AS HUMAN SAFETY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL INJURY OF ANY KIND TO ALL PERSONS WHICH RESULTS FROM WORK ON OR RELATED TO THIS PROJECT.

N. TAKE EVERY PRECAUTION TO PROTECT EXISTING PROPERTY FROM DAMAGE DUE DIRECTLY OR INDIRECTLY FROM THE CONTRACTOR'S WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY SUCH DAMAGE.

O. ITEMS OR SYSTEMS INCLUDED IN THE CONSTRUCTION DOCUMENTS WHICH ARE TO BE "BIDDER DESIGNED" OR ARE PROVIDED BY OTHERS MUST BE SUBMITTED TO THE ARCHITECT AND ENGINEERS FOR REVIEW TO DETERMINE IF THE SUBMITTALS ARE IN CONFORMANCE WITH THE GENERAL DESIGN INTENT. THIS REVIEW DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO CONFORM TO THE REQUIREMENTS OF ALL CODES AND THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL COORDINATE THE PLACEMENT OF BIDDER DESIGNED ITEMS WITH THE STRUCTURAL SYSTEM AND FRAMING. CONFLICTS SHALL BE BROUGHT TO THE ARCHITECT'S ATTENTION PRIOR TO CONSTRUCTION OR INSTALLATION.

P. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR SECURING ANY ADDITIONAL PERMITS REQUIRED BY THE JURISDICTION FOR THE INSTALLATION OF ELECTRICAL, MECHANICAL OR SPECIALTY EQUIPMENT OR SYSTEMS AND FOR ANY PERMITS REGARDING HEALTH, ENVIRONMENTAL OR OTHER PROJECT OR JOB SITE SAFETY CONCERNS.

Q. IT IS THE RESPONSIBILITY OF EACH CONTRACTOR TO CHECK WITH THE ARCHITECTURAL DRAWINGS BEFORE INSTALLATION OF THEIR WORK. ANY DISCREPANCY BETWEEN THE ARCHITECTURAL DRAWINGS AND THE CONSULTING ENGINEER(S) OR OTHER SUPPLEMENTARY DRAWINGS SHALL BE BROUGHT TO THE ARCHITECT'S ATTENTION BY WRITTEN NOTIFICATION FOR CLARIFICATION. ANY WORK INSTALLED IN CONFLICT WITH THE ARCHITECTURAL DRAWINGS SHALL BE CORRECTED BY THE CONTRACTOR AT HIS OWN EXPENSE AND AT NO EXPENSE TO THE OWNER OR ARCHITECT.

R. PROVIDE TEMPORARY BRACING FOR STRUCTURE AND STRUCTURAL COMPONENTS UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED.

S. THE DRAWINGS AND DETAILS HAVE BEEN PREPARED USING SPECIFIC PRODUCTS OR MANUFACTURERS AS THE BASIS OF DESIGN. NAMES, DIMENSIONS OR DETAILS FROM THESE MANUFACTURERS MAY CHANGE BETWEEN DESIGN AND ACTUAL CONSTRUCTION OR INSTALLATION. EQUIVALENT PRODUCTS FROM OTHER MANUFACTURERS WHICH MEET WITH THE DESIGN INTENT AND THE REQUIREMENTS OF THE SPECIFICATIONS ARE ALSO ACCEPTABLE. THEREFORE, ACTUAL DIMENSIONS AND DETAILS MAY DIFFER FROM THOSE SHOWN. CONTRACTOR SHALL VERIFY INSTALLATION REQUIREMENTS FOR ALL PRODUCTS TO BE INCORPORATED INTO THE WORK AND IS RESPONSIBLE FOR SUBMITTING DISCREPANCIES AND SUBSTITUTIONS TO THE ARCHITECT AND FOR ACCOMMODATING AND COORDINATING DETAIL ALTERATIONS RESULTING FROM THESE CHANGES.

T. THESE DRAWINGS ARE TO SHOW DESIGN INTENT ONLY. MEANS AND METHODS OF CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR. ALL CLARIFICATIONS OF DESIGN INTENT ARE TO BE MADE IN WRITING TO THE ARCHITECT OR ENGINEERS RESPONSIBLE FOR THE DESIGN DRAWINGS.

BUILDING "CONSTRUCTION" DATA

602.5 TYPE OF CONSTRUCTION: V-B
903.2 FIRE PROTECTION: SPRINKLERED
907 & NFPA 72 FIRE ALARM
TABLE 906.3(1) TYPE 2-A EXTINGUISHERS LOCATED NOT MORE THAN 75' APART

304 OCCUPANCY: B (OFFICE), ACCESSORY OCCUPANCIES: A-2 (ASSEMBLY), S-1 (STORAGE)
A SPACE USED FOR ASSEMBLY PURPOSES WITH AN OCCUPANT LOAD OF LESS THAN 50 PERSONS OR AREA LESS THAN 750 SQ FT SHALL BE CLASSIFIED AS AN ACCESSORY TO THE PRIMARY OCCUPANCY OF THAT BUILDING

504.3 BUILDING HEIGHT: 60' ALLOWED, EXISTING TO REMAIN: 24'

504.4 ALLOWED STORIES: 3-STORIES(B), A-2 & S-1 2 STORIES, EXISTING TO REMAIN: 2 STORIES

TABLE 506.2 ALLOWABLE BUILDING AREAS:
B & S-1: SM 27,000 SF
A-2: SM 18,000 SF

EXISTING BLDG: FIRST FLR: **17,762 SF**, 2ND FLR: **7,909 SF**
COMPLIES WITHOUT FRONTAGE INCREASE CALCULATION.
ALLOWABLE AREA ALLOWS FOR COMPLIANCE WITH 508.3 NON-SEPARATED OCCUPANCIES

TABLE 601:

PRIMARY STRUCTURAL FRAME		0 HOURS
BEARING WALLS	EXTERIOR	0 HOURS
	INTERIOR	0 HOURS
NON BEARING WALLS & PARTITIONS		0 HOURS
FLOOR CONSTRUCTION		0 HOURS
ROOF CONSTRUCTION		0 HOURS

TABLE 602 FIRE SEPARATION:
DISTANCE: NORTH: 0 HOURS SOUTH: 0 HOURS
EAST: 0 HOURS WEST: 0 HOURS

EGRESS REQUIREMENTS

TABLE 1006.2.1 NUMBER OF EXITS 1ST FLOOR: 2 REQUIRED, 2 PROVIDED

1008 ILLUMINATION: ALL OCCUPANCIES REQUIRE MEANS OF EGRESS ILLUMINATION UNDER NORMAL POWER, ILLUMINATION UNDER EMERGENCY POWER FOR A DURATION OF NOT LESS THAN 90 MINUTES (1008.3) REQUIRED & PROVIDED.

1009 TWO ACCESSIBLE MEANS OF EGRESS REQUIRED & PROVIDED.

TABLE 1017.2 EXIT ACCESS TRAVEL DISTANCE: 250' MAX (S-1), 300' MAX (B)

TABLE 1006.2.1 SPACES WITH ONE EXIT, COMMON PATH OF EGRESS TRAVEL DISTANCE: 100' MAX (B & S)

1007.1.1 TWO EXITS, SEPARATION OF EXIT ACCESS NOT LESS THAN 1/3 LENGTH OF THE MAX OVERALL DIM OF THE AREA SERVED.

1020.3 CORRIDOR WIDTH MIN 44", LESS THAN 50 OCC 36"
1020.5 MAX ALLOWED DEAD END-CORRIDOR: 50'

HAZARDOUS MATERIALS

NOT APPLICABLE

MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES PER TABLE 2902.1
2902.2: OCCUPANT LOAD: 157
HIGH LOW DRINKING FOUNTAIN PROVIDED
EXISTING FIXTURES PROVIDED ADEQUATE.

	MALE 79	FEMALE 79	
FIXTURE	REQUIRED	REQUIRED	PROVIDED
WATER CLOSET 1 per 25 for first 50 and 1 per 50 for the remainder exceeding 50	(3)	(3)	5 NEWLY CONFIGURED SINGLE USER RESTROOMS + 1 EXISTING TO REMAIN.
LAV 1 per 40 for first 80 and 1 per 80 for the remainder exceeding 80	(3)	(3)	

WATTS PER SF NOT TO EXCEED TABLE C405.4.2(2) VALUES & OCCUPANCY SENSORS PROVIDED PER C405.2.1.

CURRENT GOVERNING CODES

2021 INTERNATIONAL EXISTING BUILDING CODE WITH WA STATE AMENDMENTS (WAC51-50-480000)
2021 INTERNATIONAL BUILDING CODE WITH WA STATE AMENDMENTS (WAC51-50)
2021 UNIFORM PLUMBING CODE AND STANDARDS WITH WA STATE AMENDMENTS (WAC51-56)
2021 INTERNATIONAL MECHANICAL CODE WITH WA STATE AMENDMENTS (WAC 51-52)
2023 NATIONAL ELECTRICAL CODE (NFPA70) WITH WA STATE AMENDMENTS
2021 INTERNATIONAL FUEL GAS CODE WITH WA STATE AMENDMENTS (WAC51-52-21000)
2021 INTERNATIONAL FIRE CODE WITH WA STATE AMENDMENTS (51-54)
2021 WA STATE ENERGY CODE (WAC51-11C)
ICC/ANSI A117.1-2017 ACCESSIBILITY (WAC 51-50-1101.2)
ASCE/SEI 7-16 MINIMUM DESIGN LOADS & ASSOCIATED DESIGN CRITERIA

AUTHORITY HAVING JURISDICTION: CITY OF VANCOUVER
PARCEL #: 2947400
ZONE: LI LIGHT INDUSTRIAL

SCOPE OF WORK

INTERIOR TENANT IMPROVEMENT IS NOT A CHANGE OF USE NOR A CHANGE IN SPACE CONDITIONING. DENTAL OFFICE EQUIPMENT AND INFRASTRUCTURE REMOVED, NEW WALLS AND RESTROOMS RECONFIGURED.
REQUESTED EARLY START DUE TO THE LIMITED TIME BEFORE THE SCHOOL YEAR & SO THAT DEMOLITION OF INTERIOR WALLS & DENTAL OFFICE INFRASTRUCTURE COULD COMMENCE. THE THERAPY ROOMS ARE ENLARGED CLASSROOMS FOR CHILDREN WITH SPECIAL NEEDS. THE OCCUPANT LOAD IS BEING CALCULATED AT THE VOCATIONAL 50 NET RATE BECAUSE THIS IS SIMPLY A SPACE WHERE THEY CAN SPREAD OUT AND BE LESS OVERWHELMED BY THEIR ENVIRONMENT.

DEFERRED SUBMITTALS

STRUCTURAL

SEPARATE PERMITS

FIRE SPRINKLER & ALARM

LIST OF SHEETS

MJ Architecture & Code Consulting, PLLC
2618 S. 10th Ct.
Ridgefield, WA 98642
PH: 925-334-6823

10144 REGISTERED ARCHITECT
MICHELLE J. ANDERSON
STATE OF WASHINGTON
SEAL

5305 E 18th St. VANCOUVER,WA 98661

ESD 112
THERAPY/OFFICE TI
COVER SHEET & CODE SUMMARY

MARK	DESCRIPTION	DATE
	PERMIT REVISIONS	2026.05.26
	PERMIT SET	2026.04.27

APPROVAL

SATISFACTORY DATE

PRINT: 2026.04.30
PROJECT NO.: 2026.00

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