GENERAL ABBREVIATIONS

A	AMPERE	FFA	FROM FLOOR ABOVE	OS&Y	OPEN SCREW & YOKE
A/C	AIR CONDITIONING	FFB	FROM FLOOR BELOW	OSD	OPEN SIGHT DRAIN
ACC	ACCESSORIES	FH	FIRE HOSE	OUT	OUTLET
ACCU	AIR COOLED CONDENSING UNIT	FHC	FIRE HOSE CABINET	OZ	OUNCE
AD	ACCESS DOOR OR AREA DRAIN (PER CONTEXT)	FIN	FINISHED	PBD	PARALLEL BLADE DAMPER
AD	ACCESS DOOR	FLR	FLOOR	PC	PLUMBING CONTRACTOR
ADJ	ADJUSTABLE	FLTR	FILTER	PCT	PERCENT
ADP	APPARATUS DEW POINT	FO	FUEL OIL	PD	PRESSURE DROP
AFF	ABOVE FINISHED FLOOR	FOP	FUEL OIL PUMP	PE	PNEUMATIC ELECTRIC
AHRI	AIR CONDITIONING, HEATING, AND REFRIGERATION INSTITUTE	FOR	FUEL OIL RETURN	PH	PHASE (ELECTRIC)
		FOS	FUEL OIL SUPPLY	PHC	PREHEAT COIL
AHU	AIR HANDLING UNIT	FP	FIRE PROTECTION	PICV	PRESSURE INDEPENDENT
AI	ANALOG SIGNAL INPUT	FPC	FIRE PROTECTION CONCTRACTOR		CONTROL VALVE
ALT	ALTERNATE	FPF	FINS PER FOOT	PIV	POST INDICATOR VALVE
AMB	AMBIENT	FPM	FEET PER MINUTE	PLMB	PLUMBING
ANSI	AMERICAN NATIONAL STANDARDS	FPVAV	FAN POWERED VARIABLE AIR VOLUME	PLT	PLASTER TRAP
AO	ANALOG SIGNAL OUTPUT	FRP	FIBERGLASS REINFORCED PLASTIC	PPH	POUNDS PER HOUR
AP	ACCESS PANEL	FS	FLOW SWITCH	PPM	PARTS PER MILLION
APD	AIR PRESSURE DROP	FS	FLOW SWITCH	PRESS	PRESSURE
APLV	APPLICATION PART LOAD VALUE	FSTAT	FREEZESTAT	PRI	PRIMARY
ARCH	ARCHITECTURE/ARCHITECT	FT	FEET	PRV	PRESSURE REGULATING VALVE
AS	AIR SEPARATOR	FT-HD	HEAD IN FEET	PSC	PUMPED STEAM CONDENSATE
ATM	ATMOSPHERE	FURN	FURNACE, FURNISH	PSI	POUNDS PER SQUARE INCH
AUX	AUXILIARY	FV	FACE VELOCITY	PSIA	POUNDS PER SQUARE INCH, ABSOLUTE
AV	ANALOG VALUE OR AIR VENT (PER CONTEXT)	G	NATURAL GAS	PSIG	POUNDS PER SQUARE INCH GAUGE
AVG	AVERAGE	GA	GAUGE	PVC	POLYVINYL CHLORIDE
AW	ACID WASTE	GAL	GALLONS	QTY	QUANTITY
BAL	BALANCE	GALV	GALVANIZED	RA	RETURN AIR
BDD	BACK DRAFT DAMPER	GC	GENERAL CONTRACTOR	RAD	RADIATED
BFP	BACKFLOW PREVENTER	GPD	GALLON PER DAY	RAT	RETURN AIR TEMPERATURE
BFV	BUTTERFLY VALVE	GPH	GALLON PER HOUR	RC	REHEAT COIL
BHP	BRAKE HORSEPOWER	GPM	GALLONS PER MINUTE	RD	ROOF DRAIN
BI	BINARY SIGNAL INPUT	GPS	GALLON PER SECOND	RDC	REDUCER
BLR	BOILER	GR	GLYCOL WATER RETURN	REQ	REQUIRED
BMS	BUILDING MANAGEMENT SYSTEM	GS	GLYCOL WATER SUPPLY	REV	REVISION
BO	BINARY SIGNAL OUTPUT	GT	GREASE TRAP	RH	RELATIVE HUMIDITY
BOB	BOTTOM OF BEAM	H	HEIGHT	RHG	REFRIGERANT HOT GAS
BOD	BOTTOM OF DUCT	H/C	HEATING COIL	RL	REFRIGERANT LIQUID
BOP	BOTTOM OF PIPE	HB	HOSE BIBB	RLA	RUNNING LOAD AMPS
BS	BEAM SPACE	HC	HOSE CLOSET	RM	ROOM
BTU	BRITISH THERMAL UNIT	HD	HEAD	RND	ROUND
BTUH	BRITISH THERMAL UNITS PER HOUR	HEPA	HIGH EFFICIENCY PARTICULATE AIR	RO	READ ONLY
BV	BINARY VALUE	HOA	HAND, OFF, AUTO STATION	RPM	REVOLUTIONS PER MINUTE
C/C	COOLING COIL	HORIZ	HORIZONTAL	RS	REFRIGERANT SUCTION
CA	COMPRESSED AIR	HOSP	HOSPITAL	RTU	ROOF TOP UNIT
CAP	CAPACITY	HP	HORSEPOWER	RW	READ / WRITE
CAV	CONSTANT AIR VOLUME	HPS	HIGH PRESSURE STEAM	SA	SUPPLY AIR
CD	CONDENSATE DRAIN	HR	HOUR	SAN	SANITARY
CFH	CUBIC FEET PER HOUR	HS	HAND SINK	SCW	SOFT COLD WATER (DOMESTIC)
CFM	CUBIC FEET PER MINUTE	HSTAT	HUMIDSTAT	SD	SMOKE DAMPER
CFOI	CONTRACTOR FURNISHED/ OWNDER INSTALLED	HTG	HEATING	SEC'N	SECTION
CFS	CUBIC FEET PER SECOND	HTR	HEATER	SEER	SEASONAL ENERGY EFFICIENCY RATIO
CHLR	CHILLER	HVAC	HEATING, VENTILATING & AIR CONDITIONING	SENS	SENSIBLE
CKT	CIRCUIT	HW	HOT WATER	SF	SQUARE FOOT
CLG	CEILING	HWB	HOT WATER BOILER	SG	SPECIFIC GRAVITY
CLG	COOLING DUCT (COLD DUCT)	HWR	HEATING HOT WATER RETURN OR HOT WATER RETURN (PER CONTEXT)	SH	SENSIBLE HEAT
CO	CLEAN OUT			SHR	SENSIBLE HEAT RATIO
CO2	CARBON DIOXIDE	HWS	HEATING HOT WATER SUPPLY	SHT	SHEET
COL	COLUMN	HZ	FREQUENCY	SHW	SOFT HOT WATER (DOMESTIC)
COND	CONDENSER UNIT	HZ	HERTZ	SK	SINK
CONV	CONTROL VALVE	IA	INSTRUMENT AIR	SND	SOUND
COP	COEFFICIENT OF PERFORMANCE/ COPPER	I/O	INPUT/ OUTPUT	SOL	SOLENOID
CR	CONDENSER WATER RETURN	IAQ	INDOOR AIR QUALITY	SP	SUMP PIT
CS	CONDENSER WATER SUPPLY	ID	INSIDE DIAMETER, INDIRECT WASTE	SP	STATIC PRESSURE
CSR	CURRENT SENSING RELAY	IE	INVERT ELEVATION	SPD	STATIC PRESSURE DIFFERENTIAL
CT	COOLING TOWER	IN	INCH/INCHES	SPT	STATIC PRESSURE TRANSMITTER
CU	CONDENSING UNIT	IN WC	INCHES, WATER COLUMN	SQ	SQUARE
CU FT	CUBIC FEET	INV	INVERT	SS	STAINLESS STEEL
CU IN	CUBIC INCH	IPLV	INTEGRATED PART-LOAD VALUE	STD	STANDARD
CU YD	CUBIC YARD	ISP	INTERNAL STATIC PRESSURE	STM	STEAM, STORM
CV	CONTROL VALVE	IWH	INSTANTANEOUS WATER HEATER	STP	STANDARD TEMPERATURE AND PRESSURE
CW	COLD WATER	JS	JOIST SPACE	STR	MOTOR STARTER
CWR	CHILLED WATER RETURN	KEC	KITCHEN EQUIPMENT CONTRACTOR	SUCT	SUCTION
CWS	CHILLED WATER SUPPLY	KW	KILOWATTS	SV	STEAM VENT
D	DEPTH	KWH	KILOWATT HOUR	T&P	TEMPERATURE AND PRESSURE
DB	DECIBEL(S)	L	LENGTH	T/S	TUB/ SHOWER
DB	DRY BULB	LA	LABORATORY AIR	TA	TRANSFER AIR
DBA	A-WEIGHTED DECIBELS	LAT	LEAVING AIR TEMPERATURE	TAB	TEST AND BALANCE (CONTRACTOR)
DEG	DEGREES	LAV	LAVATORY	TCC	TEMPERATURE CONTROL CONTRACTOR
DEG F	DEGREES FAHRENHEIT	LB(S)	POUNDS	TCP	TEMPERATURE CONTROL PANEL
DIA	DIAMETER	LF	LINEAR FEET	TD	TEMPERATURE DIFFERENCE
DIM	DIMENSION	LIQ	LIQUID	TD	THERMODYNAMIC OR TEMPERATURE DIFFERENTIAL (PER CONTEXT)
DIV	DIVISION	LNG	LIDUID NATURAL GAS		
DN	DOWN	LOC	LOCATION	TDH	TOTAL DYNAMIC HEAD
DP	DIFFERENTIAL PRESSURE SENSOR	LPG	LIQUIFIED PETROLEUM GAS	TDV	TRIPLE DUTY VALVE
DPS	DIFFERENTIAL PRESSURE SWITCH	LPR	LOW PRESSURE STEAM RETURN	TEMP	TEMPERATURE
DPT	DIFFERENTIAL PRESSURE TRANSMITTER	LPS	LOW PRESSURE STEAM (SUPPLY)	TFA	TO FLOOR ABOVE
DR	DRAIN	LRA	LOCKED ROTOR AMPS	TFB	TO FLOOR BELOW
DS	DOWNSPOUT	LWT	LEAVING WATER TEMPERATURE	TONS	TONS OF REFRIGERATION
DTL	DETAIL	MA	MEDICAL AIR	TPD	TOTAL PRESSURE DROP
DWG	DRAWING	MAT	MIXED AIR TEMPERATURE	TSP	TOTAL STATIC PRESSURE
DWV	DRAIN, WASTE AND VENT	MAX	MAXIMUM	TSTAT	THERMOSTAT
EA	EXHAUST AIR OR EACH (PER CONTEXT)	MB	MOP BASIN	TYP	TYPICAL
EAT	ENTERING AIR TEMPERATURE	MBH	BTU/ HR x 1,000	UC	UNDERCUT DOOR
EC	ELECTRICAL CONTRACTOR	MBH	THOUSAND BRITISH THERMAL UNITS PER HOUR	UG	UNDERGROUND
ECON	ECONOMIZER			UH	UNIT HEATER
EDH	ELECTRICAL DUCT HEATER	MC	MECHANICAL CONTRACTOR	UNO	UNLESS NOTED OTHERWISE
EDR	EQUIVALENT DIRECT RADIATION	MCC	MOTOR CONTROL CENTER	UR	URINAL
EER	EFFICIENCY RATIO	MECH	MECHANICAL	UV	UNIT VENTILATOR
EER	ENERGY EFFICIENCY RATIO	MERV	MINIMUM EFFICIENCY REPORTING VALUE (ASHRAE 52.2)	V	VENT, VOLTS (PER CONTEXT)
EFF	EFFICIENCY			VA	VOLT AMPERE
EL	ELEVATION	MFR	MANUFACTURER	VAC	VACUUM
ENCL	ENCLOSURE	MH	MAN HOLE	VAV	VARIABLE AIR VOLUME
EOM	END OF MAIN STEAMTRAP	MIN	MINIMUM OR MINUTE (PER CONTEXT)	VD	VOLUME DAMPER (MANUAL)
EQ	EQUAL	MPT	MALE PIPE THREAD	VEL	VELOCITY
EQUIP	EQUIPMENT	MTD	MOUNTED	VERT	VERTICAL
ERD	EXISTING ROOF DRAIN	MV	MANUAL VENT	VFD	VARIABLE FREQUENCY DRIVE
ESC	ESCUTCHEON	MZ	MULTIZONE	VOL	VOLUME
ESP	EXTERNAL STATIC PRESSURE	N	NITROGEN	VT	VITRIFIED TILE
EVAP	EVAPORATE (OR)	NA	NOT APPLICABLE	VTR	VENT THROUGH THE ROOF
EWB	ENTERING AIR WET BULB TEMPERATURE	NC	NORMALLY CLOSED OR NOISE CRITERIA (PER CONTEXT)	VVT	VARIABLE VOLUME TERMINAL
EWC	ELECTRIC WATER COOLER			W	WASTE
EWS	EYE WASH STATION	NIC	NOT IN CONTRACT	W	WATT OR WIDTH (PER CONTEXT)
EWT	ENTERING WATER TEMPERATURE	NO	NITROUS OXIDE, NORMALLY OPEN OR NUMBER (PER CONTEXT)	W/	WITH
EXCH	EXCHANGER			W/O	WITHOUT
EXH	EXHAUST	NPLV	NON-STANDARD PART LOAD VALUE	WB	WET BULB
EXIST	EXISTING	NPSH	NET POSITIVE SUCTION HEAD	WC	WATER CLOSET
EXP	EXPANSION	NR	NOISE REDUCTION	WCO	WALL CLEAN OUT
EXT	EXTERIOR	NRC	NOISE REDUCTION COEFFICIENT	WF	WASH FOUNTAIN
F	FAHRENHEIT	NTS	NOT TO SCALE	WG	WATER GAUGE
F&BP	FACE AND BY-PASS	O	OXYGEN	WH	WALL HYDRANT
F&T	FLOAT AND THERMOSTATIC TRAP	OA	OUTSIDE AIR	WHA	WATER HAMMER ARRESTOR
F/SD	FIRE SMOKE DAMPER	OAT	OUTSIDE AIR TEMPERTURE	WM	WATER METER
F/A	FIRE ALARM	OBD	OPPOSED BLADE DAMPER	WPD	WATER PRESSURE DIFFERENTIAL
FA	FACE AREA	OC	ON CENTER	WT	WEIGHT
FC	FLEXIBLE CONNECTION	OD	OUTSIDE DIAMETER	WTR	WATER
FCO	FLOOR CLEANOUT	OF/CI	OWNER FURNISHED/ CONTRACTOR INSTALLED	WV	WASTE VENT
FCU	FAN COIL UNIT			YCO	YARD CLEANOUT
FD	FLOOR DRAIN, FIRE DAMPER	OF/OI	OWNER FURNISHED/ OWNER INSTALLED	YR	YEAR
FD	FIRE DAMPER			ZN	ZONE
FDC	FIRE DEPARTMENT CONNECTION	OFD	OVERFLOW DRAIN		

EQUIPMENT DESIGNATIONS

AAV	AIR ADMITTANCE VALVE
AS	AIR SEPARATOR
BF	BUTTERFLY VALVE
BFP	BACKFLOW PREVENTER
BLR	BOILER
CA	AIR COMPRESSOR
CO	CLEANOUT
CP	CIRCULATING PUMP
CS	CLINICAL SINK
DC	DECHLORINATOR
DWH	TANKLESS WATER HEATER
ES	EMERGENCY SHOWER
EW	EYEWASH
EWC	ELECTRIC WATER COOLER
EWF	BOTTLE FILLING STATION
EWH	ELECTRIC WATER HEATER
FD	FLOOR DRAIN
FS	FLOOR SINK (PLUMBING)
FS	FLOW SWITCH (FIRE PROTECTION)
FT	FLOOR TROUGH
GWH	GAS WATER HEATER
GD	FOOD WASTE DISPOSER
GT	GREASE TRAP
HB	HOSE BIBB
HD	HOT WATER DISPENSER
HV	HOSE VALVE CONNECTION
HX	HEAT EXCHANGER
LAV	LAVATORY
MB	MOP BASIN
MV	THERMOSTATIC CONTROLLER
RB	REFRIGERATOR / ICE MAKER BOX
RCP	HOT WATER RECIRCULATION PUMP
RD	ROOF DRAIN
RDC	REDUCER
RH	ROOF HYDRANT
SH	SHOWER
SI	SOLIDS INTERCEPTOR
SK	SINK
ST	STORAGE TANK
SWH	SEMI-INSTANTANEOUS WATER HEATER
TD	TRENCH DRAIN
TMV	THERMOSTATIC MIXING VALVE
TXT	THERMAL EXPANSION TANK
UR	URINAL
WB	WASTE HOSE BOX
WC	WATER CLOSET
WCO	WALL CLEANOUT
WF	WATER FILTER
WH	EXTERIOR HOSE BIBB
WS	WATER SOFTENER
YCO	YARD CLEANOUT

MEDICAL GAS

AAP	AREA ALARM PANEL
IAC	INSTRUMENT AIR COMPRESSOR
MAP	MASTER ALARM PANEL
MAS	MEDICAL AIR COMPRESSOR
MGO	MEDICAL GAS OUTLET
MVPS	MEDICAL VACUUM PUMP
NPCC	NITROGEN PRESSURE CONTROL CABINET
VB	VALVE BOX

PIPING SYSTEMS & ABBREVIATIONS

- COLD WATER PIPING
- HOT WATER PIPING
- HOT WATER RECIRCULATION PIPING
- VENT PIPING
- WASTE PIPING
- STM — STORM PIPING
- G — NATURAL GAS PIPING
- O — OXYGEN
- VAC — VACUUM
- MA — MEDICAL AIR
- IA — INSTRUMENT AIR
- N — NITROGEN
- NO — NITROUS OXIDE
- CO2 — CARBON DIOXIDE
- WAGD — WASTE ANESTHESIA GAS DISPOSAL
- CA — COMPRESSED AIR

FIRE PROTECTION SYMBOL LIST

SYMBOL:	DESCRIPTION:
	NEW PIPE
	NEW PIPE
	PRESSURE GAUGE (FURNISHED WITH BALL VALVE)
	SHUTOFF VALVE
	AUTOMATIC DRAIN VALVE
FP	FIRE PROTECTION
	FLOW SWITCH
	BUTTERFLY VALVE
	MONITORING SWITCH
	OS&Y VALVE
	FIRE DEPARTMENT CONNECTION
	FIRE PUMP TEST HEADER
	GATE VALVE
	CHECK VALVE
	CHECK VALVE
	PRESSURE RELIEF VALVE
	ANGLE VALVE

PLUMBING / MEDICAL GAS LEGEND

SYMBOL:	DESCRIPTION:
OR	RISER DOWN (ELBOW)
OR	RISER UP (ELBOW)
OR	RISE OR DROP
OR	BRANCH - TOP CONNECTION
OR	BRANCH - BOTTOM CONNECTION
OR	BRANCH - SIDE CONNECTION
	PIPE CAP
	WATER HAMMER ARRESTOR
	DIRECTION OF FLOW IN PIPE
	CONNECTION POINT NEW TO EXISTING
	PIPE CONTINUATION
	FLOOR DRAIN
	BACKFLOW PREVENTER
	SHUTOFF VALVE
	CALIBRATED BALANCING VALVE
OR	CHECK VALVE
	NORMALLY CLOSED VALVE
	THROTTLING VALVE W/ LOCKING HANDLE
	TRIPLE DUTY VALVE (BALANCING, CHECK, SHUTOFF)
	PRESSURE REDUCING VALVE
	2-WAY MODULATING CONTROL VALVE
	3-WAY MODULATING CONTROL VALVE
	2-POSITION VALVE
	AUTOMATIC FLOW CONTROL VALVE
	SAFETY RELIEF VALVE
	SAFETY RELIEF VALVE
	UNION/FLANGE
	P & T PLUG
D	REDUCER
	SUCTION DIFFUSER
	MANUAL AIR VENT
	DRAIN VALVE WITH HOSE CONNECTION AND CAP
	HIGH CAPACITY AIR VENT
M	METER
	RECIRCULATING PUMP
	PRESSURE GAUGE (FURNISHED WITH BALL VALVE)
	THERMOMETER WITH WELL (FILLED TYPE)
	"WYE" - STRAINER
	"WYE" - STRAINER W/SHUTOFF VALVE AND HOSE CONNECTION WITH CAP
	FLEXIBLE CONNECTION
T	STEAM TRAP
	AREA ALARM PANEL
	MEDICAL GAS VALVE BOX
	MEDICAL GAS OUTLET
	BALL-IN-WALL
	PRESSURE MONITOR
	PRESSURE TRANSDUCER

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Ryan W. Stewart
05/06/2025

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PLUMBING LEGENDS

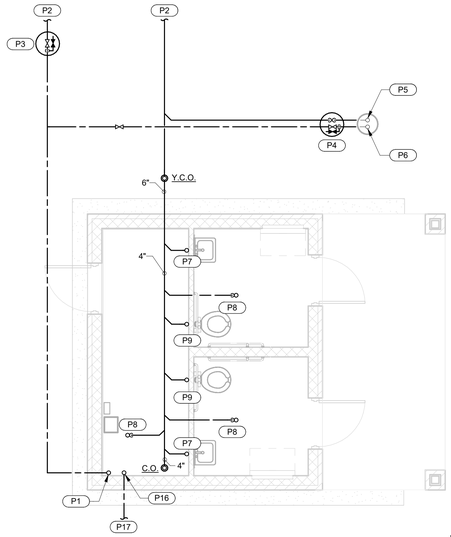
Architect's Project No: 2402-146

Date: May, 2025

Drawing No:

FP0.0

v22

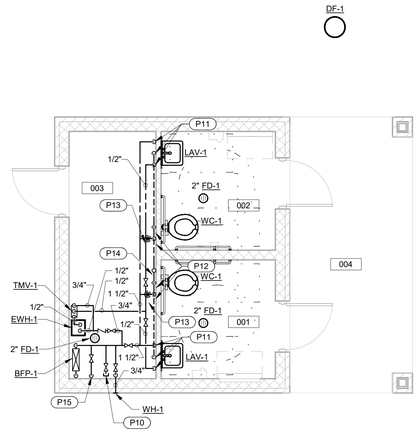


FOUNDATION PLUMBING PLAN

1/4" = 1'-0"

North

0' 2' 4' 8'

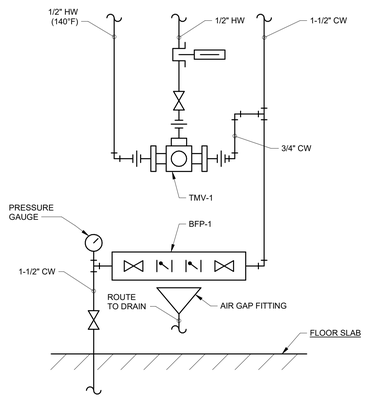


FIRST FLOOR PLUMBING PLAN

1/4" = 1'-0"

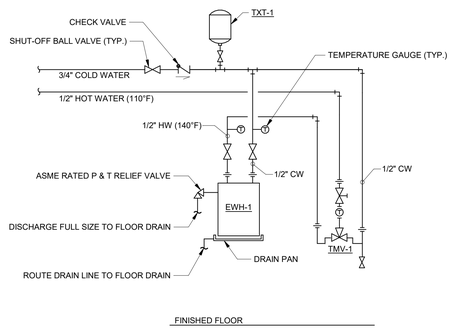
North

0' 2' 4' 8'



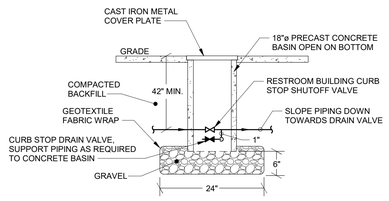
BACKFLOW PREVENTER AND THERMOSTATIC MIXING VALVE PIPING DETAIL

NO SCALE



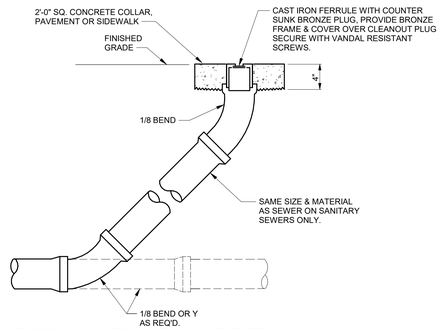
ELECTRIC WATER HEATER PIPING DETAIL

NO SCALE



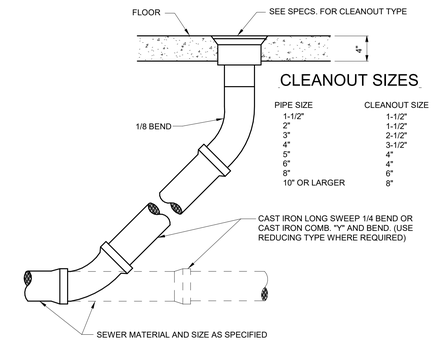
INGROUND CW MAIN SHUTOFF WITH DRAIN VALVE DETAIL

NO SCALE



TYPICAL YARD CLEANOUT DETAIL

NO SCALE

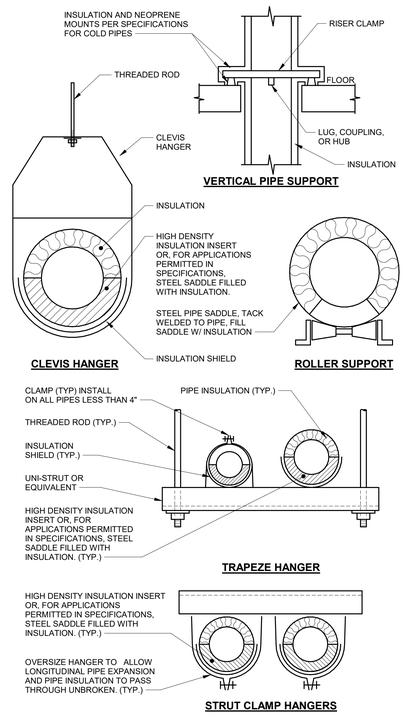


CLEANOUT SIZES

PIPE SIZE	CLEANOUT SIZE
1-1/2"	1-1/2"
2"	1-1/2"
3"	2-1/2"
4"	3-1/2"
5"	4"
6"	4"
8"	6"
10" OR LARGER	8"

TYPICAL CLEANOUT DETAIL

NO SCALE



PIPE SUPPORT DETAILS

NO SCALE

GENERAL NOTES:

A. CONTRACTOR SHALL FIELD VERIFY CONDITIONS AT ALL POINTS OF CONNECTION PRIOR TO INSTALLATION.

B. ALL PIPING SHOWN ON DRAWINGS IS DIAGRAMMATIC. ADDITIONAL OFFSETS, WHICH MAY BE REQUIRED IN WASTE AND VENT RISERS SHALL BE PROVIDED AS REQUIRED.

C. COORDINATE PIPING LAYOUT WITH HVAC, ELECTRICAL, LIGHTING AND OTHER SPECIALTIES TO AVOID CONFLICTS.

D. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE FOLLOWING REGULATIONS, CODES, AND STANDARDS.
INDIANA BUILDING CODE
INDIANA MECHANICAL CODE
INDIANA PLUMBING CODE
SMACNA HVAC DUCT CONSTRUCTION STANDARDS
OSHA

E. INVERT ELEVATIONS BASED ON A FINISHED FLOOR ELEVATION OF 100.00'.

F. PIPING SHALL NOT BE SUPPORTED FROM ROOF DECK. SUPPORT FROM STRUCTURE.

PLAN NOTES:

P1 1-1/2" CW UP.

P2 REFER TO CIVIL SITE PLANS FOR CONTINUATION.

P3 PROVIDE AN INGROUND VALVE BOX WITH A CURB STOP SHUT-OFF VALVE AND DRAIN VALVE. SLOPE PIPING TOWARD DRAIN BOX. REFER TO "INGROUND CW MAIN SHUTOFF WITH DRAIN VALVE DETAIL" ON THIS SHEET.

P4 PROVIDE AN INGROUND VALVE BOX WITH ACCESS TO THE SERVICE STOP, DRAIN VALVE AND P-TRAP.

P5 2" WASTE UP TO DRINKING FOUNTAIN.

P6 3/4" CW UP TO DRINKING FOUNTAIN. SLOPE PIPING BACK TO DRAIN VALVE.

P7 2" WASTE UP TO LAVATORY.

P8 2" WASTE UP TO FLOOR DRAIN.

P9 4" WASTE UP TO FIXTURE.

P10 PROVIDE A 1/2" VENT VALVE WITH A CAP. SLOPE ALL WATER PIPING TO DRAIN BACK TO THE BUILDING SHUTOFF VALVE.

P11 1/2" CW, 1/2" HW, & 1-1/2" VENT DROP TO FIXTURE.

P12 1-1/2" CW & 2" VENT DROP TO FIXTURE.

P13 PROVIDE WATER HAMMER ARRESTOR "A" IN ACCESIBLE LOCATION IN CHASE.

P14 3" VENT UP THROUGH ROOF.

P15 3/4" CW PIPE DOWN BELOW FLOOR AND ROUTED TO YARD HYDRANT YH-1, PROVIDE DRAIN VALVE AT FLOOR.

P16 3/4" CW UP.

P17 3/4" CW SHALL BE ROUTED AS SHOWN TOWARD PROPOSED LOCATION FOR YH-1 AS PART OF ALTERNATE. IF ALTERNATE IS NOT ACCEPTED AS PART OF THIS PROJECT, CAP AND MARK LOCATION OF PIPE FOR FUTURE USE. REFER TO CIVIL PLANS FOR LOCATION.

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Sheet title:

PLUMBING PLANS AND DETAILS

Architect's Project No: 2402-146

Date: May, 2025

Drawing No: P1.1

WATER HAMMER ARRESTOR SCHEDULE

MARK	I.P.S.	F.U. RATING	J.R. SMITH	JOSAM	ZURN
A	1/2"	1 - 11	5005	75001	100

FIXTURE FINAL CONNECTION SCHEDULE

FIXTURE	COLD WATER	HOT WATER	WASTE	VENT	IPC 2006			REMARKS
					DFU	CWFU	HWFU	
2" FLOOR DRAIN	-	-	2"	-	2	-	-	
LAVATORY	1/2"	1/2"	1 1/2"	1 1/2"	1	1.5	1.5	
WALL HYDRANT	3/4"	-	-	-	-	2.5	-	
WATER CLOSET - FLUSH VALVE	1 1/2"	-	4"	2"	4	10	-	

NOTES:
1. SANITARY RISER UP IN WALL TO FIXTURE SHALL BE A MINIMUM OF 2".
2. SIZES SHOWN ARE MINIMUMS. SIZES SHOWN ON THE DRAWING THAT ARE LARGER THAN THE SIZES LISTED IN THE SCHEDULE SHALL DICTATE THE ROUGH-IN SIZE.

MISCELLANEOUS EQUIPMENT SCHEDULE

SYMBOL	DESCRIPTION	REMARKS
BFP-1	BACKFLOW PREVENTER - 1-1/2" REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER; PROVIDE WITH TWO SHUTOFF BALL VALVES, TEST COCKS, AND A "Y" STRAINER. MOUNT BACKFLOW PREVENTER AT 24" A.F.F. PROVIDE AIR GAP FITTINGS AND ROUTE DRAIN TO FLOOR DRAIN.	BASED ON WILKINS MODEL 975XLUS
EWH-1	ELECTRIC WATER HEATER - 4 GALLON CAPACITY, 7 GPH RECOVERY AT 90°F RISE, 120/1, 12 AMP, 1.44 KW. MOUNT THE WATER HEATER ON WALL SHELF AND PROVIDE ALL BRACKETS AND HARDWARE REQUIRED FOR A COMPLETE INSTALLATION. SET THE WATER HEATER FOR 140°F.	BASED ON AO SMITH MODEL EPU-4
TMV-1	THERMOSTATIC MIXING VALVE - 7 GPM @ 5 PSI PRESSURE DROP. MEETS ASSE 1017, SET AT 110° F. DIAL THERMOMETER ON DISCHARGE, SHUTOFF VALVES. SECURE TO WALL NEXT TO EWH-1. 1/2" INLETS, 1/2" OUTLET.	BASED ON LEONARD MODEL TA-LF-F
TXT-1	THERMAL EXPANSION TANK - NON-ASME REPLACEABLE BLADDER TYPE, PRECHARGED, 150 PSI MAXIMUM DESIGN PRESSURE, 3/4" STAINLESS STEEL SYSTEM CONNECTION, STANDARD TIRE VALVE CHARGING CONNECTION, 2.1 GALLON ACCEPTABLE VOLUME, SET TANK PRESSURE TO 50 PSI.	BASED ON WESSELS MODEL 5TX

PLUMBING MATERIAL LIST

THE SYMBOLS AND THE MATERIAL LIST ARE FOR THE CONVENIENCE OF THE CONTRACTOR. CONTRACTOR SHALL VERIFY QUANTITIES AND FURNISH ALL MATERIALS REQUIRED FOR FULLY OPERATIONAL SYSTEMS, WHETHER SPECIFIED OR NOT.

CATALOG NUMBERS SHALL NOT BE CONSIDERED COMPLETE, BUT ARE GIVEN AS AN AID TO THE CONTRACTOR AND TO INDICATE THE QUALITY REQUIRED. CONTRACTOR IS RESPONSIBLE FOR COMPLETE DESCRIPTION OF MATERIAL ON THESE DRAWINGS AND IN THE SPECIFICATIONS BEFORE ORDERING. THE DESCRIPTION OF THE MATERIAL TAKES PRECEDENCE OVER THE CATALOG NUMBER. THE FIRST MANUFACTURER IS THE BASIS OF DESIGN.

CO

DESCRIPTION: FLOOR CLEANOUT - CAST IRON THREADED ADJUSTABLE HOUSING, FLANGED FERRULE WITH PLUG AND ROUND SECURED NICKEL BRONZE SCORIATED TOP.

MANUFACTURER & CATALOG NO.: ZURN Z-1400, SMITH 4000, WADE 6000, JOSAM 56000, WATTS CO-200, MIFAB C1100

DF-1

DESCRIPTION: DRINKING FOUNTAIN - OUTDOOR, GROUND MOUNT, FULLY EXPOSED FREEZE-RESISTANT, BARRIER-FREE ACCESSIBLE DRINKING FOUNTAIN WITH BOTTLE FILLER. BI-LEVEL PEDESTAL WITH PET FOUNTAIN. VANDAL RESISTANT BUBBLER, ONE-PIECE CONSTRUCTION, HEAVY DUTY STEEL POWDER COATED CONSTRUCTION. PROVIDE A DIRECT BURY 4400 FOUNTAIN ADAPTER. BURY DEPTH 24". PROVIDE WITH SUPPLY STOP AND DRAIN VALVE FOR WINTERIZING. PROVIDE WASTE P-TRAP. INSTALL PER MANUFACTURER RECOMMENDATION. COLOR AS SELECTED BY ARCHITECT.

MANUFACTURER & CATALOG NO.: ELKAY LK4420BF1UDBFRK

FD-1

DESCRIPTION: FLOOR DRAIN -6" DIAMETER NICKEL BRONZE ADJUSTABLE TOP. CAST IRON BODY, 3" OUTLET AND FLASHING COLLAR, DEEP SEAL P-TRAP AND TRAP PRIMER CONNECTION.

MANUFACTURER & CATALOG NO.: ZURN Z-415, SMITH 2005, WADE 1100, JOSAM 30000, WATTS FD-100, MIFAB F1100

LAV-1

DESCRIPTION: LAVATORY -WALL MOUNTED, WHITE VITREOUS CHINA, 4" HIGH CONTOURED BACKSPLASH, 20" X 18", FAUCET HOLES ON 4" CENTERS, 1-1/4" 17 GAUGE CAST BRASS "P" TRAP WITH CLEANOUT AND ESCUTCHEON. PROVIDE FLOOR MOUNTED LAVATORY CARRIER. MOUNT 34" FLOOR TO RIM.

MANUFACTURER & CATALOG NO.: AMERICAN STANDARD 0355.012, CRANE, ELJER, KOHLER

DESCRIPTION: LAVATORY TRIM - MANUAL METERING FAUCET WITH 0.5 GPM AERATOR AND OPEN GRID STRAINER W/ NO LIFT ROD. LOOSE KEY STOP VALVES WITH COMPRESSION FITTINGS AND WATER SUPPLIES AND RISERS; TRUEBRO HANDILAV GUARD INSULATION KIT.

MANUFACTURER & CATALOG NO.: AMERICAN STANDARD 1340.227

WC-1

DESCRIPTION: ACCESSIBLE WATER CLOSET - WALL HUNG, FLUSH VALVE TYPE, WHITE VITREOUS CHINA, SIPHON JET, WATER SAVING, ELONGATED BOWL, 1-1/2" BACK SPUD. FURNISH WITH ZURN FLOOR MOUNTED COMBINATION CARRIER FITTING SUPPORT. MOUNT 17" FLOOR TO RIM.

MANUFACTURER & CATALOG NO.: AMERICAN STANDARD "AFWALL" 3353101.020, CRANE, KOHLER, ELJER

DESCRIPTION: SEAT - WHITE EXTRA HEAVY OPEN FRONT INJECTION MOLDED SOLID ANTI-MICROBIAL PLASTIC SELF-SUSTAINING SEAT WITH CHECK HINGE AND STAINLESS STEEL OR PLATED STEEL POSTS AND NUTS.

MANUFACTURER & CATALOG NO.: BEMIS 3155C, CHURCH 3155C, BENEKE 533PC, OLSONITE 95CCAM

DESCRIPTION: FLUSH VALVE - REAR SPUD, SINGLE FLUSH, CONCEALED, MANUAL SPECIALTY HYDRAULIC, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, WALL AND SPUD FLANGES.

1.6 GALLONS PER FLUSH. 3 YEAR WARRANTY. CONTRACTOR TO VERIFY EQUIPMENT REQUIREMENTS, MANUFACTURER RECOMMENDATIONS AND ROUGH-IN LOCATIONS.

MANUFACTURER & CATALOG NO.: SLOAN ROYAL 952-1.6

WH-1

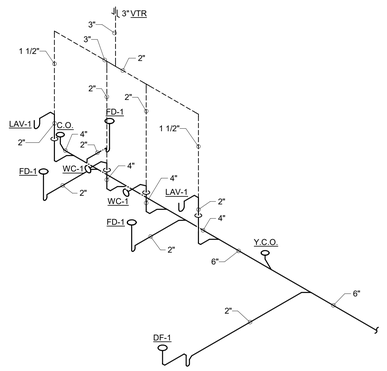
DESCRIPTION: WALL HYDRANT - FREEZELESS WALL HYDRANT, VACUUM BREAKER, 3/4" MALE HOSE THREAD, BRASS VALVE BODY AND SEAT, STAINLESS STEEL STEM, CHROME FINISH DOOR AND BOX. FURNISH TWO TEE KEY OPERATORS FOR LOCKABLE DOOR. ASSE 1011 APPROVED AND LISTED. MOUNT AT 18" ABOVE GRADE.

MANUFACTURER & CATALOG NO.: WOODFORD B65, ZURN

YH-1

DESCRIPTION: YARD HYDRANT - FREEZELESS MODULAR BOX YARD HYDRANT, HINGED TAMPER-PROOF KEYED ACCESS DOOR, INTEGRAL BACKFLOW PREVENTER, VACUUM BREAKER, 3/4" MALE HOSE THREAD. BRASS VALVE BODY AND SEAT, BRASS DOOR AND FASCIA COMPOSITE BOX. FURNISH TWO TEE KEY OPERATORS. ASSE 1052 APPROVED AND LISTED. BURY DEPTH PER MANUFACTURER'S RECOMMENDATIONS.

MANUFACTURER & CATALOG NO.: WOODFORD Y95



SANITARY RISER DIAGRAM

NO SCALE

GARVIN PARK ACTIVITY ZONE

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RYAN W. STEINHART

05/06/2025

Revisions:

#	Description	Date

Designed By:	Drawn By:	Checked By:
CLB	CLB	RWS

Sheet title:

PLUMBING SCHEDULES

Architect's Project No: 2402-146

Date: May, 2025

Drawing No:

P2.1

GENERAL ABBREVIATIONS

A	AMPERE	FFA	FROM FLOOR ABOVE	OS&Y	OPEN SCREW & YOKE
A/C	AIR CONDITIONING	FFB	FROM FLOOR BELOW	OSD	OPEN SIGHT DRAIN
ACC	ACCESSORIES	FH	FIRE HOSE	OUT	OUTLET
ACCU	AIR COOLED CONDENSING UNIT	FHC	FIRE HOSE CABINET	OZ	OUNCE
AD	ACCESS DOOR OR AREA DRAIN (PER CONTEXT)	FIN	FINISHED	PBD	PARALLEL BLADE DAMPER
AD	ACCESS DOOR	FLR	FLOOR	PC	PLUMBING CONTRACTOR
ADJ	ADJUSTABLE	FLTR	FILTER	PCT	PERCENT
ADP	APPARATUS DEW POINT	FO	FUEL OIL	PD	PRESSURE DROP
AFF	ABOVE FINISHED FLOOR	FOP	FUEL OIL PUMP	PE	PNEUMATIC ELECTRIC
AHRI	AIR CONDITIONING, HEATING, AND REFRIGERATION INSTITUTE	FOR	FUEL OIL RETURN	PH	PHASE (ELECTRIC)
		FOS	FUEL OIL SUPPLY	PHC	PREHEAT COIL
AHU	AIR HANDLING UNIT	FP	FIRE PROTECTION	PICV	PRESSURE INDEPENDENT CONTROL VALVE
AI	ANALOG SIGNAL INPUT	FPC	FIRE PROTECTION CONCTRACTOR		
ALT	ALTERNATE	FPF	FINS PER FOOT	PIV	POST INDICATOR VALVE
AMB	AMBIENT	FPM	FEET PER MINUTE	PLMB	PLUMBING
ANSI	AMERICAN NATIONAL STANDARDS	FPVAV	FAN POWERED VARIABLE AIR VOLUME	PLT	PLASTER TRAP
AO	ANALOG SIGNAL OUTPUT	FRP	FIBERGLASS REINFORCED PLASTIC	PPH	POUNDS PER HOUR
AP	ACCESS PANEL	FS	FLOW SWITCH	PPM	PARTS PER MILLION
APD	AIR PRESSURE DROP	FS	FLOW SWITCH	PRESS	PRESSURE
APLV	APPLICATION PART LOAD VALUE	FSTAT	FREEZESTAT	PRI	PRIMARY
ARCH	ARCHITECTURE/ARCHITECT	FT	FEET	PRV	PRESSURE REGULATING VALVE
AS	AIR SEPARATOR	FT-HD	HEAD IN FEET	PSC	PUMPED STEAM CONDENSATE
ATM	ATMOSPHERE	FURN	FURNACE, FURNISH	PSI	POUNDS PER SQUARE INCH
AUX	AUXILIARY	FV	FACE VELOCITY	PSIA	POUNDS PER SQUARE INCH, ABSOLUTE
AV	ANALOG VALUE OR AIR VENT (PER CONTEXT)	G	NATURAL GAS	PSIG	POUNDS PER SQUARE INCH GAUGE
AVG	AVERAGE	GA	GAUGE	PVC	POLYVINYL CHLORIDE
AW	ACID WASTE	GAL	GALLONS	QTY	QUANTITY
BAL	BALANCE	GALV	GALVANIZED	RA	RETURN AIR
BDD	BACK DRAFT DAMPER	GC	GENERAL CONTRACTOR	RAD	RADIATED
BFP	BACKFLOW PREVENTER	GPD	GALLON PER DAY	RAT	RETURN AIR TEMPERATURE
BFV	BUTTERFLY VALVE	GPH	GALLON PER HOUR	RC	REHEAT COIL
BHP	BRAKE HORSEPOWER	GPM	GALLONS PER MINUTE	RD	ROOF DRAIN
BI	BINARY SIGNAL INPUT	GPS	GALLON PER SECOND	RDC	REDUCER
BLR	BOILER	GR	GLYCOL WATER RETURN	REQ	REQUIRED
BMS	BUILDING MANAGEMENT SYSTEM	GS	GLYCOL WATER SUPPLY	REV	REVISION
BO	BINARY SIGNAL OUTPUT	GT	GREASE TRAP	RH	RELATIVE HUMIDITY
BOB	BOTTOM OF BEAM	H	HEIGHT	RHG	REFRIGERANT HOT GAS
BOD	BOTTOM OF DUCT	H/C	HEATING COIL	RL	REFRIGERANT LIQUID
BOP	BOTTOM OF PIPE	HB	HOSE BIBB	RLA	RUNNING LOAD AMPS
BS	BEAM SPACE	HC	HOSE CLOSET	RM	ROOM
BTU	BRITISH THERMAL UNIT	HD	HEAD	RND	ROUND
BTUH	BRITISH THERMAL UNITS PER HOUR	HEPA	HIGH EFFICIENCY PARTICULATE AIR	RO	READ ONLY
BV	BINARY VALUE	HOA	HAND, OFF, AUTO STATION	RPM	REVOLUTIONS PER MINUTE
C/C	COOLING COIL	HORIZ	HORIZONTAL	RS	REFRIGERANT SUCTION
CA	COMPRESSED AIR	HOSP	HOSPITAL	RTU	ROOF TOP UNIT
CAP	CAPACITY	HP	HORSEPOWER	RW	READ / WRITE
CAV	CONSTANT AIR VOLUME	HPS	HIGH PRESSURE STEAM	SA	SUPPLY AIR
CD	CONDENSATE DRAIN	HR	HOUR	SAN	SANITARY
CFH	CUBIC FEET PER HOUR	HS	HAND SINK	SCW	SOFT COLD WATER (DOMESTIC)
CFM	CUBIC FEET PER MINUTE	HSTAT	HUMIDSTAT	SD	SMOKE DAMPER
CFOI	CONTRACTOR FURNISHED/ OWNDER INSTALLED	HTG	HEATING	SECN	SEASONAL ENERGY EFFICIENCY RATIO
CFS	CUBIC FEET PER SECOND	HTR	HEATER	SENS	SENSIBLE
CHLR	CHILLER	HVAC	HEATING, VENTILATING & AIR CONDITIONING	SF	SQUARE FOOT
CKT	CIRCUIT	HW	HOT WATER	SG	SPECIFIC GRAVITY
CLG	CEILING	HWB	HOT WATER BOILER	SH	SENSIBLE HEAT
CLG	COOLING DUCT (COLD DUCT)	HWR	HEATING HOT WATER RETURN OR HOT WATER RETURN (PER CONTEXT)	SHR	SENSIBLE HEAT RATIO
CO	CLEAN OUT			SHT	SHEET
CO2	CARBON DIOXIDE	HWS	HEATING HOT WATER SUPPLY	SHW	SOFT HOT WATER (DOMESTIC)
COL	COLUMN	HZ	FREQUENCY	SK	SINK
COND	CONDENSER UNIT	HZ	HERTZ	SND	SOUND
CONV	CONTROL VALVE	IA	INSTRUMENT AIR	SOL	SOLENOID
COP	COEFFICIENT OF PERFORMANCE/ COPPER	I/O	INPUT/ OUTPUT	SP	SUMP PIT
CR	CONDENSER WATER RETURN	IAQ	INDOOR AIR QUALITY	SP	STATIC PRESSURE
CS	CONDENSER WATER SUPPLY	ID	INSIDE DIAMETER, INDIRECT WASTE	SPD	STATIC PRESSURE DIFFERENTIAL
CSR	CURRENT SENSING RELAY	IE	INVERT ELEVATION	SPT	STATIC PRESSURE TRANSMITTER
CT	COOLING TOWER	IN	INCHINCHES	SQ	SQUARE
CU	CONDENSING UNIT	IN WC	INCHES, WATER COLUMN	SS	STAINLESS STEEL
CU FT	CUBIC FEET	INV	INVERT	STD	STANDARD
CU IN	CUBIC INCH	IPLV	INTEGRATED PART-LOAD VALUE	STM	STEAM, STORM
CU YD	CUBIC YARD	ISP	INTERNAL STATIC PRESSURE	STP	STANDARD TEMPERATURE AND PRESSURE
CV	CONTROL VALVE	IWH	INSTANTANEOUS WATER HEATER	STR	MOTOR STARTER
CW	COLD WATER	JS	JOIST SPACE	SUCT	SUCTION
CWR	CHILLED WATER RETURN	KEC	KITCHEN EQUIPMENT CONTRACTOR	SV	STEAM VENT
CWS	CHILLED WATER SUPPLY	KW	KILOWATTS	T&P	TEMPERATURE AND PRESSURE
D	DEPTH	KWH	KILOWATT HOUR	T/S	TUB/ SHOWER
DB	DECIBEL(S)	L	LENGTH	TA	TRANSFER AIR
DB	DRY BULB	LA	LABORATORY AIR	TAB	TEST AND BALANCE (CONTRACTOR)
DBA	A-WEIGHTED DECIBELS	LAT	LEAVING AIR TEMPERATURE	TCC	TEMPERATURE CONTROL CONTRACTOR
DEG	DEGREES	LAV	LAVATORY	TCP	TEMPERATURE CONTROL PANEL
DEG F	DEGREES FAHRENHEIT	LB(S)	POUNDS	TD	TEMPERATURE DIFFERENCE
DIA	DIAMETER	LF	LINEAR FEET	TD	THERMODYNAMIC OR TEMPERATURE DIFFERENTIAL (PER CONTEXT)
DIM	DIMENSION	LIQ	LIQUID		
DIV	DIVISION	LNG	LIQUID NATURAL GAS		
DN	DOWN	LOC	LOCATION	TDH	TOTAL DYNAMIC HEAD
DP	DIFFERENTIAL PRESSURE SENSOR	LPG	LIQUIFIED PETROLEUM GAS	TDV	TRIPLE DUTY VALVE
DPS	DIFFERENTIAL PRESSURE SWITCH	LPR	LOW PRESSURE STEAM RETURN	TEMP	TEMPERATURE
DPT	DIFFERENTIAL PRESSURE TRANSMITTER	LPS	LOW PRESSURE STEAM (SUPPLY)	TFA	TO FLOOR ABOVE
DR	DRAIN	LRA	LOCKED ROTOR AMPS	TFB	TO FLOOR BELOW
DS	DOWNSPOUT	LWT	LEAVING WATER TEMPERATURE	TONS	TONS OF REFRIGERATION
DTL	DETAIL	MA	MEDICAL AIR	TPD	TOTAL PRESSURE DROP
DWG	DRAWING	MAT	MIXED AIR TEMPERATURE	TSP	TOTAL STATIC PRESSURE
DWV	DRAIN, WASTE AND VENT	MAX	MAXIMUM	TSTAT	THERMOSTAT
EA	EXHAUST AIR OR EACH (PER CONTEXT)	MB	MOP BASIN	TYP	TYPICAL
EAT	ENTERING AIR TEMPERATURE	MBH	BTU/ HR x 1,000	UC	UNDERCUT DOOR
EC	ELECTRICAL CONTRACTOR	MBH	THOUSAND BRITISH THERMAL UNITS PER HOUR	UG	UNDERGROUND
ECON	ECONOMIZER			UH	UNIT HEATER
EDH	ELECTRICAL DUCT HEATER	MC	MECHANICAL CONTRACTOR	UNO	UNLESS NOTED OTHERWISE
EDR	EQUIVALENT DIRECT RADIATION	MCC	MOTOR CONTROL CENTER	UR	URINAL
EER	EFFICIENCY RATIO	MECH	MECHANICAL	UV	UNIT VENTILATOR
EER	ENERGY EFFICIENCY RATIO	MERV	MINIMUM EFFICIENCY REPORTING VALUE (ASHRAE 52.2)	V	VENT, VOLTS (PER CONTEXT)
EFF	EFFICIENCY			VA	VOLT AMPERE
EL	ELEVATION	MFR	MANUFACTURER	VAC	VACUUM
ENCL	ENCLOSURE	MH	MAN HOLE	VAV	VARIABLE AIR VOLUME
EOM	END OF MAIN STEAMTRAP	MIN	MINIMUM OR MINUTE (PER CONTEXT)	VD	VOLUME DAMPER (MANUAL)
EQ	EQUAL	MPT	MALE PIPE THREAD	VEL	VELOCITY
EQUIP	EQUIPMENT	MTD	MOUNTED	VERT	VERTICAL
ERD	EXISTING ROOF DRAIN	MV	MANUAL VENT	VFD	VARIABLE FREQUENCY DRIVE
ESC	ESCUTCHEON	MZ	MULTIZONE	VOL	VOLUME
ESP	EXTERNAL STATIC PRESSURE	N	NITROGEN	VT	VITRIFIED TILE
EVAP	EVAPORATE (OR)	NA	NOT APPLICABLE	VTR	VENT THROUGH THE ROOF
EWB	ENTERING AIR WET BULB TEMPERATURE	NC	NORMALLY CLOSED OR NOISE CRITERIA (PER CONTEXT)	VVT	VARIABLE VOLUME TERMINAL
EWC	ELECTRIC WATER COOLER			W	WASTE
EWS	EYE WASH STATION	NIC	NOT IN CONTRACT	W	WATT OR WIDTH (PER CONTEXT)
EWT	ENTERING WATER TEMPERATURE	NO	NITROUS OXIDE, NORMALLY OPEN OR NUMBER (PER CONTEXT)	W/	WITH
EXCH	EXCHANGER			W/O	WITHOUT
EXH	EXHAUST	NPLV	NON-STANDARD PART LOAD VALUE	WB	WET BULB
EXIST	EXISTING	NPSH	NET POSITIVE SUCTION HEAD	WC	WATER CLOSET
EXP	EXPANSION	NR	NOISE REDUCTION	WCO	WALL CLEAN OUT
EXT	EXTERIOR	NRC	NOISE REDUCTION COEFFICIENT	WF	WASH FOUNTAIN
F	FAHRENHEIT	NTS	NOT TO SCALE	WG	WATER GAUGE
F&BP	FACE AND BY-PASS	O	OXYGEN	WH	WALL HYDRANT
F&T	FLOAT AND THERMOSTATIC TRAP	OA	OUTSIDE AIR	WHA	WATER HAMMER ARRESTOR
F/SD	FIRE SMOKE DAMPER	OAT	OUTSIDE AIR TEMPERTURE	WM	WATER METER
F/A	FIRE ALARM	OBD	OPPOSED BLADE DAMPER	WPD	WATER PRESSURE DIFFERENTIAL
FA	FACE AREA	OC	ON CENTER	WT	WEIGHT
FC	FLEXIBLE CONNECTION	OD	OUTSIDE DIAMETER	WTR	WATER
FCO	FLOOR CLEANOUT	OF/CI	OWNER FURNISHED/ CONTRACTOR INSTALLED	WV	WASTE VENT
FCU	FAN COIL UNIT			YCO	YARD CLEANOUT
FD	FLOOR DRAIN, FIRE DAMPER	OF/OI	OWNER FURNISHED/ OWNER INSTALLED	YR	YEAR
FD	FIRE DAMPER			ZN	ZONE
FDC	FIRE DEPARTMENT CONNECTION	OFD	OVERFLOW DRAIN		

EQUIPMENT DESIGNATIONS

AB	AIR BLENDER SCHEDULE
AC	CRAC UNIT
ACC	AIR COOLED CHILLER
AHU	AIR HANDLING UNIT
AHUOA	ENERGY RECOVERY UNIT SCHEDULE
AS	AIR SEPARATOR
AT	AIR TERMINAL UNIT
AT	AIR TERMINAL UNIT – ELECTRIC REHEAT
BCC	VRF BRANCH CIRCUIT CONTROLLER
BLR	BOILER
BT	BUFFER TANK
CA	AIR COMPRESSOR
CAB	CABINET HEATER
CC	COILING COIL
CHLR	CHILLER
CON	CONVERTOR
CT	COOLING TOWER
CU	CONDENSING UNIT
D	MOTORIZED DAMPER
DA	DEAERATOR
DOAS	DEDICATED OUTSIDE AIR UNIT
EF	EXHAUST FAN
ET	EXPANSION TANK
F	FILTER
FC	FLUID COOLER
FCU	FAN COIL UNIT
FH	FILTER HOUSING
FPAT	FAN POWER AIR TERMINAL
FT	FLASH TANK
FTR	ELECTRIC FINTUBE RADIATOR
GF	GAS FURNACE
GMU	GLYCOL MAKEUP UNIT
HX	HEAT EXCHANGER
IU	VRF INDOOR UNIT
OAH	GRAVITY HOOD
OU	VRF OUTDOOR UNIT
PC	PREHEAT COIL
PRV	PRESSURE REDUCING VALVE
RTU	ROOFTOP UNIT
SA	SOUND ATTENUATOR
SCP	STEAM CONDENSATE PUMP
SE	BOILER STACK ECONOMIZER
SF	SHOT FEEDER
SRV	SAFETY RELIEF VALVE
ST	SURGE TANK
UH	UNIT HEATER
PUMPS	
CHWP	CHILLED WATER PUMP
CWP	CONDENSER WATER PUMP
FP	FIRE PUMP
GWP	PUMPS-G
HP	WATER TO AIR HEAT PUMP
HWP	HOT WATER PUMP
JP	JOCKEY PUMP
WHP	WATER TO WATER HEAT PUMP

PIPING/ TEMPERATURE CONTROL LEGEND

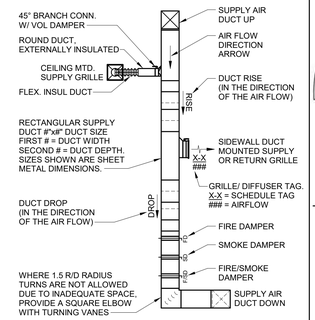
SYMBOL:	DESCRIPTION:
M	ACTUATOR / MOTOR
AMS	AIRFLOW MEASURING STATION
CA	CONDENSATE ALARM UNIT
CSR	CURRENT SENSING RELAY
DPT	DIFFERENTIAL PRESSURE TRANSMITTER
DPS	DIFFERENTIAL PRESSURE SWITCH (ADJ.)
SD	SMOKE DETECTOR (BY OTHERS)
FM	FLOW METER
FS	FLOW SWITCH
FT	FLOW TRANSMITTER
HE	HUMIDITY ELEMENT
STR	MOTOR STARTER
SP	STATIC PRESSURE SENSOR
SP HL	STATIC PRESSURE SENSOR / SWITCH
STE	SPACE TEMPERATURE ELEMENT
TE	TEMPERATURE ELEMENT (DUCT MOUNTED)
TE	TEMPERATURE SENSOR WITH AVERAGING ELEMENT
TLL	LOW LIMIT SAFETY THERMOSTAT
TS	TEMPERATURE SENSOR
VFD	VARIABLE FREQUENCY DRIVE
VP	VELOCITY PRESSURE SENSOR
CO_2	WALL MOUNTED CARBON DIOXIDE SENSOR
H	WALL MOUNTED HUMIDISTAT
M	MOTOR
T	WALL MOUNTED THERMOSTAT
T/H	WALL MOUNTED COMBINATION THERMOSTAT / HUMIDISTAT
	FAN
	HEATING COIL
	COOLING COIL
	DAMPER

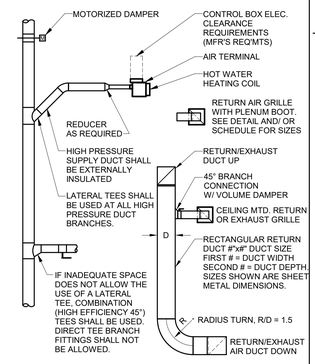
SYMBOL:	DESCRIPTION:
OR	RISER DOWN (ELBOW)
OR	RISER UP (ELBOW)
OR	RISE OR DROP
OR	BRANCH - TOP CONNECTION
OR	BRANCH - BOTTOM CONNECTION
	BRANCH - BOTTOM CONNECTION
	DIRECTION OF FLOW IN PIPE
	CONNECTION POINT NEW TO EXISTING
	PIPE CONTINUATION
M	METER
	PUMP
	PRESSURE GAUGE (FURNISHED WITH BALL VALVE)
	THERMOMETER WITH WELL (FILLED TYPE)
	"WYE" - STRAINER
	"WYE" - STRAINER W/SHUTOFF VALVE AND HOSE CONNECTION WITH CAP
	FLEXIBLE CONNECTION
	CALIBRATED BALANCING VALVE
	SHUTOFF VALVE
	NORMALLY CLOSED VALVE
	THROTTLING VALVE W/ LOCKING HANDLE
	TRIPLE DUTY VALVE (BALANCING, CHECK, SHUTOFF)
	PRESSURE REDUCING VALVE
A	2-WAY MODULATING CONTROL VALVE
M	3-WAY MODULATING CONTROL VALVE
	2-POSITION VALVE
	AUTOMATIC FLOW CONTROL VALVE
2	SAFETY RELIEF VALVE
	SAFETY RELIEF VALVE
	CHECK VALVE
	UNION/FLANGE
	P & T PLUG
	REDUCER
	SUCTION DIFFUSER
	MANUAL AIR VENT
	DRAIN VALVE WITH HOSE CONNECTION AND CAP
	HIGH CAPACITY AIR VENT
T	TEMPERATURE SENSOR, A.I.
FS	FLOW SWITCH, B.I.
BFP OR	BACKFLOW PREVENTER
DPT	DIFFERENTIAL PRESSURE TRANSMITTER, A.I.
VFD	VARIABLE FREQUENCY DRIVE
CSR	CURRENT SENSING RELAY
T	STEAM TRAP

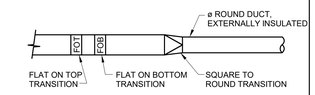
CONNECTION POINT NEW TO EXISTING

(ALIGN SPACE ABOVE LIGHT SWITCH - COORDINATE ALL LOCATIONS WITH ARCHITECT)

- T THERMOSTAT
- S TEMPERATURE SENSOR
- H HUMIDISTAT
- CO2 CARBON DIOXIDE SENSOR







HIGH AND LOW PRESSURE DUCT LEGEND

NO SCALE

PIPING SYSTEMS & ABBREVIATIONS

CA	COMPRESSED AIR
CD	CONDENSATE DRAIN
CR	CONDENSER WATER RETURN
CS	CONDENSER WATER SUPPLY
CWR	CHILLED WATER RETURN
CWS	CHILLED WATER SUPPLY
FOR	FUEL OIL RETURN
FOS	FUEL OIL SUPPLY
G	NATURAL GAS
GWR	GLYCOL WATER RETURN
GWS	GLYCOL WATER SUPPLY
HWR	HEATING HOT WATER RETURN
HWS	HEATING HOT WATER SUPPLY
PSC	PUMPED STEAM CONDENSATE
RHG	REFRIGERANT HOT GAS
RL	REFRIGERANT LIQUID
RS	REFRIGERANT SUCTION
S100	STEAM (PRESSURE INDICATED BY NUMBER)
SC100	STEAM CONDENSATE (PRESSURE INDICATED BY NUMBER)
SV	STEAM VENT

GARVIN PARK ACTIVITY ZONE

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Designed By:	Drawn By:	Checked By:
CLB	CLB	RWS

Sheet title:

MECHANICAL LEGENDS

Architect's Project No: 2402-146

Date: May, 2025

Drawing No:

M0.0

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GENERAL NOTES:

A. THE HVAC DRAWINGS ARE DIAGRAMMATIC AND ARE INTENDED TO INDICATE GENERAL ARRANGEMENT OF EQUIPMENT, DUCTWORK AND PIPING. CONTRACTOR SHALL MAKE MODIFICATIONS IN THE INSTALLATION SO ALL EQUIPMENT AND MATERIALS FIT PROPERLY AND CAN BE SERVICED. COORDINATE ALL WORK WITH OTHER TRADES.

B. COORDINATE DUCTWORK WITH LIGHT FIXTURE SUPPORTS, CONDUIT, PLUMBING, FIRE PROTECTION PIPING AND OTHER TRADES.

C. SEAL AROUND ALL PENETRATIONS.

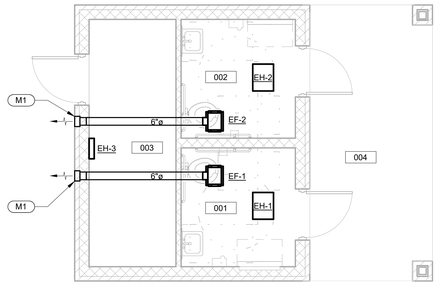
D. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE FOLLOWING REGULATIONS, CODES, AND STANDARDS.
INDIANA BUILDING CODE
INDIANA MECHANICAL CODE
INDIANA PLUMBING CODE
SMACNA HVAC DUCT CONSTRUCTION STANDARDS
OSHA

E. ROUTE DUCTWORK AS SHOWN ON PLAN; FIELD VERIFY ROUTING, AND CLEARANCES. PREFABRICATE AS MUCH DUCT AS POSSIBLE. ALLOW FOR FIELD TRIM AND ADJUSTMENTS. COORDINATE ANY CONFLICTS WITH ARCHITECT PRIOR TO INSTALLATION.

F. REFERENCE REFLECTED CEILING PLAN FOR TYPES AND HEIGHTS OF CEILINGS.

PLAN NOTES:

(M1) PROVIDE GREENHECK MODEL BVE EXTRUDED ALUMINUM BRICK VENT OR EQUIVALENT. MATCH SIZE TO DUCT. COLOR BY ARCHITECT.



FIRST FLOOR HVAC PLAN

1/4" = 1'-0"

North

0' 2' 4' 8'

MISCELLANEOUS EQUIPMENT SCHEDULE

SYMBOL	DESCRIPTION	REMARKS
EH-1 EH-2	CEILING ELECTRIC HEATER - 3.0KW, 10,200 BTU'S, 240V / 1 PH, 12.5A, TEMP. RISE 54°F. PROVIDE MOUNTING FLANGE FOR GYPBOARD CEILING, FACTORY UNIT MOUNTED DISCONNECT AND LINE VOLTAGE UNIT MOUNTED TAMPER RESISTANT THERMOSTAT.	BASED ON MARKEL MODEL HF3385D-RP
EH-3	ELECTRIC HEATER - HEAVY DUTY WALL HEATER, FAN FORCED, SURFACE MOUNTING, BUILT-IN THERMOSTAT AND DISCONNECT. 240 V / 1 PH, 16.7 A, 3 KW.	BASED ON MARKEL MODEL 3450

FAN SCHEDULE

SYMBOL	SERVICE	AIRFLOW (CFM)	EXTERNAL STATIC PRESSURE (IN. W.C.)	FRPM (NOTE 1)	BHP (NOTE 2)	MHP (NOTE 2)	VOLT-PHASE	DISCONNECT		BACKDRAFT DAMPER	DRIVE	SOUND POWER LEVELS (SONES)	MANUFACTURER	MODEL	REMARKS
								BY (NOTE 3)	TYPE (NOTE 4)						
EF-1,EF-2	RESTROOMS	75	0.15	900	0.01	16 WATTS	115 / 1	MFR	NF	GRAVITY	DIRECT	0.3	GREENHECK	SP-A90	5,6

NOTES:
1. FANS MUST BE WITHIN +/- 10% OF SCHEDULED RPM.
2. NO EQUIPMENT SHALL BE SELECTED ABOVE 90% OF MOTOR NAMEPLATE RATING.
3. DISCONNECT BY:
MFR = FURNISHED AND INSTALLED BY MANUFACTURER.
EC = FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR.
4. DISCONNECT TYPE:
F = FUSED
NF = NON-FUSED
5. PROVIDE A BRICK VENT W/ INSECT SCREEN, RIS ISOLATORS AND SPEED CONTROLLER MOUNTED ON WALL IN ROOM 003.
6. E.C. SHALL WIRE INTO LIGHTING CIRCUIT.

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HVAC PLAN AND SCHEDULES

Architect's Project No: 2402-146

Date: May, 2025

Drawing No:

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