


















PLUMBING ABBREVIATIONS

AE	ARCHITECT / ENGINEER	L/S	LITER PER SECOND
AD	AREA DRAIN	LA	LABORATORY AIR
AG	ABOVE FINISH FLOOR	LAV	LAVATORY
AFG	ABOVE FINISH GRADE	LBS/H	POUNDS PER HOUR
AF	AIR GAP	LOW	LABORATORY COLD WATER
AP	ACCESS PANEL	LHW	LABORATORY HOT WATER
ASD	AUTOMATIC SPRINKLER	LHWR	LABORATORY HOT WATER RETURN
ASD	ADJUSTABLE SPEED DRIVES	LNG	LIQUID NATURAL GAS
ASH	AUTOMATIC SPRINKLER DRAIN	LOX	LIQUID OXYGEN
ASHRAE	AMERICAN SOCIETY HEATING, REFRIGERATION, AIR CONDITIONING ENGINEERS	LPG	LIQUEFIED PETROLEUM GAS (PROPANE)
		LV	LABORATORY VACUUM
ASME	AMERICAN SOCIETY MECHANICAL ENGINEERS	LW	LABORATORY WASTE
ASPE	AMERICAN SOCIETY PLUMBING ENGINEERS	LWW	LABORATORY WASTE VENT
ASR	AUTOMATIC SPRINKLER RISER	M	METER
AV	ACID VENT	MA	MEDICAL AIR
AW	ACID WASTE	MAV	MANUAL AIR VENT
		MBH	1000 BTUH
		MED	MEDICAL
		MER	MECHANICAL EQUIPMENT ROOM
BFP	BACKFLOW PREVENTER	MH	MANHOLE
BHP	BREAK HANDEPOWER	MO	MEMORANDUM OF UNDERSTANDING
BS	BLACK STEEL PIPE	MSB	MOP SERVICE BASIN
BTP	BATHTUB	MV	MEDICAL VACUUM
BTU	BRITISH THERMAL UNIT		
BTUH	BRITISH THERMAL UNIT PER HOUR	(N)	NEW, NEW WORK
		N2	NITROGEN
C	CELSIUS	NZO	NITROUS OXIDE
CGA	COMPRESSED GAS ASSOCIATION	NC	NORMALLY CLOSED
CI	CAST IRON	NG	NATURAL GAS
CO	CLEANOUT	NIC	NOT IN CONTRACT
CONN	CONNECT	NO	NORMALLY OPEN
CS	CLINICAL SINK	NOM.	NOMINAL
CV	CONTROL VALVE	NPW	NOT POTABLE WATER
		NTC	NOT TO SCALE
(D)	DEMOLISH AND REMOVE	O2	OXYGEN
DCW	DOMESTIC COLD WATER	OC	ON CENTER
DHW	DOMESTIC HOT WATER	OD	OUTSIDE DIAMETER
DHWR	DOMESTIC HOT WATER RETURN	OFD	OVERFLOW DRAIN
DHWS	DOMESTIC HOT WATER SUPPLY	OR	OPERATING ROOM
DI	DEIONIZED WATER	OV	ORAL EVACUATION VACUUM
DI	DOWN	OV-E	ORAL EVACUATION VACUUM EXHAUST
DOE	DEPARTMENT OF ENERGY	OVFL	OVERFLOW
DS	DOWNSPOUT		
DT	DRAIN TILE	PA	PASCAL
DWG	DRAWING	PD	PRESSURE DROP OR DIFFERENCE
DWS	DOMESTIC WATER HEATER	PDI	PLUMBING AND DRAINAGE INSTITUTE
DWR	DRINKING WATER RETURN	PG	PRESSURE GAGE
DWH	DRINKING WATER SUPPLY	PP	PLUMBING PUMP
DWV	DRAIN WASTE VENT	PPM	PARTS PER MILLION
		PRC	PRESSURE REDUCING STATION
		PRV	PRESSURE REDUCING VALVE
(E)	EXISTING TO REMAIN	PSI	POUNDS PER SQUARE INCH
EMCS	ELEVATION ENERGY MONOSERRANT AND CENTRAL SYSTEM	PSIA	POUNDS PER SQUARE INCH ATMOSPHERE
EPA	ENVIRONMENTAL PROTECTION AGENCY	PSIG	POUNDS PER SQUARE INCH GAUGE
EPACT	ENERGY POLICY ACT	PTRV	PRESSURE TEMPERATURE RELIEF VALVE
EQUIP	EQUIPMENT	PW	POTABLE WATER
ESC	ESCUTCHEON		
ESH	EMERGENCY SHOWER	RD	ROOF DRAIN
ET	EXPANSION TANK	RDL	ROOF DRAIN LEADER
EW	ELECTRIC WATER COOLER	RL	ROOF LEADER
EW	ELECTRIC WATER HEATER	RL	REVERSE OSMOSIS
EW	EYE WASH STATION	RWL	RAIN WATER LEADER
EX	EXISTING		
F	FAHRENHEIT	SAN	SANITARY SEWER
FCO	FLOOR CLEANOUT	SMACNA	SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION
FCW	FILTERED COLD WATER		
FD	FLOOR DRAIN	SCFM	STANDARD CUBIC FOOT/MINUTE
FDC	FIRE DEPARTMENT (HOSE) CONNECTION	SCW	SOFTENED COLD WATER
FL	FLOW	SD	STORM DRAIN
FM	FLOW METER	SDMH	STORM DRAIN MANHOLE
FOP	FUEL OIL PUMP	SP	SUMP PUMP
FOR	FUEL OIL RETURN	SPR	SPRINKLER LINE
FOS	FUEL OIL SUPPLY	SQFT	SQUARE FEET
FOV	FUEL OIL VENT	SS	STAINLESS STEEL
FS	FLOOR SINK	ST	STORAGE TANK
FS	FLOW SWITCH	SW	STORM WATER
FU	FIXTURE UNITS		
		TCV	TEMPERATURE CONTROL VALVE
GAL	GALLON	TD	TEMPERATURE DIFFERENCE
GCO	GRADE CLEANOUTS	TD	TRENCH DRAIN
GPD	GALLONS PER DAY	TDH	TOTAL DYNAMIC HEAD
GPH	GALLONS PER HOUR	TEMP	TEMPERATURE
GPM	GALLONS PER MINUTE	TMV	THERMOSTATIC MIXING VALVE
GPR	GAS PRESSURE REGULATOR	TP	TRAP PRIMER
GRS	GAS REGULATOR STATION	TSTAT	THERMOSTAT
GT	GREASE TRAP	TWR	TEMPERED WATER RETURN
GTR	GAS VENT THROUGH ROOF	TWS	TEMPERED WATER SUPPLY
GWH	GAS FIRED WATER HEATER	TYP	TYPICAL
H&CW	HOT AND COLD WATER	UPC	UNIFORM PLUMBING CODE
HB	HOSE BIBB	UR	URINAL
HD	HUB DRAIN		
HDX	HEAT EXCHANGER	V	VENT
HP	HORSEPOWER	VAC	VACUUM
H	HAND SINK	VB	VACUUM BREAKER
HST	HOT WATER STORAGE TANK (DOMESTIC)	VCO	VACUUM CLEANER OUTLET
HSB	HOT WATER BOILER	VP	VACUUM PUMP
HWC	HOT WATER CIRCULATING PUMP	VS	VENT STACK
HWP	HOT WATER PUMP	VTR	VENT THROUGH ROOF
HYD	HYDRANT		
ICW	INDUSTRIAL COLD WATER	W	WASTE
INV	INVERT	WC	WATER CLOSET
IPC	INTERNATIONAL PLUMBING CODE	WCO	WALL CLEANOUT
IRW	IRRIGATION WATER	WG	WATER GAGE
IW	INDIRECT WASTE	WH	WALL HYDRANT
IWH	INSTANTANEOUS WATER HEATER	WH	WATER HEATER
IWS	INDUSTRIAL WATER RETURN	WHA	WATER HAMMER ARRESTER
IWS	INDUSTRIAL WATER SUPPLY	WL	WATER LINE
		WM	WATER METER
		WPD	WATER PRESSURE DROP
KW	KILOWATT	WS	WASTE STACK
KWH	KILOWATT-HOUR		
		YCO	YARD CLEANOUT
		YH	YARD HYDRANT
NOTE:			
ALL SYMBOLS AND ABBREVIATIONS MAY NOT BE INDICATED ON THE DRAWINGS.			





























PLUMBING PIPING SYMBOLS

	EXISTING TO REMAIN
-----//-----	EXISTING TO BE REMOVED
-DCN-----	DOMESTIC COLD WATER, COLD WATER
-DHW-----	DOMESTIC HOT WATER, HOT WATER
-OWHR-----	DOMESTIC HOW WATER RETURN, HOT WATER RETURN
-MA-----MA	MEDICAL AIR
-CA-----CA	COMPRESSED AIR
-MPA-----MPA	MEDIUM PRESSURE COMPRESSED AIR
-HPA-----HPA	HIGH PRESSURE COMPRESSED AIR
-MV-----MV	MEDICAL VACUUM
-LA-----LA	LABORATORY AIR
-LV-----LV	LABORATORY VACUUM
-OV-----OV	ORAL EVACUATION VACUUM
-OV-E-----OV-E	ORAL EVACUATION VACUUM EXHAUST
-IA-----IA----	INDUSTRIAL AIR
-SAN-----SAN	SANITARY SEWER
-SS-----SS	SANITARY SEWER (OPTIONAL)
-SAN-----SAN	SANITARY SEWER, BELOW GRADE
-----	SANITARY VENT
-SD-----SD	STORM WATER
-----SD-----	STORM WATER, BELOW GRADE
-DT-----DT	PERIMETER OR UNDERSLAB DRAIN TILE
-SCW-----SCW	SOFTEN COLD WATER
-FCW-----FCW	FILTERED COLD WATER
-ROS-----ROS	REVERSE OSMOSIS WATER SUPPLY
-ROR-----ROR	REVERSE OSMOSIS WATER RETURN
-TWS-----TWS	TEMPERED WATER SUPPLY
-TWR-----TWR	TEMPERED WATER RETURN
-N2O-----N2O	NITROUS OXIDE
-O2-----O2	OXYGEN
-N2-----N2	NITROGEN
-LPG-----LPG	LIQUEFIED PETROLEUM (LP) GAS
-NG-----NG	NATURAL GAS
-NG-----NG----	NATURAL GAS, BELOW GRADE
-LW-----LW	LABORATORY WASTE
-LW-----LW	LABORATORY WASTE BELOW GRADE
-LWV-----LWV----	LABORATORY WASTE VENT

PLUMBING VALVE SYMBOLS

	BALANCING VALVE
	ISOLATION VALVE
	ISOLATION VALVE NORMALLY CLOSE
	ISOLATION VALVE WITH 3/4 " HOSE ADAPTER
	CHECK VALVE
	ANGLE GLOBE VALVE
	MODULATING CONTROL VALVE
	TWO POSITION CONTROL VALVE
	THREE-WAY MODULATING CONTROL VALVE
	THREE-WAY TWO POSITION CONTROL VALVE
	PRESSURE REGULATING VALVE
	AUTOMATIC FLOW CONTROL VALVE
	PRESSURE RELIEF VALVE
	MANUAL AIR VENT
	TEST PLUG (PRESSURE/TEMPERATURE)
	AUTOMATIC AIR VENT
	BACKFLOW PREVENTER

GENERAL PLUMBING SYMBOLS

	DIRECTION OF PIPE PITCH (DOWN)
	DIRECTION OF FLOW
	ANCHOR
	REDUCER OR INCREASER
	ECCENTRIC REDUCER
	TOP CONNECTION, 45° OR 90°
	BOTTOM CONNECTION, 45° OR 90°
	SIDE CONNECTION
	CAPPED OUTLET
	RISE OR DROP IN PIPE
	UNION
	CLEANOUT
	PIPE UP
	PIPE DOWN
	POINT OF CONNECTION TO EXISTING WORK
	LIMIT OF DEMOLITION
	STRAINER
	THERMOMETER
	PRESSURE GAGE
	FLOW ELEMENT
	TEMPERATURE SENSOR
	CLEAN OUT
	HOSE BIB
	FLOOR DRAIN
	HEAT TRACING
	WATER HAMMER ARRESTER
	MOTOR
	PUMP

DRAWING SYMBOLS

Diagram illustrating the components of a key note symbol:

- Hexagon (2) → BUILDING NO. WHERE EQUIPMENT IS LOCATED.
- Hexagon (3) → EQUIPMENT ABBREVIATION (PUMP)
- Hexagon (2) → PUMP NO. 3 IN BUILDING NO. 26
- Circle (2) → TYPICAL UNIT NO.
- Circle (XXX) → PIPE SYSTEM
- Triangle (A) → RISER NUMBER
- Triangle (XXX) → DRAWING NUMBER WHERE SHOWN
- Rectangle (26-P) → BUILDING NO. WHERE EQUIPMENT IS LOCATED.
- Rectangle (3) → EQUIPMENT ABBREVIATION (PUMP)

GENERAL NOTES

GENERAL







1. PRIOR TO ANY WORK COMMENCING IN AN AREA, THE CONTRACTOR SHALL NOTIFY THE COR OF HIS INTENTION TO WORK IN THE AREA AND SHALL SCHEDULE A WALKTHROUGH WITH THE COR TO DETERMINE EXISTING CONDITIONS. AFTER THE WORK, THE EXISTING WORK AREAS SHALL BE RETURNED TO THEIR ORIGINAL STATE BEFORE FINAL APPROVAL SHALL BE GIVEN.
2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, INVERTS, PIPE SIZES AND MATERIALS, FLUID FLOW DIRECTIONS(S) AND CONDITIONS AT THE SITE AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO BEGINNING INSTALLATION OR FABRICATION WORK. (DO NOT SCALE DRAWINGS).
3. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITIES EVEN IF THE UTILITIES ARE NOT SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL REPAIR ALL DAMAGES AT THEIR OWN EXPENSE AND WILL BE RESPONSIBLE FOR ANY ADDITIONAL DAMAGES CAUSED BY A SYSTEM BEING DOWN.
4. DAMAGE TO EXISTING WALLS, CEILINGS AND FLOORS DUE TO THE WORK OF THIS CONTRACTOR, INCLUDING REMOVAL OF FLOOR DRAIN AND PIPE PENETRATIONS, SHALL BE RESTORED TO ORIGINAL CONDITION. REFER TO ARCHITECTURAL DOCUMENTS FOR FINISHES.
5. THE CONTRACTOR WILL BE RESPONSIBLE FOR ENSURING THAT ALL RULES AND REGULATIONS, INCLUDING THOSE WHICH MAY BE ISSUED BY THE OWNER, ARE BEING OBSERVED, PARTICULARLY WORKPLACE SAFETY AND THE CONDUCT OF ALL THOSE EMPLOYED DIRECTLY AND INDIRECTLY BY HIM ON THE PREMISES, AND THE OWNER'S EMPLOYEES WHO MAY BE IMPACTED OR AFFECTED BY CONSTRUCTION ACTIVITIES. THE CONTRACTOR WILL INSTALL SIGNAGE, TOE BOARD, BARRIERS, AND OTHER MEANS TO PROVIDE WARNING AND PERSONNEL SAFETY. PLACEMENT OF THESE ITEMS WILL BE COORDINATED WITH THE OWNER AND HIS ONGOING OPERATIONS AND WILL PROMPTLY BE RESTORED WHEN WORK IN A PARTICULAR AREA HAS BEEN COMPLETED.
6. ALL WORK WILL BE LAWFULLY EXECUTED IN A NEAT AND WORKMANLIKE MANNER AND WILL BE DONE IN ACCORDANCE WITH THE GOVERNING CODES, INDUSTRY STANDARDS AND IN CONFORMANCE WITH THE MANUFACTURERS RECOMMENDATIONS AND REQUIREMENTS.
7. WORK UNDER THIS CONTRACT SHALL CONSIST OF THE CONTRACTOR PROVIDING ALL LABOR, MATERIALS, AND SERVICES, INCLUDING WORK NOT SPECIFICALLY SHOWN BUT REASONABLY IMPLIED.
8. WORK ALL DRAWINGS WITH THE PROJECT SPECIFICATIONS.
9. PIPING SHOWN ON RESPECTIVE PLANS OCCURS ABOVE THAT FLOOR OR AT THE CEILING OF THAT FLOOR SERVING THE FLOOR ABOVE UNLESS OTHERWISE NOTED.
10. PIPING RISING WITHIN A STORY IS DESIGNATED AS "RISE". PIPING RISING TO ANOTHER STORY IS NOTED AS "UP". PIPING DROPPING WITHIN A STORY IS NOTED AS "DROP". PIPING DROPPING TO ANOTHER STORY IS NOTED AS "DN".
11. AFTER THE COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL COMPLETELY CLEAN ALL SURFACES OF CONSTRUCTION DEBRIS. SURFACES SHALL BE WIPED CLEAN OF DUST, INCLUDING FIXTURES, WINDOW SILLS, DOOR FRAMES, ETC., ANY TOILETS OR SINKS WITHIN THE CONSTRUCTION AREA SHALL BE COMPLETELY CLEANED AFTER THE CONSTRUCTION HAS BEEN COMPLETED USING MANUAL CLEANSER.
12. THE CONTRACTOR SHALL RECEIVE ALL DELIVERIES OF MATERIALS, EQUIPMENT, TOOLS, OR OTHER GOODS OFF OF STATION, AND BRING THEM TO THE JOB SITE. THE VA MEDICAL CENTER SHALL NOT ACCEPT DELIVERIES FOR PROJECT PURPOSES.

PLUMBING NOTES

1. ALL PIPING MATERIALS AND COMPONENTS INCLUDING FITTINGS, PIPE, FLANGES, VALVES, ETC. SHALL BE DESIGNATED, FABRICATED AND INSTALLED PER THE APPROPRIATE SECTIONS OF THE LATEST CODES, VETERAN'S AFFAIRS PLUMBING STANDARDS AND PROJECT CONTRACT DOCUMENTS.
2. ALL SANITARY SEWERS 2" AND SMALLER SHALL SLOPE 1/4" PER FOOT (MIN), ALL SANITARY SEWERS 3" AND LARGER SHALL SLOPE 1/8" PER FOOT (MIN.) IN THE DIRECTION OF FLOW.
3. ALL HORIZONTALLY ROUTED WASTE VENTS SHALL BE INSTALLED WITH A SLOPE TO FACILITATE GRAVITY DRAINAGE TO THE WASTE SYSTEM.
4. ALL CLEANOUTS INSTALLED IN THE SEWER SYSTEM SHALL BE SIZED AS FOLLOWS:

PIPE SIZE	SIZE OF CLEANOUT
2"	2"
2-1/2"	2-1/2"
3"	3"
4" TO 6"	4"
5. CLEANOUTS INSTALLED IN HORIZONTAL DRAINAGE PIPING SHALL BE SPACED AT INTERVALS NOT EXCEEDING 100'.
6. THE MAXIMUM VERTICAL DISTANCE FROM THE FIXTURE OUTLET (LAVATORY, FLOOR DRAIN ETC.) TO THE TRAP WEIR SHALL BE 24".
7. SURFACES TO BE SOLDERED SHALL BE CLEANED BRIGHT. THE JOINTS SHALL BE PROPERLY FLUXED AND MADE WITH APPROVED SOLDER. SOLDER JOINTS FOR POTABLE WATER SHALL BE MADE WITH A SOLDER CONTAINING NOT MORE THAN 0.2 PERCENT LEAD.
8. UNIONS SHALL BE INSTALLED AT ALL EQUIPMENT. THE USE OF DIELECTRIC UNIONS AND FLANGES MUST BE INSTALLED IN AREAS WHERE JOINING OF DISSIMILAR METALS (IE CARBON STEEL TO COPPER OR BRONZE, ETC.) THIS IS TO FACILITATE PIPING REMOVAL AND REASSEMBLY FOR FUTURE MAINTENANCE WORK AND/OR PREVENT GALVANIC CORROSION.
9. CONTRACTOR SHALL PROPERLY BRACE, ANCHOR, AND SUPPORT ALL PIPING, VALVES ETC. IN ACCORDANCE WITH MSS SP-58.
10. PIPE SUPPORT SPACING SHALL BE IN ACCORDANCE WITH MSS-58.
11. ALL POTABLE WATER BRANCHES SHALL BE INSTALLED WITH ISOLATION VALVES CLOSE TO MAIN.
12. ALL PLUMBING FIXTURES SHALL BE PROVIDED WITH WATER ISOLATION VALVES.
13. CONTRACTOR SHALL PROVIDE WALL ACCESS COVERS TO ALL CLEANOUTS AND VALVES LOCATED WITHIN WALLS OR CEILING.
14. ALL WATER SUPPLY AND DRAIN PIPES UNDER LAVATORIES SHALL BE PROTECTED IN ACCORDANCE WITH SPECIFICATIONS.
15. ALL PIPES OR TUBING WHICH PASS THROUGH RATED AND NON-RATED WALLS, FLOORS AND FOUNDATION WALLS, SHALL PASS THROUGH A SCHEDULE 40 CARBON STEEL PIPE SLEEVE. SLEEVES WHICH PASS THROUGH MASONRY SHALL BE GROUTED AND COATED. ALL SLEEVES SHALL BE INSTALLED FLUSH ON BOTH SIDES OF WALL PENETRATION.
NON-RATED WALLS: THE SLEEVE SHALL BE SIZED TO ALLOW FREE PASSAGE OF INSULATED AND NON-INSULATED PIPES AND TUBING.
RATED WALLS: PIPES WHICH PASS THROUGH FIRE-RATED WALLS & FLOOR SHALL USE THE APPROPRIATE DETAILED INSTALLATION METHOD OF SEALING WHILE MAINTAINING THE INTEGRITY OF THE WALL'S FIRE RATING(S).
EXTENSION WALLS & FOUNDATION: PIPES WHICH PASS THROUGH EXTENSION WALLS OR FOUNDATION WALLS SHALL BE SEALED AND MADE WEATHER-TIGHT.
16. INSULATE COLD AND HOT WATER PIPING PER THE PROJECT DOCUMENTS WITH FIRE RETARDANT VAPOR BARRIER JACKET, PIPE INSULATION SHALL BE SEALED WITH A FIRE RESISTIVE ADHESIVE.
17. CONTRACTOR IS RESPONSIBLE FOR ALL TESTING AND COORDINATION OF INSPECTIONS OF THE ENTIRE POTABLE WATER, SANITARY SEWER AND VENT SYSTEMS. TESTING SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS AND THE INTERNATIONAL PLUMBING CODE.
18. ALL PIPING AND VALVES SHALL BE PROPERLY IDENTIFIED, LABELED AND TAGGED. CONTRACTOR SHALL SUBMIT VALVE TAG LIST PER SPECIFICATIONS.
19. CONTRACTOR SHALL FLUSH AND DISINFECT THE ENTIRE POTABLE WATER SYSTEM. FLUSHING AND DISINFECTION OF THE POTABLE WATER SYSTEM SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS AND THE INTERNATIONAL PLUMBING CODE.
20. PROVIDE THREE (3) ELBOW SWING JOINTS FOR ALL DOMESTIC HOT WATER CONNECTIONS TO THE MAIN.
21. CONTRACTOR SHALL PROVIDE AND INSTALL THERMAL EXPANSION/CONTRACTION COMPENSATION IN THE DOMESTIC HOT WATER AND RECIRCULATION SYSTEMS, LIMITING THE MAXIMUM MOVEMENT TO 1-1/2" OR LESS. ANCHORS & RESTRAINTS SHALL BE INSTALLED WHERE NECESSARY. ALL PIPES SHALL BE PROPERLY GUIDED INTO THE THERMAL EXPANSION LOOPS OR COMPENSATORS.
22. NO PRESSURIZED PIPING SHALL BE TERMINATED AND ABANDONED IN A WALL OR OTHER INACCESSIBLE AREA. ALL TERMINATIONS SHALL INCLUDE REMOVAL OF PIPING BACK TO AN EASILY ACCESSIBLE AREA WHERE THE TERMINATION SHALL BE MADE WITHIN 2 PIPE DIAMETERS OF PIPE BRANCH TEE.
23. ALL FIXTURES SUPPLIED WITH DOMESTIC USE HOT WATER SHALL BE PROVIDED WITH A MIXING VALVE AND ANTI-SCALD DEVICE TO LIMIT OUTLET WATER TEMPERATURE TO 110 DEG. F..
24. POSITIVE SHUT-OFF OF EXISTING VALVES CAN NOT BE GUARANTEED, VA, WILL PROVIDE REASONABLE EFFORT TO CLOSE OFF EXISTING VALVES. IF EXISTING VALVES FAIL TO HOLD, CONTRACTOR IS RESPONSIBLE FOR COSTING AND EFFORT REQUIRED TO FREEZE PIPE AS NEEDED.

**BID DOCUMENTS
FULLY SPRINKLERED**

			CONSULTANTS:			 PennTerra ENGINEERING, INC. CENTRAL PENNSYLVANIA REGION OFFICE: 3075 EXETER DRIVE, SUITE 100 STATE COLLEGE, PA 16801 Tel: 814-231-8285 Fax: 814-231-2306 LANCASTER REGION OFFICE: 3904 B ABL DRIVE COLLEEN, PA 17522 Tel: 717-522-5033 Fax: 717-522-5046 <small>CONTRACTOR PROFESSIONAL</small>			 TTI ENVIRONMENTAL, INC. A SERVICE DISABLED VETERAN OWNED SMALL BUSINESS (CVC CERTIFIED) 1253 North Church Street Moorestown, NJ 08057 T: 856.840.8800 F: 856.840.8815 <small>CONTRACTOR PROFESSIONAL</small>			 Miller-Remick LLC M.E.P. & Structural Engineering A Service Disabled Veteran Owned Small Business 1010 KINGS HIGHWAY SOUTH CHERRY HILL, NEW JERSEY 08034 PHONE: (856)429-4000 FAX: (856)429-5002 MR PROJECT NO: 0499-0044 <small>CONTRACTOR PROFESSIONAL</small>									Drawing Title PLUMBING ABBREVIATIONS, GENERAL NOTES & SYMBOLS Approved: Project Director			Project Number 529-13-106 Building Number 6 Drawing Number P-001			Project Title RENOVATE BUILDING 6 Location VA BUTLER HEALTHCARE BUTLER, PA Date 10-12-2017 Checked MP Drawn pd			Office of Construction and Facilities Management  Department of Veterans Affairs		
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GENERAL SHEET NOTES:

1. REFER TO DRAWING P001 FOR PLUMBING SYMBOLS, ABBREVIATIONS AND GENERAL NOTES.
2. AFTER REMOVAL OF EXISTING MEP LINES, FIXTURES, AND FEATURES, CONTRACTOR SHALL CLEAN AND REPAIR WALLS, CEILINGS, AND FLOORS. PATCH HOLES, REMOVE STAINS, AND LEAVE SURFACES IN A CONDITION TO RECEIVE NEW FINISHES. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR DETAILS AND MATERIALS.

SHEET KEYNOTES:

1. EXISTING PLUMBING FIXTURE AND ASSOCIATED PIPING AND SUPPORTS TO BE REMOVED. CAP PIPING BRANCH TO REMAIN BACK AT MAIN OR STACK OR AS NOTED.
2. EXISTING FLOOR DRAIN AND ASSOCIATED PIPING TO BE REMOVED BELOW FLOOR SLAB OR TRENCH BOTTOM. REFER TO STRUCTURAL DRAWINGS.
3. EXISTING PIPING AND ASSOCIATED SUPPORTS TO BE REMOVED.
4. EXISTING ELECTRIC WATER HEATER AND HEAT EXCHANGER TO BE REMOVED. EXISTING WATER TEMPERATURE MONITORING SYSTEM TO BE RELOCATED TO NEW HEATER.
5. EXISTING AIR COMPRESSOR, RECEIVER AND DRYERS TO BE REMOVED.
6. EXISTING PIPING BELOW CONCRETE SLAB TO BE ABANDONED. SEAL PIPING AT FLOOR PENETRATIONS WERE INDICATED TO BE REMOVED AND PATCH FLOOR.
7. EXISTING ABANDONED FUTURE DRAIN PIPING TO BE CAPPED BELOW FLOOR AND PATCHED. REFER TO STRUCTURAL DETAILS.
8. EXISTING TOILET ROOM FIXTURES TO BE REMOVED AND REPLACED. REFER TO DWG PL101 FOR NEW WORK.
9. EXISTING TOILET ROOM FLOOR DRAINS TO BE REMOVED AND REPLACED. REFER TO DWG PL101 FOR NEW WORK.
10. LOCATION OF EXISTING PIPE FLOOR TRENCHES AND UNDER-SLAB VOID TO BE REMOVED. REFER TO STRUCTURAL DRAWINGS.

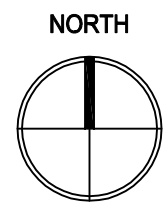
EXISTING SAN & VENT, DHW & DCW PIPING MAINS AND BRANCHES TO PLUMBING FIXTURES AND FLOOR DRAINS SERVING THIS AREA TO BE REMOVED AND CAPPED AT BUILDING EXTERIOR WALL AND/OR FLOOR.

EXISTING SAN & VENT, DHW & DCW PIPING MAINS AND BRANCHES TO PLUMBING FIXTURES AND FLOOR DRAINS SERVING THIS AREA TO BE REMOVED AND CAPPED AT BUILDING EXTERIOR WALL AND/OR FLOOR.

(E) 4" VENT UP & DN

1 BASEMENT PLAN
SCALE: 1/8" = 1'-0"

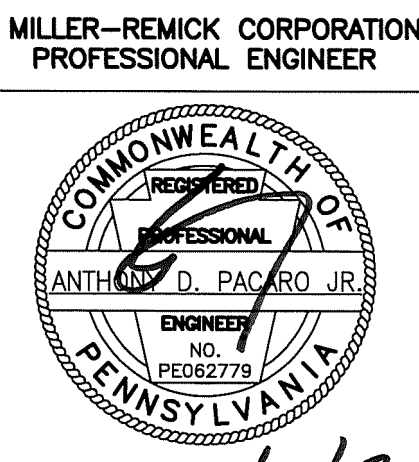
2 FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0"



BID DOCUMENTS
FULLY SPRINKLERED

NO.	DESCRIPTION	DATE

CONSULTANTS:



Drawing Title
PLUMBING
DEMOLITION PLANS

Approved: Project Director

Project Title
RENOVATE BUILDING 6

Location
VA BUTLER HEALTHCARE
BUTLER, PA

Date
10-12-2017

Checked
MP

Drawn
pd

Project Number
529-13-106

Building Number
6

Drawing Number
PD101

Office of
Construction
and Facilities
Management



2

ikm

CENTRAL PENNSYLVANIA REGION OFFICE:
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CHERRY HILL, NEW JERSEY 08035
PHONE: (856)429-4000
FAX: (856)429-5002
MR PROJECT NO: 0499-0044

Approved: Project Director

Location	VA BUTLER HEALTHCARE BUTLER, PA
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	Drawing Number

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466
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**Department of
Veterans Affairs**

