

PIPE HANGER SCHEDULE												
PIPE SIZE (INCHES)	MAXIMUM HORIZONTAL SPACING (FEET)				SINGLE STEEL ROD HANGER SIZE (INCHES)		HANGER TYPE STEEL	MAXIMUM VERTICAL SPACING (FEET)				
	COPPER/ TUBE	CAST IRON	STEEL PIPE	CPVC PIPE	TUBING	PIPING		COPPER/ TUBE	CAST IRON	STEEL PIPE	CPVC PIPE	
½"	6	5	8 (5)	3	¼"	¾"	BAND	10	15	15	10	
¾"	6	5	8 (5)	3	¼"	¾"	BAND	10	15	15	10	
1"	6	5	8 (5)	3	¼"	¾"	BAND	10	15	15	10	
1¼"	6	5	9 (5)	4	¼"	¾"	CLEVIS	10	15	15	10	
1½"	6	5	9 (5)	4	¼"	¾"	CLEVIS	10	15	15	10	
2"	10	5	10 (5)	4	¼"	¾"	CLEVIS	10	15	15	10	
2½"	10	5	12 (5)	4	¾"	½"	CLEVIS	10	15	15	10	
3"	10	5	12 (5)	4	¾"	½"	CLEVIS	10	15	15	10	
4"	10	5	12 (5)	4	½"	5/8"	CLEVIS	10	15	15	10	
5"	10	5	12 (5)	4	½"	5/8"	CLEVIS	10	15	15	10	
6"	10	5	12 (5)	4	½"	5/8"	CLEVIS	10	15	15	10	
8"	10	5	12 (5)	4	5/8"	7/8"	CLEVIS	10	15	15	10	
10"	10	5	12 (5)	4	5/8"	7/8"	CLEVIS	10	15	15	10	
12"	10	5	12 (5)	4	5/8"	7/8"	CLEVIS	10	15	15	10	

NOTES:

1. MAXIMUM HORIZONTAL SPACING OF CAST-IRON PIPE HANGERS SHALL BE INCREASED TO 10 FEET WHERE 10 FOOT LENGTHS OF PIPE ARE INSTALLED.
2. INSTALL HANGER OR SUPPORT CLOSE TO THE POINT OF CHANGE OF DIRECTION IN ALL PIPE RUNS.
3. INSTALL ADDITIONAL HANGERS ON SUPPORTS AT CONCENTRATED LOADS.
4. SUPPORT ALL BRANCH PIPING OVER 5'-0" IN LENGTH.
5. ½" GAS PIPING SHALL BE SUPPORTED EVERY 6'-0". ¾" AND 1" GAS PIPING SHALL BE SUPPORTED EVERY 8'-0". 1¼" AND LARGER GAS PIPING SHALL BE SUPPORTED EVERY 10'-0".
6. SUPPORT VERTICAL PIPING AT EVERY FLOOR.

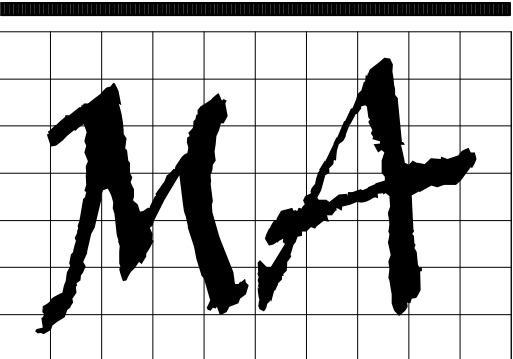
PIPE HANGER SCHEDULE					
PIPE SIZE INCHES	SPACING - FEET			ROD SIZE STEEL INCHES	HANGER TYPE STEEL
	STD. WT. STEEL PIPE		COPPER TUBE		
	WATER	STEAM	WATER		
½	7	8	5	¼	CLEVIS HANGER
¾	7	9	5	¼	CLEVIS HANGER
1	7	9	6	¼	CLEVIS HANGER
1½	9	12	8	¾	CLEVIS HANGER
2	10	13	8	¾	CLEVIS HANGER
2½	11	14	9	¾	CLEVIS HANGER
3	12	15	10	¾	CLEVIS HANGER
4	14	17	12	½	CLEVIS HANGER
6	17	21	14	½	CLEVIS HANGER
8	19	24	16	¾	CLEVIS HANGER

PLUMBING PIPE INSULATION SCHEDULE			
SERVICE	INSULATION THICKNESS (INCHES)		
	PIPE SIZE (INCHES)		
	BELOW 1½"	1½" AND OVER	
COLD WATER	½"	½"	
HOT WATER	1"	1½"	
HOT WATER RECIRCULATION	1"	1½"	
HORIZONTAL / VERTICAL STORM PIPING	1"	1"	
NOTES:			
1. PIPE COVERING SHALL BE FIBERGLASS PIPE INSULATION WITH FIRE RETARDANT VAPOR BARRIER JACKET, 0.23 K-FACTOR AT 75°F MEAN TEMPERATURE, FLAME SPREAD = 25, SMOKE DEVELOPED = 50.			
2. FITTINGS AND VALVES SHALL BE PROVIDED WITH PREMOLDED FITTING COVERS WITH PVC JACKETING OVAL IN THICKNESS AND MATERIAL TO ADJOINING PIPE INSULATION.			

FIXTURE RUNOUT SCHEDULE					
MARK	FIXTURE	CW	HW	W	V
WC-1, 2	WATER CLOSET	1"	—	4"	2"
UR-1, 2	URINAL	¾"		2"	½"
L-1, 2	LAVATORY	½" x ¾"	½" x ¾"	½"	½"
S-1,2,3,4,5,6	SINK	½" x ¾"	½" x ¾"	½"	½"
SH-1	SHOWER	½"	½"	—	—
SH-2, 3	SHOWER	½"	½"	2"	½"
PS-1, 2	POT SINK	¾"	¾"	2"	½"
BS-1	BAR SINK	½"	½"	½"	½"
DF-1, 2	DRINKING FOUNTAIN	½"	—	½"	½"
HS-1	HAND SINK	½" x ¾"	½" x ¾"	½"	½"
WB-1	WALL BOX	½"	—	—	—
LB-1	LAUNDRY BOX	½"	½"	2"	½"
HR-1	HOSE REEL	¾"	—	—	—
PF-1	POT FILLER	¾"	—	—	—
TF-1	TRUCK FILL	2"	—	—	—
FD-1	FLOOR DRAIN	—	—	3"	½"
FD-2, 3	FLOOR DRAIN	½"	—	4"	2"
FD-4	FLOOR DRAIN	—	—	3"	½"
FS-1	FLOOR SINK	—	—	4"	2"
FS-2	FLOOR SINK	½"	—	4"	2"
SS-1	SERVICE SINK	½"	½"	3"	½"
MS-1	MOP SINK	½"	½"	3"	½"
TPU-1	TRAP PRIMER UNIT	½"	—	—	—
TP-1	TRAP PRIMER	½"	—	—	—
FW-1	FACE/EYEWASH	1"	1"	—	—

PLUMBING NOTES:

- ALL PLUMBING WORK SHALL BE INSTALLED IN ACCORDANCE WITH 2020 PLUMBING, FIRE, FUEL GAS, BUILDING, AND ENERGY CONSERVATION CONSTRUCTION CODE OF THE STATE OF NEW YORK, ALL LOCAL CODES AND GENERALLY ACCEPTED STANDARDS.
- CONTRACTOR SHALL PROVIDE ALL FIXTURES, PIPING, VALVES, ACCESS DOORS, HANGERS, FITTINGS AND MISCELLANEOUS COMPONENTS NOT NECESSARILY DETAILED ON THESE DRAWINGS TO RENDER THE PLUMBING SYSTEMS COMPLETE, OPERABLE, AND IN ACCORDANCE WITH APPLICABLE CODES AND GENERALLY ACCEPTED INDUSTRY STANDARDS.
- CONTRACTOR SHALL COORDINATE LOCATIONS OF ALL PIPING AND EQUIPMENT WITH OTHER TRADES TO AVOID CONFLICTS. ROUGHING-IN DIMENSIONS OF FIXTURES MUST BE COORDINATED WITH GENERAL CONTRACTOR. SEE ARCHITECT'S DRAWINGS FOR EXACT LOCATIONS AND ELEVATIONS OF PLUMBING FIXTURES.
- ALL PIPE OPENINGS THROUGH PARTITIONS, FLOORS AND CEILINGS SHALL HAVE PIPE SLEEVES. FOR PIPE PENETRATING FIRE RATED PARTITIONS, CEILINGS AND FLOORS THE CONTRACTOR SHALL SEAL AROUND ALL PIPE PENETRATIONS WITH HILTI INTUMESCENT FIRE STOP MATERIAL BETWEEN THE PIPE AND SLEEVE TO MAINTAIN FIRE AND SMOKE RATINGS. PROVIDE FIRE STOP SEALANT ON ALL EXISTING PIPING PENETRATING NEW FIRE RATED WALLS CONSTRUCTED AS PART OF THE PROJECT.
- CONTRACTOR SHALL PITCH ALL SANITARY PIPING UNDER 3" A MINIMUM OF ¼" PER FOOT. SANITARY PIPING 3" AND ABOVE MAY BE PITCHED A MINIMUM OF ⅛" PER FOOT.
- CONTRACTOR SHALL GUARANTEE ALL WORKMANSHIP AND MATERIAL INSTALLED UNDER THIS CONTRACT FREE FROM DEFECTS FOR A PERIOD OF ONE (1) YEAR FROM DATE OF SUBSTANTIAL COMPLETION AND ACCEPTANCE BY THE OWNER AND AGREES TO REPLACE DEFECTIVE WORK (INCLUDING ALL REQUIRED LABOR AND MATERIAL) AT NO ADDITIONAL COST TO OWNER DURING THE GUARANTEE PERIOD.
- CONTRACTOR SHALL SUBMIT SHOP DRAWINGS ON ALL EQUIPMENT, PIPING, INSULATION, VALVES AND PLUMBING FIXTURES TO OWNER AND ARCHITECT FOR APPROVAL. DEMONSTRATE NEW PLUMBING SYSTEMS TO OWNERS AND REVIEW MAINTENANCE PROCEDURES.
- PROVIDE CHROME PLATED ESCUTCHEON PLATES WHERE PIPES PASS THROUGH WALLS, FLOORS AND CEILINGS IN FINISHED AREAS.
- CONTRACTOR SHALL COORDINATE FINAL LOCATIONS OF ALL PIPING IN FINISHED AREAS WITH GENERAL CONTRACTOR TO ENSURE CONCEALMENT OF ALL PIPING IN WALLS, FLOORS, CEILINGS AND UNDER VANITIES.
- CONTRACTOR SHALL LOCATE ALL PIPING ON THE WARM SIDE OF BUILDING INSULATION ENVELOPE.
- CONTRACTOR SHALL FURNISH AND INSTALL ALL CONTROL WIRING (24V) AND (120V) FOR SYSTEMS SHOWN ON PLUMBING DRAWINGS AND TRANSFORMERS, CONDUIT, JUNCTION BOXES, CONDUCTORS, THERMOSTATS, APPURTENANCES AND ALL NECESSARY EQUIPMENT TO MAKE SYSTEMS COMPLETE AND OPERABLE.
- ALL CONTROL WIRING SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (LATEST ADOPTED ADDITION) AND ALL LOCAL CODES. ALL CONDUCTORS SHALL BE COPPER WITH THIN INSULATION. (120V) - MINIMUM CONDUCTOR SIZE # 12. 24V - MINIMUM CONDUCTOR SIZE # 18.
- CONTRACTOR SHALL PAY FOR ALL PERMITS AND INSPECTIONS FEES REQUIRED BY LOCAL AUTHORITY HAVING JURISDICTION.
- CONTRACTOR SHALL PROVIDE ACCESS DOORS FOR ALL VALVES CONCEALED IN WALLS/CEILINGS. ACCESS DOORS SHALL HAVE APPROPRIATE FIRE RATINGS TO MAINTAIN INTEGRITY OF WALL/CEILING. ACCESS DOORS TO BE INSTALLED BY GENERAL CONTRACTOR.
- CONTRACTOR SHALL NOT DRILL OR CUT ANY STRUCTURAL MEMBERS WITHOUT PERMISSION OF ARCHITECT, OR STRUCTURAL ENGINEER.
- CONTRACTOR IS RESPONSIBLE FOR INSULATING ALL DOMESTIC HOT AND COLD WATER PIPING AND HORIZONTAL STORM DRAIN PIPING. SEE PLUMBING INSULATION SCHEDULE ON THIS DRAWING.
- ALL DOMESTIC WATER PIPING CONNECTIONS TO PLUMBING EQUIPMENT SHALL BE COPPER TYPE "L".
- ALL NEW PIPES ARE TO BE SUPPORTED FROM STRUCTURE, NOT FROM PIPING OR DUCTWORK.
- CONTRACTOR SHALL BE RESPONSIBLE FOR DRAINING AND REFILLING SYSTEMS AS REQUIRED FOR COMPLETION OF WORK.
- CONNECTIONS TO EXISTING UTILITIES AND SERVICES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS, INVERT ELEVATIONS, AND SIZES OF EXISTING PLUMBING SERVICES IN FIELD, AND SHALL CONNECT NEW PLUMBING SERVICES AS INDICATED ON DRAWINGS.
- PROVIDE DIELECTRIC FITTINGS OR COUPLINGS WHEREVER DISSIMILAR METALS ARE JOINED.
- PROVIDE SHUTOFF VALVES AT ALL FIXTURES AND EQUIPMENT ON COLD WATER AND HOT WATER.
- ALL WORK SHALL BE PROPERLY TESTED, BALANCED, AND CLEANED AND DISINFECTED.
- A CLEANOUT SHALL BE LOCATED AT ALL CHANGES IN DIRECTION AND AT THE BASE OF EACH STACK AND LEADER.
- ALL MOTOR STARTERS AND DISCONNECT SWITCHES FOR PLUMBING EQUIPMENT SHALL BE FURNISHED BY THE PLUMBING CONTRACTOR AND INSTALLED BY THE ELECTRICAL CONTRACTOR, UNLESS OTHERWISE NOTED. DISCONNECT SWITCHES FURNISHED BY THE PLUMBING CONTRACTOR FOR PLUMBING EQUIPMENT SHALL BE HEAVY DUTY TYPE.
- FIXTURE (GENERAL):
- FIXTURE SHALL BE COMPLETE WITH REQUIRED TRIM, INCLUDING BUT NOT LIMITED TO: SUPPORTS, FAUCETS, SUPPLIES, STOP VALVES, IT GAUGE WASTE TAILPIECES, TRAPS, SEATS, FLUSHOMETER, VACUUM BREAKER, BOLTS, GASKETS CHROME PLATED ESCUTCHEONS, CAST BRASS FLOOR FLANGE AND BOLT CAPS. ALL SCREWS SHALL BE VALDELPROOF.
- EXPOSED METAL TRIM AND ROUGHING SHALL BE CHROME PLATED NICKEL BRASS, CHROME PLATED CAST BRASS P' TRAPS WITH SCREW PLUG CLEANOUT, SLIP-JOINT INLET AND FEMALE CAST SWIVEL THREADED ELBOW OUTLET. CHROME PLATED BRASS NIPPLE AT WALL WITH CHROME PLATED ESCUTCHEON. SWING SPOUTS SHALL HAVE 140° SWING LIMIT STOPPS.
- SUPPORT WALL FIXTURES SECURELY ON APPROVED COMMERCIAL GRADE CARRIERS AS MANUFACTURED BY JAY R. SMITH, JOSAM, OR ZURN.
- UPON COMPLETION OF THE ENTIRE SANITARY DRAIN AND VENT SYSTEM, THE CONTRACTOR SHALL PERFORM AN AIR TEST WITNESSED BY AUTHORITY HAVING JURISDICTION. AIR SHALL BE FORCED INTO THE SYSTEM UNTIL THERE IS A UNIFORM GAUGE PRESSURE OF 5 PSI OR SUFFICIENT TO BALANCE A 10 INCH COLUMN OF MERCURY. THIS TEST SHALL BE HELD FOR A PERIOD OF AT LEAST 15 MINUTES.
- WATER SUPPLY SYSTEM TEST SHALL BE DONE ON COMPLETION OF A SECTION OF OR THE ENTIRE WATER SUPPLY SYSTEM, THE SYSTEM, OR THE PORTION COMPLETED, SHALL BE TESTED AND PROVED TIGHT UNDER A WATER PRESSURE NOT LESS THAN THE WORKING PRESSURE OF THE SYSTEM; OR, BY AN AIR TEST OF NOT LESS THAN 50 PSI. TEST PRESSURE SHALL BE HELD FOR A MINIMUM OF 15 MINUTES. THE WATER UTILIZED FOR TESTS SHALL BE OBTAINED FROM A POTABLE SOURCE OF SUPPLY.
- DOMESTIC WATER PIPING DISINFECTION:
 - ALL OPEN ENDS OF PIPING, VALVES AND EQUIPMENT SHALL BE PLUGGED EXCEPT WHEN ACTUAL WORK IS BEING PERFORMED, TO MINIMIZE ACCUMULATION OF DIRT AND DEBRIS.
 - THE CONTRACTOR SHALL DISINFECT WATER PIPING BEFORE IT IS PLACED IN SERVICE.
 - THE CONTRACTOR SHALL FURNISH ALL EQUIPMENT AND MATERIALS NECESSARY TO DO THE WORK OF DISINFECTING, AND SHALL PERFORM THE WORK IN ACCORDANCE WITH THE PROCEDURE OUTLINED IN THE AWWA C651 OR AWWA C652 OR AS DESCRIBED BELOW.
 - SYSTEM OR PART THEREOF SHALL BE FILLED WITH A WATER/CHLORINE SOLUTION CONTAINING AT LEAST 50 PARTS PER MILLION OF CHLORINE AND THE SYSTEM OR PART THEREOF SHALL BE ALLOWED TO STAND FOR 24 HOURS.
 - DURING THE DISINFECTION PERIOD, CARE SHALL BE EXERCISED TO PREVENT CONTAMINATION OF WATER IN THE STREET MAIN OR THE ACTIVE WATER PIPING WITHIN THE BUILDING.
 - FOLLOWING REQUIRED STANDING TIME, THE SYSTEM SHALL BE FLUSHED WITH CLEAN POTABLE WATER UNTIL THE CHLORINE IS PURGED FROM THE SYSTEM.
- PIPING AND EQUIPMENT IDENTIFICATION:
 - CONTRACTOR TO PROVIDE OPTI-CODE LABELS FOR ALL NEW PIPING. LABELS SHALL INDICATE SERVICE AND FLOW DIRECTION. LETTERS AND ARROWS INDICATING FLOW SHALL BE 2 1/2" HIGH, PLACED EVERY 10' AND SHALL BE WHITE ON A GREEN BACKGROUND AND SHALL CONFORM TO ANSI AND OSHA STANDARDS. LABELS SHALL BE APPLIED OVER INSULATION ONLY.
 - VALVE SERVICE IDENTIFICATION TAGS, NUMBER 19 B16 GAGE BRASS, WITH 1/4" HIGH VALVE SERVICE ABBREVIATED LETTERING ON ONE LINE OVER 1/2" HIGH VALVE SERVICE CHART NUMBER, BOTH DEEP STAMPED AND BLACK FILLED; AND WITH 3/16" TOP HOLE FOR BRASS "S" HOOK OR BRASS JACK CHAIN FASTENER.
 - PROVIDE VALVE SERVICE IDENTIFICATION CHART MOUNTED IN LOCATION COORDINATED WITH OWNER'S REPRESENTATIVE. FRAME SHALL BE SATIN FINISHED EXTRUDED ALUMINUM WITH RIGID CLEAR PLASTIC GLAZING, SIZE TO FIT 8-1/2" x 11" VALVE CHART.
 - EQUIPMENT SHALL HAVE 3" HIGH BLACK LAMACOID NAME PLATES WITH WHITE ENGRAVED LETTERS PERMANENTLY FASTENED TO ALL NEW EQUIPMENT.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING START-UP OF ALL NEW EQUIPMENT, CONTROLS, AND ETC. TO ENSURE CORRECT OPERATION OF INSTALLED DEVICES.
- CONTRACTOR SHALL PROVIDE OWNER WITH CATALOG DATA, OPERATING INSTRUCTIONS, MAINTENANCE INSTRUCTIONS, AND RECORD (AS-BUILT) DRAWINGS OF ALL COMPLETED WORK.
- CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL CUTTING, PATCHING, AND PAINTING ASSOCIATED WITH PLUMBING WORK WITH THE GENERAL CONTRACTOR, WHO SHALL PERFORM THE WORK. ALL FLOORS AND WALLS WHERE AN EXISTING PIPE HAS BEEN REMOVED AND NOT REPLACED SHALL BE PATCHED BY THE GENERAL CONTRACTOR, THIS CONTRACTOR SHALL COORDINATE.
- ALL NEW HOLES IN WALLS AND FLOORS SHALL BE CORE DRILLED BY THIS CONTRACTOR. PRIOR TO CORE DRILLING FLOORS, RADAR SCAN FLOOR SLABS. USE CAUTION WHEN CORE DRILLING TO AVOID DAMAGE TO EXISTING EQUIPMENT, SYSTEMS, STRUCTURE AND ETC. ANY ITEMS DAMAGED AS A RESULT OF CORE DRILLING SHALL BE REPAIRED BY THIS CONTRACTOR AT NO ADDITIONAL COST TO SCHOOL.
- CONTRACTOR SHALL PAINT ALL GAS PIPING. CLEAN GAS PIPE AND PAINT (1) ONE COAT MARINE ALKYL METAL PRIMER MPI 79, (2) TWO COATS PAINT EXTERIOR ALKYL SEMI-GLOSS MPI 94. SEE ARCHITECT'S DRAWINGS AND SPECIFICATIONS FOR APPROVED MATERIALS, PROCEDURES AND METHODS OF INSTALLATION. COLOR AS DIRECTED BY ARCHITECT.
- CONTRACTOR SHALL INSULATE ALL EXPOSED PIPING UNDER HANDICAPPED ACCESSIBLE LAVATORIES AND SINKS WITH HANDI LAV-GUARD MANUFACTURED BY TRUEBRO, ELLINGTON, CT. (203) 872-0300
- CONTRACTOR SHALL MOUNT ALL HANDICAPPED ACCESSIBLE PLUMBING FIXTURES AND ACCORDANCE WITH ANSI A117.1 AND ADA REQUIREMENT SEE ARCHITECT'S DRAWINGS FOR FIXTURE ELEVATIONS.



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**NEW STATION
FOR
PUTNAM VALLEY
FIRE STATION #1**

OSCAWANA LAKE ROAD
PUTNAM VALLEY, NEW YORK

REVISION HISTORY		
	DATE	DESCRIPTION
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**PLUMBING:
EQUIPMENT
SCHEDULES**

SCALE: AS NOTED
DWG. BY: KC
DWG. DATE: 8/14/2020
STATUS: BID DRAWINGS

