PLUMBING NOTES:

- 1. ALL PLUMBING WORK SHALL BE INSTALLED IN ACCORDANCE WITH 2022 VERSION OF NYS EDUCATION DEPARTMENT MANUAL OF PLANNING STANDARDS FOR SCHOOL BUILDINGS, THE 2020 VERSION OF THE PLUMBING CODE, FIRE CODE, BUILDING CODE AND ENERGY CONSERVATION CONSTRUCTION CODE OF NEW YORK STATE, ALL LOCAL CODES AND GENERALLY ACCEPTED STANDARDS.
- 2. CONTRACTOR SHALL PROVIDE ALL EQUIPMENT, 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.
- 3. 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. CONTRACTOR SHALL PARTICIPATE IN MAKING COORDINATION DRAWINGS WITH OTHER PRIME CONTRACTS. 4. 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.
- 5. CONTRACTOR SHALL PITCH ALL SANITARY, STORM AND OVERFLOW DRAIN PIPING UNDER 3" A MINIMUM OF ½" PER FOOT. SANITARY AND STORM PIPING 3" AND ABOVE MAY BE PITCHED A MINIMUM OF ½" PER FOOT. 6. 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. 7. 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 OWNER AND REVIEW MAINTENANCE PROCEDURES.
- 8. PROVIDE CHROME PLATED ESCUTCHEON PLATES WHERE PIPES PASS THROUGH WALLS, FLOORS AND CEILINGS IN FINISHED AREAS. 9. 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.
- 10. CONTRACTOR SHALL LOCATE ALL PIPING ON THE WARM SIDE OF BUILDING INSULATION ENVELOPE.
- 11. 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.
- 12. CONTRACTOR SHALL PAY FOR ALL PERMITS AND INSPECTIONS FEES REQUIRED BY LOCAL AUTHORITY HAVING JURISDICTION.
- 13. CONTRACTOR SHALL PROVIDE ACCESS DOORS FOR ALL VALVES CONCEALED IN WALLS/CEILINGS. ACCESS DOORS SHALL HAVE APPROPRIATE FIRE RATING TO MAINTAIN INTEGRITY OF WALL/CEILING. ACCESS DOORS TO BE INSTALLED BY GENERAL CONTRACTOR. 14. CONTRACTOR SHALL NOT DRILL OR CUT ANY STRUCTURAL MEMBERS WITHOUT PERMISSION OF ARCHITECT, OR STRUCTURAL ENGINEER.
- 15. CONTRACTOR IS RESPONSIBLE FOR INSULATING ALL DOMESTIC HOT AND COLD WATER PIPING, HOT WATER RECIRCULATION PIPING, STORM AND OVERFLOW DRAIN PIPING. SEE PLUMBING INSULATION SCHEDULE ON THIS DRAWING.
- 16. ALL DOMESTIC WATER PIPING CONNECTIONS TO PLUMBING EQUIPMENT SHALL BE COPPER TYPE "L".
- 17. ALL NEW PIPES ARE TO BE SUPPORTED FROM STRUCTURE, NOT FROM EXISTING PIPING OR DUCTWORK. 18. CONTRACTOR SHALL BE RESPONSIBLE FOR DRAINING (AND PROPER DISPOSAL OF ALL DRAINED WATER) AND REFILLING EXISTING SYSTEMS AS
- REQUIRED FOR COMPLETION OF WORK. 19. 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.
- 20. PROVIDE DIELECTRIC FITTINGS OR COUPLINGS WHEREVER DISSIMILAR METALS ARE JOINED.
- 21. PROVIDE SHUTOFF VALVES AT ALL FIXTURES AND EQUIPMENT ON COLD WATER AND HOT WATER SUPPLY PIPES.
- 22. ALL WORK SHALL BE PROPERLY TESTED, BALANCED, AND CLEANED AND DISINFECTED.
- 23. A CLEANOUT SHALL BE LOCATED AT ALL CHANGES IN DIRECTION AND AT THE BASE OF EACH STACK AND LEADER.
- 24. 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.
- 25. FIXTURE (GENERAL): A. FIXTURE SHALL BE COMPLETE WITH REQUIRED TRIM, INCLUDING BUT NOT LIMITED TO: SUPPORTS, FAUCETS, SUPPLIES, STOP VALVES, 17 GAUGE WASTE TAILPIECES, TRAPS, SEATS, FLUSHOMETER, VACUUM BREAKER, BOLTS, GASKETS CHROME PLATED EXUTCHEONS, CAST BRASS FLOOR FLANGE AND BOLT CAPS. ALL SCREWS SHALL BE VANDALPROOF.
- B. 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 STOPS.
- C. SUPPORT WALL FIXTURES SECURELY ON APPROVED COMMERCIAL GRADE CARRIERS AS MANUFACTURED BY JAY R. SMITH, JOSAM, OR ZURN. 26. PIPE TESTING:
- A. UPON COMPLETION OF THE ENTIRE SANITARY DRAIN AND VENT SYSTEM AND STORM WATER AND OVERFLOW DRAIN 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.
- B. 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.
- C. FORCE MAIN PIPING TEST SHALL CONSIST OF PLUGGING PIPE AT CONNECTION TO EXISTING SYSTEM AND APPLYING A PRESSURE OF 5 PSI GREATER THAN THE PUMP RATING AND MAINTAINING SUCH PRESSURE FOR 15 MINUTES. D. REFER TO SPECIFICATIONS FOR ADDITIONAL TESTING REQUIREMENTS.
- 27. DOMESTIC WATER PIPING DISINFECTION:
- A. 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.
- B. THE CONTRACTOR SHALL DISINFECT WATER PIPING BEFORE IT IS PLACED IN SERVICE. C. 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.
- D. 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. E. 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. F. FOLLOWING REQUIRED STANDING TIME, THE SYSTEM SHALL BE FLUSHED WITH CLEAN POTABLE WATER UNTIL THE CHLORINE IS PURGED FROM
- THE SYSTEM. 28. PIPING AND EQUIPMENT IDENTIFICATION:
- A. 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.
- B. VALVE SERVICE IDENTIFICATION TAGS: NUMBER 19 B&S 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.
- C. 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. D. EQUIPMENT SHALL HAVE 3" HIGH BLACK LAMACOID NAME PLATES WITH WHITE ENGRAVED LETTERS PERMANENTLY FASTENED TO ALL NEW
- EQUIPMENT. 29. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING START-UP OF ALL NEW EQUIPMENT, CONTROLS, AND ETC. TO ENSURE CORRECT OPERATION OF INSTALLED DEVICES.
- 30. CONTRACTOR SHALL PROVIDE OWNER WITH CATALOG DATA, OPERATING INSTRUCTIONS, MAINTENANCE INSTRUCTIONS, AND RECORD (AS-BUILT) DRAWINGS OF ALL COMPLETED WORK. 31. 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.
- 32. 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 DISTRICT.

PIPE SIZE		IORIZONTAL G (FEET)		SINGLE STEEL ROD HANGER SIZE (INCHES)		MAXIMUM VERTICAL SPACING (FEET)	
INCHES)	COPPER TUBE	CAST IRON	TUBING	PIPING	TYPE STEEL	COPPER TUBE	CAST IRON
1/2"	6	5	1⁄4"	<sup>3</sup> ⁄8"	BAND	10	15
3⁄4"	6	5	1⁄4"	3⁄8"	BAND	10	15
1"	6	5	1⁄4"	3⁄8"	BAND	10	15
11⁄4"	6	5	1⁄4"	<sup>3</sup> ⁄8"	CLEVIS	10	15
11⁄2"	6	5	1⁄4"	<sup>3</sup> ⁄8"	CLEVIS	10	15
2"	10	5	1⁄4"	<sup>3</sup> ⁄8"	CLEVIS	10	15
2 <sup>1</sup> /2"	10	5	3⁄8"	1/2"	CLEVIS	10	15
3"	10	5	3⁄8"	1/2"	CLEVIS	10	15
4"	10	5	1/2"	<sup>5</sup> ⁄8"	CLEVIS	10	15
5"	10	5	1/2"	5⁄8"	CLEVIS	10	15
6"	10	5	1⁄2"	3⁄4"	CLEVIS	10	15
8"	10	5	5⁄8"	7⁄8"	CLEVIS	10	15
10"	10	5	5⁄8"	7⁄8"	CLEVIS	10	15
12"	10	5	5/8"	7⁄8"	CLEVIS	10	15
FOOT 2. INSTA 3. INSTA	LENGTHS OF PIF	PE ARE INSTALL SUPPORT CLOSI HANGERS ON SL	ED. E TO THE POINT JPPORTS AT CO	F OF CHANGE	OF DIRECTIC	REASED TO 10 FEI	

SYMBOLS AND ABBREVIATIONS						
SYMBOL	ABBREVIATION	DESCRIPTION				
	DN.	DOWN				
	GPH	GALLONS PER HOUR				
	GPM	GALLONS PER MINUTE				
	TYP.	TYPICAL				
	V	VOLTS				
	VTR	VENT THROUGH ROOF				
	CW	DOMESTIC COLD WATER				
	HW	DOMESTIC HOT WATER				
	HWR	DOMESTIC HOT WATER RETURN				
	S	SANITARY				
	V	VENT				
Ť		BALL VALVE				
F	-	MANUAL AIR VENT				
	-	THERMOMETER				
	-	PRESSURE GAUGE				
	-	UNION				
$\odot$	CODP	CLEANOUT DECK PLATE				
	EX.	EXISTING TO REMAIN				
	DEM.	EXISTING TO BE REMOVED				
	NEW	NEW WORK				
o—	-	ELBOW UP				
c——	-	ELBOW DOWN				
	-	TEE UP				
<del></del>	-	TEE DN				
	-	TRAP				
	FD	FLOOR DRAIN				
	-	POINT OF DISCONNECT/CONNECT				
-	MC	MECHANICAL CONTRACTOR				
-	OD	OVERFLOW DRAIN				
-	FM	FORCE MAIN				
	RD	ROOF DRAIN				
	PRV	PRESSURE REDUCING VALVE				
-	°F	DEGREES FAHRENHEIT				
-	IN	INCHES				
-	PSI	POUNDS PER SQUARE INCH				
-	н	HEIGHT				
-	W	WIDTH				
-	L	LENGTH				
Ø	DIA / PH	DIAMETER / PHASE				
]	-	PIPE CAP				
-	MIN	МІЛІМИМ				
-	MAX	MAXIMUM				
-	FT <sup>2</sup>	SQUARE FEET				
	со	CLEAN OUT				
	WCO	WALL CLEAN OUT				
SD	SD	STORM DRAIN				
,Ţ_	-	HOSE-BIBB				
+	-	WALL HYDRANT				
-	PC	PLUMBING CONTRACTOR				
-	HZ	HERTZ				
-	V	VOLTS				
-	FT	FEET				
-	HP	HORSEPOWER				
	FULL LOAD AMPS					
	FLA RPM	REVOLUTIONS PER MINUTE				

WATTS WATER HAMMER ARRESTORS							
NO. 15 FIXTURE CROSS REF. PE SIZE UNITS STANDARD							
1/2" M1	1-11	А					
3/4" M1	12-32	В					
1" M1	33-60	С					
1-1/4" M1	61-113	D					
1-1/2" M1	114-154	E					
2" M1	155-330	F					

	PLUMBING EQUIPMENT SCHEDULE									
SYMBOLS PLUMBING CONNECTIONS					;		<u> </u>			
TAG	PLAN	ELEVATION	SAN./STORM	VENT	COLD	НОТ	GAS	MANUFACTURER	CATALOG #	DESCRIPTION
P-1	$\sum_{i=1}^{n}$		4"	2"	1"	-	-	KOHLER	K-4325	WALL-MOUNTED, VITREOUS CHINA, ELONGATED BOWL, FLUSHOMETER TOILET WITH CONCEALED TRAPWAY, DIRECT-FED SIPHON JET ACTION, AND 1-1/2" TOP SPUD. FIXTURE COLOR SHALL BE WHITE. PROVIDE COMMERCIAL HEAVY DUTY PLASTIC TOILET SEAT, BEMIS MODEL 1955CT AND COMMERCIAL GRADE FLOOR MOUNTED VERTICAL ADJUSTABLE CLOSET CARRIERS. REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHTS.
								ZURN	ZER6000AV-TM -WS1-DF	EXPOSED, BATTERY POWERED, GEAR DRIVEN, ELECTRONIC SENSOR OPERATED WATER CLOSET FLUSHOMETER WITH: MANUAL OVERRIDE BUTTON, CONTROL STOP WITH VANDAL-RESISTANT CAP AND VACUUM BREAKER. DUAL FLUSH, LOW CONSUMPTION, 1.6/1.1 GALLONS PER FLUSH. ADA COMPLIANT.
P-2			1¼"	1½"	<i>K</i> "	½"	_	KOHLER	K-1728	19¼"(L)x17¼"(W) WALL-HUNG, VITREOUS CHINA, D-SHAPED BOWL LAVATORY WITH FRONT OVERFLOW, CONCEALED ARM SUPPORTS, FAUCET LEDGE, AND SELF-DRAINING DECK AREA. FIXTURE COLOR SHALL BE WHITE. PROVIDE: COMMERCIAL GRADE, FLOOR MOUNTED CONCEALED ARM SUPPORTS; OFFSET LAVATORY GRID STRAINER (MCGUIRE MANUFACTURING PART NUMBER 155WC); AND TRUEBRO MODEL 103 E-Z LAV GUARD. REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHTS. LAVATORY SHALL BE ADA COMPLIANT.
								ZURN	Z6915-XL-TMV1-N	ADA COMPLIANT, LOW-LEAD COMPLIANT, BATTERY POWERED, CHROME PLATED CAST BRASS BODY, SENSOR FAUCET WITH: INFRARED PROXIMITY SENSOR, THIRTY SECOND TIME OUT FEATURE, IN LINE FILTER, (4) "AA" BATTERIES, 0.5 GPM VANDAL-RESISTANT LAMINAR FLOW, AND THERMOSTATIC MIXING VALVE.
P-3			3"	1½"	¥2"	½"		ACORN	TNC-24	PRECAST MOP SINK, ONE PIECE TERRAZZO COMPOSED OF MARBEL CHIPS IN PORTLAND CEMENT. MOP SINK SHALL BE 24"X 24" NEO-CORNER STYLE WITH 12" STANDARD HEIGHT FRONT SHOULDER. INTEGRAL DRAIN WITH A REMOVABLE STAINLESS STEEL GRID STRAINER FOR INSIDE CAULK CONNECTION TO 3" PIPE. PROVIDE STAINLESS STEEL CAPS ON ALL SHOULDERS, 36" HOSE WITH WALL HANGER, AND MOP HANGER.
				_		_		SPEAKMAN	SEF-9000-TW	FAUCET WITH EYEWASH/DRENCH HOSE. UNIT SHALL BE COMPLETE WITH SPEAKMAN SC-5811-RCP SERVICE SINK FAUCET CONNECTED TO EYEWASH. EYEWASH SHALL BE ACTIVATED BY SQUEEZE VALVE AND INCLUDE (2) YELLOW PLASTIC SPRAY HEADS WITH FLIP TOP DUST CAPS, INTEGRAL VACUUM BREAKER AND CHECK VALVE. PROVIDE SE-370 THERMOSTATIC MIXING VALVE. SERVICE SINK FAUCET SHALL HAVE VANDAL RESISTANT FOUR-ARM HANDLES, CAST BRASS NOZZLE WITH <sup>3</sup> / <sub>4</sub> " HOSE THREAD, PAIL HOOK AND TOP BRACE OUTLET, AND INTEGRAL VACUUM BREAKER.
P-4		$\qquad \qquad $	-	-	3⁄4"	-	-	WOODFORD	24	CHROME, ANTI-SIPHON, VACUUM BREAKER PROTECTED WALL FAUCET WITH $\frac{3}{4}$ " MALE HOSE THREAD, POLYCARBONATE WHEEL HANDLE AND LOOSE TEE KEY, AND $\frac{3}{4}$ " INLET.
P-5		$\bigtriangledown$	3"	1½"	-	-	-	WATTS	FD-100-M	VANDAL-PROOF, EPOXY COATED CAST IRON FLOOR DRAIN WITH ANCHOR FLANGE, REVERSIBLE CLAMPING COLLAR WITH PRIMARY & SECONDARY WEEPHOLES, ADJUSTABLE SQUARE HEEL-PROOF NICKEL BRONZE STRAINER, AND 3" NO HUB OUTLET. FLOOR DRAIN SHALL BE COMPLETE WITH 6"x6" STRAINER. PROVIDE SURESEAL MODEL SS3009V WATERLESS INLINE 3" DRAIN TRAP SEAL.
P-6			1½"	1½"	¥2"	-	-	ELKAY	LZSTL8WSVRLK	BOTTLE FILLING STATION AND BI-LEVEL ADA VANDAL-RESISTANT COOLER, FILTERED, REFRIGERATED, AND LIGHT GRAY. FIXTURE FEATURES: ANTIMICROBIAL, FILTERED, GREEN TICKER, HANDS FREE, LAMINAR FLOW, REAL DRAIN, VISUAL FILTER MONITOR, VANDAL RESISTANT BUBBLER, ELECTRONIC BOTTLE FILLER SENSOR WITH ELECTRONIC FRONT AND SIDE BUBBLER PUSHBAR ACTIVATION. WALL MOUNTED. CHILLING CAPACITY OF 8 GALLONS PER HOUR OF 50°F DRINKING WATER AT 90°F AMBIENT. ELECTRICAL: 115V/60Hz., 6.0 FULL LOAD AMPS, 370 WATTS. ADA COMPLIANT, NSF 61 CERTIFIED. REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHTS AND COOLER CONFIGURATION. PROVIDE COMMERCIAL GRADE, IN-WALL, FLOOR MOUNTED FIXTURE SUPPORT AND (2) SPARE FILTERS.
P-7		$\sum_{i=1}^{n}$	-	-	3⁄4"	-	-	ZURN	Z1320XL	ENCASED, LEAD FREE, NON-FREEZE, ANTI-SIPHON, AUTOMATIC DRAINING WALL HYDRANT WITH INTEGRAL BACKFLOW PREVENTER FOR FLUSH INSTALLATION WITH 3/4" MALE HOSE CONNECTION, TYPE 304 STAINLESS STEEL HOUSING WITH LOCKING HINGED COVER, OPERATING KEY AND WALL CLAMP.
P-8			1½"	1½"	¥2"	-	-	ELKAY	LZS8WSLK	BOTTLE FILLING STATION WITH SINGLE ADA VANDAL-RESISTANT COOLER, FILTERED, REFRIGERATED, AND LIGHT GRAY. FIXTURE FEATURES: ANTIMICROBIAL, FILTERED, GREEN TICKER, HANDS FREE, LAMINAR FLOW, REAL DRAIN, VISUAL FILTER MONITOR, VANDAL RESISTANT BUBBLER, ELECTRONIC BOTTLE FILLER SENSOR WITH ELECTRONIC FRONT AND SIDE BUBBLER PUSHBAR ACTIVATION. WALL MOUNTED. CHILLING CAPACITY OF 8 GALLONS PER HOUR OF 50°F DRINKING WATER AT 90°F AMBIENT. ELECTRICAL: 115V/60Hz., 6.0 FULL LOAD AMPS, 370 WATTS. ADA COMPLIANT, NSF 61 CERTIFIED. REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHTS. PROVIDE COMMERCIAL GRADE, IN-WALL, FLOOR MOUNTED FIXTURE SUPPORT AND (2) SPARE FILTERS.
P-9			REFER TO PLAN	-	-	-	-	JAY R. SMITH	1011Y	ROOF DRAIN FOR IRMA ROOF APPLICATIONS. DUCO CAST IRON BODY WITH FLASHING CLAMP; 1/16", 4" HIGH STAINLESS STEEL PERFORATED GRAVEL STOP WITH 3/8" DIAMETER OPENINGS; AND NO-HUB OUTLET. ROOF DRAIN SHALL BE COMPLETE WITH SUMP RECEIVER, UNDERDECK CLAMP, VANDAL-PROOF CAST IRON DOME, AND CAST IRON CLAMPING RINGS. ROOF DRAIN IS TO BE PROVIDED AND SET BY THE PLUMBING CONTRACTOR.
P-10		$\bigtriangledown$	REFER TO PLAN	-	-	-	-	JAY R. SMITH	1775A	SPECIAL PURPOSE DOWNSPOUT COVER. FABRICATED TYPE 304 STAINLESS STEEL DOWNSPOUTS WITH HINGED PERFORATED COVER. DOWNSPOUT COVER IS TO BE PROVIDED AND SET BY THE PLUMBING CONTRACTOR.
P-11		$\Box$	REFER TO PLAN	-	-	-	-	JAY R. SMITH	1011Y	ROOF DRAIN FOR IRMA ROOF APPLICATIONS. DUCO CAST IRON BODY WITH FLASHING CLAMP; 1/16", 4" HIGH STAINLESS STEEL PERFORATED GRAVEL STOP WITH 3/8" DIAMETER OPENINGS; AND NO-HUB OUTLET. ROOF DRAIN SHALL BE COMPLETE WITH SUMP RECEIVER, UNDERDECK CLAMP, VANDAL-PROOF CAST IRON DOME, WATER DAM COLLAR AND CAST IRON CLAMPING RINGS. ROOF DRAIN IS TO BE PROVIDED AND SET BY THE PLUMBING CONTRACTOR.
P-12	-	-	2"	-	-	-	-	STANCOR	SE-50	OIL-MINDER SIMPLEX PUMP AND CONTROL SYSTEM. NEMA 4X CORROSION RESISTANT POLYCARBONATE ENCLOSURE, STAINLESS STEEL SENSOR PROBE, DIRECT PLUG-IN POWER SOURCE, SOLID STATE COMPONENTS, ALARMS, LIGHTS, SILENCE SWITCH, REMOTE MONITORING CIRCUIT FOR OIL, HIGH LIQUID AND HIGH AMPERAGE CONDITIONS. FACTORY ASSEMBLED AND TESTED. 74 GPM @ 37 FT HEAD 1/2 HP - 120V/1. CONTROL PANEL SHALL HAVE AUXILIARY CONTACTS TO TIE HIGH LIQUID LEVEL ALARM TO BUILDING MANAGEMENT SYSTEM.
P-13			-	-	11⁄4"	1½"	-	AO SMITH	DVE-80A	ASME RATED, COMMERCIAL ELECTRIC WATER HEATER. HEATER SHALL BE RATED AT 18KW, 208 VOLTS, 3 PHASE, 60HZ, 50 FLA. TANK SHALL HAVE 80 GALLON CAPACITY AND 92 GPH RECOVERY AT 80°F TEMPERATURE RISE. HEATER SHALL HAVE 160 PSI WORKING PRESSURE AND BE EQUIPPED WITH TWO ANODE ROD. ALL INTERNAL SURFACES EXPOSED TO WATER SHALL BE GLASS LINED. HEATING ELEMENTS SHALL BE MEDIUM WATT DENSITY WITH ZINC PLATED COPPER SHEATH AND BE CONTROLLED BY INDIVIDUAL THERMOSTATS AND HIGH TEMPERATURE CUTOFF OUTER JACKET SHALL HAVE BAKED ENAMEL FINISH AND SHALL ENCLOSE THE TANK WITH FOAM INSULATION. HEATERS SHALL BE COMPLETE WITH: ELECTRICAL JUNCTION BOX WITH HEAVY TERMINAL BLOCK, NEMA 1 DISCONNECT SWITCH, DRAIN VALVE AND ASME RATED TEMPERATURE AND PRESSURE RELIEF VALVE
P-14	$\bigcirc$		-	-	-	3/4"	-	AMTROL	ST-12C-DD	EXPANSION TANK WITH TANK VOLUME OF 6.4 GALLONS AND AN ACCEPTANCE VOLUME OF 3.2 GALLONS. TANK SHALL BE ANSI/NSF 61 FOR POTABLE WATER USE AND SHALL BE ASME RATED. MAXIMUM OPERATING TEMPERATURE 200°F AND MAXIMUM WORKING PRESSURE 150 PSI.
P-15	P	P	-	-	-	3⁄4"	-	TACO	003-B4	LOW-LEAD COMPLIANT, NSF 61, BRONZE, SELF-LUBRICATING, HOT WATER RECIRCULATION PUMP. FLOW RANGE: 0-7 GPM. HEAD RANGE: 0-4.5 FEET. PUMP MAXIMUM WORKING PRESSURE 125 PSI AND MAXIMUM OPERATING TEMPERATURE 220°F. PROVIDE TACO 563-2 TEMPERATURE AQUASTAT. PROVIDE DISCONNECT SWITCH. ELECTRICAL: 120V/1Ø/60Hz., 0.43 AMPS, 3250 RPM, AND 1/40 HP.
P-16			1½"	1½"	¥2"	¥2"	-	ELKAY	ELV2219SACC	ADA COMPLIANT, 18-GAUGE, TYPE 304 STAINLESS STEEL, SINGLE BOWL, WALL HUNG LAVATORY SINK KIT. OVERALL SINK DIMENSIONS: 22"x19"x19-1/8". BOWL DIMENSIONS: 16"x11-1/2"x5-1/2". SINK SHALL HAVE REAR CENTER DRAIN, 3-3/8" DRAIN SIZE, BOTTOM SOUND DEADENING PADS, AND BUFFED SATIN FINISH. SINK KIT SHALL BE PROVIDED WITH ELKAY MODEL LKB721C FAUCET. PROVIDE ELKAY MODEL LKAD174 ADA COMPLIANT, CHROME PLATED BRASS, PERFORATED GRID STRAINER AND TRUEBRO MODEL 103 EZ LAV GUARD.
								ELKAY	LKB721C	ADA COMPLIANT, DECK MOUNTED, SCRUB/HANDWASH, BATTERY POWERED, ELECTRONIC SENSOR FAUCET. SOLID BRASS CONSTRUCTION WITH ELECTRONIC CONTROL MODULE VALVE. 1.5 GPM FLOW RATE. 11-5/8" HIGH GOOSENECK SPOUT WITH 5-5/8" REACH. FAUCET FINISH SHALL BE CHROME PLATED. FAUCET SHALL BE NSF 61 AND NSF 372 (LEAD FREE) COMPLIANT.
P-17			1½"	1½"	½"	1/2"	-	ELKAY	EWMA4820C	14-GAUGE, TYPE 304 STAINLESS STEEL, SINGLE BOWL, WALL HUNG MULTIPLE STATION HAND WASH SINK KIT. OVERALL SINK DIMENSIONS: 48"x20"x18". BOWL DIMENSIONS: 45"x16-1/2"x8". SINK SHALL HAVE CENTER DRAIN, 3-3/8" DRAIN SIZE AND BUFFED SATIN FINISH. SINK KIT SHALL BE PROVIDED WITH: (1) ELKAY MODEL LK18B STAINLESS STEEL GRID STRAINER AND TAILPIECE AND (2) ELKAY MODEL LK940GN05T4H FAUCETS.
								ELKAY	LK940GN05T4H	ADA COMPLIANT, WALL MOUNTED, SCRUB/HANDWASH, 8" CENTERSET FAUCET WITH 4" WRIST BLADE HANDLES. SOLID BRASS CONSTRUCTION WITH QUARTER TURN CERAMIC DISC VALVE. 1.5 GPM FLOW RATE. 11" HIGH GOOSENECK SPOUT WITH 5" REACH. FAUCET FINISH SHALL BE CHROME PLATED. FAUCET SHALL BE NSF 61 AND NSF 372 (LEAD FREE) COMPLIANT.
P-18			1½"	1½"	½"	1⁄2"	-	ELKAY	ELUHAD131650PD	ADA COMPLIANT, 18-GAUGE, TYPE 304 STAINLESS STEEL, SINGLE BOWL, UNDERMOUNT ADA SINK. OVERALL SINK DIMENSIONS: 16"x18-1/2"x6-3/8". BOWL DIMENSIONS: 13-1/2"x16"x4-7/8". SINK SHALL HAVE REAR CENTER DRAIN, BOTTOM ONLY SOUND DEADENING PADS, 3-3/8" DRAIN SIZE AND LUSTROUS SATIN FINISH. SINK SHALL BE PROVIDED WITH: UNDERMOUNT BRACKETS AND ELKAY MODEL LKPDVR18B CHROME PLATED BRASS BODY VANDAL RESISTANT GRID STRAINER. PROVIDE TRUEBRO MODEL 103 EZ LAV GUARD IN ADA LOCATIONS.
								ELKAY	LKAV3021	ADA COMPLIANT, DECK MOUNTED, SINGLE HOLE BAR FAUCET WITH LEVER HANDLE. SOLID BRASS CONSTRUCTION WITH CERAMIC DISC VALVE. 1.8 GPM FLOW RATE. 360° GOOSENECK SPOUT WITH STANDARD SPRAY. FAUCET FINISH SHALL BE SELECTED BY ARCHITECT. FAUCET SHALL BE NSF 61 AND NSF 372 (LEAD FREE) COMPLIANT.
P-19	$\bigcirc$		1½"	-	-	-	-	JAY R. SMITH	8710T	ON FLOOR, SOLIDS INTERCEPTOR. WHITE DUCO COATED CAST IRON BODY, ALUMINUM GASKETED COVER WITH LOCKING DEVICE, SEDIMENT STRAINER WITH REMOVABLE STAINLESS STEEL SCREEN.
P-20		Þ	3"	1½"	-	-	-	WATTS	FD-100-M	VANDAL-PROOF, EPOXY COATED CAST IRON FLOOR DRAIN WITH ANCHOR FLANGE, REVERSIBLE CLAMPING COLLAR WITH PRIMARY & SECONDARY WEEPHOLES, ADJUSTABLE SQUARE HEEL-PROOF NICKEL BRONZE STRAINER, AND 3" NO HUB OUTLET. FLOOR DRAIN SHALL BE COMPLETE WITH 6"x6" STRAINER AND SEDIMENT BUCKET. PROVIDE SURESEAL MODEL SS3009V WATERLESS INLINE 3" DRAIN TRAP SEAL.

## PLUMBING PIPING FITTI

SERVICE	SIZE (IN)	MATERIAL	TYPE/WEIGHT	STANDARD
WATER PIPE AND FORCE MAIN PIPING (ABOVE GROUND)	ALL	COPPER	LEAD-FREE SOLDER ASTM B828	ASTM B 16.22
SANITARY, VENT, AND STORM (ABOVE GROUND)	ALL	SERVICE WEIGHT CAST IRON	NO-HUB ASTM C1277 ASTM C564	ASTM A 74
SANITARY, VENT, AND STORM (BELOW GROUND)	ALL	EXTRA-HEAVY CAST IRON	HUB AND SPIGOT ASTM C564	ASTM A 74

## PLUMBING PIPING MATERIAL SCHEDULE

SIZE (IN) MATERIAL		TYPE/WEIGHT	STANDARD
ALL	COPPER	TYPE L TUBE	ASTM B 88
ALL	CAST IRON	SERVICE WEIGHT	ASTM A 74
ALL	CAST IRON	EXTRA-HEAVY WEIGHT	ASTM A 74
	ALL ALL	ALL COPPER ALL CAST IRON	ALL     COPPER     TYPE L TUBE       ALL     CAST IRON     SERVICE WEIGHT       ALL     CAST IRON     EXTRA-HEAVY

NG SCHEDULE
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PLUMBING PIPE INSULATION SCHEDULE							
	INSULATION THICKNESS (INCHES)						
SERVICE	PIPE SIZE (INCHES)						
	BELOW 11/2"	$1\frac{1}{2}$ " AND OVER					
COLD WATER	1⁄2"	1"					
HOT WATER 1" 1 <sup>1</sup> / <sub>2</sub> "							
HOT WATER RECIRCULATION	1"	11/2"					
HORIZONTAL STORM PIPING	1 "	1"					
HORIZONTAL OVERFLOW DRAIN PIPING	1"	1"					
NOTES:							
<ol> <li>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.</li> </ol>							
JACKETING EQUAL IN THICK	FITTINGS AND VALVES SHALL BE PROVIDED WITH PREMOLDED FITTING COVERS WITH PVC JACKETING EQUAL IN THICKNESS AND MATERIAL TO ADJOINING PIPE INSULATION.						
<ol> <li>ALL EXISTING HORIZONTAL STORM DRAIN PIPING SHALL BE INSULATED AS PART OF THIS PROJECT. PLUMBING CONTRACTOR TO COORDINATE IN FIELD.</li> </ol>							

