Sheet Template ID: OPE-F-07-B

PLUMBING GENERAL NOTES

GENERAL REQUIREMENTS:

1. GENERAL AND SPECIAL CONDITIONS: GENERAL AND SPECIAL CONDITIONS ARE HEREBY MADE AN INTEGRAL PART OF THIS DIVISION OF THE SPECIFICATIONS INSOFAR AS SAME ARE APPLICABLE TO THE WORK UNDER THIS DIVISION AND UNLESS OTHERWISE SPECIFIED.
2. SCOPE: PROVIDE ALL LABOR, MATERIAL AND EQUIPMENT REQUIRED FOR THE COMPLETION AND OPERATION OF ALL SYSTEMS IN THIS SECTION OF WORK IN ACCORDANCE WITH ALL APPLICABLE CODES.
3. PERMITS: APPLY FOR AND PAY FOR ALL NECESSARY PERMITS, FEES, AND INSPECTIONS REQUIRED BY ANY PUBLIC AUTHORITY HAVING JURISDICTION.
4. WARRANTY: PROVIDE ALL MATERIALS AND EQUIPMENT UNDER THIS SECTION OF THE SPECIFICATIONS WITH A ONE YEAR WARRANTY FROM THE DATE OF ACCEPTANCE OF WORK BY THE OWNER.
5. COORDINATION: VERIFY ALL ROUGH-IN LOCATIONS AND COORDINATE PIPING AND EQUIPMENT LOCATIONS WITH WORK UNDER OTHER DIVISIONS OF THE SPECIFICATIONS TO AVOID CONFLICTS. CONTRACTOR MUST COORDINATE WITH OTHER TRADES FOR ALL STRUCTURES, PIPING, CONDUIT, DUCTWORK, LIGHTING, ETC. TO PROPERLY BE INSTALLED. ANY CONFLICTS SHALL BE RESOLVED AT NO CHARGE TO THE OWNER. COORDINATE INSTALLATION OF ALL PLUMBING LINES AT CMU WALLS SO THAT PLUMBING LINES ARE PLACED IN WALL DURING CMU WALL CONSTRUCTION. CUTTING AND PATCHING OF CMU WALLS IN PLACE WILL NOT BE PERMITTED.
6. FIELD VERIFICATION: FIELD VERIFY EXISTING CONDITIONS BEFORE STARTING CONSTRUCTION AND NOTIFY THE ARCHITECT/ENGINEER OF RECORD OF ANY DISCREPANCIES BETWEEN THE CONSTRUCTION DOCUMENTS AND EXISTING CONDITIONS AND/OR ANY POTENTIAL PROBLEMS OBSERVED BEFORE CONTINUING WORK IN THE EFFECTED AREAS.
7. PLUMBING SYSTEMS INCLUDE, BUT ARE NOT LIMITED TO:
   - PLUMBING FIXTURES AND EQUIPMENT
   - FIRE STOPPING
   - DOMESTIC WATER SYSTEM
   - SANITARY WASTE AND VENT SYSTEM
   - GAS SYSTEM
   - STORM DRAIN/SEWER SYSTEM

FIXTURES:

1. PROVIDE COMPLETE FIXTURES AND INCLUDE SUPPLIES, STOPS, VALVES, FAUCETS, DRAINS, TRAPS, TAIL PIECES, ESCUTCHEONS, ETC.

FIRE STOPPING:

1. FIRE STOP ALL PENETRATIONS, BY PIPING OR CONDUITS, OF FIRE RATED WALLS, FLOORS AND PARTITIONS. PROVIDE A DEVICE(S) OR SYSTEM(S) WHICH HAS BEEN TESTED AND LISTED AS COMPLYING WITH ASTM E-814 AND INSTALL IN ACCORDANCE WITH THE CONDITIONS OF THEIR LISTING. PROVIDE A DEVICE(S) OR SYSTEM(S) WITH AN 'F' RATING EQUAL TO THE RATING OF THE ASSEMBLY BEING PENETRATED.

DOMESTIC WATER PIPING:

1. FURNISH AND INSTALL A COMPLETE SYSTEM OF HOT AND COLD WATER, AND WASTE PIPING FROM EXISTING SUPPLIES TO ALL FIXTURES AND/OR EQUIPMENT REQUIRING THIS SERVICE. VERIFY LOCATION OF BEGINNING POINTS.
2. DOMESTIC WATER PIPING BELOW GRADE:
   SOFT ANNEALED SEAMLESS COPPER TUBING, TYPE 'K' WITH NO JOINTS BELOW GRADE (ASTM B 88).
3. DOMESTIC WATER PIPING AND JOINTS ABOVE GRADE: HARD DRAWN SEAMLESS COPPER TUBING, TYPE 'L' WITH 95-5 SILVER SOLDERED JOINTS (ASTM B 88). CPVC AND OR CROSS-LINKED POLYETHYLENE (PEX TYPE A) (ASTM F877) PLASTIC HOT AND COLD WATER DISTRIBUTION IS ALLOWED WHERE PERMISSIBLE AND PRE-APPROVED.
4. STERILIZE DOMESTIC WATER PIPING IN ACCORDANCE WITH THE AMERICAN WATER WORKS ASSOCIATION'S SPECIFICATIONS AND LOCAL HEALTH DEPARTMENT REGULATIONS.
5. INSULATE DOMESTIC WATER PIPING ABOVE GRADE (EXCEPT EXPOSED CONNECTIONS TO PLUMBING FIXTURES) WITH ENGINEERED POLYMER FOAM INSULATION OR FIBERGLASS WITH FITTING INSERTS AND PVC COVERS.. FOLLOW THIS SCHEDULE:
6.

SERVICE	PIPE SIZE	INS. THICKNESS
DOMESTIC HOT WATER (105-140F)	1/2" - 1-1/2"	1/2"
DOMESTIC HOT WATER (105-140F)	2" AND UP	3/4"
DOMESTIC HOT WATER (140-160F)	ALL	1"
DOMESTIC HOT WATER CIRCULATION	ALL	1/2"
DOMESTIC COLD WATER	ALL	1/2"

7. DOMESTIC WATER PIPING INSULATION, JACKETS, COVERINGS, SEALERS, MASTICS AND ADHESIVES ARE REQUIRED TO MEET A FLAME-SPREAD RATING OF 25 OR LESS AND A SMOKE-DEVELOPED RATING OF 50 OR LESS, AS TESTED BY ASTM E84 (NFPA 255) METHOD.
8. DO NOT INSTALL DOMESTIC WATER PIPING IN AREAS SUBJECT TO FREEZING TEMPERATURES. INSTALL WATER PIPING IN EXTERIOR WALLS ON THE CONDITIONED SIDE OF THE WALL INSULATION.
9. SHUT OFF VALVES: PROVIDE FULL PORT, BALL TYPE, AND INSTALL IN A LOCATION THAT PERMITS ACCESS FOR SERVICE WITHOUT DAMAGE TO THE BUILDING OR FINISHED MATERIALS. PROVIDE ACCESS DOORS IF REQUIRED.
10. PROTECT COPPER PIPING AGAINST CONTACT WITH DISSIMILAR METALS. ALL HANGERS, SUPPORTS, ANCHORS, AND CLIPS SHALL BE COPPER OR COPPER PLATED. WHERE COPPER PIPING IS CARRIED ON IRON TRAPEZE HANGERS WITH OTHER PIPING, PROVIDE A PERMANENT ELECTROLYTIC ISOLATION MATERIAL TO PREVENT CONTACT WITH OTHER METALS.
11. PROTECT COPPER PIPING AGAINST CONTACT WITH ALL MASONRY. WHERE COPPER IS SLEEVED THROUGH MASONRY, PROVIDE COPPER OR RED BRASS SLEEVES. WHERE COPPER MUST BE CONCEALED IN OR AGAINST MASONRY PARTITIONS, PROVIDE A HEAVY COATING OF ASPHALTIC ENAMEL ON THE COPPER PIPING AND 15# ASPHALT SATURATED FELT BETWEEN THE PIPING AND THE MASONRY PARTITION.
12. FURNISH BURST PROOF BRAIDED FLEXIBLE CONNECTORS FOR SINK CONNECTIONS AND CONNECTIONS TO EQUIPMENT.
13. PROVIDE ZURN WILKINS MODEL 740 (OR EQUAL) BACKFLOW PREVENTION TYPE VACUUM BREAKER FOR ICE MACHINE, CARBONATOR, AND OTHER EQUIPMENT AS REQUIRED BY CODE.
14. P.C. SHALL VERIFY THE INCOMING WATER PRESSURE AND PROVIDE A PRESSURE REDUCING VALVE IF PRESSURE IS 80 PSI OR GREATER.
15. P.C. SHALL INSTALL HAMMER ARRESTORS ON PROJECTS THAT USE QUICK CLOSING DEVISES SUCH AS FLUSH VALVES, ICE MAKER, WASHER MACHINES, ETC., SIZED PER MANUFACTURER RECOMMENDATIONS.

SANITARY WASTE AND VENT PIPING:

1. FURNISH AND INSTALL COMPLETE SYSTEMS OF SOIL, WASTE, AND VENT PIPING FROM ALL PLUMBING FIXTURES, AND/OR OTHER EQUIPMENT. ALL SOIL, WASTE AND VENT LINES SHALL BE CONCEALED IN THE BUILDING CONSTRUCTION WHERE POSSIBLE.
2. INVERT ELEVATIONS SHALL BE ESTABLISHED AND VERIFIED BEFORE WASTE PIPING IS INSTALLED IN ORDER THAT PROPER SLOPES WILL BE MAINTAINED.
3. SANITARY WASTE AND VENT PIPING AND FITTINGS: SERVICE WEIGHT CAST IRON, HUB AND SPIGOT TYPE WITH COMPRESSION JOINTS (ASTM A 74) OR NO-HUB PIPING WITH COUPLINGS (CISPI 301).

   IF PERMITTED BY LOCAL CODES, SCHEDULE 40 PVC (ASTM D 2665) WITH SCHEDULE 40 SOCKET-TYPE PIPE FITTINGS (ASTM D 3311) MAY BE USED. DO NOT INSTALL PVC PIPING IN RETURN AIR PLENUMS. PVC FOAM CORE DWV PIPING NOT PERMITTED.
4. SLOPE SANITARY WASTE PIPING 2-1/2" AND SMALLER AT 1/4" PER FOOT MIN. SLOPE SANITARY WASTE PIPING 3" AND LARGER AT 1/8" PER FOOT MINIMUM.
5. WHERE WASTE PIPING IS EXPOSED IN REST ROOM AREAS, PROVIDE CHROME PLATED BRASS PIPING, WITH MATCHING STOPS AND ESCUTCHEONS. PROVIDE REMOVABLE TRAPS WITH INTEGRAL CLEAN-OUT PLUG FOR ALL LAVATORIES.
6. INSTALL CLEAN-OUTS IN A LOCATION THAT PERMITS ACCESS FOR SERVICE WITHOUT DAMAGE TO THE BUILDING OR FINISHED MATERIALS. CLEANOUT PLUGS SHALL BE INSTALLED IN ACCORDANCE WITH PLUMBING CODE REQUIREMENTS AT EACH CHANGE IN DIRECTION.
7. ALL INDIRECT WASTE CONNECTIONS TO BE INSTALLED WITH AN AIR GAP BETWEEN INDIRECT WASTE PIPE AND THE FLOOD RIM OF THE WASTE RECEPTOR SHALL BE MINIMUM OF TWICE THE EFFECTIVE OPENING OF THE INDIRECT WASTE PIPE.

SEISMIC REQUIREMENTS:

1. PROPERLY SUPPORT AND BRACE VERTICALLY AND HORIZONTALLY ALL PIPING, APPARATUS, EQUIPMENT, ETC. IN ACCORDANCE WITH APPLICABLE CODES TO PREVENT EXCESSIVE MOVEMENT DURING SEISMIC CONDITIONS.

BACKFLOW PREVENTION:

1. VERIFY BACKFLOW PREVENTOR REQUIREMENTS OF LOCAL AUTHORITY AND PROVIDE BACKFLOW PREVENTION DEVICES AS REQUIRED. COORDINATE LOCATION WITH OTHER TRADES.

GAS PIPING:

1. WORK TO INCLUDE PIPING FROM GAS PROPANE TANK TO GAS FIRED EQUIPMENT. PLUMBING CONTRACTOR TO PROVIDE SHUT-OFF VALVE, DIRT TRAP AND PRESSURE REGULATOR AT THE GAS FIRED EQUIPMENT.
2. ALL WORK SHALL BE IN ACCORDANCE WITH ALL APPLICABLE LOCAL CODE REQUIREMENTS, AND THE PROVISIONS OF NFPA-54 AND NFPA-58.
3. THE CONTRACTOR SHALL SUPPLY ALL PERMITS, FEES AND LICENSES REQUIRED FOR THE WORK, AND FOR ALL INSPECTIONS REQUIRED.
4. PIPE 3" AND SMALLER SHALL BE SCHEDULE 40 STEEL WITH THREADED MALLEABLE FITTINGS.
5. VALVES SHALL BE GAS COCKS MANUFACTURED BY NIBCO.
6. ALL PIPING EXPOSED TO THE OUTDOORS OR RUN IN UNCONDITIONED SPACES SHALL BE PAINTED WITH TWO COATS OF RUST RESISTANT ENAMEL.
7. ALL GAS PIPING WITH A SERVICE PRESSURE GREATER THAN 0.5PSI MUST BE INDENTIFIED PER NCFGC 401.5
8. PRESSURE TEST PORTS MUST BE PROVIDED AT ALL MP REGULATORS IN ACCORDANCE TO NCFGC 410.2.
9. ALL GAS PIPING MUST COMPLY WITH NCFGC T.415.1

STORM DRAINAGE PIPING

1. STORM DRAIN PIPING AND FITTINGS:
   SERVICE WEIGHT CAST IRON, HUB AND SPIGOT TYPE WITH COMPRESSION JOINTS (ASTM A 74) OR NO-HUB PIPING WITH COUPLINGS (CISPI 301).

   IF PERMITTED BY LOCAL CODES, SCHEDULE 40 DWV PVC (ASTM D 2665) WITH SCHEDULE 40 SOCKET-TYPE PIPE FITTINGS (ASTM D 3311) MAY BE USED BELOW FIRST FLOOR SLAB.
2. INSULATE HORIZONTAL STORM DRAIN PIPING ABOVE GRADE AND ROOF DRAIN BODIES WITH 1" ENGINEERED POLYMER FOAM INSULATION. THIS INCLUDES THE PRIMARY AND SECONDARY STORM DRAIN SYSTEMS.
3. STORM DRAIN PIPING INSULATION, JACKETS, COVERINGS, SEALERS, MASTICS AND ADHESIVES ARE REQUIRED TO MEET A FLAME-SPREAD RATING OF 25 OR LESS AND A SMOKE-DEVELOPED RATING OF 50 OR LESS, AS TESTED BY ASTM E84 (NFPA 255) METHOD.
4. INSTALL CLEAN-OUTS IN A LOCATION THAT PERMITS ACCESS FOR SERVICE WITHOUT DAMAGE TO THE BUILDING OR FINISHED MATERIALS.

PLUMBING LEGEND

SYMBOL	DESCRIPTION
——— - - ———	DOMESTIC COLD WATER PIPING
——— NPW ———	NON-POTABLE COLD WATER PIPING
——— - - - ———	DOMESTIC HOT WATER PIPING
——— - - - - ———	110F HOT WATER RECIRC PIPING
- - - - - - - -	VENT PIPING
————————	WASTE (SANITARY SEWER)
——— SD ———	STORM DRAINAGE PIPING
——— OSD ———	OVERFLOW STORM DRAINAGE PIPING
——— G ———	GAS PIPING
	GATE VALVE
	BALANCING VALVE
	CHECK VALVE
	PIPE UP
	PIPE DOWN
P-1	FIXTURE DESIGNATION
A.F.F.	ABOVE FINISHED FLOOR
P.C.	PLUMBING SUB-CONTRACTOR
G.C.	GENERAL CONTRACTOR
M.C.	MECHANICAL SUB-CONTRACTOR
E.C.	ELECTRICAL SUB-CONTRACTOR
FCO	FLOOR CLEAN OUT
WCO	WALL CLEAN OUT
YCO	YARD CLEAN OUT
FPHB	FREEZE PROOF HOSE BIBB
F.D.	FLOOR DRAIN
CW	COLD WATER
HW	HOT WATER
	TIE INTO EXISTING

PLUMBING FIXTURE SPECIFICATIONS AND CONNECTION SCHEDULE

MARK	FIXTURE	TYPE	MANUFACTURER	MODEL NO.	MATERIAL	STYLE	FAUCET/VALVE: MANUFACTURER MODEL NO.	FAUCET/VALVE: SPOUT	FAUCET/VALVE: HANDLES	FAUCET/VALVE: CENTERS	DRAIN: TYPE	DRAIN: SIZE	SUPPLIES AND STOPS	PIPE SIZES: WASTE	PIPE SIZES: VENT	PIPE SIZES: CW	PIPE SIZES: HW	MOUNTING	REMARKS
P-1	WATER CLOSET	FLUSH VALVE	TOTO	CT705LN(G)01	VITREOUS CHINA	HANDICAP ELONGATED	SLOAN ROYAL OPTIMA 111-1.28 ES-S	---	---	---	---	---	K-7639	4"	2"	1/2"	--	FLOOR	PROVIDE WITH OPEN FRONT SEAT W/O COVER. FLUSH VALVE TO BE HARDWIRED.
P-1A	WATER CLOSET	FLUSH VALVE	TOTO	CT705LN(G)01	VITREOUS CHINA	HANDICAP ELONGATED	SLOAN ROYAL OPTIMA 111-1.28 ES-S	---	---	---	---	---	K-7639	4"	2"	1/2"	--	FLOOR	PROVIDE WITH OPEN FRONT SEAT W/O COVER. PROVIDE HANDLE ON WIDE SIDE OF TOILET. FLASH VALVE TO BE HARDWIRED.
P-2	LAVATORY	UNDERMOUNT	KOHLER	K-2609-SU	STAINLESS STEEL	HANDICAP OVAL	KOHLER K-13462	STANDARD	---	---	GRID	1-1/2"	K-7608-CP	1-1/2"	1-1/2"	1/2"	1/2"	UNDERMOUNT	FAUCET TO BE HARDWIRED.
P-2A	LAVATORY	WALL MOUNTED	AMERICAN STANDARD	LUCERNE 0356.421	VITREOUS CHINA	HANDICAP RECTANGULAR	KOHLER K-13462	STANDARD	---	---	GRID	1-1/2"	K-7608-CP	1-1/2"	1-1/2"	1/2"	1/2"	WALL MOUNTED	FAUCET TO BE HARDWIRED.
P-2B	LAVATORY	WALL-HUNG	BRADLEY	FL-3H-LSD	MOLTED PLASTIC	HANDICAP RECTANGULAR	AMERICAN STANDARD 6059.105	STANDARD	---	---	GRID	1-1/2"	K-7608-CP	1-1/2"	1-1/2"	1/2"	1/2"	WALL-HUNG	FAUCET TO BE HARDWIRED.
P-2C	LAVATORY	WALL-HUNG	BRADLEY	FL-1L-LSD	MOLTED PLASTIC	HANDICAP RECTANGULAR	AMERICAN STANDARD 6059.105	STANDARD	---	---	GRID	1-1/2"	K-7608-CP	1-1/2"	1-1/2"	1/2"	1/2"	WALL-HUNG	FAUCET TO BE HARDWIRED.
P-2D	LAVATORY	WALL MOUNTED	BRADLEY	CRS-3-LSD-3	MOLTED PLASTIC	HANDICAP SEMI-CIRCULAR	---	---	---	---	GRID	1-1/2"	K-7608-CP	1-1/2"	1-1/2"	1/2"	1/2"	WALL MOUNTED	FAUCET TO BE HARDWIRED.
P-3	URINAL	FLUSH VALVE	TOTO	UT445U(V)	VITREOUS CHINA	SIPHON JET	SLOAN ROYAL 186.-0.125 DBP ESS	---	---	---	---	---	---	2"	1-1/2"	3/4"	--	WALL HUNG	FLASH VALVE TO BE HARDWIRED.
P-4	SINK	SINGLE COMP'T	JUST MANUFACTURING	USN-ADA-1816-A	STAINLESS STEEL	5-1/2" DEEP	PFISTER STELLEN LG529-SAS	9" SWING	SINGLE LEVER	---	CRUMB CUP	1-1/2"	K-7666	1-1/2"	1-1/2"	1/2"	1/2"	UNDERMOUNT	
P-4A	SINK	SINGLE COMP'T	JUST MANUFACTURING	US-ADA 1824-A-18GA	STAINLESS STEEL	5-1/2" DEEP	PFISTER STELLEN LG529-SAS	9" SWING	SINGLE LEVER	---	CRUMB CUP	1-1/2"	K-7666	1-1/2"	1-1/2"	1/2"	1/2"	UNDERMOUNT	PROVIDE WITH BASKET STRAINER AND GARBAGE DISPOSAL BADGER FWD-1.
P-4B	SERVICE SINK	FREE STAND	UNIVERSAL COOLERS	BS-2124-1	STAINLESS STEEL	5-1/2" DEEP	CHICAGO FAUCETS - 631-GN2AE3VPABCP	5-3/8" SWING	FOUR ARM	---	GRID	3"	---	3"	1-1/2"	1/2"	1/2"	FREE STAND	
P-5	VALVE BOX	WALL MOUNTED	IPS WATERTITE	FRMIB12SHA W/ARRESTER	STAINLESS STEEL	RECESSED BOX	---	---	---	---	---	---	---	--	--	1/2"	--	WALL MOUNTED	
P-6	WASHER BOX	TOP SUPPLY	IPS WATERTITE	FR12 SERIES W/ARRESTER	FIRE-RATED BOX	RECESSED BOX	---	---	---	---	---	2"	---	2"	1-1/2"	1/2"	1/2"	RECESSED WALL	
P-7	WATER COOLER	WALL HUNG	ELKAY	LRPBGRNM28K	STAINLESS / GALVANIZED	ADA BI-LEVEL	---	---	---	---	---	1-1/2"	K-7666	1-1/2"	1-1/2"	1/2"	--	WALL HUNG	
P-7A	WATER COOLER	WALL HUNG	ELKAY	EMABFTL8C	STAINLESS / GALVANIZED	ADA BI-LEVEL	---	---	---	---	---	1-1/2"	K-7666	1-1/2"	1-1/2"	1/2"	--	WALL HUNG	
P-8	SERVICE SINK	MOP BASIN	STERN-WILLIAMS	MTB-3624-BP	TERRAZZO	36"X24"X10"	CHICAGO FAUCETS-540-LD897SWXF3///CP	WITH PAIL HOOK	FOUR ARM	8"	GRID	3"	---	3"	1-1/2"	1/2"	1/2"	FLOOR	PROVIDE WITH 36" HSS SPLASH GUARD.
P-9	EYE WASH STATION	WALL MOUNTED	BRADLEY	S19884B	STAINLESS STEEL	WALL MOUNTED	---	---	---	---	---	---	---	---	---	---	---	FLOOR	PROVIDE WITH BRADLEY S19-2000 MIXING VALVE.
FWD	FOOD WASTE DISPOSAL	DISPOSAL	BADGER	FWD-1	CAST IRON	1/3 HP	---	---	---	---	---	---	---	1-1/2"	--	--	--	UNDER SINK	
YCO	YARD CLEAN-OUT	ROUND TOP	JOSAM	56040	CAST IRON	BRONZE PLUG	---	---	---	---	---	---	---	--	--	--	--	GRADE	PROVIDE WITH 24"x24"x4"THK CONCRETE PAD AT GRADE
FCO	FLOOR CLEAN-OUT	SQUARE TOP	JOSAM	56030	CAST IRON	BRONZE PLUG	---	---	---	---	---	---	---	--	--	--	--	FLOOR	
WCO	WALL CLEAN-OUT	ROUND TOP	JOSAM	[illegible]	STAINLESS STEEL	BRONZE PLUG	---	---	---	---	---	---	---	--	--	--	--	WALL	
FDA	FLOOR DRAIN	SQUARE TOP	JOSAM	30000-S	CAST IRON	NICKEL TOP	---	---	---	---	CAST IRON	SEE PLAN	---	--	--	--	--	FLOOR	
FPHB	WALL HYDRANT	FREEZE PROOF	WOODFORD	24	CAST BRASS	BOX FAUCET	---	---	LOOSE KEY	---	---	---	---	--	--	3/4"	--	WALL	
WH-1	WATER HEATER	ELEC.	STATE	PCE 40 20LSA	GLASS LINED	COMMERCIAL ELECTRIC LOWBOY	---	---	---	---	---	---	---	--	--	SEE PLAN	SEE PLAN	SEE DETAIL	40GAL. STORAGE; 5.0 KW @ 208/1PH (COORD. W/ E.C.); 34 GPH AT 60F RISE;
WH-2	WATER HEATER	ELEC.	STATE	PCE 66 20RTA	GLASS LINED	COMMERCIAL ELECTRIC TALL	---	---	---	---	---	---	---	--	--	SEE PLAN	SEE PLAN	SEE DETAIL	66GAL. STORAGE; 10.0 KW @ 480/3PH (COORD. W/ E.C.); 68 GPH AT 60F RISE;

NOTES:
1. CATALOG NUMBERS AND MANUFACTURERS ARE TO INDICATE TYPE AND QUALITY OF FIXTURE DESIRED. SUBMIT CUTSHEETS OF THESE AND ALTERNATE MANUFACTURERS FOR ARCHITECT AND OWNER APPROVAL PRIOR TO PURCHASE OF ANY FIXTURES. INFORMATION ON ALTERNATE FIXTURES PROPOSED BY THE CONTRACTOR SHALL INCLUDE THE ADD/DEDUCT ASSOCIATED WITH ACCEPTANCE OF THAT FIXTURE (OR THE ALTERNATE PACKAGE AS A WHOLE).
2. ALL FLUSH VALVES/FAUCETS TO BE HARD WIRED.

SHOCK ARRESTOR SCHEDULE

P.D.I. SIZE	FIXTURE UNITS	MANUFACTURER (OR EQUAL)
SA'A'	1 - 11	PPI, SIOUX-CHIEF, SMITH, ZURN
SA'B'	12 - 32	PPI, SIOUX-CHIEF, SMITH, ZURN
SA'C'	33 - 60	PPI, SIOUX-CHIEF, SMITH, ZURN
SA'D'	61 - 113	PPI, SIOUX-CHIEF, SMITH, ZURN
SA'E'	114 - 154	PPI, SIOUX-CHIEF, SMITH, ZURN
SA'F'	155 - 330	PPI, SIOUX-CHIEF, SMITH, ZURN

NOTES:
1. LOCATE SHOCK ARRESTORS IN AN ACCESSIBLE LOCATION, OR PROVIDE SIOUX-CHIEF SHOCK ARRESTORS ONLY
2. SHOCK ARRESTORS SHALL BE SAME SIZE AS PIPE INSTALLED ON (MINIMUM)
3. PROVIDE SHOCK ARRESTORS AS INDICATED PER SCHEDULE

SIZING OF STORM DRAINAGE PIPING

LOCATION: PINEVILLE, NC
PRIMARY RAINFALL RATE: 100 YR\60 MIN PERIOD\3.7 IN/HR
SECONDARY RAINFALL RATE: 100 YR\15 MIN PERIOD\7.4 IN/HR

SIZE OF VERTICAL LEADERS
TABLE 1106.2

LEADER DIA. (IN.)	ROOF AREA (SQ. FT.) (3.7")	ROOF AREA (SQ. FT.) (7.4")
2	778	392
2.5	1410	705
3	2378	1186
4	4973	2488
5	9349	4674
6	14599	7296
8	31351	15679

SIZE OF HORIZONTAL STORM DRAINS
TABLE 1106.3

HORIZ. DIA. (IN.)	MAXIMUM PROJECTED ROOF AREA FOR DRAINS OF VARIOUS SLOPES (SQ. FT.): 1/8" SLOPE (3.7")	1/8" SLOPE (7.4")	1/4" SLOPE (3.7")	1/4" SLOPE (7.4")	1/2" SLOPE (3.7")	1/2" SLOPE (7.4")
3	889	444	1254	627	1777	889
4	2032	1016	2865	1432	4065	2032
5	3611	1805	5103	2551	7222	3611
6	5784	2892	8162	4081	11568	5784
8	12432	6216	17622	8811	24865	12432
10	22378	11189	31568	15784	44757	22378
12	36000	18000	50811	25405	72000	36000
15	64324	32162	90811	45405	128649	64324

NOTES:
1. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS AND SIZES OF OVERFLOW SCUPPERS
2. SLOPE ALL HORIZONTAL RAIN LEADER PIPING AT THE GRADE LEVEL AT A MINIMUM OF 1/8"/FT
3. SLOPE ALL HORIZONTAL RAIN LEADER PIPING AT THE ROOF LEVEL AT A MINIMUM OF 1/4"/FT
4. SECONDARY = EMERGENCY = OVERFLOW ROOF DRAIN

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Revisions:

Number	Date	Description

Project Title:

SOUTH CHARLOTTE HYUNDAI

Project No.: 4802.00

Drawing Title:

PLUMBING SCHEDULE, NOTES, & LEGEND

SET ISSUE DATE
▶ MAR 4, 2020 ◀

Sheet:

P1

File: Z:\Projects\4802 South Charlotte Hyundai Redesign\4802P1 PLUMBING SCHEDULE, NOTES & LEGEND; Plotted: 3/4/2020 4:28 PM by ALEX E. LEVEN; Saved: 3/4/2020 4:14 PM by DPAYNE

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