

PLUMBING GENERAL NOTES

GENERAL REQUIREMENTS:

- GENERAL AND SPECIAL CONDITIONS: GENERAL AND SPECIAL CONDITIONS ARE HEREBY MADE AN INTEGRAL PART OF THIS DIVISION OF THE SPECIFICATIONS IN SO FAR AS SAME ARE APPLICABLE TO THE WORK UNDER THIS DIVISION AND UNLESS OTHERWISE SPECIFIED.
- SCOPE: PROVIDE ALL LABOR, MATERIALS, AND EQUIPMENT REQUIRED FOR THE COMPLETION AND OPERATION OF ALL SYSTEMS IN THIS SECTION OF WORK.
- CODE COMPLIANCE: ALL WORK SHALL COMPLY WITH THE REQUIREMENTS OF ALL AUTHORITIES HAVING JURISDICTION, BUILDING DEPARTMENTS, AND DEPARTMENT OF HEALTH, APPLICABLE NATIONAL, STATE, AND LOCAL CODES, LAWS, AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THIS WORK SHALL BE INCORPORATED INTO AND MADE A PART OF THESE CONTRACT DOCUMENTS AND SPECIFICATIONS. THE CONTRACTOR IS TO NOTIFY THE ARCHITECT/ENGINEER OF ANY WORK OR MATERIALS WHICH VIOLATE ANY OF THE ABOVE CODES, LAWS, OR REGULATIONS. ANY WORK DONE BY THE CONTRACTOR CAUSING SUCH A VIOLATION SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE AND AT NO EXPENSE TO THE OWNER.
- PERMITS: APPLY FOR AND PAY FOR ALL NECESSARY PERMITS, FEES, AND INSPECTIONS REQUIRED BY ANY PUBLIC AUTHORITY HAVING JURISDICTION.
- WARRANTY: PROVIDE ALL LABOR, MATERIALS, AND EQUIPMENT UNDER THIS SECTION OF THE SPECIFICATIONS WITH A ONE YEAR WARRANTY FROM THE DATE OF ACCEPTANCE OF WORK BY THE OWNER.
- RECORD DRAWINGS: CONTRACTOR SHALL MAINTAIN AN ACCURATE RECORD OF ALL AS-BUILT CONDITIONS DURING CONSTRUCTION AND TURN OVER ONE COPY EACH TO THE OWNER AND THE ARCHITECT AFTER COMPLETION.
- OPERATING MANUALS: CONTRACTOR SHALL FURNISH TO THE OWNER 3 SETS OF OPERATION AND MAINTENANCE MANUALS FOR ALL MAJOR PIECES OF EQUIPMENT.
- 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 EXPENSE TO THE OWNER.
- LABEL ALL PLUMBING PIPING WITH ADHESIVE PIPE LABELS INDICATING SERVICE AND DIRECTION OF FLOW. PIPE LABELS SHALL BE LOCATED NEAR ALL BRANCH CONNECTIONS, NEAR ALL FLOOR AND WALL PENETRATIONS, AND AT MAXIMUM INTERVALS OF 25' ALONG EACH RUN.
- PLUMBING SYSTEMS INCLUDE, BUT ARE NOT LIMITED TO:
 - PLUMBING FIXTURES AND EQUIPMENT
 - FIRE STOPPING
 - DOMESTIC WATER SYSTEM
 - SANITARY WASTE AND VENT SYSTEM
 - NATURAL GAS SYSTEM

FIXTURES:

- PROVIDE COMPLETE FIXTURES AND INCLUDE SUPPLIES, STOPS, VALVES, FAUCETS, DRAINS, TRAPS, TAILPIECES, ESCUTCHEONS, ETC. EXPOSED COPPER OR BRASS MATERIALS SHALL BE CHROME PLATED.
- SEAL ALL EDGES OF PLUMBING FIXTURES IN CONTACT WITH FLOORS, WALLS, OR COUNTERTOPS USING SANITARY-TYPE, ONE-PART, MILDEW RESISTANT SILICONE SEALANT. MATCH SEALANT COLOR TO FIXTURE COLOR.
- PROVIDE PERMANENTLY ATTACHED VACUUM BREAKERS FOR ALL FIXTURES/FAUCETS TO WHICH HOSES MAY BE CONNECTED.
- REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHTS OF PLUMBING FIXTURES.

FIRE STOPPING:

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

DOMESTIC WATER PIPING:

- FURNISH AND INSTALL A COMPLETE SYSTEM OF DOMESTIC HOT AND COLD WATER SUPPLIES TO ALL FIXTURES AND/OR EQUIPMENT REQUIRING DOMESTIC WATER SUPPLIES.
- DOMESTIC WATER PIPING BELOW GROUND: ASTM B 88 TYPE 'K' SOFT COPPER TUBE WITH WROT COPPER FITTINGS, AND BRAZED OR PRESSURE-SEALED JOINTS.
- DOMESTIC WATER PIPING ABOVE GROUND: ASTM B 88 TYPE 'L' HARD COPPER TUBE WITH WROT COPPER FITTINGS, AND SOLDERED OR PRESSURE-SEALED JOINTS.
- STERILIZE DOMESTIC WATER PIPING IN ACCORDANCE WITH THE AMERICAN WATER WORKS ASSOCIATION'S SPECIFICATIONS AND LOCAL HEALTH DEPARTMENT REGULATIONS.
- INSULATE DOMESTIC WATER PIPING ABOVE GRADE (EXCEPT EXPOSED CONNECTIONS TO PLUMBING FIXTURES) WITH 1" THICKNESS ENGINEERED POLYMER FOAM INSULATION, OR MINERAL-FIBER PREFORMED PIPE INSULATION WITH FACTORY-APPLIED ASJ.
- DOMESTIC WATER PIPING INSULATION, JACKETS, COVERINGS, SEALERS, MASTICS, AND ADHESIVES SHALL NOT EXCEED A FLAME SPREAD RATING OF 25 AND A SMOKE DEVELOPED RATING OF 50 WHEN TESTED IN ACCORDANCE WITH ASTM E 84.
- ALL PIPE INSULATION SHALL RUN CONTINUOUSLY THROUGH WALLS AND PARTITIONS.
- DO NOT INSTALL DOMESTIC WATER PIPING IN AREAS SUBJECT TO FREEZING TEMPERATURES. INSTALL DOMESTIC WATER PIPING ON EXTERIOR WALLS ON THE CONDITIONED SIDE OF THE WALL INSULATION.
- SHUT-OFF VALVES SHALL BE TWO PIECE, BRONZE, FULL PORT, BALL TYPE, MANUFACTURED BY APOLLO/RTI/RTI. PROVIDE SHUT-OFF VALVES WHERE INDICATED ON THE DRAWINGS. INSTALL VALVES IN LOCATION THAT PERMITS ACCESS FOR SERVICE AND OPERATION WITHOUT DAMAGE TO THE BUILDING OR FINISHED MATERIALS. PROVIDE ACCESS DOORS IF REQUIRED.
- PROVIDE A SHUT-OFF VALVE WITH STRAINER AT THE SERVICE ENTRANCE TO THE BUILDING. PROVIDE SHUT-OFF VALVE IF BACKFLOW PREVENTOR IS REQUIRED.
- PROVIDE CHECK VALVES IN THE HOT AND COLD WATER SUPPLY PIPING TO ALL FAUCETS WHICH MAY BE CONNECTED (MOP BASINS, ETC.), AND TO ALL SPRAY FAUCETS (PUSH-BUTTON, ETC.), UNLESS FAUCET HAS INTEGRAL CHECK VALVES.
- PROTECT COPPER PIPING AGAINST CONTACT WITH DISSIMILAR METALS. ALL HANGERS, SUPPORTS, ANCHORS, AND CLIPS SHALL BE COPPER OR COPPER-PLATED.

SANITARY WASTE AND VENT PIPING:

- FURNISH AND INSTALL COMPLETE SYSTEMS OF SANITARY WASTE AND VENT PIPING FROM ALL PLUMBING FIXTURES AND/OR EQUIPMENT REQUIRING WASTE AND VENT CONNECTIONS. ALL WASTE AND VENT PIPING SHALL BE CONCEALED IN THE BUILDING CONSTRUCTION WHERE POSSIBLE.
- SANITARY WASTE AND VENT PIPING: ASTM D 2665 SCHEDULE 40 SOLID WALL PVC PIPE WITH ASTM D 3311 SCHEDULE 40 SOCKET-TYPE FITTINGS. PVC PIPING INSTALLED IN RETURN AIR PLENUMS MUST BE PROTECTED WITH 3M FIRE BARRIER PLENUM WRAP SA+, OR SIMILAR PRODUCT. ALL BURIED PVC PIPING SHALL BE INSTALLED PER ASTM D 2321.
- INVERT ELEVATIONS SHALL BE ESTABLISHED AND VERIFIED BEFORE SANITARY PIPING IS INSTALLED IN ORDER THAT PROPER SLOPES WILL BE MAINTAINED. SLOPE SANITARY PIPING 2-1/2" AND SMALLER AT 1/4" PER FOOT MINIMUM, AND SLOPE SANITARY PIPING 3" AND LARGER AT 1/8" PER FOOT MINIMUM.
- WHERE SANITARY PIPING IS EXPOSED IN TOILET ROOMS, PROVIDE CHROME-PLATED BRASS PIPING WITH MATCHING STOPS AND ESCUTCHEONS. PROVIDE REMOVABLE TRAPS WITH INTEGRAL CLEANOUT PLUG FOR ALL LAVATORIES AND HAND SINKS.
- INSTALL CLEANOUTS 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. PROVIDE CLEANOUTS IN HORIZONTAL PIPING NOT MORE THAN 100 FEET APART, AND FOR EVERY FOUR 45° CHANGES LOCATED IN SERIES (A LONG SWEEP IS EQUIVALENT TO TWO 45° BENDS).
- ALL INDIRECT WASTE PIPING SHALL DISCHARGE THROUGH AN AIR GAP INTO AN APPROVED WASTE RECEPTOR. THE AIR GAP BETWEEN THE INDIRECT WASTE PIPE AND THE FLOOD LEVEL RIM OF THE WASTE RECEPTOR SHALL BE A MINIMUM OF TWICE THE EFFECTIVE OPENING OF THE INDIRECT WASTE PIPE.

NATURAL GAS PIPING:

- WORK TO INCLUDE PIPING FROM GAS METER TO ALL GAS-FIRED EQUIPMENT SERVING BUILDING, INCLUDING FINAL CONNECTIONS TO EQUIPMENT.
- ALL WORK SHALL BE IN ACCORDANCE WITH ALL APPLICABLE LOCAL CODE REQUIREMENTS, THE PROVISIONS OF NFPA 54, AND THE REGULATIONS OF THE GAS COMPANY PROVIDING SERVICE.
- NATURAL GAS PIPING: ASTM A 53 SCHEDULE 40 SEAMLESS BLACK STEEL PIPE WITH MALLEABLE FITTINGS AND THREADED JOINTS.
- VALVES SHALL BE FULL PORT BALL VALVES APPROVED FOR USE IN NATURAL GAS PIPING SYSTEMS.
- PROVIDE SHUT-OFF VALVE, UNION, VENTLESS GAS REGULATOR, DRIP LEG, AND TEST CONNECTION AT EACH PIECE OF GAS-FIRED EQUIPMENT TO PROVIDE PRESSURE TO EQUIPMENT AS REQUIRED BY MANUFACTURER.
- ALL GAS PIPING LOCATED ON ROOFS SHALL BE INSTALLED ON MANUFACTURED PIPE SUPPORTS SIMILAR TO ERICO CADDY PYRAMID 50. WOOD BLOCKING WILL NOT BE PERMITTED.
- ALL PIPING EXPOSED TO THE OUTDOORS OR EXPOSED IN FINISHED SPACES SHALL BE PAINTED WITH TWO COATS OF ENAMEL. COLOR SELECTED BY ARCHITECT, OR AS REQUIRED BY GAS COMPANY.
- PROVIDE EMERGENCY SOLENOID SHUT-OFF VALVE FOR COOKING EQUIPMENT AS REQUIRED BY CODE. SOLENOID VALVE SHALL BE WIRED TO EXHAUST HOOD FIRE SUPPRESSION SYSTEM.

WATER HAMMER ARRESTER REQUIREMENTS:

- PROVIDE WATER HAMMER ARRESTERS CONFORMING TO PDI-WH201 OR ASSE 1010, INSTALLED PER MANUFACTURER'S SPECIFICATIONS, WHERE QUICK CLOSING VALVES ARE UTILIZED. A QUICK CLOSING VALVE IS A VALVE OR FAUCET THAT CLOSURES AUTOMATICALLY WHEN RELEASED, OR THAT IS CONTROLLED BY MECHANICAL MEANS FOR FAST-ACTION CLOSING. REFER TO WATER HAMMER ARRESTER SCHEDULE.
- AS A MINIMUM, PROVIDE ONE WATER HAMMER ARRESTER FOR EACH BRANCH LINE TO EACH TOILET ROOM LESS THAN 20' IN LENGTH, LOCATED BETWEEN THE LAST TWO FIXTURES SERVED. FOR BRANCH LINES GREATER THAN 20' IN LENGTH, A SECOND WATER HAMMER ARRESTER IS REQUIRED.

PLUMBING LEGEND

PIPING	
-----	DOMESTIC COLD WATER PIPING (CW)
-----	DOMESTIC HOT WATER PIPING (HW)
--- F ---	FILTERED WATER
--- G ---	NATURAL GAS PIPING (G)
-----	SANITARY PIPING (SAN)
-----	VENT PIPING (V)
SYMBOLS	
---(O)---	BALL VALVE (BY-NORMALLY OPEN)
--- ---	CAP
--- ---	CHECK VALVE
---(O)---	FLOOR CLEANOUT (FCO)
---(O)---	FLOOR DRAIN (FD)
---(O)---	FLOOR SINK (FS)
---(O)---	GAS COCK
--- ---	PIPE CONTINUES
---(O)---	PIPE DOWN
---(O)---	PIPE UP
---(O)---	SOLENOID VALVE
--- ---	STRAINER
---(O)---	T&P RELIEF VALVE
---(O)---	THERMOMETER
--- ---	UNION
---(O)---	WATER HAMMER ARRESTER (WHA)
ABBREVIATIONS	
AAV	AIR ADMITTANCE VALVE
ABV	ABOVE
AFF	ABOVE FINISHED FLOOR
AHAP	AS HIGH AS POSSIBLE
BFP	BACKFLOW PREVENTOR
BLW	BELOW
BV	BALL VALVE
CLG	CEILING
CONN	CONNECT OR CONNECTION
CONT	CONTINUATION
DN	DOWN
E.C.	ELECTRICAL CONTRACTOR
FLR	FLOOR
G.C.	GENERAL CONTRACTOR
H.ELEV	HIGHEST ELEVATION
M.C.	MECHANICAL CONTRACTOR
P.C.	PLUMBING CONTRACTOR
T&P	TEMPERATURE AND PRESSURE
TYP	TYPICAL
VTR	VENT THROUGH ROOF
W	WASTE

WATER HAMMER ARRESTER SCHEDULE

PDI SIZE	FIXTURE UNITS	MODEL
A	1 - 11	SIoux CHIEF 652-AS
B	12 - 32	SIoux CHIEF 653-BS


WATER HAMMER ARRESTERS SHALL BE SEAMLESS, PISTON-TYPE, SIZED AND INSTALLED IN ACCORDANCE WITH PDI-WH201. INSTALL WATER HAMMER ARRESTER IN STANDARD TEE, SAME SIZE AS CONNECTED PIPING. AIR CHAMBERS WILL NOT BE PERMITTED.

PLUMBING EQUIPMENT SCHEDULE

MARK	EQUIPMENT	MANUFACTURER & MODEL NO.	SPECIFICATIONS
FD	FLOOR DRAIN	ZURN ZN415B-P	CAST IRON BODY, MEMBRANE CLAMP, ADJUSTABLE COLLAR, 6" DIAMETER TYPE B POLISHED NICKEL BRONZE STRAINER, 1/2" TRAP PRIMER CONNECTION.
HD	HUB DRAIN	ZURN Z326-AR	7" DIAMETER INDIRECT WASTE FUNNEL, WITH ACID RESISTING EPOXY COATED CAST IRON BODY, AND BOTTOM OUTLET.
FS	FLOOR SINK	ZURN ZN1901-KC-2	12"x12"x8" DEEP CAST IRON BODY WITH WHITE ACID RESISTING PORCELAIN ENAMEL INTERIOR. ANCHOR FLANGE WITH SEESAW HOLES AND CLAMP COLLAR, NICKEL BRONZE FRAME WITH 1/2" GRATE.
FCO	FLOOR CLEAN OUT	ZURN ZN1400-BP	ADJUSTABLE, COATED CAST IRON BODY, ROUND SCORRIATED NICKEL BRONZE TOP, BRONZE PLUG.
GCO	GRADE CLEAN OUT	ZURN Z1400-BP	ADJUSTABLE, COATED CAST IRON BODY, ROUND CAST IRON TOP, BRONZE PLUG. SET IN 18" X 18" X 6" DEEP CONCRETE SLAB.
FWH	FREEZELESS WALL HYDRANT	PRIER MODEL C-534F	EXPOSED, ANTI-SIPHON, CAST BRASS HYDRANT, SATIN NICKEL FINISH, 3/4" INLET, 3/4" HOSE THREAD OUTLET, LOOSE KEY OPERATION, SELF DRAINING, WITH INTEGRAL VACUUM BREAKER/DOUBLE CHECK VALVE.
BFP	BACKFLOW PREVENTOR	WATTS SERIES LF909	BRONZE REDUCED PRESSURE ZONE ASSEMBLY, WITH QUARTER-TURN BALL VALVES AND STRAINER. INCLUDE SERIES 909AG AIR GAP FITTING.
DWH	DOMESTIC WATER HEATER	RINNAI MODEL C199e	COMMERCIAL GAS-FIRED CONDENSING TANKLESS, OUTDOOR, 199,000 BTU MAX. INPUT, 4.2 GPM @ 90°F RISE.
TMW	THERMOSTATIC MIXING VALVE	SYMMONS MAXLINE 7-225-CK-MS	0.5 GPM MINIMUM FLOW, THERMOSTATIC WATER TEMPERATURE LIMITING VALVE WITH INTEGRAL CHECKS, BRASS BODY, BRASS AND STAINLESS STEEL INTERNAL COMPONENTS, DUAL STAINLESS STEEL STRAINERS, VANDAL-RESISTANT CAP/TEMPERATURE ADJUSTMENT HANDLE, 1/2" MALE NPT CONNECTIONS. SET MIXING VALVE OUTLET TEMPERATURE TO 110° F.

PLUMBING FIXTURE SPECIFICATIONS AND CONNECTION SCHEDULE

MARK	FIXTURE	TYPE	MATERIAL	PIPE SIZES				SPECIFICATIONS
				SAN	VENT	CW	HW	
WC-1	WATER CLOSET	FLOOR MOUNTED FLUSH TANK ADA HEIGHT	VITREOUS CHINA	4"	2"	1/2"	-	FIXTURE: WESTERN POTTERY MODEL B872/T8ULF-HET-RH, WESTERN WHITE, 1.28 GALLONS PER FLUSH, VORTEX-JET FLUSHING SYSTEM, ELONGATED BOWL, RIGHT-HAND TRIP LEVER. SUPPLY: MCGUIRE MODEL LF2166, CHROME PLATED BRASS ANGLE SUPPLY STOP WITH BRASS STEM, WHEEL HANDLE, 1/2" IPS INLET, 3/8" COMPRESSION OUTLET, 12" CHROME PLATED FLEXIBLE SUPPLY RISER SEAT. BEIMS MODEL 3155SSCT EXTRA HEAVY WEIGHT, SOLID PLASTIC, OPEN FRONT, ELONGATED, LESS COVER, STAINLESS STEEL SELF-SUSTAINING CHECK HINGES, STA-TITE FASTENING SYSTEM, ANTIMICROBIAL.
L-1	LAVATORY	WALL HUNG ADA HEIGHT	VITREOUS CHINA	1-1/2"	1-1/2"	1/2"	1/2"	FIXTURE: KOHLER KINGSTON MODEL K-2005-0, WHITE, 21" X 18", FRONT OVERFLOW, SELF-DRAINING DECK WITH SPLASH SHIELDS, FAUCET LEDGE WITH FAUCET HOLES ON 4" CENTERS. FAUCET: ZURN SIERRA FAUCET MODEL Z7440-XL-FC, POLISHED CHROME-PLATED, SINGLE CONTROL CENTERSET, WITH METAL LEVER HANDLE, 0.5 GPM VANDAL-RESISTANT AERATOR, LESS POP-UP DRAIN. DRAIN: MCGUIRE MODEL 155A, POLISHED CHROME PLATED CAST BRASS OPEN GRID DRAIN, WITH 1-1/4" X 6" 17 GAUGE CHROME PLATED BRASS TAILPIECE. TRAP: MCGUIRE MODEL 8902C, 1-1/4" X 1-1/2" 17 GAUGE CHROME PLATED CAST BRASS P-TRAP, WITH CLEANOUT PLUG. SUPPLIES: MCGUIRE MODEL LF2165, CHROME PLATED BRASS ANGLE SUPPLY STOPS WITH BRASS STEMS, WHEEL HANDLES, 1/2" IPS INLETS, 3/8" COMPRESSION OUTLETS, 12" CHROME PLATED FLEXIBLE SUPPLY RISERS. CARRIER, ZURN Z1231 SERIES CONCEALED ARM SYSTEM FOR WALL LAVATORIES. INCLUDE TRUEBRO LAV GUARD 2 MODEL #102 E-Z UNDERSINK PIPING COVERS, WITH P-TRAP COVER, AND TWO ANGLE VALVE AND SUPPLY COVERS.
MB-1	MOP BASIN	RECESSED	-	3"	2"	1/2"	1/2"	FIXTURE: CONSTRUCTED BY G.C. FAUCET: STERN-WILLIAMS MODEL T-15 VB, 8" CENTER, WALL MOUNT FAUCET, POLISHED CHROME FINISH, WITH INTEGRAL VACUUM BREAKER, TOP BRACE, PAIL HOOK, AND 3/4" HOSE THREAD OUTLET. DRAIN: FLOOR DRAIN. ADDITIONAL EQUIPMENT: PROVIDE STERN-WILLIAMS MODEL T-35 HOSE AND WALL HOOK, AND MODEL T-40 MOP HANGER.



Ragona Architecture & Design, PLLC
14701 Park Road, Suite 100, Charlotte, NC 28209
704.366.0116 www.rad-arch.com

WAVE ENGINEERING
122 W. BLAND ST., SUITE C
CHARLOTTE, NC 28203
704.236.1729
info@wave-engineering.com
WAVE PROJECT # 19072

#ATL034
CONYERS, GA




3/22/18

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Conyers, Georgia 30012
Rockdale County, Georgia

Revisions		
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DRAWING TITLE
Plumbing Specs & Schedules

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P001