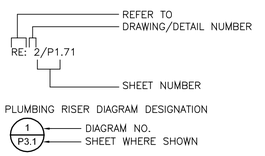
# PLUMBING SYMBOLS AND ABBREVIATIONS

NOTE: ALL SYMBOLS AND ABBREVIATIONS SHOWN ARE NOT NECESSARILY USED ON THE DRAWINGS

## GENERAL NOTES

1. PERFORM ALL WORK IN ACCORDANCE WITH ALL APPLICABLE CODES AND AUTHORITIES HAVING JURISDICTION. PROVIDE ALL PERMITS, INSPECTIONS, LICENSES AND FEES. FURNISH ALL LABOR, EQUIPMENT, SUPPLIES AND MATERIALS NECESSARY TO PROVIDE COMPLETE AND OPERATIONAL SYSTEMS.
2. THE DRAWINGS AND SPECIFICATIONS INDICATE THE GENERAL DESIGN AND ARRANGEMENT OF PIPES, FIXTURES, EQUIPMENT, SYSTEMS, ETC. INFORMATION SHOWN IS DIAGRAMMATIC IN CHARACTER AND DOES NOT NECESSARILY INDICATE EVERY REQUIRED OFFSET, FITTING, ETC. DO NOT SCALE THE DRAWINGS FOR DIMENSIONS. TAKE ALL DIMENSIONS, MEASUREMENTS, EQUIPMENT LOCATIONS, LEVELS, ETC FROM THE ARCHITECTURAL DRAWINGS AND FROM THE EQUIPMENT TO BE FURNISHED. PIPING MAY BE RELOCATED OR OFFSET FOR PROPER CLEARANCES OR TO AVOID CONFLICTS WITH OTHER TRADES. THE DESIGN INTENT (I.E. PITCHES, VELOCITIES, PRESSURE DROPS, VOLTAGE DROPS, ETC) CANNOT BE GREATLY ALTERED WITHOUT THE APPROVAL OF THE ARCHITECT. THE COST OF THESE DEVIATIONS TO AVOID INTERFERENCE'S SHALL BE PART OF THE ORIGINAL CONTRACT BID.
3. CONFER AND COOPERATE WITH ALL OTHER TRADES TO COORDINATE THEIR WORK. COORDINATION SHALL INCLUDE, BUT SHALL NOT BE LIMITED TO MATERIALS AND EQUIPMENT ROUTED IN CEILING AND WALL CAVITIES, EQUIPMENT ARRANGEMENT IN MECHANICAL SPACES, INCLUDING EQUIPMENT CLEARANCE REQUIREMENTS, ELEVATIONS AND DIMENSIONS OF STRUCTURAL MEMBERS AND OPENINGS, ETC. NOTIFY THE ARCHITECT OF ANY CONFLICTS.
4. BASE FINAL INSTALLATION OF MATERIALS AND EQUIPMENT ON ACTUAL DIMENSIONS AND CONDITIONS AT THE PROJECT SITE. FIELD MEASURE FOR MATERIALS AND EQUIPMENT REQUIRING EXACT FIT. NO EXTRAS WILL BE GIVEN FOR THE CONTRACTOR'S FAILURE TO FIELD COORDINATE.
5. THE OWNER OR ENGINEER ARE NOT RESPONSIBLE FOR THE CONTRACTOR'S SAFETY PRECAUTIONS OR FOR MEANS, METHODS, TECHNIQUES, CONSTRUCTION SEQUENCES, OR PROCEDURES REQUIRED TO PERFORM THE WORK.
6. LOCATE ALL EQUIPMENT THAT MUST BE SERVICED, OPERATED, OR MAINTAINED IN FULLY ACCESSIBLE POSITIONS. EQUIPMENT SHALL INCLUDE (BUT NOT LIMITED TO) VALVES, MOTORS, CONTROLLERS, SWITCHGEAR, AND DRAIN POINTS IF REQUIRED FOR BETTER ACCESSIBILITY. FURNISH ACCESS DOORS FOR THIS PURPOSE. MINOR DEVIATIONS FROM THE DRAWINGS MAY BE ALLOWED TO PROVIDE FOR BETTER ACCESSIBILITY. ANY CHANGES SHALL BE APPROVED BY THE ARCHITECT AND CONSTRUCTION MANAGER/GENERAL CONTRACTOR PRIOR TO MAKING THE CHANGE.
7. PROVIDE ACCESS DOORS, WALL OPENINGS, ROOF OPENINGS OR ANY OTHER CONSTRUCTION REQUIREMENT NEEDED TO ACCOMMODATE THE PLUMBING EQUIPMENT. LOCATIONS OF THESE OPENINGS SHALL BE SUBMITTED IN SUFFICIENT TIME TO BE INSTALLED IN THE NORMAL COURSE OF WORK.
8. COORDINATE THE LOCATION OF ALL WALL CLEANOUTS, ACCESS DOORS, ETC WITH THE ARCHITECT AND ALL OTHER TRADES PRIOR TO INSTALLATION. IF A CONFLICT WITH MILLWORK, LIGHT SWITCHES, WINDOWS, ETC EXISTS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF THE POTENTIAL INTERFERENCE PRIOR TO INSTALLATION.
9. COORDINATE ELECTRICAL REQUIREMENTS OF APPROVED PLUMBING EQUIPMENT WITH THE ELECTRICAL SUB-CONTRACTOR PRIOR TO THE PURCHASE AND INSTALLATION OF ANY ELECTRICAL EQUIPMENT, DEVICES, WIRING, OR CONDUIT.
10. PROVIDE VIBRATION ISOLATORS FOR MOTOR DRIVEN PLUMBING EQUIPMENT UNLESS NOTED OTHERWISE. PROVIDE ISOLATION AS RECOMMENDED BY THE EQUIPMENT MANUFACTURER.
11. PLUMBING VENTS THROUGH THE ROOF SHALL BE A MINIMUM OF 10 FEET FROM ALL OUTSIDE AIR INTAKES AND A MINIMUM OF 5 FEET FROM EXTERIOR PERIMETER WALLS.
12. SOME PIPES SHOWN MAY BE SHOWN OFFSET FOR CLARITY.
13. PLUMBING FIXTURES AND TRIM OF LIKE KIND SHALL BE OF THE SAME MANUFACTURER THROUGHOUT THE PROJECT. TYPICAL CATEGORIES INCLUDE THE FOLLOWING:
    A. WATER CLOSETS, LAVATORIES, URINALS
    B. ELECTRIC WATER COOLERS, DRINKING FOUNTAINS
    C. FAUCETS, MIXING VALVES
    D. TAIL PIECE, FIXTURE TRAPS, ESCUTCHEONS, ARM EXTENSIONS, STRAINERS
    E. FIXTURE CARRIERS, FLOOR DRAINS, FLOOR SINKS, ROOF DRAINS, OVERFLOW DRAINS
    F. COUNTER TOP SINKS
14. PROVIDE WATER HAMMER ARRESTERS BETWEEN THE NEXT TO LAST AND LAST FIXTURE AT EACH BATTERY OF PLUMBING FIXTURES IN ACCORDANCE WITH THE WATER HAMMER ARRESTER SCHEDULE AND THE PLUMBING AND DRAINAGE INSTITUTE STANDARD PDI-WH-201.
15. ALL SANITARY WASTE PIPING WITHIN THE BUILDING ENVELOPE SHALL HAVE MINIMUM SLOPES AS REQUIRED BY THE LOCAL CODE AUTHORITY. CONTRACTOR SHALL VERIFY INVERT ELEVATIONS INDICATED ON FLOOR PLANS PRIOR TO INSTALLATION OF ANY SITE UTILITIES AND CONNECTION INTO EXISTING SERVICES.
16. COMPLY WITH THE PROVISIONS OF THE AMERICANS WITH DISABILITIES ACT (ADA) AND THE TEXAS ACCESSIBILITY'S STANDARD (TAS). PLUMBING CONTRACTOR SHALL PROVIDE PLUMBING FIXTURES WITH FLUSH VALVE HANDLES LOCATED ON THE WIDE SIDE OF EACH STALL.
17. SEAL ALL PIPE PENETRATIONS THROUGH FIRE RATED BUILDING ELEMENTS WITH AN APPROVED FIRE PROOFING MATERIAL.
18. ALL FLOOR DRAIN AND FLOOR SINK TRAPS SHALL BE INSTALLED WITH TRAP GUARDS TO PREVENT SEWER GASES FROM ENTERING THE BUILDINIG.

## DRAWING/DETAIL REFERENCE




## ABBREVIATIONS

| | | | |
|---|---|---|---|
| A/E | ARCHITECT/ENGINEER | L | LENGTH |
| AFF | ABOVE FINISHED FLOOR | LB | POUNDS |
| AHU | AIR HANDLING UNIT | LRA | LOCKED ROTOR AMPS |
| APPROX | APPROXIMATE | MAX | MAXIMUM |
| BD | BUILDING DRAIN (BELOW FLOOR) | MCA | MINIMUM CIRCUIT AMPACITY |
| | | MIN | MINIMUM |
| B.F.G. | BELOW FINISHED GRADE | MSB | MOP SINK BASIN |
| BS | BUILDING SEWER (OUTSIDE OF BLDG) | N/A | NOT APPLICABLE |
| | | NFPA | NATIONAL FIRE PROTECTION ASSOCIATION |
| CU | COPPER, CONDENSING UNIT | | |
| CW | DOMESTIC COLD WATER | NFWH | NON-FREEZE WALL HYDRANT |
| D | EQUIPMENT DRAIN | N/O,N/C | NORMALLY OPEN, NORMALLY CLOSED |
| DCO | TWO-WAY GRADE CLEANOUT | O/C | ON CENTER |
| DEG | DEGREES | OFD | ROOF OVERFLOW DRAIN |
| DSN | DOWNSPOUT NOZZLE | PCO | PLUG CLEANOUT |
| (E) | EXISTING | PH | PHASE |
| EQUIP | EQUIPMENT | PROVIDE | FURNISH AND INSTALL |
| EWC | ELECTRIC WATER COOLER | PSI | POUNDS PER SQUARE INCH |
| °F | DEGREES FAHRENHEIT | RD | ROOF DRAIN |
| FCO | FLOOR CLEANOUT | REF. | REFERENCE, REFER |
| FCU | FAN COIL UNIT | RLA | RUNNING LOAD AMPS |
| FD | FLOOR DRAIN | RM | ROOM |
| FS | FLOOR SINK | RPBFP | REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER |
| FT. | FOOT, FEET | | |
| FVC | FIRE VALVE CABINET | RPZ | REDUCED PRESSURE ZONE |
| G | NATURAL GAS | S | SINK |
| GCO | GRADE CLEANOUT | SD | STORM DRAIN (BELOW FLOOR) |
| GWH | NATURAL GAS WATER HEATER | ST | STORM WATER (ABOVE CEILING) |
| H | HEIGHT | SSD | SUBSURFACE DRAIN |
| HB | HOSE BIBB | THRU | THROUGH |
| HP | HORSEPOWER | TP | TRAP PRIMER |
| HW | DOMESTIC HOT WATER | TYP | TYPICAL |
| HWC | DOMESTIC HOT WATER CIRCULATION LOOP | U | URINAL |
| | | UL | UNDERWRITERS LABORATORIES, INC. |
| HWTM | HOT WATER TEMPERATURE MAINTENANCE CABLE | V | SANITARY VENT |
| | | VTR | SANITARY VENT THRU ROOF |
| HZ | HERTZ | W | SANITARY WASTE (ABOVE FLOOR) |
| IE | INVERT ELEVATION | WC | WATER CLOSET |
| IN. | INCH, INCHES | WCO | WALL CLEANOUT |
| J-BOX | JUNCTION BOX | W/ | WITH |
| kW | KILOWATT | W/O | WITHOUT |

## FIRE PROTECTION GENERAL NOTES

1. PROVIDE A COMPLETE AND OPERABLE WET PIPE FIRE SUPPRESSION SYSTEM FOR CONDITIONED SPACES INSIDE THE BUILDING AND A DRY PIPE SYSTEM FOR AREAS SUBJECT TO FREEZING TEMPERATURES INSIDE OR ATTACHED TO THE BUILDING, CONFORMING TO NFPA 13/13R, LOCAL CODES AND ORDINANCES AND THE AUTHORITY HAVING JURISDICTION.
2. THE FIRE SUPRESSION SYSTEM SHALL CONFORM TO ALL APPLICABLE NFPA CODES IN ADDITION TO THE FOLLOWING:
    A. VELOCITIES IN MAINS SHALL NOT EXCEED 15 FEET PER SECOND.
    B. VELOCITIES IN BRANCHES AND BRANCH MAINS SHALL NOT EXCEED 20 FEET PER SECOND.
    C. HYDRAULIC CALCULATIONS SHALL SHOW THE ELEVATIONS OF INDIVIDUAL HEADS AND REFERENCE POINTS (NODES).
    D. HYDRAULIC CALCULATIONS SHALL DESCRIBE EACH INDIVIDUAL HEAD IN THE ZONE BEING CALCULATED. HYDRAULIC CALCULATIONS USING "K" FACTORS TO DESCRIBE WHOLE BRANCH LINES ARE NOT ACCEPTABLE.
    E. SUBMITTALS SHALL BE COMPLETE AND INCLUDE: HYDRAULIC CALCULATIONS, SHOP DRAWINGS AND MATERIAL SUBMITTAL.
3. SUBMITTALS NOT CONFORMING TO THE ABOVE WILL BE REJECTED WITH NO COMMENT.
4. FIRE SUPPRESSION SYSTEM PIPING 2-INCHES AND SMALLER SHALL BE STEEL CONSTRUCTION, SCHEDULE 10 WITH ROLLED GROOVE COUPLERS. FIRE SUPPRESSION SYSTEM PIPING 2.5-INCHES AND LARGER SHALL BE STEEL CONSTRUCTION, SCHEDULE 40 WITH THREADED ENDS OR MECHANICAL COUPLERS. WELDED OUTLETS MAY BE USED IF THE OUTLET IS A MINIMUM OF TWO PIPE SIZES SMALLER THAN THE PIPING THE OUTLET IS ATTACHED TO.
5. POWDER DRIVEN STUDS (SHOT STUDS) ARE NOT ALLOWED AS HANGER ANCHORS.
6. PROVIDE SPRINKLER HEAD GUARDS IN ALL AREAS SUBJECT TO POSSIBLE DAMAGE AS REQUIRED BY CODE. IN ROOMS WITH NO CEILINGS THAT ARE EXPOSED TO THE PUBLIC, PROVIDE BRASS UPRIGHT SPRINKLER HEADS AND PAINT THE EXPOSED PIPE RED.
7. THE FIRE DEPARTMENT CONNECTION AND TRIM SHALL HAVE A NICKEL FINISH UNLESS ANOTHER COLOR/MATERIAL IS REQUIRED BY CODE.
8. COORDINATE ALL SPRINKLER DROPS FOR HEAD LOCATION WITH LIGHTS, CEILING GRIDS, STRUCTURAL STEEL, DUCTWORK AND EQUIPMENT LOCATIONS. INSTALL ALL SPRINKLER HEADS CENTERED IN TILES OF LAY-IN OR GRID-TYPE CEILINGS.
9. FIRE PROTECTION CONTRACTOR TO SECURE AND VERIFY ALL MEASUREMENTS AND CONDITIONS AT JOB BEFORE PROCEEDING WITH FABRICATION OF WORK.
10. FIRE PROTECTION CONTRACTOR TO PROVIDE ALL ADDITIONAL STEEL, HANGER MATERIALS, RODS AND CLAMPS AS REQUIRED FOR COORDINATION AND APPROVED INSTALLATION.
11. ALL VALVES CAPABLE OF INTERRUPTING FIRE PROTECTION SYSTEM FLOWS SHALL BE PROVIDED WITH A TAMPER SWITCH OR CHAIN WITH PADLOCK AS REQUIRED.
12. ALL FIRE PROTECTION PIPING IN FINISHED AREAS SHALL BE CONCEALED.
13. SEAL ALL PIPE PENETRATIONS THROUGH FIRE RATED BUILDING ELEMENTS WITH AN APPROVED FIRE PROOFING MATERIAL. PROVIDE FIRESTOPPING AT ALL PENETRATIONS OF FIRE AND/OR SMOKE RATED FLOORS, WALLS AND PARTITIONS. REFER TO ARCHITECTURAL FLOOR PLANS FOR LOCATIONS OF ALL RATED STRUCTURES.
14. FLOW TEST AND HYDRAULIC CALCULATIONS SHALL BE PERFORMED. SUBMIT SPRINKLER DRAWINGS, CALCULATIONS AND ADDITIONAL INFORMATION AS REQUIRED BY THE LOCAL AUTHORITY OR INSURANCE UNDERWRITER.

## SYMBOLS

| SYMBOL | DESCRIPTION |
|---|---|
| | SHUT-OFF / ISOLATION VALVE |
| | BALL VALVE |
| | BUTTERFLY VALVE |
| | GLOBE VALVE |
| | PLUG VALVE / GAS COCK |
| | CHECK VALVE |
| | STRAINER |
| | CALIBRATED BALANCING VALVE |
| | GAS PRESSURE REGULATOR |
| | FLOW SWITCH |
| | UNION (DIELECTRIC) |
| | VALVE IN RISER |
| | END RISE (90° ELL) |
| | END DROP (90° ELL) |
| | RISE OR DROP |
| | TEE OUT OF TOP OF PIPE |
| | TEE OUT OF BOTTOM OF PIPE |
| | CAP ON END OF PIPE |
| WCO | WALL CLEANOUT |
| PCO | PLUG CLEANOUT |
| DCO | TWO WAY CLEANOUT |
| GCO | GRADE CLEANOUT |
| | NON-FREEZE WALL HYDRANT OR HOSE BIBB |
| FD | FLOOR DRAIN |
| FCO | FLOOR CLEANOUT |
| | SHUT-OFF / ISOLATION VALVE |
| | OS&Y GATE VALVE |
| FDC | FIRE DEPARTMENT SIAMESE CONNECTION (WALL) |
| FDC | FIRE DEPARTMENT SIAMESE CONNECTION (FREE STANDING) |
| | PRESSURE GAUGE |
| | ALARM CHECK VALVE |
| | DRY ALARM CHECK VALVE |
| | DRY ALARM CHECK VALVE WITH QUICK OPENING DEVICE |
| | DELUGE OR PRE-ACTION ALARM CHECK VALVE |

## LINE TYPES

| SYMBOL | DESCRIPTION |
|---|---|
| W | SANITARY SEWER (ABOVE CEILING) |
| BD | SANITARY SEWER (BELOW FLOOR, BUILDING DRAIN) |
| BS | SANITARY SEWER (OUTSIDE OF BUILDING, BUILDING SEWER) |
| GW | GREASY WASTE (ABOVE CEILING) |
| GD | GREASY WASTE (BELOW FLOOR) |
| D | EQUIPMENT DRAIN (ABOVE CEILING) |
| ST | STORM WATER PIPING (ABOVE CEILING) |
| SD | STORM WATER PIPING (BELOW FLOOR/GRADE) |
| OFD | OVERFLOW DRAIN (ABOVE CEILING) |
| SSD | SUBSURFACE DRAINAGE |
| | SANITARY VENT |
| | DOMESTIC COLD WATER |
| | DOMESTIC HOT WATER |
| | DOMESTIC HOT WATER CIRCULATION |
| G | NATURAL GAS |
| F | FIRE PROTECTION MAIN WATER SUPPLY |
| SP | STANDPIPE FIRE PROTECTION WATER |
| WP | AUTOMATIC FIRE SPRINKLER (WET) |
| PA | AUTOMATIC FIRE SPRINKLER (PRE-ACTION) |
| DP | AUTOMATIC FIRE SPRINKLER (DRY) |
| A | COMPRESSED AIR |
| | DIRECTION OF FLOW |
| | DIRECTION OF PIPE SLOPE DOWN |
| | PIPE DEMOLITION |

## MISCELLANEOUS

| | |
|---|---|
| 1 | DRAWING NOTE REFERENCE (I.E., NOTES BY SYMBOL) |
| | CONNECTION INTO EXISTING |

## DEMOLITION WORK NOTES

GENERAL

1. EXISTING WORK SHOWN ON PLANS IS FROM AVAILABLE AS-DESIGNED DOCUMENTS AND LIMITED FIELD OBSERVATIONS. ACTUAL CONDITIONS MAY VARY; FIELD VERIFY EXISTING WORK AND MAKE MINOR ADJUSTMENTS NECESSARY TO COMPLETE WORK. IF EXISTING CONDITIONS PROHIBIT WORK, NOTIFY THE ARCHITECT FOR DIRECTION, AS REQUIRED.
2. WHERE EXISTING EQUIPMENT IS LOCATED SUCH THAT IT IS ALONG THE TOP OF NEW WALLS TO DECK, IT SHALL BE RELOCATED. COORDINATE SUCH WORK WITH OTHER TRADES. RELOCATED EQUIPMENT SHALL BE TO A LOCATION THAT ALLOWS ACCESS FOR PERIODIC SERVICING AND REPAIR.
3. COORDINATE WITH ALL TRADES FOR REQUIRED CEILING REMOVAL IN EXISTING BUILDING. NOTIFY THE ARCHITECT AND OWNER PRIOR TO COMMENCING REMOVAL. REMOVE ONLY THAT PORTION OF THE CEILING NECESSARY TO ACCESS AND COMPLETE THE WORK. UPON COMPLETION OF THE ABOVE CEILING WORK, CEILING IS TO BE REINSTALLED. REPLACE ANY DAMAGED CEILING TILES WITH NEW TILES TO MATCH EXISTING.
4. DEMOLITION SHALL EXTEND TO POINTS OF CONNECTION WITH LIVE SERVICES (PANELBOARDS, PIPING MAINS, ETC). DEMOLITION SHALL NOT PERMIT ABANDONMENT OF ANY PORTION OF ANY SYSTEM UNLESS SPECIFICALLY NOTED AS "ABANDON IN PLACE" OR "TO REMAIN".
5. DEMOLITION SHALL INCLUDE EQUIPMENT, PIPING, SUPPORTS, FITTINGS, ACCESSORIES, CONTROLS, WIRING, CONDUIT, ETC, IN THEIR ENTIRETY UNLESS OTHERWISE NOTED.
6. COORDINATE AND SCHEDULE WORK IN AREAS OUTSIDE LIMITS OF CONSTRUCTION, PARTICULARLY FOR UNDER FLOOR WORK IN AREAS BELOW.
7. VERIFY THE CONDITION OF ALL EXISTING EQUIPMENT AND PLUMBING FIXTURES WITHIN THE PROJECT SCOPE. VERIFY EXACT SIZES OF EXISTING PIPING BEFORE COMMENCING DEMOLITION WORK. REPORT ANY DISCREPANCIES BETWEEN PLANS AND ACTUAL FIELD CONDITIONS TO ARCHITECT PRIOR TO THE COMMENCEMENT OF DEMOLITION WORK.
8. PATCH OPENINGS IN WALLS TO MAINTAIN THE INTEGRITY OF THE WALL WHERE AIR DEVICES HAVE BEEN REMOVED. REFER TO ARCHITECTURAL DRAWINGS/SPECIFICATIONS FOR ADDITIONAL INSTRUCTIONS.
9. THE LOCATION OF EXISTING UNDERGROUND UTILITIES IS SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL PAY FOR AND REPAIR ALL DAMAGES CAUSED BY FAILURE TO LOCATE AND PRESERVE UNDERGROUND UTILITIES.

EQUIPMENT

1. THE OWNER HAS THE FIRST RIGHT-OF-REFUSAL FOR ALL DEMOLISHED EQUIPMENT. THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND PROPER DISPOSAL OF ANY EQUIPMENT REFUSED BY THE OWNER.
2. ALL REMOVED EQUIPMENT SHALL BE MAINTAINED IN GOOD CONDITION. REMOVED EQUIPMENT NOT INDICATED FOR RE-USE SHALL REMAIN THE PROPERTY OF THE OWNER. REMOVE THE EQUIPMENT AND DELIVER IT TO THE OWNER. SHOULD THE OWNER DECLINE THE POSSESSION OF THE REMOVED EQUIPMENT, IT SHALL BECOME THE PROPERTY OF THE CONTRACTOR FOR REMOVAL FROM SITE.

## BASIS OF PLUMBING DESIGN

**PRIMARY CODES:**

| | |
|---|---|
| PLUMBING: | 2018 INTERNATIONAL PLUMBING CODE (WITH CITY AMENDMENTS). |
| GAS: | 2018 INTERNATIONAL FUEL GAS CODE (WITH CITY AMENDMENTS). |
| FIRE PROTECTION: | 2018 INTERNATIONAL FIRE CODE (WITH CITY AMENDMENTS) |
| ENERGY: | 2018 INTERNATIONAL ENERGY CODE (WITH AMENDMENTS) |

## WATER HAMMER ARRESTER SCHEDULE

| P.D.I. SIZE | A | B | C | D | E | F |
|---|---|---|---|---|---|---|
| FIXTURE UNITS | 1-11 | 12-32 | 33-60 | 61-113 | 114-154 | 155-330 |

NOTES:
1. ALL WHA'S SHALL BE PISTON TYPE WITH EPDM O-RINGS, SIOUX CHIEF'S SERIES 650 OR EQUAL.
2. ALL WHA'S SHALL BE ANSI/ASSE 1010 2004 CERTIFIED AND APPROVED FOR INSTALLATION WITH NO ACCESS PANEL REQUIRED.
3. SIZE AND LOCATE WATER HAMMER ARRESTERS IN ACCORDANCE WITH PDI PAMPHLET PDI-WH-201.


ARCHITECTURE
SCOTT MARTSOLF - ARCHITECT

815 Daggett Avenue
Fort Worth, Texas 76104

Phone: (817) 820-0005


ST. JUDE CATHOLIC CHURCH

PARISH HALL REMODEL & CONNECTOR BUILDING

500 E DALLAS ST.
MANSFIELD, TX 76063

**BID SET**

Drawing Title:
PLUMBING
NOTES & LEGENDS

| Project No. | Date: |
|---|---|
| 2307 | 12/20/2023 |
| | Sheet No. P0.1 |


STATE OF TEXAS
12/20/2023
RENÉ A. CULROSS
71739
LICENSED
PROFESSIONAL ENGINEER
2347.1219.6510

MEP Consultant
Rene' A. Culross
*Rene' A. Culross, P.E., PLLC*
1820 Hunting Green Drive
Fort Worth, TX 76134
817-798-6642
raculross@gmail.com
F-12230



C:\Work Projects\23-47 St Jude CC - Parish Hall Addn\Plum\2347-P01.dwg 12/21/23 10:10:37 Rene's ASUS