

6. PLUMBING SPECIFICATIONS

PART 1 - GENERAL

1. MATERIALS AND INSTALLATION SHALL COMPLY WITH ALL APPLICABLE STATE AND LOCAL CODES AND AMENDMENTS.
2. OBTAIN AND PAY FOR ALL REQUIRED PERMITS, INSPECTION FEES, TAPPING FEES, CONNECTION CHARGES, AND UTILITY COMPANY SERVICE CHARGES.
3. INSTALLATION SHALL BE DONE IN A NEAT AND WORKABLE MANNER.
4. DRAWINGS ARE DIAGRAMMATIC AND SHALL NOT BE SCALED FOR EXACT SIZES OR LOCATIONS. THEY ARE NOT INTENDED TO DISCLOSE ABSOLUTE OR UNCONDITIONAL KNOWLEDGE OF ACTUAL FIELD CONDITIONS.

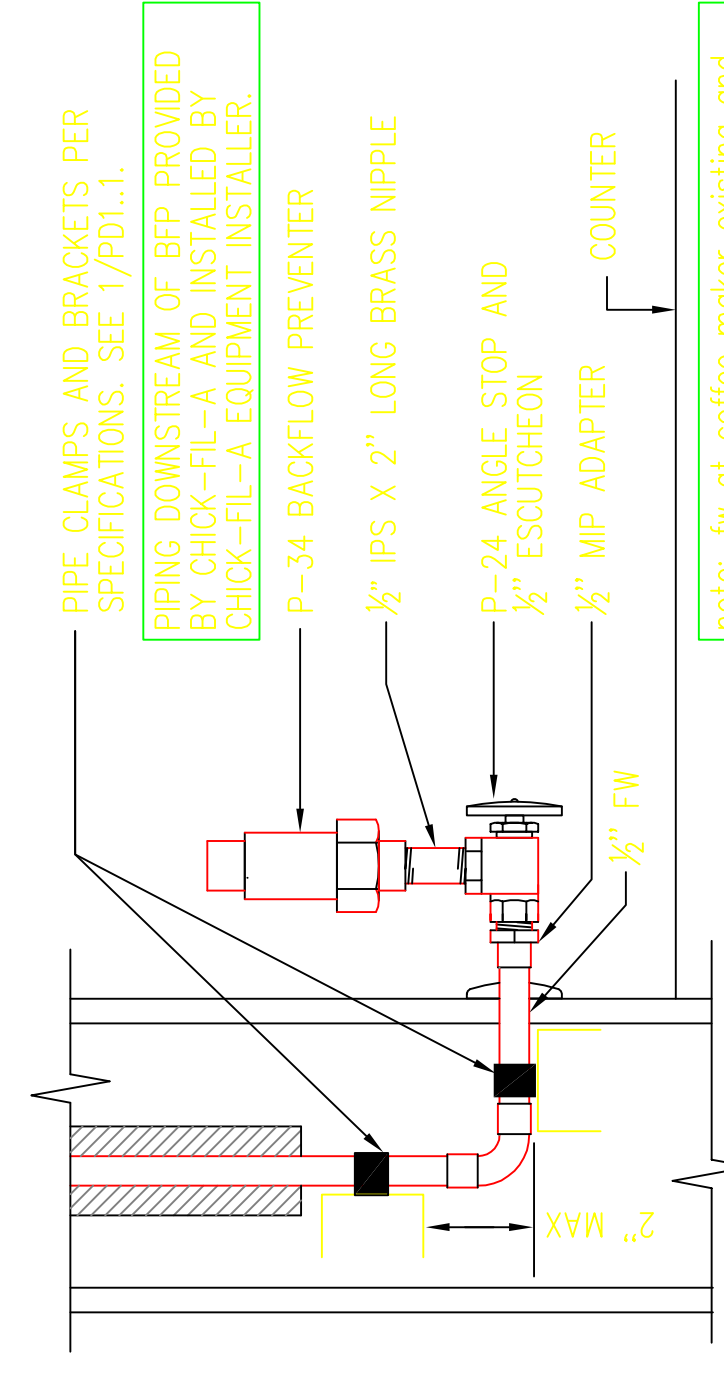
PART 2 - PRODUCTS

1. DOMESTIC WATER PIPING ABOVE SLAB SHALL BE TYPE "L" HARD DRAWN COPPER. WATER SUPPLY PIPING TO SOFT DRINK CARBONATORS SHALL BE FLOWGRAD GOLD CPVC AS MANUFACTURED BY THOMPSON PLASTICS OR CHARLOTTE PIPE. SEE PLANS FOR LOCATION OF CPVC PIPING.
 2. ALL CONDENSATE PIPING SHALL BE TYPE "M" HARD DRAWN COPPER.
 3. DOMESTIC WATER PIPING BELOW SLAB SHALL BE TYPE "K" SOFT ANNEALED SEAMLESS. NO JOINTS SHALL BE ALLOWED BELOW SLAB. PIPING BELOW SLAB SHALL BE SLEAVED WITH POLY SLEEVE AS MADE BY IPS WATER-TITE. ALL SLAB PENETRATIONS SHALL BE SLEAVED TO PROTECT PIPING FROM CORROSION BY CONCRETE.
 4. COPPER PIPE FITTINGS SHALL BE WROUGHT COPPER SWEEP PATTERN FITTINGS, SOLDERED USING 95-5 LEAD-FREE SOLDER MEETING ASTM B-32 OR BRAZED WITH SIL-FOS. SOLDER FLUXES SHALL MEET ASTM B-813 AND SHALL BE LEAD FREE. BRAZING FLUXES SHALL MEET AWS FB3-A OR FB3-C.
 5. ALL SANITARY WASTE AND VENT PIPING AND FITTINGS INSIDE THE BUILDING SHALL BE SCHEDULE 40 PVC DWV AS MANUFACTURED BY CHARLOTTE PIPE. JOINTS FOR DWV-PVC PIPING SHALL BE SOLVENT WELD TYPE INSIDE AND UNDERSLAB. CURE TIME MUST COMPLY WITH MANUFACTURER'S RECOMMENDATIONS.
 6. PIPING INSULATION SHALL BE KNAUF 1000F 25/50 FIBERGLASS PIPE COVERING, WHITE KRAFT PAPER VAPOR BARRIER (0.2 PERMS) BONDED TO ALUMINUM FOIL AND REINFORCED WITH GLASS FIBERS. MINIMUM THERMAL CONDUCTIVITY OF 0.23 AT 75°F. LONGITUDINAL LAP SHALL BE SELF SEALING. PROVIDE 1" THICK INSULATION FOR POTABLE HOT, COLD, FILTERED, AND TEMPERED WATER PIPING. PROVIDE 1/2" THICK INSULATION FOR CONDENSATE PIPING INSIDE THE BUILDING.
 7. A PVC 25/50 PRE-FORMED COVER SHALL BE PROVIDED AT ALL INSULATED PIPING FITTINGS EQUAL TO PROTIO PVC CORP. LUSMOKE, 800-875-7768.
 8. PIPE INSULATION AND COVERINGS SHALL HAVE A RATING OF NOT GREATER THAN 25 FLAME SPREAD, NO HIGHER THAN 50 SMOKE DEVELOPED, AND NO MORE THAN 50 FUEL CONTRIBUTED. THE ONLY EXCEPTION SHALL BE ARMAFLEX II, WHEN SPECIFIED, WHICH SHALL NOT EXCEED 100 SMOKE DEVELOPED.
- PART 3 - EXECUTION
1. EXCAVATION, BACKFILLING AND TRENCH WORK SHALL BE DONE IN ACCORDANCE WITH O.S.H.A. AND EXISTING SAFETY STANDARDS. COORDINATE CUTTING AND PATCHING OF EXISTING FLOORS AND WALLS WITH GENERAL CONTRACTOR PRIOR TO START OF WORK.
 2. EXPOSED HOT AND COLD WATER TRIM IN FINISHED AREAS SHALL BE CHROME FINISHED.
 3. ALL HORIZONTAL AND VERTICAL PIPING SHALL BE SUPPORTED IN ACCORDANCE WITH APPLICABLE STATE AND LOCAL CODE RECOMMENDATIONS. ACCEPTABLE METHODS OF SUPPORT WILL BE THE SUMNER SYSTEM, POSIFIX, STAFFIX, PIPEFIX, HODRITIE OR CHANNEL.
 4. SUPPORT HORIZONTAL PIPING AS FOLLOWS:

NOMINAL PIPE SIZE (IN)	MINIMUM HANGER DIAMETER (IN)
1/2	3/8
3/4 TO 1-1/2	3/8
2 TO 2-1/2	3/8
3 TO 6	1/2
 5. HANGERS FOR PIPING GREATER THAN 1" SHALL PASS OVER THE INSULATION. PROVIDE SADDLES FOR INSULATED PIPING.
 6. INSULATION SHALL BE APPLIED WITH JOINTS TIGHTLY BUTTED. OPEN CRACKS, VOIDS AND DEPRESSIONS SHALL BE FILLED WITH HYDRAULIC SETTING CEMENT. LAPPING MATCHING THE FINISH SHALL BE PASTED NEATLY OVER JOINTS. FITTINGS AND VALVES SHALL BE INSULATED WITH THE SAME TYPE.
- PART 4 - PLUMBING FIXTURES
1. ACCEPTABLE MANUFACTURERS
 - A. NO OTHER MANUFACTURER SUBSTITUTIONS SHALL BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER FIVE (5) DAYS BEFORE BIDDING.
 - B. FIXTURES SHALL BE MOUNTED RIGIDLY TO WALLS AND FLOOR.
 - C. FITTINGS: AS SPECIFIED ON THE PLANS. NO SUBSTITUTIONS ALLOWED.
 - D. DRAINS, HYDRANTS, CARRIERS AND SHOCK ABSORBERS: JAY R. SMITH, JONES STEPHENS CORP., ZURN, WADE, OR JOSAM.
 - E. CONTRACTOR SHALL PROVIDE OUTLET DEVICES WHICH LIMIT THE FLOW OF WATER TO ALL LAVATORIES TO A MAXIMUM OF 0.5 GPM; SINKS TO A MAXIMUM OF 3.0 GPM AS REQUIRED BY LOCAL CODE.

2. FIXTURES

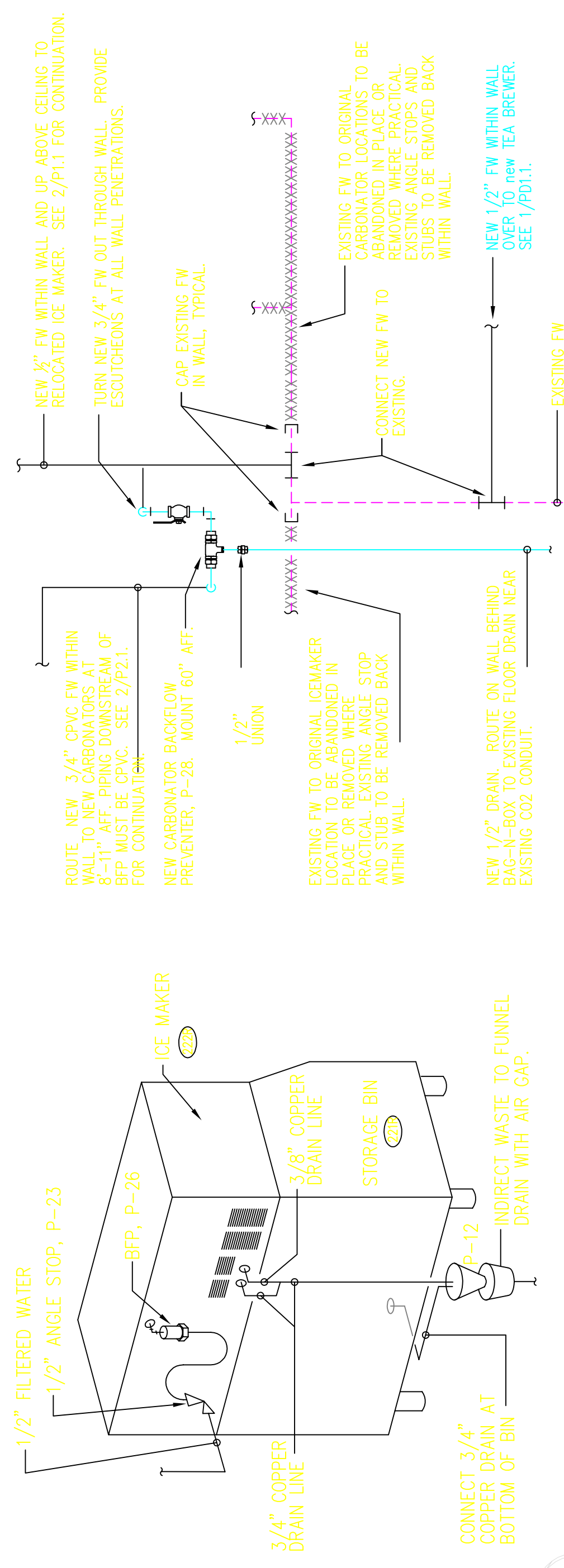
- P-4 LAVATORY ROUGH IN: ELLER MODEL 357-1062 FAUCET, MCGUIRE 175 SUPPLIES WITH STOPS, MCGUIRE 155-WC GRID DRAIN WITH OFFSET TAILPIECE AND A MCGUIRE 8872 POLISHED CHROME P-TRAP. P-TRAP SHALL BE PARALLEL WITH BACK WALL. PROVIDE A TRUBRO INC. HAND LAY-GUARD INSULATION KIT MODEL 103W AMERICAN STANDARD RELIANT 2385 403 FAUCET IS AN ACCEPTABLE SUBSTITUTE. DELTA 523-WHDF SINGLE LEVER FAUCET IS AN ACCEPTABLE SUBSTITUTE.
- P-5 KITCHEN HAND SINK ROUGH IN: (SINK & FAUCET FURNISHED BY OWNER) CONTRACTOR SHALL INSTALL WALL HUNG, STAINLESS STEEL SINK AND FAUCET SET AND MAKE FINAL CONNECTIONS. PROVIDE MCGUIRE 175 SUPPLIES WITH STOPS AND A MCGUIRE 8912 POLISHED CHROME P-TRAP.
- P-6 SERVING COUNTER DROP IN SINK: (SINK & FAUCET FURNISHED BY OWNER) CONTRACTOR SHALL COORDINATE INSTALLATION WITH NEW WATER SUPPLY AND COUNTERTOP/CABINET RENOVATION. PROVIDE NEW MCGUIRE 175 SUPPLIES WITH STOPS AND A MCGUIRE 8912 POLISHED CHROME P-TRAP AND MAKE FINAL CONNECTIONS.
- P-8 VEGETABLE PREP SINK: (EXISTING SINK - OWNER TO PROVIDE NEW FAUCET) CONTRACTOR SHALL INSTALL SINK & faucet, and MAKE FINAL CONNECTIONS FOR NEW FAUCET. PROVIDE MCGUIRE 177 SUPPLIES WITH STOPS AND 36" RISERS, pot sink: (EXISTING SINK - OWNER TO PROVIDE TWO NEW FAUCETS) CONTRACTOR SHALL INSTALL SINK & faucet, and MAKE FINAL CONNECTIONS FOR NEW FAUCETS. PROVIDE MCGUIRE 177 SUPPLIES WITH STOPS AND 36" RISERS,
- P-9 FLOOR DRAIN (SEE PLAN FOR SIZE): J.R. SMITH 3510LOX-F11 FUNNEL-CEPTOR INDIRECT WASTE RECEIVER WITH 6" ROUND NICKEL BRONZE STRAINER AND 4" ROUND FUNNEL.
- P-10 FLOOR SINK (VEGETABLE SINK): J.R. SMITH 3411L04-10 SANI-CEPTOR CAST IRON INDIRECT WASTE RECEIVER WITH 8" SQ. BODY, SEDIMENT BUCKET AND NO STRAINER.
- P-11 FLOOR SINK (VEGETABLE SINK): J.R. SMITH 3411L04-10 SANI-CEPTOR CAST IRON INDIRECT WASTE RECEIVER WITH 8" SQ. BODY, SEDIMENT BUCKET AND NO STRAINER.
- P-12 CLEANOUTS INSIDE BUILDING: J.R. SMITH 4053: CLEANOUT WITH 6-1/2" SQUARE NICKEL BRONZE TOP AND TAPER THREAD BRONZE PLUG. SEE PLAN FOR SIZE.
- P-13 CLEANOUTS OUTSIDE BUILDING: J.R. SMITH 4261L SERIES EXTRA HEAVY DUTY CAST MODEL H510 CHROME WHEEL ANGLE STOP AND 6-0" OF COPPER COILED TUBING TO ALLOW EQUIPMENT TO BE PULLED OUT FOR MAINTENANCE AND CLEANING. PROVIDE CHROME WALL ESCUTCHEON.
- P-23 UTILITY CONNECTION (ICE MAKER): PROVIDE A MCGUIRE 1/2"x 1/2" OD MODEL H510 CHROME WHEEL ANGLE STOP AND 6-0" OF COPPER COILED TUBING TO ALLOW EQUIPMENT TO BE PULLED OUT FOR MAINTENANCE AND CLEANING. PROVIDE CHROME WALL ESCUTCHEON.
- P-24 UTILITY CONNECTION (COFFEE & TEA BREWERS): PROVIDE A BRASSCRAFT MODEL OR87C CHROME WHEEL ANGLE STOP, 1/2" FIP INLET AND OUTLET. PROVIDE CHROME WALL ESCUTCHEON. INSTALL WITH BFP P-34.
- P-25 SHOCK ABSORBER: J.R. SMITH FIGURE 5005 THROUGH 5050, SIZE AS RECOMMENDED BY MANUFACTURER.
- P-26 ICE MACHINE BACKFLOW PREVENTER: WATTS MODEL #7 WITH 1/2" INLET AND 1/2" OUTLET AND DUAL CHECK.
- P-27 UTILITY CONNECTION (soft drink system): PROVIDE A MCGUIRE 1/2" IPS X 3/8" OD MODEL S102 CHROME WHEEL ANGLE STOP. PROVIDE CHROME WALL ESCUTCHEON. PIPING FROM STOP TO CARBONATORS SHALL BE PROVIDED AND INSTALLED BY SOFT DRINK VENDOR.
- P-28 CARBONATOR WATER SUPPLY BACKFLOW PREVENTER: WATTS MODEL #9DM2 DOUBLE CHECK WITH INTERMEDIATE ATMOSPHERIC VENT AND 3/4" THREADED CONNECTIONS.
- P-29 ICE MACHINE FLOOR SINK: J.R. SMITH 3411L04-10 SANI-CEPTOR CAST IRON INDIRECT WASTE RECEIVER WITH 8" SQ. BODY, SEDIMENT BUCKET AND NO STRAINER.
- P-34 DISPENSER BACKFLOW PREVENTER: WATTS MODEL #7 WITH 1/2" FIP INLET AND OUTLET, DUAL CHECK TYPE. PROVIDE 1/2" DIA. X 2" LONG BRASS NIPPLE BETWEEN STOP AND BFP INLET. ASSE 1024 RATED.
- P-36 BEVERAGE TOWER INDIRECT RECEIVER (3"): JONES STEPHENS CORP D53-144 PVC BODY, BRONZE SPUD WITH 8" DIAMETER NICKEL BRONZE STRAINER.



1 NOT TO SCALE

2 MOP SINK DRAIN CONNECTION

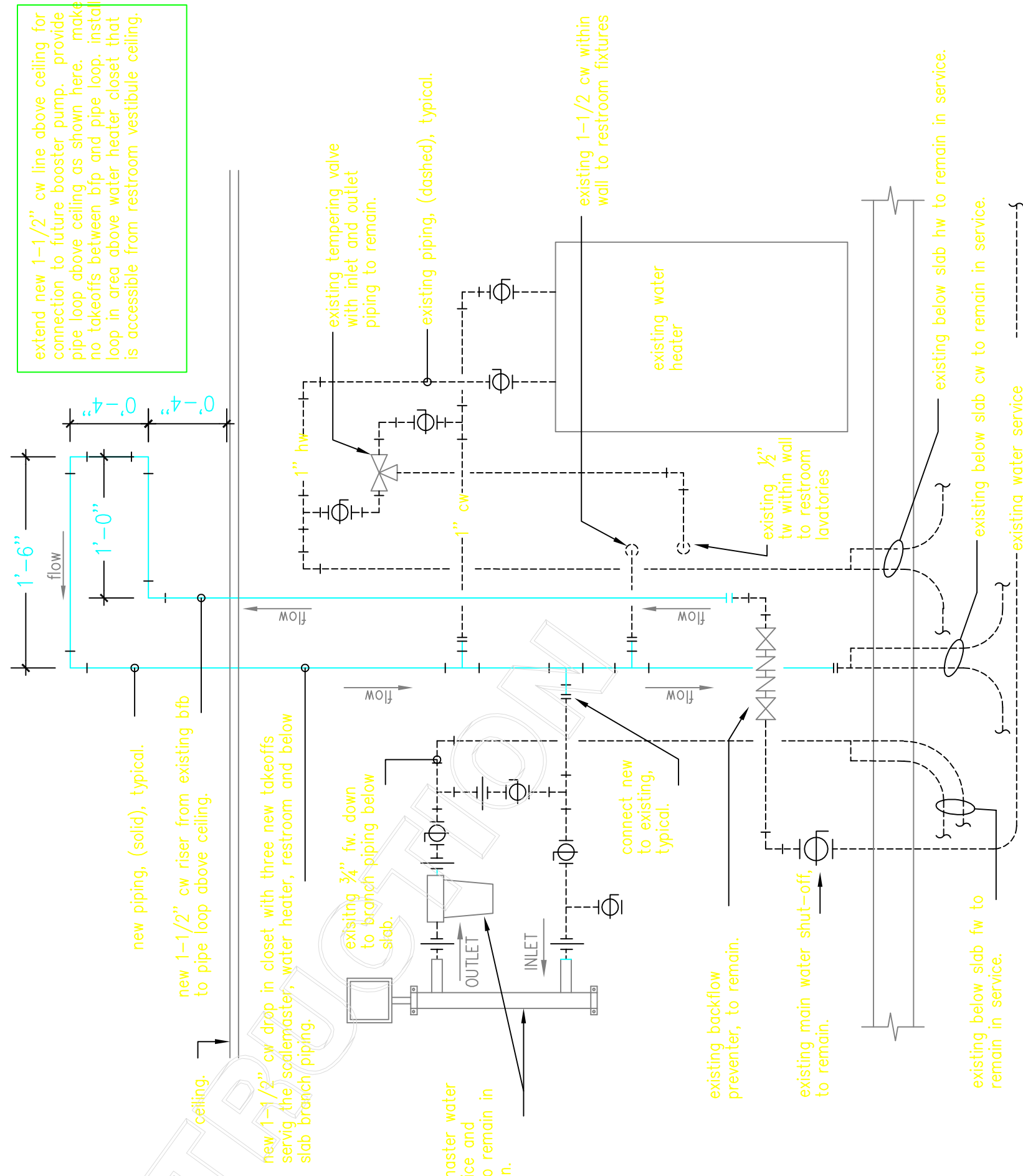
NOT TO SCALE



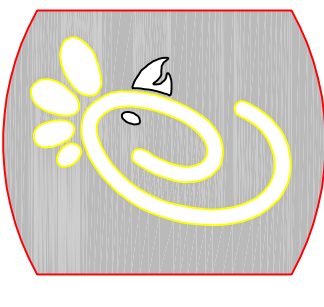
3 NOT TO SCALE

4 NEW & EXISTING FILTERED WATER PIPING IN WALL

NOT TO SCALE



5 SCHEMATIC : NOT TO SCALE



Chick-fil-A

5200 Buffington Rd.
Atlanta Georgia,
30349-2998

Revisions:

Mark Date By

△

Mark Date By

△

Mark Date By

△

Seal

BENNER ENGINEERING, LLC
5000 Longford Road
Building 2400
Norcross, GA 30071
(770) 729-0490 fax
(770) 729-1422
rbennor@bennereng.com



STORE

Las Colinas FSU
5350 N.
MacArthur
Irving, TX 75038

SHEET TITLE
PLUMBING
DETAILS AND
SPECIFICATIONS

DWG EDITION 01-0

Job No. : 7024

Store : 0601

Date : 2/23/07

Drawn By : JAL

Checked By: RDB

Sheet

PD-1.1