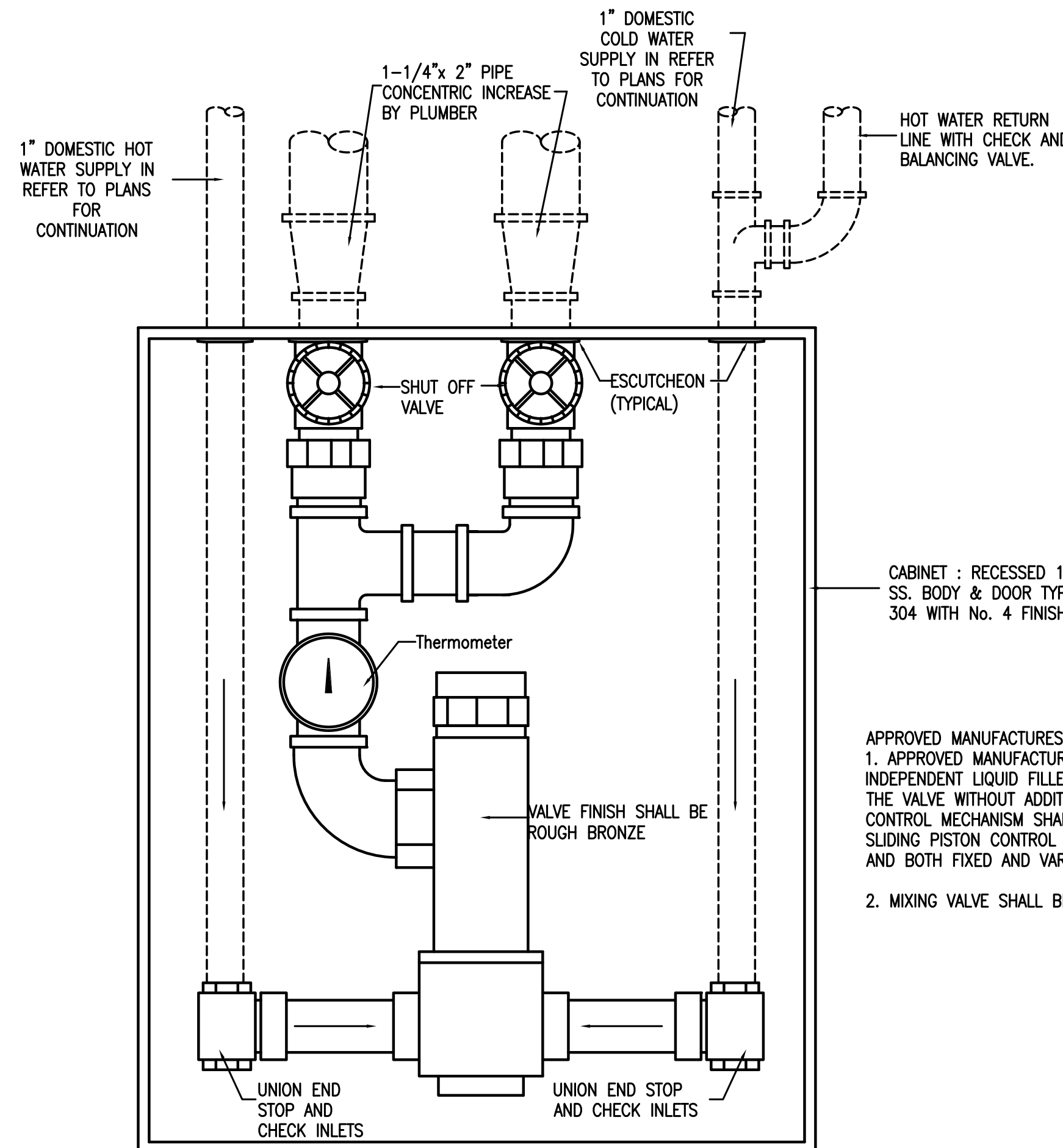


1. PROVIDE AND INSTALL LAWLER 911 EMERGENCY THERMOSTATIC MIXING VALVE MODEL No. 84708 WITH FACTORY INSTALLED BALL VALVES.
2. PROVIDE AND INSTALL CHECK VALVES IN BOTH HOT AND COLD WATER SUPPLY TO MIXING VALVE AS PER MANUFACTURE INSTALLATION REQUIREMENTS.

1 EMERGENCY EQUIPMENT MIXING VALVE (MV-2)

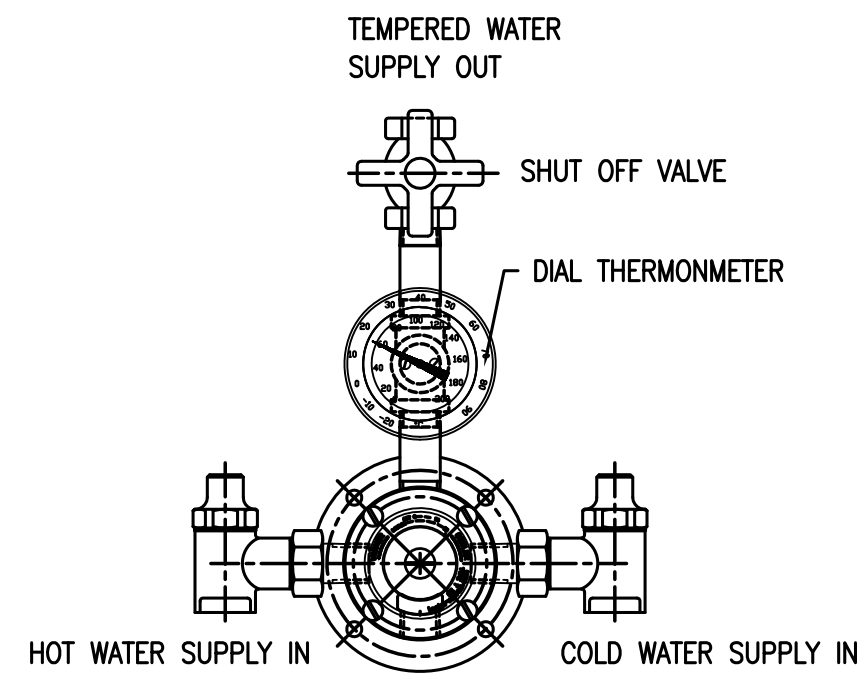
SCALE: NOT TO SCALE



- APPROVED MANUFACTURES: (POWERS & HOWE)
1. APPROVED MANUFACTURES MIXING VALVE SHALL HAVE AN INDEPENDENT LIQUID FILLED THERMOSTATIC MOTOR TO DRIVE THE VALVE WITHOUT ADDITIONAL POWER REQUIREMENTS. EACH CONTROL MECHANISM SHALL EMPLOY A STAINLESS STEEL SLIDING PISTON CONTROL DEVICE WITH REVERSE SEAT CLOSURE AND BOTH FIXED AND VARIABLE COLD WATER BYPASS.
 2. MIXING VALVE SHALL BE A.S.S.E. 1017 CERTIFIED.

2 MASTER MIXING VALVE WITH RECIRCULATION LINE

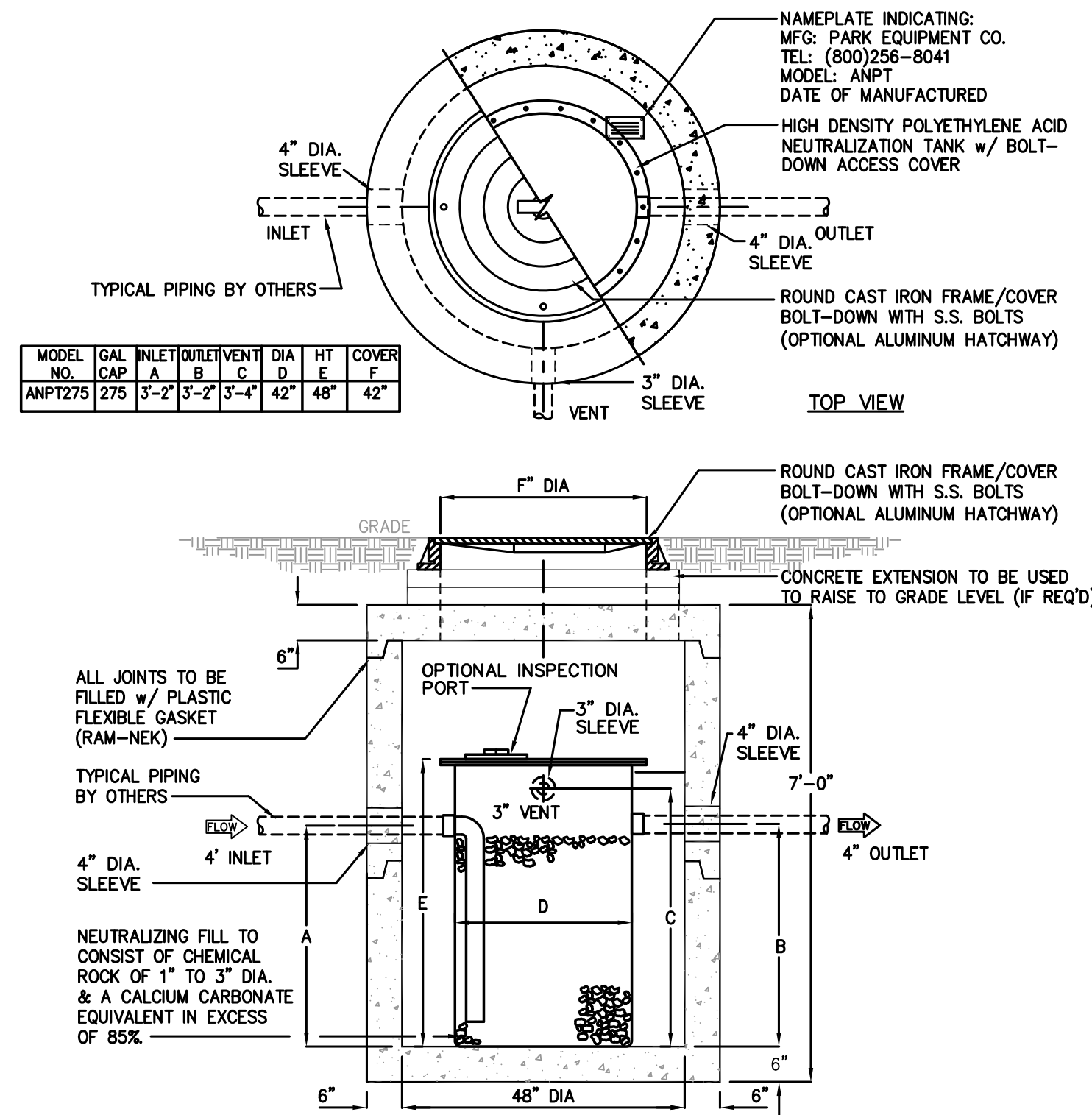
SCALE: NOT TO SCALE



- MIXING VALVE SPECIFICATION: MV-1
- A. MASTER CONTROLLER THERMOSTATIC MIXING VALVES: LIQUID-FILLED THERMAL MOTOR; STAINLESS STEEL PISTON AND LINER; UNION END STOP; CHECK VALVE INLETS WITH STAINLESS STEEL STRAINERS; VANDAL RESISTANT TEMPERATURE ADJUSTMENT; INCLUDES NECESSARY FITTINGS AND NIPPLES; ASSE 1017 AND UPC APPROVED.
 1. MAXIMUM INLET PRESSURE: 125 PSI.
 2. MAXIMUM INLET TEMPERATURE: 200 DEGREES F.
 3. INLET/OUTLET TEMPERATURE DIFFERENTIAL: 20 DEGREES F.
 4. PERFORMANCE: TEMPERATURE MAINTAINED TO WITHIN ASSE AND UPC GUIDELINES IF CHANGE IN HOT OR COLD WATER IS NOT MORE THAN 30 DEGREES F; PRESSURE FLUCTUATIONS COMPENSATED FOR UP TO 50 PERCENT DROP IN INLET SUPPLY PRESSURE; WATER FLOW REDUCED IF SUPPLY OR THERMOSTAT FAILS.
 - B. CAPACITY: 10 GPM AT 45 PSI PRESSURE DROP; 2-1/2 GPM AT 5 PSI PRESSURE DROP; 5-1/2 GPM AT 20 PSI PRESSURE DROP (LAWLER 61-25).
 - a. MINIMUM FLOW: 1/2 GPM.
 - b. INLET: 3/4 INCH.
 - c. OUTLET: 3/4 INCH.
 - C. FINISH: ROUGH BRONZE.
 1. ACCESSORIES:
 - a. PROVIDE DIAL THERMOMETER.
 - b. PROVIDE SHUT-OFF ON OUTLET.
 - D. TEMPERATURE RANGE:
 - a. 80 DEGREES F WITH SET POINT 110 DEGREES F (STANDARD).

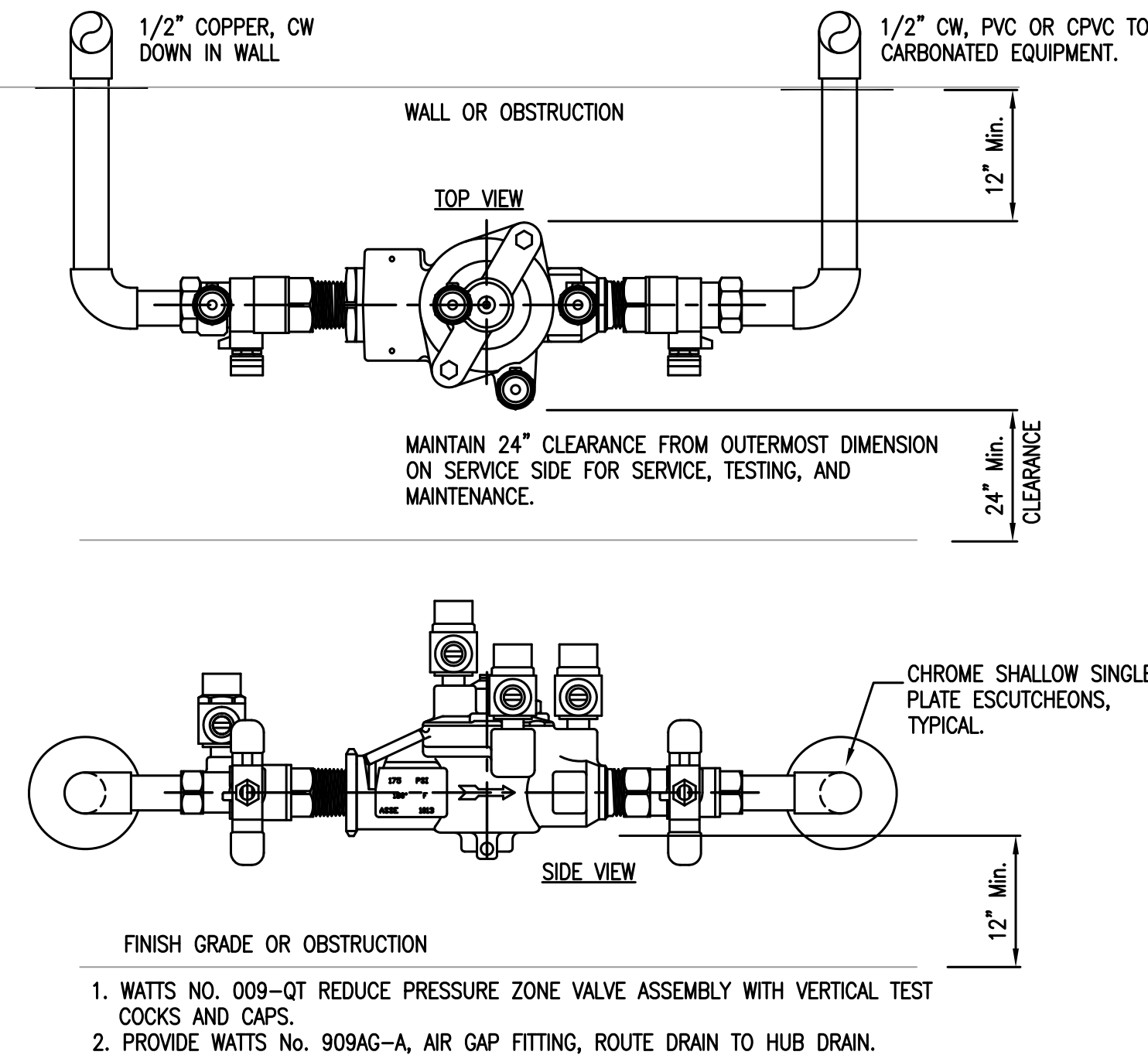
3 MIXING VALVE (MV-4 THRU 8)

SCALE: NOT TO SCALE



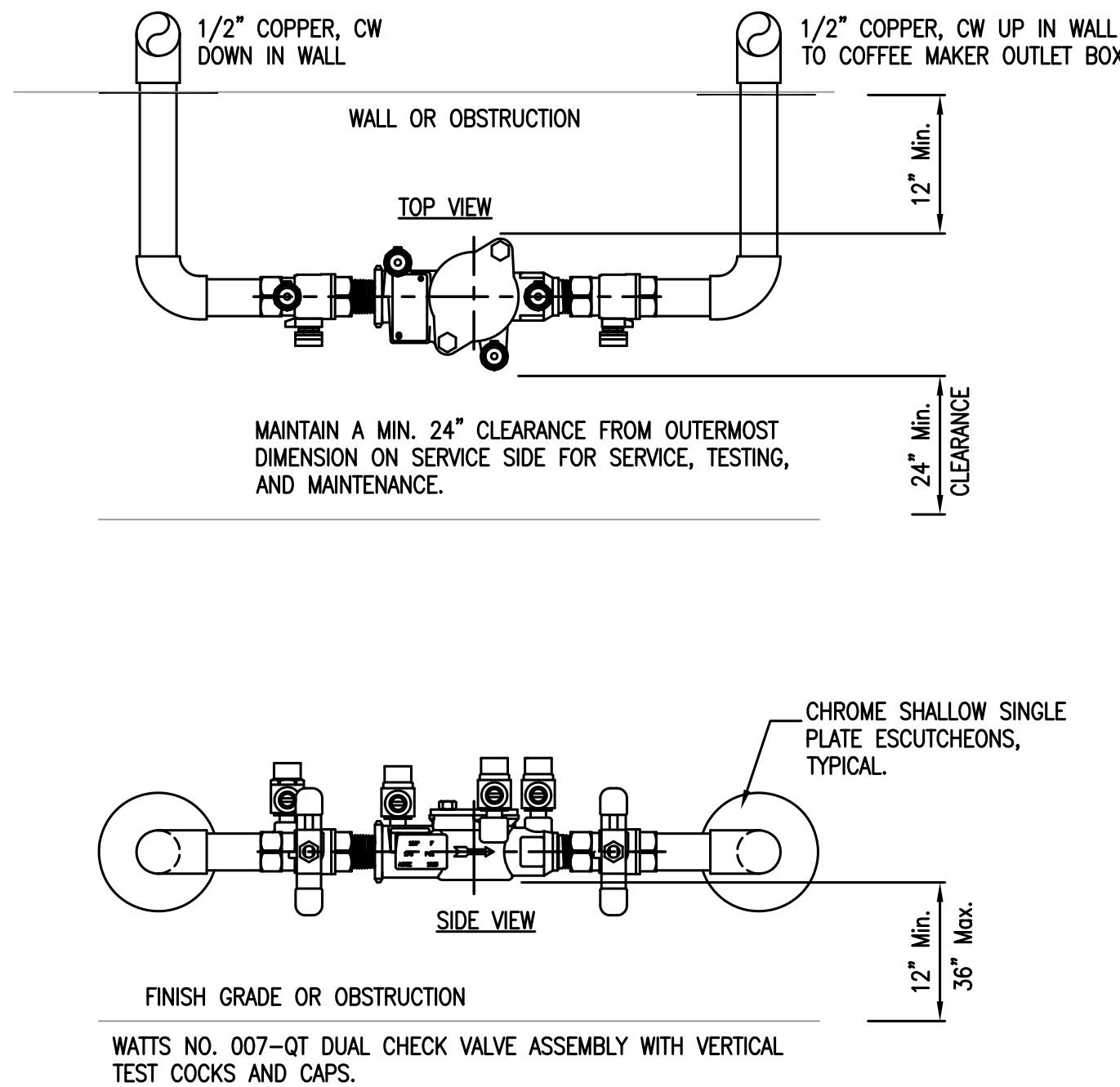
NEUTRALIZING TANK SIZING CALCULATIONS BASED ON CITY OF HOUSTON LOCALE AMENDMENTS (TABLE B-2).

| NUMBER OF SINKS | MINIMUM TANK SIZE |
|--|-------------------|
| 18 STUDENT STUDENT LABS SINK | |
| 9 STUDENT LAB SINKS (FUTURE) | |
| 2 FUME HOODS | |
| 1 FUME HOOD (FUTURE) | |
| 1 PREP. SINK | |
| TOTAL SINKS: 31 | 100 GALLONS |
| NEUTRALIZING TANK SPECIFIED TO BE INSTALLED: | 275 GALLONS |



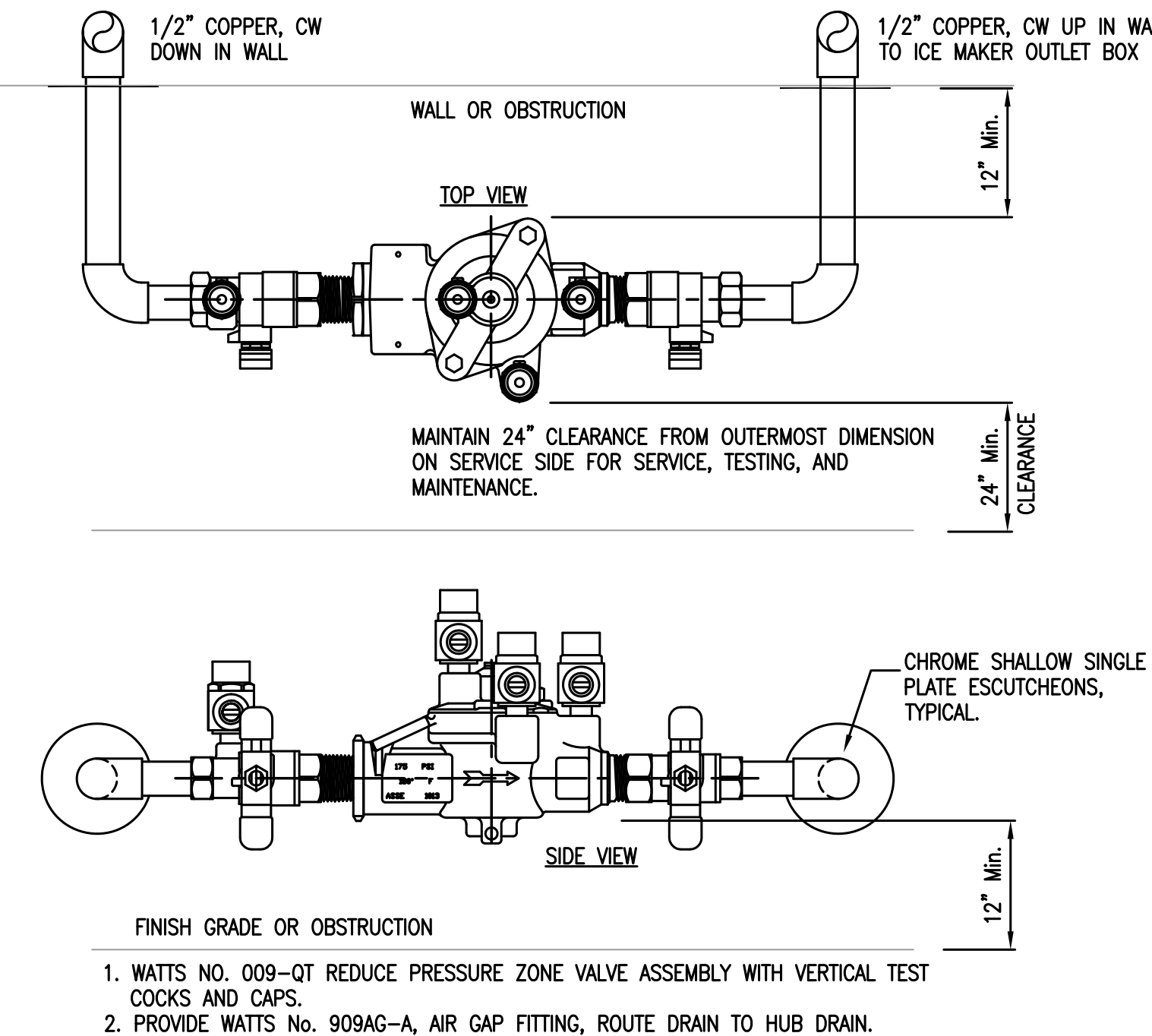
4 CARBONATED DISPENSER RPZ DETAIL

SCALE: NOT TO SCALE



5 COFFEE / TEA DCVA DETAIL

SCALE: NOT TO SCALE



6 ICE MAKER RPZ DETAIL

SCALE: NOT TO SCALE
ICE MAKERS WITH FACTORY INSTALLED INTEGRAL AIR GAP MAY DELETE THE RPZ, PER C.O.A REQUIREMENTS

7 ACID DILUTION TANK

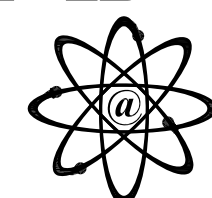
SCALE: NOT TO SCALE

Jerry Garza

Drafting & Design

Lic. Backflow Assembly Tester

AYS



Engineering, LLC
CONSULTING ENGINEERING
595 Round Rock West Dr., Unit 103 - Round Rock, TX 78681
www.AYSeng.com-512-961-6835

h+u
no

hatch+ulland owen
architects

702 San Antonio Street
Austin, Texas 78701
T: 512.474.8548
F: 512.474.8643
www.huarchitects.com

CIVIL ENGINEER:
TEXAS DESIGN INTERESTS
6001 W. WILLIAM CANNON
AUSTIN, TX 78749
512-301-3389

STRUCTURAL ENGINEER:
TEXAS DESIGN INTERESTS
6001 W. WILLIAM CANNON
AUSTIN, TX 78749
512-301-3389

MECHANICAL, ELECTRICAL &
PLUMBING ENGINEERS:
AYS ENGINEERING, LLC
595 Round Rock West Dr.,
ROUND ROCK, TX 78681
512-961-6835

LANDSCAPE ARCHITECT:

HOUSTON
GATEWAY
ACADEMY
INC

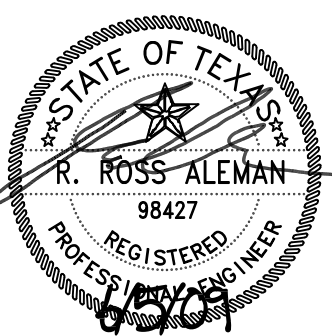
BOWIE
CAMPUS

7310 BOWIE ST
HOUSTON, TX 77012

CITY OF HOUSTON
PROJECT # 09044674

NOTE: The document, the book and design presented herein are not to be used or altered, in whole or in part, for other than the original intended use, and any this to be assigned to any third party without written permission from the author(s).

NOTE: By act of submitting a bid for the project, the bidder warrants that the bidder, and all subcontractors and material suppliers, are bound to use their careful and thoughtful attention to the design and specifications and other construction documents, and to follow them completely and not to add any alterations or changes to the design or specifications. The bidder further warrants that to the best of their or their subcontractor's and material supplier's knowledge, the materials and products specified are available and acceptable for all applicable codes and authorities.



PROJECT MGR: G.G.
DRAWN BY: AYS
CHKD BY: AYS

ISSUE DATES:
date issue
06.5.09 Permit Set

PLUMBING
DETAILS

P3-0