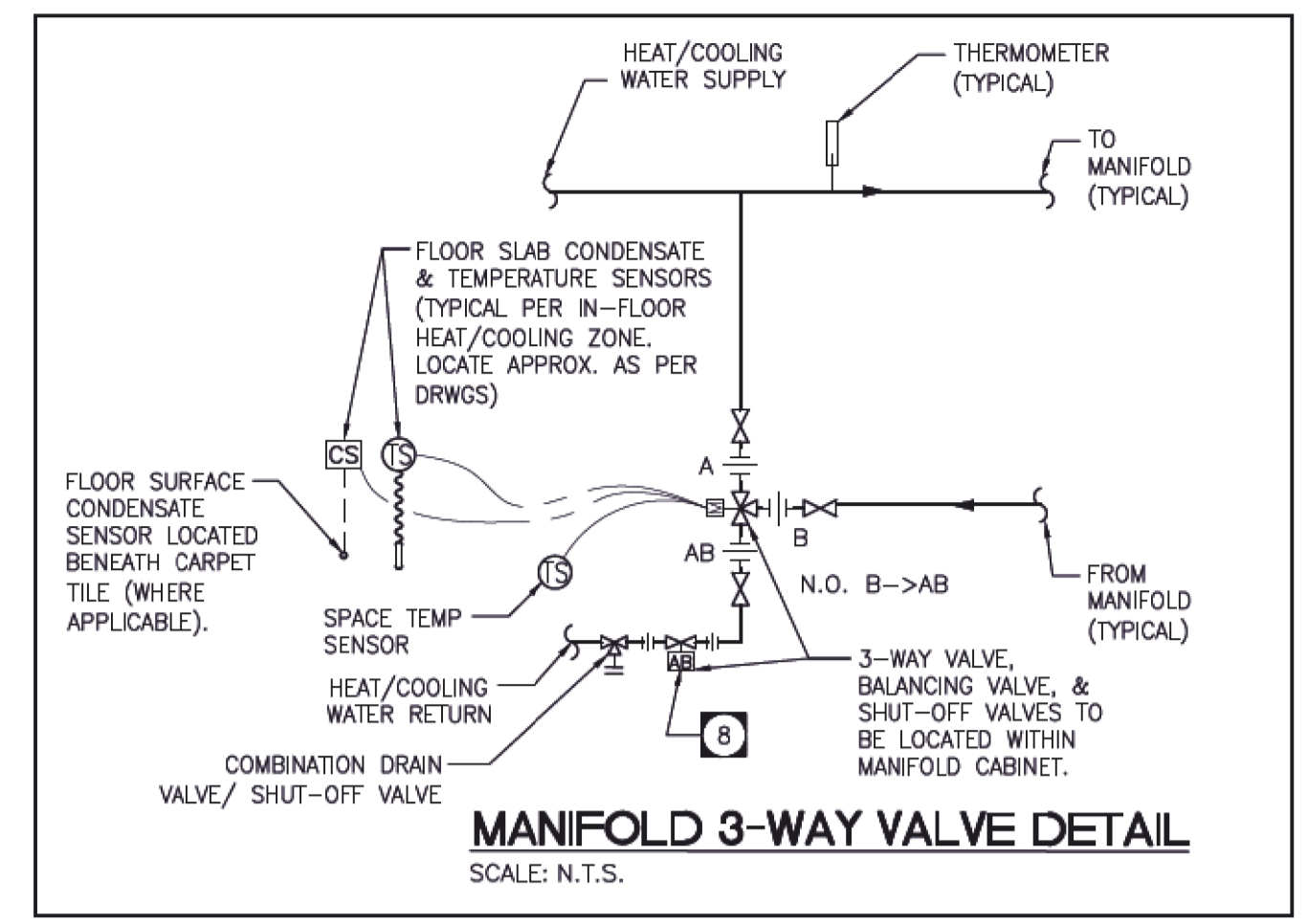
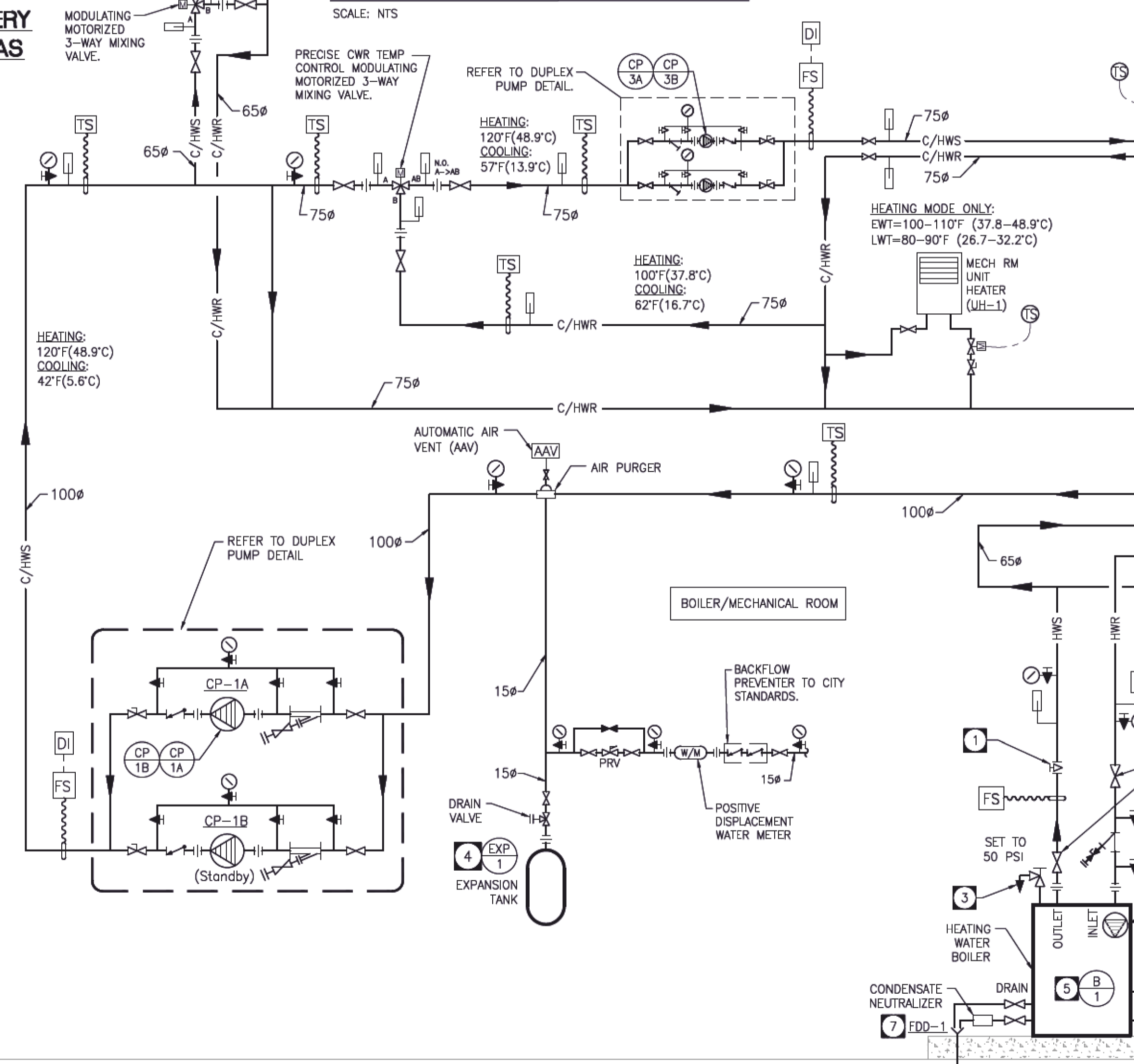


HUMIDIFIER (H-1) SYSTEM SCHEMATIC
SCALE: N.T.S.



MANIFOLD 3-WAY VALVE DETAIL
SCALE: N.T.S.

ENERGY RECOVERY VENTILATOR/DOAS (ERV-1) DETAIL
SCALE: N.T.S.



IN-FLOOR HEAT/COOLING SYSTEM

GENERAL NOTES:

1. CONTRACTOR SHALL COORDINATE THE LOCATION OF THE HYDRONIC HEATING/COOLING PIPING WITH THE ARCHITECTURAL REFLECTED CEILING PLAN, THE ELECTRICAL LIGHTING PLAN, THE STRUCTURAL PLANS, THE SPRINKLER PLANS, THE MECHANICAL ENGINEER, THE ARCHITECT, ETC. TO AVOID CONFLICT ON SITE.
2. THIS FLOW SCHEMATIC IS DIAGRAMMATIC/FUNCTIONAL IN NATURE AND IN SOME CASES SHOWS THE REQUIRED FUNCTIONS AS OPPOSED TO THE ACTUAL DEVICES REQUIRED.
3. PROVIDE ARMSTRONG SUCTION GUIDES FOR ALL HYDRONIC HEATING SYSTEM PUMPS.
4. PROVIDE ARMSTRONG TRIPLE DUTY VALVES (BALANCING/SHUT-OFF/CHECK) ON THE DISCHARGE OF ALL HYDRONIC SYSTEM PUMPS.
5. PIPE THE DISCHARGE OF ALL RELIEF VALVES TO THE NEAREST SUITABLY SIZED FUNNEL FLOOR DRAIN OR GLYCOL TANK WHERE APPLICABLE (TYPICAL).
6. PIPE CONDENSATE DRAINS FROM FAN COIL UNITS TO THE NEAREST SUITABLY SIZED DRAIN.
7. PROVIDE UNIONS AND SHUT OFF VALVES AT EACH EQUIPMENT.
8. PROVIDE THERMOMETERS AT THE INLET & OUTLET OF ALL HYDRONIC EQUIPMENT AND AT EACH PORT ON ALL THREE WAY VALVES.

DRAWING NOTES (for M3.2 and M3.3):

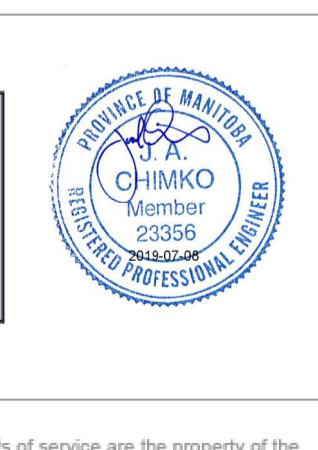
- 1 CALIBRATED PORTED BALANCING VALVE WITH SHUT-OFF CAPABILITY (ARMSTRONG CBV TYPICAL).
- 2 CALIBRATED TRIPLE DUTY SHUT-OFF/BALANCING/CHECK VALVE ON THE DISCHARGE OF EACH PUMP. VALVE SHALL HAVE TEMPERATURE/PRESSURE MEASURING PORTS. (EQUAL TO: ARMSTRONG FLOW TREX VALVES SIZED ACCORDING TO MANUFACTURERS RECOMMENDATIONS). TYPICAL.
- 3 PIPE THE DISCHARGE OF ALL RELIEF VALVES NEAREST FLOOR DRAIN (TYPICAL).
- 4 EXPANSION TANK TO BE SUSPENDED FROM STRUCTURE C/W VIBRATION ISOLATORS. REFER TO THE SPECIFICATIONS FOR FURTHER INFORMATION (TYPICAL).
- 5 NATURAL GAS FIRED BOILER INSTALLED ON 100mm HIGH CONCRETE HOUSEKEEPING PAD (TYPICAL).
- 6 REFER TO HEATING FLOOR PLAN FOR CONTINUATION OF PIPING.
- 7 PIPE DRAIN DOWN LINE TO NEAREST SUITABLY SIZED FUNNEL FLOOR DRAIN (TYPICAL).
- 8 PROVIDE PRESSURE INDEPENDENT, EXTERNALLY ADJUSTABLE, AUTOMATIC BALANCING & COMMISSIONING VALVE EQUAL TO: BELL & GOSSETT CIRCUIT SENTRY FLO-SETTER II.

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Bill and Helen Norrie Library
 Project No.: 2017-082
 Tender No.: 542-2019
 Address: 15 Poseidon Bay, Winnipeg, MB.

MECHANICAL HYDRONIC DETAILS & SCHEMATIC
 Comm. No.: 1847
 Sheet: **M3.2**

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