GENERAL NOTES

A. WORK SHALL COMPLY WITH LOCAL, MUNICIPAL, AND STATE HVAC CODES.

B. LAYOUT IS DIAGRAMMATIC AND CONTRACTOR SHALL INSTALL DUCTWORK, PIPING AND EQUIPMENT TO MEET ACTUAL FIELD CONDITIONS. REVIEW PROJECT SPECIFICATIONS BEFORE STARTING ANY WORK. SUBMIT SHOP DRAWINGS OF WORK AS PER SPECIFICATIONS.

C. LAYOUT WORK TO AVOID CONFLICTS BETWEEN DUCTWORK, LIGHTING, CEILINGS, PIPING AND BUILDING STRUCTURE.

D. COORDINATE EQUIPMENT ELECTRICAL REQUIREMENTS (VOLTAGES, PHASE, LOAD, ETC.) BEFORE ORDERING ANY EQUIPMENT.

E. VERIFY LOCATION AND ELEVATION OF EQUIPMENT, DUCTWORK, PIPING , DIFFUSERS/GRILLES, THERMOSTATS, PANELS, ETC. EXPOSED WITHIN OCCUPIED SPACES BEFORE THE START OF ANY ROUGH-IN OR INSTALLATION.

F. COORDINATE LOCATION OF CEILING REGISTERS, GRILLES AND DIFFUSERS WITH LIGHTING LAYOUT, SPRINKLER HEADS, AND CEILING GRID. SEE ARCHITECTURAL REFLECTED CEILING PLAN. VERIFY EXACT LOCATION IN FIELD PRIOR TO INSTALLATION. VERIFY CEILING STYLES AND TYPES BEFORE ORDERING REGISTERS, GRILLES AND DIFFUSERS. PROVIDE APPROPRIATE FRAME STYLES AS REQUIRED TO MATCH CEILING STYLE AND TYPES. SET ADJUSTABLE BLADES AS REQUIRED FOR OPTIMUM AIR PATTERN AND TO PREVENT DRAFTS. THE MINIMUM DISTANCE BETWEEN SUPPLY DIFFUSERS/REGISTERS AND SMOKE OR HEAT DETECTORS IS TO BE A MINIMUM OF 3'. COORDINATE WITH FIRE ALARM SYSTEM AS REQUIRED.

G. ROUTE DUCTWORK AS HIGH AS POSSIBLE TO AVOID CONFLICTS WITH OTHER TRADES. ROUTE DUCTWORK BETWEEN AND THROUGH JOIST SPACES AND BETWEEN LIGHT FIXTURES AS REQUIRED. VERIFY CONDITIONS AND DUCTWORK ROUTING IN FIELD PRIOR TO INSTALLATION.

H. DUCTWORK, PIPING, EQUIPMENT, ETC. SHALL NOT BE SUPPORTED FROM THE BOTTOM CHORD OF ENGINEERED JOISTS WITHOUT WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER.

I. FLEXIBLE DUCTWORK SHALL BE UL LABELED FOR USE IN RETURN AIR PLENUM. ACOUSTICAL FLEXIBLE DUCTWORK AT THE INLET TO AIR DIFFUSERS MAY BE USED. FLEXIBLE CONNECTIONS SHALL BE 5'-Ø" MAXIMUM LENGTH, AND SHALL BE SUPPORTED WHERE REQUIRED TO PREVENT MOVEMENT.

J. PROVIDE MANUAL BALANCING DAMPERS AT EACH LOW PRESSURE SUPPLY AIR, RETURN AIR AND EXHAUST DUCTWORK TAKE-OFF INCLUDING TAKEOFFS TO EACH AIR DISTRIBUTION DEVICE. DAMPERS SHALL HAVE LOCKING QUADRANT REGULATORS WITH SPRING LOADED END BEARING. INSTALLATION SHALL BE RATTLE FREE. BE RESPONSIBLE FOR LOCATING BALANCING DEVICES AND COORDINATE LOCATIONS FOR TESTING AND BALANCING.

K. RETURN AIR OPENINGS IN CEILING PLENUMS ARE TO BE COVERED BY 1/2" X 1/2" SCREEN MESH. PROVIDE ADDITIONAL TRANSFER AIR OPENINGS THROUGH WALLS DIVIDING CEILING RETURN PLENUMS. PROVIDE FIRE OR SMOKE/FIRE DAMPERS IN OPENINGS AS NECESSARY.

L. LOCATE VAV BOXES IN ACCESSIBLE LOCATIONS. ARRANGE CONTROLS OF VAV BOX AS REQUIRED FOR MAXIMUM ACCESSIBILITY. PROVIDE ACCESS DOORS WHEN REQUIRED. MEDIUM PRESSURE DUCTWORK TAKE-OFFS TO VAV BOXES SHALL BE MADE WITH 45 DEGREE TAKE-OFF FITTINGS, CONICAL FITTINGS, AND/OR ENLARGED ENTRANCE LOW-LOSS TAKE-OFF FITTINGS. PROVIDE MINIMUM 2'-Ø" STRAIGHT INLET DUCT TO UPSTREAM OF VAV BOXES. PROVIDE DUCTWORK TRANSITION FROM VAV BOX OUTLET TO DUCT SIZE DOWNSTREAM OF VAV BOX INDICATED ON PLAN.

M. VERIFY EXACT THERMOSTAT AND SENSOR LOCATIONS IN FIELD PRIOR TO ROUGH-IN OR INSTALLATION. CONTROL WIRING TO BE ROUTED IN CONDUIT. CUT AND PATCH EXISTING WALL CONSTRUCTION AS REQUIRED TO CONCEAL CONDUIT IN WALL.

N. COORDINATE PHASING OF WORK AND PROVIDE TEMPORARY EQUIPMENT, DUCTWORK AND PIPING AS REQUIRED FOR THE IMPLEMENTATION OF WORK WHILE MAINTAINING SERVICES TO PORTIONS OF BUILDING TO REMAIN OCCUPIED.

O. SCHEDULE WORK TO AVOID DOWNTIME AND INCONVENIENCE TO OWNER. OWNER'S EXISTING FACILITY SHALL REMAIN IN OPERATION AT ALL TIMES. REQUIRED SHUTDOWN OF EXISTING UTILITIES SHALL BE SCHEDULED WITH OWNER'S OPERATING PERSONNEL. NOTIFY OWNER'S REPRESENTATIVE 48 HOURS IN ADVANCE PRIOR TO ANY SHUTDOWN OF EXISTING MECHANICAL SYSTEMS.

P. VISIT SITE PRIOR TO BIDDING TO FULLY DETERMINE FIELD CONDITIONS AND TO VERIFY EXISTING MECHANICAL SYSTEMS INCLUDING QUANTITIES AND LOCATIONS TO DETERMINE THE FULL EXTENT OF NEW AND DEMOLITION WORK.

Q. COORDINATE NEW INSTALLATIONS WITH EXISTING SYSTEMS. ANY EXISTING CONDUIT, PIPING, DUCTWORK, EQUIPMENT, ETC., SHALL BE REWORKED AS REQUIRED TO AVOID CONFLICTS WITH THE INSTALLATION OF THE NEW MECHANICAL SYSTEMS. NO EXTRAS WILL BE ALLOWED AFTER BIDDING FOR ANY REWORK OF EXISTING FIELD CONDITIONS TO RESOLVE ANY CONFLICTS OR NOT FULLY UNDERSTANDING THE SCOPE OF THE WORK REQUIRED. EXISTING EQUIPMENT, DUCTWORK, PIPING, ETC., SHALL BE REMOVED AS NOTED ON DRAWINGS AND AS REQUIRED TO MEET SCOPE OF NEW WORK.

R. EXISTING INFORMATION IDENTIFIED ON THE CONTRACT DOCUMENTS IS SCHEMATIC ONLY. BE RESPONSIBLE TO PROPERLY ADDRESS EXISTING CONDITIONS FOR A COMPLETE AND PROPER INSTALLATION OF NEW SYSTEMS. EXISTING EQUIPMENT NOT IDENTIFIED SHALL BE REVIEWED AS TO WHETHER THE EQUIPMENT SHALL REMAIN AND BE RECONNECTED TO THE NEW SERVICES, BE RELOCATED, BE ABANDONED, ETC.

S. ANY HIDDEN CONDITIONS IDENTIFIED THROUGH THE COURSE OF CONSTRUCTION SHALL BE IMMEDIATELY REPORTED IN WRITTEN FORM FOR REVIEW AND DIRECTION. OTHERWISE, BE RESPONSIBLE FOR ANY AND REQUIRED CHANGES AND COSTS TO CORRECT SAID HIDDEN CONDITION.

T. REMOVE EXISTING EQUIPMENT, PIPING, DUCTWORK, ETC. PRESENTLY SERVING AREAS THAT ARE BEING RENOVATED AND THAT ARE NOT REQUIRED TO STAY IN SERVICE. NO EQUIPMENT, DUCTWORK, PIPING, SUPPORTS, HANGERS, ETC, IS TO BE LEFT ABANDONED. VERIFY QUANTITY, LOCATION AND ELEVATION OF EXISTING TO BE REMOVED IN FIELD. REMOVE EXISTING ABANDONED EQUIPMENT, DUCTWORK AND PIPING IN AREAS THAT ARE TO BE RENOVATED.

U. REMOVED DUCTWORK, PIPING AND CONTROLS ARE TO BE TERMINATED PROPERLY BACK TO EXISTING MAINS. PATCH AND SEAL EXISTING DUCTWORK AIRTIGHT. CAP PIPING WATERTIGHT. PROVIDE ADDITIONAL DUCTWORK, PIPING AND CONTROLS AS REQUIRED TO MAINTAIN CONTINUITY OF EXISTING SYSTEMS MODIFIED DUE TO REMOVAL OF PORTION OF SYSTEMS. REPAIR DAMAGED DUCTWORK AND PIPING INSULATION DUE TO NEW INSTALLATION WORK.

V. EXISTING EQUIPMENT SHALL REMAIN PROPERTY OF THE OWNER AND OWNER SHALL DETERMINE IF EQUIPMENT IS TO BE STORED ON SITE AT OWNER SELECTED LOCATION OR IF EQUIPMENT IS TO BE ABANDONED OR REMOVED FROM SITE BY CONTRACTOR.

W. PATCH EXISTING CEILING, FLOOR, WALL AND ROOF OPENINGS AND SURROUNDING FINISHES RESULTING FROM REMOVAL OF EXISTING MATERIALS AND EQUIPMENT SO THAT FINISH WILL MATCH EXISTING IN SURROUNDING AREAS. OPENINGS IN MASONRY WALLS RESULTING FROM REMOVED THERMOSTATS ARE TO BE COVERED WITH A BLANK STAINLESS STEEL COVER PLATE.

X. PROVIDE AND INSTALL PVC PIPE PLENUM WRAP, TESTED TO UL 84 AND UL 910, FOR ALL EXISTING PVC PIPING IN NEW OR EXISTING RETURN AIR CEILING PLENUMS.

Y. PROVIDE FINISHING OF EXISTING CEILING, FLOOR, AND WALL SURFACES AT LOCATIONS AFFECTED BY REMOVAL OF EXISTING MATERIALS AND EQUIPMENT SO THAT NEW FINISH WILL MATCH EXISTING IN SURROUNDING AREAS.

BB. REMOVE EXISTING CEILINGS AND LIGHT FIXTURES REQUIRED FOR INSTALLATION OF NEW WORK. REINSTALL CEILING AND LIGHT FIXTURES UPON COMPLETION OF WORK. REPLACE DAMAGED CEILING MATERIALS TO MATCH EXISTING.

CC. PROVIDE CUTTING, CORE DRILLING AND PATCHING OF EXISTING WALL AND ROOF CONSTRUCTIONS REQUIRED FOR THE INSTALLATION OF NEW DUCTWORK, PIPING AND EQUIPMENT. SEAL PENETRATIONS THROUGH WALL AND ROOF STRUCTURE WATERTIGHT AND WITH AN APPROVED FIRE STOPPING MATERIAL, INCLUDING APPROVED FIRE RATED SLEEVE.

DD. PROVIDE STEEL LINTELS FOR NEW OPENINGS THROUGH EXISTING MASONRY WALLS AS REQUIRED. LINTELS TO BE AS FOLLOWS UNLESS NOTED OTHERWISE ON ARCHITECTURAL DRAWINGS: TWO (2) 3-1/2"X3-1/2"X 5/16" ANGLES WITH 5/16" PLATE (1/2" LESS THAN WALL THICKNESS). PROVIDE W8X10 WITH 5/16" PLATE FOR OPENINGS ABOVE 48" WIDE.

EE. PROVIDE AN APPROVED SURFACE MOUNTED RACEWAY AS REQUIRED FOR INSTALLATION OF NEW THERMOSTATS ON EXISTING WALLS TO CONCEAL CONTROL WIRING. SUBMIT SAMPLE OF RACEWAY FOR REVIEW. COORDINATE ROUTING OF RACEWAYS WITH EXISTING BUILDING CONDITIONS AND ADJUST ROUTING TO AVOID CONFLICTS AND TO MINIMIZE THE AMOUNT OF EXPOSED SURFACE MOUNTED RACEWAY.

FF. REPAIR AND/OR REPLACE DAMAGED PIPE INSULATION THAT OCCURS AS THE RESULT OF THIS CONSTRUCTION.

GG. MINIMUM SIZE FOR HOT WATER HEATING SUPPLY AND RETURN PIPING TO BE 3/4".

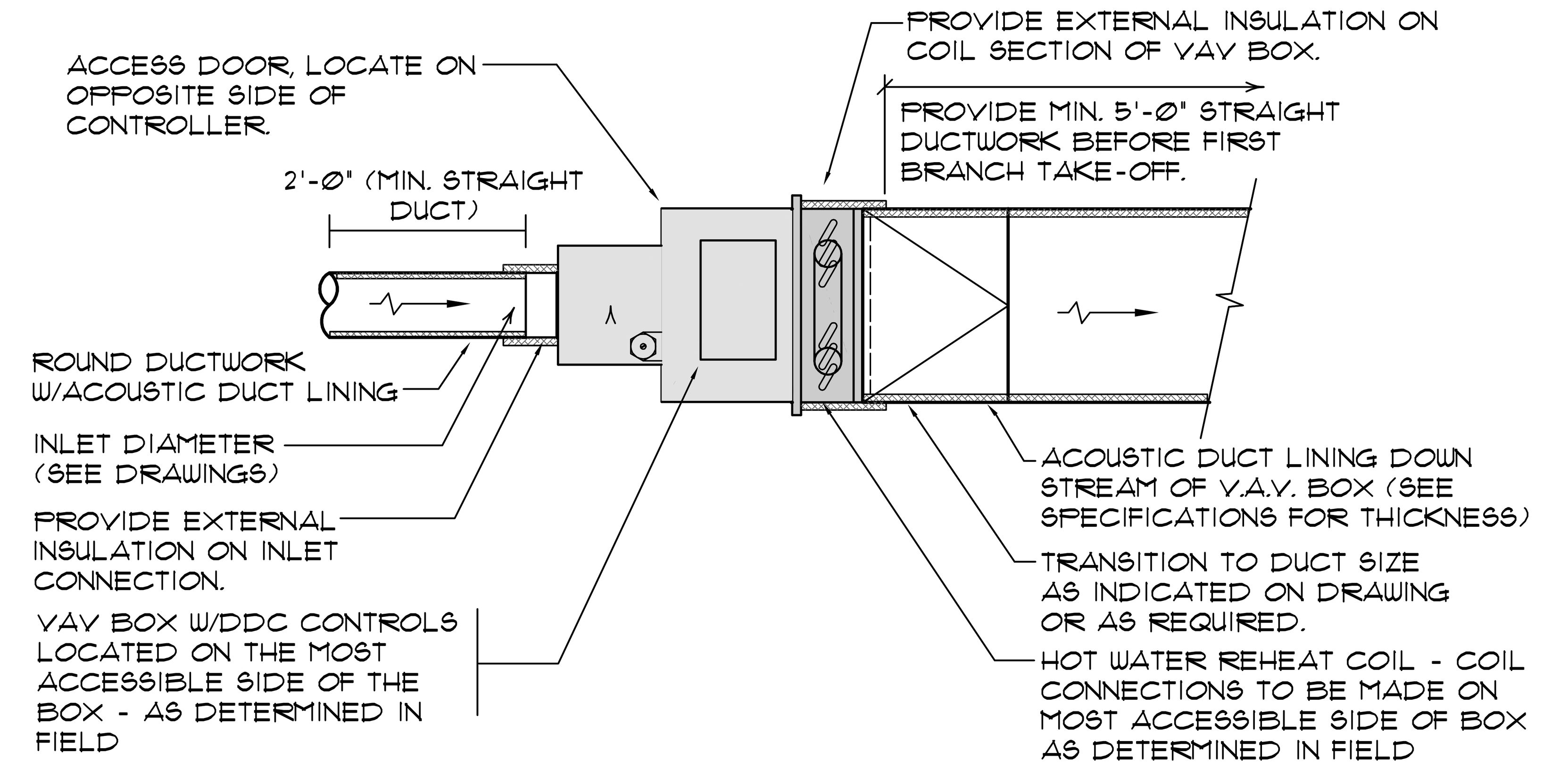
HH. DRAIN AND REFILL EXISTING PIPING SYSTEMS AS REQUIRED FOR INSTALLATION OF NEW WORK. PROVIDE CHEMICAL TREATMENT, GLYCOL/ANTI-FREEZE MIXTURE FOR WATER PIPING SYSTEM ACCORDING TO OWNER'S REQUIREMENTS AFTER SYSTEM IS FILLED AND VENTED. PROPERLY VENT PIPING SYSTEMS.

II. PROVIDE A WATERTIGHT SHEET METAL DRIP PAN OVER ELECTRICAL EQUIPMENT INSTALLED UNDER OR NEAR PIPING SYSTEMS. DRIP PAN TO EXTEND MINIMUM 3" OVER FRONT AND SIDES OF ELECTRICAL EQUIPMENT AND BE PITCHED AT A MINIMUM 30 DEGREE ANGLE. SEAL DRIP PAN WATERTIGHT TO WALL.

JJ. REMOVE EXISTING DOORS AND PORTIONS OF WALLS, CEILINGS, ETC. AS REQUIRED TO INSTALL NEW MATERIAL AND EQUIPMENT IN EXISTING LOCATIONS. REBUILD WALLS, CEILINGS AND REINSTALL EXISTING DOORS AS REQUIRED AFTER INSTALLATION OF NEW MATERIAL AND EQUIPMENT. PATCH AND FINISH TO MATCH EXISTING.

TYPICAL VAV BOX DETAIL

NTS

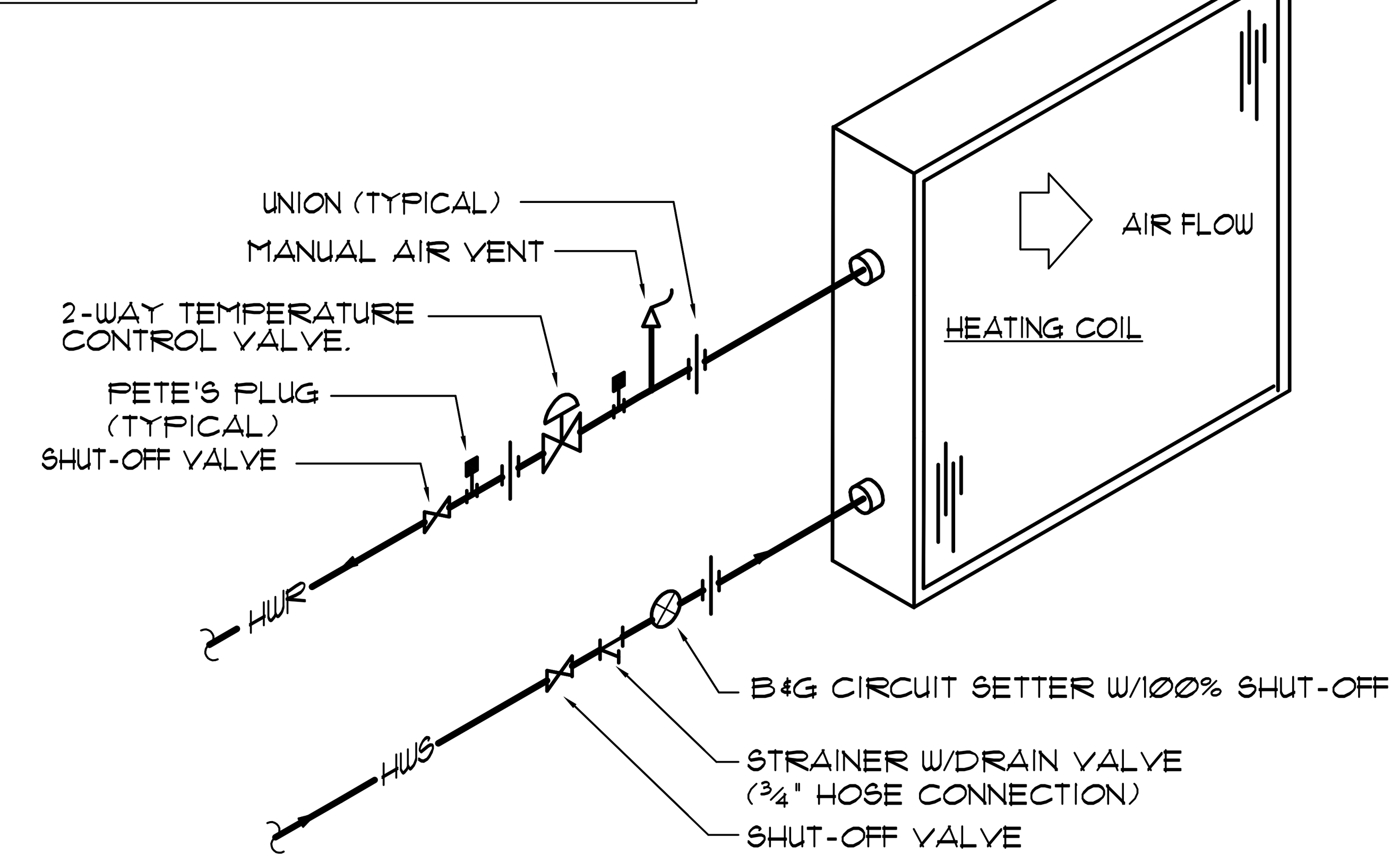


HOT WATER HEATING COIL PIPING DIAGRAM

SCHEMATIC ONLY

TYPICAL PIPING DIAGRAM FOR VAV BOXES & CABINET HEATERS
(2-WAY CONTROL VALVE)

NOTE:
VERIFY EXACT COIL CONNECTION LOCATION AND QUANTITY WITH EQUIPMENT SHOP DRAWINGS. ADJUST PIPING AS REQUIRED.



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DUNELAND SCHOOL CORPORATION

2015
JACKSON ELEMENTARY SCHOOL RENOVATIONS
811 N. 400 E., VALPARAISO, IN 46383

PROJECT NUMBER: 15-008
PROJECT MANAGER: SKR
DRAWN BY:
ISSUED FOR BIDDING: 04/20/2015
REVISIONS: 1 2 3 4 5

NOTES, DETAILS AND DIAGRAMS

DUNELAND SCHOOL CORPORATION Chesterton, Indiana

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