HVAC - Piping & Instrumentation Diagram (P&ID) Guidelines

Division 230000-5

The Facilities Services Subgroup designer shall clearly communicate the piping and instrumentation concepts and requirements for applicable systems. The P&ID is the preferred method for conveying this information. The following guidelines reflect the Owner's P&ID content preferences for Heating, Ventilation and Air Conditioning (HVAC).

Division 23 HVAC P&ID Guidelines:

- The P&ID should utilize industry recognized symbols and abbreviations.

- A schedule should be presented on the P&ID or other referenced drawing, identifying all symbols, abbreviations and instrumentation function identifiers.

- System directional flow arrows should be utilized on the P&ID.

- Design flow quantities and temperature and pressure setpoints are to be presented on the P&ID or corresponding schedule.

- P&ID components are to be labeled with unique tags or identifiers.

- Piping system lines are to be labeled at regular intervals to better facilitate the following of the lines on the drawing. Where P&ID lines extend to subsequent drawings, those drawings are to be incorporated into an off-sheet identifier, referencing the system line type and the location of the continuation of the piping system line.

- The P&ID may be used to present line sizes and type information, insulating requirements, heat tracing requirements, etc. where scale or complexity prohibit such presentation on the plans.

- The HVAC P&ID is intended to depict the Facilities Services systems including the distribution and generation of all HVAC water and steam systems.

- All heat addition and rejection components are to be incorporated into the P&ID as well as heat exchanger components.

- Terminal devices or multiple air handling equipment heat exchangers are to be appropriately presented in typical form to communicate expectations for repetitive component types.

- Instrument identifiers are intended to be cross referenced to the Sequence of Operation descriptions presented on the drawings or the specifications.