

**PRECISION CONTROL SYSTEMS, INC.**

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Mr. Ilandus Hampton, Mr. Brian Paczesny  
Joliet HSD 204  
300 Caterpillar Drive, Joliet, IL

November 4<sup>th</sup>, 2025

RE: SD204 Phase 1 2026 Controls Replacement

Dear Mr. Paczesny and Mr. Hampton,

Precision has completed the preparatory work in consolidating many of Joliet 204's older BAS systems on to a single front-end graphical user interface. Now that this platform is in place, we recommend a phased approach to upgrade the 25+ year old computerized HVAC systems to enable more comfortable teaching spaces, less unplanned downtime, and improved energy efficiency. The following firm pricing and scopes of work can be contracted through our current cooperative purchasing agreement. Joliet Township HSD 204 is currently a member of OMNIA and may continue to contract using competitively bid pricing through OMNIA Cooperative Purchasing Contract 159594. Bid Results: <https://www.omniapartners.com/suppliers/the-hill-mechanical-group/public-sector>

**Benefits of Upgrading HVAC and Controls**

- Many of the existing HVAC control systems are beyond 25 years old. The expected life of a computerized temperature control system is between 15 and 20 years. SD204 has begun to experience control systems failing which causes uncomfortable spaces for faculty and students. These outages have also occurred during the school year which creates a disruption in learning.
- Precision is currently working with an energy efficiency and commissioning specialist at West and Central high schools in 2025. We have identified significant energy savings by upgrading controls to optimize system scheduling and advanced HVAC control strategies. Com-Ed has committed a substantial rebate to SD204 to continue to make these energy efficiency improvements.
- Precision has installed a platform that is vendor/manufacturer agnostic. The systems installed may be serviced and maintained by in house staff. The district is not "locked-in" to a specific vendor.

**General Scope of Work Included for All Items**

- Provide engineered drawings inclusive of plan-view of equipment locations, one-line diagram of network architecture, controller wiring details, and sequences of equipment operations.
- Provide engineering, project management and oversight labor throughout entire project
- Retain existing mechanical equipment (AHUs, Fans, Pumps, Piping, Ductwork, Valves, etc)
- Retain existing electrical power distribution equipment (motor control centers, starters, variable frequency drives, etc)
- Work to be performed on 1<sup>st</sup> shift during the school year in areas unoccupied by students (mechanical/electrical rooms, roofs, storage areas). Any work disruptive to occupied areas will be performed on off days or scheduled second shifts. No Saturday work has been included. The majority of the disruptive construction work would take place during summer break.
- Provide as-built close out documentation at completion of project
- Provide 1-year parts and labor warranty

**Joliet Central Boiler Plant Controls Replacement**

- The following section is applicable to (2) hot water boilers, (2) circulating pumps, and (3) distribution pumps
  - Furnish and install the following pertaining to the boiler plant controls
    - New controller and enclosure

- Current sensing relays
- Water temperature sensors

#### **Joliet Central Smith Building (Jace 7) Controls Replacement**

- The following section is applicable to (1) hot water boiler and (1) circulating pump
  - Furnish and install the following pertaining to the boiler plant controls
    - New controller and enclosure
    - Current sensing relays
    - Water temperature sensors
- The following section is applicable to (5) Roof Top Units
  - Furnish and install the following pertaining to the roof top unit controls
    - New controller and enclosure
    - Current sensing relay
    - Space temperature and CO2 sensor
    - Duct temperature sensor
    - Averaging sensor
    - Low limit sensor
- The following section is applicable to (10) VAV's
  - Furnish and install the following pertaining to the VAV controls
    - New controller and enclosure
    - Duct temperature sensor
    - Space temperature and CO2 sensor
    - Control valve

#### **Joliet West Tridium BAS Server**

- Integrate to HVAC equipment from 2022 “Joliet IAQ Improvements Project” to Precision BAS
  - (9) air handling units and miscellaneous equipment
  - Provide graphics, trends, alarms, schedules
  - Precision to identify any deficiencies and provide separate proposal for any additional work required

#### **Joliet West Field House Controls Replacement**

- The following section is applicable to (4) Roof Top Units
  - Furnish and install the following pertaining to the roof top unit controls
    - New controller and enclosure
    - Current sensing relay
    - Space temperature and CO2 sensor
    - Duct temperature sensor
    - Averaging sensor
    - Low limit sensor

#### **Joliet West E-Building Controls Replacement**

- The following section is applicable to (34) VAV's
  - Furnish and install the following pertaining to the VAV controls
    - New controller and enclosure
    - Duct temperature sensor
    - Space temperature and CO2 sensor
    - Control valve

#### **Joliet West A-Building Controls Replacement**

- The following section is applicable to (3) Make-Up Air Units
  - Furnish and install the following pertaining to the make-up air unit controls

- New controller and enclosure
- Current sensing relay
- Space temperature and CO2 sensor
- Duct temperature sensor
- Averaging sensor
- Low limit sensor

#### **Joliet West C-Building and F-Building Controls Replacement**

- The following section is applicable to (3) Roof Top Units
  - Furnish and install the following pertaining to the roof top unit controls
    - New controller and enclosure
    - Current sensing relay
    - Space temperature and CO2 sensor
    - Duct temperature sensor
    - Averaging sensor
    - Low limit sensor

#### **Joliet West H-Building Controls Replacement**

- The following section is applicable to (3) hot water boilers and (2) distribution pump
  - Furnish and install the following pertaining to the boiler plant controls
    - New controller and enclosure
    - Current sensing relays
    - Water temperature sensors
- The following section is applicable to (1) Roof Top Unit
  - Furnish and install the following pertaining to the roof top unit controls
    - New controller and enclosure
    - Current sensing relay
    - Space temperature and CO2 sensor
    - Duct temperature sensor
    - Averaging sensor
    - Low limit sensor
- The following section is applicable to (14) VAV's
  - Furnish and install the following pertaining to the VAV controls
    - New controller and enclosure
    - Duct temperature sensor
    - Space temperature and CO2 sensor
    - Control valve

#### **Joliet West Unit Ventilator Controls Replacement**

- The following section is applicable to (12) unit ventilators
  - Furnish and install the following pertaining to the unit ventilator controls
    - New controller
    - Current sensing relay
    - Space temperature and CO2 sensor
    - Duct temperature sensor
    - Averaging sensor
    - Low limit sensor
    - Control valve

#### **Joliet West B-Building Controls Replacement**

- The following section is applicable to (5) cabinet unit heaters
  - Furnish and install the following pertaining to the cabinet unit heater and unit heater controls

- Current sensing relay
- Plate temperature sensor
- Control valve

### **Joliet West G-Building Controls Replacement**

- The following section is applicable to (2) Air Handling Units
  - Furnish and install the following pertaining to the air handling unit controls
    - New controller and enclosure
    - Current sensing relay
    - Duct temperature sensor
    - Averaging sensor
    - Low limit sensor
    - Duct CO2 sensor
    - Air differential pressure switch
    - Damper actuators
    - Static pressure transmitter
    - Control valves
- The following section is applicable to (6) VAV's
  - Furnish and install the following pertaining to the VAV controls
    - New controller and enclosure
    - Duct temperature sensor
    - Space temperature and CO2 sensor
    - Control valve

**SD204 Phase 1 2026 Controls Replacement: \$1,065,600**

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### **Exclusions and Clarifications**

- Provide electrical labor, programmer labor to install new control devices and program
- At the completion of installation, check out equipment functionality and provide a report of deficiencies at completion of the controls upgrade for any equipment that was retained
- Test and balance is not included
- No flow meters have been included
- No energy monitoring has been included
- No refrigerant or CO monitoring has been included
- No VFD's have been included
- Phase 1 assumed Summer 2026

Thank you for allowing us to continue to support SD204, we look forward to promptly starting this project.  
Sincerely,



Matt Ernst, P.E.  
Account Executive

# Joliet Township High School District 204

## Long Range Capital Planning (Controls/HVAC)



Building	Area/Equipment	Recommendation	Price in 2026	Year
Joliet Central	Boiler Plant	Replace Controls on Boiler Plant	\$ 52,000	2026
Joliet Central	Pathways/Childcare (JACE1)	Replace Controls on (3) AHU's and (13) VAV's at Pathways	\$ 104,000	2028
Joliet Central	Pathways/Warehouse	Replace Controls on (5) RTUs and (10) VAV's at Childcare	\$ 99,000	2028
Joliet Central	Smith Building (JACE7)	Replace Controls on (2) RTU's, (10) VAV's, (1) Boiler Room	\$ 109,000	2026
Joliet Central	Field House (JACE2)	Replace Controls for(4) RTU's & (72) VAV's	\$ 347,000	2028
Joliet Central	Main Building RTU's & VAV's (JACE3)	Replace Controls on (4) RTU's & (41) VAV's	\$ 222,000	2027
Joliet Central	Main Building RTU's & VAV's (JACE4)	Replace Controls on (4 ) RTU's & (48) VAV's & (19) FPB's	\$ 299,000	2027
Joliet Central	Main Building VAV's (JACE5)	Replace Controls on (86) VAV's	\$ 316,000	2028
Joliet Central	Student Center (JACE6)	Integrate Trane Bacnet Equipment (4) RTU's, (6) FPB's, (15) VAV's	\$ 122,000	2028
Joliet West	Tridium BAS Server	Merge two existing Tridium servers into one	\$ 38,000	2026
Joliet West	Field House	Replace controls on (4) RTU's for Fieldhouse	\$ 91,000	2026
Joliet West	Building E	Replace Controls on (34) VAV's in E-Building (PMI)	\$ 198,600	2026
Joliet West	Building A Boiler	Replace Controls for Main Boiler Plant with VFD's (PMI)	\$ 137,000	2027
Joliet West	Building A	Replace Controls for (3) MAU's for Shops (PMI)	\$ 49,000	2026
Joliet West	Building F&C	Replace Controls on (3) RTU's for Kitchen/Café/Band (PMI)	\$ 71,000	2026
Joliet West	Building H	Replace Controls for Boiler Plant	\$ 40,000	2026
Joliet West	Building H	Replace Controls for (1) RTU and (14) VAV's	\$ 94,000	2026
Joliet West	Unit Ventilators	Replace Controls on (12) Pneumatic Unit Ventilators	\$ 166,000	2026
Joliet West	Building B	Replace Controls on Principals Area	\$ 64,000	2026
Joliet West	Building G	Replace Controls on AHU's and VAV's	\$ 93,000	2026
Admin	Superintendents Office	Replace Controls and Add (6) new VAVs	\$ 169,000	2027
Admin	Offices, Other	Replace Controls for Business Office, Boardroom, Auditorium	\$ 129,600	2027
Admin	Boiler Plant and Preschool	Replace Controls for Boiler Plant and Preschool Area	\$ 125,000	2027
		2026 Recommendation	\$ 1,065,600	
		2027 Recommendation	\$ 1,168,128	
		2028 Recommendation	\$ 1,152,403	
		<b>Total</b>	<b>\$ 3,386,131</b>	