

**AGENCY REQUEST FOR
STATE BUILDING COMMISSION ACTION
AUGUST, 2016**

AGENCY: Department of Transportation

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LOCATION: SUPERIOR, DOUGLAS COUNTY

PROJECT REQUEST:

Prepare preliminary design documents and a design report for the DTSD NW Regional Headquarters building.

PROJECT NUMBER: 15L1P

PROJECT DESCRIPTION:

Boiler Replacement: This project would replace the existing boilers with more efficient, modulating units that operate up to 95% efficiency. The project includes replacing pump controls with variable speed drives/motors.

Chiller/Air Handling Unit Replacement/Refurbishment: The existing air-cooled chiller will be replaced with a modular, air-cooled chiller of properly engineered capacity. New variable frequency drives/motors for the large air handler will be installed, and minor ductwork modifications will be completed. This project also replaces 37 pneumatic VAV boxes with new DDC VAV boxes with reheat coils.

Replace Pneumatic Control System with DDC Control: This project proposes to replace pneumatic controllers with digital actuators. Remote monitoring and control of the boilers, chiller, air-handling units, and terminal equipment will become possible, and will utilize the existing, statewide DDC system.

PROJECT JUSTIFICATION:

Boiler Replacement: The building's interior was remodeled 2000, but the two building boilers were not included in that work. The boilers are over 20 year old and their performance is currently in the 65% efficiency range.

Chiller/Air Handling Unit Replacement/Refurbishment:

The Chiller and air handling unit (AHU) in this building are over 20 years old. The compressor is in need of being replaced due to availability of parts and the refrigerant R-22 that is increasing in cost and decreasing in availability. These enhancements will improve the reliability and efficiency of these systems.

Replace Pneumatic Control System with DDC Control: Installation of digital actuators will eliminate the need for an existing compressor that runs nearly constantly. Installation of new DDC VAV boxes with reheat coils will address existing humidity and control issues. Energy reduction and temperature stabilization will be the primary benefits of these enhancements.

BUDGET/SCHEDULE:

Construction	\$
Design	\$
DFD Mgt	\$
Contingency	\$
Equipment	\$
Other Fees	\$
TOTAL	\$1,235,000

A/E Selection	Nov 2016
Design Report	Apr 2017
SBC Approval	May 2017
Bid Opening	Dec 2017
Start Construction	Jan 2018
Substantial Completion	July 2018
Final Completion	Aug 2018