

# FIRST TECH FEDERAL CREDIT UNION

HILLSBORO, OREGON, UNITED STATES

## INTRODUCTION

*First Tech Federal Credit Union* is situated on 17 acres along Brookwood Parkway in Hillsboro's Dawson Creek Park. This beautiful mass-timber office allows staff to congregate at a central location with space for future growth and development. Open offices were designed with emphasis on equal access to natural light and views from every workstation. Building architects chose mass-timber construction over concrete and steel for its financial advantages, availability, and biophilic qualities. The building earned LEED Gold certification from the [U.S. Green Building Council](#) with an exemplary score in the regional materials category; all timber was sourced and refined within 500 miles of the site.

## PROJECT DETAILS

Authorized Dealer [Sunbelt Controls](#) installed a Reliable Controls building automation system during construction of the facility. Networked devices include MACH-ProCom and MACH-ProWebCom controllers that host MACH-ProZone controllers that operate variable frequency drives, boilers, and rooftop units.

The boilers have primary and secondary lead-lag pumps and hot-water bypass valves regulated by the packaged controls. Control setpoints are based on system demand and outside-air temperature, and the hot-water pumps are sequenced based on differential hot-water pressure. Perimeter office zones are equipped with under-floor damper controllers for air distribution and hot-water convection. Internal office zones have manual damper diffusers that occupants can adjust to regulate air flow and temperature. Perimeter conference rooms have fan-terminal units with heating coils; internal conference rooms are supplied with fan-terminal units without heating coils. Both areas are operated by signals sent from the MACH-ProZone controllers. The main lobby has radiant-slab heating with a variable refrigerant flow system for cooling and air circulation.

Because the new building has open ceilings and no mechanical rooms, Sunbelt installed controllers under the floors, giving First Tech the ability to easily commission and troubleshoot equipment.

Sunbelt and Reliable Controls were pleased to meet the client's requirement for strong network security with RC-RemoteAccess software.

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### MARKET SEGMENT

Financial

### PROJECT TYPE

New construction

### INSTALLATION TYPE

HVAC

### TOTAL AREA

14,493 m<sup>2</sup> (156,000 ft<sup>2</sup>)

### PROTOCOL

BACnet

### INSTALLED EQUIPMENT

1 MACH-ProCom™ controller  
 1 MACH-ProWebCom™ controller  
 42 MACH-ProZone™ controllers  
 40 SMART-Sensor™ EnOcean  
     Accesspoint devices  
 40 SPACE-Sensor™ EnOcean devices  
 77 SMART-Sensor™ LCD devices  
 RC-Archive® software  
 RC-RemoteAccess® software  
 RC-Studio® software  
 RC-WebView® software

### INTEGRATED EQUIPMENT

LG variable refrigerant control system,  
 Lochinvar boilers, ABB variable frequency  
 drive, AAOON rooftop units, Tridium JACE  
 controller

### TOTAL SYSTEM OBJECTS

650

### CERTIFICATION

LEED Gold

### RELIABLE CONTROLS AUTHORIZED DEALER

