

# FIRST TECH FEDERAL CREDIT UNION

HILLSBORO, OR, USA

FINANCIAL

## OVERVIEW

First Tech Federal Credit Union is situated on 17 acres along Brookwood Parkway in Hillsboro's Dawson Creek Park. This beautiful 156,000-square-foot mass timber office building provides the ability for staff to congregate at a central location with space for future growth and development. Open offices are designed with special emphasis on equal access to natural light and views from every workstation. After thorough investigation, mass timber was selected as the structural system over concrete and steel for its financial advantages, availability, and biophilic quality. The building achieved LEED Gold certification, with an exemplary score in the regional materials category as all timber components were sourced and refined within 500 miles of the site.

## PROJECT DETAILS

Reliable Controls Authorized Dealer Sunbelt Controls Inc. successfully completed the construction of First Tech Federal Credit Union.

Networked devices for the institution consists of MACH-ProWebCom and MACH-ProCom controllers hosting MACH-ProZone controllers that operate the 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. The packaged controls setpoints are reset based on system demand and outside air temperature. 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 which occupants can adjust to regulate air flow and temperature. Perimeter conference rooms have fan terminal units with heating coils, and internal conference rooms are supplied with fan terminal units without heating coils. Both perimeter and internal areas are operated by signals sent from MACH-ProZone controllers. The main lobby has radiant slab heating with a variable refrigerant flow system for cooling and air circulation.

Controllers were all installed under the floor because the new building has open ceilings and no mechanical rooms. Positioning the controllers under the floors gives First Tech the ability to easily commission and troubleshoot equipment.

Sunbelt Controls Inc. met the challenge of the client's requirement for high network security. RC-RemoteAccess provides the best solution for network security that involves multiple vendors.

Reliable Controls and Sunbelt Controls Inc. are pleased to have partnered to commission this green facility in Oregon.

To learn more about projects using Reliable Controls visit  
[www.reliablecontrols.com/projects/overview](http://www.reliablecontrols.com/projects/overview)



### PROJECT TYPE:

**New construction**

### TOTAL AREA:

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



### INSTALLATION TYPE:

**Boiler, HVAC, under-floor air distribution**

### EQUIPMENT INSTALLED:

**1 MACH-ProCom™**  
**1 MACH-ProWebCom™**  
**42 MACH-ProZone™**  
**40 SMART-Sensor™ EnOcean® Accesspoint**  
**40 SPACE-Sensor™ EnOcean**  
**10 SMART-Sensor LCD**  
**67 SMART-Sensor LCD CO<sub>2</sub>**  
**RC-Studio®**  
**RC-Archive®**  
**RC-RemoteAccess®**  
**RC-WebView®**

### NETWORK:

**EIA-485, Ethernet, B/VPN, Wireless**

### PROTOCOL:

**BACnet®**

### BACNET:

**LG VRF system, Lochinvar boilers, ABB VFD, AAON rooftop units with a Tridium JACE controller**

### POINTS:

**650**

### RELIABLE CONTROLS® DEALER:

**Sunbelt Controls Inc.**

