

Clise 2020 (Equinix SE3 Data Center)

FACTS

LOCATION

Seattle, Washington

PROJECT DATES

11/11/2011 – 01/23/2013

PROJECT SIZE

Buildings: 1 Tower, 51,058 SF

73 Stalls, 1.5 UG Stories

7 AG Stories

PROJECT TYPE

M&E Data Center

CONTRACT

Amount: \$37,000,000 (\$12M mechanical; \$25M electrical)

Type: Design-Build T&M / GMAX

TEAM

PROJECT DIRECTOR

Dave Howe

PROJECT MANAGERS

Jim Rosenbaum

Ryan York

Lindsey Himmel-York

Kasey Denson

ENGINEER

Michael Frank (Mechanical)

FOREMEN/TRADE

Jason Clemmer (Electrical),

Sean Stephens (Sheet metal),

Dan Trbovich (Piping), Roy

Haegeland (Plumbing),

Kevin Tolbert (Fire)

DETAILERS

Gerry Johnstone, Denny Arnold,

Keith Nugent, (Sheet metal)

Gary Peltz, (Piping),

Denny Arnold, Gerry Johnstone,

Darryl Roberts, Mike Sheehan,

(Electrical),

Lance Bennett, (Fire)



PROJECT DETAILS

Clise Properties needed to expand their downtown Seattle, leasable data center space for one of their major customers (Equinix). Clise repurposed a parking garage they owned into the new data center with an integral parking garage.

McKinstry teamed with Lydig to design-build the mechanical scope and design-assist-and-build the electrical (with Sparling as the electrical Engineers of Record).

This project included installation of HVAC, plumbing, piping, fuel systems, line voltage electrical, fire protection, telecom, and security for this 9-story plus rooftop mechanical penthouse housing 4 colocation data center floors, 4 floors of parking garage, and a utilities basement. The remodel also required a seismic upgrade of the existing parking structure that included modifications to below grade parking level and removal of top 2-3/4 floors of parking structure.

The project was awarded LEED®-EB Gold certification.

The Challenge

Repurposing the space was a challenge. It presented difficult coordination with fitting massive amounts of mechanical and electrical infrastructure into a less-than-ideal amount and configuration of space. And it made structural and seismic support of the building systems challenging. Also performing a major construction project in the middle of downtown Seattle proved to be a logistical challenge.

The Solution

CONTACTS

OWNER

Equinix

Tom McNair

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Matt Soltis, Owner's Rep

650 576 4446

msoltis@equinix.com

One Lagoon Drive, 4th Floor

Redwood City, CA 94065

DEVELOPER

Clise

GENERAL CONTRACTOR

Lydig Construction

Bob Heggenes

425 885 3314

bheggenes@lydig.com

ELECTRICAL ENGINEER

Sparling Engineers

SUBCONTRACTORS

ISAT (Seismic),

Air Test (Balancing),

Wunderlich Malich (Controls),

Hudson Bay

(Insulation/Firestopping),

Convergint (Fire Alarm)

AWARD

LEED®-EB Gold Certified

NAIOP Night of the Stars:

Redevelopment of the Year

McKinstry project management, engineers, detailers and field labor worked closely together to coordinate the install using 3D modeling and M&E field cooperation to ensure a quality install. In order to maximize efficiency working in downtown Seattle, we prefabricated as many systems as possible. This allowed a significant amount of work to be moved off-site to decongest the job-site.

Special Features

- Rooftop DX System designed to cool 4.5 MW with direct evaporative cooling and airside economizer. N+1 configuration with VFD control serving 4 floors of Data Center.
- The AHUs are served by (8) 250 ton water-cooled condensers.
- The central evaporative water system for the building is served by a 61,000 gallon water storage tank that provides 24-hours of backup water storage.
- UPS Equipment rooms are cooled similarly to the Server Room spaces.
- MSB and ATS Rooms are conditioned with a dedicated AHU.
- HVAC system controls will utilize a programmable logic controller (PLC) system.
- The Fuel system is provided with 36 hours of fuel storage thru a combination of day tanks on the roof and two buried fuel tanks within the building footprint.
- Line voltage electrical distribution
- Telecomm infrastructure
- Distributed Antennae System (DAS)
- Controls and fire alarm
- Fire Protection is provided thru a combination of Wet, Dry and Pre-Action (VESDA) systems.