UBC Load Increase - Camosun Substation
Architectural Rationale:

Background

BC Hydro has identified a need to upgrade the facilities and equipment at the Comuson substation to meet the university's increasing power demand. The upgrades will allow for all electrical loads at UBC to be supplied through this substation.

The substation includes new switchyard equipment, transformers and indoor GIS equipment. The new 60kV GIS Building will be located at North East corner of the existing Camosun substation. West and South elevation face new and existing switch yard equipment. The North and East are exposed to the Pacific Region Park and trails.

Building massing

The building is a simple 2 storey building, comprised of 2 stacked volumes. The footprint and height of the building are defined by the electrical and control equipment.

The basement level houses large underground cable connections from the building to the rest of the substation. It will be secured with a FRP grating panels to promote natural ventilation and ensure safety. Upper floor will house 60kV GIS equipment and associated control panels. The building envelope will consist of insulated metal cladding panels on structural girts, providing an energy efficient wall system. The GIS building is an essential facility with a high importance factor, therefore it will be constructed as a post-disaster structure.

Design goals

A key design goal for the building's exterior design is to reflect its surroundings and not stand out from the neighboring park or forest.

A palette suggested by the natural greenery and rooftops of St. George's School is used to break the linear vertical metal cladding system into layers of dark greys, greens and light grey wall panels. The vertical and horizontal breaks provide scale and interest to an otherwise stark equipment enclosure. The pattern of muted colours is intended to help the building recede into the landscape and screen views to the interior of the switchyard from the park.

The substation perimeter security has been upgraded from a chain-link fence, to a palisade fence. This provides enhanced security and a more permanent character to the site.

We believe the project provides a functional upgrade to the electrical infrastructure for the growing demand of university district while respecting the park context.