Capilano Substation upgrade

Maintaining Reliability for the North Shore

To ensure reliable electricity supply for the North Shore, we're upgrading our Capilano Substation located on Woods Drive at Pemberton Avenue.

The existing substation has a western section and eastern section. On the west side, we'll remove and replace the existing substation building and outdoor equipment and install:

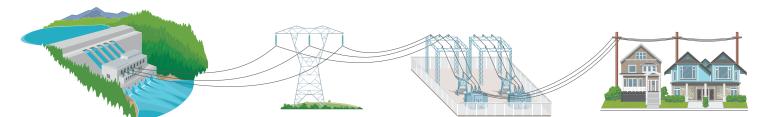
- two outdoor transformers;
- a building for indoor electrical equipment and a control room;
- o steel support structures to support the new and existing power lines; and
- O other associated outdoor electrical equipment in the substation yard.

The east side of the substation will remain operational during construction to continue to provide a reliable supply of electricity to nearby homes and businesses. After the west side is operational, we will decommission the east side.

WHAT IS CAPILANO SUBSTATION?

Capilano Substation was built in the 1950s and converts electricity from a higher voltage (60kV) to a lower voltage to supply power to homes and businesses in the neighbourhood.

There are approximately 12,000 customers currently being served by Capilano Substation. This number is expected to grow as density in the area increases. The service area currently supplied by Capilano Substation extends north of 1st Street, west to Capilano Road, and east to St. George's Avenue.



Generation:

Electricity is generated by BC Hydro and independent power producers.

Transmission:

Electricity is moved from where it is produced to where it is used.

Substations:

Voltage is reduced at substations to provide power suitable for use in homes and businesses.

Distribution:

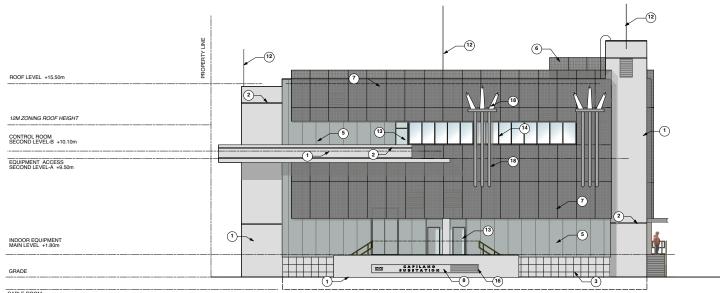
Low voltage electricity is provided to neighbourhoods and businesses.

WHAT'S THE BENEFIT OF THIS UPGRADE?

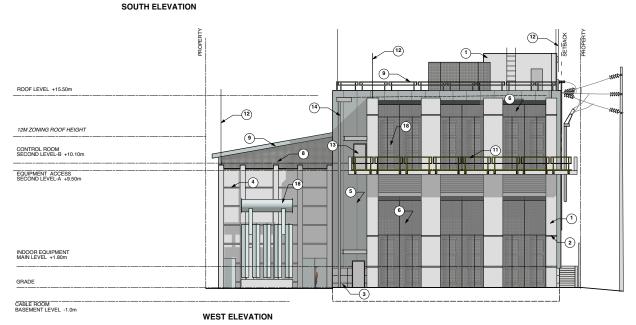
This upgrade will provide increased reliability to the electrical system and address near end-of-life equipment. This upgrade will also prepare for future growth in the area by increasing the station's capacity to support homes and businesses.



CONCEPTUAL MATERIAL AND DRAWING FOR CAPILANO SUBSTATION



CABLE ROOM BASEMENT LEVEL -1.0m



MATERIAL SCHEDULE

- CONCRETE
- CONCRETE REVEAL
- (1) (2) (3) (4) INSULATED CONCRETE PANEL
- REMOVABLE CONCRETE PANEL

- (§) INSULATED METAL PANEL -PAINTED
 (®) FRP GRATING ENCLOSURE
 (7) INSULATED METAL PANEL WITH FRP
 (8) VENTILATION LOUVER INSULATED METAL PANEL WITH FRP SCREEN
- 9 METAL ROOF

- METAL GUARDRAIL -GALVANIZED
- METAL GUARDRAIL -PAINTED
- (12) LIGHTNING ROD
- (13) METAL DOOR AND FRAME-PAINTED
- RAIL WATER LEADER
- TINTED GLAZING IN METAL FRAME
- PROJECT SIGNAGE
- 17 TILE ON CONCRETE
- (18) SUBSTATION EQUIPMENT



10 METRES