

## Public Archives & National Library High Voltage Equipment

Wellington Street, Ottawa.

### Project Statistics

Description:	Replace high voltage transformers, switchgear and tie breakers
Size	2000 KVA
Project budget	\$1,300,000

### Responsibilities

Design for the replacement of the existing high voltage electrical equipment (transformers, primary and secondary switchgear) without any disruption to the tenant.

### Services Provided

- ▣ *Prime Consultant*
- ▣ *Electrical design*
- ▣ *Structural Engineering*
- ▣ *Project commissioning*

### Project Objectives

Replacement the existing high voltage equipment while maintaining uninterrupted electrical distribution to the building.

Maintain sufficient capacity of the electrical infrastructure while providing redundancy into the main transformers for the building.

Protect the high voltage vault equipment removal and installation with the roof open.

### Challenges

Providing replacement of high voltage electrical equipment, adhering to the strict health and safety requirements, while also limiting the downtime and disruption to the client.

Coordinating with Hydro Ottawa who own the incoming feed to the building.



### Solutions and Successes

- ▣ By providing a temporary generator and tying into the existing electrical distribution, alternative power was available to the building during the equipment replacement.
- ▣ The switchgear and tie breakers were rebuilt, keeping the existing steel shell. This not only saved both time and money, but also reduced the construction schedule because significant parts of the structure were not removed.