

# **INDUSTRIAL AND COMMERCIAL SPECIFICATION**

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**REVISED NOVEMBER 3, 2009.**

This letter will confirm our requirements for provision of electrical service to this building. These are based upon our normal policy for providing industrial or commercial service.

Having submitted this letter and servicing details, all inquiries by contractor concerning the servicing method for this project will be referred to the tendering document.

Drawings: A copy of your drawings with notations of service requirements, amperage size and voltage is required.

Note: Final drawings (site plan and electrical service method) for this project must have Centre Wellington Hydro's approval before inspection and service connection will be made.

## **ITEM 1: SERVICE UNDERGROUND, REPLACING OVERHEAD**

The service (replacing the existing overhead connection) will be at primary voltage (4160) through an underground duct system from Centre Wellington Hydro's distribution system to a transformer vault or pad.

All duct systems under traveled portions of the roadway, parking lots or areas that the Utilities feel needed will be concrete encased.

## **ITEM 2: VOLTAGES**

The service primary voltage will be 2400 single phase up to 200 secondary amps. 120/240 volts or primary voltage 4160 three phase with secondary voltage being 120/208 or 347/600 volts three phase four wire.

- a) If any other voltage is required, the customer shall supply all equipment regardless of the capacity of the stepdown facilities.
- b) Centre Wellington Hydro reserves the right to decide which voltage shall apply in each case.
- c) All voltages specified are nominal but the Utility will endeavor at all times to maintain reasonable voltage regulations.

Centre Wellington Hydro policy may change without notice at any time.

## **ITEM 3: CABLE PRIMARY**

The primary underground cable from the distribution system to the transformer will be provided by the owner or contractor.

## **ITEM 4: CABLE SECONDARY**

~~The secondary and all materials including neutral wire secondary connectors are to be provided installed by the contractor: primary terminations to Centre Wellington Hydro transformer will be supplied and installed by Centre Wellington Hydro at the expense of the contractor.~~

## **ITEM 5: ROAD CROSSINGS**

The Roads Department of Centre Wellington Township requires drawings of all installations on roadways for its review and approval. No excavation of a roadway may begin before this requirement is satisfied. Furthermore, the Township of Centre Wellington will not permit a private individual or company to install services or make connections within the roadway. All restoration is at the owner's or contractor's expense.

## **ITEM 6: DUCT BANK**

The primary duct bank from the distribution system to the transformer location shall consist of 4 - 4" ducts. Each duct is to have 1/4" polypropylene rope continuous length and ducts to be capped or plugged. All road crossings and parking lots where deemed necessary as stated before will be concrete encased.

The trenching, installation of the duct bank and back filling are to be carried out by the contractor to Centre Wellington Hydro specifications. The installations are subject to inspection by Centre Wellington Hydro before being encased in concrete and again before back-filled. Failure to obtain necessary inspections may result in service connection being delayed until the installation is proven acceptable.

## **ITEM 7: TRANSFORMER PAD AND PROTECTIVE BARRIER**

The concrete transformer pad or vault and protective barrier if and when required, are to be provided if installed by the customer/contractor to Centre Wellington Hydro specifications. The installation is subject to inspection by Centre Wellington Hydro before and after completion. The barrier walls are to be erected complete with gates when required and approval before final service connection can be made. Transformer base to be Acton Precast LPC80. (80"x 72" x 48" high).

## **ITEM 8: TRANSFORMATION**

An appropriately sized transformer up to and including 500 KVA 3 phase will be provided and installed by Centre Wellington Hydro.

In all cases, all transformation above 500 KVA will be connected to 44,000 volt circuit at customers own expense.

## **ITEM 9: SERVICE ENTRANCE**

If a main service is installed with sub-services, the sub-services mains and metering are to be installed in the main electrical room with personnel entrance from outside, meter bases shall be installed so that the apartment or rental unit numbers are in consecutive order.

A sub-service 208/120 volt of (200) amps or less when installed in condominium building or apartment building, the meter shall be five (5) terminal socket meter base or seven (7) terminal socket base where applicable. The cost of the meters at the difference between a single phase and three phase network of 7 terminal will be at the owner's or contractor's expense. Meter bases will be installed on the load side of the main breakers.

A service of 400 amps and over is to include a 48" x 48" x 12" metering cabinet on the load side of the main breaker.

The metering cabinet is to be equipped with a removable back plate and is to be mounted six feet from the top of the box to the floor. The back plate is to be made available to Centre Wellington Hydro for drilling to install metering instruments. Centre Wellington Hydro will supply the instrument transformers at no cost.

An alternative to the foregoing; a manufacturer switch gear may be used in such installations.

Centre Wellington Hydro is to be advised of the manufacturer of the switch gear as soon as known.

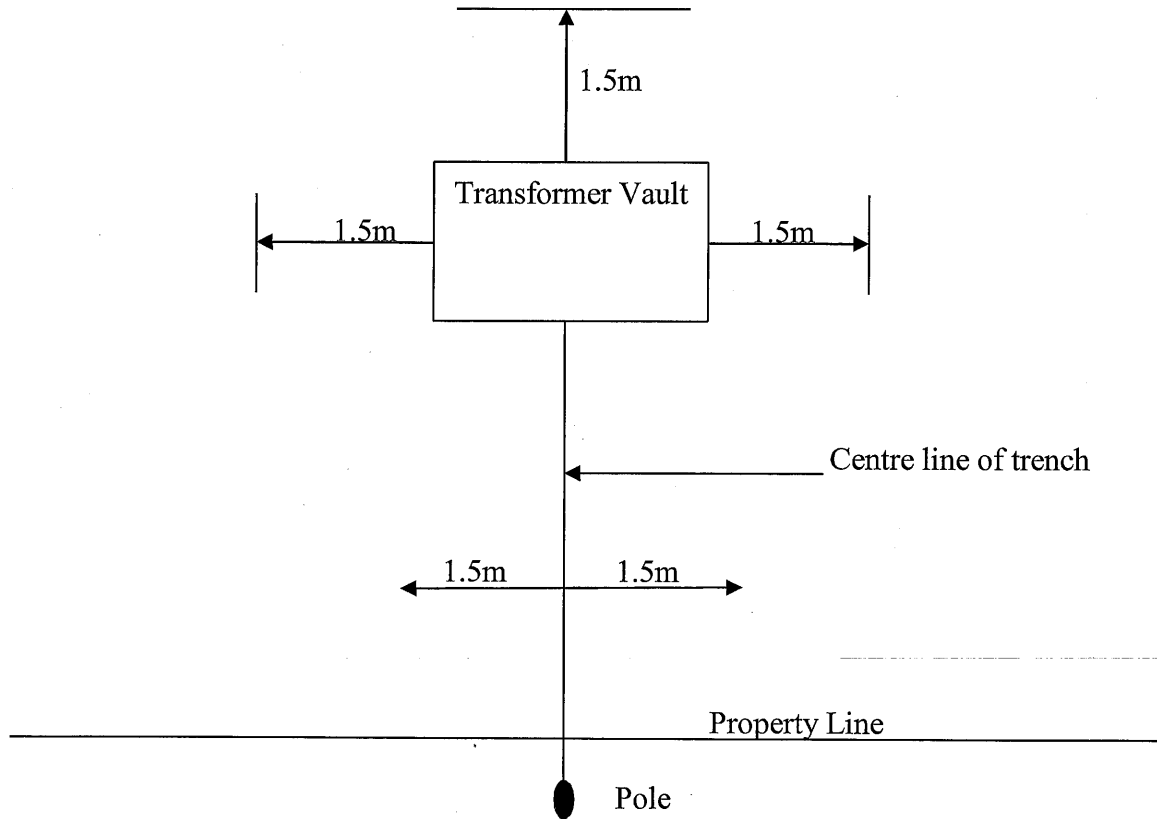
Centre Wellington Hydro will arrange to have the instrument transformers included in the compartment by the manufacturer to our specifications.

## **ITEM 10: DRIVEWAYS**

If it has been found that the driveway entrance to an industrial or commercial building is in the same area as an existing Centre Wellington Hydro line pole; either the driveway or pole is required to be relocated. The cost of relocating the pole would be at the customer's expense. If it is decided to relocate the driveway, it is to be done in such a manner as to provide a minimum of five (5) feet clearance between the pole and driveway.

## ITEM 11: EASEMENTS

An easement is required for each transformer vault and duct bank. The easement for the transformer vault shall be one and a half meters (1.5m) from each side of the vault. The easement for the duct bank shall be one and a half meters (1.5m) from the centre line of the duct bank extended to the property line. The reference plan is to be prepared by your surveyor and three (3) copies are to be forwarded to our office. The total expense for preparing the easement shall be borne by the owner or contractor.



## ITEM 12: IN SERVICE DATE

It is VERY important that we know the actual required in-service date well in advance.

Temporary Service: If it is necessary to provide temporary facilities in order to meet the in-service date, we are prepared to do so, however it is understood and agreed that the cost will be borne by the customer.

## ITEM 13: GROUNDING

Grounding to be supplied by the contractor for transformer location four 10 foot copper clad ground rods with 2/0 copper conductor.

**Customer**

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_

**Contractor**

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_

Amperage Size: \_\_\_\_\_

Approximate Connected Load: \_\_\_\_\_

Voltage Required: \_\_\_\_\_

Approximate Date of Transformer Delivery: \_\_\_\_\_

Centre Wellington Hydro Authorization

Customer Authorization