

Appendix 200.4

Developer Approval Process - Traffic Signals

Developer Information Sheet - Traffic Signal Projects

(Projects which include traffic signals)

A: How does my development approval application get processed?

The primary contact for a Developer is the District Development Technician (DDT). The DDT is responsible for ensuring that your application is processed and all appropriate reviews and approvals are obtained from the various business units in the Ministry of Transportation (Ministry). These business units consist of Traffic Engineering, Electrical Engineering, Electrical Maintenance, Highway Engineering, District Operations, Property Services and Pavement Markings.

B: What must I do to ensure my application is processed in a timely manner?

The sequence of events that must occur to successfully process your development approval application that includes new or modified traffic signals is as follows:

1. **The Developer contacts the local Ministry District Office with his development plans.** The District office assigns a District Development Technician (DDT) to “project manage” your application.
2. Based on the Developer application, the DDT determines whether a Traffic Impact Study (TIS) needs to be done. The *Terms of Reference* for the TIS are prepared by the DDT, Traffic Engineering and Planning departments, and then provided to the Developer.
3. **The Developer arranges to have the Traffic Impact Study completed and returned to the DDT.**
4. The DDT arranges for the TIS to be reviewed by the Ministry Traffic Engineering and Planning groups. The DDT grants approval in principle identifying the preliminary scope and extent of the works based on the TIS and Traffic Engineering input. The DDT may request the Developer submit preliminary drawings at this stage depending on the size of the project.
5. The DDT notifies all internal agencies and local governments that may potentially be impacted by the development or may be planning construction, rehabilitation or maintenance activities in the subject area that the development has been proposed and to determine jurisdictional boundaries.
6. Ministry internal departments that may be required to provide services to the development application provide their *preliminary* cost estimates to the DDT.
7. The DDT reviews comments from affected agencies as well as summarizes the *estimated* recoverable costs from internal departments and advises the Developer that these costs will be charged to the Developer.
8. The DDT advises the Developer that they may proceed with the civil design stage of the project.
9. **The Developer**
 - **Arranges to have their Traffic Engineering Consultant prepare a civil design for the project** showing the existing and proposed geometric improvements; existing and proposed guide, regulatory and warning signing; and existing and proposed pavement markings. The drawings shall be signed and sealed by a professional engineer.
 - **Arranges to have their Traffic Engineering Consultant prepare a Traffic Engineering Checklist (TEC) and preliminary Traffic Signal Timing sheet** based on the signed and sealed civil design drawings.
 - **Forwards the civil design drawings, preliminary Traffic Signal Timing sheet and the Traffic Engineering Checklist to the DDT.**
10. The DDT forwards the TEC, preliminary *Traffic Signal Timings* and civil design drawings to the Ministry Traffic Engineer who will either a) accept and sign the final section of the Traffic Engineering Checklist or b) identify deficiencies that need correction and return the TEC to the DDT.

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11. If the Ministry Traffic Engineer rejected the TEC, the DDT advises the **Developer to arrange for changes through their Traffic Engineering Consultant and resubmit to the DDT for Ministry Traffic Engineering acceptance.**
12. Once the TEC is accepted, the DDT shall advise the Developer that they may proceed with the electrical design for the traffic signal. **[Electrical designs proceeding beyond this point without a Ministry accepted TEC may result in additional costs to the Developer due to potential changes required to the electrical design to ultimately meet Ministry requirements]**
13. **The Developer**
 - **Arranges to have the electrical design completed by their Electrical Design Consultant** based on the approved civil design drawings, preliminary Traffic Signal Timing sheet and the accepted TEC. The Electrical Design Consultant is responsible for providing a set of preliminary electrical drawings to the Electrical Trades Supervisor for comments / feedback prior to final submission to the DDT.
 - **Submits signed and sealed electrical design drawings including ACAD digital copies of each drawing to the DDT**
14. The DDT forwards the electrical design drawings and digital files along with the TEC and preliminary Signal Timing sheet to the Ministry Electrical Engineering Centre (EEC) for acceptance.
15. The EEC initials the electrical design drawings for acceptance and returns to the DDT. If the drawings are not accepted, the **Developer revises the drawings and resubmits to the DDT for acceptance.** The EEC distributes accepted drawings to the Electrical Maintenance, Traffic Engineering and Traffic Controller Design group as well as enters the digital drawings into the Ministry database. The EEC design group forwards a copy of the accepted TEC to the EEC Traffic Controller Group.
16. Once the electrical drawings are accepted and returned to the DDT, the DDT returns the drawings to the Developer and advises the Developer that they need to submit a final signed and sealed Traffic Signal Timing Sheet.
17. **The Developer**
 - **Arranges to have a signed and sealed Traffic Signal Timing sheet prepared by their Traffic Engineering Consultant.**
 - **Submits the signed and sealed Traffic Signal Timing sheet** along with all supporting documentation such as a site plan showing assumed measurements, Synchro files, digital copy of the timing sheet, digital file of the traffic volume count used in the analysis and any other assumptions used to prepare the timing sheet.
18. The DDT forwards this information to the Ministry Traffic Engineer for acceptance (initialing of the timing sheet). Any rejected timing plans are returned to the Developer for correction prior to proceeding to the next stage of the project.
19. The DDT arranges to delineate the jurisdictional boundaries with the municipality and receive a letter from the municipality agreeing to the boundaries.
20. **The Developer**
 - **Submits to the DDT a traffic management plan (including all utility relocations necessary to complete the project), construction schedule and appropriate financial security for the complete project construction.** The Ministry will recover costs from the Developer for all Ministry associated costs for the development (controller, signal commissioning, paint marking, ministry supplied materials, etc.).
 - **Submits to the DDT a letter from the city council agreeing to cost sharing of the on going electrical power and maintenance costs incurred by Ministry for additions to the electrical system.**

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21. The DDT issues the appropriate construction permits. The DDT outlines to the Developer the controller delivery requirements, inspection by electrical maintenance, conditions of site acceptance and conditions of project closure. *The permits issued are based on the current drawings and specifications submitted to the Ministry; changes to the design during construction due to unforeseen circumstances or Developer initiated changes must be resubmitted to the Ministry for approval and modification of the construction permit. Development work not conforming to these requirements may have a stop work order issued until they comply with these requirements.*
22. **The Developer**
 - **Proceeds with the construction.**
 - **Orders a traffic controller from the Ministry Electrical Engineering Centre** (Senior Traffic Controller Design Technician) by requesting a quote for a controller and providing a Purchase Order to the EEC.
 - **Contacts the Electrical Trades Supervisor to initiate Hydro billing** with the utility and cost sharing arrangements with the municipality.
23. The Electrical Maintenance Contractor provides preliminary inspection; commissions the new/existing traffic controller and energizes the traffic signal. The signal may be made operational prior to all other Developer works being completed; the Electrical Trades Supervisor will determine whether the minimum requirements for activating a signal have been met.
24. **The Developer advises the DDT when all remaining electrical and construction work is complete.**
25. The DDT advises the District Operations, Electrical Engineering, Traffic Engineering and Electrical Maintenance groups that the site is ready for their inspection.
26. The DDT reviews input from the above and advises the Developer of any required changes.
27. Once all changes have been completed and inspected, **the Developer submits signed and sealed civil and electrical as-built drawings (in AutoCAD format) as well as the associated digital files to the DDT. The DDT forwards these drawings to the District Operations (civil) and Electrical Engineering / Electrical Trades Supervisor (electrical drwgs) for their acceptance. If drawings are not in compliance, the DDT advises the Developer who arranges for any corrections and resubmits to the DDT.**
28. Once drawings are accepted by the Ministry, the DDT charges back all cost recoverable charges from the Ministry to the Developer.
29. The DDT releases the Developer's financial security for the completed project.

Getting a traffic signal into operation to meet your development timetable!

Every traffic signal requires a controller to operate the signal. New signal controllers and modifications to existing for Ministry traffic signals are supplied exclusively by the Ministry, Electrical Engineering Centre (EEC), and Electrical Maintenance Contractor.

There may be up to a 12-week design, assembly, testing and delivery period for a new signal controller. This 12 week period does not commence until the EEC has received signed and sealed 1) **electrical design drawings**, 2) **traffic engineering check sheet**, 3) **Traffic Signal Timing Sheet**, and 4) **financial assurance**. The controller delivery period should be taken into account when determining the turn-on date for the new or modified signal.

The process outlined on this Information Sheet is designed to facilitate the supply of a new controller by ensuring the appropriate approvals and documents are provided at each stage of the project life cycle.

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The following provisions shall form part of the Development Approval Permit

- A. All electrical work shall conform to the current edition of the Canadian Electrical Code and the B. C. amendments.
- B. The local Electrical Inspector shall inspect all electrical work.
- C. All electrical fees and permits associated with the project are the responsibility of the electrical contractor.
- D. All electrical work shall conform to the current Ministry Standard Specifications for Highway Construction available through Queens Printing - <http://www.publications.gov.bc.ca/>
- E. All electrical designs shall conform to Ministry Electrical and Traffic Engineering Manual with associated Technical Bulletins, specifications and materials and be accepted and signed by the Ministry Electrical Representative.
- F. All geometric, paving marking and signing designs shall conform to the latest TAC Guidelines, B.C. Supplement to TAC Guidelines, Ministry Pedestrian Crossing Manual and Ministry Sign and Pavement Marking Standards Manual.
- G. All materials utilized in the construction of Ministry electrical installations shall be from a Ministry-approved supplier.
- H. Prior to commencement of any electrical construction, the electrical contractor shall contact the Electrical Maintenance Contractor or his designate, in order to establish an inspection schedule, and to ensure that they are aware of construction standards, specifications and approved materials.
- I. The electrical contractor shall advise the Electrical Maintenance Contractor of the intended start date a minimum of one week in advance.
- J. The electrical contractor shall **NOT** enter any Ministry electrical installation without prior approval of the Ministry Electrical Representative and Ministry supervision.
- K. The project will not be considered complete until a final acceptance inspection is completed by the Electrical Maintenance Contractor, Designer and the Traffic Engineer.
- L. The project will not be considered complete until all electrical utilities have been properly connected.
- M. The project will not be considered complete until the Electrical Inspector completes a final inspection.
- N. The project will not be considered complete until the Developer's designer has submitted a final set of "As Built" signed and sealed electrical drawings (including digital ACAD drawings) to the Ministry Electrical Representative.
- O. The project will not be considered complete until the appropriate hydro cost sharing agreement information has been submitted and signed.
- P. The electrical contractor will be notified in writing of any deficiencies within 14 days of the inspection.
- Q. The Developer's electrical contractor shall correct any deficiencies within 14 days of notification from the Regional Electrical Crew.
- R. After 14 days, the deficiencies will be completed by the Electrical Maintenance Contractor and charged back to the Developer.