

Trolley Overhead Adjacent Works Program (TOH AWP) Project Consent Process

Guide for project owners

December 27, 2024

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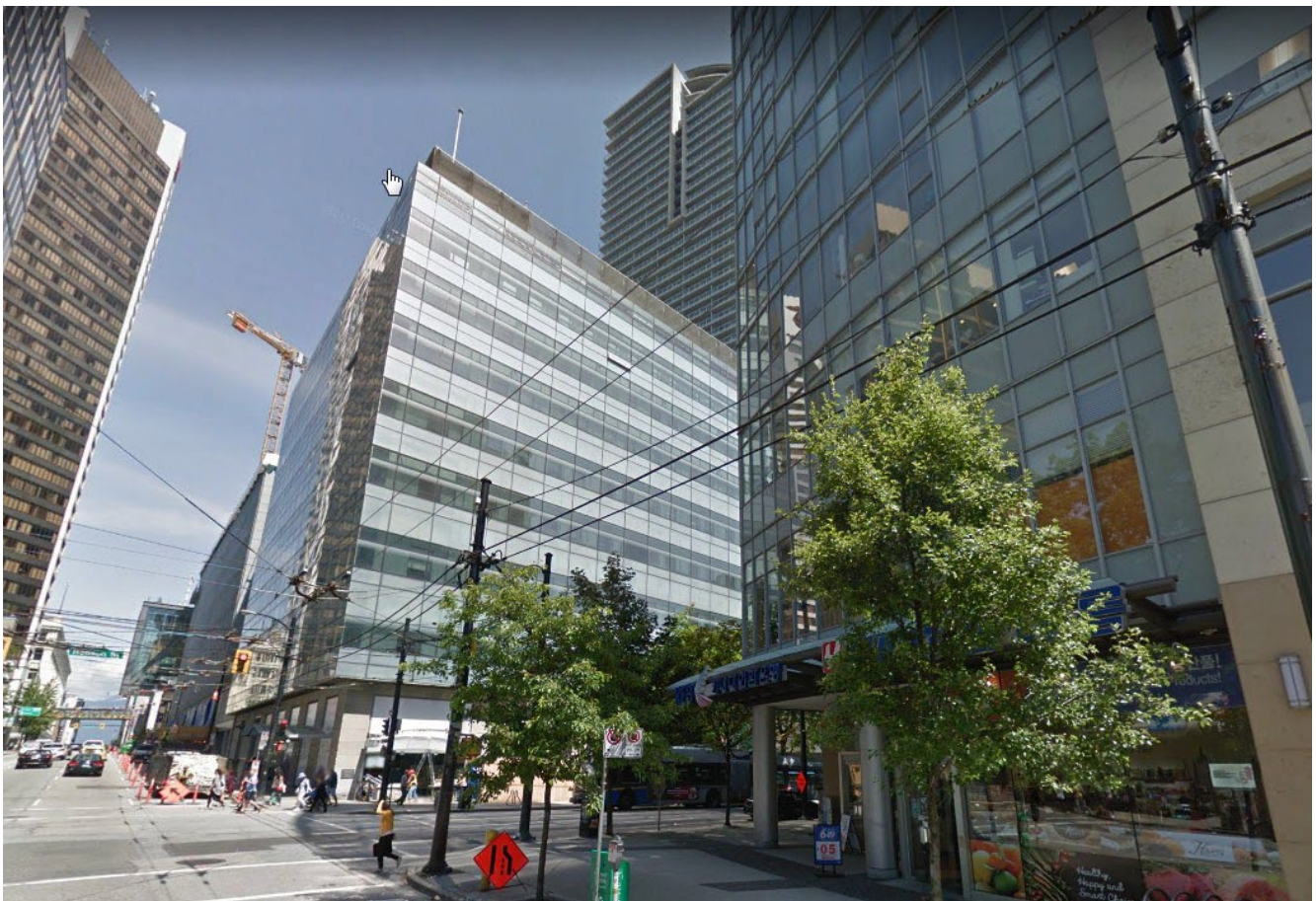
About TransLink

TransLink serves more than one million passengers every day, and connects people, businesses, and communities across Metro Vancouver. It operates an integrated regional transportation network consisting of buses, SkyTrain, West Coast Express commuter trains, SeaBus commuter ferries, HandyDART accessible buses, and Park and Ride facilities. It owns, operates, and maintains critical bridge infrastructure (Knight Street Bridge, Pattullo Bridge, Golden Ears Bridge, and Westham Island Bridge), and it shares responsibility for the Major Road Network (MRN) with municipalities across Metro Vancouver. TransLink is authorized by the South Coast British Columbia Transportation Authority Act (SCBCTA Act) to maintain, and protect its system, and provide safe, continuous operation to the public. As stewards of the system, TransLink must diligently act in the public's best interest in all its business affairs.

TransLink's Real Estate Division established the Trolley Overhead Adjacent Works Program under its Adjacent & Integrated Development (AID) Group to facilitate development adjacent to TransLink's trolley overhead infrastructure, to manage, and protect its property rights during development, and to preserve the safe, secure, and uninterrupted operation of the transit system during construction.

About the Trolley Overhead System

The Trolley Overhead (TOH) infrastructure spans across Burnaby and Vancouver, enabling 262 trolley buses to transport thousands of passengers each day. Twenty (20) rectifier stations supply 600 volts of direct current to 320 kilometres of overhead wires. Poles or light standards support feeder cables above sidewalks and connect to the running wires over roadways from which the trolley buses receive power to operate.

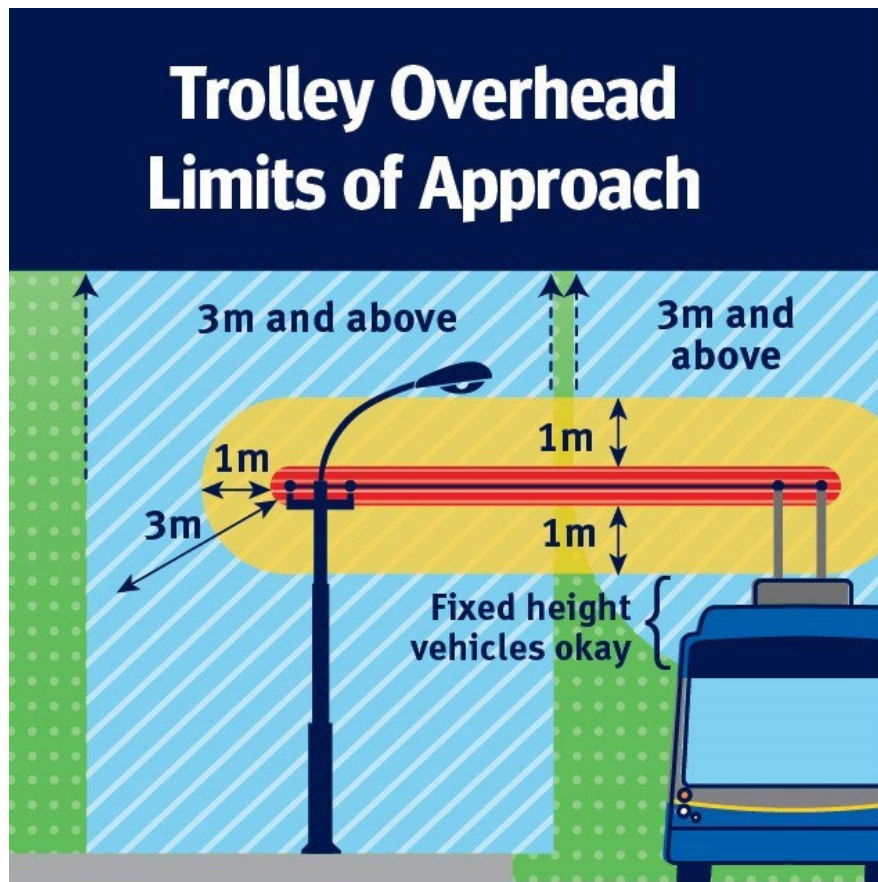


Risks Associated with Working near Trolley Overhead

In a Coast Mountain Bus Company (CMBC) safety risk assessment, it was determined that contact made to the energized trolley overhead lines can cause serious injury, or death to a person. Even after a section of the system has been isolated, residual hazardous energy may be present in the wires. Inadvertent contact to feeder, or running wires may cause serious injury to public, and/or significant damage to equipment, leading to major disruptions to bus service levels in the surrounding area of damage.

TOH Limits of Approach

Activities occurring within 3 metres of any powered, and non-powered TOH infrastructure are subject to TransLink's TOH Adjacent Works Program in which the following limits of approach (LOA) boundaries will apply:



GENERAL APPROACH
BEYOND 3 METRES WITH
REACH POTENTIAL TO
TOH INFRASTRUCTURE
INFORM TRANSLINK

LIMITED APPROACH
3 METRES TO 1 METRE
INDEPENDENT
QUALIFIED SAFETY
WATCHER REQUIRED

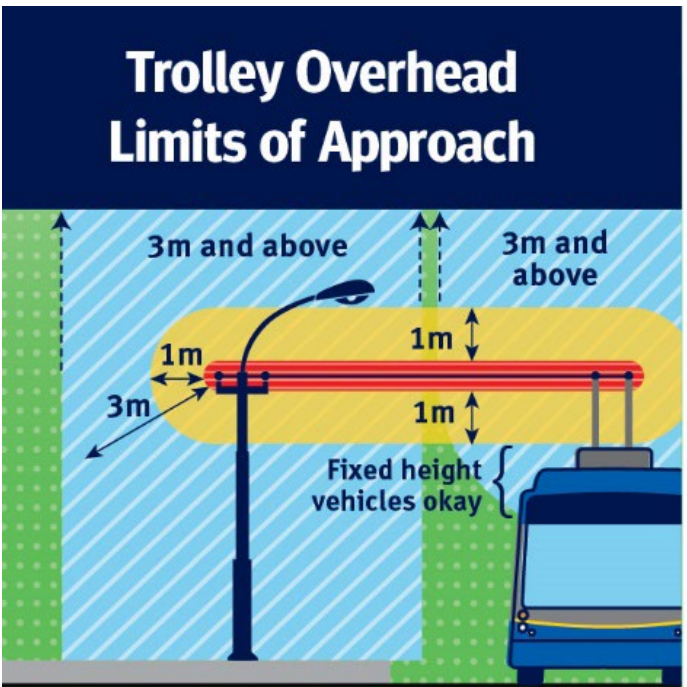
RESTRICTED APPROACH
1 METRE TO 0.3 METRE
SPECIAL PERMISSION
REQUIRED

PROHIBITED APPROACH
CLOSER THAN 0.3 METRE
CMBC AUTHORIZED
WORKERS ONLY

Project Signage Requirements

Specific safety signage should be installed and maintained in a prominent location on site.

- Signage indicates the Limits of Approach, and Precautionary Requirements.
Available at:
translink.ca/aboutus/doingbusinesswithtranslink/realestateworkingnearthrolleyoverheadlines
- Signage with TransLink emergency phone number and contact information.
- Wallet cards for each worker, as shown below.



	GENERAL		LIMITED
	RESTRICTED		PROHIBITED

Emergencies: Call TCOMM
 778.593.5524 / 911

Work Planning: Call 604.561.9363

**GENERAL APPROACH
BEYOND 3 METRES WITH
REACH POTENTIAL TO
TOH INFRASTRUCTURE**
INFORM TRANSLINK

**LIMITED APPROACH
3 METRES TO 1 METRE**
INDEPENDENT
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CLOSER THAN 0.3 METRE**
CMBC AUTHORIZED
WORKERS ONLY

translink.ca



TOH Adjacent Works Program

The TOH Adjacent Works Program (TOH AWP) allows TransLink to assess the risks of each project against TransLink's operational and legal requirements to provide safe, efficient, and reliable service to its passengers, and protect its infrastructure from damage. Due to the serious hazards of the energized TOH system, the Limits of Approach must be always respected. Only qualified CMBC tradespersons with specialized training are permitted to contact and work on the TOH system. If the project requires working within 3 metres of any trolley overhead infrastructure, TransLink will assess the appropriate protective measures required for that section of the system.

Which Projects Trigger the TOH AWP

TransLink is primarily concerned with construction activities near infrastructure that could risk public and work safety, cause damage, or impact bus service. TransLink's attention is primarily focused on activities with the potential to encroach TOH Limits of Approach (within 3 metres) of the TOH infrastructure, or which require TOH system adjustment or relocation.

Examples of construction activities which may trigger the requirement for consent include, but are not limited to, activities that could:

1. **Result in direct collision with TransLink infrastructure**, especially with rolling stock that carries passengers (i.e., buses and SkyTrain trains), including:
 - Cranes, excavation equipment, bucket trucks, ladders, and other moving equipment that could enter the limits of approach from above or below, including unplanned intrusions.
 - Any form of physical connection to TransLink infrastructure or facilities, or any relocation of TransLink infrastructure or facilities.

2. **Result in items falling** onto the trolley wires, or other infrastructure that would cause service disruption, injury, or death, including:
 - Improperly secured work zones, from which tools, material, equipment, or people could fall.
 - Scaffolding erected adjacent to any TransLink infrastructure.
 - Built structures that have openable windows, open balconies, or other openings above a station, guideway, bus loop, structure, or vulnerable infrastructure.

3. **Provide unauthorized access** to elevated TOH infrastructure, including:
 - Construction scaffolding, or ladders.
 - Tall equipment, and materials parked, or stored next to the infrastructure.
 - Built structures whether temporary, or permanent.

4. **Disrupt pedestrian, bicycle, or vehicular access** to TransLink facilities, including:
 - Temporary bus loops, re-routing of trolley services, sidewalk, bicycle or road detours, and community notification.
 - Development, or construction that results in new driveway, or road access onto TransLink roads, ramps, or bridges.

5. **Create unsafe conditions** for TransLink passengers, employees, contractors, or vendors, including:
 - Tripping hazards resulting from temporary sidewalks, curbs, and gutters that aren't flush with permanent improvements.
 - Construction fencing with sharp edges, or large mounting feet.
 - Equipment, materials, or supplies that protrude through, above, or below safety fences and barriers.

6. **Impact operations, and routine or periodic maintenance procedures on TOH infrastructure**, especially those where TransLink access is routinely, or occasionally required to service TOH poles, feeder cables, and running wires.

The TOH AWP Project Consent Process

The following is an outline of TransLink's TOH AWP Consent Process (the "Consent Process"). It is intended to serve as a guideline in obtaining TransLink's consent to developments adjacent to TOH infrastructure and operations but is not exhaustive of all potential issues or requirements. TransLink reserves the right to amend or supplement the Consent Process at any time from time to time without notice.

The Consent Process consists of five phases as follows:

Phase 1 – Introductory Phase

Phase 2 – Project Assessment

Phase 3 – TOH Adjacent Works Agreement Phase

Phase 4 – Execution Phase

Phase 5 – Construction Phase

The following is a description of the Phases and Related Milestones:

Phase 1 - Introductory Phase

To initiate Phase 1, the project owner should contact TransLink when either working within 3 metres of TOH infrastructure, or when requiring any TOH adjustments. The project owner will submit a TOH Adjacent Works Request Form to provide their contact information, the civic address of their site, and high-level details of their project, and anticipated impacts to the system. TransLink will arrange for a pre-construction meeting with the project owner to identify potential impacts on transit infrastructure, infrastructure adjustment requirements, facilities, and operations, and proximity of proposed work within the TOH Limits of Approach.

1st Milestone: TransLink reviews TOH Adjacent Works Request Form and arranges for a pre-construction meeting with the project owner.

Phase 2 – Project Assessment

Upon completion of the pre-construction meeting, TransLink will determine feasibility of infrastructure adjustment requests, and whether the project needs to enter into the TOH Adjacent Works Program (TOH AWP).

2nd Milestone: TransLink determines whether the project is required to enter into the TOH AWP.

Phase 3 – TOH Adjacent Works Agreement Phase

The Trolley Overhead Adjacent Works Agreement is an agreement between the project owner and TransLink that formally enters the project into the TOH AWP and serves two principal purposes. First, it provides the project owner’s commitment to comply with the TOH AWP in connection with the project. Second, it provides the project owner’s agreement to reimburse TransLink for all costs incurred by TransLink, and its consultants associated with the project.

To begin drafting the TOH Adjacent Works Agreement for the project, the project owner must execute a hazard awareness and information form, (the “Trolley Overhead Hazard Advice”) and complete a project form (the “Project Information Form”) to provide TransLink with the property and ownership information.

If infrastructure adjustments are required, and feasible to CMBC, CMBC will prepare an invoice/quote (the “TOH Relocation Costing Document”) for the necessary adjustments.

The project owner must provide, among other things, a cash security deposit, the one-time administrative fee payable to TransLink, and payment pursuant to the TOH Relocation Costing Document. The project owner must also deliver a Certificate of Insurance (COI) satisfying TransLink’s insurance requirements.

TransLink and the project owner will work together to identify the key risks and causes for interference that construction may impose on transit infrastructure, facilities, and operations. The project owner will submit a Construction Safe Work Plan that addresses these risks, and causes, and describes methods of construction, risk mitigation, and safety monitoring that allows for continuous, safe, and efficient transit operations, and protects public safety, and transit infrastructure. The Construction Safe Work Plan must also incorporate TransLink's standard protocols for working close to transit infrastructure within the TOH Limits of Approach. Please refer to TransLink's Trolley Overhead Safe Work Plan Guideline document for further information. Construction Safe Work Plan acceptance will form part of the TOH Adjacent Works Agreement.

- 3rd Milestone: Project owner delivers to TransLink:
- A signed Trolley Overhead Hazard Advice.
 - A completed Project Information Form.
 - All applicable payments.
 - A Certificate of Insurance.
 - A Construction Safe Work Plan.
- 4th Milestone: TransLink processes payments and reviews the COI and Construction Safe Work Plan for acceptability.
- 5th Milestone: Project owner revises the COI and Construction Safe Work Plan if instructed by TransLink, until final acceptance by TransLink.
- 6th Milestone: TransLink delivers the TOH Adjacent Works Agreement to project owner for execution.
- 7th Milestone: Project owner and TransLink fully execute the TOH Adjacent Works Agreement.

Phase 4 – Execution Phase

Once all program requirements (as described in Phase 3) have been satisfied, including fully executing the TOH Adjacent Works Agreement, TransLink will proceed with the requested infrastructure adjustments, and the project can commence works encroaching within the TOH Limits of Approach.

Phase 5 – Construction Phase

TransLink will monitor construction on an as-needed basis until completion to ensure that the project owner, and its contractors are performing the work in accordance with the TransLink accepted Construction Safe Work Plan, and all other agreements. All workers shall maintain a minimum of 3 metres from TOH infrastructure. Daily job planning should anticipate all equipment failure modes, or the potential of workers to unintentionally reach into the minimum safe distance of 3 metres. Prior to the start of activities, when the risk of operating vehicles or equipment are likely to compromise the minimum safe distance of 3 metres, the employer can provide an Independent Qualified Safety Watcher (IQSW). With an IQSW on site, a limit of approach of 1 metre may be acceptable. When operating vehicles or equipment at the job site pose a risk of compromising the minimum safe distance of 3 metres, the employer shall be responsible for providing an IQSW.

Notice and Disclaimer: Any review, approval or acceptance, by or on behalf of TransLink pursuant to the Consent Process of any plans, drawings, specifications, reports, schedules, methods of construction or other information or materials relating to the project owner's development or any other work of or for the project owner, and any consent to or inspection, examination, audit, testing, supervision, monitoring, approval or acceptance of any work by or on behalf of TransLink, shall in all cases be for general compliance only and no such consent, review, inspection, examination, audit, testing, supervision, monitoring, approval or acceptance, whether negligent or otherwise, and no changes suggested or required by TransLink and incorporated into any drawings or specifications or the work, shall relieve the project owner from any of its obligations under applicable laws, any registered agreements or any agreements with TransLink, nor constitute a waiver or release by TransLink of any right of TransLink or any duty or liability owed by the project owner or any of its design professionals, nor create or impose any obligation or liability on TransLink.

TransLink Information

Incident/Accident Reporting

Working around TransLink Infrastructure can be risky, and complex. The project owner and TransLink need to work collaboratively to investigate incidents/accidents as they occur, to understand the causes and prevent its reoccurrence.

This section applies to all work sites proximal to TransLink infrastructure including:

- Development working under a TOH Adjacent Works Agreement issued by TransLink.
- Contractors to TransLink, or any of its operating companies.
- Municipal workers, contractors to municipalities, or other workers performing work adjacent to TransLink infrastructure who have been in contact with TransLink, or one of its operating companies to plan, or organize work that may impact TransLink infrastructure, or the service(s) being provided by TransLink.
- Work sites where work is being performed within 3 metres of a TOH infrastructure belonging to TransLink, or one of its operating companies.

What incidents/accidents must be reported?

The person in charge of the work site (as listed above) is responsible for immediately reporting safety occurrences of the following nature to TransLink:

- Contact with an energized, or de-energized conductor owned by TransLink, or one of its operating companies (e.g., trolley wire, feeder cables, substation equipment).
- Contact (impact or collision) with TransLink infrastructure whether or not there is damage (e.g., contact with TOH wires, poles, stations, or bus stops, a CMBC bus, or other structure).
- Injury to TransLink passengers, employees, or the public associated with the work site activities.
- Damage to infrastructure belonging to TransLink, or its operating companies caused by work at the work site.
- Any interruption to service, or material interference to service caused by work at the work site.
- Near misses, or an incident of some danger where damage to TransLink infrastructure, or passengers (or service interruptions) did, or did not occur, but could have under slightly different circumstances (e.g., workers or equipment entered a Limit of Approach, or restricted area without permission or advanced notice).

How do you report an incident/accident?

Persons in charge of a work site must ensure all – employees, subcontractors, and site visitors – are trained in required safe work procedures and understand what safety occurrences require reporting.

To report a safety occurrence in a timely manner, you must have the following contact information readily available.

Urgent situations

In incidents/accidents where TransLink, or one of its operating companies must act immediately to protect lives, or prevent the situation from worsening, the person in charge of the work site, or the person discovering the event must immediately phone the number appropriate to your work site:

Coast Mountain Bus Company Transit Communications (TCOMM): 778.593.5524

Please note that these numbers are staffed 24/7 and should only be used to request emergency response from CMBC Duty Managers.

Stable situations

Incidents/accidents where the situation is stable (e.g., where no ongoing danger exists, and/or where an immediate response from TransLink or emergency response agency is not required), the person in charge of the work is responsible for notifying TransLink by email, or phone in a timely manner.

Emails can be sent to TOHReview@translink.ca to notify key staff at TransLink and operating companies who can respond accordingly, in due time. This email address is not intended for situations requiring an immediate response.

Upon request, copies of documentation relating to the incident (e.g., WorkSafeBC report, accident investigation findings, root cause analysis, camera footage, recurrence prevention strategy, additional training, safety meeting minutes, etc.) will be shared with TransLink following the incident.

Required Communications

Effective open communication between the project owner, the general contractor and its sub-trades, local authorities, and TransLink will be critical to ensure safe, reliable transit service. At the project pre-construction meeting, the following contacts should be established and distributed to all parties:

- Contractor
- Project Owner
- TransLink Real Estate
- TransLink Safety
- CMBC TOH

Additional Information

Fees and expenses

The project owner is responsible to pay for TransLink's one-time administrative fee incurred while reviewing the project and preparing the TOH Adjacent Works Agreement. In addition, the project owner is responsible for TOH crew costs to adjust TOH infrastructure, and safety monitoring until construction is complete. These costs include, but are not limited to, TransLink's staff costs, third-party consultants' fees and expenses, legal fees and expenses, an administrative mark-up on all third-party costs, and any other fees and expenses necessary for TransLink to complete its review.

Timelines

TransLink is committed to working in a timely manner. It will make reasonable effort to complete its review and issue its consent to coincide with a project owner's reasonable schedule.

Contact TransLink

A project owner can initiate TransLink's TOH Adjacent Works Program Consent Process, or hold preliminary discussions with TransLink staff by doing one of the following:

- Send an email to TOHReview@translink.ca
- Submit a **TOH Request Form** online at:

translink.ca/aboutus/doingbusinesswithtranslink/realestate/trolleyoverheadlinesrequestform