



Hamilton

CONSTRUCTION MANAGEMENT PLAN

City of Hamilton Guidelines - 2024

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1.0 Introduction to Construction Management Plan (CMP) Guidelines

1.1 Purpose and Intent

A Construction Management Plan (CMP) is a technical plan/report that shows how construction and demolition works for a proposed development and how it will be managed. The report should include all pertinent details on how various aspects of the construction project will be handled.

The City of Hamilton requires applicants to submit a CMP as well as an accompanying report which will summarize and explain the methods and details of the CMP. The report shall also outline the development proposal, the anticipated start date and the estimated construction process duration.

The purpose of the CMP and accompanying report is to establish order and ensure that construction, demolition and excavation sites do not adversely affect public health, safety, amenity, traffic or the environment in the surrounding area.

2.0 Construction Management

2.1 Shoring, Tiebacks and Pile Construction Plan

2.1.1 Construction Method Requirements

**** Development Engineering staff does not assume responsibility for structural review of the shoring design. The shoring system shall be designed by a Professional Engineer and reviewed/approved by the Building Division.**

- Identify which construction methods will be used (caisson piling, timber lag, shoring, tiebacks, slopes, etc.).
- Construction of shoring systems will require that the Owner enter into a Shoring Agreement with the City of Hamilton.
- All elements of the proposed shoring system (including but not limited to: walls, piles, caissons, tiebacks, slopes etc.) required for foundations and excavation shall be contained entirely within private property. However, if it can be demonstrated that due to specific constraints on-site it would not be feasible to entirely contain the shoring system within private property, encroachment onto the municipal right-of-way may be permitted subject to approval from Development Engineering and Corridor Management staff. If approved, the Owner will be required to enter into with the City and register on title of the lands, an Encroachment Agreement once the shoring design and Shoring Agreement are finalized. Shoring encroachments of any kind within the municipal right-of-way will not be permitted within in the LRT corridor.
- If encroachment of tiebacks into the municipal right-of-way are approved by the City, all tiebacks must be destressed once shoring becomes redundant.
- All tiebacks are required to have a minimum vertical separation distance of one (1)

metre from any structures and utilities including any municipal infrastructure unless the submitted Geotechnical Analysis identifies additional vertical clearance is required to support the tiebacks due to soil conditions.

- Should tiebacks, shoring walls or any other member of the proposed shoring system be proposed to encroach onto any privately-owned lands, the applicant will be required to obtain consent and submit a copy of a signed agreement with the private landowner to the City prior to any shoring approvals. Agreements with the private landowners shall contain a copy of the proposed shoring plans and shall be signed by the adjacent private landowner.
- Identify location of any existing utilities within the municipal right-of-way which are impacted by any City approved proposed shoring encroachment(s).
- Identify existing underground utilities to be relocated (natural gas, Bell, Rogers, cable, fiber optic, district energy, etc.).
- Identify existing aboveground utilities which are impacted by any City approved proposed shoring encroachment(s) (hydro poles, street lighting, pedestrian).
- Provide locates of all utilities adjacent to the project site.
- Provide written approval of the shoring plans from each utility company present in the area where City approved shoring encroachment(s) are present.
- Temporary and permanent streetlighting strategy/plan
- Identify temporary and permanent relocates
- Identify location of the excavation starting point on the site and how the excavation will commence and conclude (location of ramp(s) and how/when they will be constructed and removed). Requires a Temporary Access Permit from Corridor Management (see Section 5.2 Permits).
- Excavation and backfilling must adhere to the City of Hamilton's Tree Protection Policy.
- Identify all temporary encroachments (subject to permitting approval through Corridor Management – see Section 5.2 Permits)
- Identify all permanent encroachments (subject to Encroachment Agreement – see Section 5.3 Agreements)

2.1.2 Geotechnical/Hydrogeological Study Requirements

**** Please note that permanent dewatering/foundation drainage systems are prohibited. Temporary construction dewatering to the City's sewer system may be permitted as per the standards set by the City Sewer Use By-law. A sewer discharge permit may be required.**

The geotechnical/hydrogeological study should outline the following:

- If temporary dewatering is anticipated, the discharge location(s) and amount (L/s) must be clearly identified.
- The type of temporary dewatering equipment and method shall be specified as well as any associated processes in order to carry out the dewatering.

- The applicant is reminded that temporary dewatering discharge must comply with City of Hamilton Sewer Use By-law standards. If temporary dewatering is required, water quality testing against Sewer Use By-law criteria will be needed prior to Discharge Permit Application.
- If temporary dewatering is expected to exceed 50,000 L/day, registration with the Environmental Activity Sector Registry or a Permit to Take Water from the Ministry of Environment, Conservation, and Parks may be required.
- Address any ground settlement impacts that temporary dewatering may have, along with associated monitoring and mitigation approaches if applicable.
- Explain method of compliance with City of Hamilton By-law to regulate traffic (load restrictions on specific roads).
- The Geotechnical/Hydrogeological Report will also be required as a Special Condition of Site Plan Approval.
- See Construction Dewatering Development Support Guide

2.1.3 Noise and Vibration Study Requirements

This is a technical report that provides a written description of the impact of vibration generated by a proposed development on the surrounding environment, the impact of vibration of the surrounding environment on the proposed development and the impact of vibration of the proposed development on itself as well as mitigation measures to reduce any negative impacts.

This Vibration Study is to be prepared, on behalf of the applicant, by a Consultant that is either an accredited Acoustic expert or a qualified Professional Engineer.

The Study should include, but is not necessarily limited to:

- Details of assessment criteria
- Methods and assessment locations and the appropriate figures and charts showing the detailed results including how the development complies with the standard as reference in the policy document recommended by CNR and CPR in the case of new residential development adjacent to transportation/rail infrastructure induced vibration or other published criteria, guidelines and acceptable vibration levels at similar land uses
- Identification and analysis of the impact of all vibration from the proposed development on adjacent streets, parks and properties;
- Identification and analysis of the impact of all vibration generated within the immediately surrounding area, including without limiting the foregoing, the operations of the airports, transportation/rail infrastructure, corridors and yards, waste management facilities, industries and other vibration generating uses on the proposed development;
- An analysis of the impact of the proposed development on itself; and
- Recommendations for vibration mitigation and any adjustments to the site plan and architectural design, as are necessary to comply with relevant standards.

- Identify the zone of influence.
- Pre and post sewer inspection videos required for all municipal sewers fronting the subject property and shall conduct sewer cleaning and repairs as directed by the City of Hamilton.
- Pre-construction condition survey(s) of any existing adjacent structures/basements
- Proponent is liable for any/all claims or potential claims for damage to private or public property arising directly or indirectly from the construction activities associated with the development.
- Construction activities shall comply with City of Hamilton Noise By-law No. 11-285.

2.2 Storage and Loading Areas

2.2.1 On-Site Requirements

- Requires full traffic analysis – operational, infrastructure, etc.
- See City of Hamilton ROW Utility Installation and Permit Manual Chapter 6
- Storage and loading shall be contained entirely on private property and not within the municipal right-of-way.
- Clearly explain/indicate location(s) of material storage on the site and designated loading area(s).
- Stockpiled material and equipment must not obstruct pedestrian or vehicular traffic, sightlines or be allowed to runoff onto pavement or sidewalks or into storm sewers.
- Material storage must adhere to the City's tree protection practices.
- No public access to the site is permitted.
- During material deliveries to the site flag staff are required at the owner's expense to control traffic when and where required during the construction as required by the City (to determine when/if paid duty officers are required, see City of Hamilton ROW Utility Installation and Permit Manual Chapter 6).

2.2.2 Off-Site Requirements

Storage and loading shall be contained entirely on private property and not within the municipal right-of-way. If municipal right-of way is required, the appropriate permitting must be issued and approved through Corridor Management (see Section 5.2 Permits)

2.3 Hoarding, Scaffolding, and Safety Fencing

2.3.1 On-Site Requirements

Identify and describe the location of, material type, dimensions, gates, and other details of any fencing, scaffolding or hoarding.

2.3.2 Off-Site Requirements

- Identify and describe the location of, material type, dimensions, gates, and other details of any fencing, scaffolding or hoarding that will require temporary permits and approvals through Corridor Management (see Section 5.2 Permits).
- Any construction directly adjacent to municipal property or municipal property that can be accessed by the public (excluding single-family dwellings) shall be protected with covered scaffolding and shall have adequately illuminated scaffolding and be sealed by a Professional Engineer for structural stability and lighting adequacy.
- The Developer's consultant shall have their inspector on-site to prepare a monthly inspection report of the walkthrough scaffolding and lighting located within the municipal right-of-way for submission to the City's Construction Section to confirm that the conditions on-site are in accordance with the approved design.
- The Developer's consultant shall have their inspector on-site to prepare a monthly inspection report of all approved plans (traffic management, dust control, encroachment, etc.) within the right-of-way for submission to the City's Construction Section to confirm that the conditions on-site are in accordance with the approved design.
- The Developer's consultant shall organize a pre-construction meeting with the City's Construction Inspection section prior to issuance of any temporary road occupancy permits. Contact GMconstruction@hamilton.ca to organize a meeting.

2.4 Encroachments

2.4.1 Encroachment Management Plan (EMP)

- Identify all temporary and permanent encroachments.
- Indicate locations and provide detailed description of any/all encroachments onto any City or private lands.
- Indicate the purpose of any/all encroachments.
- All Permanent encroachments are subject to an Encroachment Agreement through Corridor Management. Application for an Encroachment Agreement should be made once all servicing plans have received approval (ie. After any needed shoring agreement, utility servicing plans, water/sewer servicing plans, landscape plans, etc. but prior to the issuance of any building permits through the building division. (see Section 5.3 Agreements)
- All temporary encroachments are subject to permitting and approval through Corridor Management (see Section 5.2 Permits).

2.5 Dust Control

- Submission of an Erosion and Sediment Control Plan [Standard Site Plan Condition 2. (a)].
- See City of Hamilton ROW Utility Installation and Permit Manual Chapter 6
- Describe how access roads will be kept clean and free of mud, dust and dirt.
- Indicate the frequency of road cleaning
- Indicate location of truck washing bays
- Provide contractor contact information for street cleaning (to be paid by the Owner). The City will contact the street cleaning contractor in the event of non-compliance by the proponent.
- Describe the mud-mat construction and removal process and timing
- See City of Hamilton Dust Handbook

3.0 Traffic Management

3.1 Traffic Management Site Plan (TMSP)

3.1.1 Introduction

The Traffic Management Site Plan (TMSP) should illustrate the impacts construction activity will have on the public right-of-way. The applicant should plan the construction activity in such a way to have as little impact on the general public as possible. Sidewalk, Lane and Road Closures are discouraged, and should only be requested if all other construction methods are exhausted. Should occupancy be required, a Temporary Lane & Sidewalk Closure Permit must be obtained from the Corridor Management Section (see Section 5.2 Permits).

All construction activity should be contained entirely within the site. All vehicles, equipment and materials must be kept on private property and cannot occupy the municipal boulevard, sidewalk or roadway. A Letter of Credit may also be required for the full replacement costs of existing infrastructure within the ROW in the event of damage or removals. Approval of the TMSP must be obtained from the Corridor Management Section of the Public Works Department.

3.1.2 Requirements

3.1.2.1 General Requirements

Items that should be included on the TMSP must include (and not limited to) the following:

- Temporary Full Road Closures
- Lane & Sidewalk Occupancies
- Temporary Access Locations
- Truck Haul Routes (following the City of Hamilton Designated Truck Route

System)

- Truck Staging Areas
- Worker Parking
- Asset Removals (i.e. Street Lights, Parking Meters, Street Signs, etc.)
- All related signing as per OTM Book 7
- Construction Sequence including start-finish for any occupancies/closures
- Approval of the TMSP must be obtained from the Corridor Management Section of the Public Works Department.

3.1.2.2 Pre/Post Condition Record of Truck Route

Provide a pre and post condition survey of the site access routes and roads adjacent to the project site.

3.1.2.3 Parking Management

Identify number of on-site workers at each stage of the project and parking areas for workers (street parking will not be permitted) as well as a description of any applicable transportation accommodations for workers coming on and off the site.

3.1.2.4 Crane Location and Aerial Rights

- Specify the location of any/all cranes and flying radius
- If flying objects over any municipal right-of-way a Temporary Lane Closure Permit will be required (see Section 5.2 Permits)
- If flying objects over private property permission is required from the private property owner.
- Tower cranes are to be operated under the requirement of the Ministry of Labour

4.0 Public Communication

4.1 Public Communication Plan (PCP)

The Public Communication Plan (PCP) outlines the planned public communication process and actions to inform the travelling public, project stakeholders, emergency response agencies, and directly impacted businesses and local residents about the planned construction activities and changes to traffic operations due to the proposed temporary road closure and alterations and disruptions to traffic necessary to safely complete construction of proposed development, municipal services and roads.

The Plan/Report may consist of any of the following elements: notices to the impacted residents, businesses and travelling public placed in print media, project road signs including detour routes, changeable message signage, notices to the public placed on Internet web pages, brochures, direct mail outs to impacted businesses and local residents, and public meetings. The Plan is modified throughout the project life cycle to

address issues as they arise.

4.2 Requirements

- See City of Hamilton ROW Utility Installation and Permit Manual Chapter 6
- Include all project information on signs around the project site (including but not limited to phone number, email address, fax, website).
- Identify the entity overseeing operation of the project site during construction in compliance with the City of Hamilton requirements.
- An onsite supervisor shall be appointed and a phone number shall be posted onsite and to adjacent residents.
- 48 hours of notice shall be provided to adjacent properties should any construction operations produce impacts beyond the normal day-to-day operations of the site (including but not limited to noise, vibration, construction traffic, etc.).
- A preconstruction notice shall be sent out to adjacent properties and along the construction access routes.
- Inform public transit
- Indicate working hours for the project site.
- Informing of the Ward Councillor, business community, residents.
- Website to provide construction updates, contact information
- Include a project schedule for the construction activities.
- Indicate on-site emergency protocols (shall comply with the Ministry of Labour requirements and protocols).
- Emergency response unit/agencies (fire, police, ambulance)
- Notify Chamber of Commerce prior to start of construction

5.0 Resources

5.1 Approvals

- ❑ Approval of Construction Management Plan to the satisfaction of the Manager of Corridor Management, Public Works Department and the Manager of Development Engineering, Planning and Economic Development Department.
- ❑ Approval of the Shoring Plans to the satisfaction of the Manager of Development Engineering.
- ❑ Approval of Shoring Plans from utility companies present in project area (if required)
- ❑ Approval from private landowners of encroachments onto adjacent private property (if required).

- ❑ Approval of Utility Works (Municipal Consent or Excavation Permit may be required – see Section 5.2 Permits).
- ❑ Approval of Encroachment Management Plan (if any) from Corridor Management and LRT (if applicable) – see Section 5.2 Permits & 5.3 Agreements.
- ❑ Approval of the Traffic Management Site Plan from Corridor Management.
- ❑ Approval of temporary construction dewatering outlet and peak flow rate to City sewer (Hamilton Water, Environmental Monitoring & Enforcement Unit. Email sewerusebylaw@hamilton.ca)
- ❑ Approval of Public Communication Plan (Development Engineering)

5.2 Permits

- Excavation (road-cut) permit (Growth Management) – need to coordinate with Corridor Management
- Temporary Road Closure Application permit (<http://hamilton.ca/cm>)
- Temporary Lane and Sidewalk Occupancy Application (<http://hamilton.ca/cm>)
- Temporary Access Permit Application (for new or reinstatement of commercial, industrial, or multi-family driveways (<http://hamilton.ca/cm>))
- Permanent Road Closure Application (highwayclosures@hamilton.ca) (<https://www.hamilton.ca/streets-transportation/driving-traffic/permanent-road-alley-and-walkway-closures>)
- Utility Work Permits (MC/EP) (<https://www.hamilton.ca/develop-property/policies-guidelines/right-way-utility-installation-and-permit-manual>)
- Shoring Permit (Building Division)
- Permit to take water from the Ministry of Environment, Conservation, and Parks
- Sewer Discharge Permit (Hamilton Water, Environmental Monitoring and Enforcement [EME] unit. Email sewerusebylaw@hamilton.ca)

5.3 Agreements

- Shoring Agreement (Growth Management)
- External Works Agreement (Growth Management)
- Encroachment Agreement (Corridor Management) – encroachment@hamilton.ca (no applications for encroachment agreements until final site plan approval has been obtained but prior to issuance of any building permit.)

<https://www.hamilton.ca/home-property-and-development/property-gardens-trees/encroachment-agreements>)

5.4 CMP Checklist

- ❑ CCTV for existing municipal sewers
- ❑ Utility sign off
- ❑ Copies of adjacent property owners' approval/agreement
- ❑ Vibration Analysis and Noise Studies
- ❑ Geotechnical/Hydrogeological Report (including temporary dewatering methods)
- ❑ Sewer Discharge Permit (Sewer Use By-law Requirements)
- ❑ Pre-construction condition surveys of City and private lands/adjacent existing buildings/basements
- ❑ Public Communication Plan
- ❑ Traffic Management Site Plan
- ❑ Encroachment Management Plan
- ❑ Shoring Plans
- ❑ City Planner to confirm that Tree Protection Plan has been approved prior to approval of the CMP
- ❑ Structural design for walkthrough scaffolding within the ROW
- ❑ Lighting/illumination design for the walkthrough scaffolding within the ROW