

## PROCEDURAL MEMO TO CONSULTANTS APPLICATION FOR BOREHOLE PERMITS LAND DEVELOPMENT DIVISION

Borehole permits and subsurface studies require the construction of investigative boreholes to allow sampling and monitoring of sub-grade conditions.

The City of Victoria will issue permits pursuant to City Bylaw "[Sidewalks, Streets and Boulevard Bylaw](#)" and City Bylaw "[Streets and Traffic Bylaw](#)" for the construction of such boreholes on lands on Right of Ways through the following process:

**PERMIT REQUIREMENTS:** The applicant submits the following information:

Apply for a Borehole Permit via your MyCity account. Available here: [Borehole Permit | Victoria](#).

### CONDITIONS OF APPROVAL

1. A letter detailing the scope of work proposed, including but not limited to the number of boreholes, the equipment used to conduct the drilling, the size of the boreholes, schedule of work and anticipated duration of the monitoring program where applicable.
2. A fully dimensioned/detailed plan at a scale of 1:200 showing the location, number and depth of the proposed holes and all existing municipal infrastructure and utilities. Please note that work is limited to the locations shown on the approved plan.
  - a. If the work is required for soil characterization purposes as per **Protocol 19** and is associated with a Building Permit application, the borehole locations shall be depicted on the latest Civil site servicing plan.
3. A copy of comprehensive General Liability insurance policy (\$5,000,000 minimum) with the City of Victoria named as co-insured on the policy.
4. Proof of the current Workers' Compensation Board registration along with proof of up-to-date assessment payment prior to commencement of work.
5. A completed Contractor's Permit application. The required fee is \$35.
6. Damage Deposit of \$2,000 for up to and including 4 holes and \$500 for each additional hole.
  - a. The Security Deposit will be held until acceptance of the final decommissioning of all boreholes, and satisfactory completion of all surface restoration to City of Victoria standards.
  - b. The damage deposit will be returned to the provider of said damage deposit.

Upon receipt of the above documentation, City staff will review it for completion and will respond with any deficiencies or the approved permit package within 10 business days. No work shall commence until the Borehole Permit is issued by the Director of Engineering or an authorized representative.

*Allow a minimum of 10 working days to process and review a complete submission.*

Note: All fees and Security deposit required prior to the issuance of the Permit.

7. Obtain a Street Occupancy Permit. Available here: [Street Occupancy Permit | Victoria](#)

### **DRILLING REQUIREMENTS:**

1. The applicant must ensure that all Prime Contractor regulations under BC Workers Compensation Board and Occupational Health and Safety Legislation are followed.
2. Obtain a complete Underground Check including BC One Call and have all required plans from all existing municipal infrastructure and third-party utilities (i.e., BC Hydro, Rogers, Fortis Gas, etc.) on site during the drilling.
3. If deemed required by City Staff or the Applicant, an on-site meeting with City staff prior to commencing work shall be arranged.
4. The regulation and control of traffic in the vicinity of the work shall be in accordance with the standards contained in the latest edition of the "Traffic Management Manual for Work on Roadways". All associated costs are the responsibility of the Contractor.
5. Report any damage to any infrastructure that occurs during drilling immediately to the appropriate authority.
6. The Contractor shall be responsible for any damage which occurs due to their operations and shall make good such damage at their expense.
7. Drilling shall occur at approved borehole locations only, as shown on the attached Location Plan in the Approved Permit Package.
  - a) A revised application must be submitted for any additional boreholes.
8. The contractor shall provide adequate mitigation measures for water run-off and slurry in accordance with Schedule "G" of City Bylaw "[Sanitary Sewer And Stormwater Utilities Bylaw](#)".
9. In addition to providing the City with a complete Test Hole Investigation Report, reports must be available to the City upon request.

### **Contaminated Soil**

1. If during any stage of investigation or independent remediation, it is determined that one or more substances have migrated or there is reason to believe substances have migrated to a neighbouring parcel and is causing (or are likely causing) contamination of that parcel, the affected neighbouring parcel owner(s), Ministry of Environment and City of Victoria (Adam Steele at [ASteele@Victoria.ca](mailto:ASteele@Victoria.ca)) must be notified within 15 days by the responsible person (e.g., source land owner) when the situation is known. These notices are called Notifications of Likely or Actual Migration (NOM), and the person responsible must provide a NOM consistent with sections 57 and 60.1 of the *Environmental Management Act* (EMA) Contaminated Sites Regulation (CSR).
2. Soil recovered from boreholes is to be tested as per Provincial Regulations and kept on private property until adequately disposed of.
3. The applicant must ensure sediment and erosion control for stored piles.

***Please note: The City of Victoria accepts no responsibility for the accuracy of the submission with respect to foreign utilities, or City of Victoria infrastructure.***

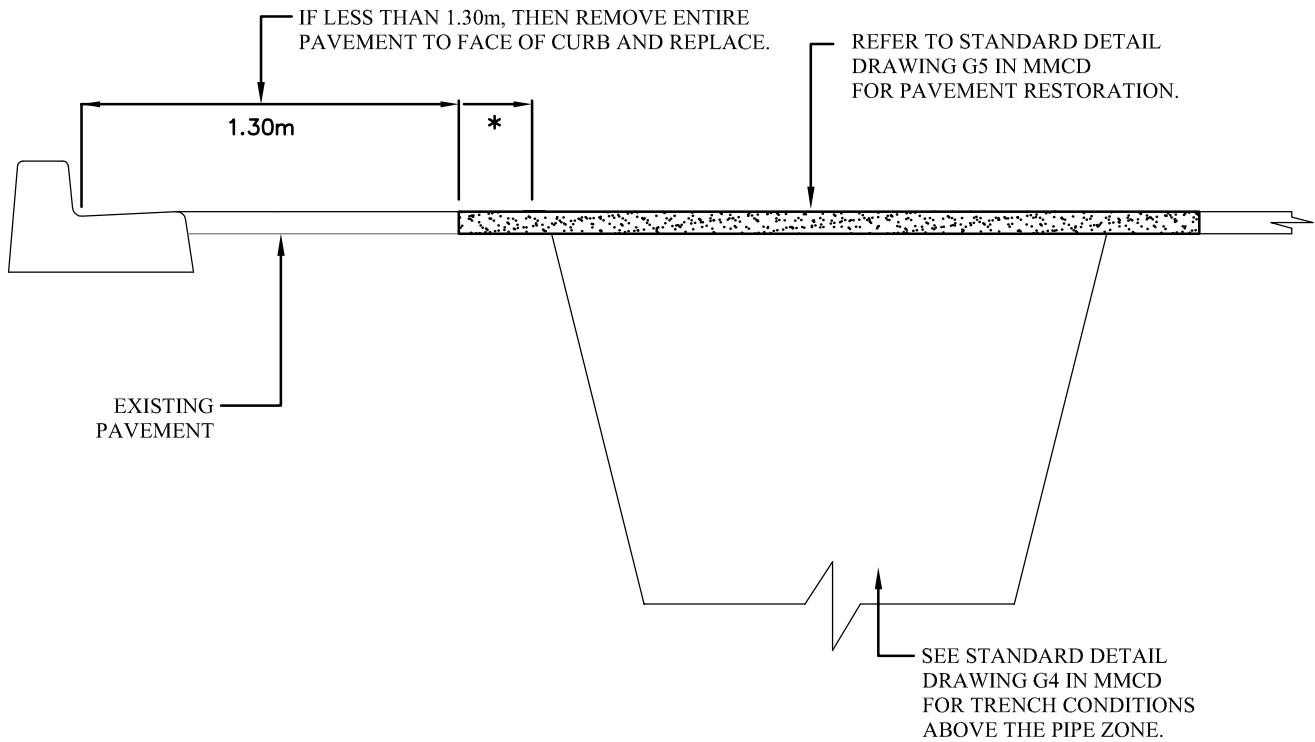
***Upon the issuance of this permit the contractor releases, indemnifies and saves harmless the City of Victoria against all claims, demands, losses, damages and lien claims of every kind arising out of or in any way connected with the contractor's work.***

**RESTORATION REQUIREMENTS:**

1. If the proposed borehole work is not associated with environmental monitoring, decommissioning and restoration of City property shall occur in the following way:
  - a. For roads:
    - Backfill the hole with either concrete, CDF, or appropriate material as recommended by the consultant and approved by the City.
    - Mill asphalt and match existing thickness for overlay with a minimum thickness of 75mm directly atop the borehole.
    - Hot-Mix asphalt shall be used and considered “permanent restoration”.
    - If Cold-Mix asphalt is used, it shall be considered “temporary restoration”.
      - Note that if Cold-Mix asphalt is used, the Damage Deposit provided shall be held until such time as permanent restoration is conducted and satisfactorily inspected to City standards.
    - Restore grade to original condition.
    - See City Standard SD G5a and SD G5b, attached, for additional information.
  - b. For sidewalks:
    - Backfill the hole with either concrete, CDF, or appropriate material as recommended by the consultant and approved by the City.
    - Full panel restoration is required to match existing adjacent concrete. This will be considered “permanent restoration”.
    - If the sidewalk is asphalt, Hot-Mix asphalt shall be used and considered “permanent restoration”.
      - Note that if Cold-Mix asphalt is used, the Damage Deposit provided shall be held until such time as permanent restoration is conducted and satisfactorily inspected to City standards.
    - Restore grade to original condition.
    - See City Standard SD C15, attached, for additional information.
  - c. For boulevards:
    - Backfill the hole using native material and have the top 150mm backfilled with topsoil and reseeded. The backfill material shall be done in lifts to account for settlement.
  - d. When restoration work is complete, please notify the City Permit Manager. The City Permit Manager will conduct a final site inspection within 3 business days. If the restoration is satisfactory to City standards, damage deposit will be returned to the Depositor.
    - Please note that an inspection is required prior to returning the Damage Deposit.
2. To decommission boreholes with environmental monitoring wells or soil vapour probes:
  - a. Applicant to provide:
    - A written declaration of decommissioning to the City’s Engineering Dept.
    - Method of decommissioning.
      - Where casing is used, remove the casing at grade, if set.
      - Drill the casing out over its complete depth, if installed.
      - Follow the steps in point 1 for backfill and final restoration as per the existing surface treatment.
    - Timeline of works.
  - b. Applicable permits/fees to be procured.
3. If the contractor fails to satisfactorily decommission the boreholes/monitoring wells following the end of the monitoring phase, the City may complete the decommissioning using the Damage Deposit to cover the cost of the rehabilitation work. Any cost of the work greater than the deposit held shall be paid by the Applicant through invoice(s) issued by the City.

This checklist has been prepared to provide applicants and City staff with a general list of criteria that must be considered when making and reviewing an application to drill boreholes in the City Right of Way.

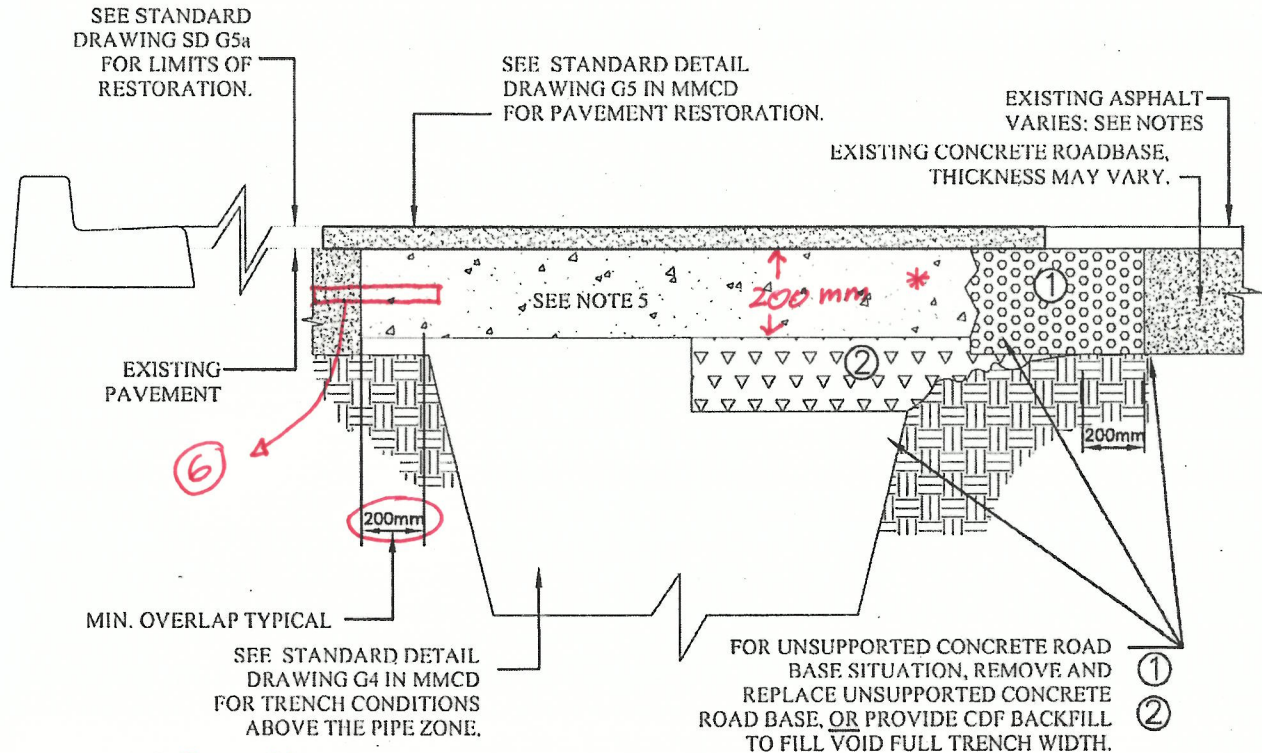
If you require any further assistance, please contact the Land Development Section at (250) 361-0300 or at [Eng-BHP-Applications@Victoria.ca](mailto:Eng-BHP-Applications@Victoria.ca).



NOTES:

MUNICIPALITY MAY REQUEST FURTHER ASPHALT REMOVAL DEPENDING ON PAVEMENT CONDITONS. REFER TO CONTRACT DRAWINGS AND DETAILS

\* WHERE BIKE LANES EXIST, TO THE BIKE LANE PAVEMENT MARKING.



*\* CONCRETE MIX TO USE:  
OCEAN'S 40 MPa RAPID STRENGTH GAIN MIX (MIX CODE: 3PT 20 @ 48)  
OR BUTLER'S 40 MPa RAPID STRENGTH GAIN MIX (MIX CODE: N402)*

*\* ACCELERANT IS ALLOWED WITH THESE MIX CODES. A COPY OF THE CONCRETE SUP SHALL BE SUBMITTED TO THE CITY'S REPRESENTATIVE. CONCRETE SHALL REACH*

NOTES: *A MINIMUM OF 15 MPa PRIOR TO PAVING. TRENCH SHALL BE SAFELY AND SECURELY STEEL PLATED WHILE CONCRETE CURES.*

- IF PAVEMENT THICKNESS IS 150mm OR LESS, REPLACE CONCRETE ROAD BASE UP TO EXISTING PAVEMENT LOWER LEVEL.
- IF PAVEMENT THICKNESS IS GREATER THAN 150mm REPLACE CONCRETE ROAD BASE UP TO A LEVEL OF 150mm BELOW THE SURFACE OF EXISTING PAVEMENT.
- MUNICIPALITY MAY REQUEST FURTHER ASPHALT REMOVAL DEPENDING ON PAVEMENT CONDITIONS.
- REFER TO CONTRACT DRAWINGS FOR DETAILED SPECIFICATIONS.
- RESTORE CONCRETE ROAD BASE TO 200mm THICKNESS.
- DOWEL NEW CONCRETE ROAD BASE INTO EXISTING AT THE DISCRETION OF THE CITY ENGINEER. *IF EXISTING CONCRETE ROAD BASE IS SAWCUT, DOWELS SHALL BE REQUIRED. INSERT 30 mm x 450 mm EPOXY COATED PRE-FORMED TIE BARS SPACED AT 600 mm CENTRES. DRILL 35mm HOLES AT 600 mm CENTRES, 225 mm DEEP, INTO EXISTING CONCRETE, AND GROUT THE BARS USING A QUICK SETTING MORTAR.*

2011  
MAY 2018

TRENCH RESTORATION FOR  
CONCRETE ROAD BASE

REVISIONS

DRAWING NUMBER:

**SD G5b**

## GUIDELINES FOR WORKING AROUND CITY TREES

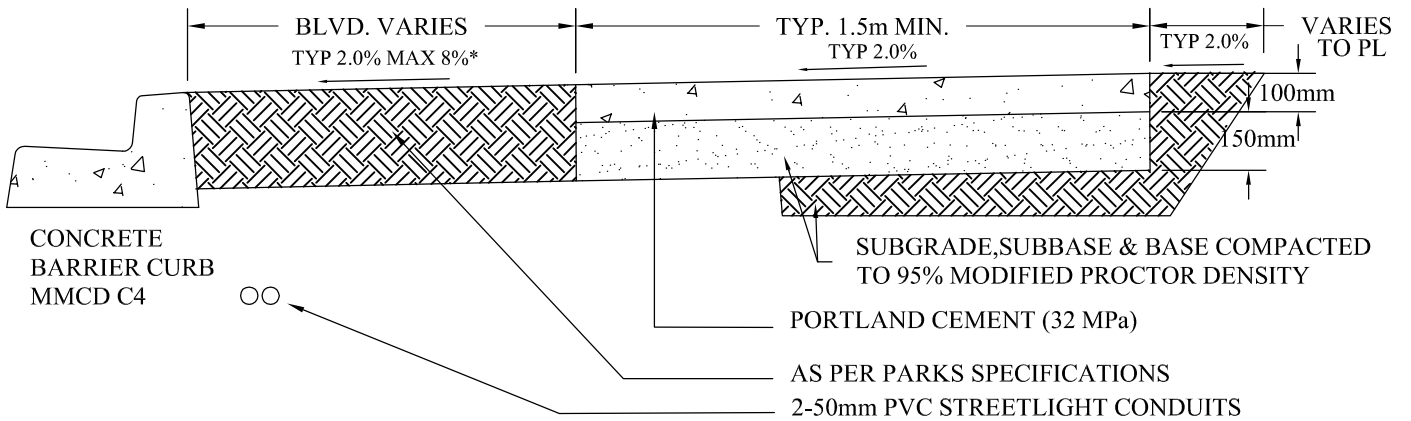
The City of Victoria and its residents highly value their city trees. These trees remove toxins from the air, produce oxygen, reduce ground water erosion, aid in climate control, provide wildlife habitat, and increase property value. City trees grow in difficult conditions and are easily injured. Small injuries to the roots, trunk or branches can take years to heal or may even result in the tree dying or having to be removed

Before starting work around trees please contact the Parks Division at 250-361- 0600 or MIKE #3605 and a City arborist will be happy to meet on site to assist in developing a tree protection plan and discuss possible options.

You can also help protect our trees by following these guidelines.

### PLEASE:

- Drive or park equipment on an established road or driveway. If you must drive or work within 5 meters of a tree, please protect the roots by covering them with plywood or another suitable material.
- Protect the tree's branches and trunk when operating equipment in the vicinity.
- Fuel equipment on a hard surface and not near trees.
- Contact a city arborist when excavating or trenching within 5 meters of a tree.
- Wash off cement debris or any other toxic material on a hard surface away from all trees.
- Store debris or building material on hard surfaces. If you must use the grass area under the tree please stay 5 meters away from all trees or protect the roots by covering them with plywood or another suitable material
- Do not fasten anything to trees.
- Contact a city arborist if roots need to be cut or removed.
- Report all tree damage to Parks.



**SEPARATED SIDEWALK CURB & GUTTER**

**NOTES:**

1. REMOVE ALL SOD AND ORGANIC MATERIALS FROM PROPOSED SIDEWALK LOCATION. BACKFILL ANY LOW AREAS .

2. BOULEVARD FROM PROPERTY LINE TO CURB TO SLOPE TO CURB.

\* MAXIMUM SLOPE MAY BE VARIED AT THE DIRECTION OF THE CITY ENGINEER