Conservation Halton	COMPLETE APPLICATION CHECKLIST	April 2024

UNDERGROUND UTILITY CROSSING (TRENCHLESS)

The following checklist has been compiled to assist the applicant in preparing their application for approval under the Conservation Authorities Act and Ontario Regulation 41/24. This checklist is valid for a period of six months following issuance. The level of detail required in the application will depend on the proposed works, as well as the natural hazards and environmental conditions on site. We recommend that applicants contact Conservation Halton staff prior to submitting the application to determine what level of detail is deemed appropriate.

This checklist **must be returned** with the Permit application indicating in the appropriate spaces that all required information has been provided.

PROJECT TITLE:	DATE:
LOCATION:	FILE #:

		Applicable	Provided
General Submission Requirements			
Application Form	Completed and signed application form. *At a minimum, the landowner/utility company must sign the form. If an agent is representing the landowner, the agent must also sign the form*.	☐	☐
Application Fee	Non-refundable administrative fee as per category ___ on the fee schedule attached to permit application.	☐	☐
Electronically Submitted	All materials submitted electronically either through email or digital transfer.	☐	☐
Project Description	Description of, and rationale for, the proposed works including discussion of other alternatives considered. If a replacement structure is proposed, details regarding the current conditions of the existing structure are requested.	☐	☐
Photographs	Photographs of the watercourse, banks, adjacent vegetation and/or representative vegetation communities (if applicable) during ice-free conditions.	☐	☐
Drawings	Digital drawings and ____ ( ) hard copies of all drawings, folded to 8½" x 11", in standard metric scale. See 'Drawing Requirements' section.	☐	☐
Reports	Digital reports and ____ ( ) hard copy of reports listed under 'Technical Study Requirements'.	☐	☐
Qualified Persons	Where a drawing or report is required to be prepared by a P.Geo., P.Eng., OALA, or OLS, it must be stamped, dated and signed.	☐	☐
Drawing Requirements			

		Applicable	Provided
Digital Copies	Technical drawings and plans provided in pdf format unless requested otherwise (i.e. the most recent version of AutoCAD). GIS data and mapping should be submitted in an acceptable ESRI format and be properly georeferenced to real world coordinates (i.e., NAD83, UTM, Zone 17). It is highly desirable that mapping related data be submitted in ArcGIS Geodatabase format, containing all spatial, attribute, metadata and spatial joins/data rules. ESRI shape file format is an acceptable alternative.	☐	☐
Topographic Survey	Detailed topographic survey of the site by an OLS or qualified P.Eng. extending a minimum 15m upstream and downstream of the project footprint, with information collected at 1m intervals along the creek. The survey is to identify/confirm/include items such as: • Creek inverts, creek thalweg • Location of channel banks • Existing infrastructure/utilities • Observed water level • Dams/weirs/knick points • Survey datum • Slopes /valley walls/retaining walls (top and bottom of bank) • Limit of wetlands, staked by Conservation Halton • Ditch lines • Benchmarks • Date surveyed, etc.	☐	☐
Plan View(s)	Plan view(s) showing existing conditions and proposed development conditions including: • Detailed grading (clearly illustrate how the proposed works will blend in with the undisturbed areas) • Limit of work/disturbance • Location of entry/exit pits (with dimensions) • Watercourse (bankfull width) • Culvert/Bridges • Watercourse features • Vegetation • Conservation Halton staked Wetland limits • Structures/buildings • Utilities/infrastructure • Borehole locations • Location of cross-sections and profile views, etc. • Location of regulated features, regulation limits and applicable setbacks, specifically: _____ _____	☐	☐
Aerial Photograph(s)	Plan view of the proposed works and limits of disturbance (or other, specifically _____), superimposed over top of a recent aerial photograph of the site. Please specify date of imagery.	☐	☐

		Applicable	Provided
Profile Views	Proposed profile view of the utility, entry and exit pits, and any mitigation measures (e.g. trench plugs), extending through the regulated area. Borehole logs, identifying soil conditions, if available should be provided on the drawing. For creek crossing, the thalweg of the channel or crossing structure inverts must be shown relative to the depth of utility crossing. The 100 year channel scouring should be delineated, if determined. For crossing of wetlands, wetland bathymetry relative to the depth of utility crossing must be provided. Please consult with staff regarding the appropriate depth of the utility crossing.	☐	☐
Existing Utility	If an existing utility is to be abandoned, detailed information of the abandoning must be identified and labelled.	☐	☐
Existing Vegetation	A vegetation inventory (including scientific names) and Tree Preservation Plan. Tree protection fencing location and details must be illustrated on the drawings. Recommend that Conservation Halton's *Guidelines for Landscaping and Rehabilitation Plans (2024)* be followed available at www.conservationhalton.ca.	☐	☐
Proposed Vegetation	Details on restoration, including a locally native, non-invasive seed mix for disturbed areas as well as compensatory trees and/or shrubs must be indicated on the drawings (including scientific names). Follow Conservation Halton's *Guidelines on Landscaping and Restoration Plans (2024)*, available at www.conservationhalton.ca. unless as directed bellow: _____ _____ _____ _____	☐	☐
Staging, Phasing and Access Route Plans	Details regarding the sequence of construction with consideration of site management, best management practices, and construction timing. The construction sequence should consider: • Vegetation removal, • In-stream works, • Seasonal timing of landscaping and bioengineering, • Stockpiling operations, etc. The full limits of disturbance for access to the site must be delineated with details regarding temporary crossings (if applicable). Efforts to minimize the extent of the disturbance must be demonstrated.	☐	☐

		Applicable	Provided
Erosion and Sediment Control Plans	Details regarding sediment and erosion control measures, site dewatering, equipment, materials, access to and from work area, monitoring, site supervision, etc. See *Erosion & Sediment Guidelines for Urban Construction* prepared by the Greater Golden Horseshoe Area Conservation Authorities (www.sustainabletechnologies.ca) for additional guidance.	☐	☐
	Above plan is to be prepared by a qualified professional (i.e. CISEC, CPESC or an approved equivalent).	☐	☐
Technical Study Requirements			
Studies pertaining to erosion hazards must be completed in accordance with the Ministry of Natural Resources & Forestry (MNRF) Technical Guidelines (MNR, 2002) and current CH Guidelines.			
Geotechnical Assessment (Soil/Bedrock Investigation)	A geotechnical assessment by a qualified P.Eng for the purposes of verifying soil, bedrock and groundwater conditions, as well as the feasibility of the proposed crossing method.	☐	☐
Geotechnical Assessment (Slope Stability	A geotechnical slope stability assessment by a qualified P.Eng. to ensure the proposed works will not negatively impact slope stability of the valley wall.	☐	☐
Downcutting/ Scour Analysis	Detailed analysis by a qualified licenced professional of the potential for downcutting/scour based on historical observations or acceptable modelling. Future channel migration and widening modifying the plan form of the creek should be considered.	☐	☐
Hydrogeological Assessment	A hydrogeological assessment by a qualified P.Eng. or P.Geo. to study the potential impacts to surface/groundwater interactions related to dewatering and discharge activities. The assessment must provide adaptive management, mitigation and monitoring strategies with considerations for discharge (i.e. quantity of water), construction phasing, etc.	☐	☐
Hydrologic Evaluation	Assessment of the impact of hydrologic changes to wetlands using a multi-disciplinary approach by Qualified Person(s).	☐	☐
Contingency Plans	Contingency plans for such occurrences as frac-out, loss of water to the creek, etc., outlining how such an event will be prevented and or handled, should it occur during construction.	☐	☐
Commissioning Plans	Details regarding commissioning of the utility, particularly the flow duration, and location of discharge of any water during this phase.	☐	☐

		Applicable	Provided
Other Requirements			
Fisheries Act	If works are proposed in/near water, the proponent is responsible for avoiding Harmful, Alteration, Disruption or Destruction (HADD) to fish and fish habitat under the *Fisheries Act* . Please refer to the Fisheries and Oceans Canada (DFO) website for additional information. Questions can be directed to DFO by phone 1 855 852-8320 or email FisheriesProtection@dfo-mpo.gc.ca.		
Endangered Species	The Ministry of Environment, Conservation and Parks (MECP) may have concerns with respect to species listed on the Species at Risk in Ontario list as it pertains to *the Endangered Species Act* (ESA) Please contact MECP and DFO directly to determine if there is potential for Species at Risk on, or adjacent, to your project site. The MECP will determine if detailed project information will be required to begin the ESA approval process: SAROntario@ontario.ca		
Timing Windows	Please be advised that regulatory agencies such as the MECP and DFO (mentioned above), as well as other agencies such as the MNRF (scp.aurora@ontario.ca or scp.guelph@ontario.ca) may have seasonal timing restrictions which dictate when in-water work can occur. Please be sure to contact regulatory agencies as appropriate.		
Prepared by: _____		**Signature: _____**	

Additional Design Considerations

- The time of year that work is proposed may impact permit requirements for in-water works. Seasonal Design Considerations (SDCs) associated with works to occur during times of higher expected flow (e.g. freshet) may include enhanced ESC measures or increased monitoring and mitigation measures. Changes in work schedules may require a revised permit to address SDCs
- Since releases are caused by pressurization of the drill hole beyond the containment capacity of the overburden material, a directional bore must be located a sufficient distance beneath the bed of the watercourse to ensure there is no release of drilling fluids into the watercourse.
- Settling or filtering of water pumped from work area must be addressed.
- For dewatering of the work area to facilitate construction, a Permit to Take Water (PTTW) may be required from the Ministry of the Environment & Climate Change if dewatering is in excess of 50,000 litres per day http://www.ene.gov.on.ca/environment/en/industry/assessment_and_approvals/water_taking/STDPROD_075554.htmlExisting crossing must be abandoned using appropriate techniques. Removal of existing utility should be carried out where feasible without greatly impacting the natural environment.
- Monitoring by the proponent after construction is crucial to verify the success of the project.