

Part 1 General

1.1 WORK COVERED BY CONTRACT DOCUMENTS

- .1 Work of this Contract comprises, but is not limited to, rock scaling and rock removal of loose, unstable rock and shotcrete and rock bolting in designated locations along the rock escarpment located at the north slope of the Supreme Court of Canada (SCC) situated at 301 Wellington Street in the City of Ottawa, Ontario.

1.2 MINIMUM STANDARDS

- .1 Materials shall be new and work shall conform to the minimum applicable standards of the Canadian General Standards Board, the Canadian Standards Association, the National Building Code of Canada 2010 (NBC); the National Fire Code 2010 (NFC) and all applicable Provincial and Municipal codes. In the case of conflict or discrepancy the most stringent requirement shall apply.

1.3 WORK PLAN

- .1 The proposed work involves manual scaling of the escarpment between Stations 0+000 to 0+135, from the crest of the rock face to the lowest point of the exposed rock as shown in Drawing C1. Specific sections of jointed rock shall be re-scaled and ground support shall be installed in a specified pattern to support the more rock fall sensitive areas and reduce the risk of new loose rock forming. The ground support shall require the installation of friction stabilizer rock bolts with suitable rock bolt plates.
- .2 The work involves basic level scaling and rock fall mitigation that can provide a certain level of assurance for the safety of the public users of the bike path for the next 5 years - until a more permanent solution can be implemented.
- .3 Drawings C1, C2, C3, and C4 show the proposed work area, potential lay down areas, areas where rock bolts are likely required, etc.
- .4 Care shall be taken throughout the proposed scaling and rock removal aspects of the project to protect existing vegetation. Pruning of small shrubs and/or trees shall be permitted only upon prior approval of Departmental Representative. All pruned wood material shall be disposed of off-site.
- .5 Any designated trees to protect and all existing structures damaged during construction shall be replaced and/or repaired, if possible, to the satisfaction of the Departmental Representative at the Contractor's cost.
- .6 The contractor shall provide the necessary equipment and materials (lift equipment, platforms, pneumatic drills, compressors, staging, loaders and trucks) needed to undertake the work in accordance with the Occupational Health and safety Act and provide the training certificates for all workers and supervisors that shall be employed on the project.
- .7 Scaling shall be performed by Contractor certified personnel with the appropriate training. The workers shall wear all personal protective equipment required to safely undertake the work and shall work in accordance with the job procedures that shall be issued and approved separately by the contractor supervisor before carrying out their duties. The contractor shall also supply all public access barricading, fall arrest equipment and hording that may be required to protect the existing structures and all designated trees identified by the Departmental Representative.
- .8 Precautions against falling rocks damaging the existing vegetation, asphalted bike path and/or rolling into the river shall be minimized by the installation of plywood sheeting or mats and

heavy plastic snow fencing along the water's edge to catch errant rocks. Silt fencing shall also be installed behind the snow fence to prevent sediment laden surface water runoff from entering the river.

1.4 WORK CONSTRAINTS

- .1 The sequence of work is the responsibility of the Contractor except as noted. The Contractor shall identify an appropriate sequence of work that meets the project requirements. The project schedule shall be based on and appropriate for the sequence of work developed by the Contractor.
- .2 Submit a revised construction schedule along with responses to contemplated change notices. Schedule shall indicate proposed timing changes to contract in effect upon acceptance of the change and issuance of a change order.
- .3 Submit with the construction schedule a list of all shop drawings and other submittals that the Contractor is required to submit. Coordinate each of the submittals with the construction schedule for timely review to coincide with construction progress.
- .4 Take all necessary measures to complete the work within the construction schedule.
- .5 Carry out all work continuously until completion. Complete all work, as shown on the Drawings and outlined in these Specifications.
- .6 Conduct interim reviews of work progress as decided by the Departmental Representative based on the schedule and the schedule updated by the Contractor in conjunction with the Departmental Representative. In the event that the work is behind schedule, corrective action shall be taken by the Contractor to the satisfaction of the Departmental Representative in order to adjust the schedule to meet the completion dates.

1.5 CONTRACTOR USE OF PREMISES

- .1 Access to the site, limits of work and staging area to be as shown on the Drawings, or as directed by the Departmental Representative.
- .2 For access by public roads, make all arrangements, obtain any required permits and confine activities to such routes and load limits as the authorities having jurisdiction may require.
- .3 The asphalted bike path is subjected to municipal road half load weight restrictions imposed by the City of Ottawa.
- .4 At completion of operations, condition of existing work shall be better than that which existed before new work started.
- .5 The Contractor shall be responsible for any snow clearing required in the staging area, in work areas or along access routes in order to complete the work. Cooperate with snow clearing activities performed by others, as required.

1.6 ALTERATIONS, ADDITIONS OR REPAIRS TO EXISTING PROPERTY

- .1 Execute work with least possible interference or disturbance to building operations, public and normal use of premises. Arrange with the Departmental Representative to facilitate execution of work.
- .2 Take care, when executing the Contract, and when moving onto or off the site, to not damage any existing utility services, roads, buildings or other structures. Any damage to property or grounds shall be repaired and/or made good as directed by the Departmental Representative at the Contractor's expense.

1.7 EXISTING SERVICES

- .1 Notify Departmental Representative and utility companies of intended interruption of services and obtain required permission.
- .2 Where work involves breaking into or connecting to existing services, the Departmental Representative requires 48 hours of notice for necessary interruption of mechanical or electrical service throughout course of work. Minimize duration of interruptions. Carry out work at times as directed by governing authorities with minimum disturbance to pedestrian traffic.
- .3 Establish location and extent of service lines in area of work before starting Work. Notify Departmental Representative of findings.
- .4 Submit schedule to and obtain approval from Departmental Representative for any shut-down or closure of active service or facility including power and communications services. Adhere to approved schedule and provide notice to affected parties.
- .5 Where unknown services are encountered, immediately advise Departmental Representative and confirm findings in writing.
- .6 Protect, relocate or maintain existing active services. When inactive services are encountered, cap off in manner approved by authorities having jurisdiction.
- .7 Record locations of maintained, re-routed and abandoned service lines.
- .8 Construct barriers in accordance with Section 01 56 00 - Temporary Barriers and Enclosures.

1.8 DOCUMENTS REQUIRED

- .1 Maintain at job site, one copy of each document as follows:
 - .1 Contract Drawings.
 - .2 Specifications.
 - .3 Addenda.
 - .4 Reviewed Shop Drawings.
 - .5 List Outstanding Shop Drawings.
 - .6 Change Orders.
 - .7 Other Modifications to Contract.
 - .8 Field Test Reports.
 - .9 Copy of Approved Work Schedule.
 - .10 Health and Safety Plan and Other Safety Related Documents.

1.9 FAMILIARIZATION WITH SITE AND PHYSICAL ASPECTS

- .1 Inspect the site of the proposed work and become informed by such means as necessary as to the actual conditions and requirements of the work, including particulars of local conditions and requirements generally and all other factors which may affect the tender and the performance of the work including the protection of all vegetation along the face and base of the escarpment. Some pruning of the small shrubs shall be permitted to facilitate rock removal but all effort should be made to minimise pruning and/or removal of vegetation. If accidental damage to a tree occurs, work with Departmental Representative to properly prune or repair the damaged area.
- .2 All trees and vegetation growing directly out of the cliff face shall be removed upon approval of the Departmental Representative.

- .3 Contractor responsible for the protection of all trees designated as requiring protection from falling rocks and equipment. If damaged, Contractor shall be responsible for the replacement of these damaged trees.
- .4 Review existing reports. Note that the weathering of the rock faces at this site is an ongoing process and the actual conditions at the time of bidding and/or construction may not be exactly the same as they are presented in the geotechnical reports. Each Bidder shall form his own opinion of the conditions affecting the work from an inspection of available records and from such other investigations as he may desire to make. The Departmental Representative shall not be responsible for any deduction, interpretation or conclusion drawn therefrom by the Bidder.
- .5 If site conditions are found that are different than what is indicated in the contract documents, such that changes may be required to the work, immediately inform the Departmental Representative of such conditions and propose suggested alternatives. Do not proceed with the work until any necessary changes have been accepted and agreed upon.
- .6 The objective of the rock scaling measures is to have a vertical cliff face at the end of the scaling works and not a sloped cliff face.

1.10 HAZARDS

- .1 Become aware of all of the potential hazards on the site, and in particular the potential for rock falls. The rock face has been exposed to various weathering elements, which have resulted in significant loose rock and shotcrete on the rock face.
- .2 Submit a method statement, within 3 days of award, for carrying out the work safely and specifically address the issue of protecting workers from rock falls during construction.

1.11 CODES AND STANDARDS

- .1 Perform work in accordance with all applicable regulations, codes and standards.
- .2 Notify the Departmental Representative immediately of any inspections by the Ministry of Labour and provide copies of any instructions or orders.
- .3 Meet or exceed the requirements of the Contract Documents, specified standards, codes and referenced documents.

1.12 PROJECT MEETINGS

- .1 Departmental Representative shall arrange weekly project meetings and assume responsibility for setting times and recording and distributing minutes

1.13 SETTING OUT OF WORK

- .1 Locate and preserve general reference points.
- .2 Confirm all dimensions shown on the Drawings in the field and notify the Departmental Representative immediately of any discrepancies.
- .3 Set out all work based on the reference bench mark established with the Departmental Representative and assume all responsibility for the dimensions and elevations measured from such references.
- .4 Supply and maintain survey stakes and other survey markers required for the work.
- .5 Assume complete responsibility for, and execute complete layout work, to the lines and elevations indicated.

1.14 PARKING

- .1 There is no Contractor parking on site other than in the staging area at the top and/or bottom of the slope. Vehicles parked illegally shall be towed away at owner's cost and liability.
- .2 Existing parking spaces at the top of the slope, at the Supreme Court area, or elsewhere should never be obstructed nor occupied by construction activities.

1.15 COMMUNICATION

- .1 All communication with the general public, except that required to carry out the work, shall be done through the Departmental Representative, or an agency designated by the Departmental Representative.

1.16 TRAINING AND CERTIFICATION OF WORKERS

- .1 Contractor to use certified personnel with the appropriate training.

1.17 TAXES

- .1 Pay all taxes properly levied by law (including Federal, Provincial and Municipal).

1.18 FEES, PERMITS, AND CERTIFICATES

- .1 Pay all fees and obtain all permits. Provide authorities with plans and information for acceptance certificates. Provide inspection certificates as evidence that work conforms to requirements of Authority having jurisdiction.

1.19 FIRE SAFETY REQUIREMENTS

- .1 Comply with the National Building Code of Canada 2010 (NBC) for fire safety in construction and the National Fire Code of Canada 2010 (NFC) for fire prevention, fire fighting and life safety in building in use.

1.20 HAZARDOUS MATERIALS

- .1 Comply with the requirements of the Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage, and disposal of hazardous materials; and regarding labelling and the provision of Material Safety Data Sheets (MSDS).

1.21 WELDING AND CUTTING

- .1 A "hot work" permit is not required for exterior work.
- .2 The Contractor will assign a fire watcher when welding or cutting operations are carried out in areas where combustible materials within 10 m may be ignited by conduction or radiation.

1.22 FIELD QUALITY CONTROL

- .1 Carry out Work using qualified licensed workers or apprentices in accordance with Provincial Act respecting manpower, vocational training and qualification.
- .2 Permit employees registered in Provincial apprenticeship program to perform specific tasks only if under direct supervision of qualified licensed workers.
- .3 Determine permitted activities and tasks by apprentices, based on level of training attended and demonstration of ability to perform specific duties.

1.23 TEMPORARY UTILITIES

- .1 Contractor shall not be permitted to use the existing services for construction work. Contractor is responsible to arrange for alternative means at his own expense.
- .2 Notify the Departmental Representative and utility companies of intended interruption of services at least 7 days in advance; obtain requisite permission.
- .3 Give the Departmental Representative at least 7 days notice prior to each necessary interruption of any mechanical or electrical service throughout the course of the work. Keep duration of these interruptions to a minimum. Carry out all interruptions after normal working hours of the occupants, preferably on weekends.

1.24 REMOVED MATERIALS

- .1 Unless otherwise specified, materials for removal become the Contractor's property and shall be taken from site.

1.25 PROTECTION

- .1 Protect adjacent work against the spread of dust and dirt beyond the work areas.
- .2 Protect finished work against damage until take-over.
- .3 Protect operatives and other users of site from all hazards.

1.26 HOARDING

- .1 Erect temporary site enclosure around work site.
- .2 Hoarding to be in full compliance with requirements of the Ontario Health and Safety Act and Regulations - 2011 (OHSA).
 - .1 Entire work area shall be enclosed with 1.8 m high welded wire construction fencing with a lockable gate at either end of bike path for access and egress.
 - .2 Erect temporary rock catchment fence using new 1.2 m high snow fence wired to rolled steel "T" bar fence posts spaced at 1.2 m on centre as shown on Drawing C3 and C4 to prevent errant rocks from bouncing and/or rolling into the river. Maintain fence in good repair.
- .3 Keep site fenced off at all times from general public. Only remove portion of fence to provide opening to site to accommodate access, minimize duration of opening, and immediately close when not required.
- .4 Ensure site is fully enclosed when work force is not on site.
- .5 Continually monitor condition of hoarding and make good repairs.

1.27 USE OF SITE AND FACILITIES

- .1 Execute work with least possible interference or disturbance to the normal use of premises. Make arrangements with Departmental Representative to facilitate work as stated.
- .2 Maintain access to asphalted bike path on site at all times for emergency vehicles.
- .3 Maintain vehicle and pedestrian access, including emergency vehicles to and from the site.

1.28 SANITARY FACILITIES

- .1 Provide temporary sanitary facilities for work force in accordance with governing regulations and ordinances.
- .2 Post notices and take precautions as required by local health authorities. Keep area and premises in sanitary condition.
- .3 Location of portable facility to be approved by Departmental Representative on site.

1.29 SITE STORAGE

- .1 The Departmental Representative shall assign storage space, which shall be equipped and maintained by the Contractor.
- .2 Do not unreasonably encumber site with materials or equipment.
- .3 Move stored products or equipment, which interferes with operations of Departmental Representative or other contractors.
- .4 Obtain and pay for use of additional storage or work areas needed for operations.

1.30 PATCH AND MAKE GOOD

- .1 Patch and make good surfaces cut, damaged or disturbed, to Departmental Representative's approval. Match existing material, colour, finish and texture.

1.31 EXAMINATION

- .1 Examine site and conditions likely to affect work and be familiar and conversant with existing conditions.

1.32 SIGNS

- .1 Provide on-site common-use signs related to traffic control, information, instruction, use of equipment, public safety devices, and etcetera, in both official languages or by the use of commonly-understood graphic symbols to the Departmental Representative's approval.
- .2 All off-site signage to be provided and erected by Departmental Representative.
- .3 No advertising shall be permitted on this project.

1.33 ACCESS AND EGRESS

- .1 Design, construct and maintain temporary "access to" and "egress from" work areas, including stairs, ramps or ladders, independent of finished surfaces and in accordance with relevant municipal, provincial and other regulations.

1.34 RECORDS

- .1 As work progresses, maintain accurate records to show deviations from contract drawings. Just prior to Departmental Representative's inspection for issuance of final certificate of completion, supply to the Departmental Representative one (1) set of white prints with all deviations neatly inked in. The Departmental Representative shall provide two sets of clean white prints for this purpose.
- .2 Drawings are to be updated at the end of each work period.

- .1 Drawings are to be submitted for review by the Departmental Representative at the regularly scheduled construction project meetings.
- .2 Store drawings on site in a clean dry area.
- .3 Make drawings available for review when requested by Departmental Representative.

1.35 WARRANTIES

- .1 Before completion of work, collect all manufacturer's warranties and deposit with Departmental Representative.

1.36 CLEAN UP

- .1 Clean up work area as work progresses. At the end of each work period, and more often if ordered by the Departmental Representative, remove debris from site, neatly stack material for use, and clean up generally.
- .2 Upon completion remove temporary protection and surplus materials. Make good defects noted at this stage.
- .3 Clean areas under contract to a condition approved by the Departmental Representative.

1.37 DUST CONTROL

- .1 Prevent the spread of dust for the protection of workers, finished areas of work and public.

1.38 MOBILIZATION PERIOD

- .1 Mobilize all equipment to site within two weeks of contract award except in cases where a later mobilization date is indicated as acceptable by the Departmental Representative.
- .2 Mobilization can be done ahead of the permitted 14 day bike path closure; however it cannot be done during the busy use times of the bike path (i.e. between 7 am to 9 am; 11 am to 1 pm; and, 3 pm to 6 pm).

1.39 DEMOBILIZATION

- .1 Demobilize all equipment from site of Work upon Substantial Performance of entire Work.
- .2 Leave all work areas in a neat and tidy condition.
- .3 Restore any damage to site to the satisfaction of the Departmental Representative.
- .4 Demobilization can be done after the permitted 14 day bike path closure; however it cannot be done during the busy use times of the bike path (i.e. between 7 am to 9 am; 11 am to 1 pm; and, 3 pm to 6 pm).

1.40 COST BREAKDOWN

- .1 Before submitting the first progress claim, submit breakdown of Contract Amount in detail as directed by Departmental Representative and aggregating the Contract Amount. After approval by Departmental Representative cost breakdown shall be used as the basis of progress payments.

Part 2 Products

NOT USED

Part 3 Execution

NOT USED

END OF SECTION