

Part 1 General

1.1 SUMMARY

- .1 Section includes descriptions for demolishing, salvaging, recycling and removing site work items identified for removal in whole or in part, and for backfilling trenches and excavations resulting from site demolition activities.

1.2 RELATED REQUIREMENTS

- .1 Section 02 41 13.13 – Paving Removal
- .2 Section 31 23 33.01– Excavating, Trenching and Backfilling
- .3 Section 32 31 13 – Chainlink Fencing and Gates

1.3 REFERENCE STANDARDS

- .1 Department of Justice Canada (Jus)
 - .1 Canadian Environmental Assessment Act (CEAA), 2012
 - .2 Canadian Environmental Protection Act (CEPA), 2012
 - .1 SOR/2003-2, On-Road Vehicle and Engine Emission Regulations
 - .2 SOR/2006-268, Regulations Amending the On-Road Vehicle and Engine Emission Regulations
 - .3 Transportation of Dangerous Goods Act (TDGA), 1992, c. 34
 - .4 Motor Vehicle Safety Act (MVSA), 1995
 - .5 Hazardous Materials Information Review Act, 1985
- .2 Underwriters' Laboratories of Canada (ULC)
 - .1 CAN/ULC-S660-[08] , Standard for Nonmetallic Underground Piping for Flammable and Combustible Liquids
 - .2 ULC/ORD-C58.15-[1992] , Overfill Protection Devices for Flammable Liquid Storage Tanks
 - .3 ULC/ORD-C58.19-[1992] , Spill Containment Devices for Underground Flammable Liquid Storage Tanks
- .3 U.S. Environmental Protection Agency (EPA)
 - .1 EPA CFR 86.098-10, Emission standards for 1998 and later model year Otto-cycle heavy-duty engines and vehicles
 - .2 EPA CFR 86.098-11, Emission standards for 1998 and later model year diesel heavy-duty engines and vehicles
 - .1 EPA 832/R-92-005, Storm Water Management for Construction Activities: Developing Pollution Prevention Plans and Best Management Practices

1.4 DEFINITIONS

- .1 Selective Demolition: Sequencing demolition activities to allow separation and sorting of selected site materials.
- .2 Hazardous Substances: dangerous substances, dangerous goods, hazardous commodities and hazardous products, including but not limited to: asbestos PCB's, CFC's, HCFC's poisons, corrosive agents, flammable substances, ammunition, explosives, radioactive substances, or other material that can endanger human health or well being or environment if handled improperly.

1.5 ADMINISTRATIVE REQUIREMENTS

- .1 Coordination: Coordinate with Representative for the material ownership including the following:
 - .1 Except for items or materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain Representative's property, demolished materials shall become Contractor's property and shall be removed from Project site.
- .2 Scheduling:
 - .1 Employ necessary means to meet project time lines without compromising specified minimum rates of material diversion.
 - .2 In event of unforeseen delay notify Departmental Representative in writing.

1.6 QUALITY ASSURANCE

- .1 Regulatory Requirements: ensure Work is performed in compliance with applicable Provincial/Territorial regulations.
- .2 Comply with hauling and disposal regulations of Authority Having Jurisdiction.

1.7 SITE CONDITIONS

- .1 Environmental protection:
 - .1 Ensure Work is done in accordance with Section 01 35 43 - Environmental Procedures.
 - .2 Ensure Work does not adversely affect adjacent watercourses, groundwater and wildlife, or contribute to excess air and noise pollution.
 - .3 Fires and burning of waste or materials is not permitted on site.
 - .4 Burying of rubbish waste materials is not permitted.
 - .5 Disposal of waste of volatile materials including but not limited to, mineral spirits, oil, petroleum based lubricants, or toxic cleaning solutions into watercourses, storm or sanitary sewers, is not permitted.
 - .6 Ensure proper disposal procedures are maintained throughout the project.
- .2 Pumping of water containing suspended materials into watercourses, storm or sanitary sewers or onto adjacent properties, is not permitted.
- .3 Control disposal or runoff of water containing suspended materials or other harmful substances in accordance with authorities having jurisdiction.
- .4 Protect trees, plants and foliage on site and adjacent properties where indicated.

- .5 Prevent extraneous materials from contaminating air beyond application area, by providing temporary enclosures during demolition work.
- .6 Cover or wet down dry materials and waste to prevent blowing dust and debris. Control dust on all temporary roads.
- .7 Conduct selective site demolition so Institution's operations will not be disrupted:
 - .1 Provide not less than 72 hours' notice to Departmental Representative of activities that will affect operations.
 - .2 Maintain access to existing walkways, exits, and other adjacent occupied or used facilities:
 - .1 Closing or obstructing walkways, exits, or other occupied or used facilities without written permission from Departmental Representative is not permitted.
- .8 Departmental Representative assumes no responsibility for Selective Site elements being demolished:
 - .1 Conditions existing at time of inspection for bidding purpose will be maintained by Departmental Representative as far as practical.
 - .2 Before selective site demolition, remove, protect and store salvaged items as directed by Departmental Representative:
 - .1 Salvage any items identified by Departmental Representative.
 - .2 Deliver to Departmental Representative as directed.

1.8 EXISTING CONDITIONS

- .1 Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work:
 - .1 Hazardous materials will be as defined in the Hazardous Materials Act.
 - .2 Hazardous materials will be removed by Departmental Representative before start of the Work.
- .2 If materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Departmental Representative. Hazardous materials will be removed by Departmental Representative under a separate contract or as a change to the Work.
- .3 If material resembling spray or trowel applied asbestos or other substance identified as hazardous be encountered in course of demolition, stop work, take preventative measures, and notify Departmental Representative immediately. Proceed only after receipt of written instructions have been received from Departmental Representative.
- .4 Site elements that will be demolished are based on their condition at time of examination prior to tendering.

Part 2 Products

2.1 EQUIPMENT

- .1 Equipment and Heavy Machinery:

- .1 On-road vehicles to: CEPA-SOR/2006-268, Regulations Amending the On-Road Vehicle and Engine Emission Regulations and CEPA-SOR/2003-2, On-Road Vehicle and Engine Emission Regulations.
- .2 Off-road vehicles to: EPA CFR 86.098-11 and EPA CFR 86.098-10.
- .3 Machinery running only while in use, except where extreme temperatures prohibit shutting machinery down.

Part 3 Execution

3.1 EXAMINATION

- .1 Survey existing conditions and correlate with requirements indicated to determine extent of selective site demolition required.
- .2 Departmental Representative does not guaranty that existing conditions are the same as those indicated in Project Record Documents.
- .3 Inventory and record the condition of items being removed and salvaged.
- .4 When unanticipated mechanical, electrical, or structural elements are encountered, investigate and measure the nature and extent of the element. Promptly submit a written report to Departmental Representative for direction prior to proceeding with any work.
- .5 Verify that hazardous materials have been remediated before proceeding with site demolition operations.

3.2 PREPARATION

- .1 Protection of in-place conditions:
 - .1 Prevent movement, settlement or damage of adjacent structures, services, walks, paving, trees, landscaping, parts of existing building to remain.
 - .1 Provide bracing and shoring as required.
 - .2 Repair damage caused by demolition as directed by Departmental Representative.
 - .2 Support affected site elements and, if safety of site element being demolished or services or adjacent structures appears to be endangered, take preventative measures, stop Work and immediately notify Departmental Representative.
 - .3 Prevent debris from blocking surface drainage system.

3.3 REMOVAL AND DEMOLITION OPERATIONS

- .1 Remove items as indicated.
- .2 Disruption of items designated to remain in place is not permitted.
- .3 Removal of pavements, curbs and gutters:
 - .1 Square up adjacent surfaces to remain in place by saw cutting or other method approved by Departmental Representative.
 - .2 Protect adjacent joints and load transfer devices.
 - .3 Protect underlying and adjacent granular materials.

- .4 Prevent contamination with base course aggregates, when removing asphalt pavement for subsequent incorporation into hot mix asphalt concrete paving, in accordance with Section 02 41 13.14.
- .4 Excavate at least 300 mm below pipe invert, when removing pipes under existing or future pavement area.
- .5 Stockpile topsoil for final grading and landscaping:
 - .1 Provide erosion control and seeding if not immediately used.
- .6 Disposal of Material:
 - .1 Separate waste materials for reuse and recycling in accordance with Section 01 74 21 – Construction / Demolition Waste Management and Disposal.
- .7 Backfill: Backfill in areas as indicated and in accordance with Section 31 23 33.01- Excavating, Trenching and Backfilling.

3.4 STOCKPILING

- .1 Designate appropriate security resources/measures to prevent vandalism, damage and theft.
- .2 Locate stockpiled materials convenient for use in new construction to eliminate double handling wherever possible.
- .3 Stockpile materials designated for alternate disposal in location which facilitates removal from site and examination by potential end markets, and which does not impede disassembly, processing, or hauling procedures.

3.5 REMOVAL FROM SITE

- .1 Remove stockpiled material as directed by when it interferes with operations of project.
- .2 Remove stockpiles of like materials by alternate disposal option once collection of materials is complete.

3.6 RESTORATION

- .1 Restore areas and existing works outside areas of demolition to match condition of existing adjacent, undisturbed areas.
- .2 Use soil treatments and procedures which are not harmful to health, are not injurious to plants, and do not endanger wildlife, adjacent water courses or ground water.

3.7 CLEANING

- .1 Progress Cleaning: clean in accordance with Section 01 74 00- Cleaning.
 - .1 Leave Work area clean at end of each day.
 - .2 Remove debris, trim surfaces and leave work site clean, upon completion of Work
 - .3 Use cleaning solutions and procedures which are not harmful to health, are not injurious to plants, and do not endanger wildlife, adjacent water courses or ground water.

- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 00- Cleaning.

END OF SECTION

Part 1 General

1.1 SUMMARY

- .1 Section includes descriptions for demolishing, salvaging, recycling and removing of asphalt paving identified in whole or in part, and for backfilling trenches and excavations resulting from site demolition activities a required by scope of work.

1.2 RELATED REQUIREMENTS

1.3 REFERENCE STANDARDS

- .1 Department of Justice Canada (Jus)
 - .1 Canadian Environmental Assessment Act (CEAA), 1995, c. 37.
 - .2 Canadian Environmental Protection Act, 1999 (CEPA), c. 33.

1.4 DEFINITIONS

- .1 Demolish: Detach items from existing construction and legally dispose of them off site, unless indicated to be removed and salvaged or removed and reinstalled.
- .2 Existing to Remain: Existing items of construction that are not removed and that are not otherwise indicated as being removed, removed and salvaged, or removed and reinstalled

1.5 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Action Submittals: Provide following submittals before starting work of this Section:
 - .1 Shop Drawings: Submit shop drawings indicating diagrams or details showing sequence of demolition work.
- .2 Informational Submittals: Provide following submittals during course of work:
 - .1 Certificates: Submit copies of certified weigh bills, bills of lading or receipts from authorized disposal sites and re use and recycling facilities for material removed from site.

1.6 QUALITY ASSURANCE

- .1 Regulatory Requirements: ensure Work is performed in compliance with applicable Provincial/Territorial regulations.
- .2 Comply with hauling and disposal regulations of Authority Having Jurisdiction.

1.7 SITE CONDITIONS

- .1 Protect existing site features to remain or identified for salvage or re use; make repairs and restore to a similar condition to existing where damage to these items occurs as directed by Departmental Representative and at no cost:
 - .1 Remove and store salvaged materials to prevent contamination.
 - .2 Store and protect salvaged materials as required for maximum preservation of material.

- .3 Handle salvaged materials same as new materials.
- .2 Perform pavement removal work to prevent adverse effects to adjacent watercourses, groundwater and wildlife, and to prevent excess air and noise pollution:
 - .1 Do not pump water containing suspended materials into watercourses, storm or sanitary sewers or onto adjacent properties.
 - .2 Control disposal or runoff of water containing suspended materials or other harmful substances in accordance with Authorities Having Jurisdiction.
- .3 Protect existing site features and structures, trees, plants and foliage on site and adjacent properties.

Part 2 Products

2.1 EQUIPMENT

- .1 Use cold milling, planning or grinding equipment with automatic grade controls capable of operating from stringline, and capable of removing part of pavement surface to depths or grades indicated.

Part 3 Execution

3.1 PREPARATION

- .1 Verify extent and location of asphalt identified for removal, disposal, alternative disposal, recycling, salvage and items to remain.
- .2 Locate and protect utilities, preserve active utilities traversing site in operating condition.
- .3 Prior to beginning removal operation, inspect and verify with Departmental Representative areas, depths and lines of asphalt pavement to be removed.
- .4 Protection: protect existing pavement not designated for removal, light units and structures from damage. In event of damage, immediately replace or make repairs to approval of Departmental Representative at no additional cost.

3.2 REMOVAL

- .1 Remove existing asphalt pavement as indicated on Drawings to facilitate the installation of new concrete slab in Acute Exercise Yard.
- .2 Demolition of pavements, curbs and gutters:
 - .1 Square up adjacent surfaces to remain in place by saw cutting or other method acceptable to Departmental Representative on site.
 - .2 Protect adjacent joints and load transfer devices.
 - .3 Protect underlying and adjacent granular materials where they are exposed and identified to remain.
 - .4 Prevent contamination with base course aggregates, when removing asphalt pavement for subsequent incorporation into hot mix asphalt concrete paving.

- .3 Use equipment and methods of removal and hauling which do not damage or disturb underlying pavement.
- .4 Prevent contamination of removed asphalt pavement by topsoil, underlying gravel or other materials.
- .5 Suppress dust generated by removal process.

3.3 FINISH TOLERANCES

- .1 Finished surfaces in areas where asphalt pavement has been removed within +/-[5] mm of grade specified but not uniformly high or low.

3.4 REPAIR OF EXISTING ASPHALT

- .1 After existing asphalt has been removed, provide new asphalt paving and subsurface preparation between existing asphalt and new concrete slabs. Refer to Drawings.

3.5 CLEANING

- .1 Progress Cleaning: clean in accordance with Section 01 74 11- Cleaning.
 - .1 Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11- Cleaning.
- .3 Sweep remaining asphalt pavement surfaces clean of debris resulting from removal operations using rotary power brooms and hand brooming as required.

END OF SECTION