

Part 1

General

1.1

SUMMARY

- .1 Section Includes
 - .1 Methods and procedures for demolishing, salvaging, recycling and removing sitework items designated to be removed in whole or in part, and for backfilling resulting trenches and excavations.
 - .2 Sustainable requirements for construction and verification.
- .2 Related Sections
 - .1 Section 01 33 00 – Submittal Procedures
 - .2 Section 01 35 30 – Health and Safety Requirements
 - .3 Section 01 45 00 – Quality Control
 - .4 Division 31 – Earthworks
 - .5 Division 32 – Exterior Improvements
- .3 Measurement Procedures.
 - .1 Measure removal of asphaltic concrete pavement in square metres for each thickness specified.
 - .2 Measure removal of Portland cement concrete pavement in square metres for each thickness specified.
 - .3 Measure removal of base and sub-base pavement Materials in cubic metres in place.
 - .4 Measure removal of concrete and masonry foundations in cubic metres.
 - .5 Measure removal of masonry foundations in cubic metres in place.
 - .6 Measure removal of culverts, pipe sewers and drains in metres, regardless of diameter, for each diameter. End points of measurements will be at centres of manholes or catch basins or open ends of pipes, as applicable.
 - .7 Measure removal of manholes and catch basins in units.
 - .8 Measure removal of cable duct banks regardless of number of ducts in each bank, in metres from end to end of duct bank for each size.
 - .9 Measure removal of fences curbs and guard rails in metres.
 - .10 Measure removal of waste Materials designated for alternate disposal from the Site in tonnes.
 - .11 Measure removal of interior wall plaster finishes in square meters.
- .4 Canadian Council of Ministers of the Environment (CCME).
 - .1 PN1326, Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products.
- .5 Department of Justice Canada (Jus).
 - .1 Canadian Environmental Assessment Act (CEAA), 1995, c. 37.
 - .2 Canadian Environmental Protection Act, 1999 (CEPA), c. 33.

- .6 Health Canada/Workplace Hazardous Materials Information System (WHMIS).
 - .1 Material Safety Data Sheets (MSDS).
- .7 Transport Canada (TC).
 - .1 Transportation of Dangerous Goods Act, 1992 (TDGA), c. 34.
- 1.2 DEFINITIONS
 - .1 Demolition: rapid destruction of building following removal of Hazardous Materials.
 - .2 Hazardous Materials: dangerous substances, dangerous goods, hazardous commodities and hazardous products, may include 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.
 - .3 Waste Audit (WA): detailed inventory of Materials in building. Indicates quantities of reuse, recycling and landfill.
 - .1 Involves quantifying by volume/weight amounts of Materials and wastes generated during construction, demolition, deconstruction, or renovation project.
 - .2 Indicates quantities of reuse, recycling and landfill.
 - .4 Waste Management Coordinator (WMC): Contractor representative responsible for supervising waste management activities as well as coordinating related, required submittal and reporting requirements.
 - .5 Waste Reduction Workplan (WRW): written report which addresses opportunities for reduction, reuse, or recycling of Materials. WRW is based on information acquired from WA.
- 1.3 SUBMITTALS
 - .1 Submittals in accordance with Section 01 33 00 - Submittal Procedures
 - .2 Shop Drawings.
 - .1 Submit for approval Drawings, diagrams or details showing sequence of demolition Work and supporting structures and underpinning, where required by authorities having jurisdiction.
 - .2 Submit Drawings stamped and signed by qualified professional registered or licensed in Province of Manitoba Canada.
 - .3 Hazardous Materials: provide description of Hazardous Materials and Notification of Filing with proper authorities prior to beginning of Work as required.
- 1.4 QUALITY ASSURANCE
 - .1 Regulatory Requirements: ensure Work is performed in compliance with CEPA, CEAA, TDGA, and applicable Provincial/Territorial regulations.
 - .2 Site Meetings.
 - .1 Convene pre-installation meeting one week prior to beginning Work of this Section.
 - .1 Verify project requirements.
 - .2 Review installation and substrate conditions.
 - .3 Co-ordination with other building Subcontractors.

- .4 Review manufacturer's installation instructions and warranty requirements.
- .2 Arrange for Site visit with Contract Administrator to examine existing Site conditions adjacent to demolition Work, prior to start of Work.
- .3 Reporting Requirements: WMC to complete.

1.5 DELIVERY, STORAGE AND HANDLING

- .1 Storage and Protection.
 - .1 Protect existing items designated to remain and items designated for salvage. In event of damage to such items, immediately replace or make repairs to approval of Contract Administrator and at no cost.
 - .2 Remove and store Materials to be salvaged, in manner to prevent damage.
 - .3 Store and protect in accordance with requirements for maximum preservation of Material.
 - .4 Handle salvaged Materials as new Materials.
- .2 Waste Management and Disposal.
 - .1 Divert excess Materials from landfill to Site approved by Contract Administrator.
 - .2 Separate for reuse and recycling and place in designated containers Steel, Metal, Plastic waste in accordance with Waste Management Plan.
 - .3 Place Materials defined as hazardous or toxic in designated containers.
 - .4 Handle and dispose of Hazardous Materials in accordance with CEPA, TDGA, Regional and Municipal, regulations.
 - .5 Label location of salvaged Material's storage areas and provide barriers and security devices.
 - .6 Ensure emptied containers are sealed and stored safely.
 - .7 Source separate for recycling Materials that cannot be salvaged for reuse including wood, metal, concrete and asphalt, and gypsum.
 - .8 Remove Materials that cannot be salvaged for reuse or recycling and dispose of in accordance with applicable codes at licensed facilities.

1.6 SITE CONDITIONS

- .1 Site Environmental Requirements.
 - .1 Ensure that selective demolition Work does not adversely affect adjacent watercourses, groundwater and wildlife, or contribute to excess air and noise pollution.
 - .2 Do not dispose 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.
 - .1 Ensure proper disposal procedures are maintained throughout the project.
 - .3 Do not pump water containing suspended Materials into watercourses, storm or sanitary sewers or onto adjacent properties.

- .4 Control disposal or runoff of water containing suspended Materials or other harmful substances in accordance with local authorities as directed by Contract Administrator.
- .5 Protect trees, plants and foliage on Site and adjacent properties where indicated.
- .2 Existing Conditions.
 - .1 Remove contaminated or Hazardous Materials as defined by authorities having jurisdiction from Site, prior to start of demolition Work, and dispose of at designated disposal facilities in safe manner in accordance with TDGA and other applicable regulatory requirements.
- 1.7 SCHEDULING
 - .1 Employ necessary means to meet project time lines without compromising specified minimum rates of Material diversion.
 - .1 Notify Contract Administrator in writing when unforeseen delays occur.
- Part 2 Products**
- 2.1 EQUIPMENT
 - .1 Leave machinery running only while in use, except where extreme temperatures prohibit shutting machinery down.
- Part 3 Execution**
- 3.1 PREPARATION
 - .1 Inspect Site with Contract Administrator and verify extent and location of items designated 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 Notify and obtain approval of utility companies before starting demolition.
- 3.2 REMOVAL OF HAZARDOUS WASTES
 - .1 Remove contaminated or dangerous Materials defined by authorities having jurisdiction, relating to environmental protection, from Site and dispose of in safe manner to minimize danger at Site or during disposal.
- 3.3 REMOVAL OPERATIONS
 - .1 Remove items as indicated.
 - .2 Do not disturb items designated to remain in place.
 - .3 Removal of Pavements, Curbs and Gutters:
 - .1 Square up adjacent surfaces to remain in place by saw cutting or other method approved by Contract Administrator.
 - .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,
- .5 Excavate at least 300 mm below pipe invert, when removing pipes under existing or future pavement area.
- .6 Decommission water wells and monitoring wells in accordance with Provincial regulations.
- .7 Remove designated trees during demolition.
 - .1 Obtain written approval of Contract Administrator prior to removal of trees not designated.
- .8 Donate trees designated for removal and identified by Contract Administrator to be healthy.
 - .1 Grind, chip, or shred other vegetation for mulching and composting.
- .9 Stockpile topsoil for final grading and landscaping.
 - .1 Provide erosion control and seeding if not immediately used.
- .10 Salvage.
 - .1 Dismantle items containing Materials for salvage and stockpile salvaged Materials at locations as indicated.
- .11 Disposal of Material.
 - .1 Dispose of Materials not designated for salvage or reuse on Site as instructed by Contract Administrator at authorized facilities approved in Waste Reduction Workplan.
 - .2 Trim disposal areas to approval of Contract Administrator.
- .12 Backfill.
 - .1 Backfill in areas as indicated and in accordance with Division 31.
- 3.3 STOCKPILING
 - .1 Label stockpiles, indicating Material type and quantity.
 - .2 Designate appropriate security resources/measures to prevent vandalism, damage and theft.
 - .3 Locate stockpiled Materials convenient for use in new construction to eliminate double handling wherever possible.
 - .4 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.
- 3.4 REMOVAL FROM SITE
 - .1 Remove stockpiled Material as directed by Contract Administrator, when it interferes with operations of project.
 - .2 Remove stockpiles of like Materials by alternate disposal option once collection of Materials is complete.
 - .3 Transport Material designated for alternate disposal using approved facilities listed in Waste Reduction Workplan and in accordance with applicable regulations.

- .4 Dispose of Materials not designated for alternate disposal in accordance with applicable regulations.
 - .1 Disposal Facilities: approved and listed in Waste Reduction Workplan.
 - .2 Written authorization from Contract Administrator is required to deviate from disposal facilities listed in Waste Reduction Workplan.
- 3.5 RESTORATION
 - .1 Restore areas and existing Works outside areas of demolition to conditions that existed prior to beginning of Work and to match condition of 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.
- 3.6 FIELD QUALITY CONTROL
 - .1 Verification requirements include:
 - .1 Materials and resources.
 - .2 Storage and collection of recyclables.
 - .3 Construction waste management.
 - .4 Resource reuse.
 - .5 Recycled content.
 - .6 Local/regional Materials.
 - .7 Wood.
 - .8 Low-emitting Materials.
- 3.7 CLEANING
 - .1 Remove debris, trim surfaces and leave Work Site clean, upon completion of Work
 - .2 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.

END OF SECTION