

1.1 GENERAL

SUMMARY

- .1 Section Includes:
 - .1 Methods and procedures for demolishing, salvaging, recycling and removing site-work items designated to be removed in whole or in part, and for backfilling resulting trenches and excavations.
- .2 Related Sections:
 - .1 Section 01 33 00 - Submittal Procedures.
 - .2 Section 01 35 43 - Environmental Procedures.
 - .3 Section 01 35 29 - Health and Safety Requirements.
 - .4 Section 31 23 33.01 - Excavation, Trenching and Backfilling.
 - .5 Section 33 71 73.02 - Underground Electrical Service.

REFERENCES

- .1 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.
- .2 Department of Justice Canada (Jus):
 - .1 Canadian Environmental Assessment Act (CEAA), 1995, c. 37.
 - .2 Canadian Environmental Protection Act, 1999 (CEPA), c. 33.
- .3 Health Canada/Workplace Hazardous Materials Information System (WHMIS):
 - .1 Material Safety Data Sheets (MSDS).
- .4 Transport Canada (TC):
 - .1 Transportation of Dangerous Goods Act, 1992 (TDGA), c. 34.

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.

SUBMITTALS

- .1 Submittals in accordance with Section 01 33 00 - Submittal Procedures.

- .2 Product Data: submit WHMIS MSDS - Material Safety Data Sheets in accordance with Section 02 81 01 - Hazardous Materials.
- .3 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 engineer registered or licensed in Province of New Brunswick, Canada.
- .4 Hazardous Materials: provide description of Hazardous Materials and Notification of Filing with proper authorities prior to beginning of Work as required.
- .5 Waste Reduction Workplan: prior to beginning of Work on site submit detailed Waste Reduction Workplan in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal and indicate:
 - .1 Descriptions of and anticipated quantities in percentages of materials to be salvaged reused, recycled and landfilled.
 - .2 Schedule of selective demolition.
 - .3 Number and location of dumpsters.
 - .4 Anticipated frequency of tipping.
 - .5 Name and address of haulers waste facilities waste receiving organizations.
- .6 Certificates: submit copies of certified weigh bills of lading receipts from authorized disposal sites and reuse and recycling facilities for material removed from site on weekly monthly basis upon request of Departmental Representative:
 - .1 Written authorization from the Departmental Representative is required to deviate from haulers facilities receiving organizations listed in Waste Reduction Workplan.

QUALITY ASSURANCE

- .1 Regulatory Requirements: ensure Work is performed in compliance with CEPA, CEAA, TDGA and applicable Provincial regulations.
- .2 Site Meetings:
 - .1 Convene pre-installation meeting one week prior to beginning work of this Section and on-site installations in accordance with Section 01 14 10:
 - .1 Verify project requirements.
 - .2 Review installation and substrate conditions.
 - .3 Co-ordination with other building subtrades.
 - .4 Review manufacturer's installation instructions and warranty requirements.
 - .2 Arrange for site visit with the Departmental Representative to examine existing site conditions adjacent to demolition work, prior to start of Work.
 - .3 Hold project meetings every week month.
 - .4 Ensure key personnel site supervisor project manager subcontractor representatives WMC attend.
 - .5 Reporting Requirements: WMC to complete.
 - .6 WMC must provide written report on status of waste diversion activity at each meeting.
 - .7 Departmental Representative will provide written verbal notification of change to meeting schedule established upon contract award 24 hours prior to scheduled meeting.

- .3 Health and Safety:
 - .1 Do construction occupational health and safety in accordance with Section 01 35 29 - Health and Safety Requirements.
- .4 Sustainable Requirements:
 - .1 Construction: in accordance with Section 01 47 15 - Sustainable Requirements: Construction.

DELIVERY, STORAGE AND HANDLING

- .1 Perform Work in accordance with Section 01 35 43 - Environmental Procedures.
- .2 Store and manage hazardous materials in accordance with Applicable Regulatory Requirement.
- .3 Storage and Protection:
 - .1 Protect in accordance with Section 31 23 33.01 - Excavating, Trenching and Backfilling.
 - .2 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 the Departmental Representative and at no cost to the Departmental Representative.
 - .3 Remove and store materials to be salvaged, in manner to prevent damage.
 - .4 Store and protect in accordance with requirements for maximum preservation of material.
 - .5 Handle salvaged materials as new materials.
- .4 Waste Management and Disposal:
 - .1 Separate waste materials for reuse and recycling in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.
 - .2 Divert excess materials from

- landfill to site approved by the Departmental Representative.
- .3 Separate for reuse and recycling and place in designated containers Steel Metal Plastic waste in accordance with Waste Management Plan.
- .4 Place materials defined as hazardous or toxic in designated containers.
- .5 Handle and dispose of hazardous materials in accordance with CEPA, TDGA, Regional and Municipal regulations.
- .6 Label location of salvaged material's storage areas and provide barriers and security devices.
- .7 Ensure emptied containers are sealed and stored safely.
- .8 Source separate for recycling materials that cannot be salvaged for reuse including wood, metal, concrete and asphalt, and gypsum.
- .9 Remove materials that cannot be salvaged for reuse or recycling and dispose of in accordance with applicable codes at licensed facilities.

SITE CONDITIONS

- .1 Site Environmental Requirements:
 - .1 Perform work in accordance with Section 01 35 43 - Environmental Procedures.
 - .2 Ensure that selective demolition work does not adversely affect adjacent watercourses, groundwater and wildlife, or contribute to excess air and noise pollution.
 - .3 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.

- .4 Do not pump water containing suspended materials into watercourses, storm or sanitary sewers or onto adjacent properties.
 - .5 Control disposal or runoff of water containing suspended materials or other harmful substances in accordance with local authorities as directed by the Departmental Representative.
 - .6 Protect trees, plants and foliage on site and adjacent properties where indicated.
- .2 Existing Conditions:
- .1 Remove contaminated or hazardous materials listed as hazardous as defined by authorities having jurisdiction as directed by the Departmental Representative 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 and Section 02 81 01 - Hazardous Materials.

SCHEDULING

- .1 Employ necessary means to meet project time lines without compromising specified minimum rates of material diversion:
- .2 Notify the Departmental Representative in writing when unforeseen delays occur.

1.2 MATERIALS

EQUIPMENT

- .1 Leave machinery running only while in use, except where extreme temperatures prohibit shutting machinery down.

1.3 EXECUTION

PREPARATION

- .1 Inspect site with the Departmental Representative 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.
- .4 Disconnect and Cap Designated Mechanical Services:
 - .1 Natural Gas Supply Lines: remove in accordance with gas company requirements contact utility company to arrange for removal as directed by the Departmental Representative.
 - .2 Other Underground Services: remove and dispose of as directed by the Departmental Representative in accordance with Section 33 71 73.02 - Underground Electrical Service.
 - .3 Underground Storage Tanks: remove and dispose of in accordance with CCME PN1326 and directions of the Departmental Representative.

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.

REMOVAL OPERATIONS

- .1 Remove items as indicated.
- .2 Do not disturb items designated to remain in place.
- .3 Excavate at least 300 mm below pipe invert, when removing pipes under existing or future pavement area.

- .4 Remove as many trees as required designated trees during demolition:
 - .1 Obtain written approval of the Departmental Representative prior to removal of trees not designated.
- .5 Sell disposed of alternately trees designated for removal and identified by the Departmental Representative to be healthy marketable:
 - .1 Grind, chip, or shred other vegetation for mulching and composting, or use as mill pulp or process fuel.
- .6 Stockpile topsoil for final grading and landscaping:
 - .1 Provide erosion control and seeding if not immediately used.
- .7 Salvage:
 - .1 Dismantle items containing materials for salvage and stockpile salvaged materials at locations as indicated.
- .8 Disposal of Material:
 - .1 Dispose of materials not designated for salvage or reuse on site as instructed by the Departmental Representative at authorized facilities approved in Waste Reduction Workplan.
 - .2 Trim disposal areas to approval of the Departmental Representative.
- .9 Backfill:
 - .1 Backfill in areas as indicated and in accordance with Section 31 23 33.01 - Excavating, Trenching and Backfilling.

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.

REMOVAL FROM SITE

- .1 Remove stockpiled material as directed by the Departmental Representative, 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 haulers facilities receiving organizations listed in Waste Reduction Workplan and in accordance with applicable regulations:
 - .1 Written authorization from the Departmental Representative is required to deviate from haulers facilities receiving organizations listed in Waste Reduction Workplan.
- .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 the Departmental Representative is required to deviate from disposal facilities listed in Waste Reduction Workplan.

RESTORATION

- .1 Restore areas and existing works outside areas of demolition to conditions that existed prior to beginning of Work 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.

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.

1.4 FINAL 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