

Part 1 General

1.1 REFERENCES

- .1 Reference Standards:
 - .1 Health Canada/Workplace Hazardous Materials Information System (WHMIS)
 - .1 Material Safety Data Sheets (MSDS).
 - .2 Transport Canada (TC)
 - .1 Transportation of Dangerous Goods Act, 1992 (TDGA), c. 34.

1.2 HISTORICAL MATERIAL CONSIDERATIONS

- .1 Protection of existing materials, surfaces and finishes is of great importance.
- .2 Preserve the character of the existing building, and salvage building materials and components where indicated for subsequent reinstallation rather than replacement.
- .3 Perform demolition and roughing-in of new openings with hand tools as much as possible. If power tools are required, review and confirm with Departmental Representative before use.
- .4 Historic building material and components are considered very fragile. Dismantle, remove, perform work, transport, and handle with special care. Historic materials damaged during selective demolition operation may not be available for replacement, and repair and restoration may be required. Cost of such repair and restoration is to be borne by the Contractor.
 - .1 Document and repair damages made to buildings not in scope of Work.
 - .2 Obtain Departmental Representative approval before making repairs to damages incurred during execution of Work.
- .5 Identification of existing historic materials to be removed: Do not remove existing historic materials unless approved in advance by Departmental Representative. If removal is required and approved, tag each item of historic material to be removed, for review by Departmental Representative. Attach tags in a manner that will not damage historic finishes.
- .6 Inventory and record the condition of items to be removed and salvaged. Photograph and confirm with Departmental Representative of conditions that might be misconstrued as damage caused by salvage operations.
- .7 List items for reuse in a historic material removal inventory form. Continuously update and maintain location and condition of salvaged and stored materials.
- .8 Historic items, relics, antiques, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, and other items of interest or value to Departmental Representative that may be uncovered during demolition remain the property of Departmental Representative. If cultural resources, artefacts, or previously undocumented historical building remains are encountered, cease Work and inform Departmental Representative immediately.

1.3 DEFINITIONS

- .1 Hazardous Materials: Dangerous substances, dangerous goods, hazardous commodities and hazardous products, may include but not limited to: Asbestos PCBs, CFCs, HCFCs, 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.

1.4 ADMINISTRATIVE REQUIREMENTS

- .1 Site Meetings:
 - .1 Convene pre-demolition meeting one week prior to beginning work of this Section in accordance with Section 01 32 16 - Construction Progress Schedules - Bar (GANTT) Chart to:
 - .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 Departmental Representative to examine existing site conditions adjacent to demolition work, prior to start of Work.
 - .3 Hold project meetings every week.
 - .4 Ensure key personnel attend.
 - .5 Departmental Representative will provide written notification of change of meeting schedule established upon contract award 24 hours prior to scheduled meeting.
- .2 Scheduling: Meet project time lines without compromising specified minimum rates of material diversion.
 - .1 Notify Departmental Representative in writing when unforeseen delays occur.

1.5 SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Shop Drawings:
 - .1 Where required, submit drawings stamped and signed by professional engineer registered or licensed in Province of Manitoba.
 - .2 Submit for approval drawings, diagrams, or details showing sequence of demolition work and supporting structures and underpinning, where required by authorities having jurisdiction.
- .3 Hazardous Materials:
 - .1 Provide description of Hazardous Materials and Notification of Filing with proper authorities prior to beginning of Work as required.

1.6 DELIVERY, STORAGE, AND HANDLING

- .1 Storage and Protection:
 - .1 Prevent movement of or damage to adjacent structures, services and parts of existing structure to remain. Supply and install bracing and shoring as required. Make good any damage caused by demolition, to acceptance of Departmental Representative.
 - .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 Departmental Representative and at no cost to 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.

1.7 SITE CONDITIONS

- .1 Survey the condition of the building to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of the structure or adjacent structures during selective demolition.
- .2 Site Environmental Requirements:
 - .1 Ensure that selective demolition work does not adversely affect adjacent watercourses, groundwater and wildlife, nor 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 sewers, nor sanitary sewers.
 - .4 Control disposal or runoff of water containing suspended materials or other harmful substances in accordance with local authorities.
 - .5 Protect trees, plants and foliage on site and adjacent properties where indicated.
- .3 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.

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 Obtain Departmental Representative approval before commencement of demolition and excavation work.
- .2 Inspect site with Departmental Representative and verify extent and location of items designated for removal, disposal, alternative disposal, recycling, salvage and items to remain.
- .3 Protect walls, ceilings, floors, and other existing finish work that are to remain or that are exposed during selective demolition operations.
- .4 Locate and protect utilities. Preserve active utilities traversing site in operating condition.
- .5 Notify and obtain approval of utility companies before starting demolition.
- .6 Take precautions to support affected structures. If safety of structure being demolished, adjacent structures or services are endangered, cease demolition operations and take necessary action to support endangered item. Immediately inform Departmental Representative. Do not resume demolition until reasons for endangerment have been determined and corrected and action taken to prevent further endangerment.
- .7 Disconnect and Cap Designated Mechanical Services.
 - .1 Sewer and Water Lines: Contact utility company to arrange for removal.
 - .2 Other Underground Services: Remove and dispose of as directed by Departmental Representative.

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 Dispose of materials not designated for salvage or reuse on site as instructed by Departmental Representative.

3.4 REMOVAL FROM SITE

- .1 Transport material designated for alternate disposal using approved haulers and facilities, and in accordance with applicable regulations.
- .2 Dispose of materials not designated for alternate disposal in accordance with applicable regulations.

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 Remove debris, trim surfaces and leave work site clean, upon completion of Work.
 - .3 Use cleaning solutions and procedures that 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 11 - Cleaning.
- .3 Waste Management: Remove waste materials in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.

3.6 PROTECTION

- .1 Repair damage to adjacent materials or property caused by selective demolition.

END OF SECTION

Part 1 General

1.1 REFERENCES

- .1 Definitions:
 - .1 Dangerous Goods: Product, substance, or organism specifically listed or meeting hazard criteria established in Transportation of Dangerous Goods Regulations.
 - .2 Designated Substance: Substances, that if not properly managed, may be hazardous to workers which may handle or disturb such materials, and may require special management procedures.
 - .3 Hazardous Material: Product, substance, or organism that may cause adverse impact to environment or adversely affect health of persons, animals, or plant life when released into the environment.
- .2 Reference Standards:
 - .1 Manitoba Occupational Health and Safety Code, current edition.
 - .2 Canadian Environmental Protection Act, 1999 (CEPA 1999)
 - .1 Export and Import of Hazardous Waste and Hazardous Recyclable Material Regulations (SOR/2005-149).
 - .3 Transportation of Dangerous Goods Act, 1992 (TDG Act) [1992], (c. 34).
 - .4 Transportation of Dangerous Goods Regulations (T-19.01-SOR/2001-286).
 - .5 Health Canada / Workplace Hazardous Materials Information System (WHMIS)
 - .1 Material Safety Data Sheets (MSDS).
 - .6 National Fire Code of Canada.

1.2 SUBMITTALS

- .1 Submit the following to Departmental Representative in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
 - .1 Submit manufacturer's instructions, printed product literature and data sheets for hazardous materials. Include product characteristics, performance criteria, physical size, finish, and limitations.
 - .2 Submit WHMIS MSDS for each hazardous material required prior to bringing hazardous material on site.
 - .3 Submit hazardous materials management plan that identifies hazardous materials, usage, location, personal protective equipment requirements, and disposal arrangements.

1.3 DELIVERY, STORAGE AND HANDLING

- .1 Co-ordinate storage of hazardous materials with Departmental Representative and abide by internal requirements for labelling and storage of materials and wastes.
- .2 Store and handle hazardous materials and wastes in accordance with applicable federal and provincial laws, regulations, codes, and guidelines.
- .3 Store and handle flammable and combustible materials in accordance with National Fire Code of Canada requirements.
- .4 Keep no more than 45 litres of flammable and combustible liquids such as gasoline, kerosene, and naphtha for ready use.
 - .1 Store flammable and combustible liquids in approved safety cans bearing the Underwriters' Laboratory of Canada or Factory Mutual seal of approval.
 - .2 Storage of quantities of flammable and combustible liquids exceeding 45 litres for work purposes requires the written approval of the Departmental Representative.
- .5 Transfer of flammable and combustible liquids is prohibited within buildings.
- .6 Transfer flammable and combustible liquids out of vicinity of open flames or heat-producing devices.
- .7 Solvents and cleaning agents must have flash point above 38°C.
- .8 Store flammable and combustible waste liquids for disposal in approved containers located in safe, ventilated area. Keep quantities to minimum.
- .9 Observe smoking regulations, smoking is prohibited in areas where hazardous materials are stored, used, or handled.
- .10 Storage requirements for quantities of hazardous materials and wastes in excess of 5 kg for solids, and 5 litres for liquids:
 - .1 Store hazardous materials and wastes in closed and sealed containers.
 - .2 Label containers of hazardous materials and wastes in accordance with WHMIS.
 - .3 Store hazardous materials and wastes in containers compatible with that material or waste.
 - .4 Segregate incompatible materials and wastes.
 - .5 Ensure that different hazardous materials or hazardous wastes are not mixed.
 - .6 Store hazardous materials and wastes in secure storage area with controlled access.
 - .7 Maintain clear egress from storage area.
 - .8 Store hazardous materials and wastes in location that will prevent them from spilling into environment.

- .9 Have appropriate emergency spill response equipment available near storage area, including personal protective equipment.
- .10 Maintain inventory of hazardous materials and wastes, including product name, quantity, and date when storage began.
- .11 Ensure personnel have been trained in accordance with Workplace Hazardous Materials Information System (WHMIS) requirements.
- .12 Report spills or accidents immediately to Departmental Representative. Submit a written spill report to DCC Representative within 24 hours of incident.

1.4 DESIGNATED SUBSTANCE- ASBESTOS: WASTE MANAGEMENT AND DISPOSAL

- .1 Obtain from appropriate agency and submit to Departmental Representative the necessary permits for transportation and disposal of asbestos waste. Ensure that waste disposal site operator is fully aware of hazardous nature of material being disposed and proper methods of disposal. Submit proof satisfactory to Departmental Representative that suitable arrangements have been made to receive and properly dispose of asbestos waste.
- .2 Disposal of asbestos waste generated by removal activities must comply with federal, provincial, and municipal regulations. Dispose of asbestos waste in sealed waste containers. Waste containers are to be labeled with appropriate warning labels. Label in both official languages.
- .3 A copy of all Waybills or Bills of Lading will be required to evidence the off-site disposal of the asbestos waste at a licensed landfill.

1.5 DESIGNATED SUBSTANCES - LEAD

- .1 Lead is present painted surfaces and is suspected in various construction materials and building components to be disposed of as part of this project. Disturbance of the above-noted surfaces, materials and components must be in accordance with the Manitoba Occupational Health and Safety Act.

1.6 TRANSPORTATION

- .1 Transport hazardous materials and wastes to and from site in accordance with federal Transportation of Dangerous Goods Act, Transportation of Dangerous Goods Regulations, and applicable provincial regulations.
- .2 If hazardous waste is generated on site:
 - .1 Co-ordinate transportation and disposal with Departmental Representative.
 - .2 Ensure compliance with applicable federal, provincial, and municipal laws and regulations for generators of hazardous waste.
 - .3 Use licensed carrier authorized by provincial authorities to accept subject material.

- .4 Prior to shipping material obtain written notice from intended hazardous waste treatment or disposal facility that it will accept material and that it is licensed to accept this material.
- .5 Label containers with legible, visible safety marks as prescribed by federal and provincial regulations.
- .6 Ensure that trained personnel handle, offer for transport, or transport dangerous goods.
- .7 Provide photocopy of shipping documents and waste manifests to Departmental Representative.
- .8 Track receipt of completed manifest from consignee after shipping dangerous goods. Provide a photocopy of completed manifest to Departmental Representative.
- .9 Report discharge, emission, or escape of hazardous materials immediately to Departmental Representative and appropriate provincial authority. Take reasonable measures to control release.

Part 2 Products

2.1 MATERIALS

- .1 Allow hazardous materials on site only in quantities required to perform Work.
 - .1 Provide Departmental Representative minimum 24 hours' notice prior to bringing hazardous materials onto work site.
- .2 Maintain MSDS in proximity to where materials are being used. Communicate this location to personnel who may have contact with hazardous materials.

Part 3 Execution

3.1 WASTE MANAGEMENT

- .1 Dispose of hazardous waste materials in accordance with applicable federal and provincial acts, regulations, and guidelines.
- .2 Recycle hazardous wastes for which there is approved, cost effective recycling process available.
- .3 Send hazardous wastes to authorized hazardous waste disposal or treatment facilities.
- .4 Burning, diluting, or mixing hazardous wastes for purpose of disposal is prohibited.
- .5 Disposal of hazardous materials in waterways, storm or sanitary sewers, or in municipal solid waste landfills is prohibited.
- .6 Dispose of hazardous wastes in timely fashion in accordance with applicable provincial regulations.

- .7 Minimize generation of hazardous waste to maximum extent practicable. Take necessary precautions to avoid mixing clean and contaminated wastes.

END OF SECTION