## Part 1 General

### 1.1 SECTION INCLUDES

.1 Methods and procedures for demolition of structures, parts of structures, basements and foundation walls and includes abandonment and removal of septic tanks and tanks containing petroleum products.

### 1.2 RELATED SECTIONS

.1 Section 01 33 00 - Submittal Procedures.

.2 Section 01 56 00 - Temporary Barriers and Enclosures.

### 1.3 REFERENCES

.1 Canadian Council of Ministers of the Environment (CCME).

.1 CCME PN1055-[1993], Environmental Code of Practice for Underground Storage Tank Systems Containing Petroleum Products and Allied Petroleum Products.

.2 CCME PN1148-[1994], Environmental Code of Practice for Aboveground Storage Tank Systems Containing Petroleum Products.

.2 Canadian Standards Association (CSA International).

.1 CSA S350-[M1980(R1998)], Code of Practice for Safety in Demolition of Structures.

.3 Department of Justice Canada (Jus).

.1 Canadian Environmental Assessment Act (CEAA), 1992, c. 37.

.2 Canadian Environmental Protection Act (CEPA), 1999, c. 33.

.1 SOR/2003-2, On-Road Vehicle and Engine Emission Regulations.

.3 Transportation of Dangerous Goods Act (TDGA), 1992, c. 34.

.4 Underwriters' Laboratories of Canada (ULC).

.1 ULC/ORD-C107.19-[1992], Secondary Containment of Underground Piping.

.2 ULC/ORD-C58.15-[1992], Overfill Protection Devices for Underground Tanks.

.3 ULC/ORD-C58.19-[1992], Spill Containment Devices for Underground Tanks.

.5 U.S. Environmental Protection Agency (EPA)/Code of Federal Regulations (CFR), Title 40 - Protection of Environment, Chapter 1, Subchapter C - AIR, Part 86 - CONTROL OF EMISSIONS FROM NEW AND IN-USE HIGHWAY VEHICLES AND ENGINES.

.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.

## 1.4 DEFINITIONS

.1 Hazardous Materials: dangerous substances, dangerous goods, hazardous commodities and hazardous products, may include but not limited to: 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 SUBMITTALS

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

.2 Where required by authorities having jurisdiction, submit for approval drawings, diagrams or details showing sequence of demolition work and supporting structures and underpinning.

.3 Submit drawings stamped and signed by qualified professional engineer registered or licensed in Province of Manitoba, Canada.

## 1.6 QUALITY ASSURANCE

.1 Regulatory Requirements: Ensure Work is performed in compliance with CEPA, CEAA, TDGA, and applicable Provincial and Municipal regulations.

.2 Meetings:

.1 Prior to start of Work arrange for site visit with Contract Administrator to examine existing site conditions adjacent to demolition work.

.2 Hold project meetings every week.

.3 Ensure site supervisor and Contract Administrator attend.

.4 Contract Administrator will provide written notification of change to meeting schedule established upon contract award 24 hours prior to scheduled meeting.

## 1.7 WASTE MANAGEMENT AND DISPOSAL

.1 Separate waste materials for reuse and recycling in accordance with requirements of Contract Administrator.

.2 Divert excess materials if possible from landfill to site approved by Contract Administrator.

## 1.8 ENVIRONMENTAL PROTECTION

.1 Ensure that demolition work does not adversely affect adjacent watercourses, groundwater and wildlife, or contribute to excess air and noise pollution.

.2 Fires and burning of waste or materials is not permitted on site.

.3 Do not bury rubbish waste materials.

.4 Do not dispose of waste or 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 project.

.5 Do not pump water containing suspended materials into watercourses, storm or sanitary sewers, or onto adjacent properties.

.6 Control disposal or runoff of water containing suspended materials or other harmful substances in accordance with authorities having jurisdiction.

.7 Protect trees, plants and foliage on site and adjacent properties where indicated.

.8 Prevent extraneous materials from contaminating air beyond application area, by providing temporary enclosures during demolition work.

.9 Cover or wet down dry materials and waste to prevent blowing dust and debris. Control dust on all temporary roads.

### 1.9 EXISTING CONDITIONS

.1 Should material resembling spray or trowel applied asbestos or other [substance listed as hazardous be encountered in course of demolition, stop work, take preventative measures, and notify Contract Administrator immediately. Do not proceed until written instructions have been received.

.2 Structures to be demolished to be based on their condition on date that tender is accepted.

## Part 2 Products

### 2.1 EQUIPMENT

.1 Equipment and heavy machinery to:

.1 On-road vehicles to meet applicable emission requirements as prescribed in CEPA-SOR/2003-2, On-Road Vehicle and Engine Emission Regulations.

.2 Off-road vehicles to meet applicable emission requirements as prescribed in EPA CFR 86.098-10 and EPA CFR 86.098-11.

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

## Part 3 Execution

### 3.1 PROTECTION

.1 Prevent movement, settlement or damage of adjacent structures, services, walks, paving, trees, landscaping, adjacent grades parts of existing building to remain.

.1 Provide bracing, shoring and underpinning as required.

.2 Repair damage caused by demolition as directed by Contract Administrator.

.2 Support affected structures and, if safety of structure being demolished or adjacent structures or services appears to be endangered, take preventative measures, stop Work and immediately notify Contract Administrator.

.3 Prevent debris from blocking surface drainage system, elevators, mechanical and electrical systems which must remain in operation.

**3.2 PREPARATION**

.1 Do not disrupt active or energized utilities designated to remain undisturbed.

**3.3 SAFETY CODE**

.1 Do demolition work in accordance with Section 01 56 00 - Temporary Barriers and Enclosures.

.2 Blasting operations not permitted during demolition.

**3.4 REMOVAL OF HAZARDOUS WASTES**

.1 Remove contaminated or dangerous materials as 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.

.2 Prior to start of demolition work remove contaminated or hazardous materials as defined by authorities having jurisdiction from site and dispose of at designated disposal facilities in safe manner and in accordance with TDGA and other applicable requirements.

**3.5 DEMOLITION**

.1 Demolish parts of structure.

.2 To permit construction as indicated.

.3 Crush concrete generated due to demolition of foundations to size as directed.

.4 Demolish concrete floors below or on grade within areas of new construction.

.5 Remove from open basements or excavations pieces of concrete and masonry not larger than 900 mm broken from demolition work.

.1 Keep demolition fill 400 mm below finished grade level.

.2 Do not backfill basement areas until inspected by Contract Administrator.

.6 Remove existing equipment, services, and obstacles where required for refinishing or making good of existing surfaces, and replace as work progresses.

.7 At end of each day's work, leave Work in safe and stable condition.

.1 Protect interiors of parts not to be demolished from exterior elements at all times.

.8 Demolish to minimize dusting. Keep materials wetted as directed by Contract Administrator.

.9 Demolish masonry and concrete walls in pieces suitable for reuse as specified.

.10 Remove structural framing.

.11 Contain fibrous materials (e.g. Insulation) to minimize release of airborne fibres while being transported within facility.

.12 Only dispose of material specified by selected alternative disposal option as directed by Contract Administrator.

.13 Do not dispose materials in landfill or waste stream destined for landfill.

.14 Remove and dispose of demolished materials except where noted otherwise and in accordance with authorities having jurisdiction.

.15 Use natural lighting to do Work where possible.

.1 Shut off lighting except those required for security purposes at end of each day.

**3.6 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. 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.

.5 Supply separate, clearly marked disposal bins for categories of waste material. Do not remove bins from site until inspected and approved by Contract Administrator.

**3.7 REMOVAL FROM SITE**

.1 Remove stockpiled material as directed by Contract Administrator, when it interferes with operations of project construction.

.2 Remove stockpiles of like materials by alternate disposal option once collection of materials is complete.

.3 Dispose of materials not designated for alternate disposal in accordance with applicable regulations.

**END OF SECTION**