

PART 1 - GENERAL

1.1 SECTION INCLUDES

- .1 Methods and procedures for deconstruction of structures and parts of structures.

1.2 RELATED SECTIONS

- .1 Section 02 65 00.

1.3 REFERENCES

- .1 Canadian Council of Ministers of the Environment (CCME).
 - .1 CCME PN1326-2009, Environmental Code of Practice for Aboveground and Underground Tank Systems Containing Petroleum Products and Allied Petroleum Products.
- .2 Canadian Standards Association (CSA International).
 - .1 CSA S350-M1980(R2003), Code of Practice for Safety in Demolition of Structures.
- .3 Federal Legislation.
 - .1 Canadian Environmental Assessment Act (CEAA), 1992, c. 37.
 - .2 Canadian Environmental Protection Act (CEPA), 1999, c. 33.
 - .3 Transportation of Dangerous Goods Act (TDGA), 1992, c. 34.
- .4 Annex A - Report to Public Works and Government Services Canada: Designated and Hazardous Materials Survey; Administration Building (WW03) Warkworth Institution. April 2011, 700765-8.

1.4 DEFINITIONS

- .1 Deconstruction: systematic dismantling of structure in a manner that achieves safe removal/disposal of hazardous materials and maximum salvage/recycling of materials.
 - .1 Ultimate objective is to recover potentially valuable resources while diverting from landfill what has traditionally been significant portion of waste system.
- .3 Demolition: rapid destruction of structure with or

without prior removal of hazardous materials.

- .4 Hazardous Materials: dangerous substances, dangerous goods, hazardous commodities and hazardous products, including but not limited to: corrosive agents, flammable substances, ammunition, explosives, radioactive substances, or other material that can endanger human health, well being or environment if handled improperly.
- .5 Source Separation: acts of keeping different types of waste materials separate, beginning from first time they became waste.
- .6 Waste Management Coordinator (WMC): contractor representative responsible for supervising waste management activities as well as coordinating related, required submittal and reporting requirements.

1.5 SUBMITTALS

- .1 Submittals in accordance with Section 01 11 01 and 01 33 00.
- .2 Submit pre-demolition audit and deconstruction/disassembly plan prior to starting work in accordance with Section 01 35 73.
- .3 Submit certified used building material receipts from authorized disposal sites and reuse and recycling facilities for material removed from site to Departmental Representative upon request.
 - .1 Written authorization from Departmental Representative is required to deviate from receiving organizations listed in Waste Reduction Workplan.
- .4 Include following information:
 - .1 Time and date of removal.
 - .2 Description of material[s].
 - .3 Quantity of material.
 - .4 Breakdown of reuse, recycling and landfill quantities.
 - .5 End destination of materials.
- .5 Workers, haulers and subcontractors must possess current, applicable permits to remove, handle and dispose of wastes categorized Municipally as hazardous.
 - .1 Provide proof of compliance within 24 hours upon written request of Departmental Representative.

<u>1.6 QUALITY ASSURANCE</u>	.1	Ensure Work is performed in compliance with CEPA, CEAA, TDGA, and applicable provincial regulations.
<u>1.7 STORAGE, HANDLING AND PROTECTION</u>	.1	Do in accordance with Section 01 74 19.
<u>1.8 ENVIRONMENTAL REQUIREMENTS</u>	.1	Do Work in accordance with Section 01 35 43.
	.2	Refer to Section 01 35 73.
	.3	Work of this Contract comprises the upgrading of the HVAC system in buildings WW02, WW03, WW12, and WW15 at the Warkworth Medium Security Institution, and all work needed to support the upgrade.
	.4	ACM is to be removed from building WW03 before upgrading work begins. Refer to Designated Substances and Hazardous Materials Survey (DSHMS) prepared by Decommissioning Consulting Services Ltd., April 2011. Refer to section 02 82 00.02.
	.5	For building WW02, WW12, and WW15 known ACM is referenced by Designated Substances and Hazardous Materials Survey (DSHMS) prepared by 02 82 00.02.
<u>1.10 SITE CONDITIONS</u>	.1	Existing Conditions. .1 Should materials resembling spray or trowel applied asbestos or other designated substance listed as hazardous be encountered in course of deconstruction, stop work, take preventative measures, and notify Departmental Representative immediately. Do not proceed until written instructions have been received.
	.2	Protection. .1 Prevent movement, settlement or damage of adjacent structures and service. Provide bracing as required. Repair damage caused by deconstruction as directed by Departmental Representative. .2 Support affected structures and, if safety of structure being deconstructed or adjacent structures appears to be endangered, take preventative measures. Cease operations and immediately notify Departmental Representative. .3 Prevent debris from blocking surface drainage system, mechanical and electrical systems.

PART 2 - PRODUCTS

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| <u>2.1 EQUIPMENT</u> | .1 | Leave equipment and machinery running only while in use, except where extreme temperatures prohibit shutting down. |
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PART 3 - EXECUTION

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| <u>3.1 SITE
VERIFICATION OF
CONDITIONS</u> | .1 | Determine if Environmental Assessment (EA) is required under requirements of CEAA.
.1 If necessary, employ licensed consultant to perform EA.
.2 Communicate findings and conclusions in writing to Departmental Representative prior to start of Work. |
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| <u>3.2 PREPARATION</u> | .1 | Do Work in accordance with Section 1 35 30. |
| | .2 | Locate and protect utility lines. Do not disrupt active or energized utilities. |

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| <u>3.3 REMOVAL OF
HAZARDOUS WASTES</u> | .1 | Prior to start of deconstruction work remove contaminated or hazardous materials as directed by Departmental Representative from site and dispose of at designated disposal facilities in safe manner in accordance with TDGA and other applicable regulatory requirements, in accordance with Section 02 82 00.02. |
| | .2 | Contractors must be familiar with Annex A, DSHMS for Warkworth Institution Building WW03. |

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| <u>3.4 DISASSEMBLY</u> | .1 | Materials removed from designated structure are property of Departmental Representative. |
| | .2 | Throughout course of deconstruction pay close attention to connections and material assemblies. |

Employ workmanship procedures which minimize damage to materials and equipment.

- .3 Ensure workers and subcontractors are trained to carry out work in accordance with appropriate deconstruction techniques.
- .4 Project supervisor with previous deconstruction experience must be present on site throughout project.
- .5 Deconstruct in accordance with CSA S350 and other applicable safety standards.
- .6 Workers must utilize certified harness and belay systems where Departmental Representative considers it necessary.
- .7 Maintain structural integrity of structure.
- .8 Systematically remove finishes, furnishings, and mechanical and electrical equipment as indicated.
- .9 Wherever possible, transfer material assemblies from heights to ground level for easier disassembly. Take appropriate measures to ensure safety.
- .10 Separate from waste stream, material designated for alternate disposal.
- .11 Source separate for recycling materials that cannot be salvaged for reuse including wood, metal, concrete and asphalt.
- .12 Remove materials that cannot be salvaged for reuse or recycling and dispose of in accordance with applicable codes at licensed facilities.
- .13 Where existing materials are to be re-used in Work, use special care in removal, handling, storage and re-installation to assure proper function in completed work.

3.7 REMOVAL FROM SITE

- .1 Transport material designated for alternate disposal by approved haulers listed in waste reduction workplan and in accordance with applicable regulations. Do not deviate from haulers listed in waste reduction workplan without prior written authorization from Departmental Representative.
- .2 Dispose of materials not designated for alternate disposal in accordance with applicable regulations. Disposal facilities must be approved of and listed in waste reduction workplan. Do not deviate from disposal

facilities listed in waste reduction workplan without prior written authorization from Departmental Representative.

3.8 CLEANING AND RESTORATION

- .1 Keep site clean and organized throughout deconstruction.
- .2 Upon completion of project, remove debris, trim surfaces and leave work site clean.
- .3 Upon completion of project, reinstate areas affected by Work to condition which existed prior to beginning of Work.