

Department of National Defence



Specification

Standing Offer Agreement

Painting

CFB Halifax, NS

Job No.W684H-220104

2022-02-01

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PART 1 - GENERAL

- 1.1 RELATED SECTIONS .1 Section 01 35 73 - Confined Spaces Requirements.
- .2 Section 09 90 00 - Painting.
- .3 Section 32 17 23 - Pavement Markings.
- 1.2 DESCRIPTION OF WORK .1 Work under this requirement comprises the furnishing of all labour, material, tools, equipment, transportation, and supervision required to provide general painting services including minor repairs in preparation of painting at various areas of CFB Halifax, as specified herein.
- 1.3 DELIVERABLES .1 All deliverables associated with this Contract must comply with all Government of Canada legislation, policies, and directives. These include, but are not limited to, the Official Languages Act, Canadian Labour Code, National Building Code of Canada, Defence Production Act, Government Contracting Regulations, and others.
- 1.4 DEPARTMENTAL REPRESENTATIVE .1 All reference to the Departmental Representative in this specification, who is the Contract Inspector which is representing the Real Property Operations Section - Halifax (RPOS(H)).
- 1.5 WORK INCLUDED .1 Work included in this requirement includes but will not be limited to the following:
- .1 Conduct painting preparation work which could include but not limited to the following:
- .1 minor drywall repairs;
- .2 pressure washing;
- .3 scraping;
- .4 sanding;
-

1.5 WORK INCLUDED
(Cont'd)

- .1 (Cont'd)
- .1 (Cont'd)
 - .5 sand blasting;
 - .6 priming;
 - .7 caulking; and
 - .8 protection of areas not being painted against paint splashes and overspray.
 - .2 Perform indoor, outdoor and minor painting work as per Section 09 91 00 - Painting.
 - .3 Operate various types of painting equipment such as:
 - .1 airless spray;
 - .2 conventional spray; and
 - .3 HVLP spray.
 - .4 Perform painting at heights where scaffolding and/or man lifts are required.
 - .5 Measure, layout and paint traffic lines and pavement markings.
 - .6 Perform painting in confined spaces where required.
 - .7 Conduct clean up.

1.6 LOCATIONS OF JOB
SITES

- .1 Areas covered under this specification include but not limited to the following locations:
- .1 Halifax Regional Municipality (HRM) area:
 - .1 Stadacona - Halifax, NS;
 - .2 Windsor Park - Halifax, NS;
 - .3 Willow Park - Halifax, NS;

1.6 LOCATIONS OF JOB
SITES
(Cont'd)

- .1 (Cont'd)
 - .1 (Cont'd)
 - .4 Halifax Armoury - Halifax, NS;
 - .5 Royal Artillery (RA) Park - Halifax, NS;
 - .6 HMC Dockyard - Halifax, NS;
 - .7 Damage Control School - Herring Cove, NS;
 - .8 Ferguson's Cove - Ferguson's Cove, NS;
 - .9 12 Wing Shearwater - Eastern Passage, NS;
 - .10 Osborne Head Gunnery Range - Cow Bay, NS;
 - .11 Naval Armament Depot (NAD) - Dartmouth, NS;
 - .12 DRDC Atlantic - Dartmouth, NS;
 - .13 Wright's Cove Degaussing Range - Dartmouth, NS;
 - .14 CFAD Bedford - Bedford, NS;
 - .15 Bedford Armoury - Bedford, NS; and
 - .16 Bedford Rifle Range - Bedford, NS.
 - .2 Outlying areas:
 - .1 NRS Mill Cove - Mill Cove;
 - .2 NRS Newport Corner - Newport Corner, NS;
 - .3 Windsor Armoury - Windsor, NS;
 - .4 Truro Armoury - Truro, NS;
 - .5 Masstown Rx Site - Masstown, NS;
 - .6 Great Village Tx Site - Great Village, NS;
 - .7 Debert Rifle Range - Debert, NS;

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- 1.6 LOCATIONS OF JOB SITES
(Cont'd)
- .1 (Cont'd)
 - .2 (Cont'd)
 - .8 Springhill Armoury - Springhill, NS;
 - .9 Amherst Armoury - Amherst, NS; and
 - .10 Pictou Armoury - Pictou, NS.
- 1.7 SITE ACCESS
- .1 Access to the site is under the direction of the Department of National Defence. All visitors entering areas issuing a daily pass will be aware of the requirement for search as a condition of issue.
 - .2 While within the confines of CFB Halifax all employees and representatives of the Contractor must comply with all of the Standing Orders as promulgated by Base/Unit Authorities.
- 1.8 PRE-JOB MEETING
- .1 Immediately upon receipt of award of Standing Offer Agreement, the successful Contractor will contact the Departmental Representative to arrange a pre-job meeting prior to commencement of any work.
 - .2 The Departmental Representative will provide the Contractor with a list of his/her authorized representatives at the pre-job meeting.
- 1.9 WORKMANSHIP
- .1 Workmanship must be the best quality executed by workers experienced and skilled in the respective duties for which they are employed. All painters must have the Red Seal, Inter Provincial or province of Nova Scotia designation certification.
 - .2 Do not employ any unfit person or anyone unskilled in their required duties. The Departmental Representative reserves the right to require the dismissal from the site, workers deemed incompetent, careless or insubordinate.
 - .3 Decisions as to the quality or fitness of workmanship in cases of dispute rest solely with the Departmental Representative whose decision is final.
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1.9 WORKMANSHIP
(Cont'd)

- .4 The Contractor will employ a competent and experienced supervisor with the authority to speak on his behalf on day-to-day routine matters.
- .5 Whenever the Contractor uses sub-contractors, they too must perform to and comply with all requirements.

1.10 NORMAL WORKING
HOURS

- .1 Normal working hours will be 0730 to 1600 hours, Monday to Friday. Any work carried out other than normal working hours must be authorized by the Departmental Representative.

1.11 CONTRACTOR'S USE
OF SITE

- .1 Contractor will be briefed on use of site by the Departmental Representative.
- .2 Do not unreasonably encumber site with materials or equipment.
- .3 Move stored products or equipment which interferes with operations of Departmental Representative or other Contractors.
- .4 The Departmental Representative will brief the Contractor on access to restricted areas.

1.12 PARKING

- .1 In limited areas, a parking space will be made available on site for Contractor vehicles to drop off equipment and supplies. Maintain and administer this space as directed.

1.13 CODES AND
STANDARDS

- .1 Perform work in accordance with the latest edition of the National Building Code of Canada (NBC), Canadian Electrical Code Part I, National Plumbing Code of Canada (NPC), Canada Labour Code Part II, National Fire Code of Canada, NS Fall Protection and Scaffold Regulations, DND/CF Asbestos management directives, and any other applicable federal, provincial and municipal regulations and by-laws. In any case of conflict or discrepancy, the more stringent requirements will apply.
- .2 Meet or exceed requirements of Standing Offer documents, specified standards, codes and referenced documents.

1.14 PROTECTION OF
EXISTING FACILITIES

- .1 The Contractor must take all necessary precautions to ensure against damage to existing facilities. Any damage to such facilities as a result of the Contractor's operations must be repaired or replaced by the Contractor at his/her own expense, as soon as is reasonably possible.
- .2 Special coverings and protection must be provided to protect plants, walls, projections and adjacent work where materials are being removed, installed or hoisted.
- .3 The Contractor must protect all occupant owned furnishings and equipment, and the building from damage during execution of this requirement.
- .4 Where the Departmental Representative considers it necessary, provide and erect warning signs and barriers.

1.15 ALTERATIONS,
ADDITIONS OR REPAIRS TO
EXISTING BUILDING

- .1 Execute work with least possible interference or disturbance to building operations, occupants, public and normal use of premises. Arrange with the Departmental Representative to facilitate execution of work.
- .2 Where security has been reduced by work of Contract, provide temporary means to maintain security.
- .3 Provide temporary dust screens, barriers, warning signs in locations where renovation and alteration work is adjacent to areas used by public or government staff.
- .4 Use only elevators existing in building for moving workers and material.
 - .1 Protect walls of passenger elevators, to approval of prior to approval of Departmental Representative prior to use.
 - .2 Accept liability for damage, safety of equipment and overloading of existing equipment.

1.16 EXISTING SERVICES

- .1 Notify Departmental Representative and utility companies of intended interruption of services and obtain required permission.
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1.16 EXISTING SERVICES
(Cont'd)

- .2 Where Work involves breaking into or connecting to existing services, give 24 hours notice for necessary interruption of mechanical or electrical service throughout course of work. Minimize duration of interruptions. Carry out work at times as directed by governing authorities with minimum disturbance to tenant operations.
- .3 Submit schedule to and obtain approval from Departmental Representative for any shut-down or closure of active service or facility. Adhere to approved schedule and provide notice to affected parties.
- .4 Provide temporary services when directed by Departmental Representative to maintain critical building and tenant systems.
- .5 Where unknown services are encountered, immediately advise Departmental Representative and confirm findings in writing.

1.17 CUTTING, FITTING
AND PATCHING

- .1 Execute cutting, fitting and patching required to make work fit properly.
- .2 Where new work connects with existing and where existing work is altered, or cut, patch and make good to match.
- .3 Make cuts with clean, true, smooth edges. Make patches inconspicuous in final assembly.

1.18 POWER AND SUPPLY

- .1 DND may provide, free of charge, temporary electric power and water for construction purposes.
 - .2 Departmental Representative will determine delivery points and quantitative limits. Departmental Representative's written permission is required before any connection is made. Connect to existing power supply in accordance with Canadian Electrical Code.
 - .3 Provide, at no cost to DND, all equipment and temporary lines to bring these services to project site.
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1.18 POWER AND SUPPLY
(Cont'd)

- .4 Supply of temporary services by DND is subject to DND requirements and may be discontinued by DND site representative at any time without notice, without acceptance of any liability for damage or delay caused by such withdrawal of temporary services.
- .5 After the temporary service lines are no longer required, the Contractor must remove all lines and equipment, restore the connection points to their original condition and return the land to its original contour.

1.19 HEATING AND
VENTILATING

- .1 Provide temporary heat and ventilation as required to:
 - .1 facilitate progress of work;
 - .2 protect work and products against dampness and cold;
 - .3 prevent moisture condensation on surfaces;
 - .4 provide ambient temperatures and humidity levels for storage, installation and curing of materials; and
 - .5 provide adequate ventilation to meet health regulations for safe working environment.
- .2 Maintaining strict supervision of operation of temporary heating and ventilating equipment to:
 - .1 conform with applicable codes and standards;
 - .2 enforce safe practices;
 - .3 prevent abuse of services;
 - .4 prevent damage to finishes; and
 - .5 vent direct-fired combustion units to outside.

1.20 INSPECTION

- .1 All work and materials covered by this specification will be subject to inspection at any time by the Departmental Representative or his/her representative.
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1.21 REPORTING
IRREGULARITIES .1 The Contractor must notify immediately the Departmental Representative of irregularities in the work area, such as accidents, spills, structural defects, mechanical and/or electrical problems and/or any beyond the scope of work.

PART 2 - PRODUCTS

2.1 NOT USED .1 Not used.

PART 3 - EXECUTION

3.1 NOT USED .1 Not used.

PART 1 - GENERAL

1.1 WORK SAFETY
MEASURES

- .1 Observe and enforce construction safety measures by complying with the requirements of the following statutes and authorities:
 - .1 Canada Labour Code Part II and the Canada Occupational Health and Safety Regulations;
 - .2 Nova Scotia Occupational Health and Safety Act and supporting Occupational General Safety Regulations as amended from time to time;
 - .3 most recent amendments to the National Building Code of Canada, Part 8 and National Fire Code of Canada;
 - .4 Health Canada/Workplace Hazardous Materials Information System (WHMIS).
- .2 Refer to Section 01 35 35 - DND Fire Safety Requirements.
- .3 Departmental Representative will provide a copy of any relevant special written instructions to be followed.
- .4 Before Work Begins
 - .1 Bidder/Tender to provide documentation if requested by the Crown, indicating all safety training attained for each person who will be involved with the requirements.
- .5 The following disciplinary measures will be taken for any violations of safety under this requirement:
 - .1 First Violation:
 - .1 Verbal warning issued to the Contractor for the first violation of a safety regulation (Violation will be documented on Standing Offer file, copy to Contractor and PSPC.).
 - .2 Second Violation:

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- 1.1 WORK SAFETY MEASURES
(Cont'd)
- .5 (Cont'd)
- .2 (Cont'd)
- .1 Written warning to Contractor for second violation of a safety regulation (Violation will be documented on Standing Offer file, copy to Contractor and PSPC.).
- .3 Third Violation:
- .1 A third violation of a safety regulation may result in the termination of the Standing Offer Agreement.
- .4 Serious Violation:
- .1 For a serious violation of a safety regulation as deemed by a regulator, project manager or safety officer a recommendation will be made to the Contracting Authority to immediately terminate the Contract/Standing Offer (Violation documented on Standing Offer file, copy to Contractor and PSPC.).
- 1.2 HAZARD ASSESSMENTS
- .1 Contractor must implement and carry out a health and safety hazard assessment program as part of the Work. Program to include:
- .1 Initial Hazard Assessment:
- .1 Carried out upon notification of Contract award and/or prior to commencement of Work.
- .2 On-going Hazard Assessments:
- .1 Performed during the progress of Work identifying new or potential health risks and safety hazards not previously known. As a minimum, hazards assessments must be carried out when:
- .1 new sub-trade work, new sub-contractor(s) or new workers arrive at the site to commence another portion of the Work;
- .2 the scope of Work has been changed;
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1.2 HAZARD ASSESSMENTS
(Cont'd)

- .1 (Cont'd)
 - .2 (Cont'd)
 - .3 Work conducted in confined spaces; and/or
 - .4 potential hazard or weakness in current health and safety practices are identified by the Departmental Representative.
- .2 Hazard assessments will be project and site specific, based on review of documents and site.
 - .3 Each hazard assessment to be made in writing. Keep copies of all assessments on site for duration of Work. Upon request, make available to the Departmental Representative.
 - .4 The Contractor must notify the Departmental Representative of suspected hazardous material during work and not apparent from drawings, specifications, or report pertaining to work (e.g. lead, asbestos etc.). Do not disturb such material pending instructions from the Departmental Representative. The Departmental Representative will make the necessary arrangements for testing the material as required.

1.3 ASBESTOS PRODUCT &
ASBESTOS ACTIVITY

- .1 Within the confines of the Base/Unit, the provision of new products containing fibrous asbestos materials is prohibited.
- .2 Demolition or disturbance of spray or trowel-applied asbestos can be hazardous to health. Should material resembling spray or trowel-applied asbestos be encountered in course of work, stop work and notify Departmental Representative immediately. Do not proceed until written instructions have been received from Departmental Representative.

1.4 HAZARDOUS MATERIAL
SPILL

- .1 The Contractor or sub-contractors must report to the DND Fire Department and the Departmental Representative for any incident or spill involving hazardous materials (HAZMAT).
- .2 In the event of a hazardous material spill, the following procedures for initial actions must be followed:
 - .1 ensure safety of all personnel;

1.4 HAZARDOUS MATERIAL SPILL
(Cont'd)

- .2 (Cont'd)
- .2 assess spill hazards and risks;
 - .3 ventilate area if release is indoors and remove all sources of ignition;
 - .4 stop the spill if safely possible (e.g. shut off pump, replace cap, tip drum upward, patch leaking hole etc.).
 - .5 no matter the volume is, contact the DND Fire Department and provide the following information:
 - .1 time of the spill;
 - .2 location;
 - .3 special considerations:
 - .1 personal safety;
 - .2 environmental.
 - .4 type and amount of spill;
 - .5 person reporting the spill:
 - .1 name;
 - .2 company; and
 - .3 telephone number.
 - .6 contain the spill;
 - .7 isolate the area as required;
 - .8 provide Material Safety Data Sheets (MSDS) to DND Fire Department and Departmental Representative;
 - .9 contact the Departmental Representative; and
 - .10 clean up minor spills using appropriate protective equipment and supplies.

1.5 FASTENING DEVICES
EXPLOSIVE ACTUATED

- .1 Explosive actuated devices must not be used without the approval of the Departmental Representative.
- .2 Operator must have the appropriate training before using the explosive actuated device.
- .3 Follow the manufacturer's safety guidelines and ensure the applicable personal protective equipment is used.

1.6 HOT WORK

- .1 All hot work activity is to take place with Departmental Representative's approval and written permission from the DND Fire Department (hot work permit). Hot work permits and fire watch requirements will be provided by the DND Fire Department.
- .2 The ventilation system in the area of any hot work is to be isolated to prevent migration of fumes/smoke and to reduce any possible spread of fire to other areas of the facility.
- .3 Contractor is to employ an employee trained in the use of fire extinguishers as fire watch during any hot work for a minimum of 30 minutes after activity has ceased.

1.7 CONFINED SPACES

- .1 All work in confined spaces will be carried out in compliance with the Canada Occupational Safety and Health Regulations, Part XI.
 - .2 The Contractor to provide and maintain all equipment as required by any person to enter and/or perform work in a safe manner, in compliance with the Canada Occupational Safety and Health Regulations, Part XI.
 - .3 The Contractor to provide and maintain training, as required by the Canada Occupational Safety and Health Regulations, Part XI.
 - .1 The personnel entering and working in confined spaces must have at all times valid certifications when working in confined spaces. The employees must provide proof of training and qualifications when requested by Departmental Representative or the Unit Safety Officer.
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1.7 CONFINED SPACES
(Cont'd)

- .4 The Contractor to provide the Departmental Representative with a copy of an "entry permit" for each and every entry into the confined space to ensure compliance with the Canada Occupational Safety and Health Regulations, Part XI.
- .5 The Contractor to have a hazard assessment of the confined space performed.
 - .1 The Contractor to provide the Departmental Representative with a copy of the hazard assessment.
- .6 The Contractor must have a written rescue plan posted on site.
- .7 Contractor must inform DND Fire Department and Central Heating plant before entering any service tunnel.

1.8 FALL PROTECTION

- .1 All work carried out above the mandatory height restrictions, from unguarded structure and/or scaffolding, will be done in compliance with the Canada Occupational Safety and Health Regulations, Part XII, Section 12.10.
- .2 The components of a fall protection system must meet the standards as outlined in the Canada Occupational Safety and Health Regulations, Part XII, Section 12.10 (2).
- .3 The Contractor is to ensure fall protection equipment is maintained, inspected and tested by a qualified technician as required by the Canada Occupational Safety and Health Regulations, Part XII, Section 12.3.

1.9 ARC FLASH

- .1 The Contractor is to ensure all electrical equipment such as switchboards, panel boards, motor control centres and meter socket enclosures be marked to warn persons of potential electric shock and arc flash hazards. This labeling is required for all new and modified installations.
- .2 The warning label must also include information regarding "arc flash hazard category (0 to 4)" and the "Flash Protection Boundary" as defined in NFPA 70E. All projects specifications must include short circuit study and flash hazard analysis.

- 1.9 ARC FLASH (Cont'd) .3 In accordance with the CSA Standards Z462 Workplace Electrical Safety, electrical Contractors are required to perform a shock and flash hazard analysis to select the appropriate PPE to wear. Electrical contractors are required arc-rated personal protective equipment while troubleshooting and diagnostic testing that cannot be performed unless the electrical conductor or circuit part is energized. All Contractor work practices must protect each employee from arc flash and from contact with live parts directly with any part of the body or indirectly through some other conductive object.
- 1.10 SAFETY .1 It is the Contractor's responsibility to be familiar with all applicable safety acts, regulations, codes and requirements. These must be identified and addressed in the safety plan, by identifying Standard Operating Procedures (SOP) and safe work practices (SWP) which incorporate clear and specific control measures, applicable rules, procedures and practices, all of which will become mandatory.
- .2 The Contractor must ensure all workers and authorized persons entering the work site are notified of and abide by the posted safety plan, safety rules, procedures, safe work practices and applicable safety acts, regulations, and codes. Any person not complying with these will not be permitted on the site.
- .3 Contractor must ensure that all applicable personal protective equipment (PPE) is used.
- .1 All personnel are required to wear hard hats, in accordance with CSA Z94.1, Industrial Protective Headwear.
- .2 All personnel are required to wear safety footwear, in accordance with CSA Z195, Protective Footwear.
- .3 All personnel are required to wear eye and face protection, in accordance with CSA Z94.3.1, Selection, Use, and Care of Protective Eyewear.
- .4 When and where noise level is above 85 decibels; all personnel are required to wear hearing protection, in accordance with CSA Z94.2, Hearing Protection Devices - Performance, Selection, Care and Use.
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<u>1.10 SAFETY (Cont'd)</u>	.3	(Cont'd)
	.5	Where toxic or noxious gas fumes, or oxygen deficiency or excessive dust may occur, so as to create a hazard to life, safety or health; all personnel are required to wear respiratory protection, in accordance with CAN/CSA Z94.4, Selection, Use, and Care of Respirators.
	.4	The Departmental Representative will coordinate arrangements for the Contractor to be briefed on site safety within 14 days of award of Standing Offer Agreement.
<u>1.11 SECURITY INCIDENT RESPONSE</u>	.1	Security incident can be defined as any fact or event which could affect your personal or organizational security.
	.2	When performing Work on the premises of CFB Halifax, security incidents or threats could occur at any time such as bomb threats, active intruder, lockdowns etc.
	.3	When a security incident occurs, the Contractor shall: .1 stop the work safely; .2 account for all your personnel in a secure area; .3 report to the building main office or facility manager for further directives; and .4 call the Departmental Representative.
	.4	The above actions must be taken also during Base/Unit security training exercises.
<u>1.12 SITE SIGNS AND NOTICES</u>	.1	Safety and instruction signs and notices: .1 Signs and notices for safety and instruction must be in both official languages. Graphic symbols must conform to latest version of "Signs and Symbols for the Workplace".
<u>PART 2 - PRODUCTS</u>		
<u>2.1 NOT USED</u>	.1	Not used.

PART 3 - EXECUTION

3.1 NOT USED .1 Not used.

PART 1 - GENERAL

- 1.1 EMERGENCY REPORTING .1 Telephone numbers for emergency reporting will be provided by the Departmental Representative at the fire safety briefing.
- 1.2 FIRE SAFETY ENFORCEMENT .1 Within the confines of the Base/Unit, the prescription and enforcement of mandatory fire safety measures will be exercised under the authority of the DND Fire Department.
- .2 Comply with and enforce compliance by all Contractor personnel with all requirements of this specification section, and with the most recent edition of the National Building Code of Canada (NBC) and the National Fire Code of Canada (NFC), including all subsequent revisions issued by the National Research Council of Canada.
- 1.3 FIRE SAFETY BRIEFING .1 Prior to commencement of work under this requirement, the Departmental Representative will arrange a meeting of all parties concerned to review and clarify requirements for fire safety measures. This may involve a briefing by the DND Fire Department.
- 1.4 FIRE WATCH .1 For hot work activity, the Contractor will provide the service of fire-watch persons on a scale and schedule as prescribed by the DND Fire Department at the time of issuance of the hot work permit.
- 1.5 FIRE EXTINGUISHERS .1 The Contractor will supply fire extinguishers, as scaled by the DND Fire Department, necessary to protect work in progress and Contractor's physical plant on site.
- .1 Provide supplemental fire extinguishers to these areas and otherwise as directed by the DND Fire Department:
- .1 adjacent to hot works;
- .2 areas where combustibles materials are stored;

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- 1.5 FIRE EXTINGUISHERS
(Cont'd)
- .1 (Cont'd)
- .1 (Cont'd)
- .3 adjacent to areas where flammable liquids or gases are stored or handled;
- .4 near or on internal combustion engines;
- .5 adjacent to temporary oil fired or gas fired equipment; and
- .6 adjacent to bitumen heating equipment.
- 1.6 SMOKING
PRECAUTIONS
- .1 Smoking not permitted on DND property except in designated smoking areas. This includes smoking in passenger motor vehicles.
- .2 In accordance with these fire safety requirements particular to the work area and site, the Departmental Representative and the DND Fire Department will designate hazardous areas as well as non-restricted areas where smoking may be permitted.
- .3 Smoking is prohibited in all buildings.
- .4 In all other areas, exercise care and comply with written or oral directives of the Departmental Representative for the use of smoking materials.
- 1.7 REPORTING FIRES
- .1 Inform the Departmental Representative and the DND Fire Department of fire incidents at construction site, regardless of size.
- .2 Know location of nearest fire alarm pull station and telephone, including emergency phone number.
- .3 Report immediately fire incidents to the Fire Department as follows:
- .1 activate nearest fire alarm pull station;
- .2 dial 9-1-1 or designated number given at the time of briefing; and
- .3 telephone the Departmental Representative.
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1.7 REPORTING FIRES
(Cont'd)

- .4 Person activating fire alarm pull station will remain at the main entrance of site to direct the Fire Department to the scene of the fire.
- .5 When reporting fire by telephone, give location of fire, name and number of building and be prepared to direct the Fire Department to the scene of the fire.

1.8 FIRE PROTECTION
SYSTEM IMPAIRMENT

- .1 Maintain existing systems in an operational state at all times during construction.
- .2 Use of fire hydrants, standpipes and hose systems for purposes other than fire fighting unless authorized by the DND Fire Department, is prohibited.
- .3 Existing fire protection and alarm systems will not be obstructed, shut off, disabled or left inactive at end of each working day or shift without written authorization from the DND Fire Department.
- .4 Submit written notification to the Departmental Representative and the DND Fire Department 48 hours in advance of planned interruption of services. Submit written notification for operation including shutting down active fire protection system, including water supply, fire suppression, fire detection and life safety systems.
- .5 Where a fire protection system that provides fire alarm monitoring is impaired in an existing building, provide a fire watch as directed by the DND Fire Department.
- .6 Conduct work on fire protection system where systems are affected or impaired in accordance with National Fire Code of Canada conforming to the Base Fire Orders.

1.9 ACCESS FOR FIRE
FIGHTING

- .1 Provide and maintain access for firefighting in accordance with National Fire Code of Canada.
- .2 Provide written notification to the DND Fire Department a minimum of two (2) working days in advance of operation that would impede fire apparatus response including:

1.11 FLAMMABLE AND
COMBUSTIBLE LIQUIDS
(Cont'd)

- .3 The Departmental Representative reserves the right to require removal from the site any storage containers not acceptable to the DND Fire Department.
- .4 Transfer of flammable and combustible liquids within buildings or on jetties is prohibited.
- .5 Transfer of flammable and combustible liquids in vicinity of open flames or any type of heat-producing devices is prohibited.
- .6 Use of flammable liquids having flash point below 38 degrees C such as naphtha or gasoline as solvents or cleaning agents is prohibited.
- .7 Storing flammable and combustible waste liquids on site is prohibited. Remove daily or more frequently as directed by the DND Fire Department.

1.12 HOT WORKS

- .1 Implement a hot works program in accordance with National Fire Code of Canada and NFPA 51B Standard for Fire Prevention. Apply hot works program to processes involving welding, cutting, roofing and other hot works as defined by the DND Fire Department.
- .2 Obtain a "Hot Work" permit from the DND Fire Department for hot works in construction area. Frequency of renewal for hot works permits is at discretion of the DND Fire Department.
- .3 When work is carried out in dangerous or hazardous areas involving use of heat, provide fire watchers equipped with sufficient fire extinguishers. Determination of dangerous or hazardous areas along with level of protection necessary for fire watch is at discretion of the DND Fire Department.
- .4 Provide fire watch service for work as directed by the DND Fire Department and as defined in the fire safety briefing. Provide fire watchers trained in use of fire extinguishing equipment.
- .5 Carry out hot works processes in areas free of combustible and flammable content.

1.13 HAZARDOUS SUBSTANCES .1 Perform work involving the use of toxic or hazardous materials, chemicals and/or explosives, or otherwise creating hazard to life, safety or health, in accordance with National Fire Code of Canada, and measures prescribed by the DND Fire Department.

1.14 FIRE INSPECTION .1 Co-ordinate site inspections by DND Fire Department through the Departmental Representative.

.2 Allow DND Fire Department unrestricted access to work site.

.3 Co-operate with DND Fire Department during routine fire safety inspection of work site.

.4 Immediately remedy unsafe fire situations observed by DND Fire Department.

PART 2 - PRODUCTS

2.1 NOT USED .1 Not used.

PART 3 - EXECUTION

3.1 NOT USED .1 Not used.

PART 1 - GENERAL

1.1 GENERAL

- .1 The Contractor must ensure that all their personnel are familiar with these regulations and requirements.
- .2 The following is a summary the security, safety and fire regulations Canadian Forces Ammunition Depot (CFAD) Bedford, as promulgated by the Base Commander of CFB Halifax and administered by the Superintendent CFAD Bedford, NS.
- .3 Contractor's personnel will be subject to all of the regulations while working within confines of CFAD Bedford.

1.2 PRE JOB SECURITY AND SAFETY MEETING

- .1 Prior to commencement of Work, the Contractor must meet with the site security, safety and fire regulations officers. In accordance with direction of Departmental Representative and these site officers, ensure that all employees of the Contractor are given thorough instructions on security, safety and fire precautions peculiar to an ammunition depot and that the regulations are fully complied with, at all times, by all Contractor personnel.

1.3 SECURITY PASSES

- .1 Contractors must report to the NCO I/C Commissionaires at building 153; submit names of all their personnel and description of all their vehicles to arrange the issue of the required temporary passes prior to proceeding to work within the confines of the Depot.

1.4 CONDITIONS FOR ACCESS

- .1 All visitors will be issued a visitor's pass and will be required to sign acknowledgement that they are aware of and consent to the following conditions for access.
 - .2 Contractor will be escorted by a commissionaire or CFAD employee in order to access the site.
 - .3 All persons to whom this pass is issued agrees to return the pass to the security guard at the gate when the Contract or employment at CFAD Bedford expires.
-

- 1.4 CONDITIONS FOR ACCESS (Cont'd) .4 All vehicles entering and leaving CFAD Bedford may be searched to ensure that no prohibited articles are taken into nor contraband articles are taken out of the ammunition depot.
- 1.5 FIRE SERVICE CFAD BEDFORD .1 Fire service at CFAD Bedford is provided by the DND Fire Service from 0730 until 1600 hours, Monday to Friday. All Contract work will be ended by 1530 hours daily. Fire response at all other times is provided by HRM. Before any work is carried out during silent hours, the Dockyard Platoon Chief must be contacted at 427-0550, local 3500.
- 1.6 SEARCHES .1 The Canadian Corps of Commissionaires may conduct a personal search of individuals at any time within the Ammunition Depot. Vehicles entering or leaving the Depot may be searched to ensure that contraband articles are not taken into the explosives area and that property is not taken out without authorization.
- 1.7 ALARMS .1 Depot Alarms:
- .1 A siren is sounded only in the event of an emergency such as a fire, explosion, thunderstorm or evacuation. A siren is also sounded to signify "All Clear".
- .2 Fire Emergency:
- .1 A series of "Hi-Lo" sounds on the Depot alarm system signifies an emergency in the explosive area. Contractors must cease operations and proceed in their own vehicles to the nearest exit gate out of the explosive area. If no vehicle available proceed to the nearest "Fire Assembly Point" at buildings 169 or 143.
- .3 Thunder and Lightning:
- .1 A series of "Beeps" on the Depot alarm system signifies a thunder/lightning storm warning. Contractors must cease operations and proceed in their own vehicles to the nearest exit gate out of the explosive area. If no vehicle available proceed to the nearest "Fire Assembly Point" at buildings 169 or 143.
-

1.7 ALARMS
(Cont'd)

- .4 Evacuation:
- .1 A series of "Slow Whoops" on the Depot alarm system signifies that evacuation in the explosive area has been ordered by the Superintendent. The evacuation could be extended to include the non-explosive area as well as so ordered by the Superintendent.
- .5 All Clear:
- .1 A continuous blast on the Depot alarm system signifies that the emergency situation is "All Clear".

1.8 REPORTING OF FIRES

- .1 All fires, regardless of whether they have been extinguished or not, must be reported immediately to the Base Fire Department.
- .2 All Contractors and employees must familiarize themselves with the locations of the nearest fire alarm pull station or telephone.
- .3 Fires may be reported by ringing the nearest street alarm box or by telephoning 9-1-1. Persons reporting the fire must remain at the alarm box or telephone until the Fire Department arrives and be prepared to direct fire fighters to the scene of the fire.

1.9 PROHIBITED ARTICLES

- .1 The following articles are prohibited and/or controlled from being taken inside the explosive area. Permission by the Superintendent may be granted for certain articles:
- .1 matches or other flame producing equipment (including vehicle lighters);
- .2 pipes, smoking appliances, tobacco products, or smoking materials in any form;
- .3 explosives or chemicals;
- .4 lights, lamps or electrical devices/tools which are not explosion proof;
- .5 cameras;
-

1.9 PROHIBITED ARTICLES
(Cont'd)

- .1 (Cont'd)
 - .6 food and drink; and
 - .7 radio transmitting devices (i.e. mobile radios, cellular phone phones, remote car starters, and garage door openers, etc).
- .2 No persons will introduce, possess or consume alcoholic beverages, narcotics or any intoxicant within the confines of the Ammunition Depot.
- .3 The site security officers will seize and hold at the gate, any such materials found by search.

1.10 SAFETY AND FIRE
REGULATIONS

- .1 Smoking:
 - .1 Is strictly prohibited in explosive areas.
 - .2 Buildings:
 - .1 Smoking is prohibited in all buildings.
 - .3 Safety Precautions Electrical/Electronic Equipment:
 - .1 All personnel operating or maintaining electrical/electronic equipment involving the use of voltage higher than 50 V must brief the site safety and fire safety officers concerning all safety rules in the operating and instructional manuals covering the equipment.
 - .4 Flammables, Explosives or Chemicals:
 - .1 As required, may be allowed into the explosive area provided that the Depot Safety Officer and the Depot Fire Department are made aware of this and that approval by the Superintendent is given. These items after approval may be transported by the Contractors provided the transportation route is known by the Depot Fire Department and adequate fire extinguishers are available.
 - .5 Open Flame or Welding:
-

1.11 TRAFFIC
REGULATIONS
(Cont'd)

- .1 (Cont'd)
 - .1 (Cont'd)
 - .1 drivers must not leave the motors of their vehicles running or leave the vehicles unattended when parked between buildings or traverses;
 - .2 drivers must not drive vehicles in the direction opposite to that indicated by the "One-way" signs;
 - .3 no one will operate a vehicle within the Depot area at a speed greater than 25 kilometres per hour at any time;
 - .4 no one will operate a vehicle within the Depot area at a speed greater than 8 kilometres per hour at any time, while passing between blast walls and buildings;
 - .5 no one will leave a vehicle unattended within 10 metres of a fire hydrant or within 30 metres of a building containing explosives; and
 - .6 all vehicles must be equipped with a fire extinguisher of a suitable size and type so that it may be used to extinguish any fire originating in that vehicle.
 - .2 Violation of any of the above regulations will result in immediate cancellation of the offender's vehicle pass and expulsion from the site.
 - .2 Roadways:
 - .1 In the event of a fire or emergency all roads and buildings within CFAD Bedford must be accessible at all times. Contractors required to disrupt roadways during the course of their work, must ensure that at least one lane of each roadway is passable, at all times. Vehicles not required to transport personnel to the nearest exit gate must be parked on the side of the road and away from the nearest building.
 - .3 Fueling:
-

1.11 TRAFFIC
REGULATIONS
(Cont'd)

- .3 (Cont'd)
- .1 Fueling of vehicles within the explosive areas is prohibited. Small equipment (lawn mowers, chainsaws, etc.) may be re-fueled, but only at sites designated by the Safety Officer and Fire Safety Officer. Comply with all safety practices pertaining to re-fueling hot equipment. Provide adequate fire extinguishers of types prescribed by the Fire Safety Officer. Only approved safety dispensing containers, as specified at sub-paragraph 1.10.6, will be permitted within the confines of the Ammunition Depot.
- .4 Violation of any of the above regulations will result in immediate cancellation of the vehicle pass and expulsion of the offender from the site.

PART 2 - PRODUCTS

- 2.1 NOT USED .1 Not used.

PART 3 - EXECUTION

- 3.1 NOT USED .1 Not used.

PART 1 - GENERAL

1.1 SITE ACCESS .1 Contractor's personnel are required to report to the main desk each morning, sign the register and obtain an identification badge which must be displayed on their person at all times. Upon leaving the Complex at the end of the day, or at lunch time, the Contractor's personnel must report to the main desk, return the badge and be signed off the register.

1.2 PARKING .1 Contractor's vehicles will be allowed into the inner compound only under the following conditions; namely, for short periods of time, to load or unload equipment and supplies and then remove to the visitor's parking lot area or to the adjacent street. The site supervisor of the contracting firm will be allowed to park his/her vehicle, for short periods of time, in one of the visitor's parking slots or, if filled, he/she will be permitted to park in the inner compound while making periodic progress visits. It is emphasized that contractors' vehicles entering the inner compound can be subject to search by the Commissionaire on duty upon their departure. DRDC Atlantic reserves the right to limit the above-mentioned parking privileges if they are being abused.

PART 2 - PRODUCTS

2.1 NOT USED .1 Not used.

PART 3 - EXECUTION

3.1 NOT USED .1 Not used.

PART 1 - GENERAL

- 1.1 DEFINITIONS .1 Environmental Pollution and Damage:
- .1 Presence of chemical, physical, biological elements or agents which adversely affect human health and welfare; unfavourably alter ecological balances of importance to human life; affect other species of importance to humans; or degrade environment aesthetically, culturally and/or historically.
- .2 Environmental Protection:
- .1 Prevention/control of pollution and habitat or environment disruption during construction.
- 1.2 FIRES .1 Fires and burning of rubbish on site is not permitted.
- 1.3 DISPOSAL OF WASTE .1 Do not dispose of waste or volatile materials, such as mineral spirits, oil or paint thinner into waterways, storm or sanitary sewers.
- .2 Do not bury rubbish and waste materials on site.
- .3 All spills must be reported immediately to the Departmental Representative and cleanup will be done at Contractor's expense.
- .4 Environmental incident:
- .1 An environmental incident has occurred when there has been an uncontrolled or unintended release of a hazardous waste, hazardous liquid, hazardous gas and/or dangerous good. Take the following action when any of the above have occurred:
 - .1 control the release, if possible;
 - .2 contact DND Fire Department at 902-427-3333 or 911; and
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<u>1.3 DISPOSAL OF WASTE (Cont'd)</u>	.4	(Cont'd)
	.1	(Cont'd)
	.3	contact the Departmental Representative.
<u>1.4 DRAINAGE</u>	.1	Ensure pumped water into waterways, sewer or drainage systems is free of suspended materials.
	.2	Control disposal or runoff of water containing suspended materials or other harmful substances in accordance with local authority requirements.
<u>PART 2 - PRODUCTS</u>		
<u>2.1 NOT USED</u>	.1	Not used.
<u>PART 3 - EXECUTION</u>		
<u>3.1 NOT USED</u>	.1	Not used.

PART 1 - GENERAL

- 1.1 RELATED SECTIONS
- .1 Section 01 11 00 - General Instructions.
 - .2 Section 09 90 00 - Painting.
 - .3 Section 32 17 23 - Pavement Markings.
- 1.2 REFERENCES
- .1 Canada Occupational Health and Safety Regulations, Part XI (latest edition including all amendments).
 - .2 CSA Z1006 Management of work in confined spaces.
 - .3 American Conference of Governmental Industrial Hygienists publication "Threshold Limit Values For Chemical Substances and Physical Agents and Biological Indices" (latest edition including all amendments).
- 1.3 DESCRIPTION
- .1 This section outlines the mandatory regulations which must be followed to ensure safe operations in and around potentially hazardous confined spaces and the emergency procedures that are to be followed.
 - .2 The safety standards in this section are applicable to contractors and consultants, their employees (including subcontractors), materials, works and buildings throughout CFB Halifax.
 - .3 All personnel entering a confined space, acting as an observer, or as a rescuer will be thoroughly trained in all procedures in accordance with above reference, No.1.
 - .4 The Contractor will be responsible for and ensure compliance with the provisions of this Section and of the Standards in above reference, No.1.
- 1.4 RESTRICTIONS
- .1 No contractor, subcontractor, consultant, or their employee will:
-

1.4 RESTRICTIONS

(Cont'd)

- .1 (Cont'd)
- .1 Be permitted to enter a hazardous confined space without receiving an evaluation, written in language which is understood by the employee/Contractor, concerning the level of hazard in the confined space. Entry must be made in compliance with this Section and with the requirements in reference, No.1.
 - .2 Enter a hazardous confined space without a safe entry permit posted at the site of work and a copy on file.

1.5 DEFINITIONS

- .1 For the purpose of this section the following definitions will apply:
- .1 Confined space:
 - .1 A tank, process vessel, underground vault, tunnel or other enclosure not designed or intended for human occupancy, except for the purpose of performing work:
 - .1 that has limited number of openings for entry and exit;
 - .2 that has poor natural ventilation;
 - .3 in which there may be an oxygen deficient atmosphere; or
 - .4 in which there may be an airborne dangerous substance.
 - .2 Dangerous substance:
 - .1 A hazardous substance or a chemical, physical or biological agent that, because of a property it possesses, is hazardous to the safety or health of a person exposed to it.
 - .3 Qualified person:

1.5 DEFINITIONS
(Cont'd)

- .1 (Cont'd)
- .3 (Cont'd)
 - .1 In respect to a specified duty, a person who, because of their knowledge, training and experience is qualified to perform that duty safely and properly.
- .4 Class of confined space:
 - .1 A group of at least two confined spaces that are likely, by reason of their similarity, to present the same hazards to persons entering, exiting or occupying them. Confined spaces are identified as Class A, B, or C by DND depending on hazard assessment.
 - .1 Class A - Hazardous confined space:
 - .1 Any confined space that cannot be made safe by ventilation and maintained in this safe condition even when lock-out, blank and bleed, and all other actions have been taken.
 - .2 Class B - Confined space:
 - .1 Hazards exist but can be eliminated by ventilation, lock-out, and blank and bleed.
 - .3 Class C - Considered confined space:
 - .1 Conditions could arise to make the area a confined space.

1.6 COMMON HAZARDS

- .1 Hazards common to confined spaces that Contractors must watch for are:
 - .1 toxic vapours from sludge or leakage into the space;
 - .2 flammable gases and vapours with potential fire or explosion hazards;

-
- 1.6 COMMON HAZARDS .1 (Cont'd)
- (Cont'd)
- .3 oxygen below 19.5 % or over 23 % (normal 20.9 %);
 - .4 electric shock from tools, lights or other electrical equipment;
 - .5 chemical burns from corrosives or injury from dermatitis producing materials;
 - .6 burns from high pressure steam, hot water or fuel oil;
 - .7 high pressure air;
 - .8 physical hazards from slips, falls, protruding objects or falling objects; and
 - .9 excess corrosion on metal components.
- 1.7 SAFE ENTRY PERMIT .1 Where the Contractor must enter a confined space, a safe entry permit must be provided to the Departmental Representative, completed in triplicate and returned to the Departmental Representative before access will be permitted. One copy must be posted at site of work. Original copy must be sent to the Unit General Safety Officer.
- 1.8 VERIFICATIONS .1 Prior to entering a confined space the Contractor must provide a qualified person to ensure/verify:
- .1 That there are openings for entry and exit from the confined space of sufficient size to allow the safe passage of a person using protective equipment. This opening can be:
 - .1 a manhole; or
 - .2 other clear opening.
-

1.8 VERIFICATIONS
(Cont'd)

- .1 (Cont'd)
- .2 That the entry of any liquid or free flowing solid or hazardous material has been prevented by secure means of disconnection or by blanking off the flanges from any source of these materials. In addition, that any liquid in which the person could drown, or free flowing solid in which they could be entrapped, has been removed.
- .3 That all electrical/mechanical equipment which may present a hazard to the person has been disconnected from its power source, either real or residual, and has been locked out in the off position by the person entering the space. Note: The key must be held by the person who locked out the equipment until such time as the work is complete and the lock out is removed by the individual. As well, the removal of fuses is encouraged.
- .4 Tests for oxygen levels, combustibility, and toxicity of hazardous substances (in that order) are conducted and evaluated (e.g. oxygen, explosive gases or vapours, hydrogen sulfide, and then carbon monoxide).
- .1 Tests for oxygen levels and combustibility and toxicity must be made with a probe at the point of entry to the confined space with cover in place. If no hazard is detected the cover will then be removed.
- .2 If oxygen deficient, combustible atmosphere, or toxic substances are detected, the space must not be entered until such time as the space is rendered safe through appropriate purging and ventilation.
- .3 The entire space will then be tested for oxygen deficiency, combustibility and toxicity. Note: In the event the possibility exists for oxygen deficiency, combustible atmosphere or the presence of hazardous substances which could exceed allowable limits, despite purging and ventilation, these tests will only be conducted by a person who is wearing the required personal protective equipment (PPE) such as air supplied respirator, gloves/hand protection, harness, etc. (if tests are to be done in the confined space).

1.8 VERIFICATIONS
(Cont'd)

- .1 (Cont'd)
- .5 That verification, by means of tests, is conducted to ensure that the following specifications can be achieved and maintained during the duration of time the person will be in the confined space, namely:
- .1 The concentration of any chemical agent, or combination of chemical agents in the confined space to which the person is likely to be exposed:
 - .1 will not result in a value exceeding the value for that chemical agent, or for any chemical agent in the combination of chemical agents, other than grain dust, as prescribed by reference No.2;
 - .2 will not result in an airborne grain dust, respirable and non respirable, in excess of 10 mg/m³, subject to para. 1.8.1.5.2; and
 - .3 is less than 50 percent of the lower explosive limit of the chemical agent or combination of chemical agents, subject to para. 1.8.1.5.2.
 - .2 Where a source of ignition exists the concentration does not exceed 10 percent of the lower explosive limit of the airborne chemical agent or combination of airborne chemical agents.
 - .3 The concentration of airborne hazardous substances, other than chemical agents, in the confined space is not hazardous to the safety or health of the person.
 - .4 The percentage of oxygen in the air in the confined space is not less than 19.5 percent by volume and not more than 23 percent by volume, at normal temperature.
- .6 The space has been purged and ventilated to provide and continue to provide a safe working atmosphere, and that in the event of ventilation equipment failure there is:

1.8 VERIFICATIONS
(Cont'd)

- .1 (Cont'd)
- .6 (Cont'd)
- .1 Sufficient time available for the employee to escape the confined space hazard before contamination of the atmosphere.
- .2 The ventilation equipment is either equipped with an approved alarm or monitored by an employee who is in constant attendance on the ventilation equipment and in constant contact with the worker (s) in the confined space.
- .7 The qualified person must, in a signed report, set out the results of the preceding sections, including any test results and a list of test equipment used and must ensure these results are given to the Departmental Representative and Safety Officer.

PART 2 - PRODUCTS

2.1 EQUIPMENT

- .1 All PPE identified on the area work permit must be utilized during entry into the confined space. The appropriate PPE depends upon the nature of the exposure, and may include goggles, hardhats, safety footwear, a complete body covering or suitable breathing apparatus. It is stressed that PPE is not a substitute for proper ventilation. Where the Hazard Assessment form deems it necessary, workers must wear an emergency five minute constant air flow self contained breathing apparatus (SKAT-PAK by SCOTT) and must have an air monitoring device with them at all times while in the confined space. Contractor will supply appropriate PPE for their employees.

2.1 EQUIPMENT
(Cont'd)

- .2 A safety harness with an attached lifeline must be worn by all workers, entering a confined space: with only one manhole or opening at the top or where rescue may be difficult; or where dangerous gases, vapours, mists, fumes, dusts, oxygen deficiency or extremes of temperature are likely to be present; or where respiratory protection is necessary. The free end of the lifeline attached must be secured outside the enclosed space. The lifeline must be of sufficient length to reach from an outside support to any point of work inside the confined space, and must be of sufficient strength to bear the weight of the worker. A tripod hoist and lifting device (vertical use only) must be in place prior to and during work in the confined space. Appropriate positive pressure air supplied respiratory protection must be available at the site for use in the rescue/extraction of persons working in the space. Contractor will supply all required rescue equipment.
- .3 Minimum equipment requirement:
- .1 Class A confined space:
- .1 Ventilator, multi-gas detector, communication system, safety harness, retrieval system, SCBA or air line system (to be worn at all times), and duplicate equipment above kept at entrance of confined space for emergency rescue.
- .2 Class B confined space:
- .1 Ventilator, multi-gas detector, communication system, safety harness, retrieval system, and SCBA or air line system on hand at entrance of confined space for emergency rescue.
- .3 Class C confined space:
- .1 Multi-gas detector, communication system, and SCAT-PAK.
-

PART 3 - EXECUTION

3.1 CONDITIONS OF ENTRY

- .1 The following conditions must be met, prior to entry, so that response to any emergency can be made in the shortest time frame:
 - .1 A minimum of one person must be posted outside a confined space as an observer and must:
 - .1 have no other tasking which would detract from his function of observing the person(s) in the space;
 - .2 control the lifeline(s) attached to the person(s) in the space and ensure that the lifeline is attached to a solid object;
 - .3 be equipped with a safety harness;
 - .4 ensure continuous radio contact with the persons in the space or be able to observe the person(s) in the space (Note: radios are not to be used if combustible atmosphere is present);
 - .5 have a means of summoning assistance (qualified personnel) in case of an emergency situation; and
 - .6 be trained in rescue procedures and Standard First Aid.
 - .2 In addition to the observer, for Class A confined spaces, an additional individual (a rescuer) must be present at the entrance to the confined space. The individual must:
 - .1 be wearing all required PPE including harness, lifeline and positive pressure air supplied respiratory protection (where required);
 - .2 be present at all times when person(s) are working in the confined space;
 - .3 be trained in rescue procedures and Standard First Aid; and

3.1 CONDITIONS OF ENTRY
(Cont'd)

- .1 (Cont'd)
- .2 (Cont'd)
- .4 must not enter the space unless to rescue the person(s) working in the space and only after additional assistance has been summoned and all required protective equipment is worn.
- .3 In the event that the observer or the additional person (rescuer, if present) is required to leave the entrance to the space, the space must be vacated by those working in it until such time as the observer and the additional person return. Before re-entering the confined space, the conditions set out in para 1.7 and 1.8 must be followed.
- .4 The minimum number of persons present during entry into and work in a confined space must be three(3) for Class A confined spaces (worker, observer, and rescuer) and two(2) for Class B and C confined spaces (the worker and the observer). Where conditions warrant, an additional person to respond in emergencies is required.
- .5 The contact for additional assistance will be DND Fire Department at local 902-427-3333.
- .6 No person will enter any confined space for the purpose of rescuing an individual until they are wearing all required PPE including positive pressure air supplied respiratory protection and an observer is on site.

3.2 TESTING & MAINTENANCE OF EQUIPMENT

- .1 All testing equipment, safety harnesses, lifelines, breathing apparatus, ventilation equipment and any other equipment used in connection with entry into a confined space by the Contractor will be inspected, maintained and tested by a qualified person as frequent as is necessary to ensure that it is in safe condition for use at all times, but not less frequent than is recommended by the manufacturer or as directed in writing by the Departmental Representative or Safety Officer.

3.3 REGULATIONS

- .1 In the event of conflict or discrepancy between this Section and the source documents and Canada Occupational Health and Safety Regulations, Part XI the more stringent requirements will apply.

PART 1 - GENERAL

1.1 PROJECT CLEANLINESS

- .1 Maintain Work in tidy condition, free from accumulation of waste products and debris, other than that caused by Owner or other Contractors.
- .2 Remove waste materials from site at daily regularly scheduled times or dispose of as directed by the Departmental Representative. Do not burn waste materials on site.
- .3 Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.
- .4 Solid waste materials that are generated within Halifax Regional Municipality (HRM) and do not require specialized out of county disposal sites must be disposed of within the boundaries of the HRM at a licensed or approved facility as per bylaw S-600.
- .5 Clean interior areas prior to start of finishing work, and maintain areas free of dust and other contaminants during finishing operations.
- .6 Store volatile waste in covered metal containers, and remove from premises at end of each working day.
- .7 Provide adequate ventilation during use of volatile or noxious substances. Use of building ventilation systems is not permitted for this purpose.
- .8 Use only cleaning materials recommended by manufacturer of surface to be cleaned, and as recommended by cleaning material manufacturer.
- .9 Schedule cleaning operations so that resulting dust, debris and other contaminants will not fall on wet, newly painted surfaces nor contaminate building systems.

1.2 FINAL CLEANING

- .1 When Work is Substantially Performed remove surplus products, tools, construction machinery and equipment not required for performance of remaining Work.
-

1.2 FINAL CLEANING
(Cont'd)

- .2 Remove waste products and debris other than that caused by others, and leave Work clean and suitable for occupancy.
- .3 Prior to final review remove surplus products, tools, construction machinery and equipment.
- .4 Remove stains, spots, marks and dirt from decorative work, electrical and mechanical fixtures, furniture fitments, walls, and floors.
- .5 Clean lighting reflectors, lenses and other lighting surfaces.
- .6 Remove dirt and other disfiguration from exterior surfaces.

PART 2 - PRODUCTS

2.1 NOT USED

- .1 Not used.

PART 3 - EXECUTION

3.1 NOT USED

- .1 Not used.

PART 1 - GENERAL

<u>1.1 RELATED SECTIONS</u>	.1	Section 01 11 00 - General Instructions.
	.2	Section 01 35 73 - Confined Spaces Requirements.
	.3	Section 32 17 23 - Pavement Markings.
<u>1.2 REFERENCE STANDARDS</u>	.1	Green Seal Environmental Standards (GS)
	.1	GS-11, Paints, Coatings Stains and Sealers.
	.2	Health Canada/Workplace Hazardous Materials Information System (WHMIS)
	.1	Safety Data Sheets (SDS).
	.3	The Master Painters Institute (MPI)
	.1	Architectural Painting Specification Manual - current edition.
	.2	Maintenance Repainting Manual - current edition.
	.4	National Research Council Canada (NRC)
	.1	National Building Code of Canada (NBC).
	.5	South Coast Air Quality Management District (SCAQMD), California State, Regulation XI. Source Specific Standards
	.1	SCAQMD Rule 1113-A2007, Architectural Coatings.
<u>1.3 ACTION AND INFORMATIONAL SUBMITTALS</u>	.1	Product Data:
	.1	Submit manufacturer's instructions, printed product literature and data sheets for paint and coating products and include product characteristics, performance criteria, physical size, finish and limitations.

1.3 ACTION AND
INFORMATIONAL
SUBMITTALS
(Cont'd)

- .1 (Cont'd)
- .2 Submit two (2) copies of WHMIS SDS in accordance with Section 01 35 30 - Health and Safety Requirements and Section 01 35 43 - Environmental Procedures.

1.4 SITE CONDITIONS

- .1 Heating, Ventilation and Lighting:
 - .1 Ventilate enclosed spaces as required.
 - .2 Coordinate use of existing ventilation system with Departmental Representative and ensure its operation during and after application of paint as required.
 - .3 Provide minimum lighting level of 323 Lux on surfaces to be painted.
- .2 Temperature, Humidity and Substrate Moisture Content Levels:
 - .1 Apply paint finishes when ambient air and substrate temperatures at location of installation can be satisfactorily maintained during application and drying process, within MPI and paint manufacturer's prescribed limits.
 - .2 Test concrete, masonry and plaster surfaces for alkalinity as required.
 - .3 Apply paint to adequately prepared surfaces, when moisture content is below paint manufacturer's prescribed limits.
- .3 Additional application requirements:
 - .1 Apply paint finish in areas where dust is no longer being generated by related construction operations or when wind or ventilation conditions are such that airborne particles will not affect quality of finished surface.
 - .2 Apply paint in occupied facilities during silent hours only. Schedule operations to approval of Departmental Representative such that painted surfaces will have dried and cured sufficiently before occupants are affected.

- 1.5 SAFETY .1 The Contractor's personnel must have the appropriate training and certification when performing work in confined spaces or working with man lifts and fall arrest equipment.

PART 2 - PRODUCTS

- 2.1 MATERIALS .1 Supply paint materials for paint systems from single manufacturer.
- .2 Conform to latest MPI requirements for painting work including preparation and priming
- .3 Materials in accordance with MPI - Architectural Painting Specification Manual and MPI - Maintenance Repainting Manual "Approved Product" listing.
- .1 Use MPI listed materials having E2 or E3 rating where indoor air quality requirements exist.
- .2 Primer: VOC limit 100 g/L maximum to GS-11, SCAQMD Rule 1113.
- .3 Paint: VOC limit 100 g/L maximum to GS-11, SCAQMD Rule 1113.
- .4 Colours:
- .1 Submit proposed Colour Schedule to Departmental Representative for review.
- .2 Base colour schedule on selection of five (5) base colours and three (3) accent colours.
- .5 Mixing and tinting:
- .1 Perform colour tinting operations prior to delivery of paint to site, in accordance with manufacturer's written recommendations. Obtain written approval from the Departmental Representative for tinting of painting materials.
-

2.1 MATERIALS
(Cont'd)

- .5 (Cont'd)
- .2 Use and add thinner in accordance with paint manufacturer's recommendations.
 - .1 Do not use kerosene or similar organic solvents to thin water-based paints.
 - .3 Thin paint for spraying in accordance with paint manufacturer's written recommendations.
 - .4 Re-mix paint in containers prior to and during application to ensure break-up of lumps, complete dispersion of settled pigment, and colour and gloss uniformity.

PART 3 - EXECUTION

3.1 GENERAL

- .1 Comply with manufacturer's written recommendations or specifications, including product technical bulletins, handling, storage and installation instructions, and data sheets.
- .2 Perform preparation and operations for interior painting in accordance with MPI - Architectural Painting Specifications Manual and MPI - Maintenance Repainting Manual except where specified otherwise.

3.2 EXAMINATION

- .1 Investigate existing substrates for problems related to proper and complete preparation of surfaces to be painted. Report to Departmental Representative damages, defects, unsatisfactory or unfavourable conditions before proceeding with work.
- .2 Conduct moisture testing of surfaces to be painted using properly calibrated electronic moisture meter, except test concrete floors for moisture using simple "cover patch test". Do not proceed with work until conditions fall within acceptable range as recommended by manufacturer.

3.3 PREPARATION

- .1 Protection of in-place conditions:

3.3 PREPARATION

(Cont'd)

- .1 (Cont'd)
- .1 Protect existing building surfaces and adjacent structures from paint spatters, markings and other damage by suitable non-staining covers or masking. If damaged, clean and restore surfaces as directed by Departmental Representative.
 - .2 Protect items that are permanently attached such as Fire Labels on doors and frames.
 - .3 Protect factory finished products and equipment.
- .2 Surface Preparation:
- .1 Remove electrical cover plates, light fixtures, surface hardware on doors, bath accessories and other surface mounted equipment, fittings and fastenings prior to undertaking painting operations. Identify and store items in secure location and re-installed after painting is completed.
 - .2 Move and cover furniture and portable equipment as necessary to carry out painting operations. Replace as painting operations progress.
 - .3 Place "WET PAINT" signs in occupied areas as painting operations progress. Signs to approval of Departmental Representative.
 - .4 Clean and prepare surfaces in accordance with MPI - Architectural Painting Specification Manual and MPI - Maintenance Repainting Manual specific requirements and coating manufacturer's recommendations.
 - .5 Prevent contamination of cleaned surfaces by salts, acids, alkalis, other corrosive chemicals, grease, oil and solvents before prime coat is applied and between applications of remaining coats. Apply primer, paint, or pretreatment as soon as possible after cleaning and before deterioration occurs.
 - .6 Where possible, prime non-exposed surfaces of new wood surfaces before installation. Use same primers as specified for exposed surfaces.
-

3.3 PREPARATION

(Cont'd)

- .2 (Cont'd)
- .6 (Cont'd)
 - .1 Apply vinyl sealer to MPI #36 over knots, pitch, sap and resinous areas.
 - .2 Apply wood filler to nail holes and cracks.
 - .3 Tint filler to match stains for stained woodwork.
- .7 Sand and dust between coats as required to provide adequate adhesion for next coat and to remove defects visible from a distance up to 1000 mm.
- .8 Clean metal surfaces to be painted by removing rust, loose mill scale, welding slag, dirt, oil, grease and other foreign substances in accordance with MPI requirements.
- .9 Touch up of shop primers with primer as specified.

3.4 APPLICATION

- .1 All paint applications must be performed by Red Seal accredited painters and the apprentice painters must be supervised by a painter fully qualified and experienced in the work being performed.
- .2 Paint only after prepared surfaces have been accepted by the Departmental Representative.
- .3 Use method of application approved by Departmental Representative.
 - .1 Conform to manufacturer's application recommendations.
- .4 Apply coats of paint in continuous film of uniform thickness.
 - .1 Repaint thin spots or bare areas before next coat of paint is applied.
- .5 Allow surfaces to dry and properly cure after cleaning and between subsequent coats for minimum time period as recommended by manufacturer.
- .6 Sand and dust between coats to remove visible defects.

3.4 APPLICATION
(Cont'd)

- .7 Finish surfaces both above and below sight lines as specified for surrounding surfaces, including such surfaces as tops of interior cupboards and cabinets and projecting ledges.
- .8 Finish inside of cupboards and cabinets as specified for outside surfaces.
- .9 Finish closets and alcoves as specified for adjoining rooms.
- .10 Finish top, bottom, edges and cutouts of doors after fitting as specified for door surfaces.
- .11 Mechanical/Electrical Equipment:
 - .1 Paint conduits, piping, hangers, ductwork and other mechanical and electrical equipment exposed in finished areas, to match adjacent surfaces, except as indicated.
 - .2 Do not paint over nameplates.
 - .3 Keep sprinkler heads free of paint.
 - .4 Paint fire protection piping red.
 - .5 Paint disconnect switches for fire alarm system and exit light systems in red enamel.
 - .6 Paint natural gas piping yellow.
 - .7 Paint both sides and edges of backboards for telephone and electrical equipment before installation.
 - .1 Leave equipment in original finish except for touch-up as required, and paint conduits, mounting accessories and other unfinished items.

3.5 CLEANING

- .1 Progress Cleaning: clean in accordance with Section 01 74 00 - Cleaning.
 - .1 Leave Work area clean at end of each day.
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3.5 CLEANING
(Cont'd)

- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 00 - Cleaning.
- .3 Place paint, stains, primer defined as hazardous or toxic waste, including tubes and containers, in containers or areas designated for hazardous waste.

PART 1 - GENERAL

<u>1.1 RELATED SECTIONS</u>	.1	Section 01 11 00 - General Instructions.
	.2	Section 01 35 73 - Confined Spaces Requirements.
	.3	Section 09 91 00 - Painting.
<u>1.2 REFERENCE STANDARDS</u>	.1	Environment Canada (EC)
	.1	Volatile Organic Compound (VOC) Concentration Limits for Architectural Coatings Regulations, SOR/2009-264.
	.2	Green Seal (GS)
	.1	GS-11, Paints, Coatings, Stains, and Sealers.
	.3	Health Canada/Workplace Hazardous Materials Information System (WHMIS)
	.1	Safety Data Sheets (SDS).
	.4	Master Painters Institute (MPI)
	.1	Architectural Painting Specification Manual - current edition.
	.1	MPI #32, Traffic Markings Paint, Alkyd.
	.2	MPI #97, Latex Traffic Marking Paint.
	.2	Maintenance Repainting Manual - current edition.
	.5	Transportation Association of Canada (TAC)
	.1	Manual of Uniform Traffic Control Devices for Canada, latest edition.
<u>1.3 MEASUREMENT AND PAYMENT</u>	.1	The following methods will be used to calculate the measurement of lines and markings for payment basis:

1.3 MEASUREMENT AND
PAYMENT
(Cont'd)

- .1 (Cont'd)
- .1 road lines including all solid and broken traffic lines, stop lines, parking lines and crosswalk lines:
 - .1 0 - 60 cm in width, paid per linear metre;
 - .2 pavement arrows paid per unit (each);
 - .3 international symbols of access for handicap parking, paid per unit (each);
 - .4 numeral and letters paid per unit (each); and
 - .5 removal of existing markings, paid per linear metre.
 - .2 All lines and/or markings not specified herein will be priced on an individual basis and will be agreed upon by both the Contractor and the Departmental Representative, in writing, prior to the issue of a DRMIS Purchase Order form "Call-up Against a Standing Offer" for that job.

1.4 WARNING SIGNS AND
BARRICADES

- .1 The Contractor will be responsible for the posting of warning signs and/or caution lights in immediate area.
- .2 In traffic areas such as entrances, roads and other high traffic areas suitable barriers must be erected to temporarily detour traffic around work area as directed by the Departmental Representative.
- .3 All traffic warning signs and barriers must be removed by the Contractor on completion of all work or as directed by the Departmental Representative.
- .4 The military police, traffic division, must be notified at least three (3) days prior to scheduled work in traffic areas.

PART 2 - PRODUCTS

2.1 MATERIALS

- .1 Alkyd Traffic Paint and Markings:
 - .1 To MPI #32, Alkyd traffic marking.

2.1 MATERIALS

(Cont'd)

- .1 (Cont'd)
- .2 Paints in accordance with MPI recommendations for surface conditions.
 - .2 Colour:
 - .1 To MPI listed, yellow, black, white.
 - .3 Thinner:
 - .1 To MPI listed manufacturer.
 - .4 Glass reflective beads:
 - .1 Type suitable for application to wet paint surface for light reflectance.
 - .5 Abrasives and solvents used for removal of paint, oil, grease, rubber deposits, proprietary products specially designed for pavement cleaning, subject to approval by Departmental Representative.

PART 3 - EXECUTION

3.1 EXAMINATION

- .1 Verification of Conditions:
 - .1 Verify conditions of substrates and surfaces to receive pavement markings acceptable for product installation in accordance with MPI instructions prior to pavement markings application.
 - .1 Visually inspect substrate in presence of Departmental Representative.
 - .2 Pavement surface: dry, free from water, frost, ice, dust, oil, grease and other deleterious materials.
 - .3 Proceed with Work only after unacceptable conditions rectified.

3.2 EQUIPMENT
REQUIREMENTS

- .1 Paint applicator:
 - .1 Approved pressure type mobile with positive shut-off distributor capable of applying paint in single, double and dashed lines and capable of applying marking components uniformly, at rates specified, and to dimensions as indicated.
- .2 Distributor:
 - .1 Capable of applying reflective glass beads as overlay on freshly applied paint.

3.3 TRAFFIC CONTROL

- .1 Conduct traffic control in high traffic areas as required and as directed by the Departmental Representative.

3.4 PAVEMENT SURFACE
CLEANING

- .1 Remove sealing compound which has protruded excessively, where directed by Departmental Representative.
- .2 Remove dust, contaminants, loose and foreign materials, oil and grease, in areas as directed by and by method approved in writing by Departmental Representative.
- .3 Use rotary power brooms supplemented by hand brooming.

3.5 APPLICATION

- .1 Pavement markings:
 - .1 Lay out pavement markings on an approved surface to the satisfaction of the Departmental Representative and must be uniform in design, position and application.
- .2 Where possible and still satisfying the requirement, existing lines will be repainted as directed by the Departmental Representative.
- .3 Unless otherwise approved by Departmental Representative, apply paint when air temperature minimum 10 degrees C, wind speed maximum 60 km/h and no rain forecast within next 4 hours.

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- 3.5 APPLICATION (Cont'd)
- .4 Apply traffic paint evenly at rate of 3 m²/L to form minimum 8 mil dry film thickness, in accordance with MPI Architectural Painting Specification Manual "Preparation of Surfaces" and "Application" for "Approved Product" listing.
 - .5 Do not thin paint unless approved by Departmental Representative.
 - .6 Symbols and letters to dimensions indicated.
 - .7 Paint lines of uniform colour and density with sharp edges.
 - .8 Thoroughly clean distributor tank before refilling with paint of different colour.
 - .9 Apply glass beads at rate of 0.5 kg/L of painted area immediately after application of paint.
- 3.6 LAYOUT OF LINES AND MARKINGS
- .1 All surface preparation, filed measurements and layout of lines and markings will be the responsibility of the Contractor and will be included in the unit price stated for each line or marking.
- 3.7 TOLERANCE
- .1 Paint markings within plus or minus 12 mm of dimensions indicated.
- 3.8 PROTECTION
- .1 Protect pavement markings until dry.
 - .2 Repair damage to adjacent materials caused by pavement marking application.