

Requisition No. EZ113-15-1591

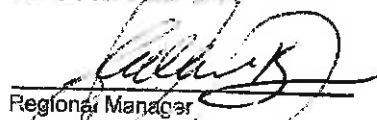
WERK I.D. No. _____

SPECIFICATIONS
For

DND - CFB Esquimalt, Colwood Site 512 Contaminated
Soil Transport and Disposal

R.071320.001

APPROVED BY:


Regional Manager

20.4.11/25
Date


Construction Safety Coordinator

20.4.11/24
Date

TENDER:


Project Manager

19.04.11
Date

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Attachment 1

Report prepared by SLR entitled "Col-12 Soil Stockpiles, DND Colwood, Colwood, BC", dated November 20, 2013

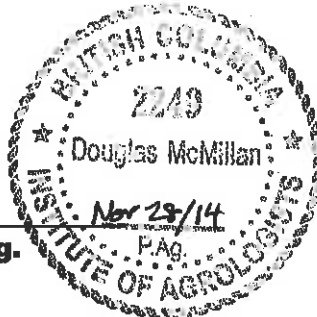
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per 
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Approved: 2006-03-31

Part 1 General

1.1 RELATED REQUIREMENTS

- .1 Section 01 33 00 - Submittal Procedures.
- .2 Section 01 35 00 06 - Special Procedures for Traffic Control.
- .3 Section 01 35 43 - Environmental Procedures.

1.2 WORK COVERED BY CONTRACT DOCUMENTS

- .1 Work of this Contract comprises disposal of stockpiled soil, located at the Colwood Site #12 (COL 12) CFB Esquimalt, Colwood, BC (Site). The scope of work includes loading, transport and off-site disposal of metals and polycyclic aromatic hydrocarbon (PAH) impacted soil. Specifically, the Contractor will be responsible for the following:
 - .1 Meet the requirements of Section 01 33 00 - Submittal Procedures.
 - .2 Develop a Site Specific Health and Safety Plan for the deconstruction and remedial excavation program.
 - .3 Meet the requirements of Section 01 35 43 – Environmental Procedures.
 - .4 Provide washroom facilities.
 - .5 Obtain the applicable “Dig Permit” from DND.
 - .6 Make arrangements with and obtain all applicable permits from authorities having jurisdiction for off-site disposal of the soil.
 - .7 Provide documentation from the proposed disposal facility for approval by PWGSC demonstrating the current license or permit to accept the contaminated soil removed from the site.
 - .8 Meet the requirements of Section 01 35 00.06 – Special Procedures for Traffic Control.
 - .9 Removal of approximately 10,674 tonnes of metals and/or PAH contaminated soil at concentrations less than the BC Hazardous Waste Regulation (HWR) and greater than the BC Contaminated Sites Regulation (CSR) Commercial land use standards.
 - .10 Groundwater and/or ponded surface water is not expected to require management, however the centre of the stockpile area is soft, and all soil will need to be removed using the perimeter gravel roadway.
 - .11 Noise and dust control measures will be the responsibility of the contractor to meet PWGSC requirements.
 - .12 Provide all equipment and manpower necessary to assist the PWGSC representative in collection of confirmatory soil samples from the footprint of the soil stockpiles if necessary (following removal).
 - .13 Provide all equipment and manpower necessary to load, transport and dispose all of impacted soils at an off-site permitted facility in compliance with all applicable federal and provincial standards and regulations.

- .14 Remove waste materials from site at end of each work-day.

1.3 CONTRACT METHOD

- .1 Construct Work under unit price / lump sum contract.
- .2 Employ suppliers and subcontractors approved by the PWGSC Representative for the Work.

1.4 CONTRACTOR USE OF PREMISES

- .1 Unrestricted use of site until completion.
- .2 Remove or alter existing work to prevent injury or damage to portions of existing work which remain.
- .3 Repair or replace portions of existing work which have been altered during construction operations to match existing or adjoining work, as directed by the PWGSC Representative.

1.5 ALTERATIONS, ADDITIONS OR REPAIRS TO EXISTING BUILDING

- .1 Execute work with least possible interference or disturbance to local traffic and normal use of premises. Arrange with PWGSC Representative to facilitate execution of work.

1.6 EXISTING SERVICES

- .1 Notify, the PWGSC Representative and utility companies of intended interruption of services and obtain required permission.
- .2 Where Work involves breaking into or connecting to existing services, allow PWGSC 48 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 pedestrian and vehicular traffic.
- .3 Provide alternative routes for personnel, pedestrian and vehicular traffic and provide traffic control services (flag persons) to direct traffic.
- .4 Establish location and extent of service lines in area of work before starting Work and obtain the applicable "Dig Permit" from DND. Notify the PWGSC Representative of findings.
- .5 Submit schedule to and obtain approval from the PWGSC Representative for any shut-down or closure of active service or facility including power and communications services. Adhere to PWGSC approved schedule.
- .6 Where unknown services are encountered, immediately contact the PWGSC Representative and confirm findings in writing.
- .7 Protect, relocate or maintain existing active services. When inactive services are encountered, cap off in manner approved by the PWGSC Representative and authorities having jurisdiction.
- .8 Record locations of maintained, re-routed and abandoned service lines and provide to the PWGSC Representative.

- .9 The project involves loading, transporting, and disposal of PAH and metals impacted stockpiled soil at the COL 12 Site, CFB Esquimalt. The location of the stockpiles is indicated in the attached report. The intent of the proposed project is to remove approximately 10,674 tonnes of soil. The stockpiles have been characterised and are impacted with PAH's and metals at concentrations greater than BC commercial land use standards. Concentrations are all less than the BC Hazardous Waste standards. Different soil classes are stockpiled separately and clearly indicated on the attached drawings. Technical specifications are provided below and related detailed specifications are provided with this tender package.
- .10 Soil must be disposed of at a licensed facility permitted to accept soil classified as containing PAH's and metals greater than the BC commercial land use standards. Prior to initiating transport and disposal, the contractor must submit the proposed disposal facility including a copy of their current license or permit for approval by PWGSC.

1.7 DOCUMENTS REQUIRED

- .1 Maintain at job site, one copy each document as follows:
 - .1 Contract Drawings.
 - .2 Specifications.
 - .3 Addenda.
 - .4 Change Orders.
 - .5 Other Modifications to Contract.
 - .6 Field Test Reports.
 - .7 Copy of Approved Work Schedule.
 - .8 Health and Safety Plan and Other Safety Related Documents.
 - .9 Other documents as specified.

Part 2 Products

2.1 NOT USED

- .1 Not used.

Part 3 Execution

3.1 NOT USED

- .1 Not used.

END OF SECTION

Approved: 2009-12-31

Part 1 General

1.1 ADMINISTRATIVE

- .1 Submit to the PWGSC Representative submittals listed for review. Submit promptly and in orderly sequence to not cause delay in Work. Failure to submit in ample time is not considered sufficient reason for extension of Contract Time and no claim for extension by reason of such default will be allowed.
- .2 Do not proceed with Work affected by submittal until review is complete and approved.
- .3 Present information in SI Metric units.
- .4 Notify the PWGSC Representative, in writing at time of submission, identifying deviations from requirements of Contract Documents stating reasons for deviations.
- .5 Ensure field measurements by quantity surveyor are coordinated with on-site Work.
- .6 Contractor's responsibility for errors and omissions in submission is not relieved by the PWGSC Representative review of submittals.
- .7 Contractor's responsibility for deviations in submission from requirements of Contract Documents is not relieved by the PWGSC Representative review.
- .8 Keep one reviewed copy of each submission on site.

1.2 SUBMISSIONS

- .1 Submit the following reports and documentation within 7 days after date of Notice to Proceed and prior to mobilization to site:
 - .1 Project Schedule.
 - .2 Health and Safety Plan.
 - .3 Contractors Environmental Management Plan.
- .2 Submit the following reports / documentation within 24 hours of occurrence.
 - .1 Incident and Accident Reports.
- .3 Allow 5 days for the PWGSC Representative review of each submission.
- .4 Adjustments made on submissions by the PWGSC Representative are not intended to change Contract Price. If adjustments affect value of Work, state such in writing to the PWGSC Representative prior to proceeding with Work.
- .5 Make changes in submissions as the PWGSC Representative may require, consistent with Contract Documents. When resubmitting, notify the PWGSC Representative in writing of revisions other than those requested.
- .6 Accompany submissions with transmittal letter containing:
 - .1 Date.
 - .2 Project title and number.
 - .3 Contractor's name and address.

- .4 Identification and quantity of each shop drawing, product data and sample.
- .5 Other pertinent data.
- .7 Submissions include:
 - .1 Date and revision dates.
 - .2 Project title and number.
 - .3 Name and address of:
 - .1 Subcontractor.
 - .2 Supplier.
 - .3 Manufacturer.
 - .4 Contractor's signature of Contractor's authorized representative certifying approval of submissions, verification of field measurements and compliance with Contract Documents.
 - .5 Details of appropriate portions of Work as applicable:
- .8 The review of drawings by Public Works and Government Services Canada (PWGSC) is for sole purpose of ascertaining conformance with general concept.
 - .1 This review shall not mean that PWGSC approves detail design inherent in drawings, responsibility for which shall remain with Contractor submitting same, and such review shall not relieve Contractor of responsibility for errors or omissions in drawings or of responsibility for meeting requirements of construction and Contract Documents.
 - .2 Without restricting generality of foregoing, Contractor is responsible for dimensions to be confirmed and correlated at job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of Work of sub-trades.

Part 2 Products

2.1 NOT USED

- .1 Not Used.

Part 3 Execution

3.1 NOT USED

- .1 Not Used.

END OF SECTION

Approved: 2006-06-30

Part 1 General

1.1 DEFINITIONS

- .1 Activity: element of Work performed during course of Project. Activity normally has expected duration, and expected cost and expected resource requirements. Activities can be subdivided into tasks.
- .2 Bar Chart (GANTT Chart): graphic display of schedule-related information. In typical bar chart, activities or other Project elements are listed down left side of chart, dates are shown across top, and activity durations are shown as date-placed horizontal bars. Generally Bar Chart should be derived from commercially available computerized project management system.
- .3 Baseline: original approved plan (for project, work package, or activity), plus or minus approved scope changes.
- .4 Construction Work Week: Monday to Friday, inclusive, will provide five day work week and define schedule calendar working days as part of Bar (GANTT) Chart submission.
- .5 Duration: number of work periods (not including holidays or other nonworking periods) required to complete activity or other project element. Usually expressed as workdays or work weeks.
- .6 Master Plan: summary-level schedule that identifies major activities and key milestones.
- .7 Milestone: significant event in project, usually completion of major deliverable.
- .8 Project Schedule: planned dates for performing activities and the planned dates for meeting milestones. Dynamic, detailed record of tasks or activities that must be accomplished to satisfy Project objectives. Monitoring and control process involves using Project Schedule in executing and controlling activities and is used as basis for decision making throughout project life cycle.
- .9 Project Planning, Monitoring and Control System: overall system operated by [Departmental Representative] [PWGSC Representative] [Consultant] to enable monitoring of project work in relation to established milestones.

1.2 REQUIREMENTS

- .1 Ensure Master Plan and Detail Schedules are practical and remain within specified Contract duration.
- .2 Work hours are limited to 7:00 AM to 5:00 PM Monday to Friday unless otherwise approved by the PWGSC Representative.
- .3 Plan to complete Work in accordance with prescribed milestones and time frame.
- .4 Limit activity durations (between milestones) to maximum of approximately 10 working days, to allow for progress reporting.

1.3 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Submit to the PWGSC Representative Section 01 33 00 - Submittals within 10 working days of Award of Contract Bar Chart as Master Plan for planning, monitoring and reporting of project progress.
- .3 Submit Project Schedule to the PWGSC Representative within 10 working days of receipt of acceptance of Master Plan.

1.4 MASTER PLAN

- .1 Structure schedule to allow orderly planning, organizing and execution of Work as Bar Chart.
- .2 The PWGSC Representative will review and return revised schedules within 5 working days.
- .3 Revise impractical schedule and resubmit within [5] working days.
- .4 Accepted revised schedule will become Master Plan and be used as baseline for updates.

1.5 PROJECT SCHEDULE

- .1 Develop detailed Project Schedule derived from Master Plan.
- .2 Ensure detailed Project Schedule includes as minimum milestone and activity types as follows:
 - .1 Award.
 - .2 Pre-Mobilization Submittals.
 - .3 Permits.
 - .4 Mobilization.
 - .5 Soil management (disposal).

1.6 PROJECT SCHEDULE REPORTING

- .1 Update Project Schedule on weekly basis reflecting activity changes and completions, as well as activities in progress.

1.7 PROJECT MEETINGS

- .1 Discuss Project Schedule at regular site meetings with the PWGSC Representative. Identify activities that are behind schedule and provide measures to regain slippage. Activities considered behind schedule are those with projected start or completion dates later than current approved dates shown on baseline schedule.

Part 2 Products

2.1 NOT USED

- .1 Not used.

Part 3 Execution

3.1 NOT USED

.1 Not used.

END OF SECTION

Approved: 2011-06-30

Part 1 General

1.1 RELATED REQUIREMENTS

- .1 Section 01 35 29 06 - Health and Safety Requirements.

1.2 REFERENCES

- .1 British Columbia Ministry of Transportation
 - .1 Traffic Control Manual for Work on Roadways - [99].

1.3 PROTECTION OF PUBLIC TRAFFIC

- .1 Comply with requirements of Acts, Regulations and By-Laws in force for regulation of traffic or use of roadways upon or over which it is necessary to carry out Work or haul materials or equipment.
- .2 Increased traffic during typical DND commuting hours (7:00 to 9:00 AM and 3:00 to 5:00 PM) must be allowed to proceed unencumbered.
- .3 Develop and submit a traffic control plan as part of the Health and Safety plan as stipulated in Section 01 35 29 06 - Health and Safety Requirements.
- .4 Provide traffic control services to manage safe pedestrian and vehicular traffic. Traffic control services will implement the traffic control plan and include the use of signage, barricades, and traffic control workers.
- .5 When working on travelled way:
 - .1 Place equipment in position to minimize interference and hazard to travelling public.
 - .2 Do not leave equipment on travelled way overnight.
- .6 Close lanes of road only after receipt of written approval from the PWGSC Representative.

1.4 INFORMATIONAL AND WARNING DEVICES

- .1 Provide and maintain signs, warning lights and other devices required to indicate construction activities or other temporary and unusual conditions resulting from Project Work which requires road user response.
- .2 Supply and erect signs, delineators, barricades and miscellaneous warning devices as required at the DND Colwood Facility.
- .3 Place signs and other devices in locations recommended by the PWGSC Representative.
- .4 Meet with PWGSC prior to commencement of Work to prepare list of signs and other devices required for project. If situation on site changes, revise list to approval of the PWGSC Representative.
- .5 Continually maintain traffic control devices in use:

- .1 Check signs daily for legibility, damage, suitability and location. Clean, repair or replace to ensure clarity and reflectance.
- .2 Remove or cover signs which do not apply to conditions existing from day to day.

Part 2 Products

2.1 NOT USED

- .1 Not Used.

Part 3 Execution

3.1 NOT USED

- .1 Not Used.

END OF SECTION

Approved: 2013-06-30

1.1 RELATED REQUIREMENTS

- .1 Section 01 33 00 - Submittal Procedures.
- .2 Section 01 35 00.06 - Special Procedures for Traffic Control.
- .3 Section 01 41 00 - Regulatory Requirements.
- .4 Section 02 81 01 - Hazardous Materials.

1.2 REFERENCES

- .1 Government of Canada:
 - 1. Canada Labour Code - Part II.
 - 2. Canada Occupational Health and Safety Regulations.
- .2 National Building Code of Canada (NBC):
 - 1. Part 8, Safety Measures at Construction and Demolition Sites.
- .3 Canadian Standards Association (CSA) as amended:
 - 1. CSA Z797-2009 Code of Practice for Access Scaffold.
 - 2. CSA S269.1-1975 (R2003) Falsework for Construction Purposes.
 - 3. CSA S350-M1980 (R2003) Code of Practice for Safety in Demolition of Structures.
- .4 Fire Protection Engineering Services, HRSDC:
 - 1. FCC No. 301, Standard for Construction Operations.
 - 2. FCC No. 302, Standard for Welding and Cutting.
- .5 American National Standards Institute (ANSI):
 - 1. ANSI A10.3, Operations – Safety Requirements for Powder-Actuated Fastening Systems.
- .6 Province of British Columbia:
 - 1. Workers Compensation Act Part 3-Occupational Health and Safety.
 - 2. Occupational Health and Safety Regulation.

1.3 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit to Departmental Representative Submittals listed for review.
- .2 Proceed with Work affected by Submittal after review is complete.
- .3 Submit the following:
 - 1. Health and Safety Plan.
 - 2. Copies of reports or directions issued by federal and provincial health and safety inspectors.
 - 3. Copies of incident and accident reports.

4. Complete set of Material Safety Data Sheets (MSDS), and all other documentation required by Workplace Hazardous Materials Information System (WHMIS) requirements.
 5. Emergency Procedures.
 6. Notice of Project.
- .4 The Departmental Representative will review the Contractor's site-specific project Health and Safety Plan and emergency procedures, and provide comments to the Contractor within 5 Working Days after receipt of the plan.
- .5 If changes are required, revise the plan as appropriate and resubmit to Departmental Representative within 5 Working Days.
- .6 Submittal of the Health and Safety Plan, and any revised version, to the Departmental Representative is for information and reference purposes only. It will not:
1. Be construed to imply approval by the Departmental Representative.
 2. Be interpreted as a warranty of being complete, accurate and legislatively compliant.
 3. Relieve the Contractor of his legal obligations for the provision of health and safety on the project.

1.4 REGULATORY REQUIREMENTS

- .1 Comply with codes, acts, bylaws, standards and regulations applicable to the performance of the Work in accordance with the Contract to ensure safe operations at Site.
- .2 In event of conflict between any provisions of the above authorities, the most stringent provision will apply. Should a dispute arise in determining the most stringent requirement, the Departmental Representative will instruct on the course of action to be followed.

1.5 WORKER'S COMPENSATION BOARD COVERAGE

- .1 Comply fully with the Workers' Compensation Act, regulations and orders made pursuant thereto, and any amendments up to the Final Completion of the Work.
- .2 Maintain Workers' Compensation Board coverage during the term of the Contract, until and including the date that the Certificate of Final Completion is issued.

1.6 COMPLIANCE WITH REGULATIONS

- .1 PWGSC may terminate the Contract without liability to PWGSC where the Contractor, in the opinion of PWGSC, refuses to comply with a requirement of the Workers' Compensation Act or the Occupational Health and Safety Regulations.
- .2 It is the Contractor's responsibility to ensure that all workers are qualified, competent and certified to perform the Work as required by the Workers' Compensation Act or the Occupational Health and Safety Regulations.

1.7 RESPONSIBILITY

- .1 Assume responsibility as the Prime Contractor for Work under this Contract.
 - 1. Be responsible for health and safety of persons on site, safety of property on site and for protection of persons adjacent to Site and environment to extent that they may be affected by conduct of Work.
 - 2. Comply with and enforce compliance by employees with safety requirements of Contract, applicable federal, provincial, territorial and local statutes, regulations, and ordinances, and with site-specific Health and Safety Plan.

1.8 HEALTH AND SAFETY COORDINATOR

- .1 The Health and Safety Coordinator requirements:
 - 1. Be responsible for completing all health and safety training, and ensuring that personnel that do not successfully complete the required training are not permitted to enter the Site to perform Work.
 - 2. Be responsible for implementing, daily enforcing, and monitoring the site-specific Health and Safety Plan.
 - 3. Be on Site during execution of Work.

1.9 GENERAL CONDITIONS

- .1 Provide safety barricades and lights around Site as required to provide a safe working environment for workers and protection for pedestrian and vehicular traffic.
- .2 Ensure that non-authorized persons are not allowed to circulate in designated construction areas of the Site:
 - 1. Provide appropriate means by use of barricades, fences, warning signs, traffic control personnel, and temporary lighting as required.

1.10 PROJECT/SITE CONDITIONS

- .1 Work at Site will involve contact with contaminants identified in Specifications and environmental reports.

1.11 WORK PERMITS

- .1 Obtain specialty permits related to project before start of Work.

1.12 FILING OF NOTICE

- .1 The Prime Contractor is to complete and submit a Notice of Project as required by Provincial or Territorial authorities.
- .2 Provide copies of all notices to the Departmental Representative.

1.13 HEALTH AND SAFETY PLAN

- .1 Conduct a site-specific hazard assessment based on review of Contract, required Work, and project Site. Identify any known and potential health risks and safety hazards.

- .2 Prepare and comply with a site-specific project Health and Safety Plan based on hazard assessment, including, but not limited to, the following:
 1. Primary requirements:
 - .1 Contractor's safety policy.
 - .2 Identification of applicable compliance obligations.
 - .3 Definition of responsibilities for project safety/organization chart for project.
 - .4 General safety rules for project.
 - .5 Job-specific safe work, procedures.
 - .6 Inspection policy and procedures.
 - .7 Incident reporting and investigation policy and procedures.
 - .8 Occupational Health and Safety Committee/Representative procedures.
 - .9 Occupational Health and Safety meetings.
 - .10 Occupational Health and Safety communications and record keeping procedures.
 2. Summary of health risks and safety hazards resulting from analysis of hazard assessment, with respect to site tasks and operations which must be performed as part of the Work.
 3. List hazardous materials to be brought on site as required by Work.
 4. Indicate engineering and administrative control measures to be implemented at the Site for managing identified risks and hazards.
 5. Identify personal protective equipment (PPE) to be used by workers.
 6. Identify personnel and alternates responsible for site safety and health.
 7. Identify personnel training requirements and training plan, including site orientation for new workers.
- .3 Develop the plan in collaboration with all Subcontractors. Ensure that work/activities of Subcontractors are included in the hazard assessment and are reflected in the plan.
- .4 Revise and update Health and Safety Plan as required, and re-submit to the Departmental Representative.
- .5 Departmental Representative's review: the review of Health and Safety Plan by Public Works and Government Services Canada (PWGSC) will not relieve the Contractor of responsibility for errors or omissions in final Health and Safety Plan or of responsibility for meeting all requirements of construction and Contract.

1.14 EMERGENCY PROCEDURES

- .1 List standard operating procedures and measures to be taken in emergency situations. Include an evacuation plan and emergency contacts (i.e. names/telephone numbers) of:
 1. Designated personnel from own company.
 2. Regulatory agencies applicable to Work and as per legislated regulations.
 3. Local emergency resources.
 4. Departmental Representative and site staff.

- .2 Include the following provisions in the emergency procedures:
 1. Notify workers and the first-aid attendant, of the nature and location of the emergency.
 2. Evacuate all workers safely.
 3. Check and confirm the safe evacuation of all workers.
 4. Notify the fire department or other emergency responders.
 5. Notify adjacent workplaces or residences which may be affected if the risk extends beyond the workplace.
 6. Notify Departmental Representative and Site staff.
- .3 Provide written rescue/evacuation procedures as required for, but not limited to:
 1. Work at high angles.
 2. Work in confined spaces or where there is a risk of entrapment.
 3. Work with hazardous substances.
 4. Underground work.
 5. Work on, over, under and adjacent to water.
 6. Workplaces where there are persons who require physical assistance to be moved.
- .4 Design and mark emergency exit routes to provide quick and unimpeded exit.
- .5 Revise and update emergency procedures as required, and re-submit to the Departmental Representative.
- .6 Copy of Health and Safety Plan and other emergency protocols to be kept at emergency muster location.

1.15 HAZARDOUS PRODUCTS

- .1 Comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage and disposal of hazardous materials, and regarding labelling and provision of Material Safety Data Sheets (MSDS) acceptable to the Departmental Representative and in accordance with the Canada Labour Code.
- .2 Where use of hazardous and toxic products cannot be avoided:
 1. Notify Departmental Representative beforehand of the product(s) intended for use. Submit applicable MSDS and WHMIS documents as required.
 2. In conjunction with Departmental Representative, schedule to carry out Work during "off hours" when tenants have left the building.
 3. Provide adequate means of ventilation as required.

1.16 UNFORSEEN HAZARDS

- .1 Should any unforeseen or peculiar safety-related factor, hazard or condition become evident during performance of the Work, immediately stop Work and notify the Departmental Representative verbally and in writing.

1.17 POSTED DOCUMENTS

- .1 Post legible versions of the following documents on site:
 1. Health and Safety Plan.
 2. Sequence of Work.
 3. Emergency procedures.
 4. Site drawing showing project layout, locations of the first-aid station, evacuation route and marshalling station, and the emergency transportation provisions.
 5. Notice of Project.
 6. Floor plans or Site plans.
 7. Notice as to where a copy of the Workers' Compensation Act and Regulations are available on the Site for review by employees and workers.
 8. Workplace Hazardous Materials Information System (WHMIS) documents.
 9. Material Safety Data Sheets (MSDS).
 10. List of names of Joint Health and Safety Committee members, or Health and Safety Representative, as applicable.
- .2 Post all Material Safety Data Sheets (MSDS) on site, in a common area, visible to all workers and in locations accessible to tenants when Work of this Contract includes construction activities adjacent to occupied areas.
- .3 Postings should be protected from the weather, and visible from the street or the exterior of the principal construction site shelter provided for workers and equipment, or as accepted by the Departmental Representative.

1.18 MEETINGS

- .1 Attend health and safety preconstruction meeting and all subsequent meetings called by the Departmental Representative.
- .2 Ensure all site personnel attend a health and safety toolbox meeting at the beginning of each shift, which must include:
 1. Sign-in of all attendees.
 2. Identify first aiders and their level on site for that shift.
 3. Planned Work activities and environmental considerations for that shift.
 4. Hazards associated with these Work activities, including environmental hazards (eg potential for hypothermia, heat exhaustion, heat stroke).
 5. Appropriate job-specific safe work procedures.
 6. Required personal protective equipment (PPE).
 7. Appropriate emergency procedures.
 8. Review recent accidents on Site, including near misses.
- .3 Retain records of all health and safety meetings on site during Work, and retain as corporate records for a minimum of 7 years after Work is completed.

1.19 CORRECTION OF NON-COMPLIANCE

- .1 Immediately address health and safety non-compliance issues identified by the Departmental Representative.
- .2 Provide Departmental Representative with written report of action taken to correct non-compliance with health and safety issues identified.
- .3 The Departmental Representative may issue a "stop work order" if non-compliance of health and safety regulations is not corrected immediately or within posted time.
- .4 Correct non-compliance.

1.20 CRITICAL INCIDENT REPORTING

- .1 Critical Incident includes:
 1. An event resulting in death or serious injury to employees, client department personnel, contractors or the general public entering or occupying PWGSC facilities. This can include physically or psychologically traumatic events such as natural disasters, hostage takings, terrorism, rape, acts or threats of violence, accidents, suicides or homicides.
 2. A fire or explosion causing equipment or property damage or threat to another property.
 3. Damage to a boiler or other pressure vessel resulting in fire or rupture of equipment.
 4. The free fall of or damage to an elevating device rendering it unserviceable.
 5. The uncontrolled release or spill of hazardous wastes or materials.
 6. The implementation of rescue, revival or other similar emergency procedures.
 7. A structural failure or collapse of a building, tower, crane, hoist, temporary construction support system or excavation.
 8. An electric shock, toxic or oxygen deficient atmosphere causing an employee to lose consciousness.
- .2 In the event of a Critical Incident, immediate actions include:
 1. Contacting emergency services as required (ambulance, fire department, police, environment).
 2. Initiating urgently required corrective action appropriate to the incident (protect life, first-aid treatment, minimize property damage, etc.).
 3. Contacting the Regional Manager responsible for Safety and Health.
 4. Ensuring that evidence on the site is not disturbed until investigations have been completed.
 5. Cooperating with officials authorized to investigate the incident.

1.21 UTILITY CLEARANCE

- .1 The Contractor is solely responsible for utility clearance.
- .2 The Contractor will not rely upon Drawings or other information provided with utility locations.

1.22 PERSONAL PROTECTIVE EQUIPMENT PROGRAM

- .1 Submit Personal Protective Equipment (PPE) program to the Departmental Representative addressing:
 1. Donning and doffing procedures.
 2. PPE selection based upon Site hazards.
 3. PPE use and limitations of equipment.
 4. Work mission duration, PPE maintenance and storage.
 5. PPE decontamination and disposal.
 6. PPE inspection procedures prior to, during, and after use.
 7. Evaluation of effectiveness of PPE program, and limitations during temperature extremes, and other appropriate medical considerations.
 8. Medical surveillance requirements for personnel assigned to work at Site.
 9. Frequency and types of air monitoring, personnel monitoring, and environmental sampling techniques and instrumentation to be used, including methods of maintenance and calibration of monitoring and sampling equipment.
 10. Site control measures employed at Site including site map, site work zones, use of 'buddy system', site communications including site security, alerting means for emergencies, standard operating procedures or safe work practices, and identification of nearest medical assistance.
 11. Decontamination procedures for both personnel and equipment.
 12. Emergency response requirements addressing: pre-emergency planning, personnel roles, lines of authority and communication, emergency recognition and prevention, safe distances and places of refuge, site security and control, evacuation routes and procedures, decontamination procedures not covered under decontamination section, emergency medical treatment and first aid, emergency alerting and response procedures, critique of response and follow-up, PPE and emergency equipment, site topography, layout, prevailing weather conditions, and procedures for reporting incidents to local, provincial, or federal agencies.
 13. Written respiratory protection program for project activities.
 14. Procedures dealing with heat and/or cold stress.
 15. Spill containment program if waste material is generated, excavated, stored, or managed on site.

1.23 OFF-SITE CONTINGENCY AND EMERGENCY RESPONSE PLAN

- .1 Prior to commencing Work involving handling of hazardous materials, develop off site Contingency and Emergency Response Plan.
- .2 Plan must provide immediate response to serious site occurrence such as explosion, fire, or migration of significant quantities of toxic or hazardous material from Site.

1.24 PERSONAL HEALTH, SAFETY, AND HYGIENE

- .1 Training: ensure personnel entering Site are trained in accordance with specified personnel training requirements. Training session must be completed by Health and Safety Officer.

- .2 Levels of Protection: establish levels of protection for each Work area based on planned activity and location of activity.
- .3 Personal Protective Equipment:
 1. Furnish site personnel with appropriate PPE as specified above. Ensure that safety equipment and protective clothing is kept clean and maintained.
- .4 Develop protective equipment usage procedures and ensure that procedures are strictly followed by site personnel; include following procedures as minimum:
 1. Ensure prescription eyeglasses worn are safety glasses and do not permit contact lenses on site within work zones.
 2. Ensure footwear is steel-toed safety shoes or boots and is covered by rubber overshoes when entering or working in potentially contaminated work areas.
 3. Dispose of or decontaminate PPE worn on site at end of each workday.
 4. Decontaminate reusable PPE before reissuing.
 5. Ensure site personnel have passed respirator fit test prior to entering potentially contaminated work areas.
 6. Ensure facial hair does not interfere with proper respirator fit.
- .5 Respiratory Protection:
 1. Provide site personnel with extensive training in usage and limitations of, and qualitative fit testing for, air purifying and supplied-air respirators in accordance with specified regulations.
 2. Develop, implement, and maintain respirator program.
 3. Monitor, evaluate, and provide respiratory protection for site personnel.
 4. Ensure levels of protection as listed have been chosen consistent with site-specific potential airborne hazards associated with major contaminants identified on site.
 5. In absence of additional air monitoring information or substance identification, retain an industrial hygiene specialist to determine minimum levels of respiratory protection required.
 6. Immediately notify Departmental Representative when level of respiratory protection required increases.
 7. Ensure appropriate respiratory protection during Work activities. As minimum requirement, ensure that persons entering potentially contaminated work areas are supplied with and use appropriate respiratory protection.
- .6 Heat Stress/Cold Stress: implement heat stress or cold stress monitoring program as applicable and include in site-specific Health and Safety Plan.
- .7 Personnel Hygiene and Personnel Decontamination Procedures. Provide minimum as follows:
 1. Suitable containers for storage and disposal of used disposable PPE.
 2. Potable water and suitable sanitation facility.
- .8 Emergency and First-Aid Equipment:

1. Locate and maintain emergency and first-aid equipment in appropriate location on site including first-aid kit to accommodate number of site personnel; portable emergency eye wash; two 9 kg ABC type dry chemical fire extinguishers.
- .9 Site Communications:
 1. Post emergency numbers near site telephones.
 2. Ensure personnel use of "buddy" system and develop hand signal system appropriate for site activities.
 3. Provide employee alarm system to notify employees of site emergency situations or to stop Work activities if necessary.
 4. Furnish selected personnel with 2-way radios.
 5. Safety Meetings: conduct mandatory daily safety meetings for personnel, and additionally as required by special or Work-related conditions; include refresher training for existing equipment and protocols, review ongoing safety issues and protocols, and examine new site conditions as encountered. Hold additional safety meetings on as-needed basis.

1. PART 2 - PRODUCTS

1.1. Not Used

1.1.1. Not Used.

2. PART 3 - EXECUTION

2.1. Not Used

2.1.1. Not Used.

END OF SECTION

Approved: 2005-12-31

Part 1 General

1.1 FIRE DEPARTMENT BRIEFING

- .1 The PWGSC Representative will co-ordinate arrangements for contractor for briefing on Fire Safety at pre-work conference by Fire Chief, if required, before work is commenced. The Colwood Fire Department will respond to calls to the Colwood Base.

1.2 REPORTING FIRES

- .1 Know location of nearest fire alarm box and telephone, including emergency phone number.
- .2 Report immediately fire incidents to Fire Department as follows:
 - .1 Activate nearest fire alarm box; and,
 - .2 Telephone (911).
- .3 When reporting fire by telephone, give location of fire, name or number of building and be prepared to verify location.

1.3 INTERIOR AND EXTERIOR FIRE PROTECTION AND ALARM SYSTEMS

- .1 Fire protection and alarm system will not be:
 - .1 Obstructed;
 - .2 Shut-off; and
 - .3 Left inactive at end of working day or shift without authorization from Fire Chief.
- .2 Fire hydrants, standpipes and hose systems will not be used for other than fire-fighting purposes unless authorized by Fire Chief.

1.4 FIRE EXTINGUISHERS

- .1 Supply fire extinguishers, as appropriate for quantities of equipment and fuel on-Site.

1.5 BLOCKAGE OF ROADWAYS

- .1 Advise Fire Chief of work that would impede fire apparatus response. This includes violation of minimum overhead clearance, as prescribed by Fire Chief, erecting of barricades and digging of trenches.

1.6 SMOKING PRECAUTIONS

- .1 Observe smoking regulations.

1.7 RUBBISH AND WASTE MATERIALS

- .1 Keep rubbish and waste materials at minimum quantities.
- .2 Burning of rubbish is prohibited.

- .3 Removal:
 - .1 Remove rubbish from work site at end of work day or shift or as directed.
- .4 Storage:
 - .1 Store oily waste in approved receptacles to ensure maximum cleanliness and safety.
 - .2 Deposit greasy or oily rags and materials subject to spontaneous combustion in approved receptacles and remove specified.

1.8 FLAMMABLE AND COMBUSTIBLE LIQUIDS

- .1 Handling, storage and use of flammable and combustible liquids governed by current National Fire Code of Canada.

1.9 QUESTIONS AND/OR CLARIFICATION

- .1 Direct questions or clarification on Fire Safety in addition to above requirements to the PWGSC Representative.

1.10 FIRE INSPECTION

- .1 Co-ordinate site inspections by Fire Chief through the PWGSC Representative.
- .2 Allow Fire Chief unrestricted access to work site.
- .3 Co-operate with Fire Chief during routine fire safety inspection of work site.
- .4 Immediately remedy unsafe fire situations observed by Fire Chief.

Part 2 Products

2.1 NOT USED

- .1 Not Used.

Part 3 Execution

3.1 NOT USED

- .1 Not Used.

END OF SECTION

Approved: 2012-06-30

Part 1 General

1.1 RELATED REQUIREMENTS

- .1 Section 01 33 00 - Submittals Procedures.
- .2 Section 02 81 01 - Hazardous Materials.

1.2 REFERENCES

- .1 Definitions:
 - .1 Environmental Pollution and Damage: 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: prevention/control of pollution and habitat or environment disruption during construction.
- .2 Reference Standards:
 - .1 British Columbia Waste Management Act and related Regulations.
 - .2 Canadian Construction Documents Committee (CCDC)
 - .1 CCDC 2-2008 Stipulated Price Contract.
 - .3 U.S. Environmental Protection Agency (EPA)/Office of Water
 - .1 EPA 832/R-92-005-[92], Storm Water Management for Construction Activities, Chapter 3.
 - .2 EPA General Construction Permit (GCP) [2012].

1.3 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
 - .1 Submit manufacturer's instructions, printed product literature and data sheets and include product characteristics, performance criteria, physical size, finish and limitations.
 - .2 Submit [2] copies of WHMIS MSDS in accordance with Section [01 35 29.06 - Health and Safety Requirements] [01 35 43 - Environmental Procedures].
- .3 Before commencing construction activities or delivery of materials to site, submit Environmental Protection Plan for review and approval by the PWGSC Representative.
- .4 Environmental Protection Plan must include comprehensive overview of known or potential environmental issues to be addressed during construction.
- .5 Address topics at level of detail commensurate with environmental issue and required construction tasks.

- .6 Include in Environmental Protection Plan:
 - .1 Names of persons responsible for ensuring adherence to Environmental Protection Plan.
 - .2 Name[s] and qualifications of person[s] responsible for manifesting hazardous waste to be removed from site.
 - .3 Names and qualifications of persons responsible for training site personnel.
 - .4 Descriptions of environmental protection personnel training program.
 - .5 Erosion and sediment control plan identifying type and location of erosion and sediment controls to be provided including monitoring and reporting requirements to assure that control measures are in compliance with erosion and sediment control plan, Federal, Provincial, and Municipal laws and regulations [and EPA 832/R-92-005, Chapter 3].
 - .6 Drawings indicating locations of proposed temporary haul roads, material storage areas, structures, sanitary facilities, including methods to control runoff and to contain materials on site, and temporary re-fuelling areas.
 - .7 Traffic Control Plans including measures to minimize amount of material transported onto paved public roads by vehicles or runoff.
 - .8 Work area plan showing proposed activity in each portion of area and identifying areas of limited use or non-use.
 - .9 Spill Control Plan to include procedures, instructions, and reports to be used in event of unforeseen spill of regulated substance.
 - .10 Non-Hazardous solid waste disposal plan identifying methods and locations for solid waste disposal including clearing debris.
 - .11 Historical, archaeological, cultural resources biological resources and wetlands plan that defines procedures for identifying and protecting historical, archaeological, cultural resources, biological resources and wetlands.
 - .12 Pesticide treatment plan to be included and updated, as required.
 - .13 Procedures for addressing animals which may enter the Site and methods of reducing animal attractants which includes; not feeding animals, use of animal-proof containers for garbage, and daily removal of garbage from site.
 - .14 Provide addresses and descriptions of proposed approved disposal sites for the disposal of contaminated materials transported from the Site.

1.4 FIRES

- .1 Fires and burning of rubbish on site is not permitted.
- .2 Where fires or burning is permitted, prevent staining or smoke damage to structures, materials or vegetation which is to be preserved.
 - .1 Restore, clean and return to new condition stained or damaged work.
- .3 Provide supervision, attendance and fire protection measures as directed.

1.5 DRAINAGE

- .1 Develop and submit an Erosion and Sediment Control Plan (ESC) identifying type and location of erosion and sediment controls provided. Plan to include monitoring and

reporting requirements to assure that control measures are in compliance with erosion and sediment control plan, Federal, Provincial, and Municipal laws and regulations.

- .2 Control disposal or runoff of water containing suspended materials or other harmful substances in accordance with local authority requirements.

1.6 SITE CLEARING AND PLANT PROTECTION

- .1 Obtain authorization from the PWGSC Representative prior to work near mature trees or other significant natural features.
- .2 Protect trees and plants on site and adjacent properties as indicated.
- .3 Protect roots of mature adjacent trees to dripline during excavation and site grading to prevent disturbance or damage.
 - .1 Avoid unnecessary traffic, dumping and storage of materials over root zones.
- .4 Minimize stripping of topsoil and vegetation.
- .5 If trees require removal, a PWGSC Representative will be consulted.

1.7 POLLUTION CONTROL

- .1 Maintain temporary erosion and pollution control features installed under this Contract.
- .2 Control emissions from equipment and plant in accordance with local authorities' emission requirements.
- .3 Cover or wet down dry materials and rubbish to prevent blowing dust and debris. Provide dust control for temporary roads.
- .4 Maintain a spill kit within 20 meters of the work area. The spill kit contents must be contained in a weatherproof container, clearly labelled, and will contain, at all times, a minimum of the following items:
 - .1 4 pairs nitrile gloves.
 - .2 4 pairs leather gloves.
 - .3 2-10' Oil Only Socks.
 - .4 15-Polypropylene Sorbent Pads 18"X18"X3/8" (Oil only).
 - .5 2-10 Quart Cellulose Sorbent Material.
 - .6 Oil Only, Barrier Tape-Yellow "Caution Do Not Enter".
 - .7 Spill Response Card.
 - .8 List of Kit Contents.
 - .9 Spill Response Plan.
- .5 Oil drip pans will be placed under all equipment when not in use at the Site and at all times under stationary equipment (i.e. light standards, heaters, generators).
- .6 Ensure no off-Site migration of deconstruction materials/soil/dust or odours occur through tracking of soil/deconstruction materials in truck tires or materials handling on-Site.
- .7 Designate one fuelling area at the site that is acceptable to the PWGSC representative and do not fuel equipment outside of that area. The fuelling area shall be >30 metres away

from any drain and on an impervious surface and with appropriate containment and spill control.

1.8 HISTORICAL/ARCHAEOLOGICAL CONTROL

- .1 Provide historical, archaeological, cultural resources, biological resources, and wetlands plan that defines procedures for identifying and protecting historical, archaeological, cultural resources, biological resources and wetlands known to be on project site: and identifies procedures to be followed if historical archaeological, cultural resources, biological resources and wetlands not previously known to be onsite or in area are discovered during construction.
- .2 Plan: include methods to assure protection of known or discovered resources and identify lines of communication between Contractor personnel and the PWGSC Representative.

1.9 NOTIFICATION

- .1 The PWGSC Representative will notify Contractor in writing of observed noncompliance with Federal, Provincial or Municipal environmental laws or regulations, permits, and other elements of Contractor's Environmental Protection plan.
- .2 Contractor: after receipt of such notice, inform the PWGSC Representative of proposed corrective action and take such action for approval by the PWGSC Representative.
 - .1 Take action only after receipt of written approval by the PWGSC Representative.
- .3 The PWGSC Representative will issue stop order of work until satisfactory corrective action has been taken.
- .4 No time extensions granted or equitable adjustments allowed to Contractor for such suspensions.

Part 2 Products

2.1 NOT USED

- .1 Not Used.

Part 3 Execution

3.1 CLEANING

- .1 Progress Cleaning: clean in accordance with Section 01 74 11 - Cleaning.
 - .1 Leave Work area clean at end of each day.
- .2 Ensure public waterways, storm and sanitary sewers remain free of waste and volatile materials disposal.
- .3 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11 - Cleaning.
- .4 Waste Management: separate waste materials for recycling.

- .1 Remove recycling containers and bins from site and dispose of materials at appropriate facility.

END OF SECTION

Approved: 2006-03-31

Part 1 General

1.1 RELATED REQUIREMENTS

- .1 Section 01 33 00 - Submittals.
- .2 Section 02 81 01 - Hazardous Materials.

1.2 REFERENCES AND CODES

- .1 Meet or exceed requirements of:
 - .1 Contract documents.
 - .2 Specified standards, codes and referenced documents.

1.3 HAZARDOUS MATERIAL DISCOVERY

- .1 Asbestos: Stop work immediately when material resembling asbestos is encountered during work. Notify the PWGSC Representative.
- .2 Hazardous Waste soils are not suspected of being present at the Site. Should materials be suspected of being contaminated with concentrations exceeding the standard, immediately advise the PWGSC representative.
- .3 Materials requiring off-site disposal must be disposed of at an approved and appropriately licensed facility as approved by the PWGSC representative and in accordance with Provincial, and Federal regulations. Weigh scale tickets, shipping documents and certificates of disposal will be completed by the Contractor and copies will be made available according to Section 01 33 00 – Submittals.
- .4 Non Aqueous Phase Liquids (NAPL) are not suspected of being present at the Site, however, if encountered, they will be managed by the contractor under direction of the PWGSC representative.
- .5 Other materials discovered at the site during the course of work, that are suspected to contain hazardous substances / materials will be managed by the contractor in accordance with provincial, and federal regulations and as required by the PWGSC representative.

1.4 BUILDING SMOKING ENVIRONMENT

- .1 Comply with smoking restrictions and municipal by-laws.

Part 2 Products

2.1 NOT USED

.1 Not Used.

Part 3 Execution

3.1 NOT USED

.1 Not Used.

END OF SECTION

Approved: 2006-06-30

Part 1 General

1.1 RELATED REQUIREMENTS

- .1 Section 01 33 00 - Submittal Procedures.

1.2 REFERENCES

- .1 Canadian Construction Documents Committee (CCDC)
 - .1 CCDC 2-[1994], Stipulated Price Contract.
- .2 Canadian Standards Association (CSA International).
- .3 Public Works Government Services Canada (PWGSC) Standard Acquisition Clauses and Conditions (SACC)-ID: R0202D, Title: General Conditions 'C', In Effect as of: May 14, 2004.

1.3 ACTION AND INFORMATIONAL SUBMITTALS

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

1.4 INSTALLATION AND REMOVAL

- .1 Prepare site plan indicating proposed location of site facilities (including washroom), including avenues of ingress/egress.
- .2 Indicate use of supplemental or other staging area.
- .3 Provide construction facilities in order to execute work expeditiously.
- .4 Remove from site all such work after use.

1.5 SITE STORAGE/LOADING

- .1 Confine work and operations of employees by Contract Documents. Do not unreasonably encumber premises with products.
- .2 Do not load or permit to load any part of Work with weight or force that will endanger Work.

1.6 CONSTRUCTION PARKING

- .1 Parking will be permitted on site provided it does not disrupt performance of Work.
- .2 Provide and maintain adequate access to project site.

1.7 SECURITY

- .1 Contractor's movements shall be restricted to the Site and transportation corridors within Colwood. An escort (Commissionaire) will be required for travel outside the Site and transportation corridors. Other security requirements may be applied at the discretion of PWGSC.

1.8 SANITARY FACILITIES

- .1 Provide sanitary facilities for work force in accordance with governing regulations and ordinances.
- .2 Post notices and take precautions as required by local health authorities. Keep area and premises in sanitary condition.

1.9 CONSTRUCTION SIGNAGE

- .1 Provide and erect project sign, during mobilization, in a location designated by the PWGSC Representative.
- .2 Indicate on sign, name and contact information of Contractor.
- .3 No other signs or advertisements, other than warning signs, are permitted on site.
- .4 Signs and notices for safety and instruction to be posted as deemed necessary by the PWGSC Representative.

1.10 PROTECTION AND MAINTENANCE OF TRAFFIC

- .1 Maintain and protect traffic on affected roads during construction period except as otherwise specifically directed by the PWGSC Representative.
- .2 Provide measures for protection and diversion of traffic, including provision of watch-persons and flag-persons, erection of barricades, placing of lights around and in front of equipment and work, and erection and maintenance of adequate warning, danger, and direction signs, if deemed necessary by the PWGSC Representative.
- .3 Protect travelling public from damage to person and property.
- .4 Contractor's traffic on roads selected for hauling material to and from site to interfere as little as possible with public traffic.
- .5 Provide necessary lighting, signs, barricades, and distinctive markings for safe movement of traffic, as necessary.
- .6 Dust control: adequate to ensure safe operation at all times.

1.11 CLEAN-UP

- .1 Remove construction debris, waste materials, packaging material from work site daily.
- .2 Clean dirt or mud tracked onto paved or surfaced roadways.
- .3 Store materials resulting from demolition activities that are salvageable.

Part 2 Products

2.1 NOT USED

- .1 Not Used.

Part 3 Execution

3.1 TEMPORARY EROSION AND SEDIMENTATION CONTROL

- .1 Provide temporary erosion and sedimentation control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways, according to the EPP, or as requested by the PWGSC Representative.
- .2 Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.

END OF SECTION

Part 1 General

1.1 RELATED REQUIREMENTS

- .1 Section 01 35 43 - Environmental Procedures.

1.2 REFERENCES

- .1 Canadian Construction Documents Committee (CCDC)
 - .1 CCDC 2-[94], Stipulated Price Contract.

1.3 PROJECT CLEANLINESS

- .1 All equipment must arrive on-site in a clean condition, free of loose dirt and contaminants.
- .2 Provide and operate any cleaning equipment necessary to minimize tracking of soil, deconstruction materials and/or contaminants off of the site and along haul routes.
- .3 Maintain Work in tidy condition, free from accumulation of waste products and debris, including that caused by sub-contractors.
- .4 Remove waste materials from site (other than impacted soil or deconstructed materials) at regularly scheduled times or dispose of as directed by the PWGSC Representative. Do not burn waste materials on site.
- .5 Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.
- .6 Provide on-site containers for collection of waste materials and debris.
- .7 Provide and use marked separate bins for recycling.
- .8 Ensure off-site roadways are maintained in a clean condition so that off-site tracking of soil / deconstruction materials from the site is not evident.
- .9 Meet the requirements of Section 01 35 42 - Environmental Procedures.

1.4 FINAL CLEANING

- .1 Remove waste materials from the site on a weekly basis (with the exception of deconstruction and excavated materials).
- .2 When Work is Substantially Performed remove surplus products, tools, construction machinery and equipment not required for performance of remaining Work.
- .3 Prior to final review remove surplus products, tools, construction machinery and equipment.
- .4 Remove waste products and debris including that caused by sub-contractors.
- .5 Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.
- .6 Sweep and wash all paved areas.

- .7 Clean all equipment prior to leaving the site to remove soil, deconstruction materials, and contaminants.

1.5 WASTE MANAGEMENT AND DISPOSAL

- .1 Separate waste materials for reuse and recycling where possible.

Part 2 Products

2.1 NOT USED

- .1 Not Used.

Part 3 Execution

3.1 NOT USED

- .1 Not Used.

END OF SECTION

Approved: 2009-12-31

Part 1 General

1.1 RELATED REQUIREMENTS

- .1 Section 01 33 00 - Submittal Procedures.
- .2 Section 01 35 29.06 – Health and Safety Requirements.
- .3 Section 01 35 35 - DND Fire Safety Requirements.
- .4 Section 01 35 43 - Environmental Procedures.
- .5 Section 01 41 00 – Regulatory Requirements.

1.2 REFERENCES

- .1 Definitions:
 - .1 Dangerous Goods: product, substance, or organism specifically listed or meets hazard criteria established in Transportation of Dangerous Goods Regulations.
 - .2 Hazardous Material: product, substance, or organism used for its original purpose; and is either dangerous goods or material that will cause adverse impact to environment or adversely affect health of persons, animals, or plant life when released into the environment.
 - .3 Hazardous Waste: hazardous material no longer used for its original purpose and that is intended for recycling, treatment or disposal.
- .2 Reference Standards:
 - .1 Canadian Environmental Protection Act, 1999 (CEPA 1999)
 - .1 Export and Import of Hazardous Waste and Hazardous Recyclable Material Regulations (SOR/2005-149).
 - .2 Department of Justice Canada (Jus)
 - .1 Transportation of Dangerous Goods Act, 1992 (TDG Act) [1992], (c. 34).
 - .2 Transportation of Dangerous Goods Regulations (T-19.01-SOR/2001-286).
 - .3 Health Canada / Workplace Hazardous Materials Information System (WHMIS)
 - .1 Material Safety Data Sheets (MSDS).
 - .4 National Research Council Canada Institute for Research in Construction (NRC-IRC)
 - .1 National Fire Code of Canada-[2005].

1.3 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:

- .1 Submit one copy of WHMIS MSDS in accordance with Section 01 35 29.06 - Health and Safety Requirements and 01 35 43 - Environmental Procedures to the PWGSC Representative for each hazardous material required prior to bringing hazardous material on site.
- .2 Submit hazardous materials management plan to the PWGSC Representative that identifies hazardous materials, usage, location, personal protective equipment requirements, and disposal arrangements.
- .3 Submit photocopy of shipping documents and waste manifests to PWGSC, or its Consultant, when shipping toxic wastes off-site.

1.4 DELIVERY, STORAGE AND HANDLING

- .1 Transport hazardous materials and wastes in accordance with Transportation of Dangerous Goods Act, Transportation of Dangerous Goods Regulations, and applicable provincial regulations.
 - .1 When exporting hazardous waste to another country, ensure compliance with Export and Import of Hazardous Waste and Hazardous Recyclable Materials Regulations.
- .2 Storage and Handling Requirements:
 - .1 Co-ordinate storage of hazardous materials with the PWGSC Representative and abide by internal requirements for labelling and storage of materials and wastes.
 - .2 Store and handle hazardous materials and wastes in accordance with applicable federal and provincial laws, regulations, codes, and guidelines.
 - .3 Store and handle flammable and combustible materials in accordance with National Fire Code of Canada requirements.
 - .4 Smoking is not prohibited at the site.
 - .5 Storage requirements for quantities of hazardous materials and wastes:
 - .1 Store hazardous materials and wastes in closed and sealed containers.
 - .2 Label containers of hazardous materials and wastes in accordance with WHMIS.
 - .3 Store hazardous materials and wastes in containers compatible with that material or waste.
 - .4 Segregate incompatible materials and wastes.
 - .5 Ensure that different hazardous materials or hazardous wastes are stored in separate containers.
 - .6 Store hazardous materials and wastes in secure storage area with controlled access.
 - .7 Maintain clear egress from storage area.
 - .8 Store hazardous materials and wastes in location that will prevent them from spilling into environment.
 - .9 Have appropriate emergency spill response equipment available near storage area, including personal protective equipment as specified in Section 01 35 43 - Environmental Procedures.

- .10 Maintain inventory of hazardous materials and wastes, including product name, quantity, and date when storage began.
- .11 When hazardous waste is generated on site:
 - .1 Co-ordinate transportation and disposal with the PWGSC Representative.
 - .2 Comply with applicable federal, provincial and municipal laws and regulations for generators of hazardous waste.
 - .3 Use licensed carrier authorized by provincial authorities to accept subject material.
 - .4 Before shipping material obtain written notice from intended hazardous waste treatment or disposal facility it will accept material and it is licensed to accept this material.
 - .5 Label container(s) with legible, visible safety marks as prescribed by federal and provincial regulations.
 - .6 Only trained personnel handle, offer for transport, or transport dangerous goods.
 - .7 Provide photocopy of shipping documents and waste manifests to the PWGSC Representative immediately upon request of PWGSC or within 48 hours of shipping material.
 - .8 Track receipt of completed manifest from consignee after shipping dangerous goods. Provide photocopy of completed manifest to the PWGSC Representative.
 - .9 Report discharge, emission, or escape of hazardous materials immediately to the PWGSC Representative and appropriate provincial authority. Take reasonable measures to control release.
- .12 Ensure personnel have been trained in accordance with Workplace Hazardous Materials Information System (WHMIS) requirements.
- .13 Report spills or accidents immediately to the PWGSC Representative. Submit a written spill report to the PWGSC Representative within 24 hours of incident.

Part 2 Products

2.1 MATERIALS

- .1 Description:
 - .1 Bring on site only quantities hazardous material required to perform Work.
 - .2 Maintain MSDS in proximity to where materials are being used. Communicate this location to personnel who may have contact with hazardous materials.

Part 3 Execution

3.1 CLEANING

- .1 Progress Cleaning: clean in accordance with Section 01 74 11 - Cleaning.
 - .1 Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11 - Cleaning.
- .3 Waste Management: separate waste materials for reuse and recycling where possible.

END OF SECTION

Approved: 2006-09-30

Part 1 General

1.1 RELATED REQUIREMENTS

- .1 Section 01 33 00 - Submittal Procedures.
- .2 Sections 01 35 43 - Environmental Procedures.

1.2 MEASUREMENT PROCEDURES

- .1 Quantities of soil will be scaled for measurement in tonnes, at the full cost to the Contractor, and backed up by certified weigh scale tickets. Volumes will be determined in metric tonnes.

1.3 REFERENCES

- .1 American Society for Testing and Materials International (ASTM)
 - .1 ASTM D698-[00ae1], Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft³) (600 kN-m/m³).
- .2 Weights and Measurements Act (R.S.C., 1985, c. W-6).

1.4 DEFINITIONS

- .1 Excavation classes: one class of excavation will be recognized; common excavation.
 - .1 Common excavation: excavation of materials of whatever nature, which are not included under definitions of rock excavation.
- .2 Waste material: excavated material unsuitable for use in Work or surplus to requirements.
- .3 Borrow material: material obtained from locations outside area to be graded, and required for construction of fill areas or for other portions of Work.
- .4 Recycled fill material: material, considered inert, obtained from alternate sources and engineered to meet requirements of fill areas.

1.5 ACTION AND INFORMATIONAL SUBMITTALS

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

1.6 EXISTING CONDITIONS

- .1 Buried services:
 - .1 Before commencing work establish location of buried services on and adjacent to site.
 - .2 Obtain the applicable "Dig Permit" from DND.

- .3 Maintain and protect from damage, water, sewer, gas, electric, telephone and other utilities and structures encountered.

Part 2 Products

2.1 MATERIALS

- .1 Not Used.

Part 3 Execution

3.1 TEMPORARY EROSION AND SEDIMENTATION CONTROL

- .1 Provide temporary erosion and sedimentation control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways, according to sediment and erosion control plan.
- .2 Inspect, repair, and maintain erosion and sedimentation control measures during construction until permanent vegetation has been established.
- .3 Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.

3.2 PREPARATION/PROTECTION

- .1 Keep excavations clean, free of standing water, and loose soil.
- .2 Protect natural and man-made features required to remain undisturbed.
- .3 Protect buried services that are required to remain undisturbed.

3.3 RESTORATION

- .1 Final grade of the stockpile area shall allow for free drainage.

END OF SECTION

ATTACHMENT 1
REPORT PREPARED BY SLR



Nov 20, 2013

Robert Price
PWGSC
401-1230 Government St.
Victoria, BC V8W 3X4

SLR Project No.: 205.03633.00000

Dear Mr. Price,

RE: COL-12 SOIL STOCKPILES, DND COLWOOD, COLWOOD, BC

At the request of Public Works and Government Services Canada (PWGSC), SLR Consulting (Canada) Ltd. (SLR) prepared this letter outlining the amount and quality of soil temporarily stored at the COL-12 site at DND Colwood, Colwood, BC.

BACKGROUND

In March, 2013, PWGSC remediated the COL-18 site at DND Colwood. Excavated soils were stockpiled at COL-12 for analytical testing and temporary storage. Approximately 6,143 tonnes of soil from the COL-18 remediation was disposed of offsite.

As part of a water line upgrade project in August, 2013, PWGSC excavated soils from Belmont Park, DND Colwood. Excavated soils were stockpiled at COL-12 for analytical testing and temporary storage. None of the soil from Belmont Park has been disposed of offsite.

The remaining soil from COL-18 and Belmont Park have been consolidated at COL-12 into four superpiles consisting of two soil quality types.

In July through September, 2013, PWGSC remediated the COL-43 site at DND Colwood. Excavated soils were stockpiled at COL-12 for analytical testing and temporary storage. Approximately 8,800 tonnes of soil from the COL-43 remediation was disposed of offsite.

The remaining soil from COL-43 is at COL-12 in sixty-eight stockpiles and one superpile of four soil quality types.

The stockpiled soil can be seen in Photographs 1 and 2.

APPLICABLE STANDARDS FOR OFF-SITE DISPOSAL

For off-site disposal, the following provincial Contaminated Sites Regulations (CSR) are referenced:

- Commercial Land Use, Groundwater flow to surface water used by Freshwater Aquatic Life (CSR CLfw); and
- Residential Land Use, Groundwater flow to surface water used by Freshwater Aquatic Life (CSR RLfw).

Please note that mandatory site-specific factors as per the BC CSR, that are applicable on all sites, were also referenced.

SOIL QUALITY

Drawing 1, showing stockpile locations and qualities of the soils at COL-12, is included after the letter.

Stockpile soil analytical results from COL-43 and Belmont Park are presented on the lab reports included after the letter.

The approximate tonnage for each soil quality compared to CSR standards, and the soil origin, is summarized on Table A, below.

Table A: Soil Summary

Soil Quality	Soil Weight (tonnes)	Stockpiles by Origin
Metals < CSR RL PAH < CSR RL	4,368	COL-18: SP13-22, 155, 157, 159-161, 166, 196, 201, 204-209, 214, 216, 222-227, 229, 230, 232, 233 COL-43: SP106, 107 Belmont Park: SP1-17
Metals > CSR RL PAH < CSR RL	100	COL-43: SP35
Metals > CSR CL PAH < CSR RL	6,100	COL-43: SP1, 5, 6, 7, 8, 9, 10, 11, 12, 23, 24, 25, 32, 33, 34, 36, 37, 59, 60, 61, 62, 63, 64, 65, 66, 67, , 91, 92, 93, 94, 95, 96, 97, 108, 109, 110, 111, 112, 113, 114, 115, 128, 129, 131, 132, 133
Metals > CSR CL PAH > CSR RL	15,428	COL-18: SP13-1-21, 23-154, 156, 158, 162-165, 167-195, 197-200, 210- 213, 215, 217-221, 228, 231, 234. COL-43: 82, 85, 86, 98, 99, 100, 101, 102, 103, 104, 116, 117, 118, 119, 121, 122, 123, 124, 125

Notes: Bold - indicates parameter exceeds applicable standard.

RECOMMENDATIONS

The middle of the site can get soft and muddy in wet conditions and therefore soil removal should be approached from the perimeter gravel road on the site. A view of the site gravel road and access from the main road can be seen in Photographs 2 and 3.

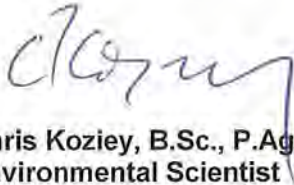
Stockpiles above the CSR CL standards, as outlined in Table A above, should be covered with minimum 6-mil polyethylene to minimize contaminated run-off to the COL-12 site and adjacent areas. Currently some of the COL-43 soils and none of the COL-18 soils are covered.

CLOSURE

We trust that this meets your current requirements. If you need any further information or require clarification on anything outlined in this report please feel free to contact the undersigned at (250) 475-9595.

Yours sincerely,

SLR Consulting (Canada) Ltd.



Chris Koziy, B.Sc., P.Ag.
Environmental Scientist



Aaron Haegele, B.Sc., A.Ag, P.Chem.
Senior Scientist

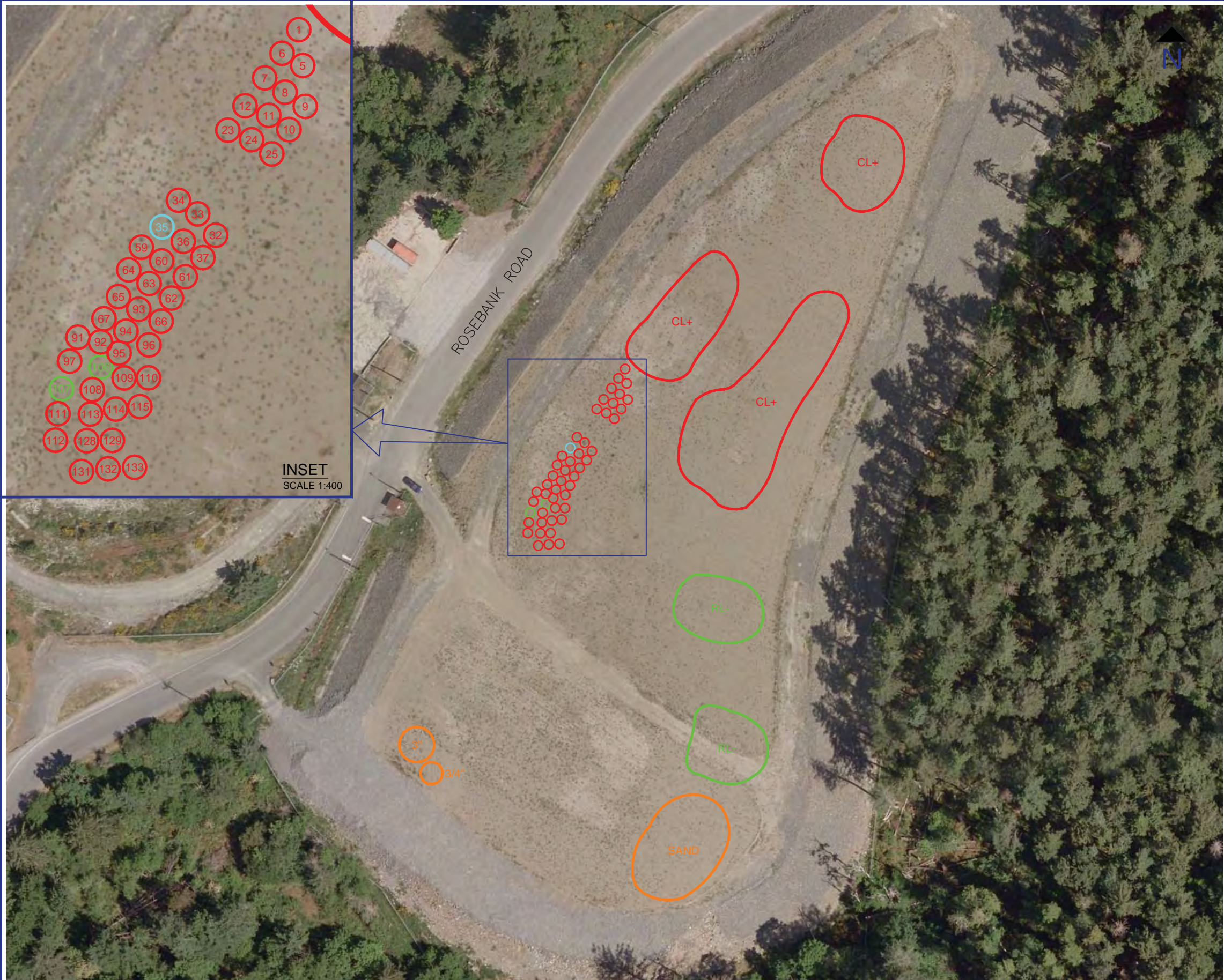
Enc

Drawing 1

Photographs 1 through 4

Maxxam Laboratory Report B315776-R2013-03-06_17-17-18_R014
Maxxam Laboratory Report B316165-R2013-03-12_12-18-23_R014
Maxxam Laboratory Report B316601-R2013-03-14_18-35-51_R014
Maxxam Laboratory Report B317135-R2013-03-18_12-25-42_R014
Maxxam Laboratory Report B317896-R2013-03-21_18-00-48_R014
Maxxam Laboratory Report B318225-R2013-03-20_16-35-17_R014
Maxxam Laboratory Report B318611-R2013-03-21_12-00-54_R014
Maxxam Laboratory Report B318798-R2013-03-25_14-04-05_R014
Maxxam Laboratory Report B319341-R2013-03-20_18-34-29_R014
Maxxam Laboratory Report B319912-R2013-03-20_18-37-57_R014
Maxxam Laboratory Report B320232-R2013-03-21_16-58-43_R014
Maxxam Laboratory Report B320618-R2013-03-22_16-35-43_R014
Maxxam Laboratory Report B320914-R2013-03-20_17-55-51_R014
Maxxam Laboratory Report B323114-R2013-03-26_16-42-18_R014
Maxxam Laboratory Report B323383-R2013-03-27_15-43-48_R014
Maxxam Laboratory Report B361535-R2013-07-25_17-29-41_R014
Maxxam Laboratory Report B362197-R2013-07-26_18-16-38_R014
Maxxam Laboratory Report B364544-R2013-08-02_16-18-28_R014
Maxxam Laboratory Report B366663-R2013-08-09_16-10-39_R014
Maxxam Laboratory Report B367167-R2013-08-09_14-52-04_R014

ALS Laboratory Report L1192620
ALS Laboratory Report L1196150
ALS Laboratory Report L1199893



NOTES

LEGEND

- CONCENTRATIONS LESS THAN OR EQUAL TO CSR RESIDENTIAL STANDARDS
- CONCENTRATIONS GREATER THAN CSR RESIDENTIAL STANDARDS
- CONCENTRATIONS GREATER THAN CSR COMMERCIAL STANDARDS

PUBLIC WORKS AND GOVERNMENT SERVICES
DND COLWOOD
COLWOOD, BC

Report
COL-12 SOIL STOCKPILES

Drawing
STOCKPILED SOIL AT COL-12

Date	October 2, 2013	Scale	AS SHOWN	Drawing No.	1
File Name	S_205-03633-00001-B1	Project No.	205.03633.00001		



THIS DRAWING IS FOR CONCEPTUAL PURPOSES ONLY. ACTUAL LOCATIONS MAY VARY AND NOT ALL STRUCTURES ARE SHOWN.

SCALE 1:1000
WHEN PLOTTED AT 11 x 17 PAGE SIZE
0 10 20 40 60 m



Photograph 1: An aerial view of the COL-12 stockpile area, looking north.



Photograph 2: A view of one of the RL- stockpiles and the sand pile (not visible in the aerial photo), looking south.



SITE PHOTOGRAPHS

COL-12 Soil Stockpiles
DND Colwood
Esquimalt, BC

SLR Project No.: 205.03633.00000



Photograph 3: A view of the perimeter gravel road at the site, looking south.



Photograph 4: A view of the site access from Rosebank Road, looking west.



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COL-12 Soil Stockpiles
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