

2019 EDITION

# CONSTRUCTION GENERAL REQUIREMENTS



SEATTLE-TACOMA INTERNATIONAL AIRPORT  
ENGINEERING CONSTRUCTION SERVICES  
POST OFFICE BOX 68727  
SEATTLE, WA 98168





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**NOTE:**

These Seattle-Tacoma International Airport (STIA) Tenant Improvement Construction General Requirements are all inclusive and intended to address a wide variety of projects. Information within certain sections may not be applicable to the project. The Port construction project representative (Construction Manager, Project Manager, Engineer or Inspector) will clarify which requirements, if any, are not required for a project.

PART 1 GENERAL

1.01 DESCRIPTION OF WORK

Refer to the individual Tenant or Airport Dining and Retail contract documents for the general scope of work.

1.02 LOCATION

A. The work area is located within properties owned by the Port of Seattle including the Seattle-Tacoma International Airport, 17801 International Boulevard, City of SeaTac, WA 98168.

1.03 PROJECT LOGISTICS

A. The Contractor shall have access to the construction site by adjacent city streets. Contractor may conduct business through exterior gates, ramp area, or service elevators as approved by the Port construction project representative.

B. The access may change during the construction of the Contract work and Contractor shall comply with the changes or if notified by the Port construction project representative.

C. Hours of Work/Closures:

1. Standard Project Work Hours

a) Standard Day Shift Work Hours: 0700 – 1530 (7:00AM until 3:30PM), Monday through Friday. The Contractor shall limit activities so there is no disruption to Airport or Tenant Operations. The Contractor must comply with noise, dust and other work restrictions. Refer to specification Section 01 50 00.

b) Standard Night Shift Work Hours: 2030 – 0500 (8:30PM – 5:00AM), Sunday night through Friday morning. All of the work that is considered disruptive to Airport or Tenant operations shall be performed on night shift. This includes but is not limited to all work throughout tenant offices, conduit routes over and around the baggage systems, equipment and furniture moves and deliveries, and any disruptive work that does not conform to noise, dust and other work restrictions as described in specification Section 01 50 00.

2. Holiday Closures

(1) 2019: Jan 1, Jan 21, Feb 18, May 27, July 4, Sept 2, Nov 28, 29 and Dec 25,26

(2) 2020: Jan 1, Jan 20, Feb 17, May 25, July 4, Sept 7, Nov 26, 27 and Dec 25

(3) 2021: Jan 1, Jan 18, Feb 15, May 31, July 4, Sept 6, Nov 25, 26 and Dec 25

3. Work outside of the standard work shift hours, as defined in this specification section, can be requested and may be granted by the Port construction project representative. No work outside of the standard work hours, as defined in this section, shall be allowed without written approval by the Port construction project representative

1.04 PROJECT PHASING OR SEQUENCING REQUIREMENTS – NOT USED



1.05 WORK PERFORMED UNDER SEPARATE CONTRACTS

- A. The Port may have separate contracts with construction work adjacent to or passing through the project limits for this Contract and will coordinate as needed with the Contractor.

1.06 WORK BY OTHERS ON THIS PROJECT

- A. The Contractor shall coordinate and cooperate with other Contractors, Port forces, and others (i.e. public utilities) performing work on this project and shall not impact its and others' Work.

1.07 PORT OF SEATTLE FURNISHED MATERIAL – NOT USED

1.08 PREORDERED MATERIALS – NOT USED

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

End of Section
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## PART 1 GENERAL

### 1.01 REQUIREMENTS

- A. Work related to this section is in accordance with current Department of Homeland Security / Transportation Security Administration (DHS / TSA) regulations.
- B. Failure to comply with TSA rules and the Airport Security Plan may result in up to an \$11,000 fine from the TSA. Fines assessed by the TSA against a Contractor, a Contractor's employee, Supplier or a Subcontractor will be paid by the Contractor. See the following: 1) Title 49; and 2) <http://www.portseattle.org/Employee-Services/ID-Badges/Documents/idsecurityhandbook.pdf>.
- C. Additional information and forms associated with badging, custom bond seals and security access and key requests can be found here:  
<http://www.portseattle.org/Employee-Services/ID-badges/Pages/default.aspx>

### 1.02 SECURITY REQUIREMENTS

- A. Identification/Access Badges:
  - 1. All Contractor personnel working in restricted areas (including Air Operations Area (AOA), Secured, Security Identification Display Areas (SIDA) and Sterile areas) on this project shall have Port of Seattle airport-issued identification/access badges in accordance with Title 49, Code of Federal Regulations (CFR), Part 1540/1542 and the Airport Security Plan.
  - 2. All or a portion of this Contract requires work to be performed within an area of the Airport controlled for security reasons. That area is defined as the area within the Air Operations Area security fence, and all other restricted areas indicated on applicable drawings, or as posted on the Airport premises ("restricted/secured area"), or otherwise defined under Airport Security Plan (ASP). No Contractor personnel are allowed to work in these restricted areas without a valid identification/access badge.
  - 3. Badges must be worn on the outermost garment above waist height in order to gain access to and remain in restricted areas.
- B. Security Identification Display Area (SIDA) Training:
  - 1. All individuals requiring unescorted access to restricted areas (excluding sterile areas) will be required to attend Security Identification Display Area (SIDA) training in accordance with the Airport Security Plan (ASP) and Title 49, CFR, Part 1542.213 (b). This training must be completed prior to the issuance of an approved ID/access badge allowing unescorted access.
  - 2. At a minimum, this training shall consist of a forty minute session discussing airport security procedures. The training session shall be conducted by the Port's Airport Operations SIDA/AOA Training Center. You may pre-register for classes online at <http://www.portseattle.org/Employee-Services/Security-and-Driver-Training/Pages/default.aspx>.
  - 3. Required Training
    - a. Initial Training - All Port SIDA badge applicants (either RESTRICTED AREA BADGES or DRIVING BADGES) must successfully complete SIDA training, and if applicable, any required driving training.

- b. Recurrent Training – it is a requirement that all persons renewing Port of Seattle badges successfully complete SIDA training and, if applicable, any required driving training prior to receiving renewed badges
- 4. Recurrent Training Requirements:
  - a. SIDA and AOA/Driving Training are required every two (2) years and must be completed prior to badge renewal.
  - b. If an applicant is authorized to drive on the AMA, known as Air Movement Areas, recurrent training is required annually.

### 1.03 ISSUANCE OF IDENTIFICATION BADGES

- A. New Company Setup (One time):
  - 1. Companies initiating badges with the Port of Seattle for the first time, must complete a New Company setup package (available online or in the Credential Center). A onetime fee of \$200 per company will be billed on the first statement.
  - 2. The Contractor must complete the New Company Setup Application found on the website provided in 1.01 C which is necessary to join the Port of Seattle Identification Program. Each company must make an appointment with the Credential Center and have two representatives present at the time of the company setup. Both representatives must complete the badge process and complete the Authorized Signer Training Class. Upon completion of the Authorized Signer Training Class all authorized signers must have a Signature Capture Card on file with the Credential Center. This Signature Capture Card must be signed by the individuals designated by the company as an authorizing signatory; e.g., a chief executive officer, owner, senior manager, etc. Authorized Signature Cards must be renewed every two (2) years. To meet current Transportation Security Administration (TSA) regulations, any Authorized Signatory must hold a current SIDA badge to show proof of clearing all required background checks by the Port of Seattle. All Authorized Signers must attend, at minimum, SIDA training and additional training required by TSA for Authorized Signers. This includes all required recurrent training.
    - a. Contractors shall have the Port's construction project representative co-sign and enter the Contract end dates on Contractor new company agreements before they are submitted to the Credential Office.
  - 3. The Contractor shall designate one primary and one secondary point of contact (POC) for all matters pertaining to the badges and keys issued to the Contractor for their company. The Contractor shall provide contact phone numbers where at least one of these POCs can be reached 24 hours a day, seven days a week.
  - 4. New Company Setups apply to the Contractor and its Suppliers and Subcontractors.
  - 5. Companies will be notified by the Credential Center when the company representatives have been cleared and ID badges are available for pickup.

- a. The two company representatives must have completed and received their ID badges prior to submittal of badge applications by Contractor employees, Suppliers or Subcontractors.
  - b. Ideally, Contractors will submit employee applications all at one time.
- B. Obtaining an ID Badge (each applicant):
1. Submit a properly completed Identification/Access badge application, Disqualifying Crimes Statement and Privacy Act Notice for each employee requiring access to restricted areas.
  2. The Contractor shall fill out the "Company" portion of each Identification/Access badge application form for each employee requiring access after the employee has completed their section.
  3. Each applicant requiring access shall fill out the "Applicant" section of the Identification Badge/Access application form. The form shall be signed by the employee.
  4. The Company authorized signer shall review the applicant section for accuracy prior to signing and submitting the application to the Credential Center.
  5. Applicants must go to the Credential Center with their completed badge application, badge fees (if applicable), and two forms of identification. One must be government issued PROOF OF CITIZENSHIP. For a list of acceptable documentation, please refer to:  
<http://www.portseattle.org/Employee-Services/ID-badges/Pages/default.aspx>
  6. When applications are completed and required documentation has been supplied, the applicant will be fingerprinted in accordance with Title 49, Code of Federal Regulations (CFR), Part 1542.209. Each applicant will also be submitted for a Security Threat Assessment.
  7. Companies will be notified by the Credential Center when their employees have been cleared. They may then return to the Credential Center to pick up their ID badges.
- C. Miscellaneous Badge Information
1. Nonrefundable badge fees are described on the following link:  
<http://www.portseattle.org/Employee-Services/ID-Badges/Pages/default.aspx>
    - a. Badge fees are subject to annual adjustments. Companies will receive notification of any changes.
  2. See Article 1.07 for details pertaining to working in a U.S. Customs and Border Protection restricted or secured areas. Additional time will be required to develop and process credential documents for these areas.
  3. Permanent identification/access badges are valid for two years or the term of the Contract, whichever is shorter. At project completion, Contractors must return the badges to the Credential Center or reapply for a new identification/access badge if performing additional work at the Airport.

- a. The Contractor is responsible for tracking and ensuring the surrender of all badges issued for purposes of the Work to its employees, Suppliers or Subcontractors.
4. Approval of an Identification/Access Badge Application may be withheld in the event the criminal history records check is found to be unsatisfactory or the applicant is unable to pass any other applicable TSA background checks.
5. Appointments must be scheduled for New Company Setups, issuance of new badges, renewal of badges, and training. The Credential Center is closed weekends and holidays. Special scheduling arrangements may be made if necessary. Hours are subject to change. Each applicant may make their own appointment online at:  
  
<https://app.timetrade.com/tc/login.do?url=portseattle.ca>
- D. All work and expenses required to obtain identification/access badges or for other activities required in this section shall be borne by the Contractor as part of the Contract.

#### 1.04 RULES AND REGULATIONS REGARDING IDENTIFICATION BADGES

- A. Identification/access badges provide access to a default list of security access points. See Appendix 1.
- B. Any employee found in a restricted area without an airport-issued identification/access badge will be issued a citation and escorted from that location and not be allowed to return until wearing a proper identification/access badge.
- C. Employees shall be allowed access to the restricted areas only as necessary to travel to and from the construction/job site. Any employee found in any portion of the restricted areas other than the construction/job site or the area to and from the construction/job site will immediately have the employee's identification/access badge confiscated and will no longer be permitted to work at the Airport in a restricted area.
- D. All vehicles will be inspected as they enter the Airfield Operations Area at the airfield access gates.
- E. Employees and their personal items (e.g., backpacks, lunch boxes, and tool boxes) will be inspected as they enter the restricted areas of the Airport. This inspection will either occur:
  1. At the airfield access gates and vehicles enter the Airfield Operations Area
  2. At the Contractor Parking Lot as employees board the Contractor provided shuttle (refer to Section 01 50 00 – Temporary Facilities and Controls).
- F. All identification/access badges issued by the Port of Seattle are the property of the Port of Seattle and must be immediately returned under the following conditions:
  1. Upon expiration;
  2. Upon separation of employment (for any reason);
  3. When job function no longer requires a Port of Seattle airport-issued identification/access badge;

4. Upon demand by the Port of Seattle.
  5. If convicted of, or found not guilty by reason of insanity of one of the crimes listed in Title 49, CFR, Part 1542.209 (d). A complete list is on the back of the Fingerprint Application.
- G. The Contractor shall immediately notify the Port of personnel, Suppliers or Subcontractors whose work is terminated or completed and shall ensure badges are returned within 30 days of notification.
1. Notifications shall be in writing to the Credential Center and copied to the RE as a submittal in accordance with Section 01 33 00 Submittals.
  2. The Contractor will be charged \$250.00 per non-returned badge.
  3. If badges are not returned at Project Completion, the Credential Center will issue an invoice to the Contractor. Non-payment will result in the standard Port collections process.
- H. Escorting:
1. Any individual with a Port ID authorized access to a particular door/gate, may escort any individual(s) with an airport approved ID but without access to that particular door/gate; e.g., a badge with a lower access level or an escort badge. **THE ESCORT MUST REMAIN WITH THE INDIVIDUAL(S) BEING ESCORTED AT ALL TIMES WHILE IN RESTRICTED AREAS.**
    - a. Escorts shall be limited to five (5) individuals, or less, depending on the circumstances to ensure positive control is maintained at all times.
    - b. A non-badged person can be escorted a maximum of five (5) times in a calendar year, starting the day of the first escort.
      - (1) A longer period must be approved by Airport Security Coordinator and coordinated through the Port's construction project representative and Aviation Security.
  2. Proper escort of another vehicle CANNOT be accomplished with the escort riding in the SAME vehicle as the individual being escorted. The escort must be in a separate vehicle from the individual being escorted and both must meet the requirements as stated in Division 1, Section 01 35 13.13 - Operational Safety on Airports during construction.
    - a. Vehicle Signs: Vehicles must have signs of commercial design with lettering at least 2" in height on BOTH sides of the vehicle. Magnetic signs are acceptable. The company name on the driver's badge **MUST** match the company name on the vehicle.
- I. All badges that are lost, stolen, or otherwise unaccounted for must be immediately reported to the Credential Center at (206) 787-6859 or POS Alarm Response at (206) 787-4022. Any misuse of or willful failure to return a Port of Seattle airport-issued identification/access badge is subject to criminal prosecution. A fee of \$250.00 will be charged for a lost or otherwise unaccounted for badge. The fee may be waived if documentation is received and verified from a law enforcement agency specifically indicating the badge was stolen. The Contractor must apply for a replacement identification badge for the employee as provided in Article 1.03; paragraph B, this Section of these specifications. Unsecured Doors: Contractors



and their employees will be held accountable for doors located within their work sites that provide direct or indirect access to restricted or secured areas of the airport by unauthorized individuals. Doors that provide such access must NOT under ANY circumstances be left open and unattended. Individuals who have been issued Port of Seattle airport-issued identification are required to challenge any individual attempting unauthorized access to restricted areas.

- J. Contractors requiring access through vehicle gates not normally staffed must make arrangements for access through the Aeronautical Duty Manager, (206) 787-5229, who will make arrangements for either Access Controller or Senior Access Controller support.

#### 1.05 FAILURE TO COMPLY

- A. Compliance with these regulations and TSA directives will be monitored by the Airport Security Coordinator, other Airport Security personnel or other regulatory agencies. Failure on the part of the Contractor to comply may result in fines or other monetary considerations levied against the Port. In the event an action or absence of action, by the Contractor with regard to the TSA directive leads to any damages against the Port, the Contractor shall be liable for, and reimburse the Port for, all costs involved.

#### 1.06 SPECIAL REQUIREMENTS FOR WORK IN AIRPORT TERMINAL

- A. Pre-construction meetings with Security
  - 1. The Contractor must schedule a preconstruction meeting with the Port's construction project representative and the Security Construction Support Specialist, a week prior to performing the initial erection of any barricades in the terminal to confirm layout and identify the type of keys required on the barricade. Any special situation that may affect the security of the airport shall be identified and discussed in the meeting.
  - 2. As soon as a new barricade installation is completed the Contractor shall schedule a site inspection of the enclosure with the Security Construction Support Specialist to obtain approval to proceed with the construction work at the site.
  - 3. Prior to performing any work that modifies an existing security wall such as the removal of a window in the terminal or a penetration through a security wall shall require that a preconstruction meeting be scheduled with Security a week in advance of the work. Contractor shall describe the work plan to the Port's construction project representative and Security. The Port will schedule a Security Construction Support Specialist to be on site when the work is performed. No work shall proceed without first having this meeting.
- B. Barricaded sites must be locked except for the delivery of materials, equipment and personnel to the job site. There are two standard locks used in construction barricades:
  - 1. High Profile (High Security Risk) Areas: PG-2 padlock installed on construction doors daisy chained with a unique lock for Contractor use. Self-closing man-doors shall be keyed with a PG-2 core. First responders must be able to have access to the jobsite at all times.
  - 2. Low Profile (Low Security Risk) Areas: AP-2 padlock installed on construction doors daisy chained with a unique lock for Contractor use.

Self-closing man-doors shall be keyed with an AP-2 core. First responders must be able to have access to the jobsite at all times.

- C. Barricade Door and Window Security
  - 1. Contractor and its employees will be held accountable for doors /windows located within their work sites that provide direct or indirect access to restricted or secured areas of the Airport by unauthorized individuals.
  - 2. Doors that provide such access must NOT under ANY circumstances be left open and unattended. Individuals who have been issued Port of Seattle identification badges are required to challenge any individual attempting unauthorized access to restricted areas. If at any time during a construction project a door or window is not secured or there is a security breach, a Port provided AV Operations Construction Support Specialists will staff the duration of the work.
  - 3. A walk through of the work to be conducted and completed needs to be reviewed by a Senior Access Controller to ensure the construction site is secured.
  - 4. If a violation is found, the work site will immediately be shut down until an appropriate security plan is approved. Penalties and fines will be incurred by the Contractor.
- D. Leaving Prohibited Items Unattended in a Secured Area
  - 1. When tools or equipment are in a secured sterile area (SIDA), control of them must be maintained 100% of the time.
    - a. The area shall be secured with a lock. If there is a possibility that someone may gain unauthorized access, take any TSA prohibited items with you.
    - b. The first offense cited by Security results in confiscation of identification badge for three (3) days, \$200.00 fine, and a retake of SIDA training. Penalties increase after the first offense, as defined by the Seattle Tacoma International Airport Schedule of Rules and Regulations.

1.07 SPECIAL REQUIREMENTS, WORK IN U.S. CUSTOMS AND BORDER PROTECTION (CBP)

- A. Work conducted within areas controlled by the U.S. Customs and Border Protection (CBP) in the South Satellite, will require special clearance and an identification seal issued by the U.S. Customs and Border Protection. In addition, unless granted otherwise, the CBP will require that a bond be provided by the Contractor as security for all work conducted within the controlled area. See Appendix 2 for more details related to CBP areas in the South Satellite.
  - 1. Contractors shall have the Port's construction project representative co-sign and enter the Contract end dates on badge applications before they are submitted to the Credential Office.
- B. It shall be the Contractor's responsibility to coordinate with the CBP and provide an airport security bond in the amount of minimum \$10,000, as required. All costs for securing special clearance via identification seals and the associated bonding

shall be at the Contractor's expense. No separate or extra payment of any kind will be made by the Port to the Contractor for satisfying these requirements.

1. The Contractor is advised:
  - a. Seattle specific information on Customs bonds can be obtained by contacting the Cargo Security Officer, CBP Trade Office at (206) 553-1581 referencing CBP Form 301. For more information on bonds visit:  
[https://help.cbp.gov/app/answers/detail/a\\_id/208/~bonds---how-to-obtain-a-customs-bond](https://help.cbp.gov/app/answers/detail/a_id/208/~bonds---how-to-obtain-a-customs-bond)
  - b. The Contractor shall initiate the bonding process upon notification of Intent to Award as all bond applications are processed at the national level and may take several weeks for approval and issuance of bonds.
  - c. It is ideal to complete the customs seal application 2 weeks prior to completing the SIDA training in order to have the badge issued with the seal.
  - d. The Contractor may choose to acquire a bond that extends beyond the Contract time. The Port of Seattle issues identification seals specific to the project. It is the Contractor's responsibility to coordinate issuance of the seal specific to the Contract duration and properly notify CBP of any changes in status of issued badges (see 107.B.2.b).
2. The Contractor is responsible to ensure all their suppliers and subcontractors have special clearance identifications seals including inclusion under the Contractor's bond or have their suppliers and subcontractors secure their own bonds.
  - a. If a special clearance Customs seal is required, an applicant must submit Customs Seal documents with their SIDA badge application.
    - (1) Customs Seal documents include:
      - (a) Application for CBP security seal
      - (b) Letter from employer on company letterhead verifying employment status
      - (c) Application for Identification Card
    - (2) Once submitted, the clearance time for a Customs seal is approximately 14 days.
    - (3) Submit renewal requests for Customs seals at least 14 days prior to the expiration date and prior to the renewal appointment.
  - b. The Contractor is responsible to comply with the Federal Custom Seals program's employer responsibilities including but not limited to the following:
    - (1) Immediately informing CBP of a change in status of badges with a special clearance and identification seal as required by federal regulation. Without limitation, this includes

separation of employment, badge expiration, lost badge, or when the job functions for an individual, Supplier or Subcontractor are complete. Copies of any written notifications required to be provided to U.S. Customs and Border Protection shall be copied to the Port's Project Manager as a submittal in accordance with Section 01 33 00 - Submittals.

- (2) Providing quarterly reports with a current list of employees with approved customs seal access and a separate list with all additions and deletions within the last quarter. The list should be provided to the Custom Seal Office during the first month of each quarter and copied to the Port's Project Manager as a submittal in accordance with Section 01 33 00 – Submittals.
  - (a) Each list should identify the employee name, Port issued badge number at upper right corner of the badge and the badge expiration date.

For a full list of employer responsibilities see [19CFR122.181-188](#).

3. The Contractor is responsible for all fines assessed by U.S. Customs and Border Protection that arise from Contractor's activities or failure to comply with applicable regulations, whether assessed against the Contractor or the Port in the first instance. The Port shall have the right to issue a change order reducing the Contract Sum by the amount of any fines or other penalties not promptly paid by the Contractor. If fines are not paid at Project Completion, the Port will issue an invoice. Non-payment will result in the standard Port collections process.

#### 1.08 AIRPORT SECURITY KEYS

- A. Contractors that require keys to perform work at the project site shall complete a key application form attached to a CAP requesting key(s) a reason for the request. All costs for obtaining airport security key(s) shall be at the Contractor's expense, including Lock Shop costs incurred for making keys.
  1. The Contractor is responsible for keys provided to its Suppliers and Subcontractors for purposes of the Work identified in the Contract.
- B. Security keys are tracked via computer and tied to the employee's identification badge number. Security keys cannot be requested in multiples (no more than one per person). Keys are only issued to the person making the request. An identification/access badge is required prior to issuance.
- C. The Contractor is responsible for tracking and ensuring the surrender of all keys issued for purposes of the Work to its employees, Suppliers or Subcontractors
- D. Upon completion of the Contract, separation of employment or when job function no longer requires use of keys, the Contractor shall ensure they are returned within 14 calendar days of notification.
  1. Notifications shall be in writing to the Credential Center and submitted in accordance with Section 01 33 00 Submittals.

2. No separate or extra payment of any kind will be made by the Port to the Contractor for satisfying this requirement.
3. The Contractor is responsible for tracking and returning all keys issued for the project. The Contractor will be charged \$100.00 per non-returned key plus the cost of Airport rekeying if needed. Cost to be determined by overall impact.
4. If keys are not returned at Project Completion, the Credential Center will issue an invoice for the fines net 30 days. Non-payment will result in the standard Port collections process.

1.09 ACCESS AUTHORIZATION

- A. See Section 01 14 13c, Appendix 2 for additional information.
- B. Companies must submit an ID Badge Control Authorization Request Form attached to a CAP to gain or delete access to controlled entry points. An exact description of the point to include location and door number is required.

1.10 RETURN OF BADGES AND KEYS AND FINES ASSOCIATED WITH THE PROJECT

- A. The Contractor is responsible for the return of all badges and keys issued for the project, including those issued to its employees, Suppliers or Subcontractors.
- B. All badges, keys and special clearances issued under the requirements of this Section, for this project, must be returned.
- C. Unpaid fines assessed by the Port against a Contractor, its employee, Supplier or Subcontractor will be invoiced to the Contractor for payment.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

End of Section
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## APPENDIX 1: BADGE ISSUANCE CONTRACTOR ACCESS

### 1. DEFAULT CONTRACTOR ACCESS LIST AND MAPS

The attached list of access points (doors, elevators, AOA perimeter gates) and correlating maps show the access provided when receiving a badge for Work on construction projects.

No.	Type	Access Point ID	Alternate Description	AP (1) Sheet #	Map Reference
1	CONTRACTOR ONLY	A-3176-B		3	Main Terminal – Bag/Ramp Level
2	CONTRACTOR ONLY	A-3312-B		3	Main Terminal – Bag/Ramp Level
3	CONTRACTOR ONLY	A-3482-B		3	Main Terminal – Bag/Ramp Level
4	CONTRACTOR ONLY	A-3505-B		3	Main Terminal – Bag/Ramp Level
5	CONTRACTOR ONLY	A-5038-C		2	Main Terminal – Concourse Level
6	CONTRACTOR ONLY	A-5108-C		2	Main Terminal – Concourse Level
7	CONTRACTOR ONLY	A-5139-C		2	Main Terminal – Concourse Level
8	CONTRACTOR ONLY	A-5159-C		2	Main Terminal – Concourse Level
9	CONTRACTOR ONLY	A-5171-C		2	Main Terminal – Concourse Level
10	CONTRACTOR ONLY	A-5186-C		2	Main Terminal – Concourse Level
11	CONTRACTOR ONLY	A-5201-C		2	Main Terminal – Concourse Level
12	CONTRACTOR ONLY	A-5220-C		2	Main Terminal – Concourse Level
13	CONTRACTOR ONLY	A-5221-C		2	Main Terminal – Concourse Level
14	CONTRACTOR ONLY	A-5300-C		2	Main Terminal – Concourse Level
15	CONTRACTOR ONLY	A-5311-C ST16			TBD
16	CONTRACTOR ONLY	A-5317-C		2	Main Terminal – Concourse Level
17	CONTRACTOR ONLY	A-5400-C		2	Main Terminal – Concourse Level
18	CONTRACTOR ONLY	A-5419-C		2	Main Terminal – Concourse Level
19	CONTRACTOR ONLY	A-5429-C		2	Main Terminal – Concourse Level
20	CONTRACTOR ONLY	A-5443-C		2	Main Terminal – Concourse Level



**SEATTLE-TACOMA INTERNATIONAL AIRPORT CONSTRUCTION GENERAL REQUIREMENTS**  
**CGR Section 01 14 13a – Airport Personnel Identification/Access Control**

No.	Type	Access Point ID	Alternate Description	AP (1) Sheet #	Map Reference
21	CONTRACTOR ONLY	A-5446-C	A-5446-C ST13	2	Main Terminal – Concourse Level
22	CONTRACTOR ONLY	A-5482-C		2	Main Terminal – Concourse Level
23	CONTRACTOR ONLY	A-5492-C		2	Main Terminal – Concourse Level
24	CONTRACTOR ONLY	A-6255-M		1	Main Terminal – Mezzanine Level
25	CONTRACTOR ONLY	A-6355-M		1	Main Terminal – Mezzanine Level
26	CONTRACTOR ONLY	A-6375-M		1	Main Terminal – Mezzanine Level
27	CONTRACTOR ONLY	A-7121-IP			TBD
28	CONTRACTOR ONLY	A1-5020-C	A01-5020-C	2	Main Terminal – Concourse Level
29	CONTRACTOR ONLY	A2-5040-C	A02-5040-C	2	Main Terminal – Concourse Level
30	CONTRACTOR ONLY	A3-5110-C	A03-5110-C	2	Main Terminal – Concourse Level
31	CONTRACTOR ONLY	A4-5141-C	A04-5141-C	2	Main Terminal – Concourse Level
32	CONTRACTOR ONLY	A5-5160-C	A05-5160-C	2	Main Terminal – Concourse Level
33	CONTRACTOR ONLY	A6-5200-C	A06-5200-C	2	Main Terminal – Concourse Level
34	CONTRACTOR ONLY	A7-5210-C	A07-5210-C	2	Main Terminal – Concourse Level
35	CONTRACTOR ONLY	A8-5230-C	A08-5230-C	2	Main Terminal – Concourse Level
36	CONTRACTOR ONLY	A9-5310-C	A09-5310-C	2	Main Terminal – Concourse Level
37	CONTRACTOR ONLY	A10-5420-C		2	Main Terminal – Concourse Level
38	CONTRACTOR ONLY	A11-5430-C		2	Main Terminal – Concourse Level
39	CONTRACTOR ONLY	A12-5480-C		2	Main Terminal – Concourse Level
40	CONTRACTOR ONLY	A13-5485-C		2	Main Terminal – Concourse Level
41	CONTRACTOR ONLY	A14-5490-C		2	Main Terminal – Concourse Level
42	CONTRACTOR ONLY	B-5052-C	B-5052-C EE	2	Main Terminal – Concourse Level
43	CONTRACTOR ONLY	B-5055-C		2	Main Terminal – Concourse Level
44	CONTRACTOR ONLY	B-5090-C		2	Main Terminal – Concourse Level
45	CONTRACTOR ONLY	B1-5037-C		2	Main Terminal – Concourse Level
46	CONTRACTOR ONLY	B10-5252-C	B10-5250-C	2	Main Terminal – Concourse Level

**SEATTLE-TACOMA INTERNATIONAL AIRPORT CONSTRUCTION GENERAL REQUIREMENTS**  
**CGR Section 01 14 13a – Airport Personnel Identification/Access Control**

No.	Type	Access Point ID	Alternate Description	AP (1) Sheet #	Map Reference
47	CONTRACTOR ONLY	B11-5234-C		2	Main Terminal – Concourse Level
48	CONTRACTOR ONLY	B12-5270-C		2	Main Terminal – Concourse Level
49	CONTRACTOR ONLY	B14-5274-C		2	Main Terminal – Concourse Level
50	CONTRACTOR ONLY	B15-5238-C		2	Main Terminal – Concourse Level
51	CONTRACTOR ONLY	B3-5080-C		2	Main Terminal – Concourse Level
52	CONTRACTOR ONLY	B-5115-C	B4-5114-C	2	Main Terminal – Concourse Level
53	CONTRACTOR ONLY	B-5125-C	B4-5125-C	2	Main Terminal – Concourse Level
54	CONTRACTOR ONLY	B5-5132-C		2	Main Terminal – Concourse Level
55	CONTRACTOR ONLY	B5-5132A-C	B5A-5132-C HANDI	2	Main Terminal – Mezzanine Level
56	CONTRACTOR ONLY	B7-5159-C		2	Main Terminal – Concourse Level
57	CONTRACTOR ONLY	B9-5197-C		2	Main Terminal – Concourse Level
58	CONTRACTOR ONLY	C-3157A-R		3	Main Terminal – Bag/Ramp Level
59	CONTRACTOR ONLY	C-3195B-R		3	Main Terminal – Bag Level
60	CONTRACTOR ONLY	C-3198-R		3	Main Terminal – Bag/Ramp Level
61	CONTRACTOR ONLY	C-5136-C	C1-5036-C	2	Main Terminal – Concourse Level
62	CONTRACTOR ONLY	C10-5140-C		2	Main Terminal – Concourse Level
63	CONTRACTOR ONLY	C10A-5159-C		2	Main Terminal – Concourse Level
64	CONTRACTOR ONLY	C10B-5160-C		2	Main Terminal – Concourse Level
65	CONTRACTOR ONLY	C11-5200-C		2	Main Terminal – Concourse Level
66	CONTRACTOR ONLY	C12-5162-C		2	Main Terminal – Concourse Level
67	CONTRACTOR ONLY	C14A-5174-C		2	Main Terminal – Concourse Level
68	CONTRACTOR ONLY	C15-5210-C		2	Main Terminal – Concourse Level
69	CONTRACTOR ONLY	C17-5212-C		2	Main Terminal – Concourse Level
70	CONTRACTOR ONLY	C18-5220-C		2	Main Terminal – Concourse Level
71	CONTRACTOR ONLY	C6-5074-C		2	Main Terminal – Concourse Level
72	CONTRACTOR ONLY	C8/C10-5080-C		2	Main Terminal – Concourse Level

**SEATTLE-TACOMA INTERNATIONAL AIRPORT CONSTRUCTION GENERAL REQUIREMENTS**  
**CGR Section 01 14 13a – Airport Personnel Identification/Access Control**

No.	Type	Access Point ID	Alternate Description	AP (1) Sheet #	Map Reference
73	CONTRACTOR ONLY	D-3002/3003-R		3	Main Terminal – Bag/Ramp Level
74	CONTRACTOR ONLY	D-5100-C		2	Main Terminal – Concourse Level
75	CONTRACTOR ONLY	D11-5138-C		2	Main Terminal – Concourse Level
76	CONTRACTOR ONLY	D4-5080-C		2	Main Terminal – Concourse Level
77	CONTRACTOR ONLY	D4-5182-C	D4-5082-C	2	Main Terminal – Concourse Level
78	CONTRACTOR ONLY	D6-5110-C		2	Main Terminal – Concourse Level
79	CONTRACTOR ONLY	ELEV 3 CAB 3rd FLOOR - P2000		3	Main Terminal – Bag/Ramp Level
80	CONTRACTOR ONLY	ELEV 3F CAB - P2000		3	Main Terminal – Bag/Ramp Level
81	CONTRACTOR ONLY	ELEVATOR 3F	ELEV 3F CALL BAGGAGE - P2000	3	Main Terminal – Bag/Ramp Level
82	CONTRACTOR ONLY	ELEVATOR 3F	ELEV 3F CALL BAGWELL - P2000	3	Main Terminal – Bag/Ramp Level
83	CONTRACTOR ONLY	ELEV 3F CALL CONVEYOR T - P2000		3	Main Terminal – Bag/Ramp Level
84	CONTRACTOR ONLY	ELEV 3F CALL LOAD DOCK - P2000		3	Main Terminal – Bag/Ramp Level
85	CONTRACTOR ONLY	ELEV 4F CAB 3rd FLOOR - P2000		3	Main Terminal – Bag/Ramp Level
86	CONTRACTOR ONLY	ELEV 4F CAB 4th FLOOR - P2000		2	Main Terminal – Concourse Level
87	CONTRACTOR ONLY	ELEVATOR 4F	ELEV 4F CAB RAMP - P2000	3	Main Terminal – Bag/Ramp Level
88	CONTRACTOR ONLY	ELEV 4F GROUND LEVEL - P2000		3	Main Terminal – Bag/Ramp Level
89	CONTRACTOR ONLY	ELEV B-1 CAB - P2000		2	Main Terminal – Concourse Level
90	CONTRACTOR ONLY	ELEV B-1 RAMP - P2000		3	Main Terminal – Bag/Ramp Level
91	CONTRACTOR ONLY	ELEV C-1 CAB - P2000		2	Main Terminal – Concourse Level
92	CONTRACTOR ONLY	ELEVATOR C1	ELEV C-1 CALL Ramp - P2000	3	Main Terminal – Bag/Ramp Level
93	CONTRACTOR ONLY	ELEV D-1 CAB - P2000		3	Main Terminal – Bag/Ramp Level
94	CONTRACTOR ONLY	ELEV D-1 CAB - P2000 TG		3	Main Terminal – Bag/Ramp Level
95	CONTRACTOR ONLY	ELEVATOR D1	ELEV D-1 RAMP Level - P2000	3	Main Terminal – Bag/Ramp Level
96	CONTRACTOR ONLY	ELEV N SAT A CAB		4	North Satellite – Concourse Level
97	CONTRACTOR ONLY	ELEV N SAT A CAB - P2000			TBD

**SEATTLE-TACOMA INTERNATIONAL AIRPORT CONSTRUCTION GENERAL REQUIREMENTS**  
**CGR Section 01 14 13a – Airport Personnel Identification/Access Control**

No.	Type	Access Point ID	Alternate Description	AP (1) Sheet #	Map Reference
98	CONTRACTOR ONLY	ELEV N SAT B CAB		4	North Satellite – Concourse Level
99	CONTRACTOR ONLY	ELEV N SAT B CAB - P2000		5	Main Terminal – Bag/Ramp Level
100	CONTRACTOR ONLY	ELEV S SAT B CAB - P2000		6	South Satellite – Concourse Level
101	CONTRACTOR ONLY	ELEV S SAT C CAB - P2000		6	South Satellite – Concourse Level
102	CONTRACTOR ONLY	ELEV S SAT C CAB RESTRC - P2000		6	South Satellite – Penthouse Level
103	CONTRACTOR ONLY	ELEVATOR SSB	ELEV SSB CALL RAMP - P2000	6	South Satellite – Concourse Level
104	CONTRACTOR ONLY	ELEV SSC CALL CONC - P2000		6	South Satellite – Concourse Level
105	CONTRACTOR ONLY	ELEV SSC CALL INT COR - P2000		7	South Satellite – FIS Level
106	CONTRACTOR ONLY	ELEV SSC CALL MEZZ - P2000		8	South Satellite – Mezzanine Level
107	CONTRACTOR ONLY	GATE E-100 EGRESS - P2000		10	Security Gate Access Map
108	CONTRACTOR ONLY	GATE E-100 INGRESS - P2000		10	Security Gate Access Map
109	CONTRACTOR ONLY	GATE E-100 VERIFICATION - P2000		10	Security Gate Access Map
110	CONTRACTOR ONLY	GATE E-45 EGRESS - P2000		10	Security Gate Access Map
111	CONTRACTOR ONLY	GATE E-45 INGRESS - P2000		10	Security Gate Access Map
112	CONTRACTOR ONLY	GATE S-15 CONC LEVEL - P2000		6	South Satellite – Concourse Level
113	CONTRACTOR ONLY	GATE S-16 A/B CONC LEVEL - P2000		6	South Satellite – Concourse Level
114	CONTRACTOR ONLY	LOAD DOCK N. DOOR - P2000			TBD
115	CONTRACTOR ONLY	MT-2132-BT		3	Main Terminal – Basement Level
116	CONTRACTOR ONLY	MT-2135-BT		3	Main Terminal – Basement Level
117	CONTRACTOR ONLY	MT-2149-BT		3	Main Terminal – Basement Level
118	CONTRACTOR ONLY	MT-2158-BT		3	Main Terminal – Basement Level
119	CONTRACTOR ONLY	MT-3130-R		3	Main Terminal – Bag/Ramp Level
120	CONTRACTOR ONLY	MT-3133-R		3	Main Terminal – Bag/Ramp Level
121	CONTRACTOR ONLY	MT-3148-R		3	Main Terminal – Bag/Ramp Level
122	CONTRACTOR ONLY	MT-3159-R		3	Main Terminal – Bag/Ramp Level

**SEATTLE-TACOMA INTERNATIONAL AIRPORT CONSTRUCTION GENERAL REQUIREMENTS**  
**CGR Section 01 14 13a – Airport Personnel Identification/Access Control**

No.	Type	Access Point ID	Alternate Description	AP (1) Sheet #	Map Reference
123	CONTRACTOR ONLY	MT-3446-B		3	Main Terminal – Bag/Ramp Level
124	CONTRACTOR ONLY	MT-3457-B		3	Main Terminal – Bag/Ramp Level
125	CONTRACTOR ONLY	MT-4145-4F		1	Main Terminal – Penthouse Level
126	CONTRACTOR ONLY	MT-4149-4F		1	Main Terminal – Penthouse Level
127	CONTRACTOR ONLY	MT-5128A-T		2	Main Terminal – Concourse Level
128	CONTRACTOR ONLY	MT-5128B-T		2	Main Terminal – Concourse Level
129	CONTRACTOR ONLY	MT-5128C-T		2	Main Terminal – Concourse Level
130	CONTRACTOR ONLY	MT-5139A-T		2	Main Terminal – Concourse Level
131	CONTRACTOR ONLY	MT-5139B-T		2	Main Terminal – Concourse Level
132	CONTRACTOR ONLY	MT-5139C-T		2	Main Terminal – Concourse Level
133	CONTRACTOR ONLY	N-3061-R		5	North Satellite – Bag/Ramp Level
134	CONTRACTOR ONLY	N-3076-R		5	North Satellite – Bag/Ramp Level
135	CONTRACTOR ONLY	N. SAT RAMP ELEV NSA - P2000			TBD
136	CONTRACTOR ONLY	N1-5120-C		4	North Satellite – Concourse
137	CONTRACTOR ONLY	N10-5133-C		4	North Satellite – Concourse
138	CONTRACTOR ONLY	N12-5151-C		4	North Satellite – Concourse
139	CONTRACTOR ONLY	N13-5156-C		4	North Satellite – Concourse
140	CONTRACTOR ONLY	N15-5136-C		4	North Satellite – Concourse
141	CONTRACTOR ONLY	N2-5100-C		4	North Satellite – Concourse
142	CONTRACTOR ONLY	N3-5080-C		4	North Satellite – Concourse
143	CONTRACTOR ONLY	N6-5095-C		4	North Satellite – Concourse
144	CONTRACTOR ONLY	N8-5105-C		4	North Satellite – Concourse
145	CONTRACTOR ONLY	N9-5123-C		4	North Satellite – Concourse
146	CONTRACTOR ONLY	S-1061-TR		9	South Satellite – STS Level
147	CONTRACTOR ONLY	S-1101-TR		9	South Satellite – STS Level
148	CONTRACTOR ONLY	S-1103-TR		9	South Satellite – STS Level

**SEATTLE-TACOMA INTERNATIONAL AIRPORT CONSTRUCTION GENERAL REQUIREMENTS**  
**CGR Section 01 14 13a – Airport Personnel Identification/Access Control**

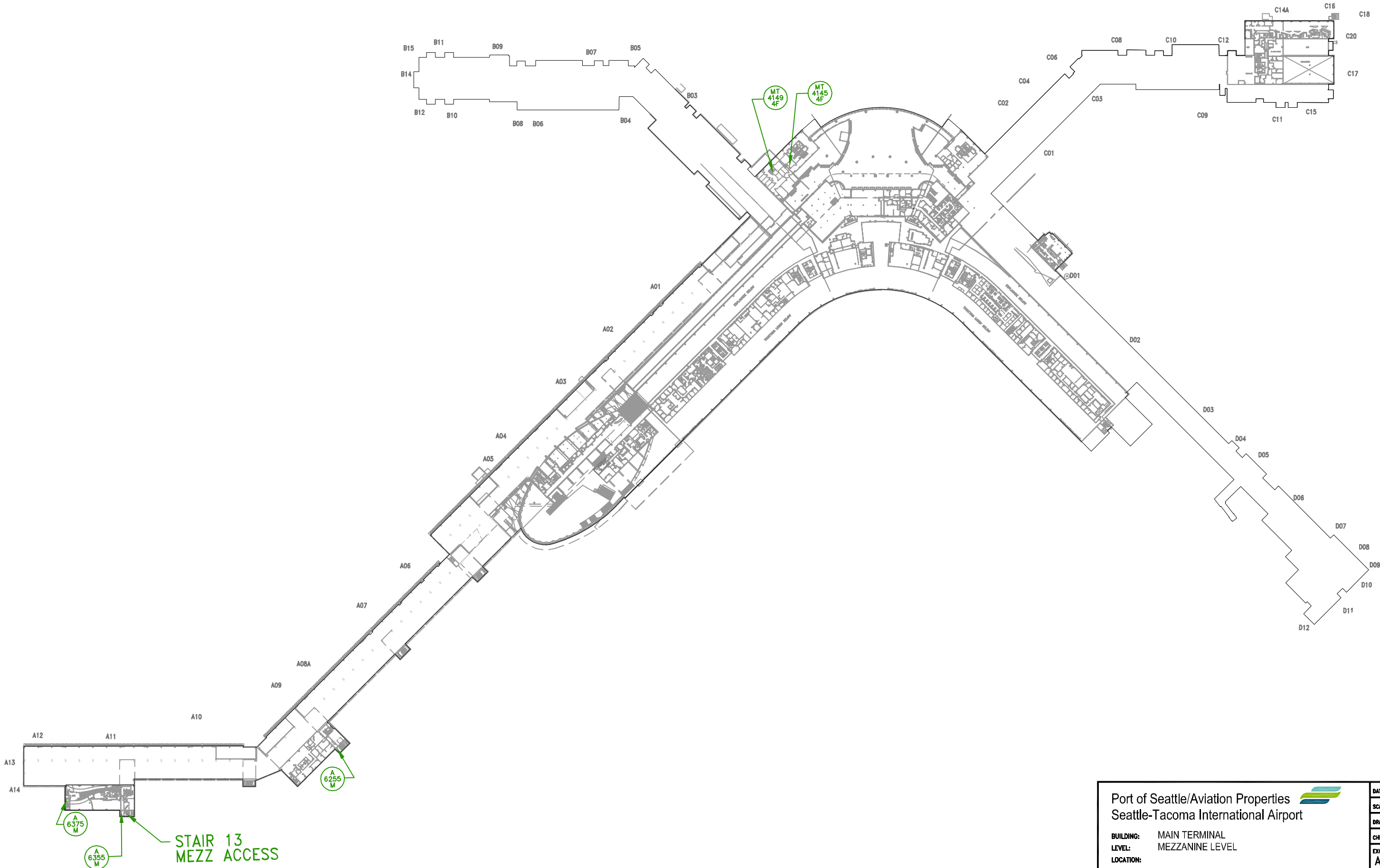
No.	Type	Access Point ID	Alternate Description	AP (1) Sheet #	Map Reference
149	CONTRACTOR ONLY	S-1118C-TR		9	South Satellite – STS Level
150	CONTRACTOR ONLY	S-16a/b Exit from Jetway		6	South Satellite – Concourse Level
151	CONTRACTOR ONLY	S-2061-M		7	South Satellite – FIS Level
152	CONTRACTOR ONLY	S-2118-M		7	South Satellite – FIS Level
153	CONTRACTOR ONLY	S-2139-M		7	South Satellite – FIS Level
154	CONTRACTOR ONLY	S-3041-R		8	South Satellite – Ramp Level
155	CONTRACTOR ONLY	S-3069-R		8	South Satellite – Ramp Level
156	CONTRACTOR ONLY	S-3069A-R		8	South Satellite – Ramp Level
157	CONTRACTOR ONLY	S-3094-R		8	South Satellite – Ramp Level
158	CONTRACTOR ONLY	S-3094A-R		8	South Satellite – Ramp Level
159	CONTRACTOR ONLY	S-3096-R		8	South Satellite – Ramp Level
160	CONTRACTOR ONLY	S-3118-R		8	South Satellite – Ramp Level
161	CONTRACTOR ONLY	S-3118A-R		8	South Satellite – Ramp Level
162	CONTRACTOR ONLY	S-3147-R		8	South Satellite – Ramp Level
163	CONTRACTOR ONLY	S-3147A-R RAMP		8	South Satellite – Ramp Level
164	CONTRACTOR ONLY	S. SAT LADDER TO CONVEYOR			TBD
165	CONTRACTOR ONLY	S1-5033-C	S01-5033-C	6	South Satellite – Concourse Level
166	CONTRACTOR ONLY	S1-5034-C	S01-5034-C EMR EX	6	South Satellite – Concourse Level
167	CONTRACTOR ONLY	S2-5028-C	S02-5028-C	6	South Satellite – Concourse Level
168	CONTRACTOR ONLY	S2-5018-C	S03-5018-C	6	South Satellite – Concourse Level
169	CONTRACTOR ONLY	S04-5004-C		6	South Satellite – Concourse Level
170	CONTRACTOR ONLY	S05-5003-C		6	South Satellite – Concourse Level
171	CONTRACTOR ONLY	S06-5002-C		6	South Satellite – Concourse Level
172	CONTRACTOR ONLY	S07-5006-C		6	South Satellite – Concourse Level
173	CONTRACTOR ONLY	S08-5004-C		6	South Satellite – Concourse Level
174	CONTRACTOR ONLY	S09-5014-C		6	South Satellite – Concourse Level



**SEATTLE-TACOMA INTERNATIONAL AIRPORT CONSTRUCTION GENERAL REQUIREMENTS**  
**CGR Section 01 14 13a – Airport Personnel Identification/Access Control**

<b>No.</b>	<b>Type</b>	<b>Access Point ID</b>	<b>Alternate Description</b>	<b>AP (1) Sheet #</b>	<b>Map Reference</b>
175	CONTRACTOR ONLY	S09-5016-C		6	South Satellite – Concourse Level
176	CONTRACTOR ONLY	S09-5031-C			TBD
177	CONTRACTOR ONLY	S-5034-C	S10-5034-C	6	South Satellite – Concourse Level
178	CONTRACTOR ONLY	S-5036-C	S10-5036-C	6	South Satellite – Concourse Level
179	CONTRACTOR ONLY	S11-5043-C		6	South Satellite – Concourse Level
180	CONTRACTOR ONLY	S12-5046-C		6	South Satellite – Concourse Level
181	CONTRACTOR ONLY	S16C/D-5035-C	S16-5035-C GATE C/D	6	South Satellite – Concourse Level
182	CONTRACTOR ONLY	S16A-5041-C		6	South Satellite – Concourse Level
183	CONTRACTOR ONLY	SAS TCK ROLL UP 1			TBD
184	CONTRACTOR ONLY	STEP - Elevator G Cab Baggage		3	Main Terminal – Bag/Ramp Level
185	CONTRACTOR ONLY	STEP - Elevator G Cab Ticketing		2	Main Terminal – Concourse Level
186	CONTRACTOR ONLY	STEP - Elevator M Cab		3	Main Terminal – Concourse Level
187	CONTRACTOR ONLY	STEP - Elevator M Cab Ticketing		2	Main Terminal – Concourse Level
188	CONTRACTOR ONLY	STEP - Elevator N Cab		2	Main Terminal – Concourse Level
189	CONTRACTOR ONLY	STEP - Elevator N Cab Baggage		2	Main Terminal – Concourse Level
190	CONTRACTOR ONLY	STEP - Elevator N Cab Ticketing		2	Main Terminal – Concourse Level
191	CONTRACTOR ONLY	STEP - Stairwell 13 Access Mezz		1	Main Terminal – Mezzanine Level

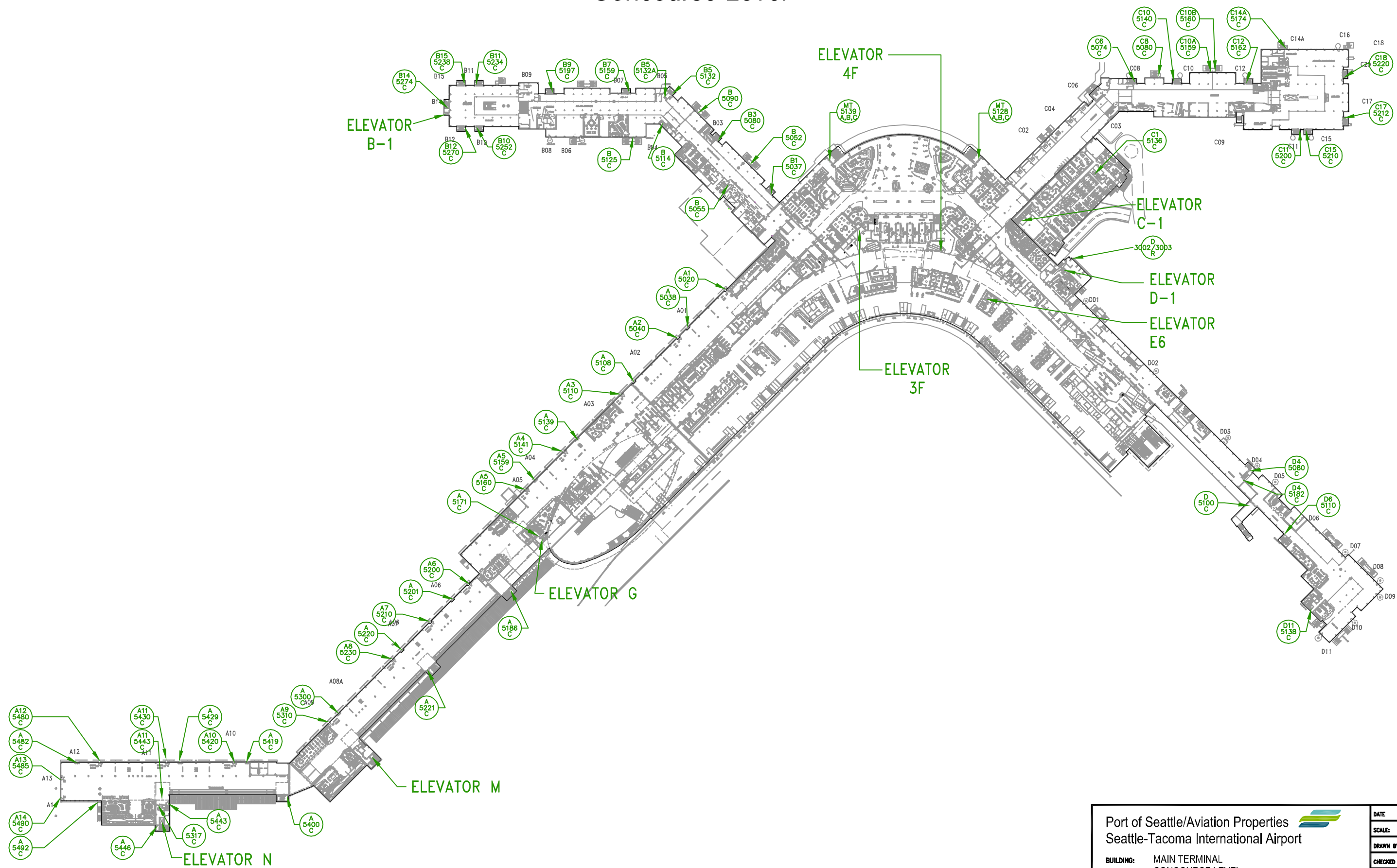
# Contractor Access Mezzanine Level



Port of Seattle/Aviation Properties Seattle-Tacoma International Airport		DATE: SCALE: DRAWN BY: CHECKED BY: EXHIBIT NO. AP(1) 1 OF 10
BUILDING:	MAIN TERMINAL	
LEVEL:	MEZZANINE LEVEL	
LOCATION:		

\\AIRMS280\Aviation\AV-Properties\01\_PROPworks\01\_Doors\Working\MT-Mezz\MT-Mezz AP1 1-10.dwg Aug 24, 2012 - 12:43pm

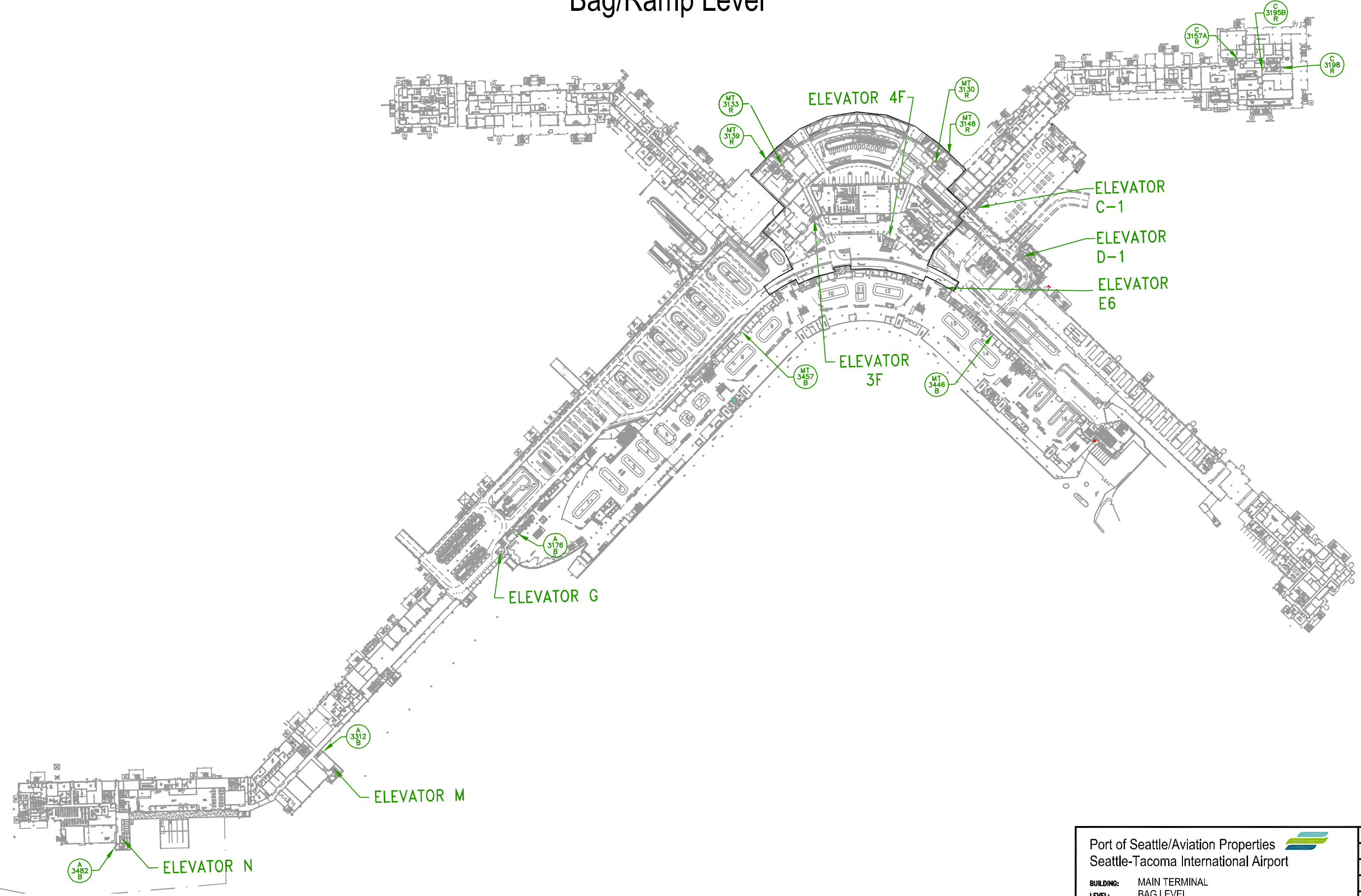
# Contractor Access Concourse Level



Port of Seattle/Aviation Properties Seattle-Tacoma International Airport		DATE: SCALE: DRAWN BY: CHECKED BY: EXHIBIT NO.
BUILDING: MAIN TERMINAL LEVEL: CONCOURSE LEVEL LOCATION:	AP(1) 2 OF 10	

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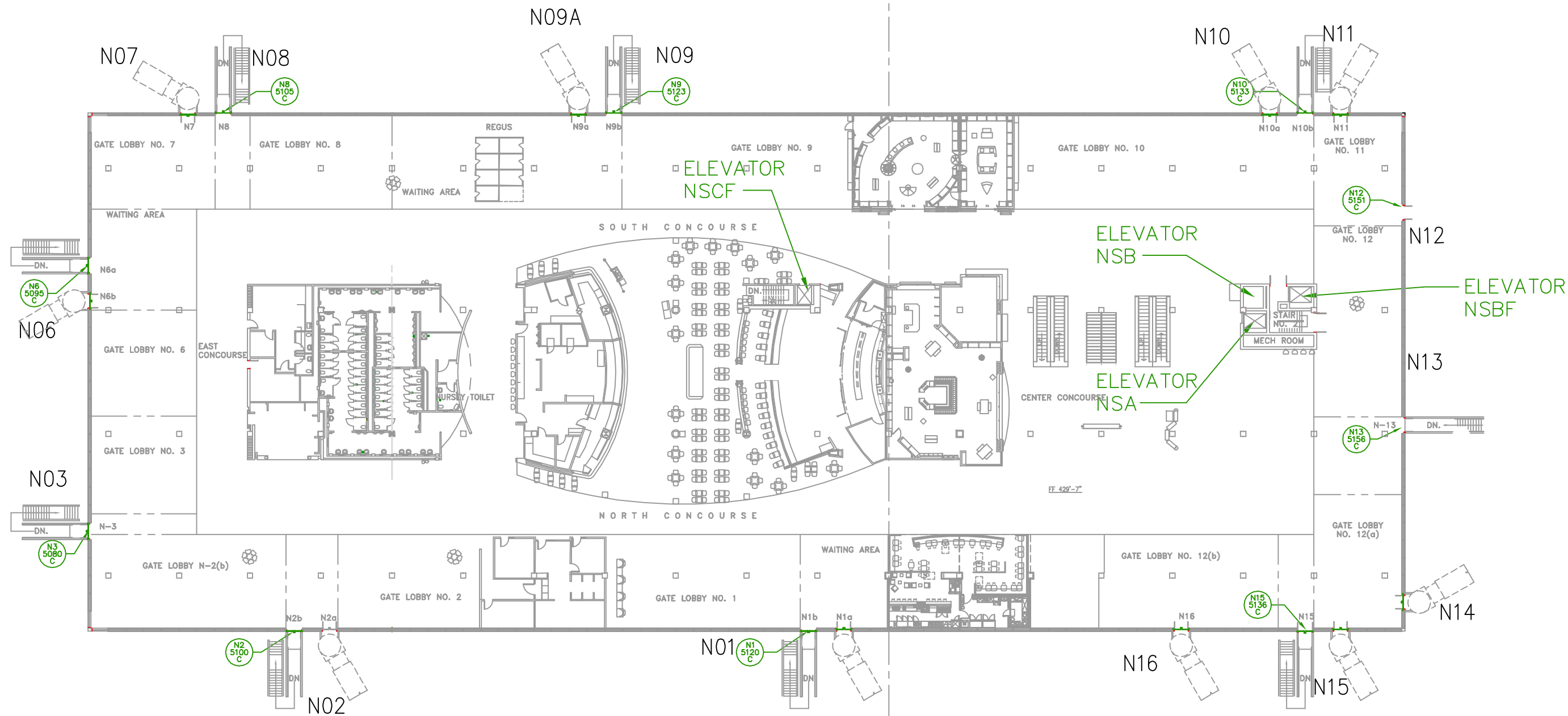
# Contractor Access Bag/Ramp Level



Port of Seattle/Aviation Properties  Seattle-Tacoma International Airport		DATE:
BUILDING: MAIN TERMINAL LEVEL: BAG LEVEL LOCATION:		SCALE:
		DRAWN BY:
		CHECKED BY:
		EXHIBIT NO. AP(1) 3 OF 10

\\AIRMS280\Aviation\AV-Properties\01\_PROPworks\01\_Doors\Working\MT-Bag AP1 3-10.dwg Nov 13, 2014 - 10:44am

# Contractor Access North Satellite Concourse Level



ELEVATOR  
NSCF

ELEVATOR  
NSB

ELEVATOR  
NSBF

ELEVATOR  
NSA

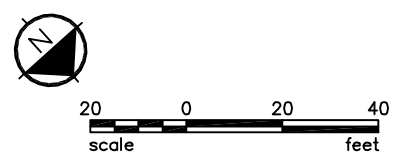
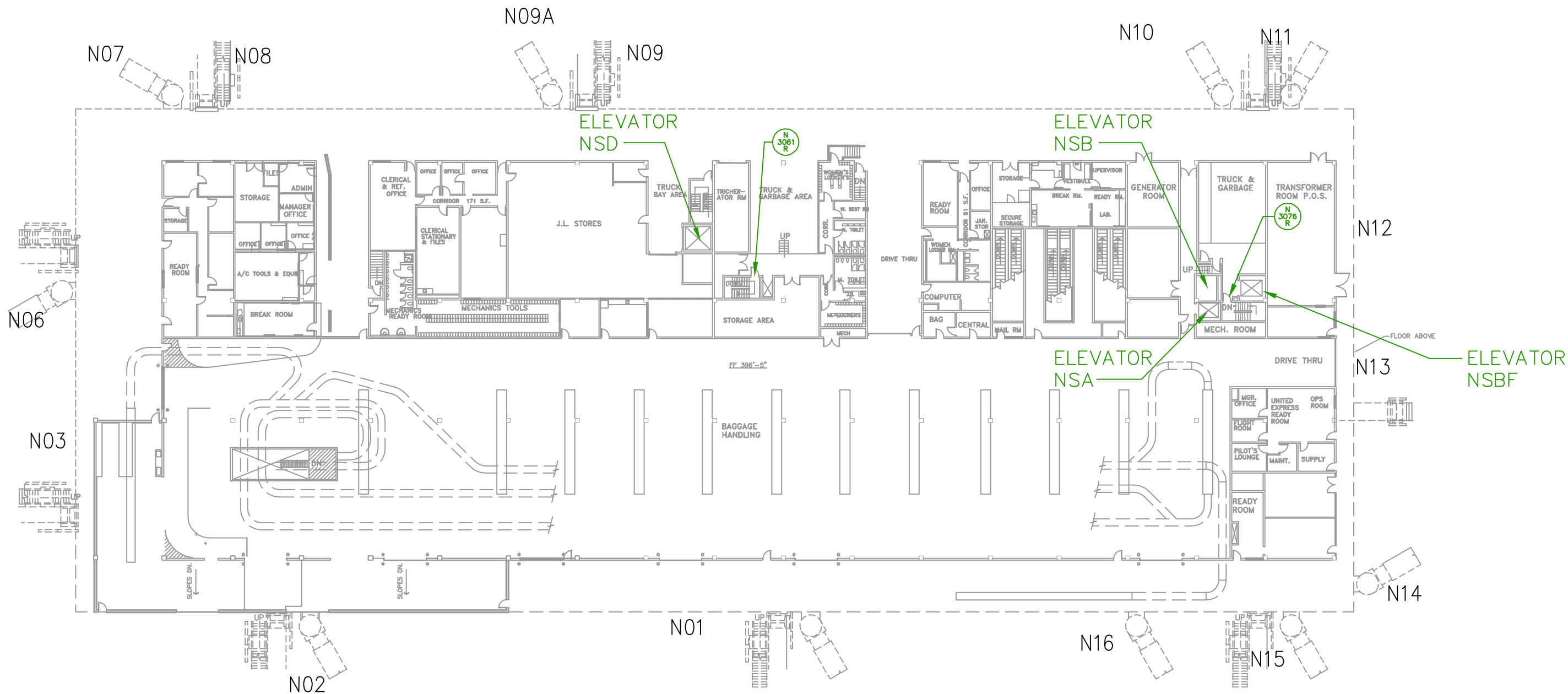


Port of Seattle/Aviation Properties Seattle-Tacoma International Airport		DATE:
BUILDING: NORTH SATELLITE		SCALE:
LEVEL: CONCOURSE		DRAWN BY:
LOCATION:		CHECKED BY:
		EXHIBIT NO. AP(1) 4 OF 10

\\AIRMS280\Aviation\AV-Properties\01\_PROPworks\01\_Doors\Working\NS-Conc AP1 4-10.dwg Aug 24, 2012 - 12:44pm



# Contractor Access North Satellite Ramp Level

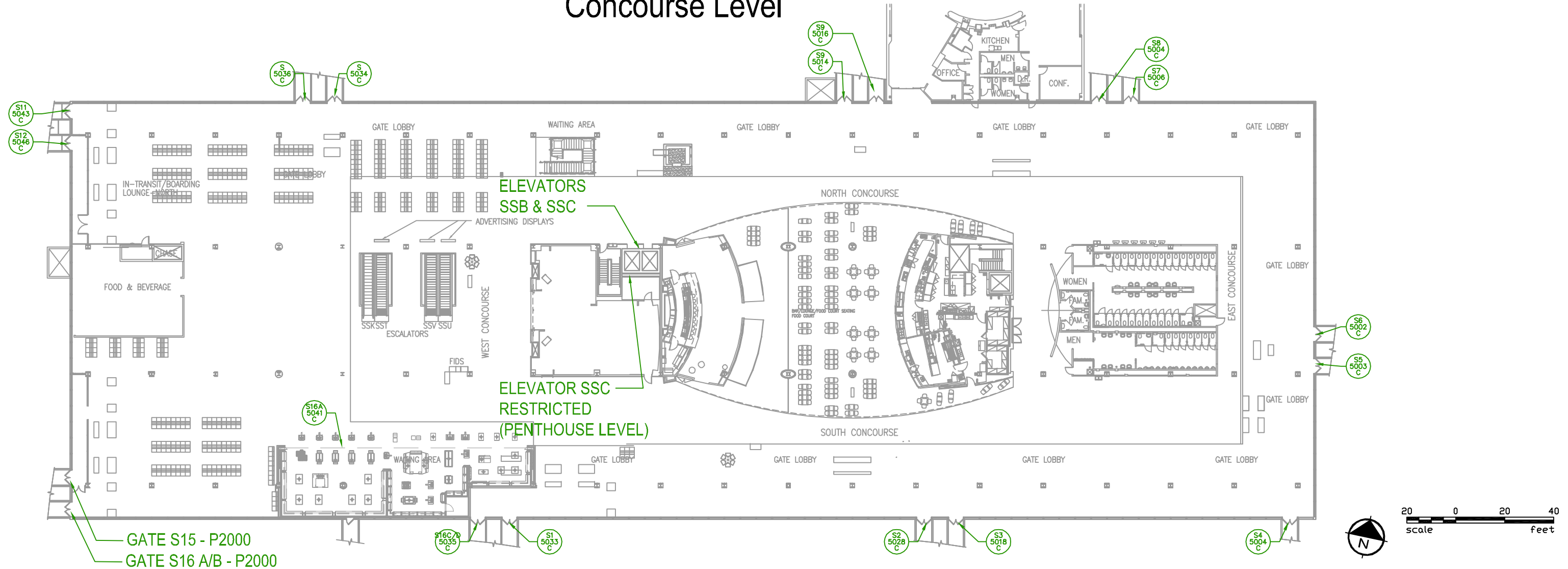


Port of Seattle/Aviation Properties Seattle-Tacoma International Airport		DATE:
BUILDING: NORTH SATELLITE		SCALE:
LEVEL: RAMP		DRAWN BY:
LOCATION:		CHECKED BY:
		EXHIBIT NO. AP(1) 5 OF 10

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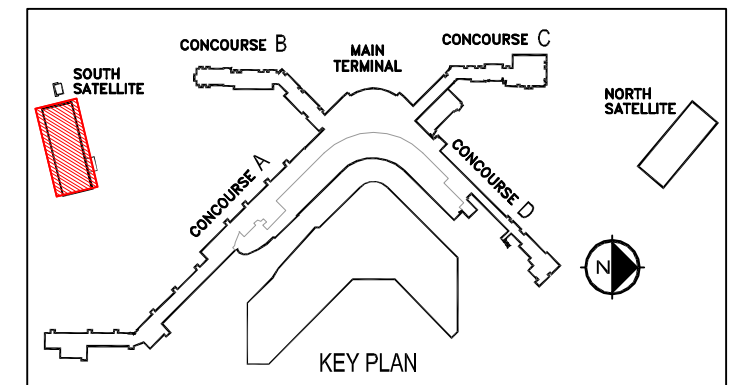


# Contractor Access South Satellite Concourse Level



GATE S15 - P2000  
GATE S16 A/B - P2000

ELEVATORS  
SSB & SSC  
ELEVATOR SSC  
RESTRICTED  
(PENTHOUSE LEVEL)



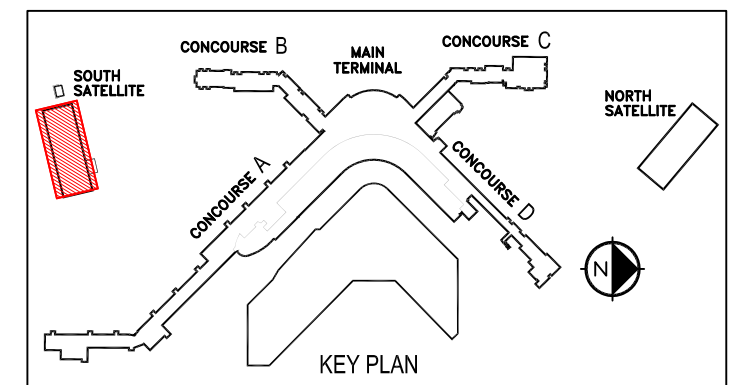
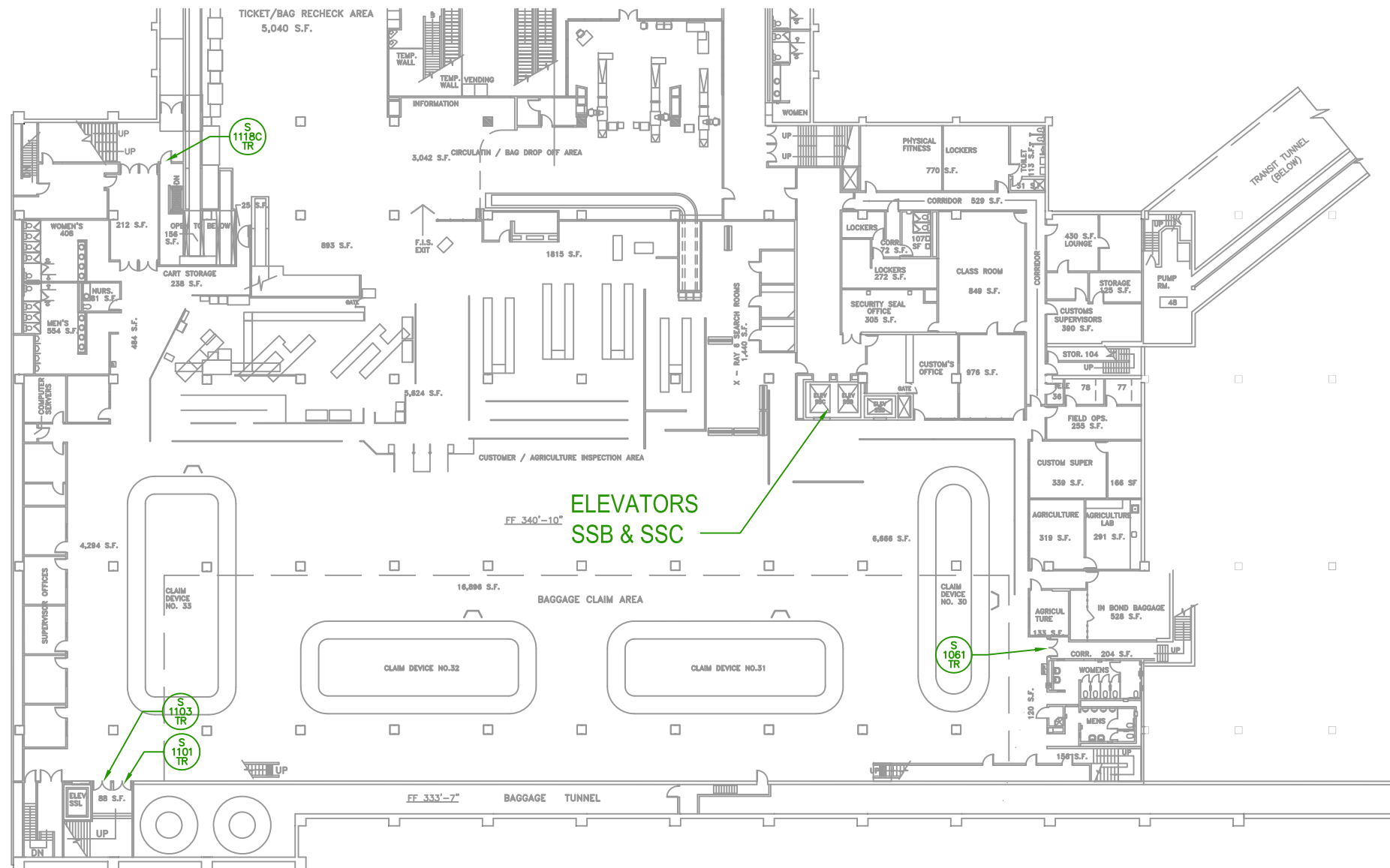
Port of Seattle/Aviation Properties Seattle-Tacoma International Airport		DATE:
BUILDING: SOUTH SATELLITE		SCALE:
LEVEL: CONCOURSE		DRAWN BY:
LOCATION:		CHECKED BY:
		EXHIBIT NO. AP(1) 6 OF 10

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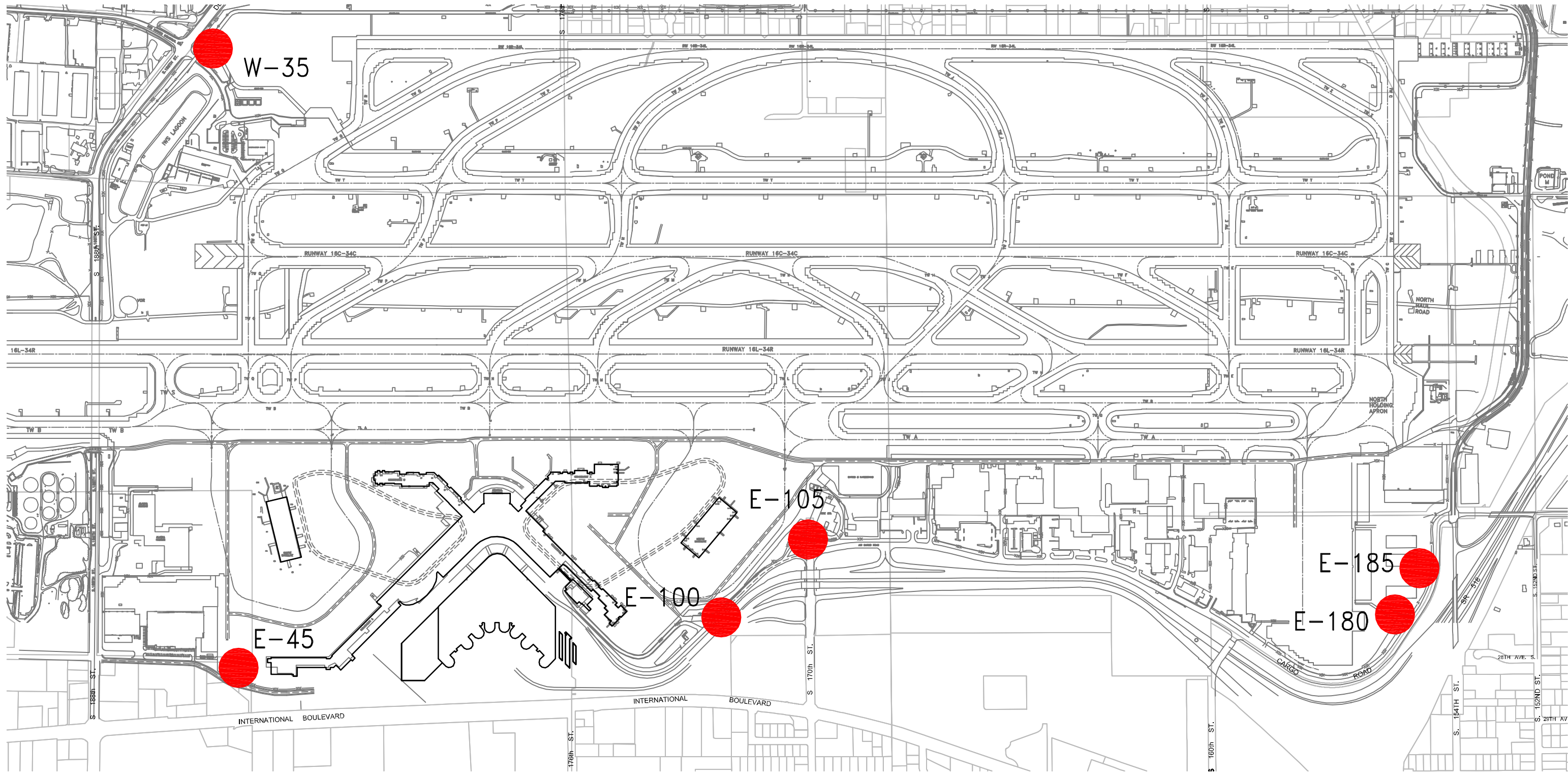
# Contractor Access South Satellite STS Level



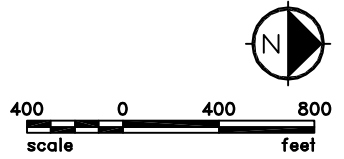
Port of Seattle/Aviation Properties Seattle-Tacoma International Airport		DATE:
BUILDING: SOUTH SATELLITE		SCALE:
LEVEL: STS		DRAWN BY:
LOCATION:		CHECKED BY:
		EXHIBIT NO. AP(1) 9 OF 10

\\AIRMS280\Aviation\AV-Properties\01\_PROPworks\01\_Doors\Working\SS-STs AP1 9-10.dwg Aug 24, 2012 - 1:11pm

# Security Gates



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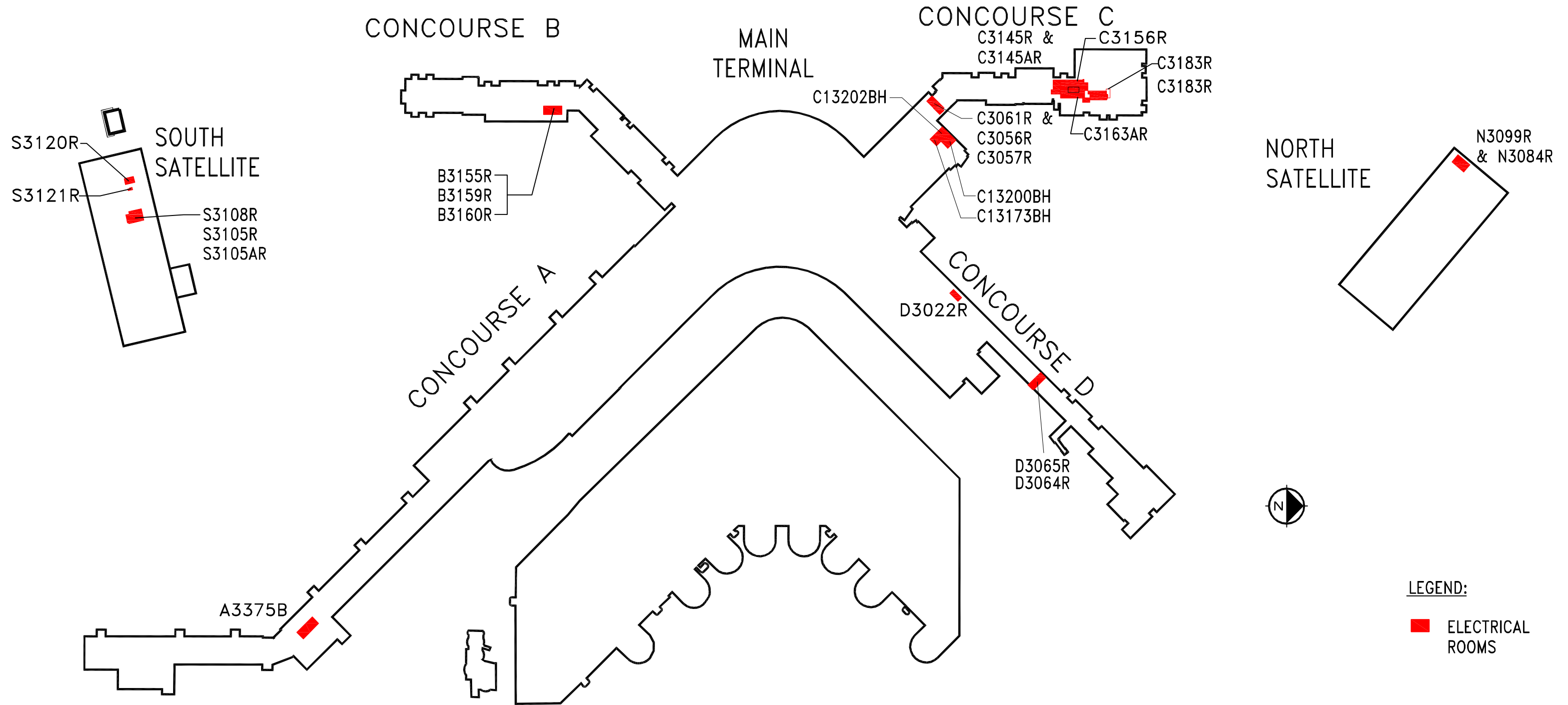
Port of Seattle/Aviation Properties  
Seattle-Tacoma International Airport

BUILDING:  
LEVEL:  
LOCATION: SECURITY GATES

DATE:
SCALE:
DRAWN BY:
CHECKED BY:
EXHIBIT NO. AP(1) 10 OF 10



# Sea-Tac International Airport Main Terminal & Satellites Bag Level



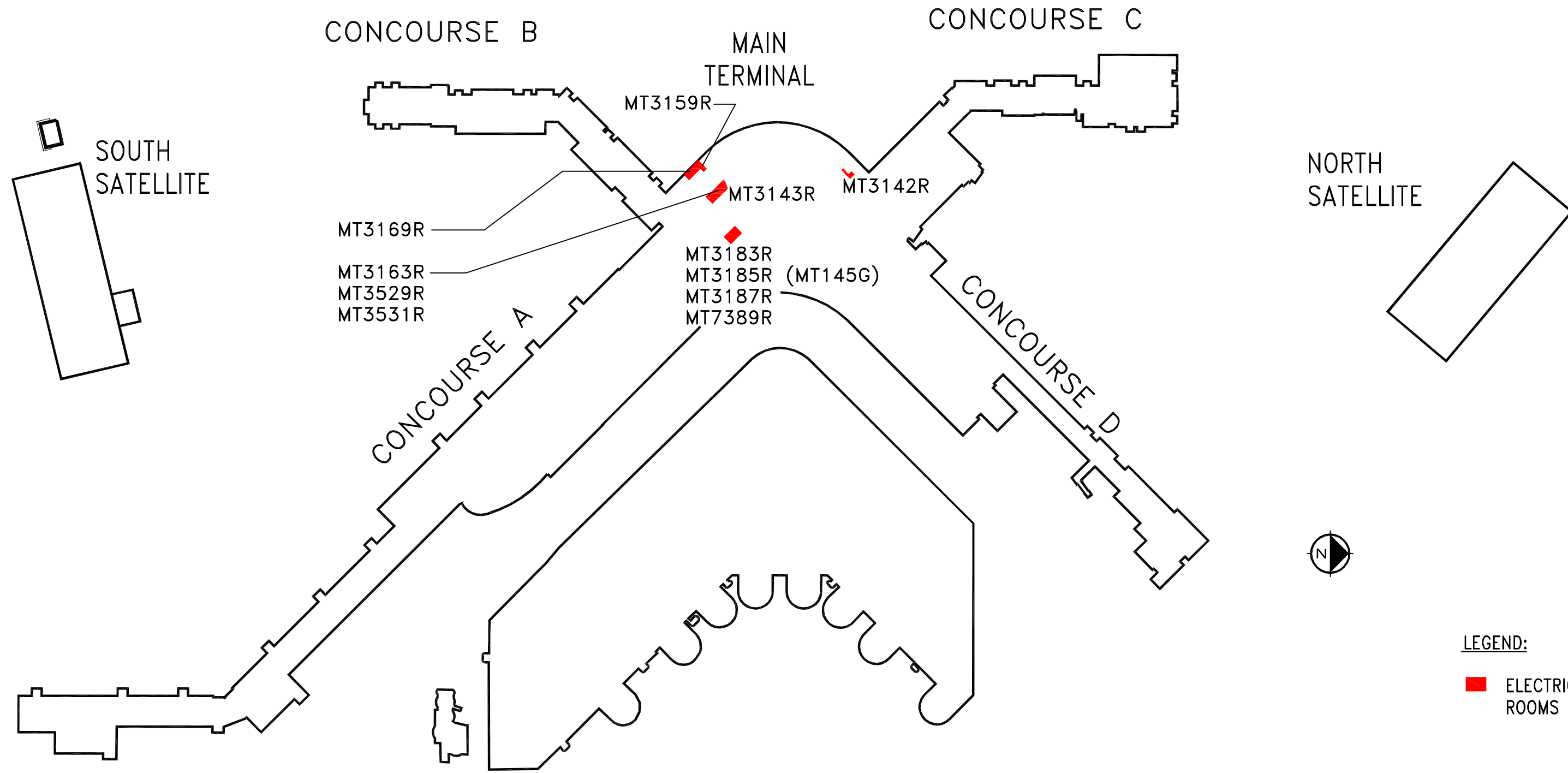
**LEGEND:**

■ ELECTRICAL ROOMS

Port of Seattle/Aviation Properties                  Seattle-Tacoma International Airport	DATE:
BUILDING: MAIN TERMINAL	SCALE:
LEVEL:	DRAWN BY:
LOCATION:	CHECKED BY:
	EXHIBIT NO.:

\\AIRMS280\Aviation\AV-Properties\01\_PROPworks\Elec\_Rms - Secure\Elec\_Rms\_Bag-01.dwg Nov 06, 2014 - 10:11am

# Sea-Tac International Airport Main Terminal & Satellites Bridge Level

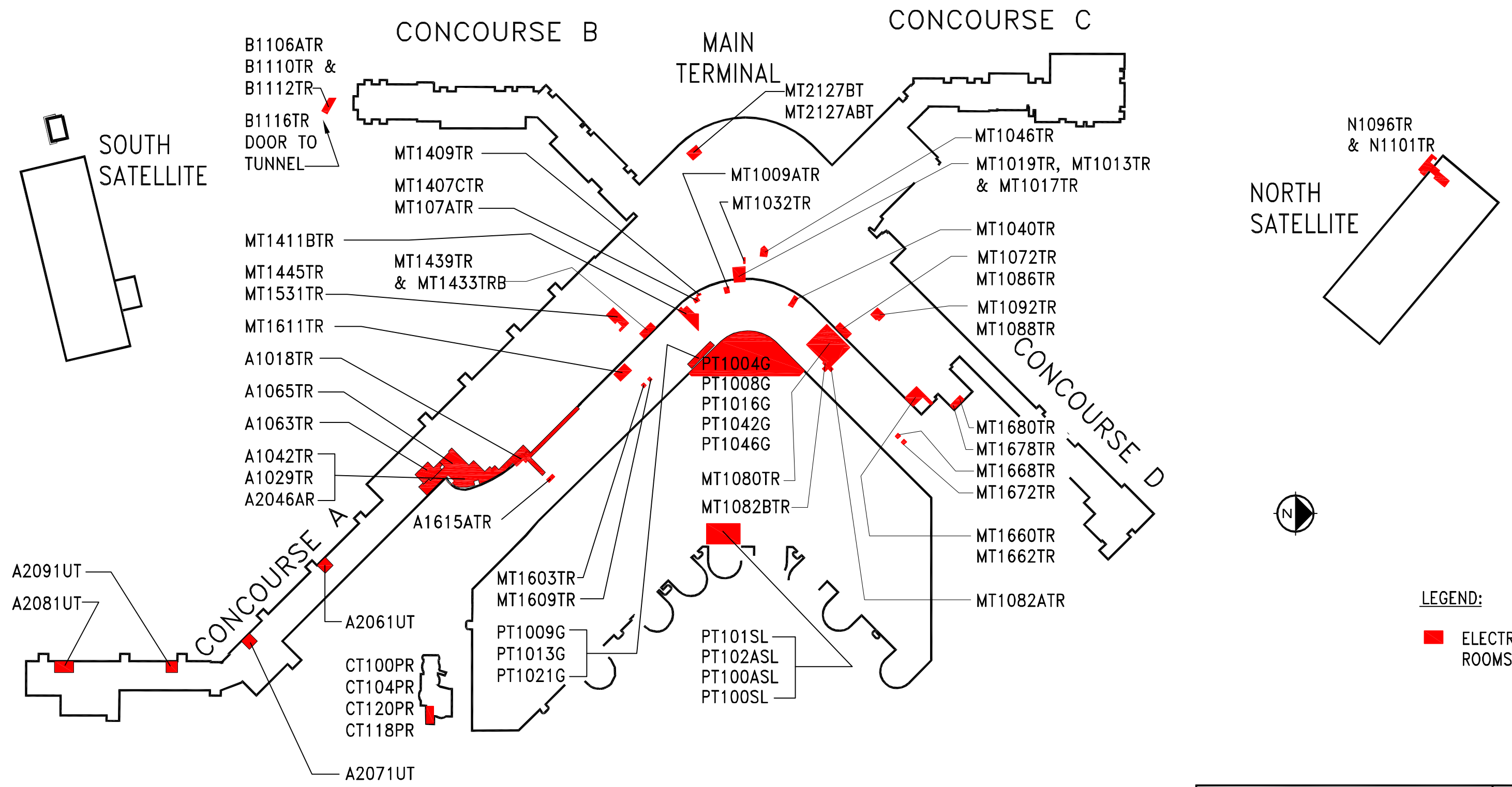


**LEGEND:**  
■ ELECTRICAL ROOMS

Port of Seattle/Aviation Properties Seattle-Tacoma International Airport	DATE
BUILDING: MAIN TERMINAL	SCALE:
LEVEL:	DRAWN BY:
LOCATION:	CHECKED BY:
	EXHIBIT NO.

\\AIRMS280\Aviation\AV-Properties\01\_PROPworks\Elec Rms - Secure\Elec Rms Bridge-01.dwg Oct 31, 2014 - 2:20pm

# Sea-Tac International Airport Main Terminal & Satellites STS Level



**LEGEND:**  
■ ELECTRICAL ROOMS

Port of Seattle/Aviation Properties Seattle-Tacoma International Airport	DATE: SCALE: DRAWN BY: CHECKED BY: EXHIBIT NO.
BUILDING: LEVEL: LOCATION:	

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## APPENDIX 2: Project Specific Access Requirements

### 1. WORK IN U.S. CUSTOMS AREA

Anyone working inside the Federal Inspection Services (FIS includes Passport Control, Baggage Claim, the International Corridor, recheck area and Custom Border Protection (CBP) offices) must have a CBP Seal on an airport-issued SIDA badge or a CBP visitor badge and be under escort by a badged employee with a CBP Seal. All visitors, tours, media or high-level guests must be coordinated and pre-approved by CBP before entering the Customs Hall.

- A. Anyone working in other areas of the South Satellite are not required to have a CBP seal provided:
  - 1. They do not enter the footprint of an aircraft that is operating an international arrival (reverting to domestic status after cabin cleared by CBP's agriculture inspector AND all passengers and deadload have completely left the gate area.)
  - 2. They do not enter jetways of aircraft as described above.
  - 3. They do not enter the International/Sterile Corridor and associated escalators at any time.
  - 4. They stay completely clear of unloading of international arriving bags (from containers or carts) from aircraft to baggage belts leading down into Customs.
- B. Persons entering the vicinity of international operations are subject to challenge or search by CBP at any time; persons without a CBP Seal may be interviewed or asked to leave the area until international operations have completed.

### 2. CONTRACTOR ACCESS PLAN (CAP)

Upon Award, the Contractor will coordinate with the Port construction project representative to review and confirm the default access list is sufficient for completing Work within the facility. If not, the contractor can submit a request for additional access utilizing the Contractor Access Plan, as part of the Preconstruction Submittal Process.

- B. The submittal shall identify any additional access points (doors, gates, elevators or exterior penetrations for mobilizing materials) the Contractor identifies for the project.
  - 1. The Contractor can request additional access for consideration, but it may not be granted.
- C. The Final Contractor Access Plan submittal shall be reviewed and approved by the appropriate Port stakeholders prior to the Contractor, its employees, Suppliers or Subcontractors submitting any requests for keys.

## Appendix X: Contractor Access Plan

Project Name: \_\_\_\_\_ Project Number/Activity Code: \_\_\_\_\_

Preliminary

Final

Item #	Location of Access Point	Access Point ID Description	Keyed or Treated?	Approving Department	Approval Date	Additional Training?	Training Provided By	Comments
1	Concourse A	A-3226-B	Treated	Security	04/18/2011	N/A	N/A	STEP Concourse to South GT Lot
2	Concourse A	A-1015-TR	Treated	AV Maintenance	04/18/2011	N/A	N/A	STEP – C4 Penthouse Stair Vestibule
3	Concourse A	STEP Elevator C/D	Treated	AOB Property Manager	04/18/2011	N/A	N/A	STEP AOB Elevators & Mezzanine
4	AOA	Gate E-105	Treated	Security	Not Approved	Yes	ID Access	AOA Driver Training / 1 Hour Class
5	Service Tunnel	MT-1042-TR	Treated	Security	04/11/2011	N/A	N/A	South Service Tunnel
6	Central Terminal	A-9999-C	Keyed	AV Maintenance	04/11/2011	Yes	AV MAINT - Electrical	H5 Key / High Voltage Training / 2 Hour Class
7	Concourse A	A-3505-B	Treated	N/A	N/A	N/A	N/A	GML Arrivals Hall entry to bagwell
8	Concourse B	B-5505-C	Treated	N/A	N/A	N/A	N/A	Access to Concourse B ramp level hallway
9	Hudson News	Concourse A	Keyed	Business Development	04/20/2011	N/A	N/A	Adjacent to Gate A5
10								
11								
12								
13								
14								
15								
16								

PART 1 GENERAL

1.01 DESCRIPTION OF WORK

- A. Contractor shall perform the following Project Coordination Requirements:
1. Coordinate the Work of all Subcontractors with the Work of the Contractor
    - a. Distribute information and coordinate necessary action of subcontractors and suppliers in response to information and direction provided by the Port (i.e., Requests for Information, Requests for Proposal, executed Change Orders, etc.)
    - b. For temporary utilities
    - c. Among the work of the trades specified in technical specification sections.
    - d. Ensure that notification to and inspections by permitting agencies are completed in a timely manner
  2. Coordinate the schedules of all subcontractors to:
    - a. Verify timely deliveries of products for installation by other trades
    - b. Verify that labor and materials are adequate to maintain schedules
    - c. Manage the schedule in sequence for all subcontractors
  3. Contractor's Daily Report (CDR)
    - a. Contractor's daily construction reports provided to the Tenant will also be submitted to the Port's construction project representative. A summary of all schedule activities worked on each day is required.
  4. Conduct conferences among all subcontractors, and other concerned parties, as necessary to:
    - a. Maintain coordination and schedules
    - b. Resolve matters in dispute
    - c. Coordinate utility outages
  5. Participate in Project meetings:
    - a. NOT USED
    - b. Report progress of the work
    - c. Recommend needed changes in schedules
    - d. Transmit minutes of meetings to all other trades, as appropriate
  6. Temporary Utilities Required During Construction:
    - a. Coordinate submittals, installation, operation and maintenance, to verify compliance with Project requirements and with Contract Documents, see Section 01 50 00 – Temporary Facilities and Controls
    - b. Verify adequacy of service at required locations

7. All Required Submittals: Prior to submittal, review for compliance with Contract Documents. The Contractor shall review and coordinate all subcontractor submittals of any tier. All submittals must be submitted by the Contractor, and not by others
8. Coordination Drawings:
  - a. Prepare, as required to ensure coordination of work of, or affected by, mechanical and electrical work, or to resolve conflicts
  - b. Submit to the Port's construction project representative for review
  - c. NOT USED
9. Observe required testing and maintain a record of tests.
10. Verify that subcontractors maintain accurate record documents
11. Substitutions:
  - a. Review proposals and requests:
    - (1) Check for compliance with Contract Documents
    - (2) Verify compatibility with work and equipment of other trades
  - b. Submit to the Port's Project Manager for acceptance.
12. Observe the work for compliance with requirements of Contract Documents
  - a. Maintain list of observed deficiencies and discrepancies
13. Promptly report and correct deficiencies or discrepancies.
14. Assemble documentation for handling of disputes involving mechanical, electrical or other trades
15. Utility and Equipment Operations:
  - a. Check to ensure that utilities and specified connections are complete and that equipment is in operable condition
  - b. Coordinate the acceptance of new and remodeled equipment through the Port construction project representative after Contractor functional testing is completed.
16. Punchlist Inspection:
  - a. Prior to inspection, check that equipment is clean, repainted as required, tested and operational and that the Contractor's punch list is prepared and delivered to the Port construction project representative
  - b. Assist Port construction project representative; prepare consolidated list of items to be completed or corrected after inspection
17. Assemble As-built Record Document information and ensure that completed record documents are submitted to the Port construction project representative in accordance with Section 01 78 29 – As-Built Project Record Documents.

18. Airport, Airline & Concessions Operations: Airport, Airline and Concessions operations will continue in and around the Project. Activities that must be treated as priority and will require special coordination include, but may not be limited to:
  - a. Airline operations and traveling public.
  - b. Airport Dining and Retail operations.
  - c. Tenant and Airport Dining and Retail construction work.
  - d. Baggage handling operations, including baggage conveyance systems, tug & cart operations and general activities of baggage handling personnel.

#### 1.02 PROJECT SCHEDULE

- A. The Schedule shall designate areas of activity of the Contractor and subcontractors for the various items of work for the Project. The Schedule shall be prepared, submitted for review, and accepted by the Port construction project representative as specified in these Contract Documents.
- B. Contractor shall:
  1. Maintain Schedule throughout construction period; record changes in responsibilities due to:
    - a. Accepted modifications to Contract
    - b. Accepted substitutions
    - c. Changes to work responsibility
  2. Reproduce and distribute revised Schedule promptly after each change to:
    - a. Affected subcontractors
    - b. Port construction project representative

#### 1.03 EXCAVATION COORDINATION

- A. Call Before You Dig. Washington State law, RCW 19.122.010 requires anyone planning to excavate, to know what is below the ground surface before they dig. Any entity, including but not limited to the Contractor or any subcontractor conducting excavation operations on Port projects shall comply with the law which at a minimum requires the following actions.
  1. Before excavating 12" or deeper on Port projects, the Contractor shall call the Washington Utility Notification Center's One Call System at 811 or 1-800-424-5555 to provide notice two days before the scheduled start of earthwork. On busy days (M-W) hold time can be very lengthy. Entering your locate request online, via ITIC, eliminates the hold time. To learn more about ITIC visit [www.callbeforeyoudig.org](http://www.callbeforeyoudig.org).
  2. Utility locating is provided by Port of Seattle Engineering Survey and requires the submission of Port Form 811 via an email to [posutility@portseattle.org](mailto:posutility@portseattle.org) (see Appendix B), with copy to Port construction project representative.
    - a. Form submission requires the 811 ticket number obtained from the One Call system notification.

3. If a project's excavation operations are completed within 45 days of notification, only one call and form needs to be made for each project, however, certain projects may have different requirements which will be discussed at the pre-construction meeting. Projects with longer-term excavation operations require a call and form every 45 days of the last notification.

#### 1.04 REQUESTED INFORMATION

- A. Requests for Information (RFI): In the event there is a question regarding intent of the documents by the Contractor, or any subcontractors, the Contractor shall submit a written RFI to the Port construction project representative.
- B. Contractor may submit an RFI to the Project Designer to clarify or confirm minor discrepancies, conflicts, errors or omissions in the Contract Documents.
- C. Each RFI shall bear the Contract name and work project number; date of submission to the Project Designer; requested response date; name and position of the person submitting request; pertinent drawing and detail number; grid location and building level; specification section number; or other references as appropriate.
- D. Submit a separate RFI for each item or issue.
- E. Any response to an RFI issued by the Port does not constitute a change to the Contract or a commitment to extend or to pay. If the Contractor believes the response received to be an additional cost or impact to the prosecution of the Project the Contractor must follow the requirements of the Tenant contract.

#### 1.05 COMMUNICATION REQUIREMENTS AND COORDINATION FORMS

- A. Interested parties at the Airport have a general understanding of the project and details in the Contract Documents. However, day-to-day project activity that may impact their operations is not known. The Contractor shall establish and maintain a system for communications with the Airport stakeholders and other interested parties through the Port construction project representative.
- B. The Contractor shall provide the following specific schedule and work plan information directly to the Port construction project representative for distribution to the appropriate parties:
  1. If any construction activity affects usable spaces or creates an operational impact, a Construction Advisory Form (CAF) will be required See Appendix D. The Contractor shall coordinate this with the Port construction project representative.
    - a. The Contractor shall submit the form two weeks prior to commencement of work at the respective locations, unless noted otherwise. The most stringent notification requirements apply. The Construction Advisory Form shall be based on the three-week look ahead schedule (or interval schedule) submitted each week to the Port construction project representative at the weekly construction progress meeting.
    - b. All CAFs are subject to operational requirements and shall be coordinated with the Port construction project representative and other Port department to mitigate impacts to Port operations.

2. "News Flash" updates immediately upon occurrence of events causing planned disruptions to continue longer than originally scheduled, or if an unplanned disruption occurs.

#### 1.06 UTILITY DEACTIVATION AND REACTIVATION PLANS AND SHUTDOWNS

- A. The Contractor shall submit a shutdown plan to the Port construction project representative for review (see Appendix E: Shutdown Request Form). The plan shall outline the proposed procedure to deactivate and reactivate utility services, lines and equipment required to be disrupted, disassembled, cut into, or modified during the course of the work.
- B. All shutdowns are subject to operational requirements and shall be coordinated with the Port construction project representative and other Port departments to mitigate impacts to Port Operations.
- C. Plan Content: The plan shall include but not be limited to:
  1. Shutdown and restart schedules.
  2. Sequences required to deactivate, depressurize, and reactivate the utility service lines and equipment.
  3. Detailed description of proof positive verification or tests to assure that utility service line and equipment are properly deactivated before proceeding with the work.
  4. Methods of: discharging residual fluids from lines and equipment; value sequencing; electrical load shedding for deactivating and reactivating service lines, equipment and the system reactivation procedure.
  5. Incorporation of the specific deactivation and reactivation requirements of the relevant technical specifications.
  6. Compliance with safety standards.
  7. Coordination required with the Port or utility owners.
- D. It is the Contractor's responsibility to fully understand and verify the condition of any utility service lines, and equipment at all times directly prior to and during the course of the work. The Contractor shall be responsible for all damages resulting from its actions. The Port will provide an electronic version of the most current panel schedules from time to time throughout the project. The Contractor shall request these via email to the Port construction project representative.

#### 1.07 POWDER-ACTUATED FASTENER TOOLS

- A. On projects that may require powder-actuated fasteners to be used, the Contractor is required to pay special attention with respect to personnel qualifications, proper notifications, and control of the material.
- B. Personnel Qualifications:
  1. Only a qualified operator shall be allowed to handle and operate the powder-actuated tools. A qualified operator is a person that meets the requirements of WAC 296-155-36321 (1) and (2), and who is in possession of a qualified operator card signed both by the operator and the authorized instructor.

2. Qualified operators shall have their operator card in their possession at all times while operating the equipment.
- C. Operation:
1. The qualified operator must be competent in all aspect of tool usage, handling, storage, maintenance, and inspections, as required by the Port of Seattle Safety Manual, and all applicable WAC rules and regulations.
- D. Permit Requirements:
1. If a construction activity on the project requires the use of powder-actuated fasteners, the Contractor shall seek project pre-approval for the use of the powder-actuated tool before starting such work. The Contractor shall complete and submit the Port of Seattle Fire Department Powder Actuated Fasteners Permit at least 21 calendar days prior to the commencement of work. The Contractor shall use the permit form located at the end of this specification section (Appendix F). The Port construction project representative will route the permit form to the Fire Department, the Airport Security Department, and Construction Safety for approval. Upon approval, the Port construction project representative will route a copy of the signed permit back to the Contractor.
    - a. A Pre-Installation Meeting, specifically for the use of Powder-Actuated Tools, is required prior to submitting the permit.
- E. Notification Requirements
1. Once an approved permit for use of Powder-Actuated Tools for the project has been obtained, notifications are required for each scheduled finite duration of use. The Contractor shall complete and submit the Construction Advisory Form (CAF) in accordance with paragraph 1.05 B. of this Specification Section and include a copy of the approved permit. The CAF shall cover a defined work activity that utilizes the Powder Actuated Tools. As a minimum, the CAF shall contain the following information:
    - a. The name and contact information for the qualified operator who will be in custody of the tool at all times while on the Port of Seattle property.
    - b. Description of the work; type of surface to be penetrated and the material/item to be fastened.
    - c. A copy of the Qualified Operator's Card issued and signed by both the authorized instructor and the operator.
    - d. The location(s) where the tool is to be used.
    - e. Date(s) and time(s) of operation.
    - f. The amount of powder loads to be kept on site during work shifts. Please note that the Port of Seattle Fire Department permit limits the number/amount of powder loads. The maximum amount allowable is regulated by the International Fire Code.
    - g. The type of tool used; direct or indirect acting, and whether it is classified as low velocity ( $\leq 328$  ft/s), or medium velocity ( $328 < v \leq 492$  ft/s).



- h. The method of storage and safekeeping.
    - i. Note: No high velocity powder-actuated tools will be permitted for use on Port of Seattle property.
  - 2. The Port construction project representative will distribute the CAF to the Port of Seattle Operations, who will in turn notify the tenants/stakeholders, Port of Seattle Security, Police and Fire Departments.
  - 3. Proper signage shall be installed prior to use per Code.
- F. Control of the powder-actuated tools and powder loads:
  - 1. The powder-actuated tools and powder loads must never be left unattended.
  - 2. When not in use, the powder-actuated tools and powder loads must be locked in a tamper proof container, labeled according to the requirements of WAC 296-155-36307, and must be accounted for at all times.
  - 3. Overnight/off shift storage of the powder-actuated tools and powder loads on site is not permitted.
  - 4. The number of tools and powder loads shall never exceed the amount authorized by the Port of Seattle Security and Fire Departments.
  - 5. Misfired loads must be neutralized and promptly removed from Port of Seattle property.
  - 6. If any powder-actuated tools or powder loads are lost or stolen, the Contractor must immediately notify the Port of Seattle Police, and the Port construction project representative.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

End of Section

# POS-811 FORM

**POS CALL BEFORE YOU DIG / 811  
ENGINEERING/SURVEY  
RCW 19.122.010 DIG LAW**

**IF YOU ARE DIGGING 12" OR DEEPER**

**PROCEDURE:**

1. Call 811 or 1-800-424-5555
2. Fill out POS-811 FORM then send to:  
[posutility@portseattle.org](mailto:posutility@portseattle.org)

REQUESTED BY: \_\_\_\_\_

OFFICE PHONE: \_\_\_\_\_

811 TICKET # \_\_\_\_\_

PROJECT NUMBER: \_\_\_\_\_

PROJECT NAME: \_\_\_\_\_

**IF YOU ARE NOT DIGGING**

**PROCEDURE:**

1. Fill out POS-811 FORM then send to:  
[posutility@portseattle.org](mailto:posutility@portseattle.org)

TODAYS DATE: \_\_\_\_\_

DATE SERVICE REQUIRED: \_\_\_\_\_

Attach map to email if needed

**DESCRIPTION /  
SUMMARY OF WORK:**

**“NOTICE”** Two business days before commencing any excavation the excavator shall call 811 or 1-800-424-5555 to provide notice of their scheduled start of excavation. On busy days (M-W) hold time can be very lengthy. Entering your locate request online, via ITIC, eliminates the hold time. To learn more about ITIC visit [www.callbeforeyoudig.org](http://www.callbeforeyoudig.org).

**CONTACTS:**

<u>Garry Ensley</u> Manager of Survey and Mapping 206-787-5670	<u>Jeff Dixon</u> Utility Locating Tech 206-708-5089	<u>Adam Dreler</u> Mapping Manager 206-787-7771	<u>Kevin Zayic</u> Survey Crew Manager 206-787-5846
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# Seattle-Tacoma International Airport

## CONSTRUCTION ADVISORY

CAF#

**Where**

**Affected Businesses**

**Start Date**

**End Date**

**Work Hours**

**Description of Work**

**Who to Contact with Questions:**

Port of Seattle, Dayshift Inspector: Cell #

Port of Seattle, Nightshift Inspector: Cell #

Port of Seattle, Resident Engineer: Cell #

Name of Contractor, Dayshift Superintendent: Cell #

Name of Contractor, Nightshift Superintendent: Cell #

Port of Seattle, Airport Operations: (206)

Project name

Project #



**SAMPLE DOCUMENT ONLY – PLEASE USE THE FOLLOWING LINK TO DOWNLOAD  
CURRENT FORM:**

<http://compass.portseattle.org/aviation/AVM/Documents/AVM%20Information/AVM%20Forms/Airport%20Facilities%20Systems%20Utility%20Shutdown%20Request.docx>

SAMPLE



Name: \_\_\_\_\_ Project/SDR#: \_\_\_\_\_ Fund: \_\_\_\_\_ Subclass: \_\_\_\_\_ Activity: \_\_\_\_\_

**Airport Facilities - Systems & Utility Shutdown Request**

**72 Hour notice required for system shutdown – after final signature**

**96 Hour notice required for DOMESTIC water shutdown – after final signature**

**WEEKEND REQUESTS MUST BE APPROVED NO LATER THAN 12:30PM WEDNESDAY**

Date of Request:	Date of Shutdown: Start Time: _____ End Time: _____
Outages Coordinator: Phone No.:	RE/PM: Phone No.:
Contractor Contact During Shutdown:	Phone No.:
Inspector Contact During Shutdown:	Phone No.:
Contractor performing work:	Duration of Shutdown:
Reason for Shutdown:	
Buildings & Area Affected: <i>(DRAWING OF AFFECTED AREA REQUIRED WITH FORM)</i>	

**UTILITY EQUIPMENT LIST: Must be filled out prior to shut down; each affected craft shall initial for approval.**

<input type="checkbox"/> Aircraft Fueling FD/Swissport	<input type="checkbox"/> Elevators - Escalators	<input type="checkbox"/> IWTP lift stations - OE
<input type="checkbox"/> Ceiling tile removal - CARPENTERS	<input type="checkbox"/> Fire pumps – OE & FD	<input type="checkbox"/> Roadways - Parking
<input type="checkbox"/> Chilled water - OE	<input type="checkbox"/> Fire system – OE & FD	<input type="checkbox"/> Sanitary lift stations – OE
<input type="checkbox"/> Conveyors	<input type="checkbox"/> Hot water heating - OE	<input type="checkbox"/> Sanitary Waste / Grease Lines - OE
<input type="checkbox"/> Domestic water - OE	<input type="checkbox"/> HVAC system – OE	<input type="checkbox"/> Security
<input type="checkbox"/> Electrical systems - ELEC	<input type="checkbox"/> ICT Department	<input type="checkbox"/> Storm lift stations - OE
<input type="checkbox"/> ET Electronics / Security	<input type="checkbox"/> Irrigation - FCRW	<input type="checkbox"/> STS systems

**APPROVALS**

Maintenance Craft: <b>(must be 1<sup>st</sup> contact prior to manager's signature)</b> :	_____
1 Maintenance Manager: _____	Other: _____
2 Maintenance Manager: _____	Other: _____
Utility Manager: _____	Security: _____
Fire Prevention: _____	Airport Operations: _____
Landside: _____	ICT Department: _____

**MUST BE FILLED OUT PRIOR TO SHUTDOWN**

Tenants requiring notification:	Notified:	By: (initials)	Tenant Representative Notified:

**FOR DEPARTMENT USE ONLY:**

Comments:

PLEASE RETURN A COPY OF THE COMPLETED SIGNATURE FORM TO ALL SIGNEES.

**List of Appropriate Systems Contacts** (Manager Contacts are in **BOLD font**)

**IF ANY SHUTDOWN REQUIRES REMOVAL OF CEILING TILE THERE MUST BE A CONFIRMATION OF ACM STATUS THROUGH POS RMM PRIOR TO REMOVAL. IN ADDITION, METAL CEILING TILE REMOVALS AND REINSTALLATIONS MUST BE COORDINATED THROUGH THE POS CARPENTER SHOP AND SCHEDULED 7 DAYS IN ADVANCE**

**Utility Manager**

Greg Whiting      **787-5117**      **787-4361 fax**  
Darin Benofsky      **787-7884**      **787-4361 fax**

**Fire Systems & Fire Pumps**

Jeff Nelson (FD)      427-5730 cell      431-4908 fax  
Adam Griffin (FD)      787-4390      431-4908 fax  
**Dan Hytry (OE)**      **787-7231**      **787-4361 fax**  
**Erik Knowles (OE)**      **787-4906**      **787-4361 fax**  
James Jackson (OE)      390-7451 cell      787-4938 fax  
Tracy Jonassen (OE)      735-9840 cell      787-4938 fax  
**Eric Schaefer**      **491-6298 cell**      **787-7221 fax**

**Chilled Water & Hot Water Heating**

**Dan Hytry (OE)**      **787-7231**      **787-4361 fax**  
**Erik Knowles (OE)**      **787-4906**      **787-4361 fax**  
James Jackson (OE)      390-7451 cell      787-4938 fax  
Tracy Jonassen (OE)      735-9840 cell      787-4938 fax

**Domestic Water**

**Dan Hytry (OE)**      **787-7231**      **787-4361 fax**  
**Erik Knowles (OE)**      **787-4906**      **787-4361 fax**  
James Jackson (OE)      390-7451 cell      787-4938 fax  
Tracy Jonassen (OE)      735-9840 cell      787-4938 fax  
**Eric Schaefer**      **491-6298 cell**      **787-7221 fax**

**HVAC Systems**

**Dan Hytry (OE)**      **787-7231**      **787-4361 fax**  
**Erik Knowles (OE)**      **787-4906**      **787-4361 fax**  
James Jackson (OE)      390-7451 cell      787-4938 fax  
Tracy Jonassen (OE)      735-9840 cell      787-4938 fax

**Sanitary & Storm Lift Station**

**Dan Hytry (OE)**      **787-7231**      **787-4361 fax**  
**Erik Knowles (OE)**      **787-4906**      **787-4361 fax**  
James Jackson (OE)      390-7451 cell      787-4938 fax  
Tracy Jonassen (OE)      735-9840 cell      787-4938 fax

**IWTP Lift Station**

**Dan Hytry (OE)**      **787-7231**      **787-4361 fax**  
**Erik Knowles (OE)**      **787-4906**      **787-4361 fax**  
James Jackson (OE)      390-7451 cell      787-4938 fax  
Tracy Jonassen (OE)      735-9840 cell      787-4938 fax  
Jared Goodspeed(OE)      787-7839      787-4938 fax

**Irrigation**

**Eric Schaefer**      **491-6298 cell**      **787-7221 fax**  
Jeff Martens      787-4059      787-4361 fax

**Conveyors**

**Ryan Pazaruski**      **787-7590**      **787-4361 fax**  
**Erik Knowles (OE)**      **787-4906**      **787-4361 fax**

Howard Hartness 787-5932 433-7208 fax  
Phil Allan 787-5895 433-7208 fax  
Scott Uglum 787-4006 433-7208 fax  
Ron Rice CC before performing work 787-6651

### **Ceiling Removals**

RMM Hotline 953-7419  
Carpenter Shop 787-5909

### **Passenger Loading Bridges**

Jim Witzman 787-5018 787-4361 fax  
Erik Knowles (OE) 787-4906 787-4361 fax  
Valerie Johnson 787-4802 787-4361 fax  
Brett Baird 787-7670 433-7208 fax  
Phil Allan 787-5895 433-7208 fax

### **Elevators/Escalators**

Jim Witzman 787-5018 787-4361 fax  
Erik Knowles (OE) 787-4906 787-4361 fax  
Valerie Johnson 787-4802 787-4361 fax  
Cory Winchell 425-213-6603

### **Electrical Systems**

Darin Benofsky 787-7884 787-4361 fax  
Allen Tygesen 787-7930 787-4361 fax  
Teri Grosvenor 787-4909 787-4361 fax  
Gary Richer 787-4065 787-4361 fax  
Steve Lewis 787-5673 431-4075 fax  
Kristel Manney 787-5878 431-4075 fax  
Cal Nelson 787-5882 431-4075 fax

### **ET SYSTEMS**

Teri Grosvenor 787-4909 787-4361 fax  
Allen Tygesen 787-7930 787-4361 fax  
Chris Evans—ACS/Video 787-4966 755-9403 cell  
Frank Davis—TWVPS 787-4659 617-9860 cell  
Jeff Burnes—FIMS/FIDS 787-7815 402-1848 cell  
Abba Sanneh—CUSE/CUSS 787-6912 390-2707 cell  
Steve Kjosness—PRCS 787-7856 735-9820 cell  
Micah Egger—Conveyor 787-6906 218-3787 cell  
Deb Davis—Radios 787-5193 947-7734 cell

### **STS SYSTEMS**

Allen Tygesen 787-7930 787-4361 fax  
Teri Grosvenor 787-4909 787-4361 fax  
Darin Benofsky 787-7884 787-4902 fax  
Gary Richer 787-4065 787-4902 fax  
Jeff Puckett 787-4922 696-0834 cell

### **ICT Department**

IT Service Desk 787-3333 728-3719 fax  
Clarence Jaquez 787-6090 830-5500 fax  
Matt Breed 787-7555 660-5233 cell

Z-IT-NetworkEngineering (email distribution list)

Z-IT-CompOps (email distribution list)

### **OPS / Roadways / Parking**

Nick Terrana 787-4903 787-4837 fax  
Andy Ramsey 787-5187 787-4837 fax

### **Security**

Christian Samlaska 787-7631 787-6120 fax  
Clinton Hughes 787-4907 787-6120 fax  
Lauren Curtis 787-3356 444-7389 fax  
Lisa Rousseau 787-5519 787-6120 fax  
Shelie Bumgarner 787-7360 787-6120 fax

**Aircraft Fueling Systems & Water Supply**

Lisa Kolwitz (FD) 643-0581 431-4908 fax  
Adam Griffin (FD) 718-9570 cell 431-4908 fax  
**Nestor Soriano** 246-0407 desk 849-9692 cell  
Jamil Simpson 206-240-6221 cell

SAMPLE





## Port of Seattle Fire Department

### Powder-Actuated Fasteners Permit

On projects that may require powder-actuated fasteners be used, the Contractor is required to pay special attention with respect to the personnel qualifications, proper notifications, and control of the material.

#### A. Personnel Qualifications:

1. Only a qualified operator is allowed to handle and operate the powder-actuated tools. A qualified operator is a person that meets the requirements of **WAC 296-155-36321** (1) and (2), and who is in possession of a qualified operator card signed both by the operator and the authorized instructor.
2. Qualified operators shall have their operator's card in their possession at all times while operating the equipment.
3. The qualified operator must be competent in all aspect of tool usage, handling, storage, maintenance, and inspections, as required by the Port of Seattle safety manual, and all applicable WAC rules and regulations.

#### B. Notification Requirements:

The Contractor shall provide a specific Construction Advisory Form (CAF) and a copy of the approved permit every time powder actuated fasteners are to be used on the Project. The form should as a minimum contain the following information:

1. The location where the tool is to be used.
2. Description of the work; type of surface to be penetrated, and the material/item to be fastened.
3. Date(s), and times of operation.
4. The name and contact information for the qualified operator who will be in custody of the tool at all times while on the Port of Seattle property.
5. A copy of the Qualified Operator's Card issued and signed by both the authorized instructor and the operator.
6. The amount of power loads to be kept on site at any given time. The Port of Seattle Fire Department will limit the number/amount of power loads (Per IFC table 5604.3) to a max. of 10lbs of 1.3 explosive and must be in a steel cabinet
7. The type of tool used; direct or indirect acting, and whether it is classified as low, medium or high velocity tool.
8. The method of storage and safekeeping.

The Engineer will distribute the form to the Port of Seattle Operations, Security, Police, Fire and Building Departments. The Engineer must obtain concurrence from all five departments before the work can proceed.

**C. Control of the powder actuated tools and power loads:**

1. The powder actuated tools and power loads must never be left unattended.
2. When not in use, the Powder actuated tools and power loads must be locked in steel, properly marked container and within a site distance from the qualified operator in custody of the tools and power loads.
3. Overnight/off shift storage of the powder-actuated tools and powder loads on site is not permitted.
4. The number of tools and power loads shall never exceed the amount authorized by the Port of Seattle Security and Fire Departments.
5. Unused or misfired loads must be neutralized, and properly disposed of.
6. Port of Seattle Dispatch **(206) 787-5380** must be notified prior to beginning work using powder actuated tools.

The Qualified Operator\Contractor acknowledges and agrees to fully comply with all qualifications and requirements as stated above. Any violation of the permit may result in immediate suspension of work.

Date issued \_\_\_\_\_ Time issued \_\_\_\_\_ Permit Expires \_\_\_\_\_

Port of Seattle Project Name \_\_\_\_\_

Port of Seattle Work Project No. \_\_\_\_\_

Location \_\_\_\_\_ Contractor \_\_\_\_\_

Powder Actuated Tool Qualified Operators (list all) \_\_\_\_\_

Name (Print) and Signature of qualified person performing tool work \_\_\_\_\_

Name (Print) and Signature of Fire Department Personnel \_\_\_\_\_

Permit Number \_\_\_\_\_



PART 1 GENERAL

1.01 DESCRIPTION

- A. This section addresses the submittals that must be made by the Contractor and accepted by the Port construction project representative prior to issuance of a Notice to Proceed (NTP).
- B. The Port will not issue a NTP, or accept requests for partial payments, or allow for onsite mobilization (less field office setup) until the Preconstruction submittals have been received and accepted.
- C. Early submission is encouraged. A submittal package that has “Accepted” or “Accepted As Noted” before the Preconstruction Conference can result in a Preconstruction Conference and NTP earlier than that originally contemplated. Poorly prepared, incomplete, or inaccurate submittals as well as non-receipt by the Port’s construction project representative of required submittals will cause the Preconstruction Conference and the issuance of the NTP to be delayed

1.02 SUBMITTALS

- A. All submittals shall be made in accordance with the Tenant Improvement Design and Construction Process Manual.
- B. Required Submittals:
  - 1. Contractor’s Certificate of Insurance
  - 2. Registered Design Professional Statement of Special Inspection/Contractor’s Written Statement of Responsibility (CSOR) Contractor’s Permit Statement (National Pollutant Discharge Elimination System (NPDES) Permit) Copies of building permit and any building trade permits or other regulatory or public agency approvals .
  - 3. List of subcontractors.
  - 4. Contractor Access Plan per Section 01 14 13 – Airport Personnel Identification/Access Control
  - 5. Baseline Schedule
  - 6. Submittal Log
  - 7. Safety Plan Compliance Document per Section 01 35 13.13 Operational Safety on Airports During Construction (for qualifying projects only).
  - 8. Certificate of Compliance with Construction Safety Phasing Plan per Section 01 35 13.13 Operational Safety on Airports During Construction (for qualifying projects only).
  - 9. Safety Plan per Document 01 35 29 - Safety Management.
  - 10. Temporary Power Plan per Section 01 50 00 - Temporary Facilities and Controls.
  - 11. Pollution Prevention Plan per Section 01 57 23 - Pollution Prevention Planning and Execution.

12. Waste Management Plan per Section 01 74 19 – Construction Waste Management.

1. Preconstruction submittals for regulated materials removed as part of project can also include:

Preconstruction submittals for regulated materials

- a. Asbestos (see Section 02 82 13)
- b. Lead (see Section 02 83 19)
- c. Light ballasts and universal waste lamps (see Section 02 84 16)
- d. PCB's and PCB-containing materials (see Section 02 84 33)
- e. PCB caulk (see Section 02 84 33.13)
- f. Fugitive and silica dust (see Section 02 87 00)

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

End of Section

## PART 1 GENERAL

### 1.01 SUMMARY

- A. The Sea-Tac International Airport is a complex operating facility which is governed by a very strict set of operating rules to insure the safety of the traveling public, the operators of the various airlines and those individuals who function as support personnel to the facility. It is recognized and understood that the Contractor is required to comply with the most current edition requirements contained in FAA Advisory Circulars and Port Rules and Regulations as they pertain to this project. It is understood and accepted by the Port that the Contractor has familiarized itself with general Airport operations and has taken these into consideration in arriving at its bid prices and in scheduling its various activities.
- B. Following are the general safety operations and objectives that must be achieved to maximize safety and to minimize time and economic loss to the aviation community, construction contractors and others directly or indirectly affected by the project. The Contractor shall keep these objectives in mind when formulating schedules and operational activities. The Contractor shall be responsible for controlling their operations and the operations of subcontractors (at all levels) and suppliers so as to comply with the requirements of this Section.
  - 1. Keep the airport operational for all users
  - 2. Minimize delays to aircraft operations
  - 3. Maintain safety of aircraft movement and airport operations as a whole
  - 4. Minimize delays to construction operations
  - 5. Minimize airport operation and construction activity conflicts
  - 6. Maintain safety of personnel using the airport at all times

### 1.02 DEFINITIONS

- A. Air Operations Area (AOA): That area within the airfield perimeter security fence.
- B. Air or Aircraft Movement Area (AMA): The movement area consists of runways, taxiways and other areas of the airport that are used for taxiing or hover taxiing, air taxiing, takeoff and landing of aircraft, exclusive of loading aprons and aircraft parking areas.
- C. Non-Movement Area: That area of the Airport Operations Area not defined as a movement area and including the exterior of buildings on or adjacent to the non-movement area. Aircraft in motion on these surfaces are not under control of the air traffic control tower.
- D. Apron: That non-movement area prepared for the positioning or parking of aircraft during ground operations not involving landing and takeoff of airplanes. The areas are usually designed according to use, such as terminal, cargo, parking, service hangar, or holding apron. Such terms as "ramp," "hardstand," "turnaround," etc., are synonymous with apron. Other sub-area designations are:
  - 1. Aircraft Parking Positions - used for parking aircraft to enplane and deplane passengers, load or unload cargo.

2. Aircraft Service Area - on or adjacent to an aircraft parking position. They are used by airline personnel and equipment for servicing aircraft and staging of baggage, freight and mail for loading and unloading of aircraft.
  3. Service/Fire Lanes - identified rights-of-way on apron designated for aircraft ground service vehicles and fire equipment.
  4. Taxi lanes - reserved to provide taxiing aircraft with access to and from parking positions.
- E. Runway: A clearly defined area on the airport that has been prepared and is suitable for landing and takeoff of airplanes. The principal runway elements include the structural pavement, shoulders, blast pads, runway safety area, extended runway safety area and airport imaginary surfaces. The runway drainage system, lighting, marking and areas required for landing aids are also integral design parts of the runway.
- F. Taxiway: A defined path over which airplanes can taxi from one part of an airport to another. It includes the structural pavement, shoulder, taxiway safety area and obstacle-free area.
- G. Vehicle Control Line: A red line bordered on both sides by white lines painted on the ramp parallel to and within 12 feet of the north-south vehicle drive lanes. The vehicle control line is present where movement area surfaces boundary non-movement areas and service roads.
- H. Vehicle Drive Lanes: Identified rights-of-way in the non-movement area designated for vehicular movement on the AOA. Drive lanes are delineated by white lines or traffic markings painted on the pavement.
- I. Terminal Buildings and Support Facilities: Interior of terminal and concourses, and support facilities such as cargo buildings (including exterior of buildings and roofs), which are inside the AOA.
- J. Street-Side of Buildings: Exterior of building and roof on street side, outside of the AOA streets, multilanes, drives, parking garage and remote parking lots. This area is also referred to as the landside of the airport.
- K. Foreign Object Debris (FOD): Any object capable of being ingested into aircraft engines or penetrating aircraft tires. Examples are knives, forks, spoons, hand tools, bolts, nails, nuts, cable, polyurethane, vehicle parts, sand, gravel, paper, rocks, dirt, cans, glass, wood, et al.
- L. Director, Airport Operations: That individual who directs all airfield operations and activities with respect to safety, security, airport rules and regulations, and emergency situations.
- M. Manager-Airfield Security/Airport Security Coordinator: That individual appointed by the General Manager, Airfield Line of Business, who directs all activities with respect to security.
- N. Unsuitable Weather: Atmospheric or environmental conditions which restrict construction activities and effect operation of aircraft while approaching a runway to land; during landing; taxiing between runways, ramps, aprons, hangars, or loading zones; standing by to takeoff; or during takeoff as determined by the General Manager, Airfield Line of Business or the General Manager or his authorized representative. In addition, that atmospheric or environmental condition

which may, in the opinion of the Port's construction project representative, affect the final outcome, position, or condition of construction work, maintenance work, or improvement of any sort or nature.

- O. Jet Blast: Jet blast is the force of jet exhaust produced by the aircraft engines. The high velocities produced by aircraft engines are capable of causing bodily injury and damage to equipment. The drag and uplift forces produced by jet engines are capable of moving large boulders. A jet engine operating at maximum thrust is capable of lifting a 2-foot boulder 35 feet behind the airplane completely off the ground.

As an example, a DC10 at takeoff thrust can produce a velocity of 750 mph 10 feet behind the aircraft; a velocity of 260 mph 100 feet behind the aircraft; a velocity of 55 mph 1,000 feet behind the aircraft; 10 mph 4,400 feet behind the aircraft. At maximum values these velocities may extend 30' out beyond the wingtips of the aircraft and to a height of 60' above ground level. (This information is taken from FAA Advisory Circular 150/5300-13 Figure 8-4.)

- P. Low Visibility Operations: Low Visibility Operations means movement of aircraft for takeoff landing or taxi when the visibility is reported to be less than 1,200 feet runway visual range (RVR).

### 1.03 SUBMITTALS

TENANT PROJECTS: Contractors that perform work in and around the Air Operations and Air Movement Areas may be subject to a Construction Safety Phasing Plan (CSPP), which is a Federal Aviation Administration requirement for certain projects per Advisory Circular 150/5370-2F. When required, the Port Project Manager will provide the templates for the CSPP and Safety Plan Compliance Document Daily Inspection Report.

- A. Prior to issuance of the Notice to Proceed, the Contractor shall submit a Safety Plan Compliance Document (SPCD) for review and acceptance by the Port. The document details how the Contractor will comply with the Construction Safety Phasing Plan (CSPP) as prepared by the Port.
- B. Submit signed document that the Contractor will comply with the CSPP or submit a SPCD that indicates revisions to the CSPP. Major or significant revisions to the CSPP may require FAA approval, which could take 90 days.
- C. Prepare and submit SPCD Daily Inspection Report as an attachment to the Contractor Daily Report.
- D. The CSPP and a sample SPCD Daily Inspection Report will be provided when required.

### 1.04 REFERENCES

The rules, requirements and regulations specified in this section have been compiled from the following sources:

- A. Sea-Tac International Airport Schedule of Rules and Regulations No. 5 (Effective February 12, 2015)
- B. Port Regulations for Airport Construction, Revision 2004.
- C. Federal Aviation Administration Advisory Circular 150/5370-2F, 150/5210-5C Appendix 1, and 70/7460-1L (Current Edition).

- D. Federal Aviation Regulations (FAR) Part 77.
  - E. FAA order NM 5200.3.
- 1.05 REQUIREMENTS AND REGULATIONS RELATING TO THE OPERATION OF MOTOR VEHICLES
- A. General:
    - 1. During the term of this Contract, the Contractor shall recognize and abide by the following rules and controls as they may be modified by federal regulations.
    - 2. In addition to these regulations, the Port's construction project representative is empowered to issue such other instructions as may be deemed necessary for the safety and well being of Airport users or otherwise in the best interests of the Port.
  - B. Operation of Motor Vehicles:
    - 1. General:
      - a. Motor vehicle operations within and on the Airport premises shall be governed generally by the provisions of the Washington State Motor Vehicle Codes and Traffic Direction procedures and signals for turns, lights and safe-driving precaution shall be in conformity therewith. In addition, motor vehicles shall conform to all special regulations prescribed by the Commission or procedures imposed pursuant to Commission regulation by the Director.
      - b. Traffic on enplaning and deplaning drives, public thoroughfares and parking areas of the Airport is limited to those vehicles properly licensed to operate on public streets and highways.
      - c. All vehicular equipment in the AOA, cargo, tunnel, access road, aircraft parking or storage areas shall at all times comply with any lawful signal or direction of Port employees. All traffic signs, lights and signals shall be obeyed, unless otherwise directed by Port employees.
      - d. Every person operating motorized equipment of any character on any area shall operate the same in a careful and prudent manner and at a rate of speed posted or fixed by this section and at no time greater than is reasonable and proper under the conditions existing at the point of operation, taking into account traffic and road conditions, view obstructions and consistent with all conditions so as not to endanger the life, limb, or property or the rights of others entitled to the use thereof.
    - 2. Operation of Vehicles Within AOA:
      - a. All motor vehicles that enter the AOA shall possess exhaust systems which are protected with screens, mufflers, or other devices adequate to prevent the escape of sparks or the propagation of flame.



- b. Regardless of the time of day, all powered construction vehicles that are equipped with headlights shall operate with the headlights on when the vehicle is in motion on the AOA.
- c. All Contractor vehicles shall be equipped with the following visibility/identification features: 1) Operable yellow flashing beacons, beacons must be lighted during all periods of vehicle operation; 2) 3 foot by 3 foot flags having a checkered pattern of international orange and white squares at least 1 foot on each side (For fabric color specifications see FAA Advisory Circular 150/5210-5C, Appendix A.). Attach flag on top of vehicle with rigid pole so that flag will be visible at all times. Vehicles without beacons/flags will not be permitted to enter the AOA.
- d. No person shall operate any motor vehicle or motorized equipment in the AOA of the Airport unless such motor vehicle or motorized equipment is in a safe and mechanically reliable condition for such operation.
- e. Any person operating equipment in the Air Operations Area shall, in addition to this section, abide by all existing Federal Aviation Administration and other governmental rules and regulations.
- f. No person shall operate any motor vehicle or motorized equipment on the aircraft movement or non-movement areas of the Airport at a speed in excess of twenty (20) miles [32 km/h] per hour, or the posted speed limit, whichever is lower, less where conditions warrant. Designated motor vehicle drive lanes shall be utilized where provided unless specific authorization to the contrary is given by the Port's construction project representative.
- g. No person operating a motor vehicle or motorized equipment in the AOA shall in any way hinder, stop, slow, or otherwise interfere with the operation of any aircraft on the Airport.
- h. All aircraft and emergency vehicles have priority over Contractor vehicles. Contractor vehicles shall yield right of way to aircraft and emergency vehicles. Contractor shall ensure that under no circumstances will any Contractor or subcontractor or other vehicle associated with the job pass beneath any part of an aircraft or loading bridge, or block the access to any parking gate or delay any aircraft movement.
- i. Vehicles shall remain within established drive lanes. The Vehicle Control Line separates the aircraft movement area (runways and taxiways) from the non-movement area (terminal and aircraft aprons and parking areas). It is prohibited to use runways or taxiways or adjacent field areas unless specifically indicated on the drawings. It is emphasized that the Contractor's authority to operate does not extend to active aircraft movement area. The Contractor shall operate along established haul routes with prior approval of the Director, Airport Operations, or the Director's designee, and the Port's construction project representative. No vehicle shall cross the Vehicle Control Line without approval of the Airport Traffic Control

Tower and must be in radio contact with the Tower, under escort, or on an established haul route.

- j. Contractor vehicles shall not deviate from haul routes specified on the drawings.
- k. Escorts: At all times during work within 250 feet of the centerline of an operating runway or 160 feet of the centerline of an operating taxiway, or when entering or crossing an active movement area, vehicles shall be accompanied by an approved Port Escort. All requests for escorts and operations involving an aircraft movement area, or any other activity that may tend to interfere with the general operation of the Airport, shall be approved by the Director, Airport Operations by way of the Port's construction project representative. A minimum of 24 hours' prior notice shall be given the Port's construction project representative in each case. See Section 01500 - Temporary Facilities and Controls, for submittal requirements.

C. Parking:

- 1. No parking is permitted on any Airport roadway as the primary purpose of the Airport roadways is for motor vehicle traffic.
- 2. No person shall park any motor vehicle, other equipment, or materials in the AOA of the Airport, except in a neat and orderly manner and at such points as prescribed by the Contract documents.
- 3. No person shall park any motor vehicle or other equipment or materials in the AOA of the Airport within fifteen (15) feet of any fire hydrant or standpipe.
- 4. Parking of construction workers' private vehicles shall also be within the storage area construction fence located outside the AOA or in a public or private parking facility outside the AOA. Under no circumstances will vehicles or equipment be parked within five (5) feet of the Airport Perimeter Security fence line.
- 5. Vehicles parked within the AOA shall be chocked or have the parking brake activated.

D. Impoundment of Motor Vehicles:

- 1. Any vehicle in violation of the provisions as referenced in Chapter 46.52 (Abandoned Vehicles) or Chapter 46.61 (Rules of the Road) of the Revised Code of Washington may be subject to impoundment pursuant to the provisions and procedures contained therein.
- 2. No vehicle shall be impounded except under the direction of an authorized police officer of the Port.

E. Vehicle Identification:

- 1. All vehicular equipment operating within the AOA must display signs of commercial design on both sides of the vehicle to identify the vehicle as belonging to the Contractor firm. The Contractor's name must appear in letters a minimum of two inches high. Magnetic signs are acceptable.

2. Vehicles that appear at access gates without signs on both sides of the vehicle will be denied access. Vehicles found to be missing signs within the Air Operations Area will be escorted off the job site and not be permitted to re-enter until signs have been installed.
- F. Load Limits: Unless otherwise indicated, when using airport roadways, the Contractor shall restrict the gross combination weight to the legal limits allowed on public roads.
- 1.06 REQUIREMENTS AND REGULATIONS RELATING TO OPERATORS OF VEHICLES
- A. All drivers operating vehicles on airport property must carry a valid United States driver's license on his/her person, appropriately endorsed for the type of equipment being operated.
  - B. All personnel (including drivers) working within the AOA must have a valid Port Identification/Access badge. See Section 01 14 13 - Airport Personnel Identification/Access Control for Procedures required for badge issuance.
  - C. All personnel working within the AOA shall receive special drivers training and be approved by the Port before being allowed to operate within the AOA or be escorted by Port approved escort. Personnel operating outside the AOA may operate vehicles without attending the special drivers training course.
  - D. Contractors, Subcontractors, Suppliers and Contractor occasional deliveries requiring access to the AOA in support of the Contract work that do not have valid Port identification shall be escorted by authorized Contractor personnel. The Port will not provide escorts for the Contractor's work.
- 1.07 REQUIREMENTS FOR ORIENTATION OF CONTRACTOR PERSONNEL AND PROJECT MEETINGS
- A. Air Operations Orientation:
    1. After Execution of the Contract, but prior to the start of the Work, arrange with the Port's construction project representative to have all supervisory and job office personnel assigned to this project attend an "Air Operations Orientation." This orientation will be conducted by the Port for discussion of the rules and regulations pertinent to this Contract. The orientation will be repeated at reasonable intervals during the construction period. Port attendees will include the Port's construction project representative and the Director, Airport Operations or the Director's authorized representative.
    2. The Air Operations Orientation may be conducted as part of the preconstruction meeting and shall not be considered an educational course in Air Operations Safety, but a discussion of existing rules or regulations related to airport activities. The Contractor shall be totally responsible and liable for the actions of his employees, agents, or representatives.
  - B. Safety and Security Meetings: An airport safety and security meeting will be conducted after Execution of the Contract and prior to commencing construction. Additional construction safety meetings will be scheduled throughout the life of the Contract.
- 1.08 SECURITY REQUIREMENTS

- A. General Intent: It is intended that the Contractor shall comply with all requirements of the Airport Security Plan (ASP) and with the security requirements specified herein.
- B. Security Identification Display Area (SIDA) Training: Comply with the requirements of Section 01 14 13 - Airport Personnel Identification/Access Control.
- C. Identification/Access Badging: All Contractor personnel shall have Port-issued identification/access badges. See Section 01 14 13 - Airport Personnel Identification/Access Control for procedures required for issuance of Identification/Access badges.
- D. Perimeter Fence Security:
  - 1. Do not open gates or remove fencing without approval of the Port's construction project representative. Adequate precautions shall be taken to prevent entrance of unauthorized persons to Airport-restricted areas or inadvertent entry of dogs or large animals into the AOA.
  - 2. Prior to securing work each evening, ensure that all access gates which have been opened are closed and locked and that perimeter fencing is restored to a condition that will maintain present security standards.
  - 3. Five Foot Rule: No Contractor will be permitted to store materials, park equipment or erect permanent or semi-permanent structures within five (5) feet of either side of the AOA perimeter security fence.
  - 4. Use of Gates: Access to work within the AOA shall be limited to only the gates shown on the drawings. Use of the gates shown for continuous access (in excess of twice per work shift) will require the gate be manned by Port Operations or Security personnel, provided by the Port. Gates for Contractor access during hours of darkness shall be supplied with a light plant and generator whenever the gate is in use. Furnishing, fueling and maintaining the light plants shall be the responsibility of the Contractor. The Contractor shall schedule with the Port's construction project representative a minimum of 48 hours prior to requiring continuous access through a gate.
  - 5. Prior to removing or making holes in the Airport perimeter fencing, the Contractor shall obtain permission and written approval from the Port's construction project representative, and take adequate precautions to prevent entry of unauthorized personnel or animals.

#### 1.09 SAFETY REQUIREMENTS

- A. In addition to the requirements specified in other sections, the following Safety Requirements shall also apply to the Contractor's activities:
  - 1. Traffic Control: The Contractor shall furnish all required traffic control to protect the public outside the AOA. The actions, equipment and position of flagmen, when required, shall be the sole responsibility of the Contractor. The Contractor shall provide flagmen and construction traffic control on public facilities in accordance local jurisdiction requirements and the current edition of the Manual of Uniform Traffic Control Devices (MUTCD).
  - 2. In the event an employee of the Contractor violates a safety provision, they shall be prohibited from returning to work on the AOA without first attending

another Airport Safety Orientation class and approval of the Director, Airport Operations. Subsequent violations will be deemed as just and sufficient cause to demand the employee be permanently removed from the job site. The Contractor shall be responsible for all costs and delays caused by safety violation.

3. Contractor's Designated Representative: The Contractor shall inform its supervisors and workmen of the airport activity and operations that are inherent to this airport, as well as the safety requirements and security regulations of the airport. The Contractor shall conduct its construction activities to conform to both routine and emergency requirements. During the course of construction, the Contractor shall designate a responsible representative who will be personally available on a 24-hour basis. The Contractor shall advise the Port's construction project representative of the representative's name and telephone number (the telephone shall not be connected to an answering machine). The Contractor shall comply with all current safety laws, ordinances and regulations as they may apply to this Contract.

1.10 INTERRUPTIONS AND STOPPAGES OF THE WORK DUE TO AIRCRAFT OPERATIONS AND HAZARDOUS CONDITIONS

A. Work Stoppages:

1. Work may be stopped by the Director, Airport Operations or the Director's designee, through the Port's construction project representative, any time the former considers that the intent of the regulations regarding safety or Security Requirements are being violated or that a hazardous condition exists. This decision to suspend the operation will be final and will only be rescinded when satisfied that the Contractor has taken action to correct the condition and prevent recurrence.
2. Frequent inspections will be made by the Director, Airport Operations or the Director's authorized representative during the critical phases of the work to insure that the Contractor is following the recommended safety procedures. The Inspector shall report any violations or potential safety hazards to the Port's construction project representative who will in turn advise the Contractor of the concern for immediate correction by the Contractor.
3. Work may also be stopped or suspended by Airport Operations through the Port's construction project representative during periods of extremely inclement weather, such as low visibility, snow or ice accumulation, or when it is necessary to provide an extra margin of safety to aircraft operations due to other unsuitable conditions, or reduce other activities in favor of conducting snow removal operations required to keep the airport operational.
4. Work may be stopped or suspended by Airport Operations through the Port's construction project representative during periods when a VIP (e.g. POTUSA) or critical event is occurring.

B. Intermittent Construction Operations:

1. Portions of the Work in this Contract will occur in the AOA. Heavy construction may require closing of certain areas by the Airport. However, some work may be done on an intermittent basis. The Contractor shall maintain constant communication with the Port's construction project representative when working on an AOA location, and immediately obey all instructions from the Port's construction project representative. Failure to obey instructions or maintain proper communication will be cause to suspend the Contractor's operations in such areas until satisfactory conditions are assured.
2. When directed to cease work and move from the area, the Contractor shall immediately respond and move all material, equipment and personnel outside areas. Operations shall not be resumed until directed from the Director, Airport Operations through the Port's construction project representative. Every reasonable effort will be made to cause minimum disturbance to the Contractor's operations; however, no guarantee can be made as to the extent to which disturbance can be avoided.
3. Limitation of Operations: The Contractor shall be responsible for controlling its operations and those of its subcontractors so as to provide for the free movement of aircraft in the apron areas of the AOA.

1.11 REQUIREMENTS AND REGULATIONS AFFECTING THE CONDUCT OF THE WORK

A. General:

1. Requirements to Begin Work: Before starting work, the Contractor shall provide and have available all flags, signs, barricades, lights and electrical generators as may be required for the protection of air traffic, vehicular traffic and the construction work. All personnel shall have the proper identification badges and have received the required training and instruction.
2. No hazardous materials will be stored within the terminal complex.
3. No burning is permitted on Airport property.
4. Smoking by personnel is prohibited on the AOA and inside the terminal.
5. Construction Activity and Aircraft Movements:
  - a. Prior to the start of the construction activities in the AOA affecting aircraft movement areas, the safety requirements relating thereto will be coordinated by the Port between the Director, Airport Operations, air carriers, fixed base operators, other users and appropriate representatives of the FAA. This coordination will be based on the Contractor's accepted construction schedule with the primary purpose of compliance with the Contract document requirements.
  - b. Construction activity and storage of equipment, relating to off-AOA projects are not exempt from all the regulations that govern the AOA. Materials can not be stored in violation of POS security fence set back clearances (5' rule). Activity and storage of equipment may also have an impact on the FAR Part 77 surfaces that are prescribed to protect the airspace associated with the airport.

- c. Construction work will not be allowed within the safety area of an open runway or within the object free area of an open taxiway (160' from centerline) without prior permission of the Director, Airport Operations or authorized designee. (Refer to 1.11 Obstructions to Navigation.)
6. Limitation of Construction Activities:
- a. During construction there shall not be lips greater than 1 inch for pavement traveled by aircraft and 3 inches for edges between old and new surfaces at edges and ends not traveled by aircraft.
  - b. Open-flame welding or torch-cutting operations are prohibited unless adequate fire and safety precautions are provided and have been accepted by the Fire Department through the Port's construction project representative.
  - c. Open trenches, excavations and stockpiled material at the construction site shall be prominently marked with barricades and lights as detailed on the drawings.
  - d. Stockpiled material shall be limited in height and constrained in a manner to prevent movement resulting from aircraft blast or wind conditions.
  - e. The Contractor will ensure that all lighting fixtures are shielded against interference with the vision of pilots and air traffic controllers.
  - f. During non-working hours, all trenches and excavations outside of the barricaded work areas shall be backfilled or covered unless otherwise indicated in the Contract documents.
  - g. Non-working hours shall be defined as when construction is not taking place within a work area.
- B. Construction Adjacent to Runways:
- 1. All equipment and material above the runway centerline grade and within a distance of 250 feet from the runway centerline must be removed when the runway is being used by aircraft unless specifically allowed by the phasing drawings.
  - 2. Within 250 feet of the runway centerline, all open trenches, lips greater than one inch, and drop-offs greater than three inches must be filled, covered, or sloped when the runway is open.
  - 3. Notification to the Director, Airport Operations or his representative, by way of the Port's construction project representative, is required prior to beginning any construction within the aircraft movement area. Notification of the proposed construction should be made a minimum of fourteen (14) days prior to beginning work.
- C. Construction Adjacent to Taxiways:
- 1. No equipment or material within 160 feet of a taxiway centerline shall be above the taxiway centerline grade while the taxiway is being used by aircraft unless specifically allowed in the phasing drawings.

2. Open trenches or abrupt drop-offs may be made adjacent to taxiway pavement edges only as shown on drawings.
  3. Marking and lighting of work areas adjacent to taxiways shall be required and accepted by the Port's construction project representative.
- D. Barricades and Marking of Barricades:
1. Barricades shall be Multi-Barrier AR-10 X 96 HDPE, or OTW Safety AR10x96 O V.2, or Sherwin Industries, Inc. RRM-Safety Barricade Model #1008-25, or Neubert Aero Corp., 8ft Airport "low-profile" barricade or approved equal compliant with FAA Advisory Circular 150/5370-2F with 6" X 72" orange and white reflective striping on both sides.
  2. Each barricade shall be provided with two (2) screw-in C01 airfield grade 360-degree red flashing solar lights. Lights shall have an override switch to allow lights to be operative during all hours of low visibility. If required, supplement with generator-powered constant burn lights that meet the requirements of FAA Advisory Circular 150/5370-2F.
  3. Barricades shall be installed as shown on the drawings or relocated by the Contractor at the direction of the Port's construction project representative whenever the need arises throughout the duration of the Contract. Barricades shall be placed indicated on the drawings to separate active areas from areas under construction. Placement of the barricades shall be in accordance with the drawings and shall be accepted by the Port's construction project representative.
  4. Barricade lights shall be operative at all times. It shall be the Contractor's responsibility to immediately repair or replace any light or flasher that is not operating.
  5. Barricades shall be in place prior to commencing construction operations and shall be maintained in good appearance for the life of the contract.
  6. Barricades shall be relocated as noted by the phasing plans or as directed by the Port's construction project representative.
  7. Barricades shall be filled to capacity with water where shown on the drawings or as directed by the Port's construction project representative.
  8. Install red delineator reflectors between barricades where indicated on the plan sheets.
- E. Reflector Markers:
1. Reflector markers shall be of an impact-resistance color impregnated special polymer extrusion that has been UV-stabilized with both ground and pavement mounts. Height shall be 18"; color shall be solid red or orange; or as specified in the specifications for color. Reflectors shall meet FAA AC 5345-39C.
  2. Install reflector markers as shown on the drawings.
- F. Closures: No ramp, apron, taxiway, or runway area shall be closed to aircraft without approval of the Director, Airport Operations through the Port's construction project representative. This will enable Notices to Airmen (NOTAMS), or other advisory communications to be issued. A minimum of 72 hours notice of requested



closing shall be directed to the Port's construction project representative. The Port's construction project representative will arrange inspections prior to opening any area to air traffic. Any waste material, or debris must be removed from aprons promptly to avoid possible damage to aircraft.

**G. Debris**

1. **Debris Control:** When Airport roadways and public highways are used in connection with construction under this Contract, the Contractor shall remove all debris cluttering the surfaces of such roadways. Trucks and equipment shall have all accumulated dirt, mud, rocks and debris removed before accessing the AOA and when leaving the work area. Loads shall be struck flush and secured to prohibit loss of material. If spillage occurs, such roadways shall be swept clean immediately after such spillage to allow for safe operation of vehicles as determined by the Port's construction project representative. If the Contractor is negligent in cleanup and Port forces are required to perform the Work, the expense of said cleanup shall be paid by the Contractor.
2. No loose material or waste (FOD), capable of causing damage to aircraft or capable of being ingested into jet engines may be left in the working area on or next to runways, taxiways, ramps, or aprons. The Contractor shall direct special attention to all areas that are operational to aircraft during construction. These shall be kept clean and clear of all materials or debris at all times.
3. Food waste on a work site is a safety concern in that it attracts animals and birds that may impact the safe movement and operation of aircraft on the airfield. Food waste shall be promptly removed from construction sites.

**H. Existing Airport Pavements and Facilities:** The Contractor shall preserve or protect existing and new pavements and other facilities from damage due to construction operations. Existing pavements, facilities, utilities, or that are damaged shall be replaced or reconstructed to original strength and appearance at the Contractor's expense. The Contractor shall take immediate action to replace any damaged facilities and equipment and reconstruct any damaged area that is to remain in service.

**I. Storage Areas:**

1. The storage area(s) depicted on the plans shall be used to store all idle equipment, supplies and construction materials (other than bulk materials such as aggregate, sand and soil). Storage shall not interfere with operational areas.
2. All material and equipment shall be stored at storage sites indicated on the Contract drawings.
3. Do not store materials or equipment in areas in which the equipment or materials will affect the operation of FAA electronic apparatus.
4. All equipment storage and movement shall have prior approval of the Director, Airport Operations, or the Director's authorized designee and the Port's construction project representative.
5. The perimeter of any storage area that abuts an AOA pavement shall be protected by barricades no more than 10 feet apart marked with red

flashing lights. Upon completion of all Work, remove all and barricades and lights from the project site.

6. Contractor's vehicles, equipment and materials shall be stored in areas designated on the drawings. Upon completion of the Work, the storage area shall be cleaned up and returned to its original condition to the satisfaction of the Port's construction project representative.
7. Equipment not in use during construction and during all non-construction hours shall be parked in the Contractor's storage area. All exceptions shall be approved in advance by the Director, Airport Operations by way of the Port's construction project representative. Parking of construction workers' private vehicles shall not be allowed within storage areas located on the AOA.
8. Stockpile areas shall be used to store all bulk materials needed for the project and may or may not be fenced at the Contractor's option. However, barricades, as specified herein, shall be installed where potential conflicts with aircraft or ground vehicular traffic exists. Stockpiles shall not penetrate the FAR Part 77 imaginary surfaces or present FOD problems.
9. Equipment and materials shall not be stored between runways. . An exception to this is for tracked construction vehicles/devices, and certain materials that are specified in Contract drawings. The height of the equipment and the location where it will be stored must be specified in the drawings.

#### 1.12 OBSTRUCTIONS TO NAVIGATION

The Contractor shall limit the height of vehicles, equipment, stockpiled materials excavated earth, to the limits as specified on the drawings.

#### 1.13 DAILY INSPECTIONS

- A. The Director, Airport Operations or the Director's representative will conduct a daily inspection of each construction site before workers leave for the day to ensure that areas surrounding the sites are safe for aircraft operations. Inspector(s) will be watchful for Foreign Object Debris (FOD) that can be ingested into aircraft engines, loose polyethylene and other light materials capable of being blown onto aircraft movement areas by wind, unlighted construction and obstruction lights, vehicles and equipment left outside construction areas, construction areas left unlocked, access gates left open, weak partitions or fences, etc. All discrepancies shall be corrected before workers depart from the work site.
  1. The Contractor or Port Inspector shall be responsible for contacting Airport Operations to schedule the daily inspections. Based on the current workload and location of the Airport Operations Specialist, the Contractor should anticipate approximately 30-minutes of waiting time.
- B. Inspectors will review potentially hazardous conditions, which may occur during airport construction, and maintenance including, but not limited to the following:
  1. Trenches, holes, or excavation on or adjacent to any open runway or related safety area.
  2. Unmarked/unlighted holes or excavations in any apron, open taxiway, open taxi lane, or related safety area.

3. Mounds or piles of earth, construction materials, temporary structures, or other objects on or in the vicinity of any open runway, taxiway, taxi lane or in a related safety, approach or departure area.
4. Pavement drop-offs or pavement turf lips (either permanent or temporary) which would cause, if crossed at normal operating speeds, damage to aircraft that normally use the airport.
5. Vehicles or equipment (whether operating or idle) on any open runway, taxiway, taxi lane, or in any related safety, approach or departure area.
6. Vehicles, equipment, excavations, stockpiles, or other materials which could impinge upon NAVAID critical areas and degrade or otherwise interfere with electronic signals from radios or electronic NAVAIDs or interfere with visual NAVAID facilities.
7. Unmarked utility, NAVAID, weather service, runway lighting, or other power or signal cables that could be damaged during construction.
8. Objects (whether marked/flagged or not) or activities anywhere on or in the vicinity of airport which could be distracting, confusing, or alarming to pilots during aircraft operations.
9. Unflagged/unlighted low visibility items (such as tall cranes, drills, etc.) in the vicinity of an active runway, or in any approach or departure area.
10. Misleading or malfunctioning obstruction lights.
11. Unlighted/unmarked obstruction in an approach to any open runway.
12. Inadequate approach/departure surfaces (needed to assure adequate landing/takeoff clearance over obstructions or work or storage areas).
13. Inadequate, confusing, or misleading marking/lighting of runways (including displaced or relocated thresholds), taxiways, or taxi lanes.
14. Water, snow, dirt, debris, or other transient accumulation which temporarily obscures pavement marking, pavement edges, or derogates the visibility of runway/taxiway marking, lighting or of construction and maintenance areas.
15. Inadequate or improper methods of marking, barricading, or lighting temporarily closed portions of airport operation areas.
16. Trash or other materials with foreign object damage (FOD) potential, whether on runways, taxiways, aprons or related safety areas.
17. Inadequate fencing or other marking to separate construction or maintenance areas from open aircraft operating areas.
18. Inadequate control of vehicle and human access to and non-essential, non-aeronautical activities on, open aircraft operating areas.
19. Improper radio communication maintained between construction/maintenance vehicles and air traffic control tower or other on-field communications facility (e.g., FAA Flight Service Station (FSS) or unicom radio).
20. Construction/maintenance activities or materials which could hamper Aircraft Rescue and Fire Fighting (ARFF) vehicle access from the ARFF

stations to all parts of the runway/taxiway system, runway approach and departure areas, or aircraft parking locations.

21. Bird attractants such as edibles (food scraps, etc.) trees, brush, other trash, grass/crop seeding, or pond water on or near the airport.
  22. Personnel at the construction site without proper POS identification.
  23. No escorts for persons at the job site without proper identification.
  24. Vehicles involved in the project do not meet the safety requirements of POS Rules and Regulations.
  25. Improperly marked, lighted and flagged vehicles involved in the project.
- C. All work shifts, including the nightly work shifts are totally inclusive of the Contractor moving onto the site, performing work activities, performing all clean-up, having the work area and haul routes inspected and approved by the inspector(s) and moving off the site. The Contractor shall provide adequate lighting for the needs of the inspection personnel.
- D. Any Aircraft Movement Surface or adjoining runway, taxiway or taxilane safety area that does not pass inspection must remain closed until such time cleanup is performed and approved. Damages will be assessed for any delays in the opening of the surface as defined in Document 00 80 00 - Supplementary Conditions.

#### 1.14 EMERGENCY PROCEDURES

- A. The Contractor shall familiarize itself with airport emergency procedures and shall conduct his operation so as not to conflict with such events. Clear routes for Airport Rescue and Fire Fighting (ARFF) equipment shall be maintained in operational condition at all times.
- B. In case of an emergency caused by an accident, fire, or personal injury or illness, Port Police are to be immediately notified by calling 9-911 from airport phone (Port Police Dispatch), 911 from outside phones. Police will coordinate with other emergency agencies as necessary.

#### 1.15 ADMINISTRATIVE REQUIREMENTS

- A. Applicability: The provisions of this section shall apply to the Contractor, subcontractors at all tiers, suppliers and all others which may have access to the Air Operations Area by way of the Contractor's activities.
- B. Exclusion From Claims: Impacts caused by failure of the Contractor, subcontractors at all tiers, and all others to comply, implement and maintain the provisions of this section shall not be cause for a claim of delay or increased cost to the Port.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

End of Section



# Safety Plan Compliance Document

## Contractor Daily Inspection Checklist

DATE	
LOCATION	
NAME	
SIGNATURE	
WP #	

To be completed by the Contractor

ITEM	DESCRIPTION / OBSERVATION	√
FOD - Existing		
FOD - Potential		
Barricades / Lights / Fencing		
Material Storage		
Equipment Storage		
Wildlife Attractant (ponding, grass seed, trash, etc.)		
Security Issues		
Contractor Access and Parking		
ARFF Access		
Excavation / Open Trenches		
Flags / Beacons / Head Lights		
Aircraft Clearances		
Utility Protection		
Markings, Lights, Signs, Visual NAVAIDs		
Hotwork		
Phasing and Coordination		
Special Conditions		



PART 1 GENERAL

1.01 CONTRACTOR FULLY RESPONSIBLE FOR SAFETY

- A. The Contractor assumes full and sole responsibility for and shall comply with all laws, regulations, ordinances, and governmental orders pertaining to safety in the performance of this Work. The Contractor shall conduct all operations for this project to offer the least possible obstruction and inconvenience to the Port, its tenants, the public and abutting property owners. The Contractor shall be responsible for employing adequate safety measures and taking all other actions reasonably necessary to protect the life, health, and safety of employees, the public, and to protect adjacent and Port-owned property in connection with the performance of the Work.
- B. The Contractor shall have the sole responsibility for the safety, efficiency, and adequacy of the Contractor's plan, appliances, and methods, and for any damage or injury resulting from their failure, or improper maintenance, use, or operation. The Contractor shall be solely and completely responsible for the conditions of the Project Site, including safety of all persons and property in performance of the Work. This requirement shall apply continuously, and is not limited to normal working hours. Nothing the Port may do, or fail to do, with respect to safety in the performance of the Work shall relieve Contractor of this responsibility.

1.02 REFERENCES

- A. The Contractor shall comply with the provisions found in the Port of Seattle Construction Safety & Health Manual, the Federal Occupational Safety and Health Act of 1970 (OSHA), including all revisions and amendments thereto; the provisions of the Department of Safety & Health (DOSH) Washington Industrial Safety Act of 1973 (WISHA); and the requirements of the following chapters of the Washington Administrative Code:
  - 1. Chapter 296-24 WAC General Safety and Health Standards.
  - 2. Chapter 296-62 WAC Occupational Health Standards.
  - 3. Chapter 296-155 WAC Safety Standards for Construction Work.
  - 4. Chapter 296-800 WAC Core Safety & Health Standards
  - 5. ANSI/ASSE Standards
- B. In addition, the Contractor shall comply with the following requirements when they are applicable:
  - 1. Local Building and Construction Codes.
  - 2. POS Fire Department Standards
  - 3. Latest FAA Advisory Circular regarding Operational Safety On Airports During Construction.
  - 4. NFPA 70E
  - 5. National Electrical Code

NOTE: In cases of conflict between different safety regulations, the more stringent regulation shall apply.

1.03 DEFINITIONS

A. Manager, Construction Safety Services

An employee of the Port or designated consultant who is responsible for the day-to-day management of the Port of Seattle's Construction Safety Program, and such agents, including the Field Safety Manager, as authorized to act in his/her behalf.

B. Field Safety Manager

An employee of the Port or designated consultant who conducts and monitors jobsite inspections and verifies Contractor compliance with identified corrective actions.

C. Contractor

Normally the General Contractor hired by the Tenant. However, in the case where a Tenant directly hires more than one Contractor to be on site at one time, the responsibility of the Contractor shall apply to the Tenant as well as the contractors on site.

1.04 SUBMITTALS

A. Site Specific Safety Plan per paragraph 1.05 A

B. Site Specific Chemical Exposure Plan prepared by a Certified Industrial Hygienist for any products containing isocyanates, methylene chloride, Hydrofluoric Acid, lead, silica, and processes involving floor sealers, traffic coatings, terrazzo sealers, or specialty paints. The plan shall include employee exposure control methods, isolation methods to prevent spread of chemicals outside the work area and safeguarding of the public.

1.05 CONTRACTOR RESPONSIBILITIES

A. SITE SPECIFIC SAFETY PLAN

1. The Contractor shall submit, for the Port's review and comment, a Site-Specific Safety Plan in connection with the Work. The submittal shall be made in accordance with Section 01 32 19, Pre-Construction Submittals. An outline of the matters to be address in the Safety Plan is set forth in Appendix A to this Division. The Port's review of, or comment on, the Safety Plan shall not, in any way, relieve the Contractor of any responsibility or liability for the Safety Plan. Delay in submitting a written safety plan will not constitute grounds for a contract schedule extension or delay claim.
2. The Port will not issue a Notice to Proceed (NTP), until the Safety Plan has been received and accepted by the TCI and Manager of Construction Safety Services.

B. GENERAL OBLIGATIONS

The Contractor is responsible for accident prevention and job site safety. This responsibility cannot be delegated to Subcontractors, suppliers, the Port, or other persons. To this end, the Contractor shall:

1. Promote a safe and healthy work environment.
2. Provide an accident prevention program.



3. Promote training programs to improve the skill and competency of all employees in the field of occupational safety and health.
4. Instruct all employees of safe work methods and practices when assigning work.
5. Ensure that employees have and use the proper protective equipment and tools for the job.
6. Ensure that all heavy equipment operators (i.e. cranes, loaders, and forklifts) are properly qualified and trained on the specific piece of equipment in use.
7. Plan and execute all work to comply with the stated objectives and safety requirements contained in the contract provisions, Federal, State, local laws and regulations, and industry standards.
8. Cooperate fully with the Port and its Consultants and insurers (if applicable) in connection with all matters pertaining to safety.
9. Maintain an orientation program for new employees, including subcontractor employees, that includes at a minimum, a review of:
  - a) Potential hazards in the work areas
  - b) Required personal protective equipment and apparel
  - c) The following prohibited conduct shall result in the immediate removal from the project: gambling, fighting or horseplay, possession of firearms, alcohol or illegal use, possession or sale of a controlled substance or being under their influence.
  - d) Emergency procedures
10. Perform documented daily inspections of the project in the Contractor Daily Report. Review and direct immediate action to correct any substandard safety conditions or practices, including those of any Subcontractor, regardless of classification.
11. Hold a minimum of one weekly scheduled safety meetings with its employees. Such meetings shall include a discussion of all observed unsafe work practices or conditions, a review of the accident experience and all corrective actions. The Contractor shall encourage safety suggestions from employees.
12. Hold a minimum of one monthly all-hands safety meeting with its employees, and subcontractor employees - subcontractors at any tier. An agenda shall be prepared and distributed for this meeting. The meeting shall include a safety update, and pertinent safety information for upcoming work. The Contractor shall encourage input and involvement from the subcontractors.
13. Ensure prompt medical treatment is administered to any injured employee.
14. Undertake a complete investigation of all accidents and implement corrective action to prevent a recurrence.
15. Prepare and implement a site safety plan as set forth in Paragraph 1.05. A hereof.

16. Comply with the Administrative Procedures set forth in Paragraph 1.08 hereof.
17. Provide the TCI and Manager of Construction Safety Services with copies of all DOSH citations immediately upon receipt.
18. Ensure that all of its subcontractors, suppliers, etc., are provided with a copy of this specification and are informed of their obligations regarding safety.
19. Ensure that all Contractor and subcontractor personnel at any tier have completed a one and one-half (1 ½) hour Port of Seattle Construction Safety Orientation to be held by the Port of Seattle at a time and location to be specified by the Port, prior to commencing work. The time expended and any associated costs such as travel time, parking, and other expenses are to be borne by the Contractor.

C. CONTRACTOR SAFETY REPRESENTATIVE

1. It is recognized that the responsibility for safety lies with the Contractor. Each Contractor shall appoint an individual (s) responsible for safety on each contract. This individual (s) must be employed in a supervisory position, empowered by their employer to take corrective action; be present on the project while work is being performed; and spend the amount of time necessary to ensure the Contractor's compliance with safety requirements.
2. A safety inspection shall be performed and documented for each shift worked, by the Contractor's safety representative.
3. The Contractor shall submit a resume of the experience and qualifications for the proposed Safety Representative(s) as part of the Safety Plan submittal. Please refer to part D. Definitions, subparagraphs 1 and 2 below. The Port will review the resumes and a personal interview may be required. The Port may reject anyone it deems "Not Qualified." It is the responsibility of the Tenant to enforce the determination.

D. FOREMAN SAFETY RESPONSIBILITIES:

1. Foremen are key individuals in an effective safety program. Their proactive efforts toward accident prevention on their daily assignments help determine the degree of safety that exists on the job. A foreman's safety responsibilities include the following as a minimum:
  - a) Inspect his/her assigned job areas to ensure that unsafe acts or conditions are identified and corrected
  - b) Ensure that safety requirements are adhered to and enforced
  - c) Provide and require the use of proper personnel protective equipment and suitable tools for the job
  - d) Set a good example for his/her crew in the matter of safety
  - e) Ensure that orderliness and good housekeeping are maintained
  - f) See that his/her assigned crew is properly instructed in the safe work practices when assigned to job tasks

- g) Investigate all accidents that occur in areas under their direction to determine facts necessary for corrective actions
- h) Promptly assist in the completion of accident reports per contract requirements
- i) Conduct weekly toolbox safety meetings with personnel to discuss unsafe work practices and conditions identified
- j) Review accident investigations and corrective actions implemented
- k) Encourage personnel to make suggestions regarding safety and to pass these on to supervision
- l) Ensure that prompt first aid is administered

E. DEFINITIONS

1. Fulltime Safety Professional qualifications include:

- a) Shall have no other duties.
- b) An individual possessing a minimum of five years progressive experience managing safety programs on large construction projects comparable to this contract in scope and complexity.
- c) Be knowledgeable concerning all federal, state, and Port of Seattle regulations applicable to construction safety.
- d) Possess "Competent Person" certification in construction safety disciplines related to the work performed and possess verifiable training. This individual shall also be responsible for identifying "Competent Persons" required by State and Federal safety standards for which they are not certified.
- e) Have successfully completed the OSHA 500 Safety and Health Course. This requirement may be waived in lieu of a safety and health degree or professional safety certification.
- f) Training and current certification for CPR and First Aid is preferred.
- g) Be capable of performing accident investigations and developing a concise report.
- h) Is proficient in the development and presentation of "tool box" meetings and safety training.

2. Site Safety Officer qualifications include:

- a) An individual assigned to perform safety functions on any contract not requiring a Fulltime Safety Professional. This can be a collateral duty position held by a supervisor. Safety duties shall take priority over other collateral duties.
- b) Possess a minimum 5 years progressive experience in their trade.

- c) Be knowledgeable concerning all federal, state, and Port of Seattle regulations applicable to safety.
- d) Have successfully completed the OSHA 10-hour Safety & Health Course.
- e) Possess “Competent Person” certification in construction safety disciplines related to the work performed and possess verifiable training. This individual shall also be responsible for identifying “Competent Persons” required by State and Federal safety standards for which they are not certified.
- f) Be trained in, and possess current certification for CPR and First Aid.
- g) Possess verifiable training and be capable of performing accident investigations and developing a concise report.
- h) Possess verifiable training in the development and presentation of “tool box” meetings and safety training.

F. DETERMINATION

- 1. When the number of personnel on any shift is under 40 (including Subcontractor employees), the Contractor’s safety representative will meet the definition of “Site Safety Officer” as defined above for each shift.
- 2. For Contractors with a total of 40 or more personnel (including Subcontractor employees) on any shift, a Fulltime Safety Professional as defined above shall be required for each shift.
- 3. For each additional 75 employees (including Subcontractors employees) on any shift, a second Fulltime Safety Professional shall be required.
- 4. At the Port’s discretion the requirements for Contractor safety personnel can be reviewed and action taken to decrease or increase the number of individuals.
- 5. The Contractor Safety Officer/Professional (s) shall be primarily responsible for ensuring Contractor’s compliance with the safety requirements provided in this Document. Without limiting the generality of the foregoing, the Contractor Safety Officer/Professional (s) shall:
  - a) Review all subcontractor and sub-tier contractor’s Site Specific Safety Programs and Job Hazard Analysis (JHA) for compliance with applicable POS Construction Safety, State, and Federal Standards and ensure that they receive a copy and are briefed on Document 01860 - Safety Management.
  - b) Perform a site-specific safety orientation for all employees, subcontractors and sub tier contractors prior to beginning work. This is in addition to the Port’s safety orientation.
  - c) Perform daily safety inspections of the Contractor and Subcontractor’s project to evaluate the project for unsafe conditions and/or practices, and take the appropriate corrective action when required.

- d) Immediately report all injuries of personnel, vehicles, "Near Miss" incidents, and property damage and insure immediate corrective action is taken. Assist in the preparation of all accident investigations and ensure reports are submitted within 24-hours.
  - e) Ensure meaningful, weekly safety meetings are held for all on-site employees. Provide the job foremen with appropriate training materials to conduct weekly "tool box" safety meetings and attend safety meetings to evaluate their effectiveness. Maintain documentation of topics discussed and attendees, with copies submitted to the TCI or included with Contractors Daily Report.
  - f) Be responsible for the control, availability, and use of necessary safety equipment, including personal protective equipment and apparel for the employees.
  - g) Shall attend a monthly safety committee meeting scheduled by the Manager of Construction Safety Services to discuss and resolve relevant issues related to safety and health on Port of Seattle projects.
6. Contractor Safety Officer/Professional (s) not performing their duties in accordance with this document, shall be replaced at the Port's discretion by an individual meeting the requirements of this section. In addition, the Contractor Safety Officer/Professional (s) may not be removed from this contract or replaced without the Port's advanced written approval. The Contractor shall notify the TCI and Manager of Construction Safety Services when this person cannot be on duty while work is being performed and shall submit the name(s) and qualifications of the individual assigned to perform said duties. It is the responsibility of the Tenant to enforce this requirement.

G. ACCIDENT PREVENTION

1. The Contractor has the responsibility to correct hazardous conditions and practices. When more than one Contractor is working within a given job site, any project management personnel shall have the authority to take action to prevent physical harm or significant property damage. If it is determined there is "Imminent Danger" the Contractor shall:
- a) Take immediate action to remove workers from the hazard and stabilize or stop work until corrective actions can be implemented to eliminate the hazard.
  - b) Immediately identify and implement corrective action to eliminate the hazard.
  - c) Immediately notify the TCI, and Manager of Construction Safety Services or others as necessary. The TCI will notify the proper authorities if the damage cannot be promptly corrected and could develop into an emergency.
  - d) Each worker shall immediately report any condition suspected to be unsafe or unhealthy to his or her job foreman or safety representative. If there is no resolution of the concern at that

level, the employee shall report the concern to the TCI and Manager of Construction Safety Services.

H. ON SITE FIRST AID

1. This section is designed to assure that all employees in this state are afforded quick and effective first-aid attention in the event of an on the job injury. To achieve this purpose the presence of personnel trained in first-aid procedures at or near those places where employees are working is required. Compliance with the provisions of this section may require the presence of more than one first-aid trained person.
  - a) Each employer must have available at all worksites, where a crew is present, a person or persons holding a valid first-aid certificate.
  - b) All crew leaders, supervisors or persons in direct charge of one or more employees must have a valid first-aid certificate.
  - c) For the purposes of this section, a crew means a group of two or more employees working at any worksite.

Additionally, the Contractor shall:

- d) Post emergency procedures which shall include telephone numbers and locations of facilities including, but not limited to, hospitals, physicians, police, fire and emergency medical services, in conspicuous locations at the job site and at all telephone locations.
- e) Provide in a readily accessible location, first-aid supplies of sufficient size and number to handle common first-aid incidents.
- f) Identify personnel qualified to render first aid with suitable emblems affixed to the rear of their hard hats for identification.
- g) Regularly discuss actions to be taken during emergencies with the Contractor's supervisory personnel and at "tool box" safety meetings.

1.06 PORT OF SEATTLE'S RIGHTS

A. INSPECTIONS/INVESTIGATIONS

1. The Port may, in any reasonable manner, observe and inspect the Contractor's safety and accident prevention procedures for all activities and personnel working at the construction sites, including the Contractor, subcontractors, visitors, and materials or equipment suppliers. This specifically includes, but is not limited to, the right to attend all safety meetings.
2. The Port shall receive written copies of accident or incident reports completed by the Contractor within 24-hours of occurrence, using the accident investigation reports found in the Port of Seattle Construction

Safety & Health Manual. This reporting shall include but not be limited to those reports prepared pursuant to OSHA and/or DOSH regulations.

3. The Port may, in any reasonable manner, observe or participate in any accident investigation conducted by the Contractor or anyone performing work for, on behalf of, or under the Contractor. The Port may also, at its sole discretion and in any reasonable manner, undertake its own accident investigation.

**B. CORRECTIVE ACTIONS/STOP-WORK**

1. The Port shall have the right to require the Contractor to address unsafe working conditions, including taking corrective action when unsafe working conditions are observed (i.e., lack of good housekeeping practices, use of equipment in obviously poor condition, failure to adhere to statutory construction regulations, etc.).
2. The Port shall have the right to require the removal from the work site of any person, property, or equipment that, in the Port's opinion, is deemed unsafe.
3. The Port shall have the right to require the Contractor to immediately cease any action and/or stop the Work (or any portion thereof) in the event that any condition exists that, in the Port's opinion, constitutes an imminent danger or serious harm.
4. The Port shall have the right to suspend the Work (or any portion thereof) pending the completion of any accident/incident investigation, whether undertaken by Contractor, the Port or others.

**C. PORT'S ACTION/INACTION DOES NOT RELIEVE CONTRACTOR**

1. Nothing the Port may do, or fail to do, with respect to safety in the performance of the Work shall relieve the Contractor of its responsibility to comply strictly with this Division and all standards referenced in Section 1.02 of this document.

**D. PORT'S ACTION/INACTION NO BASIS FOR ADJUSTMENT**

1. The Port's exercise of any rights under this Paragraph 1.06 shall not be a basis for any adjustment in the Contract Price or Time.

**E. PORT OF SEATTLE INCLUDES CONSULTANTS**

1. As used in these requirements, the terms "Port of Seattle" and "Port" specifically includes the Port's designated consultants.

**1.07 PORT MANDATED SAFETY REQUIREMENTS**

- A.** Prior to mobilization, the Contractor's Project Manager and Safety Representative shall meet with the TCI and Manager of Construction Safety Services to review and discuss the safety requirements of this contract.

**B. SPECIFIC SAFETY PROVISIONS**

1. In addition to Federal, State, and Local regulations pertaining to operations and safety, the Contractor shall adhere to the following Port mandated safety requirements:

- a) Asbestos and Contractor Personnel Asbestos Training: Ensure that all workers have received the initial and annual Asbestos Awareness training prior to the start of work.
- b) Entry into Confined Spaces: Work on this project may require entry into confined spaces as defined by WAC 296-809. The Contractor shall read and follow the requirements of the Port of Seattle's Confined Space Entry Program, as found in the Port of Seattle Construction Safety and Health Manual. The Contractor's Confined Space Entry Program must meet or exceed these requirements.
  - 1) The Contractor shall provide the TCI a copy of its Confined Space Entry Program as part of the Contractor's Safety Plan Submittal. As part of this submittal, the Contractor shall complete the "Confined Space Entry Program Certificate" (Appendix B).
  - 2) Should the Contractor employ subcontractors to work in confined spaces it shall be the Contractor's responsibility to submit the required documentation for each subcontractor.
  - 3) No work shall be allowed to start in a confined space until the required submittals have been made. In the event the Contractor does not comply with these regulations, ACCESS WILL BE DENIED and the TCI notified. Delays caused by failure to submit the required documentation shall not be considered a reason for extension of contract time.
- c) Electrical - Safe Clearance Procedures
  - 1) Entry into High Voltage Areas: Work on this project may require entry into manholes, vaults, electrical rooms or other High Voltage areas.
  - 2) In the event entry is required, the Contractor is obligated to identify any High Voltage areas that may be involved in the project and immediately notify the TCI if they have not been properly identified. Before entry into a High Voltage work area the Contractor shall notify the TCI and contact STIA Electrical Shop at (206) 433-5311.
- d) Fire Prevention: The Contractor shall ensure that fire prevention measures on-site are in accordance with OSHA, DOSH, and NFPA standards. Approved safety cans shall be used for flammable and combustible liquids. Signs and fire extinguishers shall be provided where required.
- e) Traffic Control: Ensure compliance with Section 01 55 26 - Traffic Control.
- f) Hazardous Materials: Ensure compliance with Section 01 57 23 - Pollution Prevention Planning and Execution.
- g) Open Flame Devices: Prohibit the use of unapproved fuel-burning types of lanterns, torches, flares or other open-flame devices on Port property.



- h) Hot Work Permit: Open Flame Welding and spark producing equipment and tasks require the Contractor to secure a “Hot Work Permit” from the Port Of Seattle Fire Department in accordance with Supplementary Conditions 00 80 00, Article SC-04.11 Permits, Licenses, Fees and Notices.
  - 1) Seaport: Open Flame Welding and spark producing equipment and tasks require the Contractor to implement a formal “Hot Work Permit” Program outlined in the Port of Seattle Construction Safety and Health Manual. Cutting and Welding tasks also require the Contractor to secure a “Hot Work Permit” from the Seattle Fire Department in accordance with Supplementary Conditions 00 80 00, Article SC-04.11 Permits, Licenses, Fees and Notices.
  - 2) Airport: Open Flame Welding and spark producing equipment and tasks require the Contractor to secure a “Hot Work Permit” from the Port Of Seattle Fire Department in accordance with Supplementary Conditions 00 80 00, Article SC-04.11 Permits, Licenses, Fees and Notices.
- i) Liquid propane storage and use below grade is prohibited.
- j) Excavating & Trenching: Coordination with the TCI shall be required for work performed on the site.
- k) Construction activities that pose a potential risk of exposure to contaminated soil (such as excavations) shall be supervised by personnel who have both a current 40-hour Hazardous Waste certification, and an 8-hour Hazardous Waste Supervisor’s certification. These individuals shall be able to identify the potential need for upgrading the level of health and safety protection. All personnel working in direct contact with contaminated soil shall have a current 40-hour Hazardous Waste certification and medical monitoring, as required in Standards For General Safety & Health, Chapter 296-843 WAC and in accordance with OSHA regulations. The plan shall also include emergency procedures and medical treatment, fire protection, Job Hazard Analysis (JHA), and PPE requirements.
- l) The Contractor is responsible for soil sampling and air monitoring to determine hazards and exposures to their employees.
- m) Safety plan shall include requirements for daily stretching and flexing of on-site personnel.
- n) Individuals who operate hoisting equipment, including but not limited to cranes, boom trucks, and forklifts so configured, shall possess certification from the National Commission for the Certification of Crane Operators (NCCCO). A copy of the certification (s) shall be submitted in accordance with Section 01 32 19 Pre-Construction Submittals.
- o) Personal Protective Equipment Policy: To reduce the possibility of injuries, the Contractor shall implement a policy that requires

100% use of hardhats, safety glasses, and gloves for all personnel under their control (except when inconsistent with a reasonable site accommodation that complies with applicable L&I, worker safety, and jobsite safety laws and regulations). It is the responsibility of the Contractor to supply the proper personal protective equipment for the task.

- p) Reasonable Site Accommodations
  - 1) Contractors shall provide reasonable site accommodation(s) for personnel, including Port forces, that cannot wear required Construction Site PPE due to disability or religious beliefs. Reasonable notice will be provided by the Port's construction project representative to coordinate site visits for individuals requiring an accommodation.
  - 2) The Contractor shall cooperate and coordinate an alternate site PPE policy to accommodate non-construction job duties by Port forces or Tenants within the work area, as directed by the Port's construction project representative.
  - 3) These accommodations may include but are not limited to: providing access to the job site when no construction work is being performed and no construction hazards are present, and providing construction free corridors and work spaces free of all recognized construction hazards.
- q) Protection of the Public: The Contractor shall submit a plan for the protection of the public on or adjacent to construction and demolition operations. This plan shall include, but not be limited to, barricades, fencing, and signage. "Public" is defined, as anyone not associated with the project - general public, POS and tenant employees.
- r) AOA Operations: Ensure compliance with Section 01 35 13.13 Operational Safety on Airports during construction.
- s) Foreign Objects Debris (FOD): Ensure compliance with Section 01 35 13.13 Operational Safety on Airports During Construction.

C. DISCIPLINARY ACTION MATRIX:

- 1. Defining "The Plan"
  - a) The object of this matrix is to consistently and effectively control safety hazards such as unsafe acts, and unsafe conditions that lead to injuries of employees, the general public, or that cause property damage.
  - b) The matrix also provides a basis for the Contractor's program by standardizing how safety infractions committed by those employees will be handled.
  - c) All employees of the Contractor, subcontractor, sub tier contractor, vendor, or tenant are covered under this matrix regardless of classification.

- d) Damage to equipment or property due to unsafe act or using damaged equipment.
  - e) Listed are the minimum requirements for discipline. The Contractor has the right to incorporate more stringent procedures from their corporate policy into this matrix. The Contractor shall not submit two Disciplinary Action Programs.
  - f) Individuals observed by the Contractor's management shall be disciplined under this matrix.
  - g) Individuals observed by the Port of Seattle management shall also be subject to disciplinary action. POS management shall immediately contact the Contractor's management or provide written information to the Contractor's management as to violation, time, date, employer, and employee.
  - h) The Contractor's Safety Manager shall perform the act of documenting and distributing the "Written Violation Notice."
2. Defining "Violation"
- a) Violations are defined as:
  - b) "General Violations" are considered to be those infractions that may not cause serious injury or illness to an individual but are still violations of written safety policies and procedures. Examples include housekeeping, unregulated ACM incidents, property damage, mushroomed tools, etc. "General Violations" do not necessarily require a written warning unless they become classified as "Repeat Violations."
  - c) "Serious Violations" are those violations that if left uncorrected could cause serious injury or illness to an individual. Examples include employees exposed to fall or impalement hazards or serious bodily harm.
  - d) "Imminent Danger" is violations/situations that will most likely cause permanent disability or death to an individual. Examples can include falls, electrical, or trenching hazards and unsafe equipment.
  - e) "Repeat Violations" are situations that arise as a result of a previously identified infraction not being abated in the time frame required or numerous violations of the same classification. "Repeat Violations" can also be defined as a situation where one supervisor has multiple employees working under their direction who are in violation of a written Federal, State, project, or company policy.
  - f) Violations are not limited to the examples listed above.
- NOTE: An "employee" may be removed from the project at any time for a safety violation that endangers his life or the life of a fellow employee.
3. Defining "Employee"

- a) As mentioned earlier, all employees of the Contractor, subcontractor, vendor, or tenant are included in this program.
  - b) Job title classifications can include but are not limited to trades person, foreman, supervisor, superintendent, etc.
  - c) Any person (s) directly reprimanded for his or her own actions or inactions, regardless of their position, shall be reprimanded as a "Worker."
4. Defining the "Procedure"
- a) Individuals observed committing infractions of written Federal, State, site, or company safety policies shall be brought to the attention of the Contractor's management.
  - b) The contractor shall in a timely manner, notify the identified employee(s) that they are in violation of written safety rules or procedures and shall abate the hazard.
  - c) In the event of "Imminent Danger or" a "Serious Violation," the Contractor or POS shall immediately notify and remove the employee(s) from the hazardous situation.
  - d) The Contractor shall provide timely written warning to the identified individual(s), as well as the direct supervisor and superintendent of that individual(s). The supervisor's names shall be recorded on the "Written Violation Notice."
  - e) To discourage "Repeat Violations" or supervisor apathy, the supervision is subject to disciplinary action as stated in the matrix.
  - f) The Contractor shall utilize the "Written Violation Notice" provided in this section.
5. Defining the "Results"
- a) Personnel (including supervisors) receiving a Written Violation Notice shall be retrained in the appropriate standard or procedures. Said training shall be documented in writing and submitted to the TCI.
  - b) Written Violation Notices received will remain in force for the duration of the project.
  - c) Removal from the project of an "employee" for a minimum of 3 working days.
  - d) Removal of an "employee" from any port of Seattle project for one year.
  - e) Written notice sent to the appropriate corporate president.
  - f) Copies of all "written violation notices" are to be submitted to the TCI with a copy forwarded to the Manager of Construction Safety Services within 24-hours of issuance of notice.

**DISCIPLINARY ACTION MATRIX**

<b>FOCUS POINT /INCIDENT</b>	<b>1ST VIOLATION</b>	<b>2ND VIOLATION</b>	<b>3RD VIOLATION</b>	<b>NOTES</b>
Worker	Verbal & Written Notice	3 Days Off	Removed From POS Projects For One Year	
Worker's Direct Foremen	Written Notice	Written Notice	3 Days Off	3 Worker Lay-offs = Removal From POS Projects For One Year
Worker's Direct Superintendent	Written Notice	Written Notice	Written Notice to Sub/Prime Superintendent and President of Sub/Company	3 Worker Lay-offs = 3 Days Off For Superintendent
Prime Contractor's Superintendent	Written Notice	Written Notice	Written Notice to President of Prime Company	3 Worker Lay-offs = 3 Days Off For Superintendent*

\*Document 01 35 29 - Safety Management this individual may also be removed from the project.

## DISCIPLINARY ACTION MATRIX

### WRITTEN VIOLATION NOTICE

PROJECT NAME: \_\_\_\_\_ PROJECT #: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_

EMPLOYEE BEING REPRIMANDED \_\_\_\_\_

DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

VIOLATION:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

TASK BEING PERFORMED:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

CORRECTIVE ACTION/TRAINING REQUIRED:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

WITNESS: \_\_\_\_\_

FOREMAN: \_\_\_\_\_

SUPERINTENDANT: \_\_\_\_\_ :

GC SUPERINTENDANT: \_\_\_\_\_

FIRST NOTICE: \_\_\_\_\_ SECOND NOTICE: \_\_\_\_\_ THIRD NOTICE: \_\_\_\_\_

EMPLOYEE LAY-OFF OR REMOVAL REQUIRED (YES/NO): \_\_\_\_\_

WRITTEN NOTICE TO COMPANY PRESIDENT REQUIRED (YES/NO): \_\_\_\_\_

ISSUED BY: \_\_\_\_\_ COMPANY: \_\_\_\_\_

D. SAFETY PERFORMANCE

If the Contractor experiences ongoing safety concerns such as a Lost Work Day Case or Recordable Incident Rate greater than the Bureau of Labor Statistics National Average for Construction, experiences repeated violations of safety & health rules and regulations or “Imminent Danger” situations, or fails to abate violations in a timely manner, the Contractor shall be subject to the following action at the Ports discretion:

1. Removal and replacement of management personnel.
2. Submit a written Safety Recovery plan to the TCI and Manager of Construction Safety Services detailing what changes will be made to their safety program and a timeline as to when the changes will be implemented.
3. Hiring an independent safety consultant who shall audit the Contractor’s procedures and operations. The consultant shall compile a plan detailing what changes the Contractor shall implement. This report shall be submitted to the TCI, Construction Manager, and Manager of Construction Safety Services.
4. Notwithstanding 01860 paragraph 1.05 (B)(9)(c), Disciplinary Action Matrix, above in 1.07 (C)(2), shall be used for determining the appropriate corrective action.
5. Conduct a “Safety Stand Down” (suspend all work or any portion thereof). Suspended work shall not be allowed to resume until the Contractor has completed the following actions for review and acceptance by the TCI:
  - a) Hazardous conditions leading up to the Safety Stand Down shall be abated.
  - b) Training of such type and duration shall be conducted to educate personnel on the awareness of, identification of, and correction of hazards leading up to the stand down.
  - c) Document the completion of items a. and b. above.

It is the responsibility of the Tenant to enforce these requirements.

E. TOUR GUIDELINES

1. It is imperative that the highest degree of protection is afforded to all individuals touring any Port construction site. The following guidelines have been prepared as general instructions for the organization, direction and safe conduct of such tours:
  - a) Escorted Visitors: While on the job site, non-construction personnel or groups shall be accompanied at all times by an authorized representative, the TCI, the Contractor, or other designee familiar with the job site.
  - b) Notification and Tours: Personnel tours including technical inspections need to be cleared through the TCI, allowing maximum advance notice. The TCI shall be consulted to coordinate the tour plan, identify specific rules, and to ensure necessary safety precautions are taken.

- c) Safety Enforcement: Before entering a job site, all visitors must be informed regarding the need for careful, orderly conduct and notified of any special hazards that may be encountered.
- d) Personal Protective Equipment: All visitors and tour groups must comply with proper dress, footwear, personal protective equipment or other safety requirements deemed appropriate.

## 1.08 CONTRACTOR ADMINISTRATIVE PROCEDURES

### A. PROJECT SAFETY INSPECTIONS

1. Unsafe conditions or acts having the potential to cause bodily injury or property damage are classified as either "Imminent Danger" or "Serious." In either case, action shall be taken immediately to correct the situation. Any item(s) that cannot be corrected immediately are required to be abated within 24-hours of notification. In the interim, other steps shall be taken to insure the safety of employees or the public.
2. The Construction Safety Inspection Report (CSIR) will be used by the Port Construction Safety Management as the field report for recording the Safety Manager's observations in Section One(see Appendix D).

The following instructions apply to the use of this form:

- a) Contractor's Corrective Action (Section Two): The Contractor shall note the action taken to abate the observation. If an item is abated immediately, it will be so noted in Section One by the Port Safety Manager.
- b) Date Corrected: The Contractor, upon completion, shall enter the date in the appropriate column.
- c) Submittal Procedure:
  - 1) Projects utilizing CMS will use this system to transmit the CSIR Form between the Port and the Contractor until the observation is satisfactorily resolved.
    - i. Email will be used on projects not utilizing CMS
  - 2) When corrective action has been completed, the Contractor's Project Manager or Designee will electronically sign and date the form and return it to the Port's construction project representative.
  - 3) The Port's construction project representative will review the form and follow-up to ensure the "Contractor's Corrective Action" has been addressed, verifying each item corrected.
  - 4) The Port's construction project representative will discuss the noted observations at the Weekly Contractor Progress Meeting.
  - 5) The completed CSIR form shall be returned to the Manager of Construction Safety Services within five working days.

### B. ACCIDENT INVESTIGATION AND REPORTING PROCEDURES



1. All accidents and incidents occurring from operations or work performed under the contract shall be reported, verified, investigated, and analyzed as prescribed by the Port of Seattle Construction Safety & Health Manual. Contractors and other individuals involved in the work shall instruct employees and other personnel to follow these procedures if someone is injured.
  - a) Seek medical assistance for anyone injured. The injured person's supervisor will see that first aid is administered.
  - b) When a serious accident or emergency occurs/exists, secure the incident area tightly and quickly except for rescue and emergency personnel.
  - c) Send individuals as required, to assist or direct any emergency personnel arriving on the site.
  - d) The accident scene shall not be disturbed until released by the Incident Command or Manager of Construction Safety Services, except for circumstances where "Imminent Danger" exists to those performing any emergency services.
  - e) Immediately notify the TCI and Manager of Construction Safety Services (or designee) regarding any accident or injury requiring more than First Aid treatment, any third-party incident, or any equipment or property damage estimate in excess of \$1,000. Notify the Manager of Construction Safety Services of all other incidents including near miss incidents as soon as possible following the event.
  - f) Washington State Department of Labor and Industries must be notified immediately by the Contractor in the event of an accident involving the death or in-patient hospitalization of any employee.
  - g) Employees must report all injuries or occupational-related illnesses as soon as possible to their employer or immediate supervisor.
  - h) A detailed written report, identifying causes and recommending corrective action, must be submitted to the TCI and Manager, Construction Safety Services within 24 hours. No supervisor may decline to accept a report of an injury from a subordinate.
  - i) Within 48-hours of a Recordable or Lost Work Day Case Injury, incident involving 3<sup>rd</sup> party, or property damage incident, the Contractor shall meet with the TCI and Manager of Construction Safety Services. The meeting shall discuss the status of the injured employee, the root cause of the incident, corrective action implemented, the Job Hazard Analysis, and retraining of the employee and supervisor.
  - j) Report all accident exposures and near miss incidents that occur on the job site. These records are to be maintained and submitted to the TCI or other designated authority upon request and shall include but not be limited to:
    - 1) First-aid injuries not reported on the OSHA No. 300 Form.

- 2) The Contractor's OSHA 300 Form.
- k) The above information shall be provided only to authorized personnel including the TCI and Manager of Construction Safety Services.
- l) All questions from the media regarding any incident occurring on site shall be referred to the Port's Public Affairs Manager via the TCI.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

End of Document
-----------------

## APPENDIX A

### SAMPLE CONTRACTOR'S SAFETY PLAN

The Contractor is responsible for reviewing the requirements found and referenced in this Document, the Contract, the Port of Seattle Construction Safety & Health Manual as a minimum, and incorporating any additional specific, or unique safety requirements into their written plan. The Contractor's Safety Plan shall include but not be limited to the following guidelines:

#### A. GENERAL PROVISIONS

1. **Compliance:** Provisions for accident investigations and reporting, formal incident review, reporting, corrective action and disciplinary action procedures meeting the minimum Port of Seattle requirements.
2. **Job Hazard Analysis (JHA):** The Contractor shall complete detailed, written Job Hazard Analysis for the work to be performed, identifying hazards that may exist or be created, outline the equipment to be used, and what procedures and/or safety equipment will be used to eliminate or reduce those hazards. The Contractor shall use the form provided in the Port of Seattle's Construction Safety & Health Manual.
3. **Medical Treatment:** Provide medical treatment in compliance with Federal, State and local requirements. Names of individuals CPR and First Aid trained.
4. **Site Specific Emergency Procedures:** As related to injuries, weather or emergencies at an active POS facility including pre-determined sites for assembly and measures for accounting of employees shall be included. Emergency numbers shall be posted at the given work area(s):

Fire or Ambulance from a non-Port hard-line phone	911
Fire or Police from a Port hard-line phone	9911
Fire or Police Emergency	(206) 433-5380

5. **DOSH/OSHA Requirements and Personal Protection:** Safety and health provisions for providing adequate lighting, ventilation, hearing conservation, CO monitoring, and housekeeping. A written Personal Protective Equipment Assessment for head, face, eye, and hand and torso protection shall be included.
6. **Personnel Instruction:** The Contractor must identify the greatest number of employees to be working at any one time during peak construction periods, the company policies for initial safety indoctrination of all employees, and company plans for continued safety education for all employees, including weekly safety meetings, POS Safety Orientation, Stretch & Flex, Asbestos Awareness training, and English as a second language.

7. **Responsibilities:** Acknowledgment that the Contractor is totally responsible for compliance with OSHA, DOSH, Port or other applicable rules and orders. Additionally, the plan will require a place of employment that is free of unsanitary or hazardous conditions that would harm an employee's health or safety.
8. **Safety Inspections:** Detailed information concerning how safety inspections will be conducted, their frequency, and their documentation.
9. **Safety Personnel:** State the name of the Contractor's Safety Representative(s), their experience and qualifications (i.e. Training in the OSHA 500, 30-hour or 10-hour) Indicate their authority to take the appropriate measures to eliminate hazards or stop work until hazardous conditions are corrected.
10. **Safety Requirements, Electrical:** Testing, inspection and repair of electrical equipment, GFCI Program, lockout/tagout procedures, how existing circuits will be located, and the installation of electrical circuits in accordance with the National Electric Code or Port Mandated Requirements.
11. **Safety Requirements, Equipment:** Operation, inspection, and maintenance for trucks and heavy equipment such as backhoes, dozers, motor graders, elevated work platforms, powered industrial trucks, and all hand and power tools.
12. **Safety Requirements, Ladders:** Types of ladders for specific uses and their training requirements.
13. **Site Layout:** A layout drawing of the site indicating access roads, fire and ambulance lanes, location of first aid stations, location of required alarm systems, location of offices, parking for private vehicles and equipment, and storage of all flammable and/or combustible liquids, gases, or other hazardous materials.
14. **Storage:** Requirements for storage of flammable and combustible liquids or gases.
15. **Field Sanitation:** Provisions for toilet and hand washing facilities, including the frequency at which they will be cleaned and maintained.

B. SPECIAL PROVISIONS

Depending on the type of construction, additional items must be incorporated into the Contractor's Safety Plan.

1. **Confined Space Entry:** Procedures for confined space entry and work operations in and around confined spaces (including elevator shafts) as well as emergency measures. These procedures must meet or exceed the Port of Seattle requirements found in the Port of Seattle Construction Safety & Health Manual. When entry is to be made into a Permit Required Confined Space the Port of Seattle Fire Department shall be contacted prior to entry and at completion of shift.
2. **Respiratory Protection Plan**
  - a) Submit a letter signed by the Contractor stating that all employees or agents required to wear a negative pressure or


supplied air respirator have been medically evaluated in accordance with WAC 296-842.

- b) Submit National Institute for Occupational Safety and Health (NIOSH) certification for all respiratory protective devices utilized on site, including a list of approved components (parts) for each type of respirator that may potentially be used on the project.
  - c) Submit a letter signed by the Contractor stating that respirator fit testing is current for all Contractor employees and agents who wear negative pressure or supplied air respirators. This fit testing shall be in accordance with quantitative procedures as detailed in WAC 296-842 and 296-62-07715.
  - d) Respiratory protection requirements for work impacting the following regulated materials:
    - 1) Asbestos (see Section 02085)
    - 2) Lead (see Section 02080)
    - 3) Light ballasts and universal waste lamps (see Section 02 84 16)
    - 4) PCBs and PCB-containing materials (see Section 02 84 33)
    - 5) PCB caulk (see Section 02 84 33.13)
    - 6) Fugitive and silica dust (see Section 02083)
3. **Steel Erection:** These requirements shall meet or exceed the guidelines of Chapter 296-155 WAC Part P, and shall include pre-planning, hoisting operations, fall protection procedures, overhead protection, and Site-Specific Erection Plan.
  4. **Cranes:** Use of cranes or derricks and the testing and inspection thereof, including hooks, latches, wire rope, operator certification, boom stops, load charts, wind speed, warning devices, fire extinguishers, crane operation signals, suspended work platform pre-lift planning, and critical lift plans.
  5. **Excavations:** Excavation plans must indicate sloping, documented daily inspections, shoring, barricading, excavation access, fall protection, and excavated material storage.
  6. **Fall Protection:** How 100% protection will be maintained, identify the use of personal fall arrest equipment, fall protection systems, and fall protection work plans for heights 4-feet. NOTE: The Monitor System is prohibited.
  7. **Formwork:** Submittal of formwork and false work drawings for review and approval to the TCI.
  8. **Hazard Communication Program:** Including SDS, their location, Master List of Chemicals, Personal Protective Equipment, Training, Labeling, and SDS review and special procedures for sealers, coatings or specialty paints.
  9. **Interruption of Fire/Security Systems:** Plans shall include measures and/or procedures to provide interim fire and security protection to facilities or areas affected by interruptions. These include automatic detection

- devices and alarms, automatic sprinkler systems, fire pumps, fire hydrants, applicable water supplies and reservoirs.
10. **Lock-out/Tag-out:** Procedures for lock-out/tag-out of energy sources during work operations. The Contractor shall include as part of the Lock-out/Tag-out program protocol for Clearance Orders and Switching Orders on electrical and mechanical systems.
  11. **Scaffolding:** "Use" tag system, planking, guardrails, toe boards, anchor points, fall protection, access points, and inspections of.
  12. **Fire Protection:** Including Hot Work Permits, Welding, shields, fire extinguishers, ventilation, PPE, fire watch and cylinder storage.
  13. **Work Adjacent To Occupied Spaces:** Procedures for ensuring occupants of spaces adjoining, above and below construction areas will be protected from hazards created by construction, including but not limited to, falling debris, equipment noise, and penetration of partitions, ceilings, and floors.
  14. **Competent Persons:** Where regulatory requirements (DOSH) specify the use of Competent Persons, the Contractor shall submit in writing the names of those persons. Their area of competency and applicable experience/training documentation.
  15. **Energized Electrical Work Plan:** Submit detailed procedures for working on and guarding of energized equipment or conducting system outages.
  16. **Health Considerations:** The Contractor shall submit a plan that addresses safety & health procedures for working in contact with contaminated soils. This plan shall be revised and resubmitted in the event that conditions encountered during the work are different than those initially planned for. It shall also include:
    - a) Identification and evaluation of the hazards and risks associated with each work task.
    - b) The names and qualifications of each contractor's representative(s) in charge of the work and present at the project when pipeline removal is performed.
    - c) Identification of supervisory personnel and alternative responsibilities for site safety/response operations.
    - d) Determine levels of personnel protection to be worn for various site operations.
    - e) List equipment with adequate nomenclature by item that will be used at the job site and the date and location where the TCI can inspect this equipment.
    - f) Establishment of emergency procedures, such as: escape routes, fire protection, signals for withdrawing work parties from the site, emergency communications, wind indicators, including facility notification.
    - g) Identification and arrangements with the nearest medical facility for emergency medical care of both routine-type injuries and

toxicological problems. Submit the name, location, and telephone number of this facility.

17. **Conveyor Safety Policy:** To include procedures for deactivation of conveyor systems, lockout/tagout of systems, working around operating conveyors and required Port of Seattle conveyor safety training.
18. **STS Tunnel Access Procedures:** What procedures employees will follow if work requires access into the STS system.
19. **Demolition:** The Contractor shall submit a plan to include how they will safely demolish existing structures, ensure security, safe guard employees and the public from falling material, electrical hazards and air quality issues. An Port's construction project representativeing Survey performed and signed by a Qualified Person shall be included.
20. **Public Protection Plan:** The actions the Contractor will take to protect the public while performing construction or demolition on the project. The plan shall include, but not be limited to, barricades, fencing, and signage. "Public" is defined, as anyone not associated with the project - general public, POS and tenant employees.

	<h2>JOB HAZARD ANALYSIS WORKSHEET</h2>			<h3>Site Specific Plan Addendum</h3>	
				Person in Charge* for Reporting Hazards and Injuries:	
Location/address:				Phone Number:	
Title of Job/Operation:		Date:	* requires OSHA 10 & complete documented daily inspections		
		Work Order #:		Day of Safety Meetings:	
Analysis Made By:		Contact person:		Emergency action plan	Call Fire Dept 787-5380 on airport grounds. 911 everywhere else. For large scale emergency meet at:
Analysis Reviewed By:		Phone Number:			
Location of Master Prevention Program:					
Sequence of Basic Job Steps	Potential Hazards/Ergonomics	Recommended Safe Job Procedures and Required PPE			
Supervisor Signature:			Received by RE/CM:		



**SEATTLE-TACOMA INTERNATIONAL AIRPORT CONSTRUCTION GENERAL REQUIREMENTS  
CGR Section 01 35 29 T -Tenant Safety Management**

Will the Scope of Work consist of the following tasks? (check all that apply)		(a) List Chemicals to be used on the project. Material Safety Data Sheets attached <input type="checkbox"/> Yes <input type="checkbox"/> No *Physical MSDS must be on-site.
Traffic control*	Confined Space Entry*	
Welding, Cutting, Grinding*	Heavy Equipment	
Trenching or Excavation*	Flammable or Combustible materials <sup>(a)</sup>	
Carpentry	Steel Erection*	
Painting, Staining, Sealant <sup>*(a)</sup>	Ladder or Scaffold work	
Demolition (Structural)*	Roofing	
Energized Electrical*	Regulated Materials	
Use of a Crane/Boom/Hoisting device*	Hazardous Materials	
Work from heights of 6' or greater*	Conveyors*	
* Requires additional paperwork – checklists, plans, permits, shut-down notice, etc.		(*) A <b>Chemical Exposure Plan</b> will be required for products containing isocyanates, methylene chloride, Hydrofluoric Acid, lead, silica and processes involving floor sealers, traffic coatings, terrazzo sealers or specialty paints.

**Description of public protection measures ("Public" is defined as anyone not associated with the project - general public, POS, Tenant, and Airline Employees):**


**Employee Disciplinary for non-compliance with set forth safety policies and procedures will be consistent Port of Seattle's disciplinary action matrix as described within your site-specific safety plan and site-specific orientation.**

Sign Up			
Print Name	Signature	Print Name	Signature

## APPENDIX B

### CONTRACTOR CONFINED SPACE ENTRY PROGRAM CERTIFICATE

I hereby certify that the attached Confined Space Entry Program meets or exceeds the requirements of DOSH standards WAC 296-804 and the Port Of Seattle's Confined Space Entry Program.

My employees will utilize the Port of Seattle (POS) confined space entry permit(s). They will complete all other sections of the permit that are appropriate for the confined space being entered.

My employees will be informed that they must coordinate their confined space entry procedures with other Contractors and POS employees working in or around the confined space. If entering into a Permit Required Confined Space, we will first contact the Port of Seattle Fire Department, notifying them of the specific location and activity to be performed.

My employees, who will be acting as authorized entrants, attendants, entry supervisors, and air testers, have been trained in accordance with the DOSH procedures and will be made aware of all of the POS procedures for entering confined spaces.

After the confined space entry project is complete my employees will make the TCI and Construction Safety aware of any new hazards confronted or created during entry operations. My employees will contact the Port of Seattle Fire Department and advise them that operations have ceased.

A copy of finalized permit with all attachments will be provided to the TCI at the end of each project.

Contractor's Name: \_\_\_\_\_

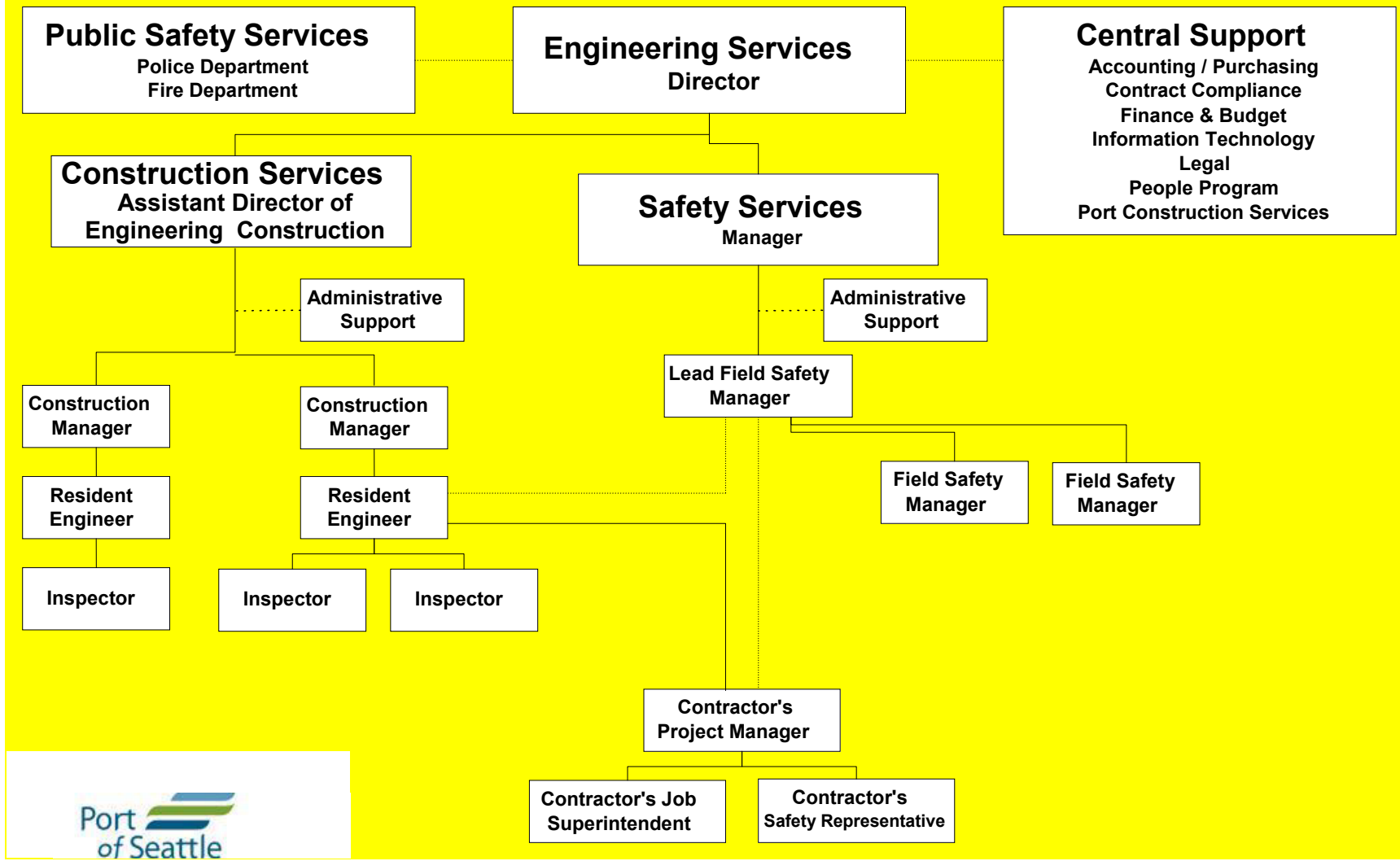
Contractor's Signature: \_\_\_\_\_

Company Name: \_\_\_\_\_ Date: \_\_\_\_\_

Port of Seattle TCI: \_\_\_\_\_

Date: \_\_\_\_\_

# Appendix C Construction Safety Program Organization Chart



# APPENDIX D



## Construction Safety Inspection Report

General	
CSIR Number:	
Date of Observation(s):	
Contractor Name:	
Accompanied By:	
CSIR Prepared By:	
Contractor Representative:	
Observation	
Item No:	
Prime/Subcontractor:	
Category:	
Safety Observation:	
Reference:	
Attachments	

Contractors Corrective Action Taken:	
Date Item Corrected:	
Inspector Comments:	
Inspector Date:	
Safety Comments:	
Safety Date:	

## PART 1 GENERAL

### 1.01 SUMMARY

- A. General: The list of environmental laws set forth in this section is provided pursuant to Section 39.04.120 of the Revised Code of Washington. The Contractor shall fully comply with the provisions of such laws as they may apply to the work.

### 1.02 LIST OF ENVIRONMENTAL STATUTES, ORDINANCES AND REGULATIONS

- A. General: The following is a list of federal, State and local environmental statutes, ordinances and regulations which deal with the prevention of environmental pollution and the preservation of public natural resources that affect or may affect this Project. This list is not to be considered as all-inclusive, nor shall the absence of a law from this list be construed to relieve the Contractor from complying with such law, to the extent it is applicable to the Contractor.
- B. Federal
1. Statutes:
    - a. National Environmental Policy Act: Establishes a Federal policy on the environment and requires the appropriate Federal agency, in any federally assisted or authorized project, to prepare an environmental impact statement for any "major action significantly affecting the quality of the human environment.
    - b. Clean Air Act: Establishes a Federal policy on air quality and directs each state to promulgate air quality laws and regulations to achieve the goals set forth in the Act.
    - c. Clean Water Act: Establishes a Federal policy on water quality and directs each state to promulgate water quality laws and regulations to achieve the goals set forth in the Act. In addition, the Act requires a permit for discharge of pollutants and sets forth oil spill prevention provisions and penalties.
    - d. Rivers and Harbors Act of 1899: Provides that discharge of refuse without a permit into navigable waters is prohibited.
    - e. Port and Waterways Safety Act of 1972: Provides vessel design and construction standards to protect the marine environment.
    - f. Resource Conservation and Recovery Act: Provides standards and requirements for the generation, transportation, treatment, storage and disposal of hazardous wastes.
    - g. Comprehensive Environmental Response Compensation and Liability Act: Provides standards and procedures for the investigation and remedial activities to clean up hazardous substances which substances that have been discharged into the environment.
    - h. Toxic Substances Control Act: Provides standards for the manufacture and distribution of chemicals and for the handling of PCBs.
    - i. Endangered Species Act: Establishes protection for species which are listed as threatened or endangered.

2. Regulations and Guidelines:
  - a. Environmental Protection Agency Regulations on National Primary and Secondary Ambient Air Quality Standards: Establishes national primary and secondary air quality standards for certain compounds pursuant to Section 109 of the Clean Air Act.
  - b. Environmental Protection Agency Regulations Establishing Effluent Guidelines: Establishes national effluent limitations for discharges into navigable waters.
  - c. Environmental Protection Agency Regulations on Discharge of Oil: Regulations promulgated pursuant to the Clean Water Act.
  - d. Coast Guard Regulations on Oil Spills: Regulations promulgated pursuant to the Clean Water Act.
  - e. Army Corps of Engineers Regulations on Navigable Waters: Establishes procedures for obtaining permits required by the Rivers and Harbors Act of 1899 and the Clean Water Act.
  - f. Environmental Protection Agency Regulations on Discharge of Dredged or Fill Material Into Navigable Waters: Establishes guidelines for placing dredge or fill material into navigable waters pursuant to the Clean Water Act.
  - g. Environmental Protection Agency Regulations for Hazardous Waste Management: Regulations promulgated pursuant to the Resource Conservation and Recovery Act.
- C. State:
  1. Statutes:
    - a. State Environmental Policy Act: Establishes a State policy on the environment and requires the appropriate State or local agency to prepare an environmental impact statement for any "major action significantly affecting the quality of the environment" which the agency either undertakes directly or authorizes.
    - b. Shoreline Management Act: Requires a permit for development on State shorelines.
    - c. Clean Air Act: Provides that it is the policy of the State to secure and maintain such levels of air quality to protect health and comply with the Federal Clean Air Act.
    - d. Water Pollution Control Act: Establishes a State policy to maintain the highest possible standards for all water of the State, requires permits for the discharge of pollutants into the waters of the State of Washington and complies with the Federal Clean Water Act.
    - e. Washington Solid Waste Management Law: Establishes uniform State-wide program for handling solid wastes, which will prevent land, air and water pollution.
    - f. Washington Hazardous Waste Disposal Law: Establishes a statewide program for the regulation of the disposal of hazardous waste.





- e. King County Zoning Code: Establishes zoning designations and uses within those designations.
- f. Seattle Shoreline Development Ordinance: Establishes procedures for obtaining a permit under the Shoreline Management Act.
- g. Seattle-King County Noise Ordinances: Establishes noise levels for various activities in different areas of the city and county.
- h. Seattle Environmental Policy Executive Order: Provisions for carrying out the City's responsibilities pursuant to the State Environmental Policy Act.

E. Port of Seattle:

- a. Port of Seattle Sea-Tac International Airport National Pollutant Discharge Elimination System Waste Discharge Permit No. WA-002465-1.
- b. Port of Seattle -King County Waste Discharge Permit No. 7810-02.
- c. Sea-Tac International Airport Schedule of Rules No. 45.
- d. Logistics Staging Area Stormwater Pollution Prevention Plan – Current Edition.

1.03 REQUIRED SUBMITTALS

- A. Specific submittal requirements are called out in the applicable specification section.

PART 2 PRODUCTS - Not used

PART 3 EXECUTION - Not used

End of Section

## PART 1 GENERAL

### 1.01 SUMMARY

- A. Install, maintain, and operate all temporary facilities and controls as long as needed for the safe and proper completion of the Work.
- B. All Work will be in accordance with airfield requirements identified in Section 01 35 13.13, Operational Safety on Airports During Construction.

### 1.02 TEMPORARY ELECTRICITY UTILIZING PORT POWER

- A. Cost: Unless otherwise indicated by the Port's construction project representative, the Contractor shall provide and pay for all temporary power and associated services required from utility source. When required, a subpanel and revenue meter will need to be supplied and installed by the Contractor.
- B. The Contractor is required to submit a POS [Application for Electrical Connection](#) prior to using power in any location where the Port is providing power, including but not limited to, the Logistics Area, Terminal, Parking Garage, and Airfield. Included in the Application for Electrical Connection should be the following:
  - 1. Panel schedule in Port Standard Excel format.
  - 2. 30-day metered load data (7-day metered load data is acceptable for preliminary approval at preliminary design phase).
  - 3. Load summary (existing load + 25% NEC Safety factor - removed load, if applicable, + new load = new total load).
  - 4. Layout showing location of panel, location of load, and conduit routing showing conduit type and size, wire size, and quantity. Include the size and type of power conditioner being provided, if applicable.
  - 5. One-line diagram if new panel is being added.
- C. The Contractor shall provide an engineered temporary electrical plan, as part of the submittals defined in Section 01 32 19 Pre-Construction Submittals. Include in the plan all temporary lighting and power needs for the project. This plan shall include:
  - 1. Power outlets for construction operations, with branch wiring and distribution boxes located as required. Outlets for temporary power distribution boxes shall be protected by an overcurrent protection device adequately rated for the distribution box to be use. It is not acceptable to connect temporary power equipment directly to the panelboard bussing. A temporary outlet must be installed, and removed upon project completion.
  - 2. Provide flexible cords from power distribution box as required. Where cords will pass through public areas, route cords such that they are unobtrusive and secure cords to structure.
  - 3. Provide main service disconnect and overcurrent protection at convenient location.
  - 4. When available the Contractor shall utilize existing outlets to power small tools and equipment rated below 6 Amps. Vacuums, core drilling equipment, and other high electrical draw tools shall not be used on the

same circuit simultaneously. The Contractor is required to provide all overcurrent and GFCI protection.

- D. Welders connected to the Ports electrical system shall include a power conditioner unit. The Contractor shall connect only one welder, via power conditioner unit, to each electrical connection.
  - 1. Contractor must provide a POS [Application for Electrical Connection](#) for temporary electrical power, along with backup, to obtain acceptance before connecting welders to the Port's electrical system.
  - 2. Based on the welder used, the Contractor shall connect the appropriately sized power conditioning unit. The conditioner shall comply with IEEE519 standards. The available power at the Airport Distribution Centers is 480V, three-phase or single-phase. As appropriate, the Contractor shall provide 480V, 3-pole or single pole breakers at the Distribution Centers in order to obtain temporary power. Size breakers to match connected welder ampacity.
  - 3. The Contractor shall coordinate and provide SO cords and twist-lock receptacles on the welders and conditioning units so that it is only possible for welders to be connected to conditioning units and not directly to the Airport's electrical system.
  - 4. The Contractor shall utilize existing conduit/wire chases to route cables from the distribution centers up to the work area. As accepted by the Port's construction project representative, the Contractor may drill holes through floors or walls in order to route welder cables to the work area. Penetrations through floors or fire walls shall be packed solid with saving (fireproofing material) so as to maintain fire rating of partitions (1 hour) or floors and ceilings (2 hours). All drilled holes shall be patched to maintain fire rating and finished to match surrounding materials after work is completed.
- E. The Contractor shall notify the Port's construction project representative a minimum of 7 days in advance of disconnecting from the Port's electrical system.

### 1.03 TEMPORARY ELECTRICITY UTILIZING GENERATORS

- A. The Contractor shall provide noise-suppressed generators where Port power is unavailable or not approved for use. All fuel-operated generators shall be located outside the building. No welders shall be connected to the Airport's electrical systems unless a power conditioner unit is accepted for use by the Port's construction project representative.

### 1.04 TEMPORARY LIGHTING

- A. Provide and maintain fluorescent/LED lighting for construction operations to achieve minimum lighting levels required by the Safety and Health Core Rules (WAC 296-155-165).
- B. Provide branch wiring from power source to distribution boxes with lighting conductors, pigtails, and lamps as required.
- C. Maintain lighting and provide routine repairs.

- D. In public areas the Contractor shall provide temporary lighting to maintain lighting levels present prior to beginning of work at all times during all Contractor operations.

#### 1.05 TEMPORARY HEATING, COOLING, AND VENTILATING

- A. Provide and pay for heating, cooling and ventilating devices and heat as needed to maintain specified conditions for construction operations.
- B. Permanent equipment shall not be used for temporary heating, cooling, or ventilating purposes. Prior to operation of temporary equipment for heating, cooling, or ventilating purposes, verify that installation is accepted for operation, equipment is lubricated and filters are in place. Provide and pay for operation, maintenance, and regular replacement of filters and worn or consumed parts.
- C. Maintain minimum ambient temperature of 50 degrees F and maximum temperature as required by Washington State Labor and Industries in indoor areas where construction is in progress, unless indicated otherwise in the specifications.
- D. Ventilate enclosed areas to assist cure of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gas.
- E. The Contractor shall construct dust-, vapor-, and smoke-proof enclosures to separate the work area from the central HVAC system and the public whenever welding, dust-, or vapor-generating activities are taking place and during any demolition activities. All outlets and paths for air to return to the central HVAC system or public spaces shall be sealed with 6 mil visqueen to prevent recirculation of contaminated air. The Contractor shall provide temporary ventilation to remove objectionable vapors and dust from within the enclosure. The temporary ventilation shall not discharge within the terminal building.
- F. In order to mitigate grinding, sanding, and electric welding smoke when indoors, the Contractor shall furnish and use self-contained, mobile, high efficiency extraction arm filtration units such as Plymo Vent, Nederman, Miller, Lincoln, or accepted equal whenever and wherever welding operations are taking place. Light duty and small (below 100 sq ft) construction zone extraction units to be minimum 130 CFM, include cleanable ASHRAE MERV 13 filter, and extraction arm. Medium and Heavy Duty and normal access construction zone extraction units to be 500 CFM min, include cleanable ASHRAE MERV 13 - 100 sq ft of filter area min, extraction arm. Contractor required to monitor space below OSHA and ACGIH levels for welding processes. If levels are exceeded, Contractor to take additional steps to avoid creating an unsafe working environment. Contractor to provide respirators, dilution ventilation, or temporary exhaust to outdoors as necessary to comply.

Brazing and gas welding requires temporary exhaust vented directly to outdoors. Refer to drawings for routing, sizes, and design requirements. Contractor is required to monitor space below OSHA and ACGIH levels for welding processes. If levels are exceeded, Contractor shall take additional steps to avoid creating an unsafe working environment. Contractor will provide respirators or dilution ventilation as necessary to comply.

- 1. All welding, brazing or work that has the potential to create sparks requires a hot work permit issued by the Port Fire Department.

#### 1.06 COMMUNICATIONS

- A. Cost: Unless otherwise indicated by the Port's construction project representative, the Contractor shall provide and pay for telephone and data services required for the project.
- B. The Contractor shall provide his own means of job site communication.
  - 1. Mobile communications equipment (i.e., Radio) must be accepted in advance by the Port's construction project representative.
  - 2. Contractor shall submit the [RF Application and Approval form](#) to the Port's construction project representative in accordance with the Tenant Improvement Design and Construction Process Manual.

#### 1.07 TEMPORARY WATER

- A. Cost: Unless otherwise indicated by the Port's construction project representative, the Contractor shall provide and pay for all temporary water service required for construction operations.
  - 1. No meter is required for connections smaller than 1 inch.
  - 2. Metering is only required when Port Fire Hydrants will be used.
- B. Drinking water for employees shall be provided in accordance with Washington State Department of Labor & Industries (L & I) Division of Occupational Safety and Health (DOSH) requirements.
- C. Construction water for inside terminal/ramp and buildings shall connect to the existing water system through existing branch piping, or as provided in the Contract Documents. Provide temporary pipe insulation to prevent freezing for any piping exposed. Each connection shall utilize a lockable shutoff valve and a Reduced Pressure Backflow Preventer device (Washington State Department of Health approved; contact the Port's construction project representative for the list as necessary) and a calibrated water flow meter readable in cubic feet, to be provided and maintained by the Contractor. The Contractor shall be fully responsible for the security of the temporary water connection, including freeze protection. No Contractor shall use water from another Contractor's temporary water connection unless accepted in writing by the Port.
- D. Construction water for exterior landside and airfield projects may be supplied via existing Port of Seattle supply mains under the following conditions:
  - 1. Each connection shall be made at an existing Port of Seattle fire hydrant.
  - 2. Only one 2 ½" side port of the Port of Seattle fire hydrants may be used for temporary water connection. The Contractor is responsible for ensuring the Fire Department has hydrant access, and no obstructions are in the way of the main 5" storz port of the hydrant.
  - 3. The Contractor shall provide and install a reduced pressure backflow preventer device (RPBD) and a water meter. The contractor shall swab the fittings to the fire hydrant in the presence of the Operating Engineer, who will test the chlorine used for the swab with chlorine strips. The Operating Engineer will also test the RPBD and record the water meter.
  - 4. The Port of Seattle Field Crew is responsible for turning Fire Hydrant valves. Contractor shall not operate the fire hydrant or foot valve at any time; contact the Port's construction project representative for assistance.

5. Upon completion of temporary water connection related work, the Contractor shall provide a photo of the meter location and reading to the Port's construction project representative.
  6. The Port of Seattle reserves the right to test the water meter and operation of the reduced pressure backflow assembly at any time and require the Contractor to take necessary actions to maintain the integrity of the meter and backflow assembly at all times. The Contractor will be required to conduct water filling and usage operations in such a manner that do not endanger the Port of Seattle Water System at any time nor cause the Port to be in violation of Washington State Administrative Code (WAC) Section 246-290.
  7. Failure of the Contractor to follow these backflow prevention requirements will result in the removal or locking out of the Contractor's connection to the Port of Seattle water system. If the Contractor wishes to relocate the temporary connection to a new hydrant at any time, a new request must be submitted and the above outlined procedure repeated. Should the RPBD be disconnected during the duration of the hydrants use, the procedure for backflow testing shall be re-scheduled.
  8. Provide temporary pipe insulation to prevent freezing for any piping exposed. The Contractor shall be fully responsible for the security of the temporary water connection, including freeze protection. No Contractor shall use water from another Contractor's temporary water connection unless accepted in writing by the Port.
- E. The Port of Seattle shall receive a minimum 7-day notification prior to planned temporary water connection, and no later than Thursday at 8:00 AM for work the following week. The Contractor shall also notify the Port's construction project representative a minimum of 7 days in advance of disconnection of a temporary water connection.
- F. Connections to potable Water Systems shall be made in accordance with the Port's disinfection requirements in accordance with Specification Section 22 11 16 Domestic Water Piping. Section 22 11 16 is not included in this document but can be obtained by request from the Port's construction project representative.
- G. Construction water shall be disposed of in accordance with Specification Section 01 57 13, Temporary Erosion and Sediment Control Planning and Execution. Section 01 57 13 is not included in this document but can be obtained by request from the Port's construction project representative.

#### 1.08 TEMPORARY SANITARY FACILITIES

- A. Contractor personnel may use public restrooms throughout the Airport Terminal.
- B. When Airport Terminal restrooms are not available the Contractor must provide Temporary Sanitary Facilities as required by Washington State Labor and Industries.
- C. Concrete, grout, debris, or other related construction activities shall not be washed down the Ports sanitary system.

## 1.09 BARRIERS AND ENCLOSURES

- A. Barriers and Enclosures for Airport Dining & Retail and Tenant projects built in interior public facing spaces shall be provided and removed by the Port of Seattle. The Port's Project Manager will coordinate their installation and removal. For other than these interior public facing spaces, the requirements of this section will apply.
- B. General Requirements
1. Provide temporary Pedestrian Barriers, Partition Enclosures, and Polyethylene Enclosures as required to separate work areas from Owner/Public occupied areas, to prevent penetration of dust and moisture into Owner/Public occupied areas, and to prevent damage to existing materials, equipment, structures and other facilities. Constantly secure barriers and enclosures in a manner to prevent unauthorized entry into construction areas. Shield security and other stationary cameras from welding arc flash with visual barriers at the welding location. Do not obstruct the camera view unnecessarily. Notify the Port's construction project representative prior to shielding any cameras in order to obtain clearance from the Security Department.
  2. All Barriers and Enclosures shall be fully installed and complete within 24 hours of initiating the installation. One week prior to installation, the floor area to be enclosed by a barrier or partition shall be clearly marked to indicate location and alignment. If more than 24 hours is required for large areas, provide a plan for phasing of the installation. Obtain acceptance from the Port's construction project representative prior to installation of any enclosure or barrier.
  3. Barriers and Enclosures shall be installed and maintained in straight lines and with 90-degree corners typically. In high traffic areas for improved visibility, the use of 45-degree corners may be required as directed by the Port's construction project representative. Partition panels shall neatly adjoin existing walls where necessary. Existing finishes shall be protected prior to installation of partitions. Gaps between existing walls and enclosures shall be 1-1/2" maximum. Provide braces as necessary to support enclosure. Cut bracing flush with exposed painted surface of panels. All wood surfaces that are exposed to Public view shall be painted.
  4. Existing floor and carpet areas beneath panels and within barrier and enclosure areas shall be protected with polyethylene sheeting, cardboard, carpet or other suitable material.
  5. Panels shall be pre-painted prior to installation or painting shall occur immediately after installation between the hours of 2300 and 0400. Nails, screws and other fasteners shall be installed flush with the face of the partition. All wood, fasteners, hinges and other hardware exposed to Public view shall be painted.
  6. Project information and directional signage attached to the Public side of enclosures shall be supplied and installed by the Port. If additional directional signage is needed the contractor shall bring it to the attention of the Port's construction project representative.

7. No signage of any kind shall be affixed to the public side of the barrier or partition without prior approval from the Port's construction project representative. Unapproved signage may be removed and disposed of by the Port without notification to the Contractor.
8. A neat, clean, uniform appearance of all Barriers and Enclosures shall be maintained at all times. Scuffed, dirty or discolored panels shall be cleaned or repainted as directed by the Port's construction project representative at no cost to the Port.
9. Barriers and Enclosures may be reused for subsequent phases of work at different locations if they are in acceptable condition as determined by the Port's construction project representative. Panels shall not be reused if visible damage to exterior surfaces includes holes, dents or splintering. Contractor shall repaint panels as directed by the Port's construction project representative at each location. (Based on the phasing plans and the number of relocations expected, the Contractor may be required to repaint barriers or partition enclosures during the course of the project.)
10. Paint for all Barriers and Enclosures, including exposed fasteners, hinges and other hardware, shall be Sherwin Williams Harmony Interior Acrylic Latex; or Kelly Moore with type and color to match or equal.
11. Provide electrical power outlets for any advertising, safety or exit signs to be relocated from their existing locations in or on walls to the surface of the construction barricades that would cover or otherwise block them.

C. Pedestrian Barriers

1. Pedestrian Barriers shall be constructed with integral base or other devices to resist an overturning moment created by the force of 50 pounds per lineal foot applied horizontally at the height of 3 feet 6 inches perpendicular to the partition for the full length of the partition.
2. Pedestrian Barriers shall be 3'-feet-6-inch minimum height constructed of 1/2-inch ACX fire retardant treated plywood fastened to either 3-5/8-inch - 18 GA light gage steel or 2"x4" fire retardant treated timber studs with continuous framing at top and bottom. Face of Barrier exposed to the Public shall be smooth (A side) and free from protrusions with edges.
3. Batten strips shall be securely fastened to the exterior face of barrier along the top edge and to neatly conceal all vertical joints and corners as shown in the sketches provided at the end of this section. Batten strips shall be 1/2-inch x 4-inches wide with exposed corners rounded or beveled at 45 degrees and shall be painted to match exposed face of barrier.
4. For Barriers with height of less than 6-feet-0 inch which enclose a vacant space such as the lower portion of a scaffold, provide fire retardant debris screen stretched horizontally over the enclosed space or as directed by the Port's construction project representative when no work is being performed within the space. Submit debris screen product and color for acceptance prior to installation.
5. When accepted by the Port's construction project representative, orange cones, stanchions, warning barrier fence or marker tape may be used as a



temporary Pedestrian Barrier around the construction area where hazard exists to the public, airport facilities and staff, or Contractor personnel.

D. Partition Enclosures

1. Partition Enclosures shall be capable of resisting 5 psf applied over the entire surface of each side, separately. Where required or as shown on the plans, partitions shall be constructed to safely support dislocated or relocated functioning appurtenances such as telephones, advertising signs, fire extinguishers, and other similar items. The Contractor shall be responsible for the structural integrity and capacity of the partitions carrying the additional weight of these items.
2. Reference attachment 01 50 00 B Elevation and 01 50 00 C Section Model for construction of Partition Enclosures.
3. Partition Enclosures shall be 8-foot-0-inch minimum height, constructed of 1/2-inch ACX fire retardant treated plywood fastened to either 3-5/8-inch - 18 GA light gage steel or 2"x4" fire retardant treated timber studs with continuous framing at top and bottom. Face of Enclosure exposed to the Public shall be smooth (A side) and free from protrusions with edges and corners eased and painted per the General Requirements of this section.
4. Batten strips shall be securely fastened to the exterior face of barrier along the top edge and to neatly conceal all vertical joints and corners as shown in the sketches provided at the end of this section. Batten strips shall be 1/2-inch x 4-inches wide with exposed corners rounded or beveled at 45 degrees and shall be painted to match exposed face of partition.
5. Double wide delivery doors shall be constructed of similar fire-retardant materials and exposed finish used for partitions and shall be fully framed to eliminate warping. Doors shall remain flush with exposed partition face when closed. Rollers may be used to support doors if necessary to prevent damage to flooring. All exposed hinges and hardware for doors shall be clean and painted to match exposed face of partition. Holes in doors for locks and chains shall be drilled or machine cut with edges eased and no larger than 5 inches in diameter. For adjacent doors, holes shall be the same diameter and occur at the same height.
6. All chains and locks used at delivery doors visible to the Public shall be clean and free from rust. Verify chain and lock arrangement with the Port's construction project representative to allow 24-hour access to enclosure areas for Contractor and authorized Port personnel. Delivery doors shall be secured when not in use.
7. Provide a 3-0 X 7-0 hollow metal door for general personnel access into the work space. The door shall be provided with a closure and lockset to keep the site secure during construction.

E. Polyethylene Enclosures

1. Polyethylene Enclosures: Enclosures constructed with polyethylene as described in the General Requirements that completely enclose the work area above the 8-foot-0-inch height enclosed by Partition Enclosures as shown in the sketch provided at the end of this section. Polyethylene

Enclosure support framework shall be capable of supporting 1 psf applied over the entire surface of each side, separately.

2. Polyethylene sheeting for enclosures, wall, stationary objects, floors, ceilings and all other uses shall be white in color and at least 6-mil thickness. Exterior sheeting exposed to Public view shall be installed on the outside of the support framework to cover the framework. Sheeting shall be used in widths selected to minimize the frequency of joints. All polyethylene sheeting used shall be fire retardant and meet Port Fire Department requirements.
3. Joints between polyethylene sheets shall be securely taped. Tape shall be white in color and one type of tape shall be used for all enclosures. Sheeting and tape samples shall be submitted for acceptance by the Port's construction project representative prior to installation.
4. Polyethylene enclosures shall be neatly secured when not in use and care shall be taken to avoid loose sheeting and tape.
5. The use of polyethylene enclosures shall be minimized except as required in the General Requirements of this section or as directed by the Port's construction project representative.

#### 1.10 FENCES

- A. Provide a 6-foot-high chain link fence with gates around the perimeter of the site for security during the entire length of construction or unless accepted otherwise by the Port's construction project representative.

#### 1.11 EXTERIOR ENCLOSURES

- A. Provide temporary weather tight closure of exterior openings to outside of the building to accommodate acceptable working conditions and protection for Products, to allow for temporary heating and maintenance of required ambient temperatures identified in individual specification sections, and to prevent entry of unauthorized persons. Exterior enclosures shall be constructed with full height, insulated partitions having a minimum R Value of 12. Provide access doors with self-closing hardware and locks.

#### 1.12 PROTECTION OF INSTALLED WORK

- A. Protect installed work and provide special protection where specified in individual specification sections.
- B. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
- C. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
- D. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
- E. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
- F. Prohibit traffic across landscaped areas.

1.13 SECURITY

- A. Provide security and facilities to protect the Work and Port's operations from unauthorized entry, vandalism, or theft.
- B. The construction site shall be closed to the public at all times. Construction site is defined as the temporary facilities and work areas inside partitions, enclosures, and cones and tape.
- C. Ensure the security of tenant facilities in the event construction activities endanger those facilities or commodities.
- D. Abide by special requests of security personnel, Port of Seattle Police and Fire Departments.
- E. Airport Security: See requirements summarized in paragraph, Airport Rules and Regulations, Section 01 35 13.13 - Operational Safety on Airports During Construction, and Section 01 14 13 - Airport Personnel Identification/Access Control and Security, of these specifications.

1.14 PROGRESS CLEANING AND WASTE REMOVAL

- A. In addition to the requirements of Section 01 74 00 - Cleaning:
  - 1. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
  - 2. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.
  - 3. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.
  - 4. Collect and remove waste materials, debris, and rubbish from site and dispose off-site in a legal manner.
  - 5. Provide trash dumpster(s) for the packaging or waste material of all Port furnished items installed by the Port's vendors/installers.

1.15 STREET CLEANING AND DUST CONTROL

- A. If needed for a specific project, request Specification Section 01 57 13 - Temporary Erosion and Sediment Control Planning and Execution for additional requirements.

1.16 REMOVAL OF CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

- A. Remove temporary utilities, equipment, facilities, and materials, prior to Substantial Completion or as directed by the Port's construction project representative.
- B. Clean and repair damage caused by installation or use of temporary work.
- C. Removal of temporary facilities and controls, including but not limited to restoration of site and laydown area utilities to preconstruction conditions (capping, safing and incorporation of lockout/tag-out protocols), shall be an element of the final inspection and punchlist.

1.17 USE AND OCCUPANCY

- A. The Airport is an operating facility that must remain in full operation throughout the term of this Contract. Where facility operations conflict with those of the

Contractor, the operations of the facility will take precedence over those of the Contractor. It shall be the sole responsibility of the Contractor to schedule and coordinate its activities with those of the facility to assure minimum disruption of facility operations.

- B. Contractor will be allowed space for the storage of materials and the pursuance of Work under this Contract in the areas as directed by the Port's construction project representative. The Contractor shall limit storage of materials, tools, and other items necessary to the Work, to areas within the construction barriers. Items stored outside the designated areas shall be prohibited without prior approval from the Port's construction project representative.
- C. The Contractor shall not use baggage carts provided by Smarte Carte or carts belonging to any Airport tenant to transport or store equipment and construction materials.
- D. Time Restrictions will apply to locations for delivery of materials, tools, equipment, and debris disposal into or out of the work areas. The following time restrictions for deliveries or pickups shall apply unless accepted otherwise by the Port's construction project representative.

1.	Service Tunnel Loading Dock:	2400 to 0500
2.	Deplane Drive	2400 to 0900
3.	North and South Satellites	2400 to 0500
4.	Arrivals/Lower Drive	1000 to 2400

#### 1.18 NOISE CONTROLS

- A. At all times keep objectionable noise generation to a minimum by:
  - 1. Equipping air compressors with silencing packages.
  - 2. Equipping jackhammers with silencers on the air outlet.
  - 3. Equipment that can be electrically driven instead of gas or diesel is preferred. If noise levels on equipment cannot reasonably be brought down to criteria, listed as follows, either the equipment will not be allowed on the job or use time will have to be scheduled subject to acceptance of the Port's construction project representative.
  - 4. All construction vehicles and equipment on the project operating between 10:00 p.m. and 7:00 a.m. shall be equipped with an ambient noise sensing variable volume backup alarm system. The system shall be in compliance with Washington Administrative Code (WAC) 296-155-615.
- B. Objectionable noise received on neighboring (non-Port owned) properties is defined as any noise exceeding the noise limits of State Regulations (WAC 173-60-040) or City ordinance, as stated below, or as any noise causing a public nuisance in a residential area, as determined by the Port and community representatives, or by the nuisance provisions of local ordinances.
  - 1. The noise limitations established are as set forth in the following table after any applicable adjustments provided for herein are applied:

**RECEIVING PROPERTY**

NOISE SOURCE	RESIDENTIAL	COMMERCIAL	INDUSTRIAL
Airport	50 dBA	65 dBA	70 dBA

- 2. Between the hours of 2200 and 0500 on weekdays and 2200 and 0900 on weekends the noise limitations above may be exceeded for any receiving property by no more than:
  - a. 5 (five) dBA for a total of 15 minutes in any one hour period; or
  - b. 10 (ten) dBA for a total of 5 minutes in any one hour period; or
  - c. 15 (fifteen) dBA for a total of 1.5 minutes in any one hour period.
- C. In addition to the noise controls specified, demolition and construction activities conducted within 1,000 feet of residential areas may have additional noise controls required.
- D. The Contractor’s operation shall at all times comply with all County and City requirements.
- E. For work conducted within Airport buildings, noise levels from work activities shall not exceed 80 dBA on the slow scale at the project boundary.
- F. The Contractor shall plan all work activities generating noise, such as saw cutting or core drilling, during periods of low airport activity.

1.19 SCAFFOLDING

- A. The Contractor’s attention is called to the fact that, upon approval by the Port’s construction project representative, scaffolding or other support systems may be required for some projects. Tape, plastic, or cones shall not be used by themselves as protection. Scaffolding shall comply with the requirements of the Washington State Department of Labor and Industries. The Contractor shall be totally responsible for the structural integrity of any containment systems utilizing a scaffold system. The Contractor shall post a sign in each containment specifying the maximum number of persons or weight for which the system is designed or installed and shall be responsible for seeing that this weight is not exceeded. All scaffolding exposed to public view shall be clean and freshly painted.
- B. Any scaffolding used must be cleaned, completely free of debris, and painted Harmony Interior Acrylic Latex; or Kelly Moore with type and color to match; or equal unless directed otherwise by the Port’s construction project representative. Contractor shall verify color prior to paint procurement.
- C. Follow all manufacturers’ recommendations and all applicable regulations in the set-up, use and tear-down of all scaffolding used.
- D. The Contractor shall ensure that all scaffolding has adequate debris and safety barriers to protect the public below.

- E. The Contractor shall replace any existing lighting displayed or covered by ceiling mounted scaffolding with temporary lighting. The intent is to maintain, at a minimum, the existing lighting level.
- F. The Contractor shall submit a scaffolding plan with details, approved and stamped by a licensed Professional Engineer.

#### 1.20 CONSTRUCTION EQUIPMENT

- A. When construction equipment or machinery will be used to perform the Work, the Contractor shall submit a list of construction equipment or machinery that will be used. Construction machinery is a piece of equipment that will impose loads to the existing structure. (i.e., scissor lifts, man lift, etc.) The equipment list shall include the weights of the equipment and any axial loads or construction loads expected to perform the Work.
- B. Equipment (Vehicles) used inside the building, including the baggage make-up area, shall be powered either electrically or by propane. If propane vehicles are used, the vehicles shall not be left running when not used.
- C. Provide signage on the equipment identifying the Contractor and project(s) for which it is being used.

#### 1.21 WASTE WATER CONTROL

- A. Prevent discharge of any water/contaminated or otherwise from the site or work locations from any source, including runoff, from entering onto adjacent areas occupied or storage spaces or properties.

#### 1.22 TEMPORARY OPENINGS

- A. Ensure that all temporary openings formed required for execution of the Work, are labeled with the project name and contact information of the responsible contact. At the completion of work at each location, ensure that the openings are closed and restored to match the adjacent surfaces. This will include temporary ceiling

#### 1.23 TEMPORARY CEILING REMOVAL

- A. Where ceiling systems are required to be temporarily removed for construction purposes, ceiling removal shall be performed by the Port.
- B. The Contractor shall ensure the ceiling envelope is maintained at all times throughout the project.
- C. At the time the ceiling is initially opened and throughout the project, the Contractor shall inspect the work area for evidence of rodent or other pest activity. Any evidence shall be reported to the Port's construction project representative immediately.
- D. The Contractor shall maintain a neat and clean appearance of the temporary ceilings throughout the project. Unkempt, dirty or discolored materials shall be cleaned or reinstalled as directed by the Port's construction project representative at no cost to the Port.
- E. The number of ceiling openings shall be limited to the minimum quantity necessary to achieve to complete the current work item. The number of ceiling openings shall be approved by the Port construction project representative in advance.

Existing ceiling openings may need to be closed in order for additional ceilings to be opened.

F. Installation of Temporary Ceiling Covers

1. To maintain the ceiling envelope for limited durations, white or opaque fire retardant, flame resistant polyethylene of at least 6 mil thickness shall be installed across temporary ceiling openings.
2. Polyethylene sheet shall be attached with Universal brand metal binder clips, 2-inch size with 1-inch capacity, or equivalent.
  - a. Binder clips shall be installed on all sides of the ceiling opening, no more than 18 inches apart.
  - b. Binder clips shall be installed in a manner sufficient to:
    - (1) Maintain the ceiling envelope,
    - (2) Prevent debris from the work area falling into the space below the ceiling, and
    - (3) Prevent rodents or other pests from accessing the space below the ceiling.
3. The installation of the polyethylene sheeting shall be done in a neat manner, made as tight as possible across the opening, with no greater than 2 inches of sag and no gaps along the edges of the opening.
4. Polyethylene shall be trimmed neatly and may not be left hanging at the edges of the opening.
5. For ceiling openings above or adjacent to food service or other sensitive locations, the Port construction project representative may require tape to be installed at the edges of the polyethylene sheeting. If tape is used, it shall be 4-inch wide poly tape of matching color. Any tape residue shall be removed by the Contractor. Tape shall not be used on surfaces that may be damaged by tape removal.
6. The Contractor shall ensure that the sheeting is legibly labeled in indelible black ink with the following information:
  - a. Date the ceiling tile was removed,
  - b. Contractor name, and
  - c. POS Work Project number.

G. Accessing Existing Temporary Ceiling Openings

1. Temporary ceiling covers shall be opened carefully, with all components set aside for reinstallation at the end of the shift.
2. Any evidence of rodent or other pest activity shall be reported to the Port's construction project representative immediately.
3. On a given shift, the Contractor shall limit opening temporary ceiling covers to the locations where work will be performed during that shift.
4. The Contractor shall reinstall temporary ceiling covers as specified above.

5. The Contractor shall conduct a visual inspection of all temporary ceiling covers during each work shift. Any deficiencies shall be corrected by the Contractor prior to the end of the work shift.
- H. Closing Temporary Ceiling Openings
1. Permanent ceiling systems shall be replaced as soon as possible to minimize the duration that temporary ceiling covers are in place.
  2. The Contractor shall arrange for required inspections from the Port and regulatory agencies as soon as possible to minimize the duration the temporary ceiling covers are in place.
  3. The Contractor shall contact the Port construction project representative to request closure of temporary ceiling openings as soon as possible after work is complete in each area. Temporary ceiling openings shall not be maintained throughout the duration of the project.
  4. Replacement of ceiling systems shall be performed by the Port unless replacement by the Contractor is approved by the Port's construction project representative.

#### 1.24 MAINTENANCE OF OPERATIONS

- A. Public Safety Convenience: The Contractor shall conduct all operations with the least possible obstruction and inconvenience to the Port, its tenants and the public.
1. Permit traffic (pedestrian and baggage) to pass through the work area with least possible inconvenience and delay.
  2. Maintain pedestrian traffic routes and existing roadways within, and adjacent to, the work area.
  3. Maintain existing signing and lighting systems in operation as the work proceeds unless noted otherwise on drawings.
  4. Maintain access to entrances, driveways, loading docks, buildings, etc. Unless noted otherwise on drawings. Coordinate any reduction in service at such locations with Port's construction project representative.
  5. Maintain all walkways, access ramps, entrances and related facilities that satisfy the requirements of the Americans with Disabilities Act (ADA) of 1990. If closure of such facilities is necessary, provide alternate temporary facilities that replace the temporarily closed facilities.
- B. Responsible Representative: The Contractor shall appoint one employee as the Contractor's responsible representative and point of contact. The appointed representative shall have authority to act on behalf of the Contractor and shall be available, on call, twenty-four hours a day, throughout the period of construction for the Contract. A 24- hour telephone number shall be provided to the Port's construction representative for use in case of an off-hour emergency. The Contractor shall provide immediate response to correct all deficiencies upon notification.
- C. Temporary Facilities: The Contractor shall provide temporary barriers, temporary enclosures or partitions sufficient to physically separate airport operations,



including but not limited to pedestrians from the Work. The use of temporary scaffolding and other access equipment shall also be commensurate with facility operations.

- D. Traffic Control Devices: The Contractor shall provide and maintain controls as required to warn and protect the public, tenants and Port employees from injury or damage caused by the Contractor's operations. No work shall be performed on or adjacent to any vehicular or pedestrian roadway/walkway until all necessary signage and traffic control devices have been accepted and are in place. (Section 01 55 26 - Traffic Control).

## PART 2 CONTRACTOR PARKING/SHUTTLE OPERATIONS

### 2.01 Contractor Parking

- A. Limited parking for construction workers is available within the Contractor Parking Lot (CPL) located at 19020 28th Avenue South, SeaTac WA, 98188 at a cost to the Contractor based on Airport Tariff No. 1. Use of the CPL will be permitted on a first-come first-served basis. Parking will be coordinated by the Port's Project Manager, approved by Engineering Construction Management, and paid through Port Leasing.
- B. If approved, access to the Contractor Parking Lot will be given at NTP. The Contractor shall coordinate with the Port's Project Manager for the number of parking passes required. All issued parking passes shall be returned to Port's Project Manager as a condition of Demobilization.
- C. Reference attachment 01 50 00 D CPL and Logistics Facilities for location and layout of the Contractor Parking Lot (CPL).
- D. The Contractor Parking Lot is to be used for parking of the Contractor's employees only. Construction trailers, equipment, material storage, laydown space, and stocking piling of earthwork are prohibited in the Contractor Parking Lot. All objects in the Contractor Parking Lot are subject to removal at the owners' expense.
- E. The Contractor shall be responsible for and bear all costs of transporting the employees between the Contractor Parking Lot and the project work site. The Port does not direct the Contractor regarding the means and methods of transporting the employees, nor does the Port preclude the Contractor from making any reasonable arrangement for getting the employees to the project work site, including but not limited to paying their employees to park in the Airport Parking Garage. The Contractor shall ensure that whatever transportation method is utilized, it is implemented in a manner that maximizes project efficiency, minimizes working traveling time between the Contractor Parking Lot and the project work site, and minimizes the impacts on public roadways and airport operations.
- F. Access cards are required to utilize the Contractor Parking Lot. The Contractor shall follow the steps outlined below to obtain, manage, and return the access cards:
  - 1. The Contractor shall coordinate with the Port's Project Manager to determine the number of access cards required. If additional access cards are required the Contractor shall notify the Port's Project Manager.
  - 2. The Port's Project Manager will coordinate with Port Construction Management and Airport Landside Operations to obtain the requested access cards and will provide them to the Contractor.

3. The Contractor is required to track which access card is issued to each employee. Each access card will have a unique card number that will support this effort.
  4. Upon completion of the work the Contractor shall collect all the issued access cards and return them to the Port's Project Manager. A portion of the issued access cards can be returned earlier to the Port's Project Manager if the Contractor so chooses.
- G. The Contractor shall be responsible for the costs to replace damaged, lost, stolen, or non-returned access cards. If an access card is damaged, lost or stolen the Contractor shall promptly notify the Port's Project Manager to arrange for a replacement card.
- H. Upon project completion, if all access cards are not returned, the Contractor will continue to be billed the daily rate for each lost or damaged access card until it is returned or the lost or damaged card fee is paid. Payment must be made at the Customer Service Window at the Seattle-Tacoma International Airport's onsite parking garage North Toll Plaza.
- I. Access card usage will be monitored by the Port. If the Port determines that the access card was used for non-work related purposes this will result in the loss of use of the Contractor Parking Lot for the responsible party.

#### 2.02 Contractor Shuttle Operation

- A. The Port anticipates that shuttling of employees will likely only be needed on larger scale projects. Shall the Contractor choose to utilize shuttles for employee transport between the Contractor Parking Lot and the project work site, the following requirements must be satisfied:
1. The Contractor shall run an efficient shuttle operation and select appropriately sized shuttle vehicles.
  2. All shuttles shall be in good working condition, mechanically sound, and meet all applicable federal, state, and county environmental regulations. Contractor shall provide all fuel, oil, tires, other necessary products, and mechanical maintenance and repair. Contractor shall not perform any fueling, cleaning, or maintenance on Port of Seattle property unless approved in writing by the Port. Any maintenance performed on-site shall be subject to the requirements of Section 01 50 00, Temporary Facilities and Controls.
- B. All shuttles shall comply with the following:
1. Exterior: All headlights, tail lights, brake lights, signal lights, license plate lights, windshield wipers, horn, window raisers (if so equipped), doors and door locks, trunk locks (if so equipped), hood latch, door handles, mirrors, exhaust system, hubcaps, bumpers, fenders, body and tires shall be functioning safely and properly. There shall be no tears or rust holes in the vehicle body and no loose pieces such as fenders, bumpers, or trim hanging from the vehicle body. There shall be no un-repaired body damage or any body condition that would create a safety problem or interfere with the operation of the vehicle. Shuttles shall be uniformly painted, contain no advertising, and be clearly marked to indicate that they are providing transportation for the Contractors construction workers. All shuttles must

- display signs of commercial design on both sides of the vehicle to identify the vehicle as belonging to the Contractor firm. The Contractor's name must appear in letters a minimum of two inches high. Magnetic signs are acceptable. The company name on the shuttle must match the company name on the driver's badge.
2. Interior: All shuttles shall be heated and contain seats that can withstand potential wear and tear from construction workers' tool belts. All shuttles shall be equipped with communication means between the shuttles and the Contractor's dispatching personnel. The rearview mirror, steering wheel, foot brakes, parking brakes, windows, interior lights and heating systems shall be functioning safely and properly. The seats, floor mats or carpet, seat belts (if so equipped), and door panels shall be clean and free of excessive wear.
  3. Acceptable Operating Condition: Contractor shall keep the shuttles in proper working order. Contractor shall remove and repair or replace any vehicle that is not properly operating.
  4. Acceptable Appearance: Contractor shall maintain the interior and exterior of all shuttles in a clean and attractive condition at all times, including repair of damage of any kind or character. Contractor shall remove any vehicle that the Port determines is unsightly. Contractor's employees or agents shall pick up trash in the shuttles throughout the day and properly dispose of it, and on a daily basis, sweep and/or vacuum the vehicle interiors as required, clean the glass as required, clean the grab bars as required, and clean the seats as required.
  5. At the beginning and end of each scheduled shift the Contractor shall provide shuttle transportation for Contractor employees, subcontractors and suppliers between the designated loading/unloading area at the Contractor Parking Lot and the shuttle stop(s) located at the project site as approved by the Port's construction project representative. The location of shuttle stops is subject to change by the Port as necessary, depending on the particular construction projects in operation at any given time. Contractor is also responsible for transporting workers if they need to arrive or leave work prior to start or end of shift or otherwise return to the Contractor Parking Lot.
  6. The Contractor shall have access to the airport by public and Port of Seattle roads as indicated on the drawings, or as otherwise designated by the Port's construction project representative.
  7. Access to the Airport Operations Area (AOA) will be through Gate E-45 unless otherwise designated or approved by the Port's construction project representative. It may be used for the transportation of workers and deliveries in accordance with the requirements of Section 01 14 13 – Airport Personnel Identification/Access Control and Security, and Section 01 35.13.13 – Operational Safety on Airports During Construction. The Contractor shall be responsible for ensuring that the shuttle drivers do not allow the addition or removal of people or items once the shuttle has departed the designated loading area at the Contractor Parking Lot and prior to arriving at the shuttle stop(s) located at the project site.

8. The Contractor shall be responsible for coordinating the start and finish times for all work shifts with shuttle operations for other projects in order to facilitate efficient staging of all shuttle operations at the Contractors Parking Lot and the projects shuttle stops. Contractor shall notify the Port's construction project representative of any schedule changes at least twenty-four (24) hours in advance whenever possible.
9. The Contractor shall cooperate and coordinate with other contractors' shuttle operations and the Port to ensure smooth and efficient operation of the construction shuttle operations for their specific project. Contractor shall comply with all direction provided by the Port regarding shuttle operations conducted at the Contractor Parking Lot, the Airport, and points in between.
10. The Contractor shall require its employees, subcontractors and suppliers to conduct themselves in a civil manner while utilizing the Contractors Parking Lot. While at the Airport, Contractor Parking Lot, or logistics site Contractor employees shall not use profanity, engage in any loud, boisterous, or otherwise offensive or disturbing speech or conduct, nor display any rudeness whatsoever to any person at the Airport.

PART 3 LOGISTICS (FIELD OFFICE/LAYDOWN AREA)

1. Logistics laydown areas are not available to Tenant or Airport Dining and Retail contractors except in exceptional circumstances. Approval and coordination will be through the Port's Project Manager and Engineering Construction Management.

End of Section



Work Project Number #: \_\_\_\_\_ - \_\_\_\_\_ Activity: \_\_\_\_\_ Resource Cat/Type: \_\_\_\_\_

### Airport Facilities–Water Activation Request

**REQUESTS MUST BE APPROVED NO LATER THAN 7 DAYS PRIOR TO ACTIVATION**

Date of Request:	Date of Activation: Start Time: _____ End Time: _____
Connection Number:	Connection Size:
Contractor Contact:	Phone No.:
Inspector:	Phone No.:
Contractor performing work:	Phone No:
Buildings & Area to be Activated (Accurate Description Required):	

### APPROVALS

***Boiler Shop: (Must be 1<sup>st</sup> contact prior to manager’s signature):***

***POS Water Manager (Facilities & Infrastructure):***

***POS Aviation Mechanical Utilities Manager (Maintenance):***

***Other:***

### FOR DEPARTMENT USE ONLY:

**Comments:**

**PLEASE RETURN A COPY OF THE COMPLETED SIGNATURE FORM TO ALL SIGNEES**

**\*\*RESULTS MAY TAKE UP TO 4 DAYS AFTER TEST SAMPLES SUBMITTED\*\***

**List of Appropriate Systems Contacts**

***Maintenance Domestic Water***

Erik Knowles	787-4117	787-4902 fax
Dan Hytry	787-7231	787-4902 fax
Doug Sinclair	787-7839	787-4938 fax
James Jackson	390-7451	787-4938 fax
Tracy Jonassen	735-9840	787-7221 fax

***Facilities and Infrastructure***

Mike Smith	787-4815	787-5515 fax
Paul Shen	787-5870	787-5515 fax
Bob Romero	787-3290	787-5515 fax

***Utilities Manager***

Greg Whiting	787-5117	787-5515 fax
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***Field Crew***

Eric Schaefer	787-4047	787-5188 fax
Todd Hacke	787-6893	787-5188 fax

***Fire Department***

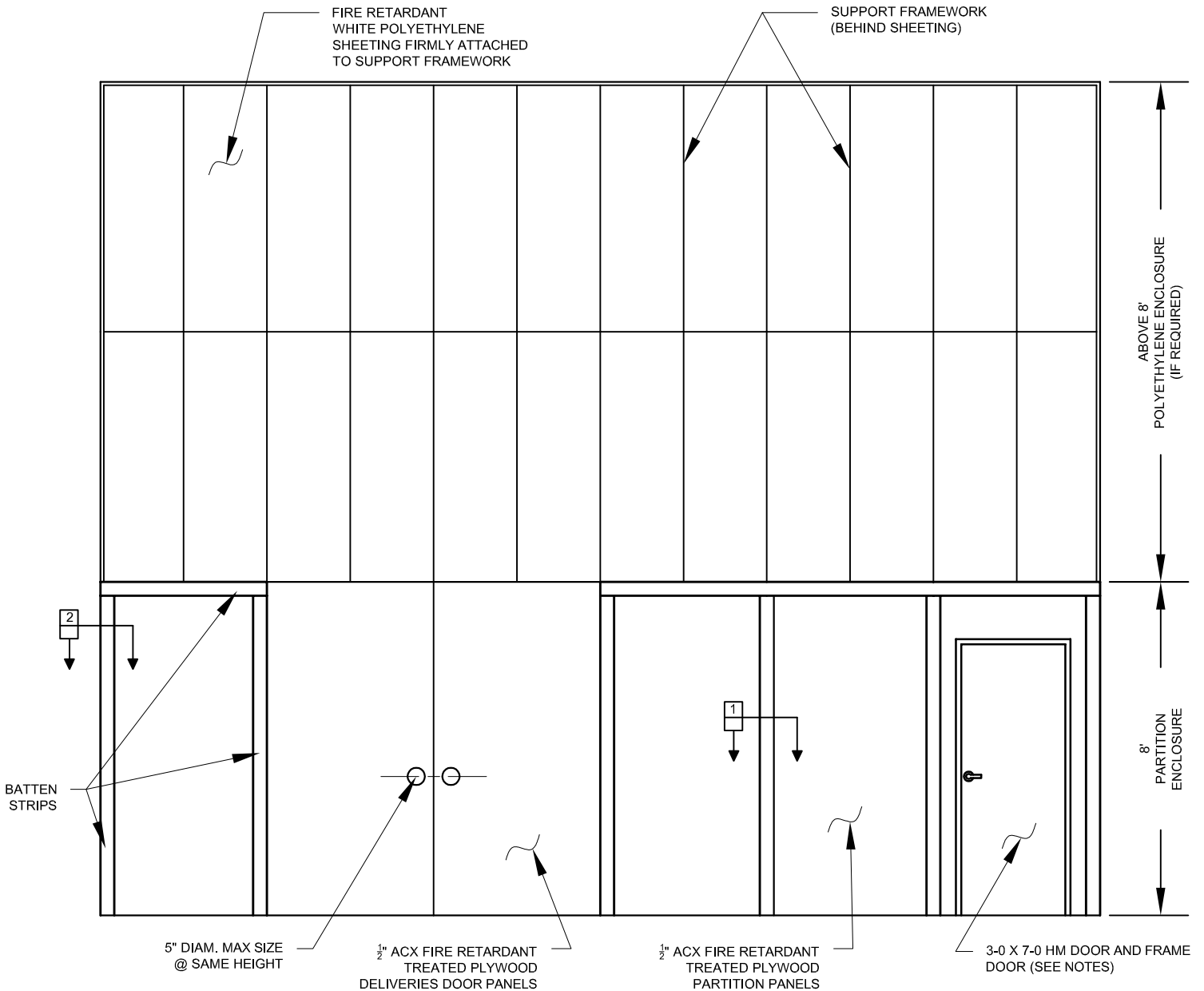
Jeff Nelson	787-6774	787-4908 fax
Adam Griffin	771-2917	787-4908 fax

***Airport Operations***

Nick Terrana	787-4903	787-4837 fax
	714-5075	cell
Andy Ramsay	787-5187	787-4837 fax
	437-6323	cell

# DIVISION 1 - GENERAL REQUIRMENTS

Attachment 01 50 00 B Elevation



**NOTES:**

1. PAINT FOR ALL EXPOSED WOOD SURFACES, DOORS, FASTENERS, HINGES, AND OTHER HARDWARE SHALL BE LOW ODOR INTERIOR LATEX-SEMI-GLOSS, 2 COATS MINIMUM, COLOR-PORIT WHITE.
2. ALL DOORS SHALL SWING INTO THE CONSTRUCTION WORK SPACE.  
(IF OCCUPANCY IS GREATER THAN 49 PERSONS DOORS SHALL SWING OUTWARD.)
3. DOUBLE DOORS ARE FOR DELIVERIES ONLY AND ARE TO REMAIN LOCKED OTHERWISE.  
3-0 X 7-0 HM DOOR IS FOR PERSONNEL ACCESS.
4. DOOR HARDWARE PROVIDE:  
HINGES-1-1/2" PR 4-1/2"x4-1/2", CLOSER, LOCKSET (7-PIN STANLEY/BEST COMPATIBLE INTERCHANGEABLE SMALL FORMAT REMOVABLE CORE CYLINDERS). ACCEPTABLE MANUFACTURERS: STANLEY/BEST, SCHLAGE, FALCON OR APPROVED EQUAL .

## ELEVATION

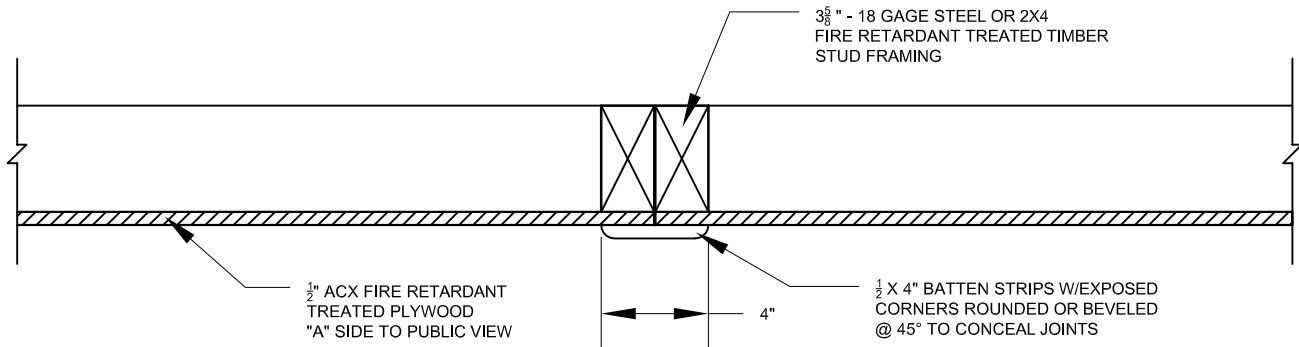
TYPICAL ENCLOSURE

(rev: 19 March 2014)



# DIVISION 1 - GENERAL REQUIREMENTS

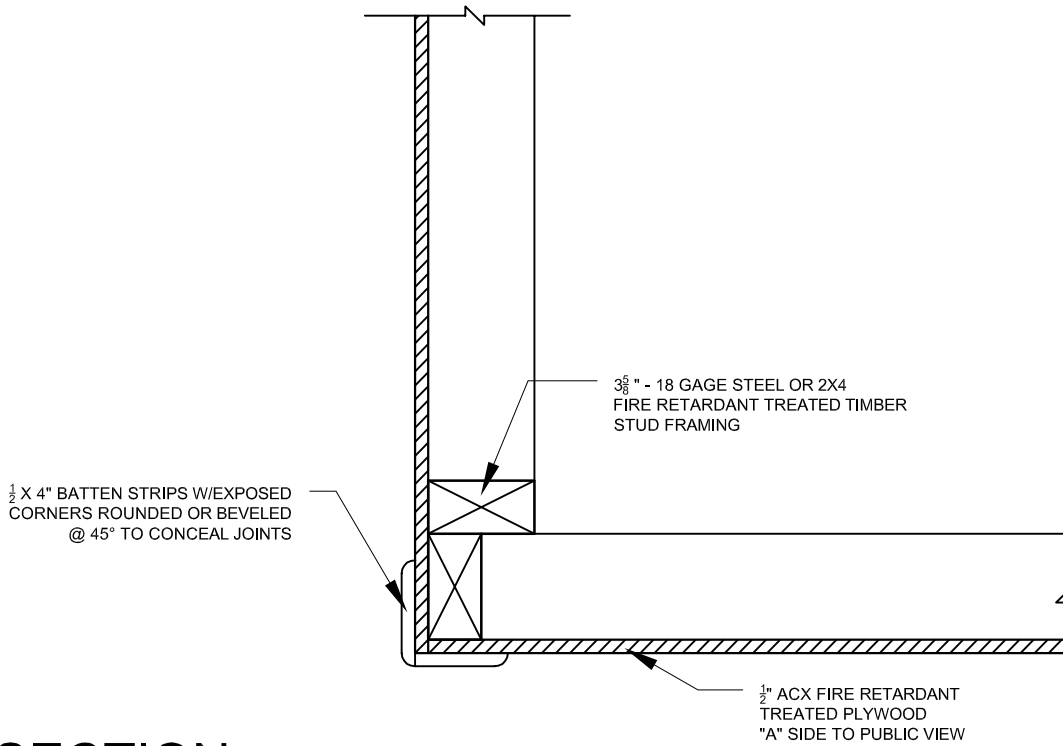
Attachment 01 50 00 C Section Model



## SECTION

TYPICAL PARTITION JOINT  
(rev: 04 NOVEMBER 2013)

1



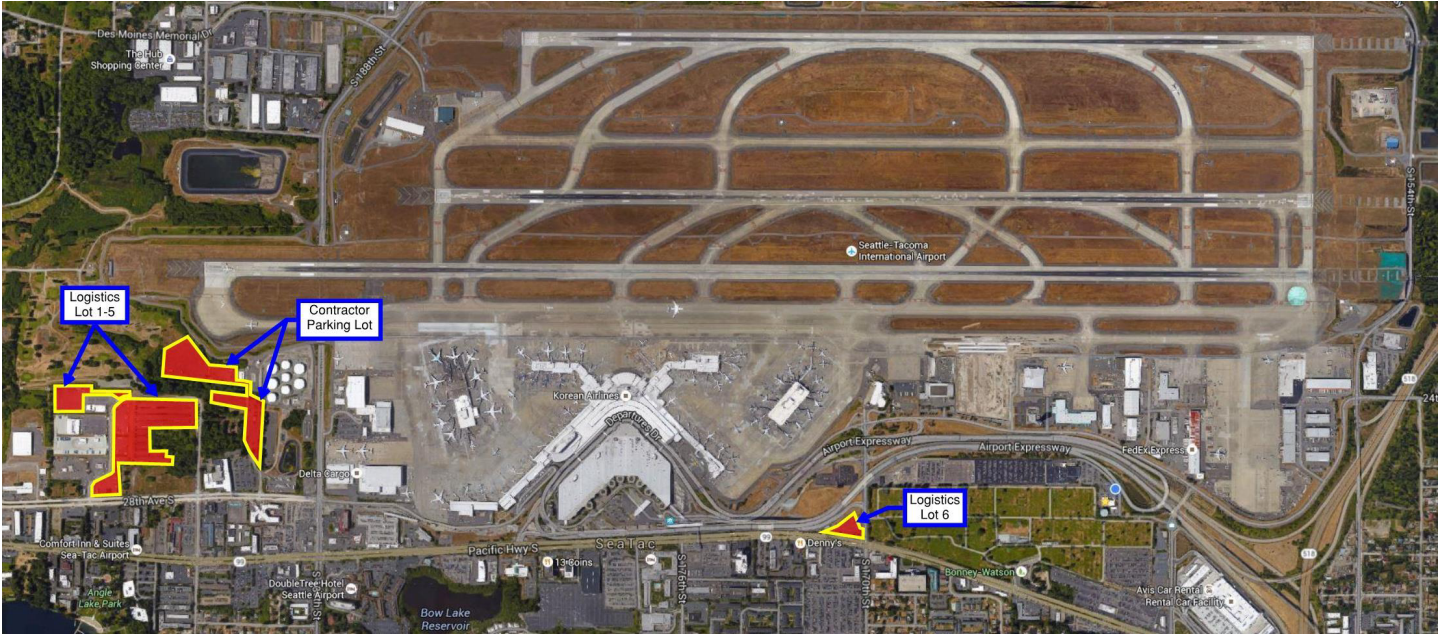
## SECTION

TYPICAL PARTITION CORNER  
(rev: 19 March 2014)

2



**Attachment 01 50 00 D**  
**Contractor Parking Lot (CPL) and Logistics Facilities**



**CONTRACTOR PARKING LOT**

The Contractor Parking Lot is located at 19020 28th Avenue South, SeaTac WA, 98188. Access to the lot is via 28th Ave S and requires an access card and is available for a fee to Tenant and Airport Dining and Retail contractors.





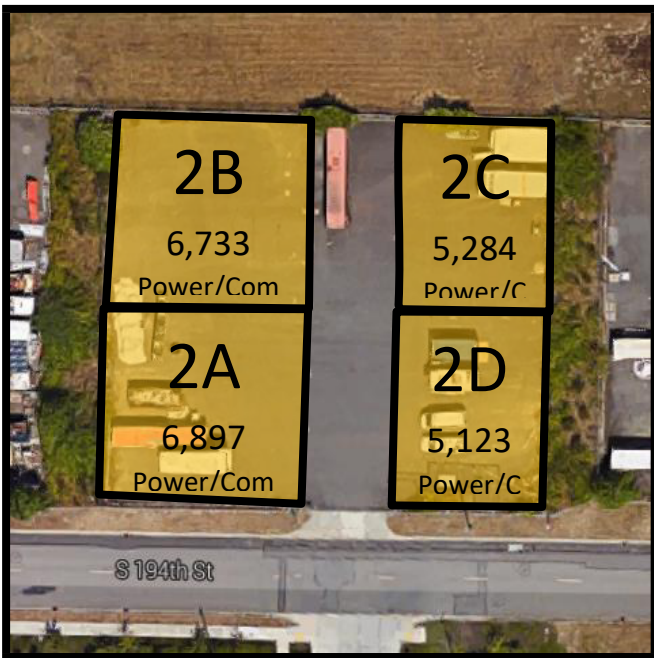


Lot 1 - 2542 S 194th St SeaTac WA, 98188



Lot 2 - 2624 S 194th St SeaTac WA, 98188

Lot 3 - 2708 S 194th St SeaTac WA, 98188





**Lot 4 - 2529 S 194th St SeaTac WA, 98188**



**Lot 5 (A-C) - 19332 24<sup>th</sup> Ave S, SeaTac WA, 98188**



**Lot 5 (E-I) – 19332 24<sup>th</sup> Ave S, SeaTac WA, 98188**



Lot 6 - 17001 International Blvd SeaTac WA, 98188



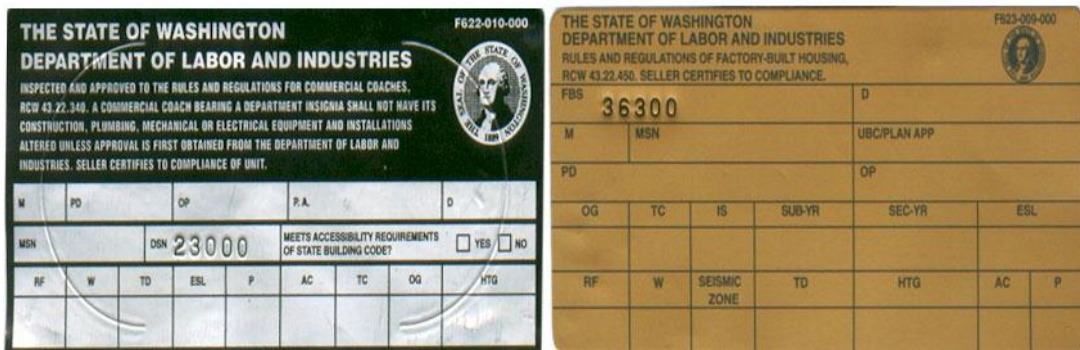


## AIRPORT BUILDING DEPARTMENT (ABD)

### Construction Trailers

A permit is required for any construction trailer or structure (*See exemptions from permit below*)

1. To begin the permit process, please complete a building permit application and, if applicable, a mechanical/plumbing permit application and submit to the Airport Building Department, with following:
  - a. 2 plot plans that show the location of the trailer relative to other buildings and structures and property lines.
  - b. 2 copies of trailer installation instructions which should include tie downs & skirting and access panel(s) to the under floor area.
  - c. 2 copies of drawings that indicate how access to and egress from the structure is provided.
    - i. For occupant loads 49 or less, a code compliant landing & stairway, or ramp is required.
    - ii. For occupant loads of 50 or more, a minimum of 2 exits are required. At least one of the two exits **shall** have a code compliant ramp (*see attached typical ramp details*).
    - iii. A minimum of one code compliant access ramp is required if the intended use of the trailer is **outside of general operational purposes traditionally conducted within a construction site trailer** (i.e. a ramp is required if the trailer will be used to hold owner's meetings, preconstruction meetings, etc), **and/or the trailer is connected to plumbing utilities**.
2. The trailer/structure must bear a Washington State black or gold insignia similar to the images below:



<http://www.lni.wa.gov/TradesLicensing>

### Construction Trailers Exempt from Permit:

#### Trailers located on associated construction site and:

1. The trailer has no sewer or water connection. Power connected from a temporary power pole is permitted.
2. The trailer is not intended to hold meetings where outside personnel will be attending (owner's meetings, preconstruction meetings are examples of outside personnel).

**Note: The trailer must be removed once the construction project is complete.**

#### Trailers located off the construction site and:

1. Trailer will be in place less than 6 months.
2. The trailer has no sewer or water connection. Connecting power is permitted.
3. The trailer is not intended to hold meetings where outside personnel will be attending (owner's meetings, preconstruction meetings are examples of outside personnel).

**Note: A letter stipulating the time, duration, and use of the construction trailer must be provided to ABD for this exception to be granted.**

## CODE COMPLIANT STAIR REQUIREMENTS:

**Handrails:** Handrails are required for both the stairway (if used) and ramp. They need to be placed within 34" to 38" above the walking surface and have to be 1-¼" to 2" in diameter or provide equivalent gripping surface (a 2 x 4 on edge is not acceptable). The handrail must extend horizontally at least 12" beyond the top riser & one tread depth beyond the bottom riser.

**Riser height and tread depth:** Stair riser heights shall be 7 inches (178 mm) maximum and 4 inches (102 mm) minimum. The riser height shall be measured vertically between the nosing of adjacent treads. Rectangular tread depths shall be 11 inches (279 mm) minimum measured horizontally between the vertical planes of the foremost projection of adjacent treads and at a right angle to the tread's nosing.

**Dimensional uniformity:** Stair treads and risers shall be of uniform size and shape. The tolerance between the largest and smallest riser height or between the largest and smallest tread depth shall not exceed 3 /8 inch (9.5 mm) in any flight of stairs. The greatest winder tread depth at the walk-line within any flight of stairs shall not exceed the smallest by more than 3 /8 inch (9.5 mm).

*Exception: Where the bottom or top riser adjoins a sloping public way, walkway or driveway having an established grade and serving as a landing, the bottom or top riser is permitted to be reduced along the slope to less than 4 inches (102 mm) in height, with the variation in height of the bottom or top riser not to exceed one unit vertical in 12 units horizontal (8-percent slope) of stair width. The nosing or leading edges of treads at such non uniform height risers shall have a distinctive marking stripe, different from any other nosing marking provided on the stair flight. The distinctive marking stripe shall be visible in descent of the stair and shall have a slip-resistant surface. Marking stripes shall have a width of not less than 1 inch (25 mm) but not more than 2 inches (51 mm).*

**Landings at doors:** Landings shall have a width not less than the width of the stairway or the door, whichever is greater. Doors in the fully open position shall not reduce a required dimension by more than 7 inches (178 mm). Where a landing serves an occupant load of 50 or more, doors in any position shall not reduce the landing to less than one-half its required width. Landings shall have a length measured in the direction of travel of not less than 44 inches (1118 mm).

**Thresholds:** Thresholds at doorways shall not exceed 1/2 inch (19.1 mm) in height above the finished floor or landing. Raised thresholds and floor level changes greater than 1 /4 inch (6.4 mm) at doorways shall be beveled with a slope not greater than one unit vertical in two units horizontal (50-percent slope).

**Guards:** Guards shall be located along open-sided walking surfaces, stairs, ramps and landings that are located more than 30 inches (762 mm) measured vertically to the floor or grade below at any point within 36 inches (914 mm) horizontally to the edge of the open side.

The guard height shall be a minimum of 42" and has to have intermediate pickets spaced such that a 4" diameter object does not go through the pickets/railing. In areas that are not open to the public, guards shall not have openings that allow passage of a sphere 21 inches (533 mm) in diameter.

## CODE COMPLIANT RAMP REQUIREMENTS:

### RAMPS

- Ramp surfaces are stable, firm, and slip resistant.
- Exposed exterior ramps and their approaches are constructed to prevent the accumulation of water on walking surfaces.
- Ramps used as part of means of egress have a maximum slope of 1:12.
- The maximum rise for any run is 30 inches.
- Ramp cross slopes are not steeper than 1:48.
- Ramps may not be less than the required exit width, with a minimum dimension of 36" between the handrails for interior ramps, and 44" for exterior ramps.
- Headroom at all parts of the means of egress is not less than 80 inches.

### RAMP AND LANDING EDGE PROTECTION

- Any portion of the edge of a ramp with a slope greater than 1:20, or landing which is more than ½ inch above the adjacent grade or floor within 10 inches horizontally, requires edge protection.
- Edge protection is required on each side of ramp runs and at each side of ramp landings, by a curb or barrier or by extended floor surface. (An extended floor surface occurs when the surface of ramp or landing extends 12 inches minimum beyond the inside face of a railing.

#### Exceptions:

- Edge protection is not required on ramps not required to have handrails, provided they have flared sides complying with ICC/ANSI A117.1 2009 406.3 Sides of Curb Ramps.
- Edge protection is not required on sides of ramp serving an adjacent ramp run or stairway.
- Edge protection is not required on sides of ramp landings with vertical drop-off not more than ½ of an inch within 10 inches horizontally of the minimum landing area.

#### Edge protection options:

1. A curb or barrier is required that prevents passage of 4 inch sphere below the height of 4 inches.
2. Railings: When used, railings are required to have one of the following features:
  - a. An intermediate rail mounted 17-19 inches above the ramp or landing surface.
  - b. A guard complying with IBC 1013
  - c. The surface of the ramp or landing extends 12 inches beyond the inside face of the railing.

### LANDINGS

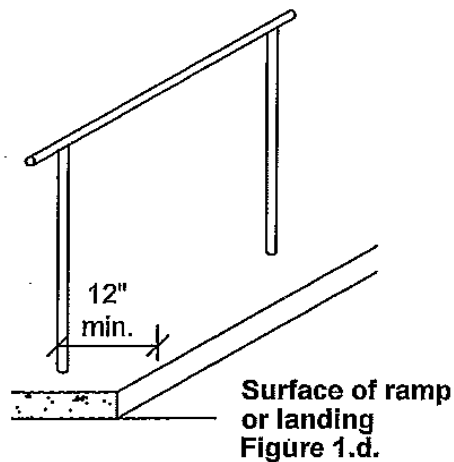
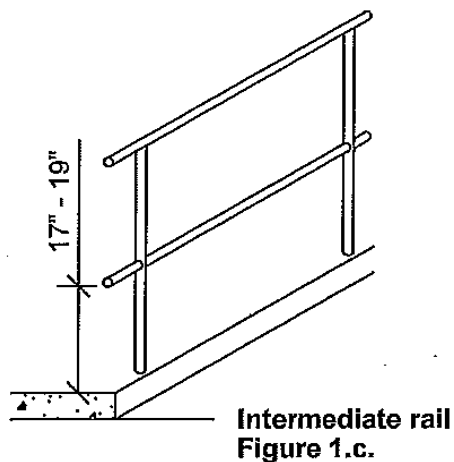
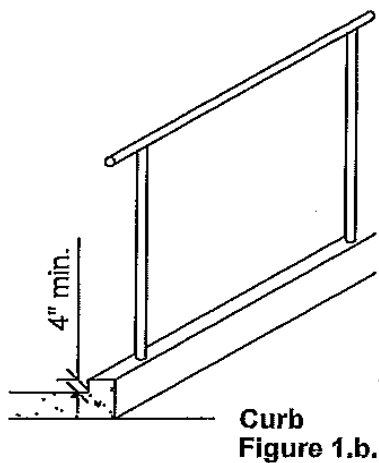
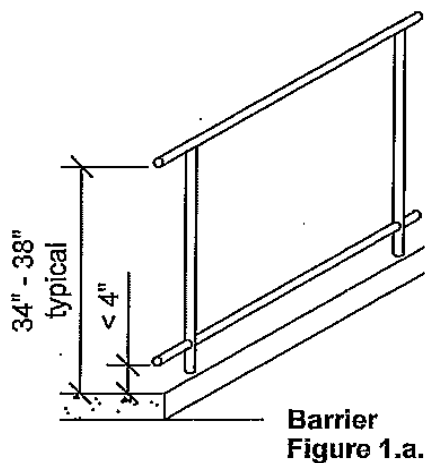
- Ramp surfaces are stable, firm and slip resistant.
- Exposed exterior ramps and their approaches are constructed to prevent the accumulation of water on walking surfaces.
- Ramps within the accessible route of travel shall have landings at the top and bottom, points of turning, entrance, exits and doors and at least one intermediate landing for each 30 inches of rise with a minimum dimension of 60 inches in the direction of the ramp run.
- Ramps that change direction at landings shall have landings sized to provide a 60 inch turning space (60 X 60 inches) or a T-shaped intersection 60 inches long by 36 inches wide (36 inches wide at each arm of T)
- The minimum width of the landing is as wide as the widest ramp leading to the landing.
- Landings shall not slope more than 1:48.
- Maneuvering clearances for doors can overlap the landing area where doorways are adjacent to the ramp.

### HANDRAIL AND GUARD REQUIREMENTS

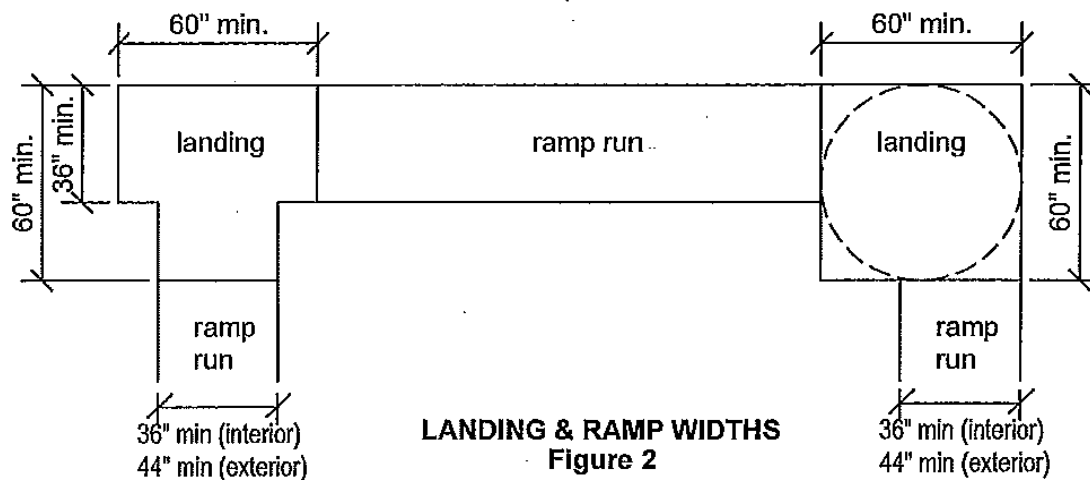
- Ramps with a rise greater than 6 inches have handrails 34-38 inches in height.
- Handrails shall extend at least 12 inches beyond the top and bottom of any ramp run.
- Handrails are continuous except at points of access along the ramp.
- Provide guards for portions of landings or ramp that are more than 30 inches above adjacent grade.
- Guards shall be a minimum of 42 inches in height above the walking surface.



Typical Ramp & Edge Protection and Landing Details



**EDGE PROTECTION**  
Figure 1



PART 1 GENERAL

1.01 SUMMARY OF WORK

- A. This item shall consist of planning, installing, inspecting, maintaining, upgrading and removing temporary erosion and sediment control Best Management Practices (BMPs) as shown in the Contract Documents, in the Contractor's Erosion and Sediment Control Plan (CESCP), or as ordered by the Port construction project representative to prevent pollution of air and water, and control, respond to, and manage eroded sediment, turbid water and process water during the life of the contract.
- B. This project may require management as a no-discharge project. All stormwater shall be diverted away from work areas. All project and process water shall be collected, stored and discharged off Port property.
- C. This work shall apply to all areas associated with contract work including, but not limited to the following:
  - 1. Work areas
  - 2. Equipment and material storage areas
  - 3. Staging areas
  - 4. Stockpiles
  - 5. Access Roads

1.02 GOVERNING CODES, STANDARDS, AND REFERENCES

- A. The following rules, requirements and regulations specified may apply to this work:
  - 1. Surface Water Design Manual, King County, Department of Natural Resources, (Current Edition).
  - 2. Washington State Department of Ecology Stormwater Management Manual for Western Washington (2014), Vol. 2 Washington State Stormwater Quality Standards (WAC 173-201A).
  - 3. National Pollution Discharge Elimination System (NPDES) Waste Discharge Permit No. WA 002465-1.
  - 4. Port of Seattle Regulations for Airport Construction (current edition).
  - 5. Sea-Tac International Airport Rules and Regulations (current edition).
  - 6. Projects with one or more acres of disturbance may need to obtain this permit. Port will determine if it will obtain and transfer coverage to the Contractor or the Contractor will obtain the permit.  
Construction General NPDES Permit # [REDACTED]

1.03 SUBMITTALS

- A. As part of the required Preconstruction Submittals, Section 01 32 19 - Preconstruction Submittals and before Notice to Proceed is given, when required the Contractor shall submit the following:

1. Contractor Erosion and Sediment Control Plan (CESCP)
  - (1) Including CESCL Certification Cards and ECL Qualifications
  
- B. The following may be required for submittal:
  1. Oil Absorbent Pads
  2. Silt Fence
  3. Straw Wattle
  4. Erosion Control Blanket
  5. Bonded Fiber Matrix
  6. Catch Basin Protection
  7. Temporary Piping Connections / Plugs
  8. Construction Limits Fencing
  9. Wheel Wash
  10. Geotextile Fabric Check Dam
  11. Plastic Sheeting
  12. Temporary Organic Mulch
  13. Water Filled Diversion Berm
  14. Biofence

## PART 2 MATERIALS

### 2.01 PROJECT INFORMATION

### 2.02 PREPARATION FOR MATERIALS

### 2.03 FABRICATION, PRODUCTION, & SUPPLY OF MATERIALS

### 2.04 MATERIAL REQUIREMENTS

#### A. GENERAL:

- A. All products used to construct the Contractor selected BMPs shall be suitable for such use and submitted to the Port construction project representative for approval.

#### B. OIL ABSORBENT PADS:

- A. Oil absorbent pads shall be made of white, 100% polypropylene fabric that absorbs oil-based fluids and repels water-based fluids. Each pad shall be a minimum of 15x19 inches in size and absorb no less than 50 ounces of oil-based fluids.

#### C. TESC – ASPHALT CURB & ASPHALT BERM:

- A. Asphalt curb and asphalt berm shall be constructed as directed by the Port construction project representative. The asphalt concrete shall meet the requirements of Section 32 12 16 – Bituminous Concrete Pavement.

#### D. SILT FENCE:

- A. Geotextile material shall meet the requirements of WSDOT Specification Section 9-33 Table 6. Geotextile material shall be backed by 2"x4" wire mesh and shall be attached to steel "T" posts using wire or zip ties. Dimensions and spacing shall be as detailed on the drawings.
- E. STRAW WATTLE:
  - A. Wattles shall consist of cylinders of biodegradable plant material, such as straw, coir, or compost encased within biodegradable or photodegradable netting. Wattles shall be a minimum of 5 inches in diameter, unless otherwise specified. Encasing material shall be clean, evenly woven, and free of debris or any contaminating material, such as preservative and free of cuts, tears or damage. Compost filler shall meet material requirements specified in WSDOT Section 9-14.4(8) Coarse Compost. Straw filler shall be 100% free of weed seeds.
- F. EROSION CONTROL BLANKET:
  - A. Erosion Control Blanket shall meet the requirements of WSDOT Specification Section 9-14, paragraph 9-14.5(2) "Erosion Control Blanket". Installation in ditches and swales shall be per WSDOT Standard Plan I-60.20-00 "Erosion Control Blanket Placement in Channel". Installation on slopes shall be per WSDOT Standard Plan I-60.10-00 "Erosion Control Blanket Placement on Slope".
- G. BONDED FIBER MATRIX SOIL STABILIZATION:
  - A. Bonded Fiber Matrix soil stabilization shall be labeled as such on the unopened bags furnished by the manufacturer. Bonded fiber matrix shall be installed with seed and fertilizer included in the homogenous mix. Seeding shall be as specified in Section 32 92 19.16 – Hydroseeding for Erosion Control and Landscaping.
- H. CATCH BASIN PROTECTION:
  - A. Catch basin protection shall be designed and installed for the purpose of preventing sediment from entering the storm system. Protection shall:
    - B. Be constructed of non-woven geotextile fabric with sewn seams;
    - C. Contain a built-in lifting strap;
    - D. Have a built-in, high flow bypass;  
Be sized such that all water draining to the catch basin flows into the insert and does not flow directly into the storm drain.
  - E. Catch basin covers shall be 30 mil PVC liner material.
- I. TEMPORARY PIPING/CONNECTIONS:
  - A. Temporary piping shall meet the requirements of the storm drain pipe as specified in Section 33 41 13 – Pipe for Storm Drains and Culverts. Temporary catch basin shall meet the requirements of Section 33 49 13 – Manholes, Catch Basins, Inlets and Inspection Holes.
- J. TEMPORARY PIPING PLUGS:
  - A. Installation in Pipe/Structure to be Demolished/Abandoned. Plug shall be concrete as specified in Section 03 30 00 – Cast-in-Place Concrete.

- B. Installation in Pipe/Structure to Remain. Plug shall be a mechanical secured plug.
- K. STORMWATER STORAGE TANK:
  - A. The tank shall be a fixed axle weir tank with a minimum 21,000 gallon.
- L. STORMWATER STORAGE TANK PADS:
  - A. The stormwater storage tank pads shall be as detailed on the drawings.
- M. CONSTRUCTION LIMITS FENCING:
  - A. Fencing material shall be standard size orange plastic mesh construction safety fence. Posts shall be steel "T" posts.
- N. ROCK CHECK DAMS:
  - A. Rock check dams shall be constructed of quarry spalls per the details shown in the project drawings and as specified in Section 31 23 00 - Excavation and Embankment.
- O. STABILIZED CONSTRUCTION ENTRANCE
  - A. Stabilized construction entrance(s) shall be constructed of stabilization geotextile fabric and quarry spalls as specified in Section 31 23 00 - Excavation and Embankment.
- P. WHEEL WASH
  - A. The wheel wash shall be a high water pressure, low water volume system long enough to allow for at least two full tire rotations. Spray nozzles shall be directed at inner and outer side walls for all tires including duals, all treads from two directions, wheel wells and flaps, and truck sides up to the bottom of the windshield. For water line material and construction requirements shall be as specified in Section 33 10 00 - Water Distribution.
- Q. GEOTEXTILE FABRIC CHECK DAMS
  - A. Geotextile check dam shall be a urethane foam core encased on Geotextile material. The minimum length of the unit shall be 7 feet. The foam core shall be a minimum of 8 inches in height, and have a minimum base width of 16 inches. The geotextile material shall overhang the foam by at least 6 inches at each end, and shall have apron type flaps that extend a minimum of 24 inches on each side of the foam core. The geotextile material shall meet the requirements for silt fence.
- R. PLASTIC SHEETING
  - A. Plastic sheeting shall be clear, reinforced, and a minimum of 6 mil thick. Sandbags or other Port construction project representative -approved material shall be used to secure the plastic sheeting in place. Black plastic may be used to cover stockpiles.
- S. TEMPORARY ORGANIC MULCH
  - A. Temporary organic mulch shall consist of straw, wood chips, hog fuel, compost or other material approved by the Port construction project representative.
- T. WATER FILLED DIVERSION BERM

- A. Berm shall be a minimum 6 inches high and 10 feet long and made of 10 mil polyurethane or 22 oz. PVC.

- U. BIOFENCE

- A. Biofence shall consist of 7 ounce or heavier uncoated burlap fabric at least 36 inches wide and 100 feet long. Wood stakes dimensions shall be a minimum 1 1/8 x 1 1/8 inches by 42 inches high.

2.05 MATERIAL HANDLING, DELIVERY, & STORAGE

2.06 DELIVERABLES

2.07 QUALITY ASSURANCE

PART 3 EXECUTION

3.01 PROJECT INFORMATION

- A. GENERAL

- 1. In the event of conflict between these requirements and pollution control laws, rules, or regulations of other Federal, state, or local agencies, the more restrictive laws, rules, or regulations shall apply.
  - 2. No discharge of water shall be allowed that increases volume, velocity, or peak flow rate of receiving water background conditions, or that does not meet state of Washington water quality standards.
  - 3. The Contractor's Erosion and Sediment Control Plan (CESCP) required by this section shall be based upon the Temporary Erosion and Sediment Control (TESC) requirements of the contract but shall specifically phase, adjust, improve and incorporate the TESC requirements into the Contractor's specific schedule and plan for accomplishing the work. The CESCP shall be modified as changes are made to improve, upgrade and repair best management practices used by the Contractor and as the work progresses and TESC needs change.
  - 4. The Contractor shall be wholly responsible for control of water onto and exiting the construction site and/or staging areas, including groundwater, stormwater, and process water. Stormwater from offsite shall be intercepted and conveyed around or through the project and shall not be combined with onsite construction stormwater.
  - 5. Design of, and modifications to, project hydraulic conveyances, detention facilities, and TESC plan sheets shall be stamped by a Professional Engineer (P.E.) licensed by the State of Washington. All other changes to the CESCP shall be signed by the ECL.

- B. PROJECT REQUIREMENTS

- 1. DESCRIPTION OF WORK

- a. In order to comply with the requirements of this section, the Contractor shall:
      - (1) Develop the Stormwater Pollution Prevention Plan (SWPPP) and submit a Contractor's Erosion and Sediment Control Plan (CESCP). The CESCP shall, at a minimum, include and address the following:

- (a) Site Description and Drawings
  - (b) Contractor Erosion and Sediment Control Personnel
  - (c) Schedule and Sequencing
  - (d) BMP Installation
  - (e) BMP Maintenance
  - (f) BMP Inspection
  - (g) Record keeping
  - (h) BMP Removal
  - (i) Emergency Response
  - (j) Construction Dewatering
  - (k) Fugitive Dust Planning
  - (l) Utilities Planning
  - (m) Education
- (2) Revise and modify the CЕСSCP during the life of the contract and maintain records.
  - (3) Install, maintain, and upgrade all erosion prevention, containment, and countermeasures BMPs during the life of the contract, and removal at the end of the project.
  - (4) Contain, cleanup and dispose of all sediment and convey turbid water to existing or proposed detention/treatment facilities.
  - (5) Perform other work shown on the project drawings, in the Contractor Erosion and Sediment Control Plan, or as directed by the Port construction project representative.
  - (6) Inspect to verify compliance with the CЕСSCP requirements including BMPs; facilitate, participate in, and implement directed corrective actions resulting from inspections conducted by others including outside Agencies and Port employees/consultants.
  - (7) Educate all Contractor and sub-contractor staff about environmental compliance issues at weekly meetings and document attendance and content.

## 2. DEFINITIONS

- a. Process Water: All water including, but not limited to, that used for washing, cleaning, fire proofing and hydrodemolition is defined by the Department of Ecology as “process water” and shall be collected and disposed of in a manner that complies with all local, state and federal regulations. Disposal tickets shall be provided to the Port construction project representative.
  - (1) Process water shall not be discharged to the IWS or SDS

3. PERMITS

- a. Work shall be conducted in accordance with NPDES permit No. WA- 002465-1.
- b. When the project requires a Construction General NPDES Permit and the contractor is to be completely responsible for compliance, the Port will obtain the permit and contractor shall have to accept transfer of permit from the Port.

The Contractor shall accept from the Owner complete transfer of Construction General NPDES Permit # [REDACTED]. The Contractor shall submit a signed Notice of Transfer before Notice to Proceed. The form can be obtained at:

<http://www.ecy.wa.gov/biblio/ecy02087a.html>

4. ADMINISTRATIVE REQUIREMENTS

- a. The provisions of this section shall apply to the Contractor, subcontractors at all tiers, suppliers and all others who may have access to the work site by way of the contractor's activities.
- b. Failure to install, maintain, and/or remove BMPs shown on the drawings, in the approved Contractor Erosion and Sediment Control Plan and specified herein, or by order of the Port construction project representative; or failure to conduct project operations in accordance with Section 01 57 13 - Temporary Erosion and Sediment Control Planning and Execution will result in the suspension of the Contractor's operations by the Port construction project representative.
- c. The Contractor shall be solely responsible for any damages, fines, levies, or judgments incurred as a result of Contractor, subcontractor, or supplier negligence in complying with the requirements of this section.
- d. Any damages, fines, levies, or judgments incurred as a result of Contractor, subcontractor, or supplier negligence in complying with the requirements of this section will be deducted from payment due by Modification.
- e. Any time and material costs incurred by the Port due to damages, fines, levies, or judgments incurred as a result of Contractor, subcontractor, or supplier negligence in complying with the requirements of this section will be deducted from payment due by Modification.
- f. The Contractor shall be solely responsible for any schedule impacts from damages, fines, levies, judgments, or stop work orders incurred as a result of Contractor, subcontractor, or supplier negligence in complying with the requirements of this section. The project schedule will not be changed to accommodate the time lost.
- g. Contractor shall not clear, grub, grade, demolish, or perform any earthwork after Notice to Proceed until the following has been



installed per the project drawings, the approved Contractor Erosion and Sediment Control Plan, or as directed by the Port construction project representative:

- (1) Silt Fence or other perimeter controls are in place.
- (2) Areas not to be disturbed are delineated with construction fence.
- (3) Temporary ponds and ditches are installed and vegetated or covered.
- (4) Permanent ponds used for sediment control during construction have been installed and vegetated or covered and modified with riser.
- (5) Water flows from off site are tight lined and directed away from work area.
- (6) All construction entrances are stabilized and wheel wash systems in place and operational.
- (7) Catch basin inserts are installed in all catch basins that receive drainage from the Work area and haul roads.
- (8) Stormwater storage tanks are located onsite to provide for additional storage volume and/or treatment volume required for treatment by settlement.
- (9) Materials on hand, in quantities sufficient to cover all bare soil, divert all flows, contain all sediments, and prevent turbid discharges from the site during all stages of construction. These materials include, but are not limited to the following:
  - (a) Reinforced 6 mil plastic sheeting
  - (b) Straw Wattles
  - (c) 6" pipe
  - (d) 8" pipe
  - (e) Sand bags, filled
  - (f) Wire-backed silt fence
  - (g) Steel "T" posts

5. AUTHORITY OF PORT CONSTRUCTION PROJECT REPRESENTATIVE
  - a. The Port construction project representative has the authority to limit the surface area of erodible earth material exposed by clearing, excavation, and fill operations, and to direct the Contractor to provide immediate permanent or temporary pollution control measures to prevent contamination of adjacent streams or other watercourses, lakes, ponds, wetlands or other areas of water impoundment.
  - b. In the event that temporary erosion and pollution control measures are required due to the Contractor's negligence, carelessness, or

failure to install permanent controls as a part of the work as scheduled or are ordered by the Port construction project representative, such work shall be performed by the Contractor at his/her own expense.

- c. The Port construction project representative may increase or decrease the area of erodible earth material to be exposed at one time as determined by analysis of project conditions.
- d. In the event that areas adjacent to the work area are suffering degradation due to erosion, sediment deposit, water flows, or other causes, the Port construction project representative may stop construction activities until the situation is rectified.
- e. In the event that the Washington State Department of Ecology issues an Inspection Report, a Notice of Non-Compliance, Notice of Violation or Enforcement Action, the Port construction project representative may stop all construction activities until it has been determined that the project is in compliance. The Port construction project representative may require the Contractor to send additional staff to successfully complete Contractor Erosion and Sediment Control Lead (CESCL) training before construction activities may begin. The number of working days will not be changed to accommodate the work stoppage. All costs associated with work stoppages, mitigation of the event, and/or training shall be paid by the Contractor.
- f. In the event that the Contractor discharges storm water, ground water, or process water to storm drains, ditches, gutters or any conveyance that discharges to a receiving water as defined by the Department of Ecology without prior approval of the Port construction project representative, the Port construction project representative may stop all construction activities and require additional Contractor staff training and may require that all parties involved in the unapproved discharge be removed from the project for a time determined by the Port construction project representative. The project schedule will not be changed to accommodate the time lost. All costs associated with mitigation of the unauthorized discharge, work stoppages, training and/or removal of personnel from the project shall be paid by the Contractor.

6. COORDINATION MEETINGS

- a. The Contractor shall be available, at a minimum, for a weekly coordination meeting with the Port construction project representative, other Port Staff and outside agency representatives to review the ongoing contract work for compliance with the provision of this specification.
- b. The Contractor's Erosion Control Lead (ECL) shall attend a quarterly environmental staff meeting scheduled by the Erosion Control/Stormwater Port construction project representative to

discuss and resolve relevant environmental, stormwater and erosion control issues on Port of Seattle projects.

### 3.02 PREPARATION FOR EXECUTION OF WORK

#### A. STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

1. The Contractor shall prepare a Stormwater Pollution Prevention Plan (SWPPP). The contents of a construction SWPPP may vary with the amount of new or replaced impervious surface, acres of land disturbing activity and the classification of water.
2. The Contractor shall prepare a CESC. The contents of a CESC may vary with the amount of new or replaced hard surface, acres of land disturbing activity and the classification of water. The CESC shall comply with the Director's Rules based on the City of Seattle "Stormwater Code", SMC Chapters 22.800 through 22.808, and must contain enough detail to demonstrate controls sufficient to determine compliance with City of Seattle Stormwater Code SMC 22.805.020.D.
3. The SWPPP shall consist of the following documents:
  - a. Temporary Erosion and Sediment Control Plan sheets in the Contract documents;
  - b. Section 01 57 13 - Temporary Erosion and Sediment Control Planning and Execution;
  - c. Section 01 57 23 - Pollution Prevention, Planning and Execution;
  - d. Contractor's Erosion and Sediment Control Plan (CESCP), submitted by the Contractor;
  - e. Pollution Prevention Plan per Section 01 57 23, submitted by the
  - f. Construction Storm Water Monitoring Plan, development to be determined if by the Port or by the Contractor.
4. Contractor's Erosion and Sediment Control Plan (CESCP)

In order to comply with these requirements, the Contractor shall include and address the following in the CESC portion of the SWPPP:

  - a. Site Description and Drawings
    - (1) Included in the CESC shall be a written description of the construction site, including location of staging areas, stockpile areas, material storage areas, natural and constructed drainage systems within the work area and staging areas, and proximity to other construction projects.
    - (2) Drawings shall be included in the CESC which show the location of the construction site, including location of staging areas, stockpile areas, material storage areas, natural and constructed drainage systems within the work area and staging areas, and proximity to other construction projects.
    - (3) The drawings shall show locations of BMPs during each phase of construction as identified by the Contractor in the Project Schedule.

- (4) The drawings and written description shall detail temporary stormwater conveyance facilities and other measures proposed by the Contractor to limit the contributing drainage areas to not exceed the capacity of each of the stormwater ponds.
- b. Contractor Erosion and Sediment Control Personnel
- (1) The Contractor shall designate sufficient employees as the responsible representatives in charge of erosion and sedimentation control. These employees' responsibility will be the oversight of all water and air quality issues.
  - (2) The designated employees responsible for erosion and sedimentation control as discussed above shall be the Erosion Control Lead(s) (ECL) responsible for developing, maintaining and modifying the CESCOP for the life of the Contract and ensuring compliance with all requirements of this section.
  - (3) An ECL shall be onsite at all times when any work activity is taking place. An ECL shall be required for each shift.
  - (4) The ECL shall be qualified in the preparation of erosion and sediment control plans, in the installation, inspection, monitoring, maintenance of BMP's, and documentation required for NPDES permits as well as sensitive resource identification, water treatment, and restoration and stabilization of unstable slopes, shorelines, stream banks, and wetlands.
  - (5) The ECL shall have authority to direct all Contractor and sub-contractor personnel.
  - (6) The ECL shall have no other duties aside from developing, maintaining, modifying, inspecting, implementing the CESCOP and ensuring compliance with all requirements of this section, and, all other environmental regulations, or as directed by the Port construction project representative.
  - (7) Qualifications of the ECL shall be as follows:
    - (a) Have successfully completed Contractor Erosion and Sediment Control Lead (CESCL) training given by a Washington State Department of Ecology-approved provider, and have five years experience in construction site erosion and sediment control regulatory requirements and BMPs, erosion and sediment control plan development, and stormwater/water quality monitoring, or
    - (b) Currently certified as a Certified Professional in Erosion and sediment Control (CPESC) offered by CPESC, Inc. ([www.cpesc.org](http://www.cpesc.org)) and have one year experience in state of Washington construction site erosion and sediment control regulatory requirements and BMPs, erosion and sediment control plan development and stormwater monitoring.
  - (8) The ECL shall also have done the following:

- (a) Coordinated, developed, and implemented erosion and sediment control plans for NPDES permit compliance in the State of Washington.
  - (b) Completed at least two erosion and sediment control plans for earthwork projects.
  - (c) Developed phased construction work schedules addressing all ground disturbing activities.
  - (d) Designed temporary and permanent erosion and sediment control measures (BMPs) during clearing, demolition, existing road improvement, and for emergency situations.
  - (e) Designed excavation dewatering plans.
  - (f) Designed plans for dust abatement, embankment stabilization, and restoration
  - (g) The Contractor shall submit for approval all documentation listed above necessary to prove ECL qualifications including but not limited to resumes, certificates, degrees, recommendation letters, and plan examples.
- (9) Duties and responsibilities of the ECL shall include:
- (a) Maintaining permit file on site at all times which includes the SWPPP, and any associated permits and plans;
  - (b) Directing BMP installation, inspection, maintenance, modification, and removal;
  - (c) Shall be onsite at all times when work is taking place.
  - (d) Availability 24 hours per day, 7 days per week by telephone throughout the period of construction;
  - (e) Updating all drawings with changes made to the plan;
  - (f) Keeping daily logs, one report per ECL is to be submitted;
  - (g) Prepare and submit for approval a Contractor Erosion and Sediment Control Plan (CESCP) as part of the SWPPP;
  - (h) Immediately notify the Port construction project representative should any point be identified where storm water runoff potentially leaves the site, is collected in a surface water conveyance system (i.e., road ditch, storm sewer), and enters receiving waters of the State;
  - (i) If water sheet flows from the site, identify the point at which it becomes concentrated in a collection system.
  - (j) Inspect CESCP requirements including BMPs as required to ensure adequacy; facilitate, participate in, and take corrective actions resulting from inspections performed by outside agencies, Port employees, and Port consultants.
  - (k) Set up and maintain a construction stormwater monitoring plan that includes monitoring locations and procedures. At a

minimum, the plan will include monitoring points everywhere construction stormwater discharges from the project.

- (l) The ECL shall have authority to act on behalf of the Contractor.
- (m) The CESCSP shall include the name, office and mobile telephone numbers, fax number, and address of the designated ECL and all Contractor personnel responsible for erosion and sediment control.
- (n) In addition to the ECL, at a minimum, the Contractor's superintendent, foremen, and lead persons shall have successfully completed "Contractor Erosion and Sediment Control Lead" (CESCL) training given by a Washington State Department of Ecology-approved provider. On matters concerning erosion control, they shall report to the ECL.

c. Schedule and Sequencing

- (1) Schedules for accomplishment of temporary and permanent erosion control work, that include as a minimum all specific work items as are applicable for clearing and grubbing; grading; construction; paving; structures at watercourses, sawcutting, and dewatering, underground utilities; Stormwater conveyances, and seeding.
- (2) Proposed method of erosion and dust control on haul roads and borrow pits and a plan for disposal of waste materials;
- (3) Estimated removal date of all temporary BMPs;
- (4) Estimated date of final site stabilization.
- (5) Dates of earthwork activities.
- (6) Dates when construction activities temporarily or permanently cease on any portion of the site.
- (7) Dates when any stabilization measures are installed.
- (8) Dates when structural BMPs are initiated.
- (9) Dates for all work performed within 200 feet of sensitive environmental areas including wetlands, streams and ponds.
- (10) Erosion control work activities consistent with the CESCSP shall be included in the Project Schedule for each work area and project activity as shown on the drawings.

d. BMP Installation

- (1) The CESCSP shall include installation instructions and details for each BMP used during the life of the Project;
- (2) To prepare or modify Contractor's Erosion and Sediment Control Plans, use BMPs from the Washington State Department of Ecology, Stormwater Management Manual for Western Washington, Vol. 2, and (Current Version). May be downloaded at: <http://www.ecy.wa.gov/programs/wq/stormwater/manual.html>

- (3) The ECL shall certify that all BMP installers are trained in proper installation procedures.
- e. BMP Maintenance
- (1) The CЕСSCP shall include a description of the maintenance and inspection procedures to be used for the life of the project.
  - (2) BMPs shall be maintained for the life of the project, the completion of a work phase and/or until removed by direction of the Port construction project representative;
  - (3) BMPs shall be maintained during all suspensions of work and all non-work periods;
  - (4) BMPs shall be maintained and repaired as needed to assure continued performance of their intended function and in accordance with the approved CЕСSCP;
  - (5) Sediments removed during BMP maintenance shall be placed away from natural and constructed storm water conveyances and permanently stabilized.
  - (6) All maintenance shall be completed within 24 hours of inspection
- f. BMP Inspection
- (1) The ECL shall inspect all TЕСSC best management practices daily during workdays and anytime 0.5" of rainfall has occurred within 24 hours on weekends, holidays, and after hours. Rainfall amounts can be determined by contacting the National Weather Service.
  - (2) Deficiencies identified during the inspection shall be corrected within 24 hours or as directed by the Port construction project representative.
  - (3) Observe runoff leaving the site during storms, checking for turbid water;
  - (4) Implement additional BMPs, if needed, to address site-specific erosion control;
  - (5) Inspect streets surrounding site for dirt tracking;
  - (6) Inspect for dust.
  - (7) The ECL shall visually inspect all stormwater runoff that discharges from the project for petroleum or chemical sheen, or "rainbow". Occurrences of sheen shall be reported immediately to the Port construction project representative and shall follow procedures specified in Section 01 57 23 – Pollution Prevention, Planning & Execution.
  - (8) The ECL shall collect samples and test all stormwater runoff that discharges from the project for turbidity using a calibrated turbidimeter, and for pH using test strips that measure from pH 0 - 14. Turbidity that exceeds 25 NTUs or pH that is below 6.5 or above 8.5 shall be reported immediately to the Port construction project representative.

- g. Record keeping
- (1) Reports summarizing the scope of inspections, the personnel conducting the inspection, the date(s) of the inspection, major observations relating to the implementation of the CESC, and actions taken as a result of these inspections shall be prepared and retained as a part of the CESC;
  - (2) All inspection reports shall be kept on-site during the life of the project and available for review upon request of the Port construction project representative.
  - (3) Copies of all inspection records and updated CESC shall be submitted to the Port construction project representative weekly.
  - (4) The CESC shall include the Contractor's inspection form which includes the following:
    - (a) All best management practices to be inspected and monitored for all work areas and work activities identified in the schedule for the life of the contract.
    - (b) Inspection time and date.
    - (c) Weather information including current conditions, total rainfall since last inspection and rainfall in the 24 hours prior to the current inspection.
    - (d) Locations of BMPs inspected.
    - (e) Locations of BMPs that need maintenance and reasons why.
    - (f) Locations of BMPs that failed to operate as designed or intended.
    - (g) Locations where additional or different BMPs are needed and reasons why.
    - (h) A description of stormwater discharged from the site. The ECL shall note the presence of suspended sediment, turbid water, discoloration, and/or petroleum sheen.
    - (i) Any water quality monitoring performed during inspection.
    - (j) General comments and notes, including a description of any BMP repairs, maintenance or installations made as a result of the inspection.
    - (k) A statement that, in the judgment of the person conducting the site inspection, the site is either in compliance or out of compliance CESC. If the site inspection indicates that the site is out of compliance, the inspection report shall include a summary of the remedial actions required to bring the site back into compliance, as well as a schedule of implementation. If the site inspection indicates that the site is out of compliance, the ECL shall notify the Port construction project representative immediately.



- (l) Name, title, and signature of the ECL conducting site inspection and the following statement: "I certify that this report is true, accurate, and complete, to the best of my knowledge and belief."
- h. BMP Removal
  - (1) After cleaning and removal, the drainage system shall not be used for temporary construction stormwater conveyance or storage.
  - (2) Sediment removed shall be placed away from drainage conveyances and permanently covered with hydro seed or other material as directed by the Port construction project representative.
  - (3) Stormwater ponds used to contain construction stormwater runoff shall be returned to elevations shown on the plans.
  - (4) Temporary BMPs shall be removed upon permanent stabilization or as directed by the Port construction project representative.
  - (5) Areas disturbed during removal of temporary BMPs shall be permanently stabilized.
  - (6) Permanent stabilization shall occur upon installation of:
    - (a) Concrete or asphalt pavement.
    - (b) On grades 3:1 and less, soil is covered by a minimum of 85% grass growth, as determined by the Port construction project representative.
    - (c) On grades greater than 3:1 soil is covered by an approved erosion control blanket or bonded fiber matrix and a minimum of 85% grass growth, utilizing the "Line Intercept Method".
    - (d) All stormwater discharges from the project meet the following criteria:
      - (i) 0-25 NTUs.
      - (ii) 6.5-8.5 pH.
      - (iii) No visible sheen.
      - (iv) No settleable solids.
      - (v) Washington State Stormwater Quality Standards (WAC 173-201A) at the receiving water, as determined by the Port construction project representative.
- i. Emergency Response
  - (a) The CESCOP shall contain information on how the Contractor shall control and respond to turbid water discharges, sediment movement, and fugitive dust. At a minimum, the Contractor's employee responsible for, or first noticing, the discharges shall take appropriate immediate action to protect the work area, private property, and the environment

(e.g., diking to prevent pollution of state waters). Appropriate action includes but is not limited to the following:

- (i) Hazard Assessment - assess the source, extent, and quantity of the discharge.
- (ii) Securement and Personal Protection - If the discharge cannot be safely and effectively controlled, then immediately notify the ECL and the Port construction project representative. If the discharge can be safely and effectively controlled, proceed immediately with action to protect the work area, private property, and the environment.
- (iii) Containment and Elimination of Source - Contain the discharge with silt fence, pipes, sand bags or a soil berm down slope from the affected area. Eliminate the source of the discharge by pumping turbid water to a controlled area, building berms, piping clean water away from the area or other means necessary.
- (iv) Cleanup - when containment is complete, remove sediment, stabilize, dispose of contaminated water and prevent future discharge.
- (v) Notification - report all discharges immediately to the Port construction project representative.

j. Construction Stormwater Management

**Designer may need to verify specific discharge requirements and modify this section accordingly. In some cases, no construction stormwater discharge is allowed and alternative disposal methods, such as sanitary sewer or trucking off site need to be included.**

- (1) Storm water and construction dewatering operations shall not discharge to the Storm Drain System (SDS) unless free from pollutants. Before discharge, water shall be measured using a properly calibrated, approved turbidity meter. Discharged water shall not exceed 25 Nephelometric Turbidity Units (NTUs) and pH levels shall be between 6.5 and 8.5.
- (2) Storm water and construction dewatering water shall not be discharged to the Industrial Wastewater System (IWS) unless free from pollutants. Before discharge, water shall be measured using a properly calibrated, approved turbidity meter. Discharged water shall not exceed 200 Nephelometric Turbidity Units (NTUs) and pH levels shall be between 6.0 and 9.0. There shall be no discharge to any catch basin without specific approval of the Port construction project representative.
- (3) The CЕСSР shall address how the Contractor plans to manage clean and polluted water during the life of the project. Specific procedures shall be developed and included in the CЕСSР when work includes excavation within 10 feet of any water, sewer, or storm system. Procedures shall address, at a minimum, locating,

protecting, and connecting to existing pipes, as well as response plans for broken pipes.

- (4) The Port construction project representative shall be notified before any disposal, hauling, pumping, or treatment of water occurs. Notification shall include location of disposal and methods of treatment. Disposal tickets shall be provided to the Port construction project representative upon request.
  - (5) Water shall not be pumped into ditches, gutters, drainage conveyance, catch basins, or any area that drains to one of these unless it meets the specifications outlined in this section and with prior approval of the Port construction project representative.
  - (6) Chlorinated water used for disinfecting water pipes shall not be discharged to the storm drain system.
- k. Fugitive Dust Planning:
- (1) The CЕСSР shall detail the Contractor proposed approach to fugitive dust management. The plan shall include the following:
    - (a) Identification of all fugitive dust sources for each work activity.
    - (b) Description of the fugitive dust control measures to be used for each source.
    - (c) Schedule, rate of application and calculations to identify how often, how much, and when the control method is to be used.
    - (d) Provisions for monitoring and recordkeeping.
    - (e) Contingency plan in case the first control plan does not work or is inadequate.
    - (f) Name and telephone number of the person responsible for fugitive dust control.
    - (g) Source and availability of fugitive dust control materials.
  - (2) The Contractor shall provide whatever means is necessary to keep fugitive dust on site and at an absolute minimum during working hours, non-working hours and any shut-down periods.
  - (3) The Contractor's methods for fugitive dust control will be continuously monitored and if the methods are not controlling fugitive dust to the satisfaction of the Port, the Contractor shall improve the methods or utilize new methods at no additional cost.
  - (4) The Contractor shall maintain as many water trucks on a site during working and non-working hours as required to maintain the site free from fugitive dust.
  - (5) During time periods of no construction activity, water trucks must be ready with on-site Contractor's personnel available to respond immediately to a dust or debris problem as identified by the Port construction project representative.

- (6) At no time shall there be more than a 10 minute response time to calls concerning fugitive dust/debris problems during work hours and a 90 minute response at all other times on a 24 hour basis.
- I. Utilities Planning:
  - (1) The CESCOP shall identify when and how all underground utility work will be conducted so that water quality compliance is maintained. At a minimum, the Contractor shall:
    - (a) Have all shut off valves located and have procured the means to shut off valves within 10 minutes of a water line break.
    - (b) Before cutting into an existing water line, the Contractor shall verify to the Port construction project representative that the water line is not pressurized.
    - (c) The Contractor shall not cut into an existing storm drain or connect new stormwater conveyance systems into existing systems until it has been verified to the Port construction project representative there will be no discharge of non-compliant water during and after cutting and connection operations.
    - (d) The Contractor shall grout all holes, seams, cracks, joints, cast iron rings and grates within 24 hours of installation of each item.
    - (e) Storm systems to be demolished in place shall be first blocked at the point of connection to existing section to prevent contamination of existing storm system.
    - (f) Chlorinated water shall be discharged to sanitary sewer or removed from the site.
    - (g) Air plugs shall not be utilized for more than 24 hours and shall be in new condition with no leaks and monitored daily for proper air pressure.
    - (h) Mechanical plugs shall not be utilized for more than 5 calendar days and shall be used according to the manufacturer's instructions and engineering parameters. The Contractor shall submit instructions and engineering documentation before use.
    - (i) When a plug needs to remain in place longer than 5 days, the Contractor shall utilize grout. The grout shall be installed so that the length is one and a half times the diameter of the pipe.
- m. Low Impact Development (LID) Protection Planning
  - (1) The CESCOP shall identify how all LID BMPs are to be protected from sedimentation, pollution and compaction.
- n. Education:

- (1) The Contractor shall provide narrative in the CЕСSР on how they will educate all personnel including subcontractors. At a minimum, the Contractor shall:
  - (a) Train staff through regularly scheduled meetings to discuss environmental protection subjects as related to this project. This may be added to any existing weekly meetings (such as safety meetings).
  - (b) Training shall emphasize water quality compliance, BMP installation and maintenance, sensitive areas, emergency response, spill prevention, and inspections.
  - (c) Minutes of the meetings detailing attendees and subjects discussed shall be kept and submitted to the Port construction project representative weekly.
  - (d) Prior to commencing work, all Contractor and subcontractor personnel at any tier shall complete a Port of Seattle Environmental Compliance Orientation given with the required Safety Orientation.

### 3.03 EXECUTION OF WORK

#### A. CONSTRUCTION REQUIREMENTS

1. Saw cutting
  - a. Saw cut slurry and cuttings shall be vacuumed during cutting operations;
  - b. Saw cut slurry and cuttings shall not remain on permanent concrete or asphalt pavement overnight;
  - c. Saw cut slurry and cuttings shall not drain to SDS, IWS, or any other natural or constructed drainage conveyance;
  - d. Collected slurry and cuttings are the responsibility of the Contractor and shall be disposed of off site in a manner that does not violate groundwater or surface water quality standards.
2. Soil and Construction Debris Stockpiles
  - a. Soils and construction debris, including broken concrete and asphalt paving, shall be stockpiled within the work site or off site.
  - b. Stockpiles shall be covered with plastic and secured from blowing wind and/or jet blast.
  - c. Plastic shall be a minimum thickness of 6 mil.
  - d. Materials to be stockpiled on pavement shall be placed on plastic and contained within a bermed area.
  - e. Clean storm water runoff from the plastic covering shall be directed away from bare soil using pipes, sandbags, or other temporary diversion devices.

- f. Stockpiles shall be covered so that no soil or debris are visible and shall be covered at the end of each work day, weekends and holidays
  - g. Stockpiles on the AOA shall not be allowed unless approved by the Port construction project representative.
3. Construction Entrances, Exits and Haul roads
- a. Before leaving project site, all trucks and equipment shall be inspected for mud and debris.
  - b. At no time shall mud, debris, or visible sediment be allowed outside of the project boundaries and on any Port-owned and public roads.
  - c. Mud and debris shall be removed from pavement by vacuum sweeping and shoveling and transported to a controlled sediment disposal area identified in the CЕСSCP.
  - d. Mud and debris shall be considered contaminated by fuels, grease, metals or other pollutants and shall be disposed of in accordance with Section 01 57 23 - Pollution Prevention, Planning and Execution.
  - e. Use of water to wash concrete or asphalt pavement shall be allowed only after sediment has been removed by vacuum sweeping and shoveling, and a Road Wash Plan has been submitted and accepted by the Port construction project representative.
  - f. Washing pavement, shall first be approved by the Port construction project representative. Wash water shall not drain into the SDS, IWS or any other natural or constructed storm water conveyance and shall be contained and removed from Port property and disposed of off-site in accordance with local, state, and federal regulations. Disposal tickets shall be provided to the Port construction project representative.
  - g. Power brooms shall not be utilized without prior approval by the Port construction project representative.
  - h. Contractor shall have sufficient working vacuum sweepers on site at all times work is being performed. All sweepers shall have on-board water spray systems that shall be operating at all times.
  - i. Vacuum sweepers shall be dedicated to this project and shall not be utilized by any other contract, nor be hired out to another contractor.
  - j. Sweeper systems shall function per manufacturer specifications, including, but not limited to, spray water systems, blowers, vacuum nozzles, hoses, debris hopper, hydraulics and electrical.
  - k. At no time shall debris hopper seals leak debris and or liquids.
  - l. At least one driver shall be assigned to a vacuum sweeper and shall do no other work.

- m. Coverage shall be provided during lunch breaks, and during unfilling activities.
  - n. If, in the Port construction project representative's opinion, the Contractor does not adequately manage the tracking of sediment, the Port may subcontract out the control of sediment tracking at the Contractor's expense.
4. Asphalt Curb and Asphalt berm
- a. Asphalt curbs or asphalt berms shall be constructed on project perimeters, when the project is surrounded by impervious surfaces.
  - b. Asphalt curb and berm shall be a minimum height of four inches.
  - c. Diesel shall not be used to clean tools and equipment
5. Catch Basin Protection
- a. All catch basins within the project limits, and outside the project limits but within the project drainage basin, including haul roads, shall be protected.
  - b. Catch basin protection shall be installed where shown in the project drawings, in all storm drainage structures within the work area, or as otherwise directed by the Port construction project representative.
6. Concrete Truck and Equipment Washing
- a. Concrete truck chutes, concrete pumps, hand tools, screeds, floats, trowels, rollers and all other tools shall be washed out only into Washington State Department of Ecology (WDOE)-approved covered steel containers.
  - b. All contained concrete waste shall be disposed of offsite in a manner that does not violate groundwater or surface water quality standards.
  - c. All water used for washing, is defined by the WDOE as "process water" and shall be collected and disposed of in a manner that complies with all local, state and federal regulations.
7. Wheel Washes
- a. All haul vehicles exiting the work site to public roads shall pass through a wheel wash system to control sediment tracking. Any required modification, alteration or improvement needed on the existing wheel wash systems or supplemental vehicle washing for the successful control of dirt, debris or sediment tracking beyond the wheel wash, either on Port haul roads or public roads, for the duration of the contract shall be the responsibility of the Contractor.
  - b. No modifications of the wheel wash system are allowed that alter the design of a contained operation with recycled wash water with no release of sediment laden wash water. The sediment shall be

- contained and disposed of at an appropriate disposal facility off Port Property.
- c. Wheel wash water shall be replaced weekly with fresh, clean water.
  - d. The wash water is “process water” and shall not be released on site or to the storm drain system and shall be disposed of in accordance with all water quality regulations.
  - e. Wheel wash water shall not exceed 100 NTU.
  - f. Contractor shall sample wheel wash water for turbidity 2 hours after start and 2 hours before shutdown of the system. Sampling results shall be entered into Contractor’s daily inspection report.
8. Silt Fence
- a. Silt fence shall be constructed at the locations shown in the project drawings, in the approved Contractor Erosion and Sediment Control Plan, or otherwise directed by the Port construction project representative.
  - b. The geotextile shall be attached to the up-slope side of the posts and the wire mesh using staples, wire rings, or in accordance to the manufacturer’s recommendations.
  - c. Where seams are required to join two sections of fence material, the seams shall be taped together, wrapped three times around a 2” steel post and the post driven into the ground. All rips, tears, holes, and other damage to silt fences shall be repaired within 24 hours of locating the damage. When sediments deposits reach approximately one-third the height of the silt fence, the deposits shall be removed and disposed of outside Port property.
9. Straw Wattle
- a. The installation of straw wattles shall be per WSDOT Standard Plan I-30.30-00 “Wattle Installation on Slope”, or as directed by the Port construction project representative.
  - b. Straw Wattles shall not be installed on impervious surfaces.
10. Bonded Fiber Matrix Soil Stabilization
- a. The installation of Bonded Fiber Matrix Soil Stabilization shall be applied at a minimum rate of 3,000 pounds per acre and provide a minimum of 95% soil cover. Seed and fertilizer shall be included.
  - b. Contractor shall provide all Bonded Fiber Matrix, seed and fertilizer bags to the Port construction project representative upon request.
11. Temporary Organic Mulch
- a. Temporary organic mulch shall be applied at a minimum rate of 1.5 tons per acre.
12. Swale Construction
- a. Grass-lined swales shall be constructed to the lines and grades shown on the drawings. The swale includes excavating, grading,



placement of topsoil, placement of erosion control blanket, and hydroseeding as detailed on the drawings. Excavated material from the swale construction shall be considered Excess Soil as defined in Section 31 23 00 – Excavation and Embankment.

13. Temporary Piping/Connections
  - a. The Contractor shall install temporary piping, catch basins and connections to the existing storm drain system in locations shown on the drawings. At the completion of the work, the piping shall be removed and the temporary connections plugged.
14. Temporary Pipe Plugging
  - a. The locations of piping to be temporarily plugged are indicated on the drawings. At the completion of the work, the plugs shall be removed.
15. Construction Stormwater Management
  - a. The Contractor shall construct stormwater tank pads in the size, location and as detailed on the drawings.
  - b. The Contractor shall install stormwater storage tanks, as specified, in the locations and quantities shown on the drawings.
  - c. The Contractor is responsible for conveying construction stormwater within each work area to the stormwater storage tank area shown on the drawings.
  - d. Temporary piping, structures and pump facilities required for the conveyance are the responsibility of the Contractor.
  - e. The construction stormwater shall be held in the storage tanks until hauled and disposed of by the Contractor on a Force Account basis.
  - f. The storage tank facilities including pads, access roads, ramps, temporary structures and piping shall be removed at the completion of the work or as directed by the Port construction project representative
16. Surface Roughening:
  - a. All soil shall be roughened, loose and friable, by ripping or with equipment tracks before being permanently stabilized.
17. Water Filled Diversion Berms
  - a. Water filled diversion berms shall be installed such that offsite water is prevented from entering the job site and site water is kept within the project boundary.
  - b. Berms may be used to prevent contaminants and water from entering catch basins.
  - c. Berms may be used on impervious surfaces.
18. Biofence

- a. Stakes shall be driven into the ground a minimum of 12 inches and be spaced no more than 6 feet apart.
  - b. Fence ends shall be joined by wrapping ends together around a post 3 times and driven into the ground.
  - c. Burlap fabric shall be attached to the post in at least 3 places using staples or other method approved by the Port construction project representative.
  - d. When used as a barrier fence, fabric shall not be trenched into the ground. When used as a silt fence, a minimum 8 inch flap shall be left at the bottom and held in place with straw wattles staked in as detailed in item 9 above.
19. Process Water Collection, Storage and Disposal
- a. The Contractor shall provide and install stormwater storage tanks of sufficient size and volume to enable collection of 100% of the process water generated by the project.
  - b. The Contractor is responsible for conveying process water within each work area to storage tank(s).
  - c. Temporary piping, structures and pump facilities required for the conveyance are the responsibility of the Contractor.
  - d. The storage tank facilities including pads, temporary structures and piping shall be removed at the completion of the work or as directed by the Port construction project representative.
  - e. Contractor shall provide process water disposal locations to the Port construction project representative for review.
20. Low Impact Development (LID) Protection
- a. At a minimum, the Contractor shall:
    - 1) At no time shall water exceeding 25 NTUs drain into bioretention, rain garden, or pervious pavement BMPs.
    - 2) At no time shall water exceeding pH range of 6.5 to 8.5 drain into bioretention, rain garden, or pervious pavement BMPs.
    - 3) At no time shall water containing sheen drain into bioretention, rain garden, or pervious pavement BMPs.
    - 4) Upon reaching final grade, native soils below infiltration BMPs shall be maintained such that designed infiltration is not impacted. Areas shall be fenced to prevent vehicle and foot traffic from entering.
    - 5) Pervious pavement BMPs fouled with sediment or debris such that designed infiltration rates are reduced shall be cleaned to the satisfaction of the Port construction project representative or replaced at the Contractor's expense.

3.04 DELIVERABLES

3.05 QUALITY ASSURANCE

End of Section

PART 1 GENERAL

1.01 SUMMARY OF WORK

- A. This item shall consist of planning, installing, inspecting, maintaining, upgrading and removing temporary erosion and sediment control Best Management Practices (BMPs) as shown in the Contract Documents, in the Contractor's Erosion and Sediment Control Plan (CESCP), or as ordered by the Port construction project representative to prevent pollution of air and water, and control, respond to, and manage eroded sediment, turbid water and process water during the life of the contract.
- B. This project may require management as a no-discharge project. All stormwater shall be diverted away from work areas. All project and process water shall be collected, stored and discharged off Port property.
- C. This work shall apply to all areas associated with contract work including, but not limited to the following:
  - 1. Work areas
  - 2. Equipment and material storage areas
  - 3. Staging areas
  - 4. Stockpiles
  - 5. Access Roads

1.02 GOVERNING CODES, STANDARDS, AND REFERENCES

- A. The following rules, requirements and regulations specified may apply to this work:
  - 1. Surface Water Design Manual, King County, Department of Natural Resources, (Current Edition).
  - 2. Washington State Department of Ecology Stormwater Management Manual for Western Washington (2014), Vol. 2 Washington State Stormwater Quality Standards (WAC 173-201A).
  - 3. National Pollution Discharge Elimination System (NPDES) Waste Discharge Permit No. WA 002465-1.
  - 4. Port of Seattle Regulations for Airport Construction (current edition).
  - 5. Sea-Tac International Airport Rules and Regulations (current edition).
  - 6. Projects with one or more acres of disturbance may need to obtain this permit. Port will determine if it will obtain and transfer coverage to the Contractor or the Contractor will obtain the permit.  
Construction General NPDES Permit #[ ]

1.03 SUBMITTALS

- A. As part of the required Preconstruction Submittals, Section 01 32 19 - Preconstruction Submittals and before Notice to Proceed is given, when required the Contractor shall submit the following:

1. Contractor Erosion and Sediment Control Plan (CESCP)
  - (1) Including CESCL Certification Cards and ECL Qualifications
  
- B. The following may be required for submittal:
  1. Oil Absorbent Pads
  2. Silt Fence
  3. Straw Wattle
  4. Erosion Control Blanket
  5. Bonded Fiber Matrix
  6. Catch Basin Protection
  7. Temporary Piping Connections / Plugs
  8. Construction Limits Fencing
  9. Wheel Wash
  10. Geotextile Fabric Check Dam
  11. Plastic Sheeting
  12. Temporary Organic Mulch
  13. Water Filled Diversion Berm
  14. Biofence

## PART 2 MATERIALS

### 2.01 PROJECT INFORMATION

### 2.02 PREPARATION FOR MATERIALS

### 2.03 FABRICATION, PRODUCTION, & SUPPLY OF MATERIALS

### 2.04 MATERIAL REQUIREMENTS

#### A. GENERAL:

- A. All products used to construct the Contractor selected BMPs shall be suitable for such use and submitted to the Port construction project representative for approval.

#### B. OIL ABSORBENT PADS:

- A. Oil absorbent pads shall be made of white, 100% polypropylene fabric that absorbs oil-based fluids and repels water-based fluids. Each pad shall be a minimum of 15x19 inches in size and absorb no less than 50 ounces of oil-based fluids.

#### C. TESC – ASPHALT CURB & ASPHALT BERM:

- A. Asphalt curb and asphalt berm shall be constructed as directed by the Port construction project representative. The asphalt concrete shall meet the requirements of Section 32 12 16 – Bituminous Concrete Pavement.

#### D. SILT FENCE:

- A. Geotextile material shall meet the requirements of WSDOT Specification Section 9-33 Table 6. Geotextile material shall be backed by 2"x4" wire mesh and shall be attached to steel "T" posts using wire or zip ties. Dimensions and spacing shall be as detailed on the drawings.
- E. STRAW WATTLE:
  - A. Wattles shall consist of cylinders of biodegradable plant material, such as straw, coir, or compost encased within biodegradable or photodegradable netting. Wattles shall be a minimum of 5 inches in diameter, unless otherwise specified. Encasing material shall be clean, evenly woven, and free of debris or any contaminating material, such as preservative and free of cuts, tears or damage. Compost filler shall meet material requirements specified in WSDOT Section 9-14.4(8) Coarse Compost. Straw filler shall be 100% free of weed seeds.
- F. EROSION CONTROL BLANKET:
  - A. Erosion Control Blanket shall meet the requirements of WSDOT Specification Section 9-14, paragraph 9-14.5(2) "Erosion Control Blanket". Installation in ditches and swales shall be per WSDOT Standard Plan I-60.20-00 "Erosion Control Blanket Placement in Channel". Installation on slopes shall be per WSDOT Standard Plan I-60.10-00 "Erosion Control Blanket Placement on Slope".
- G. BONDED FIBER MATRIX SOIL STABILIZATION:
  - A. Bonded Fiber Matrix soil stabilization shall be labeled as such on the unopened bags furnished by the manufacturer. Bonded fiber matrix shall be installed with seed and fertilizer included in the homogenous mix. Seeding shall be as specified in Section 32 92 19.16 – Hydroseeding for Erosion Control and Landscaping.
- H. CATCH BASIN PROTECTION:
  - A. Catch basin protection shall be designed and installed for the purpose of preventing sediment from entering the storm system. Protection shall:
    - B. Be constructed of non-woven geotextile fabric with sewn seams;
    - C. Contain a built-in lifting strap;
    - D. Have a built-in, high flow bypass;  
Be sized such that all water draining to the catch basin flows into the insert and does not flow directly into the storm drain.
  - E. Catch basin covers shall be 30 mil PVC liner material.
- I. TEMPORARY PIPING/CONNECTIONS:
  - A. Temporary piping shall meet the requirements of the storm drain pipe as specified in Section 33 41 13 – Pipe for Storm Drains and Culverts. Temporary catch basin shall meet the requirements of Section 33 49 13 – Manholes, Catch Basins, Inlets and Inspection Holes.
- J. TEMPORARY PIPING PLUGS:
  - A. Installation in Pipe/Structure to be Demolished/Abandoned. Plug shall be concrete as specified in Section 03 30 00 – Cast-in-Place Concrete.

- B. Installation in Pipe/Structure to Remain. Plug shall be a mechanical secured plug.
- K. STORMWATER STORAGE TANK:
  - A. The tank shall be a fixed axle weir tank with a minimum 21,000 gallon.
- L. STORMWATER STORAGE TANK PADS:
  - A. The stormwater storage tank pads shall be as detailed on the drawings.
- M. CONSTRUCTION LIMITS FENCING:
  - A. Fencing material shall be standard size orange plastic mesh construction safety fence. Posts shall be steel "T" posts.
- N. ROCK CHECK DAMS:
  - A. Rock check dams shall be constructed of quarry spalls per the details shown in the project drawings and as specified in Section 31 23 00 - Excavation and Embankment.
- O. STABILIZED CONSTRUCTION ENTRANCE
  - A. Stabilized construction entrance(s) shall be constructed of stabilization geotextile fabric and quarry spalls as specified in Section 31 23 00 - Excavation and Embankment.
- P. WHEEL WASH
  - A. The wheel wash shall be a high water pressure, low water volume system long enough to allow for at least two full tire rotations. Spray nozzles shall be directed at inner and outer side walls for all tires including duals, all treads from two directions, wheel wells and flaps, and truck sides up to the bottom of the windshield. For water line material and construction requirements shall be as specified in Section 33 10 00 - Water Distribution.
- Q. GEOTEXTILE FABRIC CHECK DAMS
  - A. Geotextile check dam shall be a urethane foam core encased on Geotextile material. The minimum length of the unit shall be 7 feet. The foam core shall be a minimum of 8 inches in height, and have a minimum base width of 16 inches. The geotextile material shall overhang the foam by at least 6 inches at each end, and shall have apron type flaps that extend a minimum of 24 inches on each side of the foam core. The geotextile material shall meet the requirements for silt fence.
- R. PLASTIC SHEETING
  - A. Plastic sheeting shall be clear, reinforced, and a minimum of 6 mil thick. Sandbags or other Port construction project representative -approved material shall be used to secure the plastic sheeting in place. Black plastic may be used to cover stockpiles.
- S. TEMPORARY ORGANIC MULCH
  - A. Temporary organic mulch shall consist of straw, wood chips, hog fuel, compost or other material approved by the Port construction project representative.
- T. WATER FILLED DIVERSION BERM

- A. Berm shall be a minimum 6 inches high and 10 feet long and made of 10 mil polyurethane or 22 oz. PVC.

U. BIOFENCE

- A. Biofence shall consist of 7 ounce or heavier uncoated burlap fabric at least 36 inches wide and 100 feet long. Wood stakes dimensions shall be a minimum 1 1/8 x 1 1/8 inches by 42 inches high.

2.05 MATERIAL HANDLING, DELIVERY, & STORAGE

2.06 DELIVERABLES

2.07 QUALITY ASSURANCE

PART 3 EXECUTION

3.01 PROJECT INFORMATION

A. GENERAL

- 1. In the event of conflict between these requirements and pollution control laws, rules, or regulations of other Federal, state, or local agencies, the more restrictive laws, rules, or regulations shall apply.
- 2. No discharge of water shall be allowed that increases volume, velocity, or peak flow rate of receiving water background conditions, or that does not meet state of Washington water quality standards.
- 3. The Contractor's Erosion and Sediment Control Plan (CESCP) required by this section shall be based upon the Temporary Erosion and Sediment Control (TESC) requirements of the contract but shall specifically phase, adjust, improve and incorporate the TESC requirements into the Contractor's specific schedule and plan for accomplishing the work. The CESCP shall be modified as changes are made to improve, upgrade and repair best management practices used by the Contractor and as the work progresses and TESC needs change.
- 4. The Contractor shall be wholly responsible for control of water onto and exiting the construction site and/or staging areas, including groundwater, stormwater, and process water. Stormwater from offsite shall be intercepted and conveyed around or through the project and shall not be combined with onsite construction stormwater.
- 5. Design of, and modifications to, project hydraulic conveyances, detention facilities, and TESC plan sheets shall be stamped by a Professional Engineer (P.E.) licensed by the State of Washington. All other changes to the CESCP shall be signed by the ECL.

B. PROJECT REQUIREMENTS

1. DESCRIPTION OF WORK

- a. In order to comply with the requirements of this section, the Contractor shall:
  - (1) Develop the Stormwater Pollution Prevention Plan (SWPPP) and submit a Contractor's Erosion and Sediment Control Plan (CESCP). The CESCP shall, at a minimum, include and address the following:



- (a) Site Description and Drawings
  - (b) Contractor Erosion and Sediment Control Personnel
  - (c) Schedule and Sequencing
  - (d) BMP Installation
  - (e) BMP Maintenance
  - (f) BMP Inspection
  - (g) Record keeping
  - (h) BMP Removal
  - (i) Emergency Response
  - (j) Construction Dewatering
  - (k) Fugitive Dust Planning
  - (l) Utilities Planning
  - (m) Education
- (2) Revise and modify the CЕСSCP during the life of the contract and maintain records.
  - (3) Install, maintain, and upgrade all erosion prevention, containment, and countermeasures BMPs during the life of the contract, and removal at the end of the project.
  - (4) Contain, cleanup and dispose of all sediment and convey turbid water to existing or proposed detention/treatment facilities.
  - (5) Perform other work shown on the project drawings, in the Contractor Erosion and Sediment Control Plan, or as directed by the Port construction project representative.
  - (6) Inspect to verify compliance with the CЕСSCP requirements including BMPs; facilitate, participate in, and implement directed corrective actions resulting from inspections conducted by others including outside Agencies and Port employees/consultants.
  - (7) Educate all Contractor and sub-contractor staff about environmental compliance issues at weekly meetings and document attendance and content.

## 2. DEFINITIONS

- a. Process Water: All water including, but not limited to, that used for washing, cleaning, fire proofing and hydrodemolition is defined by the Department of Ecology as “process water” and shall be collected and disposed of in a manner that complies with all local, state and federal regulations. Disposal tickets shall be provided to the Port construction project representative.
  - (1) Process water shall not be discharged to the IWS or SDS

3. PERMITS

- a. Work shall be conducted in accordance with NPDES permit No. WA- 002465-1.
- b. When the project requires a Construction General NPDES Permit and the contractor is to be completely responsible for compliance, the Port will obtain the permit and contractor shall have to accept transfer of permit from the Port.

The Contractor shall accept from the Owner complete transfer of Construction General NPDES Permit #[redacted]. The Contractor shall submit a signed Notice of Transfer before Notice to Proceed. The form can be obtained at:

<http://www.ecy.wa.gov/biblio/ecy02087a.html>

4. ADMINISTRATIVE REQUIREMENTS

- a. The provisions of this section shall apply to the Contractor, subcontractors at all tiers, suppliers and all others who may have access to the work site by way of the contractor's activities.
- b. Failure to install, maintain, and/or remove BMPs shown on the drawings, in the approved Contractor Erosion and Sediment Control Plan and specified herein, or by order of the Port construction project representative; or failure to conduct project operations in accordance with Section 01 57 13 - Temporary Erosion and Sediment Control Planning and Execution will result in the suspension of the Contractor's operations by the Port construction project representative.
- c. The Contractor shall be solely responsible for any damages, fines, levies, or judgments incurred as a result of Contractor, subcontractor, or supplier negligence in complying with the requirements of this section.
- d. Any damages, fines, levies, or judgments incurred as a result of Contractor, subcontractor, or supplier negligence in complying with the requirements of this section will be deducted from payment due by Modification.
- e. Any time and material costs incurred by the Port due to damages, fines, levies, or judgments incurred as a result of Contractor, subcontractor, or supplier negligence in complying with the requirements of this section will be deducted from payment due by Modification.
- f. The Contractor shall be solely responsible for any schedule impacts from damages, fines, levies, judgments, or stop work orders incurred as a result of Contractor, subcontractor, or supplier negligence in complying with the requirements of this section. The project schedule will not be changed to accommodate the time lost.
- g. Contractor shall not clear, grub, grade, demolish, or perform any earthwork after Notice to Proceed until the following has been

installed per the project drawings, the approved Contractor Erosion and Sediment Control Plan, or as directed by the Port construction project representative:

- (1) Silt Fence or other perimeter controls are in place.
- (2) Areas not to be disturbed are delineated with construction fence.
- (3) Temporary ponds and ditches are installed and vegetated or covered.
- (4) Permanent ponds used for sediment control during construction have been installed and vegetated or covered and modified with riser.
- (5) Water flows from off site are tight lined and directed away from work area.
- (6) All construction entrances are stabilized and wheel wash systems in place and operational.
- (7) Catch basin inserts are installed in all catch basins that receive drainage from the Work area and haul roads.
- (8) Stormwater storage tanks are located onsite to provide for additional storage volume and/or treatment volume required for treatment by settlement.
- (9) Materials on hand, in quantities sufficient to cover all bare soil, divert all flows, contain all sediments, and prevent turbid discharges from the site during all stages of construction. These materials include, but are not limited to the following:
  - (a) Reinforced 6 mil plastic sheeting
  - (b) Straw Wattles
  - (c) 6" pipe
  - (d) 8" pipe
  - (e) Sand bags, filled
  - (f) Wire-backed silt fence
  - (g) Steel "T" posts

5. AUTHORITY OF PORT CONSTRUCTION PROJECT REPRESENTATIVE
  - a. The Port construction project representative has the authority to limit the surface area of erodible earth material exposed by clearing, excavation, and fill operations, and to direct the Contractor to provide immediate permanent or temporary pollution control measures to prevent contamination of adjacent streams or other watercourses, lakes, ponds, wetlands or other areas of water impoundment.
  - b. In the event that temporary erosion and pollution control measures are required due to the Contractor's negligence, carelessness, or

failure to install permanent controls as a part of the work as scheduled or are ordered by the Port construction project representative, such work shall be performed by the Contractor at his/her own expense.

- c. The Port construction project representative may increase or decrease the area of erodible earth material to be exposed at one time as determined by analysis of project conditions.
- d. In the event that areas adjacent to the work area are suffering degradation due to erosion, sediment deposit, water flows, or other causes, the Port construction project representative may stop construction activities until the situation is rectified.
- e. In the event that the Washington State Department of Ecology issues an Inspection Report, a Notice of Non-Compliance, Notice of Violation or Enforcement Action, the Port construction project representative may stop all construction activities until it has been determined that the project is in compliance. The Port construction project representative may require the Contractor to send additional staff to successfully complete Contractor Erosion and Sediment Control Lead (CESCL) training before construction activities may begin. The number of working days will not be changed to accommodate the work stoppage. All costs associated with work stoppages, mitigation of the event, and/or training shall be paid by the Contractor.
- f. In the event that the Contractor discharges storm water, ground water, or process water to storm drains, ditches, gutters or any conveyance that discharges to a receiving water as defined by the Department of Ecology without prior approval of the Port construction project representative, the Port construction project representative may stop all construction activities and require additional Contractor staff training and may require that all parties involved in the unapproved discharge be removed from the project for a time determined by the Port construction project representative. The project schedule will not be changed to accommodate the time lost. All costs associated with mitigation of the unauthorized discharge, work stoppages, training and/or removal of personnel from the project shall be paid by the Contractor.

#### 6. COORDINATION MEETINGS

- a. The Contractor shall be available, at a minimum, for a weekly coordination meeting with the Port construction project representative, other Port Staff and outside agency representatives to review the ongoing contract work for compliance with the provision of this specification.
- b. The Contractor's Erosion Control Lead (ECL) shall attend a quarterly environmental staff meeting scheduled by the Erosion Control/Stormwater Port construction project representative to

discuss and resolve relevant environmental, stormwater and erosion control issues on Port of Seattle projects.

### 3.02 PREPARATION FOR EXECUTION OF WORK

#### A. STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

1. The Contractor shall prepare a Stormwater Pollution Prevention Plan (SWPPP). The contents of a construction SWPPP may vary with the amount of new or replaced impervious surface, acres of land disturbing activity and the classification of water.
2. The Contractor shall prepare a CESC. The contents of a CESC may vary with the amount of new or replaced hard surface, acres of land disturbing activity and the classification of water. The CESC shall comply with the Director's Rules based on the City of Seattle "Stormwater Code", SMC Chapters 22.800 through 22.808, and must contain enough detail to demonstrate controls sufficient to determine compliance with City of Seattle Stormwater Code SMC 22.805.020.D.
3. The SWPPP shall consist of the following documents:
  - a. Temporary Erosion and Sediment Control Plan sheets in the Contract documents;
  - b. Section 01 57 13 - Temporary Erosion and Sediment Control Planning and Execution;
  - c. Section 01 57 23 - Pollution Prevention, Planning and Execution;
  - d. Contractor's Erosion and Sediment Control Plan (CESCP), submitted by the Contractor;
  - e. Pollution Prevention Plan per Section 01 57 23, submitted by the
  - f. Construction Storm Water Monitoring Plan, development to be determined if by the Port or by the Contractor.
4. Contractor's Erosion and Sediment Control Plan (CESCP)

In order to comply with these requirements, the Contractor shall include and address the following in the CESC portion of the SWPPP:

  - a. Site Description and Drawings
    - (1) Included in the CESC shall be a written description of the construction site, including location of staging areas, stockpile areas, material storage areas, natural and constructed drainage systems within the work area and staging areas, and proximity to other construction projects.
    - (2) Drawings shall be included in the CESC which show the location of the construction site, including location of staging areas, stockpile areas, material storage areas, natural and constructed drainage systems within the work area and staging areas, and proximity to other construction projects.
    - (3) The drawings shall show locations of BMPs during each phase of construction as identified by the Contractor in the Project Schedule.

- (4) The drawings and written description shall detail temporary stormwater conveyance facilities and other measures proposed by the Contractor to limit the contributing drainage areas to not exceed the capacity of each of the stormwater ponds.
- b. Contractor Erosion and Sediment Control Personnel
- (1) The Contractor shall designate sufficient employees as the responsible representatives in charge of erosion and sedimentation control. These employees' responsibility will be the oversight of all water and air quality issues.
  - (2) The designated employees responsible for erosion and sedimentation control as discussed above shall be the Erosion Control Lead(s) (ECL) responsible for developing, maintaining and modifying the CESCOP for the life of the Contract and ensuring compliance with all requirements of this section.
  - (3) An ECL shall be onsite at all times when any work activity is taking place. An ECL shall be required for each shift.
  - (4) The ECL shall be qualified in the preparation of erosion and sediment control plans, in the installation, inspection, monitoring, maintenance of BMP's, and documentation required for NPDES permits as well as sensitive resource identification, water treatment, and restoration and stabilization of unstable slopes, shorelines, stream banks, and wetlands.
  - (5) The ECL shall have authority to direct all Contractor and sub-contractor personnel.
  - (6) The ECL shall have no other duties aside from developing, maintaining, modifying, inspecting, implementing the CESCOP and ensuring compliance with all requirements of this section, and, all other environmental regulations, or as directed by the Port construction project representative.
  - (7) Qualifications of the ECL shall be as follows:
    - (a) Have successfully completed Contractor Erosion and Sediment Control Lead (CESCL) training given by a Washington State Department of Ecology-approved provider, and have five years experience in construction site erosion and sediment control regulatory requirements and BMPs, erosion and sediment control plan development, and stormwater/water quality monitoring, or
    - (b) Currently certified as a Certified Professional in Erosion and sediment Control (CPESC) offered by CPESC, Inc. ([www.cpesc.org](http://www.cpesc.org)) and have one year experience in state of Washington construction site erosion and sediment control regulatory requirements and BMPs, erosion and sediment control plan development and stormwater monitoring.
  - (8) The ECL shall also have done the following:

- (a) Coordinated, developed, and implemented erosion and sediment control plans for NPDES permit compliance in the State of Washington.
  - (b) Completed at least two erosion and sediment control plans for earthwork projects.
  - (c) Developed phased construction work schedules addressing all ground disturbing activities.
  - (d) Designed temporary and permanent erosion and sediment control measures (BMPs) during clearing, demolition, existing road improvement, and for emergency situations.
  - (e) Designed excavation dewatering plans.
  - (f) Designed plans for dust abatement, embankment stabilization, and restoration
  - (g) The Contractor shall submit for approval all documentation listed above necessary to prove ECL qualifications including but not limited to resumes, certificates, degrees, recommendation letters, and plan examples.
- (9) Duties and responsibilities of the ECL shall include:
- (a) Maintaining permit file on site at all times which includes the SWPPP, and any associated permits and plans;
  - (b) Directing BMP installation, inspection, maintenance, modification, and removal;
  - (c) Shall be onsite at all times when work is taking place.
  - (d) Availability 24 hours per day, 7 days per week by telephone throughout the period of construction;
  - (e) Updating all drawings with changes made to the plan;
  - (f) Keeping daily logs, one report per ECL is to be submitted;
  - (g) Prepare and submit for approval a Contractor Erosion and Sediment Control Plan (CESCP) as part of the SWPPP;
  - (h) Immediately notify the Port construction project representative should any point be identified where storm water runoff potentially leaves the site, is collected in a surface water conveyance system (i.e., road ditch, storm sewer), and enters receiving waters of the State;
  - (i) If water sheet flows from the site, identify the point at which it becomes concentrated in a collection system.
  - (j) Inspect CESCP requirements including BMPs as required to ensure adequacy; facilitate, participate in, and take corrective actions resulting from inspections performed by outside agencies, Port employees, and Port consultants.
  - (k) Set up and maintain a construction stormwater monitoring plan that includes monitoring locations and procedures. At a

minimum, the plan will include monitoring points everywhere construction stormwater discharges from the project.

- (l) The ECL shall have authority to act on behalf of the Contractor.
- (m) The CESCSP shall include the name, office and mobile telephone numbers, fax number, and address of the designated ECL and all Contractor personnel responsible for erosion and sediment control.
- (n) In addition to the ECL, at a minimum, the Contractor's superintendent, foremen, and lead persons shall have successfully completed "Contractor Erosion and Sediment Control Lead" (CESCL) training given by a Washington State Department of Ecology-approved provider. On matters concerning erosion control, they shall report to the ECL.

c. Schedule and Sequencing

- (1) Schedules for accomplishment of temporary and permanent erosion control work, that include as a minimum all specific work items as are applicable for clearing and grubbing; grading; construction; paving; structures at watercourses, sawcutting, and dewatering, underground utilities; Stormwater conveyances, and seeding.
- (2) Proposed method of erosion and dust control on haul roads and borrow pits and a plan for disposal of waste materials;
- (3) Estimated removal date of all temporary BMPs;
- (4) Estimated date of final site stabilization.
- (5) Dates of earthwork activities.
- (6) Dates when construction activities temporarily or permanently cease on any portion of the site.
- (7) Dates when any stabilization measures are installed.
- (8) Dates when structural BMPs are initiated.
- (9) Dates for all work performed within 200 feet of sensitive environmental areas including wetlands, streams and ponds.
- (10) Erosion control work activities consistent with the CESCSP shall be included in the Project Schedule for each work area and project activity as shown on the drawings.

d. BMP Installation

- (1) The CESCSP shall include installation instructions and details for each BMP used during the life of the Project;
- (2) To prepare or modify Contractor's Erosion and Sediment Control Plans, use BMPs from the Washington State Department of Ecology, Stormwater Management Manual for Western Washington, Vol. 2, and (Current Version). May be downloaded at: <http://www.ecy.wa.gov/programs/wq/stormwater/manual.html>



- (3) The ECL shall certify that all BMP installers are trained in proper installation procedures.
- e. BMP Maintenance
- (1) The CЕСSCP shall include a description of the maintenance and inspection procedures to be used for the life of the project.
  - (2) BMPs shall be maintained for the life of the project, the completion of a work phase and/or until removed by direction of the Port construction project representative;
  - (3) BMPs shall be maintained during all suspensions of work and all non-work periods;
  - (4) BMPs shall be maintained and repaired as needed to assure continued performance of their intended function and in accordance with the approved CЕСSCP;
  - (5) Sediments removed during BMP maintenance shall be placed away from natural and constructed storm water conveyances and permanently stabilized.
  - (6) All maintenance shall be completed within 24 hours of inspection
- f. BMP Inspection
- (1) The ECL shall inspect all TЕСSC best management practices daily during workdays and anytime 0.5" of rainfall has occurred within 24 hours on weekends, holidays, and after hours. Rainfall amounts can be determined by contacting the National Weather Service.
  - (2) Deficiencies identified during the inspection shall be corrected within 24 hours or as directed by the Port construction project representative.
  - (3) Observe runoff leaving the site during storms, checking for turbid water;
  - (4) Implement additional BMPs, if needed, to address site-specific erosion control;
  - (5) Inspect streets surrounding site for dirt tracking;
  - (6) Inspect for dust.
  - (7) The ECL shall visually inspect all stormwater runoff that discharges from the project for petroleum or chemical sheen, or "rainbow". Occurrences of sheen shall be reported immediately to the Port construction project representative and shall follow procedures specified in Section 01 57 23 – Pollution Prevention, Planning & Execution.
  - (8) The ECL shall collect samples and test all stormwater runoff that discharges from the project for turbidity using a calibrated turbidimeter, and for pH using test strips that measure from pH 0 - 14. Turbidity that exceeds 25 NTUs or pH that is below 6.5 or above 8.5 shall be reported immediately to the Port construction project representative.

- g. Record keeping
- (1) Reports summarizing the scope of inspections, the personnel conducting the inspection, the date(s) of the inspection, major observations relating to the implementation of the CESC, and actions taken as a result of these inspections shall be prepared and retained as a part of the CESC;
  - (2) All inspection reports shall be kept on-site during the life of the project and available for review upon request of the Port construction project representative.
  - (3) Copies of all inspection records and updated CESC shall be submitted to the Port construction project representative weekly.
  - (4) The CESC shall include the Contractor's inspection form which includes the following:
    - (a) All best management practices to be inspected and monitored for all work areas and work activities identified in the schedule for the life of the contract.
    - (b) Inspection time and date.
    - (c) Weather information including current conditions, total rainfall since last inspection and rainfall in the 24 hours prior to the current inspection.
    - (d) Locations of BMPs inspected.
    - (e) Locations of BMPs that need maintenance and reasons why.
    - (f) Locations of BMPs that failed to operate as designed or intended.
    - (g) Locations where additional or different BMPs are needed and reasons why.
    - (h) A description of stormwater discharged from the site. The ECL shall note the presence of suspended sediment, turbid water, discoloration, and/or petroleum sheen.
    - (i) Any water quality monitoring performed during inspection.
    - (j) General comments and notes, including a description of any BMP repairs, maintenance or installations made as a result of the inspection.
    - (k) A statement that, in the judgment of the person conducting the site inspection, the site is either in compliance or out of compliance CESC. If the site inspection indicates that the site is out of compliance, the inspection report shall include a summary of the remedial actions required to bring the site back into compliance, as well as a schedule of implementation. If the site inspection indicates that the site is out of compliance, the ECL shall notify the Port construction project representative immediately.

- (l) Name, title, and signature of the ECL conducting site inspection and the following statement: "I certify that this report is true, accurate, and complete, to the best of my knowledge and belief."
- h. BMP Removal
  - (1) After cleaning and removal, the drainage system shall not be used for temporary construction stormwater conveyance or storage.
  - (2) Sediment removed shall be placed away from drainage conveyances and permanently covered with hydro seed or other material as directed by the Port construction project representative.
  - (3) Stormwater ponds used to contain construction stormwater runoff shall be returned to elevations shown on the plans.
  - (4) Temporary BMPs shall be removed upon permanent stabilization or as directed by the Port construction project representative.
  - (5) Areas disturbed during removal of temporary BMPs shall be permanently stabilized.
  - (6) Permanent stabilization shall occur upon installation of:
    - (a) Concrete or asphalt pavement.
    - (b) On grades 3:1 and less, soil is covered by a minimum of 85% grass growth, as determined by the Port construction project representative.
    - (c) On grades greater than 3:1 soil is covered by an approved erosion control blanket or bonded fiber matrix and a minimum of 85% grass growth, utilizing the "Line Intercept Method".
    - (d) All stormwater discharges from the project meet the following criteria:
      - (i) 0-25 NTUs.
      - (ii) 6.5-8.5 pH.
      - (iii) No visible sheen.
      - (iv) No settleable solids.
      - (v) Washington State Stormwater Quality Standards (WAC 173-201A) at the receiving water, as determined by the Port construction project representative.
- i. Emergency Response
  - (a) The CESCOP shall contain information on how the Contractor shall control and respond to turbid water discharges, sediment movement, and fugitive dust. At a minimum, the Contractor's employee responsible for, or first noticing, the discharges shall take appropriate immediate action to protect the work area, private property, and the environment

(e.g., diking to prevent pollution of state waters). Appropriate action includes but is not limited to the following:

- (i) Hazard Assessment - assess the source, extent, and quantity of the discharge.
- (ii) Securement and Personal Protection - If the discharge cannot be safely and effectively controlled, then immediately notify the ECL and the Port construction project representative. If the discharge can be safely and effectively controlled, proceed immediately with action to protect the work area, private property, and the environment.
- (iii) Containment and Elimination of Source - Contain the discharge with silt fence, pipes, sand bags or a soil berm down slope from the affected area. Eliminate the source of the discharge by pumping turbid water to a controlled area, building berms, piping clean water away from the area or other means necessary.
- (iv) Cleanup - when containment is complete, remove sediment, stabilize, dispose of contaminated water and prevent future discharge.
- (v) Notification - report all discharges immediately to the Port construction project representative.

j. Construction Stormwater Management

**Designer may need to verify specific discharge requirements and modify this section accordingly. In some cases, no construction stormwater discharge is allowed and alternative disposal methods, such as sanitary sewer or trucking off site need to be included.**

- (1) Storm water and construction dewatering operations shall not discharge to the Storm Drain System (SDS) unless free from pollutants. Before discharge, water shall be measured using a properly calibrated, approved turbidity meter. Discharged water shall not exceed 25 Nephelometric Turbidity Units (NTUs) and pH levels shall be between 6.5 and 8.5.
- (2) Storm water and construction dewatering water shall not be discharged to the Industrial Wastewater System (IWS) unless free from pollutants. Before discharge, water shall be measured using a properly calibrated, approved turbidity meter. Discharged water shall not exceed 200 Nephelometric Turbidity Units (NTUs) and pH levels shall be between 6.0 and 9.0. There shall be no discharge to any catch basin without specific approval of the Port construction project representative.
- (3) The CЕСSР shall address how the Contractor plans to manage clean and polluted water during the life of the project. Specific procedures shall be developed and included in the CЕСSР when work includes excavation within 10 feet of any water, sewer, or storm system. Procedures shall address, at a minimum, locating,

protecting, and connecting to existing pipes, as well as response plans for broken pipes.

- (4) The Port construction project representative shall be notified before any disposal, hauling, pumping, or treatment of water occurs. Notification shall include location of disposal and methods of treatment. Disposal tickets shall be provided to the Port construction project representative upon request.
  - (5) Water shall not be pumped into ditches, gutters, drainage conveyance, catch basins, or any area that drains to one of these unless it meets the specifications outlined in this section and with prior approval of the Port construction project representative.
  - (6) Chlorinated water used for disinfecting water pipes shall not be discharged to the storm drain system.
- k. Fugitive Dust Planning:
- (1) The CЕСSР shall detail the Contractor proposed approach to fugitive dust management. The plan shall include the following:
    - (a) Identification of all fugitive dust sources for each work activity.
    - (b) Description of the fugitive dust control measures to be used for each source.
    - (c) Schedule, rate of application and calculations to identify how often, how much, and when the control method is to be used.
    - (d) Provisions for monitoring and recordkeeping.
    - (e) Contingency plan in case the first control plan does not work or is inadequate.
    - (f) Name and telephone number of the person responsible for fugitive dust control.
    - (g) Source and availability of fugitive dust control materials.
  - (2) The Contractor shall provide whatever means is necessary to keep fugitive dust on site and at an absolute minimum during working hours, non-working hours and any shut-down periods.
  - (3) The Contractor's methods for fugitive dust control will be continuously monitored and if the methods are not controlling fugitive dust to the satisfaction of the Port, the Contractor shall improve the methods or utilize new methods at no additional cost.
  - (4) The Contractor shall maintain as many water trucks on a site during working and non-working hours as required to maintain the site free from fugitive dust.
  - (5) During time periods of no construction activity, water trucks must be ready with on-site Contractor's personnel available to respond immediately to a dust or debris problem as identified by the Port construction project representative.

- (6) At no time shall there be more than a 10 minute response time to calls concerning fugitive dust/debris problems during work hours and a 90 minute response at all other times on a 24 hour basis.
- I. Utilities Planning:
  - (1) The CESCOP shall identify when and how all underground utility work will be conducted so that water quality compliance is maintained. At a minimum, the Contractor shall:
    - (a) Have all shut off valves located and have procured the means to shut off valves within 10 minutes of a water line break.
    - (b) Before cutting into an existing water line, the Contractor shall verify to the Port construction project representative that the water line is not pressurized.
    - (c) The Contractor shall not cut into an existing storm drain or connect new stormwater conveyance systems into existing systems until it has been verified to the Port construction project representative there will be no discharge of non-compliant water during and after cutting and connection operations.
    - (d) The Contractor shall grout all holes, seams, cracks, joints, cast iron rings and grates within 24 hours of installation of each item.
    - (e) Storm systems to be demolished in place shall be first blocked at the point of connection to existing section to prevent contamination of existing storm system.
    - (f) Chlorinated water shall be discharged to sanitary sewer or removed from the site.
    - (g) Air plugs shall not be utilized for more than 24 hours and shall be in new condition with no leaks and monitored daily for proper air pressure.
    - (h) Mechanical plugs shall not be utilized for more than 5 calendar days and shall be used according to the manufacturer's instructions and engineering parameters. The Contractor shall submit instructions and engineering documentation before use.
    - (i) When a plug needs to remain in place longer than 5 days, the Contractor shall utilize grout. The grout shall be installed so that the length is one and a half times the diameter of the pipe.
- m. Low Impact Development (LID) Protection Planning
  - (1) The CESCOP shall identify how all LID BMPs are to be protected from sedimentation, pollution and compaction.
- n. Education:

- (1) The Contractor shall provide narrative in the CЕСSР on how they will educate all personnel including subcontractors. At a minimum, the Contractor shall:
  - (a) Train staff through regularly scheduled meetings to discuss environmental protection subjects as related to this project. This may be added to any existing weekly meetings (such as safety meetings).
  - (b) Training shall emphasize water quality compliance, BMP installation and maintenance, sensitive areas, emergency response, spill prevention, and inspections.
  - (c) Minutes of the meetings detailing attendees and subjects discussed shall be kept and submitted to the Port construction project representative weekly.
  - (d) Prior to commencing work, all Contractor and subcontractor personnel at any tier shall complete a Port of Seattle Environmental Compliance Orientation given with the required Safety Orientation.

### 3.03 EXECUTION OF WORK

#### A. CONSTRUCTION REQUIREMENTS

1. Saw cutting
  - a. Saw cut slurry and cuttings shall be vacuumed during cutting operations;
  - b. Saw cut slurry and cuttings shall not remain on permanent concrete or asphalt pavement overnight;
  - c. Saw cut slurry and cuttings shall not drain to SDS, IWS, or any other natural or constructed drainage conveyance;
  - d. Collected slurry and cuttings are the responsibility of the Contractor and shall be disposed of off site in a manner that does not violate groundwater or surface water quality standards.
2. Soil and Construction Debris Stockpiles
  - a. Soils and construction debris, including broken concrete and asphalt paving, shall be stockpiled within the work site or off site.
  - b. Stockpiles shall be covered with plastic and secured from blowing wind and/or jet blast.
  - c. Plastic shall be a minimum thickness of 6 mil.
  - d. Materials to be stockpiled on pavement shall be placed on plastic and contained within a bermed area.
  - e. Clean storm water runoff from the plastic covering shall be directed away from bare soil using pipes, sandbags, or other temporary diversion devices.

- f. Stockpiles shall be covered so that no soil or debris are visible and shall be covered at the end of each work day, weekends and holidays
  - g. Stockpiles on the AOA shall not be allowed unless approved by the Port construction project representative.
3. Construction Entrances, Exits and Haul roads
- a. Before leaving project site, all trucks and equipment shall be inspected for mud and debris.
  - b. At no time shall mud, debris, or visible sediment be allowed outside of the project boundaries and on any Port-owned and public roads.
  - c. Mud and debris shall be removed from pavement by vacuum sweeping and shoveling and transported to a controlled sediment disposal area identified in the CЕСSCP.
  - d. Mud and debris shall be considered contaminated by fuels, grease, metals or other pollutants and shall be disposed of in accordance with Section 01 57 23 - Pollution Prevention, Planning and Execution.
  - e. Use of water to wash concrete or asphalt pavement shall be allowed only after sediment has been removed by vacuum sweeping and shoveling, and a Road Wash Plan has been submitted and accepted by the Port construction project representative.
  - f. Washing pavement, shall first be approved by the Port construction project representative. Wash water shall not drain into the SDS, IWS or any other natural or constructed storm water conveyance and shall be contained and removed from Port property and disposed of off-site in accordance with local, state, and federal regulations. Disposal tickets shall be provided to the Port construction project representative.
  - g. Power brooms shall not be utilized without prior approval by the Port construction project representative.
  - h. Contractor shall have sufficient working vacuum sweepers on site at all times work is being performed. All sweepers shall have on-board water spray systems that shall be operating at all times.
  - i. Vacuum sweepers shall be dedicated to this project and shall not be utilized by any other contract, nor be hired out to another contractor.
  - j. Sweeper systems shall function per manufacturer specifications, including, but not limited to, spray water systems, blowers, vacuum nozzles, hoses, debris hopper, hydraulics and electrical.
  - k. At no time shall debris hopper seals leak debris and or liquids.
  - l. At least one driver shall be assigned to a vacuum sweeper and shall do no other work.



- m. Coverage shall be provided during lunch breaks, and during unfilling activities.
  - n. If, in the Port construction project representative's opinion, the Contractor does not adequately manage the tracking of sediment, the Port may subcontract out the control of sediment tracking at the Contractor's expense.
4. Asphalt Curb and Asphalt berm
- a. Asphalt curbs or asphalt berms shall be constructed on project perimeters, when the project is surrounded by impervious surfaces.
  - b. Asphalt curb and berm shall be a minimum height of four inches.
  - c. Diesel shall not be used to clean tools and equipment
5. Catch Basin Protection
- a. All catch basins within the project limits, and outside the project limits but within the project drainage basin, including haul roads, shall be protected.
  - b. Catch basin protection shall be installed where shown in the project drawings, in all storm drainage structures within the work area, or as otherwise directed by the Port construction project representative.
6. Concrete Truck and Equipment Washing
- a. Concrete truck chutes, concrete pumps, hand tools, screeds, floats, trowels, rollers and all other tools shall be washed out only into Washington State Department of Ecology (WDOE)-approved covered steel containers.
  - b. All contained concrete waste shall be disposed of offsite in a manner that does not violate groundwater or surface water quality standards.
  - c. All water used for washing, is defined by the WDOE as "process water" and shall be collected and disposed of in a manner that complies with all local, state and federal regulations.
7. Wheel Washes
- a. All haul vehicles exiting the work site to public roads shall pass through a wheel wash system to control sediment tracking. Any required modification, alteration or improvement needed on the existing wheel wash systems or supplemental vehicle washing for the successful control of dirt, debris or sediment tracking beyond the wheel wash, either on Port haul roads or public roads, for the duration of the contract shall be the responsibility of the Contractor.
  - b. No modifications of the wheel wash system are allowed that alter the design of a contained operation with recycled wash water with no release of sediment laden wash water. The sediment shall be

- contained and disposed of at an appropriate disposal facility off Port Property.
- c. Wheel wash water shall be replaced weekly with fresh, clean water.
  - d. The wash water is “process water” and shall not be released on site or to the storm drain system and shall be disposed of in accordance with all water quality regulations.
  - e. Wheel wash water shall not exceed 100 NTU.
  - f. Contractor shall sample wheel wash water for turbidity 2 hours after start and 2 hours before shutdown of the system. Sampling results shall be entered into Contractor’s daily inspection report.
8. Silt Fence
- a. Silt fence shall be constructed at the locations shown in the project drawings, in the approved Contractor Erosion and Sediment Control Plan, or otherwise directed by the Port construction project representative.
  - b. The geotextile shall be attached to the up-slope side of the posts and the wire mesh using staples, wire rings, or in accordance to the manufacturer’s recommendations.
  - c. Where seams are required to join two sections of fence material, the seams shall be taped together, wrapped three times around a 2” steel post and the post driven into the ground. All rips, tears, holes, and other damage to silt fences shall be repaired within 24 hours of locating the damage. When sediments deposits reach approximately one-third the height of the silt fence, the deposits shall be removed and disposed of outside Port property.
9. Straw Wattle
- a. The installation of straw wattles shall be per WSDOT Standard Plan I-30.30-00 “Wattle Installation on Slope”, or as directed by the Port construction project representative.
  - b. Straw Wattles shall not be installed on impervious surfaces.
10. Bonded Fiber Matrix Soil Stabilization
- a. The installation of Bonded Fiber Matrix Soil Stabilization shall be applied at a minimum rate of 3,000 pounds per acre and provide a minimum of 95% soil cover. Seed and fertilizer shall be included.
  - b. Contractor shall provide all Bonded Fiber Matrix, seed and fertilizer bags to the Port construction project representative upon request.
11. Temporary Organic Mulch
- a. Temporary organic mulch shall be applied at a minimum rate of 1.5 tons per acre.
12. Swale Construction
- a. Grass-lined swales shall be constructed to the lines and grades shown on the drawings. The swale includes excavating, grading,

placement of topsoil, placement of erosion control blanket, and hydroseeding as detailed on the drawings. Excavated material from the swale construction shall be considered Excess Soil as defined in Section 31 23 00 – Excavation and Embankment.

13. Temporary Piping/Connections
  - a. The Contractor shall install temporary piping, catch basins and connections to the existing storm drain system in locations shown on the drawings. At the completion of the work, the piping shall be removed and the temporary connections plugged.
14. Temporary Pipe Plugging
  - a. The locations of piping to be temporarily plugged are indicated on the drawings. At the completion of the work, the plugs shall be removed.
15. Construction Stormwater Management
  - a. The Contractor shall construct stormwater tank pads in the size, location and as detailed on the drawings.
  - b. The Contractor shall install stormwater storage tanks, as specified, in the locations and quantities shown on the drawings.
  - c. The Contractor is responsible for conveying construction stormwater within each work area to the stormwater storage tank area shown on the drawings.
  - d. Temporary piping, structures and pump facilities required for the conveyance are the responsibility of the Contractor.
  - e. The construction stormwater shall be held in the storage tanks until hauled and disposed of by the Contractor on a Force Account basis.
  - f. The storage tank facilities including pads, access roads, ramps, temporary structures and piping shall be removed at the completion of the work or as directed by the Port construction project representative
16. Surface Roughening:
  - a. All soil shall be roughened, loose and friable, by ripping or with equipment tracks before being permanently stabilized.
17. Water Filled Diversion Berms
  - a. Water filled diversion berms shall be installed such that offsite water is prevented from entering the job site and site water is kept within the project boundary.
  - b. Berms may be used to prevent contaminants and water from entering catch basins.
  - c. Berms may be used on impervious surfaces.
18. Biofence

- a. Stakes shall be driven into the ground a minimum of 12 inches and be spaced no more than 6 feet apart.
  - b. Fence ends shall be joined by wrapping ends together around a post 3 times and driven into the ground.
  - c. Burlap fabric shall be attached to the post in at least 3 places using staples or other method approved by the Port construction project representative.
  - d. When used as a barrier fence, fabric shall not be trenched into the ground. When used as a silt fence, a minimum 8 inch flap shall be left at the bottom and held in place with straw wattles staked in as detailed in item 9 above.
19. Process Water Collection, Storage and Disposal
- a. The Contractor shall provide and install stormwater storage tanks of sufficient size and volume to enable collection of 100% of the process water generated by the project.
  - b. The Contractor is responsible for conveying process water within each work area to storage tank(s).
  - c. Temporary piping, structures and pump facilities required for the conveyance are the responsibility of the Contractor.
  - d. The storage tank facilities including pads, temporary structures and piping shall be removed at the completion of the work or as directed by the Port construction project representative.
  - e. Contractor shall provide process water disposal locations to the Port construction project representative for review.
20. Low Impact Development (LID) Protection
- a. At a minimum, the Contractor shall:
    - 1) At no time shall water exceeding 25 NTUs drain into bioretention, rain garden, or pervious pavement BMPs.
    - 2) At no time shall water exceeding pH range of 6.5 to 8.5 drain into bioretention, rain garden, or pervious pavement BMPs.
    - 3) At no time shall water containing sheen drain into bioretention, rain garden, or pervious pavement BMPs.
    - 4) Upon reaching final grade, native soils below infiltration BMPs shall be maintained such that designed infiltration is not impacted. Areas shall be fenced to prevent vehicle and foot traffic from entering.
    - 5) Pervious pavement BMPs fouled with sediment or debris such that designed infiltration rates are reduced shall be cleaned to the satisfaction of the Port construction project representative or replaced at the Contractor's expense.

3.04 DELIVERABLES

3.05 QUALITY ASSURANCE

End of Section

PART 1 GENERAL

1.01 SUMMARY

- A. This section consists of planning for and implementing the temporary measures indicated herein, shown on the Contract Documents, or as ordered by the Port's construction project representative to prevent pollution of soil and water, and control, respond to, and dispose of potential pollutants or hazardous materials during the life of the Contract.
- B. This work shall apply to all areas associated with Work including, but not limited to the following work areas:
  - 1. Jobsite
  - 2. Equipment and material storage areas
  - 3. Staging/Laydown areas
  - 4. Stockpiles

1.02 DESCRIPTION OF WORK

- A. In order to comply with this specification the Contractor shall:
  - 1. Develop and submit a site specific Pollution Prevention Plan
  - 2. Revise the Pollution Prevention Plan during the life of the Contract
  - 3. Install, maintain, and remove all spill prevention, containment, countermeasures, and pollution prevention Best Management Practices during the life of the Contract
  - 4. Contain, cleanup and dispose of all hazardous materials or potential pollutants
  - 5. Perform other work shown on the Contract Documents or as directed by the Port's construction project representative.
  - 6. Maintain any required Contractor pollution liability insurance including insurance liability for the transportation of hazardous materials for the duration of the Contract
  - 7. Maintain a proper Hazardous Material Endorsement for any driver that is transporting hazardous material in a vehicle that requires the driver to maintain a valid and current Commercial Driver's License in the State of Washington

1.03 POLLUTION PREVENTION PLAN

- A. The Contractor shall develop and submit to the Port a site specific Pollution Prevention Plan. The Pollution Prevention Plan must be a site-specific document that outlines the administrative, operational, and structural Best Management Practices that will be implemented on the project. Approved BMPs may be found in the Stormwater Management Manual for Western Washington, Department of Ecology, August 2001, or current edition.
- B. The Pollution Prevention Plan must, at a minimum, include the following:
  - 1. Site specific description and drawings
  - 2. Contractor pollution prevention contact personnel

3. Known or potential hazardous materials inventory list
4. Safety Data Sheets (SDSs) for hazardous materials identified on the inventory list
5. Hazardous material containers labeling system
6. Hazardous material container storage and handling procedures
7. Hazardous material spill prevention planning and execution
8. Hazardous material spill control and response planning and execution
9. Hazardous material cleanup and disposal planning and execution
10. Subcontractor's acknowledgment

#### 1.04 SUBMITTALS

- A. As part of the required Preconstruction Submittals, Section 01 32 19 - Preconstruction Submittals, and before Notice to Proceed is issued, the Contractor shall submit the following information:
  1. Pollution Prevention Plan and the required contents
  2. Insurance Endorsements verifying liability coverage for job-site work and any transportation of hazardous materials to or away from the jobsite.
  3. Copy of a completed MCS-90 Certificate if required under the Motor Carrier Act of 1980 for transportation of hazardous material which verifies compliance with the financial responsibility requirements of the Act;
  4. A list of all drivers who will be hauling hazardous material in a vehicle that requires the driver to maintain a Commercial Driver's License in the State of Washington under RCW 46.25.080. These drivers must show evidence of a proper Hazardous Material Endorsement in accordance with Washington RCW 46.25.070 and 46.25.085.

#### 1.05 DEFINITIONS

- A. Absorbent: Any material capable of absorbing oils, water-based materials, solvents, acids, and other hazardous materials. Absorbent materials include: pads, kitty litter, floor dry, and other commercially available materials.
- B. Best Management Practice (BMP): The variety of administrative, operational, and structural measures that will be implemented to prevent and reduce the amount of contaminants in stormwater and the environment. (Example: Providing secondary containment for liquid storage is a BMP).
- C. Container: Any portable device, in which a material is stored, transported, treated, disposed of, or otherwise handled.
- D. Dangerous Waste: Solid wastes designated by the State of Washington Under Chapter 173-303 WAC and regulated as Dangerous Waste, Extremely Hazardous Waste, or Mixed Waste. (The State of Washington is authorized to implement Federal Hazardous Waste Regulations - see also Hazardous Waste Definition)
- E. Hazardous Material: A substance or material, including a hazardous substance, hazardous waste, marine pollutant, including but not limited to: diesel, gasoline, petroleum products, solvents, paints, acids, lubricants, curing compounds, form

release agents, adhesives, sealants, and epoxies. (See also Hazardous Waste definition)

- F. Hazardous Material Storage Area: The area used by the Contractor to store hazardous material.
- G. Hazardous Material Container Labeling System: The system used by the Contractor for identifying the secondary containers used to store hazardous materials or wastes. Acceptable methods include: Department of Transportation (DOT), Hazardous Material Information System (HMIS); National Fire Protection Association Fire Diamond (NFPA Hazard Rating).
- H. Hazardous Waste: Solid wastes designated by 40 CFR Part 261, and regulated as hazardous or mixed waste by the United States EPA.
- I. Safety Data Sheet (SDSs): Written or printed material available for each chemical that includes information on: the physical properties, hazards to personnel, fire and explosion potential, safe handling recommendations, health effects, fire-fighting techniques, and reactivity and disposal.
- J. Secondary Container: Any container, other than the original container that is used for transferring, holding, storing or otherwise containing hazardous materials or wastes.
- K. Secondary Containment: A device designed, installed, or operated to prevent any migration of wastes or accumulated liquid to the soil, ground water, or surface water. The device must, at minimum, hold 110 percent of the volume of the largest container being stored. The device must have the strength to contain a spill and be made of materials that will not be degraded by the wastes or accumulated liquids it is intended to contain.
- L. Sorbent: A material used to soak up free liquids by either adsorption or absorption, or both.
- M. Storm Drainage System (SDS): Consists of any drain, inlet, catch basin, slot drain, pipe, gully, fissure, ditch, or other form of conveyance that collects and transports stormwater.

#### 1.06 REFERENCES

- A. The following rules, requirements and regulations specified may apply to this work:
  - 1. Washington State Dangerous Waste Regulations: Chapter 173-303 WAC, February 1998 Edition.
  - 2. National Pollution Discharge Elimination System Waste Discharge Permit No. WA-002465-1 (Seattle-Tacoma International Airport)
  - 3. Part C - Hazardous Communication: Chapter 296-62-054 WAC, "Right to Know"
  - 4. Port of Seattle Regulations for Airport Construction, (Current Edition).
  - 5. Puget Sound Stormwater Management Plan, Puget Sound Water Quality Action Team; 1998.
  - 6. Title 40 Code of Federal Regulation Subchapter I - Solid Wastes 261, 262, 263, 265, 268, 273, 279, 370 (Federal Hazardous Waste Regulations)
  - 7. Sea-Tac International Airport Rules and Regulations (Current Edition).



8. Sea-Tac Airport Stormwater Pollution Prevention Plan, as required by NPDES permit No. WA-002465-1.
9. Seattle-Tacoma International Airport Spill Prevention Control and Countermeasure (SPCC) Plan: January 2003. Kennedy/Jenks Consultants.
10. Stormwater Management Manual for Western Washington, Department of Ecology; August 2001 (or Current Version)
11. Surface Water Design Manual, King County Public Works, September 1998
12. WAC 173-201 A, Water Quality Standards of the State of Washington.
13. Revised Code of Washington - 46.25.085, 46.25.080, 46.25.070, 46.48.170, 4.24.314

#### 1.07 PERMITS

- A. Work shall be conducted in accordance with STIA NPDES Permit WA-002465-1

#### PART 2 PRODUCTS - Not Used

#### PART 3 EXECUTION

##### 3.01 SITE DESCRIPTION AND DRAWINGS

- A. A written site description shall be included in the Pollution Prevention Plan that addresses the following:
  1. Physical description and location of the construction site and staging areas;
  2. Construction activities that will involve the use of hazardous materials or generate hazardous waste;
  3. Location of material storage areas and project staging areas;
  4. Designated fueling areas;
  5. Proximity to any natural or manmade drainage conveyance including ditches, catch basins, ponds, wetlands, and pipes;
  6. Public areas relating to construction project;
  7. Proximity to other construction sites;
- B. Drawings shall be included in the Pollution Prevention Plan that show the construction site(s), location of fueling areas, equipment storage areas, catch basins and other man-made and natural drainage conveyances within the work area and storage areas. The drawings may be hand drawn sketches but must include the appropriate spatial information.

##### 3.02 CONTRACTOR POLLUTION PREVENTION CONTACT PERSONNEL

- A. The Contractor shall identify in the Pollution Prevention Plan at least one project personnel that will be available 24 hours a day to administer and respond to hazardous materials management requirements of the Contract and provide the following information:
  1. Contact Name

2. Contact Phone Number
  3. Contact E-mail Address
  4. Contact Fax Number
  5. Contact Address
- B. Duties
1. Maintain permit file on site at all times which includes the Pollution Prevention Plan, Contractor Erosion and Sediment Control Plan and any associated permits and plans;
  2. Direct BMP installation, inspection, maintenance, modification and removal;
  3. Available 24 hours per day, 7 days per week by telephone;
  4. Update all drawings with changes made to the Pollution Prevention Plan;
  5. Maintain daily logs;
  6. Immediately notify the fire department (911) of any hazardous material spill.
  7. Inspect for Pollution Prevention Plan requirements including BMPs as required to ensure adequacy, facilitate, participate in, and take corrective actions resulting from inspections performed by outside agencies, Port employees and Port consultants.
- C. Qualifications
1. The Pollution Prevention Plan Inspector shall have the following experience:
    - a. Prevention, control and clean-up of construction caused pollution from petroleum, hazardous materials and construction wastes.
    - b. Knowledge of basic hazard and risk assessment techniques.
    - c. An understanding of basic hazardous materials terms.
    - d. Ability to perform basic control, containment or confinement operations within the capabilities of the resources and personnel protective equipment available.
    - e. Installation, inspection, maintenance and removal of Pollution Prevention BMPs.

### 3.03 HAZARDOUS MATERIAL INVENTORY LIST

- A. A complete list of all known or potential hazardous materials or waste to be used or generated during all phases of the construction project shall be included in the Pollution Prevention Plan.

### 3.04 SAFETY DATA SHEETS (SDSs)

- A. SDSs shall be included in the Pollution Prevention Plan for all materials on the Hazardous Material Inventory List.
- B. For all hazardous materials not submitted in the original Hazardous Material Inventory List, the Contractor shall provide SDSs to the Port's construction project

representative prior to bringing the material on site and submit a revised inventory list (or plan if required) within 7 days.

1. Hazardous materials shall be permitted on the work site only with prior written acknowledgement of receipt of SDSs by the Port's construction project representative.

### 3.05 HAZARDOUS MATERIAL CONTAINERS LABELING SYSTEM

- A. The Pollution Prevention Plan shall address and the Contractor shall implement the following:
  1. Identification of container with a legible label containing the materials product name, as was written on the material's original container label.
  2. Include the name of the material's manufacturer, as was written on the chemicals original container label.
  3. Include appropriate hazard warnings, which identify the chemicals associated risks to health, flammability, or reactivity.
  4. Contractor shall mark each container with the Contract project number and company owner of the container.
  5. The mark shall be permanent, easily identifiable and placed with care to prevent defacing of the marker through abrasion, chemical reaction, or other means that would hinder marker identification.
  6. At all times during the Work, the Contractor shall assure that proper and identifiable labels are attached to all hazardous materials and secondary containment

### 3.06 HAZARDOUS MATERIAL CONTAINER STORAGE AND HANDLING

- A. Solid Chemicals, chemical solutions, paints, petroleum products, solvents, acids, caustics solutions, and any waste materials, including used batteries, shall be stored in a manner that will prevent the inadvertent entry of these materials into waters of the state, including groundwater. Storage shall be in a manner that will prevent spills due to overfilling, tipping, or rupture. In addition, the Pollution Prevention Plan shall address and the Contractor shall implement the following specific requirements:
  1. All liquid products must be stored on durable, impervious surfaces and within a berm or other means of secondary containment capable of containing 110% of the largest single container volume in the storage area.
  2. Waste liquids shall be stored under cover, such as tarps or roofed structures, in addition to secondary containment. Any waste storage areas, whether for waste oil or hazardous waste, shall be clearly designated as such and kept segregated from products to be used on the site.
  3. In the event that the Contract Document Drawings designate a hazardous material storage area, the Contractor shall be restricted to storing hazardous materials or waste specific to the Project work to the area designated in the Contract Document Drawings.
  4. All hazardous materials and waste containers shall be stored with the container lid secured, to prevent spills or leaking.

5. Upon completion of a specific task for which hazardous material(s) were used, the Contractor shall document in the Daily Report (Form CM03), the amount of hazardous material removed from the site, and the product and manufacturer name(s) of such material(s).

### 3.07 HAZARDOUS MATERIAL SPILL PREVENTION

- A. The Pollution Prevention Plan shall address and the Contractor shall implement the following:
  1. Hazardous Material Transfer
    - a. All hazardous materials shall be transferred from primary to secondary containers using secondary containment with spill kits in close proximity.
  2. Vehicle and Equipment Fueling-
    - a. All equipment fueling operations shall utilize pumps and funnels and absorbent pads and / or drip pans;
    - b. Fueling shall not take place within 100 feet of any natural or manmade drainage conveyance including ditches, catch basins, ponds, wetlands, and pipes;
    - c. Fueling shall be restricted to designated fueling areas as shown on the Contract Documents or as submitted and accepted by the Port's construction project representative as a part of the Pollution Prevention Plan;
    - d. A spill kit will be located within 100 feet of the fueling operation.
    - e. Vehicle and Equipment Maintenance
    - f. Engine, transmission, and hydraulic oil may be added, as needed utilizing funnels and drip pans;
    - g. Absorbent pads shall be placed to prevent fluid contact with soil;
    - h. No fresh or used engine fluids will be stored on the project site;
    - i. No vehicle maintenance other than emergency repair shall be performed on the project site.
  3. Small Engine Fueling and Maintenance
    - a. All small engine fueling operations shall utilize funnels.
    - b. Absorbent pads shall be placed to prevent fluid contact with soil.
    - c. Fueling shall not take place within 100 feet of any natural or manmade drainage area.
    - d. Contractor shall not drain and replace engine fluids on Port property.
    - e. These fluids may be added, as needed utilizing funnels.
    - f. Fluid addition shall be done over drip pans.
    - g. Absorbent pads shall be placed to prevent fluid contact with soil.
  4. Equipment Storage

- a. Drip pans and absorbent pads shall be placed under all equipment that is unused for more than 4 hours, overnights, weekends, and holidays.
- 5. Spill Response Kits
  - a. Spill kits shall be stored at designated locations on the project site and at the hazardous material storage areas and in close proximity to any fueling operation.
  - b. Spill Kits shall, at a minimum, contain the following:
    - (1) 1-spill response procedures sheet
    - (2) 12-oil absorbent pads
    - (3) 12-water-based absorbent pads
    - (4) 1-roll of Visqueen
    - (5) 5-gallons of loose absorbent material i.e. kitty litter or floor sweep
    - (6) 24-heavy duty garbage bags
    - (7) 1-shovel
    - (8) 1-broom
    - (9) 10-copies spill report form

### 3.08 HAZARDOUS MATERIAL SPILL CONTROL AND RESPONSE

- A. The Plan shall contain information on how the Contractor shall control and respond to hazardous material spills. At a minimum, the Contractor's employee responsible for the spill must take appropriate immediate action to protect human health and the environment (e.g., diking to prevent contamination of state waters).
  - 1. Hazard Assessment - assess the source, extent, and quantity of the spill.
  - 2. Containment and personal protection - If the spill cannot be safely and effectively controlled, then evacuate the area and immediately notify outside response services (go to Step 5). If the spill can be safely and effectively controlled, secure the area and proceed immediately with spill control (impacts to waters of the state should be given the highest priority after human health and safety)
  - 3. Containment and elimination of Source - Contain the spill with absorbent materials or a soil berm around the affected area. Eliminate the source of the spill by closing valves, sealing leaks, providing containment, or deactivating pumps.
    - a. Spill control measures may include damming the spill, covering floor drains, catch basins, or preventing the contaminant from entering water systems. Contaminants include turbidity as well as chemicals.
  - 4. Cleanup - when containment is complete, clean or remove the spill with absorbents or by pumping and containerizing the material for off-site disposal.

5. Notification - Report all spills immediately to the Port of Seattle Fire Department:
  - a. Port Phone: 911
  - b. External Phone: (206) 787-5380
  - c. Provide the Following Information:
    - (1) Time spill occurred or was discovered
    - (2) Location of the spill and equipment involved
    - (3) Estimated amount of spill
    - (4) Measures taken to contain the spill and secure the area
  - d. Report all spills immediately to the Port's construction project representative.

### 3.09 HAZARDOUS MATERIAL CLEANUP AND DISPOSAL

- A. The Plan shall contain information on how the Contractor shall characterize, cleanup and remove all hazardous material and waste generated from Contractor operations. At a minimum, the Plan shall include or communicate the following:
  1. For the purposes of this section, clean shall be defined as the Work site being free of all hazardous material(s), waste(s) container(s), containment device(s), scrap material(s), used spill pads or absorbent pads, or any other hazardous material debris resulting from the Contractor activities.
  2. The Port of Seattle will retain title to all hazardous waste presently on site, encountered during demolition, removal, and excavation. This does not include hazardous materials generated by the Contractor, such as used motor oils, paints, lubricants, cleaners, spilled materials, etc. Contractor will be the generator and owner of these wastes and shall clean and dispose of such waste according to the Contract Documents and follow local, State, and Federal regulations. The Port of Seattle will be shown as the hazardous waste generator and will sign all hazardous waste manifests for non-Contractor generated hazardous wastes. Nothing contained within these Contract Documents shall be construed or interpreted as requiring the Contractor to assume the status of owner or generator of hazardous waste substances for non-Contractor generated hazardous wastes.
  3. Hazardous material(s) and waste(s) shall be disposed in a fully permitted disposal facility with the approvals necessary to accept the waste materials that are disposed. Use of the Port of Seattle's EPA Identification Number for disposal purposes must be coordinated with the Port's construction project representative and all documentation such as manifests, land disposal restriction forms, and profiles must be delivered to the Port's construction project representative if the Port of Seattle's EPA Identification number is being used for disposal on the project.
  4. Handling of any contaminated soils shall be coordinated with the Port's construction project representative. Contaminated soil stockpiles must be on a plastic liner, covered with plastic and labeled. Unknown contaminated soils must be characterized. Use of the Airport Environmental Soil

Stockpile Facility is prohibited unless authorized by the Port's construction project representative.

5. Contaminated materials, such as absorbent materials, rags, containers, gloves, shall be collected and placed into labeled containers.
6. Any unanticipated hazardous materials, waste, or contaminated soils encountered during construction that are not generated by the Contractor shall be immediately brought to the Port's construction project representative's attention for determination of appropriate action. Contractor shall not disturb such hazardous materials or contaminated soils until directed by the Port's construction project representative.

### 3.10 SUBCONTRACTOR ACKNOWLEDGEMENT

- A. The requirements of the Pollution Prevention Plan are the responsibility of the Contractor and compliance must be communicated at all tiers of the Contract. The Contractor must provide a written acknowledgement from all subcontractors that they have read, understand, and will comply with the requirements of the Pollution Prevention Plan. This written acknowledgement must be included in the Pollution Prevention Plan as part of the preconstruction submittal. The subcontractor acknowledgement section of the Pollution Prevention Plan must be updated as needed throughout the life of the Contract.

### 3.11 EDUCATION

- A. The Contractor shall provide narrative in the Pollution Prevention Plan on how they will educate all personnel including subcontractors. At a minimum, the Contractor shall train staff through regularly scheduled meetings to discuss environmental protection subjects as related to this project. This may be added to any existing weekly meetings (such as safety meetings). Training content shall emphasize sensitive areas, emergency response, spill prevention and inspections. Keep minutes of the meetings detailing attendees and subjects discussed. Submit the minutes to the Port's construction project representative monthly.

End of Section

PART 1 GENERAL

1.01 DESCRIPTION

A. Definition

1. Cutting and patching refers to the modification, removal or repair of nominally completed or previously existing work in order to accommodate construction of the Work in this Contract. Cutting and Patching may include uncovering other work for access, inspection, obtain samples for testing or for similar purposes and is defined to include Cutting and Patching during the fabricating, erecting, and installing process for individual units of work. Drilling to install fasteners and similar operations are not included in this section. The work in this section does not include regulated materials work.

B. General Work

1. The Contractor represents that it has carefully reviewed all demolition, removal, modification, cutting, patching, and re-installation or replacement requirements of the Work and has included in its bid the cost for all such requirements described in this section.
2. Any existing, materials, structures, facility components or finishes that require cutting and or patching to complete the Work shall be repaired or reinstalled to equal or better condition as the adjacent finishes, to ensure a smooth and seamless transition, color matching or similar finish. Remove and replace work judged by the Port construction project representative to be visually unsatisfactory at no additional cost.
3. The extent of the repair or reinstallation of the existing work shall be limited to areas affected by the Work. Costs to repair damage created by the Contractor during inspections, temporary removal or in the course of completing the Work shall be the burden of the Contractor.

C. Coordination with Subcontractors

1. The Contractor represents that the Subcontractors have been advised to review all demolition, removal, modification, cutting, patching, and re-installation or replacement requirements of the Work and that the Subcontractor has included in their bid the cost for all such requirements described in this section. The Contractor shall coordinate any cutting and patching described herein. If the Subcontractor refuses or fails to adhere to this section, the Contractor shall not be relieved of the requirements of this section.
2. The Contractor shall be responsible for cutting, patching, drilling, disconnecting electrical/mechanical services, disconnecting and capping utility lines at present locations, connections to new locations and modification in piping runs and electrical devices, including control access and signal, or such other work as may be required to complete the Work.
3. The Contractor shall remove and replace any and all temporary mechanical, electrical, access control and signal items installed to complete the Work whether shown on the drawings or not and shall restore all original systems or functions to equal or better condition existing prior to the Work.



**1.02 ITEMS TO BE CUT AND PATCHED**

A. The items anticipated to be patched and repaired, removed and reinstalled as part of this Work may include but is not limited to:

1. Utility components; i.e. water, steam, condensate, waste lines, HVAC supply and return lines, etc.
2. Concrete slabs
3. Concrete beams
4. Fireproofing
5. Metal trim
6. Roofing
7. Exterior finishes
8. GWB wall, surrounds and soffit surfaces
9. Ceiling systems; i.e. acoustical, gypsum board, metal, lay-in, etc.
10. Terrazzo Flooring
11. Painted finishes
12. Carpet, plywood deck, and framing
13. Plastic laminate wall surface systems
14. Signage/Signage bands
15. Mechanical Systems
16. Fire protection devices; i.e. pull boxes, alarms, sprinkler systems, fire extinguisher cabinets, etc.
17. Electrical components; i.e. distribution panels, junction boxes, lighting, conduit, etc.
18. Communication Systems
19. Security Systems

**1.03 QUALITY CONTROL**

A. Requirements for Structural Work:

1. Notify the Port construction project representative immediately if work concerning structural integrity is involved.

B. Operational and Safety Limitations:

1. Do not cut and patch operational elements and safety-related components in a manner resulting in a reduction of capacities to perform in a manner intended or resulting in decreased operational life, increased maintenance, or decreased safety.

**PART 2 PRODUCT**

**2.01 MATERIALS**

- A. Except as otherwise indicated or approved by the Port construction project representative, provide materials for cutting and patching that will result in equal or better quality than the work being cut and patched in terms of performance characteristics, including visual effect where applicable. Comply with the requirements and use materials identical, including texture and color, with original where feasible and where recognized that satisfactory results can be produced thereby. Re-install undamaged materials temporarily removed in their original locations where feasible or indicated unless noted otherwise.
  - 1. Primary Products: Those required for original installation.
  - 2. Product Substitution: For any proposed change in materials, submit Request for Substitution.

### PART 3 EXECUTION

#### 3.01 GENERAL

- A. Execute cutting, fitting, and patching, to complete the Work and to:
  - 1. Gain access in order to install components associated with this work.
  - 2. Fit the several parts together to integrate with other work.
  - 3. Uncover work to install ill-timed work.
  - 4. Remove and replace defective and non-conforming work.
  - 5. Remove samples of installed work for testing.
  - 6. Provide openings in elements of work for penetrations of mechanical, electrical, signal and access control work.

#### 3.02 EXAMINATION

- A. Examine existing conditions prior to commencing work, including elements subject to damage or movement during cutting and patching.
- B. After uncovering existing work, assess conditions affecting performance of work.
- C. Beginning of cutting and patching means acceptance of existing conditions.

#### 3.03 PREPARATION

- A. Temporary support: Provide adequate temporary support for work to be cut to prevent failure or deleterious movement of materials to remain. Do not endanger other work.
- B. Protection from weather: In accordance with Section 01 50 00 - Temporary Facilities and Controls, provide protection from elements for areas that may be exposed by uncovering work.

#### 3.04 CUTTING AND PATCHING/REMOVAL AND RE-INSTALLATION

- A. General - Employ skilled tradespeople to perform cutting and patching. If possible, employ original installer or fabricator to perform cutting and patching for visually exposed surfaces.
  - 1. Cut work by methods least likely to damage work to be retained and work adjoining. Review proposed procedure with the original installer where possible and comply with their recommendations.

2. Cut rigid materials using saws, grinding tools or core drill. Pneumatic or percussion tools not allowed without prior approval of the Port construction project representative.
  3. Use drilled-in inserts only where shown or approved by the Port construction project representative.
  4. Core drill inside corners of cuts in terrazzo and concrete to avoid over cuts. Do not use power-driven impact tools to finish cuts.
  5. Fit Work airtight to pipes, sleeves, ducts, conduits, structural elements and other penetrations through surfaces.
  6. At penetrations of fire-rated material provide proper thickness of the construction element to maintain the required fire rating.
- B. Condition removed materials to be reinstalled.
1. Clean, straighten and refinish materials to match existing surroundings.
  2. Store and protect materials against damage as a result of weather, vandalism or neglect.
- C. Patching
1. Execute patching to complement adjacent work. Inspect and test patched areas to demonstrate integrity of the work.
  2. Fit products together to integrate with other work.
  3. Restore work with new products in accordance with requirements of Contract Documents.
  4. Restore exposed finishes of patched areas and, where necessary extend finish restoration onto retained work adjoining in a manner that will eliminate evidence of patching.
  5. If a portion of a painted surface is patched and repaired, repaint entire surface to nearest natural break in wall surface, or as directed by Port construction project representative, or as delineated on drawings for repaint.
  6. Where new Work abuts or aligns with existing, perform a smooth and even transition. Patch Work to match existing adjacent Work in texture and appearance.
  7. When finished surfaces are cut so that a smooth transition with new work is not possible, terminate existing surface along a straight line at a natural line of division and make recommendation to Port construction project representative.
  8. Where wall systems (metal studs, gypsum wall boards, insulation, etc.) are removed for Work, reinstall wall system using new material of same size, quality, and quantity to match existing. Paint all exposed surfaces to match existing.
  9. Where the fireproofing materials are removed for work, reinstall fireproofing materials to match existing conditions and current code requirements.

- D. Where a change of plane of 1/4 inch or more occurs, submit recommendation for providing a smooth transition for the Port construction project representative's review; do no work until acceptance by the Port construction project representative.

**3.05 CUTTING AND PATCHING FOR WORK BY SUBCONTRACTORS**

- A. Cutting and patching for all subcontracted work including but not limited to mechanical, electrical, plumbing and communication Work shall be included in the cost for such Work identified in the technical specification sections.

End of Section

PART 1 GENERAL

1.01 SUMMARY

Throughout the construction period, maintain the project site where Work is carried out in a standard of cleanliness to include progress and closeout cleaning, and dust control throughout construction.

1.02 QUALITY ASSURANCE

- A. Inspection: Conduct daily inspections (and more often if necessary) to verify requirements of cleanliness are being met.
- B. Codes and Standards: In addition to the standard described in this section, comply with all pertinent requirements of governmental agencies having jurisdiction.

PART 2 PRODUCTS

2.01 CLEANING MATERIALS AND EQUIPMENT

- A. Provide all required personnel, equipment, and materials needed to maintain specified standard of cleanliness.

PART 3 EXECUTION

3.01 PROGRESS CLEANING

- A. Site:
  - 1. At all times, and as may specifically be requested by the Port construction project representative, the Contractor shall cleanup and remove all refuse resulting from the Work in order that the Project site remains free from an accumulation of construction debris. Upon failure to do so within 24 hours after request by the Port construction project representative, such cleanup work may be done by the Port and the cost thereof shall be charged to the Contractor and deducted from the Contract Sum.
  - 2. Project sites adjacent to public areas shall at all times be maintained in a condition suitable for public viewing and ensure public safety is not compromised in any way. The Port construction project representative's right to require or perform any necessary cleanup to maintain this condition as stated above applies.
  - 3. Retain all stored items in an orderly arrangement allowing maximum access, not impeding drainage or traffic, and providing the required protection of materials.
  - 4. Provide adequate storage for all items, awaiting removal from the job site,

3.02 DUST CONTROL

- A. Maintain continuous cleaning and wetting procedures to control dust pollution at project site and haul routes as required by governing authorities and the Contract Documents. Use vacuum sweeper with on-board water spray system, or alternate approved by the Port construction project representative, for street cleaning, if necessary.
- B. Schedule cleaning so that resultant dust and contaminants will not fall on wet or newly coated surfaces.

C. See additional requirements in related sections.

### 3.03 CLOSEOUT CLEANING

- A. Cleaning: Provide final cleaning of Work prior to Final Inspection. Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit of Work to condition expected from normal commercial building cleaning and maintenance program. Comply with manufacturer's recommendations. Complete following cleaning operations:
1. In addition to removal of debris and cleaning specified in other sections, clean interior and exterior exposed-to-view surfaces.
  2. Remove grease, mastic, adhesives, dust dirt, stains, fingerprints, labels, and other foreign matter from sight exposed interior and exterior surfaces.
  3. Clean transparent and glossy materials to a polished condition; remove foreign substances. Polish reflective surfaces to a clear shine.
  4. Remove temporary protection and labels not required to remain.
  5. Vacuum clean carpeted and similar soft surfaces.
  6. Clean, wax, and polish resilient and hard-surfaces floor as specified.
  7. Clean equipment and fixtures to sanitary condition.
  8. Clean surfaces of equipment; remove excess lubrication.
  9. Clean plumbing fixtures to a sanitary condition.
  10. Clean light fixtures and lamps.
  11. Clean permanent filters of ventilating equipment and replace disposable filters when units have been operated during construction; in addition, clean ducts, blowers, and coils when units have been operated without filters during construction.
  12. Clean mechanical and electrical equipment and spaces, including tops of pipes, ducts, equipment, etc.
  13. Clean all exterior surfaces of structures.
  14. Remove waste, foreign matter, and debris from roofs, gutters, area ways, and drainage systems.
  15. Hose-clean exterior paved surfaces; rake clean other surfaces of grounds.
  16. Remove waste, debris, and surplus materials from site. Clean grounds; remove stains, spills, and foreign substances from paved areas and sweep clean. Rake clean other exterior surfaces.
  17. Maintain cleaning until Physical Completion.
  18. Re-clean areas or equipment, after final inspection, if dirtied as result of Contractor's Work in preparing for final inspection or completion of punchlist.

End of Section

PART 1 GENERAL

1.01 SUMMARY

- A. This section includes construction waste management requirements.

1.02 DEFINITIONS

- A. Co-mingled or Off-site Separation: Collecting all material types into a single bin or mixed collection system and separating the waste materials into recyclable material types at an off-site facility.
- B. Construction, Demolition and Land-Clearing (CDL) Waste: Includes all non-hazardous solid wastes resulting from construction, remodeling, alterations, repair, demolition, and land clearing. Includes material that is recycled, reused, salvaged or disposed as garbage. This also includes uncontaminated soils that are designated as geotechnically unsuitable or excess excavation.
- C. Hazardous/Dangerous Waste: As defined by Chapter 70.105.010 Revised Code of Washington and 40 Code of Federal Register 261 and by Washington Administrative Code 173-303.
- D. Proper Disposal: As defined by the jurisdiction receiving the waste.
- E. Recyclable Materials: Products and materials that can be recovered and remanufactured into new products.
- F. Recycling: The process of sorting, cleaning, treating and reconstituting materials for the purpose of using the material in the manufacture of a new product. Can be conducted on-site (as in the grinding of concrete).
- G. Recycling Facility: An operation that is permitted to accept materials for the purpose of processing the materials into an altered form for the manufacture of a new product.
- H. Salvage for Reuse: Existing usable product or material that can be saved and reused in some manner on the project site or other projects off-site.
- I. Salvage for Resale: Existing usable product or material that can be saved and removed intact (as is) from the project site to another site for resale to others without remanufacturing.
- J. Source-Separated Materials: Materials that are sorted at the site into separate containers for the purpose of reuse or recycling.
- K. Sources Separation: Sorting the recovered materials into specific material types with no, or a minimum amount of, contamination on site.
- L. Time-Based Separation: Collecting waste during each phase of construction or deconstruction that results in primarily one major type of recovered material. The material is removed before it becomes mixed with the material from the next phase of construction.
- M. Garbage: Product or material typically considered to be trash or debris that is unable to be salvaged for resale, salvaged and reused, returned, or recycled.

1.03 SUBMITTALS

- A. Waste Management Plan



B. Waste Management Final Report

1.04 PERFORMANCE GOALS

A. General: Divert CDL waste to the maximum extent practicable from the landfill by one or a combination of the following activities:

1. Salvage
2. Reuse
3. Source separated CDL recycling
4. Co-mingled CDL recycling

B. CDL waste materials that can be salvaged, resold, reused or recycled, include, but are not limited to the following:

1. Clean dimensional wood, pallet wood, plywood, OSB, and particleboard
2. Asphalt
3. Concrete and concrete masonry units
4. Brick
5. Ferrous and non-ferrous metals
6. Gypsum products
7. Acoustical ceiling tile
8. Glass, both window and bottle
9. Plastics, including plastic film
10. Carpet and pad
11. Cardboard packaging
12. Insulation
13. Field office waste paper, aluminum cans, glass, plastic, and cardboard

C. Hazardous/Dangerous Wastes, contaminated soils and other hazardous materials such as paints, solvents, adhesives, batteries, and fluorescent light bulbs and ballasts shall be disposed of at applicable permitted facilities.

1.05 WASTE MANAGEMENT PLAN

A. Per the requirements of Section 01 32 19 - Preconstruction Submittals, submit to the Port Project Manager a Waste Management Plan narrative in accordance with these specifications. Use the Waste Management Plan Form attached at the end of this section or other format as accepted by the Port construction project representative (Attachment A).

B. The Waste Management Plan shall include the following:

1. Name of designated Recycling Coordinator
2. A list of waste materials that will be salvaged for resale, salvaged for reuse, recycled, and disposed.

3. Identify waste handling methods to be used, including one or more of the following:
  - a. Method 1 – Contractor or subcontractor(s) hauls recyclable materials to an accepted recycling facility.
  - b. Method 2 - Contracting with diversion/recycling hauler to haul recyclable material to an accepted recycling or material recovery facility.
  - c. Method 3 – Recyclable material reuse on-site.
  - d. Method 4 – Recyclable material salvage for resale.
4. Identification of each recycling or material recovery facility to be utilized, including name, address and types of materials being recycled at each facility
5. Description of the method to be employed in collecting, and handling, waste materials.
6. Description of methods to communicate Waste Management Plan to personnel and subcontractors.

#### 1.06 WASTE MANAGEMENT FINAL REPORT

- A. Use the Waste Management Final Report Form attached at the end of this section or other format as accepted by the Port construction project representative (Attachment B). The Waste Management Final Report shall list the following for the project:
  1. A record of each waste material type and quantity recycled, reused, salvaged, or disposed from the Project. Include total quantity of waste material removed from the site and hauled to a landfill.
  2. Percentage of total waste material generated that was recycled, reused, or salvaged.
- B. Quantities shall be reported by weight (tons) unless otherwise accepted by the Port construction project representative .
- C. Submit copies of manifests, weight tickets, recycling/disposal receipts or invoices, which validate the calculations or a signed certification of completeness and accuracy of the final quantities reported.

#### 1.07 QUALITY ASSURANCE

- A. Regulatory Requirements: The Contractor shall maintain compliance with all applicable Federal, State, or Local laws that apply to Construction Waste Management and material salvage, reuse, recycling and disposal.
- B. Disposal Sites, Recyclers and Waste Materials Processors: All facilities utilized for management of any materials covered under this specification must maintain all necessary permits as required by federal, state and local jurisdictions.
- C. For a comprehensive list of recycling facilities in King County, and other Contractor resources, contact King County's Construction and Demolition Recycling Program:  
<http://your.kingcounty.gov/solidwaste/greenbuilding/construction-demolition.asp>

PART 2 NOT USED

PART 3 EXECUTION

3.01 SOURCE-SEPARATED CDL RECYCLING

- A. Provide individual containers for separate types of CDL waste to be recycled, clearly labeled with a list of acceptable and unacceptable materials.

3.02 CO-MINGLED CDL RECYCLING

- A. Provide containers for co-mingled CDL waste to be recycled, clearly labeled with a list of acceptable and unacceptable materials.

3.03 LANDFILL

- A. Provide containers for CDL waste that is to be disposed of in a landfill clearly labeled as such.

3.04 REMOVAL OF CDL WASTE FROM PROJECT SITE

- A. Transport CDL waste off Owner's property and legally dispose of them.

End of Section
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**Attachment A  
WASTE MANAGEMENT PLAN**

**Company:**

**Project:**

**Designated Recycling Coordinator:**

**Waste Management Goals:**

This project will recycle or salvage for reuse CDL waste generated on-site to the maximum extent practicable.

**Communication Plan:**

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**Expected Project Waste, Disposal Facility, Collection Strategy, and Handling:**

The following charts identify waste materials expected on this project, disposal facility details, collection strategies (e.g. source-separate, co-mingle), and waste handling methods

**Deconstruction/Demolition Phase**

Waste Material	Facility (name, address)	Collection Strategy	Waste Handling Method

**Construction Phase**

Waste Material	Facility (name, address)	Collection Strategy	Waste Handling Method

## Attachment B WASTE MANAGEMENT FINAL REPORT

**Project:**   
**Contractor:**   
**Submittal Date:**

*Instructions: Please fill in the details for all of the disposed materials.  
 Cells highlighted in Green are required. Most cells have pulldown menus with valid values.  
 New rows can be added in the table below by selecting a row, right-clicking and selecting insert.*

MATERIAL TYPE(S)	UNITS	DATE	DISPOSED IN LANDFILL	DIVERTED FROM LANDFILL				RECYCLING OR MATERIAL RECOVERY FACILITY	NOTES
				Recycled	Salvaged	On-Site Reuse	Off-Site Reuse		
Co-Mingled/Mixed CDL									
Acoustical Ceiling Tile									
Asphalt									
Brick									
Cardboard									
Carpet and pad									
Concrete									
Field office waste									
Glass									
Gypsum									
Insulation									
Metals									
Plastic									
Type D (Clean) Soil									
Wood									

**Total Weight:**

**% of Waste Diverted**

PART 1 GENERAL

1.01 SUMMARY

- A. Submit a complete and concise description of the product, system, or piece of equipment, stressing and enhancing the importance of system interactions, troubleshooting, and long-term preventive maintenance and operation.
- B. This section identifies the requirements for the formatting and compilation of all operation and maintenance (O&M) documentation for this project and equipment labeling by posting condensed operating instructions as identified in the technical specifications. Unless otherwise directed by the Port’s construction project representative, the Contractor shall prepare and compile O&M documentation as defined in this section.
- C. This section also includes requirements for the Contractor’s input to the Port Computerized Maintenance Management System (CMMS) form listing equipment installed as part of the Work.
  - 1. Attachment A contains the project’s CMMS form

1.02 SUBMITTALS/APPROVALS

- A. O&M Documentation and the CMMS form shall be submitted to the Port’s Project Manager
  - 1. CMMS forms shall be submitted as a PDF within the O&M submittals along with the Excel source file.
  - 2. Port acceptance of draft O&M is required prior to training of Port personnel, Partial Substantial or Substantial Completion. Submit draft documentation 60 days prior to the anticipated scheduled Punchlist Inspection date.
    - a. For Partial Substantial Completion, the O&M and index shall be complete for the respective elements being turned over to the Port. Partial manuals shall be clearly labeled on the cover sheet as “PARTIAL O&M MANUAL.”
  - 3. Port acceptance of the final O&M is required for Physical Completion and shall be submitted prior to Final Inspection. If changes are required to Final Document, the Contractor shall incorporate revisions and resubmit a full electronic copy of the manual. All changes shall be submitted with a transmittal identifying all changes.
    - a. Final documentation shall contain “Partial” O&M documentation.

1.03 OPERATING AND MAINTENANCE DOCUMENTATION

- A. The O&M documentation shall be electronic utilizing Microsoft Word or searchable Adobe PDF format. The electronic data shall have software search features and interactive capabilities in the format prescribed within this section.
  - 1. PDF versions originating from scanned documentation shall be generated from legible documents, indexed, formatted and fully text searchable.
  - 2. Contractor is responsible for obtaining written releases dealing with copyright restrictions.
- B. The electronic documentation shall be titled as follows :

1. Draft O&M Manual - WPXXXXX ActivityCode# ContractName
2. Final O&M Manual - WPXXXXX ActivityCode# ContractName

1.04 CMMS FORMS

- A. An electronic (Excel) file will be provided to the Contractor by the Port's Project Manager after Contract Execution. The Contractor is responsible to ensure the form is accurately and fully completed.
1. The file name shall be titled: *WPXXXXXX ActivityCode# CMMS FORM [FINAL or DRAFT]*

1.05 OPERATIONS AND MAINTENANCE (O&M) DOCUMENTATION FORMAT

- A. The O&M documentation shall be organized to include four sections:
1. Title page
    - a. The title page shall identify Port information including the Port project number and formal Port project name, Contractor information and the anticipated substantial completion date and warranty start date(s). See Appendix A.
  2. Table of Contents
    - a. The table of contents shall identify product, system or piece of equipment by the CSI section within the technical specifications and shall be hyperlinked to the manual content.
  3. Computerized Maintenance Management System (CMMS): provide a PDF of the Excel file within the O&M Documentation.
  4. Technical Content of all the product, system(s) or equipment organized by technical specification Construction Specifications Institute (CSI) section number and title. It is comprised of two sections:
    - a. Summary Information on products, systems and equipment
    - b. Data Package information (see Parts 1.06B and 1.07).

1.06 TECHNICAL CONTENT

- A. Summary Information on Products, Systems and Equipment.
1. Contractor, distributor and manufacturer support information:
    - a. Provide the name, address, and telephone number of each Subcontractor who installed the product, system or equipment.
    - b. For each item, also provide the name address and telephone number of the manufacturer's representative and service organization that can provide replacements most convenient to the project site.
    - c. Provide the name, address, and telephone number of the product, equipment, and system manufacturers.
    - d. Include the 24-hour emergency support numbers.
  2. Equipment information: All equipment information identified in the CMMS form shall be included in the O&M documentation on the first applicable

product page and include the CMMS equipment identification number and description as provided in the CMMS form. All equipment identification numbers shall be in bold-type face in a contrasting color from the balance of the font on the page. Red is a typical contrasting color. Include the following:

- a. Equipment or system photo as installed within the project with description and design intent.
  - b. Special outside agency permits including Washington State Labor & Industries.
  - c. Copies of condensed operating instructions posted on equipment.
3. Submittal and Product Data: Include accepted submittal data, cut sheets and appropriate shop drawings. If submittal was not required for acceptance, descriptive product data shall be included.
- a. Include all building material and finishes. Provide specific information, lot numbers, local distributors and suppliers with their company names, addresses, and phone numbers. List all information needed to identify, maintain, and replace/duplicate any finish materials, equipment or features installed in this project. Examples include:
    - (1) Material or finish designation.
    - (2) Manufacturer's name, model number, make, size, local vendor and supplier.
    - (3) Proportions of mixes. (Example: terrazzo)
    - (4) Color formula list for each project specific paint color used.
  - b. Highlight the submittal/product data pertinent to the Contract within manufacturer's boiler plate information documentation.
  - c. Clearly mark the work product, system or piece of equipment and eliminate or strikeout advertisement and other data that does not specifically relate to the Work.
4. Warranty Information: List and explain the various warranties and clearly identify the servicing and technical precautions prescribed by the manufacturers or Contract in order to keep warranties in force.
5. Start Up and Testing/Balancing Information:
- a. Testing and Performance Data: Include completed pre-functional checklists, functional performance test forms, and monitoring reports. Include recommended schedule for retesting and blank test forms.
  - b. Copy of the start-up report.
  - c. Completed pre-commissioning and pre-functional checklists with all data and documentation.
  - d. Completed functional test and calibration results.



- B. Data Packages. The type of data depends upon the complexity of the product, system, or equipment. Data Package data is categorized into three (3) kinds of information: Operating Instructions, Preventive Maintenance, and Corrective Maintenance. See as identified in Table 1 and described below in Part 1.07 for the kinds of information included in the data packages.
1. Data Package 1: typically used for architectural items requiring simple but specific maintenance and replacement; for example, acoustical ceiling, floor tile or carpeting system.
  2. Data Package 2: used for an item that has motors or adjustable electronics; for example, an item having a motor and some sequence of operation such as a refrigerated drinking fountain or adjustable photosensor.
  3. Data Package 3: used for a complex piece of equipment, having an extensive sequence of operation, a complex troubleshooting sequence and one requiring frequent operator attention; at least for start-up and shut-down.

<b>TABLE 1</b>		<b>Data Packages</b>		
<b>Technical Data Content</b>		<b>1</b>	<b>2</b>	<b>3</b>
<b>Operating Instruction</b>				
	Safety Precautions	X	X	X
	Operator prestart			X
	Startup, shutdown, and post-shutdown procedures			X
	Normal operations		X	X
	Emergency operations			X
	Operator service requirements			X
	Environmental conditions		X	X
	Parts identification		X	X
	Testing equipment and special tool information			X
<b>Preventive Maintenance (PM) Plan &amp; Schedule</b>				
	Manufacturer’s PM recommendation		X	X
	Calibration recommendations		X	X
	Cleaning recommendations	X	X	X
	Lubrication data		X	X

<b>TABLE 1</b>		<b>Data Packages</b>		
<b>Technical Data Content</b>		<b>1</b>	<b>2</b>	<b>3</b>
<b>Corrective Maintenance (Repair)</b>				
	Troubleshooting guides and diagnostic techniques			X
	Wiring diagrams and control diagrams			X
	Maintenance and repair procedures	X	X	X
	Removal and replacement instructions		X	X
	Spare parts and supply lists	X	X	X
	Corrective Maintenance Work Hours			X
<b>Video O&amp;M Documentation</b>				
	<b>O&amp;M Videos</b>		<b>X</b>	<b>X</b>

**1.07 DATA PACKAGE TECHNICAL INFORMATION**

- A. Operating Instructions: Include specific instructions, procedures, and illustrations for the following as required by installed products, systems and equipment:
  1. Safety Precautions: List personnel hazards and equipment or product safety precautions for all operating conditions. Include Safety Data Sheets.
  2. Operator Prestart: Include procedures required to install, set up, and prepare each system for use.
  3. Startup, Shutdown, and Post-Shutdown Procedures: Provide narrative description for Startup, Shutdown and Post-shutdown operating procedures including the control sequence for each procedure.
  4. Normal Operations: Provide narrative description of Normal Operating Procedures. Include Control Diagrams with data to explain operation and control of systems and specific equipment.
  5. Emergency Operations: Include Emergency Procedures for equipment malfunctions to permit a short period of continued operation or to shut down the equipment to prevent further damage to systems and equipment or harm personnel. Include Emergency Shutdown Instructions for fire, explosion, spills, or other foreseeable contingencies. Provide guidance and procedures for emergency operation of all utility systems including required valve positions, valve locations and zones or portions of systems controlled.
  6. Operator Service Requirement: Include instructions for services to be performed by the operator such as lubrication, adjustment, inspection, and recording gage readings.

## DIVISION 1 - GENERAL REQUIREMENTS

### Section 01 78 23.13 – Aviation Operations and Maintenance Documentation

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7. Environmental Conditions: Include a list of Environmental Conditions (temperature, humidity, and other relevant data) that are best suited for the operation of each product, component or system. Describe conditions under which the item equipment should not be allowed to operate.
  8. Parts Identification: Provide identification and coverage for all parts of each component, assembly, subassembly, and accessory of the end items subject to replacement. Include special hardware requirements, such as requirement to use high-strength bolts and nuts. Identify parts by make, model, serial number, and source of supply to allow reordering without further identification. Provide clear and legible illustrations, drawings, and exploded views to enable easy identification of the items. When illustrations omit the part numbers and description, both the illustrations and separate listing shall show the index, reference, or key number that will cross-reference the illustrated part to the listed part. Parts shown in the listings shall be grouped by components, assemblies, and subassemblies in accordance with the manufacturer's standard practice. Parts data may cover more than one model or series of equipment, components, assemblies, subassemblies, attachments, or accessories, such as typically shown in a master parts catalog.
  9. Testing Equipment and Special Tool Information: Include information on test equipment required to perform specified tests and on special tools needed for the operation, maintenance, and repair of components.
- B. Preventive Maintenance Plan and Schedule: Include the following information for preventive and scheduled maintenance to minimize corrective maintenance and repair for installed products, and the model and features of each system and piece of equipment.
1. Include manufacturer's schedule for routine preventive maintenance, inspections, tests and adjustments required to ensure proper and economical operation and to minimize corrective maintenance.
  2. For periodic calibrations, provide manufacturer's specified frequency and procedures for each separate operation.
  3. Cleaning Recommendations: Provide environmentally preferable cleaning recommendations.
  4. Lubrication Data: Include preventive maintenance lubrication data, in addition to instructions for lubrication provided under paragraph titled "Operator Service Requirements":
    - a. A table showing recommended lubricants for specific temperature ranges and applications.
    - b. Charts with a schematic diagram of the equipment showing lubrication points, recommended types and grades of lubricants, and capacities.
    - c. A Lubrication Schedule showing service interval frequency.
- C. Corrective Maintenance (Repair): Include manufacturer's recommended procedures and instructions for correcting problems and making repairs as required for installed products, and model and features of each system and pieces

of equipment. Include potential environmental and indoor air quality impacts of recommended maintenance procedures and materials.

1. Troubleshooting Guides and Diagnostic Techniques: Include step-by-step procedures to promptly isolate the cause of typical malfunctions. Describe clearly why the checkout is performed and what conditions are to be sought. Identify tests or inspections and test equipment required to determine whether parts and equipment may be reused or require replacement.
2. Wiring Diagrams and Control Diagrams: Wiring diagrams and control diagrams shall be point-to-point drawings of wiring and control circuits including factory-field interfaces. Provide a complete and accurate depiction of the actual job specific wiring and control work. On diagrams, number electrical and electronic wiring and pneumatic control tubing and the terminals for each type, identically to actual installation configuration and numbering.
  - a. Maintenance and Repair Procedures: Include instructions and a list of tools required to repair or restore the product or equipment to proper condition or operating standards.
3. Maintenance and Repair Procedures: Include instructions and a list of tools required to repair or restore the product or equipment to proper condition or operating standards.
4. Removal and Replacement Instructions: Include step-by-step procedures and a list of required tools and supplies for removal, replacement, disassembly, and assembly of components, assemblies, subassemblies, accessories, and attachments. Provide tolerances, dimensions, settings and adjustments required. Instructions shall include a combination of text and illustrations.
5. Spare Parts and Supply Lists: Include lists of spare parts and supplies required for maintenance and repair to ensure continued service or operation without unreasonable delays. List spare parts and supplies that have a long lead-time to obtain. Corrective Maintenance Work-Hours: Include manufacturer's projection of corrective maintenance work-hours including requirements by type of craft.
6. Corrective maintenance that requires completion or participation of the equipment manufacturer shall be identified and tabulated separately.
7. Video O&M Documentation: Include reference to training videos as identified by the technical specifications. Video titles shall be coordinated with the table of contents for the respective section
  - a. Example: *Section [XXXXX] Training Video for [specific equipment] provided separately.*

**1.08 EQUIPMENT OPERATING INSTRUCTIONS: POSTING CONDENSED INSTRUCTIONS**

- A. Condensed operating instructions shall be clearly laminated and secured adjacent to or inside the equipment where it can be easily read by operating personnel performing the steps listed. The writing shall not fade in sunlight and shall be

secured to prevent easy removal, peeling and degradation if exposed to the weather.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

**APPENDIX A: Title Page for Operations and Maintenance Documentation**

POS Project Number	
Project Name	
Port Project Manager	
Port Construction Management Inspector	
Port Resident Engineer	
Prime Contractor Name	
Prime Contractor Project Number	
Primary Contact Name	
Primary Contact Number	
Emergency Contact Number	
Anticipated Substantial Completion Date	
Phased Warranty Yes/No	If yes, list all anticipated dates:
Anticipated Warranty Date(s)	

End of Section

**Instructions for  
CMMS DATA FORM**

**The completed form is to be submitted to POS in electronic format and will only be acceptable as an Excel (.xls) file type**

The Port of Seattle uses a Computerized Maintenance Management System (CMMS) called MAXIMO to schedule periodic maintenance. The completed Data Form for CMMS input will aid in providing accurate data on a piece of equipment or system to ensure timely commencement of periodic maintenance. Items to include:

- Items with equipment numbers on the contract drawings
- Items with extended warranties
- Equipment critical to operation of the airport
- Equipment that needs periodic maintenance or inspections (O&M manual)
- Equipment funded with grant funds (specify grant)

<b>Information for items highlighted in yellow below are filled in by the Architect Engineer at 90% design only</b>	
<b>Project # &amp; Name</b>	# & name of POS Project provided by POS PM
<b>POS Equipment ID Number</b>	Items with equipment numbers on the contract drawings.
<b>Equipment Description</b>	Filled out at 90% design by POS A/E with PM oversight; <b>Sent out as part of the Bid Package.</b>
<b>Location Information</b>	
<b>Area&gt;Section&gt;Location&gt;Place</b>	Choose from drop down menu options; if the menus do not drop down as it gets more specific, enter any remaining information you have into the Other Location Information Field
<b>Other Location Information</b>	If the location does not apply to the available options or the drop down menus do not continue, enter the rest of the information in this field

<b>Information for items highlighted in green below are filled in by the contractor, plus update of yellow items above (oversite by Construction Management).</b>	
<b>Contact Information:</b>	Name, telephone number, and e-mail address of the person in the General Contractor's office with whom POS Maintenance can discuss information submitted on the form.
<b>Equipment Information</b>	
<b>Model Number</b>	Alphanumeric as recognized by the equipment manufacturer
<b>Serial Number</b>	Alphanumeric as recognized by the equipment manufacturer
<b>MANUFACTURER Information</b>	
<b>Manufacturer Name</b>	Provide Manufacturer Name
<b>Vendor</b>	Provide Vendor name if known
<b>Install or Purchase Date</b>	Date DA/MO/YEAR on which equipment is purchased or installed.
<b>End of Equipment Warranty Date</b>	Date DA/MO/YEAR on which Warranty expires based on start date identified above.
<b>Extended Equipment Warranty Date (if applicable)</b>	Date DA/MO/YEAR on which <i>Extended</i> Warranty expires based on start date identified above (if applicable) - add who the extended warranty is from in the notes section.
<b>Estimated Equipment Value</b>	Complete assembly/unit replacement in today's dollars.
<b>Expected Equipment Life Span (Years)</b>	Estimated # of years before the piece of equipment will need to be replaced if maintained properly.

**Any extra notes can be put in the notes column at the end of the form.**

**Demo Data ( use this tab to identify assets that are being removed)**

**For a blank electronic copy, or if you have any questions filling out this form, please contact one of the following people:**

- |                                  |  |
|----------------------------------|--|
| <b>Deb Sorensen 206-787-7252</b> | <a href="mailto:Sorensen.D@portseattle.org">Sorensen.D@portseattle.org</a>     |
| Doug Bean 206-787-5584           | <a href="mailto:Bean.D@portseattle.org">Bean.D@portseattle.org</a>             |
| Beth Britz 206-787-3556          | <a href="mailto:Britz.B@portseattle.org">Britz.B@portseattle.org</a>           |
| Arland Fagerstrom 206-787-7807   | <a href="mailto:Fagerstrom.A@portseattle.org">Fagerstrom.A@portseattle.org</a> |



Chris Heimbigner 206-787-5823

[Heimbigner.C@portseattle.org](mailto:Heimbigner.C@portseattle.org)

	A	B	E	G
9	Port of Seattle Equipment ID/ Tag/Drawing Number (ex. HBC.AH07.AHU)	Equipment Description - Maximo Asset Description (ex. AIR HANDLING UNIT, HBC.AH07.AHU)	Area - Select from drop down list (ex. Terminal)	Section - Select from drop down list (ex. Concourse)
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9	<b>Location - Select from drop down list (Level)</b>	<b>Place - Select from drop down (Room level)</b>	<b>Other Location Information (ex. Gate #, Room #) - <u>If you've selected a blank drop down put additional information here:</u></b>	<b>Model Number</b>	<b>Serial Number</b>
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	AA	AB	AC	AD	AF	AI	AJ	AK
9	Sub System Type	Level	Quadrant	Profile ID / Classification?	Maximo Classification	PeopleSoft Asset ID #	Maximo Asset ID#	Asset Type
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	AO	AP	AQ	AR	AS	AT	AU	AW	AX
9	Work Group	GL Org	GL Fund	GL Account	GL Program	GL Subclass	Failure Class	Purchase Project # (or expense)	PM Required?
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* Specific Asset Types for CMMS form	
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AIRDRYER	
AIRHANDL	
APC	
ATR	
BACKFLOW	
BHS	
CAMERA	
CAROUSEL	
CUSS	
CUSE	
CRSSCONN	
DDC	
DISTSYS	
DIVERTER	
DRAIN	
DRINKFTN	
BREAKER	
METER	
PANEL	
TRANSFRM	
ELEV	
EMERGENR	
ESCL	
FACILITIES	
FAN	
FEEDER	
HYDRANT	
FIMS	
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FOD	
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HVOLTSW	
MNHLCBSN	
LIFTSTAT	
LBR	
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MANDOOR	
MERGE	
MCC	
MCP	
GASMTR	
ODS	

PRCS	
PWRSUP	
PWRTURN	
PRODUCTION	
PUMP	
PUSHER	
QUEUE	
RADIO	
SAFEDOCK	
SCALE	
SPRKRISR	
STRTCONV	
VEH-STS	
WS-STS	
SWITCH	
SWGEAR	
SWBOARD	
TERMBOX	
TRANSW	
UPS	
HEATER	
VFD	
VEH	
VERTIMERGE	
VERTISORT	
WATRBOX	
WTRMTR	
WATRVALV	

<b>Description</b>
AC Units
Access Control Doors
Air Compressors
Air Dryer
Air Handlers
Automatic Passport Control
Automatic Tag Reader
Backflow Devices
Baggage Handling System
Camera
Carousel
Common Use Service Systems
Common Use System Equipment
Cross Connections
DDC Panel
Distribution System
Diverter
Drains
Drinking Fountain
Electrical Circuit Breakers
Electrical Meters
Electrical Panels
Electrical Transformers
Elevators
Emergency Generator
Escalators
Facility Assets
Fans
Feeders
Fire/Flush Hydrants
Flight Information System
Floor Count System
Foreign Object Debris
Generator
High Voltage Switch
IWS Manholes and Catch Basins
Lift Stations
Loading Bridge
Manholes
Manual Doors
Merge
Motor Control Center
Motor Control Panel
Natural Gas Meter
Overhead Door Systems

Parking Revenue Control System
Power Supply
Power Turn
Production Assets
Pumps
Pusher
Queue
Radios
Safedock
SCALE
Sprinkler Risers
Straight Conveyor
STS Train Cars
STS Wayside Equipment
Switch
Switch Gear
Switchboard
Terminal Box
Transfer Switch
Uninterrupted Power Supplies
Unit Heaters
Variable Frequency Drives
Vehicles (Buses, Cargo Vans & Passenger)
Verti-Merge
Verti-Sort
Water Boxes
Water Meters
Water Valves

**READ THIS FIRST**

This Project Spec Document may need additional modifications to suit your project. It is recommended that you proofread each section, paying attention to any “Notes” boxes such as this one—you should remove these “Notes” sections as you go. Also, do a search for all bracket characters “[ ]” as they are used to show you areas containing options or project specific details (you can use Microsoft Word’s Find feature {Ctrl-F} to jump to an open bracket “[” character quickly). Again, these bracket characters should be removed. It is important that every paragraph be numbered to allow for easy referencing. If you use the document’s built in styles and formatting your outline should be fine (turn on the formatting toolbar by going to View > Toolbars > Formatting). Most paragraphs will use the style “Numbered Material” and can be promoted (Shift) or demoted (Shift-Tab). You should not have to manually enter extra spaces, carriage returns or outline characters such as A, B, C, or 1.01, 1.02; the formatting will do this for you. The entire document is 11 pt. Arial. If you paste items in, you may need to reapply the “Numbered Material” format.

**PART 1 GENERAL**

**1.01 DESCRIPTION OF WORK**

- A. Throughout the progress of the Work the Contractor shall maintain accurate set of As-built Redline Drawings (including shop and Contractor bidder-design drawings).
- B. As-Built (Redline) Drawings will be used by the Port at a future time as the basis of revision to the CAD drawing files and therefore must clearly communicate the changes in graphics and text to the CAD operator performing the drawing revisions.

**1.02 QUALITY ASSURANCE**

- A. The responsibility for maintenance of changes to the As-Built Redline Drawings shall be assigned to one person on the Contractor’s staff.
- B. As-Built Redline Drawings:
  - 1. Shall be kept accurate and current per the requirements of paragraph 3.01, Maintenance of As-Built Record Documents.
  - 2. Thoroughly coordinate all changes by making red-line entries on an ongoing basis on a single set of full size Contract and Working Documents maintained at the job site. Accuracy shall be such that future users of information showing the as-built condition of the Work may reasonably rely on the information shown.
  - 3. As-Built Redline Drawings Kick-off Meeting
    - a. Convene a meeting with the [Port’s construction project representative Engineer](#) prior to making entries in the As-Built Redline Drawings set to clarify level and style of information requirements.
    - b. Attendees should include the Contractor's field manager, the Contractor's staff member responsible for making the entries, the

[Port's construction project representative Engineer](#) and Inspector(s) responsible for monthly review of the As-built Redline Drawings.

4. Inspection and Quality of As-Built Redline Drawings
  - a. A checklist is appended to this Section: (Appendix # 1-- Red-Lines Quality Checklist). This checklist will be used by Port personnel reviewing the Red-Lines for currency and quality ~~prior to the Engineer's acceptance of the Progress Payment requests~~. The checklist will serve to define ~~Contract~~ requirements for quality and content of entries.

### 1.03 SUBMITTALS

- A. ~~Progress Submittals: NOT USED~~
  1. ~~The Engineer's acceptance of the current status of changes to the As-Built Redline will be a prerequisite to the Port's construction project representative's Engineer's acceptance of requests for each Progress Payment. Appropriate payment may be withheld if documents are not up to date at the time of the Progress Payment request(s).~~
- B. Substantial Completion:
  1. At the time of Substantial Completion, provide a draft hard-copy and an electronic copy of the As-Built Redline Drawings including shop drawings and bidder-design drawings to the [Port's construction project representative Engineer](#).
- C. Final As-Built Redline Drawings Submittal:
  1. After acceptance of the final As-Built Redline Drawings by the [Port's construction project representative Engineer](#), submit a final electronic PDF file and hard copy as required for Physical Completion.

### PART 2 PRODUCTS - Not used

### PART 3 EXECUTION

#### 3.01 MAINTENANCE OF AS-BUILT PROJECT RECORDS

- A. During construction of the Work, the Contractor shall use all means necessary to maintain a record of changes to the Contract documents completely protected from deterioration and from loss and damage.
- B. As-Built Redline Drawings
  1. All change directives in the Work generated by Change Orders (CO), Design Bulletins (DB), Construction Bulletins (CB), Requests for Information (RFIs) and accepted substitutions shall be recorded on the Contract Documents.
  2. The Contractor shall revise (1) set of full size Contract Documents by red-line process to show the as-built conditions during the course of the project. Identify documents with the title RED-LINES.
    - a. Define an accepted method for protecting the project As-Built Redline Drawings for the duration of the Contract.



- b. Do not use the As-Built Redline Drawings for any purpose except entry of new data and for review by ~~the~~ the Port's construction project representative ~~Engineer~~.
    - c. Maintain and protect the drawings at the site of Work.
  3. Changes shall show the actual Work with the same level of accuracy and completeness as the original Contract Documents. As-built Redline Drawings should include changes in location, identification and sizes of material, equipment, utilities and elements of the project and reflect the correct scale, grade, elevations, dimensions and coordinates of changes.
    - a. Use an erasable red-colored pencil (not ink or indelible pencil) to clearly indicate the changed graphics or text. The change directive (CO/RFI/DB/CB) number should be identified on the drawing with the “clouded” changes. It is not necessary to describe the directive, when, why or who authorized the change.
    - b. Distinguish between annotations intended to be copied exactly by a future drafter creating As-Built Redline Drawings files and information that is supplemental and not meant to be copied. Examples of supplemental information would include notes to the drafter and information purely for the Contractor's information in monitoring the change. A suggested approach is to make all markings not to be copied by a CAD operator in a color other than red, reserving red for information to be copied exactly.
    - c. Do not include markings or reference to documents that do not generate a graphic or text change.
  4. Complex or complicated changes can be noted in the As-built Redline Drawings with a cloud and reference to the directive attached to the drawing sheet or the back of the sheet preceding it.
  5. Include changes or modifications that result from final inspection.
- C. Shop drawings and Contractor bidder-design drawings shall be maintained accurate and current and show, as a minimum, the following information:
  1. Changes from approved detail drawings prepared and/or furnished by the Contractor; including but not limited to shop drawings, installation plans and dimensions of equipment.
  2. The actual bidder-design work by the Contractor to meet performance specifications, such as HVAC controls, Fire Alarm, Sprinkler systems and Data Management systems, to the same level of detail as the submitted and approved bidder-design drawings.

#### PART 4 MEASUREMENT AND PAYMENT

##### 4.01—GENERAL

- A. ~~No separate measurement or payment will be made for the Work required by this section. The cost for this portion of the Work will be considered incidental to, and included in the payments made for the applicable bid items in the [Schedule of Unit Prices] [Lump Sum price] bid for the Project.~~

End of Section

## Appendix #1: Red-Lines Quality Checklist

CHECK ITEM	EXAMPLE/COMMENT
<p>Check that supplementary information is coded in such a way that it will not be transferred to the final record documents</p>	<p>Example: lines or notes not to be copied might be marked in a different color.</p> <p>An example of supplementary information might be references to dates or meetings or field conversations that the Contractor may want recorded on the Red-Lines for record purposes but that are not relevant to the physical as-built condition.</p>
<p>Check that the changes are marked exactly as they should be indicated in revised drawings</p>	<p>An example of unacceptability would be a relocated light fixture shown by a circle around the item with an arrow leader pointing to the new location.</p> <p>Correctly it should be drawn in the final location in which it was actually installed exactly as a drafter would be intended to draw it with all circuits or connections included and previous circuits and connections shown deleted.</p>
<p>Check that a drafter could access the information from which the change was constructed</p>	<p>The change should be clouded or otherwise identified with a reference to the actual change directive from which it was constructed (CO, CB, FA, RFI, etc.) - this may not necessarily be the official Change Order. The traditional practice of attaching the directive to the back of the preceding sheet is recommended.</p>
<p>Check that the original information superseded by a sketch attachment to the change directive is clearly identified</p>	<p>It is not necessary for the Contractor to redraw what is clearly shown and dimensioned on the sketch. However it should be clear what information the sketch replaces.</p>
<p>Check that the Contractor is keeping some kind of log or checklist of changes pending completion of the installation or construction in the cases where the Contractor does not record the change until the</p>	<p>This is important when the practice adopted is to not mark the changes until the work is completed to assure accurate “as-built” information. Without the checklist, the Contractor can easily lose track and it will be more difficult for the Port Inspector to check the status.</p>

**DIVISION 1 - GENERAL REQUIREMENTS**  
**Section 01 78 29 – As-Built Redline Documents**

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work is completed	
In the case of Item 5 above, check the Contractor’s method for verifying that the change directive does reflect the in-place (As built) work	If the work is not constructed exactly per the sketch accompanying the change directive, the variation should be noted in a way that would be clear to a drafter.

PART 1 GENERAL

1.01 DESCRIPTION OF WORK

- A. Required use of the Contract Management System (CMS) will be determined by the Port's Project Manager.
- B. The Contract Management System (CMS) is a web-based system developed by the Port to manage Contract documents. The CMS will be used to generate and capture electronic Contract Documents, route them to the appropriate individuals, file them, and then allow for easy retrieval. The CMS shall be used for all Contract communications between the Port and the Contractor.

PART 2 PRODUCTS

2.01 CONTRACT MANAGEMENT SYSTEM

- A. The Port will provide the Contractor with one user login for the Port's CMS located at <https://docmgt.portseattle.org> at no cost to the Contractor. Access to the CMS web site will be provided by way of a Port provided password and user name. The login will be subject to the terms and conditions of use as described in the Contract Documents and may be revoked by the Port at any time.
- B. Additional logins may be provided at the Port's discretion. Each login will be subject to the same terms and conditions of use as the Contractor's initial login and will similarly be subject to revocation by the Port at any time. Coordination of the integration process will be the responsibility of the Contractor.

2.02 MINIMUM REQUIREMENTS

- A. In order to utilize the CMS, the Contractor shall use equipment and software that meets the following minimal requirements:
  - 1. Hardware:
    - a. i5 compatible processor or higher IBM-compatible PC
    - b. 16 GB free space on hard drive
    - c. 4 GB of RAM
    - d. Require VGA or higher-resolution monitor at least 1,024x768 pixel resolution
    - e. DSL link to the Internet
  - 2. Software:
    - a. Operating System: Windows 7
    - b. Browser: Internet Explorer 10.0
    - c. PDF Reader for viewing attachments only.
    - d. PDF Editor for markups and/or editing of attachments.
    - e. MS Office 2007 or 2010 Professional
  - 3. Scanner:
    - a. Flatbed scanner + ADF (automatic document feeder)
    - b. TWAIN Compliant drivers

- c. Minimum 200-page Automatic Document Feeder
  - d. Scanning speed: Portrait 56 ppm simplex / 92 ppm duplex
  - e. Scanning resolution: 100 dpi - 400 dpi Optical; up to 600 dpi Interpolated
  - f. Paper size: Check 2.8" x 6.7" to ledger 11" x 17"
  - g. Capable of color scanning
4. Printer:
- a. Inkjet or Laser printer
  - b. Paper size: Check 2.8" x 6.7" to ledger 11" x 17"
  - c. Capable of color printing

### PART 3 EXECUTION

#### 3.01 SETUP AND TRAINING

##### A. Setup

- 1. Prior to use, the Contractor shall be required to have at least two (2) project personnel attend and complete a training session conducted by the Port as specified below.
- 2. Following successful completion of the training session the Contractor will be provided with login with accompanying user name and password.

##### B. Training

- 1. The Port of Seattle will provide up to eight (8) hours of on the job training. Training shall be coordinated through the Port's Project Manager and will provide sufficient indoctrination to the system to allow the Contractor to access the system and use the basic features thereof.
- 2. Additional training may be requested by the Contractor to cover topics or information not included in the initial training session. These requests will be considered by the Port's Project Manager based on availability of training personnel.
- 3. Additional training may be requested by the Contractor for personnel in excess of the initial training allowed above. Such additional training requests will be considered by the Port's Project Manager based on availability of training personnel and the size of previously scheduled sessions.

#### 3.02 SYSTEM USE

##### A. System Use

- 1. The Contractor shall use the Port's Web-based CMS specified herein for all project communications, including but not limited to letters, daily reports, weekly reports, submittals, substitution requests, requests for information, etc. CMS shall not be used for Electronic Payroll Information (EPI) or any type of payroll submittals.

- a. The maximum file size limit for an attachment in CMS is 2 GB. The Contractor shall be responsible for any adjustments to files to ensure this limit is not exceeded.
2. Any information not transmitted via CMS will not be considered official documentation, unless specifically allowed as an exception by the Port's Project Manager based on extenuating circumstances. All information transmitted via CMS shall be in electronic format. The Contractor is required to scan all documents into a legible electronic form and will initiate workflows in CMS following the Ports standard protocols for format and system use. The scanned documents (such as pdf's) shall be submitted to the Port in a searchable format. The Contractor shall use Optical Character Recognition (OCR) software to convert all pdf documents produced, or received from subcontractors and supplier, to a searchable format prior to submitting to the Port. Workflows not initiated using the proper formatting protocols will not be accepted by the Port. Protocols will be covered in the Contractor training held at the beginning of the project.
3. The Port may, from time to time, require hard paper copies of certain documents to be signed by the Contractor. In these cases, the Port will provide the Contractor with hard copies of the signed documents and will incorporate signed documents into the system for reference purposes. In the event the Contractor feels a certain document should be maintained in hard-copy form in addition to electronic form, the Contractor may submit such a request to the Port's Project Manager through CMS. Documents accepted for hard copy in this fashion shall be prepared by the Port at the sole expense of the Contractor.
4. The Contractor may request specific forms or reports be incorporated into the system for use in fulfilling the Contractor's requirements. Upon acceptance, the Port shall make reasonable efforts to prepare said form(s) or report(s) based on the Contractor's requirements at the sole expense of the Contractor.

### 3.03 CONTACT PERSONNEL

- A. The Contractor shall designate one employee who shall serve as their primary contact in connection with the use of CMS for the Contract. The Contractor may change its primary contact by providing notice to the Port's Project Manager.
- B. The Contractor shall further designate a back-up contact that shall serve as primary contact in the event the primary contact is unavailable.
- C. The Contractor shall provide 24-hour availability telephone numbers for the primary and back-up contacts.

### 3.04 TERMS OF USE

- A. Use and Protection Of Passwords
  1. The Contractor shall use each password in furtherance of Contract work and shall use the password for no other purpose. The Contractor assumes all risks associated with the failure to adequately protect such password. The Contractor further agrees:

- a. To prohibit the disclosure of any password to any person not authorized by the Contractor to use the password.
  - b. To protect all passwords in a secure manner that will prevent unauthorized use.
  - c. That any Contractor access or information developed as a result of utilizing CMS by way of the password(s) shall be attributed to the Contractor, and that the Port and other users may rely upon such attribution.
- B. Restrictions On Use
- 1. The Contractor shall make every reasonable effort to ensure that:
    - a. Computer codes, files, and programs which may interrupt, destroy, or cause damage, shall not be uploaded into CMS.
    - b. Computer codes, files, and programs which interfere with the proper working of CMS or its use by others shall not be allowed access.

### 3.05 REVOCATION OF LICENSE

- A. The Port may, at any time during the Contract, choose to revoke the Contractor's login or any such additional logins. Such revocation may occur based on misuse, misconduct, termination of the Contract, or other such reasons as deemed justified by the Port's Project Manager. Such revocation may occur with or without prior notice to the Contractor or affected user(s).

### 3.06 DOWNTIME AND SYSTEM AVAILABILITY

- A. Any interruptions in service based on Internet conditions, connection media, or the unavailability of servers for maintenance, repairs, or replacement shall not warrant additional compensation to the Contractor. The Port will not be liable for the unavailability of the system for any period of time nor will it be responsible for the inability of the Contractor to access the system or any of its components.

End of Section
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PART 1 GENERAL

1.01 SUMMARY

- A. The intent of Commissioning is to verify systems and equipment are being delivered to the Port fully functioning in accordance with Contract Documents.
- B. Commissioning activities will be provided by the Contractor utilizing the attached Port's checklists and as described in Divisions 2 through 48.
- C. Where 01 91 00.13 - Commissioning specifications or requirements conflict with Divisions 2 through 48 or other requirements, the Divisions 2 through 48 requirements shall take precedence.

1.02 TERMS AND DEFINITIONS

- A. Commissioning: The process certifying that mechanical, electrical, communications, and control and life safety systems, equipment, subsystems or systems, function together properly to meet performance requirements and design intent as shown in a composite manner in the Contract Documents.
- B. Systems: Group of components and equipment functioning as a unit or performing a common function. (IE: Chilled Water System: consisting of piping, valves, fittings, controls, chillers, expansion tanks, air relief, chemical treatment, pumps, etc.)
- C. Functional Testing: That full range of checks and tests carried out to determine if all components, sub-systems, systems, and interfaces between systems function in accordance with the contract documents. In this context, "function" includes all modes and sequences of control operation, all interlocks and conditional control responses, and all specified responses to abnormal emergency conditions.
- D. Acceptable Performance: A component or system shall meet specified design parameters and criteria under actual load conditions for duration of time as indicated within the functional test criteria as determined by technical specifications and manufacturer's literature.

1.03 COMMISSIONING TEAM

- A. The commissioning team shall consist of the Port's representatives, Contractor, Subcontractors, Manufacturers, and the project Designers in accordance with their contractual arrangements with the Port. The Port's operating staff will be included during specific elements of the commissioning process.

1.04 CONTRACTOR

- A. Execute the testing procedures in accordance with the commissioning checklists.
- B. A Contractor's representative shall be present during all commissioning activities performed by itself or one of its Subcontractors.
- C. The Contractor will schedule and execute the commissioning activities.

1.05 DUTIES OF THE CONTRACTOR

- A. Contractor solely responsible for the operations, testing, and results during the commissioning process for systems and equipment to perform in accordance with the Contract Documents.
- B. Subcontractor installing equipment and systems shall execute the commissioning activities on their respective Work.
- C. Include Commissioning activities and durations within the master schedule.
- D. Coordinate all phasing and/or sequencing requirements to integrate the commissioning activities and durations within the master schedule.

#### 1.06 ACCEPTANCE PROCEDURES

- A. The Contractor shall verify all checklists have been completed and equipment and systems functional testing successfully met or exceeded the established acceptance criteria.
- B. The Contractor shall provide all acceptance test results, checklists and associated documentation to the Port's Project Manager for review and acceptance.

#### PART 2 PRODUCTS - Not Used

#### PART 3 EXECUTION

##### 3.01 GENERAL

- A. Contractor shall operate equipment and systems and conduct all tests in presence of the Port's construction project representative or another designated Port Representative(s) to demonstrate compliance with Divisions 2 through 48.
  - 1. Testing shall be conducted under design operating conditions as defined within the specifications and in the commissioning activities and approved by the Port's construction project representative.
- B. All elements of systems shall be tested to demonstrate that total systems satisfy all requirements of the technical specifications. Testing shall be accomplished on hierarchical basis. Each piece of equipment will be tested for proper operation, followed by each subsystem, followed by entire system, followed by interfaces to other major systems.
- C. Contractor or their subcontractor shall provide all special testing materials and test equipment.

##### 3.02 PRE-COMMISSIONING WORK

- A. Attend a commissioning scoping meeting and other meetings necessary to facilitate the commissioning process. One representative of the Contractor cognizant of respective aspects of their work shall attend commissioning meetings. Other trades shall attend the commissioning meetings when their portions of the work are being tested. A Port construction project representative will administer the meetings. Meeting location will be determined.
- B. Normal start-up services required to bring system into a fully operational state. This includes cleaning, filling, purging, leak testing, motor rotation check, control sequences of operation, full and part load performance, and similar conditions.
- C. Completion of controls installation, calibration, programming, and testing is critical for efficient and successful commissioning process.

**3.03 EXECUTING CHECKLIST REVIEW, TESTING AND ACCEPTANCE PROCEDURES**

**A. CHECKLISTS**

1. One or more of the following checklists may be required for this project:

<b>Checklist Title</b>	<b>Checklist Title</b>
Chilled Water Piping	Heating Hot Water Piping
Chilled Water Pump	Lighting and Lighting Control
Direct Digital Control (DDC)	Panels
Domestic Water Heater	Plumbing Fixture
Ductwork	Plumbing Piping
Emergency Lighting	Steam and Condensate Piping
Exhaust Fan	Steam System Condensate Pump
Fan-Coil with Hydronic Coils	TAB Plan Review
Heat Exchanger	Variable Air Volume with Hot Water Reheat

**B. FUNCTIONAL TESTING AND ACCEPTANCE PROCEDURES**

1. Start up and test of systems shall be by skilled technicians. Make these same technicians available to assist Port personnel in completing the commissioning process as it relates to each system and their technical specialty.
2. Coordinate work schedules and time required for commissioning activities, with the Port. Ensure that qualified technicians are available and present during agreed upon schedules and for sufficient duration to complete necessary tests, adjustments, and problem resolutions.

**C. System Issues and Discrepancies:** Additional technician time and Port personnel time may be required to resolve issues and discrepancies. Make additional technician time available for subsequent commissioning periods until required system performance is obtained.

1. Complete corrective work to permit completion of commissioning activities.
2. If deadlines pass without resolution of the problems, the Port reserves its right to obtain supplementary services and equipment to resolve problems. Costs incurred to solve problems in an expeditious manner will be the Contractor's responsibility.

End of Section

PART 1 GENERAL

1.01 DESCRIPTION OF WORK

When contaminated soil is encountered, this specification and, as referenced below, Section 01 57 13 – Temporary Erosion and Sediment Control Planning and Execution must be used. Please contact the Port construction project representative and Aviation / Corporate Environmental Staff for assistance.

- A. Soils excavated within the projects areas, as shown on the drawings, are potentially contaminated. The Contractor, using visual and olfactory methods, will identify potentially contaminated soil. **If contaminated soil is encountered, the Contractor shall notify the Port construction project representative and a Port authorized Environmental Agent will determine if the soil requires special handling.** In these areas, only soil requiring excavation for project construction will require special handling. Soil beyond construction excavation limits will not require excavation unless free draining product is observed or other special conditions exist in which case the Port construction project representative will direct the Contractor in additional excavation. Soils determined to be contaminated by the Environmental Agent will be hauled and disposed as contaminated materials in accordance with 3.02 of this Specification Section.
- B. Notify the City of SeaTac prior to hauling contaminated soil to the soil disposal facility. The notification shall include:
1. An estimate of the number of truck-trips, the haul destination, and the period in which these trips will be made (e.g., 20 truck-trips to the Waste Management Facility over the two-week period beginning on March 1, 2011).
  2. For scheduled haul-outs, the City shall be notified at least 24 hours, but no more than 7 days, before the scheduled hauling start time. For unscheduled haul-outs, the Contractor shall make every attempt to achieve the same notification schedule. If the schedule for unscheduled haul-outs cannot be achieved, the Contractor shall notify the City as soon as possible. All notifications and correspondence shall be made to:  
  
Engineering Manager  
City of SeaTac  
Public Works Department  
Engineering Division  
17900 International Blvd., Suite 401  
SeaTac, Washington 98188-4236  
  
Phone: 206-439-4741  
Fax: 206-241-3999
- C. Cover all soil stockpiles and maintain stockpile areas in accordance with Section 01 57 13 – Temporary Erosion and Sediment Control Planning and Execution.
- D. Sweep clean the surface of the active pavements outside the current Work continuously and remove all debris, rubble, or litter completely during each working shift.

1.02 HEALTH AND SAFETY

- A. The Contractor is required to implement all health and safety provisions as required by Section - 01 35 29, Safety Management. These provisions include any special monitoring, personal protective equipment, or Work plans to accommodate contaminated soil or material handling. Use of environmental characterization data may not be appropriate for health and safety purposes.

1.03 SUBMITTALS

- A. Prior to excavation of any subsurface materials, the Contractor shall submit a Contaminated Soils Management Plan to the Port construction project representative . The Contaminated Soils Management Plan must be approved by the Port construction project representative and Port of Seattle Environmental Programs prior to any excavation of subsurface materials. The Contaminated Soils Management Plan must include the following:
1. Identification of all soil disposal/recycling facilities to be used on the project. Acceptable facilities are identified in 3.02 of this section.
  2. Identification of all fill sites, disposal facilities and/or end uses of material determined to be Type D soil in accordance with 3.02 of this section.
  3. Contingency for delivery of Type C Contaminated Soil to the Port's Contaminated Soil Stockpile Facility located inside the Airport Operations Area (AOA). Access to the Contaminated Soil Stockpile Facility will require personnel with Airport Security badges.
  4. Contingency for managing debris encountered during excavation that may disqualify soil for disposal or recycle at the approved facilities.
  5. General description of how equipment operators, safety personnel and other applicable Contractor management will coordinate with the Port construction project representative and the Port of Seattle Environmental Agents to facilitate handling of contaminated soil in accordance with this specification.
  6. Description of all haul routes to be used on the project.
- B. The Contractor shall include in the Three Week Look Ahead Schedule specific time frames for excavation. Each excavation activity shall be given an individual line item description, time frame and duration.

1.04 DEFINITIONS

- A. Environmental Agent (EA): Port environmental management organization representative responsible for oversight and implementation of certain Port environmental policy and procedures at Port construction sites. The EA is responsible for coordinating environmental requirements, monitoring Contractor performance relative to environmental specifications and liaison with the Port construction project representative and Contractor representatives for oversight of and/or conducting environmental monitoring and sampling. EA activities may also include field screening and documentation of excavation, transport and disposal of contaminated materials.
- B. Olfactory Indications (methods): Of or relating to the sense of smell. Soils contaminated with petroleum and other volatile constituents typically exhibit characteristic odors that can be detected (and sometimes identified) by smell.

- C. Response: To be reviewed by Construction Management.
- D. (PID): A field instrument that is used to detect the presence of and give a relative indication of the concentration of vapors emitted from volatile constituents (contamination) in environmental media (soil and water).
- E. Soil (waste) Profile: A characterization of the chemical and physical properties of a waste material including the types of contaminants and their concentrations as measured by approved laboratory analytical methods. A profile is required by the receiving permitted disposal or recycling facility.
- F. Special Handling: Refers to hauling and disposal of soils that, because they are contaminated, cannot be reused in place as backfill or as general fill at another location. Such soils must be hauled to and managed at a permitted disposal or recycling facility.
- G. Type A Contaminated Soil: Soil that must be removed from the Project site and has been determined by the Port construction project representative or a representative Environmental Agent to contain petroleum hydrocarbons in concentrations exceeding state or federal cleanup standards or special Port determined criteria. Type A soil requires disposal at one of the approved facilities listed in 3.02(B) of this section.
- H. Type B Contaminated Soil: Soil that must be removed from the Project site and has been determined by the Port construction project representative or a representative Environmental Agent to contain petroleum hydrocarbons or other contaminants in concentrations that will require disposal or recycling at one of the approved facilities listed in 3.02(B) of this section.
- I. Type C Contaminated Soil: Soil determined by Port construction project representative or representative Environmental Agent to contain unknown constituent(s) and requires further testing and classification.
- J. Type D Material: Material including soil, determined by the Port construction project representative or representative Environmental Agent not to require special handling with regard to this Contract. Classification of material as Type D material by the Port is not a certification nor does it release the Contractor of liability or obligation to meet any disposal or storage facility acceptance or testing requirements.
- K. Unanticipated Contamination: Contamination unexpectedly found in an excavation or in other locations where there is no prior knowledge, information, or history to indicate possible spills or releases of contamination.
- L. Visual Indications (methods): A preliminary evaluation of the potential presence of contamination based on visual observation. For example, fuel contaminated soils are frequently discolored or stained relative to non-petroleum impacted native soils or clean fill. Such discoloration often appears dull gray in color.

## PART 2 PRODUCTS – NOT USED

## PART 3 EXECUTION

### 3.01 EXCAVATION/TESTING

- A. The field-testing for contaminated soil will be performed by the Environmental Agent and will result in the following classification of material:

1. Type A Contaminated Material as defined in 1.04(G) of this Section
2. Type B Contaminated Material as defined in 1.04(H) of this Section
3. Type C Contaminated Material as defined in 1.04(I) of this Section
4. Type D Material as defined in 1.04(J) of this Section

### 3.02 DISPOSITION OF MATERIAL

- A. Type A and B Contaminated Soil – Material determined to be Type A or B contaminated soil shall be hauled to one of the following facilities by the Contractor for disposal:
  1. Waste Management Columbia Ridge Landfill – via Alaska Street Transfer Station: 70 South Alaska Street, Seattle, WA 98106
  2. Allied Waste Roosevelt Regional Landfill – via Seattle Transfer Station: 2733 3rd Ave. S. Seattle, WA 98134
  3. CEMEX (Formerly Rinker Materials) – 6300 Glenwood Ave., Everett, 98203
- B. Type C Material – Material determined to be Type C is of unknown origin or special circumstances and shall be hauled and placed by the Contractor at the Environmental Soil Stockpile site depicted on the Contract drawings. Contractor will be relieved of responsibility for Type C material upon delivery to the Environmental Soil Stockpile.
- C. Type D Material – Material determined not to require special handling (Type D) shall be hauled by the Contractor to a site determined by the Contractor. If testing or certification of this material is required by the receiving site, the Contractor shall complete these requirements. The Port will not certify or declare the material suitable for unrestricted use.

### 3.03 OTHER REQUIREMENTS

- A. Material determined to be Type A, Type B or Type C contaminated material may be, upon approval of the Port construction project representative, temporarily stockpiled within the construction area, but must be securely covered with a waterproof covering. The Port construction project representative may require a liner beneath this soil.
- B. The Port construction project representative or an authorized agent of the Port will prepare and provide the Contractor with required documentation and shipping papers for hauling and disposal of Type A and Type B Contaminated soil. Contractor should be prepared for this process to take 3-5 working days to complete. Contractor cannot consider this time as project delay and should be prepared to complete other Work during this period. Contractor should also obtain an account with chosen disposal facility at beginning of project
- C. The Contractor is not to haul any Type A or B material off-site until a material profile has been developed and a bill of lading has been issued. Each load of Type A or B material will receive an individual bill of lading issued by the Port construction project representative or Environmental Agent.
- D. The Contractor shall provide the Port construction project representative with all hauling receipts (or copies of receipts) from the receiving facility for all Type A and Type B Contaminated soil at least weekly.



- E. Use of the Airport Environmental Soil Stockpile Facility: The Environmental Soil Stockpile facility is located adjacent to the snow equipment building at the southwest end of the airfield. Use of the Environmental Soil Stockpile Facility by the Contractor is prohibited unless approved by the Port construction project representative and coordinated with Port Environmental Staff or Agents. The facility was designed to accommodate end dumping from single dump trucks and sufficient area is not provided to allow efficient maneuvering of truck and pup combinations. The Environmental Soil Stockpile Facility is located within the AOA at Sea-Tac International Airport and associated access restrictions apply. The Environmental Soil Stockpile Facility will not accommodate soil-water slurries.
- F. The Port construction project representative or Environmental Agent may require shut down of excavation should unforeseen condition warrant.

End of Section

Revision History:

05/01/2014 Conversion to 2004 CSI Numbering System

10/15/2014 Added Sole Source and Salient Characteristics Note to Part 2

## PART 1 GENERAL

### 1.01 SUMMARY OF WORK

This section will apply to projects where light ballast or lamp removal is included in the scope of work.

- A. The Contractor shall supply all labor, materials, vehicles, services, insurance and equipment necessary to remove, transport, recycle and dispose universal waste lamps, and non-PCB ballasts in accordance with all applicable federal and state regulations and these specifications.
- B. The Contractor shall supply all labor, materials, vehicles, services, insurance and equipment necessary to remove, containerize and transfer to the Port all Polychlorinated Biphenyls (PCB) containing light ballasts (PCB ballasts) or other PCB containing equipment regulated by 40 CFR 761 or WAC 173-303.
- C. This project **may** involve complete removal of light fixtures in areas of new construction and/or demolition.
- D. Refer to the design drawings for specific information about location of lamps and/or ballast removal. When applicable, the Work includes the following:
  - 1. Dismantling of light fixtures and separation of ballasts and lamps.
  - 2. Determination whether ballasts are PCB ballasts or non-PCB ballasts. Unmarked ballasts shall be considered PCB ballasts.
  - 3. Package, label and store lamps in accordance with WAC-173-303-573, Standards for Universal Waste Management.
  - 4. Immediate identification and notification to the Port construction project representative of any leaking PCB ballasts.
  - 5. Package, mark, label and store all PCB or PCB containing/contaminated waste generated as a result of work activities in accordance with 40 CFR 761.
  - 6. Collection and containerization of all non-PCB ballasts.
  - 7. Coordinating transfer of all PCB ballasts or other PCB containing / PCB contaminated waste to the Port of Seattle within 30 days of generation of waste.
  - 8. Coordinate proper recycling of all non-PCB ballasts to approved recycling facility.
  - 9. Coordinate transportation and recycling of lamps in accordance with WAC-173-303-573, Standards for Universal Waste Management.
  - 10. Provide disposal documentation for all ballasts and lamps removed during the Project.

### 1.02 GOVERNING CODES, STANDARDS, AND REFERENCES

- A. The applicable sections, latest editions and addenda of the following government regulations, codes, industry standards and recommended practices, form a part of these specifications.
  - 1. U.S. EPA - Environmental Protection Agency, Toxic Substances Control Act, Title 40, Code of Federal Regulations, Part 761 (40 CFR 761)

2. U.S. EPA - Environmental Protection Agency, Standards for Universal Waste Management (40 CFR 273)
3. U.S. DOT - Department of Transportation, Title 49 Code of Federal Regulations
4. DOE - Washington State Department of Ecology, Dangerous Waste Regulations, Washington Administrative Code 173-303 (WAC 173-303)
5. Washington State Department of Labor and Industries (L&I) WISHA - Washington State Industrial Safety & Health Act, Chapter 296-800 Washington Administrative Code (WAC), Safety and Health Core Rules
  - a. WAC 296-800-170 Hazard Communication Standard
6. L&I Chapter 296 -24 WAC, General Safety and Health Standards
  - a. L&I Chapter 296-62 WAC, Occupational Health Standards including: WAC 296-842 Respiratory Protection
7. L&I Chapter 296-155 WAC, Construction Standards
8. All other applicable Federal, State, county and city standards codes

### 1.03 DEFINITIONS

- A. ASTM: American Society for Testing and Materials
- B. Certified Industrial Hygienist (CIH): An industrial hygienist certified in the Comprehensive Practice of Industrial Hygiene by the American Board of Industrial Hygiene
- C. Contractor: The individual or business with whom the Port has contracted to perform the work as specified herein
- D. DOE: Washington State Department of Ecology
- E. Port construction project representative: The Port of Seattle's designated contact person.
- F. EPA: United States Environmental Protection Agency
- G. L&I: Washington State Department of Labor & Industries
- H. NIOSH: The National Institute for Occupational Safety and Health
- I. OSHA: The Occupational Safety and Health Administration
- J. Universal Waste Lamps: Any light bulb, lamp or tube that contain constituents, such as mercury or lead, that could otherwise cause a Dangerous Waste designation when discarded, but can be managed as universal waste. The following lamps must be considered universal waste lamps and managed accordingly:
  1. Fluorescent tubes
  2. High intensity discharge lamps (including mercury vapor, metal halide, and high pressure sodium)
  3. Compact fluorescent lamps
  4. Incandescent bulbs

- 5. Any other lights or lamps that are Dangerous Waste
  - K. WAC: Washington Administrative Code
  - L. WISHA: Washington Industrial Safety and Health Act as enforced by the Washington State Department of Labor & Industries
- 1.04 COORDINATION
- A. Contractor shall coordinate ballast removal with the following Port of Seattle Departments:
    - 1. Port of Seattle Aviation Maintenance, Electrical Department:
      - a. The Contractor must coordinate with the Electrical Department for disconnection and lockout of electrical service. This coordination will be communicated through the Port construction project representative.
    - 2. Port of Seattle Aviation Environmental Programs:
      - a. The Contractor must coordinate with Aviation Environmental Programs to coordinate transfer of any PCB ballasts or other PCB containing materials to the Port of Seattle.
- 1.05 QUALITY CONTROL
- A. Use properly trained and experienced workers to perform the removal and containerization of PCB ballasts and universal waste lights and lamps.

## PART 2 MATERIALS AND EQUIPMENT

### 2.01 MATERIAL REQUIREMENTS

- A. Containers
  - 1. All PCB ballasts (or PCB contaminated material) and non-PCB ballasts shall be packaged in sealed steel drums with appropriate UN Performance Package Ratings.
  - 2. All drums must be in shipping condition and water tight with gaskets intact.
- B. Labels
  - 1. All containers holding PCB ballasts or PCB contaminated material shall be labeled with the Large PCB Mark (M<sub>L</sub>) in accordance with 49 CFR 761.40 marking requirements.
  - 2. All containers holding non-PCB ballasts shall be labeled with the words “Non-PCB Ballasts”.
  - 3. All containers that contain universal waste lamps shall be labeled with the words “Universal Waste”.
  - 4. All containers designated for disposal shall be marked with the project number.

### 2.02 EQUIPMENT

- A. Personal Protective Equipment
  - 1. Provide proper and appropriate personal protective equipment, as necessary for the performance of this Work.

- B. Removal Equipment
  - 1. A sufficient supply of scaffolds, ladders, lifts and hand tools shall be provided as needed.
  - 2. Additional support equipment as needed.

### PART 3 EXECUTION

#### 3.01 WASTE STREAM DETERMINATION, PACKAGING, AND MARKING

- A. Waste Stream Determination – Ballasts
  - 1. Before removing the ballast from the fixture, the Contractor shall distinguish PCB ballasts from non-PCB ballasts by looking for the words “No PCBs” on the ballast. If the words “No PCBs” do not appear on the ballast, the ballast must be considered PCB Equipment as defined in 40 CFR 761.3. If the words “No PCBs” do appear on the ballast, the ballasts shall be considered non-PCB. Contractor will also determine if the ballast is leaking.
  - 2. The determinations made by the Contractor will result in the following three possible waste streams that must be segregated:
    - a. PCB ballasts
    - b. Leaking PCB ballasts and PCB contaminated materials
    - c. Non-PCB ballasts (leaking non-PCB ballasts can be packaged with the non-leaking, non-PCB ballasts).
  - 3. Any leaking PCB ballasts must be reported to the Port construction project representative immediately.
- B. Waste Stream Determination – Universal Waste Lamps
  - 1. All lamps removed from the site shall be considered universal waste lamps as defined by 40 CFR 273.5 and WAC 173-303-040, provided the lamps are managed accordingly.
  - 2. Any accidentally broken lamps are fully regulated under Federal Resource Conservation and Recovery Act (40 CFR 261) and Washington State Dangerous Waste Regulations (WAC 173-303).
  - 3. Any onsite disposal of universal waste lamps constitutes improper disposal of fully regulated Dangerous Waste and would be considered a violation of the Federal Resource Conservation and Recovery Act and the Washington State Dangerous Waste Regulations.
- C. Containerization and Marking
  - 1. All non-leaking PCB ballasts shall be packaged in steel drums marked or labeled with the Large M<sub>L</sub> PCB Mark. The “taken out of service” date shall be marked on the drum as the date the first ballast is removed and placed in the drum.
  - 2. All leaking PCB ballasts shall be double bagged, packed in steel drums and marked or labeled with the Large M<sub>L</sub> PCB Mark. The “taken out of service” date and “Leaking PCB Ballasts” shall be marked on the drum. Upon notification to Port of Seattle Aviation Environmental Programs, leaking PCB ballasts will be removed from the site immediately by the Port.

3. Any PCB contaminated material generated as a result of the Work shall be packaged in steel drums marked or labeled with the Large M<sub>L</sub> PCB Mark. The accumulation start date shall be indicated on the drum as the date the first piece of contaminated material is placed in the drum.
4. All non-PCB ballasts shall be packaged in steel drums and marked with the words “Non-PCB Ballasts for Recycling”.
5. Lamps shall be removed and containerized in a manner to prevent breakage. If a lamp breaks, the Contractor shall immediately clean-up debris, place debris in double plastic taped bags, and place the bagged debris in a container specified for broken lamps and labeled and managed in accordance with 40 CFR 261.

### 3.02 CLEANUP PROCEDURES

- A. All leaking PCB ballasts shall be addressed immediately. Upon discovery of leaking PCB ballasts, the Contractor shall commence with cleanup as follows:
  1. Clear the area and prohibit those not involved with cleanup from entering the area. Ventilate area if possible.
  2. Contact the Port construction project representative immediately.
  3. Don appropriate personal protection equipment for handling organic liquids as specified in the site specific safety plan.
  4. Ensure that the light fixture is turned off and disconnect electricity at the fuse or breaker box. Follow all lockout/tagout procedures.
  5. Remove the fluorescent lamp if it is still affixed and manage according to this Section.
  6. Remove the ballast and immediately double-bag in plastic.
  7. Place ballast in steel drum, seal the drum, and mark the drum as indicated in 3.01.
  8. If there are any uncontained liquids or other material on a surface other than the ballast, contact the Port construction project representative immediately and prevent the area from being disturbed.
  9. Arrangements will be made by Port of Seattle Aviation Environmental Programs to remove the drums containing leaking PCB ballasts from the site within 30 days for storage in accordance with 49 CFR 761.65(b).
- B. Clean-up Procedures for Broken Lamps
  1. The Contractor shall have a cleanup kit on site prior to removing or dismantling universal waste lamp fixtures.
  2. Avoid breathing dust created by broken lamps. Allow vapor to dissipate.
  3. Do not vacuum the broken lamps.
  4. Ventilate area and leave area for 5 minutes prior to returning to clean up broken glass. Keep people from the site.
  5. Use approved and appropriate cleanup solvents and neutralizers.

6. Place all broken glass and phosphor powder in double plastic taped bags, place the bagged debris in sealed containers, and label as specified in this Section.

### 3.03 TEMPORARY STORAGE, TRANSPORTATION AND DISPOSAL

#### A. Temporary Storage

1. The Contractor may temporarily store non-leaking PCB ballasts onsite for a maximum of 30 days. Contractor must arrange for transfer to the Port of Seattle within 30 days. Contractor cannot store PCB ballasts onsite for more than 30 days.
2. Leaking PCB ballasts cannot be temporarily stored onsite. If leaking PCB ballasts are discovered, immediately contact the Port construction project representative.
3. Universal waste lamps that have been removed, properly packaged, and are awaiting disposal must be stored in a manner consistent with WAC-173-303-573 and the Contractor's Pollution Prevention Plan.
4. Under no circumstances shall universal waste be stored onsite for longer than 1 year.

#### B. Transportation and Recycling

1. PCB Containing Ballasts
  - a. The Port will take possession of and remove from the project site, all non-leaking PCB containing ballasts at a minimum of every 30 days.
  - b. The Contractor is responsible for scheduling transfer of drums to the Port. The Contractor must notify the Port construction project representative at least 48 hours in advance to coordinate pickup of drums by the Port.
2. Non-PCB Containing Ballasts
  - a. The Contractor is responsible for soliciting a waste service provider and for any cost negotiations regarding disposal.
  - b. The Port of Seattle requires that all non-PCB ballasts are recycled. Landfill of any light ballast is not allowed under this contract. The Contractor must ensure that the disposal/recycling facility will separate metal components from the ballast for recovery.

#### C. Universal Waste Lamps

1. Universal waste lamps shall be packaged, labeled and transported to the Port approved recycling facility. Include documentation in the form of log, invoice, manifest, bill of lading or other shipping documents. This documentation shall include the name and address of the generator, address of the site where the waste was generated, quantity, date of shipment, name and address of hauler and name and address of waste facility receiving waste.
2. These boxes shall be shipped to the following Port approved recycling facility:

Ecolights Northwest  
1915 South Corgiat Drive  
Seattle, WA 98108  
Facility Phone: (206) 343-1247

3. If an alternate permitted facility has been identified by the Contractor, the facility must be approved by the Port.
4. The Port of Seattle shall be listed as the Generator of the universal waste lamps on all shipping papers.
5. The Contractor shall provide a shipping record to the Port at the time of shipment.
6. The Contractor shall arrange for all certificates of recycle to be mailed to the Port at the following address:

Aviation Environmental Programs  
Port of Seattle AV/ENV  
PO Box 68727  
Seattle, WA 98168-0727

End of Section

Revision History:

03/23/2015 Conversion to 2004 CSI Numbering System

10/17/18 Changed Aviation Environmental Programs reviewer to Chris Milewski