

# Seattle-Tacoma International Airport Tenant Improvement Design and Construction Process Manual



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## INTRODUCTION

The design and construction of a tenant project at Seattle-Tacoma International Airport (Airport) is a collaborative process between the tenant, the tenant's design team, the tenant's contractor, and the Port of Seattle (Port), which operates the Airport. All projects located on Airport property are subject to the Port's requirements and, depending on location, may also be subject to the City of SeaTac's requirements.

The Port has developed several documents, listed below, that further explain the tenant design and construction process and the requirements that tenants must meet, in addition to any requirements set forth in tenant's lease with the Port:

- *Tenant Improvement Design and Construction Process Manual (Process Manual)*—This Process Manual provides additional requirements and describes the processes to be followed for the tenant's project at the Airport.
- *Rules for Airport Construction (RAC)*—This document provides rules that apply to all design and construction projects at the Airport, not just tenant projects. It also serves as a guide for contractors to better understand the environment they will be working in.
- *Port Tenant Improvement Construction General Requirements*—This document comprises the Port guide specification sections referenced in this Process Manual and the RAC. These specification sections have been tailored to tenant projects.

Tenants, design teams, and tenant contractors are to use these three documents to implement tenant projects. In addition to these three documents, many technical standards and guidelines also apply to all Airport projects. These documents and Port standards and guidelines are available on the Port of Seattle website.

<https://www.portseattle.org/sea-tac/leasing-tenant-resources/tenant-construction-and-design-reference-documents>

NOTE – The documents identified above add construction, design, and construction-related and design-related requirements for construction projects that are otherwise authorized or allowed by leases or other written agreements between the Port and tenant. They do not alter or delete any portion or portions of existing or future leases or other written agreements between the Port and tenant. If there is a conflict between a lease (or other written agreement between the Port and tenant) and any of these documents, then the terms of the lease (or other written agreement between the Port and tenant) shall govern; provided however, that if a tenant believes there is a conflict or potential conflict between any of these documents and tenant's lease (or other written agreement between the Port and tenant), tenant must notify the Port of such conflict or potential conflict before the tenant takes any action in reliance on such conflict or potential conflict. Tenant's failure to do so shall constitute a waiver by the tenant of any legal right to rely on such conflict or potential conflict.

If the reader does not have access to the internet, the assigned Port Project Manager can provide information via other electronic media.

The Port has implemented electronic systems for the design, permitting, and construction. Tenants, tenant designers, tenant vendors, and tenant contractors shall use the platform(s) that the Port implements.

The Port tenant improvement design and construction process is summarized on the next page.

For questions or concerns about this document, contact Heather Munden at [munden.h@portseattle.org](mailto:munden.h@portseattle.org) or Sean Anderson at [anderson.s@portseattle.org](mailto:anderson.s@portseattle.org).

# Tenant Improvement Design and Construction Process

**Note:** Depending on the project's scope and complexity, some of the following steps may be simplified or not required.

<p><b>1. CONCEPT APPROVAL</b></p> <ul style="list-style-type: none"> <li>a. Initiation of Tenant Projects – Contact Business, Facilities, or Property Manager</li> <li>b. Port Project Manager Assigned</li> <li>c. Policy Directives for Construction Labor Practices and Priority Hires for Projects on Port Property</li> </ul>	<p>Concept approval focuses on communication with the Business, Facilities, or Property Manager about the project.</p>
<p><b>2. PRE-DESIGN</b></p> <ul style="list-style-type: none"> <li>a. Assemble The Design Team</li> <li>b. Pre-Design Meeting</li> <li>c. Existing Conditions- Site and Utility Surveys</li> <li>d. Port of Seattle Standards, Guidelines, Specifications</li> <li>e. Authorities Having Jurisdiction</li> </ul>	<p>Pre-Design focuses on gathering information prior to designing to apprise the tenant and their design team about Port Requirements and existing conditions.</p>
<p><b>3. DESIGN</b></p> <ul style="list-style-type: none"> <li>a. Port Technical Design Review Objectives</li> <li>b. Port Technical Design Review Process               <ul style="list-style-type: none"> <li>i. Design Reviews</li> <li>ii. Applications for Connection</li> <li>iii. Discipline Review Meetings</li> <li>iv. Environmental Review and Regulations</li> </ul> </li> <li>c. Required Design Information</li> </ul>	<p>Design focuses on technical integration of the new design with Port systems. The Project must complete this technical design review process prior to submitting for Building and other Permits.</p>
<p><b>4. PERMITTING</b></p> <ul style="list-style-type: none"> <li>a. Airport Building Department</li> <li>b. Other Permits</li> </ul>	<p>Permitting focuses on obtaining all required permits for the project as outlined by County, State and National codes.</p>
<p><b>5. PRE-CONSTRUCTION</b></p> <ul style="list-style-type: none"> <li>a. Pre-Construction Submittals</li> <li>b. Pre-Construction Meeting</li> </ul>	<p>Pre-construction focuses on documentation and training that must be completed prior to starting construction.</p>
<p><b>6. CONSTRUCTION</b></p> <ul style="list-style-type: none"> <li>a. Construction Management</li> <li>b. Construction Logistics</li> </ul>	<p>Construction focuses on requirements and limitations for contractors at Seattle-Tacoma International Airport.</p>
<p><b>7. COMPLETION AND CLOSE-OUT</b></p> <ul style="list-style-type: none"> <li>a. Punch List / Final Inspections / Demobilization</li> <li>b. Close-out Documentation</li> <li>c. Certificate of Occupancy</li> </ul>	<p>Completion and Close-out focuses on final inspections, occupancy, and required close-out documentation for the project.</p>

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Appendix A Tenant Improvement Project Pre-design Worksheet

## **ACRONYMS AND ABBREVIATIONS**

AAA	Airport Activity Area
ABD	Airport Building Department
ACA	Accela Citizen's Access
ACFM	Air Cargo Facilities Manager
ADR	Airport Dining and Retail
AHJ	Authority Having Jurisdiction
Airport	Seattle-Tacoma International Airport
A/E	Architect/Engineer
AMA	Airport Movement Area
AOA	Airport Operations Area
AV	Aviation
AVM	Aviation Maintenance
CAD	computer-aided design
CMMS	Computerized Maintenance Management System
CMS	Contract Management System (Opentext)
COPS	Certification of Port Standards
CSS	construction support specialists
CX	commissioning of equipment and systems
DDC	direct digital control
EBE	e-bill express
ID	identification
ILA	Interlocal Agreement
IWS	Industrial Waste System
F&I	Facilities and Infrastructure
FAA	Federal Aviation Administration
HVAC	heating, ventilation, and air conditioning
L&I	Washington State Department of Labor and Industries
NTP	notice to proceed
O&M	operations and maintenance
PCS	Port Construction Services
PM	Project Manager
Port	Port of Seattle
Port FD	Port of Seattle Fire Department
RAC	Rules for Airport Construction

RCF	rental car facility
RFI	request for information
RMM	regulated materials management
SEA	Seattle-Tacoma International Airport
SIDA	Secured Identification Display Area
STIA	Seattle-Tacoma International Airport
TSA	Transportation Security Administration



## 1. CONCEPT APPROVAL

### A. Initiation of Tenant Projects

New or existing tenants of Seattle-Tacoma International Airport (Airport) who wish to build, modify or expand their existing facilities must first contact their assigned Aviation Properties Manager, Facilities Manager or Airport Dining and Retail (ADR) Business Manager and submit to them a concept of what they would like to modify, change, or add to their lease space. The tenant's concept may range from a statement of scope intent to a completely illustrated design. As much information as possible should be provided about the scope, schedule, and budget of the proposed work for the concept review.

The sponsoring Aviation Properties Manager or ADR Business Manager coordinates with Port of Seattle (Port) stakeholders to review the project concept. The Port stakeholders then provide a "qualified" concept approval that may be subject to specific limitations or include a request for more detailed information. Changes or additions to the project scope after it has been granted initial concept approval may require that the project go through a second concept review period.

The tenant works with the Aviation Properties Manager or the ADR Business Manager to either negotiate or amend their lease agreement. After the tenant has obtained conceptual approval and all lease agreement issues are in progress, a Port Project Manager (PM) is assigned to support and assist the tenant through the design and construction process.

**Project concept approval does not authorize the tenant to proceed with construction.**

Requirements to proceed with construction vary depending upon project location and scope. The assigned Port PM confirms the applicable requirements and issues a construction notice to proceed (NTP) only after all necessary reviews and approvals have been completed. Please see Section 3, Design; Section 4 Permitting; and Section 5, Pre-construction, for specific requirements.

### B. Airport Dining and Retail Concept Review

ADR projects generally fall under three categories: new build-outs (tenant has a new lease); renovations (tenant modifying existing an existing lease space); and mid-term refurbishments (as required in the lease agreement). The concept review requirements are similar to those described above. Reference Section 7 of the *Dining and Retail Design Guidelines* for detailed requirements. [https://www.portseattle.org/sites/default/files/2018-03/adr\\_DesignStandards.pdf](https://www.portseattle.org/sites/default/files/2018-03/adr_DesignStandards.pdf)

### C. Construction Labor Practices and Priority Hire Policy Directives for Projects on Port Property

Resolution No. 3725 is a resolution of the Port of Seattle Commission establishing a policy directive for practices for construction labor for projects located on Port property established in 2016. <https://www.portseattle.org/sites/default/files/2018-03/Resolution%20No.%203725%2C%20as%20amended.pdf>

[Resolution No. 3736 and 3746 provide additional information and policy directives regarding construction labor practices and priority hires.](#)

<https://www.portseattle.org/sites/default/files/2019-03/Resolution%203736.pdf>

<https://www.portseattle.org/sites/default/files/2019-03/Resolution%203746.pdf>

Tenant projects are addressed in Resolution Section II for tenant-administered construction contracts paid for entirely or in part by the Port through tenant reimbursement or other means and Section III for construction contracts performed on Port property at the full cost of tenant. Contact your Business, Facility or Property Manager for questions.

### D. Responsibility for Injury or Damage to People or Airport or Third-Party Property.

The tenant is financially responsible for and must repair, to the satisfaction of the Port, all damage to existing Airport or third-party property, including (but not limited to) facility interior and exterior finishes, structure, pavement, roads, bridges, drainage pipelines, lighting system, grounds / natural resources, equipment and systems, or other Airport improvements impacted by its work, including such Port or third-party property that may also be contemporaneously under construction. When essential utilities or systems are damaged, repairs must be made immediately. The tenant is responsible and liable for all injury to persons and damage to property resulting from their construction operations.

If damage to such Airport or third-party property occurs, then the tenant must notify and coordinate with its Port representative before undertaking repairs. All associated costs incurred by the Port (including, but not limited to, soft costs) shall be reimbursed by the tenant.

If the Port determines, in its sole discretion, that any or all repairs should not be undertaken or performed by tenant or its contractor, tenant shall be responsible for all costs incurred by the Port to perform the repair work with its own forces or to contract for such work, or any combination of the two, including Port soft costs associated with such work.

### E. Insurance.

As described in more detail in Section 5(A), Tenant's contractor is required to submit evidence of certain insurance as a precursor to being given a notice to proceed with construction. In addition to any insurance required by its lease (or other written agreement between the Port and tenant), tenant must also maintain insurance in the amounts and types that it deems appropriate for the scope and risks associated with its construction project and the repair and indemnity obligations described herein and in its lease (or other written agreement between the Port and tenant). The limits of insurance required herein or as carried by tenant or its contractor shall not limit the liability of tenant nor relieve tenant of any obligation hereunder. Any specified limits of insurance shall not be construed as to relieve the tenant or its contractor from liability in excess of the limits. The minimum limits indicated are not a representation or warranty that the Port has assessed the risks that may be applicable to the tenant or its contractor related to tenant's proposed project. The insurance required may not fully cover the tenant or its contractor for any indemnity obligations the tenant or its contractor may have to the Port or others. It is tenant's obligation to review the scope of its proposed project with tenant's insurance agent or broker to address coverage needs for tenant or its contractor during construction and design.

## F. Indemnification.

- 1) The requirements of this Section F shall apply if there is no express indemnification provision for construction activities contained in the lease, contract, or other written agreement with the Port that authorizes construction by a tenant; otherwise the express indemnification provision contained in the lease, contract, or other written agreement with the Port that authorizes construction by a tenant shall apply.
- 2) Tenant shall defend, indemnify and hold harmless the Port and its agents from all liability, claims, damages, losses and expenses, whether direct, indirect or consequential (including, but not limited to, attorneys' and consultants' fees and other expenses of litigation or arbitration) arising out of or relating to the construction of any project undertaken by Tenant at the Airport, which is caused, or alleged to be caused, in whole or in part, by Tenant (which for the purposes of Subparagraphs (2)), (3)), and (4)) of this Section only shall include the Tenant, and all of their Contractors, Subcontractors, Sub-subcontractors, Suppliers, agents, any other person directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable); provided, however, that where such liability, claim, damage, loss or expense arises from the concurrent negligence of (1) the Port or its agents, and (2) the Tenant, it is expressly agreed that the Tenant's obligations of defense and indemnity under this Section shall be effective only to the extent of the Tenant's negligence. Such obligations shall not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity that would otherwise exist as to any person or entity described in this Section. This Section shall not be construed to require the Tenant to defend, indemnify, or hold harmless the Port from such claims, damages, losses, or expenses caused by or resulting from the sole negligence of the Port or its agents.
- 3) In any and all claims against the Port or its agents by any employee of the Tenant, the indemnification obligation of Subparagraph (B) above shall not be limited in any way by any limitation on the amount or type of damages, compensation benefits payable by or for the Tenant under applicable workers' or workmen's compensation, benefit, or disability laws (including, but not limited to the Industrial Insurance laws, Title 51 of the Revised Code of Washington). **The Tenant expressly waives (as to the Port only) any immunity the Tenant might have had under such laws, and, by requesting permission from the Port to construct and by actually constructing a project at the Airport, acknowledges that the foregoing waiver has been mutually negotiated by the parties.**
- 4) The Tenant shall pay all attorney's fees and expenses incurred by the Port in establishing and enforcing the Port's rights under this Section, whether or not suit was instituted.



## **2. PRE-DESIGN**

The design team is required to review this manual before beginning design. The design team is responsible for ensuring that every aspect of the process has been addressed adequately as outlined within this document. Forethought and planning are imperative before actual design to reduce costs, remain on schedule, and avoid surprises.

### A. Design and Construction Team

#### 1) Design Team

All construction drawings and documents must be signed and stamped by an architect and/or engineer licensed in the state of Washington, with minor exceptions. Electrical and mechanical designs must be stamped and signed by an engineer licensed in the state of Washington in their appropriate discipline. Mechanical, electrical, or plumbing drawings stamped by an architect are not acceptable.

Language in the design contract must include compliance with Port standards, guidelines, rules, and regulations, including preparation of as-built AutoCAD record drawings.

Tenant is allowed to use any licensed designer. The Port makes no guarantee as to the ability of firms to perform work. The Port cannot provide designer recommendations.

#### 2) Construction Team

All contractors who perform work or who advertise for or submit bids in Washington State must be registered with the Washington State Department of Labor and Industries (L&I), post a bond and carry general liability insurance coverage (for additional information see Washington State contractor licensing <https://lni.wa.gov/licensing-permits/contractors/register-as-a-contractor/>). The contractor is not issued a building permit if they are not licensed in the State of Washington and the City of SeaTac. For additional information regarding how to obtain a City of SeaTac business license, see the City of SeaTac licensing website. <http://www.ci.seatac.wa.us/government/city-departments/finance-systems/business-licensing>

Tenants are encouraged to select construction contractors as early as possible because security badging, keying, and pre-construction submittals take several weeks to procure.

#### 3) Contractual Modality for Tenant Projects

The primary contractual relationship is between the tenant and its consultant designer. The Port's PM represents the relevant Port departments in the role of owner's representative.

The contractual relationships and decision flow in the tenant improvement design and construction process is outlined as follows:

- The tenant addresses business issues with Aviation Properties or Business Development, such as provision of utilities and lease amendments.
- The tenant hires a consultant for design. The tenant's design consultant then contacts the assigned Port PM, who clarifies how best to implement the tenant's project after reviewing proposed scope of work.
- The tenant is required to design and construct the project in conformance with all applicable Port standards, guidelines, rules, and regulations, including as-built AutoCAD drawings.

- The authority of the Port PM is as the representative of the Port as landlord. The Port PM will assist the tenant in expediting the project, when appropriate. There is no contractual relationship between the tenant's design consultant and the Port PM.
- The Port PM is the point of interaction between the tenant and other Port entities, including other tenants, and is involved in every stage of the project. The Port PM coordinates design reviews by the various stakeholders and facilitates resolution of design or other issues. The Port PM provides all Port project technical decisions.
- Prior to construction, the tenant submits the construction documents to the Port PM for Port review for general conformance to Port standards, guidelines, rules, and regulations. Tenant is solely responsible for all quality control. The Port PM provides the final review for Certification of Port Standards (COPS). A building permit submittal and issuance is contingent on the Port PM's approval. **NOTE: The Port's review, however, is for general conformance to Port standards, guidelines, rules, and regulations. The tenant (and its designer) is ultimately responsible for ensuring compliance with Port standards, guidelines, rules, and regulations. Any discrepancies or deviations from Port standards, guidelines, rules, and regulations discovered after the Port's review (even if such discrepancies or deviations should reasonably have been identified by the Port) are the sole responsibility of the tenant, who also is solely responsible for any costs associated with correcting the discrepancies or deviations so that all work meets Port standards, guidelines, rules, and regulations.**
- The construction contract is between the tenant and its contractor. The tenant is responsible for satisfying all permit issues. The Airport Building Department (ABD) issues a permit to the tenant with the Port listed as the landlord.

#### 4) Airport Security and Badge Process

Access to the Airport is restricted. Designers and contractors are required to obtain badging credentials to access specific areas. Designers and contractors must follow all requirements including escort requirements.

The Airport Credential Center is responsible for issuing identification (ID) badges, associated access, and keys for access into restricted areas. Insurance requirements are described in Section 5.A.2) Contractual Liability Insurance of this document. Access to areas adjacent to or within international arrivals processes will require a US Customs Seal and a bond.

The Airport Credential Center website has more detailed information <https://www.portseattle.org/employee-services/credentials-trainings>

Further, more detailed requirements are also found in the Port's *Tenant Improvement Construction General Requirements*, Section 01 14 13, Airport Identification Access Security.

## B. Pre-Design Meeting

The Port PM schedules an initial meeting with the tenant representatives to review project scope; Port design and construction requirements; Port standards, guidelines, rules, and regulations; project schedule; roles and responsibilities; project-specific information and requirements; and project close-out requirements. The Port PM provides the design team with all applicable documents indicated in the pre-design checklist (Appendix A) and discusses with the design team any potential project challenges.

Following are required attendees for the pre-design meeting:

- Port PM

- Tenant or tenant representative (if not tenant)
- Tenant design team (architect and engineers)
- Other stakeholders as needed

Following are pre-design meeting agenda items:

- Project scope
- Pre-design checklist (Appendix A)
  - Activities that apply to this project
  - Port standards, guidelines, rules, and regulations
  - Site survey and record drawings
  - Design review process and design requirements
  - Keys, badging, Federal Aviation Administration (FAA) coordination
  - Permitting
  - Pre-construction submittals
  - Construction
  - Close-out
- Schedule
- Roles and responsibilities

## C. Existing Conditions

### 1) Base Drawings and Archive Drawings

The Port maintains base drawings or architectural backgrounds of the passenger terminal building. The Port PM will provide the architectural background drawings to the design team at the pre-design meeting, if the project location is known. Base drawings for areas outside the passenger terminal building may be available. The design team will coordinate with the Port PM for access.

The Port maintains an archive of drawings from past projects at the Airport. The Port PM will assist the design team with obtaining archived drawings, if they are available. The design team is responsible for researching the archive and identifying which archived drawings are relevant.

For the base building background drawings, other base drawings, and the archive drawings, the Port does not guarantee accuracy. All drawings and existing features are subject to field verification by the design team.

To provide archive information for future projects, tenants are required to provide as-built drawings at the completion of their projects (see Section 7 for project close-out requirements).

### 2) Existing Site Conditions Surveys

As noted above, the accuracy of Port archive documents is not guaranteed. The design team must verify field conditions. The Port PM assists the design team with arranging all existing site condition surveys, as well as coordinating with appropriate Port Maintenance, Port Facilities and Infrastructure (F&I), and Port Construction Services (PCS) regulated materials to familiarize the design team with the location of and how the design will be integrated into the existing building systems. To allow the Port PM time



to coordinate with Port staff, the design team provides at least 2 weeks' notice for the site survey and identifies the types of areas to be accessed. Tenant architects and engineers must participate in the site survey. The design team is responsible for providing all tools and equipment, including ladders required to access and perform the site survey.

NOTE: The design team personnel will need ID and/or access security badges. Approximately 3 to 4 weeks should be allowed to obtain credentials. If the design team surveyor requires access to specific locations to verify conditions before that time, the Port PM may be able to arrange for surveyors to be escorted a limited number of times.

### 3) Regulated Material and Asbestos Surveys

The Airport has areas of asbestos and other regulated materials and requires a regulated materials survey of every new project's location. The Port is responsible for conducting regulated material abatement in Port-owned facilities. Note: Incidental removal of lead paint for construction purposes is typically included in the Contractor's scope of work. When the project boundaries are known—and no later than at 60-percent design—the Port PM requests PCS RMM Division to conduct a regulated materials survey of the affected tenant space.

The Port PM forwards the survey report to the design team for inclusion in the general conditions portion of the drawings. If regulated material removal is required, then the tenant's construction schedule accounts for any additional time. See *Rules for Airport Construction* [RAC] Section 5 for more detailed information about regulated materials at the Airport.

Note: The regulated material survey is approximately a 2-week process. PCS provides the abatement design and removal schedule (if required) based on the complexity of the site condition.

### 4) Utility Capacity Determination

#### a) Air and Water Survey (Pre-Design Test and Balance (TAB) Report)

To evaluate how the tenant project will affect Airport heating, ventilation, and air conditioning (HVAC) systems and determine if sufficient capacity is available, a survey of the existing airflow and tempered water flow in the tenant project area is required to be commissioned by the tenant. Before design, the design team is required to hire a prequalified test and balance agency to perform pre-design readings of the existing mechanical systems that serve the tenant space(s).

Prequalified firms are listed in the Port's *Mechanical Systems Standards*, Section 200593, Testing and Balancing. The design team may hire other firms, but they must be preapproved by Port F&I and meet the qualification requirements.

The predesign report is submitted with the Application for Connection to Mechanical Systems, and the design team is responsible for using these data as the basis of design for their HVAC system.

#### b) Electrical Main Panel—7-Day and 30-Day Load Readings

The Port requires electrical meter readings of tenant and Port panels impacted by the proposed tenant project. These meter readings are also a permit requirement by Washington State L&I.

Meter readings measure the peak and average amperage (or current) demand on a panel in 30-minute increments and help determine whether enough ampacity is available to accommodate the project. Seven-day meter readings are allowed for preliminary approval. 30-day meter readings are required for final



approval. Copies of the reading's summary sheet are submitted with each Application for Connection to Electrical Systems. The tenant or design team is responsible for hiring a licensed electrician to perform the panel readings, unless the Port has capacity to provide. The design team electrical engineer identifies the upstream and downstream panel/meter and other connecting gear, and prepares a request for the Port PM.

c) Natural Gas

The Port requires estimates of the amounts of natural gas, including total amounts and peak demand, required by tenants to determine how to establish adequate delivery capacity to the new spaces.

d) Water, Sewer, and Surface Water

The Port requires estimates of the amounts of water, including total amounts and peak demand, required by tenants to determine how to establish adequate delivery capacity to the new spaces. For exterior projects, land use changes must comply with stormwater standards and receive ENV approval for water quality and capacity.

e) Cable Television

The Port requires knowledge of the number and location of television outlets to be required to determine how to establish adequate delivery capacity to the new spaces.

## D. Port of Seattle Standards Web Page

To ensure seamless integration of the new systems, design teams must prepare designs conforming to Port standards and guidelines. Current versions of Port standards, guidelines, applications for connections, *Tenant Improvement Construction General Requirements*, *Construction Safety Manual*, *RAC*, and other relevant documents can be found on the Port's website. <https://www.portseattle.org/sea-tac/leasing-tenant-resources/tenant-construction-and-design-reference-documents>

Lists of the Port standards, guidelines, rules and regulations are provided below. Note that Standards and Guidelines are updated regularly. The links in this document may no longer be valid.

### 1) Tenant Construction and Design References, Rules and Regulations

Tenant Design and Construction Process Manual—

This manual is an electronic copy of the resources necessary for designing and constructing tenant improvement projects at SEA Airport

<https://www.portseattle.org/sea-tac/leasing-tenant-resources/tenant-construction-and-design-reference-documents>

Construction Safety Manual—

Establish and maintain a safe working environment for employees, contractors, visitors and the public.

[https://www.portseattle.org/sites/default/files/2018-03/Construction\\_Safety\\_Manual\\_0.pdf](https://www.portseattle.org/sites/default/files/2018-03/Construction_Safety_Manual_0.pdf)

Rules for Airport Construction—

Provides necessary information to successfully execute and complete construction at

SEA Airport, as well as the various Port stakeholders interfacing with contractors during a project. Includes specific Airport Building Department and Port Fire Department design and construction requirements.

<https://www.portseattle.org/sea-tac/leasing-tenant-resources/tenant-construction-and-design-reference-documents>

### Tenant Improvement Construction General Requirements—

This compendium of procedures, rules, regulations, and standards are to be followed for all tenant construction projects the Airport.

<https://www.portseattle.org/sea-tac/leasing-tenant-resources/tenant-construction-and-design-reference-documents>

### Rules and Regulations

SEA Airport rules and regulation No. 5 (Updated February 1, 2021).

<https://www.portseattle.org/sites/default/files/2021-02/Rules%20and%20Regs%20No.%205%20with%20Revision%20Addendum%201%20effective%202-1-2021%20.pdf>

### Tariffs

Sea-Tac International Airport tariff No. 1 (Updated January 1, 2021). Naming Rates and Charges for Use of Airport Facilities and Services

[https://www.portseattle.org/sites/default/files/2020-12/SEA%20Airport%20Tariff%20Effective%20010121\\_0.pdf](https://www.portseattle.org/sites/default/files/2020-12/SEA%20Airport%20Tariff%20Effective%20010121_0.pdf)

### Tenant Quick Start Guide

Overview of the approval, scheduling, design and construction process for tenant projects

[https://www.portseattle.org/sites/default/files/2019-05/Tenant\\_Construction\\_Quick\\_Start\\_Guide\\_051519.pdf](https://www.portseattle.org/sites/default/files/2019-05/Tenant_Construction_Quick_Start_Guide_051519.pdf)

## 2) Design Guidelines

### Dining and Retail Design Guidelines—

Guidelines for concessions design and material selection at the Airport (18 Mb)

[https://www.portseattle.org/sites/default/files/2018-03/adr\\_DesignStandards.pdf](https://www.portseattle.org/sites/default/files/2018-03/adr_DesignStandards.pdf)

### Port of Seattle Health & Safety Manual—

Establish and maintain a safe working environment for employees, contractors, visitors and the public.

[https://www.portseattle.org/sites/default/files/2018-03/Construction\\_Safety\\_Manual\\_0.pdf](https://www.portseattle.org/sites/default/files/2018-03/Construction_Safety_Manual_0.pdf)

### Section 01 35 29 - Safety Management—

Tenant document bidding requirements, contract forms and conditions of the contract.

[https://www.portseattle.org/sites/default/files/2018-03/Section\\_01860\\_Tenant\\_Safety\\_Management.pdf](https://www.portseattle.org/sites/default/files/2018-03/Section_01860_Tenant_Safety_Management.pdf)

### Interlocal Agreement City of SeaTac—

Port and City of SeaTac requirements

[https://www.portseattle.org/sites/default/files/2020-12/2018\\_Interlocal\\_Agreement\\_Signed\\_w\\_SeaTac.pdf](https://www.portseattle.org/sites/default/files/2020-12/2018_Interlocal_Agreement_Signed_w_SeaTac.pdf)

### 3) Port Design Standards and Guidelines

Port Standards are used as an aide in development of contractual specifications. Specific language directed to the designer is omitted from contract documents.

#### Architecture Guidelines and Standards 2019 and Main Terminal and Baggage Claim Visioning Report 2020

Standards for architectural design, materials, and finishes selection at SEA Airport. This standard includes the maintainability standards. (32Mb and 24Mb PDF)

[2019 Sea-Tac Design Guidelines & Standards with Links.pdf \(portseattle.org\)](#)  
[Main Terminal and Baggage Claim Visioning Report 2020 \(portseattle.org\)](#)

#### Building Information Modeling (BIM) Standards

Building Information Modeling (BIM) Standards are in progress and will be issued soon. Contact Port PM for status.

#### CAD Standards (43 Mb)

CAD Standards for all projects. Download templates and read content before beginning design work.

[CAD Standards 2018 \(portseattle.org\)](#)

#### Civil System Standards

Standards for civil systems at SEA Airport, including industrial waste and storm drain systems, domestic water, and sanitary sewer system design. Applies to systems exterior to buildings. Refer to the Mechanical Standards for systems interior to buildings. (12Mb PDF)

[Civil System Standards 2020 \(portseattle.org\)](#)

#### Communications Systems Standards

Standards for communication system design and equipment selection at SEA Airport. Includes appendices for tenant guidelines and communications labeling standards (12.8Mb)

[Communications Systems Standards 2018 \(portseattle.org\)](#)

#### Cooking Equipment Ventilation Standards 2018

Ventilation standards for all cooking equipment within the SEA Airport.

[Cooking Equipment Ventilation Standards 2018 \(portseattle.org\)](#)

#### Electrical System Standards—

Standards for electrical system design and equipment selection at SEA Airport (51.5Mb)

[Electrical System Standards 20 \(portseattle.org\)](#)

#### Landscape Standards—

Standards for landscape design, installation, equipment selection, and plant selection at the Airport. (3.6Mb)

[Landscape Standards 2020 \(portseattle.org\)](#)

#### Low-Impact Development Guideline—

This Low Impact Development (LID) Guideline provides guidance for assessing the requirements, applicability, and technical feasibility of implementing LID at SEA Airport.

LID Guidelines do not apply to tenant projects that are solely interior construction. (21.9Mb)

[Low Impact Development Guideline 2018 \(portseattle.org\)](#)

Mechanical Systems Standards—

Standards for mechanical system design and material selection at SEA Airport (12Mb)

[Mechanical Systems Standards 2020 \(portseattle.org\)](#)

Radio Frequency Standards —

Standards for radio frequency system design and equipment selection at SEA Airport

[Radio Frequency Standards 2005 \(portseattle.org\)](#)

Rental Car Facility (RCF) Tenant Design and Construction Standards 2012 (12Mb)—

Design and construction standards for tenants of the consolidated rental car facility.

These Standards are supplemental to existing design standards for the unique features of the rental car facility.

[Rental Car Facility \(RCF\) Tenant Design and Construction Standards 2012 \(portseattle.org\)](#)

Security Standards—

Electronic Safety and Security Standards

[Security Standards 2020 \(portseattle.org\)](#)

Signage Standards 2020 and SEA Signage Master Plan 2020—

Standards for signage design, layout configuration, graphics, symbols, installation, and material selection at SEA Airport (69.4Mb)

[SEA Signage Standards 2020 \(portseattle.org\)](#)

[SEA Signage Master Plan 2020 \(portseattle.org\)](#)

Stormwater Management Manual—

Standards for design of stormwater management (43 MB)

[Stormwater Management Manual \(portseattle.org\)](#)

### 4) Guide Specifications

Port guide specifications for technical sections can be found on the Port's website

<https://www.portseattle.org/page/guide-specifications>

(Review the document location with the Port PM as links sometimes change).

These guide specifications include information for both Marine and Airport projects. The project design team must edit the Port guide specifications to suit the project and to comply with Port standards. While some standards are written in specification format, they contain information that is specifically directed to the designer and should not be included in contract documents. The specifications should be provided in track changes to facilitate more efficient reviews.

### 5) Applications for Connection to Utilities

To monitor capacity of systems at the airport, tenants must complete applications for connections to the following systems. Application forms and instructions for completion are available from the Port PM.

### Cable Television

Application to connect to cable television

### Communications Systems—

Application to connect to all communications infrastructure other than radio frequency (excludes tenant-owned infrastructure in tenant-leased spaces that are not connected to Port-owned infrastructure or routed through Port-owned spaces)

### Electrical Systems—

Application for connections, load additions, or modifications to SEA Airport electrical distribution, lighting, or emergency power systems.

### Industrial Waste Systems—

Application for connections, load additions, or modifications to the industrial wastewater system at SEA Airport

### Mechanical Systems—

Application for connections, load additions, or modifications to SEA Airport mechanical systems including HVAC, chilled water, hot water, and condenser water systems

### Natural Gas System—

Application for connections, load additions (MBH, CFH), or modifications to SEA Airport gas distribution system to Central Terminal, Concourses A, B, C, D, or the North Satellite.

### Radio Frequency Systems Application

Application for use of radio frequency systems at SEA Airport.

### Sanitary Waste Systems—

Application for connections, load additions, or modifications to SEA Airport sanitary waste system. Note: Requires payment of fees to Valley View or Midway Sewer with receipt attached to form submitted to the Port.

### Storm Drain Systems—

Application for connections, load additions, or modifications to SEA Airport storm drainage system

### Water Systems—

Application for connections, load additions, or modifications to SEA Airport water distribution system, including temporary irrigation, domestic water, and fire suppression. The link Includes instructions and water system connection procedure requirements.

## 6) Port Computer-Aided Design Standards

All drawings shall comply with Port CAD Standards

<https://www.portseattle.org/sites/default/files/2018-04/CAD%20Standards%202018.zip> to enable the tenant's project computer-aided design (CAD) record drawings to be entered into the Port's Engineering Document Management System. The design team should start with backgrounds from the Port's base drawings for all exterior site planning, interior floor plates, and utilities work. These base drawings are furnished by the Port where available.

Orientation for the Port CAD standards is provided to the design team by Port staff to help ensure that the tenant's documents comply with the Port CAD standards. Drawings submittals are reviewed for compliance during Port design review.

All projects requiring a permit or altering infrastructure require CAD drawings. Projects that do not require CAD drawings are as follows:

- Temporary facilities (up to 6 months)
- Nonsystem-related architectural work (for example, counters, casework and finishes, etc.)
- Project-related signage (temporary construction)
- Glass replacement (exterior windows and interior relites), carpet, and replacement in kind
- Painting and lighting refits

### E. Authorities Having Jurisdiction (AHJ)

A variety of federal, state, and local government entities have jurisdiction over design and construction projects at SEA Airport. The assigned Port PM assists the tenant with determining which government entities have jurisdiction. The Interlocal Agreement (ILA) [https://www.portseattle.org/sites/default/files/2020-12/2018 Interlocal Agreement Signed w SeaTac.pdf](https://www.portseattle.org/sites/default/files/2020-12/2018%20Interlocal%20Agreement%20Signed%20w%20SeaTac.pdf) between the City of SeaTac and the Port provides guidance on which agency has jurisdiction for life safety codes. In general, the Port FD and ABD have jurisdiction in the Airport activity area, defined in the ILA.

In addition to building permits, electrical, escalator, elevator, and boiler permits are administered by Washington State L&I, health permits for food-handling facilities are administered by King County, and liquor licenses are administered by the Washington Liquor and Cannabis Control Board.

The FAA, coordinated through the Port, provides approval for obstacles (such as cranes) or features that could impact aircraft operations. This is also known as the FAA Form 7460.

The Transportation Security Administration (TSA), coordinated through the Port, provides approval for changes to Airport security.

See Rules for Airport Construction (RAC) for specific requirements for design and construction from the ABD, Port FD, and Port Environmental and Section 4 of this manual for the permitting process.

### **3. DESIGN**

This section focuses on the Port design review process and issues that tenants and their design teams must consider in their design. All projects must comply with Port standards, guidelines, rules, and regulations and are reviewed by the Port before submittal to the Authority having Jurisdiction (AHJ). The Port review culminates with the completion of an application for Certification of Port Standards (COPS). This allows the tenant to submit for required permits.

#### **A. Port of Seattle Technical Review Objectives**

The goal of the Port technical design review is to ensure seamless integration of tenant improvements with Port systems, maintainability, and compliance with Port standards, guidelines, rules, and regulations. The Port reviewers have a vested interest in the continuous operation of Airport facilities with minimal impacts to the traveling public.

Following are specific objectives of the technical design review:

- Allocation of utilities and energy and water conservation
- Compliance with Port standards, guidelines, rules, and regulations to ensure tenant's systems are compatible with Port systems, includes both infrastructure and aesthetics
- Compliance with environmental requirements
- Maintainability of existing systems and elements and those that become Port responsibility
- Minimization of the total cost of ownership
- Minimization of construction impacts to operations
- Fulfillment of approved design intent (concept)

#### **1) Application for Certification of Port Standards**

All tenant projects must comply with Port design standards and guidelines. The Port review process confirms, but does not guarantee, compliance with Port standards and guidelines. The design and systems review process cycles described in this section are repeated until all design issues have been resolved and all applicable applications for utility connection forms have been approved. The COPS must be completed before submitting for building permit and/or other required permits.

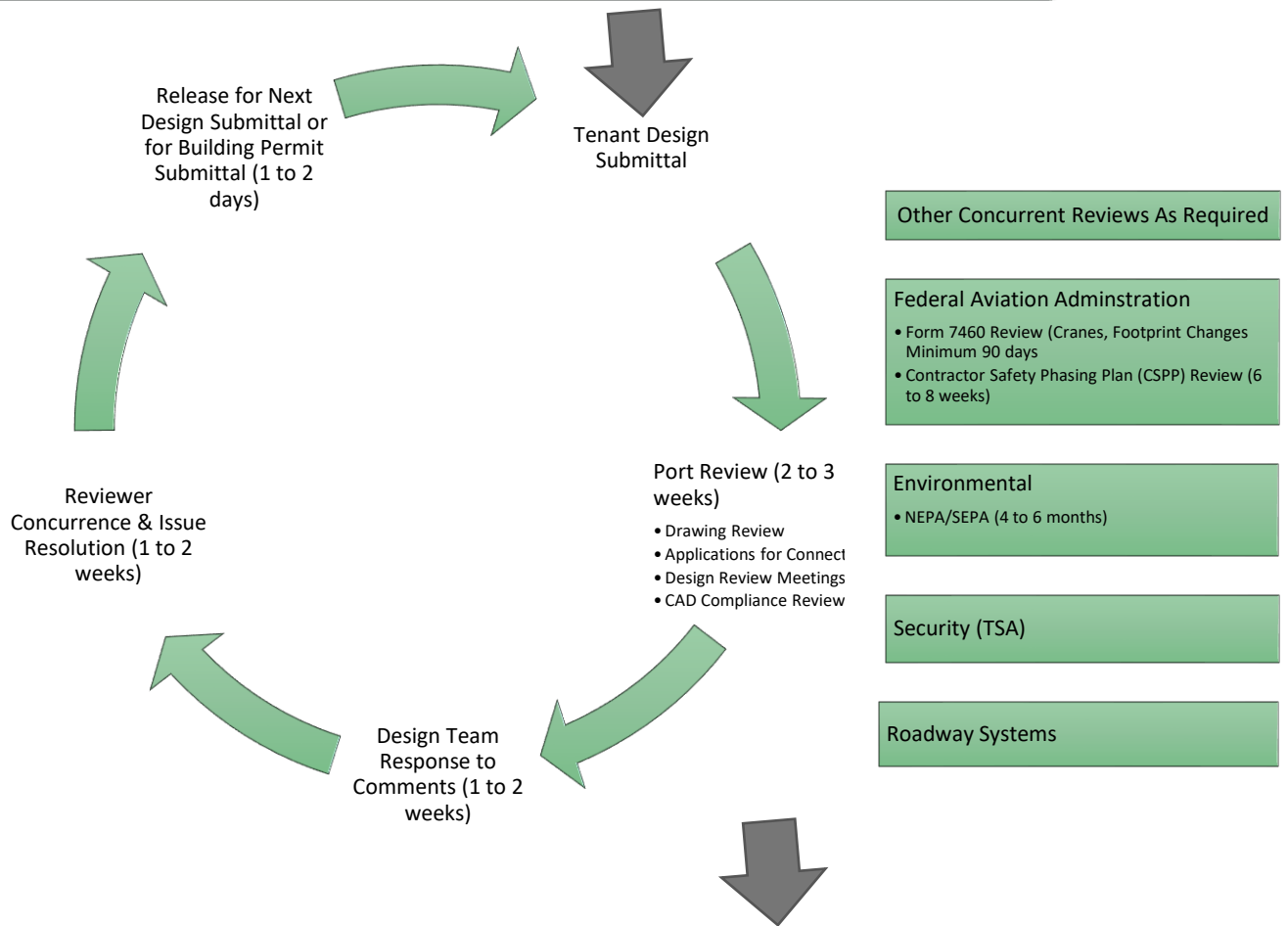
#### **B. Port of Seattle Technical Design Review Process**

Following are the three phases to the technical design review process; these are illustrated in Figure 1:

- Phase 1: Coordination with the Port PM to establish submittal requirements and schedule
- Phase 2: Design reviews
- Phase 3: COPS and release for permitting

**Coordinate with Port PM and Establish Requirements**

- Required design submittals (schematic, design development, pre-final, final design)
- Projected schedule
- Submittal requirements (quantity, format, checklists, submittal log, CMMS spreadsheet, applications for connection, review committees)
- Design review cycle duration (4 to 7 weeks, depending on project scope and complexity)



**Compliance with Port Standards**

- Release for AHJ Permit Submittal

\*Only required until approved or if significant project changes after approval

Figure 1. Port Technical Design Review Process



## 1) Coordination with Port Project Manager and Establishing of Requirements

The Port PM is the single point of contact for all communications between Port stakeholders and the design team during the technical design review process.

### a) Design Submittals and Reviews

The Port PM reviews the project scope and complexity in consultation with the Port Stakeholders and the design team and determines the appropriate number of reviews. Possible reviews include schematic design, design development, pre-final construction documents, and final construction documents. Typically, more reviews are required for projects that include tenant reimbursement agreements, complex interaction with Port systems, and Port maintenance of the final product. During the review process, if design documents are incomplete or otherwise poor quality, then additional reviews may be required to verify that the design meets Port guidelines and standards.

The Port PM, in consultation with Port Stakeholders, will determine the required applications for connection and presentations to discipline review meetings. Other concurrent review requirements, such as FAA, environmental, security, or others, also are established.

### b) Submittal Requirements

Design submittal documentation varies by project and can include design drawings (CAD and searchable pdf), specifications (searchable pdf), checklists, construction submittal log, applications for connection, calculations, equipment cut-sheets, CMMS spreadsheet (See section 3.C.11.e for more information, and other documents. The Port performs most design reviews electronically but still requires some (typically, five to seven) half-size hard copies of drawings for meetings or special reviews. At completion of review and permitting submit issued for construction drawings to the Port PM.

### c) Schedule

The tenant, design team, and Port PM establish a projected schedule for design, permitting, pre-construction, construction, and close-out for the project. The Port PM identifies Port tasks and durations to include in the schedule. There may be specific schedule requirements in the tenant's lease.

## 2) Design Reviews

The review cycle is the same for each design submittal. The Port reviews and comments on the documents, the design team responds to the comments, the responses are reviewed and any issues are resolved, and then the design team is released to submit the next submittal or released to submit for building permit if one is required.

The Port review includes four stages:

- Review documents and prepare written comments.
- Review and approve applications for connections (see Section 3.B.3)
- Attend design review meetings (see Section 3.B.4), as necessary
- Conduct CAD compliance review

In parallel with the Port review cycle, other reviews that may be required are also coordinated. The design review cycle varies from 4 to 7 weeks to complete, but the

design team receives comments in 2 to 3 weeks. The design team may continue design throughout the cycle.

The Port uses Bluebeam for electronic reviews. Contact Port PM for procedures.

### 3) Applications for Connection

As noted in the design review objectives, the Port is allocating existing utilities. Applications for connection provide detailed information about the tenant utility requirements, allow the Port to determine whether capacity is available, and find a resolution if capacity is not available. Applications for connection are available for communications systems, electrical systems, industrial wastewater systems, mechanical systems, natural gas system, radio frequency systems (including wifi), sanitary waste systems, storm drain systems, and water systems. The forms along with instructions are available from the Port PM.

The tenant coordinates with the Port PM to determine which applications are required and when they should be submitted. The applications are prepared by the appropriate design team member and provided to the Port PM with each design submittal. The designer is responsible for completing the application for connection and providing all required information. Incomplete applications are returned to the designer.

Applications for connection are also required for temporary needs during construction, such as electrical and water.

### 4) Design Review Meetings

The following discipline teams may require progress presentations during each design phase; attendance at discipline specific design review meetings is determined by consultation between the Port PM and design review chair;

- Architectural Design Review Meeting
- Asset Booking and Management Meeting. Facility Asset Review Meeting (For Port PM to discuss with the Port those assets which will be turned over to the Port for maintenance. Design team does not need to attend.)
- Civil Systems Review Meeting (Division 33)
- Electrical Design Review Meeting (Division 26)
- Low Voltage / Special System Review Meeting (Division 28)
- Mechanical Design Review Meeting (Divisions 14, 21 – 23)
- Telecommunication Design Review Meeting (Division 27)
- Wayfinding and Signage Review Meeting

These discipline teams provide a venue for a discussion of design review comments, discussions with discipline specific staff, opportunity to identify resource needs, and to discuss requests for deviation from Port Standards.

Following are guidelines for scheduling discipline design review meetings:

- Each discipline review team meets twice per month on specific days.
- A typical time slot is 30 minutes, although additional time may be requested.
- Limited slots are available for each meeting. The Port PM must be notified as soon as possible to obtain a preferred day and time.

Typical meeting attendance and content are as follows:

- Appropriate members of the design team attend the meeting for their respective discipline, present their design, and answer questions.
- Meetings are held virtually unless otherwise requested.

## 5) Environmental Review and Regulations

Observing environmental regulations is critical at the Airport. Depending on project scope and location, the Port PM instructs the design team to provide documents to port Environmental staff. Environmental staff ensure that the project has received adequate review under the National and State Environmental Policy Acts and the Endangered Species Act and also ensure that the project complies with all applicable environmental permits and regulations (see the Port's *Tenant Improvement Construction General Requirements*, Section 01 35 43, Environmental Regulatory Requirements).

The environmental permit that most tenant projects need to comply with is the National Pollutant Discharge Elimination System (NPDES) permit issued to the Airport by the Washington State Department of Ecology. The Port is the sole permittee and therefore must make certain that all aspects of Port and tenant operations are in compliance with the permit. The NPDES permit covers the entire Airport footprint and consequently all Airport facility operations, including tenant operations, that must meet the requirements of this Permit. This permit controls water quality impacts from construction and operation of facilities at the Airport and contains very specific measures required for compliance. The design team may be required to do any of the following:

- Provide additional data or resources.
- Arrange for additional environmental consulting as needed.
- Provide budget for Port staff to prepare and publish State Environmental Policy Act documents
- Ensure that known permitting requirements are incorporated into the project schedule and budget.
- Develop and submit a stormwater site plan for review and approval.

## C. Required Design Information

This section provides information on design, construction, and close-out requirements for Airport projects. Some requirements are addressed in more detail in the Port standards and guidelines. This section also highlights issues that are frequently missed by design teams.

### 1) Commissioning

The ABD requires all projects to be commissioned. Some projects may require an independent commissioning agent, and in those cases, the Port PM should be consulted. The design team confers with the Port PM, F&I, and Maintenance to determine which Port commissioning activity checklists are to be included in project technical specifications and whether a specialty contractor for balancing and controls (Siemens in the existing terminal) support should be included. Utility meters are required to be calibrated and commissioned (reference the Port's *Tenant Improvement Construction General Requirements*, Section 01 91 00.13, Commissioning Activities, for additional information).

### 2) Utility Meters

All tenant new construction or remodeling projects requiring connection to Port power, water (hot and cold), natural gas, or any other utility require a tenant supplied meter.

The meter(s) must be connected to the direct digital control (DDC) or power monitoring system prior to final inspections and occupancy. After the tenant contractor installs, calibrates, and commissions the meter(s), they request an inspection.

Requests for inspection are coordinated through the Port Construction Inspector (Port Inspector). Failure to obtain inspection and approval of any new or existing meter, results in immediate stop work and power shutdown without prior notice.

For specification and purchasing information on Port approved meters, the Port PM should be contacted; information is also available on the Port's public website <https://www.portseattle.org/sea-tac/leasing-tenant-resources/tenant-construction-and-design-reference-documents> for design standards for utility meters. All water connections require a back-flow preventer, and all gas meters require a seismic valve and may require a pressure reducer.

### 3) Reservation of Electrical Breakers

To reserve space for placing electrical breakers in Port electrical panels and securing service for the project, the tenant's electrical designer contacts the Port PM and provide the panel, circuit, and physical location and requests a breaker reservation. This reservation is required for approval of the electrical application for connection.

After the desired breaker is identified, a Port electrician places a reservation sticker on the breaker and completes the reservation form. The completed form is provided to Port F&I, who record the information in a database. The Port PM assists the design team with any questions or clarifications.

### 4) Equipment Identification Numbers

All equipment connected to Port systems is required to have a Port ID number. Equipment connected to Port systems that is being removed must also be identified with a Port ID number. Obtaining existing and new ID numbers must be coordinated with the Port PM. All equipment ID's, both new and removed, must be called out on all drawings and identified on the Port computerized maintenance management system (CMMS) form.

### 5) Coordination with the Direct Digital Control System

For the existing terminal building, the Port has a sole-source agreement to specify Siemens Building Technologies Division for the HVAC building automation system, also known as the DDC system. The Port PM can provide Siemens contact information (see the Port Mechanical Systems Standard 200920 for more detailed information.) Additional guidelines regarding the DDC system are below:

- All water and natural gas meters must be connected to the DDC system.
- All equipment, including terminal units, kitchen hoods, and exhaust fans, must be controlled by the DDC system.
- The tenant contractor must engage Siemens to make changes to the DDC system, including providing AutoCad files of mechanical sheets with architectural backgrounds and XREF files during construction for use in the DDC graphics.
- Before walls and ceilings are demolished, Siemens must be under contract and perform site work to protect the DDC system.

### 6) Data, Communications, and Wi-Fi

The Port provides a backbone system for data and communications. Each tenant has a Port demarcation box located within their space. All backbone cabling and

demarcation installations shall be Systimax certified (see the Port communications standards for more detailed information).

For any non-tenant communications equipment located on storefront or in the vicinity of the tenant lease space, coordinate relocation with the Port PM.

Until new systems are in place, broadband television is handled separately. Specific broadband requirements are coordinated with the Port PM.

Wi-Fi system signals are not allowed outside the tenant space or to interfere with existing Port systems. An application for radio frequency is required for installation (see the Port radio frequency standards for more detailed information). Tenant's may not use the Port Wi-Fi system to conduct transactions.

## 7) Laydown Areas

If stored in areas other than a tenant's leased area, the tenant must coordinate laydown storage with the Port and identify the storage location on the tenant's construction drawings. Laydown area and equipment are identified with project and contact information. Use of off-site Port laydown areas must comply with the *Tenant Improvement Construction General Requirements*, Section 01 50 00G. Contractor employee parking is available south of the Airport for a fee. The tenant coordinates with their Business Manager, Facilities Manager or Property Manager for access and pays the fees.

## 8) Federal Aviation Administration Project Proposal Summary and Cranes

Refer to the RAC Section 2, Design Approvals, for detailed information.

## 9) Tenant Improvement Construction General Requirements

All Airport construction work is subject to the RAC and *Port Tenant Improvement Construction General Requirements*. The tenant should review the guidelines with the Port PM to confirm the sections that apply to the specific tenant project. These requirements are attached in their entirety to the tenant project documents and reviewed at the pre-construction meeting.

## 10) Door Hardware and Keying

Door and room numbers are assigned by the Port. Door and room numbers should be requested as early as possible from the Port PM. Doors interior to a tenant space, without locks, do not require a Port door number.

The design team complies with the requirements found within the Port architectural standards for door and key hardware. For roll up and personnel doors, tenant's contractor is required to provide construction cores that are BEST/Stanley compliant for locks and locksets utilizing the Airport approved keyways. Cores shall be figure 8, 7 pin. All locks must accept the BEST 7 pin Small Format and Interchangeable Core (SFIC). This requirement does not apply to point of sale locks. After the tenant project is completed, the Port Lock Shop exchanges the construction cores with final lock cores.

All new doors installed at the Airport must be free of asbestos and labeled as such. The material used in door construction must be verified through manufacturer's documentation, material safety data sheets, or sampling. All new tenant doors must be labeled so that the door can be tracked in the Port Maintenance operations and maintenance (O&M) asbestos database.

The Port PM works with the tenant to coordinate keying, either using existing key numbering series or new series of numbers. The tenant must complete a key request for the quantity of keys desired and submit it directly to the Port Credential Center.

If the tenant requires other than the Port core system, the Port Lock Shop provides and installs outside the tenant space a lock box to house the tenant's entry key. The lock box is provided for life safety access by the Port FD only. Cost of the lock box and installation is paid by the tenant. If the tenant requires a key for the solid waste compactors, then the tenant contacts Port Utilities.

#### 11) Fall Protection

Per Port Architectural and Maintainability Standards, permanent fall protection is required for all roof top installations. See the Standards for additional information.

#### 12) Construction Documentation and Training

As discussed in Section 3.A, the Port is concerned about items that interface with Port systems and/or become the Port's responsibility to maintain. This section addresses the types of construction submittals the Port wants to review, the construction submittal log, O&M data, and other issues. The tenant contract documents must clearly address contractor responsibilities for construction submittals, O&M data requirements, computerized maintenance management system (CMMS) data requirements, training requirements, and other construction documentation requirements.

The Port uses an Opentext Contract Management System (CMS) for processing and tracking construction documentation. The design team and contractor are required to use this system for most projects.

##### a) Construction Submittals

Based on the complexity of the tenant's project, the Port PM and the design team analyze potential equipment and systems that require Port technical reviews. The following criteria apply, but are not limited to these:

- Systems equipment that are serviced and/or maintained by the Port (for example, HVAC)
- Systems equipment that becomes Port property
- Equipment or tenant operations that impact existing Port systems in and adjacent to the tenant space
- Equipment and/or material used for distribution of electrical power or wireless data transmission
- Special point loads of high power use (for example, baggage x-ray, plasma screens, electric vehicle chargers)
- All tenant utility meters for power, water, and gas
- Roofing, building envelope, and waterproofing in wet areas

Typical submittals include: Material data, shop drawings, deferred submittals, commissioning and close-out documents including warranties.

The design team incorporates construction and deferred submittal requirements into the project's construction documents. Note: Submittals that the design team wishes to designate as deferred submittals must be approved in advance by the AHJ.



b) Construction Submittal Log

The design team prepares and includes a construction submittal log, using the Port submittal log template, with the 90-percent design submittal. The Port PM provides the form. The Port reviews the log for completeness and indicates which construction submittals it wants to see during construction (see Section 6.B.1 of this manual for how construction submittals will be processed). The design team includes the construction submittal log with the contract bid documents.

c) Requests for Information

Copies of requests for information (RFIs) are submitted to the Port PM, via CMS, when information is required from the Port to answer an RFI. For RFI's that did not require Port input, submit copies to the Port PM weekly via CMS.

d) Operations and Maintenance Information

The Port requires fully text-searchable and indexed PDF or Microsoft Word format O&M data and warranty information for equipment, fixtures, and systems that become the Port's responsibility to maintain. Although the Port does not maintain tenant's ceilings, the tenant furnishes product data for other than gypsum wall board for replacement should a leak of Port overhead systems occur.

Requirements for the maintenance information are identified in the project technical specifications. Detailed information on type and format of data is provided in the *Port Tenant Improvement Construction General Requirements*, Section 01 78 23.13, Operations and Maintenance Data.

e) Computerized Maintenance Management System Data Form

For equipment, including utility meters, that become the Port's responsibility to maintain and for maintained equipment removed to facilitate new construction, the design team and contractor completes a CMMS system data form. The CMMS form is a multiple step form that follows the life of the project. There are columns assigned for the designer to populate and columns assigned for the contractor to populate during the construction period. The design team includes the CMMS data form with the 90-percent design submittal, and any design submittals past 90% such as 100% or prior to bid. The CMMS form when submitted needs to be submitted both as an original Microsoft Excel file and also with PDF printed sheets. The design team includes the CMMS data form with the contract bid documents. The Port PM provides the design team with the form (see the Port's *Tenant Improvement Construction General Requirements*, Sections 01 78 23.13 and 01 78 23.13a, for additional information).

f) Training

The design team indicates requirements for operational and service training, as directed by the Port PM, for any equipment that may impact Port systems or become the Port's responsibility to maintain (see the Port's *Tenant Improvement Construction General Requirements*, Section 01 79 00, Training, for additional information).





## 4. PERMITTING

The City of SeaTac/Port of Seattle Interlocal Agreement (ILA) [https://www.portseattle.org/sites/default/files/2020-12/2018 Interlocal Agreement Signed w SeaTac.pdf](https://www.portseattle.org/sites/default/files/2020-12/2018%20Interlocal%20Agreement%20Signed%20w%20SeaTac.pdf) must be reviewed to determine the agency or agencies having authority over permitting and the applicable ILA development standards for the specific project location. The Port PM can assist with this review. The AHJ may be the City of SeaTac, the Airport Building Department or others depending on the location and scope of the project.

**After** the Port has confirmed COPS, the tenant may prepare their building permit submittal and submit for building permit. The Port PM will assist with the ABD, Port Fire Department, Port Environmental permit review process; FAA; and TSA processes. The tenant will work directly with other authorities having jurisdiction such as City of SeaTac, Washington State L&I, King County, and others.

### A. Airport Building Department and Port Fire Department

The RAC Sections 3 and Section 4 provide specific code requirements and other related information.

Per the 2018 Interlocal Agreement, between the Port and the City of SeaTac; permitting authority is determined by the location of the project. The ABD is authorized to permit projects that are located within the Airport Activity Area (AAA). The Port PM will submit a Pre-Application Checklist to the City of SeaTac prior to applying for a permit to notify the City of SeaTac. The ILA contains special provisions that may add City of SeaTac permitting requirements depending on the project scope and location, such as City right-of-way impacts or projects visible from City rights-of-way.

The ABD issues general building, grading, sign, mechanical, and plumbing permits. Electrical permits are issued separately by the State of Washington Department of Labor and Industries (L&I) and are the responsibility of the contractor.

The ABD coordinates with the Port PM to determine whether a building and/or mechanical / plumbing permit is required. If no permit is required due to the simple nature of tenant Project, then the tenant may proceed with proposed project once the pre-construction submittals have been satisfied and the Port PM issues Notice-to-Proceed.

The ABD permit plan review, approval and permitting process is fully paperless and is managed by the Port PM through ABD's e-Permit portal: Accela Citizen's Access (ACA). The Port FD plan review is part of the ABD review process.

The design team contacts the Port PM for a copy of the current ABD permit application.

#### 1) Electronic Permit Application Checklist

The following checklist must be followed to assemble a complete electronic permit application package:

- Permit form – required information
  - POS Project #, Subclass, and Activity ID entered at the top of the application on page 3
  - Licensed Professionals, WA State License # listed on permit application
  - Contractor's UBI number entered on application and City of SeaTac business license endorsement verified

- New or Existing Customer (with Customer #) Payor E-billing information entered on page 2
- Electronic document format requirements
  - Electronic documents submitted to ABD for plan review and permit issuance must be provided in a state that allows for document mark up, file combining and processing
  - All drawings must be submitted as a “flattened” PDF such that all layers of text, graphics, and content are merged into a single graphic entity
  - Documents submitted in any manner that prevents the completion of the review and permit issuance process, including but not limited to submitting documents that are locked, will be rejected, resulting in additional review time and permitting delays
  - Plans/Drawings – 1 combined set, do not send separate files
- Electronic documents from the designer are uploaded to the Accela e-Permit system by the Port PM
  - Permit application
  - COPS form
  - EXECUTED Pre-Application Checklist (PAC) sent to City of SeaTac (Port PM provides)
  - Construction Plans/Drawings – 1 combined set; please do not send separate files
  - Specifications
  - Mechanical and Lighting Summary
  - Calculations and Soils report (if applicable)
  - Associated reports, cutsheets, etc.
  - Permit fees payment receipt

### 2) Plan Review

After the submittal package is accepted as complete and the plan review fees paid, the ABD initial review process is targeted to be completed within 10 working days. When the review is completed, a list of comments is provided denoting conditions that need to be addressed and resolved. Plans cannot be stamped or approved, nor can the permit be issued, before all items are resolved, and plans and supporting documents are revised as needed, fees are paid when applicable, and business licenses are obtained from the City of SeaTac, where necessary.

If the project is being permitted by the City of SeaTac, the tenant notifies the Port PM of submittal and provides the two half-size sets of drawings and specifications and one electronic copy to the Port PM.

### 3) Permit Issuance

Once the plan review conditions have been met and any outstanding permit fees paid, the permit(s) will be issued digitally to sign and return to ABD. After ABD is in receipt of the digitally signed permit(s); you will receive an ISSUED PERMIT - PRINTING INSTRUCTIONS notification. Print the documents listed in the notification and make them available on the jobsite for inspections.

ABD E-BILL EXPRESS (EBE) System Process for paying permit fees:

- Permit fees are paid by electronic funds transfer or credit card via the Port's E-Bill Express system.
- As required by Washington State law (RCW 36.29.190), all debit/credit card payments will be charged a non-refundable processing service fee. The initial service fee rate is 2.3% of the payment amount and is subject to change.
- NO SERVICE FEES will be assessed on electronic funds transfer payments made from a checking or saving account.
- Total permit fees MUST be paid prior to release of the permit.

## B. Electrical Permit

Electrical permits are issued by the Washington State Department of Labor & Industries (L&I). <http://www.lni.wa.gov/TradesLicensing/Electrical/FeePermlnsp/> If City of SeaTac is the building permit authority, then they provide the electrical permit instead of Washington State L&I.

## C. Food Facilities Permit

Food-handling facilities require specific plan review and approval by King County Public Health Services, Food Protection Program. The King County Health Department's website has complete information on obtaining a food service permit.

## D. Airport Security Plan Changes

In accordance with the Airport Security Plan, the Port is required to notify and obtain approval from the TSA for any changes to the secured and/or Airport Operations Area (AOA) perimeter, including changes to perimeter walls inside the bagwell, concourse, roofs, or fences on the AOA; access into these areas via doors, gates, or holes in the wall; or changes affecting the TSA screening process or exit lanes. All changes must be submitted to TSA within 45 days of the effective date, and TSA has 30 days to review and approve/disapprove these changes.

The Airport is subject to civil penalty by the TSA for failure to notify or obtain approval of these changes. Airport rules and regulations include construction and alteration violations for not following proper procedures.

## E. Liquor License

Liquor licenses are administered by the Washington State Liquor and Cannabis Board. <https://lcb.wa.gov/>

## F. Other Permits

Following are other potentially required permits:

- Vertical transportation—See Washington State Department of L&I website for details (<http://www.lni.wa.gov/tradeslicensing/>)
- Boiler permit—See Washington State L&I website for details (<http://www.lni.wa.gov/tradeslicensing/>)
- FAA—See RAC Section 2, Design Approvals
- Environmental—See RAC Section 6, Environmental
- Water and sewer districts—See City of SeaTac utilities element for map of water and sewer districts ([www.ci.seatac.wa.us/Home/ShowDocument?id=10739](http://www.ci.seatac.wa.us/Home/ShowDocument?id=10739))



## **5. PRE-CONSTRUCTION**

No construction work will start at the Airport without receiving notice to proceed (NTP) from the Port. The Port PM issues an NTP only after all necessary pre-construction reviews and approvals, including a pre-construction meeting, for the project have been completed. These pre-construction requirements vary depending upon project location and scope. The Port PM confirms which conditions apply to each particular project.

The tenant's lease requires them to comply with all Port procedures and processes pertaining to construction and other tenant improvements within or outside their lease footprint. Failure by the tenant or their contractor to comply with these requirements constitutes a serious violation of their lease with the Port.

Unapproved construction or other tenant improvement work completed by the tenant or their contractor before receiving the required pre-construction approvals and NTP from the Port PM is in violation of the tenant's lease. Any such work is subject to immediate removal and the affected areas are returned to their original condition solely at the tenant's own expense.

### **A. Pre-Construction Submittals**

Pre-construction requirements apply to the general contractor and all other contractors or vendors. If a tenant chooses to hire vendors or other contractors to complete construction work who are not covered by the general contractor's liability insurance and safety plan, then those contractors or vendors performing construction must provide the same pre-construction submittals and receive an NTP letter.

#### **1) Notice to Proceed Requirements**

Before the official letter for NTP is issued from the Port PM, the tenant contractor and design team are responsible for submitting the items found here and in the Port's *Tenant Improvement Construction General Requirements*, Section 01 32 19, Preconstruction Submittals. The Port PM reviews the requirements with the design team and contractor.

Minimum requirements include the following:

- Contractor liability insurance see Section 5.A.2, Contractor Liability Insurance, for specific requirements if not addressed in the tenant's lease
- Construction Safety Plan per the Port's *Tenant Improvement Construction General Requirements*, Section 01 35 29, Tenant Safety Management, Site-Specific Safety Plan, and Job Hazard Analysis, approved by Port Safety (see Section 5.A.3, Construction Safety, for requirements)
- Certification that at least one crew member is Occupational Safety and Health Administration 10-Hour and first aid/cardiopulmonary resuscitation trained
- General contractor and subcontractor contact information, including 24-hour emergency contacts to be posted on exterior of construction barricade
- Contractor's construction schedule (see Section 5.A.4 Contractor Scheduling and Phasing Plan Requirements, for requirements)
- Pre-construction meeting (see Section 5.B, Pre-Construction Meeting, for additional information)

Additional potential requirements depending on project scope, location, and complexity are found below; these should be verified with the Port PM:

- Copies of any permits or other regulatory or public agency approvals required within the contract documents
- Environmental submittals and Pollution Prevention Plan per the Port's *Tenant Improvements Construction General Requirement*, Section 01 57 23, Pollution Prevention, Planning, and Execution
- Temporary Power Plan (application for connection is required) per the Port's *Tenant Improvement Construction General Requirements*, Section 01 50 00, Temporary Facilities and Controls
- Copy of the executed contractual agreement between the tenant and the contractor, for ADR projects
- List of long lead items (items requiring more than four weeks to obtain), for ADR projects
- Final construction submittal log

### 2) Contractual Liability Insurance

Contractors and tenants are required to carry a minimum of the following:

- \$2 million general commercial liability insurance
- \$10 million for large construction projects and higher-risk projects
- \$1 million for automobile liability insurance Note: If contractor staff are using personal vehicles (placard applied), then additional insurance requirements apply. Contact Port PM for requirements.
- \$5 million for automobiles operated in the AOA
- \$10 million for automobiles operated on the aircraft movement area (AMA)

Contractors and tenants should include the Port as an "additional insured" by endorsement on their policies while working on Port property. The Port of Seattle is to be named the Certificate Holder.

Port PM will review contractual liability insurance with the tenant, who in turn will require their contractor(s) to carry liability insurance that meets Port requirements.

Contractors are required to provide a certificate of insurance, in accordance to the paragraph above and present it to the Port PM as a prerequisite to commencing construction. They must also provide proof of workers compensation coverage for their employees.

### 3) Construction Safety

The Port's *Construction Safety Manual* ([https://www.portseattle.org/sites/default/files/2018-03/Construction\\_Safety\\_Manual.pdf](https://www.portseattle.org/sites/default/files/2018-03/Construction_Safety_Manual.pdf)) includes detailed safety requirements.

#### a) Contractor's Safety Plan

The contractor must submit a site-specific safety plan according to Port's *Tenant Improvement Construction General Requirements*, Section 01 35 29, Tenant Safety Management. The safety plan must include protection of the workers, adjacent tenants, and the traveling public.

Along with the site-specific safety plan, contractors must provide an outline of their scope of work in a site-specific safety plan worksheet found in Port's *Tenant Improvement Construction General Requirements*, Section 01 35 29, Appendix A.

If the contractor does not have their own safety plan, a template Sample Accident Prevention Program - Construction can be obtained from Washington State Department of Labor & Industries at:

<http://www.lni.wa.gov/Safety/Basics/Programs/Accident/default.htm>

Acceptance of the site-specific safety plan (including a job hazard analysis and other supporting documentation) is a condition that must be met before NTP and work begins. The tenant contractor is required to designate an on-site representative with responsibility to stop work and remedy unsafe working conditions. Tenants are required to make this procedure known to all bidding contractors.

### b) Safety Orientation and Training

All contractor, consultant, design team, and vendor personnel (including subcontractors and subconsultants) working on construction sites on Port property are required to attend the Port construction safety orientation before working on site. Construction safety orientation is held Mondays, Wednesdays, and Fridays at 7:00 a.m. to 8:30 a.m. The Port PM can provide directions to the training.

### c) Construction Safety Coordination

Operational safety on AOA and AMA:

- All contractors, subcontractors, vendors, and consultants associated with the project must comply with the Port's *Tenant Improvement Construction General Requirements*, Section 01 35 13.13, Operational Safety on Airports During Construction.

Port Engineering Safety Inspectors conduct regular inspections.

The Port FD oversees terminal safety, including site access, fire extinguishers, and determination of dangerous situations. Contractors are required to coordinate all hot work (flame or spark producing activities) with the Port FD.

## 4) Contractor Scheduling and Phasing Plan Requirements

Before work begins, the contractor submits for the Port PM's acceptance, a detailed progress schedule for proposed methods and sequence of work, including estimated dates for starting and finishing each construction stage. Project schedules should be used as a plan to facilitate the work and permit maximum protection of the public. The contractor is required to follow the progress schedule unless otherwise approved by the Port PM. All changes are communicated to the Port PM and Port Inspector.

The progress schedule consists of a bar chart indicating time factors for all significant design, manufacturing, and installation activities, including the following:

- A bar chart
- Work activities
- Estimated time of each activity
- Sequence of work in sufficient detail to accurately evaluate progress at any time during performance of the contract
- Start and completion dates for each item of work

The contractor submits schedule updates for the duration of the work. Frequency of the updates is determined with the Port PM and Port Inspector at the pre-construction meeting.

## 5) Badging and Access

The tenant schedules and obtains all necessary badging, Airport driving privileges, and access, and keys for the general contractor and subcontractor staff, as well as access and keys (see Section 2.A.4 for more detailed information). Tenant is authorized signer for contractor unless contractor is already authorized. Personnel accessing restricted areas are required to pass through employee screening.

## B. Pre-Construction Meeting

All tenant projects require a pre-construction meeting. The pre-construction meeting sets the stage for a successful project and allows the entire project team to meet each other, define lines of authority and communication, review key project administrative procedures, review the proposed schedule, and discuss the project. This meeting is scheduled by the Port PM or Port Inspector. The request for a pre-construction meeting must be made at least 10 working days before the date of the meeting.

No work may begin without a pre-construction meeting. However, at the discretion of the Port PM or Port Inspector, pre-installation conferences may be waived for minor projects when the responsible contractor has demonstrated a working knowledge and past compliance with the RAC.

All tenant construction projects require Port inspection for compliance with project plans and specifications, building permits, fire and life safety, and Port standards and guidelines. Representatives from Port departments are invited to the pre-construction meeting.

The following are typical, expected attendees:

- Port PM, Port Inspector, Port critical stakeholders
- Tenant's representative
- Designer and professional consultants for mechanical, electrical, civil, and structural disciplines, as applicable (if not, local may participate by telephone)
- Contractor's PM and superintendent
- Major subcontractors, as appropriate
- Major suppliers, as appropriate

Following are typical agenda items:

- Purpose of meeting / Introductions
- Project overview
- Contract time and completion date
- Correspondence and communications
- Safety management and orientation requirements
- Environmental
- Hazardous material management
- Security and badging
- Haul routes, access points, office/laydown/contractor parking, and project constraints
- Temporary facilities and utility shutdowns (water hoses need back-flow preventer and an application for connection is required for temporary power and water) and other construction-related utility impacts requiring Port Maintenance support



- Contractor on-site management, supervision, and general information
- Laws, Regulations, permits, fees, notices, environmental compliance
- Quality control and quality assurance, Inspections, and testing
- Demolition warning (contract with Siemens for site work before any ceiling or wall demolition to prevent damage to the DDC system)
- Submittals
  - Construction submittals
  - Deferred submittals
  - Close-out documents as-built redlines, O&Ms, CMMS
- RFIs
- Contractor reports
- Project schedule
- Weekly project progress meeting schedule



## 6. CONSTRUCTION

After the project moves from pre-construction to construction, duties and responsibilities shift from the Port Project Management Group to the Port Construction Management Group. The assigned Port Resident Engineer and Port Inspector become actively involved in the day-to-day project activities.

RAC Section 6.B, Construction Management, addresses construction management, construction logistics, and typical issues with compliance with Airport standards. The Aviation Operations, Traffic/Landside Operations, Security, and Environmental Sections all address various aspects of construction and design. The ABD, Port FD, and Environmental sections address construction requirements as well. The RAC contains detailed construction requirement information, and the Port's *Tenant Improvement Construction General Requirements* has detailed specifications for tenant projects. The Port's *Tenant Improvement Design and Construction Process Manual* describes processes that are specific to tenant construction projects.

### A. Construction Management

This section describes processes that are unique to tenant construction projects. Construction requirements that are common to tenant and Port capital projects are addressed in the RAC.

#### 1) Shop Drawings, Construction Drawings, Product Data, and Sample

At the work site, the contractor maintains copies of all approved construction drawings, specifications, addenda, RFIs, change orders, change directives, as-built redlines, approved shop drawings, product data, and samples, including the Port-approved materials sample board, if established for the project.

The tenant ensures that its contractor prepares, reviews, certifies, and submits to the Port PM with reasonable promptness and in such sequence so as to cause no delay in the work, any requested shop drawings, construction drawings, product data and samples, and equipment and material submittals.

Work may not begin until shop drawings, construction drawings, product data, or material submittals have been approved by the design team and reviewed and accepted by the Port. The contractor is responsible for building per the approved construction contract documents unless approvals are received from the design team and the Port.

#### 2) Construction Submittals and Deferred Submittals

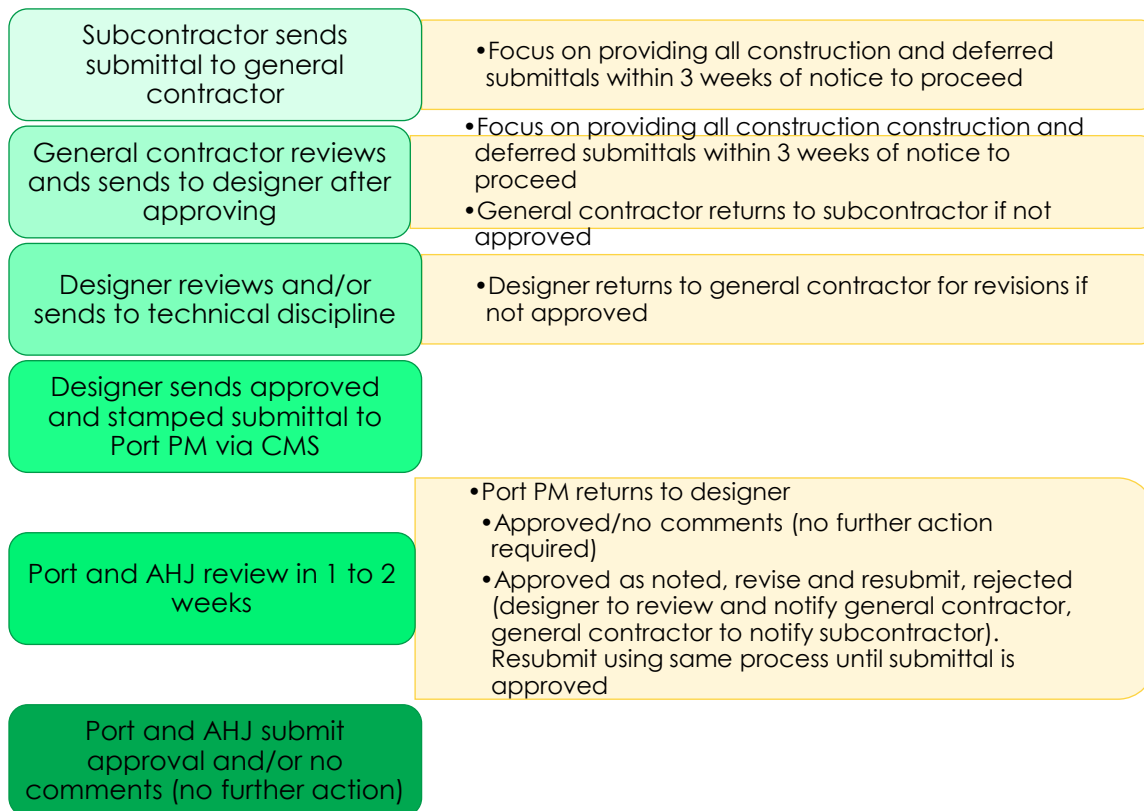
The construction submittal log is incorporated into the project's construction documents. The contractor reviews the submittal log and notes any additional items or changes and submits it to the Port PM. Typical construction submittals are described in Section 3.C.11.a, Construction Submittals. The Port indicates which submittals it must see for review and approval. Construction submittals are delivered to the Port via the Port's Contract Management System (CMS). Construction submittals are in indexed, searchable pdf format. In consultation with the Port PM, the use of CMS may be waived for very small projects.

The tenant, Port PM, and Port stakeholders will pre-determine the most expeditious turnaround time for Port reviews. A typical turnaround time for Port submittal reviews is 1 to 2 weeks. The design team reviews and approves the contractor's submittal data before forwarding the data to the Port PM. The contractor provides sufficient submittal

data and information to allow the Port technical reviewer(s) to determine that the proposed equipment, material, or process meets the project specifications and Port's approval.

Generally, the process for construction submittals is as follows (see Figure 2 for a graphical depiction):

- The contractor submits to design team for review and approval (if agreed to in advance, the contractor may submit to Port PM concurrently)
- The design team or the designated representative submits to Port PM via CMS
- The Port PM distributes the submittal for Port review and returns documents to design team, who returns the submittal to the contractor.



**Figure 2. Port Construction and Deferred Submittal Review Process**

### 3) Substitution of Materials and Equipment

The tenant or its contractor may ask for substitution of specified material, equipment, or furnishings with equal or equivalent items based on the following:

- The specified material and/or item is not available.
- The item has an unreasonable delivery time due to no fault of the contractor.
- The approved contract documents allow the use of equal or equivalent products.
- The substitutions comply with Port standards.

All proposed substitutions to the accepted documents for the work must be submitted to the Port PM and Port Inspector for review via CMS. The proposed substitution is distributed to the appropriate Port Departments for review and acceptance. No

change order or other contract modification that materially changes the scope of the improvements is executed without prior approval of the Port Inspector.

The contractor provides AHJ Inspector (and/or Washington State L&I) with an updated copy of the drawings and specifications reflecting all such alterations or deletions.

### 4) Requests for Information

Copies of RFIs are submitted to the Port PM via CMS. Submit RFIs to the Port PM, when information is required from the Port to answer an RFI. In addition to the RFIs that require input from the Port, a copy of all RFIs are provided to the Port PM weekly. RFIs requiring Port input should include the following information:

- Design team RFI form (design team should suggest a response if able)
- Clear statement of question
- Supporting documentation

Process for RFIs needing Port response is as follows:

- Design team sends RFI to Port PM via CMS
- Port PM forwards to appropriate Port staff
- Port PM returns RFI to design team
- Design team responds to contractor

## B. Construction Logistics

### 1) Temporary Construction Barricades

The type of construction barricade required depends on work location and public interface. The design team coordinates with the Port PM for more detailed information.

Construction barricades must meet the requirements of the Port's *Tenant Improvement Construction General Requirements*, Section 01 50 00, Temporary Facilities and Controls. Construction barricade positions are approved by the Port before installation and must be indicated on the drawings. The design team is responsible for providing the necessary specifications in their construction documents so that the contractor can provide compliant barricades. If the Port provides a construction barricade, then the tenant contractor is responsible for repairs, patching, and painting after the barricade is removed. The contractor is responsible for repairing damage to the construction barricade.

Public facing barricades must provide the following elements: wayfinding, traveler alerts, "What's Happening," and L&I and safety signage. The tenant coordinates with the Port PM for signage requirements. Any deviation from Port standards must be submitted and approved by Port Airport Operations.



## **7. COMPLETION AND CLOSE-OUT**

Project completion and close-out requires close coordination with the Port Inspector, Port PM, and other stakeholders. The completion process starts with interim inspections and concludes with final inspections and close-out documentation. Accurate close-out documentation is essential to the Port. This section describes the punch list processes, final inspections, demobilization, and close-out documentation.

### **A. Punch List, Final Inspections, and Demobilization**

#### **1) Punch List and Deficiency List**

Interim inspections and punch list requirements are as follows:

- Before wall and ceiling closures and other times, the Port Inspector schedules Port technical staff to review construction for compliance with Port standards and guidelines.
- The interim inspections start the Port punch list. Subsequent inspections add items to the same punch list.
- When construction completion has been determined and before the final inspection for building code compliance, the Port Inspector and/or Port PM conduct a walk-through with Port and tenant stakeholders to identify any deviations from the project's construction documents and compile a deficiency list. The Port Inspector or Port PM transmits the list to the design team and contractor.

NOTE: A punch list inspection is not requested or granted if the work is incomplete. The contractor notifies the Port Inspector with a request to schedule the inspection no less than 5 working days before work is completed.

After the punch list of deficient items is generated, the contractor has 60 days, or other duration specified in tenant's lease, to resolve all items on the list according to the tenant's lease requirements. When punch list items are complete, the contractor notifies the Port Inspector, who conducts a final inspection to confirm remaining punch list items have been completed.

#### **2) Final Building Permit Inspections**

The contractor is responsible for obtaining all temporary and permanent Certificates of Occupancy and inspections required by the AHJ(s), and others, and for submitting a copy of the signed off inspection card to the Port Inspector and Port PM.

#### **3) Compliance Tests**

The intent of compliance tests is to functionally test equipment and systems to verify operation in accordance with design. This process verifies that the equipment is ready to energize and operate. Examples of compliance tests include back flow preventer test, meter compliance inspection, hood functional and operational tests, test and balance on the HVAC systems and water sanitization test. The utilities, equipment, and systems in a tenant project must fit seamlessly into the Airport's utilities and systems. All compliance tests are submitted to the Port Inspector and Port PM via CMS for distribution to Port F&I and Maintenance.

#### **4) Draft As-built Redlines, O&Ms, CMMS, Warranties**

Prior to substantial completion, drafts of the operations and maintenance manuals, computerized maintenance management system, and warranties for all items that the

Port will maintain must be submitted. Final versions of same will be submitted with the close-out documents described below. Similar draft as-built redlines must be submitted prior to substantial completion. This allows the Port to maintain equipment while awaiting the final documentation. Refer to the Port's *Tenant Improvement Construction General Requirements*, Section 01 78 23.13, Aviation Operations and Maintenance Data and Section 01 78 29, As-built Redline Documents for detailed requirements.

### 5) Commissioning

The contractor complies with the Port's *Tenant Improvement Construction General Requirements*, Section 01 91 00.13, Commissioning Activities. All project utilities, equipment, and systems must fit seamlessly into the Airport's utilities and systems. The contractor conducts a commissioning effort using checklists provided in the project specifications before receiving a Certificate of Occupancy. The intent of these checklists is to functionally test equipment and verify operation in accordance with the contract documents. The contractor notifies the Port PM and Port Inspector at least 2 weeks before beginning any commissioning activity to coordinate with Port Maintenance, Facilities Management and F&I personnel. As a result of commissioning, a close-out report is provided by the tenant and forwarded to the Port PM via CMS for distribution to Port stakeholders.

### 6) Notice of Construction Completion (ADR Projects Only)

When temporary Certification of Occupancy has been received, the Port PM and Port Inspector reviews the space to confirm that construction is complete. The Port PM issues a notice substantial completion of construction. Notice of substantial completion of construction is not permission to stock and train or begin revenue operations. The Port Business Manager issues the notice stock and train and the notice to open letter, which allows the tenant to begin operations, such as stocking and training and opening to the public.

### 7) Final Cleaning

The contractor complies with the Port's *Tenant Improvement Construction General Requirements*, Section 01 74 00, Cleaning. The contractor includes all project work areas, including laydown spaces and logistics yard, if applicable.

### 8) Demobilization

The contractor demobilizes and restores the project site, logistics storage, and project work areas.

### 9) Badges and Keys

The contractor and subcontractors returns all badges and keys to the authorized signer after demobilization from secure areas. Badges are regulated by TSA and the Port is held to a threshold of unaccounted badges. Fines are assessed by Credential Center invoiced to the company for failure to return badges and keys.

## B. Close-Out Documents

### 1) Final Construction Submittals, Operations and Maintenance Data, Computerized Maintenance Management System, and Warranties

The tenant contractor submits final constructional submittals as required in the contract documents. Any submittal documents that were updated during the project or were



noted during initial review for correction, but were marked "approved as noted" should be updated.

The tenant contractor provides O&M data and completed CMMS data form on any equipment that will be serviced, maintained or become property of the Port. O&M data, completed CMMS data form, and warranties are submitted to the Port PM via CMS. The contractor complies with the Port's *Tenant Improvement Construction General Requirements*, Section 01 78 23.13, Aviation Operations and Maintenance Data. See Design section, 3 C 11 e, under Construction submittals for more information on the CMMS form. The contractor should be aware of the CMMS data form requirements, specifically in relation to serial number entries during construction and populate the form throughout the construction period.

### 2) As-Built Redlines and Computer-Aided Design Record Drawings

There are two steps to the completion of Record Drawings; first as-built redline documents are submitted and reviewed, then based on the redline information, the as-built record drawings are prepared:

**As-built Redline Documents:** The contractor complies with Port's *Tenant Improvement Construction General Requirements* Section 01 78 29, As-built Redline Documents. The contractor records all changes to the contract drawings by making adequate and proper entries on a continual basis as redlines when any changes occur. The contractor submits via CMS.

**As-built Computer-Aided Design (CAD) Record Drawings:** This process is defined in the Port CAD standards and Port technical standards. After work is completed, the contractor or tenant transfers the recorded data from the as-built redlines to the as-built CAD record drawings; this transfer includes updated panel schedules for all electrical panels where circuits have been modified by the project (see the electrical standards for the required format). Mechanical plan CAD record drawings with architectural background and x-ref files are supplied to Siemens for DDC graphic updates, either directly or to Port F&I via the Port PM.

As-built CAD record drawings comply with Port CAD standards and are submitted in AutoCAD and PDF format to the Port PM for review by the Port CAD standards review technician. The Port PM indicates the required number of electronic and hard copies of the as-built CAD record drawings. Typically, one or two hardcopies are required.

### 3) Training

Operational and service training is provided, as directed by the Port PM, for any equipment that may impact Port systems or become the responsibility of the Port to maintain. The contractor complies with the Port's *Tenant Improvement Construction General Requirements*, Section 01 79 00, Training.

### 4) Airport Dining and Retail Project Reports

#### a) Certification of No Liens

ADR tenants have a requirement in their lease to provide certified proof in writing demonstrating that no liens exist on any or all of the construction.

#### b) Certified Statement of Total Construction Cost

The tenant provides a certified statement (subject to Port verification, audit, and approval) specifying the total construction cost (including architectural, engineering, and permitting costs) in such detail as reasonably necessary to

ascertain the costs of all leasehold improvements, furniture, fixtures, and equipment constructed or installed by concessionaire in the premises.

c) **Certification Constructed in Compliance with Approved Drawings and Port Standards**

The tenant designer shall provide a certification that the improvements have been constructed according to the approved drawings and specifications and in strict compliance with all legal requirements and Port standards.

**5) Resolution 3725 Requirements**

The tenant provides any closing documentation required by Resolution 3725.

**C. Certificate of Occupancy**

Once all required final inspections, including fire and life safety systems, are complete and operational, ABD can issue a final Certificate of Occupancy.

The ABD inspector is solely responsible for issuing the Certificate of Occupancy and does not issue the certificate until there are no code violations and all required inspections are complete. The general contractor is responsible to request final inspections and confirm the building permit is closed.

# Appendix A

## Tenant Improvement Project

### Pre-Design Worksheet



# TENANT IMPROVEMENT PROJECT PRE-DESIGN WORKSHEET

**PROJECT TITLE:** \_\_\_\_\_

**PORT PM CONTACT:** \_\_\_\_\_ **PHONE:** \_\_\_\_\_

**TENANT:** \_\_\_\_\_

**TENANT PM CONTACT:** \_\_\_\_\_ **PHONE:** \_\_\_\_\_

**STIA No.:** \_\_\_\_\_  
**WORK PROJECT No:** \_\_\_\_\_

**PORT INSPECTOR:** \_\_\_\_\_ **PHONE:** \_\_\_\_\_

No.	ITEM	DESCRIPTION	CONTACT	REQUIRED (Y/N)	REMARKS
<b>STANDARDS &amp; REGULATIONS</b>					
1.	RULES FOR AIRPORT CONSTRUCTION (RAC) INTER-LOCAL AGREEMENT	Provides necessary information to successfully execute and complete construction at Seattle-Tacoma International Airport as well as the various Port stakeholders interfacing with contractors during a project. It can be found at the following: <a href="#">link</a>	Port PM		
2.	TENANT IMPROVEMENT CONSTRUCTION GENERAL REQUIREMENTS	Compendium of procedures, rules, regulations and standards to be followed for all Port and tenant construction projects at Seattle-Tacoma International Airport. It can be found at the following: <a href="#">link</a>	Port PM		
3.	PORT CAD STANDARDS- (A/E TO ATTEND CAD ORIENTATION IF NECESSARY)	The CAD design standards are available at the following: <a href="#">link</a>	Port AutoCAD Engineer:		
4.	ARCHITECTURAL GUIDELINES AND STANDARDS	The architectural guidelines and standards are available at the following: <a href="#">link</a>	Port PM		
5.	ELECTRICAL SYSTEM STANDARDS	The electrical systems design standards are available at the following: <a href="#">link</a>	Port PM		
6.	MECHANICAL SYSTEMS STANDARDS	The mechanical systems design standards are at the following: <a href="#">link</a>	Port PM		
7.	COOKING EQUIPMENT VENTILATION STANDARDS	The cooking equipment ventilation standards are available at the following: <a href="#">link</a>			
8.	CIVIL SYSTEMS STANDARDS STORMWATER MANAGEMENT STANDARDS	The civil system standards for domestic water, sanitary sewer systems, industrial waste, and storm drain system design standards are available at the following: <a href="#">link</a>	Port PM		
9.	COMMUNICATION SYSTEM STANDARDS	The communication systems design standards are available at the following: <a href="#">link</a>	Port PM		
10.	DINING AND RETAIL DESIGN GUIDELINES	The dining and retail design guidelines are available at the following: <a href="#">link</a>			
<b>LONG LEAD ITEMS</b>					
11.	F.A.A. REGULATION- NOTICE OF PROPOSED CONSTRUCTION ALTERATION (IF APPLICABLE)	The FAA requirements can be found within the Construction Safety Manual and can be downloaded at the following <a href="#">link</a> : The FAA regulation document provided by the Port PM will have to be completed and submitted back to the Port PM at least 90 days before the start of the project.	Port PM		
12.	CREDENTIAL CENTER AND TRAINING – BADGES, ACCESS TO SECURE AREAS FOR A/E, CONTRACTORS	For all appointments related to badges, training and security, please visit the Port employee service website at: <a href="#">link</a>	Port PM		
13.	F.A.A. Project Needs Assessment	Projects that access or impact the Airport Operations Area (AOA) need to go through a project needs assessment provided by Port PM at <a href="#">FAA Safety Management (Port accessible only)</a>	Port PM		
14.	<a href="#">F.A.A. Form 7460</a>	Projects where crane or other equipment penetrate airspace	Port PM & Operations		

PRE-DESIGN					
15.	SITE VERIFICATIONS – UTILITY POINTS OF CONNECTION	A/E is responsible for all site verifications. Port PM will arrange for all site visits and maintenance shop support. A minimum of 10 working days advance notice is required. The A/E team will need to bring with them all necessary tools and equipment to perform the site visits. The Port PM provides only escorting.	Port PM		
16.	30 DAYS METER READINGS	Electrical engineer to identify panels that require load meter reading. If able the Port PM will provide the 30 days loads meter readings to the A/E team. If not able the tenant will hire a licensed electrician to obtain.	Port PM		
17.	THE AIR AVAILABILITY REPORT	Tenant's mechanical engineer will provide pre-test and balance report, via an approved consultant, prior to starting design and demolition.	Port PM/F & I		
18.	PORT WILL PROVIDE A DEMARCATION PANEL	Port PM will provide the communication information. Typically, the Port will bring the communication from the IT communications room to the tenant space. The Port will provide the Demarc panel and the tenant will have it installed. [In some cases, an airline tenant will install proprietary communications infrastructure to the Port backbone.]	Port PM		
19.	THE GOOD FAITH ESTIMATE /RMM REPORT	Port PM will provide the good faith estimate (asbestos) report at the request of the A/E team.	Port PM		
DESIGN/PERMITTING					
20.	DESIGN REVIEW PROCESS	There typically will be 3 two-week design submittal/review phases at: 60%, 90% & 100%. Each phase of design requires that the A/E and Port PM work together to communicate the Airport-specific details of design development. They range from coordinating existing mechanical, electrical, communications conditions surveys to discipline review meetings to site utility plans. Any time a tenant project or work impacts existing Port systems the A/E shall provide CAD compliant drawings. It is the A/E responsibility to fulfill these requirements. The Port PM is responsible for assisting the A/E to successfully move through the Port's design review process. <b>NOTE:</b> Washington State Law requires all documents issues by an engineer to be stamped; preliminary documents shall be stamped but not signed. <a href="http://apps.leg.wa.gov/WAC/default.aspx?cite=196-23&amp;full=true">http://apps.leg.wa.gov/WAC/default.aspx?cite=196-23&amp;full=true</a>	Port PM		
21.	COMMISSIONING	The intent of Commissioning is to verify systems and equipment are being delivered to the Port fully functioning in accordance with Contract Documents, and in compliance with the Washington State Energy Code (WSEC) sections 408.1.1, 408.1.2, and Fig. 408.1.2.1. Commissioning activities will be provided by the Contractor utilizing the Port's checklists. The Commissioning checklists will be provided to the tenant design team by the Port PM. Each designer is required to review the checklist table, determine what systems and equipment will be part of their project and check in the table. After determining what systems and equipment will be part of the project the designer will need to complete its part on the appropriate checklists. The checklist table along with the required checklists that apply for each project must be submitted during the 90% design review. <b>The commissioning table and the checklists must be included within the specification sections of the design package.</b>	Port PM		
22.	ENVIRONMENTAL REVIEW	The Port environmental group will perform an environmental survey as part of the design review process. The survey will cover questions about air quality, hazardous materials, water quality, state and federal review process, contaminated management and geotechnical information. The environmental group will provide the Port PM with an environmental document custom made for each particular project.	Port PM		

23.	APPLICATION FOR CONNECTION TO: - CHILLED WATER, STEAM, CONDENSATE OR AIR HANDLING UNITS - ELECTRICAL SYSTEM - COMMUNICATION SYSTEM - WATER SYSTEM - SANITARY WASTE SYSTEM - NATURAL GAS - INDUSTRIAL WASTE SYSTEM - STORM DRAIN SYSTEMS - CABLE TELEVISION	The Application for Connection forms allow the Port to assess the impacts of additional services/loads on airport systems, identify the point of connection, reserve the point of connection for approved service/loads, establish and maintain configuration control of the system, and plan for long-term system development to meet the needs of STIA. Contact Port PM for application forms. An approved application for connection is required before any connection or installation to a utility system is made.	Port PM		
24.	PRODUCT DATA REQUIREMENTS / CONSTRUCTION SUBMITTAL LOG / CMMS	A/E to provide the specifications which include the pertinent product data and installation requirements from the Guide Specifications. (Mechanical, Electrical, Communication, etc.). It can be found at the following: <a href="#">link</a> A/E to provide construction submittal log with 90% and 100% design. A/E to provide CMMS form with 90% and 100% design	Port PM		
25.	AIRPORT BUILDING DEPARTMENT PERMIT PACKAGE	All plans submitted must be complete (100% of the total design phase before the Airport Building Department will accept the plans for review). The airport building department requirements are provided by the Port PM.	Port PM		
26.	TEMPORARY POWER REQUIREMENTS	If required this must be coordinated during the design process and prior to the start of the project. An application for electrical connection will be required in order to meet the Port's approval.	Port PM		
<b>PRE-CONSTRUCTION/ CONSTRUCTION</b>					
27.	BARRICADES AND WHAT'S GOING ON SIGN	The barricades requirements can be found within the Tenant Design and Construction Process Manual and the Construction General Requirements and can be downloaded at the following: <a href="#">link</a> . The "What's Happening" sign will be provided by the Port sign shop.	Port PM		
28.	CONTRACTOR'S SITE SPECIFIC SAFETY PLANS	The General Contractor must submit the company's safety plan. The safety plan must be approved the Port of Seattle safety group prior to starting the construction project. The GC and all its subcontractors must attend the Port safety orientation, <b>NOTE:</b> Vendors who are not under the contract with the GC must submit their own safety plan and attend then Port safety orientation. The Port Safety Manual and Safety Management documents can be downloaded at the following link: <a href="#">link</a>	Port PM		
29.	CONTRACTOR'S CERTIFICATE OF INSURANCE	Must be provided by the General Contractor no later than at the pre-construction meeting to the Port PM <b>NOTE:</b> Vendors who are not under the contract with the GC must submit their own certificate of insurance.	Port PM		
30.	SUBMITTAL LOG /LONG LEAD ITEMS	Must be provided by the General Contractor no later than at the pre-construction meeting to the Port PM	Port PM		
31.	CONTRACT MANAGEMENT SYSTEM (CMS)	Tenant, Contractor and A/E to identify staff that will be submitting construction submittals, RFIs and coordinating other construction documents on CMS. Review of deferred submittals will also be coordinated on CMS.	Port PM		
32.	PRE-CONSTRUCTION MEETING	The Pre-con meeting will be organized by the Port Inspector. The Port Inspector will be the liaison between the project and the Port.	Port Inspector		
33.	PROJECT SCHEDULE AND LIST WITH 24/7 ON CALL CONTACTS (G.C.)	Must be provided by the General Contractor no later than at the pre-construction meeting to the Port PM and Inspector.	Port Inspector		
34.	CONSTRUCTION ADVISORY FORM AND UTILITIES SHUT DOWN FORM	Must be submitted by the General Contractor to the Port Inspector in advance of starting the project.	Port Inspector		

PROJECT COMPLETION AND CLOSE-OUT					
35.	PRE-FINAL PORT INSPECTIONS	These inspections are scheduled by the Port Inspector at the request of the general contractor.	Port Inspector		
36.	FINAL L&I ELECTRICAL & HEALTH INSPECTIONS	These inspections are scheduled by the electrical contractor and the tenant and must be completed prior to the final building permit inspection. [Health Inspections typically for Airport Dining & Retail (ADR) projects only]	Port Inspector		
37.	KEYING	Tenant must determine keying requirement at least 4 weeks before completion and submit requests to the Port Credential Office.	Port PM		
38.	O&Ms, CMMS, AS-BUILT REDLINES	Contractor will submit CMMS form, O&Ms, and As-built Redlines prior to TCO.	Port PM		
39.	DEFICIENCY OR FINAL PUNCHLIST WALK	This inspection is performed by the Port PM, GC representative, architect, tenant and Port Inspector	Port Inspector		
40.	FINAL BUILDING PERMIT OR TEMPORARY CERTIFICATION OF OCCUPANCY (T.C.O.)	This inspection is performed by the airport building department and Port fire department inspectors and is scheduled by the general contractor.	Port PM		
41.	AS BUILTS & CLOSING DOCUMENTS	The final as-builts, AutoCAD Port approved. [Certification of Cost and Lien Releases are required for ADR tenant projects only]	Port PM		
42.	FINAL CERTIFICATION OF OCCUPANCY (C.O.)	Final Certification of Occupancy will be issued by the Airport Building Department once all items in the deficiency list have been completed in accordance with the Port codes and specifications.	Port PM		

**THE ABOVE ITEMS HAVE BEEN ADDRESSED AS INDICATED WITH THE TENANT'S ARCHITECT/ENGINEERING TEAM. BY SIGNING BELOW THE OWNER/OWNER'S REPRESENTATIVE(S) UNDERSTAND AND ACCEPT RESPONSIBILITY TO IMPLEMENT AND COMPLY WITH ALL REQUIRED PORT DESIGN STANDARDS, SPECIFICATIONS AND CONSTRUCTION REQUIREMENTS.**

**PORT PROJECT MANAGER:** \_\_\_\_\_ **DATE:** \_\_\_\_\_  
**OWNER/OWNER'S REPRESENTATIVE:** \_\_\_\_\_ **DATE:** \_\_\_\_\_  
**OWNER/OWNER'S REPRESENTATIVE:** \_\_\_\_\_ **DATE:** \_\_\_\_\_