This master should be used by designers working on Port of Portland construction projects and by designers working for PDX tenants (“Tenants”). Usage notes highlight a few specific editing choices, however the entire section should be evaluated and edited to fit specific project needs.

SECTION 013100 - PROJECT MANAGEMENT AND COORDINATION

1. GENERAL

Use 1.1 for PDX only; use 1.2 and/or 1.3 for all others.

* + - 1. PORT/TENANT OPERATIONS
				1. Work in coordination and cooperation through the Port with airlines, tenants, and other contractors so that normal operations may be carried on without interruption.
				2. The Port, airline, or tenant operations may require that certain of the Contractor’s operations be scheduled around Port, airline, or tenant activities, and certain areas of the work may be required to be bypassed and accomplished when Port, airline, or tenant operations permit.

Tenants: Delete Articles 1.2, 1.3, 1.4, and 1.5.

* + - 1. PORT OPERATIONS
				1. Work in coordination and cooperation with the Port and other contractors so that normal operations may be carried on without interruption.
				2. Port operations may require that certain of the Contractor’s operations be scheduled around Port activities. Certain areas of work may be required to be bypassed and accomplished when Port operations permit.
			2. PORT TENANTS
				1. Coordinate work affecting Port tenants through the Port. Special attention shall be given to avoid interfering with tenant operations.
				2. Some of the Contractor’s work may need to be scheduled around tenant activities, or done on swing or graveyard shifts, or weekends and holidays.
			3. OTHER CONTRACTORS
				1. The Port reserves the right to award other contracts for work in the vicinity of work covered by this contract.

Delete B if no conflicts in work or staging areas with other projects.

* + - * 1. Contemplate in planning and work scheduling the following projects which will be in progress in the vicinity during the time of this contract:
				2. The various contractors and the Port will mutually establish a schedule of construction for the use of common work areas.
			1. MILITARY ACTIVITIES
				1. The site of the work is a military reservation, and rules and regulations established by the Base Commander must be complied with by the Contractor.
				2. The existing buildings and air base will be in full occupancy and operation during this contract. Arrange and schedule work in cooperation with the Base Civil Engineer, in order to cause the least possible disturbance, inconvenience, and noise.
				3. Schedule work so as not to interfere with opening, closing, and lunch hours. Avoid placement, storage, routing of materials, work, vehicles, or equipment which would block access to or interfere with access to existing buildings, parking or storage places, utility valves, or switches and fire protection devices.

Tenants: Retain A, and delete all else.

* + - 1. CONTRACTOR’S COORDINATION
				1. The Contractor is responsible for overall coordination of the work.
				2. The drawings and specifications are arranged for convenience only and do not necessarily determine which trades perform the various portions of the work.
				3. Transmit to the trades doing the work of other divisions the information required for work to be provided under their respective sections (such as foundations, electric wiring, access door locations, etc.) in ample time for their installation.
				4. Consult with the trades doing the work of other divisions so that, whenever possible, motors, motor controls, pumps, valves, etc., shall be of the same manufacturer.
				5. Compare the drawings and specifications of the separate trades before proceeding, noting discrepancies and conflicts. Obtain written instructions for changes necessary. Before installation, make provisions to avoid interferences.

Delete mechanical or electrical references as appropriate in the following two articles.

* + - * 1. Prior to the installation and connection of mechanical and electrical work for work of other sections, or of other contractors, verify the requirements indicated in those divisions with the requirements and characteristics of the other crafts or other contractors’ equipment.

Coordinate layout of mechanical and electrical work before fabrication and installation begins.

Bring deviations and conflicts to the attention of the Port immediately.

* + - * 1. Mechanical and electrical drawings show the general arrangement of the work. Follow as closely as actual building construction and the work of other trades permit.

Electrical drawings are diagrammatic and do not show all offsets, fittings, and accessories which may be required.

Investigate the structure and finish conditions affecting the work and arrange the work accordingly.

Use for airport projects with complicated or large amount of operations impacts. Edit heavily if used for a non-airport project.

* + - 1. OPERATIONS IMPACT DRAWINGS
				1. Provide operations impact drawings showing phases of work and necessary room and area closures, restrictions, and temporary provisions for continued safe operation of airport facilities. Update and reissue the drawings weekly. Items shown on the drawings shall include, but are not limited to, the following:

Dates and times that each drawing covers.

Rooms, roads, and areas closed.

Location of emergency exits.

Changes to baggage conveyor system showing segments of conveyor closed to use and newly opened for use.

Changes to routing of baggage in the ticket lobby.

Pedestrian and vehicle traffic routing and control devices.

Perimeter fencing and barricades.

Any aircraft movement restrictions, such as closures and areas of towing.

All temporary and permanent pavement markings applicable for that phase of work. This will include service road, centerline of taxiways and taxi lanes, gate lead-in lines, and safety lines.

Narrative describing construction activities, aircraft movement restrictions, aircraft parking, gate and taxiway closures, pedestrian and vehicle traffic routes, pavement marking, and barricade and fence changes.

Labeling of features.

Dimensions and coordinates for all features.

Legend.

Use for large building projects needing coordination of many different utilities and other systems. Retain A only for projects in which BIM will be used.

* + - 1. COORDINATION DRAWINGS
				1. The Contractor is responsible for coordination required for use of space. The following coordination drawing requirements shall apply only where the BIM model is not used via clash detection for use of space coordination.
				2. Prepare and submit coordination drawings where close and careful coordination is required for installation of products and materials fabricated off-site by separate entities, where limited space availability necessitates maximum utilization of space for efficient installation of different components, and for site utilities.

Show the interrelationship of components shown on separate shop drawings.

Indicate required installation sequences.

Comply with requirements contained in Section 013300, Submittal Procedures.

Prepare as required and submit coordination drawings for areas of the work listed below:

Where utilities cross over or under baggage conveyor or catwalk.

Refer to the mechanical and electrical divisions for specific coordination drawing requirements for mechanical and electrical installations.

Coordinate information indicating locations and elevations of baggage handling system components and associated power, control, and data, fire protection piping, HVAC ductwork, plumbing piping, electrical and low voltage rough-in and fixtures.

Mechanical and electrical rooms.

Concrete formwork drawings (for shear walls only) with all mechanical, electrical, plumbing, fire protection, communications and security, and other such systems, coordinated for locations of all floor, wall, and beam penetrations, sleeves, and embeds.

All other work areas where congestion might necessitate a change in the ceiling heights, lighting, and diffuser locations, structure, or finishes.

Note that contract drawings shall not be considered as fabrication or installation drawings. In some cases, they only indicate intent; they may be diagrammatic, and they may show only typical conditions; they do not indicate every item required to complete the work.

* + - * 1. Upon written request, CAD drawing files will be provided to the Contractor at no cost. The following information shall be understood:

The written request shall specifically state which sheets of the contract documents are requested.

Plan views only will be provided (i.e., no details or sections, etc.).

Allow five working days for delivery of CAD files.

In many instances, multiple CAD files are referenced together to illustrate information on contract documents. The files are very large and contain extraneous information. The files will be provided as-is. The Contractor shall be responsible for organizing the files to show the information correctly.

One copy of each CAD file will be provided unless otherwise requested.

CAD file format will be AutoCAD.DWG.

Use of the electronic media by the Contractor, subcontractors, and suppliers will be at the Contractor’s sole risk and without liability, risk, or legal exposure to the Port, and the Contractor agrees to release and, to the fullest extent permitted by law, defend, indemnify, and hold harmless the Port, Port’s consultants, and agents and employees of any of them from and against claims, damages, losses and expenses, including but not limited to attorneys’ fees, arising out of or relating to any such use by the Contractor or third parties.

* + - * 1. Prepare coordination drawings in sufficient time to allow for review by the Port and correction (if required) by the Contractor, so as not to delay the work.
				2. The Port will not approve the coordination drawings; this is the Contractor’s responsibility under the contract.
				3. No work affected by the coordination drawings shall be started until the drawings have been reviewed by the Port and returned to the Contractor.
				4. When any section of the specifications requires the submittal of an “equipment layout drawing,” the Contractor shall coordinate all work under various sections of the specifications to assure that no interferences occur in the rooms or areas for which such drawings have been required and that necessary clearances are provided. Installation of affected equipment shall not proceed until required drawings have been reviewed by the Port, as specified in this section.
				5. Where mock-ups and coordination drawings are required for certain assemblies, the coordination drawings will not be reviewed by the Port until the mock-up affected by the coordination drawings is also complete and ready to be reviewed.
				6. The coordination drawings shall use a common architectural layout as a background. The drawings shall be prepared at the same scale to permit overlaying on light tables, shall be clearly dimensioned and shall show the work of all the trades, correctly scaled, in affected areas.
				7. Coordination drawings shall be keyed and cross-referenced to the contract documents.
				8. The sizes and bottom elevations shall be shown for all oval and rectangular ductwork; the sizes and centerline elevations shall be shown for all round ductwork and piping. All major components, such as dampers, valves, controls, pumps, in line devices, cleanouts, etc., shall be dimensioned from column centerlines.
				9. Double lines shall be shown for all ductwork and pipes 6 inches and above. Single lines shall be shown for lines below the sizes noted above.
				10. Coordination drawings shall show all offsets, fittings, and similar items which may interfere with the work of other trades in the areas covered by the coordination drawings so that the work will be installed without interference, within the dimensional limitations indicated, with proper clearances, and will meet the requirements of the contract documents at no additional cost to the Port.
				11. All dimensions shall be verified in the field, whenever possible.
				12. Deviations from the contract document shall be clouded or circled, approval requested in writing and the reasons for the deviations so noted.
				13. Bond copies shall be used for coordination between the trades and shall also be submitted for review.
				14. The CAD originals of the coordination drawings shall be kept up-to-date with revisions which reflect the record conditions. The CAD originals of the coordination drawing shall be submitted to the Port at completion of all work, corrected by the Contractor if so required, and delivered to the Port prior to final payment to the Contractor.
				15. Print and distribute coordination drawings in the same manner as required for shop drawings in Section 013300.
				16. Coordination drawings, when submitted to the Port, shall bear the signature and approval stamp of each of the trades and/or subcontractors affected and of the Contractor, stating that they have been reviewed and approved for coordination.
				17. The coordination drawings of all trades shall be included in each submission.

END OF SECTION 013100