

Seattle-Tacoma International Airport Restroom Standards

Last Updated July 10, 2015

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Introduction

Seattle-Tacoma International Airport (Airport) desires to become one of the top customer service airports in North America as measured by the ACI Airport Service Quality Benchmarking Program (ASQ) and to lead the US airport industry in environmental innovation and minimize the Airport’s environmental impact. Restrooms are often the first and last impression of the facility to the traveling public and frequently identified as the single most important amenity to influence the passenger experience. While all restrooms shall be designed to meet the current International Building Code and ICC/ANSI A117.1 codes for accessibility, new and renovated restrooms also offer an opportunity to design facilities for maximum durability and ease of cleaning along with improved environmental performance. The Airport wishes to provide the most pleasant restroom experience possible to our customers in an environmentally sustainable facility and, to that end, provides the following guidelines for designing new or renovated restrooms for the Airport.

General Restroom Features:

Mock-up During Design

Work with the Airport to determine if a mock-up is desirable and possible during restroom design to test materials and features before construction.

Doorless Entry

A minimum clear opening of 6 feet should be provided where possible. Full-height bullnose corner guards of 12-gauge (or equivalent) stainless steel shall be installed at the ends of the entry wall and the screen wall of the vestibule. Provide adequate obstruction to sightlines into the restrooms.

Entry Identification & Signage

Establish an identity for the restrooms that differentiates them from adjacent wall surfaces, materials and textures. Although space and floor configurations may vary, certain common elements, materials, colors, signage, and lighting should be standardized to provide easy identification by the user. The goal of the entry identity is to provide a visual cue for restroom location.

Restroom signage should be designed following the Signage Standards Manual for Seattle-Tacoma International Airport (STIA). Signage should include reference to the direction and distance of the next closest restrooms to direct passengers in case of closure or long lines.

Restroom Cleaning Considerations

Where possible, restrooms should be laid out so that public access can be maintained when a portion of the restroom must be closed for cleaning or maintenance. A partition that slides to completely seals off one side from the other is the most desirable solution. When this is not possible, signage indicating restroom closure should be integrated into the entrance(s) via a recessed pullout belt that spans the entry way and blocks access

There should be at least one 240V and one 120V service receptacle 18 inches from the floor inside of the restroom for cleaning equipment.

Each restroom pair should include an externally accessible storage area for supplies and cleaning provisions and include a mop sink, water, and 120v GFCI receptacle

Accessible/Ambulatory Toilet Fixture Count

Exceed code requirements where space allows which means generally providing 2 ADA wheelchair accessible stalls where only one may be required. All remaining stalls should meet code requirements for ambulatory stalls to accommodate passengers with limited mobility. Baby changing stations are not allowed inside ADA wheelchair accessible stalls.

Family Restroom Quantity

Provide at least one family restroom per restroom pair where space allows. Each family restroom should include: Water closet, lavatory, mirror, electric hand dryer, towel dispenser, waste receptacle, shelf, toilet paper/cover dispenser, baby-changing station, diaper dispenser, full-length mirror, ledges or a bench for placing personal items, and at least one 120V GFCI receptacle 18 inches from the floor and one at counter height. Everything in the family restroom needs to be ADA compliant.

Men's/ Women's Toilet Fixture Count Ratios

In consultation with the Airport, restrooms should exceed code (IBC Appendix Chapter 29, Minimum Plumbing Fixtures, Table A-29-A) for toilet fixture counts and provide more toilet fixtures for women than men to limit the formation of lines and provide the best customer experience possible. Determine the total number of fixtures based on the expected facility load. Women's toilet fixtures should exceed men's by 50%.

Plumbing Chase

Plumbing chases should be accessible from the exterior of the restroom pair, minimum 3' wide with minimum 24" clear chase (clear of any appurtenances) whenever possible. When limited by footprint constraints, all available options should be considered to achieve maximum chase width including reconfiguration of the restroom layout and encroachment into adjacent spaces (in consultation with Aviation Properties). No chase shall ever be less than 16" clear. The chase should include at least one 120V receptacle and be properly mechanically ventilated. Lighting should be switchable industrial strip fixtures with wire guard and should produce 30 foot-candles when measured at working surfaces.

Faucets

Comply with currently identified standard in most recently published Seattle-Tacoma International Airport Mechanical Systems Standards and meet accessibility standards.

Soap Dispensers

Comply with currently identified standard in most recently published Seattle-Tacoma International Airport Mechanical Systems Standards and meet ADA accessibility standards.

Hand Drying

Provide at least one hand dryer per two sink fixtures. Hand dryers should be located immediately next to washing stations or integrated into the sink if enough space is provided for efficient passenger flow between wash stations. Both of these options, if designed properly, limit the amount of water on the floors and minimize slip hazard. Hand dryers should meet ADA requirements and be as quiet as possible to avoid conflict with hearing aids. The dryers should retain any water blown from people's hands so that it is not deposited on floors.

Provide one "out-of-the-way" paper towel dispenser, preferably near, but not directly above, the baby changing station. The Port will specify the paper towel dispenser to use based on current mechanical system standards during design. Provide flexibility for the additional paper towel dispensers in the future by identifying locations and wiring for those dispensers in the design documents.

Lavatories (Sinks)

The restrooms should be designed with trough sinks for ease of cleaning and visual appearance. Trough sinks should have drains at each position to eliminate travel of waste between stations. Counter space should be minimized or eliminated to prevent water buildup on surfaces around sink.

Trough sinks should either be limited to two positions with dryers on either side or could have more positions if the dryers are integrated into the lavatory. The purpose of this is to limit water dripping on the floor creating a slip hazard and unclean appearance.

All devices and accoutrements should be tight to the bottom of the lavatory or otherwise hidden from view while still being accessible for maintenance. All elements of the lavatory should be hands-free. Comply with the identified standard in the most recently published Port of Seattle Mechanical Systems Standards.

Per ADA standards, wheelchair accessible lavatories should be available in each restroom.

Mirrors / Vanity Station

Mirrors should have vandal resistant coating and be provided at each washing station plus an additional full length mirror per restroom. An additional "vanity station" mirror with ledge and GFCI outlet above the counter for personal appliances should be provided where feasible.

Toilet / Urinal Partitions

Toilet partitions should be seamless stainless steel (satin #4 finish per published Port of Seattle standards) no sightline system with surface mounted heavy duty stainless steel latches (doors should be able to be opened from outside in emergencies) and should be ceiling mounted to facilitate easier cleaning of floors. Provide stainless steel astragal on door and continuous steel heavy duty hinge to prevent viewing into compartment and stainless steel angles at partition junctions for zero sightlines into cubicles as required. The partitions must be adequately braced to structure above to prevent movement of adjacent partitions when doors are opened and closed. Stainless steel Privacy partitions should be provided between urinals, mounted with continuous heavy duty stainless steel brackets both sides to prevent movement

Minimum width of 36" and depth of 78" where possible to allow travelers to easily maneuver in stalls with luggage. Doors should open outward and be adjusted to be open 3" from front face of partition when not in use.

Provide an integrated, recessed shelf behind toilet fixtures when possible (or shelving if integrated ledge not possible) and a custom heavy duty hook on the side partition (not the door) with baseplate through-bolted (six bolts on non-hook side) and able to withstand a 300lb load for coats and handbags.

Floor Construction and Finish

Please refer to Seattle-Tacoma International Airport Mechanical Standards for waterproof membrane specifications in section 200300 1.01E.1 & 2 – Restroom floors/Kitchens/Sink/Areas/Wet Areas Above Grade. Floor finishes should be seamless epoxy-resin terrazzo flooring that matches the flooring in the adjacent terminal/concourse. The only exception to this shall be in the areas directly beneath the urinals in men's restrooms up to three feet from the wall where terrazzo tends to be degraded by acidic deposits over time. Possibilities for this area include:

1. Large standard format (no special order) porcelain or natural stone tiles (with dark grout to hide stains)
2. Large format terrazzo tiles

Cove base should continue 12 inches up the wall throughout the entire restroom for additional water infiltration protection.

The North Satellite design team is currently developing concepts and analyses of the above options for the consideration of airport management. It is anticipated that the chosen concept will be carried throughout the airport in future restrooms design and construction.

Wall Construction and Finish

Wall construction shall be concrete masonry units (CMU) or metal studs with cementitious board as required. Porcelain tile wall finish is preferred: 12" minimum tiles (standard sizes, no special orders) with 1/8" epoxy grout lines required. Designers may recommend alternative wall finishes as long as they are proven durable and easy to clean. Finishes should be light-colored and reflective to return light and make the space brighter and to be perceived as cleaner.

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Impermeable surfaces are imperative near urinals, water closets and sinks to prevent water penetration behind walls. Please refer to Seattle-Tacoma International Airport Mechanical Standards for waterproof membrane specifications in section 200300 1.01 E.1 & 2 – Restroom floors/Kitchens/Sink/Areas/Wet Areas Above Grade.

Ceiling

A combination of both metal and gypsum board is acceptable for the ceiling. The architectural designer should make a recommendation to the Airport on materials during design.

Access hatches should be limited but may be required every 16 feet for visual checks of the toilet partition structure. Access hatches should be 24" x 24". On a related note, do not put any mechanical infrastructure in the ceiling other than what is required for exhaust – this should assist with limiting the number of required access hatches. Aviation Maintenance and Aviation Facilities and Infrastructure should be consulted during the design for each restroom to advise on the access hatch needs for the unique layout of each restroom.

Water Closet Fixtures

Comply with the identified standard in the most recently published Port of Seattle Mechanical Systems Standards.

Water closets in women's restrooms should be dual flush for water conservation. All water closets should be hung at ADA height: 18" at the top of the seat

Urinals

Comply with the identified standard in the most recently published *Seattle-Tacoma International Airport Mechanical Systems Standards*.

The majority of urinals should be hung at standard height with rim at 24" above floor and only the minimum number required by ADA should be mounted at 17" above floor.

Lighting

Dual technology occupancy sensors should be installed to control lighting in the restrooms.

Lighting should be designed with the utmost consideration for achieving a bright and airy feeling. Provide daylight wherever available; cove lights behind toilets; down lights in circulation areas and above sinks; and wall sconces at the sides of mirrors. All lighting must be accessible for maintenance.

Shelving, Niches and Bag Hooks

Shelving should be wide integrated, recessed ledges at least 12 - 16 inches deep above urinals, water closets and lavatories for personal items.

When ledges are not possible, deep shelving between urinals and lavatories is acceptable but shall not be constructed and placed so as to create a hazard for pedestrians using the various fixtures. Hooks should be provided in stalls but nowhere else.

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Ledges should be designed at accessible heights for accessible urinals, water closets and lavatories. As noted above, if ledges are not possible, shelving that does not create a hazard is acceptable.

Child Step

Please include one child step per restroom at one of the lavatories. Do not put in family restroom unless a child step is identified that will not take the lavatory out of ADA compliance.



Example child step currently installed in some STIA restrooms

Baby Changing Stations

Countertop baby changing stations are required. Stations should be located near waste receptacles and the one paper towel dispenser per restroom. Baby changing stations should not be located inside of ADA stalls.



Sample countertop baby changing station.

HVAC/Air Exchange

HVAC should be designed to provide 20 air exchanges per hour with adequate exhaust to keep air from blowing into the adjacent terminal areas.

Related Amenities

Lactation Rooms

Where space allows, lactation rooms should be included to provide a comfortable, private area for nursing mothers to express milk. The rooms should be fully ADA wheelchair accessible and include a sink, soap dispenser, electrical outlets, paper towel dispenser and a comfortable sitting area with ample countertop within arm's reach. If additional space is available the room should contain a changing table.

Drinking Fountains/Water Bottle Filling Stations

All drinking fountain stations should have at least one water bottle filling station integrated.

Pet Relief Areas

Pet relief areas should be included where appropriate space, HVAC and other requirements can be met. The pet pad should be designed and built using a flushable system. The pad can be washed with an automatic drain system.