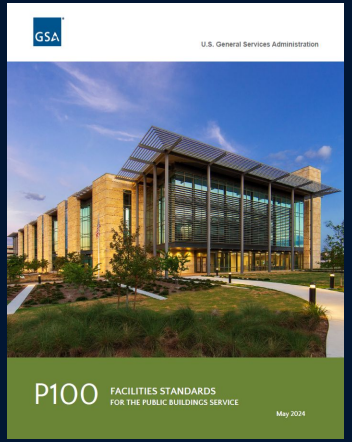
2024 P100 Training



This session is being recorded.

P100 A+E Training Series Ground Rules

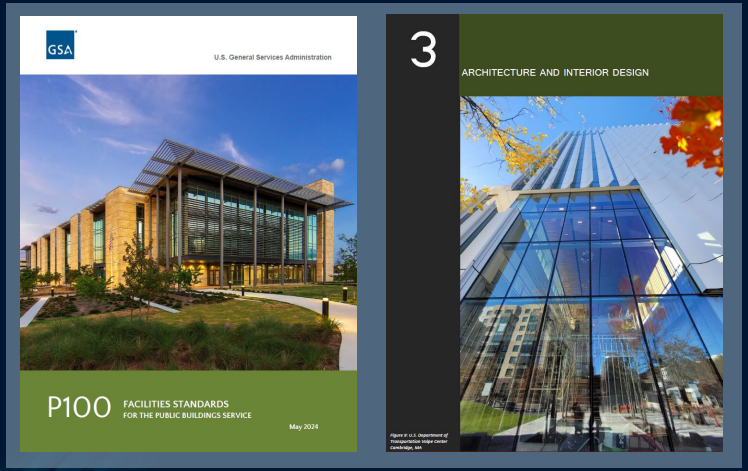
- Attendance will be taken automatically; there is no sign-in sheet
- GSA Participants who attend 95% of the session will be provided CLPs
- If you join by phone, please email your name and the phone number you joined with so we can record your attendance. Address email to: mark.kutchi@gsa.gov & benjamin.pisarcik@gsa.gov
- Mute microphone when not speaking
- Use Q & A to ask questions; questions will be taken at specific intervals throughout and at the end

P100 A+E Training Series Ground Rules

- Approach each topic in a positive and constructive manner
- Slides and recordings will be made available after the session internally on Insite and publicly on: www.gsa.gov/p100
- Slides will be added in a few days but recordings will take a few weeks.
- We are starting the meeting recording, please leave the meeting if you do not consent to being recorded.

Training

Architecture and Interior Design | Accessibility



This session is being recorded.

Presenters

Tim Hansmann
Architect

Carin Demmon
Workplace Specialist,
Interior Designer

Michael Foegelle
Architect, National
Accessibility Officer

01

Architecture

Chapter 3, Sections 3.4, 3.5, and 3.6 (Building Enclosure 3.1 to 3.3 a separate presentation)

02

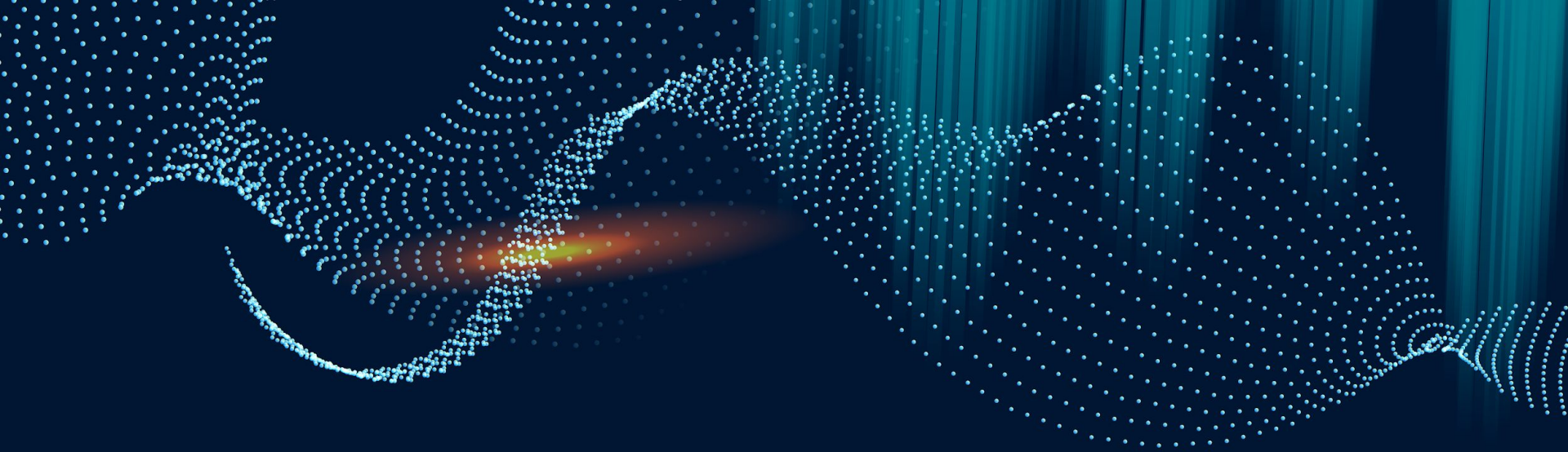
Interior Design

Chapter 3, Sections 3.7, 3.8, 3.9 and 3.10

03

Accessibility

Chapter 2, Section 2.3.2.1, Chapter 3, Sections 3.4.4.6, 3.4.5, 3.4.6 (Accessible EVSE 8.5.5 a separate presentation)



01 Architecture

3.4 General Architecture
3.5 Interior Construction Performance Table
3.6 Interior Construction Performance Attributes

General Architecture Technical Committee

Tim Hansmann - CO

David Leites - Region 09 (now CO)

Harvey Maruya - Region 11/NCR

3.4 GENERAL ARCHITECTURE

(Previously 3.6 General Architecture)

3.4.1 Cornerstone

3.4.2 Registry of Designers and Builders

3.4.3 Promote the Use of Stairs

3.4.4 Vertical Transportation

- 3.4.4.1 Vertical Transportation/Elevator Traffic Analysis
- 3.4.4.2 Elevators
- 3.4.4.3 Elevator Classifications
- **3.4.4.4 Machine Room-Less (MRL)**
- 3.4.4.5 Escalators
- 3.4.4.6 Wheelchair Lifts **(clarification in Accessibility section)**

3.4.5 Family/Single Occupancy Restrooms (see Accessibility section)

3.4.6 Lactation Rooms (see Accessibility section)

- Table 3.1 Lactation Stations

3.4.7 Bird-Safe Building Design

***Sections that have changed**

3.4.4 Vertical Transportation

(Previously 3.6.4 Vertical Transportation)

The goal of GSA's Vertical transportation program is to ensure code compliance on all new and modernization installations of both elevators and escalators, thereby improving overall building safety related to vertical transportation. The primary goal is the safety of the riding public and to protect from accidents or injury related to vertical transportation, while ensuring the cost effective and accurate installation of vertical transportation equipment.

The GSA Regional Vertical Transportation Subject Matter Expert (SME) must participate in each phase of the project from concept through design, construction, final acceptance, and occupancy to ensure all ASME A17 codes, as well as IBC and NEC code requirements, are incorporated into the project. The GSA Regional Vertical Transportation SME must review design plans, specifications, and related information; review contractors' submittals for compliance with contract documents; witness acceptance testing and commissioning of the Vertical Transportation systems; and upon successful completion of commissioning and acceptance of tested systems, will issue certificates of operation (or temporary certificates of operation). The GSA regional Vertical Transportation SME is the Authority Having Jurisdiction (AHJ) for the Regional Vertical Transportation program and for technical requirements in this chapter. As the AHJ, the GSA Vertical Transportation SME has the right to revise the specific requirements within this chapter based on a technical evaluation and analysis of the project's specific needs.

All new and altered elevators and escalators must comply with ASME A17.1. All new and altered lifts must comply with ASME A18.1, Safety Standard for Platform Lifts and Stairway Chair Lifts. (See Chapter 7, Fire Protection for specific requirements related to elevator systems). (Note: shortened from previous)

The selection of type and quantity of conveying systems, such as elevators, escalators, and wheelchair lifts, must be made in conjunction with a thorough vertical transportation traffic analysis of the facility.

3.4.4 Vertical Transportation

3.4.4.4 Machine Room-Less (MRL)

A machine room-less elevator is an elevator with the drive machine, governor, and other related components located in the elevator hoistway. Hydraulic machine room-less elevators are prohibited. Traction machine room-less elevators require specific Government approval by the GSA regional elevator/transportation SME. The elevator must have a metal belt and the control system must be located outside of public and high-security areas to facilitate safe maintenance procedures. The MRL must meet the following minimum requirements:

- Main line disconnect switches must be installed within 18 inches of the strike jamb of control room door
- The car position, movement, and direction must be able to be determined from the control room
- Provide HVAC in the control room so that the temperature does not go below 50 degrees or above 90 degrees
- Access to the governor must be provided from outside the hoistway
- The suspension means must be manufactured for elevator use only and be constructed from steel only

3.4.7 Bird-Safe Building Design

All BA51 (new construction) or BA55 (major repairs and alterations) projects affecting the glazing of the envelope meet the following (historic buildings must make a determination with the RHPO):

- All glass, from ground level to a minimum of 75 feet above grade must have a Threat Factor rating of 30 or less (Note: previously 40 feet)
- All glass, adjacent to a green roof or partial green roof and up to three floors above, must have a Threat Factor rating of 30 or less (Note: previously 15 feet above a green roof)
- All glazed corners, fly-through conditions, glazing adjacent to courtyards, skywalks, building connectors, railings, noise barriers, wind barriers (including in parking structures, transportation and weather shelters, gazebos, external booths, atria, and any other free-standing glass, plexiglass, or other clear, transparent, or highly reflective free-standing structure must have a Threat Factor less than or equal to 25

See The American Bird Conservancy Threat Factors product database.

All projects should consider bird friendly design per the American Bird Conservancy for Bird-Safe Building Design and the National Glass Association's Best Practices for Bird-Friendly Glazing Design.

3.5 INTERIOR CONSTRUCTION PERFORMANCE TABLE

(Previously 3.4 Interior Performance Table)

Note that Attributes section may have changes even if the Table does not

3.5.1 Solid Core Wood Doors
3.5.2 Hollow Metal Doors
3.5.3 Glazed Aluminum Doors
3.5.4 All Glass Entrances
3.5.5 Borrowed Lights
3.5.6 Wood Framed Interior Lights
3.5.7 Hollow Metal Framed Interior Lights
3.5.8 Aluminum Framed Interior Lights
3.5.9 Metal Stud Partitions
3.5.10 Masonry Partitions
3.5.11 Demountable Partitions
3.5.12 Operable Walls
3.5.13 Millwork and Cabinets
3.5.14 Countertops

*Sections that have changed

Note: Finishes after Countertops from previous Table have moved to 3.7

3.5 Interior Construction Performance Table

Changes in Table:

3.5.9 Metal Stud Partitions

Construction: GREENGUARD Gold reference in Baseline and Tier 2 removed (redundant)

Environmental:

- Baseline - "or Indoor Advantage Gold Certification" added
- Plans & Specs - "Yes" instead of listing GREENGUARD Gold; Provide EPD (redundant)

3.5.10 Masonry Partitions

Environmental:

- Baseline - "or Indoor Advantage Gold Certification" added
- Plans & Specs - "Yes" instead of listing GREENGUARD Gold; Provide EPD (redundant)

3.5.11 Demountable Partitions

Environmental section added (previously just Construction)

3.5.14 Countertops

Environmental section added (previously just Construction, Durability, and Quality).

3.6 INTERIOR PERFORMANCE ATTRIBUTES

(Previously 3.5 Interior Construction and Interior Finishes Performance Attributes)

3.6.1 Construction Products and Materials

3.6.1.1 Solid Core Wood Doors
3.6.1.2 Hollow Metal Doors
3.6.1.3 Glazed Aluminum Doors
3.6.1.4 All Glass Entrances
3.6.1.5 Borrowed Lights
3.6.1.6 Wood Framed Interior Lights
3.6.1.7 Hollow Metal Framed Interior Lights
3.6.1.8 Aluminum Framed Interior Lights
3.6.1.9 Metal Stud Partitions
3.6.1.10 Masonry Partitions
3.6.1.11 Demountable Partitions
3.6.1.12 Operable Walls
3.6.1.13 Millwork and Cabinets
3.6.1.14 Countertops

***Sections that have changed**

3.6.1 Construction Products and Materials

3.6.1.3 Glazed Aluminum Doors

Aluminum doors are typically fully glazed. They are constructed as aluminum entrances or part of a storefront system even though they are for interior use and are usually installed in aluminum frames. Doors and frames must be fabricated in accordance with AAMA101/I.S.2/A440, North American Fenestration Standard/Specification for Windows, Doors, and Skylights. Safety glass in compliance with ASTM C1048, Standard Specification for Heat Treated Flat Glass, must be used. Sound transmission can be reduced with insulating glass. Doors may have power assist or may be power operated and may have various types of electronically controlled locking mechanisms such as magnetic locks or electric strikes. Finishes must comply with AAMA 611, Specification for Anodized Architectural Aluminum, or AAMA 260, Specification for Pigmented Organic Coatings.

Change:

The line "They cannot have a fire rating and are not bullet resistant or forced entry protected." has been removed, as some products have been found to meet fire and ballistic rating.

3.6.1 Construction Products and Materials

3.6.1.4 All Glass Entrances

All glass entrances are installed without traditional frames. They are not available as fire rated assemblies or forced entry resistant. They may be considered in and of themselves to be higher performance than any of the above door types because of their cost and appearance. Glass must be either laminated or tempered in compliance with ANSI Z97.1, Safety Glazing Materials Used in Buildings - Safety Performance Specifications and Methods of Test. Doors may have power assist or may be power operated and may have various types of electronically controlled locking mechanisms such as magnetic locks or electric strikes.

Change:

Update safety reference from ASTM C1048 to ANSI Z97.1, which matches the reference used in the latest NGA with GANA Heavy Glass Door Design Guide noted in the Performance Table.

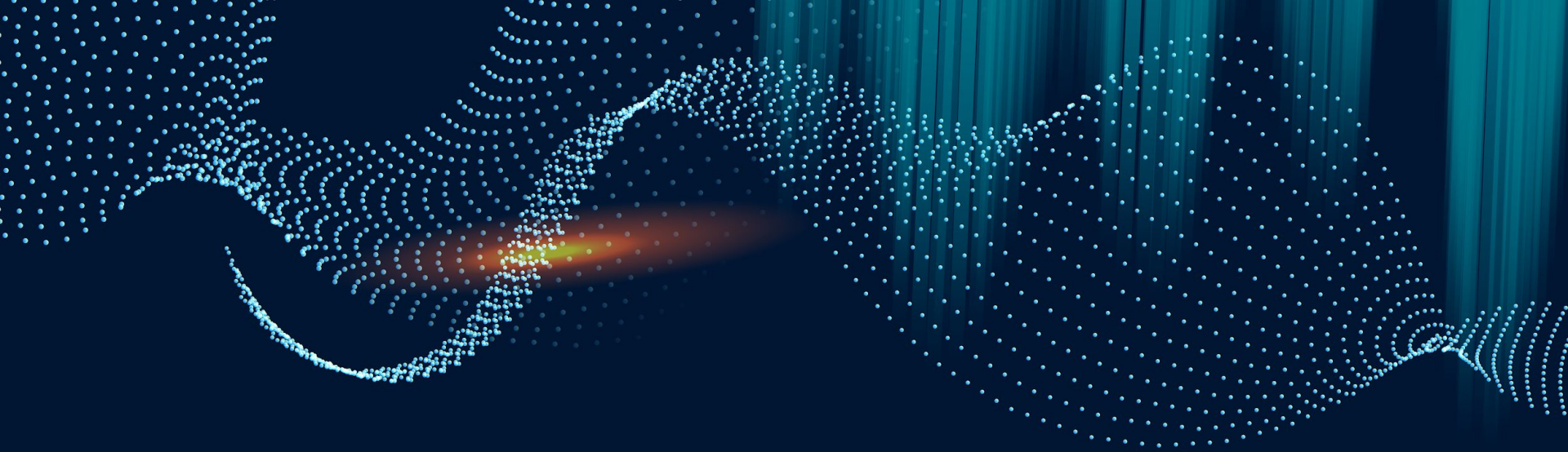
3.6.1 Construction Products and Materials

3.6.1.8 Aluminum Framed Interior Lights

Aluminum framed borrowed lights are typically fabricated from storefront or curtainwall framing systems. Finishes must comply with AAMA 611, Specification for Anodized Architectural Aluminum, or AAMA 260, Specification for Pigmented Organic Coatings.

Change:

The line “Aluminum framed borrowed lights cannot be fire rated.” has been removed, as some products have been found to meet fire rating.



02 Interior Design

Interior Design Technical Committee Members

Carin Demmon - R8

Leah Spilling - R8

Liz Kahn - R3

Cassie Phillips - R10

Mark Nyquist - CO

Special Thanks to Rebecca Stevens - CO

3.7 Interior Finishes Performance Table

(Previously 3.4 Interior Performance Table)

3.7.1 Broadloom/Carpet Tile
3.7.2 Vinyl Composition Tile (VCT)
3.7.3 Sheet Vinyl
3.7.4 Rubber Tile/Rubber Sheet
3.7.5 Linoleum
3.7.6 Luxury Vinyl Tile (LVT) and Luxury Vinyl Plank (LVP)
3.7.7 Porcelain Tile
3.7.8 Quarry Tile
3.7.9 Mosaic Tile
3.7.10 Limestone Tile
3.7.11 Slate Tile
3.7.12 Marble
3.7.13 Granite
3.7.14 Terrazzo
3.7.15 Laminate Flooring
3.7.16 Wood Flooring
3.7.17 Bamboo Flooring
3.7.18 Glazed Wall Tile
3.7.19 Interior Architectural Coatings
3.7.20 Exterior Architectural Coatings
3.7.21 Wallcovering Type II
3.7.22 Wall Paneling Plastic/Laminate
3.7.23 Wall Paneling Wood
3.7.24 Wall Paneling Composite Board
3.7.25 Wall Paneling Sculptural
3.7.26 Wall Base
3.7.27 Acoustical Ceilings

GOAL:
MAKE THE P100 MORE COMPREHENSIBLE

REQUIREMENTS TO BE MORE DIRECT AND CLEAR

More lists and less sentences.

Combine information when possible.

Consistency with the other Tables in the P100.

GOAL:
PROTECT THE GOVERNMENT'S INVESTMENT BETTER

PRODUCT WARRANTY AND SERVICE LIFE TO COVER MORE

Example:

Changed the carpet warranty requirement from a 10-Year Commercial Warranty to a Commercial Limited Lifetime Warranty that includes materials, freight & labor.

GOAL:
BALANCE OUR REQUIREMENTS WITH AVAILABILITY IN THE MARKET

WE CAN LEAD THE INDUSTRY DOWN THE RIGHT PATH, BUT WE ALSO NEED TO GIVE A FAIR ADVANTAGE

Suggested change was to require manufacturers to offer an end of life reclamation program for LVT. However research showed this would be unfair to the market, so we chose to deny this change. Hopefully, the industry can catch up for the next publication of the P100.

GOAL:
GROUP LIKE MATERIALS TO HAVE THE SAME ECO-LABELS AND ENVIRONMENTAL STANDARDS

NON-VINYL RESILIENT FLOORING

Rubber Tile
Rubber Sheet
Linoleum

VINYL RESILIENT FLOORING

Vinyl Composition Tile (VCT)
Sheet Vinyl
Luxury Vinyl Tile (LVT)
Luxury Vinyl Plank (LVP)

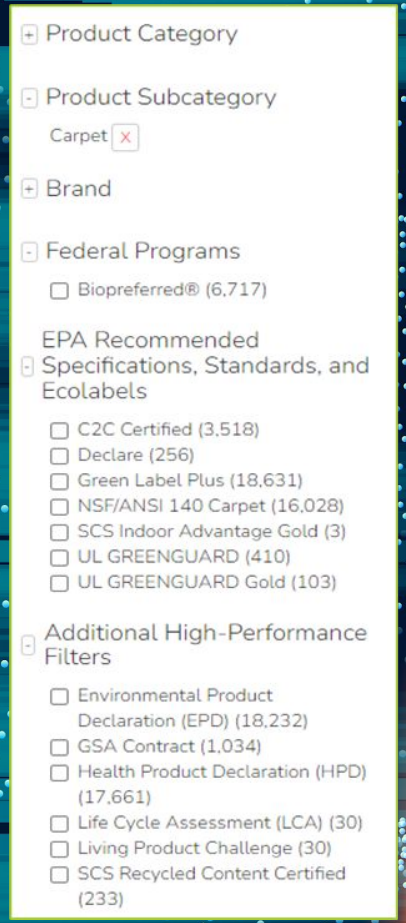
TILE

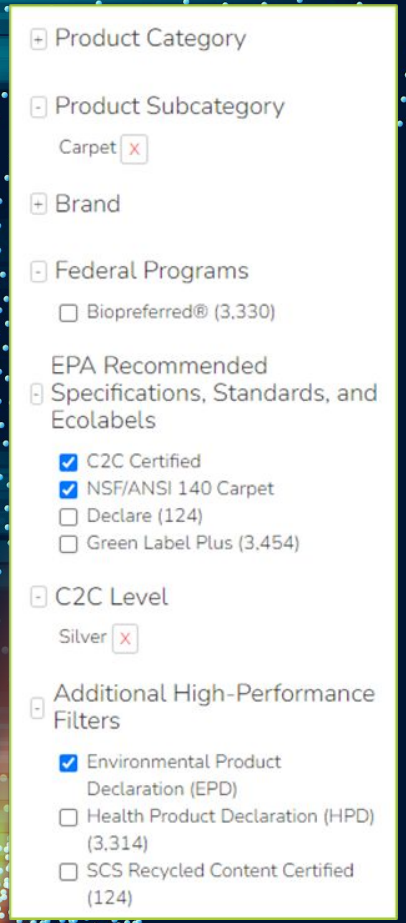
Porcelain Tile
Quarry Tile
Mosaic Tile

EXAMPLE

Environmental	
Baseline	Multi-Attribute Certification Required: NSF/ANSI 332 Level 1 or Conformant or Cradle to Cradle Bronze IAQ Certification Required: Greenguard Gold, Indoor Advantage Gold, or FloorScore Certified EPD Required: Product Specific Type III EPD
Tier 1	NA
Tier 2	Multi-Attribute Certification Required: NSF/ANSI 332 Level 2 or Gold or Cradle to Cradle Silver IAQ Certification Required: Greenguard Gold, Indoor Advantage Gold, or FloorScore Certified EPD Required: Product Specific Type III EPD
Tier 3	NA
M & V	N/A
Plans & Specs	Yes
Calculations & Analysis	N/A
References	https://sftool.gov/greenprocurement
Basis of Design	NA
Construction Verification	Verify compliance through product submittal information

SFTool and the new P100 Button





P100

https://sftool.gov/greenprocurement

GOAL:
MAKE THE P100 MORE OF A LIVING DOCUMENT

CHANGE HAPPENS, SO LET'S GO WITH IT

Manufacturers know the best way to clean and maintain their products, and new technology changes this... so let's listen to them!

Example:

Changed resilient flooring maintenance requirements from ASTM F925-13 Standard Test Method for Resistance to Chemicals of Resilient Flooring to Product maintenance per manufacturer recommendations and product application requirements .

3.8 Interior Finishes Performance Attributes

(Previously 3.5.2 Interior Finishes and Materials)

3.8.1 Interior Finishes And Materials

- 3.8.1.1 Interior Coatings (Paint)
- 3.8.1.2 Wallcovering Type II

3.9 Interior Requirements

(Previously 3.5.3 Acoustics)

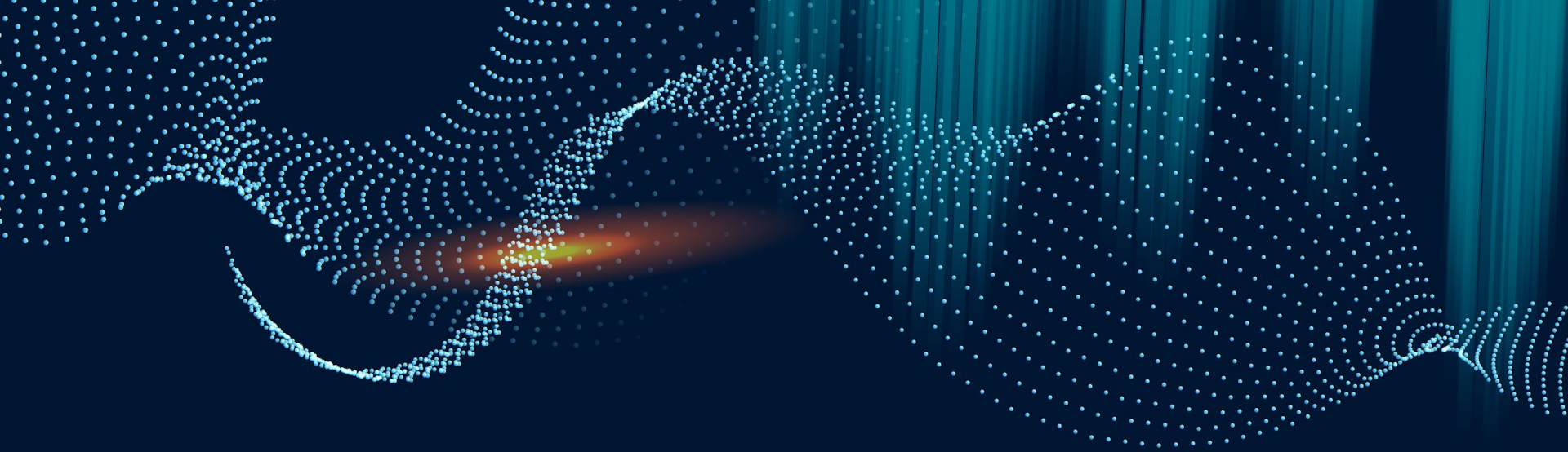
3.9.1 Acoustics

- 3.9.1.1 General Criteria For Building Spaces
- 3.9.1.2 Closed Offices Versus Open Plan
- 3.9.1.3 Mechanical And Plumbing Noise
- 3.9.1.4 Absorption And Isolation
- 3.9.1.5 Parameters Used In Acoustical Design
- 3.9.1.6 Noise Isolation And Privacy

3.10 Workplace Requirements

(Previously 3.8.4 Workplace Tools and Processes)

- 3.10.1 Planning and Design Strategies
  - 3.10.1.1 Goal Setting
  - 3.10.1.2 Planning and Design Process
  - 3.10.1.3 Requirements Development
  - 3.10.1.4 Balance of all Design Factors
- 3.10.2 Health and Comfort: Environmental Controls
  - 3.10.2.1 Ventilation and Thermal Comfort
  - 3.10.2.2 Lighting/Daylighting
  - 3.10.2.3 Acoustic Comfort
- 3.10.3 Image
  - 3.10.3.1 Workplace Image
  - 3.10.3.2 Wayfinding
- 3.10.4 Workplace Tools and Processes
  - 3.10.4.1 A Balanced Scorecard Approach
  - 3.10.4.2 Quantitative and Qualitative Discovery Processes and Tools
  - 3.10.4.3 Change Management
  - 3.10.4.4 Feedback Loop

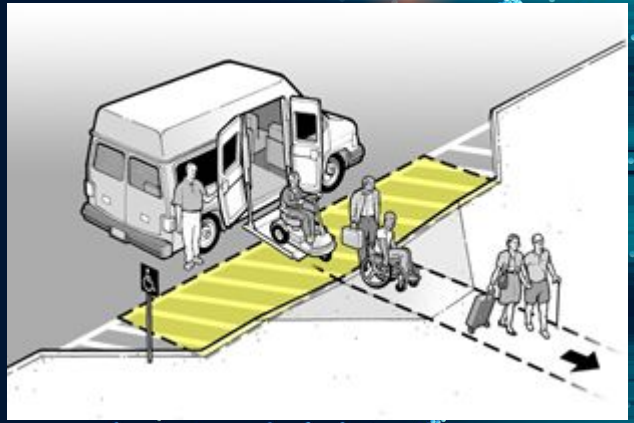


03 Accessibility

Accessibility Sections Throughout P100

2.3.2.1 EXTERIOR CONNECTIONS AND GATHERING SPACES

For new construction projects, standard practice must be for the GSA project to replace public sidewalks and curbs and add passenger loading zones where feasible on the perimeter of the site (e.g., between curb and building construction footprint) and those impacted by construction activity [41 CFR §74.565-580; 40 USC §589]. The design must consider street connections to transit stops, passenger loading zones, and to primary neighborhood corridors.



3.4.4.6 WHEELCHAIR LIFTS

Proper design of accessible routes in new construction must not require the use of wheelchair lifts. In repair and alteration projects, ramps are preferred to wheelchair lifts.

Coordination with Vert Transportation SME for proper design

In conjunction with Chapter 8.1.3.2 (Planning for Accessibility) judiciary/Judges bench: Comply with clear floor space and maneuvering requirements of ABAAS. Adaptable for future inclusion of ramp or platform lift. See Ch 8 for detailed access requirements

3.4.5 Family/Single Occupancy Restroom

All new federal buildings must provide one or more combined purpose family/single occupancy restroom on each accessible floor. This restroom is in addition to, and preferably collocated with Male/Female building restrooms. For partial floor alterations, provide the family/single occupancy restroom when alteration area is equal to or exceeds 50% of that floor's total rentable area. This restroom must be sensitive to historic features.

The physical characteristics of the family/single occupancy restroom must:

- Provide a lockable door with dead-bolt type occupancy designation.
- Provide door signage to indicate the following features:
    - International Symbol of Accessibility per ABAAS 703.7.2
    - Designations for family, single use and non-gender specific occupants
    - Presence of Adult (Universal) or /Infant changing station
- Provide minimum clear floor areas and accessible routes to all restroom features following ABAAS standards.
- Provide all elements of an accessible restroom to include but not limited to:
    - one accessible sink
    - one accessible toilet with accessible toilet accessories and grab bars
- Provide one accessible changing station as follows:
    - Infant Changing Station - Provide one infant changing station. The station may be fixed at +30" above finished floor or a powered height adjusted table with a range from +17" to +34" above finished floor and hold a weight of no less than 50 Lbs.
    - Adult (universal) Changing Station - In buildings where the main floor can accommodate a public area with fifty or more occupants, exchange the infant changing station on that floor with one adult (universal) changing station. The station may be fixed at +30" above finished floor or a powered height adjusted table with a range from +17" to +34" above finished floor and hold a weight of no less than 300 lbs with minimum dimensions of 25" in width by 70" in length.
- Provide finishes appropriate for ease of maintenance and in line with specific Building Design Standards.

3.4.6 Lactation Rooms

Added Reference (PUMP Act of June 27, 2023):
Per 29 USC §218d, nursing employees have the right to reasonable break time and a place, other than a bathroom, that is shielded from view and free from intrusion to express breast milk while at work. This right is available for up to one year after the child's birth.

(No Changes to Room Size, Minimum Requirements, or Location sections)

HVAC and Lighting:
- Provide HVAC and lighting in accordance with Chapter 5 and Chapter 6, respectively.
- While existing conditions vary, below are preferable, particularly in new construction and substantial renovation:
    - A thermostat for user adjustment. Air ventilation and filtration: Consult Chapter 5 tables to determine optimal solutions.
    - Noise control to reduce sound intrusion and attenuation. Consult Chapter 5 tables to determine optimal solutions. STC 45 is recommended as a minimum.
    - Non-glare lighting fixtures are preferred. A dimmer switch is strongly recommended. Consult Chapter 6 tables to determine optimal solutions.
    - Electrical loads accommodating refrigerators, milk pumps, personal phones and computers are recommended at a minimum.

8.5.5 EVSE ACCESSIBLE CHARGING REQUIREMENTS

GSA facilities must provide an Accessible Charging Station (ACS) with mobility and reach range features when installing Electric Vehicle (EV) charging stations. Refer to the U.S. Access Board (USAB) website and P100 Chapter 8 Section 8.5.5 for further information

Questions

Contact speakers at:

- Tim Hansmann - timothy.hansmann@gsa.gov
- Carin Demmon - carin.demmon@gsa.gov
- Michael Foegelle - michael.foegelle@gsa.gov