

**OFFICE STANDARDS**

**503.301 BUILDING COMPONENTS, INTERIORS, INTERIOR CONSTRUCTION**

This document contains requirements for interior construction elements for an office building and is in alignment with the UniFormat II, Level 2 classification - C10. The document is subdivided into the following parts per the UniFormat II, Level 3 classifications.

UNIFORMAT II classification					MoP Document Number	
Level 1 Major Elements		Level 2 Group Elements		Level 3 Individual Elements		
C	Interiors	C10	Interior Construction	C1010	Partitions	<b>503.301</b>
				C1020	Interior Doors	
				C1030	Accessories/Fittings	
				C1031	Fabricated Toilet Partitions	
				C1038	Casework	

**ELEMENT C1010, PARTITIONS.** Includes general design requirements for fixed non-loadbearing partitions and interior glazed window units. Specific items of note include:

1. Acoustical performance
2. Rating and Labeling requirements
3. Material considerations
4. Blocking requirements

**ELEMENT C1020, INTERIOR DOORS.** Includes general design requirements for swing and sliding type doors, door frames, operations, and finishing. Specific items of note include:

1. Minimum size requirements
2. Materials
3. Performance requirements
4. Door hardware

**ELEMENT C1030, ACCESSORIES/FITTINGS.** Includes general design requirements for toilet and bath accessories, metal lockers, soap and foam dispensers, signs, privacy curtains and tracks, and other pre-manufactured accessories. Specific items of note include:

1. Furnish/Install table
2. Material requirements
3. Mounting requirements

**ELEMENT C1031, FABRICATED TOILET PARTITIONS.** Includes general design requirements for toilet partitions and screening panels. Specific items of note include:

1. Acceptable materials
2. Mounting requirements

[ELEMENT C1038, CASEWORK](#). Includes general design requirements for built-in base cabinets, wall cabinets, counter tops, and cabinet hardware. Specific items of note include:

1. Casework Grade
2. Ergonomics
3. Construction Requirements
4. Core Material
5. Cladding Material
6. Countertop requirements
7. Hardware
8. Design requirements
9. Installation requirements

**ELEMENT C1010, PARTITIONS**

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**PART 1 - GENERAL****1.01 OVERVIEW**

- A. Includes fixed partitions, moveable partitions, interior windows, and storefronts.
- B. Includes requirements for both shell and core and tenant areas for office buildings.
- C. Includes information for preparing wall surfaces to receive wall finishes but does not include wall finish requirements.

**PART 2 - DESIGN CRITERIA****2.01 GENERAL**

- A. Typical interior partitions shall be 3-5/8 inch wide, 22 gauge (or structurally equivalent) metal studs at 16 inches on center with one layer of 5/8 inch gypsum drywall each side.
- B. Provide wider and/or heavier than 22 gage studs as required for extra unsupported height or wall-mounted shielding or equipment per the project requirements. Provide double 20 gauge (or structurally equivalent) studs at each door jamb.
- C. Provide moisture resistant gypsum wallboard at all wet areas and toilet rooms. Provide tile backer board at walls to receive ceramic tile.
- D. Provide abuse or abrasion resistant gypsum board at locations subject to impact.
- E. Design Team shall coordinate locations of blocking and strapping and indicate locations on the drawings. This includes coordination with Owner-provided items including but not limited to equipment, medical equipment, accessories, artwork, and impact resistant design.
- F. In most conditions and as permitted by code and authorities having jurisdiction, provide treated wood blocking within walls as permitted, for the following conditions.
  - 1. To resist impact loads.
  - 2. To support heavy objects and/or when the center of gravity is far from the support points.
  - 3. When the item it is supporting may be removed and reinstalled in the same location multiple times (grab bars). Blocking in wall for grab bars shall be

designed to support a weight of 400 lbs at any point along the length of the grab bar.

- G. Metal stud/strapping shall be used for adjustable shelves and light weight wall-mounted equipment.
- H. All penetrations through new fire/smoke rated partitions shall be sealed to provide a rating equal to or greater than the rating of the partition. Existing noncompliant penetrations through rated partitions in a Project area shall be identified, and properly sealed as a part of the scope of work for the Project.
- I. **Rated Walls.** All smoke and/or fire-rated walls shall be labeled to clearly identify the type and rating of the barrier. The label shall be in uppercase block letters at least 3” in height and in a color and shade to sharply contrast against the background surface as follows.

Label	Text Color	Background Color
Smoke Barrier	Yellow	Dark Gray
Smoke Wall	Yellow	Dark Gray
Corridor Wall	Yellow	Dark Gray
1 Hour Fire [Wall] [Barrier] [Partition]	Red	Light Gray or White
2 Hour Fire [Wall] [Barrier] [Partition]	Red	Light Gray or White
3 Hour Fire [Wall] [Barrier] [Partition]	Red	Light Gray or White
4 Hour Fire [Wall] [Barrier] [Partition]	Red	Light Gray or White

- J. Markings for rated wall assemblies shall be permanent and may be left by either stamp, roller ink, or paint. Ink and paint must meet requirements for indoor air quality.
  - 1. Walls in finished spaces shall be labeled on both sides above the ceiling grid
  - 2. Walls in unfinished spaces shall be labeled on both sides ten feet off the floor, or 18” below the deck above
  - 3. Markings shall repeat every 15 feet max. along the length of entire wall. In areas where mechanical, electrical, plumbing, structural or other obstructions make it difficult or not possible to install the markings at this interval, the label shall be permitted to repeat at intervals greater than 15 feet.
- K. Markings for columns: All columns shall be marked above the ceiling on all interior-facing sides indicating the alpha-numeric column designation per the structural plans. The label shall be in uppercase block letters at least 3” in height and in a color and shade to sharply contrast against the background surface.
- L. Unless otherwise required to meet code requirements, minimum gypsum board level of finish for all walls shall be Level 3 for concealed wall surfaces and Level 4 for all other wall surfaces.

2.02 SHELL AND CORE

- A. Provide walls that meet the Sound Transmission Class (STC) as identified in the following table. Where other room to room conditions exists, provide a minimum STC wall rating of 45.

*Table. Minimum STC ratings between room types in shell and core spaces.*

	Tenant Area	Lobby	Public Corridor	Public Bathroom	Mechanical Room	Elevator	Stair
Tenant Area	50	50	50	50	50	45	40
Lobby			Rooms not acoustically separated	50	50	45	40
Public Corridor				50	50	45	40
Public Bathroom				50	50	45	40
Mechanical Room						Rooms not needed to be acoustically separated	40
Elevator							Rooms not needed to be acoustically separated
Stair							

- B. Provide full height (floor to deck) partitions at core elements such as mechanical, electrical, security, and telecommunications rooms, stairs, elevator shafts, chases and toilets, at rated walls, private offices, conference rooms, tenant demising walls and break rooms. Additionally, it may be determined for budgetary or special-use reasons that selected partitions should terminate at the underside of ceiling. Confirm locations with Owner’s Project Manager. At multi-offices, provide partitions that terminate at the ceiling. Refer to Room Data Sheets for room specific requirements.
- C. Partitions surrounding elevator shafts shall be designed and sized to accommodate all internal structural members completely within the required fire resistance rated construction, while maintaining the shaft wall rating without interruption.
- D. Partitions surrounding fire resistance rated exit enclosures and exit passageways shall not be penetrated by mechanical/electrical utilities which do not serve the enclosure/passageway, except as permitted by Code.

**2.03 TENANT AREA**

- A. Provide sound attenuation batt insulation in the wall cavities of toilet rooms, conference rooms, private offices and other specialized rooms as appropriate to achieve required acoustical separation.
- B. Avoid installing back-to-back devices which may compromise the as-built acoustical performance of the wall system. When unavoidable, install acoustical pads on the back sides of both boxes within the wall.

- C. Brace and reinforce partitions as required to support wall mounted equipment, furniture, and casework.

## PART 3 - SPECIAL CONTRACT DOCUMENT REQUIREMENTS

### 3.01 GENERAL

- A. In addition to incorporating all applicable life safety and building code requirements, provisions described within this Element shall be included within the Project's contract documents.
- B. Coordinate with the Mechanical Contractor for locations where penetrations of smoke/fire dampers and associated ductwork are to be removed at existing partitions. Indicate patching requirements of rated walls in the documents.
- C. Drawings shall clearly identify where non-rated partitions are to be constructed in front of rated walls and note that additional labeling shall be provided on the non-rated partition to identify the rated wall if the non-rated partition extends more than 12 inches above ceiling line. (Example of additional labeling: "2-Hour Fire Rated Barrier Behind This Partition – Do Not Penetrate.")
- D. The location, size, and quantity of back boxes, enclosure panels, and similar items which are mounted in, and penetrate the membrane of, fire resistance rated partitions shall be coordinated with limiting requirements contained in the governing Codes. Drawings shall indicate by detail drawing and notation the limitation/allowance criteria for each type of listed and non-listed (non-rated) item that may be installed in fire resistance rated partitions.
- E. Drawings shall include complete reproductions of all UL designs for fire resistance rated partitions and associated joints which are referenced on the Project. Indicate appropriate UL designs for joints at head and base of wall, and the selected UL design for each fire resistance rated partition. Refer to UL online certifications directory database for complete listing of joint designs.
- F. Detail termination of reveals at change of finish, especially at base. Avoid gaps and holes at reveal termination, and ensure ease of finish application in reveal design. Call for application of final finish, where possible, to the back of reveal prior to construction of remainder of reveal.
- G. Fully detail fire resistance rated walls to extend around/behind unrated items mounted in the wall, such as fire extinguisher cabinets, safety showers, etc.
- H. Identify STC ratings for all partition types on drawings and verify compliance with requirements above.**

## PART 4 - PRODUCTS

### 4.01 GENERAL

A. Not Applicable.

End of C1010 – Partitions

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**ELEMENT C1020 – INTERIOR DOORS**

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**PART 1 - GENERAL****1.01 OVERVIEW**

- A. Includes interior solid core wood doors, steel doors and frames, aluminum and glass doors and frames, and door hardware for door openings.
- B. Includes requirements for both shell and core and tenant areas for office buildings.
- C. This does not include exterior doors nor does it include the inner pair of entrance vestibule doors.

**PART 2 - DESIGN CRITERIA****2.01 GENERAL**

- A. Provide doors and frames that comply with specific entity standards and requirements.
- B. Typical doors shall be 7'-0" high and 1 ¾" thick unless otherwise directed. Minimum door width shall be 3'-0".
- C. Determination of the door and frame type depends on type of room, existing conditions, and operating requirements. Refer to the following table for general requirements by areas within buildings. Refer to Room Data Sheets for specific door, frame and operational requirements by room.
- D. Determination of the door and frame finish. Coordinate all finishes with BJC Director of Design and include samples for selection and samples for verification during Design Development.
  - 1. Where new interior wood core doors will be near wood core doors that are scheduled to remain, consider one of the following options unless otherwise directed.
    - a. Where only a few doors are scheduled to be new, match existing door finishes (plastic laminate or wood veneer species, cut and finish) with doors adjacent to the project area.
    - b. Where most doors are scheduled to be new, consider installing new doors in contiguous areas immediately adjacent to the project area so the design is integrated when matching existing door finishes is not preferred.
- E. Permitted Door and Frame Types. The following table identifies permitted door and frame types for shell and core and tenant fit-out areas of a medical office building.



Table. Permitted interior door and frame types within a medical office building.

			OFFICE BUILDING		
			Shell and Core		Tenant Area
			Building Support, utility rooms	Other shell and Core Rooms	Doors within Tenant areas
Interior Doors and Frames	Frames	Hollow Metal, knock-down type	NP	NP	P
		Hollow Metal, face welded type	P	P	CP
		Hollow Metal, full profile welded type	NP	NP	NP
		Stainless Steel, fully welded type	NP	NP	NP
		Aluminum	NP	NP	NP
	Doors	Wood Core, wood veneer	NP	P	P
		Wood Core, plastic laminate veneer	NP	CP	CP
		Hollow Metal, paint finish	P	NP	NP
		Stainless Steel	NP	NP	NP
		Aluminum	NP	NP	NP

KEY  
 NP NOT PERMITTED  
 CP CONDITIONALLY PERMITTED UPON APPROVAL  
 P PERMITTED

- F. Hollow Metal Frames. Frames shall be 0.053” thick, minimum and fabricated from cold-rolled steel sheet in accordance with ASTM A 1008/A 1008M, Commercial Steel (CS), Type B; suitable for exposed applications. Unless otherwise directed, all frames shall be heavy-duty type minimum in accordance with SDI A250.8, Level 2. Provide extra-heavy duty type only as necessary.
  - 1. **Refer to Shell and Core and Tenant Area sections below for permitted construction types.**
  - 2. **Grouting of interior metal frames is not permitted.**
  - 3. **Hospital stops not permitted.**
  
- G. Hollow Metal Doors. Door faces shall be uncoated 0.042” thick, minimum and fabricated from cold-rolled steel sheet in accordance with ASTM A 1008/A 1008M, Commercial Steel (CS), Type B; suitable for exposed applications. All doors shall be heavy-duty type in accordance with SDI A250.8, Level 2. Provide extra-heavy duty type as necessary.
  - 1. Edge construction. Unless otherwise noted, hollow metal doors are permitted to be fabricated as Model 1, Full Flush, in accordance with SDI A250.8. Model 2, seamless is not required unless otherwise noted. (The Model 1, Full Flush creates a visible, vertical folded metal seam along the door edge while the Model 2, Seamless type requires the seam to be filled flush and finished so there is no visible joint between the panels.)

- H. Solid Core Wood Doors. All solid core wood doors shall be flush wood type unless otherwise directed. Solid core wood doors shall be Heavy Duty Performance Grade in accordance with WDMA I.S.1-A. Provide extra-heavy duty type as necessary.
1. Core material for all solid core wood doors shall be particleboard in accordance with ANSI A208.1 Grade LD-2, unless otherwise directed.
    - a. Provide wood blocking in cores as necessary.
    - b. Provide either glued wood stave or structural composite lumber cores for all doors with exit devices.
    - c. Provide mineral core doors for fire rated doors as required.
    - d. Door construction shall be 5 plies minimum.
  2. Wood Veneer Face. When new doors are required to match existing doors, provide similar grade, species, cut and finish. Field staining and finishing may be required in instances where existing doors are custom finish.
    - a. Grade: Premium grade with Grade A faces.
    - b. Species: Select White Birch, Cherry, Select White maple, Red Oak, Walnut, or White Oak.
    - c. Cut: Plain sliced, typical.
    - d. Match between veneer leaves: Book match
    - e. Assembly of Veneer leaves on door faces: Running
    - f. Provide factory finish on all wood veneer doors.
  3. Plastic-Laminate Face. Conditionally permitted only.
    - a. Grade: Premium grade.
    - b. High Pressure Decorative Laminate: HGS 0.048" (1.2 mm) thick.
- I. Door Hardware. Design Professional shall coordinate door operation with intended use as necessary and communicate general door function as requested. Coordinate requirements with information in the Room Data Sheet.
1. Use wall mounted door bumpers or overhead stops in lieu of floor mounted bumpers wherever possible.
  2. Factory prep doors and frames to receive security hardware.
- J. Painting Hollow Metal Doors and Hollow Metal Frames. Paint system shall be Premium Grade in accordance with the Master Painters Institute (MPI) - Architectural Painting Specification Manual.
1. Paint systems are determined based on the substrate, the need to withstand abuse/contact, and environmental considerations. The following system paint systems for ferrous metals (interior doors and frames) are identified by general locations/rooms of the building and by surface material and location for this building type.

- a. **Typical Rooms.** Typical rooms without excessive exposure to contact, abrasion, cleaning, humidity/moisture levels, chemicals and biological contaminants. Acrylic type, MPI G5, semi-gloss finish.
- b. **Wet Rooms.** Rooms with excessive exposure to higher humidity/moisture levels, and those that must withstand regular scrubbing and cleaning. Such rooms include bathrooms. Acrylic type, MPI G5, semi-gloss finish.

Table. Permitted paint system and requirements for metal door and frames by area within an office building.

Note: "Conditionally Permitted" requires pre-approval of use by BJC Director of Design.

		OFFICE BUILDING		
		Typical Rooms and Areas	Wet Rooms and Areas	
Ferrous Metal Doors and Frames	Standard System	Approval status	Permitted	Permitted
		Comments	Acrylic	Acrylic
		MPI level	G5	G5
		Primer	Pro Industrial ProCryl Universal primer B66-310	Pro Industrial ProCryl Universal primer B66-310
		Intermediate Coat	Pro Industrial Acrylic Semi-Gloss B66-650	Pro Industrial Acrylic Semi-Gloss B66-650
		Top Coat	Pro Industrial Acrylic Semi-Gloss B66-650	Pro Industrial Acrylic Semi-Gloss B66-650

**2.02 SHELL AND CORE**

- A. **Building support/utility rooms.** Door openings installed as part of the Shell and Core for office buildings which are not accessed by patients and visitors (Mechanical Rooms, Electrical Closets, IS Closets, etc.) shall comply with the following requirements.
  - 1. Door frames shall be painted hollow metal, face welded. Design intent is for the door and frame color to be the same color as used on the wall with the opening so the doors and frames blend in with the walls. However, when walls are white, paint doors and frames light gray to minimize cleaning.
  - 2. Doors shall be painted hollow metal. Design intent is for the door and frame color to be the same color as used on the wall with the opening so the doors and frames blend in with the walls. However, when walls are white, paint doors and frames light gray to minimize cleaning.
- B. **Other shell and core rooms.** Door openings installed as part of the Shell and Core for office buildings that may be accessed by patients/visitors (public restroom doors, stair doors, corridor doors to occupied tenant spaces) shall comply with the following requirements.
  - 1. Frames shall be face welded, painted hollow metal type.
  - 2. Doors shall be flush-type, solid core wood doors with wood veneer. Plastic-laminate faced wood core doors are conditionally permitted.

### 2.03 TENANT AREA

- A. Doors to rooms within a tenant space shall comply with the following requirements and shall comply with tenant requirements.
  - 1. Frames shall be knock-down, painted hollow metal type, unless otherwise directed.
  - 2. Doors shall be flush-type, solid core wood doors with wood veneer. Plastic-laminate faced wood core doors are conditionally permitted.
- B. Tenant area entrance from public corridor. Door openings installed as part a tenant fit-out shall comply with the following requirements, unless otherwise directed, and shall comply with tenant requirements.
  - 1. Material.
    - a. Frames shall be knock-down, painted hollow metal type.
    - b. Doors shall be flush-type, solid core wood doors with wood veneer. Plastic-laminate faced wood core doors are conditionally permitted.

## PART 3 - SPECIAL CONTRACT DOCUMENT REQUIREMENTS

### 3.01 GENERAL

- A. In addition to incorporating all applicable life safety and building code requirements, provisions described within this Element shall be included within the Project Contract Documents.
- B. Identify door and frame assembly performance requirements (Heavy Duty, Extra Heavy Duty) in the door schedule.
- C. Identify frame types (Knock-down, face welded, full profile welded) in the door schedule.
- D. Identify door edge construction types (Model 1 Full Flush, Model 2 Seamless) in the door schedule.

## PART 4 - PRODUCTS

### 4.01 GENERAL

- A. Not Applicable.

End of C1020 – Interior Doors

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**ELEMENT C1030 – ACCESSORIES/FITTINGS**

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**PART 1 - GENERAL****1.01 OVERVIEW**

- A. Includes marker and tack boards, identifying devices, lockers, toilet and bath accessories, handrails, window treatments, etc.
- B. Includes requirements for both shell and core and tenant areas for office buildings.

**PART 2 - DESIGN CRITERIA****2.01 GENERAL**

- A. While most accessories are provided and installed by the Contractor, some accessories/fittings are provided by the Owner for Contractor installation. The design professional shall review the complete list of accessories/fittings with the BJC Design Project Manager and BJC Clinical Asset Management. Provide cut sheets during the Design Development phase for review and approval.
- B. Unless otherwise directed, do not provide toilet seat cover fixtures, feminine hygiene dispensers, or condom dispensers.
- C. Preferred method of drying hands is by paper towel. Forced air hand dryers are conditionally permitted in public restrooms but are not permitted in any other locations.
- D. Design professional must carefully consider the size of the fixtures, clearances, mounting requirements, etc. when designing spaces.
- E. Verify fixture location does not interfere with door swings or use of fixtures.
- F. Comply with manufacturer's recommendations for backing and proper support.
- G. Use fasteners and anchors suitable for substrate and project conditions.
- H. Install items rigid, straight, plumb, and level, in accordance with manufacturer's installation instructions and approved shop drawings.
- I. Conceal evidence of drilling, cutting, and fitting to room finish.

**2.02 SHELL AND CORE**

- A. The requirements for Accessories, Signage, and Window Treatments in shell and core areas of an office building are determined by the building owner. For all BJC-

owned office buildings, the following requirements for accessories in the shell and core areas of an office building shall apply. Coordinate with BJC Clinical Asset Management (CAM). For all non-BJC owned office buildings, the accessories are not determined by BJC and therefore the following conditions do not apply.

- B. Accessories.
1. Grab Bars. Located in public rest rooms as required by ADA.
    - a. Furnished: Contractor.
    - b. Installed: Contractor.
    - c. Mounting: Wall mounted at 34” above finished floor to centerline of grab bar or in accordance with applicable codes and regulations. Concealed fasteners required. Provide blocking in wall to support 800lb static load and 1,000lb dynamic load.
    - d. Material: Brushed stainless steel with peened grip surface.
  2. Toilet Paper Dispenser, Jumbo Roll. Located in public rest rooms immediately adjacent to each toilet.
    - a. Furnished: Owner, verify.
    - b. Installed: Contractor.
    - c. Mounting: Surface mounted, at a height in accordance with applicable codes and regulations. Provide blocking in wall as necessary. Coordinate exact location with grab bars and other fixtures.
    - d. Material: Brushed stainless steel or as provided by supplier.
  3. Mirrors, Frameless. Located in multi-use (more than one toilet fixture) public rest rooms. Installed along back wall at sinks for entire length. When more than one mirror is required to fill length of wall, meeting edge of mirror units shall not be on center with sinks.
    - a. Furnished: Contractor.
    - b. Installed: Contractor.
    - c. Mounting: Wall mounted at a height in accordance with applicable codes and regulations. Provide blocking in wall as required. Provide top and bottom clip mounting.
    - d. Material: ¼” thick tempered glass.
  4. Coat Hooks. Located in public rest rooms. Installed at back side of room entry door for single-use rest rooms or installed on toilet partition door, stall-side, for multi-use rest rooms.
    - a. Furnished: Contractor.
    - b. Installed: Contractor.
    - c. Mounting: Wall mounted at a height in accordance with applicable codes and regulations. Provide blocking in wall as required.
    - d. Material: Brushed stainless steel.

5. Soap Dispensers. Located in public rest rooms. Installed at adjacent to the sink. Provide one soap dispenser per sink. For rest rooms with 3 or more sinks, coordinate number of soap dispensers with BJC Design Project Manager.
  - a. Furnished: Owner, verify.
  - b. Installed: Contractor.
  - c. Mounting: Surface, wall mounted at a height in accordance with applicable codes and regulations. Provide blocking in wall as required.
  - d. Material: Brushed stainless steel or as provided by liquid soap supplier.
  - e. Notes: Avoid locating soap dispensers where soap may drip on to floor.
  
6. Paper Towel Dispenser, Roll Towel, Battery Operated Motion Sensor. Located in public rest rooms. Locate immediately adjacent to sinks. For a rest room with one sink, provide one paper towel dispenser. For restrooms with 2 to 3 sinks, provide 2 paper towel dispensers. For rest rooms with 4 or more sinks, coordinate number of paper towel dispensers with BJC Design Project Manager.
  - a. Furnished: Owner, verify.
  - b. Installed: Contractor.
  - c. Mounting: Surface mounted or semi recessed, at a height in accordance with applicable codes and regulations. Provide blocking in wall. Surface mounted units shall not project more than 4" from the wall surface.
  - d. Material: Brushed stainless steel or as provided by supplier.
  - e. Notes: Avoid locating paper towel dispensers where excessive water may drip on to floor.
  
7. Forced Warm Air Hand Dryers. Conditionally permitted for use in public rest rooms only in lieu of paper towel dispensers. Approval for use by BJC Design Project Manager is required. When approved for use, locate unit adjacent to sinks. For a rest room with one sink, provide one forced warm air hand dryer. For restrooms with 2 to 3 sinks, provide 2 forced warm air hand dryer. For rest rooms with 4 or more sinks, coordinate number of forced warm air hand dryers with BJC Design Project Manager.
  - a. Furnished: Contractor.
  - b. Installed: Contractor.
  - c. Mounting: Surface mounted, at a height in accordance with applicable codes and regulations. Provide blocking in wall. Surface mounted units shall not project more than 4" from the wall surface. Coordinate electrical requirements.
  - d. Material: Brushed stainless steel or as provided by supplier.
  - e. Notes: Avoid locating forced warm air hand dryers where excessive water may drip on to floor. Coordinate with electrical requirements.
  
8. Baby Changing Station. Located in public rest room only at the main entrance level. See notes for location considerations. Provide one baby changing station for every public restroom on the main entrance level.
  - a. Furnished: Contractor.

- b. Installed: Contractor.
  - c. Mounting: Surface mounted or semi recessed, at a height in accordance with applicable codes and regulations. Provide blocking in wall. Surface mounted units shall not project more than 4” from the wall surface in the closed position.
  - d. Material: 18 gauge minimum brushed stainless steel outer shell and polypropylene inner bed liner.
  - e. Notes: Unit must be equipped with restraint straps. Unit is not required to have a sanitary bed liner dispenser. Avoid locating baby changing stations in traffic areas, near doors, or directly adjacent to toilets and urinals.
9. Mop Holder. Located in Housekeeping Closet. Provide one mop holder for every Housekeeping Closet.
- a. Furnished: Contractor.
  - b. Installed: Contractor.
  - c. Mounting: Surface mounted. Provide blocking in wall as required.
  - d. Material: Brushed stainless steel.
  - e. Notes: Locate above mop sink.
- C. Signage.
- 1. Interior signage is furnished and installed by BJC Sign Shop, unless otherwise directed. Design professionals shall coordinate installation requirements and provide blocking as necessary for mounting with BJC Sign Shop.
  - 2. Room identification signs are typically located on the wall along the latch side of a door opening. Consider sign locations when locating items including but not limited to hand sanitizer dispensers, switches and outlets, door operators, wall protection, handrails, etc.
  - 3. Directory. Building directories are located near the main building entrance and near the elevator lobby. Directory design, content, location, and type to be coordinated with BJC Sign Shop and BJC Project Manager.
- D. Window Treatments
- 1. Manually operated horizontal blinds shall be furnished and installed by Owner for all shell and core windows unless otherwise directed. Design professional shall coordinate mounting requirements and provide treated wood blocking at head of window as necessary.

## 2.03 TENANT AREA

- A. The requirements for Accessories, Signage, and Window Treatments in tenant areas of an office building are determined by a variety of factors and must be coordinated with BJC Director of Design.



**PART 3 - SPECIAL CONTRACT DOCUMENT REQUIREMENTS****3.01 GENERAL**

- A. In addition to incorporating all applicable life safety and building code requirements, provisions described within this Element shall be included within the Project Contract Documents.
- B. Coordinate types of products and mounting locations with Owner.
- C. Coordinate and indicate support and blocking requirements in contract documents as necessary for specific mounting requirements.
  - 1. Show initial elevations of block requirements on plans.
- D. All fittings described herein shall be shown in the drawings.
  - 1. All items that are Owner furnished and Owner installed shall be shown as dashed lines and noted accordingly.
  - 2. All items that are Owner furnished and Contractor installed shall be shown as solid lines and noted accordingly.
  - 3. All items that are Contractor furnished and installed shall be shown as solid lines and noted accordingly.
  - 4. Provide an Accessories/Fittings Schedule in the drawings.

**PART 4 - PRODUCTS****4.01 GENERAL**

- A. Not Applicable.

End of C1030 – Accessories/Fittings

**ELEMENT C1031 – FABRICATED TOILET PARTITIONS**

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**PART 1 - GENERAL****1.01 OVERVIEW**

- A. Includes fabricated toilet partitions and urinal screens for office buildings.
- B. Coordinate finishes with BJC Design Manager. Provide samples for selection and samples for verification unless otherwise directed.

**PART 2 - DESIGN CRITERIA****2.01 GENERAL**

- A. Typical toilet partitions shall be floor mounted.
- B. Typical urinal screens shall wall mounted.

**2.02 SHELL AND CORE**

- A. Plastic laminate-faced particle board cores are permitted. Do not use steel, phenolic core and solid polymer type panels unless otherwise directed by BJC Design Project Manager and BJC Director of Design.
- B. Hardware
  - 1. Provide stainless steel type hardware.
  - 2. Provide manufacturer's standard paired, self-closing type hinges that can be adjusted to hold doors open at any angle up to 90 degrees.
  - 3. Provide manufacturer's standard recessed latch unit designed for emergency access and with combination rubber-faced door strike and keeper. Provide units that comply with regulatory requirements for accessibility at compartments designated as accessible.
  - 4. Provide manufacturer's standard combination hook and rubber-tipped bumper, sized to prevent in-swinging door from hitting compartment-mounted accessories.
  - 5. Provide manufacturer's standard rubber-tipped door bumper at out-swinging doors.
  - 6. Provide manufacturer's standard door pull unit at out-swinging doors that complies with regulatory requirements for accessibility. Provide units on both sides of doors at compartments designated as accessible.
  - 7. Provide manufacturer's standard corrosion-resistant anchoring assemblies with leveling adjustment nuts.

**2.03 TENANT AREA**

- A. Toilet partitions/screens in tenant areas of an office building is uncommon since most are designed as single-use bathrooms. When required, type of partition/screen is determined by the tenant. Coordinate with BJC Design Project Manager.

### PART 3 - SPECIAL CONTRACT DOCUMENT REQUIREMENTS

#### 3.01 GENERAL

- A. In addition to incorporating all applicable life safety and building code requirements, provisions described within this Element shall be included within the Project Contract Documents.
- B. Coordinate types of products and mounting locations with Owner.
- C. Coordinate and indicate blocking requirements in contract documents as necessary for specific mounting requirements.

### PART 4 - PRODUCTS

#### 4.01 GENERAL

- A. Not Applicable.

End of C1031 – Fabricated Toilet Partitions

**ELEMENT C1038 – CASEWORK**

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**PART 1 - GENERAL****1.01 OVERVIEW**

- A. This standard addresses typical fabricated custom plastic laminate casework and does not include laboratory grade, stainless steel, or other types of specialty casework.
- B. This guideline addresses typical countertops including plastic laminate and solid surface types.
- C. This guideline does not include specialty countertops such as solid phenolic, stone, manufactured stone, stainless steel, or other specialty type countertops.
- D. Includes requirements for both shell and core and tenant areas for office buildings.
- E. Fabrication and installation shall comply with the most current edition of the Architectural Woodwork Standards (AWS).

**1.02 REFERENCES**

- A. Refer to “*102.114 Casework Design Guideline*” for descriptions, definitions and explanations of the terms associated with the standards.
- B. Refer to “*102 114.01 Casework Grade – Images*” for graphic depictions of materials for Premium and Custom Grade.
- C. Refer to “*102 114.02 Casework Grade – Technical Comparison*” for detailed analysis of Premium and Custom Grade and as compared to BJC’s modified requirements.
- D. Refer to Ergonomic Guideline in Chapter 1 for requirements regarding heights of counters, reach range, wall cabinet heights, etc.

**PART 2 - DESIGN CRITERIA****2.01 GENERAL**

- A. The following table indicates the minimum grade acceptable for use based on general building areas. Economy Grade is not permitted in any instance. Refer to building type standards for specific requirements and exceptions.
  - 1. Custom Grade is permitted in most instances for medical office buildings including the shell and core areas and the tenant lease areas.

2. In some instances, premium grade may be required based on the need for greater durability. Premium Grade is conditionally permitted and approval for use by BJC Director of Design and BJC Corporate Architect is required.

Table. Permitted casework grade by area within an office building.

OFFICE BUILDING		
KEY	Shell and Core Area	Tenant Area
NP NOT PERMITTED		
CP CONDITIONALLY PERMITTED UPON APPROVAL		
P PERMITTED		
Architectural Woodwork Standards (AWS) grade designation		
Premium Grade	CP	CP
Custom Grade	P	P
Economy Grade	NP	NP

- B. Plastic laminate horizontal and vertical surfaces shall be smooth and not textured unless otherwise approved by BJC Director of Design.**
- C. Agrifiber core material is not permitted.
- D. Quality control, quality assurance and certification requirements.
  1. Fabrication and installation shall comply with the most current edition of the Architectural Woodwork Standards (AWS).
  2. It is preferred, but not required, for fabricators and installers to be members of, and certified by, the Architectural Woodwork Institute (AWI).
  3. Fabricated cabinets and casework are not required to be inspected, certified and labeled by an AWI inspector.
- E. Coordinate casework clearances with fixtures and equipment. Verify with BJC Clinical Asset Management for size and clearance requirements.
  1. Microwave shelf. Where standard base cabinets include an opening for the installation of a microwave oven (below the countertop), the shelf on which the microwave oven sits shall extend at least to the outside face of the drawer beneath.
  2. Ice machine. Coordinate the plumbing requirements for counter ice machines with counter and base cabinet. When required, backflow preventers beneath the fixture can limit the use of the base cabinet.
  3. Undercounter refrigerators. Verify the height of the unit with respect to the counter thickness and the height of the counter above finished floor. Coordinate electrical requirements.
- F. Quality Control, Quality Assurance and Certification Requirements.

1. Fabrication and installation shall comply with the most current edition of the North American Architectural Woodwork Standards (NAAWS).
  2. It is preferred, but not required, for fabricators and installers to be members of, and certified by, the Architectural Woodwork Institute (AWI).
  3. Fabricated cabinets and casework are not required to be inspected, certified and labeled by an AWI inspector.
  4. Architect and Owner will inspect the Work and determine whether it is in compliance with the grade
- G. Design team to coordinate finishes with entity specific standards. Provide samples for selection and samples for verification unless otherwise directed.
- H. At all locations where casework (cabinets, counters, back and side splashes) abuts wall surfaces or other construction, provide sealant at intersecting materials.
- I. Unless otherwise directed, cabinets shall be constructed as frameless, flush overlay type.
- J. In office buildings, the exposed top surfaces of all wall cabinets are not required to return to the wall as a sloped top nor required to be closed off so as not to create a dust shelf.
- K. Wall cabinet valance at under-cabinet lighting. Where under-cabinet lighting occurs, wall cabinets shall have a valance to shield the lighting from view. Minimum length of valance shall be 1-1/2”.
- L. Architect to submit plastic laminate interior material control samples for each color, pattern, and surface finish to owner for review.
- M. Cabinet Materials. Design professional should consider project conditions and specify materials of higher quality when necessary that support the specific use and intended function. Refer to the 102.114 Casework Design Guideline for description of surface types.
- N. The minimum requirements for surfaces of casework within an office building is as indicated in the following table.

Table. Casework requirements for substrate and facing materials for shell and core and tenant areas of an office building

Architectural Woodwork Standards (AWS) grade designation				OFFICE BUILDING			
				Shell and Core	Tenant Area		
Substrate for all conditions except for drawer sides, backs and bottoms - material and thickness			Premium Grade	19mm (3/4") medium density particle board, fiber board (for panels up to 30" x 80")			
			Custom Grade				
Substrate for drawer sides and backs - materials and thickness			Premium Grade	12.7mm (1/2") medium density particle board core			
			Custom Grade				
Casework core substrate drawer bottoms - materials and thickness			Premium Grade	12.7mm (1/2") hardwood			
			Custom Grade				
Exposed Surfaces	Facing material and thickness	Horizontal (non-counter) cabinet facing	Premium Grade	0.7mm HPDL			
			Custom Grade				
		Vertical cabinet facing	Premium Grade			0.7mm HPDL	
			Custom Grade				
	Edge material and thickness	Cabinet edge	Premium Grade	0.5mm PVC edgeband, color matched			
			Custom Grade				
		Shelf edge	Premium Grade	3.0mm PVC edgeband, color matched			
			Custom Grade			0.5mm PVC edgeband, color matched	
		Door edge	Premium Grade	3.0mm PVC edgeband, color matched			
			Custom Grade			0.5mm PVC edgeband, color matched	
	Drawer edge	Premium Grade	3.0mm PVC edgeband, color matched				
		Custom Grade			0.5mm PVC edgeband, color matched		
Semi-Exposed Surfaces	Facing material and thickness	Other than drawer sides backs and bottoms	Premium Grade	0.7mm HPDL			
			Custom Grade	Thermoset (melamine)			
		Drawer sides, backs and bottoms	Premium Grade	Thermoset (melamine)			
			Custom Grade				
		Internal face of doors when doors are in closed position	Premium Grade	HPDL of same thickness as exposed face			
			Custom Grade				
Edge material and thickness	Shelf edges concealed within casework	Premium Grade	0.5mm PVC edgeband, color matched				
		Custom Grade					
Concealed Surfaces	Facing material and thickness	All fully concealed surfaces	Premium Grade	Thermoset decorative overlay (melamine) or 0.5mm cabinet liner			
			Custom Grade				

Table. Casework requirements for hardware items for shell and core and tenant areas of an office building

Architectural Woodwork Standards (AWS) grade designation				OFFICE BUILDING			
				Shell and Core	Tenant Area		
Substrate for all conditions except for drawer sides, backs and bottoms - material and thickness		Premium Grade	19mm (3/4") medium density particle board, fiber board (for panels up to 30" x 80")				
		Custom Grade					
Substrate for drawer sides and backs - materials and thickness		Premium Grade	12.7mm (1/2") medium density particle board core				
		Custom Grade					
Casework core substrate drawer bottoms - materials and thickness		Premium Grade	12.7mm (1/2") hardwood				
		Custom Grade					
Exposed Surfaces	Facing material and thickness	Horizontal (non-counter) cabinet facing	Premium Grade	0.7mm HPDL			
			Custom Grade				
		Vertical cabinet facing	Premium Grade			0.7mm HPDL	
			Custom Grade				
	Edge material and thickness	Cabinet edge	Premium Grade	0.5mm PVC edgeband, color matched			
			Custom Grade				
		Shelf edge	Premium Grade	3.0mm PVC edgeband, color matched			
			Custom Grade			0.5mm PVC edgeband, color matched	
		Door edge	Premium Grade	3.0mm PVC edgeband, color matched			
			Custom Grade			0.5mm PVC edgeband, color matched	
		Drawer edge	Premium Grade	3.0mm PVC edgeband, color matched			
			Custom Grade			0.5mm PVC edgeband, color matched	
Semi-Exposed Surfaces	Facing material and thickness	Other than drawer sides backs and bottoms	Premium Grade	0.7mm HPDL			
			Custom Grade	Thermoset (melamine)			
		Drawer sides, backs and bottoms	Premium Grade	Thermoset (melamine)			
			Custom Grade				
	Internal face of doors when doors are in closed position	Premium Grade	HPDL of same thickness as exposed face				
		Custom Grade					
Edge material and thickness	Shelf edges concealed within casework	Premium Grade	0.5mm PVC edgeband, color matched				
		Custom Grade					
Concealed Surfaces	Facing material and thickness	All fully concealed surfaces	Premium Grade	Thermoset decorative overlay (melamine) or 0.5mm cabinet liner			
			Custom Grade				



**O. Cabinet Hardware****1. General**

- a. Provide cabinet hardware and accessory materials associated with architectural cabinets. Coordinate cabinet hardware requirements, locking, pulls, etc. with project requirements and entity specific standards.
- b. Exposed Hardware Finishes: For exposed hardware, provide finish that complies with BHMA A156.18 for BHMA 630f, satin stainless steel. Coordinate with entity specific standards.
- c. Pulls. In most instances, pulls are to be back mounted, solid metal, wire type. Coordinate with project specific requirements and entity requirements for specific exceptions

**2. Door Hardware. The following requirements apply to Custom and Premium Grade.**

- a. Hinges. Provide frameless concealed hinges (European Type) in accordance with BHMA A156.9, B01602, self-closing type.
- b. Catches are not required for typical installations unless specific design conditions require otherwise.
- c. Door Locks. In accordance with BHMA A156.11, E07121.

**3. Drawer Hardware. The following requirements apply to Custom and Premium Grade.**

- a. Drawer slide. Drawer slides shall be in accordance with BHMA A156.9. Grade 1 (50lbf) and Grade 2 (30lbf) are side mounted, extend under bottom edge of drawer, full-extension, zinc-plated steel with polymer rollers. Grade 1HD-100 (100lbf) and Grade 1HD-200 (200 lbf) are heavy duty type, side mounted, full-extension, zinc-plated-steel ball-bearing slides. The following conditions are considered to be minimum requirements for the applications identified. A higher grade may be required based on intended use.

- 1) For drawers less than 3 inches (75 mm) high and not more than 24 inches (600 mm) wide, provide Grade 2.
- 2) For drawers at least 3 inches (75 mm) high and not more than 6 inches (150 mm) high and not more than 24 inches (600 mm) wide, provide Grade 1.
- 3) For drawers more than 6 inches (150 mm) high or more than 24 inches (600 mm) wide, provide Grade 1HD-100.
- 4) For computer keyboard shelves, provide Grade 1HD-100.
- 5) For trash bins not more than 20 inches (500 mm) high and 16 inches (400 mm) wide, provide Grade 1HD-200.

- b. Drawer Locks. In accordance with BHMA A156.11, E07041.

- c. Door and Drawer Silencers. In accordance with BHMA A156.16, L03011.
- 4. Adjustable Cabinet Shelf Supports. Adjustable shelf supports within cabinets are determined by the casework grade and are as follows:
  - a. Custom Grade: 5mm diameter drilled holes 3” max. on center vertically with dual pin support.
  - b. Premium Grade: Recessed metal standards and brackets, standards to be flush to cabinet face.

P. Countertops

- 1. General.
  - a. Typical counters in office buildings shall be High-Pressure Decorative Laminate (HPDL).
  - b. Provide solid polymer surface type countertops at all wet locations, counters with sinks, and in areas subject to moderate/heavy use (transaction counters). Refer to Room Data Sheets for countertops by room.
  - c. Unless otherwise directed, 4” high backsplashes and side splashes of same material as counter shall be provided when abutting vertical walls. This includes 4” high splashes for solid surface conditions.
  - d. Countertops shall overhang the outermost face of the base cabinet below by 1”.
  - e. Countertop exposed edge shall be 1-1/2” thick, unless otherwise directed.
- 2. Plastic Laminate Countertops and Back/Side Splashes.
  - a. Core material (for dry locations only): Particleboard made with exterior glue or medium-density fiberboard made with exterior glue, Custom and Premium Grades.
  - b. Face material: High-Pressure Decorative Laminate (HPDL), thickness by grade as follows.
    - 1) Custom Grade: Grade HGL, 1.0mm nominal thickness.
    - 2) Premium Grade: Grade HGS, 1.2mm nominal thickness.
  - c. Counter front edge profile.
    - 1) Self-edge with wide build up is permitted.
    - 2) Waterfall and no-drip details are conditionally permitted but not typical and requires approval from BJC Director of Design for use. When approved, HPDL shall be HGP, Postform type.
  - d. Counter front edge material, typical counter condition. (Exposed hardwood edges are not permitted).

- 1) Custom Grade: 0.5mm PVC color-matched edge banding or High-Pressure Decorative Laminate (HPDL) adhered counter edges of same thickness as counter.
  - 2) Premium Grade: 3.0mm PVC color-matched edge banding.
- e. Counter front edge material, where counters are used as a desk surface for computer/keyboard activities. (Exposed hardwood edges are not permitted).
- 1) Custom Grade: 3.0mm PVC color-matched edge banding.
  - 2) Premium Grade: PVC T-molding, wedge shaped
- f. Back splash and side splash detailing shall be as follows. Splashes are required unless otherwise approved by BJC Design Project Manager, Custom and Premium Grade.
- 1) Self-edged with horizontal butt splash (where splash sits atop the counter surface).
  - 2) Self-edged with coved splash is conditionally permitted but not typical and requires approval from BJC Director of Design for use. When approved, HPDL shall be HGP, Postform type.
3. Solid surface countertops. The following requirements apply to Custom and Premium Grades.
- a. Thickness: 19mm (3/4") thick, minimum.
  - b. Substrate/Subtops: Full substrate/subtop coverage is not permitted unless required by solid surface manufacturer. Coordinate perimeter strip and strip spacing with manufacturer. Coordinate supporting elements for unsupported counter spans with manufacturer.
  - c. Back splash and side splash detailing shall be square-edged, eased.
  - d. Counter front edge profile shall be eased edge.

## PART 3 - SPECIAL CONTRACT DOCUMENT REQUIREMENTS

### 3.01 GENERAL

- A. Coordinate types of products and mounting locations with Owner. Indicate blocking requirements in contract documents for specific mounting requirements and as necessary.
- B. Design team to coordinate and verify all equipment locations with CAM including all utility requirements.
- C. **Contractor shall not deliver or install cabinets until building is enclosed, wet work is complete, and HVAC system is operating and maintaining temperature and relative humidity at occupancy levels during the remainder of the construction period.**

- D. All shop drawings must be submitted to Architect and Owner for review. Show location of each item, dimensioned plans and elevations, large-scale details, attachment devices, seams, grommets, supports, and other components.
- E. Indicate type of cabinet and type of countertop on the drawings.
- F. Indicate the grade of casework on the drawings. Where more than one casework grade occurs in a project, identify in the drawings and in the details where each grade occurs.
- G. Indicate sealant joints of cabinets and counters to walls, hard surfaced floors, and gypsum board ceilings.
- H. Indicate filler strips on drawings.
- I. Indicate door and drawer locks on drawings.
- J. Indicate back splash and side splash on drawings.
- K. Provide drawing showing edge conditions of shelves and counter edge conditions.
- L. Indicate finished flooring to be continuous beneath base cabinets.
- M. Clearly dimension heights of counters and wall cabinets above finished floor.
- N. Indicate ADA requirements including clear floor space at fixtures.
- O. For projects involving casework, include the following note on the drawings: **“All wood components, including but not limited to cabinets, doors, drawers, nailers, blocking, and cleats in exposed and semi-exposed areas of casework shall be faced with plastic laminate or a non-porous facing in accordance with the specified casework grade.”**

## PART 4 - PRODUCTS

### 4.01 GENERAL

- A. Not Applicable.

End of C1038 – Casework

END OF DOCUMENT 503.301

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**RESPONSIBILITY MATRIX**

The following matrix identifies those individuals, roles or departments responsible for maintaining the accuracy of the information and those responsible for providing input. Refer to Preface for detailed explanation.

	BJC HealthCare													Hospital/Entity				
	PD&C						Clinical Asset Management (CAM)	Risk Management	Real Estate	Ergonomics	Infection Prevention (IP)	Info Systems, Data, Telecom (IS)	Other:	Standards Review Committee	Facilities Engineering	Housekeeping	Security	Other:
	Corporate Architect	Corporate Engineer	Director of Planning	Director of Design	Director of Construction	Other:												
Primary Authorship	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Secondary Authorship	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**DOCUMENT REVISION HISTORY**

The following table indicates the date the document originated and any subsequent revisions.

503.301 – Interiors, Interior Construction		
Issue	Description of Issue	Prepared by
2018 v1	Original Issue	G. Zipfel