General

Purpose

The University of Texas Division of Housing and Food Service Design & Construction Standards ("DHFS Standards") is a summary document describing DHFS typical practices, preferred material characteristics, and in some cases, required products. This document is to be used by both DHFS staff and PSP's to provide uniformity in facilities maintained by DHFS Shop staff and related UT facility departments.

These DHFS Standards may be more restrictive, or differ substantially from UT PMCS Standards. The requirements of these DHFS Standards need to be confirmed with DHFS facilities management on an individual project basis.

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01 - General Requirements

01 31 00  Project Management & Coordination

1. Require general contractor to prepare coordination shop drawings of mechanical, electrical, and plumbing equipment in new or significantly renovated equipment rooms.
   a. Coordination shop drawings illustrate all of the equipment in an area, regardless of discipline or trade.

01 77 00  Closeout Procedures

1. Require carpet to be cleaned by External Hot Water Extraction (EHWE) method, utilizing truck-mounted equipment with the following characteristics:
   a. Water temperature: consistent temperature between 230 to 270 degrees Fahrenheit (commonly referred to as "steam cleaning").
   b. Output flow rate: 1 – 2 gallons per minute.
   c. Suction flow rate: 3 to 5.5 gallons per minute.

2. Require carpet pile lifter to be used prior to cleaning by EHWE.

End of Section
06 – Wood, Plastics, & Composites

06 40 23 Interior Architectural Woodwork

1. Wood Materials:
   a. Wood species and cut for transparent finish: red oak, plain sawn or sliced (verify match with existing woodwork).
      i. Alternate: white oak, plain sawn or sliced
   b. Wood species for opaque finish: any closed-grain hardwood.
   c. Wood product:
      i. Typical, except countertop sub-counters: veneer core plywood complying with HPVA HP-1, made with adhesive containing no urea formaldehyde.
      ii. Countertop Sub-Counters: exterior grade plywood.
   d. Wood products NOT ALLOWED:
      i. Hardboard (high density fiberboard)
      ii. Medium-density fiberboard
      iii. Particleboard
      iv. PVC edge banding

2. Millwork Design Characteristics:
   a. 4 inch min. high toe kicks.
   b. Full height backsplash between upper and lower cabinets where sinks occur.
   c. Upper cabinets: provide multiple drilled holes with pins for adjustable shelves.
   d. Provide filler panels at all edge conditions.
   e. Provide splashes at adjacent end walls where full height backsplash occurs on back wall as shown:
3. Cabinet Hardware & Accessories:
   a. Butt hinges: 2 ¾ inch, 5-knuckle steel hinges for all cabinets except those identified by owner to be concealed hinges.
   b. Pulls: back-mounted, solid metal, 4 inch satin chrome finish.
   c. Drawer slides: side-mounted; full-extension type; zinc-plated steel ball-bearing slides.
      i. Box drawers: Grade 1HD-100 for drawers not more than 6 inches high AND 24 inches wide.
      ii. File drawers: Grade 1HD-200 for drawers more than 6 inches high OR 24 inches wide.
      iii. Trash bin slides: Grade 1-HD-200 for trash bins not more than 20 inches high AND 16 inches wide.
   d. Grommets for cable passage: molded-plastic with matching caps.

4. Millwork finishes:
   a. Clear coat transparent finish unless otherwise approved.
      i. Provide semi-filled finish for open-grain veneers.
   b. Plastic laminate can be acceptable in office or other lower-intensity use areas.

5. Wood Cabinet construction for transparent finish:
   a. AWI Grade: Premium
   b. AWI Construction: Flush overlay on public cabinets and reveal overlay all other cabinets.
   c. Edge banding (exposed, semi-exposed, and concealed edges of adjustable shelves): minimum 3/8 inch hardwood edge banding with mitered corners.

6. Wood Cabinets construction for opaque finish:
   a. AWI Grade: Custom.
   b. AWI Construction: Flush overlay on public cabinets and reveal overlay all other cabinets.

7. Solid Surfacing:
   a. Thickness: ¾ inch.
   b. Materials:
      i. Preferred: Quartz surfacing material (e.g.: Silestone, Cesarstone, Zodiaq, HanStone or equal)
      ii. Not allowed: Acrylic surfacing material (e.g. Corian, Avonite, or equal)

8. Closet and Utility Shelving:
   a. AWI Grade: Custom
   b. Shelf material and cleats: ¾ inch solid lumber
      i. 1 ½ (vertical) hardwood edge band at leading edge
   c. Closet rod: wood, 1 ¼ inch diameter
   d. Finish: (Clear coat transparent finish unless otherwise approved).

End of Section
07 – Thermal & Moisture Protection

07 84 13 Through Penetration Firestops

1. Products: Provide only the following through penetration firestop systems
   a. Vertical application: Hilti Inc., FS-One High Performance Sealant
   c. Horizontal application – wet areas (mechanical rooms, plumbing risers):
      "Link-type" pipe penetration seals, such as Proco Products Inc, Pen-Seal.
      i. Installation diagram:

2. Pro Set Water Guard Waterproof Sleeve for DWV
3. Hilti CS-SL-SA Sleeve for electrical wiring
4. Installation: Require a single source, qualified installer for ALL firestopping installation.
   a. Submittals shall include manufacturer's training certificates from
      firestopping manufacturer for each person that will install firestopping.
   b. Firestopping shall not be performed by individual trades.

End of Section
08 - Openings

08 11 13  Hollow Metal Doors & Frames

1. Standards:

2. Steel Doors:
   a. Core: Provide polystyrene, polyurethane, mineral-board, or vertical steel-stiffened cores.
      i. Kraft-paper honeycomb cores are NOT allowed.
   b. Reference standard: Provide doors complying with ANSI/SDI A250.8 for level and model, and ANSI/SDI 250.4 for physical performance level as noted below:
      i. Public areas, Mechanical areas, Wet areas, Service areas: Level 4 and Physical Performance Level A (Maximum Duty), Model 1 (Full Flush)
      ii. All areas not identified in 08 11 13, 2bi for Residence Halls and University Apartments: Level 3 and Physical Performance Level A (Extra Heavy Duty), Model 1 (Full Flush), verify with DHFS.

3. Steel Frames: Level 3 and 4 to match level of door in 2b above.

4. Fasteners: Hot-dip galvanized only.

08 14 16  Flush Wood Doors

1. Doors, General:
   a. Transparent Finish:
      i. AWI Grande: Premium
   b. Wood Species: Red Oak, quarter sawn
   c. Opaque Finish:
      i. AWI Grade: Custom
   d. Core: Stave core or structural composite approved by owner. No particle board allowed.

2. Doors, Finish:
   a. New Construction (where no existing doors to match):
      i. Grade (transparent or opaque finish): AWI Premium.
      ii. Transparent Finish: Shop finish with AWI System TR-4 conversion varnish finish.
      iii. Opaque Finish: Shop finish with AWI System OP-4 conversion varnish finish.
   b. Renovation:
      i. Transparent Finish: Field finish with clear stain (refer to 09 – Finishes)
      ii. Opaque Finish: Field finish with acrylic enamel (refer to 09 – Finishes)
08 14 33  Stile & Rail Doors

1. Doors, General:
   a. Transparent Finish:
      i. AWI Grande: Premium
      ii. Wood Species: Red Oak, quarter sawed / sliced stiles & rails, plain sawed / slices panels.
      iii. Stile and rail to be a minimum of 6 inches.
   b. Opaque Finish:
      i. AWI Grade: Custom

2. Doors, Finish:
   a. New Construction (where no existing doors to match):
      i. Grade (transparent or opaque finish): AWI Premium.
      ii. Transparent Finish: Shop finish with AWI System TR-4 conversion varnish finish.
      iii. Opaque Finish: Shop finish with AWI System OP-4 conversion varnish finish.
   b. Renovation:
      i. Transparent Finish: Field finish with clear stain (refer to 09 – Finishes)
      ii. Opaque Finish: Field finish with acrylic enamel (refer to 09 – Finishes)

08 31 13  Access Doors

1. All access doors, shall be prepared for Sargent 1-1/4 inch mortise cylinder. Cylinder will be installed by DHFS.
   a. Wall and ceiling access doors are to be Nystrom, MT Series, with a 1.25” mortis cylinder prep. The access panel lock housing will be threaded to accept a standard 1.25” mortise cylinder with a set screw for backup to help lock the cylinder in place.
   (http://www.nystrom.com/ftpgetfile.php?id=2843)
   b. Access doors identified by the owner/architect will be provided with screwdriver-operated cam mechanism.

2. No temporary locks are required during construction.

08 71 00  Door Hardware

1. Hinges:
   a. Type:
      i. Provide 5-knuckle hinges with non-removable pins for doors up to 3 feet in width.
      ii. Provide continuous geared hinges for doors over 3 feet in width and for storefront doors.
         2. Avoid: Hager
         3. Spring hinges: 2 each per door that require this hinge
b. Base Metal / Finish
   i. Interior: steel base w/ steel pin; BHMA 626 / US26D ("Satin Chrome Plated")
   ii. Exterior: stainless steel base w/ stainless steel pin; BMHA 630 / US30D ("Dull Stainless Steel")

2. Mechanical Locks:
   b. Finish: US26D

3. Auxiliary Locks:
   a. Product: Sargent Manufacturing Company, Series 4870, LN Rose
   b. Finish: US26D

4. Electromechanical Locks:
   a. Product: Sargent Persona Passport 1000 P1 Power over Ethernet (POE) lock. (Order lock credential types as per DHFS request)
   b. Student rooms will get a deadbolt function.
   c. All other applications will get a latch only function
   d. Finish: US26D

5. Exit Devices:
   a. Product: Sargent 8000 Series mortise exit device
   b. Function: As determined by project requirements
   c. Finish: US26D

6. Lock Cylinders:
   a. Product: Sargent Manufacturing Company; provided by DHFS.
   b. All locations other than Mechanical Rooms & Access Doors: BHMA A156.5, 7-pin, "old-style" removable cylinders.

7. Closers:
   a. Product: Sargent, 351

8. Interior Storefront Door Systems with Security:
   ASA Strike Mounting Bracket with Template and Fasteners and Mortise Lock Mounting Brackets with Fasteners
   a. Both ASA Strike Mounting Bracket and Mortise Lock to be provided by and installed by the GC at areas listed below for all storefront floors unless noted otherwise.
      i. Storefront door latches
      ii. Storefront door frame strikes
   b. Manufacturer: Major
      i. Door Model: LMB-02 Mortise Lock Mounting Bracket with Fasteners
      ii. Door Frame Model: LMB-05 ASA Strike Mounting Bracket with Fasteners
   c. Provide rivets or screws at three points of attachment.

9. Door Hardware Sets: The chart below is intended as an initial guideline of lockset function and typical product utilized. Final functions and product selections are to be approved by DHFS staff.
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<th>Function</th>
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<td>Dormitory or Exit</td>
<td>Sargent 8225 LNJ 26D less cylinder Provide 2 ball bearing hinges per door</td>
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<td>Congregate Bathrooms</td>
<td>Classroom / Storeroom</td>
<td>Sargent Persona Passport 1000 P1 POE</td>
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<td>Janitor Closets</td>
<td>Classroom</td>
<td>Sargent 8237 LNJ 26D less cylinder</td>
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<td>Storeroom or Closet</td>
<td>Sargent 8204 LNJ 26D less cylinder</td>
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<td>Privacy</td>
<td>Sargent 8215 LNJ 26D less cylinder</td>
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09 - Finishes

09 22 16 Non-Structural Steel Framing

1. If Equivalent Gauge (AKA, "EQ drywall framing") steel framing is specified or allowed by submittal, self-tapping screws are prohibited.

09 29 00 Gypsum Board

1. Abuse-Resistant Type:
   a. Application: All vertical interior locations except on walls in wet areas.
   b. Product (no substitutions): USG Fiberock Abuse Resistant Interior Panels
   c. Note: Provide A-R product to full height of wall.

2. Wet and Tiled Areas
   a. Application: All vertical interior locations in wet areas.
   b. Product (no substitutions): USG Durock Glass-Mat Tile Backerboard
   c. Note: Provide product to full height of wall.

3. Fire-Resistant Suspended Ceilings:
   a. Application: All suspended gyp-bd locations except in wet areas.
   b. Product: USG Sheetrock Firecode C Core, Tapered Edge.

4. Fire-Resistant Type – 1 Hour
   a. Application: As Owner approved.
   b. Product: Type X, 5/8 inch thick.

5. Fire-Resistant Type – 30 Minute
   a. Application: As Owner approved.

09 30 00 Tiling

1. Special Manufacturer's Warranty: Manufacturer's standard form in which waterproofing / tile setting product manufacturer agrees to repair or replace waterproofing, setting bed, tile, and grout that does not comply with the requirements or that fails to remain watertight within specified warranty period.
   a. Warranty does not include failure of waterproofing due to failure of substrate prepared and treated according to requirements or formation of new joints and cracks in substrate that exceed 1/16 inch in width.
   b. Warranty Period: 15 years from date of Substantial Completion.

2. Tile & Grout Design Parameters:
   a. Larger tile sizes are preferred to lessen the amount of grout joints (exception: individual shower floors).
   b. Dark tiles and dark grout colors are preferred on floors.
   c. Wall tiles can be of most any color value "white" to dark. Wall grouts may be lighter than floors, but do not use "white" grout colors that will show dirt more readily.
d. Wet areas must meet ANSI A137.1, called the DCOF and has a minimum dynamic coefficient of Friction rating requirement of 0.42 for interior level wet areas.
e. The table below summarizes general parameters by application:

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<td>Bathroom Floors (except shower floors)</td>
<td>8 inch x 8 inch min</td>
<td>Dark tile color preferred; Use dark grout colors</td>
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<tr>
<td>Shower Floors</td>
<td>2 inch x 2 inch</td>
<td>Medium to dark tile with variegated color preferred; More grout joints allowable for accommodating sloping to drains; Use dark grout colors</td>
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<tr>
<td>Wall Tile</td>
<td>4 inch x 4 inch min</td>
<td>&quot;White&quot; or light colored tiles generally acceptable; Patterns and decorative accents should not be made of small scale elements; Do NOT use white or very light grout colors</td>
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3. Tile Accessories:
   a. Ceramic Recessed Shower Soap / Shampoo Shelf: Daltile, Large Recessed Shelf, #9999-406540, 12 inches x 12 inches.

4. Thresholds and Sills:
   a. Solid Surface material, ¾ inch thickness.
      i. Preferred: Quartz surfacing material (e.g.: Silestone, Cesarstone, Zodiaq or equal).
      ii. Not Allowed: Acrylic surfacing material (e.g.: Corian, Avonite or equal)

5. Grout Materials
   a. Water-Cleanable Epoxy Grout.
   b. Products: pending verification of acceptability under Special Manufacturer's Warranty.
      i. Mapei Corporation, Opticolor.

6. Waterproof Membrane System:
   a. Provide a complete waterproofing system; do not mix components from different manufacturers.
      i. Note: "fast-cure" type products are not allowed, unless specifically approved by DHFS.
   c. Waterproofing Installation Tests: Each shower pan waterproofing installation shall be field tested to demonstrate water-tightness for a 24-hour period by Contractor at the following stages:
      i. Upon installation of waterproofing and before installation of setting bed or tile.
      ii. After installation of tile and grout and before installation of grout sealant.
d. Application of waterproof membrane and mesh:
   i. The first layer of membrane will be applied with the mesh. This layer must dry before second layer of membrane can be applied.
   ii. Ensure that all mesh is installed with a cove if in a mortar bed application.
   iii. If in a non-mortar bed application the mesh must be tucked tight in all corners during installation.

e. Extent of Waterproofing:
   i. Toilet rooms: all floors and walls to 8 inches AFF min.
   ii. Congregate shower rooms – common areas: all floors and walls to 8 inches AFF min.
   iii. Individual showers including shower dressing vestibule: all floors and walls to 8 feet AFF min.
   iv. Handicapped-accessible showers: all floor and walls to 8 feet AFF min.
      1. Extend waterproofing on adjacent walls to 8 feet AFF min for all walls within 6 feet of HC shower opening.

f. Typical Details

Waterproofing Detail: Typical Bathroom Floor / Wall
09 51 23  **Acoustical Tile Ceilings**

1. Acoustical Tile Panel Product:
   a. USG Interiors, Inc., Radar ClimaPlus 2210
   b. Armstrong World Industries, Inc., Fine Fissured 1728


09 65 10  **Resilient Flooring**

1. Vinyl Floor Tile Product:
   a. Mannington Amtico: Priory Oak AROW7200
   b. American Biltrite MRP-001 Russet Teak

2. Resilient Base
   a. Product: Roppe 193 Black-Brown rubber cove 4” base or equal
   b. Length: Coils only in manufacturer’s standard lengths
   c. Corners: Job form inside and outside corners. No pre-formed corners.

09 91 00  **Painting**

1. General Interior Product Characteristics:
   a. Use only water-borne products; no oil-based products are allowed.
   b. The only acceptable finish is "semi-gloss"
      i. No "eggshell", "flat", "satin" or "gloss" finishes are allowed.

2. Paint Product:
   a. Interior Drywall & Plaster: Sherwin Williams, ProMar 200 Interior Latex Semi-Gloss
   b. Interior Wood: Sherwin Williams Solo Acrylic Enamel, Semi-Gloss,
   c. Metal: Sherwin Williams, DTM Acrylic Coating, Semi-Gloss

3. Typical paint colors:
   a. Interior walls:
      i. Sherwin Williams, "Ironstone" custom off-white color. On file at Airport Boulevard store. Standard in student rooms.
      ii. Sherwin Williams, “Kilim Beige” SW6106
      iii. Sherwin Williams, “Latte” SW6108
   b. Interior metal: Sherwin Williams "Medium Bronze”.
   c. Accent colors: As approved by Owner.

End of Section
10 - Specialties

10 11 00 Visual Display Surfaces

1. Markerboards (Whiteboards): framed, clear glass panels mounted over painted gypsum board wall surfaces are preferred by DHFS in office and conference areas.

2. Tackboards: Claridge, vinyl faced edge wrapped tackboard with a fire-retardant core: Product: Fabricork-1391FREW, Color: Power-KE584

10 21 13 Toilet Compartments

1. Type: Floor mounted, overhead braced unless otherwise directed by DHFS.

2. Product: Bobrick Washroom Equipment "Sierra Series" Solid Color Reinforced Composite (SCRC); Bobrick model number 2092.67
   a. Panel Height: 72 inches
   b. Door Height: 72 inches ("maximum height"), cut as required to provide height shown on the drawings.
      i. Bottom of door to be 12 inches AFF.
      ii. Top of door to match surrounding panel height.
   c. Do NOT provide "gap-free" door.
   d. Hardware: manufacturer's "institutional" hardware and accessories, except provide 3-barrel hinges (from standard hardware) in lieu of continuous hinges.
      i. Note: 3-barrel hinges allow for field adjustment.
   e. Anchorages & Fasteners: provide stainless steel only.
   f. Preferred colors: Forest Green SC04 and Desert Beige SC02

10 26 10 Corner Guards

1. Surface mounted, opaque, resilient vinyl corner guards with formed edges equal to the following:
   1. Johnsonite, Model VBG-XX-A
      a. Height: 48 inches without a joint
      b. Wing Size: Nominal 1-1/2 inch by 1-1/2 inch
      c. Color: 63 Burnt Umber

10 28 00 Toilet Accessories

2. General:
   1. All toilet accessories shall have features that comply with, and be installed in locations compliant with, the Texas Accessibility Standards.
   2. Provide in-wall blocking for grab bars, and towel bars.

3. Individual Mirrors up to 24” x 36” – CFCI:
   1. Product: Bobrick B-290 or Owner approved equal when installation detailed in Item 3 is not used.
4. Mirrors typical in community restrooms – CFCI:
   1. Nominal thickness: 6.0mm
   2. Top and Bottom Trim: J-Channels formed with front leg and back leg not less than 5/16 and 3/4 inches height, respectively.
      i. Product: Provide D638 FHA Type “J” Channel by Laurence, C.R. Co, Inc.
   3. Edge Sealer: Coating compatible with glass coating and approved by mirror manufacturer for use in protecting against silver deterioration at mirrored glass edges.
   4. Mirror Edge Treatment: Rounded polished
   5. Mirror to be attached to wall with Palmer Mirro-Mastic or equal.
   6. Typical detail is shown below.
5. Soap Dispenser – OFCI
   1. Description: Surface-mounted, liquid soap dispenser
   2. Installation Location:
      i. Preferred: to right or left of mirror on plumbing wall.
      ii. Alternate: on side wall.

6. Toilet Grab Bar – CFCI:
   1. Bobrick B-6806 or Owner approved equal.

7. Toilet Tissue (Roll) Dispenser – OFCI:
   1. Public Restrooms: Surface-mounted, twin, jumbo roll dispenser
      i. Product: Tork 5544000
      ii. Preferred installation location per the diagram below:

![Diagram of toilet tissue dispenser installation]

   2. Connecting Bathrooms & Private Bathrooms: Surface mounted, two roll dispenser with NO roll control (sides swing out for loading).
   3. Private Apartments: Surface mounted single roll dispenser (verify).

8. Shower Curtain Rod – CFCI:
   1. Bobrick B-6107 or owner approved equal.
   2. Note: Shower curtain and rings provided by DHFS.

9. Towel Bar – CFCI:
   1. Bobrick B-530 or owner approved equal.
   2. Length: 24 inches (18 inches acceptable where 24 inch unit will not fit)

10. Surface Mounted Robe Hook – CFCI:
    1. Bobrick B-76717 or owner approved equal.

11. Shower Grab Bar – CFCI:
    1. Bobrick B-6861 or owner approved equal.

12. Folding Shower Seat – CFCI:
    1. Bobrick B-5181 or owner approved equal.
       i. Folding solid phenolic shower seat
13. Warm-Air Dryer - CFCI:
   1. World Dryer Model A, Model no. A5-974 for all applications except ADA provide a cast iron cover with porcelain enamel finish in white.
   2. For ADA applications use Excel Dryer Inc, Xlerator Hand Dryer Recess Kit #40502 where dryer needs to be recessed to comply with accessibility codes.
   3. Provide owner approved splash guard when installed on surface that is not waterproof.
      i. Alternate (where space, accessibility, electrical or other issues prevent use of preferred product – verify with DHFS): Nova 2, Model no. 0930
         1. Steel cover with porcelain enamel finish in white.

14. Ironing Center – CFCI:
      i. Wood body & door.
         1. Metal rusts; wood is easily repaired and re-painted.
         ii. Maximum projection off wall in closed position: 4 inches max.
         iii. No sleeve board.
         iv. Provide an electrical outlet near the ironing center, on side opposite ironing center door.

End of Section
12 - Furnishings

12 21 10  Metal Horizontal Louver Blinds

1. Metal Horizontal Louver Blinds are the preferred window treatment unless otherwise noted by Owner.
   a. Basis of Design: Bali Heritage 2" Aluminum Blinds

2. Aluminum Louver Slats
   a. Nominal Slat Width: 2 inch
   b. Slat Spacing: Manufacturer’s standard
   c. Nominal Slat Thickness: Not less than .008 inch (0.20 mm)
   d. Slat Finish: Anti-static, dust-repellant, polyester baked enamel.
   e. Slat Color: Typically off-white or to match existing building standard. Confirm final selection with Owner.

3. Cord Tilt Control and Lift:
   b. Cord Lift Operation: Manual, cord lock to any position on the left

4. Braided Ladder
   a. 100% polyester yard with two extra strength rungs per ladder.
   b. Standard spacing to be max. 44 mm.
   c. Fabric tapes not allowed.
22 - Plumbing

22 42 00 Plumbing Fixtures

1. Water Coolers
   a. General:
      i. Refrigerated unit
      ii. Bi-level for ambulatory and HC access
         1. Do not specify filtered water cooler
      iii. Glass filling gooseneck on high unit equal to Elkay LK1110
         1. Do not specify integrated bottle filling station.
   b. Basis-of-Design:
      i. Elkay Model EZ water cooler

2. Lavatories, Sinks & Faucets
   a. Wall-Mounted Lavatory:
      i. Cast iron body
      ii. 4 inch centers
         1. No 8 inch centers unless otherwise approved.
      iii. Basis-of-Design: Kohler "Hudson" K-2810, 20 x 18 typical size
      iv. Provide Marvel threads at P-trap.
      v. Carrier: Zurn concealed arm carrier or owner approved equal
   b. Recessed Counter Mounted Sinks
      i. Cast iron body
      ii. 4 inch centers
         1. No 8 inch centers unless otherwise approved.
      iv. Provide Marvel threads at P-trap.
   c. Faucet:
      i. Wrist blade handles
      ii. Manufacturer: Chicago Faucets (no alternates)
   d. Accessories:
      i. Rigid PVC enclosure
      ii. Basis-of-Design: TrueBro Lav Shield

3. Janitor Room Sinks:
   a. Floor Sink (preferred):
      i. 24 inch x 24 inch, floor mounted mop basin preferred.
      ii. Stainless steel lip.
      iii. Stainless steel surround to 48 inches AFF.
   b. Wall Mounted Service Sink (alternate):
      i. Cast iron body
      ii. Drilled back
      iii. Basis-of-Design: Kohler "Bannon" K-6714, 22 x 18 nominal size
4. Shower Fixtures:
   a. Mixing Valve and Trim: Moen pressure balance mixing valve body 3570 single pack and 63170 bulk pack with trim T8350. (No alternates).
   b. Shower Head: provided by DHFS.
   c. For HC showers provide 1 fixed shower head and 1 hand held shower head on vertical slide with diverter value for selection of showerhead.

5. Water Closets:
   a. Wall mounted, vitreous china preferred.
   c. Accessible toilets: Provide short stem flush connection / vacuum breaker for valve handle below grab bar.
      i. Do NOT provide offset flush connection / vacuum breaker with valve handle above grab bar.

6. Trap Primers:
   a. Pre-tapped flush valve tube only (not field tapped).

7. Trough Drains (to be used at roll in showers):
   a. Blucher, BWC-100 Series, AISI Type 304 stainless steel 3-1/4"W x custom length Waterline Shower Channel with reversible cast stainless steel collar with deal O-ring seals and 2" no-hub epoxy coated iron (standard) body.

End of Section
26 - Electrical

26 05 33 Raceways & Boxes for Electrical Systems

1. General:
   a. Require a mock-up of exposed distribution systems in public areas (e.g. resident rooms) prior to start of installation.

2. Raceways:
   a. Conduit preferred for exposed raceways, ¾ inch minimum size.
   b. Exposed raceways may be of formed steel above public-accessible heights

3. Exposed Junction Boxes:
   a. 4 inch square, 1-1/2 inch deep (maximum) drawn steel w/ ½ inch deep steel cover preferred

4. Hearing-Impaired Resident Rooms:
   a. Provide conduit and boxes for "ADA Sleeping Room Device Schematic" attached.
   b. Review layout with DHFS prior to installation.
   c. Fire alarm low frequency sounder—Device needs to meet ADA codes for specific use.

26 50 00 Lighting Fixtures

1. Switching:
   a. Stairwells & Hallways:
      i. Utilize Power management such as day light harvesting or other owner approved power saving alternatives.
   
   b. Congregate bathrooms
      i. Always on at 50% power with dual-stage occupancy sensor to activate 100% power (never off)

   c. Individual Showers:
      i. Each shower to have individual light fixture on rotary timer with switch in vestibule.
      ii. If space limitations do not make individual fixtures practical, 2 showers may have their lights ganged together with the switch positioned just outside of the individual showers.

2. LED Luminaires
   a. Luminaires shall comply with the following:
      i. Registered as a DOE Quality Advocate
      ii. Meet DOE’s energy star or design light consortium performance criteria
      iii. UL or ETL listed
b. Furnish complete with LED’s and power supplies

c. Test LED light source packages, arrays or modules in accordance with LM-80 lumen depreciation test. Submit test results of each unique package, array or module. The L70 rated life shall be a minimum of 50,000 hours

d. Test electrical and photometric measurements in accordance with LM-78-08. Submit test results of each unique luminaire.

e. Furnish luminaire with the following characteristics:
   i. CCT of 4000K.
   ii. CRI P 80
   iii. Power factor P 90%.
   iv. Three (3) year minimum product warranty covering all electrical components.

3. LED Power Supplies

a. Furnish LED power supplies that operate LED’s within the current limit specifications of the manufacturer.

b. Power supplies shall have the following characteristics.
   i. Input Source: 60 Hz
   ii. Input power factor: P 90%
   iii. Minimum efficiency at full load of the driver: 70%
   iv. Short current and overload protection
   v. Minimum starting temperature: 0 Degrees F.
   vi. Maximum case temperature rating P 70%
   vii. Sound rating: Class A
   viii. Contains no PCB’s

c. Power Supply output shall be regulated to E5%

d. Comply with requirements of Federal Communications Commission (FCC) rules and regulations, Title 47 CFR part 15 and non-consumer (Class A) for EMI.RFI

e. Carry a 3 year minimum warranty from date of manufacturer against defects in material or workmanship, including a replacement, for operation at or below the maximum case temperature specifications. (For LED lamps and internal power regulation components for defects resulting in a fixture lumen depreciation > 30%)

f. Dimmable power supplies shall allow the light output to be maintained at the lowest control setting (prior to off) without dropping out

4. Fixture Types:
   i. Stairwells
      1. Size / Location: 4’/ Wall mount
      2. Lamping: LED
      3. Basis-of-Design: Lithonia WL4 40L SLD LP840

   ii. Corridors:
      1. Size / Location: 24”/ Surface/Ceiling
      2. Lamping: LED
      3. Basis-of-Design:
         Kenall MLHA8-24-FMW-PP-MODJM-1 LAMP

   iii. Dormitory In-room Sinks:
      1. Size / Location: 2’ long / Wall Mount
2. Lamping: LED

End of Section
28 – Electronic Safety and Security

28 10 00 Access Control Security

1. Current DHFS access control software C-Cure 9000 (See owner for current software version)

2. Current access control hardware
   a. Software house ISTAR GCM
   b. Software House ISTAR ACM
   c. ISTAR R8 output boards
   d. ISTAR I8 input boards
   e. Software House rm2 reader with mag. And keypad
   f. HID SE ICLASS prox reader with software house rm2 module for interface (unless wired direct prox to ACM).
   g. DMA (Door Management Alarm) DSI ES4200-K1-T0 (Designed Security Inc.) with manufactures standard double sided key. (Do not match owners existing key system)
   h. ¾” flush mount door contacts (Normally closed)
   i. HES door strike options:
      1. 1006 fail secure
      2. 1006 fail safe
      3. 9500 failsafe/fail secure
      4. 9600 failsafe/fail secure
   j. Power Supply’s must be 12/24 volts have a min. of 16 individually fused power points for access doors and other devices that require low voltage power.
   k. Sargent electric retraction exit devices 8913 el

End of Section