part IV. (b) - facility construction subgroup

These guidelines shall both inform and supplement the Construction Documents. The Construction Documents shall address all applicable provisions included herein, by way of specification, general notes, detail, and instructions to the Contractor.

These guidelines are organized using the Master Specification Divisions, they are not, however, intended to replace the specification documents produced by the Architect/Engineer of Record. The language provided in the defined specification sections should be seen as supplemental to the language normally supplied by the Architect. In some cases, a full 3-PART "Guide Specification" may be provided, in those cases, the Design Professional shall modify and/or expand the language as appropriate to the project.

02.00.00 - EXISTING CONDITIONS

02 21 00 SURVEYS

(A) Survey by Owner.

Contact Facilities Management to obtain surveys as required for the project. In most cases, the survey will be provided by the University through a separate contract for use by the design team.

(B) Specialized Boundary Survey

All surveys shall include reference points for coordination with UA monuments and GIS database - AutoCAD files are required.

In some cases, the UA may request only a simple (metes and bounds) boundary survey meeting the "Arkansas Minimum Standards for Property Surveys and Plats". More often the UA will request a *Specialized Boundary Survey* where in addition to the property boundaries and monuments the survey shall include:

- (1) The location of easements and encroachments thereof.
- (2) The location of dedicated rights of way with centerline and encroachments thereof.
- (3) The location and extent of Flood Hazard Areas.
- (4) the location of existing utility lines, materials, sizes, and surface features. When underground utilities are shown but could not be verified during the survey, provide a disclaimer statement on the plan noting the source of the assumed information. When information is derived from public utility records, include the location of the record archive, a contact phone number, and the plate or drawing record from which the information was taken.
- (5) Location and description of major improvements (driveways, fences, building footprints, foundations, retaining walls, etc.)

(C) Site Survey and Report

A site planning survey will be used in preparation of a site plan. In addition to the provisions of a specialized boundary survey, a site survey shall represent all existing improvements and any features that would impact construction including the following:

- (1) The location of zoning setback lines and encroachments thereof
- (2) Show the location, size, and type of all trees greater than 3 inches in diameter within the project limits. Show other prominent trees or vegetation on the site plan that may affect the project development. Where heavily wooded or bushy areas exist, define the approximate profile of the perimeter of these areas and note them as heavily wooded, wooded, bushy, marsh, or swamp.
- (3) Identification/scoping of features that would trigger Environmental Studies and/or permitting including but not limited to:
- (a) wetland and waters of the US delineations.
- (b) Underground storage tanks
- (c) Artifacts/ items of archeological significance
- (d) Endangered species
- (e) Likely containments

(D) Topographic Survey

- (1) Show contour elevations at a minimum of 5-foot intervals for undeveloped site areas and 1-foot or 2-foot intervals within the project limits as necessary to accurately describe the site terrain. Indicate the path and contour of all existing surface runoff drainage into and out of the site.
- (2) Indicate the Ground Floor Elevation of Existing buildings.

02 32 00 GEOTECHNICAL INVESTIGATIONS

- (A) Geotech by Owner.
 - (1) Contact the Facilities Management Construction Coordinator for soil bearing/soil analysis testing as required for the project.
 - (2) The design team shall indicate on a site map the preferred locations of soil borings and other investigations as deemed beneficial.
- (B) Boring Logs and Soils Data
 - (1) Provide a small-scale plan of the site and building showing the location where samples were taken. Distinguish between borings and test pits.
 - (2) Indicate the surface ground elevation, the depths of each bore or test pit, and the blow counts per ASTM D-1586 at each bore.
 - (3) Note the classification/description of materials encountered. Indicate the groundwater level at each bore or pit. Note the general site conditions and recent weather history if known (i.e. heavy rains in the general area over the last month). Include other pertinent data.

- (4) Provide a brief description of site geology and subsurface conditions encountered.
- (5) The report shall include recommendations for soil remediation, footings, and foundations.

02 41 16 STRUCTURE DEMOLITION

Construction Documents for the Razing of a Building on Campus shall include the following statement:

"A pre-construction meeting is required with Facilities Management before building razing can commence. The buildings, structures, or other objects shall be free from ACM, lead, or other hazardous materials before demolition begins. All utilities shall be disconnected at the proper demark points. If the contractor suspects they are not hazard-free for any reason, they should contact the FAMA Construction Coordinator."

02 80 00 FACILITY REMEDIATION

(A) Assessments

The University intends to engage a competent consultant who is knowledgeable in ACM, Lead, and other hazardous materials to investigate the project site and determine the existence of hazardous materials.

(B) Hazardous Materials Discovered

Should the consultant discover asbestos-containing materials (ACM) or other hazardous materials the consultant shall:

- (1) Identify, quantify, and document all discovered or known materials.
- (2) Write a plan for the abatement and removal of these materials. Include the Contractor's responsibilities for abatement and/or remediation in the existing building or systems where work is to occur.
- (3) Assist in the bidding process to identify competent contractors for the removal of these materials using the plan and scope documents provided by the Hazardous Materials Consultant.
- (4) Oversee this abatement work and provide adequate testing to ensure the project site is safe for the execution of other work.
- (C) Hazardous Materials are not known to be present.

Construction Documents for Work on or within existing buildings where ACM and other hazardous materials <u>are not known</u> to be present shall include the following statements:

"Unless indicated otherwise within the construction documents, hazardous materials are not known to be present in the existing building or system where work is to occur. The contractor shall notify Facilities Management of any portion of the work that the Contractor knows or has reason to believe contains asbestos-containing materials or other hazardous materials."

03.00.00 - CONCRETE

- See criteria for Custodial Closets
- See criteria for Mechanical Rooms
- See SECTION 32 16 00 CURBS, GUTTERS, SIDEWALKS, AND DRIVEWAYS
- See SECTION 32 16 24 SENIOR WALK

04.00.00 - MASONRY

See SECTION 01 43 39 MOCKUPS

05.00.00 - METALS

05 51 00 METAL PAN STAIRS

If stairs are located outside and exposed to moisture, <u>do not use concrete-filled metal pan systems</u>. Please consider galvanized, precast, or other systems. The University has experienced rusting with painted steel metal pan stairs, especially on the parking decks.

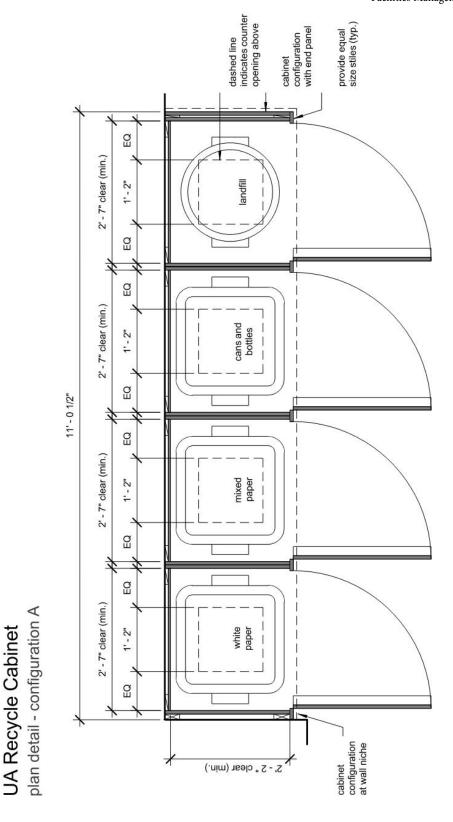
05 52 00 METAL RAILINGS

 See <u>Campus Landscape Standards</u> for exterior handrails and guardrails; <u>AutoCAD files</u> are available online.

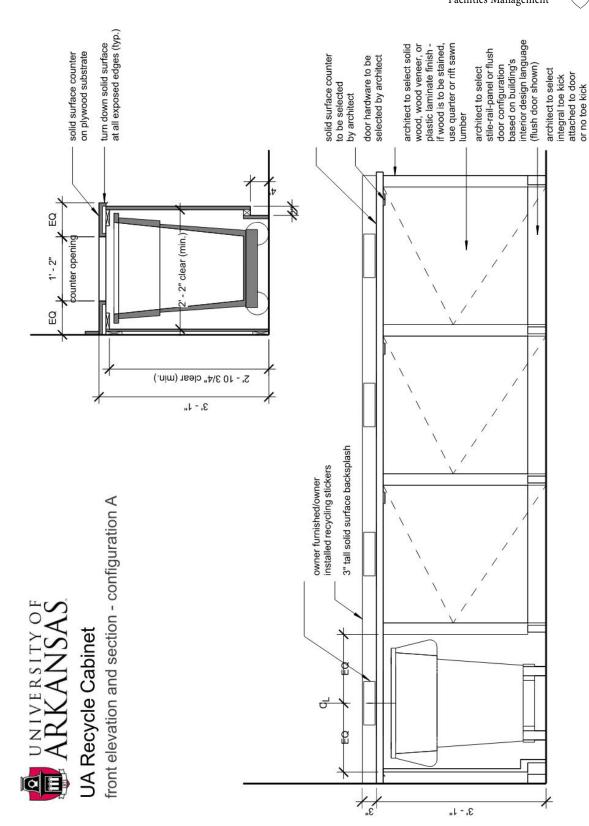
06.00.00 - WOOD, PLASTICS, COMPOSITES

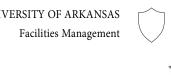
06 41 00 ARCHITECTURAL WOOD CASEWORK

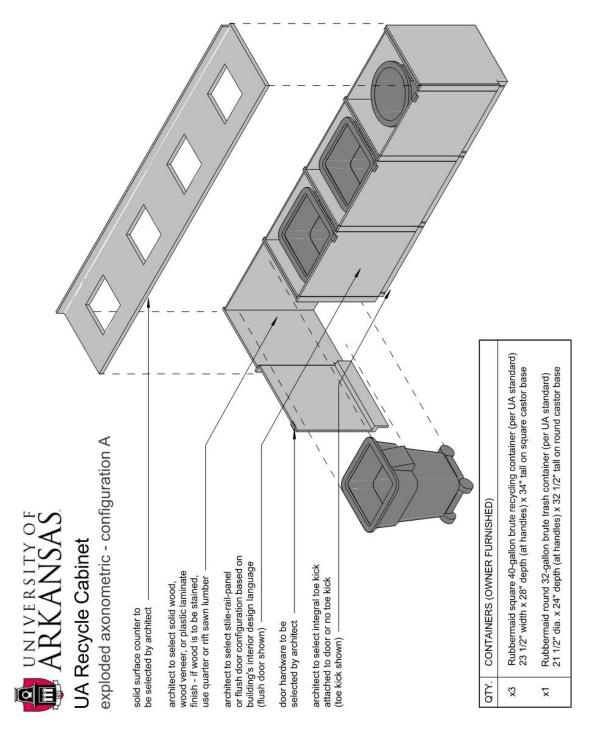
- (A) Custom Recycle Cabinet Quad System:
 - (1) Refer to the drawings below for the plan, section, and elevation details.
 - (2) For small renovations and as a supplement to the larger quad system, provide Steelcase Victor 2 freestanding 4-opening recycle cabinet Architect to select surface material finishes from manufacturer's standard offering.
 - (3) Model # AWRF254836.
 - (4) Inserts as follows:
 - (a) Insert 1 Paper (for White Paper)
 - (b) Insert 2 Paper (for Mixed Paper)
 - (c) Insert 3 Returnable items (for Cans and bottles)
 - (d) Insert 4 Waste (for Landfill)



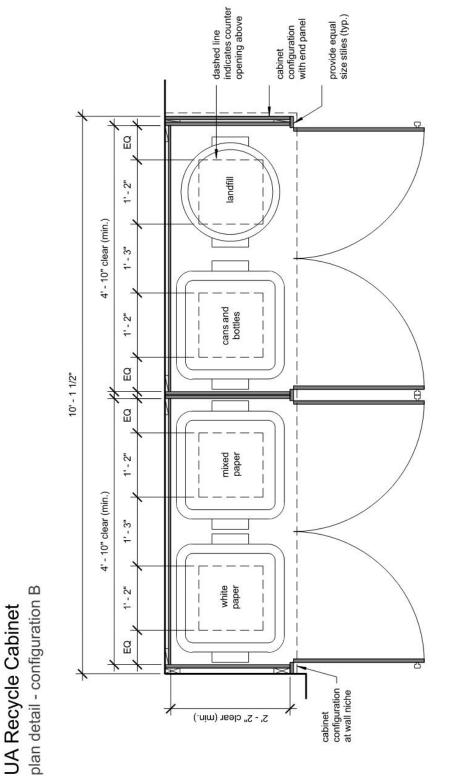
Design and Construction Guide Part IVB - Facility Construction Guidelines New Format 4/9/2024



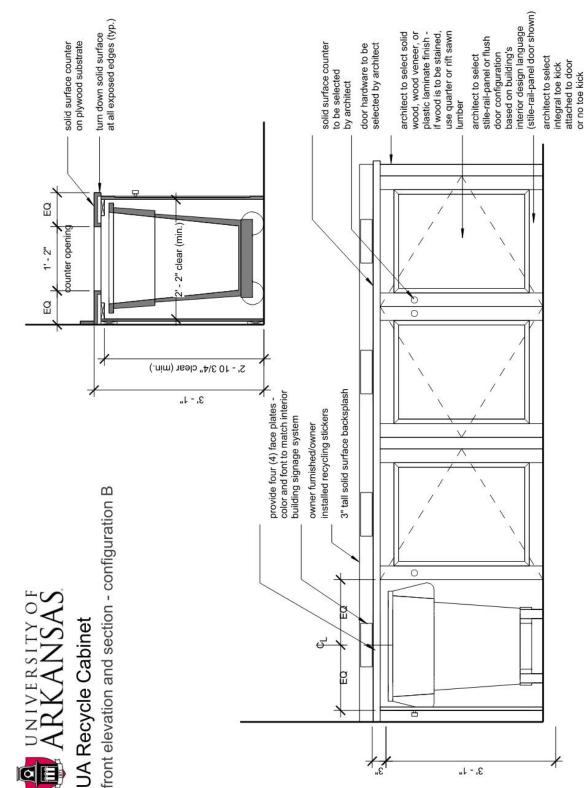




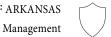
Facilities Management Planning and Design | 13 September 2019

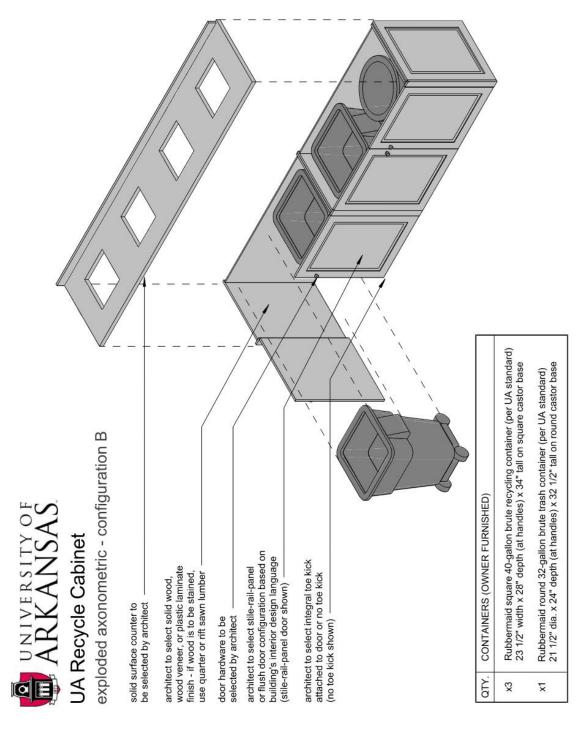


Design and Construction Guide Part IVB - Facility Construction Guidelines New Format 4/9/2024



Facilities Management Planning and Design | 13 September 2019





Facilities Management Planning and Design | 13 September 2019

07.00.00 - THERMAL AND MOISTURE PROTECTION

ROOF CONSTRUCTION

See <u>UASP-720.1 Use of Roofs and Exterior Walls of Buildings</u>

(A) General

- (1) In the planning of new construction projects, architects shall consider the incorporation of a penthouse to house mechanical equipment within the building mass; preferred over standalone roof equipment.
- (2) Stand-alone rooftop equipment shall be screened from view.

(B) Roof and Penthouse Access

- (1) Exterior/wall-mounted ladders are not an acceptable roof access method for buildings on Campus.
- (2) In the planning of new construction projects, Architects shall make provisions for roof access by way of a fully enclosed stair.
 - (a) Provide a secured door through a penthouse space or directly onto the roof as permitted by code.
 - (b) All stairs leading to the roof/penthouse shall incorporate signage at the ground level indicating the roof access point.
- (3) Architects shall also make provisions for an elevator stop at roof-level mechanical rooms/penthouses.

(C) Fall Protection

- (1) Consideration shall be given to the safety of maintenance crews with the provision of guardrails where required by OSHA (hatches and skylights included).
- (2) Consideration shall be given to the safety of maintenance crews with the provision of fall protection systems using rooftop post anchors, horizontal lifelines, or similar systems that allow workers to tie off safety harnesses and move about the roof surface.
- (3) Areas requiring access by traversing obstructed or pitched roof areas shall be given special consideration in discussion with FAMA regarding the appropriateness of crossover platforms, rooftop walkways, etc.

(D) Roof Slope and Drains

- (1) Interior gutters shall not be used.
- (2) Roof drainpipes shall be accessible by cleanout and/or hatch.
- (3) Drain piping material shall be reviewed with Facilities Management during design development for cost consideration.

(E) Reroofing (re-cover) projects.

Consistent with IBC Energy Conservation Code C503.1. roof re-cover projects need not comply with the requirements for new construction, provided that the energy use of the building is not increased. Consistent with IBC Section 1510.1 Reroofing shall not be required to meet the minimum design slope



of one-quarter unit vertical in 12 units horizontal. However, Architects working on campus shall pursue the most effective means of achieving positive roof drainage with the desired slope of one-quarter unit vertical in 12 units horizontal while increasing the overall R-value if possible and without affecting other systems. Slopes shall not be reduced to less than one-eighth unit vertical in 12 units horizontal.

07 31 13 ASPHALT SHINGLES

- (A) General
 - (1) Asphalt shingles on sloped roofs shall be Class "A", fiberglass-based, asphalt shingles over felt underlayment installed as per the manufacturer's specifications minimum slope: 4 in 12. Provide a "peel & stick" self-adhered leak barrier along the roof perimeter, valleys, and penetrations.
 - (2) Provide all required accessories from the same manufacturer.
 - (3) Roof penetrations shall be painted to match the shingle.
 - (4) Snow/ice breakers shall be installed at any location where pedestrian or vehicular traffic occurs below the drip line.
- (B) Basis of Design Campus Standard
 - (1) GAF | Slateline Shingles (and accessories) with Stainguard Plus; Antique Slate
 - (2) Warranty:
 - (a) 40-year shingle,
 - (b) 25-year against algae,
 - (c) 15-year wind up to 130 mph wind speed
 - (3) Specify the installation to meet the manufacturer's special instructions as needed for the wind speed coverage:

GAF Shingles will be covered up to the maximum wind speed above ONLY if your shingles are installed using 6 nails per shingle and you have GAF Starter Strip Products installed at the eaves and rakes. Your GAF Ridge Cap Shingles will be covered up to the maximum wind speed above ONLY If your ridge cap shingles are installed in strict accordance with the "Maximum Wind Speed Coverage Under Ltd. Warranty" section of the applicable ridge cap shingle application instructions. Maximum Wind Speed Coverage without Special Installation is 110mph.

07 50 00 MEMBRANE ROOFING

- (A) General
 - (1) Provide walk pads to all mechanical equipment, hatches, penthouses, etc. indicate locations on the roof plan.

Facilities Management
Provide a termination bar to

(2) Do not lap the membrane continuously over the tops of walls. Provide a termination bar to facilitate the replacement of membrane roofing.

(B) Securement/Fasteners:

- (1) All roof assemblies for new construction shall meet or exceed specifications for Factory Mutual System, Class I, construction regarding wind uplift protection. Utilize the FM Fastening Pattern Guides and refer to the current FM Loss Prevention Data Sheets 1-28, and 1-29 for special consideration of the perimeter and corners of the roof.
- (2) Insulation shall be mechanically attached to steel decks.

 Note: Class 1 systems typically exclude the use of polystyrene insulation.

(C) Fire, Wind, and Code Requirements

- (1) New roof construction on buildings shall meet or exceed all applicable codes. In addition, the roof assembly shall meet or exceed specifications for Underwriters Laboratories, Inc., Class "A" construction, and Factory Mutual System, Class I construction, regarding fire resistivity and wind uplift. (When re-roofing existing buildings, this may not always be possible, especially when re-roofing over existing membranes.)
- (2) Wind Importance Factor: (1.15) No less than Category III
- (3) Hail Resistance: SH.

(D) Energy Performance:

- (1) Provide a roofing system with initial Solar Reflectance Index not less than .72 when calculated according to ASTM E 1980, based on testing identical products by a qualified testing agency.
- (2) Avoid white membranes.

(E) Quality Assurance

- (1) Manufacturer Qualifications: A qualified manufacturer with FM Approvals for the membrane roofing system identical to that used for this Project. Provide primary products, including each component of the single-ply membrane system and related flashings produced by a single manufacturer, which has produced the specified membrane type and roofing system successfully for not less than 15 years. Provide secondary products, including insulation, coated metal flashings, fasteners, and other accessories, which are acceptable to the single-ply membrane manufacturer for use with the roofing system indicated.
- (2) Manufacturer's Certification: The manufacturer shall provide written certification that the specified membrane is within 2.0 mil thickness of the specified membrane thickness. ASTM D751 or D638 nominal thickness of +/- 10 percent will not be acceptable for measurement of membrane thickness.

(F) Roofing Manufacturer's Warranty

- (1) Submit a written warranty, without monetary limitation, signed by the roofing system manufacturer agreeing to promptly repair leaks in the roof and base flashings resulting from defects in materials or workmanship, and complying with the following:
- (a) Specified work shall be guaranteed by the Roofing Materials Manufacturer for twenty (20) years with unlimited per square liability sum available starting from the date of Substantial Completion or final acceptance (if later) by the Owner of the completed roofing system. Notify the owner if the manufacturer offers longer warranties as an additional cost to determine if the purchase of the extended warranty is desired for the project.
- (b) The warranty shall be issued and approved by the Materials Manufacturer. Surety Company bonds are not acceptable. Submit one copy of the roof warranty on the Manufacturer's standard printed form to the Owner, via the Architect. Submit another copy to the Architect upon acceptance of the roof.
- (c) Specified work shall be inspected by a qualified representative of the Manufacturer during its installation and at final completion, for conformance to the Manufacturer's warranty program. A follow-up inspection shall be made by the Manufacturer sixty days (±) before the expiration of the Installer's two-year warranty.

(G) Installer's Warranty

- (1) Installer's warranty is for no less than one year, furnished upon completion of all work, as a condition to its acceptance, final payment, and project close-out and shall comply with the following:
- (a) The installer's warranty shall be issued on the company's printed letterhead, agreeing to correct all leaks and defects in the roofing system to the satisfaction of the Owner and the manufacturer of the installed roof system.
- (b) During the warranty period, the Roofing Installer shall, upon notice from the Owner or Architect, respond promptly to determine the repair source of leaks or defects at no cost to the Owner.
- (c) Regardless of the cause of the leak or defect, the Owner and the Roofing Installer shall document and correspond as to the problem, location, and corrective action needed or taken to prevent future similar occurrences.

070 60 00 FLASHING AND SHEET METAL

Special Warranty on Finishes: Manufacturer's standard form in which the manufacturer agrees to repair finish or replace sheet metal flashing and trim that shows evidence of deterioration of factory-applied finishes within 20 years from the date of Substantial Completion.

07 72 33 ROOF HATCHES

In cases where a stair to the roof is not possible, roof hatches may be used provided:

(1) The roof hatch shall accommodate passage of the largest air filter that is being maintained on the roof area but a minimum of 3'x3' in size.



- (2) The roof hatch shall have a hold-open device.
- (3) The roof hatch shall include a padlock hasp unless fitted with an automatic roof hatch opener.
- (4) The roof hatches shall be protected with safety rails on all four sides with a self-closing gate.
- (5) The roof hatch can be accessed by a permanent ladder with landing at all locations where personnel are required to manipulate a lock or mechanical hatch. Alternating treads shall not be used.

07 72 60.02 AUTOMATIC ROOF HATCH OPENER

Where the budget permits in new and retrofit construction, include an automatic hatch opener lift system for automatic opening/closing, locking/unlocking, latching, and lifting an access hatch lid from the safety of ground level, using a security keypad, or wireless remote control.

- (1) Basis of Design: Automatic Roof Hatch Opener Model No. [AHO16-110V] by SafePro™ L.P., 1355 N. Walton Walker, Dallas, TX 75211; Phone: 1-877-723-3570; Fax: 214-330-5435; Website: www.safeprosafety.com
- (2) Connect to 110 / building supply instead of the solar option.
- (3) Provide battery backup.
- (4) Controls: Furnish the manufacturer's standard wall-mounted keypad control and wireless hand-held remote control.
- (5) Keypad Control: Backlit keypad with power indicator lights, stainless face plate, hard-wired to Control Box.
- (6) Hand-Held Remote Control: Manufacturer's standard remote control, 3-volt (CR2024) replaceable battery.
- (7) Provide a wall-mounted lock box at ground level for securing the controls.

07 84 00 FIRESTOPPING

(A) General

- (1) The construction documents shall include tested and approved details for each condition required for the continuity of the assembly.
- (2) The Campus preference is for Hilti and 3M Corporation systems, but each project shall use a single source; avoid mixing and matching across details.
- (3) Joints and penetrations in floor assemblies shall include a W-rating classification for water resistance.
- (4) Installations shall be inspected by the Campus Fire Marshal after installation is complete, before covering.

(B) Installer Qualifications

The installer shall be certified, licensed, or otherwise qualified by the fire-stopping manufacturer as having been provided the necessary training to install the manufacturer's products per specified requirements and have not less than 3 years of experience with fire-stopping installation.

(C) Labeling and Identification

- (1) UA prefers the use of a tested and approved sealant/mastic (as appropriate to the assembly) that is red or dries red for easy identification.
- (2) Each fire-rated wall assembly shall be labeled/stenciled above the ceiling in concealed spaces and mechanical rooms, electrical rooms, and communication rooms with or without ceilings.
- (3) Each penetration shall be tagged with a label that indicates the manufacturer and brand of the sealant product; the manufacturer's penetration listing; and the installation date.

07 90 00 JOINT PROTECTION

- (1) Special Installer's Warranty: Manufacturer's standard form in which the Installer agrees to repair or replace joint sealants and expansion control components that do not comply with performance and other requirements within the specified warranty period.
- (2) Joint Sealants: Two years from the date of Substantial Completion.
- (3) Expansion Control: Five years from the date of Substantial Completion.

08.00.00 - OPENINGS

- (1) A minimum of one entrance door per building shall be scheduled to receive Access Control and a Door Actuator.
- (2) Doors shall be a minimum of 36" wide x 84" tall.
 - a. Doors to Mechanical Room shall be sized as needed to accommodate the repair/replacement of equipment.
- (3) Hardware Scheduling guide:

Area	Vision Lite	Reverse Swing (out)	Access Control	ā	Panic Device	es	Hold-open	Kickplate
	Visic	Reve	Acce	Closer	Pani	Hinges	Ноіс	Kick
Mechanical Room	NO		NO			VR		YES
Telecommunication Room (TR)	NO	YES	YES	YES	YES	VR	NO	YES
Electrical Room	NO	YES	NO	CR	CR	VR		YES
Custodial Closet	NO	OP	NO			VR		YES
Trash/Recycle Collection Room	NO			CR		VR		
Interior Stairwell	YES	CR	NO	YES		VR	NO	YES
Group Restroom	NO		NO					YES
Single-occupant Restrooms	NO		NO					NO
Nursing Mothers Room	NO		OP					NO
Storage Closet	NO		NO			VR		YES
Classroom	YES	CR						
Office								
Conference Room	YES	CR						

OP= Optional; verify with Coordinator

VR= Vandal Resistant

CR= As Required by Code

08 11 00 HOLLOW METAL DOORS AND FRAMES

- (1) Specify fully welded frames.
- (2) All interior and exterior double doors shall have keyed removable mullions.
- (3) Prep all metal doors not requiring exit devices for full mortise locksets.
- (4) Prep all frames/doors as needed for scheduled access control.

08 41 00 ENTRANCES AND STOREFRONTS

- (1) Aluminum Storefronts. Aluminum entrance and storefront system members shall not be less than 3 1/2" deep. Provide all frames scheduled to receive closers or holders with a head bar for attaching hardware.
- (2) Aluminum Storefront Doors. All aluminum storefront doors shall be medium or wide stile doors. The bottom rail shall be a minimum of 10" for ADA compliance.
- (3) All aluminum storefront doors shall have butt hinges. Do not allow pivot hinges.

08 71 00 DOOR HARDWARE

- (A) General
 - (1) All door hardware to be ADA-compliant.
 - (2) Submit all hardware finish selections to FAMA Planning and Design for approval.
- (B) Locking/Access Configurations:
 - (1) All doors shall have:
 - (a) Corbin-Russwin ML 2000 Series with mortise lock cylinders,
 - (b) Panic/Exit Device
 - a. Standard: Von Duprin Series 99NL,
 - b. Historic/Preservation: Von Duprin 8827 Surface Vertical
 - (c) Magnetic locking devices approved by the University,
 - (d) Access Control
 - (e) Double doors with a center mullion shall use a keyed removable mullion with a Von Duprin 99NL Series exit device.
 - (2) Any door that does not use the Corbin-Russwin ML 2000 Series must have a key bypass feature.
 - (3) Classroom doors shall include an active shooter lock/device.
- (C) Closer Configurations:
 - (1) LCN 4041 Super Smoothee, surface mount or equivalent as approved by the University.
 - (2) Floor closers or overhead concealed closers shall not be used on any door.
 - (3) All interior closers shall be adjusted to comply with ADA the door closer resistance must be 5 pounds or less to accommodate users' various upper extremity abilities.
- (D) Door Actuators
 - (1) LCN Auto Equalizer 46 series

(2) The door button shall say "Automatic" not ADA.

(E) Hinges:

- (3) Exterior Doors: Must be configured with non-removable hinge pins or equivalent approved by the University.
- (4) Secure/Sensitive/Restricted Rooms: Must be configured with non-removable hinge pins or equivalent approved by the University.

(F) Keyways:

All key systems for new construction and renovation shall be IC core Corbin-Russwin, Pyramid.

- (G) Keys and Key Schedules:
 - (1) During the Construction Document Phase Schedule a meeting with FAMA Coordinators to review the Keying Schedule, once final room numbers have been assigned.
 - (2) Obtain a key schedule from the University and prepare and submit a project key schedule to the University for approval.
 - (3) The University shall determine key quantities based on the project.
 - (4) Deliver the blank keys by registered or certified mail to:

Lock Shop

University of Arkansas Facilities Management

521 S. Razorback Rd.

Fayetteville, AR 72701

Code	Classification	Type of Key	
IND	Standard	Individual / Operation	
		(Offices, Classrooms, Teaching Labs)	
SUB	Standard	Sub-Master (Convenience)	
DATA4	High-Risk/High-Value	Telecommunication Rooms	
HRHV*	High-Risk/High-Value	High-Risk/High-Value Individual/Operation	
		(Research Labs, Human Resource offices, Financial Transaction offices)	
SET*	High-Risk/High-Value	High-Risk/High-Value Sub-Master (Secure)	
EXT*	High-Risk/High-Value	Building Exterior (EXT type of Sub-Master)	
BM*	High-Risk/High-Value	Building Master	
	High-Risk/High-Value	Gate Opener or Bollard Key	
UT*	High-Risk/High-Value	Utility (UTP, UTPR, MECH)	



*	High-Risk/High-Value	Restricted - Hazardous Material Storage
*	High-Risk/High-Value	Restricted –high voltage rooms, tunnels,
*	High-Risk/High-Value	Restricted – Roofs, and elevator equipment rooms
	Extreme Risk	Restricted – Emergency Response
	DO NOT COPY	(Grand Master and Great Grand Master)

(H) Access Control Hardware Scheduling

Access control hardware is provided under an IDIQ contract that specifies the "On Guard" system. No other access control hardware will be acceptable.

- (1) Install systems on exterior doors of a building only after review and approval and Facilities Management. A system of control and reporting of who has card access to a building, for those buildings controlled by Facilities Management, must be worked out between the department and Facilities Management before the installation of an access control system.
- (2) Do not schedule access control systems on mechanical rooms, custodial rooms, restrooms, service areas, or roof access without the approval of Facilities Management.
- (3) Fail Safe and Fail Secure inspections are required during Substantial Completion.

08 81 00 GLASS GLAZING

Basis of Design: Vitro Architectural Glass **Solarban 60** low-e coating on #2 Surface + Clear. Visible Light Transmission (VLT) of 70% and *Solar Heat Gain Coefficient* (SHGC) of 0.39

09.00.00 - FINISHES

- See criteria for Mechanical Rooms.
- See criteria for Custodial Closets

09 06 00 SCHEDULES FOR FINISHES

- (1) In the design development phase, submit finish and material selections to Facilities Management Planning and Design for review.
- (2) Include columns in finish schedules for room areas, area surfaces, and load limits for each room.
- (3) Include reflected ceiling plans in the drawings for all grid-type ceilings separate from the electrical lighting plans.
- (4) Coordinate Attic stock amounts with the Construction Coordinator.

09 50 00 CEILINGS

- (A) General
 - (1) Do not permit concealed spline ceilings.
 - (2) Above-ceiling inspections are required before the installation of ceilings, see stenciling requirements for rated walls.
- (B) Basis of Design Campus Standard
 - (1) Armstrong Prelude exposed tee grid; color: white.
 - (2) Armstrong 1713 Fine Fissured square lay-in acoustical tile (baseline); color: white

09 60 00 FLOORING

- (A) General
 - (1) Solid (light or dark) colored carpet is not permitted.
 - (2) Carpeting shall not extend into entryways or vestibules.
 - (3) Recommend using modular carpet tile when possible.
 - (4) Consistent with ANSI A117 Section 504.6 Visual Contrast, provide visual contrast (light-on-dark or dark-on-light) approximately 2 inches wide and located on nosings/leading edges of treads and landings.
 - (5) Flooring and sealers shall provide a minimum coefficient of friction at 0.6 or above.
- (B) Classroom Flooring:
 - (1) Forbo Flooring Systems, Marmoleum sheet, tile, or planks -or- Nora Systems, Inc., Noroplan Environcare 2785 (24" x 24" x 3mm).

09 70 00 WALL COVERINGS

(1) Wall coverings must be approved by Facilities Management before inclusion in the design.



(2) Wall coverings have been found to cause mold in inappropriate applications. Wall coverings proposed on exterior walls and in humid environments shall be micro-vented in conformance with ISO 9001:2015 by a certified manufacturer. (added 2023)

09 91 23 INTERIOR PAINTING

- See "Statement of Sustainable Practices"
- (1) Furnish 8x8 chip samples with Finishes Schedule to Planning and Design during the design review process and coordinate mock-up requirements for construction.
- (2) Schedule the following mechanical room surfaces to be painted: walls, ceilings, exposed ductwork, air handling units, tanks, pumps, air compressors, boilers, all surfaces with sweating or excess moisture conditions, exposed uncovered piping, exposed insulated piping, hangers and supports for piping and all electrical devices and conduit not having prefinished surfaces.

Exceptions:

- (a) Equipment that is provided with a factory finish does not need to be painted.
- (b) Fire Sprinkler pipe does not need to be painted.
- (3) Electrical panel covers shall be painted to match the walls.
- (4) Unless otherwise instructed use high-performance epoxy coatings in labs and clean rooms.

09 93 23 INTERIOR STAINING AND FINISHING

All stained wood shall have a sealer coat and two coats of finish material. This includes wood floors and cabinets.

10.00.00 - SPECIALTIES

10 11 13 CHALKBOARDS

The University has discontinued the use of chalkboards, please see 10 11 16 MARKERBOARDS.

10 11 16 MARKERBOARDS

- (1) Manufacturer: Claridge Products and Equipment, Inc., Harrison, Arkansas 72601; Toll-Free: 800-434-4610; Telephone: 870-743-2200; Fax: 870-743-1908; E-mail: claridge@claridgeproducts.com; website: www.claridgeproducts.com.
- (2) Face Sheet: (Specify LCS³ porcelain enamel steel Markerboard)
- (3) Core Material: (Specify 7/16" MDF)
- (4) Backing: (Specify Moisture Barrier Back)
- (5) Series: (Specify Series 8) Series8-sheet.pdf (claridgeproducts.com)
- (6) Typical Arrangement: (Specify Type A)
- (7) Panel Size: (Specify writing surface panel length and height) Consider splining larger panels.
- (8) Color: (Specify 101 Light Gray.)
- (9) Trim: (Specify Series 8; 5/16" Mitered, Clear Satin Anodized Aluminum)
- (10) Accessories:
 - (a) Marker Tray: Flat standard continuous, solid, blade-type aluminum tray with ribbed section and injected molded end closures.
 - (b) Map Rail: Standard continuous 1" map rail with cork inserts and end stops at the top of each markerboard and chalkboard.
 - (c) Map Hooks: (Two map hooks furnished for map rail on factory-framed units)
- (11) Adhesive: F-38 Adhesive Ultra-low VOC, non-flammable, high-performance construction adhesive (Note: Available in 28-oz. tubes; 1 tube covers approx. 35 sq. ft. of factory framed boards)

10 11 23 TACK BOARDS

- (1) Tack boards shall be equal to Claridge Products "Fabricork" No. 1550.
- (2) Specify factory prefabricated tack boards with a self-healing vinyl-impregnated fabric face applied to a minimum of 1/16" thick cork, then applied to a moisture-resistant, vermin-proof pulpboard that has good tack-holding qualities, giving a net thickness of 1/4" for the board.
- (3) Accessories. Specify one map hook for each two feet of map rail, including extensions. Map rails require end caps. Tack board trim shall be factory-mounted, equal in weight, and similar in design to Claridge Products and Equipment Company Series I. Markerboard and tackboard faces shall be on the same plane.
- (4) Mount all markerboards and tack boards on continuous aluminum angle top and bottom, concealing attachment of angle to the wall. A maximum of 18" centers on fastenings.

10 14 00 SIGNAGE

See UA Policy 723.0 Exterior Signs and Publicity on Campus, Article IX

(A) General

Submit a complete signage proposal for approval by Facilities Management Planning and Design Group. Specify door openings throughout the building furnished with a door number and room name where applicable. UA recommends a solid acrylic plastic or magnesium plate sign.

- (1) Architect is responsible for graphics and signage submittal. Coordination with a signage supplier is suggested. To develop a signage budget, a signage supplier will be needed.
- (2) All code-required signage shall be specified by the Architect.
- (3) ADA Signage. All signage shall meet ADA requirements. All signage required by ADA shall be specified.
- (4) Letters. Specify letters on buildings to be equal in style to Helvetica medium.
- (5) Architect shall provide egress diagrams as required by the code.

(B) Basis of Design - Campus Standard

- (1) Takeform Fusion 01 (best). Refer to the attached Old Main signage drawing for general dimension and font requirements Architect to select laminate and finish of metal accent bar (if bar is desired).
- (2) Thermoformed Acrylic Signs by DFI Architectural Signs or Archway Graphic Design (good). Refer to the attached Graduate Education Building signage drawing for general dimensions and font requirements Architect to select acrylic color.

10 14 16 PLAQUES

• See Board Policy 0725.1 [BP] (uasys.edu)

(A) Plague Information.

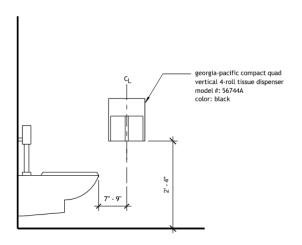
Facilities Management will furnish plaque information to the architect for use in plaque design. Submit plaque shop drawings to Facilities Management Planning and Design Group for approval before fabrication.

- (1) Size: 24in x 38in
- (2) Material: zinc (if zinc is not available, aluminum is an option . . . but most manufacturers should be able to work with zinc)
- (3) Finish: text horizontally brushed (shiny); top band horizontally brushed (shiny); background sandblasted if zinc (a dull gray), painted if aluminum (dull gray)
- (4) Texture: NONE... should be SMOOTH, not pebbled, leatherette, etc.
- (5) Border: NONE (except for wide band at top . . . see artwork)

10 28 00 TOILET, BATH, AND LAUNDRY ACCESSORIES

- (A) NON-ADA Toilet Tissue (Roll) Dispenser [Contractor Provided Contractor Installed]
 - (1) Basis-of-Design Product: Georgia-Pacific (#567444A); no substitutions will be accepted.
 - (2) Description: Four-roll dispenser.
 - (3) Mounting: Surface mounted.
 - (4) Capacity: Designed for 5-inch-diameter tissue rolls.
 - (5) Material and Finish: Transparent plastic, black.
 - UA toilet room accessories

side elevation - non ADA restroom stall

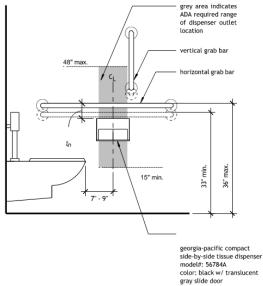


Facilities Management Planning and Design | 25 April 2019

- (B) ADA Toilet Tissue (Roll) Dispenser [Contractor Provided Contractor Installed]
 - (1) Basis-of-Design Product: Georgia-Pacific (#56784A); no substitutions will be accepted.
 - (2) Description: Two-roll dispenser.
 - (3) Mounting: Surface mounted.
 - (4) Capacity: Designed for 5-inch-diameter tissue rolls.
 - (5) Material and Finish: Transparent plastic, black w/ translucent gray slide door.

UA toilet room accessories

side elevation - ADA restroom stall



Facilities Management Planning and Design | 25 April 2019

- (C) Paper Towel (Roll) Dispenser: PTD [Contractor Provided Contractor Installed]
 - (1) Basis-of-Design Product: GP SofPull, MFG Part # 59489, mechanical Hardwound Roll Towel dispenser is the Owner's standard. No substitutions will be accepted.
 - (2) Description: Pull-down towel operation with auto-cut mechanism
 - (3) Mounting: Surface mounted.
 - (4) Minimum Capacity: Non-perforated roll towels up to 8 inches in diameter and 8 inches wide.
 - (5) Material and Finish: Plastic, Translucent Smoke.
 - (6) Lockset: Tumbler type.
 - (7) See Appendix C Towel Dispenser
- (D) Soap Dispensers [Owner Provided Contractor Installed]

Do not install dispensers on the mirrors but leave a 6-inch wide by 12-inch-high space over or next to the sink for the soap dispenser. Install one dispenser for every two sinks.

(E) Keys:

Provide universal keys for internal access to accessories for servicing and resupplying. Provide a minimum of six keys to the Owner's representative.

(F) Custodial Closet Shelving [Contractor Provided – Contractor Installed]

Provide (4) shelves with hanging brackets in each closet. Shelves to be 12 inches deep by 48 inches wide with the first shelf 12 inches from the floor.



- (G) Custodial Closet Mop Hangers [Contractor Provided Contractor Installed]
 - (1) Provide and install two (2) mop hangers above each mop basin. Install high enough to allow the mops to drain into the basin and the mop hangs three inches from the wall.
- (H) Hose Cleat [Contractor Provided Contractor Installed]
 - (1) Provide and install two (2) hose cleats below the faucet at the mop basin in each Custodial Closet.

10 40 00 SAFETY SPECIALTIES

(A) Fire Department Plan Cabinets

All Fire Department Plan Cabinets must come from the Knox Company, 1601 W. Deer Valley Road, Phoenix, AZ 85027.

(B) Emergency Key Cabinets

All Fire Department Key Cabinets must come from the Knox Company, 1601 W. Deer Valley Road, Phoenix, AZ 85027.

- (C) Fire Extinguishers and Fire Extinguisher Cabinets
 - (1) General hand fire extinguisher coverage in all university buildings shall be provided by 10# ABC fire extinguisher Ansul AA10S with a minimum rating of 4A 80BC. These units shall be spaced so that the travel distance to reach any unit does not exceed 75 feet travel distance.
 - (2) Break rooms, small chemical laboratories, and certain small kitchen spaces can be protected by a 5# ABC unit Ansul A02VB with a rating of 3A 40 BC.
 - (3) Large commercial kitchens and cooking areas shall be protected by Ansul K-Gard 6-liter kitchen extinguisher.
 - (4) Computer rooms, data rooms, and data closets shall be protected by a minimum 4 ¾# Clean Agent fire extinguisher Ansul FE05 with a rating of 5BC.
- (D) Defibrillator Cabinets
 - (1) Defibrillators shall be considered for installation in all new buildings and remodels on the University of Arkansas Fayetteville campus. The UA Fire Marshall should be consulted for location and quantity of units needed.
 - (2) Defibrillator and defibrillator cabinets must come from Grogan's/eMed, 1515 South Bowman, Suite E, Little Rock, AR 72211.

Federated Healthcare Supply Holdings Inc. https://fedhs.com 859-254-6661, cutomerservice@grogans.com

- (3) Campus Standard:
 - (a) 80427-00134 Medtronic CR2 Defibrillator. Includes 1 pair QUIKPK pacing/defibrillator/ECG Electrodes with REDI-PAK pre-connect system, 1 CHARGE PAK, and 1 protocol card installed in the device.
 - (b) 14XS-01 T mount AED wall sign

- (c) Fast Response Kit which includes CPR mask, safety razor, safety scissors, gloves, towelette, and antiseptic wipe.
- (d) Deluxe Fully Recessed Wall Cabinet with key-operated alarm.

10 73 43 TRANSIT SHELTERS

11.00.00 - EQUIPMENT

11 12 26.02 WEB-BASED FACILITY MANAGEMENT SYSTEM

11 12 26.10 MULTI-SPACE METER SYSTEM

11 13 00 LOADING DOCK EQUIPMENT

11 53 13 HIGH PERFORMANCE LOW AIRFLOW FUME HOODS

12.00.00 - FURNISHINGS

12 20 00 WINDOW TREATMENTS

(A) Scoping

Provide and install window treatments in all classrooms and offices.

The design development package shall indicate windows to receive treatments for review by FAMA.

- (B) Basis of Design Campus Standard
 - (1) Architectural Shades: Draper Manual Flex Shade.
 - (2) https://www.draperinc.com/windowshades/manualshades.aspx
 - (3) Operator: Bead Chain, manual operation preferred.
 - (4) Hardware Finish: Architect to select from manufacturer's standard offering.
 - (5) Accessories:
 - (a) Optional fascia and endcaps -or- exposed roller. Architect to select.
 - (b) Standard hem bar with sealed ends.
 - (6) Fabric: Sheerweave (SW2000 SW2085), charcoal/gray Basket Weave 90.
 - (7) Openness Factor: 1% to 5% Architect to select openness factor based on window orientation.
 - (8) Approved equal: Lutron Sheershade manual operating roller shade.

12 50 00 FURNITURE

- (A) General
 - (1) Any furniture vendor MUST furnish to FAMA Campus Architect and Fire Marshal the furniture layout for any classroom, lecture hall, or place of assembly before any furniture is ordered or installed per any contract. This includes fixed seats, fixed tables, fixed tablet arm desks, or fixed seating of any type.



- (2) Furnishing Schedule: During the construction document phase, prepare and submit a schedule for movable and fixed furnishings to Facilities Management. Include any movable furniture or equipment necessary for the proper functioning of the building.
- (3) Furnishing Budget: Provide a separate budget figure for furnishings.
- (4) Construction Contract: Movable furniture and equipment do not have to be included in the contract documents and may be a separate bid item. Verify with Facilities Management.

(B) Classroom Furniture – Campus Standard

Classroom furniture will vary depending on the size and function of the room; however, most teaching rooms will utilize tables that are 60 inches wide by 20 inches deep allowing two chairs per table. The current manufacturer is KI and the style is Trek with Starlight Silver Metallic legs. The laminate color will vary to coordinate with the décor of the room.

- (1) **Chair**: *Herman Miller Caper* with molded seat and back Architect to select color. Silver chair frame, casters, and NO arms.
- (2) **Table**: *Kl Trek* table with silver frame, lockable casters, and laminate top (60" W x 22" D) or (60" W x 20" D) with 74p edge banding Architect to select laminate and edge band color. For flexible classroom settings, outfit with a flip-top (60" W x 22" D) so the table is stackable when not in use.
- (3) **Teaching Table**: *Bold Furniture* custom height adjustable desk with tech cabinet for University Information Technology Services (UITS) furnished and installed server rack. Model # 005170. Tech cabinet to be located on either right-hand or left-hand side of height adjustable desk based on room configuration. Refer to the included product cut sheet.

(C) Office Furniture – Campus Standard

- (1) Task Chair: Herman Miller Aeron (best), Sona Sit-on-It (good), or Steelcase Think (good).
- (2) **Guest Chair:** Coalesse Montara 650 with upholstered seat -or- 3/4 upholstered (best), Leland International Amadeus wood shell with upholstered seat pad (good), Knoll Muuto fiber armchair with upholstered seat (good), Stylex Verve plastic shell with upholstered seat pad (baseline).
- (3) **Casegoods**: Herman Miller Canvas, First Office Stacks, Steelcase Currency, or Kimpball Office Priority.

(D) Conference Room Furniture – Campus Standard

- (1) **Conference Table**: *Nucraft Flow* (best) or *Herman Miller Eames* (good).
- (2) **Credenza/Buffet**: Nucraft Flow (best) or *Haworth Planes* (good).
- (3) **Chair:** Herman Miller Eames Aluminum Management (best), Coalesse Chord (good), Herman Miller Caper with flex net seat and molded back (baseline) Architect to select color. Silver chair frame, casters, and arms. Arm cap finish: 63 Fog.
- (4) Note: For chairs with arms, coordinate with clearance space under the conference table.

(E) Lecterns

The lectern is currently purchased from Today's Office and is a Steelcase series 7 – rectangular 70x29x29, universal adjustable height. AV/IT components for the lectern shall be purchased from Killian Digital, LLC.

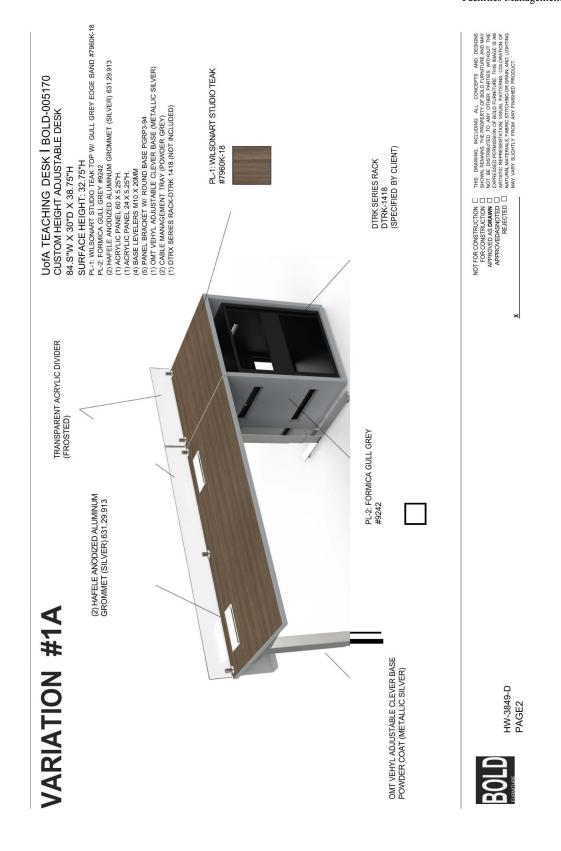
- (F) Benches Campus Standard
 - (1) Bench-Classic:
 - (a) Vermont Farm Table. Leg Design: Farmhouse. Thickness: 1.25". Height: 18" -or-
 - (b) Vermont Farm Table. Leg Design: William and Mary. Thickness: 1.25". Height: 18".
 - (2) Bench Contemporary:

Thos. Moser custom bench with finger joints. Height: 17".

- (G) Clocks Campus Standard
 - (1) Note: Existing historic clocks should be retrofitted, NOT removed or replaced.
 - (2) Clock Classic:
 Primex Wood Series clock. 5-year maintenance-free battery. Lens: glass crystal. Color: Walnut Finish. Size: 12.5". Operating range: 32°-158°F (0°-70°C). Compatibility: Daylight Saving Time. Dial: Ivory with Roman numerals. Mounting: As appropriate to the installation.
 - (3) Clock Contemporary:
 Primex Metal Series analog clock (electric model). Brushed aluminum frame with glass lens.
 Size: 12.5" one-sided, 15" dual-sided. Operating range: 32°-158°F (0°-70°C). Compatibility:
 Daylight Saving Time. Dial Option: -P Calypso. Mounting: As appropriate to the installation.
- (H) Waste Receptacles Campus Standard
 - (1) Waste Receptacle: American Specialties 0469-ND recessed open cabinet and waste receptacle. Paper towel dispenser to be mounted in the upper portion of the cabinet. Call for adequate wall blocking on drawing.
 - (2) Supplemental Waste Receptacle: Peter Pepper 1092 fiberglass receptacle Architect to select color from manufacturer's standard offering.

UNIVERSITY OF ARKANSAS Facilities Management





NOT FOR CONSTRUCTION | 1
FOR CONSTRUCTION | 5
APPROVED AS DRAWN | N
APPROVEDASNOTED | E
APPROVEDASNOTED | A
REJECTED | N



UofA TEACHING DESK | BOLD-005170 CUSTOM HEIGHT ADJUSTABLE DESK

84.S"W X 30"D X 38.75"H

SURFACE HEIGHT: 32.75"H

PL-1: WILSONART STUDIO TEKK TOP WI GULL GREY EDGE BAND #7960K-18
PL-2: FORMIGA GULL GREY #9242
(2) HAELE ANDDIZED ALUMINUM GROMMET (SILVER) 631.29.913
(3) AGRYLIC PANEL 60 X 5.25"H
(4) AGRYLIC PANEL 60 X 5.25"H
(5) AGRYLIC PANEL EG X 5.25"H
(5) PANEL BRACKET WI ROUND BASE PGRP3-94
(5) PANEL BRACKET WI ROUND BASE PGRP3-94
(7) OMT VEHY LA ADUSTABLE CLEVER RASE (METALLIC SILVER)
(5) CABE MANAGEMENT TRAY (POWDER GREY)
(1) DTRX SERIES RACK-DTRK 1418 (NOT INCLUDED)

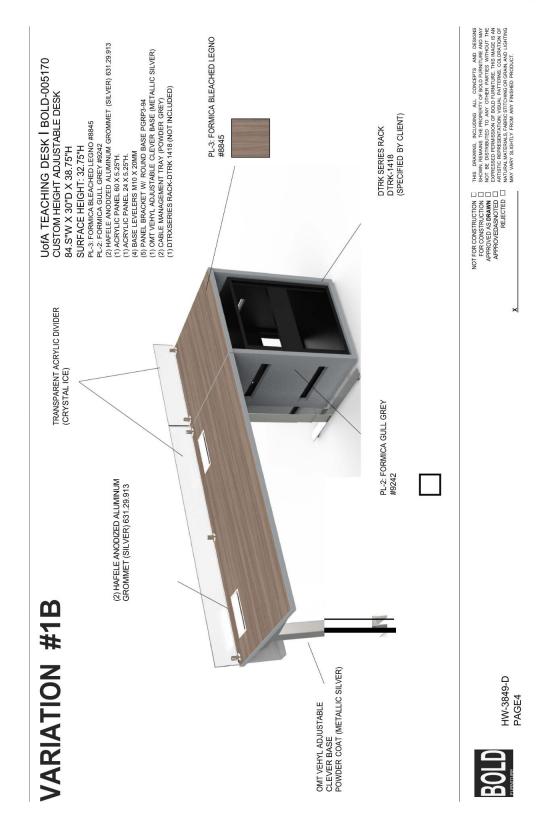


HW-3849-D PAGE3

VARIATION #1A

UNIVERSITY OF ARKANSAS Facilities Management





NOT FOR CONSTRUCTION | POPEROY | POP



UofA TEACHING DESK | BOLD-005170 CUSTOM HEIGHT ADJUSTABLE DESK

84.S"W X 30"D X 38.75"H
SURFACE HEIGHT: 32.75"H
PL-3: FORMICA BLEACHED LEGNO #8945
PL-2: FORMICA GULL GREY #9242
(2) HAFELE ANDDIZED ALUMINUM GROMMET (SILVER) 631.29.913
(1) ACRVLIC PANEL 80.X 5.25"H
(4) BASE LEVELERS MIO X 20MM
(5) PANEL BRACKET WI ROUND BASE PGRP3-94
(1) OMY VEHY ADUUSTABLE CLEVER BASE (METALLIC SILVER)
(2) CABLE MANAGEMENT TRAY (POWDER GREY)
(1) DTRXSERIES RACK-DTRK 1418 (NOT INCLUDED)

SHEET METAL CORD MANAGEMENT TRAY (POWDER COAT GREY)

VENTILATION & CORD MANAGEMENT CUT-OUT

(4) **BASE** LEVELERS M10 X 20MM

HW-3849-D PAGES



VARIATION #1 B

13.00.00 - SPECIAL CONSTRUCTION

14.00.00 - CONVEYING EQUIPMENT

- See 01 41 00 REGULATORY REQUIREMENTS
- See 01 78 23 OPERATION AND MAINTENANCE DATA INTEGRATION

14 20 00 ELEVATORS

- (1) Elevators Manufacturer: UA requires an open specification.
- (2) Machining and shaft construction as suited to the Project.
- (3) Provide an elevator stop at roof-level mechanical rooms/penthouses and provide controlled access to the level.
- (4) Please include elevators on building generators when provided.

15.00.00 - RESERVED

16.00.00 - RESERVED

17.00.00 - RESERVED

18.00.00 - RESERVED

19.00.00 - RESERVED