



2.03 ARCHITECTURAL

GENERAL

The following information is provided as a guide in establishing architectural requirements and should not be construed to limit the Design Professional from proposing more cost effective alternates.

Facilities will be designed per the latest edition of ADAAG (Americans with Disabilities Act Accessibility Guidelines).

In all new construction, all entrances to the building will be accessible to persons with disabilities. The main entrance will be provided with one door, or set of doors, that is power operated. If an entrance to the building other than the main entrance is located closer to the parking designated for persons with disabilities, that entrance will also be power operated. These items should be regarded as a minimum requirement. The design team should evaluate the need for after-hours use of the facility which may require accessible entries. If the expected users of the building include a larger than normal percentage of persons with disabilities, other entrances to the building will also be power operated.

In existing structures, a minimum of one entrance will be accessible to persons with disabilities. That entrance will be power operated. The accessible entrance will be either the main entrance or entrance closest to parking designated for persons with disabilities. In existing structures, any design for construction in the vicinity of an entrance should evaluate the possibility of making that entrance accessible. Whenever it is physically and economically feasible, all entrances should be made accessible.

The building, addition, or renovation will meet all applicable codes.

Finished floor height will be expressed on contract documents as actual elevation based on University of South Alabama's datum, not on an arbitrary one. Floor elevations should be continuous. No height transitions between floor types.

The Design Professional will plan access for servicing and maintenance of equipment. Minimize rooftop equipment and roof penetrations by consolidating equipment in mechanical rooms. At least one elevator should provide service to mechanical penthouses. Stairs should be provided to access roof areas. No air cooled condensing units should be within any machine rooms.

A University provided Knox Box will be located at the entrance where the fire alarm panel is located. Coordinate with the University of South Alabama Safety and Environmental Compliance department.

FIRE PROTECTION

Facilities will be constructed of fire resistant materials.

Floors and floor/ wall assemblies will conform to the latest International Building Code for that type of occupancy and building type.

Doors at facility perimeter will have a rating commensurate with the wall system in which they are located.

A five-pound CO₂ fire extinguisher (installed by the Contractor) shall be provided in each laboratory room or area.

Fire extinguisher cabinets will be included in Class A corridors. Cabinets may be recessed or semi-recessed models.

Fire hoses will not be provided; however, wet standpipes and standard two and one half inch (2-1/2") fire department connections with "Knox " caps shall be provided if required by structure height and Code.

Contractor to provide a new 10 pound fire extinguisher with current inspection tag at all extinguisher cabinets when provided in contract.

BUILDING ENVELOPE

The building envelope will provide a continuous thermal envelope at the exterior walls and roof line. Every room inside the building envelope, including mechanical rooms, plenum spaces, attic spaces will be provided with conditioned air.



The building envelope will comply with the latest edition of ASHRAE/IES Standard 90.1. Minimum wall insulation is R-24. Minimum roof insulation is R-30.

Exterior wall insulation may be semi rigid, blanket batt type, glass fiber, unfaced, complying with ASTM C665 and the following ASTM E84 values:

- A. Flame spread less than 25
- B. Smoke development and fuel contributed less than 50.

Closed-cell polystyrene insulation board below grade on exterior walls is prohibited.

All foundations walls with accessible or occupied space on one side and soil on the other will be waterproofed below grade.

Drain tiles are to be installed at footings and tied to storm sewer system as allowed by local municipalities. Down spouts will be tied into storm sewers (in lieu of foundation drain tiles) and will not discharge on grade.

Crawl spaces will have concrete floor slabs, floor drains, ventilation and lighting.

Exterior building materials will be selected to maintain and/ or compliment the harmonious nature of the campus. Care will be given to provide a consistent image to the character of the campus. Materials should be practical, maintenance free, durable, and cost effective.

Exterior walls systems of brick veneer are preferred over metal. Block backup is preferred over the use of steel stud backup. Provide a fluid applied moisture barrier at all masonry cavity walls.

Exterior insulation and finish systems [EIFS] stucco, and plaster will not be used as the primary finish of a building or renovation. The allowed use is for small areas or soffits with the approval of the PM.

The use of curtain walls, spandrel panels, etc. is generally limited to public and vertical circulation areas. The PM must approve other applications.

DETAILED ROOM REQUIREMENTS

Recycling rooms:

Each floor of new construction or significant renovation shall provide for paper recycling in moveable storage (provided by the University) and for aluminum can recycling located for the convenience of the occupants. Additionally, the Project Manager will coordinate additional space requirements as determined suitable for the tenants and/or functions of the project for plastics, glass, cardboard or other materials. For programming space and design, space allotment shall provide for the following:

Provide 60 to 80 square foot supply room near or adjoining new loading docks (to be equipped by others) with motion detector light switching. minimum of one (1) floor space 16 inches by 52 inches to accommodate moveable paper storage shelving in each departmental or functional area minimum of one (1) floor space 24 inches by 24 inches to accommodate aluminum storage containers, provided by others.

Provide exterior access to recycle room at grade near building service area.

Telephone and Data Rooms:

Telephone and Data rooms will be in a room dedicated to for that purpose only .

Telephone and data rooms shall not be considered as potential locations for ancillary electrical equipment as well as basic termination of cable/wire/fiber.

Size: minimum size requirements – 8' x 10' with door opening into the room

Ceiling height: 10' or to structure.



Location: minimum of one telephone/ data room will be located on each floor. One room should be allocated for every 10,000 gross square feet of floor area. Distance limitations or other considerations may require more than one room. Rooms should be located as close to the core of the structure as possible and should be vertically stacked in multiple story buildings. Average cable runs should not exceed 150' with no single cable run exceeding 295'.

Floor finish: Vinyl composition tile or sealed concrete.

All telecom rooms shall have dedicated separately controlled year-round cooling control systems.

Provide fire protection for each telecom room

Construction cost will include installation of telephone/ data cabling and conduit/ raceways to the main telephone room and to all outlets.

Access to telecommunication rooms must be coordinated with the University Computer Center.

Custodial Work Spaces:

The Custodial Work Control Center shall be located on the ground floor near the Supplies Storage and Delivery room.

As the main gathering place for custodial and maintenance operations activities and shall be 20' x 20' for a custodial group of four and increases in length by 2 feet for each additional person above four with a minimum room width of 20' for any size group. The Custodial Work Control Center shall accommodate all furnishings and appliances.

A 42" door keyed CSR/CSM, MTM, opening outward, with closer, and armor plate, and automatically locks when closed. Armor plate to measure 2" less than door width on single doors and 1-1/2" less than door width on each leaf of pairs. The door shall open outwards into the hall.

HVAC is required.

Lighting at the 20 foot candle level. The light fixture(s) shall have safety guards.

A minimum of four duplex outlets above kitchen countertop and two duplex outlets near the floor in each open wall, with one outlet on each wall; all GFCI.

Sealed concrete floor; no carpeting.

Room label in hallway with message collection board or box for FM building personnel.

A 36" door keyed CSR/CSM/MTM with lock that automatically locks when closed.

Plumbing for a built-in 60" kitchen unit with double sink and storage cupboard below and above sink.

Smooth floor transition from hall to room.

Three ¾" x 12" deep plywood shelves mounted on adjustable brackets and standards; bottom shelf 30" above the floor, top shelf 60" above the floor.

One dual chemical solution center, wall mounted beside the sink, with separate cold water hose bibb from the sink to connect this unit. Unit should be hard piped, cold water feed only.

Wall bracket to support a 6 foot step ladder.

A 2" x 6" board with 1" x 6" wooden dowels. The board should run the full length of the open long wall, 72" above the floor, on which to hang buffing pads, extension cords, brooms, etc.

One duplex electrical outlet (GFCI) located on shelving wall.

**Supply Storage and Delivery Room:**

This room is the main storage room for cleaning supplies and shall be a minimum of 10' x 14' for a four-person custodial group. Increase the room length by 2 feet for each additional person above four. Furnish with the following:

Three 18" wall shelves on adjustable brackets and standards. The bottom shelf should be 30" above the floor. Shelves should be spaced about 20" apart, running the full length of one long wall. One-half of the shelving in this room should be enclosed with doors and locks.

HVAC is required; 60 degree winter heat minimum.

Lighting at the 20 foot candle level. The light fixture(s) shall have safety guards.

Two duplex electrical outlets (GFCI) on shelving wall.

Sealed concrete floor; no carpeting.

A 42" door keyed CSR/CSM, MTM, opening outward, with closer, and armor plate, and automatically locks when closed. Armor plate to measure 2" less than door width on single doors and 1-1/2" less than door width on each leaf of pairs.

Smooth floor transition from hall to room.

Equipment Storage Room:

This room is used to store large equipment including vacuums, carpet extractors, carpet drying fans, ladders, etc. A 12' x 18' room is required for up to a four-person custodian group. Add 3 feet to the length for additional custodians up to eight, and another 3 feet to the length for any group larger than eight custodians. This room should be arranged so there is a path from the door to the sink and the equipment stored here can be parked to one side of this path. Furnish with the following:

A 30" floor utility slop sink with 6" sides with both hot and cold water blended into a single hose bibb. The sink should be installed in the rear corner of the room. Provide mop hangers at this location.

A floor sink with strainer basket to empty scrubbers, and the floor should slope to the drain.

Two 12" wide adjustable shelves (9 feet long) on brackets at the rear of the room; bottom shelf 40" above the floor.

Additional plumbing to accommodate a chemical storage solution center located close to the sink area, with separate cold water hose bibb from the sink to connect this unit. Unit is hard piped with cold water feed.

A 2" x 6" board with 1" x 6" wooden dowels. The board should run the full length of the open long wall, 72" above the floor.

Several wall-mounted shelves 48" above the floor to support charging units for the battery-powered machinery.

Heated and well-ventilated room to provide for recharging battery-operated machinery.

Lighting at the 20 foot candle level. Light fixture(s) shall be equipped with safety guards.

One duplex electrical outlet (GFCI) for each charger unit is required; located 4' A.F.F. on the wall next to the battery charger shelves.

One duplex electrical outlet (GFCI) near the floor by the door.

A 42" door keyed CSR/CSM, MTM, opening outward, with closer, and armor plate, and automatically locks when closed. Armor plate to measure 2" less than door width on single doors and 1-1/2" less than door width on each leaf of pairs.

Sealed concrete floor; no carpeting.



18" high metal plating around walls of room, if drywall is used, to protect walls from equipment. Prefer enamel painted concrete walls.

Washer/ dryer hook-up (plumbing, electrical, ventilation).

Smooth floor transition from hall to room.

Heavy Equipment Room: (This room will be provided as requested by owner)

This room houses rider scrubbers and sweepers. The approach hallways to this room must be wide enough to maneuver the scrubbers in and out of the storage room, and a nearby egress must be large enough to serve the installation and removal of the machinery. The storage room must provide for adequate ventilation for charging batteries. This room must be at least 15' x 15'. Furnish with the following:

One 12" wide adjustable shelf, mounted on the wall 40" above the floor.

One dual chemical solution center, wall-mounted beside the sink, with separate cold water hose bibb from the sink to connect this unit. Unit should be hard piped, cold water feed only.

Three wall-mounted shelves 48" above the floor, to support charging units for the battery-powered machinery.

HVAC is required.

Lighting at the 20 foot candle level. The light fixture(s) shall have safety guards.

220 electrical outlets for each charger unit required, beside the charger units, 4 feet from the floor.

One duplex electrical outlet (GFCI) near the floor by the door.

18" high metal plating around walls of room, if drywall is used, to prevent damage from equipment. Prefer enamel painted concrete walls.

Double door opening (two 42"), opening outward, with closer, keyed CSR/CSM, MTM and armor plate, and automatically locks when closed. Armor plate to measure 2" less than door width on single doors and 1-1/2" less than door width on each leaf of pairs.

Sealed concrete floor; no carpeting.

Smooth floor transition from hall to room.

Loading Dock Facilities:

For new construction and building additions, the Design Professional should review loading dock facility requirements with the PM. Potential needs to be addressed include:

Trash dumpster/ compactor equipment with appropriate decking and access.

Provide storm water drainage at pit area.

Recycling containers (paper, cardboard, fluorescent tubes, cans). All buildings will have accommodations for recycling containers and material. Those areas can be alcoves, closets, or rooms suitable for such storage, near a building service entrance or preferably at an exterior covered loading dock. Provide either hydro or manual lift and/ or catwalks for servicing trash/ recycle containers.

Provide dual height truck dock bays (at grade and at loading height). Dock height to be determined with University staff depending on the type of delivery truck that will drop off at that location.

Service vehicle parking (two minimum).

Receiving area.



Holding areas including hazardous materials, chemicals, lamp storage, etc.

Hydraulic dumpers for dumping waste in to dumpster.

Keyed hose bibs with easy access.

Restrooms/Toilets:

Toilet partitions shall be either floor supported-overhead braced or floor and ceiling supported. Verify with University staff.

Verify HVAC and exhaust requirements for each specific location.

Accessible toilet stalls will be designed to meet current requirements of ADAAG.

One restroom liquid or foam all purpose soap dispenser will be installed at each washbasin by owner.

Built-in waste receptacles are not desired. An alcove is preferred to accommodate a freestanding waste can.

Toilet paper dispenser-locking mechanism should not be blocked by ADA handrails. Toilet paper dispenser is to be provided by owner.

Provide wall mounted water closets for ease of cleaning.

Provide hard tile with code compliant slip resistance at each Restroom/Toilet area. Provide floor drains at low points in floor.

Centrally located hose bibs for wet cleaning (only if a floor drain is present).

Maintenance Room:

Provide a room to house building control work station, maintenance staffing, and general computer access.

Each maintenance/ mechanical room shall have 200 minimum sq. ft. of dedicated space solely for storage of filters, repair parts, ladders, wet/ dry vacuum etc. Provide a 200 sq. ft. room for a work bench, repair tools and equipment, carts, barrels, other supplies.

Additional maintenance space shall be provided as required on a building-by-building basis, for trades' work areas, attic stock storage, off season storage, supervisor office etc.

ADDITIONAL PLANNING REQUIREMENTS**Corridors:**

Corridors used as a means of access to exits and used for discharge from exits shall provide a clearance of at least 6 feet in width. Room doors swinging into corridors shall be recessed to avoid conflict, fixed or movable shall be placed so as to obstruct the required minimum 6-foot width.

Stairs:

All enclosed stairways shall have engineered smoke evacuation or mechanical pressurization for smoke control. Provide HVAC at all stairwells.

All stairs shall have non-slip tread with steel safety tread. Level changes of less than 22 inches shall have ramp in lieu of steps.

All stair walking surfaces to have a finished floor surface.

Doors/Hardware:



Electro-magnetic holders for corridor smoke doors are required, and must be wired into the building detection and alarm system.

Doors to all laboratory spaces shall swing toward the corridor or path of exit and shall have glazing with wire glass.