DIVISION 10 – SPECIALTIES

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10 10 00 INFORMATION SPECIALTIES

10 11 00 Visual Display Units

Part 1 - General

Consult with Owner (NAU Project Manager) if visual display units are to be part of the construction documents or will be provided by others. Provide sufficient blocking to support visual display unit as part of the construction documents.

Part 2 – Products

The minimum vertical writing surface per room shall be not less than 32 s.f. Sixty-four (64) s.f. is the standard for classroom spaces. All vertical writing surfaces shall have a continuous tray at the base for markers and erasers. They shall also have a top 1" cork strip.

One set of markers and one eraser shall be included with every 8' of marker board. Map clips are optional, depending on the user's needs.

If there is an intent to use the visual board as a projection surface, care must be exercised to ensure that the height of the marker board is sufficient to serve this purpose

Any individual unit shall not be larger than 16' long.

Part 3 – Execution

SUBMITTALS

Product Data: Submit product data and installation instructions, including manufacturer's SPEC-DATA product sheet, for specified products.

Shop Drawings: Submit shop drawings for each type of visual display board required, showing layout, profiles and product components, including anchorage, accessories, finish colors, patterns and textures.

Samples: Submit selection and verification samples of face, core, backing material and trim for finishes, colors and textures. Submit manufacturer's color charts.

Quality Assurance/Control Submittals: Submit the following:

 Certificates: Product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements. Title

- Closeout Submittals: Submit the following:
 - Operation and Maintenance Data: Submit operation and maintenance data for installed products in accordance with Division 1 Closeout Submittals (Maintenance Data and Operation Data) Section.

QUALITY ASSURANCE

- Installer Qualifications: Installation contractor shall be experienced in performing work of this section and have specialized in installation of work similar to that required for this project.
- Regulatory Requirements: Conform to applicable code for flame/smoke rating in tack boards in accordance with current fire codes.

DELIVERY, STORAGE AND HANDLING

- Ordering: Comply with manufacturer's ordering instructions and lead-time requirements to avoid construction delays.
- Delivery: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
- Deliver materials wrapped in moving blankets and/or corrugated product and secured to freight trailer with straps to ensure minimal movement.
- Deliver factory-built units completely assembled in 1 piece without joints whenever possible. Where dimensions exceed panel size, provide 2 or more pieces of equal length as acceptable at the factory, disassemble for delivery, and make final joints at the jobsite per manufacturer's installation instructions.
- Storage and Protection: Store materials protected from exposure to harmful weather conditions and at temperature and humidity conditions recommended by manufacturer.
- After opening and inspecting boards for damage, return them to their original crates or cartons for storage and do not uncrate until boards are to be installed.
- When uncrated, do not allow boards to lean at an angle against a wall or other objects, or to lie on the floor for any length of time.
- Store boards in as close to a vertical position as possible.

PROJECT CONDITIONS

 Environmental Requirements: Comply with manufacturer's recommendations for stabilizing area to the approximate normal occupied conditions of interior temperature and humidity.

Title

- Existing Conditions:
 - Verify actual dimensions by field measurement before fabrication; show recorded measurements on shop drawings.
 - Coordinate field measurements and fabrication schedule with construction progress to avoid construction delays.

WARRANTY

- Manufacturer's Warranty: Submit, for Owner's acceptance, manufacturer's standard warranty document executed by authorized company official. Manufacturer's warranty is in addition to, and not a limitation of, other rights Owner may have under Contract Documents.
- Submit a Warranty stating that under normal usage and maintenance and when installed in accordance with manufacturer's instructions and recommendations.
- Warranty Period:
 - Lifetime warranty for writing surface, commencing on Date of Substantial Completion
 - 10-year warranty on material commencing on Date of Substantial Completion.
 - 2-year warranty on workmanship commencing on Date of Substantial Completion.

10 11 13 Chalk boards

Chalk boards are not to be specified unless there is a specific need and approved by Owner.

10 11 16 Marker boards

Part 1 – General

This section pertains to fixed, modular-support-mounted, rail-mounted and portable marker boards

Dry erase marker boards, also known as white boards, shall be:

Environmental ceramic-steel surface with controlled, continuous coil-coating, and ceramic finish fused to a steel core.

Color of finished face shall be white, non-glare matte type finish.

Fabricated frames and trim shall be clear anodized aluminum, not less than 0.062" or as specified by the user group. Marker trays shall be aluminum, solid extrusion with a ribbed section, with smoothly curved ends.

Fixed-height whiteboards should be mounted with the bottom edge at 36" AFF.

Title

For any other writing surface type, for example glass boards and porcelain boards, submittals are to be provided for review and approval by the Owner. White board paint is not acceptable.

Part 2 – Products

N/A

Part 3 - Execution

N/A

10 11 23 Tack boards

Cork tack boards shall have a single layer, 1/4" thick, seamless, compressed fine grain natural cork sheet, sanded for a natural finish, and self-healing complying with MS MIL-C-15116, Type II. Fabric covered tack boards are acceptable.

10 11 33 Sliding Visual Display Units

Operable Board Units shall comply with section 10 11 16, Marker boards.

10 14 00 Signage

Part 1 – General

Exterior Signs

All exterior signs shall conform to the specifications of the Northern Arizona Signage Policy. Ask Owner for current design standards and requirements.

Interior Signs

All interior signs shall conform to the current specifications of the Northern Arizona Signage Policy. Ask Owner for current design standards and requirements.

Part 2 – Products

N/A

Part 3 – Execution

N/A

Title

10 14 16 Plaques

Part 1 – General

Plaques are required for all new construction. Per ABOR Policy 7-102.H., plaques installed on new buildings shall carry the names of the governor and other members of the board in office at the time the construction contract was awarded, together with the president of the institution, the architect, the contractor, and other participants deemed appropriate. All designs for plaques shall be made in consultation with the Owner (Project Manager).

The standard size for plaques varies. The lettering Style shall be either Times Roman Bold (Times Roman Bold) or Palatino Bold (Palatino Bold).

Display: Letters should be upper and lower case. Text should be bordered with a border proportionate to the size of the plaque i.e. 1/4" for an 8" x 10" plaque, 1/2" for an 18" x 24" plaque. Letters and border should be raised and polished, background should be brown pebbled.

Part 2 – Products

N/A

Part 3 – Execution

Proofs: The President's approval of proofs/rubbings for plaques is required prior to final casting or etching.

Material: Exterior plaques – Bronze is preferred, brass is acceptable. Interior plaques – Bronze, brass or aluminum are acceptable.

Fastening: Concealed threaded studs on back of plaque. Setting should be in grout or epoxy.

10 17 00 Telephone Specialties

Refer to Division 27

10 20 00 INTERIOR SPECIALTIES

10 21 00 Compartments and Cubicles

For information on copy rooms and custodial closets refer to Division 13.

Title

10 21 13 Toilet Compartments

Part 1 – General

All toilet compartments products, accessory items, colors, finish applications and details are to be reviewed and approved by Owner prior to final development of construction documents.

Field verify all locations and dimensions of all units to be installed prior to installation.

At group toilet rooms, provide toilet partitions at each toilet and urinal screens at each urinal. Provide privacy screens at showers according to program requirements.

Door hardware, anchorages and accessories shall be per manufacturer's recommendation per finish type selection, heavy-duty, and incorporate the following:

- Doors shall be self-closing.
- Hinges shall be continuous stainless steel, mounted at doors and pilasters with fasteners at 8 inches on center. Gravity/cam or integral hinges are not permitted.
- Doors shall be furnished complete with necessary wall bumpers, door pulls, heavy duty door strikes, keepers and latch housings.
- Verify accessibility requirements for door widths and stall sizes.
- Fasteners shall be stainless steel, tamperproof one-way bolts or anti-theft torx screws throughout installation. Wall connections shall be plastic anchors, lead anchors or toggle bolts as required by field conditions.
- A coat hook shall be included on each door.

10 21 13.13 Metal Toilet Compartments

- Floor-to-wall mounting is preferred.
- Metal partitions shall not be painted.
- Stainless steel textured partitions are acceptable. Stainless Steel smooth partitions are not acceptable.

10 21 13.16 Plastic-Laminate-Clad Toilet Compartments

- Floor-to-wall mounting preferred
- A random pattern is preferred to solid colors (to extend time when discoloration from repetitive cleaning becomes obvious). Finish and color must be approved by Owner.

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10 21 13.19 **Plastic Toilet Compartments**

- Floor-to-ceiling or floor-to-wall. Floor to wall mounting is preferred.
- High Density Polyethylene (HDPE) preferred.
- A random pattern is preferred to solid colors, and uniform throughout
- Finish and color must be approved by NAU Project Manager
- Panels shall have a 1" minimum thickness
- Edges shall be machined to a ¼" radius with sharp corners removed.

10 22 00 **Partitions**

10 22 26 **Operable Partitions**

Part 1 – General

Operable partitions used to functionally and acoustically separate large areas of general use space, consisting of floor to ceiling stackable panels on a track system shall meet the following requirements:

- Minimum STC composite rating of 50, tested on 100 sf. opening.
- Minimum in field performance equal or better than ASTM E336.
- Installed track deflection under full load no greater than 1/360.
- Minimum panel thickness shall be 4-inch, panel skins rated Class A, in full perimeter protective steel frame.
- Vertical sound seals between panels will be tongue and groove, consisting of steel astragals incorporating vinyl acoustical seals.
- Horizontal top seals shall be twin-finger continuous contact type. Mechanical bottom seals shall be made of formed steel, incorporating 1/4-inch vinyl strips for proper acoustical seal when activated.
- Hinges on panels and inset pass doors are recessed and project no more than 1/4 inch beyond panel face.
- Footbolts and stabilizers shall be internal and edge activated. No protruding footbolts attached to panel faces are allowed.
- Suspension system shall consist of a steel track connected to structural support by threaded rods. Each panel of a paired assembly shall be supported by one carrier assembly consisting of steel ball bearing wheels. Each panel of an individual panel assembly shall be supported by two carrier assemblies consisting of steel ball bearing wheels.
- Plenum closure is required for maximum sound control of the partition and must permit lifting out of header panels to adjust track height.

10 26 00 **Wall and Door Protection**

10 26 13 **Corner Guards**

Guards should be considered in all areas subject to heavy traffic and potential impacts (e.g., areas that have catering/food service function, high traffic areas),

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and designed in such a manner that does not give the aesthetic appearance of a "tack on" or a design oversite.

- Surface Mounted, clear polyester or metal; minimum 2-1/2-inch X 2-1/2-inch X 48 inch
- Apply to exposed-to-view 90 degree outside corners of walls and columns
- Finish may be compatible with adjacent finishes, but must be durable and highly resistant to scratches, nicks, gouges, etc.

10 28 00 Toilet, Bath, and Laundry Accessories

10 28 13 Toilet Accessories

Commercial Accessories are required in all public restrooms.

- 1. Paper Towel Dispensers: Georgia Pacific Translucent Smoke Push Paddle Roll Paper Towel Dispenser #54338. These are Owner furnished and Contractor installed.
- 2. Toilet Tissue Dispenser: WAXIE 6" Twin Toilet Tissue Dispenser #851312. These are Owner furnished and Contractor installed.
- 3. Soap Dispensers: 1 dispenser per 2 sinks. WAXIE Foam Soap dispenser #385830, black. These are Owner furnished and Contractor Installed.
- 4. Trash receptacles: Built-in independent of paper towel unit. Style and type to be reviewed and approved by Owner.
- 5. Disposable toilet seat covers and dispensers shall not be installed.
- 6. Sanitary napkin receptacles: Wall mounted, Stainless steel, one unit per each ladies' stall or one unit common to two stalls.
- 7. Sanitary napkin supplies should not be installed.
- 8. Coat hooks: one per toilet compartment with rubber end shock absorber
- 9. Grab bars: at accessible compartments, 1½ inch diameter, knurled stainless steel finish.

10. Mirrors:

- One mirror per lavatory, wall mounted, 18"x 24"; one full length mirror per restroom
- Each conforming to FS DD-G-451, Type I, Class 1, Quality q2, 1/4-inch thick, with silver coating, copper protective coating, and nonmetallic paint coating.
- All mirrors must have a moisture sealant applied to all edges.

ADA accessible accessories shall be provided, as required by latest edition of ADAAG and the IBC.

10 28 16 Bath Accessories

Commercial Accessories are required in all public restrooms.

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- 1. Provide stainless steel grab bars with preened surfaces and flanges for exposed mounting at accessible toilets
 - a. Grab bars and the installation of grab bars shall comply with applicable accessibility codes.
 - b. Provide vandal resistant fasteners and back in partition or wall for sufficient anchoring to resist a 250-pound force applied from any direction.

10 30 00 FIREPLACES AND STOVES

10 31 00 Manufactured Fireplaces

Any time fireplaces are specified, the building's existing mechanical system's air balance status shall be verified, and a written definition of design impacts shall be included in the specifications.

10 40 00 SAFETY SPECIALTIES

10 44 00 Fire Protection Specialties

10 44 13 Fire Extinguishers and Cabinets

Part 1 – General

- Cabinets shall be the recessed type and ADA approved. Non-locking type.
- All fire extinguishers must be UL approved and bear an individual identification on the fire extinguisher.
- The cylinder head and internal parts must be constructed of steel or aluminum. Stainless steel cylinders or any other cylinders requiring normal hydrostatic testing less than every twelve years are not acceptable.

Part 2 – Products

 New hand portable extinguishers shall be an Owner pre-approved Amerex, metal head, rechargeable type.

Part 3 - Execution

- All extinguisher installations must include approved listed mounting hardware. All labs or any other area that may be considered high hazard require a fire extinguisher cabinet (s) with an extinguisher(s) meeting the minimum rating of 2-A:20-B:C. The extinguishing agent must be ammonium phosphate. Areas with flammable metal hazards require a class "D" fire extinguisher. Travel distance to a fire extinguisher in these areas is not to exceed 50 feet. Carbon dioxide or halon agents are not acceptable.
- Mechanical rooms, electrical rooms and commercial kitchens need a fire extinguisher cabinet(s) with an extinguisher(s) meeting the minimum rating of 20-B:C rating. The extinguishing agent must be of sodium

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bicarbonate base or of a potassium bicarbonate base. Carbon dioxide or halon agents are not acceptable. Travel distance to a fire extinguisher cannot exceed 50 feet. Fire extinguishers outside the room/area of protection cannot be included in the travel distance requirements.

 Corridors and all other areas requiring fire extinguishers that are not categorized in areas mentioned above or are considered light hazard to ordinary hazard areas require a fire extinguisher cabinet and an extinguisher with a minimum rating of 4-A:20-B:C. Extinguishing agent must be ammonium phosphate. Travel distance to a fire extinguisher must not exceed 75 feet.

10 50 00 STORAGE SPECIALTIES

10 51 00 Lockers

10 51 13 Metal Lockers

Part 1 – General

Submit fully detailed Shop Drawings and manufacturer's product data for metal lockers, including layout of lockers, color chips, and installation details.

Part 2 - Products

N/A

Part 3 – Execution

Installation:

- Anchor lockers with appropriate anchor devices to suit materials encountered. Bolt adjoining locker units together to provide rigid installation. Install sloping top, end panels, and filler panels to completely close off openings.
- Lockers shall be secured to the wall to resist lateral forces from a seismic event. Fastenings shall be designed by the Contractor to resist calculated loads of full lockers.
- Lockers shall be installed as indicated and in accordance with the approved Shop Drawings and the manufacturer's installation instructions and recommendations.

10 56 00 Storage Assemblies

10 56 16 Fabricated Wood Storage Shelving

Plywood shelving is preferred over particle board or solid wood. Minimum 3/4" thick with edge banding.

Section Number	Title
10 70 00 10 73 00	EXTERIOR SPECIALTIES Protective Covers Protective covers are required for exterior compressor units.
10 73 26	Walkway Coverings Covers installed in any traffic area for subsurface utilities shall be securable with a positive latching mechanism.
10 75 00	Flagpoles Inclusion of flagpoles and their location for a project must be approved by

END OF SECTION

Owner.