

1.0 **GENERAL**

1.1 **Related UBC Guidelines**

- .1 [UBC Learning Space Design Guidelines](#)

2.0 **MATERIALS AND DESIGN REQUIREMENTS**

2.1 **General**

- .1 All materials, equipment, devices, components, wire and cable provided under this contract shall be new CSA approved and listed with ULC as required by AHJ.
- .2 Contractor shall provide secondary seismic restraint for devices, and racks as required by code and as directed by Consultant.

2.2 **Lectern Rack**

- .1 The lectern rack shall be slide-out rotating type.
- .2 The rack shall provide front and rear access using minimal floor space.
- .3 The rack shall have the following minimum characteristics:
 - .1 EIA compliant 19-inch panel width
 - .2 14 useable rack spaces (14U)
 - .3 19-1/4" useable depth
 - .4 250 lb. weight capacity
 - .5 Front and rear rack rails:
 - .1 11-gauge steel with tapped 10-32 mounting holes in universal EIA spacing.
 - .2 Black coated finished
 - .3 Rack spaces marked
 - .6 Cooling fan for active ventilation
 - .7 Provide all rack accessories as required for a complete racking solution.
- .4 Product shall be Middle Atlantic SRSR series or Approved Alternative.

2.3 **Half Height Wall Mounted Rack**

- .1 The pivoting rack enclosure shall be a wall mount type.
- .2 The rack shall have the following minimum characteristics:
 - .1 EIA compliant 19-inch panel width
 - .2 Useable rack spaces shall be sized to ensure adequate spacing between devices and air flow for ventilation
 - .3 Useable depth shall be sized to allow adequate space behind the devices for cabling and connectors
 - .4 Minimum weight capacity of 200 lbs
 - .5 *Front and rear* rack rails:
 - .1 11-gauge steel with tapped 10-32 mounting holes in universal EIA spacing.

- .2 Black coated finished
- .3 Rack spaces marked
- .6 Cooling fans for active ventilation as required
- .3 Provide all rack accessories as required for a complete racking solution.
- .4 Product shall be Middle Atlantic DWR series or Approved Alternative.

2.4 Low-Profile Wall Mounted Rack

- .1 The low-profile vertical rack enclosure shall be a wall mount type.
- .2 The rack shall have the following minimum characteristics:
 - .1 EIA compliant 19-inch panel width
 - .2 Useable rack spaces shall be sized to ensure adequate spacing between devices and air flow for ventilation.
 - .3 Useable depth shall be sized to allow adequate space behind the devices for cabling and connectors.
 - .4 Minimum weight capacity of 150 lbs
 - .5 Rack rail: 11-gauge steel with tapped 10-32 mounting holes in universal EIA spacing.
 - .6 Cooling fans for active ventilation as required.
 - .7 Lockable front door for access to front and back of equipment.
- .3 Provide all rack accessories as required for a complete racking solution.
- .4 Product shall be Tripp-Lite SRWF series or Approved Alternative.

2.5 Full Height Wall Mounted Rack

- .1 The pivoting rack enclosure shall be a wall mount type.
- .2 The rack shall have the following minimum characteristics:
 - .1 EIA compliant 19-inch panel width
 - .2 Useable rack spaces shall be sized to ensure adequate spacing between devices and air flow for ventilation
 - .3 Useable depth shall be sized to allow adequate space behind the devices for cabling and connectors
 - .4 Minimum weight capacity of 500 lbs
 - .5 Rack rail:
 - .1 11-gauge steel with tapped 10-32 mounting holes in universal EIA spacing.
 - .2 Black coated finished
 - .3 Rack spaces marked
 - .6 Cooling fans for active ventilation as required
- .3 Provide all rack accessories as required for a complete racking solution.
- .4 Product shall be Middle Atlantic SR series or Approved Alternative.

2.6 Cabinet/Credenza

- .1 The audio visual cabinet or credenza shall be free-standing on casters.

- .2 The cabinet or credenza shall be functionally and aesthetically incorporated into spaces while maintaining proper ventilation, sound isolation, and serviceability.
- .3 The cabinet or credenza shall have the following features:
 - .1 EIA compliant, threaded rack rails, 10-32 screws
 - .2 Front door with ability to lock
 - .3 Rear access panel or door
 - .4 Useable rack spaces shall be sized to ensure adequate spacing between devices and air flow for ventilation
 - .5 Useable depth shall be sized to allow adequate space behind the devices for cabling and connectors
 - .6 Variety of finish options to suit application
 - .7 Cooling fans for active ventilation as required
- .4 Provide all rack accessories as required for a complete racking solution.
- .5 Product shall be one of the following manufacturers:
 - .1 Middle Atlantic
 - .2 AVFI

2.7 Rack Accessories

- .1 All racks shall have blank plates, vent plates, shelves, drawers and all accessories as required for a complete racking solution.
- .2 Fine perforation security covers shall be installed for all equipment not intended for user access
- .3 **Security Covers:** Middle Atlantic SF series.
- .4 **Blanks:** Middle Atlantic EB series.
- .5 **Vents:** Middle Atlantic VT1.
- .6 **Shelves:** Middle Atlantic U1V.
- .7 **Drawers:** Middle Atlantic D2.
- .8 **Fans:** Middle Atlantic CAB-COOL series.

2.8 Mobile Instructor Station

- .1 The mobile instructor station shall have built-in rack and sufficient work surface area for presentation equipment such as document cameras, laptops, touch panels, keyboards, mice and preview monitors.
- .2 The mobile instructor station shall have the following features:
 - .1 Modesty panel with cable management system
 - .2 Resilient thermowrap working surface available in a variety of colours

.3 Casters

.3 Finish colour shall be confirmed with UBC IT Audio Visual.

.4 Product shall be KI All Terrain Mobile Instructors' Desk or Approved Alternative.

2.9 Height Adjustable Instructor Table

.1 The height adjustable instructor table shall be ADA compliant and have sufficient work surface area for presentation equipment such as document cameras, laptops, touch panels, keyboards, mice and preview monitors.

.2 The height adjustable instructor table shall have the following features:

.1 Electric actuators with push button for height adjustment

.2 Modesty panel with cable management system

.3 Resilient thermowrap working surface available in a variety of colours

.3 Finish colour shall be confirmed with UBC IT Audio Visual.

.4 Product shall be AVFI DS6330-LFT or Approved Alternative.

2.10 Fixed Lectern

.1 UBC IT Audio Visual implements a custom millwork solution for classroom fixed lecterns.

.2 The lectern shall have a single bay or dual bay configuration for the audio visual racks as required by the system design.

.3 The work surface shall have sufficient work surface area for presentation equipment such as document cameras, laptops, touch panels, keyboards, mice and preview monitors. The lectern will have two (2) width options for a single or dual document camera system.

.4 The raised podium unit with touch panel location, either stage left or right, shall be confirmed with UBC IT Audio Visual.

.5 The height adjustable instructor table shall be ADA compliant using electric actuators with push button.

.6 Conduit stub ups for power, data and audio visual cabling shall align with the rear section behind the bays and/or underneath the trough. The conduit stubs shall not be located beneath the bay rack locations or work surface.

.7 Lectern shall have at minimum two (2) dedicated 15A circuits for AV rack and convenience power receptacles.

.8 Refer to Section 27 40 00 for fixed lectern infrastructure requirements.

.9 Refer to AVSK-14 and AVSK-15 for lectern millwork sketches.

2.11 Confidence Monitor Shroud

- .1 The confidence monitor shroud shall provide a means to mount a confidence monitor on the front side of the first row of seating. The shroud shall offer protection from inadvertent liquid spills.
- .2 The shroud shall have the following features:
 - .1 6mm thick aluminium plate
 - .2 Clear, colourless satin anodized finish
- .3 The shroud shall be sized to accommodate the confidence monitor size in the system design and shall be confirmed by UBC IT Audio Visual.
- .4 Refer to AVSK-16 for an example 43" confidence monitor shroud

2.12 Display Slide-Out Shelf

- .1 Audio visual systems may require installation of equipment behind flat panel displays. Equipment should be accessible to support staff and slide-out shelf provided as required.
- .2 Approved slide-out shelf products are as follows:
 - .1 B-Tech BT7885 – screen size 49" - 86"
 - .2 B-Tech BT7883 – screen size 46" - 75"
 - .3 Chief CSSMP15X0

END OF SECTION