Smart Classroom General Description:

- Refer to SCC Standard Smart Classroom Layout for visual image of room layout. Refer to the SCC Standard Smart Classroom Wiring & Cabling Diagram for smart panel wiring and cabling instructions.

- AV Cabinet located next to wall adjacent to teaching wall 5’ from corner. Cut hole is side of cabinet for cables at location of junction box. Remove casters from AV Cabinet. Install shelf or rails if not already installed. In certain situations the room configuration may dictate the elimination of an A/V Cabinet.

- ADA Compliant instructor station located next to AV Cabinet. Place PC monitor, document camera and Smart Panel control box on instructor station. In the event an ADA station cannot be installed due to room limitations all equipment will go on top of Smart Cabinet.

- SP Controls Smart Panel Control System mounted on top of instructor’s table for selection of input source & volume control with laptop and phone connection as well as auxiliary audio and video inputs. In the event of no table, Panel will be mounted on top of smart cabinet. In the event that a table or smart cabinet is not used due to room limitations the panel may be installed into the wall. The panel will be installed in the same location that an A/V cabinet would be (5’ from corner of teaching wall) and no obstacle’s (tables, chairs etc.) in front of the panel.

- Ceiling mounted LCD Projector (12-14’ from screen) with input sources selectable from SP Panel.
  
  - **Note:** The distance may vary with the type of projector used. Distance should be close enough so that the image will take up as much screen space as possible. Care should be taken to **NOT** place anything in the projection path (i.e. lights, art work hangers, etc.).

- Projector screen centered in room on teaching wall - screen case no more than 6” from ceiling and

- Computer system with Hard Drive protection software selectable from SP Panel with wireless mouse and keyboard for remote control installed in box and properly cabled as input 1 on projector.

- DVD/VCR with remote control selectable from SP Panel installed on shelf of cabinet and properly cabled. Remote with batteries installed placed on top of DVD/VCR.

- Digital document camera selectable from SP Panel as input 2 on projector. Attached to projector with VGA cable and cabled to instructor station.

- Speaker System with automatic switching of sound to video source selected via SP Panel (speakers mounted on either side of screen). Remote volume control placed in AV Cabinet on top of DVD/VCR for easy access. Sound also manually selectable from the SP panel for use with auxiliary equipment plugged into the SP Panel and/or music CD’s played in the DVD/VCR.

- Remote Presenter with laser pointer for remote control of PowerPoint presentations, batteries installed and operational. Placed on top of DVD/VCR.

- The SP panel must be programmed to turn on/off closed captioning in the projector.

- Kramer switch installed in AV cabinet, properly cabled to provide automatic video and audio switching.
Printer (Optional) connected to the computer or, in a lab environment, the network.

Power at console (4 outlets - 2 at SP Panel 2 below/behind AV Cabinet- near junction box for AV cables)

Lighting controls at instructors console in addition to doorway

- **NOTE:** The lighting should be setup so that the front lights directly over the teaching wall can be dimmed or turned off for maximum viewing capability.

Power above ceiling for projector with receptacles.

Printer (Optional) located at front of room or at console

Console must be against wall.

2" conduit from ceiling to location of 4" junction box behind AV cabinet

Center Screen on the room not on wall

Phone (optional) in room at console

**Smart Classroom Scope of Work:**

- Smart Panel installation (need drawing) – Assemble district supplied smart panel.
  - SP Control Smart Panel Chassis
  - SP3AFVP+ audio follow preamp
  - SP2-VGA3.5 Module
  - SP2-VID RCA jack w/stereo audio
  - SLB-Mini-AUXaudio Mini patch module Auxiliary Audio Enable switch
  - SLB-Mini-ETH
  - SP2-Switch (2)
  - SP Control CatLinc NET
  - Mount assembled SP Panel in SP2-WE-B Wooden Enclosure for SM2-CHAS (desktop installation)
  - Program SP Panel for proper operation per district supplied specifications
  - Program CatLinc Net with IP address provide by district network staff
  - Terminate one Cat6 data cable in SLB-Mini-ETH and snap into panel
  - Terminate one Cat6 voice cable in SLB-Mini-ETH and snap into panel

**AV cabinet Installation:**

- Install equipment in/on top of cabinet or a provided instructor’s table
  - Digital Document Camera (on instructor table)
  - Interlink VP4300 RemotePoint Presenter (Inside Smart Cabinet)
  - Kramer VP-211DS Auto VGA w/audio (Inside Smart Cabinet)
  - Desktop Computer System (Inside Smart Cabinet)
  - Speaker system sub-woofer/amplifier (Inside Smart Cabinet)
  - DVD/VCR combo unit (Inside Smart Cabinet)
  - Various other equipment as appropriate (Inside Smart Cabinet)
    - Denon Cassette Deck, Dual Well Denon 3RU
    - Denon Cd Player – Single CD
    - Rolls Mixer Mic/Source 3-Mic
    - QSC Dual Channel Amp
    - Wireless microphones
• Remove wheels when appropriate
• Locate cabinet at proper location
• Attach cabling to equipment per district specifications
• Mount assembled SP Panel Enclosure on top of instructor table if present otherwise on top of smart cabinet
• Neatly route all cables so as to provide a neat, professional appearance
• When wheels are left on cabinet it must be tethered to the wall to prevent stress on cabling.
• All ends of unused cables must be taped to prevent shorts.

**Projector Installation:**

- District Supplied Projector
- Peerless Ceiling Projector Mount PRS-UNV
- Attach cabling to equipment
- Security cable installation
- AV cabling installation.

• **Video Cable Installations**
  - 2VGA
    - One from Document camera to input port 2 on projector
    - One from Kramer box to input port 1 on projector
  - 1 Video
    - DVD/VCR to video in on projector
  - 1 Control
    - One end attached to SP Panel at proper location and the other end terminated with a 9 pin male connector and attached to the serial port on the projector.

• **Speaker Cable installation**
  - Cables must be run from each speaker to the subwoofer located in the AV cabinet.

**Screen Installations:**

- Screen should be:
  - Appropriate size for optimal room viewing. Most common is the Dalite model C 8' AV format 4:3 with CSR & pull string.
  - Centered on teaching wall
  - Mounted as high on the wall as possible and with top of case not more than 6” below ceiling (in rooms with normal height ceilings)

- Screen mounts to have back board of sufficient size to permit speakers to be mounted next to screen
  For larger screens or rooms with high ceilings (over 10’) contact the Director of Technology Services and Support for proper screen installation instructions.

**Projector Mount Installations:**

- Projector pipe should be mounted at 12-14ft. from the wall where the screen will be mounted.

- Location of pipe can vary from 12’ to 14’ when absolutely necessary. When conditions warrant changing the location it is highly preferable to locate the mounting pipe closer to 12’ rather than farther away than 13’ 6”.

- Pipe should be 3 ½ inches right of screen center as viewed from the screen location to accommodate for the offset of the projector lens.
Pipe should extend below the ceiling approximately 4-5 inches

**Speaker Installations:**

- Speakers are to be mounted approximately 6-12" on either side of the screen

**TV Mount installation:**

- Adequate backing must be placed in the wall at the highest possible location to accept the 42" standard LCD TV. TV is approximately 25" high and should be about 6" below the ceiling level.
- Power and 2 data drops are to be installed at the location of the TV so they can be hidden by the TV when installed.
- Mount is to be installed so as to permit TV to be protected from easy access to controls when possible.

**LCD TV installation: Coordinate with District (IT)**

- TV is to be mounted on mount so as to permit optimal viewing and is to be secured to the mount to prevent easy theft.
- Digital media player is to be mounted on the back of the TV or attached to the wall.
- All cable connections and power plugs are to be properly tested.

*NOTE: Certain situations will dictate a larger TV other than the 42" standard. In this case all mounting and installation instructions will remain the same. In the event a mounting location dictates a different mounting/installation process the District (IT) department shall be notified to determine alternate mounting/installation criteria.*

**Complete start-up and testing of all equipment is to be performed and results verified by district staff.**