USCIS Office of Information Technology

AUDIOVISUAL STANDARDS

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1 Audiovisual / VTC Overview

The US Citizenship and Immigration Services (USCIS) Office of Information Technology (OIT) is, within this document, delineating standards for audiovisual systems. The designs are intended to compliment the facility designs set out in the Space Allocations Design Guide Documents. This document, when adhered to, will ensure that infrastructure is in place for an appropriate level of equipment based on the requirements of each type of standard space within USCIS.

By standardizing the system designs and user interfaces we enable help desk support of rooms, remote troubleshooting, standard maintenance agreements, and ease of upgrade. By standardizing components we simplify maintenance allow remote monitoring and ensure ease of use when traveling between office locations.

OIT has defined the following AV standards and systems. These designs should meet most typical USCIS Office needs. Organizations or Facilities that have requirements outside of the scope of these designs should contact OIT for a design tailored to their technical needs and the layout of their space.

Outlined in this document are the USCIS A/V standards by space type:

AV1 Meeting Room with no microphone reinforcement
AV2 Meeting Room with microphone reinforcement
AV3 WebEx Board
AV4 Desktop Videoconferencing System
AV5 Digital Signage
AV6 Overhead Paging

2 General Assumptions

The standards identified have been deigned around the following guidelines;

2.1 USCIS Laptop computers (PC or MAC) will be used in USCIS meeting spaces. Laptop computers will be connected to the USCIS Wireless Network. The primary connection method for USCIS laptops (PC or MAC) will be over the network using a network to HDMI gateway connected to the system. For external organization laptops or other devices a hardwired HDMI cable shall be provided for connectivity. Laptops are expected to use enterprise wireless or a wired USCIS connection. Use of a cellular connection with VPN will work but the quality of the connection will be greatly reduced. For naturalization ceremonies or other live or public events it is recommended that the wired connection be used to guarantee signal quality.

2.2 Wireless keyboards and mice shall comply with OIT Policy Letter "Use of Bluetooth Wireless Technology on Government Furnished Equipment" Dated April 22nd 2010 and "Bluetooth Decision Memo" Dated April 22 2010.
Wireless Keyboards are specified for use in conference spaces only. Wireless systems shall only be used where a wired system is an impractical option. Wireless systems

shall not use Blue Tooth Technology. Wireless systems shall use encrypted wireless technology that shall be a minimum of 128 bit AES encrypted.
(Logitech 2.4GHz Advanced Wireless Technology or equivalent shall be used)

2.3 All systems shall have a common input connector and resolution. That connector shall be an HDMI digital input connection. The native resolution of all systems shall be 4K 3840x2160@60hz. All source devices and displays shall be compliant with this standard resolution. HDMI, DVI and Display Port are essentially the same video signal format on different connectors. All USCIS laptops are specified with either a Display Port output or issued with an adaptor that provides display port output. The end user is responsible for conversion to HDMI from this output or adaptor. An adaptor will be provided with each system for Display Port to HDMI conversion.

2.4 HDCP compliance will not be enforced within the systems. The Video Conferencing codec systems which make up the heart of USCIS systems are not HDCP compliant. Any devices requiring HDCP compliance such as cable or satellite boxes will not be compatible with HDMI inputs on USCIS systems. They may be connected locally directly to the display secondary input and switched manually. OIT is not responsible for the proper operation Cable TV or the procurement of Cable TV services.

2.5 Display sizes shall be selected based on the following typical content. Content is expected to be as follows: Naturalization Ceremony room content will be primarily high definition video with captioning or PowerPoint with large fonts. Training room content will be primarily web based content and Power Point with 20 point font or higher. Small conference room content will be a combination of power point, excel, and high definition video. Displays will be sized appropriately for viewing of this level of content based on a measurement from the screen to the furthest viewer in the case of conference rooms and training rooms. This measurement shall be the screen to the fourth row in the case of Naturalization Ceremony Rooms. Displays shall be sized using the following formula.
((Distance in Inches to furthest viewer)/150)*21 = Needed Diagonal Screen Size

2.6 The Americans with Disabilities Act of 2010 (ADA) and ADA Standards for Accessible Design will be complied with in all designs. Requirements can be found at www.ada.gov. The ADA regulations require that any public space with audio reinforcement have assisted listening systems available. Any system with audio reinforcement shall have the minimum number of assistive listening devices required by the regulations and a minimum of two shall have inductive neck loops to interface with hearing aids. In compliance with the ADA no suspended device shall extend lower than 6'-8" above finished floor (AFF). No wall mounted device, mounted higher than 27" AFF shall project further than 4" without installing a cane plate or other method of preventing a seeing impaired person from colliding with the obstacle. To comply with Title II of the ADA under "Equally Effective Communication"; Videos played at Naturalization Ceremonies are provided with captioning. Displays will be sized to allow closed captions to be read by persons with normal vision or vision corrected to 20/20 from the first several rows of seating not from all rows of seating. Hearing impaired persons requiring caption accommodation will be placed in these rows.

2.7 BLU-RAY, DVD, and or VHS decks will not be provided. It is expected that the built in PCs will have built in DVD or BLU-RAY drives and that ROXIO or another approved software solution will be used to playback content. It is expected that on laptops multimedia files will be used for playback.

2.8 16:9 aspect ratio flat screen displays meeting the resolution requirement in 2.3 will be used up to 98 inches. For screens larger than 98 inches projector and screen shall be used. All projectors and projection screens will be 16:9 aspect ratio. Projection screens will be manually operated wall mounting type. Screens shall have black masking borders standard on flame retardant and mildew resistant fiberglass fabric, mounted on a ball bearing rigid steel spring roller. To be equipped with Controlled Screen Return (CSR) to control the return speed of the screen surface back into the case. Screen fabric shall be permanently attached to roller. Screen casing shall have powder coated white 21-gauge steel case with flat back design. Ambient light levels will be taken into account when selecting projectors. Typically training room projectors will be a minimum 6000 lumens.

2.9 Video conferencing systems will be Cisco Webex RoomKit or RoomKit+ systems with Cisco Quadcameras. Systems will be selected to take advantage of codecs with maximum compression thereby minimizing bandwidth requirements. Systems will be specified to be compatible with OIT infrastructure systems. Each Codec added to a site will require 1920k of network bandwidth. Codecs will be capable of 720p native resolution on the point to point video connection. Codecs must be compatible with WebEx and manageable by USCIS Enterprise VTC equipment. Video conferencing in rooms will be set to automatically answer incoming calls. Microphones on the receiving site will be muted when a call comes in for privacy and must be unmuted using the VTC remote.

2.10 Control surfaces will be provided for all conferencing systems. A 10 inch intuitive touchscreen control and system automation will be employed to minimize the amount of user interaction needed to control and operate the systems. A single common control surface will be used to minimize learning curve between systems. A key lockout with a single on/off button will be implemented for systems installed in customer accessible spaces to disable systems when not in use. Control code and configuration of systems shall be owned and managed by USCIS to standardize operation and automation among all systems.

2.11 Systems will be designed in accordance with the Guiding Principles for Sustainable Federal Buildings. The AV systems will be energy star listed where possible and comply with all federal energy saving regulations and requirements. The systems will automatically shut down when not in use for a programmed period of time. Every effort will be made to minimize the energy footprint of the systems.

3 AV Standards Defined

3.1 AV1 – Meeting room with no microphone reinforcement

This system standard applies to conference rooms off all sizes with conference table style configuration. It also applies to large training or multipurpose rooms supporting more than 20 students and requiring a display larger than 70" based on 2.5 above.

The AV1 system shall be controlled by a single 10" touch screen remote control tied to the VTC codec with 2 or more displays. The system shall automatically turn on and switch to the correct input on the display when receiving a video call. The system shall display a PC or laptop input when present and have the ability to turn on and off the computer content using the touch screen control. The system shall automatically turn off after a programmed period when not in a video call and no computer source is actively displayed. VTC codec shall provide both video and telephone conferencing.

3.1.1 USCIS AV1 Room System

This system shall consist of one 43 inch to 98 inch display(s) mounted on the wall. Screen size will be determined in accordance with section 2.5 above. A high definition video conferencing camera shall be mounted on the wall centered below the displays. The lens of the camera will be centered at the seated eye height of 48 inches. The system will have an input device mounted to the bottom of the conference table instructor's desk or room lectern. The box will connect by a single CAT6 cable to a wall or floor box location. The input box shall have one HDMI input with an HDMI monitor out for local display. The input box shall have a USB input for computer microphone and speaker connection to the room sound system. A laptop cable shall be connected to the HDMI input. The input box shall pass its signal to the video conferencing unit mounted with the Camera. The video conferencing unit shall be connected to the display(s) via HDMI connection. Where there is no VTC unit the video shall be fed directly to the displays. The feed from the input box to behind the TVs shall be a single CAT6 cable allowing the box to be located up to 300 feet away from the displays. Sound will be provided by 4 ceiling flush mounted loudspeakers. A Ceiling microphone array shall be installed in a 2x2 ceiling grid opening. The microphone array will be software divided into up to 8 microphone lobes dependent on the size of the room. An approved wireless keyboard and mouse shall be provided for use with an optional room computer to be provided by the gaining organization. All other equipment except the USCIS computer shall be mounted behind the displays.

Five options will be available for this room system. These options can be added singularly or in combination. Touchscreen option is available for systems with 65" or 75" screen sizes based on 2.5 above. This option adds touch annotation capability by adding a second or further additional 65" or 75" touchscreen. Option two will add a rear camera to the system as a presenter camera focused on the presenter area. The presenter camera will automatically track the presenter. Option three will add additional displays sized in accordance with 2.5 above. A room scheduling panel and or wired microphone inputs can be added to this standard.

3.1.2 This system type will have the following major components;

(1) 4K non-touch displays 55-98 inches
(1) Cisco Room Kit or Room Kit Plus Video Conferencing System
(1-2) Shure MXA910 Ceiling Microphone Arrays
(1) Shure ANIUSB-MATRIX Audio Digital Signal Processor
(1) Crestron HD-EXT-USB-2000-C HDMI and USB Extender
(1) Crestron AirMedia AM-200 LAN to HDMI gateway
(1) RDL SF-NP16E 16Watt 70Volt POE Amplifier
(2-4) JBL Control 24 CT Micro Ceiling speakers (4 Watt Tap)
(1) POE Network Switch BV Tech POE-WB908 for audio distribution

3.1.4 The Independent Government Cost Estimate is $__K

3.1.5 AV-1 Installed – Typical Diagrams

Touch Panel

Ceiling Microphone

Typical Wall Elevation

3.2 AV2 – Meeting room with no microphone reinforcement

This system standard applies typically to a large public ceremony spaces and large conference room spaces that be used for Naturalization Ceremonies and for all hands meetings on sites. Naturalization Rooms typically have ceiling heights 12 feet six inches or higher. The room will typically contain a portable 6 inch height stage as a presenter area and large audience in auditorium layout seating.

The AV2 system shall be controlled by a single 10" touch screen remote control tied to the VTC codec with 2 or more displays. The system shall automatically turn on and switch to the correct input on the display when receiving a video call. The system shall display a PC or laptop input when present and have the ability to turn on and off the computer content using the touch screen control. The system shall automatically turn off after a programmed period when not in a video call and no computer source is actively displayed. The system shall have a lapel and handheld wireless microphone and input capability to support 2 user supplied wired microphones.

3.2.1 USCIS AV2 Room System

The system shall consist of 1 or more flat screen displays. Where section 2.5 requires a screen size larger than 98 inches, a ceiling mounted projector with a manual wall mounted screen complying with 2.7 above shall be specified. Where projectors are required they shall be installed in compliance with section 2.5 above.

An input box shall be provided with an HDMI and USB input. The USB input shall allow the laptop computer connected to utilize the room microphone and loudspeakers. The input box may be installed below the stage, on the wall, or in a lectern. The input box shall have a single CAT6 cable connection to a wall plate designated the AV input plate. The AV input plate shall be at outlet height behind the stage that shall feed the AV system. There shall be a two gang decora style plate next to the AV input plate with two XLR microphone inputs and two XLR line outputs. The input plate shall pass its signal to the video conferencing unit mounted below the left display. The CAT6 cable between the two devices may be up to 300 feet in length. The video conferencing unit shall be connected to the display(s) via CAT6 HDMI extenders. Sound will be provided by 2 wall mounted small line array loudspeakers placed appropriately for full coverage of the room. A 15 foot HDMI cable will provided for laptop connection. An approved wireless keyboard and mouse shall be provided for the laptop computer.

Two wireless microphones shall be provided. The wireless microphones shall be one handheld and one lapel microphone. The lapel microphone shall have an omnidirectional microphone element. The two wired microphones, the two wireless microphones, and the audio output of the codec shall be mixed at a wall mounted rack to feed two wall mounted line array speakers and an assistive listening system. Line array loudspeakers shall provide an even coverage with no more than a 6 dBSPL from the first to last row of seating. Two ceiling mounted microphone arrays shall be installed to feed the video conference codec only. They shall be placed on the right and left sides of the stage to cover the room. These microphones can be muted on the call

using the mute button on the 10" touch panel control without muting the wireless and wired microphones within the room. Volume control for all microphones shall be preset and controlled by software interface from the wall mounted rack in the AV storage room. Computer audio shall be controlled at the PC or Laptop. The level shall be preset for a commercial line level device at -4dBm. The system will meet all energy conservation regulations per section 2.10 and will turn off when no input device is connected or sending signal and the VTC has been out of a call for a programmed period. The system shall have an ADA assistive listening system transmitting on an unencrypted FM frequency. The ADA system shall be sized for the room per section 2.5. The VTC codec shall provide both video and telephone conferencing.

This system type will automatically be equipped with two options. Option one (-R) will be add a rear camera to the system as a presenter camera focused on the presenter area. The presenter camera will automatically track the presenter. Option two (-M) will add wired XLR microphone inputs and XLR line level audio outputs.

Optional additional displays may be added for larger naturalization rooms or for rooms with columns or odd shapes that hinder sight lines. A projector option may be added for rooms where a 98 inch display does not meet the display size requirement of section 2.5 above. A rear camera option is available for this standard. A room scheduling panel can be added to this standard.

3.2.2 This system type will have the following major components;

(1-4) 4K non-touch displays 65-98 inches
(1) Cisco Room Kit Plus
(1) Cisco P-60 PTZ Camera in back of room
(1-2) Shure MXA910 Ceiling Microphone
(1) Shure ANIUSB-MATRIX Audio Digital Signal Processor
(1) Shure ULXD4D Digital Wireless Microphone Two Channel Receiver
(1) Shure ULXD1 Digital Wireless Microphone Belt Pack Transmitter
(1) Shure ULXD2/SM58 Digital Wireless Microphone Hand Held Transmitter
(1) Shure SM93 Omnidirectional Lapel Microphone
(1) Shure SBC200 dual docking charger for ULX1 and ULX2
(1) RDL DD-BN22 2 gang white decora input / output plate
(1) Crestron HD-EXT-USB-2000-C HDMI and USB Extender
(1) Crestron AirMedia AM-200 LAN to HDMI gateway
(1) Extron NETPA1001 100Watt 70Volt Amplifier
(2) JBL CBT 50LA-1 line array loudspeakers (tapped at 30Watts)
(1) POE Network Switch BV Tech POE-WB908 for audio distribution
(1) Williams Sound PPAT27 Assistive Listening System

3.2.3 The Independent Government Cost Estimate for this system is $__K

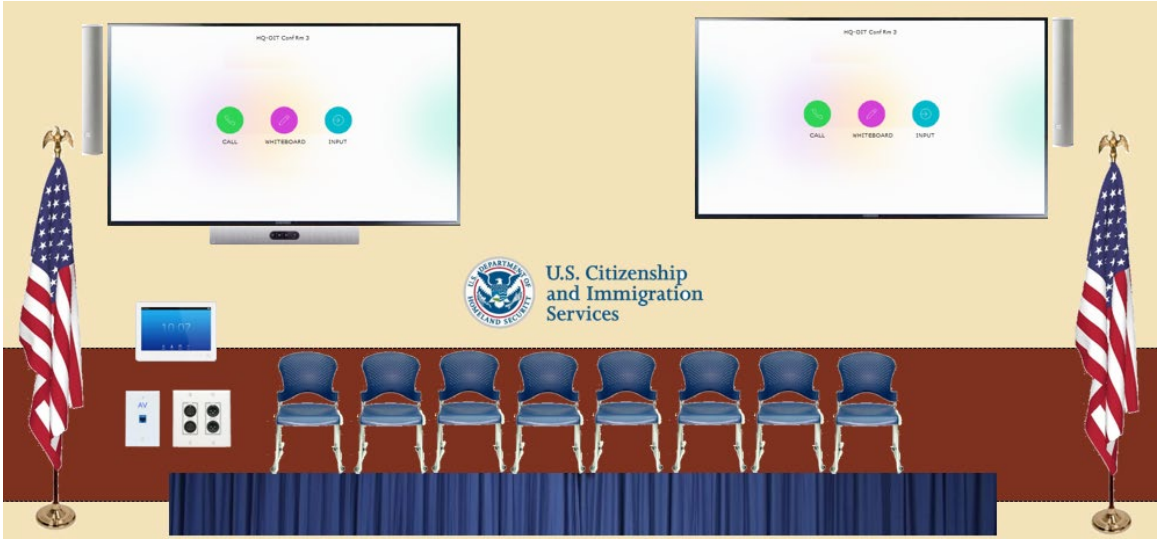
3.2.4 AV-2 – Typical Diagram

Touch Panel

Ceiling Microphone

Rear Camera

Wireless Microphones in Charger



Typical Wall Elevation

3.3 AV-3 WebEx Board

This system standard applies to small 4-10 person teaming spaces that that are used for small team collaboration up to 20-30 person training rooms where an all in one electronic whiteboard VTC solution is desired. The system can be wall mounted in an or cart mounted.

The AV3 system shall be controlled by on screen touch controls on the single flat screen display in the system. The system shall automatically turn on and switch to the correct input on the display when receiving a video call. The system shall display a PC or laptop input when present and have the ability to turn on and off the computer content using the touch screen control. The system shall automatically turn off after a programmed period when not in a video call and no computer source is actively displayed. The system shall provide both video and telephone conferencing.

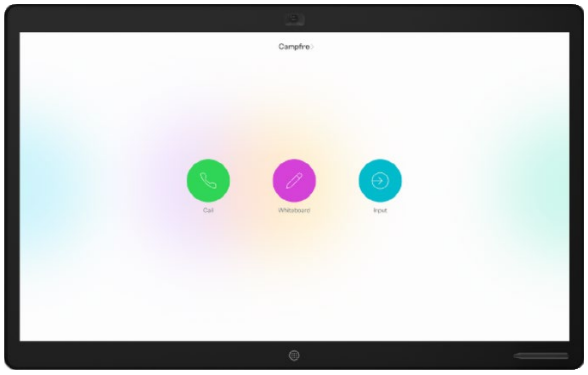
3.3.1 USCIS AV3 Room System
The system shall consist of 1 touch enabled flat screen display. The display shall be 55", 70", or 85" and sized in accordance with section 2.5 above. All audio and video functions of the system shall be contained within the display. An HDMI input cable shall be provided for wired input to the system. The system shall also accept video input over LAN from a USCIS laptop computer on the USCIS wireless network. The system shall natively support WebEx calls. The system shall automatically turn off after a programmed period when not in a video call and no computer source is active. This system allows on screen white boarding and annotation over content. This system can be ordered as a portable system with cart mounting option. An option scheduling panel is available for this standard.

3.3.2 This system type will have the following major components;

(1) Cisco 55", 70", or 85" WebEx Board
(1) Crestron AirMedia AM-200 LAN to HDMI gateway

3.3.3 The Independent Government Cost Estimate for this system is $__K

3.3.4 AV-3 – Typical Diagram



WebEx Board

3.4 AV-4 Desktop Videoconferencing System

There are two options for desktop video conferencing. The first option is a dedicated hardware solution. This option is a small room/desktop system for video and audio conferencing that can be easily setup within executive offices and small conference spaces. A typical small conference space would be a small round table supporting 2-4 persons. The second option is the PC based software solution WebEx supporting a single end user at his or her PC. The laptop webcam and microphone would be used or a webcam for the PC solution can be purchased by the local site and installed by the local IT staff.

3.4.1 The hardware executive desktop/small room solution includes video conferencing and content sharing. The desktop unit has a large (22") widescreen display for presentation of graphics, spreadsheets and multimedia files. Control of the system is through the touch screen graphical interface. Annotation is enabled using the touch screen.

3.4.1.1 This system type will have the following major components;

(1) Cisco WebEx DX-80 executive desktop system

3.4.1.2 The Independent Government Cost Estimate for this system is $__K

3.4.3 AV-4 – Typical Diagram

AV-4 Desktop VTC Unit

3.5 Digital Signage

This standard applies to two types of systems. The first is the system commonly called Q-Flow that is a waiting area digital signage system that used for queuing and alerting applicants in an information or adjudications waiting room. The second is for internal facing digital signboards that are used to convey information to USCIS employees.

3.5.1 AV5 Q-FLOW

The AV5 Q-Flow display system will be 1 to 7 displays wall mounted around a USCIS waiting room. The displays shall be installed on walls that are in the viewing area of the waiting room seats. The majority of the seating shall be contained within an area that is within 45 degrees off axis off the display or displays.

3.5.1.1 The displays used shall be sized for the viewing of the text used by the Q-Flow system. The displays shall be sized in accordance with section 2.5 above.

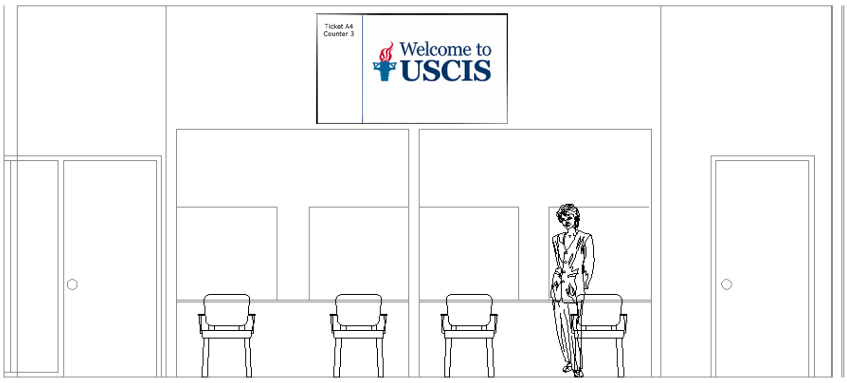
3.5.1.2 The displays shall be installed in compliance with the Americans with disabilities act. The bottom edge of the display shall not be lower than 6'-8" above finished floor in a circulation path. The audio output from the Q-Flow computer shall be tied to the background music input of the overhead paging system to broadcast audio for visually impaired applicants. Audio will feed into all public area of a site to include guest restroom area, security entry area, and waiting room.

3.5.1.3 This system type will have the following major components;

(1-7) 4K non-touch displays 43-65 inches
(1) Media PC provided by site
(1) Broadata LinkBridge LBC-SPH4-1H3B-EIR, or LBC-SPH8-1H7B-EIR transmitter
(1-7) Broadata LinkBridge LBC-HDBT-RX

3.5.1.4 The IGCE for this system is. ($__K plus $__K per display)

3.5.1.4 AV5 – Q-Flow Typical Diagram



3.5.2 AV5 Internal Digital Signage

The AV5 internal digital signage display system will be 1 to 7 displays wall mounted at a USCIS office location. Displays that are within 300 feet cabling distance of an IDF closet can be fed from a single signage medial player.

3.5.2.1 The displays used shall be sized for the viewing of the text in accordance with section 2.5 above.

3.5.2.2 The displays shall be installed in compliance with the Americans with disabilities act. The bottom edge of the display shall not be lower than 6'-8" above finished floor in a circulation path. This system can be ordered as a touch screen system by adding the touch display option. No other options are available for this system.

3.5.2.3 This system type will have the following major components;

(1-7) 4K non-touch displays 43-65 inches
(1) FWI CS-CPFWI Media Player PC
(1) Broadata LinkBridge LBC-SPH4-1H3B-EIR, or LBC-SPH8-1H7B-EIR transmitter
(1-7) Broadata LinkBridge LBC-HDBT-RX

3.5.1.4 The IGCE for this system is. ($__K plus $__K per display)

3.5.1.4 AV5 – Digital Signage Typical Diagram

AV5 Sign Wall Installation

3.6 Overhead Paging

This standard is for overhead paging at a USCIS site. The overhead paging system is used in the waiting room for Q-Flow or waiting room paging. It is used building wide for active shooter announcements or announcements that need to be communicated site wide.

The system is designed to interface with the site telephone system and page using the extension 100-7246 (PAGE) followed by a two digit number.
00 pages the entire site
01 pates just the public waiting rooms
02 pages just the private USCIS space

3.6.1 The system shall be designed to provide a level of 15dB above the background noise level in all spaces. The system shall provide overall +/- 3 dB coverage in all areas. Paging audio shall be intelligible in all space. Privacy sound masking may be provided in hallways outside of adjudication or asylum officer offices. Masking is designed to make it difficult for someone in the hallway to overhear a conversation in an office interview.

3.6.2 The system shall have 6 zones. Audio in these zones can be adjusted independently.

Zone 1 – Q-Flow and Waiting Room Audio
Zone 2 – Adjudication or Public Hallways (Privacy Sound Masking provided)
Zone 3 – Non Public Hallways
Zone 4 – Private Offices, Conference Rooms, Naturalization Rooms, Training Rooms
Zone 5 – Open Office Cubical Spaces
Zone 6 – ASC space if present

3.6.3 This system type will have the following major components;

(1) Bogen PCM-SYS3
(1 per floor) Cambridge QT-100, QT-300, or QT-600
(1 box per 400sf) Cambridge E-A-W-16-4 or E-A-W-30-4 QT-Emitters
(1 per waiting room) RDL RU-ADA4D or RU-ADA8D

3.6.4 The Independent Government Cost Estimate for this system is $1.50 per sq/ft

AV6 Ceiling Loudspeakers

4. System Options

4.1 Option OTA, B, or C
Touchscreen Display Option

This option provides an additional touch screen display for a system. ODA is a 55", B is 65", and C is 75". This option is available for AV1, AV2 and AV5 systems.

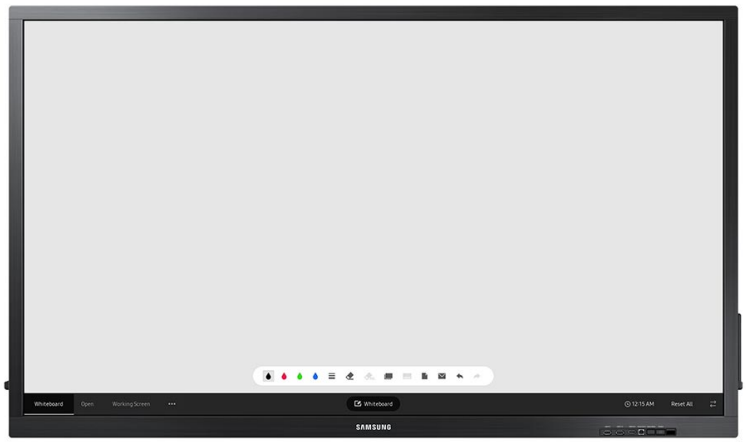
4.1.1 This system type will have the following major components;

AV1-T
(1) QB65H-TR", or QB75H-TR 4K Touch Screen

AV5-T
(1) PM55F" 4K Touch Screen
(1) Crestron HD-EXT-USB-2000-C HDMI and USB Extender

4.1.2 The Independent Government Cost Estimate for this system is $__K

4.1.3 Annotation Display Typical



Touchscreen Annotation Display

4.2 Option (-R)
Rear Camera Option

This option is available for AV1 and AV2 system. This adds a second camera to the VTC system. The second camera is mounted in the back of the room and facing the presentation area. Power and data connection are extended to the display location in the front of the room for the AV1 and the Rack location for the AV2.

4.2.1 This system type will have the following major components;

(1) Cisco Precision 60 Camera wall mounted in the back of the room
(1) Vaddio Recessed Camera Enclosure for Precision 60
(1) Broadata LinkBridge LBC-HDBT-RX HDMI CAT6 Extender Receiver
(1) Broadata LinkBridge LBC-HDBT-TX HDMI CAT6 Extender Transmitter

4.2.2 The Independent Government Cost Estimate for this system is $__K

4.2.3 Rear Camera Typical

Precision 60 Camera

4.3 Option ODA, B, C, D, E, or F
Additional Display Option

This option provides an additional display for a system. ODA is a 55", B is 65", C is 75", D is 85, and E is 98". This option is available for AV1, AV2 and AV5 systems.

4.3.1 This system type will have the following major components;

(1-5) additional 4K non-touch displays 43-65 inches
(1) Broadata LinkBridge LBC-SPH4-1H3B-EIR, or LBC-SPH8-1H7B-EIR transmitter
(1-5) Broadata LinkBridge LBC-HDBT-RX

4.3.2 The Independent Government Cost Estimate for this system is $__K

4.3.3 Display Typical

Typical 4K Display

4.4 Option OMP
Wired Microphone Option

This option is available for AV1 and AV2 systems. One plate is included in AV2 systems automatically. This adds the ability to feed two wired microphones into a wall plate in the front of the room and take line level outputs to feed end user equipment such as stage monitor speakers or press feeds.

4.4.1 This system type will have the following major components;

(1) RDL DD-BN22 Wall-Mounted Bi-Directional Mic/Line Dante Interface 2x2

4.4.2 The Independent Government Cost Estimate for this system is $__K

4.4.3 Audio Wall Plate Typical

XLR Microphone In and Line Audio Output Plate

4.5 Option OCA and OCB
Mobile Cart Option

The OCA option is available for AV1 systems. The OCB option is available for AV3 systems. This option provides a portable cart stand for the system to be mounted to system so that it can be moved from room to room. The OCB cart is height adjustable.

4.5.1 This system type will have the following major components;

(1) AVITEQ RPS-500-BB-CSB55W or RPS-500-BB-CSB70W DymamiQ Cart
Remove (1) Fixed Wall mount for WebEx Board

4.5.2 The Independent Government Cost Estimate for this system is $__K

4.5.3 Cart System Typical

WebEx Board Cart

4.6 Option OPA, OPB and OPC
Projector Option

This option is available for AV2 systems. This is available where the formula in 2.5 above returns a screen size that cannot be met by a flat screen display. OPA is a 119" screen, OPB is a 133" Screen, and OPC is a 155 inch screen.

4.6.1 This system type will have the following major components;

(1) Vivitek DK8500Z 4K 7500 ANSI Lumen Projector
(1) Da-Lite 79884, 79886, or 79888 MODEL C Wall Mounted Screen - 16:9 Soft Return
Remove (2-4) 4K non-touch displays 65-98 inches

4.6.2 The Independent Government Cost Estimate for this system is $__K

4K 7500 ANSI Lumen Projector

16:9 Manual Projection Screen 119", 133", or 159" Diagonal

4.7 Scheduling Panel Option

This option is available for AV1 AV2 and AV3 systems. This option adds a room scheduling panel outside the door of the room. The scheduling panel ties to the outlook calendar for the room to show the upcoming schedule and allow ad hock booking of the space.
The screen shall be mounted at 48 inches for ADA compliance and tilts out from the wall for ease of use by a standing operator. There is a light bar surrounding the unit that gives a green or red status for the room. Green when available and red when booked.

4.7.1 This system type will have the following major components;

(1) Crestron - TSS-10-W-S-LB KIT 10.1 Inch Room Scheduling Touchscreen

4.7.2 The Independent Government Cost Estimate for this system is $__K

Room Scheduling Touchscreen

5. Correlations to the USCIS Space Allocation Design Guide

A/V Equipment A/V standards have been developed by OIT for USCIS. For Field Operations LAP projects OIT provides the equipment for the office Director's conference room, the Naturalization Ceremony Room, the Computer Training Room, the waiting rooms, and Break Room. Service Center operations sites will be evaluated by project as their size and number of AV spaces vary greatly. At a minimum OIT provide equipment for the office Director's conference room, Multi-Purpose Room, Computer Training Room, and Break Room. The LAP program will fund the infrastructure needed to support the A/V equipment (electrical, cable drop, etc.) and OIT will fund and install the equipment.

5.1 TAB 1: Field Operations Facilities and Asylum

Space Type	Description	Square Footage	Seats	Section Correlation
Field Office				
1.2.2	Break Room	Varies	Varies	AV5
1.3.1	Medium Conference Room	300	10	AV1
1.3.2	Computer Training Room	300-750	20-25	AV1 or AV3
1.3.3	Conference / Multi-Purpose	600	10-20	AV1
1.3.4	NATZ Room	Varies	Varies	AV2
1.5.2	Waiting Room	Varies	Varies	AV5
District Office				
1.8.1	Break Room	100	4	AV5
1.8.4	Medium Conference Room	300	10	AV1

5.2 TAB 2: Service Center Operations Facilities

Space Type	Description	Square Footage	Seats	Section Correlation
Conference / Training (CT)				
1.2.2	Break Room	Varies	Varies	
1.3.1	Multi-Purpose Room (Divisible)	1400	Varies	AV2
1.3.2	Large Conference Room	600	20	AV1
1.3.3	Medium Conference Room	300	10	AV1
1.3.4	Small Conference Room	192	6	AV1 or AV3
1.3.5	Collaboration Room	300	10	AV1 or AV3
1.3.6	Computer Training Room	300-750	20-25	AV1

Section 6 Infrastructure Requirements by Standard

6.1 General

This section address the infrastructure needed to support the AV1, AV2 and AV3 standard systems. Infrastructure coordination includes locations of power, data, conduit, wall boxes, and plywood wall blocking to support displays and screens.

6.1.1 Display Back Box

In new construction, a Chief PAC525FCW In-Wall Storage Box with Flange and Cover (White) will be installed behind each display location. The box location shall be defined in the AV coordination drawing set. In an AV1 system the box shall be centered on the conference table location as defined by the floor box location that will be under the table support pedestal. In an AV1 or AV3 system the box will be installed centered at 5'-5" above finished floor. For an AV2 system the location will vary depending on the expected display size and location.

Each Chief PAC52FCW will require one duplex power receptacle installed in the top of the box on the one side, and a standard data plate with 2 ports on the other side.

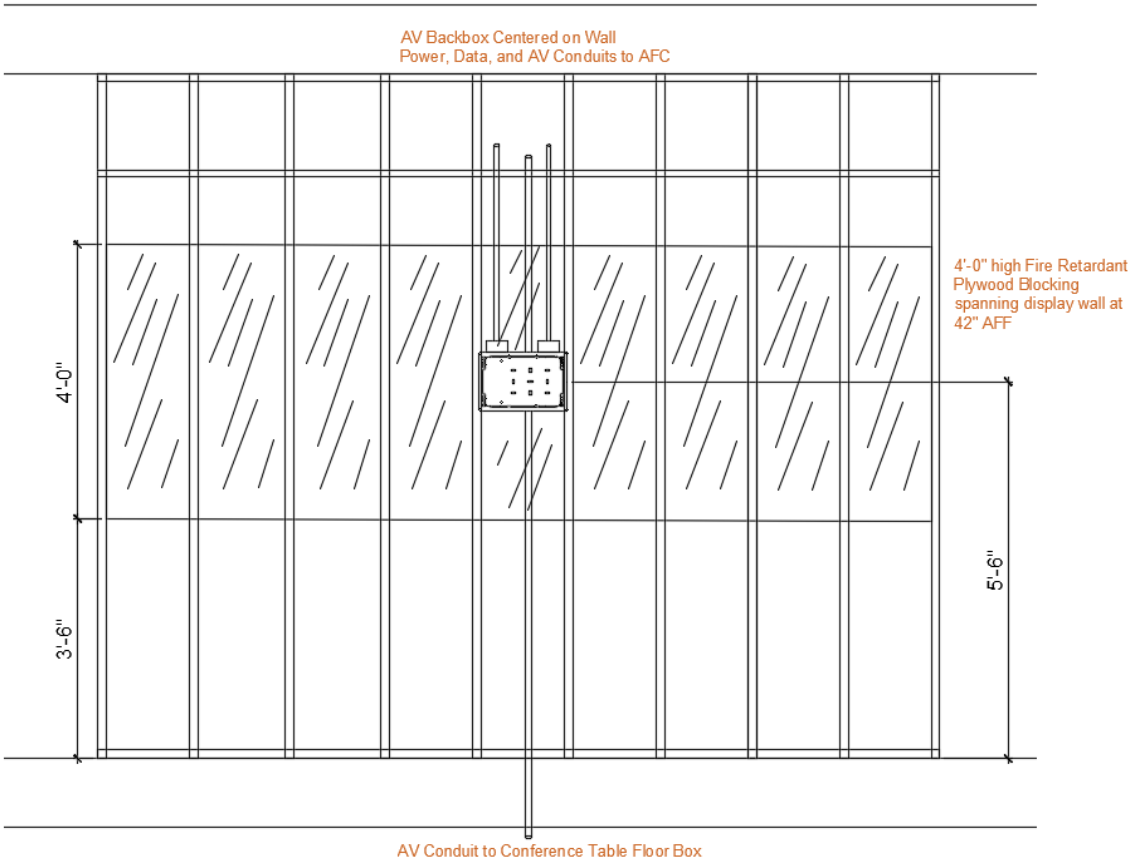
Each box will require (1) 1" conduit with pull string in the top of the box between the power and data to above finished ceiling.

Each box in an AV1 system will require (1) 1" conduit with pull string in the bottom of the box to the floor box below the conference room table.

Chief PAC525FCW In-Wall Storage Box with Flange and Cover (White)

6.1.2 Fire Retardant Treated Plywood Blocking

AV1 and AV3 System display walls shall require fire retardant treated plywood blocking. Blocking material shall be compliant with NFPA 5000 Building Construction and Safety Code, NFPA 101 Life Safety Code, and NFPA 703 Standard for Fire Retardant – Treated Wood and Fire-Retardant Coatings for Building Materials. Plywood blocking for AV1 and AV3 systems should installed in a 4'-0" high strip mounted with the bottom at 3'6" and should span the entire wall. Plywood blocking for the AV2 system will be specified in the AV coordination drawings provided for each project.



AV1 Plywood Blocking Elevation Typical

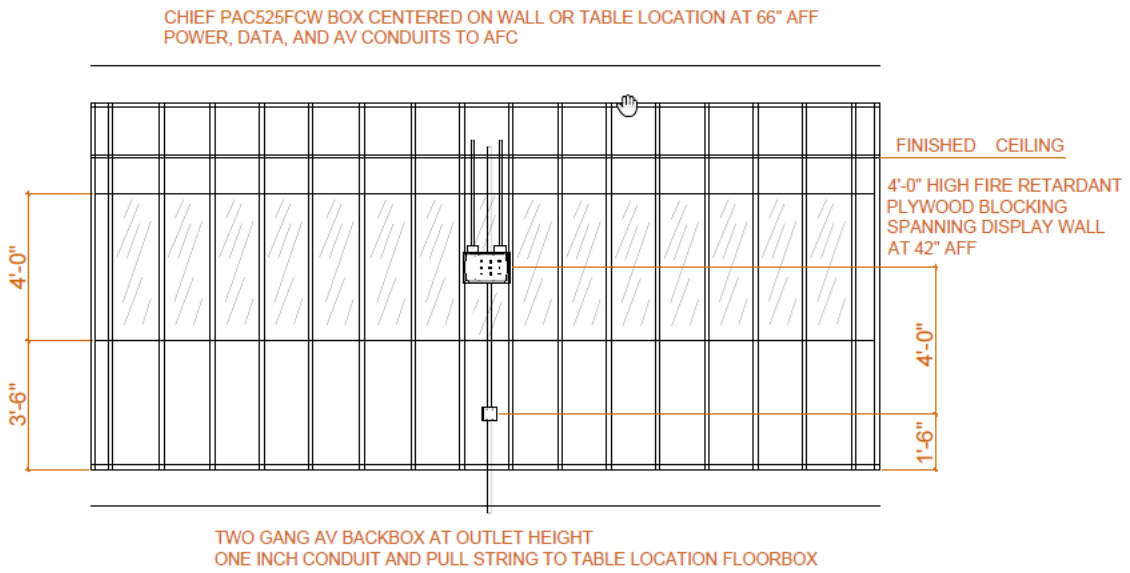
6.1.3 AV Conduit

Unless otherwise specified AV conduit size shall be minimum 1.0" electrical metallic tube (EMT) conduit. Pull string shall be provided in each conduit. Conduits shall terminate above finished ceiling in the conference room or meeting space. In the In ceilings with soffit or hard cap treatments around the perimeter; conduit will terminate above the accessible portion of finished ceiling.

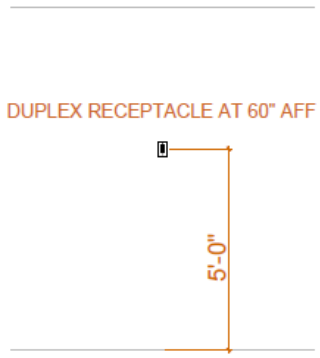
6.2 AV1 Conference Room / Large Training Room

Infrastructure Required for AV1

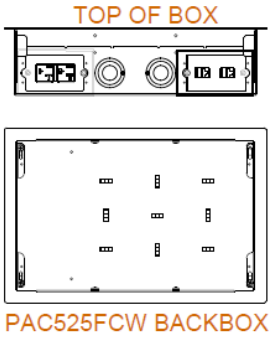
Front of Room



Back of Room

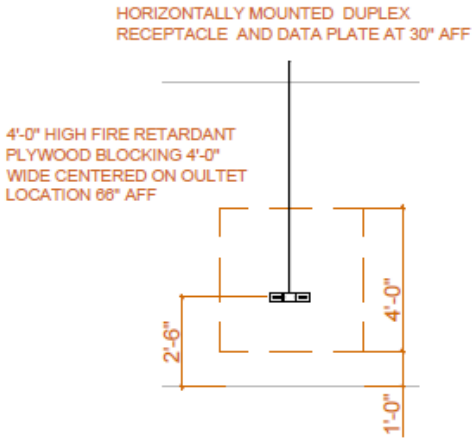


AV Box Detail

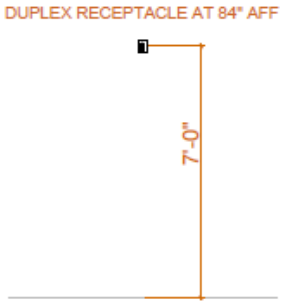


6.2 AV2 Naturalization Ceremony Room / Large Conference Room

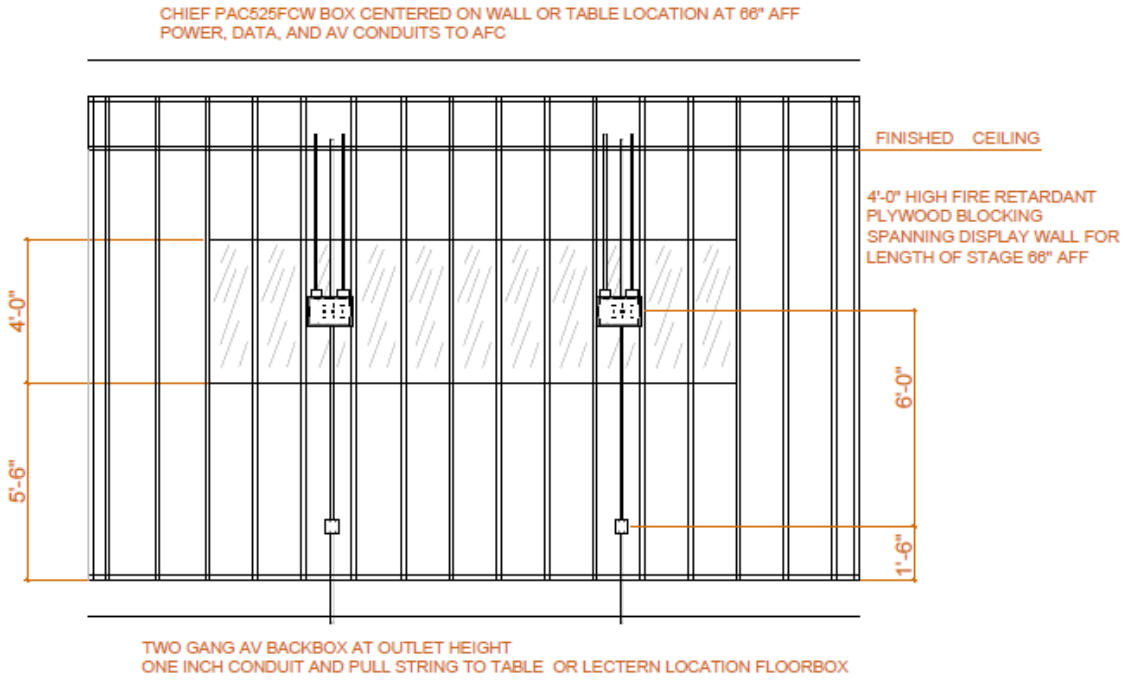
AV Closet Infrastructure



Back of Room

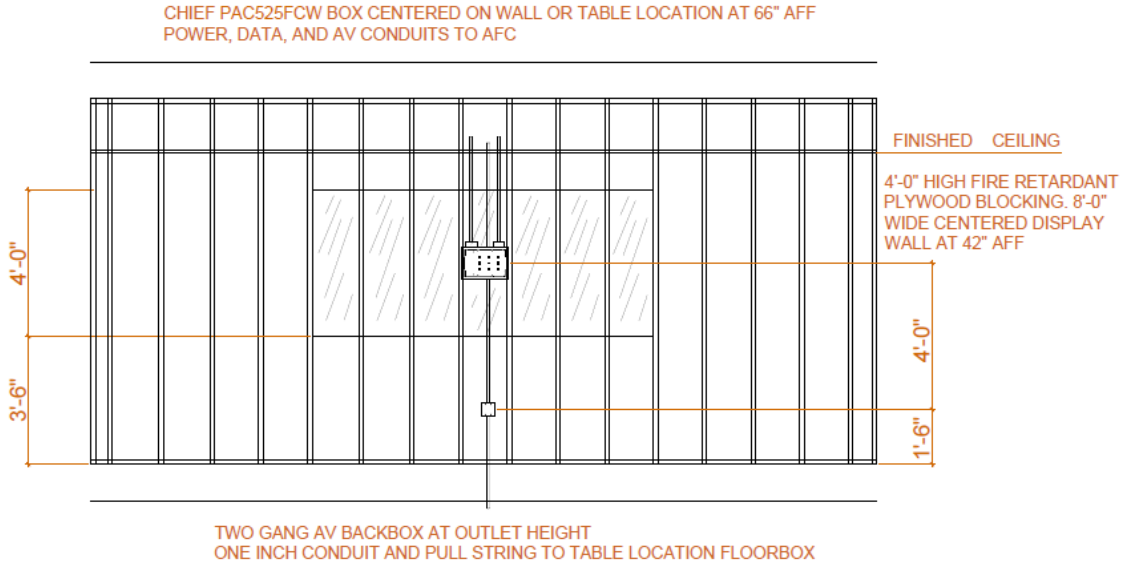


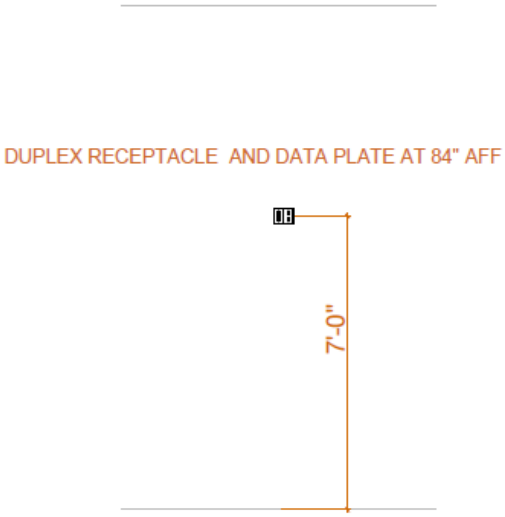
Stage Wall Infrastructure



6.3 AV3 Teaming Space / Small Training Room

Display Wall



6.4 AV5 Digital Signage Display System

Display Wall