

Campus AV Standards



Minimum Audio and Visual Standards Summary

Presented By:
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Presentation Services
Mt. San Antonio College
1100 North Grand Avenue
Walnut, CA 91789

Modified: 3-28-16

Campus AV Standards

Minimum Standards Classroom

Motorized Screen

HDTV format (16:9) motorized projector screen. Screen shall be sized to reach a maximum of 48" off of floor in the 'down' position. Low voltage switch shall be located near expected teaching station location. Current models offered by Da-lite include Contour Electrol and Advantage Electrol.

Projector

Ceiling mounted Epson Projector with 1920x1200 resolution. Typical projector is the Powerlite 1985 WU 4800 lumen.

Projector Hanger

Plenum rated T-Bar ceiling enclosure with integrated projector pole mount. The current model is the Middle Atlantic ECB2SP-RLINK.

Speakers

4 - 6 flat field, T-bar speakers. The current model is the Extron FF220T.

Lectern

Classroom AV system with 48", sit-to-stand, ADA compliant lectern, 8 Input digital video switcher, 7" touch screen, and dual monitor mount. Laptop connections include HDMI, Display Port, Mini Display Port, VGA, Audio, and Network on retractors.

Classroom Options

Brightlink Projector (Cabinet Approval)

Interactive Brightlink Projector and 100" Da-Lite interactive board. Interactive board can be used as a dry erase board or projection surface. Includes digital video receiver, wall mount, and miscellaneous cable. Due to screen size limitation, this option can only work as a stand-alone solution in rooms with a maximum dimension of 25' wide or 25' deep. Otherwise, this system must be combined with a larger projection standard screen.

HD Document Camera

High definition (up to 1080P) document camera with preview and recording including display cable. Current model is the Elmo P30HD.

Campus AV Standards

Conference Room

Motorized Screen

Same as standard Classroom.

Projector

Same as Standard Classroom.

Projector Hanger

Same as Standard Classroom.

Speakers

: Same as Standard Classroom.

Control System

Integrated AV control system mounted into table with 4 Input digital video switcher, and 7" touch screen. Laptop connections include HDMI, Display Port, Mini Display Port, VGA, Audio, and Network on retractors. In cases where table is configurable, a 10" touch panel and video inputs shall be mounted on wall. Includes teleconferencing.

Conference Room Options

Brighlink Projector (President's Approval)

Same as Classroom option.

Counseling Office AV system

Control System

Integrated AV control system mounted into table with 4 Input video switcher, and 7" touch screen. Laptop connections include HDMI, VGA, Audio, and Network on retractors. The desk computer will be configured as the "PC" input.

Wall mounted TV/Monitor

40"-55" display shall be mounted in accordance to ADA requirements.

Campus AV Standards

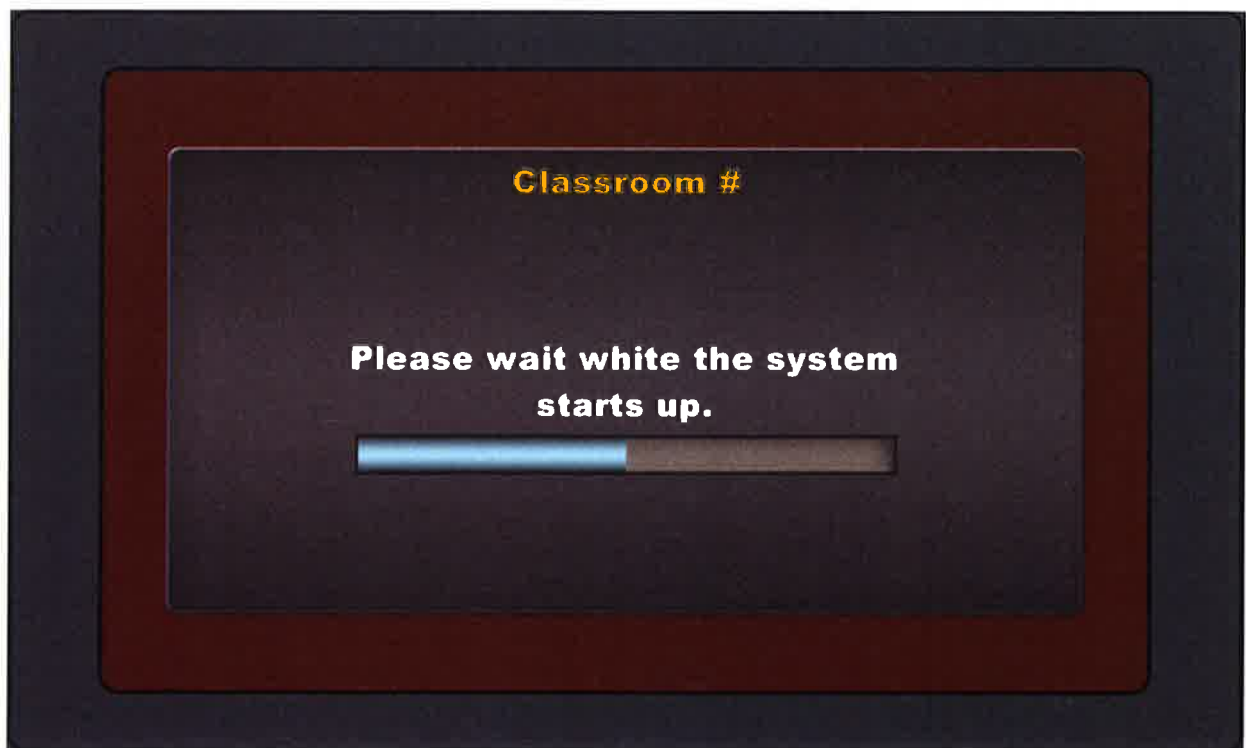
Project Timeline

Mt San Antonio College must adhere to strict purchasing guidelines enforced by the state of California. These guidelines determine the purchasing procedure. Please be aware of the following timelines for any given AV project.

- Design (Presentation Services/Requestor) – Depending on the scale and complexity of the project, begin with a minimum of two weeks and add one week for additional spaces /functions.
 - Approval (Requestor) – The requesting department must generate a letter of justification for the approval of special technology (Brightlink) by the President's cabinet.
- Bill of Materials (Presentation Services) – Allow one week to generate a list of necessary equipment and materials for project.
- Quotations (Presentation Services/Purchasing) – Depending on the size of the project, allow 1-2 weeks for a minimum of 3 vendors to receive and respond with formal quotes.
 - If the estimated cost of the project is expected to exceed the Bid Limit, then the project must go through a formal bid process that includes approval from the Board of Trustees. Allow 2-3 months for this process which includes advertising bid, issuing formal bid, evaluation and Board approval of the lowest responsive and responsible bid. The Bid Limit is increased yearly, please contact the Purchasing Department for more information.
- Submit for purchase (Presentation Services/Facilities/Purchasing) – The response from the vendors are then reviewed for accuracy and tabulated. The purchase is entered as a Requisition for Purchase and proceeds through the approval process to become a Purchase Order. Allow 3-4 weeks for this process. Some of this step is included in the Formal Bid timeline if applicable.
- Lead Times (awarding Vendor) – Depending on type of equipment to be purchased, once a vendor receives a Purchase Order, general equipment will be received in 4-6 weeks. For larger items such as teaching lecterns, please allow 6-8 weeks for delivery.
- Installation (Contractor, Presentation Services, Requestor) – A single complete AV system requires 2 days for installation.

Campus AV Standards

Standard TouchPanel



Campus AV Standards

PC **Laptop** **DOC CAM**

Please select source to begin

MT. SAC!
Mt. San Antonio College

Classroom #

Thursday, February 25, 2016 3:30 PM

Power **Mute** **HELP**

System Off

Green = connected video
Red = Disconnected video

Gold shows that a device is connected but not configured to display when pressed.

PC **Laptop** **DOC CAM**

Power **Mute** **HELP**

Technical Support

Thursday, February 25, 2016 3:30 PM

System Off

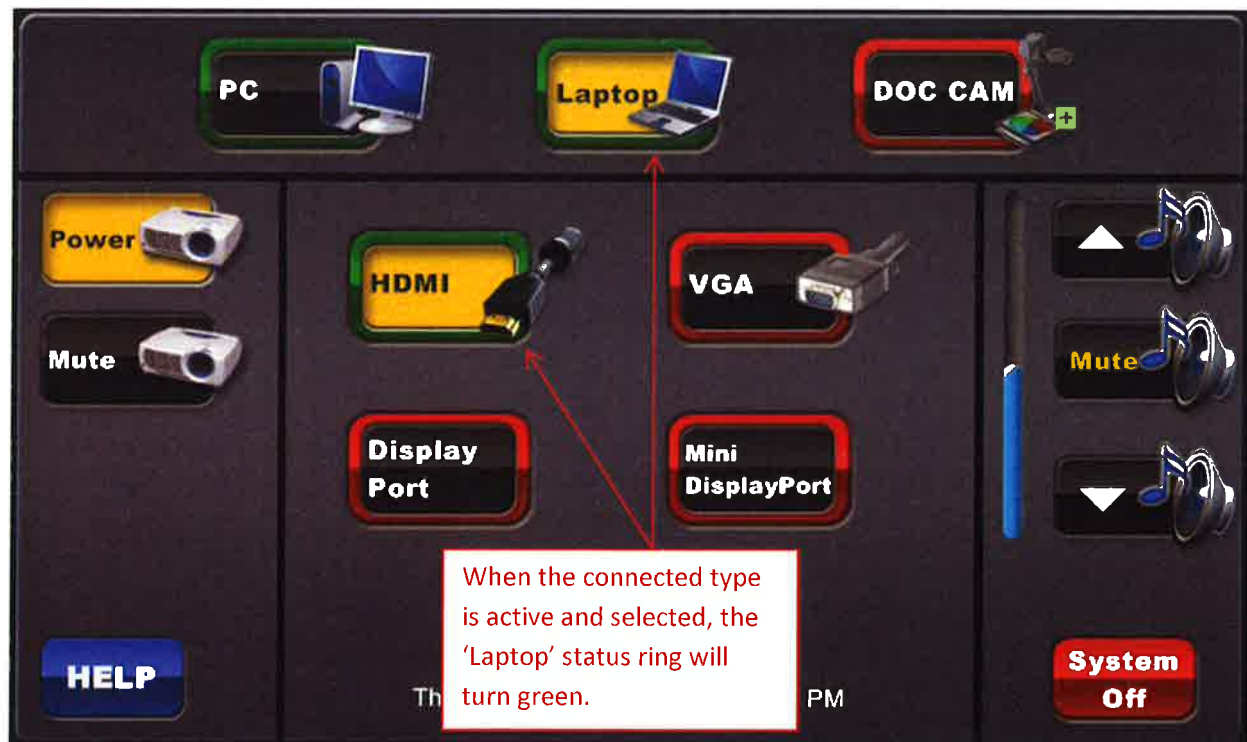
Input Status:
Red ring = No device connected.
Green ring = Device is connected and ready.
Gold = Laptop is connected but connection method is not selected.

Volume control:
Up arrow = Increases room volume.
Mute button: Will toggle the sound between on / off.
Down arrow = decreases room volume.

Projector Mute On/Off: Will temporarily blank the projected image.

System off: Will prompt you to turn off the system or go back.

Campus AV Standards



Campus AV Standards

Classroom #

**For Audio/Video assistance please contact
Presentation Servies at ext. 4273.**

**For Computer assistance please contact the
I.T. Help Desk at ext. 4357.**

Close

Inputs



PC



HDMI



VGA



Doc Cam

Connection Status

Close

Devices



Projector



Switcher

Campus AV Standards

Classroom #

**The projector has lost
connection to the system, please
contact Presentation Services at
ext. 4273.**

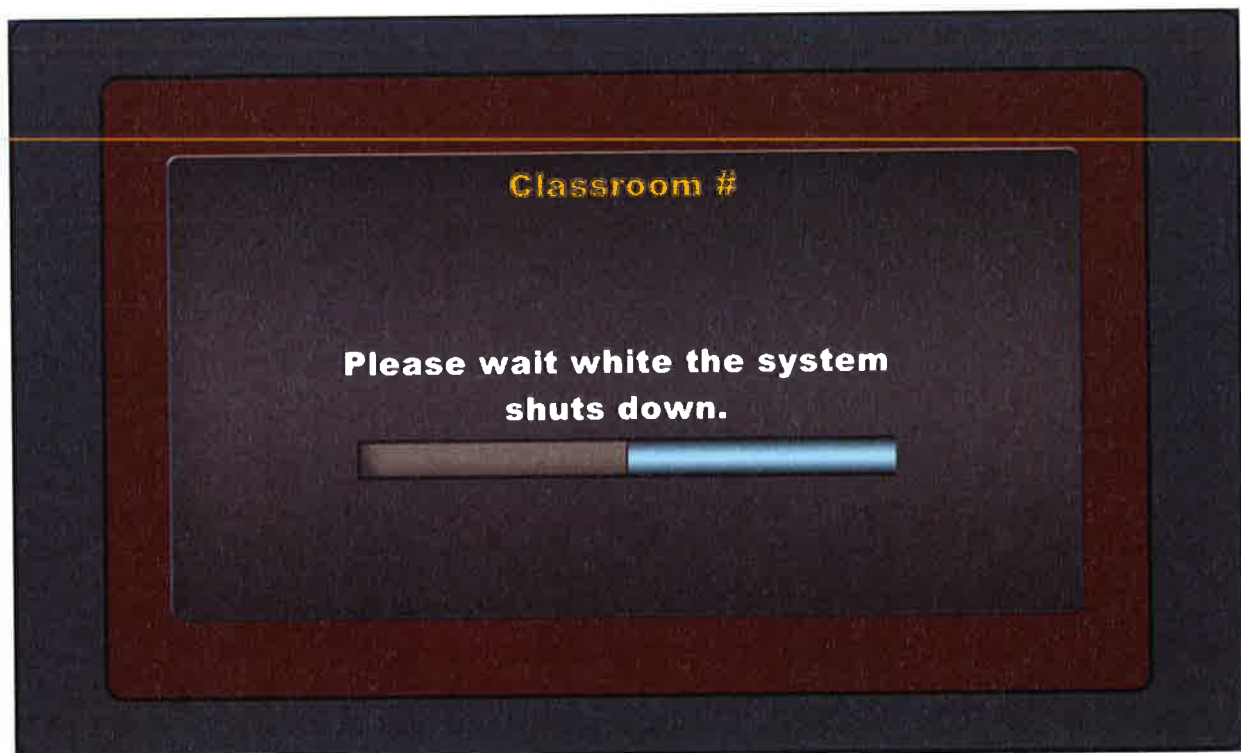
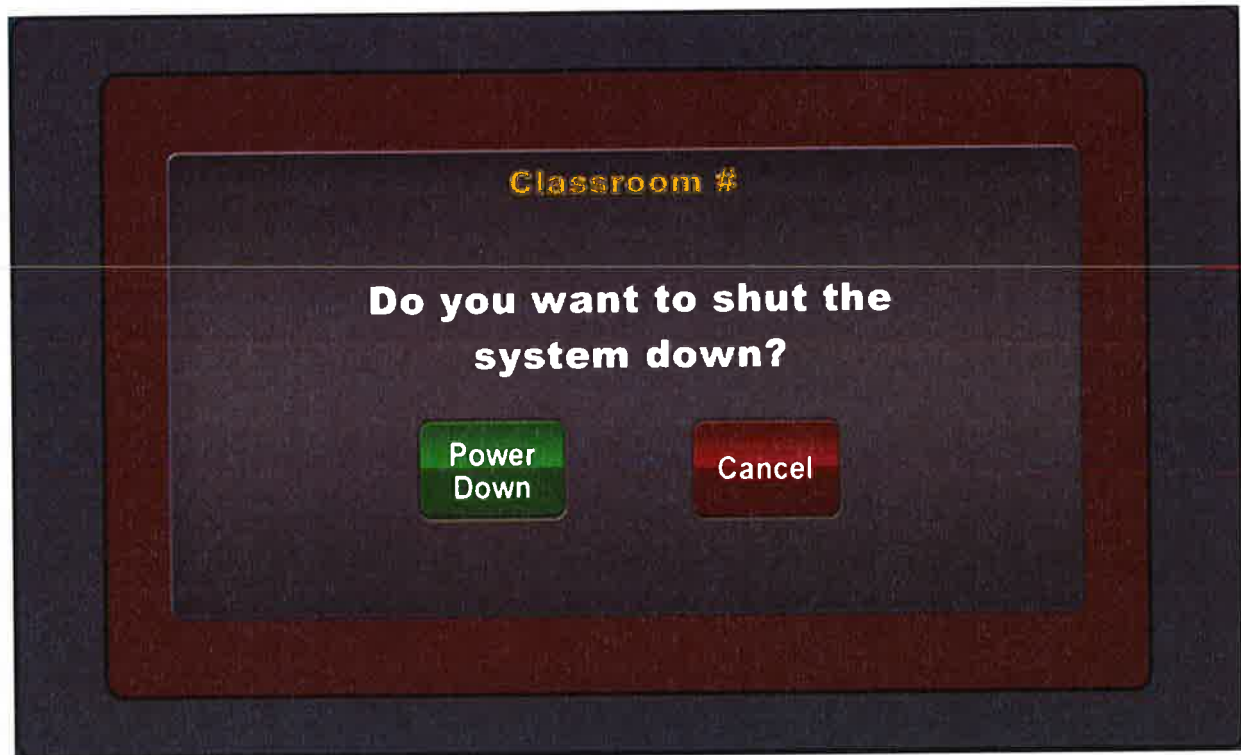
This page will show and
lock out the panel if the
projector is disconnected
from the system.

Classroom #

**The video switcher has lost
connection to the system, please
contact Presentation Services at
ext. 4273.**

This page will show and
lock out the panel if the
video switcher is
disconnected from the
system.

Campus AV Standards



Campus AV Standards

**It looks like this touchpanel has lost
connection with the controller.**

**Please contact the I.T. Help Desk at
ext. 4357.**

MFI #30481 MW/JN Revision #N/A

Integration-Friendly Furniture™

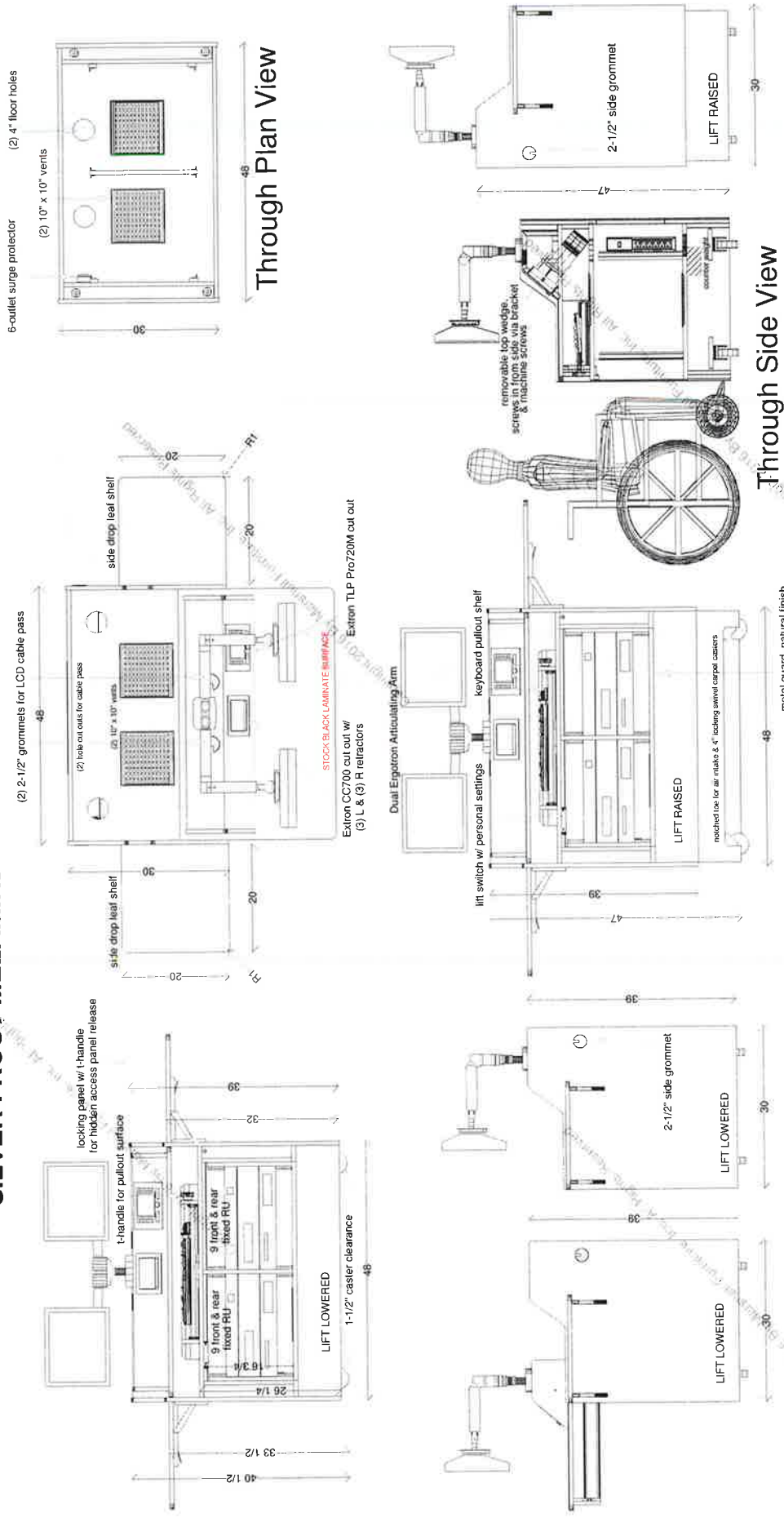
Drawings Done By Marshall Furniture, Inc.

Project Name: Mt. San Antonio College/Building 40

Model: ELCO-48WS-SACADA-DUAL Drop Leaf

SILVER FROST MELAMINE

Pages: 1 of 3



Check appropriate box.

Ok for production

Ok for production with changes marked, do not resubmit

Resubmit drawings with changes marked.

Signature

Date _____

Marshall Furniture offers a 10-year, on-site warranty on this product.

Marshall Furniture Inc, 999 Anita Ave., Antioch, IL 60002

Phone 847-395-9350 Fax 847-395-9351, www.marshallfurniture.com



Marshall Furniture, Inc.

Integration-Friendly Furniture™

Drawings Done By Marshall Furniture, Inc.

Project Name: Mt. San Antonio College/Building 40

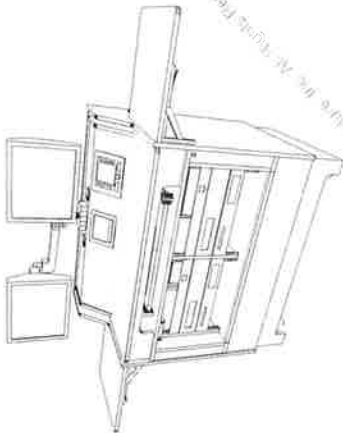
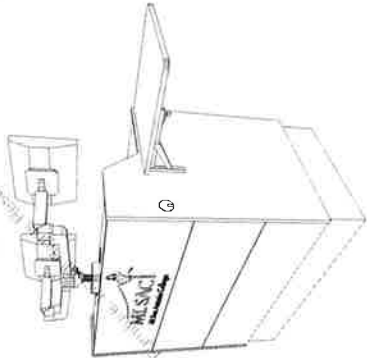
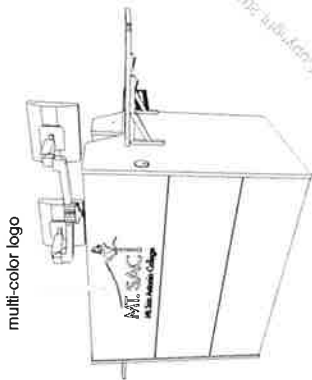
Model: ELCO-48WS-SACADA-DUAL Drop Leaf

multi-color logo

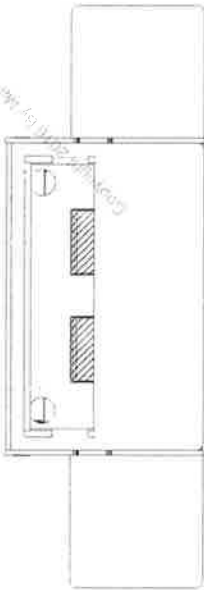
MFI #30481 MW/JN Revision #N/A

Date: 3/10/2016

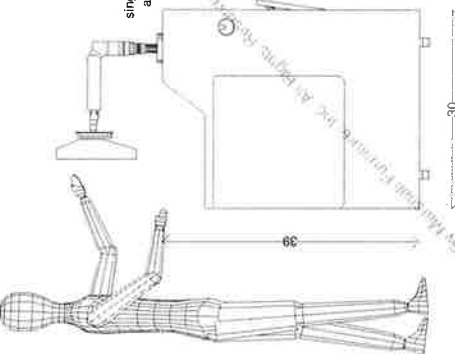
Pages: 2 of 3



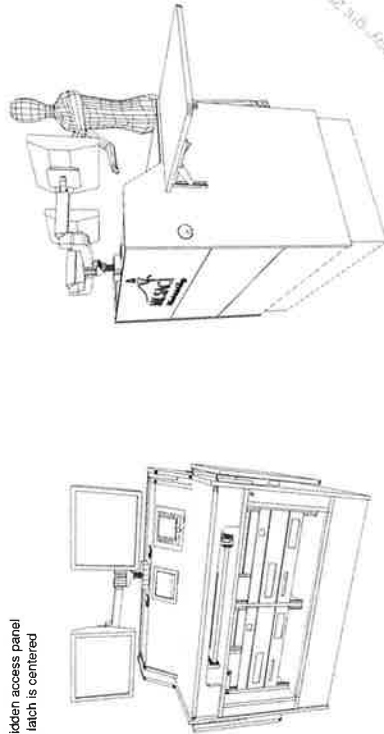
large cut out for retractors



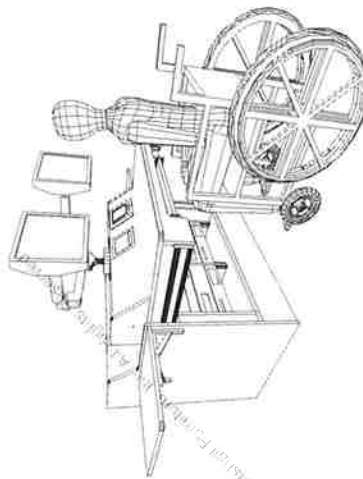
blockers to assist re-attachment of wedge



single latch for hidden access panel
as per request latch is centered



SILVER FROST MELAMINE



Check appropriate box.

Ok for production

Ok for production with changes marked, do not resubmit

Resubmit drawings with changes marked.

Signature

Date

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Marshall Furniture, Inc.

Integration-Friendly Furniture™

Drawings Done By Marshall Furniture, Inc.

Project Name: Mt. San Antonio College/Building 40

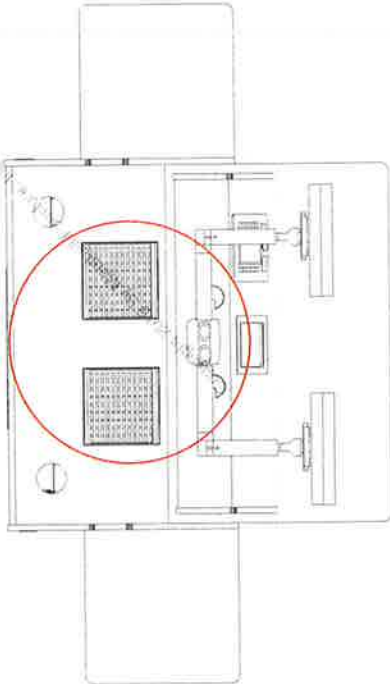
Model: DESIGN CHANGES IN DETAIL

MFI #30481 MW/JN Revision #N/A

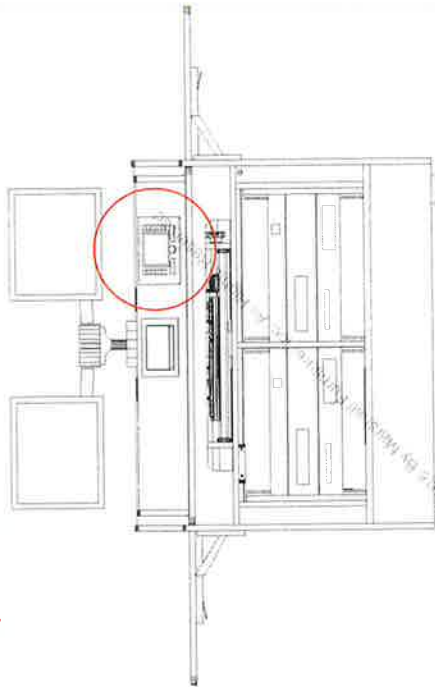
Date: 3/10/2016

Pages: 3 of 3

- 1). ADD (2) 10" X 10" VENTS TO SHELF
BELOW PULLOUT SURFACE



- 2). MOVE EXTRON TLP PRO720M TO RIGHT SIDE



Check appropriate box.

Ok for production

Ok for production with changes marked, do not resubmit

Resubmit drawings with changes marked.

Signature

Date

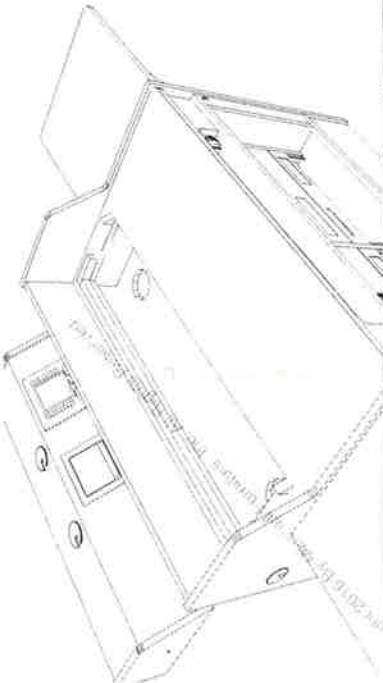
Marshall Furniture offers a 10-year, on-site warranty on this product.

Marshall Furniture Inc, 999 Anita Ave., Antioch, IL 60002

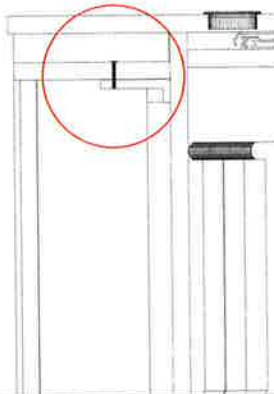
Phone 847-395-9350 Fax 847-395-9351, www.marshallfurniture.com



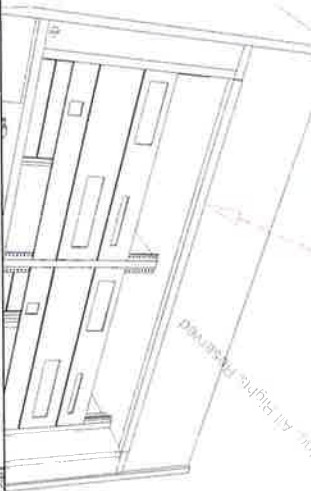
- 3). ADD BLOCKERS TO HELP POSITION LOCATION OF WEDGE



- 4). USE MACHINE SCREWS ON SIDE OF
WEDGE FOR BRACKET ATTACHMENT



- 5). ADD METAL GUARD TO FOOT REST



AV System Packages and System Examples

System Packages

	subtotal	tax	labor	total
Standard Classroom Motorized Recessed Screen for 9' Ceiling Equipment and labor to install a 104" x 58" motorized projector screen - HDTV format (16:9). Labor includes power to connect to projector power.	\$1,648.70	\$148.38	\$1,000.00	\$2,797.09
Standard Classroom Projector Ceiling mounted Epson Projector with 1920x1200 resolution. Includes digital video receiver, projector mount, pole, and miscellaneous cable.	\$2,601.15	\$234.10	\$200.00	\$3,035.25
Standard Classroom Projector Hanger Plenum rated T-Bar ceiling enclosure with integrated projector pole mount. Includes labor and material for installation with "all-thread". Labor includes new power and new network drop.	\$1,047.19	\$94.25	\$2,800.00	\$3,941.44
Standard Classroom Speakers Equipment and labor to install 4 flat field speakers	\$625.90	\$56.33	\$100.00	\$782.23
Standard Classroom to floor box Includes inserts for FSR 500 floor-box and interconnecting cable to teaching lectern including digital video link to projector, motorized screen control, speakers, and network.	\$396.81	\$35.71	\$22.50	\$455.03
Standard Classroom with 48" Lectern Classroom AV system with 48", sit-to-stand, ADA compliant Marshall lectern, 8 Input digital video switcher, 7" touch screen, and dual monitor mount. Laptop connections include HDMI, Display Port, Mini Display Port, VGA, Audio, and Network on retractors.	\$17,300.77	\$1,557.07	\$2,200.00	\$21,057.84
Standard Classroom with Brightlink Projector augmentation Epson Interactive Brightlink Projector and 87" Interactive Board. Includes digital video receiver, wall mount, and miscellaneous cable. Labor includes new power and new network drop.	\$4,298.53	\$386.87	\$2,090.00	\$6,775.39
Standard Classroom with Brightlink Projector New Construction Retrofit Epson Interactive Brightlink Projector and 100" Interactive Board. Includes digital video receiver, USB extension, and miscellaneous cable. Labor includes new power and new network drop.	\$5,357.20	\$482.15	\$1,090.90	\$6,930.25
Standard Classroom with HD Document Camera High definition (up to 1080P) document camera with preview and recording including display cable.	\$2,046.22	\$184.16	\$0.00	\$2,230.38

Standard Conference Room with table Conference room AV system with table-mounted touch panel. Includes laptop connections for VGA, HDMI, Display Port, and Mini-Display for MACs. System also includes audio teleconferencing with two portable "puck" microphones.	\$8,813.20	\$793.19	\$112.50	\$9,718.89
Standard Office AV system Office with 40" wall mount display, 7" touch panel, Inputs include VGA, audio, and HDMI.	\$7,398.37	\$665.85	\$1,790.90	\$9,855.12
Standard Office AV system with touch screen Office with 40" wall mount display, 7" touch panel, Inputs include VGA, audio, and HDMI.	\$8,869.51	\$798.26	\$1,700.90	\$11,368.66

Classroom AV System (New Construction)

	Equipment	Tax	Labor	Group 1 total	Group 2 total
Standard Classroom floor box	\$ 660.00	\$ 59.40	\$ 2,000.00	\$ 2,719.40	
Standard Classroom Motorized Recessed Screen for 9' Ceiling Equipment and labor to install a 104" x 58" motorized projector screen - HDTV format (16:9). Labor includes power to connect to projector power.	\$ 1,648.70	\$ 148.38	\$ 800.00	\$ 2,597.09	
Standard Classroom Projector Ceiling mounted Epson Projector with 1920x1200 resolution. Includes digital video receiver, projector mount, pole, and miscellaneous cable.	\$ 2,601.15	\$ 234.10	\$ 200.00		\$ 3,035.25
Standard Classroom Projector Handler Plenum rated T-Bar ceiling enclosure with integrated projector pole mount. Includes labor and material for installation with "all-thread". Labor includes new power and new network drop.	\$ 1,047.19	\$ 94.25	\$ 1,800.00	\$ 2,941.44	
Standard Classroom Speakers Equipment and labor to install 4 flat field speakers	\$ 625.90	\$ 56.33	\$ 200.00	\$ 882.23	
Standard Classroom to floor box Includes inserts for FSR 500 floor-box and interconnecting cable to teaching lectern including digital video link to projector, motorized screen control, speakers, and network.	\$ 396.81	\$ 35.71	\$ 22.50		\$ 455.03
Standard Classroom with 48" Lectern Classroom AV system with 48", sit-to-stand, ADA compliant Marshall lectern, 8 Input digital video switcher, 7" touch screen, and dual monitor mount. Laptop connections include HDMI, Display Port, Mini Display Port, VGA, Audio, and Network on retractors.	\$ 17,300.77	\$ 1,557.07	\$ 2,200.00		\$ 21,057.84
Subtotals	\$ 24,280.52	\$ 2,185.25	\$ 7,222.50	\$ 9,140.15	\$ 24,548.11
Room Total				\$ 33,688.27	

Classroom AV System (Renovation)

	Equipment	Tax	Labor	Group 1	Group 2
Standard Classroom Motorized Recessed Screen for 9' Ceiling Equipment and labor to install a 104" x 58" motorized projector screen - HDTV format (16:9). Labor includes power to connect to projector power.	\$ 1,648.70	\$ 148.38	\$ 1,200.00	\$ 2,997.09	
Standard Classroom Projector Ceiling mounted Epson Projector with 1920x1200 resolution. Includes digital video receiver, projector mount, pole, and miscellaneous cable.	\$ 2,601.15	\$ 234.10	\$ 200.00		\$ 3,035.25
Standard Classroom Projector Hanger Plenum rated T-Bar ceiling enclosure with integrated projector pole mount. Includes labor and material for installation with "all-thread". Labor includes new power and new network drop.	\$ 1,047.19	\$ 94.25	\$ 800.00	\$ 1,941.44	
Standard Classroom Speakers Equipment and labor to install 4 flat field speakers	\$ 625.90	\$ 56.33	\$ 200.00	\$ 882.23	
Standard Classroom to floor box Includes inserts for FSR 500 floor-box and interconnecting cable to teaching lectern including digital video link to projector, motorized screen control, speakers, and network.	\$ 396.81	\$ 35.71	\$ 22.50		\$ 455.03
Standard Classroom with 48" Lectern Classroom AV system with 48", sit-to-stand, ADA compliant Marshall lectern, 8 Input digital video switcher, 7" touch screen, and dual monitor mount. Laptop connections include HDMI, Display Port, Mini Display Port, VGA, Audio, and Network on retractors.	\$ 17,300.77	\$ 1,557.07	\$ 2,200.00		\$ 21,057.84
Subtotals	\$ 23,620.52	\$ 2,125.85	\$ 4,622.50	\$ 5,820.75	\$ 24,548.11
Room Total				\$ 30,368.87	

Epson Brightlink AV system (New Contruction)

includes new power and data

	Equipment	Tax	Labor	Group 1	Group 2
Recessed FSR wall box (Qty 2)	\$440.00	\$39.60	\$2,000.00	\$2,479.60	
Standard Classroom Speakers Equipment and labor to install 4 flat field speakers	\$625.90	\$56.33	\$100.00	\$782.23	
Standard Classroom to floor box Includes inserts for FSR 500 floor-box and interconnecting cable to teaching lectern including digital video link to projector, motorized screen control, speakers, and network.	\$396.81	\$35.71	\$22.50		\$455.03
Standard Classroom with 48" Lectern Classroom AV system with 48", sit-to-stand, ADA compliant Marshall lectern, 8 Input digital video switcher, 7" touch screen, and dual monitor mount. Laptop connections include HDMI, Display Port, Mini Display Port, VGA, Audio, and Network on retractors.	\$17,300.77	\$1,557.07	\$2,200.00		\$21,057.84
Standard Classroom with Brightlink Projector New Construction Epson Interactive Brightlink Projector and 100" Interactive Board. Includes digital video receiver, USB extension, and miscellaneous cable. Labor includes new power and new network drop.	\$5,357.20	\$482.15	\$1,090.90		\$6,930.25
Subtotals	\$24,120.68	\$2,170.86	\$5,413.40	\$3,261.83	\$ 28,443.11
Room Total				\$	\$ 31,704.94

Epson Brightlink AV system (Renovation) assumes that power and data are pre-existing						
	Equipment	Tax	Labor	Group 1		Group 2
Standard Classroom Speakers Equipment and labor to install 4 flat field speakers	\$625.90	\$56.33	\$100.00		\$782.23	
Standard Classroom to floor box Includes inserts for FSR 500 floor-box and interconnecting cable to teaching lectern including digital video link to projector, motorized screen control, speakers, and network.	\$396.81	\$0.00	\$22.50			\$419.31
Standard Classroom with 48" Lectern Classroom AV system with 48" , sit-to-stand, ADA compliant Marshall lectern, 8 Input digital video switcher, 7" touch screen, and dual monitor mount. Laptop connections include HDMI, Display Port, Mini Display Port, VGA, Audio, and Network on retractors.	\$17,300.77	\$1,557.07	\$2,200.00			\$21,057.84
Standard Classroom with Brightlink Projector New Construction Retrofit Epson Interactive Brightlink Projector and 100" Interactive Board. Includes digital video receiver, USB extension, and miscellaneous cable. Labor includes new power and new network drop.	\$5,357.20	\$482.15	\$1,090.90			\$6,930.25
Subtotals	\$23,680.68	\$2,095.55	\$3,413.40		\$782.23	\$ 28,407.40
Room Total				\$ 29,189.63		

Classroom AV System (New Construction)

	Equipment	Tax	Labor	Group 1 total	Group 2 total
Standard Classroom floor box	\$ 660.00	\$ 59.40	\$ 2,000.00	\$ 2,719.40	
Recessed FSR wall box	\$220.00	\$19.80	\$1,000.00	\$1,239.80	
Standard Classroom Motorized Recessed Screen for 9' Ceiling	\$ 1,648.70	\$ 148.38	\$ 1,000.00	\$ 2,797.09	
Equipment and labor to install a 104" x 58" motorized projector screen - HDTV format (16:9). Labor includes power to connect to projector power.					
Standard Classroom Projector	\$ 2,601.15	\$ 234.10	\$ 200.00		\$ 3,035.25
Ceiling mounted Epson Projector with 1920x1200 resolution. Includes digital video receiver, projector mount, pole, and miscellaneous cable.					
Standard Classroom Projector Hanger	\$ 1,047.19	\$ 94.25	\$ 1,800.00	\$ 2,941.44	
Plenum rated T-Bar ceiling enclosure with integrated projector pole mount. Includes labor and material for installation with "all-thread". Labor includes new power and new network drop.					
Standard Classroom Speakers	\$ 625.90	\$ 56.33	\$ 200.00	\$ 882.23	
Equipment and labor to install 4 flat field speakers					
Standard Classroom to floor box	\$ 396.81	\$ 35.71	\$ 22.50		\$ 455.03
Includes inserts for FSR 500 floor-box and interconnecting cable to teaching lectern including digital video link to projector, motorized screen control, speakers, and network.					
Standard Classroom with 48" Lectern	\$ 17,300.77	\$ 1,557.07	\$ 2,200.00		\$ 21,057.84
Classroom AV system with 48", sit-to-stand, ADA compliant Marshall lectern, 8 Input digital video switcher, 7" touch screen, and dual monitor mount. Laptop connections include HDMI, Display Port, Mini Display Port, VGA, Audio, and Network on retractors.					
Standard Classroom with Brightlink Projector augmentation	\$4,298.53	\$386.87	\$2,090.00		\$6,775.39
Interactive Brightlink Projector and 87" Interactive Board. Includes digital video receiver, wall mount, and miscellaneous cable. Labor includes new power and new network drop.					
Subtotals	\$ 28,799.05	\$ 2,591.91	\$ 10,512.50	\$ 10,579.95	\$ 31,323.51
Room Total				\$ 41,903.46	



Technical Services

1100 North Grand Avenue • Walnut, CA 91789

909-274-4850 • www.mtsac.edu

AUDIO/VISUAL PROJECT REQUEST FORM

Updated 7/7/16 VCB

A. PROJECT INFORMATION

DATE REQUESTED:

MONTH DAY, YEAR

PROJECT REQUESTOR:

DIVISION:

PROJECT LOCATION:

PROJECT NAME:

PLANNING CRITERIA:

IMMEDIATE NEEDS? ☐

PROJECT LISTED IN PIE? ☐

ROOM TYPE:

CLASSROOM/LECTUREHALL ☐

LOBBY/CORRIDOR ☐

OTHER: _____ ☐

CONFERENCE ROOM ☐

TRAINING ROOM ☐

OFFICE ☐

LAB ☐

PROJECT DESCRIPTION: (Generally describe the project scope of work and specify site if applicable)

PURPOSE: (What are the needs of the space? What types of technologies are you using in your lessons?)

DESIRED EQUIPMENT: (Check all that apply)

LECTERN	☐	DOCUMENT CAMERA	☐	TELECONFERENCING	☐
PROJECTOR AND SCREEN	☐	VIDEO CAMERA	☐	VIDEO CONFERENCING	☐
DIGITAL SIGNAGE	☐	BRIGHTLINK	☐	FLAT PANEL DISPLAY (TV)	☐
		(Requires Cabinet approval)			

SCHEDULE CONSTRAINTS: (Please note any issues that will affect the schedule of this project)
FUNDING SOURCE AVAILABLE: (Please identify any funds available and deadlines for encumbering the funds?)
B. SIGNATURES + APPROVAL_____
Signature: Requestor_____
Date_____
Signature: Division Approval_____
Date_____
Signature: Technical Services Approval_____
Date



Technical Services

1100 North Grand Avenue • Walnut, CA 91789

909-274-4850 • www.mtsac.edu

EPSON BRIGHTLINK JUSTIFICATION REQUEST FORM

Updated 7/7/16

A. PROJECT INFORMATION

DATE REQUESTED:

MONTH DAY, YEAR

PROJECT REQUESTOR:

DIVISION:

PROJECT LOCATION:

PROJECT NAME:

Building No.	Building Name	Room Number

PROJECT DESCRIPTION: (Generally describe the project scope of work and specify site if applicable)

BRIGHTLINK JUSTIFICATION: (Describe why an interactive projector is needed)

FUNDING SOURCE AVAILABLE: (Please identify any funds available for or savings created by this project)

B. SIGNATURES + APPROVAL

Signature: Requestor

Date

Signature: Division Approval

Date

Signature: Technical Services Approval

Date

Signature: Vice President Approval

Date

Signature: Cabinet Approval

Date

15 year
life cycle cost

not
a
problem

- ✓ Maint ~~agreements~~ ^{lamps, filters}
- ✓ Remote monitoring
- (Security ^{lockable})

Project Mgr
Training

Staff ✓
Faculty

Remote inputs

- ✓ Remote tech support

- YouTube
Videos
In the works

- POD
face-to-face
Flex day

- Technician
on duty
5 min
response
time

Cost +
Motorized screens
Provide all cables (b)
on retractors
Dual monitors
privacy/presentation