PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Some information contained in this specification is also found on the associated drawings and in the following specification sections. Work shown on drawings or described in other spec sections is deemed to be in both.

B. Related Specification Sections:
1. 27 41 00 – General Conditions for Audio-Video Systems
2. 27 41 10 – Training for Audio-Video Systems
3. 27 41 16 – Integrated Audio-Video Systems

1.2 GENERAL DESCRIPTION

A. The audio and video signals for this project will be controlled via touch panels and control processor(s).

B. Touch panels will be in the following locations:
1. Room A
2. Room B1
3. Room B2
4. Room C
5. Room D
6. Main equipment rack

1.3 FUNCTIONAL DESCRIPTION

A. Touch panels are to be set up to eloquently reflect the colors and branding of the facility.

B. Custom graphics and thoughtful layouts are not only expected but required. Simply copying over the default controls from the internal DSP is not visually acceptable. Reference the example submittal User Guide detailed below for MINIMUM graphical quality expectations.

C. This is a multi-room combine system, so all standard room combine functionality requirements apply such as
a. AV source selection and routing options based on room configuration
b. Audio output routing and volume controls based on room configuration
c. Room configuration setup
d. Automatic touch panel UI change based on room configuration
e. Wireless microphone assignment to any room. When a wireless microphone is assigned to a room, the controls for that microphone shall automatically be removed on panels not included in the room configuration.

D. Following is a functional description of the intent for what touch panels are intended to do. This is not a complete description of all functions, and some additional functions may be required.

E. Overview
   1. The control system in this venue will handle the control of video input and output routing, display ON/OFF, video source routing, and sound system operation.
   2. The touch panels should match when it comes to controls, pages, and layout. However, the panels should be able to be operated independently of each other. When the system is in use, all touch panels should be able to access all pages in the selected mode independently of other touch panels. The control system should provide true live feedback from all devices and settings across all touch panels.

F. Rack room touch panel
   1. The touch panel in the rack room should offer
      a. Full venue room configuration and I/O assignment
      b. Controls for Rotary Hall as a stand-alone space
      c. Hallway master volume
      d. Bathroom master volume

G. Standard large in-room touch panel
   1. Splash page. There should be a welcoming splash page when/after the system has been shut down. Upon touching the splash screen, the user should be presented with a question of whether they would like to use the room. If the user answers yes, this should trigger the system to pass audio to the speakers in that touch panel's room configuration and bring them to the main basic user page. If the user answers no or provides no answer within 10 seconds, the touch panel should revert to the splash screen.
   2. Room setup or advanced page(s) should allow for:
      a. Initial access to this page should be password protected.
      b. Room setup map allowing for the creation of room combining
      c. Wireless microphone assignment to room(s)
      d. Audio setting selection for assigning what type of wireless transmitter will be used (handheld, beltpack, tabletop). Each type should implement the proper background settings (gain, EQ, etc.) for the chosen type of transmitter.
      e. Audio level controls with wireless microphone metrics.
      f. Full video matrix routing between all video sources and destinations in the room's configuration.
      g. Individual video display power controls for displays in room configuration.
      h. Portable AV connection assignment to room(s)
      i. System shutdown with confirmation should turn off all displays and mute audio in that room's configuration.
   3. Audio requirements in standard mode
      a. The user should be presented with the ability to adjust the volume controls for the wireless microphones and portable audio devices that have been assigned to that room. Level meters and wireless battery metrics should be provided for devices in use/assigned.
   4. Video requirements

a. By default, the user should be able to select from any available video source that has been assigned to the room. When a video source is selected, that source should route to all displays in the room configuration.

5. Shut down room(s) with confirmation

H. Small touch panel in Room D
1. Audio selection between all rooms with volume control
2. Hallway volume control

1.4 PROGRAMMER CERTIFICATION

A. All Control System programming is to be performed by the Contractor. Contractor must have a factory trained and experienced programmer on staff. Contractor may also wish to subcontract the services of an independent programmer.

B. Contractors bidding this section must have an ECP certified Extron Professional programmer on staff. Failure to have a certified programmer will be grounds for disqualification of a bidder.

C. The Installing Contractor shall have all programming performed by an ECP certified Extron Professional programmer. The programmer's certification must allow all features of the control system to be unlocked and accessible. Failure to have an ECP programmer for the project will be grounds for disqualification of a bidder

D. Contractors bidding this section must have a Crestron Master Programmer on staff. Failure to have a certified programmer will be grounds for disqualification of a bidder.

1.5 PROGRAMMING SUBMITTALS

A. All Control System programming and touch panel layouts are to be submitted to the Consultant for review. Touch panel layouts for the control system are to be complete and fully labeled, representing all the touch panels for the entire project. ***The touch panel submittals should be complete enough to serve as a User Manual for the end User. Refer to "TP User Guide – EXAMPLE" document as a reference to the level of detail, level of graphical design, and User Interface format we expect to see for the programming and submittals. If the example file is not included with this Bid Package, please submit an RFI request.***

B. Programming of touch panels is to be submitted to the Consultant prior to writing of code.

C. Bids shall allow for at least two (2) revisions of touch panel layouts.

D. All touch panel programming and control processor programming shall be completed prior to the beginning of installation.

E. Contractor shall be responsible for all programming and implementation of the Control System.

F. The client or end-user may provide some template files to use as the basis of the layout for the programming.

PART 2 - PRODUCTS

2.1 CONTROL SYSTEM EQUIPMENT

A. See appendices for specific Manufacturer and Model numbers for each system and subsystem.

B. Cross reference all drawings to the equipment list as shown in the appendices. Contractor shall provide a complete and functional system as designed regardless of whether a specific component is specifically noted in the Appendix.

C. All equipment shall be new and shall be the manufacturer's newest and most current version of the product.

2.2 REQUESTS FOR ALTERNATE EQUIPMENT

A. Procedures for alternate equipment requests are outlined in section 27 41 00.

PART 3 - EXECUTION

3.1 PROGRAMMING UPDATES

A. Bids shall be inclusive of one (1) ADDITIONAL minor programming updates after substantial completion of the project and once the owner has had the chance to use the system daily. This update is not intended as a re-write of any panels, rather they are intended to correct any labelling issues, add/remove any needed buttons from a given panel, and make other minor updates to optimize the use of the panels

3.2 REJECTION OF PROGAMMING

A. If the touch panel layouts or processor programming are deemed unacceptable by the Consultant, client, end user, or architect the Contractor shall take whatever means necessary to provide acceptable programming without claim for additional payment.

END OF SECTION