AudioVisual Solutions Proposal For

City of Pflugerville
Library AV Refresh

DIR-CPO-5078
Expires 3/27/2024

A Digital Workplace Services Provider

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Proposal No: 381790-5

AVI-SPL Solution Scope of Work

After careful and deliberate consideration of your requirements, we are pleased to provide the following audiovisual solutions scope of work. The scope of work noted is based on sound engineering principles, reliable technology, and have been formulated specifically to meet your requirements.

Project Overview

AVI-SPL is offering a solutions package designed to maximize City of Pflugerville Library's investment in meeting and collaboration technology. To achieve this goal, AVI-SPL is utilizing industry best practices for system design and is deploying proven and reliable devices and services.

Reprogram Control Systems

Applies to: Rm 112 – Poppy, Rm 116 – Cosmos & Rm 120 - Lantana

Design Narrative

Replace and re-write Crestron control programming for combinable space. This requires hardware option for touch panel and control processor to be included.

** Please see the "**Environmental Considerations**" and "**Customer Responsibilities**" sections of this document for required room properties and deployment best practices. **

Scope of Work – Hardware Integration

This section describes hardware installation and general functionality or specifications. All equipment provided and installed by AVI-SPL unless otherwise specified.

Display(s)

The following display devices will be integrated into the system:

- Existing projectors or new projectors proposed on another option.

Source Equipment and Interfaces

- Sources and interfaces remain.

Routing and Switching

The following video routing and switching devices will be integrated into the system:

- Routing and switching devices remain.

Audio

The following audio devices will be integrated into the system:

- Audio system remains.

Conferencing

The following conferencing devices will be integrated into the system:

- No conferencing equipment will be integrated into this system.

Equipment Rack and Accessories

Equipment will be installed in the following locations:

- Existing equipment rack to remain.

Control System and Accessories

- Control system devices are required to be upgraded.

New Touch Panels and Control Processor

Applies to: Rm 112 – Poppy, Rm 116 – Cosmos & Rm 120 - Lantana

Design Narrative

Upgrade three (3) touch panels and control processor located in the rack. **Requires existing uncompiled Crestron code OR Reprogram Control Systems option.**

** Please see the "**Environmental Considerations**" and "**Customer Responsibilities**" sections of this document for required room properties and deployment best practices. **

Scope of Work – Hardware Integration

This section describes hardware installation and general functionality or specifications. All equipment provided and installed by AVI-SPL unless otherwise specified.

Display(s)

The following display devices will be integrated into the system:

- Existing projectors or new projectors proposed on another option.

Source Equipment and Interfaces

- Sources and interfaces remain.

Routing and Switching

The following video routing and switching devices will be integrated into the system:

- Routing and switching devices remain.

Audio

The following audio devices will be integrated into the system:

- Audio system remains.

Conferencing

The following conferencing devices will be integrated into the system:

- No conferencing equipment will be integrated into this system.

Equipment Rack and Accessories

Equipment will be installed in the following locations:

- Existing equipment rack to remain.

Control System and Accessories

A new control processor will be installed to enable various functions throughout the system. Please refer to the Software Integration section for more detailed information about system control.

- The new control processor will be located in the equipment rack.
- Three (3) wired touch screen interfaces with a 7" screen size will be located at the wall. The touch screen will be black in color.

Scope of Work – Software Integration

A control system will be provided to activate many necessary user needs. This greatly reduces the complexities of operating an integrated A/V system and facilitates greater system utilization and an enhanced meeting experience.

User Experience

Developing a unique system based upon the end users' needs and an understanding of how the space will be utilized has led AVI-SPL to identify three styles of user and room interactions: Autopilot, Co-Pilot, and Pilot. These styles range from the user who wants to use technology transparently, to the person who wants to control every aspect of collaboration. Based on the design requirements, AVI-SPL has selected the following user experience for this room:

Pilot

This is a fully user driven room experience. User interaction is required for most system features, and a user interface is required. Automation in this experience is minimal, and typically limited to core events to shut down the room to reduce power consumption and preserve equipment life. Use and function for this experience commonly includes spaces designed for mixed use, training rooms, and control rooms.

The goal of this automation level is for end users to be in control. The user will direct the room when to present, dial a call, and control a device.

For more specific information about the chosen automation design and use cases, please refer to the User Experiences section of the *AVI-SPL Programming Functionality Statements* document.

User Interface

A user interface will facilitate advanced system operation. The following user interface(s) will be used for this system:

- The touch screen graphical user interface will be a custom solution specifically for this project. This custom solution will require coordination meetings with AVI-SPL to design, submit and approve prior to completing all control code creation. Please reference the *Custom User Interface* scope of work document for specific details on this option.
  - AVI-SPL will provide the layout and the functionality of each button for each user page of the touch screen to the Customer prior to implementation for client input and final client approval.
- All specified equipment in the proposal will be incorporated into the control system.

As part of the programming process, AVI-SPL will provide the layout and the functionality of each button to the Customer prior to implementation for input and final approval.

Replace Projectors

Applies to: Rm 112 – Poppy, Rm 116 - Cosmos, Rm 120 – Lantana, Rm 144 – Classroom & Rm 146 - Pfab Lab

Design Narrative
Replace existing projectors.

Important Notes:

- If this option is taken without changing control system programming, all rooms with touch panels will require handheld remote for control of projectors.
- This option **REQUIRES** an additional site visit with ladder **(PRIOR TO ORDERING)** to verify fitment of new projectors in existing projector lifts. Model and manufacturer of existing projector lifts are unknown.

** Please see the "**Environmental Considerations**" and "**Customer Responsibilities**" sections of this document for required room properties and deployment best practices. **

Scope of Work – Hardware Integration
This section describes hardware installation and general functionality or specifications. All equipment provided and installed by AVI-SPL unless otherwise specified.

Display(s)
The following display devices will be integrated into the system:

- One (1) video projector(s) for displaying video content within each space (total of 5). The projector(s) shall have a native resolution of WUXGA, and a manufacturer rated brightness of 6000 ANSI lumens.
    - For Rm 112 – Poppy, Rm 116 – Cosmos & Rm 120 – Lantana, an existing ceiling mounted projector lift system is existing in place for each room. The projector(s) will reside above the ceiling when not in use, and lower to operating position when video is to be displayed.
    - All screens are existing and to remain in place.

Source Equipment and Interfaces
- Sources and interfaces remain.

Routing and Switching
The following video routing and switching devices will be integrated into the system:

- Routing and switching devices remain.

Audio
The following audio devices will be integrated into the system:

- Audio system remains.

Conferencing
The following conferencing devices will be integrated into the system:

- No conferencing equipment will be integrated into this system.

Equipment Rack and Accessories

Equipment will be installed in the following locations:

- Existing equipment rack to remain.

Control System and Accessories

- For Rm 112 – Poppy, Rm 116 – Cosmos & Rm 120 – Lantana, the control systems must be updated to control new projectors.
- For Rm 144 – Classroom & Rm 146 - Pfab Lab, existing button pads will be reprogrammed.

Remove Projector

Applies to: Corner Conference Room changing to Office Space

Design Narrative

- Remove existing projector.
- Decommission system.
- Leave projector screen in place.
- Turn over to owner all removed components.

Network and Network Security

The integration of Audio-Visual hardware can consist of many different devices and systems, each with varying network requirements, impacts to traffic and routing, and unique management and security processes. AVI-SPL will work with City of Pflugerville Library identified stakeholders to properly assess network requirements and deployment considerations.

AVI-SPL will design the system to meet identified network requirements and will provide construction drawings and a list of devices before installation on site. At the time of installation, AVI-SPL will connect devices according to the documented system design and identified network requirements. The following network design is being followed for this project:

Client Network

Devices reside on the owner network and installed hardware is configured and deployed within the owner requirements and systems requirements. Common network segmentation may include:

- Grouping devices by traffic patterns.
- Grouping devices for security and safety.
- Grouping devices by traffic types.
- Grouping devices geographically.

** Please see the "**Customer Responsibilities**" and "**Software Licenses and Service Accounts**" sections of this document for deployment best practices and installation requirements. Additional information regarding specific applicable processes and procedures can be referenced in the "**AVI-SPL Network and Security**" addendum to this document. **

Customer Responsibilities

These are items that AVI-SPL is dependent upon to complete the project scope of work on time, however, these requirements and responsibilities are not provided by AVI-SPL. For a complete list of exclusions, please refer to the Integration Inclusions and Exclusions section of this proposal.

These requirements must be provided by the owner or other 3rd parties and may fall under the responsibility of an Architect, General Contractor, Electrical Contractor, Data Contractor, Security Contractor, Furniture/Millwork Contractor, IT departments, Facilities or Real Estate groups.

- All required backing and any other wall reinforcement required to safely accommodate displays. Any display wall shall be properly backed to withstand the weight of the display with a safety factor of at least 5:1.
- All AC power at the equipment locations, including hardwired power connections.
- All required conduit for low voltage cable paths to AV equipment.
- All ceiling work required to accommodate the projectors, projection screens, or other equipment.
- All required millwork modifications to tables or other millwork.
- Proper heat dissipation venting for the equipment in this system. Where convection cooling is not possible, a powered venting system with thermostatically controlled quiet fans.
- All required network configuration for any network connection to the client network.
- All software or hardware licenses not specifically provided in this scope of work or associated bill of materials.
- All software or hardware configuration for owner furnished equipment.
- Where VoIP is utilized, all required configuration information prior to installation.
- All cable/satellite/over-the-air TV connections and all associated hardware.

Site Readiness

The minimum acceptable site conditions of the project site for the installation of electronic equipment are as follows.

- The rooms and directly adjacent areas into which the equipment will be installed must be dust-free with floor, ceiling, and wall finishes to be completely installed in the rooms affected by the equipment.
- The rooms into which the equipment will be installed must be secure.
- All Electrical power, conduit systems, HVAC systems, IT requirements (wired or wireless services), communication circuits, and or other services required by the systems and equipment should be fully installed, energized, and configured for use.
- All furniture into which components of the equipment will be installed shall be present at the time of staging and/or installation.
- All telephone, POTS, VOIP, modem, PRI, data, LAN, and telecommunications connections are installed, fully tested, and active.
- Configuration of OFE networks, applications, servers, and services to provide interoperation with installed systems.
- Coordination and timely IT support and documentation (such as providing IP addresses or account credentials).

Software Licenses and Service Accounts

Supervised or direct access to systems must be provided as needed for a properly provisioned and licensed account where appropriate. Examples include Zoom Rooms activation codes, Microsoft Teams accounts, calendar service account, and more.

- The customer may decide not to provide credentials to AVI-SPL, and to provision the installed hardware themselves. In this case AVI-SPL will be unable to fully test the system before receiving sign-off for the installation. All system components will be tested individually to ensure proper stand-alone function, and project sign-off will be requested before technicians leave site.
- If AVI-SPL is unable to properly commission and test the system at the time of installation due to issues with access, an additional site visit may be required. Any additional visits will be billed at the standard contracted labor rate, provided Customer is at fault and approves additional cost in advanced and in writing, scheduling will be done on a best effort basis.

Room Environmental Considerations

To maximize the user experience in a conferencing room, the following parameters should be observed:

- The room should have a measured ambient noise level of no more than NC35. For new spaces, the design parameters for the mechanical engineering within the room should have a target NC of 35 or less. Ambient noise includes noise from the air handling systems, mechanical systems and noises outside the building. Noise levels above this specification adversely affects the meeting environment and may degrade the overall audio quality and intelligibility of a conference call. This is especially important when ceiling microphones are utilized. If a problem is identified with ambient noise levels, AVI-SPL can work with your mechanical engineer to identify possible solutions to lower the NC rating and improve the meeting experience.
- Reverberation time (T60) for typical conference rooms should be less than 0.6 seconds in the 125 - 4000 Hz octave bands to provide an optimum meeting experience and acceptable audio quality in a conference call. A significant number of hard surfaces in a room (glass, drywall or other surfaces) can adversely affect audio intelligibility and the meeting experience overall. Acoustic treatment is advised for rooms with higher T60 levels. If the room requires acoustically treatment, AVI-SPL can provide direction and solutions to overcome this issue and enhance the meeting experience for the participants.
- Evenly distributed lighting is important for videoconferencing applications. Lighting on the faces of the participants should be at least 40-foot candles and should be evenly distributed throughout the camera's field of view. Where the camera's field of view includes windows, recommended window treatment should be employed to provide an acceptable background for the camera to view the participants.
- When microphones are used for local voice reinforcement, the amount of available gain before feedback is dependent on the microphone's location within the room. Placement of the microphone immediately below a ceiling speaker may adversely affect the overall required audio level and cause feedback. Care should be taken to reduce the volume level of the microphone or locate the microphone(s) correctly to minimize the possibility of feedback.

Room Summary - Re-program Control Systems

Equipment List

Mfg	Model	Description	Qty	Unit Price	Extended Price
				Subtotal	$0.00

Room Support and Maintenance

Warranty; 3-months   **$0.00**

Equipment Total	$0.00
Installation Materials	$0.00
Professional Services	$13,138.00
Direct Costs	$0.00
General & Administrative	$146.92
Subtotal	**$13,284.92**

For informational purposes only – all Purchase Orders must match Investment Summary details.

Room Summary - New Touch Panels and Control Processor

Equipment List

Mfg	Model	Description	Qty	Unit Price	Extended Price
CRESTRON	CRETSW770BS	TOUCH SCREEN, 7" WALL MOUNT, BLACK SMOOTH MSRP: $1980 DIR DIscount: 15%	3	$1,936.30	$5,808.90
CRESTRON	CRECP4N	CONTROL SYSTEM, 4 SERIES MSRP: $3080 DIR Discount: 15%	1	$2,618.00	$2,618.00
				Subtotal	**$8,426.90**

Room Support and Maintenance

Elite Maintenance Services - Room; 36-months   **$1,803.95**

Equipment Total	$8,426.90
Installation Materials	$610.09
Professional Services	$3,340.00
Direct Costs	$0.00
General & Administrative	$209.72
Services - Room Support and Maintenance	$1,803.95
Subtotal	**$14,390.66**

For informational purposes only – all Purchase Orders must match Investment Summary details.

Room Summary - Replace Projectors

Equipment List

Mfg	Model	Description	Qty	Unit Price	Extended Price
		PROJECTORS			
EPSON AMERICA, INC.	EPSV11HA35920	PROJECTOR, WUXGA 6000L 34LB 2.5M:1 LASER N/L (EBPU1006W) WHT MSRP: $7265 DIR Discount: 18%	5	$5,957.30	$29,786.50
EPSON AMERICA, INC.	EPSV12H004W08	LENS, WIDE THROW FOR PRO L1000 SERIES PROJECTORS W08 (LENS) MSRP: $11,219 DIR Discount: 18%	5	$9,199.58	$45,997.90
CHIEF	CHIRPAUW	MOUNT, UNIVERSAL "RPA" SERIES CEILING - WHITE MSRP: $302 DIR Discount: 11%	5	$268.78	$1,343.90
				Subtotal	**$77,128.30**

Room Support and Maintenance

Elite Maintenance Services - Room; 36-months   **$16,510.88**

Equipment Total	$77,128.30
Installation Materials	$7,037.54
Professional Services	$7,857.60
Direct Costs	$0.00
General & Administrative	$2,103.98
Services - Room Support and Maintenance	$16,510.88
Subtotal	**$110,638.30**

For informational purposes only – all Purchase Orders must match Investment Summary details.

Room Summary - Remove Projector

Equipment List

Mfg	Model	Description	Qty	Unit Price	Extended Price
				Subtotal	$0.00

Room Support and Maintenance

Elite Maintenance Services - Room; 36-months   **$0.00**

Equipment Total	$0.00
Installation Materials	$0.00
Professional Services	$336.00
Direct Costs	$0.00
General & Administrative	$7.06
Subtotal	**$343.06**

For informational purposes only – all Purchase Orders must match Investment Summary details.

Investment Summary

Prepared For:	**Jennifer Coffey Griswold**

City of Pflugerville
1008 Pfluger St W
Pflugerville, TX 78660-3899

Prepared By:	**Elissa Fox**
Date Prepared:	**12/27/2023**
Proposal #:	**381790-5**
Valid Until:	**03/27/2024**

Total Equipment Cost	**$93,202.83**

Includes cable, connectors, hardware, switches, relays, terminal blocks, panels, etc., to ensure complete and operational system

Professional Integration Services	**$24,671.60**

Includes engineering, project management, CAD, on-site installation and wiring, coordination and supervision, testing, checkout, owner training, etc. performed on the Owner's premises. Also includes all fabrication, modification, assembly, rack wiring, programming, warranties, etc., some performed at AVI-SPL

Direct Costs	**$0.00**

Includes non equipment or labor costs, such as travel expenses, per diem, lift and vehicle rentals

General & Administrative	**$2,467.68**

Includes all G & A expenses: vehicle mileage, shipping and insurance, as applicable

Services - Room Support and Maintenance	**$18,314.83**

Includes post-installation support and maintenance options selected for installed rooms

Subtotal	$138,656.94
Tax	Exempt (*)
Total	**$138,656.94**

* Exemption from sales tax will be recognized only after a valid sales tax exemption certificate or other appropriate documentation of exemption has been provided to and approved by AVI-SPL; otherwise all applicable sales taxes will apply.

Purchase orders should be addressed to AVI-SPL LLC

Due to global semiconductor ("chip") shortages and supply chain disruptions pricing quoted in this proposal may change.
Installation schedules are subject to current (daily) product availability and may be delayed or postponed.

Signed	Printed	Date

Addendum to General Terms and Conditions – Equipment Ordering

Due to global supply chain constraints, Seller is experiencing longer than normal lead times on equipment. As a result, Seller cannot guarantee lead times on equipment and will not be liable for any delays in equipment delivery to the extent caused by such constraints. However, as the supply chain continues to improve, we will not be ordering equipment for jobs that start more than 120 days from when the contracted site is ready unless lead times are greater than 90 days.

In order for Seller to appropriately plan and coordinate its resources, Buyer must commit to a **site readiness for installation date**, (subject to timely delivery of equipment) on or about _____, 20____.

AVI-SPL LLC Initials

Should Buyer elect to purchase equipment immediately upon placement of order or greater than 120 days prior to the above readiness date, to mitigate delays, Buyer agrees to receive the equipment at their designated location and Seller will immediately bill Buyer upon placement of such order. Buyer shall pay for such equipment within the payment terms (e.g. net 30) specified herein, regardless of any other agreed upon billing terms or billing terms specified herein. Warranty on such equipment shall commence upon delivery of the equipment to Buyer's designated location, notwithstanding any other agreed upon warranty terms or warranty terms specified herein.

By initialing next to this sentence, Buyer elects to purchase equipment immediately upon placement of order in accordance with the terms of this Addendum.

Buyer Initials

Buyer Acceptance

_____
Signed Name

_____
Company Name

_____
Printed Name, Title

_____
Date

Integration Inclusions & Exclusions

Inclusions

The following items are __INCLUDED__ in this proposal __unless specifically noted otherwise__ within this proposal document or scope of work statement:

- All equipment, wire and accessories required for a fully functional audio/visual system per the agreed upon scope of work.
- Non-union labor associated with audio/visual system engineering, installation, programming and testing.
- Documentation package including complete as-built AV system diagrams and manufacturer's operation manuals.
- Coordination and cooperation with the construction team in regards to installing the system.
- User demonstration of full AV system operation for final sign-off.

Any additional trips, labor or materials due to failure of the other work forces to have the audiovisual system rough-in work completed as anticipated and previously confirmed, will be added to the project billing as required.

Unless otherwise agreed in writing by AVI-SPL, all work performed by AVI-SPL will take place between the hours of 8:00 a.m. and 6:00 p.m. local time, Monday through Friday, excluding public and bank holidays. If AVI-SPL is required to perform work outside of these hours, customer will be charged AVI-SPL's standard overtime rates. Any changes in the hours or days of performance must be agreed to in writing by AVI-SPL.

Where applicable, the owner's architect will provide AVI-SPL's engineering department with all required architectural floor, reflected ceiling, building elevation, and section plans in AutoCAD® format at no charge to AVI-SPL.

Exclusions

The following items are __EXCLUDED__ from this proposal __unless specifically identified otherwise__ within this proposal document or scope of work statement.

- All conduits, high voltage wiring panels, breakers, relays, boxes, receptacles, etc. Any related electrical work including but not limited to 110VAC, conduit, core drilling, raceway and boxes.
- Voice/data cabling, IE analogue phone lines, ISDN lines, network ports, etc.
- Network connectivity, routing, switching and port configuration necessary to support audiovisual equipment.
- Concrete saw cutting and/or core drilling.
- Fire wall, ceiling, roof and floor penetration, patching, removal or fire stopping.
- Necessary sheet rock replacement, ceiling tile, T-bar replacement and/or wall/ceiling repair.
- Any and all millwork (moldings, trim, etc.). All millwork or modifications to project millwork/furniture to accommodate the AV equipment is to be provided by others.
- Painting, patching or finishing of architectural surfaces.
- Permits (unless specifically provided for elsewhere in this proposal document or scope of work statement).
- Engineered (P.E.) seals and/or stamped structural/system details.
- HVAC and plumbing relocation.
- Rough-in, bracing, framing or finish trim carpentry for installation.
- Cutting, structural welding, or reinforcement of structural steel members required for support of assemblies, if required.
- Owner furnished equipment or equipment furnished by others that is integrated into the systems (as described above) is assumed to be current, industry acceptable and in good working order. If it is determined that this equipment is faulty upon installation, additional project charges may be incurred.
- Additional or specific manufacturer's "User Adoption" training.
- Additional costs for union labor.

Global Support and Maintenance

AVI-SPL's Global Support and Maintenance services relieve you of the day-to-day burden of maintaining your collaboration technology estate, keeping your teams connected, and concentrated on delivering business value.

Elite Support

Our Elite services give you an extra level of onsite responsiveness and support with:

- **Unlimited onsite support M-F, 8am-5pm***

- **Unlimited remote help desk support – available globally 24x7x365**

- Facilitation of manufacturer repair or replacement programs – **let us navigate your warranty terms**

- **Software and firmware updates** managed remotely for covered assets

Global Support Operations Centers

- AVI-SPL's Global Support Operations Centers (GSOCs) deliver live help desk support 24x7x365.

- Offering quick and efficient email, phone, and portal communications options.

- The GSOCs will diagnose a problem, implement a repair remotely, or escalate to a specialist.

Repair/Replacement Facilitation – Some equipment may be repairable or replaced at no charge under the manufacturer's warranty. The help desk will assist in arranging the return of the defective equipment to the manufacturer for service/replacement as applicable.

Software Updates and Upgrades – access to the help desk for software updates and upgrades remotely available per manufacturer recommendation. Updates are provided on an as needed basis. Once an issue is reported, the remote help desk coordinates with you and the manufacturer to determine the best course of action. If a programmer is required, additional charges may apply at the applicable rate for those services.

Unlimited Onsite Support – available Monday through Friday, 8 a.m. - 5 p.m.*, excluding holidays, with travel included. Where applicable, AVI-SPL will provide a two-business day onsite response following the help desk's determination that an onsite dispatch is needed.

*Local standard time excluding AVI-SPL holidays.

AVI-SPL LLC

AVI-SPL LLC

Proposal #: 430389-7 Contract #: DIRCPO5078

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