



INNOVATION TECHNOLOGY DEPARTMENT

CITY HALL
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CITY COUNCIL STAFF REPORT

Meeting: January 22, 2025

Subject

Approve an agreement with Advanced Systems Group, LLC., for Modernization of Broadcast TV and Community Hall Integration for a not-to-exceed amount of \$1,100,000, a 10% contingency in the amount of \$110,000 for a total not-to-exceed amount of \$1,210,000, and associated budget modification, with the cost to be funded by Public, Educational, and Governmental (PEG) funds.

Recommended Actions

1. Authorize the City Manager to execute the agreement and any necessary amendments with Advanced Systems Group, LLC., for Modernization of Broadcast TV and Community Hall Integration, within the total not-to-exceed amount of \$1,210,000.
2. Adopt Resolution No. 25-XXX approving budget modification #2425-368, increasing appropriations in the amount of \$1,210,000 in the General Fund Video budget unit (100-31-305 900-995), funded by restricted PEG funds.

Background

The City of Cupertino is embarking on a scheduled technology refresh for the audiovisual systems (“AV”) in both the Community Hall and control room, an upgrade typically performed every 10 years. While the last major AV update was completed a decade ago, the lighting systems have not been updated in 20 years. Approval of the agreement with Advanced Systems Group, LLC, will enable the City to proceed with this critical modernization effort.

This upgrade will modernize the City's infrastructure with advanced video systems technology, ensuring high-quality video production, improved resource efficiency, and increased scalability. By replacing outdated legacy equipment that is no longer supported by manufacturers, the project will establish a more reliable and sustainable platform for City operations.

Additionally, the project will centralize the control room within the Community Hall, facilitating smoother integration and more efficient operation of the audiovisual systems.

This project is funded by Public, Educational, and Governmental (“PEG”) funds which are financial resources derived from fees paid by cable television providers to local governments as required by State law and Municipal Code section 6.28. These funds are typically passed on to cable subscribers and are used exclusively to support PEG access channels, which broadcast community-focused content.

Key Uses of PEG Funds:

- **Public Access:** Supports community-created content such as local events and cultural programming.
- **Educational Access:** Funds educational programming, including school board meetings and instructional content.
- **Governmental Access:** Enables broadcasting of government-related content like city council meetings and public hearings.

Allowable Expenditures:

- **Capital Costs:** Purchase, upgrade, or maintenance of equipment (e.g., cameras, microphones, software) and facilities for PEG programming.
- **Infrastructure:** Building or improving networks and systems for PEG channel distribution.
- **Technical Support:** Ensuring compliance with signal quality and transmission standards.
- **Accessibility:** Adding features like closed captioning to meet accessibility requirements.
- **Limited PEG Activities:** Noncommercial advertising, sponsorships, or system upgrades to enhance public access.

Prohibited Uses:

- Operational costs (e.g., salaries, utilities).
- Non-PEG activities or commercial purposes.

These funds are vital for fostering community engagement, supporting local content creation, and ensuring transparency in public communication.

Cupertino receives approximately \$100,000 in PEG funds annually, with around \$20,000 allocated each year for regular maintenance. Currently, the City has a PEG fund balance exceeding \$1.6 million.

Reasons for Recommendation

On July 12, 2024, Information & Technology Department (“I&T”) published a [Request for Proposals \(RFP\)](#) on the City’s Bid Opportunity website, for the design and implementation of a new TV broadcast system for City Council meetings and public information, as well as an upgrade to the Community Hall Audio Visual system and lighting. The RFP resulted in three proposals, each of which was evaluated based on established criteria identified within the RFP. Advanced Systems Group, LLC was identified as the highest-ranked proposer due to its strong scoring across all criteria and demonstrated knowledge of the City’s unique needs and priorities for this project.

Project Scope

Advanced Systems Group, LLC (ASG) will implement a comprehensive technology refresh for the control room and Community Hall audiovisual systems. This modernization effort will ensure that the City’s infrastructure aligns with the latest advancements in video systems technology, enhancing video production quality, operational efficiency, and scalability while replacing outdated legacy equipment.

ASG will deliver the following key project objectives:

1. **Integrate Network Device Interface (NDI) Technology**
ASG will incorporate NDI technology, enabling real-time transmission of video, audio, and metadata over standard IP networks. This integration will allow seamless communication between devices such as cameras, switchers, and production systems without requiring dedicated video cables.
2. **Enhance Video and Audio Quality**
ASG will support high-definition (1080p) and 4K video resolutions at high frame rates (60fps) and provide multi-channel audio capabilities, ensuring superior production quality.
3. **Update Community Hall Lighting**
The lighting systems will be upgraded with LED technology that delivers exceptional color accuracy and fidelity, suitable for hybrid events and broadcast-quality production.
4. **Ensure Scalability and Flexibility**
ASG will design a modular system architecture that accommodates

various input and output formats, ensuring the system can be easily expanded or upgraded in the future.

5. Improve Storage and Archiving

The project will introduce high-capacity, high-speed storage solutions with cloud integration to streamline recording, archiving, and remote access.

6. Optimize Operational Efficiency

ASG will develop an intuitive control interface, automate broadcast scheduling, and implement real-time monitoring and diagnostic tools to enhance overall efficiency.

7. Centralize Control

The project will integrate key Community Hall subsystems—lighting, HVAC, cameras, Dais electronics (microphones, timers, overhead projectors, voting systems, and public podium)—into a unified video broadcast system, enabling centralized control for streamlined operation.

Project Phases

ASG will execute the project in three distinct phases to ensure a seamless transition and successful implementation:

Phase I: Needs Assessment

ASG will begin with a detailed evaluation of the City's current broadcast and facility integration systems to identify limitations and opportunities for improvement. This phase includes:

- Conducting system assessments and identifying areas for enhancement.
- Engaging stakeholders through workshops and consultations to understand specific needs.
- Developing a conceptual system design based on findings and user requirements.

Phase II: Design and Development

In this phase, ASG will design and develop the new integrated system, including:

- Creating detailed system designs that incorporate NDI technology and other key subsystems.
- Defining technical specifications for hardware, software, video, and audio.

- Preparing a comprehensive project plan with timelines, milestones, and resource requirements.

Phase III: Implementation and Transition

ASG will oversee the deployment of the new system, focusing on:

- Procuring and installing all hardware and software.
- Configuring and testing the system for functionality and compatibility.
- Providing hands-on training and detailed documentation to City staff.
- Managing a smooth transition to minimize disruption, with post-implementation support for ongoing maintenance and scalability.

This project will not only modernize the City's audiovisual infrastructure but will also centralize control operations, ensuring seamless integration and improved resource efficiency. Approval of this agreement with ASG marks a significant step forward in advancing the City's technological capabilities.

Sustainability Impact

Switching 30 incandescent fixtures to LED lighting in Community Hall significantly enhances sustainability by reducing energy consumption (up to 75%), lowering heat output, and decreasing reliance on cooling systems. LEDs have a longer lifespan, require fewer replacements, and generate less waste compared to incandescent bulbs. They are mercury-free, safer to dispose of, and maintain consistent light quality, reducing operational inefficiencies. Overall, the transition to LEDs cuts greenhouse gas emissions, minimizes waste, and supports an eco-friendlier and more cost-effective production environment.

City Work Program (CWP) Item: No

CWP Item Description: NA

Council Goal: NA

Fiscal Impact

The proposed agreement is funded by restricted PEG funds within the General Fund and will not impact unassigned fund balance. If Budget Modification Number 2425-368 is approved, increased appropriations of \$1,210,000 will be allocated in 100-31-305 900-995 Capital Outlay Special Projects. As of July 1, 2024, PEG funds had a beginning balance of \$1.6 million.

California Environmental Quality Act
Not applicable.

Prepared by: Teri Gerhardt, CGCIO, Chief Technology Officer

Reviewed by: Tina Kapoor, Interim Assistant City Manager,
Christopher Jensen, City Attorney

Approved for Submission by: Pamela Wu, City Manager

Attachments:

A – Draft Agreement

B – Resolution 2025-XXX