



DEPARTMENT OF INFORMATION TECHNOLOGY

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MEMORANDUM

TO: Snoqualmie City Council

FROM: Information Technology

DATE: 4/12/2023

SUBJECT: Council Chamber Audio-Visual Upgrade Recommendation

The City of Snoqualmie's Council Chamber Audio-Visual equipment has reached the end of this life cycle. Much of the equipment is past the ability to be repaired and needs to be fully replaced to function properly. The Information Technology Department has dedicated resources to supporting all Council and Committee, along with City Administrative meetings, to ensure that they are accessible to the Community, Council, and staff.

The recommendation was made in 2022 to upgrade the system, and guidance was given to find a product that would be automated and require no additional support from staff to utilize. The project was scoped, and the initial quote was received in May of 2022 from Pacific Office Automation and their subcontractor Dimensional Communications, Inc. Revision have been made over the last year and the price of the quote has increased.

Pacific Office Automation is an existing City of Snoqualmie Vendor. Dimensional Communications is contracted with King County for Integrated Systems & Critical Communications. This AV upgrade is part of the City's Integrated System.

Other government contractors the City of Snoqualmie regularly works with were contacted. They did not want to engage in a competitive bid process with other vendors. They addressed concern around amount of effort and cost in creating a customer quote without guarantee of business.

The initial quote included the following items to replace and upgrade the Chamber AV equipment. The total not including sales tax was **\$85,183**. This was also the amount used to determine the funds allocated in the 2023/2024 approved Budget. The equipment includes:

- **14 Shure QLXDA Wireless Microphone Receiver with 15" ULXD Gooseneck Microphone**
- **14 SB900B Rechargeable Batteries**
- **2 SBC850 8-bay charging dock**
- **4 Shure UA844+ Antenna Distribution Systems**
- 1 QSC Core 110F Digital Sound Processor
- 1 QSC Core QIo-MK4i Input expander

- 1 QSC MP-440V 4-Ch amplifier

(The Shure Bolded Equipment accounts for **\$28,009** of the equipment cost)

These items will replace the existing Gooseneck Microphones located at each Council Members Seat. They will also replace the current Microphone relay and control system that was refitted a few years back to extend the life of the system and mitigate issues that had developed.

The proposed microphones for the system are wireless, but they can be plugged in to avoid loss of power. They will function the same either way.

In the event that these microphones did fail, the system is set up to have wired room microphone array in the ceiling and handheld microphones.

The follow equipment is used to run and manage the system.

- 1 Crestron CP4 Control Processor
- 1 Crestron 6x2 HDMI Matrix Switcher
- 4 Crestron HDMI extender Kits
- 1 Crestron UC-CX100-Z-WM Zoom Room Integrated Conference system
- 1 Crestron 10" wall mounted touch panel
- 1 Barco ClickShare C-5
- 1 SALT 4x1 Multiviewer
- 1 Magwel HDMI to USB adaptor
- 1 Denon BD-500BDMKII Professional Blu-ray Player
- 1 IOGear USB switcher
- 1 LG 86" 3840 x 2160 UHD Commercial Lite LED backlit LCD TV
- 1 Peerless SDA771PU Articulating Display mount for displays up to 90"

This will allow the system to be run by a simple one touch system that will control the Zoom meeting and equipment installed in the room. It integrates the audio, visual, and meeting components. This will eliminate the multi-step set up process that exists today. Instead of requiring the computer to selected and logged into, the audio and speakers adjusted, and log into the meeting and camera array, the user will be able to launch the room and start the meeting with just a few taps on the control panel.

- 1 Audio Tecnica Ceiling Microphone

The installation of this microphone array eliminates the need for additional microphones in the Council Chamber, including handheld or gooseneck microphones for guest presenters or audience participants. This array is located the in-ceiling the Council Chambers. Portions of the room can have the microphones turned on or off. Allowing parts of the room to be heard or not heard depending on the needs of the meeting. This provides a streamlined and easier management of additional microphones.

- Lot Miscellaneous Cable and Connectors
- Lot Installation, Testing and Commissioning

The Council Chamber's AV cabling has not been updated since the building was built. The existing cabling is out of date and does not provide the level of data transfer that our equipment is able to handle. This results in the poor performance

of the projector that is used today. The projector itself is still within its lifecycle and can be used for many more years. The issues that occur today such as a blurry image are due to the quality of data being transmitted to the device and not the device itself. Upgrading the cabling will allow for HD quality data to be sent to the device.

The following are additions that have been requested since the initial quote was provided. The price and intended use are included in the overview. The total for all these adjustments including tax is **\$128,224.30**.

- 14 Televic Confidea G4 Wireless Microphones with 15" Gooseneck Microphones
- 1 Televic Confidea WAP G4 – Dante with Power Supply
- 1 Telvice Confidea Charging Station – Rack Mounted
- 1 Confero 360 – Software License

These items replace the Shure Gooseneck Microphones from initial quote. Cost for the upgraded microphone system is \$38,579. This increases the initial quote by **\$10,570**. This system provides additional features for meeting and speaker management. Both systems have on and off features, but this system provides light signals for the current speaker and those waiting to speak. It also allows for a meeting host, such as the Mayor, to monitor and manage the microphones and requests to speak. Agenda Bill Exhibits AB23-046x3 and AB23-046x3 have further information on this type of system. The City of Richland Washington implemented a version of it back in 2018.

- 2 QSC Camera with Ceiling Mounts
- 2 additional Crestron HDMI extender kits

The addition of two new cameras adds **\$10,685.05** to the initial quote. These cameras were added to provide the ability to focus more closely on Council Members as they spoke. Instead of just having the wide view of the room, a standard two shot would be programed for every two Council spots. The cameras would automatically zoom in on the shot based on the speaker providing audiences with a more direct view as the Council Members engaged in conversation or presented information. The intent of this step up is to offer more engagement between Council and the Community in a virtual setting.

- 2 Sony 55" 3840 x 2160 4K HDR LED Displays
- 2 Sony 65" 3840 x 2160 4K HDR LED Displays
- 2 Chief MCB1U Fusion Medium Flat Panel Ceiling Mounts
- 2 Global Cache w/ Serial Network Control Interfaces
- 1 Netgear Smart Managed Switch

The addition of 4 new Monitor Displays to the Council Chamber increases the initial quote by **\$6,433.73**. These new displays would be located above the Council Members seats at each end of the row. There would be one monitor facing out to the audience and one monitor facing towards the Council Members. The item was requested to help provided additional visibility to the content being presented during a meeting. These monitors would be in addition to the use of the Projector and Screen located at the side of the Council Chambers. This would provide a more direct angle for the Council Members and the audience. Allowing them to face each other and engage in conversation while referencing presentations and materials.

- An additional **\$2031.87** worth of system operating equipment needs to be added to provide support for the added equipment.

AV System Cost Overview Chart

Item	Cost	Notes
Shure Gooseneck Wireless Microphone System	\$28,009.00	Replaces existing Council Microphones. Can be plugged in or used Wirelessly.
Ceiling Microphone Array	\$3,095.08	Provides Microphone Coverage of Entire Council Chamber.
System Hardware	\$25,325.70	Miscellaneous Operational Hardware Itemized Above.
Cable, Connectors and Consumables		Initial Quote Cost was not Itemized.
Cable, Connectors and Consumables	\$4,202.61	Second Quote
Installation, Testing, and Commissioning		Initial Quote Cost was not Itemized.
Installation, Testing, and Commissioning	\$27,665.46	Second Quote
Televic Confidea Microphone System	\$38,579.00	Would be in place of Shure Microphone System Provides Additional Meeting Support Functions Can be Plugged in or used Wirelessly.
2 Additional Cameras	\$10,685.05	Focuses on Council Members Faces
4 Additional Monitors and Hardware	\$6,433.73	Provides Additional Views for Council Members and Audience
Additional System Hardware	\$2,031.87	Total Cost of Added Miscellaneous Operational Hardware found in Second Quote

It is IT's recommendation that the equipment in the initial quote be approved by Council. This quote will provide the necessary equipment, upgrades, and functionality to all the Chambers to be a Zoom integrated meeting room. IT cautions that if these upgrades are not made that they cannot guarantee the duration or functionality of the Council Chamber AV Equipment long term for virtual and onsite meetings.

IT also recommends that Council considers including the upgrade to the Televic microphone system. These microphones provide better integration to Zoom and support meeting management. It allows for easy microphone control, speaker identification, speaker order, and talk time. This option provides a higher overall value than the addition of monitors or cameras.

The addition of monitors should be a higher priority consideration than additional camera. Monitors provide increased visibility to information making it easier for both Council and the Community to review. The cameras in the room today provide good coverage of the Council and Chambers, but do not focus closely on the Council Members faces. The addition of these cameras would be nice to have but do not have the same level of impact as the microphones or monitors.