

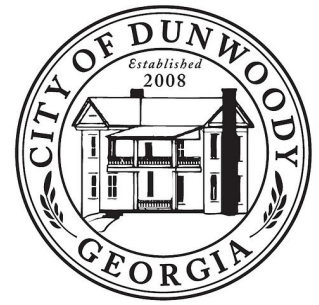


**City of Dunwoody
Council Chamber and Court Room
Audio/Visual Presentation System
Project and Scope of Work**

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IT Manager

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Section 1: Project Overview

The City of Dunwoody will be upgrading their current audiovisual configuration in their city council chambers. The upgrades have been designed to give the city the ability to display local presentation materials on a series of displays in the main chambers, as well as provide multiple cameras and an automated camera tracking system. The camera feeds and room audio will be delivered to an encoding device that will allow the city to deliver live video streams to the public. The upgrades also include displays and players for digital signage in three locations and presentation equipment for another space in the main chambers.

Section 2: Scope of Work

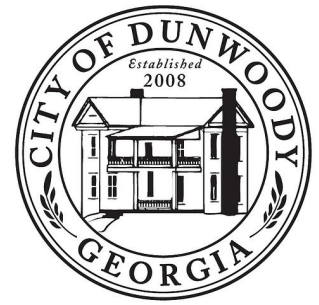
Section 2.1: Digital Signage

A digital signage solution will be installed in the pre lobby, Police lobby and Council Chambers lobby. The player designated for the Police lobby will be installed at a work station in the Police Department's office and cabling will be run to a Samsung display (already in place). The player will display multiple tickers and crawls and be capable of displaying videos created by the city for the Police Department. The signage solution will also include RSS feeds.

Two 42" displays will be installed and used in conjunction with the player designated for the main chambers. The first display will be mounted in the pre lobby area. The second display will be mounted in the Council Chambers lobby. Both displays include speakers and will be mounted with Chief height adjustable, tilt mounts. The Player will be installed in the Main Chambers AV equipment room and cabling will be run to the two wall mounted displays. The player will display multiple tickers and crawls and be capable of displaying videos created by the city. The Player must also be capable of pulling and integrating data from the cities provided database. The signage solution will also include RSS feeds. Volume and source selection for the displays will be controlled by either the provided remote control or button push at the display.

Section 2.2: Main Chambers

Two 65" LCD displays will be mounted on the front wall of the council chambers. The displays will be mounted with Chief large tilt mounts. Three 42" LCDs will also be installed in the chambers. Two will be mounted on the front of the desks already in place using Chief Low profile tilt mounts. The third 42" LCD will be mounted near the pole on the right side of the room using a Chief hanging horizontal pole mount. The displays will be used to display video (presentation and camera feeds).



Four laptops connections (VGA and PC audio) will be provided at the council chambers head table. These connections will be terminated to the BYRNE MHO table boxes already in place. The table box will be reconfigured by the AV integrator to include the BYRNE Video DB15HD and the BYRNE Audio 3.5MM audio connectors. 6' Liberty micro breakout cables with pc audio will be provided by the AV integrator for laptop connectivity.

From the table boxes both video and audio will be cabled to a 4x1 RGBHV HD15 switcher. The feed from this switcher will be converted and transmitted over CAT 5 to the AV room. Both the switcher and the converter will be installed and mounted under the table near the power outlets.

Laptop connections will also be provided at the two desks and at the podium between the desks. The laptop connections at the desks will be terminated to the BYRNE MHO table boxes already in place. The table box will be reconfigured by the AV integrator to include the BYRNE Video DB15HD and the BYRNE Audio 3.5MM audio connectors. 6' Liberty micro breakout cables with pc audio will be provided for laptop connectivity. The laptop connection at the podium will not be terminated to a table box but a 12' break out cable with audio will be provided by the integrator for connectivity.

The podium will also be home to a local PC (provided by the City) and a Wolfvision document camera. All of the sources will be connected via VGA, converted and transmitted over CAT 5 to the AV room.

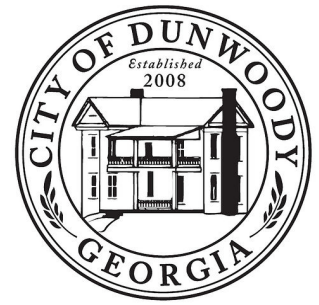
All of the chambers presentation sources will be connected to a 12X 12 matrix switcher. This switcher will allow the city to display and presentation source on any of the five displays in the main chambers. The switcher will also receive the camera feeds and this will be made available to the two 65" displays and the pole mounted 42" display. All of the display devices will be cabled via RGBHV cable and connected via the VGA input on the display. The two displays mounted on the front of the desks will be connected via VGA, however the signal will be converted and transmitted over CAT 5 to the displays.

The cities current audio configuration includes two Biamp CS digital processors, a Biamp Amplifier, Tannoy speakers and twelve wired microphones. In addition to those components, the city also currently utilizes a Marantz digital recorder. The speakers, amplifier, two (2) digital processors, Marantz recorder, and two of the twelve microphones will be reused in the upgraded configuration.

The equipment to be reused will be removed from the current rack by the AV integrator and reinstalled in a new 28 space rack. The seven gooseneck microphones at the main council table will be removed and replaced with Shure goose neck microphones. The new microphones will provide the city with the logic functionality needed for the automated camera control desired. In addition to the seven microphones at the main council table, The AV integrator will also remove the gooseneck microphones at each desk and the microphone at the podium. These microphones will be replaced by the same Shure gooseneck microphones with logic functionality. The two wired microphones in the side meeting room will remain in place.

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All of the microphones will be connected to the two Biamp processors as well as source audio from the matrix switcher. The Biamp CS's will be programmed by the AV integrator to provide presentation audio as well as voice reinforcement without any feedback or echo in the system.

Two addition Tannoy speakers will be installed in the side meeting room and the same audio will be provided to these new speakers. In addition to the new speakers a volume controller will be installed on the wall in the side meeting room. The volume controller will allow the city to turn the main chambers audio into this space down as desired to allow them to use this space separately. A volume controller will also be installed in the lobby to allow the city to use this space as an over flow area.

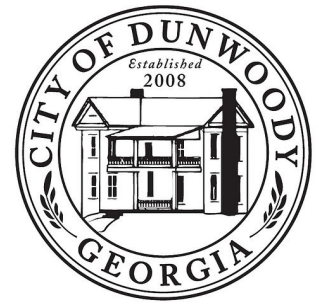
The ten microphones at the front of the room will also be connected to a Biamp Logic Box. The Logic Box will allow the microphones to trigger camera movement and provide the city with the automated camera control that they desire.

Four ceiling mounted PTZ cameras will be installed in the main chambers area. Two cameras will be positioned in front of the main council table and will be used to capture video of the city council members or people seated across the table. One camera will be positioned at the front of the room and will be used to capture video of the audience or the people seated at the desks or podium. The fourth camera will be positioned near the rear of the room on the right side. This camera will be used to capture video in the side meeting room.

All of the cameras will output S Video and that S Video output will be cabled to a 4X1 S Video switcher. This switcher will determine which camera feed will be viewed or encoded. The output of the 4X1 switcher will be connected to a 1X5 distribution amp. One (1) of the amps outputs will be cabled to the 12x12 switcher, which will allow the city to display the camera feed on the two (2) 65" LCDs as well as the pole mounted 42" LCD. Another output will be cabled to the encoding device provided by the city. An output will also be provided to the 42" LCD in the lobby area. The two remaining out puts will be reserved for future use.

The three cameras at the front of the room will be triggered by the microphones. The cameras will track utilizing camera presets based on the voice active logic. Presets will be set for each seated position and include the desks and podium. Additional presets will also be used to track wide views based on conversation. The camera intended for the side meeting room will be manually controlled by an end user.

The audio visual systems components will be controlled by an AMX control system. The control system programming will be completed by the AV integrator. An 8.4" wireless touch panel will work in conjunction with the processor to provide control over the systems components. A table top docking station



will be installed at the main council table at the front of the room. From the touch panel an end user will be able to turn the system on and off. Turn each of the displays on or off, choose between sources and determine which source will be displayed on each LCD. Although most of the camera control will be automated the touch panel will also provide manual pan tilt zoom capabilities as well the ability to choose specific cameras. The control system will also allow an end user to start and stop recording of the Marantz audio recorder. The control system will not control the video encoding device. The LCD displays, cameras and all other appropriate AV equipment will be cabled and controlled via RS-232.

The video encoding device will be supplied and configured by the city, However the AV integrator will be responsible for installing the device at the rack and connecting both the video and audio.

All of the audio visual equipment not installed in the room (4x1 RGBHV HD15 switcher, CAT 5 transmitters or receivers as appropriate) will be rack mounted in a 28 space rack in the AV closet at the rear of the room.

Section 2.3: Side Meeting Room

In addition to the primary audio visual solution a 3000 Lumens WXGA projector and SMART Board will be installed in the side meeting room. The SMART board will be used in conjunction with a PC provided by the city. In addition to the local PC a wall plate will be installed at the front of the space under the SMART Board to provide connectivity for a visiting laptop. The AV integrator will provide a 15' breakout cable for the visiting laptop connectivity. The speakers in the projector will be used for presentation audio in this space and the projectors remote will control the projector (on/off, source selection and volume).

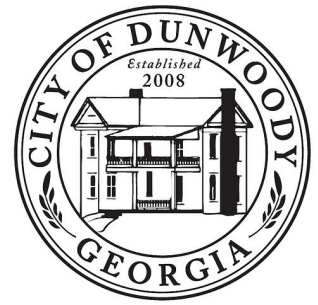
Section 3: Specifications

This design has been formulated as a complete turnkey solution. All of the critical hardware components have been called out by manufacturer and part number to ensure proper level of functionality and quality. All deviations from specified equipment list must be outline on a separate "Exceptions" page and attach spec sheets, manuals, or supporting documentation. These exceptions must also include a brief explanation of why specified item is being replaced, why replacement item is being used, and how it will affect the system on the whole. The customer has sole rites to determine if replacement item is acceptable. Any additional hardware or cabling needed to complete the full working system in coordination with the scope will be the responsibility of the AV integrator to provide and install.

Bidders are cautioned that while the City has made a good-faith effort in preparing this list to be as coordinated and complete as possible, this list may not be complete, may have discrepancies and may not indicate all pertinent information required to prepare an accurate Bid. All information indicated on this equipment list, including but not limited to quantities and room allocations are non-binding and the city is not obligated to accept the information original or altered form from the integrator as the final Bill of Quantities. The Integrator shall supply a complete and operable system meeting the requirements of the specifications regardless of information indicated on the AV Systems Equipment List.

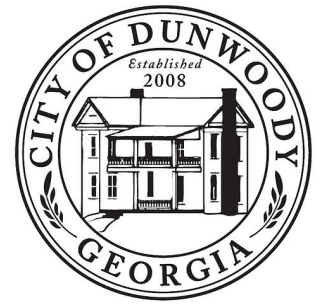
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Qty	Part #	Manufacturer	Description
			Digital Signage
2	M4224C-BA	LG	42" class (42.0" diagonal) 16:9, FHDTV monitor, 1920x1080p, 3000:1 dynamic contrast ratio, 700 cd/m2 brightness, 178' viewing angle, lamp fault sensor, split zoom (self video wall max 5 x 5), 16.9mm bezel, heat sensor, HDMI, D-sub 15 pin, S-video, A/V, RS-232, discrete IR codes, Lan control, optional hidden speakers(SP0000K), opt. stand(ST0000K)
1	SP0000K	LG	Speakers for M3202C-BA, M3203CCBA, M3702C-BA, M3703CCBA, M3703CCBH, M4213CCBA, M4715CCBA, M4224CCBH, M4224FCBA
2	LTMU	Chief	LARGE, HEIGHT ADJUSTABLE, TILT MOUNT
2	Xe	X20	Xe - with Remote Access (Can control software from another machine)
2	Xe-STS	X20	Custom style sheet applied to standard template package
2	PC-PL-BM	X20	PC - Player W/Black Magic Instensity-HD
			All Cables Connectors and Professional Services

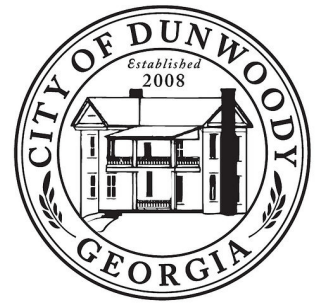
Qty	Part #	Manufacturer	Description
			Main Chambers



			Video
2	M6503CCBA	LG	65" class (64.5" diagonal) 16:9 widescreen, FHDTV monitor, 1920 x 1080 WUXGA, 5000:1 dynamic contrast ratio, 700 cd/m2 brightness, 178' viewing angle, temperature fault sensor, lamp fault sensor, split zoom (self video wall), hi-res component, HDMI w/HDCP, S-video, A/V, RS-232C, discrete IR codes, LG Exclusive XD engine, RoHS complaint. Made in Mexico.
2	XTMU	Chief	EXTRA LARGE TILT MOUNT ASSEMBLY
3	M4224C-BA	LG	42" class (42.0" diagonal) 16:9, FHDTV monitor, 1920x1080p, 3000:1 dynamic contrast ratio, 700 cd/m2 brightness, 178' viewing angle, lamp fault sensor, split zoom (self video wall max 5 x 5), 16.9mm bezel, heat sensor, HDMI, D-sub 15 pin, S-video, A/V, RS-232, discrete IR codes, Lan control, optional hidden speakers(SP0000K), opt. stand(ST0000K)
2	MTRU	Chief	MID SIZE TILT MOUNT UNIV low profile
1	TPMUB	Chief	LFP FOUR ARM DUAL UNIVERSAL
1	PCMU	Chief	HANGING HORIZONTAL UNIVERSAL
1	VZ-8plus3	Wolf Vision	VZ-8plus3 De3sktop Visualizer
1	AVS-OP-1212-567SD	AMX	OP 12x12, RGBHV BNC, 500 MHz, Stereo DVC, CP
8	AVB-TX-CATPRO-HD15-5T	AMX	CatPro TX Modules
8	FG1010-722	AMX	Module Surface Mount Brackets
8	AVB-RX-CATPRO-HD15-5T	AMX	RX, RGBHV + Stereo Module
2	AVB-VSTYLE-RMK-1U	AMX	V Style Module Rack Mounting Tray
1	FG1330-1600-04	AMX	4x1 RGBHV HD-15, Stereo Switcher
6	Video DB15HD	BYRNE	VGA connection and Cable for MHO
6	Audio 3.5MM	BYRNE	3.5MM connection and Cable for MHO

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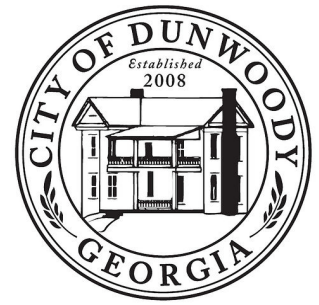
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	Audio		Audio
10	MX418D/C	Shure	18" Desktop Gooseneck Condenser Microphone Attached 10' XLR Cable, Logic Functions, Programmable Switch and LED Indicator, Attached Desktop Base
1	LOGIC BOX	BiAMP	20 programmable logic inputs/outputs for Nexia control
2	8001 4230	Tannoy	Fully integrated two way ceiling monitor system using 4"
2	AT35	Atlas	ATN 35W 3DB 1GNG SS Volume Control
			Control
1	NI-4100	AMX	Integrated Master/NetLinx Controller with 404 MIPS Processor, 64MB RAM, 64 MB of FLASH with ICSNet installed, 8 IR Ports, 8 I/O Ports, 8 Relays, and 7 RS-232/422/485 Ports, with 4 NXC Card Slots
4	NXC-COM2	AMX	Dual COM Port Card, 2 RS-232/422/485
1	NXC-I/O10	AMX	Input/Output Card, 10 Channels
1	NXS-NMS	AMX	NetModule Shell (houses NXC control cards)
1	MVP-8400i-BL	AMX	Modero ViewPoint 8.4" Touch Panel with Intercom - Black . Active Matrix Display featuring VoIP Intercom, 128MB RAM / 128MB compact flash memory and enhanced touch sensitivity. Includes (2) MVP-BP Batteries & (1) PS4.4 Power Supply.
1	MVP-TDS-BL	AMX	MVP-8400i Black Table Top Docking Station
1	NXA-WAP250G	AMX	802.11g Wireless Access Point with Enhanced Features
			Rack Components
1	BRK28-22	Mid Atlantic	28 SPACE (49"), 22" DEEP BLACK MELAMINE RACK
1	RK-GD28	Mid Atlantic	SMOKED TEMPERED GLASS FRONT DOOR, FITS 28 SPACE BRK/OBRK/MBRK
1	RKW-HD	Mid Atlantic	HEAVY DUTY CASTER KIT FOR BRK'S & MBRK'S WITH 2 LOCKING WHEELS
1	RK-RAP28	Mid Atlantic	REAR ACCESS PANEL KIT, FITS MBRK 22" AND 28" DEEP, BLACK, 28 SPACE
			All Cables Connectors, Misc Rack Components and

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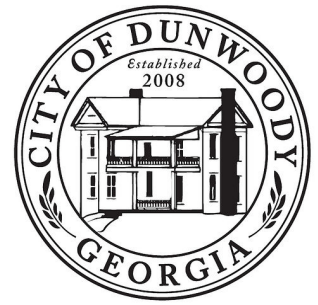
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			Professional Services
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Qty	Part #	Manufacturer	Description
			Camera Feeds
4	999-2304-000	Vaddio	Ceiling-Mounted Pan/Tilt/Zoom Camera System
1	60-480-12	Extron	4X1 Svideo Switcher
1	105S	Kramer	1:5 Y/C Distribution Amplifier
1	RSU 129	Extron	1U 9.5" Deep Universal Rack Shelf, Gray
1	RK-3T	Kramer	19" Rack Adapter for 3 Tools
1			City Furnished Encoding device
			All Cables Connectors and Professional Services

Qty	Part #	Manufacturer	Description
1	SB685	SMART	SMART Board 685- 87" SMART Board
1	CP-WX410	Hitachi	WXGA, 3000 LUMENS, 7.7 LBS 10 WATT AUDIO HYBRID FILTER CARRY CASE INCLUDED
1	RPAU	Chief	UNIVERSAL RPA Universal Projector Mount
1	CMS440	Chief	8" CEILING PLATE WITH ONE SLOT
1	CMS006009	Chief	ADJ. PIPE 6" TO 9"
	PC-G1520-E-P-C	Liberty	Wall Plate HD-15 -Stereo Mini
			All Cables Connectors and Professional Services



Section 4: Warranty

The AV contractor shall provide a 1 year full system warranty. This includes all hardware, cabling, and craftsmanship. Contractor shall provide onsite response within 24 hours after service request. At the end of the 1 year period the AV contractor will provide a complete system service including, but not limited to, all firmware updates on appropriate hardware, clean or replace all filters, reset all audio settings to appropriate levels, and all touch panel controls re-tested and verified for full functionality.

Section 5: City Responsibilities

The city will be responsible for providing AC power at all Projector, Podium and LCD locations as well as power receptacles at rack locations. The digital signage and other equipment attached to the network will be provided network drops (detailed specs furnished by AV Contractor). The city will provide active ports on the network switch and static IP addresses for these pieces of equipment. The city will be responsible for configuring the encoding device and will provide the necessary personnel for testing.