Finance Committee Agenda

City of Newton
In City Council

Special Meeting

Monday, July 8, 2019

6:45 PM
Room 211

Items scheduled for discussion:

#236-19 **Appropriate $50,000 for a video distribution system for the Council Chamber**
HER HONOR THE MAYOR requesting authorization to appropriate and expend fifty thousand dollars ($50,000) from Cable CATV Capital Receipts for the purpose of upgrading the City Council Chamber with a high-quality video distribution system for state-of-the-art computer displays while maintaining the historic integrity of the room.

All other items before the Committee will be held without discussion.

Respectfully submitted,

Leonard J. Gentile, Chair

The location of this meeting is accessible and reasonable accommodations will be provided to persons with disabilities who require assistance. If you need a reasonable accommodation, please contact the city of Newton's ADA Coordinator, Jini Fairley, at least two business days in advance of the meeting: jfairley@newtonma.gov or (617) 796-1253. The city's TTY/TDD direct line is: 617-796-1089. For the Telecommunications Relay Service (TRS), please dial 711.

Programs & Services Committee Report

City of Newton
In City Council

Wednesday, June 19, 2019

Present: Councilors Rice (Chair), Brousal-Glaser (Vice Chair), Kalis, Krintzman, Greenberg, Albright, Baker and Schwartz

City Staff Present: Joe Mulvey (Director, Information Technology), Josh Morse (Commissioner, Public Buildings), and Karyn Dean (Committee Clerk)

#223-19 **Request to upgrade AV equipment in City Council Chamber**
COUNCILORS LAREDO, ALBRIGHT, BAKER, KALIS, LAPPIN AND MARKIEWICZ requesting approval of plans to upgrade the AV equipment in the City Council Chamber to provide for better projection of digital images.

Action: **Programs & Services Approved 7-0 (Councilor Schwartz not voting)**

Note: Joe Mulvey, Director of Information Technology joined the Committee. He explained that there has been interest by Councilors, staff and members of the public to improve the technology in the Council Chamber for better projection of digital images. Many possible solutions have been considered including large monitors on each side of the room, staggered monitors in the room, a matrix of monitors and several other configurations. Each one presented problems including blocked views and aesthetic considerations. The Chamber is an historic room with architecture and features that should be maintained as much as possible while trying to improve the technology.

Redthread is the company that the City hired to determine the best audio/visual solution for the unique challenges in the space. Their proposal is attached and the cost is $38,000. In summary, the recommendation is as follows:

- A projector mounted from the ceiling at the front of the balcony;
- A motorized mount supporting a projection screen sixteen feet wide by nine feet tall on the wall behind the President's podium;
- A control at the Clerk's desk that would turn on the projector and lower the screen;
- Three video sources located at the Clerk's desk, the President's podium, and the podium outside the rail. The video source would be chosen by the control at the Clerk's desk.
- A connection into the house sound system from any of the video sources.

Councilor Albright submitted questions to Mr. Mulvey about the process to provide further clarification. The questions and answers are attached.

Mr. Mulvey explained that Redthread was informed of the need to take great care with the floors and other architectural elements in the room during the installation. The representative noted that

the company has worked in these environments before and uses all necessary precautions and care. They can do custom work as necessary and Mr. Mulvey is happy to have someone from the City review the work to be sure it is appropriate to the historic nature of the Chamber. Josh Morse, Commissioner of Public Buildings said he will work with Redthread and the IT Department to make sure things are done with as little alteration as possible. No one involved wants to see any damage done to the Chamber.
Mr. Mulvey explained that a monitor could be affixed to a plexiglass plate to the right of the President's lectern so whoever is at that podium would not have to turn around to see what is being projected. It would be mounted below the edge of the podium and would not be visible from the other side. Committee members were concerned with adding something to that podium that would look out of place – perhaps a wooden case for the monitor could be fabricated. A Councilor suggested using iPads for the Councilors at their desks as well as at the President's podium. Mr. Mulvey noted that the school department has 25 iPad2s they just put into surplus and are now are available for use by the City Council. President Laredo recommended using an iPad instead of an affixed monitor at the President's podium. This would avoid any alternations to the area. Mr. Mulvey cautioned the Councilors that the iPad may take 5-10 seconds to update when video presentations are advanced. An affixed monitor would be simultaneous. Councilors did not see this as an issue.

A Committee member said the best solution may be for the Councilors to have iPads at their desks. He wondered if the Redthread recommendation was the best solution for the audience. Mr. Mulvey explained that Redthread did their calculations and recommended the appropriately sized screen and system to make images clear to all in the audience, including those in the balcony. After discussing many options, it was determined that this was the best plan. A Councilor was concerned that an iPad might be too small to examine certain maps and site plans – the large screen will be extremely helpful in that regard as well.

There was also a concern about having adequate audio. Mr. Mulvey said the current system is maxed out for audio so Redthread will be adding another dozen inputs for future use. A Councilor said that there were complaints about the quality of the audio in the balcony. Mr. Mulvey said he looked into that and found that the power amp had been turned off. When he turned it on, the audio was completely fine. He will have all the components under the Clerk's desk labeled in case something gets turned off accidentally – the City Clerk will then know what to turn back on.

It was asked if the paint color can be matched and Mr. Morse said that it could. A Councilor wanted to be sure the motor for the screen is under warranty. It was asked if the room has to be darkened in order to see the images on the screen and it does not.

Councilor Baker asked that the provision to allow review of the design and installation by someone in the City with an historic background be added to the final agreement. The Committee agreed.

The Mayor agreed during budget discussions to use money from the Cable Receipts account to fund this project if the Council supported it. When the item to appropriate and expend funds is docketed, it will be referred to Finance Committee.

President Laredo thanked everyone involved in this process. He said that Mr. Mulvey and Mr. Morse have both been extremely helpful and accommodating. Councilor Lappin, Albright, Kalis, Markiewicz and Baker have all been instrumental in advocating for the the needed updates to the Chamber while maintaining historic integrity to both the room and the institution of the City Council. These upgrades will improve the way the Council conducts business and it will be of service to the public. Councilor Laredo also thanked the Mayor for providing funding for this project.

Respectfully Submitted,

John B. Rice, Chair

Programs & Services Council Chambers A/V Questions

1. Can we put a clause in the RFP that they have to tell us how they will construct the box that houses the screen to conform to the architectural historic nature of the room?

   In correspondence received today from RedThread they have a prebuilt housing that can be painted to match the moulding / trim paint in the Chambers. Please see attachment A.

2. Can we put a condition on the winning bid that their plan for the box must be approved by someone designated by the city?

   Yes. Whether the reviewer is a Councilor, Planner or historic architectural consultant, we will insist upon an approval review. Would the Council please specify their choice of the "box approver"?

3. Can you show us what the screen actually looks like? A cut sheet view?

   Attached (attachment A) is page 2 of the cut sheet for the screen which will have a viewable area of 16' wide by 9' tall with the bottom of the screen extending to no less than 10' above the floor behind the President's podium.

   Attachment B has two photos of the head of the chambers with my rendition of the general area for the housing box.

4. Can you estimate the size of the box that would house the screen?

   Estimated at 18' wide – approx. one foot wider at each end of the box. Attachment A also shows side views of options for the box housing the screen.

5. If we have a large screen, as proposed, does this mean that we will no longer need the monitors we roll in for the audience?

   That is correct. Our engineer at Read Thread calculated the distance of the room to ensure that the display would be a single solution for all.

6. Will there be a way for Councilors to see things like second call items without lowering the screen?

   Thanks to the generosity of the School Department we have been given 25 iPad II's. These are older models that do not work with apps in the Apps store but will attach to our wireless network, allow internet access and will be able to run joinme to view

via the web, things like the second call display.

7. Can we add a monitor/small laptop to the president's podium so that the speaker at the podium can see what is being projected behind them without having to turn around?

   Yes! This is an excellent idea. I would recommend a permanent monitor mounted to a movable base that would not interfere with the podium woodwork. It would display whatever is on the big screen and take a video feed from an HDMI video splitter.

8. Can you explain better where the projector will be hung in relation to the balcony?

   Attachment C contains 2 photos of the balcony area with a rough outline of the general location of the projector.

   Generally, the location for mounting the high definition projector. Floor to ceiling height is about 10 feet. The projector should not impede the view of anyone seated in the balcony, nor should it pose a threat due to its placement.

   Clarification from Red Thread: The projector would hang down from the top of the balcony opening directly over the clock. I could not find a suitable picture to superimpose for the balcony.

Attachment A – cut sheet of the projection screen and suggested housing options.

Extender available.

☐ Infrared Remote.

☐ Black case (white standard).

4. Optional Accessories:

☐ Single Motor Low Voltage Control (LVC) – external.

☐ Key Locking Cover Plate for 120V or LVC Switch.

☐ Key Operated Switch for 120V only (**NOTE:** Cannot be used with LVC).

☐ Video Projector Interface Control – external.

☐ Floating Mounting Bracket (black or white). Recommended for drywall installations.

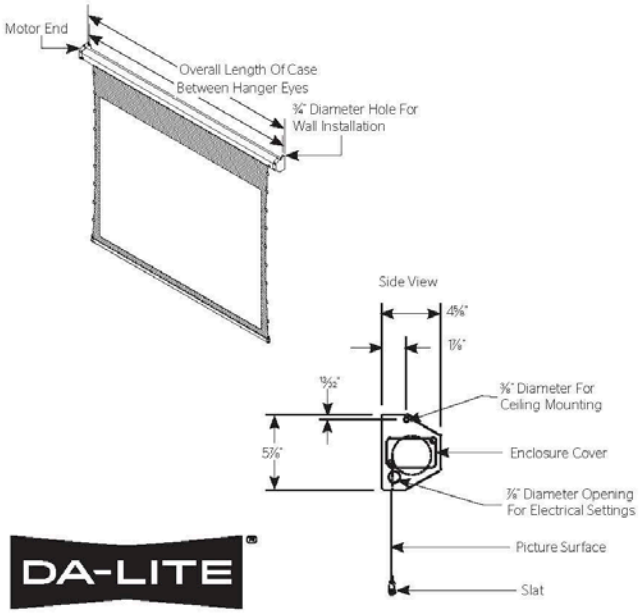
☐ No. 6 Wall Bracket – 6" extension, non-adjustable (140# maximum per pair) (black or white).

☐ Ceiling Trim Kit. Built in LVC recommended.

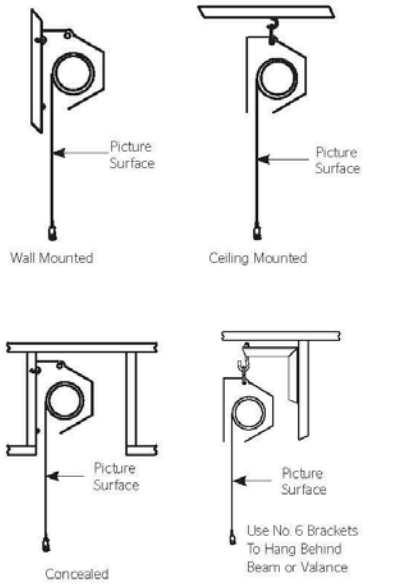
☐ External SCB-100 - RS-232 Serial Control Board.

☐ NET-100 Ethernet-Serial Adapter

PRODUCT VIEWS



SUGGESTED METHOD OF INSTALLATION



DA-LITE

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In British Columbia, Milestone AV Technologies ULC carries on business as MAVT Milestone AV Technologies ULC.

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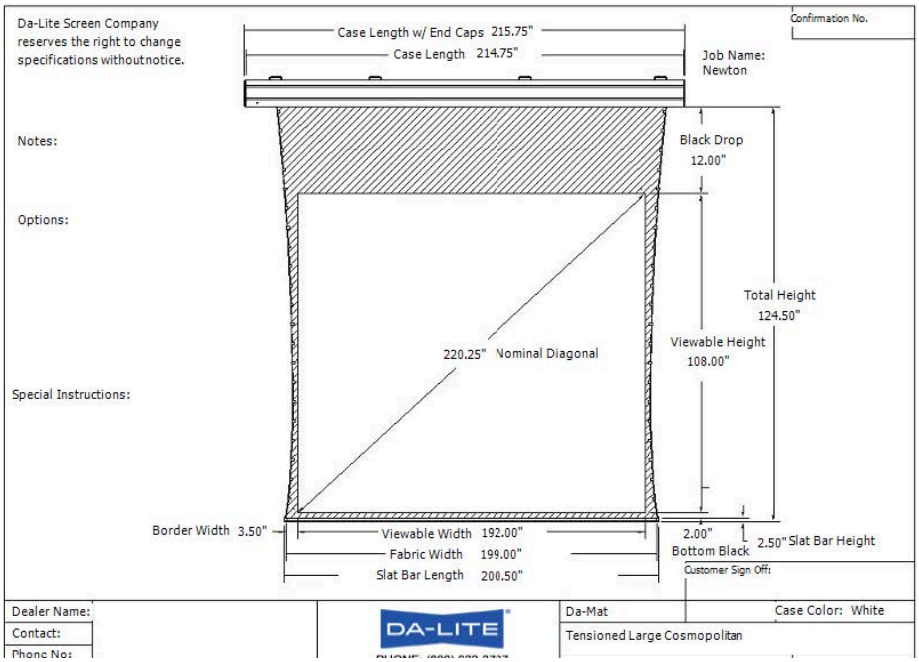
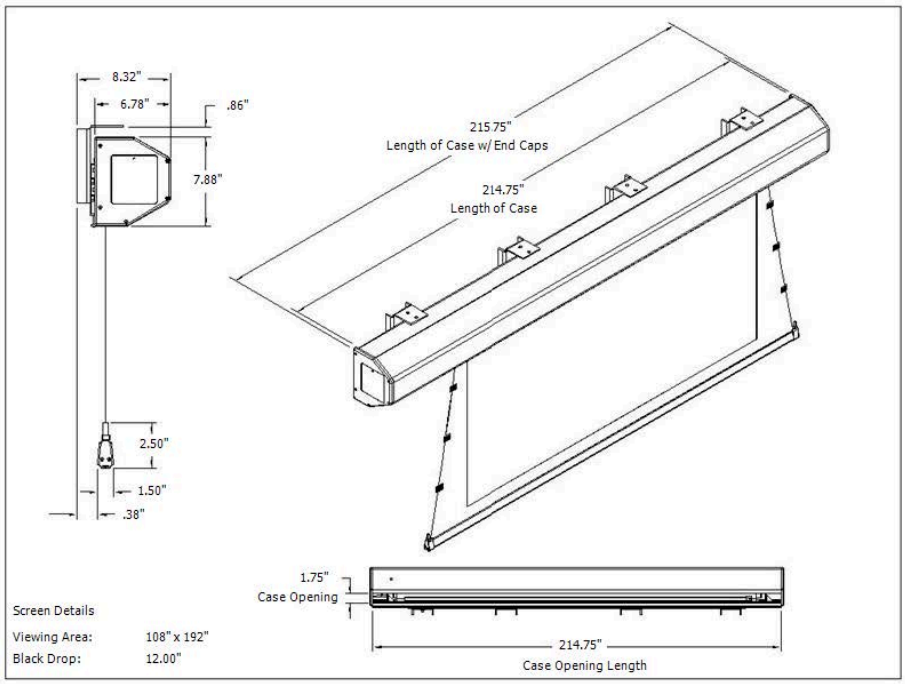
Project Name: _____

Architect: _____

Contractor: _____ Phone: _____

Reseller: _____ Phone: _____





Drawings are not to scale

Projection screen housing

Attachment B
IT Department mockup of rough size of the screen housing

Attachment C – Generally, the location for mounting the high definition projector.
Floor to ceiling height is about 10 feet. The projector should not impede the view of anyone seated in the balcony, nor should it pose a threat due to its placement.

Similar projector mounted at another location.

Attachment D – Needham Town Hall

Clockwise from top left:

- Projector mounted at the rear of the room (capacity 350);
- projector screen mounted on stage;
- view from the balcony;
- projector screen concealed by curtains

CITY OF NEWTON, MASSACHUSETTS
DEPARTMENT OF INFORMATION TECHNOLOGY

Ruthanne Fuller, Mayor
Joseph P. Mulvey
Chief Information Officer

Telephone (617) 796-1180
Facsimile (617) 796-1196
TDD/tty # (617) 796-1089

To: President Laredo, Councilors Albright, Baker, Kalis, Jonathan Yeo, David Olson, Josh Morse
From: Joseph Mulvey, Information Technology Department
Re: A/V in the Council Chambers
Date: February 5, 2019

Dear President Laredo,

We had our initial meeting with Red Thread. Their opinion is that a video wall or even two video walls is a limited solution that would not meet our expectations due to the size of the room.

Attached is their eight page quote.

Their recommendation is:

- On the balcony, a projector mounted at the front, from the ceiling of the council chambers;
- A motorized mount supporting a projection screen sixteen feet wide by nine feet tall behind the president;
- The ability to easily control video feeds to the projector from a variety of sources with the flip of a switch;
- A connection into the house sound system from any of the video sources.

I am happy to answer your questions and be pleased to setup a follow up meeting with Red Thread to fully hear the details of their solution, timeline, concerns, etc.

Respectfully,
Joe

Joseph P. Mulvey
Information Technology Department

City of Newton

72266

Council Chamber

RED THREAD

Presented By:

Lee Wolloff

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Sixth Floor
Boston, MA 02210
774.432.0457
www.red-thread.com

Modified: 3/14/2019
Revision: 3

RED THREAD
Furniture / Technology / Architectural Systems

AUDIOVISUAL SYSTEM EXECUTIVE SUMMARY

Client:	City of Newton	Date:	March 21, 2019
Project:	Council Chamber Projector & Screen	Technology Sales:	Lee Wolloff
Contact:	Joseph Mulvey	Email:	lwolloff@red-thread.com
RT Project #:	72266	Phone:	(774) 432-0457
		System Engineer:	S. Podgurski

COUNCIL CHAMBER

OVERVIEW
Red Thread will install a new motorized projection screen and high-brightness projector in the council chamber for presentation purposes. Sources will be an owner furnished desktop PC at the side table location and a laptop at the visitor podium. Additionally, a new Vivitek wireless presentation will be installed.

A new button controller will be installed for simple control of projector power, input selection (Desktop, Visitor laptop / Novo Enterprise), program audio volume and deploying the projection screen.

Audio will be routed through the existing Biamp audio system. Inputs on the existing Biamp Nexia are fully populated so a third unit will be installed for expansion.

IMPORTANT NOTES:
All the owner-furnished equipment is assumed to be in working order. Any issues discovered during the installation may result in additional project costs which will be addressed through a change order.

All cabling will be pulled by the client. This includes any required HDBaseT HDMI transmitter / receiver boxes. Red Thread will supply cabling for the new AV components. Cable installation will be by the client. Cable Termination will be by Red Thread. A detailed cable riser diagram will be provided before installation begins. Cable destinations are as follows.

FROM	TO
Rack	Visitor podium
Rack	Desk
Rack	Clerk Desk
Rack	Projector
Clerk Desk	Projector
Clerk Desk	Screen
Screen	Low voltage switch

NOTE: All owner-furnished equipment is assumed to be in working order. Any issues discovered during the installation may result in an additional cost which will be addressed through a change order.

PROJECTION SYSTEM
- Projector brightness: High-brightness 10,000 lumens
- Projector resolution: 1920 x 1200
- Mounting method: ceiling mounted in front of the balcony area
- Lamp: 20,000 hour laser
- Projector color: black, mount color: black
- Important note: The projector will be installed on the ceiling at the balcony. The projector and mount will weigh approximately 90 pounds (including the projector and mounting hardware). The structure will need to support 5x that amount for safety. In-ceiling structural support will be by others.

PROJECTION SCREEN

- Type: Wall mount motorized
- Screen fabric: HD Progressive 0.9 with black backing
- Projected image size: 120-inch high x 192-inch wide
- The screen will be installed above the columns on a client-installed mounting surface.
- Extra black drop will be added to the screen fabric to lower image display area
- Direct lighting should be kept off the screen for the best image quality
- Important Note: The ideal height of the bottom of the screen is 9-foot AFF. Before ordering, Red Thread will provide a wall elevation for approval that shows the actual screen height that will be higher than 9'.

PROJECTOR INPUTS

Qty	Type	Connectivity	New Switcher Input	Condition
1	Visitor Laptop	HDMI	Input 1	Owner furnished
1	Desktop PC	HDMI	Input 2	Owner Furnished
1	Vivitek Novo Enterprise	HDMI	Input 3	New

VIVITEK NOVO ENTERPRISE

- Wireless presentation appliance
- Connect up to 64 users; 4-to-1 Split screen simultaneously on one display
- Full Screen mirroring of multi-platform operation systems
- Built-in dual network support (Wireless and Wired)
- Supports video playback with perfect synchronization up to 1080p
- Remote management and maintenance software for ease of deployment

AUDIO SYSTEM

- Audio from a new HDMI switch will be connected to the existing Biamp Nexia
- New Biamp Nexia to be added for the required additional inputs.
- No changes will be made to the other audio components or audio control system.
- Microphones: Existing table and gooseneck microphones
- Speakers: Existing surface mount speakers.
- Telephone Interface: None

BUTTON PANEL CONTROL SYSTEM

A simple button controller will be installed for projector and screen control.

- Button panel color: Black
- Panel location: Clerk's desk.

The following functions will be available from the button panel.

- Display system: power on/off
- Source selection: Desktop, Visitor Laptop, Novo Enterprise
- Screen: Up/Down

NETWORK CONNECTIONS REQUIRED

- (1) for Novo Enterprise at rack

WARRANTY AND SERVICE DETAILS:

WARRANTY- Seller warrants to Buyer that it will repair or replace, at its sole option, any goods or parts thereof which are defective in materials and/or workmanship at the time the same are delivered to Buyer by Seller but only on the following terms and conditions:

From the date of the last day of the installation to and including 60 days thereafter, Seller will repair or replace such defective goods or parts thereof at no charge to Buyer for replacement goods or parts and labor or shipping or handling, provided that Seller shall have received from Buyer written notice of the claimed defect within 60 days from the last day of installation. No other warranties, either express or implied, are extended by Seller except as shall be shown in writing and signed by a duly authorized representative of Seller. To the maximum extent permitted by applicable law, seller further disclaims all other warranties either expresses or implied, including, without limitation, any implied warranties of merchantability of fitness for a particular purpose.

EXTENDED RED THREAD GROUPCARE COVERAGE INCLUDED:

GROUPCARE BASIC

- Telephone Support: Unlimited Calls from 8:30 am to 5:00 pm EST, Monday through Friday, excluding Red Thread Holidays.
- Guaranteed phone response within 4 hours.
- Onsite Support:
    - Unlimited Onsite Service Support, Monday through Friday, excluding Red Thread Holidays
    - Priority Green Convenient agreed upon time.
    - Priority Yellow Convenient agreed upon time.
    - Priority Orange Guaranteed onsite response within 4 business days.
    - Priority Red Guaranteed onsite response within 4 business days.
    - Email Communication

EXTENDED RED THREAD GROUPCARE COVERAGE OPTIONS AT ADDITIONAL COST:

GROUPCARE SILVER

GroupCare Silver offers all the features of the GroupCare Basic with the inclusion of the following upgrades.

- Telephone Support: Guaranteed phone response within 2 hours.
- Onsite Support:
- Unlimited Onsite Service Support, Monday through Friday, excluding Red Thread Holidays
- Priority Orange Guaranteed onsite response within 3 business days.
- Priority Red Guaranteed onsite response within 2 business days.
- Preventive Maintenance Two Scheduled Preventive Maintenance Visits Annually
- Training Refresher During your Preventive Maintenance visit, our service technician can provide a brief refresher on using your system.

GROUPCARE GOLD

GroupCare Gold offers all the features of the GroupCare Silver with the inclusion of the following upgrades.

- Other Benefits: Parts, Repair, Labor & Travel are all Included (except consumables) Product Loaners As required, Loaner products will be provided during product repairs

GROUPCARE PLATINUM

GroupCare Platinum offers all the features of the GroupCare Gold with the inclusion of the following upgrades.

- 24/7 Emergency Support Telephone & Onsite Support 24 hrs a day, 7 days a week for Priority Red Only
- One Hour Phone Response, Four Hour Onsite Response
- Priority Green: Service requests are non-critical type requests for service whereby on-site service, if required, can be addressed as time permits
- Priority Yellow: Service requests are defined as important issues that may impact the “optimal” operation of the audiovisual equipment, but does not keep the overall system from functioning.

- Priority Orange: Service requests in which the issues affects the overall operation of the system. If this were to occur AND the customer does NOT have a major event within the next 4 business days in which the system is required for use.
- Priority Red: Service requests in which the issues affects the overall operation of the system. If this were to occur and the customer does have a major event within the next 3 business days in which the system is required for use.
- Prompt email notification for open service tickets, service visits date and time and closed service tickets

SCOPE OF WORK:

SCOPE OF WORK TO BE PERFORMED BY RED THREAD:
The above outlined audio visual functionality scope and system description will be executed by Red Thread upon acceptance by the customer. Scope of work to be performed by Red Thread includes:

- System Design and Engineering
- Project Management and Coordination
- Product Staging and Testing
- On-site Product Installation, Low Voltage cabling as it relates to the Audio Visual system Testing and Commissioning by a field engineer
- Closeout documentation: As-built drawing, Programing files, Equipment Lists with associated serial numbers.

SCOPE OF WORK TO BE PERFORMED BY CLIENT:
The Scope of Work document detailing all work to be performed by the client and/or other trades will be provided after the formal award of project has been received by Red Thread. Scope of work to be performed by the client and/or other trades, includes but not limited to the following.

- Electrical
- Network/data
- Phone service
- Blocking infrastructure
- Conduits
- Floor cores
- Furniture fabrication
- Patching and Painting

Red Thread has the ability to provide many of the above listed items currently under the client's scope of work. If you would like Red Thread to provide a proposal to provide any of the infrastructure items please contact your account representative.

Please initial to acknowledge agreement with the functionality of the audiovisual system description and the understanding that any scope of work by others is to be completed in advance of the installation. _____

Mfg / Model	Description	Qty	Unit Price	Ext. Price
Council Chamber				
Display System				
Vivitek DU8190Z-BK	LARGE VENUE- LASER PHOSPHOR Projector, WUXGA, 10,000 Lumens, 5yr P&L/3yr Adv. Replace	1	$13,529.41	$13,529.41
Vivitek 3797745400-SVK	Long Throw Zoom Lens	1	$2,458.82	$2,458.82
LG 24MB65PY-I	24" 1920 x 1200 IPS Panel	1	$276.47	$276.47
Red Thread AVIM	Misc Mounting Materials	1	$88.24	$88.24
Chief CMA330	OFFSET FIXED CEILING PLATE 1-1/2 NPT	1	$40.24	$40.24
Interfaces & Signal Processing				
Extron 60-1699-01	IN1804 - Four Input 4K/60 Seamless Switcher	1	$1,758.82	$1,758.82
Extron 60-1182-02	MLC 64 RS VC D - MediaLink® Controller With Volume Control Knob - Decorator-Style Wallplate	1	$464.71	$464.71
Pakedge SE-8P4	8-Port Unmanaged Switch with 4 PoE or Up to 2 PoE+	1	$235.29	$235.29
Extron 70-1142-22	SMB 212 - Two-gang surface box: black	1	$117.65	$117.65
Gefen Inc EXT-RS232	Gefen RS-232 Over Cat 5 Extender	1	$109.80	$109.80
Extron 60-190-01	RSU 129 - 1U 9.5" Deep Universal Rack Shelf Kit	1	$76.47	$76.47
Media Inputs				
Vivitek Novo Enterprise	Novo Enterprise Wireless Presentation & Collaboration Appliance	1	$1,069.41	$1,069.41
Misc.				
Red Thread Staging	Staging Rental	1	$2,352.94	$2,352.94
Projection Screen				
Da-Lite 21877LC	Cosmopolitan Tensioned 120" x192" HD 0.9 Fabric	1	$4,870.59	$4,870.59
Rack				
Red Thread AVRA	Misc Rack Accessories	1	$197.65	$197.65
Sound & Audio Processing				

Mfg / Model	Description	Qty	Unit Price	Ext. Price
Biamp Nexia CS	NEXIA 10 mic/line inputs and 6 mic/line outputs. DSP for conference applications such as boardrooms, courtrooms, and council chambers	1	$1,175.29	$1,175.29
Wire and Cable				
Red Thread MISC	Misc Cables and Connectors	1	$617.65	$617.65
Red Thread PREMADE CABLES	Misc Premade Cables - Lot	1	$135.29	$135.29
Labor				
RT CAD	CAD Drawing Package	1		$450.00
RT Engineering	System Engineering & Design	1		$840.00
RT Field Engineering	Field Engineering, Testing & Commissioning	1		$1,560.00
RT Installation	AV Installation Labor	1		$3,515.00
RT Programming	Programming	1		$0.00
RT Project Management	Project Management	1		$1,690.00
RT Rack Build	Rack Build & Staging	1		$150.00
RT Training	Training	1		$0.00
Services				
RT Basic Service	One Year Basic Service Plan	1		$0.00
RT Delivery	Delivery	1		$1,200.00
RT Travel	Travel Expenses	1		$0.00

Council Chamber Total: $38,979.74

Summary

Council Chamber	$38,979.74
Subtotal:	**$38,979.74**
Sales Tax:	**$0.00**
Grand Total:	**$38,979.74**

Client: _____ Date _____