

Ice Arena Sound System

City of Maple Grove

Paul Mertes

12951 Weaver Lake Road

Maple Grove, MN 55369



City of
Maple Grove

Presented By:



Aufderworld Corporation

2750 Niagara Lane North

Plymouth, MN 55447 USA

763-233-7700

www.aufderworld.com

www.excelavgroup.com

Modified: 5/9/2022

Revision: 0

Main Ice Sheet



12 **BIAMP Community R.35COAX 1241.900**
R.35COAX



1 **Excel Hardware & Labor**
Labor and Materials

2 **K&M 23325.500.55 23325**
Table/Floor Microphone Stand



2 **ON-STAGE MY325 MY325**
Designed to reduce the effects of low-end rumble and floor vibrations, our MY325 Shock-Mount Dynamic Mic Clip features a shock-absorbent rubber bridge between the connector and the grip.



1 **QSC D2i FG-901458-01**
Single gang US Dante/AES67 Wall Plate with 2 Mic/Line Inputs on XLR and 1/4" TRS combo connectors, PoE (includes white and black faceplates, Axiom bus expansion capable).



1 **QSC TSC-70-G3**
Q-SYS 7" PoE Touch Screen Controller for In-Wall Mounting.
Color - Black only



1 **QSC unD6IO-BT FG-901389-01**
4x2 Channel 2 Gang US, Dante/AES67 Wall Plate w/Bluetooth, RCA, 3.5 mm I/O, PoE (white and black faceplates included).

1 **Radio Design Labs (RDL) DC-3W RDLDC3W**
Desktop or Wall Mounted Chassis for Deco



2 **SHURE SM58S 042406051279**
Cardioid Dynamic, On-Off Switch

2 **SHURE SRH440A 042406552110**
Professional Studio Headphones

Main Ice Sheet Total: \$24,348.00

* Price Includes Accessories

Presented By: Aufderworld Corporation
Project Name: Ice Arena Sound System

Project No.: AWC-6150

5/9/2022
Page 2 of 13

Main Bleachers

- 6 **BIAMP Community IS6-118WR 1130.900**
IS6-118WR
- 6 **BIAMP Community IUB0002WRG 1489.900**
IUB0002WRG
- 6 **BIAMP Community R.5-96MAX 1249.900**
R.5-96MAX
- 1 **Excel Hardware & Labor**
Labor and Materials



Main Bleachers Total: \$39,780.00

Main Concourse

- 1 **Excel Hardware & Labor**
Labor and Materials
- 1 **QSC unDX2IO+**
4x2 Channel 2 Gang US Dante/AES67 Wall Plate 2 Mic/Line In x 2 Out (XLR),
Phoenix I/O, PoE (white and black faceplates included)



Main Concourse Total: \$1,775.00

* Price Includes Accessories

Presented By: Aufderworld Corporation
Project Name: Ice Arena Sound System

Project No.: AWC-6150

5/9/2022
Page 3 of 13

Upstairs Lobby



1 **BIAMP AMP-A460H 0438.900**
AMP-A460H

2 **BIAMP Apart P60DT-W 0648.900**
P60DT-W



1 **Excel Hardware & Labor**
Labor and Materials



1 **QSC unDX2IO+**
4x2 Channel 2 Gang US Dante/AES67 Wall Plate 2 Mic/Line In x 2 Out (XLR),
Phoenix I/O, PoE (white and black faceplates included)

Upstairs Lobby Total: \$4,890.00

Downstairs Lobby



1 **Excel Hardware & Labor**
Labor and Materials

Downstairs Lobby Total: \$635.00

* Price Includes Accessories

Presented By: Aufderworld Corporation
Project Name: Ice Arena Sound System

Project No.: AWC-6150

5/9/2022
Page 4 of 13

Secondary Ice Sheet



- 1 **Excel Hardware & Labor**
Labor and Materials

- 2 **K&M 23325.500.55 23325**
Table/Floor Microphone Stand



- 2 **ON-STAGE MY325 MY325**
Designed to reduce the effects of low-end rumble and floor vibrations, our MY325 Shock-Mount Dynamic Mic Clip features a shock-absorbent rubber bridge between the connector and the grip.



- 1 **QSC D2i FG-901458-01**
Single gang US Dante/AES67 Wall Plate with 2 Mic/Line Inputs on XLR and 1/4" TRS combo connectors, PoE (includes white and black faceplates, Axiom bus expansion capable).



- 1 **QSC TSC-70-G3**
Q-SYS 7" PoE Touch Screen Controller for In-Wall Mounting.
Color - Black only



- 1 **QSC unD6IO-BT FG-901389-01**
4x2 Channel 2 Gang US, Dante/AES67 Wall Plate w/Bluetooth, RCA, 3.5 mm I/O, PoE (white and black faceplates included).

- 1 **Radio Design Labs (RDL) DC-3W RDLDC3W**
Desktop or Wall Mounted Chassis for Deco











- 2 **SHURE SM58S 042406051279**
Cardioid Dynamic, On-Off Switch

- 2 **SHURE SRH440A 042406552110**
Professional Studio Headphones

Secondary Ice Sheet Total: \$9,573.00

* Price Includes Accessories

Head End/Rental Counter

	2	BIAMP Community ALC-3202D 1352.900 ALC-3202D
	1	BIAMP Community ALC-404D 1353.900 ALC-404D
	1	Excel Hardware & Labor Labor and Materials
	1	QSC NS26-1440++ 26-port network switch preconfigured for Q-SYS Audio, Video and Control with 24x PoE++ ports and 1440 Watts PoE budget. Features advanced QoS and IGMP configuration to also support AES67 and Dante within the same VLAN.
	1	QSC Q-SYS CORE 110F Q-SYS CORE 110F Flex channel digital signal processor
	1	QSC TSC-101-G3 Q-SYS 10.1? PoE Touch Screen Controller for In-Wall Mounting. Color - Black only
	1	QSC unD6IO-BT FG-901389-01 4x2 Channel 2 Gang US, Dante/AES67 Wall Plate w/Bluetooth, RCA, 3.5 mm I/O, PoE (white and black faceplates included).
	1	QSC Zip4 4-Zone Dante/AES67 Paging Interface, PoE, dual gang.
	1	QSC Zip4-PTT Mic-Std Zip series PTT Paging microphone, RJ-45 terminated.
	3	SURGEX SEQ 2RU, 14 Outlet, 20A, Sequencer; Advanced Series Mode?, CouVs?, ICE?, EMI/RFI

Head End/Rental Counter Total: \$28,695.00

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Presented By: Aufderworld Corporation
Project Name: Ice Arena Sound System

Project No.: AWC-6150

5/9/2022
Page 6 of 13

Hearing Assist



- 1 **Excel Hardware & Labor**
Labor and Materials



- 1 **WILLIAMS SOUND CHG 3512 CHG 3512**
12-bay, drop-in charger for up to 12 PPA T46 transmitters or FM, Infrared or Loop body-pack receivers. Power Supply Included.



- 9 **WILLIAMS SOUND EAR 022 EAR 022**
Surround earphone. Hangs on outside of ear. Mono 3.5 mm plug

- 1 **WILLIAMS SOUND FM 558-24 PRO FM 558-24 PRO**
FM Plus Large-area Dual FM and Wi-Fi assistive listening system with 24 FM R38 receivers. Features coaxial cable and rack panel kit for professional installation. System includes: (1) FM T55 transmitter, (24) PPA R38N receivers, (24) EAR 022 surround earphones, (6) NKL 001 neckloops, (2) CHG 35



- 3 **WILLIAMS SOUND NKL 001 NKL 001**
Neckloop. 18" cord. 3.5mm mono plug. For use with all FM, IR and Dig Wave body pack receivers.

- 9 **WILLIAMS SOUND PPA R38N PPA R38N**
Multi-channel FM receiver with OLED display. Includes (1) belt clip, (1) stereo plug. No batteries. No earphone.

- 1 **WILLIAMS SOUND WCA 008-50 WCA 008 50**
RG59 coaxial cable with F-connectors and hardware. (50 ft.)

Hearing Assist Total: \$11,268.00

Project Subtotal: \$120,964.00

* Price Includes Accessories

Presented By: Aufderworld Corporation
Project Name: Ice Arena Sound System

Project No.: AWC-6150

5/9/2022
Page 7 of 13

Project Summary

Total Installation Price: \$120,964.00

Grand Total: \$120,964.00

Client: Paul Mertes

Date

Contractor: Aufderworld Corporation

Date

Payment Schedule

Amount

Due Date

Down Payment (50%)

\$60,482.00

Final Payment (50%)

\$60,482.00

Sales tax will be added to the final invoice if applicable

\$0.00

* Price Includes Accessories

Presented By: Aufderworld Corporation

Project Name: Ice Arena Sound System

Project No.: AWC-6150

5/9/2022

Page 8 of 13

Scope of Work

Ice Arena Sound System Project Scope:

Excel AV Group will provide and install a TURN-KEY high-performance sound system for the Maple Grove Ice Arena.

Main Ice Sheet:

- (12) weather-rated speakers over the ice.
- (1) new touch screen controller at the announcer location.
- Bluetooth and analog music inputs at the announcer location, as well as (2) microphone inputs.
- (2) new microphones, stands, shock mount microphone clips, and headphones at the announcer location.

Main Bleachers:

- (6) weather-rated speakers properly positioned to cover bleacher area
- (6) weather-rated subwoofers to provide extended low-end frequencies to bleachers and throughout the space.

Main Concourse:

- (1) new XLR microphone input/output plate.
- Will continue use of existing speakers in this zone.

Upstairs Lobby:

- (1) new XLR microphone input/output plate
- (2) new weather-rated pendant speakers for additional coverage
 - Includes re-wiring of zones to split this area into 2 separate audio zones that can be combined or separated.
 - Includes additional amplifier to accommodate new zone(s)
 -

Downstairs Lobby:

- Continue use of existing speakers. Test and verify functionality and rewire to new head-end equipment.

Secondary Ice Sheet:

- (1) new touch screen controller at the announcer location.
- Bluetooth and analog music inputs at the announcer location, as well as (2) microphone inputs.
- (2) new microphones, stands, shock mount microphone clips, and headphones at the announcer location.

Head End/Rental Counter:

- (1) QSC audio and control processor.
- (1) 10.1" touchscreen controller.
- (1) Bluetooth and analog music input plate.
- (1) 26 port network switch.
- (3) multi-channel amplifiers to power new speakers in the Main Ice Sheet and Main Bleachers systems.
- (1) 4-zone paging system with (1) handset microphone.
- (3) 2ru 20amp controllable power sequencers and surge protectors.

Hearing Assist:

- (1) FM hearing assist system

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Presented By: Aufderworld Corporation
Project Name: Ice Arena Sound System

Project No.: AWC-6150

5/9/2022
Page 9 of 13

Aufderworld Corporation

- (33) total FM receivers to meet ADA compliance.
- (9) T-Coil enabled neck loops for hearing aid compatibility and ADA compliance.
- Rechargeable batteries and multi-port charging stations.
- Antenna to be mounted in rafters in the main ice rink.

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Presented By: Aufderworld Corporation
Project Name: Ice Arena Sound System

Project No.: AWC-6150

5/9/2022
Page 10 of 13

Terms and Conditions

The following terms and conditions shall apply to each order for products and services of Aufderworld Corporation (AWC) and Excel AV Group which is an AWC company and shall constitute the entire agreement between the parties. The terms and condition may not be varied, and no modification or addition shall be of any force or effect unless specifically accepted by AWC in writing. Acceptance of orders which contain additional or different conditions of purchase printed on the order or other form shall not binding unless specifically agreed to by AWC in writing by an authorized representative of Aufderworld Corporation. Conflicting terms and conditions between this document and a Client's purchase order, acceptance, or other form, THESE TERMS AND CONDITIONS SHALL SUPERSEDE AND GOVERN. This agreement shall be governed by laws of the state of Minnesota. Any disputes arising under this agreement shall be determined by arbitration conducted in accordance with the American Arbitration Association Expedited Rules for Commercial Arbitration in Minneapolis, Minnesota.

- Pricing.** Upon receipt of signed contract or purchase order AWC will supply products and/or services at price stated in bid/contract/quote. Pricing is good for (90) days from date of bid with exception of items which are no longer commercially available due to end of sale designation by manufacturers. If Client signs contract and/or provides purchase order after 90 days from date of bid AWC reserves the right to revise pricing resulting from increase in cost to AWC from its' suppliers. Client shall pay any extra costs incurred by AWC as a result of changes or modifications to specifications by Client.
- Down payment and Payment.** Unless other terms are agreed to in writing, Client shall pay 50% of the total contract price to initiate project activities. The final 50% will be invoiced upon completion of installation and commissioning of system and will be Net (30). Final invoice will include all change orders resulting from scope changes and product additions. After the Net (30) date AWC reserves the right to charge a late fee of \$50.00 and 18% of outstanding balance. **Payment for product only sales are due upon receipt.**
- Lease Rates.** Client shall be responsible for lease payments if system is leased. Payments will be based on lease rates at the time of purchase. Payment may vary depending on prevailing interest rates, terms, and deposits.
- Cancellation.** Client may not cancel or revise any order accepted by AWC without prior written consent of AWC. If an order is cancelled following signed approval, there shall be a re-stocking fee equal to 20% of the total order, plus any expenses already incurred by AWC.
- Change Orders.** Equipment, materials, or labor needed outside of the scope of this agreement or resulting from unforeseen circumstances out of the control of AWC will be submitted as a change order to the client's representative (primary project contact). Aufderworld Corporation assumes this contact is authorized to approve such work and will receive the appropriate approvals within the client's organization to authorize all additional spend. Approval will be needed prior to procurement by AWC.
- Scope of Work Changes.** Changes of scope requested by Client, including additional requirements or restrictions placed on AWC by Client will be added to the contract/project price. When AWC becomes aware of the nature and impact of the change request a change order will be submitted for review and approval by Client. Additional work or equipment purchases will not resume until Client approves change order in writing.
- Warranty.** Products sold by AWC carry their respective manufacturer's warranty. Installation performed by AWC or one of its subcontractors is warranted to be free from workmanship defects for a period of one year. Owner provided equipment warranties are the responsibility of owner and not covered by AWC.
- Access to Premises and worksite labor requirements.** Client will provide prompt and timely access to installation areas based on an agreed upon schedule. Any changes in schedule resulting in added labor or shipping expenses to AWC will be billed as a change order. Labor is bid at non-union rates and normal business hours. Any changes to schedule resulting in off hour, weekend, or holiday work or requirements for union labor will also be billed as change order.
- Electrical.** All electrical will be provided by owner/Client unless requested as part of bid under special arrangements. All electrical needs for AWC systems will be specified on electrical or architectural drawings by AWC Engineering and/or Project Management teams. Installation of Satellite, Audio, Video, and lighting systems is dependent on electrical to be completed. Any delays in electrical work will result in delays of AWC systems being installed. All circuits for AV and lighting to be derived from the same subpanel and reference the same ground and neutral bus. All electrical to be performed in accordance with NEC and local electrical codes (AHJ).
- Low Voltage Cabling.** Low voltage cabling that is not included in AWCs scope for projects must be completed using the specifications provided by AWC Engineering/Project Management. The specifications will be provided for cable type, location of drops and quantities. Preference is to provide the locations of drops on architectural drawings to ensure proper installation. All conduit, core drilling, firewall penetrations, and concrete sawing to be performed by electrical contractor or general contractor.
- Construction.** Construction activities provided by client or client hired general contractor. AWC will need the GC to provide backer board or other special mounting requirements for televisions, speakers, and other heavy equipment like projector and projector screens. AWC will provide specific requirements to the GC in format they request.

* Price Includes Accessories

Presented By: Aufderworld Corporation
Project Name: Ice Arena Sound System

Project No.: AWC-6150

5/9/2022
Page 11 of 13

12. **Network.** Components of our satellite distribution systems are designed to be integrated into an existing local area network. Aufderworld Corporation will work with the property's IT department to integrate these components. Customer agrees that cooperation will be given by their IT department in achieving integration with the newly installed system by AWC. Where necessary, AWC will install a closed audio, video, and lighting system network. This network will not reside on any client or existing network infrastructure unless otherwise specified by Client. AWC Engineers will work with client's IT department to integrate all systems needing connection to existing client network and all networks will be managed by client. Client will be responsible to provide all data network drops specified by AWC Engineering on construction drawings unless AWC is contracted to provide. Client is also responsible to provide all data networking information to ensure a successful integration to AWC installed systems where necessary including but not limited to IP address information, phone numbers, email accounts, and network credentials. It is assumed that any existing systems (Lighting, Shades, HVAC, Audiovisual, and Control) that are to be integrated with new system will be readily available with the current implemented version of source code. If original programming code cannot be provided AWC will provide a change order for additional engineering time.
13. **Owner Furnished Equipment (OFE).** Performance and maintenance of OFE is responsibility of Client and AWC assumes existing equipment is in good working condition currently. AWC is not responsible for broken or non-functional OFE and any repair or replacement of these items that may be necessary will result in additional cost to Client. AWC is not responsible for unused OFE or for disposal of OFE unless prior agreement has been made. AWC does not guarantee OFE will be compatible with all new systems being installed.
14. **Delivery/Installation.** Aufderworld Corporation shall not be responsible for any reasonable delays in delivery or installation due to strikes, accidents, natural disasters, pandemics, or delays beyond the control of Aufderworld Corporation. Any delivery schedule which AWC may provide to the Client represents a good faith estimate and shall not bind AWC to anything more than its reasonable efforts to meet such estimates. Any requests from Client for expedited freight will be billed as a change order.
15. **Training.** A single system training will be performed by AWC Engineering staff for up to (3) individuals designated by Client. Training for additional people will be the responsibility of client. Training to be done during normal business hours unless specified otherwise in contract. Optional off hours training will be billed at higher rate. Standard training is to cover standard operation and main function of installed system and is not intended to cover or explore every possible variable, nor is it training on AV or lighting theory and design. Advanced and customized training can be provided at an additional cost.
16. **Compliances/System.** All local, national, and state code compliance, permissions, fees, permits, approvals, etc. are responsibility of Client unless otherwise stated.
17. **Insurance/Risk of Loss.** Client shall assume risk of loss of equipment sold under this agreement upon date of equipment delivery by Aufderworld Corporation; and Client shall assume risk of loss to improvements made by Aufderworld Corporation in the form of equipment installation, after improvements are made and installed and the entire system is fully operational for thirty (30) consecutive days. Client shall maintain appropriate insurance coverage to cover risks assumed by Client under these terms and conditions.
18. **Insurance.** Aufderworld Corporation shall maintain workers compensation coverage and public liability insurance to cover its activities under this agreement.
19. **Applicable Taxes.** Clients outside the State of Minnesota are responsible for all applicable taxes.
20. **Tax Exempt Status.** Organizations with tax exempt status must supply Aufderworld Corporation with proof of exemption.
21. **Confidentiality.** All system design specifications and materials contained herein remains property of Aufderworld Corporation. Confidential proposal and enclosures are intended for recipient only.
22. **Proprietary.** This proposal contains trade secrets and confidential proprietary design information of Aufderworld Corporation. Review of this proposal constitutes agreement not to disclose its contents to any other party except with the approval of Aufderworld Corporation.
23. **Hold Harmless.** The client agrees that Aufderworld Corporation is to recommend design standards, systems, policies, procedures, vendors, devices, etc. that are reasonable in nature, and the recommendations or lack of recommendations will not be construed as errors or omissions of Aufderworld Corporation.
24. **Exclusion.** Aufderworld Corporation makes no warranty or claim of functionality for designs or equipment not provided by Aufderworld Corporation. If any modifications, corrections, or revisions to the system are required, Aufderworld Corporation will provide solutions on a time and materials basis with written approval by Client.
25. **Indemnity.** Each party agrees to indemnify and hold the other harmless from any claims, damages, or liability of any nature whatsoever, arising out of the wrongful act, errors or omissions of the indemnifying party, its agents, or employees, or arising out of the negligent, defective, or deficient condition of the property of the indemnifying party. In addition, Owner agrees to defend, indemnify, and hold harmless the Operator from and against any claim, lawsuit, or other form of compulsion initiated and prosecuted by a Franchised Cable Company, its successors or assigns arising out of the rights and duties granted to the Operator, and the cost for any repair, removal or re-installation required to resolve any claim, lawsuit or other form of compulsion initiated and prosecuted by a Franchised Cable Company, its successors, or assigns. This would also include any legal fees incurred by Aufderworld Corporation.

Satellite TV Specific Terms

26. **Residential Upgrades.** If the headend system installed at Client facility has the capability for residents to upgrade programming or

* Price Includes Accessories

Presented By: Aufderworld Corporation
Project Name: Ice Arena Sound System

Project No.: AWC-6150

5/9/2022
Page 12 of 13

Aufderworld Corporation

equipment or both, Client staff will be expected to physically install new equipment with remote support from AWC. Aufderworld Corporation will apply a \$100 credit toward monthly programming invoices for each residential receiver installed by Client maintenance staff. An Aufderworld Corporation service tech will be available to support the installation via phone should help be needed.

27. **Extra Receivers.** If the system purchased is a DRE or DRE+ system, a receiver is required for each TV connected to the DirecTV system. Standard HD and HD DVR receivers are available. Client can purchase additional receivers for residents at any time at rates provided above. Aufderworld Corporation must sell receivers to the Client directly and not to individual residents. Client can at its discretion sell, lease, or rent extra receivers to the residents at whatever rate is established by the Client. Extra receivers are warranted for one year from date of purchase.
28. **Signal Integrity.** Client shall hold Aufderworld Corporation harmless and indemnify it from any unauthorized reception and use of protected signals by Client.
29. **Existing Distribution.** Aufderworld Corporation assumes existing distribution system is operational, functioning in good order and owned by the Client. Aufderworld Corporation is not responsible for repair or warranty of any existing equipment, nor does Aufderworld Corporation guarantee compliance with all FCC regulations for equipment not installed by Aufderworld Corporation. Distribution System improvements or replacements will be made and billed for on an as-needed basis. Signal improvements will be assessed as made and determination of the job scope is at the discretion of the Client. If any equipment in this quote is intended to integrate with an existing computer network, it is assumed that a representative from the Client's IT department will be available and able to assist in the integration. Aufderworld Corporation assumes that all wiring is in place and is of the type that will accommodate full functionality of proposed system. Aufderworld Corporation assumes all passive distribution components can pass frequencies from 5-2150 MHz's If distribution upgrade is necessary, Aufderworld Corporation can provide at standard commercial rates.
30. **Satellite, in-house signal quality.** Aufderworld Corporation guarantees optimal signal quality at the headend per equipment manufactures specifications and performance criteria. Signal quality at TV outlets will be equal to or better than existing signals. Client to assume all DirecTV programming costs associated with an upgrade in programming service. It is assumed that the length of the satellite signal run does not exceed 200 feet. If the run exceeds 200 feet, Aufderworld Corporation can provide, if necessary, line amplifiers and additional labor at prevailing commercial rates.
31. **Compliances/Procedure.** Compliance with the programming terms set forth by DirecTV is required. Aufderworld Corporation must be notified of any changes in number of units and/or programming changes.
32. **Term.** Term of this agreement is 12 months from installation date unless other terms are agreed upon in the DirecTV programing agreement signed by customer at the time of installation. In that case, the terms of the DirecTV agreement shall prevail. Once the DirecTV agreement has expired, Client must give Aufderworld Corporation a minimum of 60-days written advance notice of intent to terminate service with Aufderworld Corporation.
33. **Program Fees.** Client is responsible for payment of programming fees based on published rates at the time of installation. Fees may vary from previously quoted prices due to rate increases or promotional discounts. Receiver price is based upon one-year programming subscription. Early termination may result in \$135.00 per receiver charge plus any other applicable early termination fees. Client will be responsible for first and last month programming fees prior to activation of system.

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Presented By: Aufderworld Corporation
Project Name: Ice Arena Sound System

Project No.: AWC-6150

5/9/2022
Page 13 of 13