

Resch Center Green Bay, WI



Request for BID (RFB)



LED Aisle Lighting

PART 1 – OVERVIEW

1.1 BACKGROUND

- A. Brown County is seeking the purchase and installation of an LED aisle lighting system. As part of this RFB the bidder is responsible for procurement of goods, installation of light fixtures, all high voltage and low voltage electrical work and any programming needed to incorporate the lights into the existing DMX network and ETC Paradigm control system. All fixtures must be able to be controlled individually and able to be recorded into presets within the existing touchscreen user interface.

1.2 PURPOSE

- A. The purpose of this RFB is to specify the base needs for the equipment and technology requested. It is not intended to present all necessary components needed to install a fully functional system. It is the responsibility of the bidder to ensure that all necessary components are included in the bid that may not be detailed in this document. This RFB requires that the installation of all equipment be complete to create a fully functional lighting system for the aisle ways within the Resch Center to meet local entertainment building code requirements. If the LED aisle lighting system does not meet the required specification from the original bid, it will be at the bidder's expense to insure a complete and fully functional system.

1.3 DEFINITIONS

- A. "Bidder" is defined as the entity who is submitting a bid in response to this RFB.
- B. "Suite Level" is defined as the level where 120v power is located.
- C. "Catwalk Level" is defined as the level where all light fixtures will be located.
- D. "System Integrator" is defined as the Theatrical Lighting Integrator.
- E. "Owner" is defined as Brown County or PMI Entertainment Group, INC.
- F. "Fixed Seats" is defined as seating that is bolted to concrete and cannot be retracted.
- G. "OFE" is defined as owner furnished equipment.

1.4 RELATED WORK PROVIDED BY BIDDER

- A. Under this contract, the bidder is responsible for all work including, but not limited to, all labor, rigging, materials, hardware, tools, drawings, wire diagrams, transportation services, lodging, supervision, coordination, focus of light fixtures, high lifts, low voltage cabling, high voltage cabling, etc. to complete the installation of the LED Aisle Lighting system.

1. Extend existing electrical circuits from suite level 120v panelboards to light fixture locations.
 2. Provide and install interconnection low voltage cabling between each fixture location.
 3. Installation and programming of light fixtures within the Paradigm software must be by an ETC APG certified programmer.
 4. Installation of light fixtures.
 - a. Light fixtures must be placed to provide adequate foot candles to aisle ways while maintaining clearance for any other theatrical rigging. Light locations must be approved by owner prior to final installation.
- B. This project will be considered a design\build project. All design, engineering, documentation, and components not included in this RFB will be the sole responsibility of the bidder to insure a complete and fully operational aisle lighting system.
- C. The bidder will be required to provide equipment and install labor for LED aisle lighting system. All work covered in this document consists of furnishing all labor, material, high lift equipment, and services as required to install a complete LED aisle lighting system as specified in this RFB.
- D. The bidder shall provide a complete set of shop drawings in the form of PDF, DWG as well as one set of printed plans upon substantial completion of the project.
- E. If any existing cabling, equipment, or connectors are damaged during the installation of the LED aisle lighting system, it will be the responsibility of the bidder to repair at no cost to the owner.
- F. Supply any accessories or minor equipment needed for a complete LED aisle lighting system, even if it is not indicated herein.
- G. All equipment shall be held firmly in place and supported with structure capable of supporting load with a minimum safety factor of 5:1 or as approved by the equipment manufacturer or structural engineer.
 1. Owner prefers light fixtures to be mounted to hand railings with a bracket. Bidder is to advise if other location or solution is preferred.
 2. Each fixture shall also be secured to the catwalk with a safety cable.
- H. Provide digital copy of O&M manual set, in a single PDF file. The PDF must be indexed and searchable.
- I. O&M Manual must contain at minimum.
 1. Cover Sheet
 2. Table of Contents
 3. As-Built Drawings
 4. Contact and Warranty Information

5. Operating Instructions
6. Cut sheets
7. Model Numbers, Serial Numbers, and Locations of Light fixtures and lens tubes in an excel spreadsheet.

1.5 APPROVED CONTRACTORS AND FIRMS

- A. The following are contractors and firms approved by the owner. If another contractor or firm is needed and not listed, the bidder must request and submit to the owner the company name and related work.
 1. Theatrical Lighting Integrators
 - a. Lighthouse Productions – Green Bay, WI
 - b. Mainstage Theatrical Supply – Milwaukee, WI
 - c. Gopher Stage Lighting – Minneapolis, MN
 2. Electrical Contractors
 - a. Elmstar Electric – Kaukauna, WI
 - b. Northern Electric Inc. – Green Bay, WI

1.6 BID SUBMITTAL OVERVIEW

- A. It is the bidder's responsibility to provide a complete itemized bid to include all necessary costs associated to labor, materials, and equipment for a complete turn-key install.
- B. If subcontracting is needed, the bidder must use an Owner approved vendor when applicable (i.e.: Theatrical Lighting Integrator) or provide a complete list of any others needed.
- C. Any bids submitted in response to this RFB must remain valid for no less than 90 days from the RFB Due Date. Bids are to be submitted at no cost as the process assumes the bidder has a vested interest in being awarded the project.
- D. Considering the public nature of this project, the owner shall have the right to share information at any time through the process.
- E. The bidder must include a tentative construction\project timeline. The owner will work with the bidder to confirm the schedule and dates based on the availability of the Resch Center and the bidder's provided timeline.

PART 2 – SCOPE OF WORK

2.1 PANELBOARDS, RECEPTACLES, HIGH VOLTAGE CABLING AND LOW VOLTAGE CABLING

- A. Provide adequately sized EMT conduit from the four suite level electrical rooms to catwalk level.
- B. Provide (4) 120v electrical circuits from each suite level electrical room to catwalk level.
 - 1. 16 total circuits.
 - 2. Electrical cable used between suite level electrical rooms to catwalk level must maintain <5% voltage drop.
- C. Provide necessary 20amp breakers for suite level panelboards.
- D. Provide and install one 120v, L5-20R twist lock receptacle at each light fixture location.
 - 1. Light fixtures will daisy chain power from one fixture to another at each location.
 - a. Provide manufacturer recommended power cable to daisy chain power from fixture to fixture.
 - 2. There may not be any more than eight light fixtures to one 20amp circuit.
 - 3. Total Receptacles by quadrant.
 - a. Quad A = 6
 - b. Quad B = 7
 - c. Quad C = 6
 - d. Quad D = 7
- E. Provide and Install Cat5e cable from DMX Controller to light fixture locations.
 - 1. Category 5e cable
 - a. Belden 7933a
 - 1) Or equivalent
 - b. Color = White
 - 2. DMX Controller is located within the equipment rack located on the east side of the catwalk level above section 220.
 - 3. The CAT5e DMX cabling will be installed in a daisy chain method.
 - a. Belden
 - 4. Each light fixture location is required to have two RJ-45 jacks.
 - a. The top jack shall be labeled “DMX IN”
 - b. The bottom jack shall be labeled "DMX OUT”
 - c. Each RJ-45 J-BOX shall contain a label with the starting DMX channel number.

- F. Provide 5 Pin DMX cables to Daisey chain DMX control from light fixture to light fixture.
 - 1. Length to be determined.
- G. Provide manufacturer recommended RJ-45 to 5 Pin Male DMX Cable.
 - 1. Length to be determined.
- H. Provide manufacturer recommended 5 Pin Female DMX cable to RJ-45 cable.
 - 1. Length to be determined.

2.2 LIGHT FIXTURES

- A. Provide LED ellipsoidal light fixtures to adequately light aisle ways in the bowl of the Resch Center from catwalk level.
 - 1. Electronic Theatre Controls (ETC)
 - a. Color SourcesSpot V
 - 1) Color = White
 - 1. Include attic stock.
 - 2) Include C-Clamp
 - 1. Color = White
 - 3) Power Input Cable
 - 1. Twist Lock Plug to True1 Receptacle
 - 2. Color = Black
 - 3. Quantity and Length to be determined by bidder.
 - 4) Power Thru Connectors
 - 1. True 1 plug to True 1 receptacle fixture power jumper
 - 2. UL Rated
 - 3. Color = Black
 - 4. Quantity and Length to be determined by bidder.
 - 5) Lens Tubes
 - 1. Color = White
 - 2. ELDT Lens Tubes
 - a. Required for sharpness of edges to focus light only into the aisle ways.
 - 3. Degree of lens tubes to be determined by bidder.
 - 6) Mounting Bracket
 - 1. Bracket to attach light fixtures off of handrailing on Catwalk level.
 - a. Bracketing must be painted white in color.

2.3 LIGHT FOCUSING

- A. Light from the fixtures is to be focused as tightly on the aisle ways as possible by the system integrator.
- B. Time needed to focus by the System Integrator must be summited as part of bidder's construction timeline so the Resch Center can be scheduled appropriately.

2.4 PROGRAMMING

- A. It is the responsibility of the bidder to provide an APG certified ETC Paradigm programmer to program the new LED Aisle Light Fixtures into the existing ETC Paradigm programming.
 - 1. Owner must be able to record presets of the LED aisle lights into already created touchscreen buttons.
 - 2. An additional screen of aisle light control must be accessible from screens defined by the owner at the time of programming.
 - a. A color wheel must also be present and able to be recorded with a preset.
 - 1) If possible individual fixture control of RGB would be preferred.
 - 2) RGB Control of zones can be used as an alternate solution.
 - 3. LED aisle light fixtures must also be able to be programmable into a timeline using ETC Mosaic software.

PART 3 – ALTERNATE OPTIONS

3.1 GENERAL DESCRIPTION

- A. This section describes the optional components the owner wishes to add into the proposal. Bidders should list each option separately with detailed pricing. The bidder is responsible for any additional components needed for any option listed below to ensure full functionality. If for any reason the options listed below cannot be added to the system, bidder should list the reasons why and when possible, provide alternative solutions.
- B. Option A
1. Reduce aisle lighting to only 220° seating configuration.
 - a. Remove light fixtures, lens tubes, power cables, DMX Daisey chain cables, etc.
 - 1) Starting from section 212-213 through section 217-218
 - 2) High and low voltage electrical to remain in place.
- C. Option B
1. Reduce aisle lighting to only retractable riser seating.
 - a. Remove light fixtures, lens tubes, power cables, DMX Daisey chain cables, etc.
 - 1) Focused on fixed seats within the Resch Center
 - 2) All high and low voltage electrical to remain in place.
- D. Option C
1. Additional Light fixtures to illuminate American Flag in Quad C.
 - a. Add in light fixtures to Quad C to illuminate the American Flag in the northeast corner of the Resch Center bowl.
 - b. Additional Electrical and Data location would be “*3C-4” in Attachment 2.

PART 4 – ACCEPTANCE

4.1 GENERAL DESCRIPTION

- A. The information below details the services that are to be provided by the bidder at time of installation. Bidders are required to include an outline of these services within the bid document.

4.2 SYSTEM DELIVERY

- A. It is the responsibility of the bidder to handle all shipping arrangements needed to get equipment to the Resch Complex. The bidder is to work with the owner to schedule any deliveries as to not impede normal business operations. The owner will not be held

responsible for any stolen tools or materials left at the work site. The work site shall be kept neat and orderly during installation.

4.3 COMMISSIONING

- A. Final testing, focusing, and programming must be performed on the LED aisle lights to ensure full functionality of all system components upon final inspections. It will be the responsibility of the bidder to demonstrate that the system can perform as expected based on the requirements of this contract by factory authorized personnel. Any failure of equipment or failure of system performance specifications during final commissioning will delay system acceptance. The bidder will be given an allotment of time decided by the owner to correct any issues during commissioning. The bidder will then demonstrate the functionality of the system once more. No more than three failures of key components or system performance specifications will be accepted during the commissioning process.
- B. The bidder will be responsible for documenting all light fixture model numbers, serial numbers, and location of light fixture as well as lens tubes purchased as part of this RFB. This documentation will be provided to the owner as part of the O&M requirement listed herein.

4.4 WARRANTY AND SERVICE

- A. A minimum of a one-year warranty of all equipment ordered in this RFB is required by owner. The warranty must cover all parts and labor needed to repair any failures during the warranty period. All bids must indicate at least one authorized service agent within 50 miles of the Resch Center capable of providing maintenance on the equipment. Any equipment that carry's more than a one year warranty must be documented as part of the O&M submittal.

4.5 SYSTEM ACCEPTANCE

- A. System acceptance will include both the bidder personnel as well as owner personnel. A designated officer determined by the owner will do the final sign off once the following is demonstrated. Final acceptance will only occur after final commissioning and all equipment is fully installed based on the requirements listed in this RFB.
 - 1. Full functionality of all components of the light fixtures including RGB output.
 - 2. Demonstrations are expected to verify that the owner will be able to program presets\scenes from the touchscreen user stations.
 - 3. All performance requirements have been met and data has been provided to owner.

4. All config files and password protected equipment has been documented and sent to owner.
5. Any updates to the touchscreen user stations have been deployed and are working as expected.

4.6 BID EVALUATION

- A. The evaluation of proposals shall be accomplished by the owner. This evaluation will determine the ranking of each submitted proposal.
- B. The owner may elect to select the top-scoring bidder as finalists for an oral presentation.
- C. The owner may contact the bidder for clarification of any portion of the bidder's proposal.

5.5 OPTION C – ADDITIONAL AMERICAN FLAG LIGHTING

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