

PART 1 – GENERAL**1.1 LIGHTING CONTROL SYSTEMS INTEGRATOR****A. General**

1. The provider of the system herein described shall be acknowledged in business as a Lighting Control Systems Integration Company, hereafter referred to as LCSI. This company shall employ full time Systems Integrators and Project Managers with experience in completing work of similar or greater size and scope. The role of the LCSI in this project shall be to provide all equipment listed in this section to the Electrical Contractor for installation. The LCSI shall furnish a complete working system to the Electrical Contractor, meeting the intent of this specification and the fixture specification for Type TL1.
2. The LCSI shall coordinate delivery schedules and installation of equipment with the Electrical Contractor. Additionally, the LCSI shall be responsible for all documentation for equipment in this section, system record drawings, final testing of the system and training of the Owner's personnel as required by this specification.

B. Description

1. The LCSI shall have experience in the operation and installation of similar equipment associated with the construction and/or renovation of facilities similar in scope to this project.
2. The LCSI shall have been in business for a minimum of 20 consecutive years and shall have no history of bankruptcy.
3. The LCSI shall be an authorized dealer for an adequate number of manufacturers of system products necessary to provide a complete working system meeting the intent of this specification. System products shall include but are not limited to the following:
 - a. Dimming Equipment
 - b. Control Systems
 - c. Lighting Fixtures
 - d. Power Distribution Equipment
4. In order to facilitate the compliance with requirements for LEED certification, the LCSI shall employ a fulltime LEED Accredited Professional (LEED AP) who shall be actively assigned to the project.
5. The LCSI shall be located within the state of California.
6. The LCSI shall have on staff at least two full-time manufacturer-certified field service technicians and have technical support and assistance accessible 24 hours a day, seven days a week.
7. The LCSI shall offer a Maintenance and Service Contract.
8. The LCSI shall provide a one-year system warranty for the complete system, not including expendable supplies, effective from the date of system acceptance. Within this warranty period, the LCSI shall be responsible as the Owner's sole contact for the remedy, repair, or replacement of system deficiencies (through the manufacturer's warranty where applicable).

C. Project Management

1. The Systems Integration Company shall designate a dedicated Project Manager. The LCSI's Project Manager shall be the main contact between the Systems Integrator, Manufacturers, Architects, Engineers and Contractors from contract award until final sign off. The LCSI's Project Manager shall be the same person throughout the entire course of the project, unless otherwise approved by the Architect.
2. The LCSI's Project Manager shall attend a Kick-Off Meeting at the project site office or a place to be designated. The objectives of the Kick-Off Meeting are:
 - a. Introduce the Project Team Members
 - b. Review the Project Schedule
 - c. Review the Scope of Work and any additional materials and documents not in the Scope of Work
 - 1) For budgeting purposes, the following has been assumed:
 - a) System Control Servers (2 custom media servers)
 - b) System Integration (5 days onsite integration with Electrical Contractor)
 - c) System Programming (10 days onsite with 2 programmers and support staff to complete integration)
 - d) System Pre-Design (5 days of meetings with Designer/Owner to develop content)
 - e) System Content (6 Dynamic 60 second looks designed for LED fixture grid, Type TL1)

- f) System Training (End user training of 5 days onsite)
- d. Layout of the creative intent of the Project
 - 1) The final creative intent of the Project is to be determined by the Owner.
- D. Approved Lighting Control Systems Integration Companies shall be the following, or approved equal:

Entertainment Lighting Services (ELS)
Lighting and Production Solutions For Events, Film/TV & Architecture
Lonny Regnier lonnyr@elslights.com
Outside Sales
11440 Sheldon Street
Sun Valley, CA 91352
818.255.9546 direct
818.414.9022 mobile
818.769.9800 main
818.769.2100 fax
www.elslights.com

1.2 SUBMITTALS

- A. Requirements for Approval: Lighting Control Systems Integrators seeking acceptance must submit the following information ten days prior to bid date. Failure to submit any of the required information will automatically disqualify the contractor from consideration of approval.
 - 1. A listing of 10 equivalent installations including:
 - a. Name, address, and current telephone number of Owner.
 - b. Name, address, and current telephone number of Architect or theater consultant associated with the installation.
 - c. Scope of work of the installation including all sub-contractors and manufacturers.
 - 2. A brief written description of the LCS's operation, including facilities, departments and key personnel.
 - 3. Biographical information of the Project Manager and integration team members who will be assigned to this project should the contractor be successful.
 - 4. A full and complete financial statement sufficient to determine financial viability.
 - 5. A list of all sub-contractors who the LCS proposes to use including their qualifications to perform the work.
- B. Manufacturer shall provide 5 sets of full system submittals. Submittals shall be 11"x17" and include:
 - 1. Full system riser diagram(s) illustrating interconnection of system components, how the system attaches to building structure, and any special installation considerations.
 - 2. Full set of printed technical data sheets.
 - 3. Detailed set of drawings, including a complete list of all deviations from specifications.
- C. Manufacturer shall provide any additional information, including equipment demonstration, as required by the Architect to verify compliance with specifications.
- D. Samples: The LCS shall submit samples without causing delay in work, as required.
- E. Catalog Cuts: The Contractor shall submit catalog cuts for equipment items. These shall contain full information on dimensions, construction, applications, etc. to permit proper evaluation. In addition, they shall be properly identified as to their intended use. Any options or variations shall be clearly noted.
- F. Drawings: Submit shop and installation drawings and schedules showing all information necessary to explain fully the design features, appearance, function, fabrication, installation, and use of system components in all phases of operation. They shall be approved by the Architect before fabrication, installation, or erection has begun. Such approval does not relieve the LCS of the responsibility of providing equipment in accordance with the specifications. Any deviations from the specifications shall be "starred" and noted in 3/8-inch high letters. Only deviations that are equal or upgrade the quality of the equipment or respond to field conditions will be considered.

PART 3 EXECUTION

3.1 LIGHTING CONTROL SYSTEMS INTEGRATOR'S SERVICES

- A. Upon completion of the installation, including testing of load circuits, the contractor shall notify the LCSl's Project Manager that the system is available for formal checkout by the system manufacturer.
- B. Notification shall be provided in writing, 21 days prior to the time factory-trained personnel are needed on the job site.
- C. No power is to be applied to the system unless specifically authorized by written instructions from the LCSl's Project Manager.
- D. The purchaser shall be liable for any return visits by the factory engineer as a result of incomplete or incorrect wiring.
- E. Upon completion of the formal check-out, the factory engineer shall demonstrate operation and maintenance of the system to the owner's representatives. Training session shall not exceed four working hours.
- F. A second training session shall be provided six months after the first training session. Training session shall not exceed four working hours. Additional training shall be available upon request. Scheduling for training sessions shall be made in writing, 21 days prior to the time factory-trained personnel are needed on the job site.

3.2 RECORD DRAWINGS AND MANUALS

- A. Record Drawings
 - 1. The LCSl shall submit two sets of full sized Record Drawings to the owner for final acceptance. These drawings shall be fully revised and reflect the actual finished installation. The drawing set shall be 100% complete and shall include all schematics, details and Bill of Materials for future maintenance and repair of all systems supplied by the LCSl.
 - a. Each drawing shall be dated and stamped as a Record Drawing.
 - b. Prints shall be full sized, stapled into sets. They shall be fully legible.
 - c. Any future revisions or modifications during the warranty period shall require that the owner's Record Drawings be updated also.
- B. Manuals
 - 1. Manuals shall be bound by the LCSl in loose-leaf binders and labeled with tabbed dividers for easy reference.
 - 2. The LCSl shall provide two sets of Instructions and Maintenance manuals to the Owner. The manuals shall consist of, but not be limited to:
 - a. System Description
 - b. User Operating Instructions
 - c. User Maintenance Instructions
 - d. Catalogue Cut Sheets from all equipment purchased
 - e. Spare Parts Listing
 - f. 11" x 17" reduced drawings of all system assemble drawings needed to perform system maintenance.

END OF SECTION