

BID PACKAGE**BP26 ELECTRICAL & FIRE ALARM
SCOPE OF WORK &
PROJECT SPECIFIC CONDITIONS**

Project Name: Wendell H. Murphy Football Center Kitchen Renovation

SCOPE OF WORK:

Subcontractor agrees to commence Subcontractor's work herein described upon notification by Contractor and to perform and complete such Work in accordance with the Contract Documents and Contractor's Schedule.

Scope – This subcontractor agrees to furnish and install all necessary labor, materials, equipment, taxes incidentals, tools, sales and use taxes, licenses, permits, insurance, freight, supervision, engineering (if applicable) and overtime for the work listed below. Meet all industry and manufacturer's standards, the contract drawings & specifications, addenda if any, and all local/state/federal codes and insurance and/or incidentals necessary to provide and install the **Electrical systems** for the **Wendell H. Murphy Football Center Kitchen Renovation** project. Work under this Subcontract Agreement specifically includes, but shall not be limited to, the following.

Subcontractor shall provide a payment and performance bond in accordance with the standard Shelco forms provided.

1. Work on this project will occur during school year with students and faculty in the building. The owner is allowing the majority of work to commence during normal working hours, but subcontractor understands work will be sequenced to comply with school's requirements (ex. no loud noises during testing times). Loud, odorous, and work in currently occupied areas shall occur off-hours (7pm-7am or weekends). Subcontractor includes all out-of-sequence and off-hours work needed to comply with Owner's requirements.
2. Work in this scope includes Kitchen that is accessed from Level 1 loading dock. Subcontractor includes access and removal of debris from loading dock for this scope of work. Include protection of all finishes from Loading Dock Entry to work space.
3. All work outlined in project specifications to include but limited to:
 - a. 095800 Integrated Ceiling Assemblies
 - b. 260500 Common Work Results for Electrical
 - c. 260519 Low Voltage Electrical Power Conductors and Cable
 - d. 260523 Control – Voltage Electrical Power Cables
 - e. 260526 Grounding and Bonding for Electrical Systems
 - f. 260529 Hangers and Support for Electrical Systems
 - g. 260533 Raceway and Boxes for Electrical Systems
 - h. 260553 Identification for Electrical Systems

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- i. 260573.13 Short Circuit Studies
 - j. 260573.16 Coordination Studies
 - k. 260573.19 Arc-Flash Hazard Analysis
 - l. 262213 Low-Voltage Distribution Transformers
 - m. 262416 Panelboards
 - n. 262726 Wiring Devices
 - o. 262813 Fuses
 - p. 262816 Enclosed Switches and Circuit Breakers
 - q. 265116 Lighting
 - r. 265119 Architectural RGWB LED Backlighting Luminaire - Interior
- 4. Fire Sprinkler, Plumbing, Mechanical, and Electrical contractors are all required to coordinate and complete coordination shop drawings, including 2D coordination. Mechanical to take the lead in preparation of detailed coordination. The current Revit model shall be furnished by the Architect for use during coordination.
 - 5. Owner has engaged a commissioning agent. Subcontractor shall attend commissioning meetings, walks, coordinate on-site inspections, on-site testing, fill out required paperwork, etc. to assist owner's commissioning agent in their duties.
 - 6. Competent and experienced Project Management and Field Supervision.
 - 7. Subcontractor on-site Superintendent shall be English speaking.
 - 8. Subcontractor to maintain as-built drawings on site to be reviewed monthly with Shelco prior to the approval of subcontractor's application for payment.
 - 9. Includes timely submittals, shop drawings, and as-built Record Documents.
 - 10. All closeout information such as warranties and as-built drawings shall be submitted and approved prior to final billing. O&M manuals shall be submitted with 50% billing. Delays in providing this documentation will result in held payments.
 - 11. Subcontractor Project Manager and Field Supervision are required to attend weekly subcontractor meetings. Daily field/manpower reports are required to be submitted to Shelco.
 - 12. Lower tier subcontractors must be supervised by prime subcontractor employees at all times.
 - 13. All subcontractor employees, including tier subcontractors and vendors, are required to abide by OSHA regulations and Shelco Safety Guidelines.
 - 14. Protection of all materials and equipment installed by Subcontractor will be the responsibility of the subcontractor for the duration of project.
 - 15. The subcontractor agrees to clean up their portion of the work daily. Clean-up under this agreement shall include the following but not limited to removal of all waste materials from all areas on a daily basis and placed in Shelco provided waste dumpsters. Subcontractor will abide by the Shelco Waste Management Plan.
 - 16. Subcontractor shall include protection of adjacent work and unfinished surfaces during the scope of work installation, including but not limited to, HVAC, plumbing, electrical, glazing, or other permanent structures.
 - 17. Subcontractor is responsible for receiving, unloading, and handling of all subcontractor's materials and equipment.

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18. Coordinate and cooperate with all Public Inspection agencies. The subcontractor is responsible to call for all required inspections in order to maintain the current Shelco project schedule.
19. Subcontractor to provide all Owner demonstration/training for all equipment provided and per the project documents.
20. Subcontractor is responsible for all misc. equipment required for their work including man lifts, forklifts, lift trucks, hoists, etc.
21. Subcontractor has reviewed the project schedule and has adequately staffed the project to meet the schedule dates. Work requiring loud or disruptive noise much be coordinated and completed after hours.
22. Provide any attic stock called for on project documents.
23. Provide make-safe of all electrical systems prior to demo. Majority of 2B & 2C work area will already be demo'ed prior to construction, but areas to be demo'ed as a part of this project shall be made-safe by this subcontractor.
24. Subcontractor has reviewed the plumbing and mechanical plans and has included power wiring and final connections to all equipment. Provide disconnects for equipment as-needed.
25. Provide lighting levels as required by OSHA and other trades to complete their scopes of work. Provide GFCI protected temporary power coordinated with GC.
26. Includes all lighting as shown on lighting plans and schedule. Coordinate mounting requirements with submittals and architectural drawings.
27. Electrical Subcontractor to furnish and install the complete Integrated Ceiling Assembly package BARZ + BRILLIANCE by USG including the lit and unlit red aluminum fins. Product to match specification section 095800 with layout of sprinkler heads coordinated with FP Contractor.
28. Subcontractor to provide and install complete lighting control panel and system as shown on plans.
29. Provide and install all floor boxes and poke thru's as shown on plans. Subcontractor includes core drilling for floor boxes/poke thru's, conduits for AV/Data, and fire-safe systems per code. Subcontractor to notify Shelco of any potential damages to finishes prior to moving forward.
30. Provide all conduit w/ pull strings, junction boxes, fittings, etc needed for data (including WAPs), security and AV subcontractors as shown on project documents. All conduit should daylight above accessible ceilings and conduit size shall be per project plan notes. Subcontractor shall provide any sleeves needed to access IT Room. Electrician to provide blank-off plates on all data boxes for inspections, since it will be installed at a later date. Includes interconnecting conduit for AV boxes from below slab to back-box to above ceiling.
31. Includes fire and sound caulking of own penetrations where called for on plans.
32. Provide all panelboards, breakers, conduits, fitting, wiring, lighting, gear, fire alarm, horn/strobe, switches, outlets, floor boxes, poke thru's, GFCI, disconnect, lighting control, occupancy sensor, etc for a complete and turnkey electrical package per the contract documents.
33. Subcontractor to coordinate and provide all power needs for other subcontractors (ex. floor grinding).
34. Subcontractor includes complete EMT conduit system per plan. This includes conduit for other trades (ex. fire alarm, security, data).
35. All raceways and boxes to be labeled and color coded per plans & specs.

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36. All shutdowns shall be coordinated with Shelco & NCSU
37. Any core drilling required for electrical scope shall be included by Electrical Contractor.
38. ½" conduit will not be allowed on the project per plan notes. Minimum raceway size ¾" per plans.
39. Exit signs to match building standard.
40. Coordinate lighting with ceilings and other MEP elements.
41. Only specified manufacturers will be accepted. Alternates are not allowed unless confirmed in writing by both Shelco & CRA.
42. Electrical Contractor to include complete Fire Alarm system including shop drawings, engineering, materials, wiring, installation and programming.
43. Provide manufacturer's complete 5 year warranty on lighting per specs (labor and material).
44. Provide all feeder insulation megging requirements noted in specs.
45. All feeders to be copper per project specifications.
46. All conduit fittings shall be compression type. Set screw will not be allowed per project specs.
47. Subcontractor to complete scope per project schedule.
48. Subcontractor has walked the site and included pricing for all items. No change orders will be issued for unknown items not shown on drawings when clearly known.
49. Furnish and install all electrical disconnects per plans
50. Disconnect all Existing Kitchen Equipment electrical connections for removal of equipment by others.
51. Final electrical connections for ALL Kitchen Equipment is included
52. All strip lights and cove lights in millwork are included.
53. Furnish and install Arktura, LLC. RGBW Backlighting LED Luminaire architectural lighting system
54. Camera raceways and boxes per RCP and detail on 4/E6.02
55. Red LED Backlighting on Perforated Metal Panels per detail 2/A2.03
56. Power relocations as required for Kitchen & HVAC Equipment being relocated per plans(ex. Terminal units, coolers, etc.)
57. Fire caulking and/or sealing of all penetrations is included
58. Labeling of all junction boxes is included
59. Power and raceways are included for the Projector & Projector Screens in position rooms.
60. All conduit shall be concealed above ceiling or in wall, no exposed conduit is acceptable.
61. Short-Circuit Study per Project Manual is included. Computer-based, fault-current study to determine the minimum interrupting capacity of circuit protective devices.
62. Coordination Studies per Project Manual are included. Computer Based, Overcurrent protective device coordination studies to determine overcurrent protective devices and to determine overcurrent protective device settings for selective tripping.
63. Arc Flash coordination study to be included per project manual by EC.

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Alternate:

1. Players' Lounge Offices Electrical Scope

Allowances to be included in base bid:

1. \$15,000: Addressing existing code deficient electrical systems
2. \$5,000: Additional conduit for other trades (ex. A/V, data, low voltage) that is not currently shown on plans. All devices shown on plans are included under base bid.

MISCELLANEOUS ITEMS:

Coordination - Subcontractor shall be responsible for reviewing the complete set of building contract drawings and coordinating his work with all other trades involved, including building design loads, underground utility design, and bridging requirements.

Supervision - Subcontractor shall provide one Superintendent or Foreman for project to interface with Shelco Project Superintendent. Subcontractor's Superintendent or Foreman shall not be changed without prior approval of Shelco's Project Superintendent. Subcontractor's Superintendent or Foreman shall be present on site at all times while Subcontractor is performing work.

Waste - Subcontractor acknowledges all waste materials will be properly disposed of in Shelco provided dumpsters.

Seismic - Subcontractor shall be responsible for installing and support systems to resist all applicable seismic forces per project requirements.

Warranty – The Subcontractor shall provide a one-year workmanship warranty from the date of final acceptance from the Owner.

Equipment - Subcontractor includes all lifts, equipment, etc. as required for safe installations.

Final Cleaning - Final cleaning is by others, however, the Contractor shall leave his work in a "construction cleaned" condition. "Construction cleaned" is defined as being broom clean when finishing is complete. Comply with product manufacturer's recommendations for cleaning.

It is the intent of this Agreement that a complete and fully complete Electrical Package in accordance with the contract documents, including miscellaneous items required but not explicitly specified or shown. Subcontractor shall furnish and install all parts, accessories, devices, protection, and all other items necessary for his system to perform its intended function, except as specifically excluded elsewhere in this agreement. Subcontractor shall not assume that any item adjacent to or interfacing with its work will be furnished by others unless specifically so identified elsewhere in this subcontract.