

CENTER LINE PUBLIC SCHOOLS
RISING STARS ACADEMY at
MILLER ELEMENTARY SCHOOL

121440

MARCH 11, 2013

SECTION 02000
BID CATEGORY - 16000 ELECTRICAL

The work of this bid category includes but is not limited to providing all labor, equipment, materials, scaffolding, hoisting and incidentals to complete all Electrical Work in accordance with the specifications, drawings, and applicable codes. All work is to be performed as shown on the plans and specified in the following technical specification sections:

<u>Specification Section</u>	<u>Description of Section</u>	
<u>DIVISION 2</u>	<u>SITE</u>	
02070	Selective Demolition	6
02925	Cleanup and Restoration	
02300	Earthwork	
<u>DIVISION 16</u>	<u>ELECTRICAL</u>	
16010	Electrical General Requirements	15
16050	Basic Elec'l Materials & Methods	5
16055	Overcurrent Protective Device	
	Coordination and Arch Flash Study	13
16060	Grounding and Bonding	10
16073	Hangers & Supports for	
	Electrical Systems	7
16075	Electrical Identification	10
16120	Conductors & Cables	7
16130	Raceways and Boxes	10
16140	Wiring Devices	10
16145	Lighting Control Devices	9
16410	Enclosed Switches & Circuit Breaker	9
16420	Enclosed Controllers	11
16442	Panelboards	10
16491	Fuses	5
16511	Interior Lighting	23
16721	Fire Alarm	20

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In addition to the above, this bid category includes but is not limited to the Bidding Documents, the Bidding and Contract requirement and Division 1 General Requirements of the Project Manual and various other Technical Specifications interfacing with this work. The bidder is advised to review the work descriptions of the other categories and other referenced documents so as to not misunderstand scope responsibilities.

THE SCOPE OF THIS BID CATEGORY SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING ITEMS:

1. It is the responsibility of this Bid Category to review all drawings and drawing notes, including architectural, mechanical and electrical drawings, and include items requiring work that is generally defined as the responsibility of this Bid Category within the work description unless otherwise noted above in the scope of work.
2. This contractor will be responsible for all re-mobilization costs for all phases of work.
3. This contractor is to provide all legal disposal off-site of the debris that is a result of their work.
4. Coordination with other trades, including mandatory participation in job meetings.
5. Coordinate the location and sizes of all openings with the appropriate trades.
6. Before sawcutting or making any cuts in the floor, all contractors must use ground penetrating radar, and must provide proof that it was used to the Architect.
7. Referencing drawing A-1.0-Reflected Ceiling Plan Notes: This contractor is responsible for work described in the following notes: 1. Composite Plan notes: 7, 8, 9, 10.
8. Reference drawings A-2.0 - this contractor is responsible for work described in the following notes: Reflected ceiling plan note: 2. Demolition plan notes: 3.
9. Reference all electrical drawings (E0.1 thru E7.1). This contractor is responsible for all demo notes and new work notes on all mechanical drawings. Refer also to electrical rough-in notes on sheet FSE-2.
10. Furnish, install and maintain all shoring and bracing as required. Leave shoring in place until new building systems are in place and then remove as required. Prior to installation of shoring and bracing efforts, provide shop drawings on the proposed shoring and bracing design. A registered engineer in the State of Michigan must seal drawings.
11. Perform all trimming and adjusting of demolition work for installation of new construction. Coordinate limits of wall demolition with architectural drawings and all critical trade contractors.

12. In all locations where this contractor sawcuts the floor, this same contractor is also responsible for pouring back concrete. This contractor must coordinate with flooring contractor as to provide proper floor finish and height.
13. Coordinate and schedule utility shut-downs as required for this contractors work with Owner.
14. Obtain approvals, permits and coordinate the inspection and testing of the systems with state governing agencies. This contractor is responsible for and shall coordinate all work with public utility companies, as required. Pay for all fees and testing charges for each system.
15. This contractor will be responsible for all de-watering during excavations of their work.
16. This contractor will provide all temporary lighting and power as specified in the Special Conditions.
17. The contractors field superintendent shall be present during testing and field reviews conducted by the various inspection agencies.
18. This contractor will be responsible for all hoisting and handling necessary to complete this work.
19. This contractor shall provide rough-ins and final electrical connections for mechanical and electrical equipment, specialties, and casework, as specified. Coordinate with other trades to provide all required electrical connections. Furnish and install all electrical equipment and accessories as related to other trades.
20. The first floor sub-grade will be placed and compacted prior to the start of the underground work designated in this package. This contractor is responsible for all layout, excavation, backfilling, and compaction for any underground or underfloor electrical work required. Replace all fill to the specified density following excavation for the work of this category.
21. Contractor is responsible for removal of all spoils resulting from their work from the site.
22. Verify and stake locations of all underground utilities before work begins.
23. Coordinate with Architect/Engineer before penetrating any structural members.
24. Provide proper identification of panels, circuits and systems.
25. Furnish and install all specified backing and supports for fixtures and equipment.
26. This contractor will provide all conduit, wiring, panels, devices, switches and accessories necessary for the installation of a complete power system.
27. Coordinate installation of electrical floor boxes with category 15000. This contractor will be responsible for proper layout of the boxes.

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28. Provide all required escutcheons, pedestals, etc. for finish trim for this scope of work, as specified.
29. Provide and locate all access doors to architectural trades for setting as required for access to electrical equipment.
30. This contractor is to wire all motors, disconnect switches, and starters supplied by either themselves or category 15000.
31. Provide and install all conduits, raceways and boxes for telephone and computer (data) system. This contractor must coordinate with the Owner's representative as to size and type of equipment.
32. Provide and install complete fire alarm system as described in the technical specifications, shown on the drawings, and required to meet applicable codes and regulations. Coordinate all fire alarm work with mechanical contractor's work to provide all required safety and emergency shutdown features.
33. This contractor will be responsible to provide and install smoke detectors to the building fire detection system and electrical service.
34. This contractor is responsible for the cutting and patching of all existing materials for the installation of all electrical work. All penetrations through walls and ceilings will be fire and smoke stopped whereas to comply with the State and local Fire Safety Requirements. Provide and install all firestopping materials. Contractor shall restore all surfaces to match existing conditions. This shall include all drywall, masonry, concrete, acoustical ceiling, steel, roofing, windows, insulated wall panels, plaster, painting, and caulking work.
35. Provide and install all clocks, integrated intercom/telecommunications, sound system, and connections to projection system equipment as shown and specified, including all related materials.
36. Provide protection of equipment. Damage to equipment due to a lack of adequate protection will be the responsibility of this contractor.
37. Provide complete lighting system with occupancy and/or automated lighting controls, as required.
38. Each contractor performing demolition shall be responsible for protecting new and existing construction from damage due to their own work. If any adjacent surfaces are damaged, it will be the sole responsibility of the contractor at fault to completely repair and replace all damaged construction to the satisfaction of the Owner and Architect.

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39. This contractor will be responsible for all electrical demolition as shown on drawings. This is to include all conduit, wiring, light fixtures, etc. This contractor is responsible for all disconnects for their own demolition as well as disconnects of the existing mechanical and kitchen equipment.
40. In rooms where existing ceiling is not scheduled to be removed and replaced, this contractor will be responsible for removal and replacement of ceiling tile as required to perform their work, as well as any cost associated with replacing with new tiles.
41. This contractor shall furnish, upon completion of work, as-built mylar drawings showing the installation of the work as completed and operating and maintenance manuals as described in the specifications.

EXCLUDED FROM THIS CONTRACTORS WORK IS:

1. All required testing (By Owner)

END OF BID CATEGORY 16000 MECHANICAL