Trade Partner Scope of Work

Exhibit A

BP-26A Electrical Systems/Security/Audio Visual/Fire Alarm/Tele Data

North Brunswick High School Addition and Renovations

A. The subcontractor shall perform all work and shall furnish all layout, supervision, materials, labor, scaffolding, tools, equipment, supplies, services, rigging, craning and hoisting of all materials and equipment and all other things necessary or reasonably incidental for the construction and completion of their work as portrayed in the enclosed enumerated contract documents and specification sections as referenced below:

Supplemental Instructions to Bidders dated April 17, 2020
S&ME Geotechnical Exploration Report dated August 21, 2019

Associated Specifications:
Division 00 Procurement and Contracting Requirement
Division 01 General Requirements

Division 26 Complete
Division 27 Complete
Division 28 Complete
078413 PENETRATION FIRESTOPPING – as applies to own work
078443 JOINT FIRESTOPPING – as applies to own work
079200 JOINT SEALANTS – as applies to own work
083113 ACCESS DOORS AND FRAMES – as applies to own work
DIVISION 21 – As Applies to this Scope
DIVISION 22 – As Applies to this Scope
DIVISION 23 – As Applies to this Scope

B. Subcontractor's work specifically includes:

1. All bidders to note project includes all plans and specifications for the Two-Story Classroom Addition, ROTC Building, Cafeteria Expansion, and Classroom 413 Renovations.
2. Electrical service for construction activity will be provided by the electrical subcontractor throughout the building. Receptacles shall be placed at location where the greatest distance to an available power source is approximately Seventy Five Feet (75'-00") from any location, each floor. All electrical tools and extension cords shall be plugged into a ground –fault interrupting device provided by the subcontractor plugging into the electrical system.
3. Power hook up and setting of temporary power pole for CM@R Trailer
4. Electrical Sub contractor to provide power wire and disconnect for all pieces of equipment.

5. Electrical Subcontractor is responsible to provide support for all light fixtures installed in ceilings.
6. Electrical subcontractor is responsible to provide any architectural trim rings for mounted fixture.
7. Electrical Subcontractor shall furnish install, maintain and remove temporary lighting for the entire construction area in accordance with current OSHA requirements. Scope includes replacement of light bulbs as needed.
8. Electrical subcontractor is responsible for wiring associated with the fire sprinkler flow and tamper switch operation.
9. Card reader access device for elevator access to be provided and installed by electrical subcontractor.
10. Electrician will provide temporary service outlets 6 locations approx. 750 feet of weather proof romex. Circuit to be dedicated circuit to be used for powering of Security Cameras (to be provided and installed by CM@R).
11. Electrician to provide hard wiring to extend WIFI signal from CM@R trailer into the building 2 locations. WAPS to be provided by CM@R. CM@R trailer to be located near projects from entrance.
12. Electrical subcontractor is responsible for providing support for light fixtures installed in acoustical ceilings as required by the applicable codes and contract documents.
13. Electrical trades are responsible for all sump pump wiring, including visual and audible alarm wiring, if needed by code.
14. Electrician to include Tele data, communications and security systems complete per plans and specs. Please pay special attention to items provided by BCS IT department, installed by BP-26 (WAPS, some equipment in IDF and MDF rooms, etc)
15. Electrical contractor to work closely with BP-08A and BP-08B regarding the installation of electronic door hardware and access control. It is the Electrician's responsibility for all final hook up and programming of access control. Installation of hardware by others. Power Supply to be provided by others, installed by BP-26A. Connections from power supply to hardware/card reader and interface to access control by BP-26A.
16. Electrician to provide sheet metal shrouds under all non-recessed electrical panels
17. Electrical Subcontractor to assist Owner with any and all energy incentives from local power company. This may include supplier invoices, delivery receipts and submittal packaging turned over to owner for verification.
18. Includes cap and safe of all electrical and telecom prior to BP-02A (Selective demo) commencement of work.
19. Subcontractor to include all Demo relating to electrical requirements. Including, but not limited to conduit, wiring, panels, low voltage in IDF, MDF and electrical rooms.
    a. Close coordination with Selective Demo subcontractor and MEP subcontractors will be required
    b. Selective Demo subcontractor and MEP trades are required to walk project prior to demo start (on each phase) to mark items to be removed and where demo should start/begin. This walk through will be recorded (itemized list) and marked on set of drawings to be agreed upon by all trades.

c. Subcontractor to include an allowance of 20 man hours of selective mechanical demo for any area found needing to be demolished outside of BP-02A/BP-26A scope to be used at the discretion of W.M. Jordan.

20. At tie in to existing 2 story building, include temporary disconnect/removal and re-installation of existing interior and exterior lighting and fire alarm systems within 10' of 2nd connection.
21. Electrical Subcontractor to provide disconnects for equipment. Mechanical Subcontractor is responsible for power wiring from disconnect to within their mechanical equipment. Should equipment require factory mounted disconnect, electrical contractor to supply while to agreed location with mechanical contractor, mechanical contractor to make final connection.
22. Electrical Subcontractor is required to provide foremen for commissioning assistance.
23. No unscheduled/unapproved cutting of structural members is permitted.
24. Provide and install fire rated plywood backing behind all panels and telecom racks as required by code and shown on plans
25. Includes installation of smart board and smart board brackets– in wall blocking provided by others. Include all hookup and programing of Smart Boards
26. Pay specific attention to requirements for ROTC raceways under slab.
27. Please see bid package for Owner preferred alternates
28. BIM Modeling (as required by Construction Manager):
    a. Prior to and during construction of this project, the Construction Manager will leverage BIM (Building Information Modeling) for various processes. If a subcontractor intends to use a third-party modeling firm, then this should be indicated in their bid. The CM reserves the right to reject third-party modeling firms at their discretion. Subcontractors that have been awarded the above referenced project will be responsible for the following activities and deliverables.
    b. All phases of design (architectural, structural, MEP) been created in AutoDesk Revit and each model will be turned over to subcontractors for their use in creating their own models.
    c. It is the intent of the CM@R to use design models to assist in reducing the time frame of coordination, and coordinate shop drawings, however 3D coordination of MEP trades is still required. Design models must be thoroughly vetted to determine completeness and accuracy.
    d. Drawings shall be sufficient detail to show large rack runs, conduit 1-1/2" or greater, underground duct bank, clearance and relative locations of the work in allotted spaces. The electrical subcontractor will disseminate the drawings.
    e. Weekly coordination meetings for the duration of the coordination processes
    f. Maintaining the coordination schedule created by WM Jordan
    g. Distribution of models between subcontractors
    h. Running web-based or on-site coordination meetings at least once per week or as necessary to meet the coordination schedule
    i. Models created in software that is compatible with Autodesk Navisworks Manage, and the .nwc exports of these models. Models must contain all content required for coordination of the following trades: Mechanical (duct and pipe), Plumbing, Fire

Protection, Data/IT, Structural Steel, and any other trades with scope in the underground or above-ceiling space.

j. BIM coordination not required for ROTC, and Classroom 413. 2 Story addition and Cafeteria only.

Fire Alarm Specific:

29. Provide fire alarm system not limited to fire alarm panel, wiring, pull stations, smoke detectors, horn/ strobes, and any control modules necessary for a fully functioning, fail-safe, supervised, annunciated system. BP-26A Electrical contractor to provide rough in of conduit, boxes and mounting of panel tubs.
30. Provide connections to fire sprinkler flow & tamper switches, post- indicator valves, etc. both within building and new work on site.
31. Electrical Subcontractor (and/or fire alarm contractor within bid package) to provide duct/smoke detectors compatible with Fire Alarm system for BP-023A (Mechanical Subcontractor) to install.
32. The fire alarm system shall be new and furnished with a warranty (parts & labor) of at least one year from the date of final inspection and/or acceptance by the Owner. Equipment, initiating devices, and alarm appliances shall be arranged and the annunciator zones shall be configured as described by the engineer's written specifications. This bid package to coordinate interface with campus wide fire alarm.
33. Contractor shall coordinate and schedule all inspections with inspection departments and shall provide CMAR one days advanced notice of all scheduled inspections as work progresses.
34. Contractor shall coordinate with and provide access to; CMAR personnel, Design Team personnel, local inspection department personnel, NHCS personnel and Commissioning agents, for all inspections re-inspections and final approvals directly related to this Scope of Work.
35. Emergency Responders Radio Amplification System:
    a. In base contract, contractor should include initial testing/survey of signal strength at envelope completion, final testing/survey prior to substantial completion of building and all required shop drawings and documentation to local AHJ to confirm building meets radio signal standards. Testing surveys should comply 2018 NCFC, 510.5.3 and NFPA 72,224.5.2.1
    b. In base contract, contractor should include all conduit/raceways (including conduit from BDA location on plan to main FACP Annunciator Panel location, junction boxes, etc. shown on contract documents for the potential BDA system. Should BDA system not be required, all raceways and boxes shall be labeled, capped and left in place.
    c. CM@R will carry allowance for BDA system(s) should testing indicate the need for emergency responder communication amplifier. Should BDA system be required electrical contractor shall provide formal proposal for installation of complete BDA system (as shown on plans and notes).

C. Subcontractor Specific Requirements:

- The following is a general outline of items specifically included, but not limited to, under this agreement:

A. Submittals must be uploaded onto WMJ Sharepoint site for review. To gain access to Sharepoint site please contact the Construction Manager within 5 days of receiving the contract. All submittals are expected to be received no later than 20 days of receiving the contract unless discussed and approved by the Construction Manager.
B. Delivery Requirements: As coordinated by Subcontractor with WMJ on site Superintendent. Subcontractor is responsible to coordinate delivers with vendors. The construction manager will not provide equipment to unload subcontractor materials. Please keep in mind the school will be in session during normal school hours and all deliveries must be scheduled. NO DELIVERIES WILL BE ACCEPTED BETWEEN THE HOURS OF 7:00AM AND 8:00AM and 2:00 and 3:30PM MONDAY THROUGH FRIDAY (this excludes deliveries on small company pickup trucks and/or small box trucks as approved by project superintendent). Saturday deliveries will be accepted only on the approval of the project Superintendent.
C. Subcontractor is responsible for scheduling, coordinating, preparing and documenting all testing, inspections, and punch-list with the Owner, Architect, Engineer, Owner's Commissioning Agent, inspection agencies, and required local authority(s) having jurisdiction. All pre-testing and testing requirements needed to achieve temporary and permanent certificate of occupancy and the construction schedule is included.
D. It is the responsibility of this Subcontractor to anticipate inspection delays in the installation durations and sequence such work ahead of others as not to impose delays in the schedule.
E. Any and all requirements for mockups for approval of assemblies on this project are fully included.
F. In addition to the requirements of the specifications, Subcontractor will supply Shop Drawings that include all dimensions, mounting details, and/or pad layout, weight, color, power requirements, ventilation requirements, and all special attachments and mounting details as applicable to their own scope.
G. This Subcontractor should provide protection for ANY new and existing installations as part of this Project. If protection provided by others is not sufficient to support/protect the work as part of this scope, this Subcontractor shall provide additional protection as may be required to fully protect that equipment or installation.
H. All damage to paint primers or applied factory finishes damaged during install shall be repaired by this Subcontractor.
I. Final cleaning of all equipment prior to Final Project Completion including removal of shipping stickers, etc. This shall apply to all existing installations as well as new installations

D. Allowances:
   a. The Subcontractor is to include the following allowances in their base bid amount. These allowances will include all overhead and profit and will be identified on a separate line item in the payment application schedule of values. The Construction Manager is solely responsible for determining what work will be charged against these allowances and all said work must be authorized in writing by the Project Manager or Superintendent prior to commencing. Subcontractor will submit daily work slips for verification and actual costs against this allowance will be reconciled at the completion of the project. Any work performed by Subcontractor that was not previously authorized by the CM will not be reimbursed.

E. Unit Prices
   a. Unit prices quoted and accepted shall apply throughout the duration of the contract and are inclusive of all overhead costs, insurance, bonding and profit. If necessary, Subcontractor agrees to provide labor and/or materials and/or equipment to perform the following work on a unit price basis for the unit prices stated below. Should additional Unit Prices be necessary, these will be agreed upon and included here after the completion of the post-bid scope review meeting

F. Alternates:
   a. The subcontractor is directed to reference the big form for applicable project alternate prices to be included with the Subcontractor's Bid. Alternate Prices shall include all cost associated with the changes, omissions, additions or other adjustments to the work of the Bid Package as described in the alternate, or are reasonably inferable therefrom. Alternate Prices shall include all cost of overhead, profit, and bond premiums associated with the work of the Alternate whether additive or deductive. Claims for extras resulting from changes caused by the acceptance or rejection of any alternate will not be allowed. The Drawings, Specifications, Project Manual, Addendum(s), and other Contract Documents shall be considered appropriately modified by either the acceptance or rejection of the various Alternatives. The Construction Manager and Owner expressly reserve the right to accept or reject any, or all, Alternate Prices and in any sequence. Acceptance or rejection of any alternate does not relieve the Bidder of timely completion of the Work within the time periods indicated.