EXHIBIT "A" SCOPE OF SERVICE FM 546

SCOPE OF SERVICES AND RESPONSIBILITIES

Purpose

The Scope of Work to be performed by BGE, Inc., here and after referred to as the ENGINEER, under this contract, will consist of Pre-Construction Phase Services and 15 months of Construction Management & Inspection Services for Collin County FM 546 Phase 1, here and after referred to as the PROJECT, for Collin County, here and after referred to as the OWNER.

CONSTRUCTION ADMINISTRATION

A. Construction Administration

- a. Perform regular review of project including inspection reports, geotechnical testing reports and contractor record drawings for conformance with the project plans and specifications.
- b. Review and approve shop drawings for conformance with the project plans and specifications.
- c. Evaluate and provide recommendations to the OWNER for proposed contractor substitutions, value engineering proposals, contractor requests for information, corrective measures, and earthwork quantity verifications.
- d. Attend monthly construction coordination meetings and monitor construction schedule progress.
- e. Review and recommend monthly construction pay requests.
- f. Assist OWNER in the preparation of change orders and associated plan modifications. ENGINEER to provide the estimate of cost of the change order and all supporting documentation to the OWNER. The ENGINEER will also assist with the negotiations if the OWNER desires.
- g. Prepare project record drawings from contractor-provided data and field observations.

Deliverables:

- 1. Prepare monthly written progress reports and invoices for project.
- 2. Meet on a scheduled basis with the OWNER to review the project progress.
- 3. Prepare, distribute, and file both written and electronic correspondence.
- 4. Review contractor's invoices.
- 5. Prepare final records.

B. Utility Coordination

a. Review utility relocation plans to confirm coordination with project design.

- b. Oversee utility relocations for adherence to approved utility relocation plans.
- c. Update project record drawings to reflect position of relocated utilities and keep construction contractor apprised of same.
- d. Provide field survey control and right-of-way staking as necessary to coordinate utility relocations.
- e. Provide field survey of relocated underground utilities as necessary for construction clearance verification.

Deliverables:

- 1. Utility coordination meetings with Cities of Lowry Crossing & Princeton (estimate 4 meetings)
- 2. Weekly email coordination with utility update matrix for the first 6 months of the project.

C. Stakeholder Coordination

- a. Coordinate between contractor and TxDOT for all work on or near the FM 546, and US380.
- b. Coordinate between contractor and City of Princeton for all work on or near Myrick Lane.
- c. Coordination between contractor and the Cities of Lowry Crossing, and Princeton for any nearby development construction.

Deliverables:

- 1. Create meeting agendas.
- 2. Keep record of meeting minutes

CONSTRUCTION INSPECTION

A. Construction Inspection

- a. Inspection shall be performed at a rate of 40 hours per week (Monday through Friday excluding Holidays) for full time inspection of the following items:
 - 1. Full time inspection of structural concrete operation and bridge component installation based on an approximate placement rate of not less than 22 cubic yards per hour.
 - 2. Part time inspection of structural concrete operations and bridge component installation in an as needed basis during high activity period.
 - 3. Full time inspection of slip-form concrete paving operation based on approximate placement rate of not less than 720 square yards per day.
 - 4. Part time Record Keeper as needed to maintain records and for project delivery.
 - 5. Part time field engineer for RFI's, shop drawings, correspondence and change orders.
 - 6. Verification surveys
- b. Part time inspection of general construction activities consisting of one qualified inspector at a rate of 20 hours per week (Monday through Friday excluding Holidays) for the following items:
 - 1. Storm Water Pollution Prevention Plan (SW3P)

- 2. Traffic control plans and devices.
 - a. Verify all traffic control devices are in place before shifting traffic to temporary or proposed pavement.
 - b. Verify closure of lanes are in accordance with plans and any additional coordination that may be needed for intersections tie ins.
- 3. Coordination with prime contractor and Subs in the field discussing daily events and operations.
- 4. Preparing right-of-way (ROW), fencing, clearing and grubbing, removing concrete, and other items
- 5. Excavation, Embankment, Borrow and Flex Base
- 6. Lime Fly Ash or Lime-Fly Ash Treated Subgrade and Base, Moisture Treated Base, Asphalt Treatment (Plant Mix)
- 7. Basic Reinforced Concrete Inspection
- 8. Drainage Systems and Pre-cast Items, Earthwork for Structures
- 9. Miscellaneous Concrete Structures (Sidewalks, Driveways, Curb, Medians, Islands)
- 10. Mechanical Stabilized Earth (MSE) Retaining Walls
- 11. Surface Treatments, Hot-Mix Asphalt Pavements
- 12. Foundations (Drilled Shafts), Substructures (Columns, Caps, Footings, Culverts)
- 13. Superstructures (Decks, Setting and Grading Beams, Girders and Rails)
- 14. Concrete Pavements, Cleaning and Sealing Joints and Cracks
- 15. Illumination
- c. Provide monthly summary reports of construction activities to the OWNER. Reports shall contain:
 - 1. Review of work schedule, plan changes, construction issues, traffic changes, and weather effect and other non-excusable impacts on the schedule. Assist in schedule disputes and claims.
 - 2. Verify weekly quantities for each item of work performed and tabulate into a monthly pay estimate to OWNER for execution of payment.
- d. Final Acceptance
 - 1. Prepare and maintain a punch list.
 - 2. Perform Final Inspection
 - 3. Verify Cleanup
 - 4. Verify Removal of Traffic Control Devices
 - 5. Verity Final Quantities
 - 6. Document as-built conditions that may be based on oral conversations and visual inspections.

Deliverables:

- 1. Conduct/Attend Pre-Activity meetings.
- 2. Drill Shaft and or Piling logs (required on all bridges)
- 3. Depth and steel clearance checks for bridge
- 4. Project Progress Meeting Minutes
- 5. SW3P Working Plan Set

- 6. Weekly SW3P Inspection Reports
- 7. Barricade Inspection Reports

B. Scope Clarification

- a. ENGINEER will endeavor to protect the OWNER in providing these services however, it is understood that ENGINEER does not guarantee the contractor's performance, nor is ENGINEER responsible for supervision of the contractor's operation or employees. ENGINEER shall not be responsible for site security, safety on the site nor means, methods, techniques, sequences, or procedures of construction selected by the contractor (s) or any subcontractor. ENGINEER shall not be responsible for acts or omissions of any person (expect its own employees or agents) at the Project site or otherwise performing any of the work of the Project.
- b. A Project Representative will be mobilized as soon as the Notice to Proceed is issued to the contractor and will be committed to the PROJECT through substantial completion or a period of 460 calendar days, whichever comes first. The ENGINEER may request additional compensation by supplemental agreement for time extensions given to the contractor that require additional inspection hours. The Project Representative will observe the progress of the work, monitor compliance with the schedules and requirements of the contract with the schedules and requirement of the contract documents and help resolve any conflicts needing attention. The authority of the Project Representative is limited to the responsibilities outlined below and may not be exceeded except under written direction from the ENGINEER.
 - 1. Shall not authorize any deviation from the Contract Documents or approve any substitute materials or equipment.
 - 2. Shall not undertake any of the responsibilities of contractor, subcontractors, or contractor's superintendent or accelerate the work.
 - 3. Shall not advise on or issue directions relative to any aspect of means, methods, techniques, sequences, or procedures of construction unless such is specifically called for in the Contract Documents.
 - 4. Shall not be responsible to advise or issue directions as to safety precautions and programs in connection with work.
 - 5. Shall not authorize acceptance of the Project in whole or in part.
 - 6. Shall not perform any laboratory tests or material sampling.
- c. When the ENGINEER is called upon to observe the work of OWNER's construction contractor(s) for the detection of defects or deficiencies in such work, the ENGINEER will not bear any responsibility or liability for such defects or deficiencies or for the failure to so detect. The ENGINEER shall have no influence over the construction means, methods, techniques, sequences, or procedures.
- d. The ENGINEER shall not assume any responsibility or liability for performance of the construction services or for the safety of persons and property during construction, or for compliance with federal, state, and local statutes, rules, regulations, and codes applicable to the conduct of the construction services.

OWNER agrees to the follow conditions:

Provide and maintain performance of a licensed Materials Testing Firm for the purpose of conducting all material inspection, material sampling and field/laboratory testing in accordance with the project plans and specifications.