

Work Order #14 – Construction Inspection Services

The scope of this work order is to support LFUCG with the administration of the construction phase and provide construction inspection and post design services for the federally funded Town Branch Commons project. The project has been awarded multiple federal grants (TIGER, CMAQ and TAP) as well as Kentucky Infrastructure Authority (KIA) funds which will require adherence to state and federal guidelines. It is expected that the grants will be coordinated through KYTC's Office of Local Programs. Utilizing these various funding types will require the construction phase of the project to be advanced in accordance with their requirements. This work order includes the time and expenses needed to provide construction observation and post design services during the construction phase of the contract. There will be several components to the scope as shown below:

PROJECT SCHEDULE

It is anticipated that the overall construction schedule for the project will continue through calendar years 2021 and 2022. Based on this two-year schedule, it is estimated that the number of construction work weeks (weeks) will be 50 weeks per year. Therefore, the total number of anticipated weeks will be 100.

Project delays due to weather or unforeseen events may result in an extension of the project schedule. In this event, AECOM may request additional compensation if the project schedule extends beyond the estimated 100 weeks.

ASSUMPTIONS

- 100 weeks (50 for calendar year 2021 and 50 for calendar year 2022)
- Maximum of 40 hours per week. Anticipated range between 20 hours and 40 hours per week.

FEE

Time will be billed for hours worked per week on a cost-plus, fixed fee basis. Expenses will be billed at cost. Based on the above assumptions, the total not-to-exceed contract amount is **\$402,500.00**. The contract amount calculation can be seen on the attached fee proposal.

PROJECT ADMINISTRATION AND COORDINATION

AECOM will provide support services to the LFUCG during the construction phase on the project. This will include construction inspection and other services as requested by the LFUCG Resident Engineer and Project Manager. However, during the execution of this contract, we shall not have control over, charge of, or responsibility for the construction means, methods, techniques, sequences, or safety precautions in connection with the construction as these will be the sole responsibility of the Contractor.

If requested, AECOM will review the Contractor's project schedule and suggest updates for compliance with the contract requirements. We will provide ongoing schedule review and evaluation through project completion as requested.

CONSTRUCTION INSPECTION SERVICES

AECOM will provide weekly, on-site construction inspection services during the construction phase as requested by LFUCG. The inspections are intended to support the LFUCG Resident Engineer and Chief Inspector in the execution of the project. It will be a general inspection for contract compliance based on professional judgment. Concerns observed in the field will be relayed to the LFUCG Resident Engineer for their awareness.

1.) DAILY INSPECTIONS:

Daily inspections will be conducted by Bart Bryant, PE (LFUCG Resident Engineer and Chief Inspector) and AECOM's John Russell & John Edwards (Construction Inspector) who are familiar with roadway and streetscape projects including construction procedures and testing requirements. AECOM will provide support services by supplementing daily inspections and helping with daily reports, with LFUCG/AECOM duties consisting of, but not limited to, the following:

- Verify Temporary Traffic Control is in compliance with MUTCD and the Temporary Traffic Control Plan
- Verify general compliance with plans and specifications
- Verify construction progress consistent with progress payment requests
- Observe concrete placement
- Observe sub-grade prior to placement of base aggregate
- Verify compacted base
- Verify all disturbed areas are seeded and straw mulched
- Verify site cleanup at the end of each day
- Best Management Practices (BMP) plan available for review as needed
- BMP plan compliance by Contractor and maintain copies of BMP records
- Ensure concrete tests as follows:
 - Test first truck each day
 - Test every fourth truck
 - Test for air, slump, temperature and cylinders (2-6x12's or 3-4x8's)
- Daily Inspection Reports will be reviewed and signed by Bart Bryant with support from John Russell and John Edwards, as needed.

2.) WEEKLY INSPECTIONS:

Detailed weekly inspections will be provided by LFUCG (Bart Bryant) and AECOM (John Russell and/or John Edwards). It will include the review of site conditions and daily inspection reports with emphasis on construction quality and questions related to design intent. Brian Meade and Jason Ramler (AECOM) may also participate in weekly inspections as needed. Inspection duties will include:

- Verify quantity of work completed compared to pay requests.
- Verify work is in compliance with plans and specs.
- Address contractor questions and concerns.

If changes in work are required, it will be LFUCG's responsibility to approve and coordinate the changes with the contractor. AECOM will assist with the review and recommendation of change orders submitted by the contractor. AECOM will provide other support services to assist LFUCG as needed. All changes in work must have KYTC concurrence prior to execution of work.

It will be LFUCG's responsibility to verify the prevailing wage requirements for the project. The contractor will submit documentation of adherence to Davis-Bacon Prevailing Wage Requirements to LFUCG who will do interviews with contractor personnel on site to verify these wages as required.

It will be LFUCG's responsibility to verify the project's DBE compliance. Sherita Miller, a representative of LFUCG, will be responsible for maintaining records and verifying that the DBE Goal and DBE Participation Plan are being met.

It will be LFUCG's responsibility to provide material testing for the project. All tests shall be performed by a KYTC certified inspector. Material testing shall be performed by an independent, KYTC prequalified testing facility. Typically, testing will be limited to concrete cylinders as outlined above in the daily inspection section but may include other testing methods unique to the project to ensure proper quantity and quality. Shop drawings will be required for such items as storm drainage structures. Daily, weekly and monthly reports along with testing results and shop drawings will be made available to KYTC upon request.

3. INSPECTION FOR ACCEPTANCE

AECOM will support the LFUCG with the final acceptance inspection. Substantial and Final Completion will be as identified in the Specifications, as listed under Payment & Completion, and the Project Closeout (refer to later section). All substantial and final inspections will be coordinated with KYTC personnel and scheduled so that their personnel can be in attendance at these inspections. This will be performed prior to final project closeout.

RESPONSES TO REQUEST FOR INFORMATION (RFI)

As requested by LFUCG, AECOM will respond to reasonable and appropriate Contractor requests for information (RFI) and issue necessary clarifications and interpretations of the contract documents to LFUCG as appropriate to the orderly completion of Contractor's work. Requests for information shall include, at a minimum, a detailed written statement that indicates the specific Drawing or Specifications in need of clarification and the nature of the clarification requested. Any orders authorizing variations from the Contract Documents will be made by LFUCG.

DESIGN SUPPORT DURING CONSTRUCTION

AECOM may be requested to assist in design services for certain items to reflect differing field conditions or design additional elements to better facilitate construction. This includes providing assistance in evaluating and resolving problems encountered during construction. This effort could include the associated drafting support or CADD services.

PROJECT CLOSEOUT

AECOM will assist LFUCG with the closeout of the project. Promptly after notice from the Contractor that they are ready, the LFUCG, Program Management Team, site inspectors, and representatives from KYTC District 7, KYTC Central Office, FHWA and the KY Division of Water, will participate in a project walk-through to determine if there are any deficiencies to correct. These deficiencies will be reflected on a punch list for the Contractor to correct. The punch list letter will state that the final payment will not be made until all listed items are completed, all property owner complaints have been resolved, and the final compensation change order is processed, and the Final Payment has been submitted. AECOM will participate in the final project closeout and support LFUCG as needed.