

Scope of Engineering Services Armstrong Mill Sidewalk

This Scope of Engineering Services provides a minimum set of guidelines, tasks, and activities for professional engineering and registered land surveying services (Consultant), to design sidewalk, curb and gutter, storm improvements, a signalized intersection (if Warrants are met) and pedestrian bridges on Armstrong Mill from the intersection with Tates Creek Road to the intersection with Armstrong Mill Side Road. The Scope of Services includes topographic and boundary surveys, preliminary and final design, preparation of easement and right-of-way drawings, and associated funding and regulatory paperwork.

The design project will be overseen by the Lexington-Fayette Urban County Government, Division of Engineering (DOE). The project is primarily funded through a Transportation Alternatives Program (TAP) grant, which is administered through the Kentucky Transportation Cabinet Office of Local Programs (KYTC OLP). Engineering will be procured through the KYTC Statewide Consultant Contract.

Background

A section of Armstrong Mill does not have sidewalk on either side of the road creating an unsafe pedestrian condition. This project will involve the addition of approximately 2,400 feet of sidewalk, curb and gutter, a traffic signal, storm improvements and three pedestrian bridges along various sections of Armstrong Mill Road:

- Sidewalk from Tates Creek Rd. to Greentree Rd. (Northern and Southern Side)
- Sidewalk from Greentree Rd. to Armstrong Mill Side Rd. (Northern Side)
- Signalized intersection at Armstrong Mill Rd. and Greentree Rd (if Warrants are met).
- Precast modular pedestrian bridges over Landsdowne Tributary (Northern and Southern Side)
- Precast modular pedestrian bridge over West Hickman Creek (Northern Side)
- Curb, gutter and storm improvements from Tates Creek Rd. to Greentree Rd.

The new sidewalk can likely be constructed within existing ROW. However, it is anticipated that acquisition of temporary construction easements will be necessary.

A section of the project appears to be within a Zone AE floodplain.

Scope of Services

1. Project Initiation and Review of Existing Information

- 1.1. Meet with LFUCG staff (DOE and Traffic Engineering) to discuss the project requirements and proposed Scope of Work. The meeting shall include project site visits with the DOE.

- 1.2. Review all project related information as provided by DOE. Obtain available LFUCG GIS data for the area, mapping including parcel lines, aerial photography, and existing infrastructure.

2. Field Surveys and Preliminary Design

- 2.1. Conduct field surveys with appropriate referencing to locate topographic features not shown on existing mapping. Confirm critical locations and elevations necessary for design including but not limited to existing roadway, storm sewer features and other utilities.
- 2.2. Research all deeds, plats and other property records to identify property lines, right-of-ways and easements.
- 2.3. Perform boundary surveys and set corner pins (or offsets) as necessary to define the physical limits of properties from which right of way must be purchased (if necessary).
- 2.4. Prepare a topographic survey of Project area.
- 2.5. Develop preliminary sidewalk, curb and gutter, drainage, signalized intersection and pedestrian bridge plans. Plans shall comply with applicable ADA standards and shall include information on driveway entrance limits, pedestrian crossings, and the extents of construction. Sidewalk plans shall consider the existing drainage to ensure water is not retained behind the new sidewalk, existing property lines, existing utilities/utility conflicts, and/or other features or improvements that may impact construction costs. Design shall include all necessary drainage calculations and modeling.
- 2.6. Perform a Traffic Control Signal Needs Study, consistent with the *Manual on Uniform Traffic Control Devices*, Chapter 4C, to install traffic and pedestrian signals at the intersection of Armstrong Mill Road and Greentree Road. If a sufficient case can be made to justify signalization, prepare and submit a request to the KYTC.
- 2.7. Prepare a Preliminary Design Technical Memorandum documenting the following for each Project:
 - Proposed sidewalk, curb and gutter, pedestrian bridges, signalized intersection and drainage plan;
 - Identification of all utility conflicts and proposed solutions;
 - List of impacted properties and property owners;
 - List of required easements and road right-of-way taking and encroachment (Determination of existing land rights shall be limited to recorded easements and right-of-way. For these purposes, prescriptive easements will be ignored.);

- Proposed geotechnical investigation for bridge footers and cost. Note: The Engineering Services Agreement will include an allowance for geotechnical work.
 - List of required permits and respective agencies from which the permit(s) will be secured;
 - List of agencies that will require notifications and/or approvals; and
 - Preliminary Opinion of Construction Costs.
- 2.8. Meet with the DOE to review the Preliminary Design Technical Memorandum. Consultant shall be responsible for meeting agendas, handouts, and meeting summaries.

3. Final Design

Note: Task 3: Detailed (final) Design shall not begin until written authorization is received from DOE.

- 3.1 Prepare Contract Drawings. At a minimum, the drawings shall include the following sheets:
- Cover sheet with location map, sheet index, etc;
 - Plans scaled to 1" = 20'. Plans shall show all finalized features and detailed information as required for the preliminary plan;
 - Detail sheets, as required to fully convey the intent of the project and how to construct it; and
 - Cross sections every 50 feet and at driveway entrances.
 - A General Summary Sheet
- 3.2 Submit drawings to LFUCG DOE and KYTC OLP for review and comment, and revise drawings accordingly.
- 3.3 Correspond and meet with all impacted utility companies and regulatory agencies as required for this project. The Consultant may attend bi-monthly LFUCG Utility Coordination meetings as deemed useful.
- 3.4 Prepare an Engineers Estimate (EE).
- 3.5 Prepare paperwork necessary for TIP funding, including LDA Design Review Checklist (LDRC), Project Development Checklist (PDC), Utility and Rail Note, Traffic Management Plan, etc.
- 3.6 Prepare a Bid Proposal. Note: LFUCG will furnish the front-end contract documents and their standard technical specifications. Consultant will need to prepare specifications for any special materials if used for this project.

- 3.7 Coordinate with the KYTC OLP to provide supporting data for the Environmental Review. OLP will take the lead on getting the Environmental Document and Section 106 (historic) review.
- 3.8 Prepare, submit applications, including public notices, and secure all required permits including but not limited to those listed in the Preliminary Design Technical Memorandum, or identified above.

Note: Contractor selection and construction administration will be performed solely by LFUCG. However, at any time during construction, the Consultant shall be available to address any questions that arise concerning the accuracy or intent of his work. Time to address potential questions should be incorporated into the final design fee.

4. Easement and Right-of-Way Acquisition

- 4.1. Consultant shall prepare all paperwork necessary for temporary easement acquisition, including a metes and bounds description, except for correspondence to affected property owners.
- 4.2. Consultant shall prepare all paperwork necessary for permanent easement acquisition and right-of-way encroachment and/or taking, except for correspondence to affected property owners.

Notes: LFUCG will take the lead on contact with affected property owners.

At a minimum, Consultant shall comply with all criteria and standards as set forth in 201 KAR 18:150, *Standards of Practice*.

LFUCG will conduct negotiations with property owners for easements and right-of-way, and will bear any associated costs, including appraisals.

Additional Requirements

1. Schedule and Completion

The contract time to complete Tasks 1-2, is 120 calendar days from the date of the Notice to Proceed.

The contract time to complete Tasks 3-4, is 90 calendar days from acceptance of the Preliminary Design.

Within the Price Proposal, the Consultant shall provide a schedule showing milestones, deliverables and the number of calendar days into the contract period that each milestone occurs.

2. Deliverables

- Three (3) copies of the Preliminary Design Technical Memorandum.
- Three (3) full-size (22 x 34) sets of final plans.
- Two (2) half-size (11 x 17) sets of final plans for each Project.
- CD or flash drive with:
 - Bid-Set Plans in AutoCad (.dwg) format
 - Bid-Set Plans (stamped and signed) in Acrobat (.pdf) format
- Easement descriptions and related paperwork.

3. General Notes

- Drawings shall be prepared in AutoCad format and according to LFUCG standards.
- Consultant is not responsible for:
 - Historical/Cultural Resources studies, Biological Resources studies, etc., if required for the Environmental.

Attachments:

- Plan View of Project Area – Armstrong Mill Sidewalk
- GIS Map of Sewers (2 Sheets)
- GIS Map of FEMA Flood Zone
- Clearinghouse Letter 10/3/16