



Attachment A
Detailed Scope of Services
Princeton Municipal Airport, Princeton, Minnesota
AIP Project # 3-27-0081-019-2022
KLJ #2105-02001

PROJECT DESCRIPTION

General

The work is to occur at Princeton Municipal Airport in Princeton, Minnesota, under the terms and conditions of the Standard Agreement for Professional Services (Agreement) between the City of Princeton (Owner) and KLJ (Engineer).

The federal work shall be performed and constructed under a Federal Aviation Administration (FAA) Airport Improvement Program (AIP) grant to the City of Princeton.

KLJ will provide engineering services to complete environmental compliance, design, bidding, construction observation, construction administration, and FAA project closeout for a new beacon. The proposed project consists of replacement of the existing rotating beacon on a new tower with tip-down pole and foundation.

Detailed Scope of Services have been outlined to be completed under the following three phases:

- 2105-02001.2 - Environmental, Design, and Bidding
- 2105-02001.3 - Construction Administration and Observation
- 2105-02001.14 - FAA Project Closeout Report

The Engineer shall perform the work under this Agreement with FAA Advisory Circulars and regulations that are current as of the effective date of the Agreement. Changes to the FAA Advisory Circulars and regulations after the date of this Agreement shall be addressed per Section V, Item P, of the Agreement.

Completion Time

The Engineer shall complete the Design Services (minus the Bidding Services) within 90 calendar days of the Owner issuance of the Notice to Proceed. Also note that the schedule allows for a maximum of two weeks review by the FAA for reviews of both the Engineering Design Report and the Plans / Specifications. The Bidding Services shall be completed within the timeframe set forth by the Owner's requirements to bid and state law bidding practice. The Engineer shall complete the total contract within 90 days after final construction acceptance. **If the ALP Update Project commences in FY 2022, the closeout portion of this contract shall not be completed until after that project is completed.** Schedule and fee are based on FAA funding for the project being approved for construction in 2022. If funding does not become available for 2022 construction, timelines may be revised accordingly.

PROJECT ADMINISTRATION

Project Scoping Meeting with Owner. The Engineer shall attend a meeting to discuss project scoping, FAA Pre-Application and airport capital improvements plan with the Owner in via teleconference (1 meeting). The Engineer staff attending the meeting shall consist of the following:

- Project Manager (Engineer In Training II)

Prepare Project Detailed Scope of Services and Schedule. The Engineer shall prepare a Detailed Scope of Services and preliminary schedule based on the information obtained during the Owner Scoping Meeting. Engineer shall submit the Detailed Scope of Services and schedule to the Owner for review and make applicable modifications as agreed upon.

Project Detailed Scope of Services Review with FAA. The Engineer shall present the final Detailed Scope of Services for review and approval. The Engineer shall work with the Owner and FAA to refine the Detailed Scope

of Services. The Engineer anticipates one (1) edit based on the Owner's comments and one (1) edit based on FAA comments.

Engineering Detailed Scope of Services and Hour Negotiations. Upon Detailed Scope of Services approval from the FAA, the Engineer shall prepare a detailed hour breakdown with the associated fees for review by the Owner.

Agreement for Professional Services. The Engineer shall compile the Agreement for Professional Services (Agreement), complete an internal review and execution of the Agreement for approval by the Owner.

Prepare and Coordinate Subconsultant Agreements. The Engineer shall prepare the appropriate contract documents and the execution of subconsultant agreements to support the agreed upon Detailed Scope of Services and the Engineer's Agreement with the Owner.

Independent Fee Document Preparation. Not included in this Detailed Scope of Services.

PROJECT MANAGEMENT

Overall Project Management. The Engineer shall provide project management services to manage the completion of the project within the conditions of this Agreement. Project management is crucial to the success of all projects; specifically, it is crucial to this project. The Engineer has John Glesne identified as the project manager for the project. Project management is the discipline of planning, organizing, and managing resources to successfully meet this project's objectives and goals. It is the project manager's responsibility to notify the Owner of any issues, problems, or concerns regarding the project; the delegation of all activities to the project team; and handling all subconsultant coordination. In addition, if any items arise during the duration of the project that are outside this Detailed Scope of Services of work, the project manager shall address them with the Owner.

Project Startup Meeting. The Engineer shall conduct an internal kickoff meeting with the design staff consisting of all design team members.

Project Budget Setup. The Project Manager shall coordinate with the internal accounting staff to establish the internal budgets.

Bi-Weekly Budget Review / Projections. The Project Manager shall review budgets and budget projections on a bi-weekly basis and coordinate any known issues with the Owner.

Monthly Invoicing. The Project Manager shall prepare monthly billings of project accounting.

Periodic Internal Meetings. The Project Manager and lead designers shall conduct a bi-weekly status meeting to review schedule and outstanding issues encountered.

Develop Quality Control Plan. The Engineer shall develop a Quality Control Plan for the project. The plan shall include project instructions, milestone checking, and peer review procedures at each phase of the project.

FAA Grant Coordination / Reimbursement Processing. The Engineer shall prepare the Request for Reimbursement during the design phase of the project.

FAA Grant Pre-Application Checklist. The Engineer shall prepare the FAA Grant Pre-Application for Federal Assistance information for submittal.

Monthly Status Reports. The Engineer shall prepare and submit monthly status reports to the Owner noting project progress, issues encountered and action requirements by the Owner.

FAA Quarterly Reports. The Engineer shall prepare and submit the quarterly FAA reports.

DBE Reporting. The Engineer shall prepare Disadvantaged Business Enterprise (DBE) annual reporting forms as applicable to the project.

PROJECT PRE-DESIGN

FAA Safety Management System (SMS) Meeting. Not included in this Detailed Scope of Services.

Pre-Design Meeting. Upon execution of the Agreement, the Engineer shall coordinate for a pre-design meeting to be held at via teleconference with the Owner, Engineering design team, subconsultants and other stakeholders to define the project requirements and schedule. It is anticipated that the following design staff members shall attend the pre-design meeting:

- Project Manager (Engineer In Training II)

Assist with Preliminary FAA Reimbursable Agreement. Not included in this Detailed Scope of Services.

Site Visit, Investigations and Data Collection. The Engineer shall investigate existing conditions through site visits and as-built drawings supplied by the Owner, to determine scope of work and effects on design construction. The Engineer shall compile existing data, including existing and proposed utility data, required to develop the project current conditions and to form the basis for design. It is assumed that the Engineer shall not perform any subsurface investigations to verify the locations of underground utilities. The utility investigation shall be based on as-built documentation provided by the Owner, plus topographic survey information of surface features gathered by the Engineer. The Engineer shall advise the Owner as to the necessity of obtaining additional information related to the site, necessary for purposes of design.

Coordinate Preliminary Soils Investigation. Not included in this Detailed Scope of Services.

Preliminary Materials Investigation. Not included in this Detailed Scope of Services.

Preliminary Survey and Base Map Preparation. Not included in this Detailed Scope of Services.

Develop Project Justification. The Engineer shall develop the appropriate project justification to obtain federal funding based on the applicable FAA Advisory Circulars and AIP Handbook.

Develop and Submit Environmental Checklist. Prepare a Categorical Exclusion (CATEX) using the FAA ARP SOP 5.00 Appendix A-Documented CATEX form according to FAA Order 1050.1F and the criteria contained in FAA Order 5050.4B. Modification or additions to FAA Order 1050.1F and FAA Order 5050.4B or any new environmental laws or regulations that significantly change the services to be performed, as defined below, shall be handled under Section V, Item P, of the Agreement. The general objective of this study is to provide documented information necessary for the Federal Aviation Administration (FAA) to determine the proposed action shall not individually or cumulatively have a significant effect on the human environment and for which neither an environmental assessment or environmental impact statement is required. The Engineer is responsible for providing concise environmental documentation that is acceptable to the FAA, State, and the Owner. The CATEX shall be sufficient to ensure compliance with the National Environmental Policy Act (NEPA). The proposed Detailed Scope of Services for the preparation of the CATEX is as follows:

- a) **Agency Coordination**
The Engineer shall coordinate with a select group of federal, state, and local agencies (maximum of three) to ensure compliance with federal, state, and local laws and regulations. The Engineer shall not obtain any permits as part of the work.
- b) **Environmental Documentation**
The Engineer shall prepare a CATEX FORM (FAA ARP SOP 5.00 Appendix A) for submittal to the FAA.

Application for Federal Assistance. The Engineer shall prepare the FAA Application for Federal Assistance for submittal.

Analysis of FAA Standards. The Engineer shall review the current applicable FAA standards and prepare a list of deficiencies to be addressed by the project design.

Complete Pavement Design / Life Cycle Cost Analysis. Not included in this Detailed Scope of Services.

Engineering Design Report. The Engineer shall complete and submit to the FAA an Engineering Design Report in accordance with FAA criteria. The report shall include a summary of the project, photographs of the site, design standards, environmental protection, electrical design analysis, non-AIP work, Engineer's construction cost estimate, modifications to FAA standards as applicable, airport operational safety, and associated work items.

Prepare Preliminary Opinion of Cost and Update Airport Capital Improvement Plan (ACIP). The Engineer shall prepare a preliminary estimate of construction costs. Construction costs shall be developed based on historical local bid documentation, local suppliers and material availability. Updates shall be made to the ACIP as necessary.

Update Airport Layout Plan (ALP) Drawings. Not included in this Detailed Scope of Services.

Develop DBE Plan. Not included in this Detailed Scope of Services.

Pre-Design Internal Document Review. The Engineer shall conduct a review of pre-design documents to verify findings are consistent with the pre-project assumptions and notify the Owner of any areas of concern or with any necessary Detailed Scope of Services revisions required.

PRELIMINARY PLANS AND SPECIFICATIONS

Assist with Final FAA Reimbursable Agreement. Not included in this Detailed Scope of Services.

Coordination with FAA Technical Operations Personnel. Not included in this Detailed Scope of Services.

Complete Pavement Design. Not included in this Detailed Scope of Services.

Develop Project Geometrics. Not included in this Detailed Scope of Services.

Prepare Subsurface Drainage Design. Not included in this Detailed Scope of Services.

Develop Site Grading Plan. Not included in this Detailed Scope of Services.

Prepare Storm Drainage Design. Not included in this Detailed Scope of Services.

Prepare Erosion Control Plan. The Engineer shall prepare an erosion control plan for the proposed construction. The Engineer shall investigate the requirements and include applicable local permitting requirements.

Prepare Airfield Lighting and Signage Design. Not included in this Detailed Scope of Services.

Prepare Lighting (Area) Plan. Not included in this Detailed Scope of Services.

Prepare Utility Plan. The Engineer shall evaluate existing utility information and identify utilities which require relocation or lowering as a result of the proposed project. Utility ownership identification and coordination with utility owners shall be completed to discuss project specific details.

Preliminary Plan Sheets. The Engineer shall prepare a plan set to address the necessary improvements and to depict the preliminary design elements. The plan set to include the following drawings:

- Cover Sheet
- Project Work Description
- Construction Safety and Phasing Plan
- Construction Safety and Phasing Plan Details and Notes
- Erosion Control Plan and Details
- Existing Utility Plan

- General Project and Construction Notes
- Electrical Demolition Plan
- Electrical Plan
- Electrical Details
- Electrical Notes

Subconsultant Coordination. Not included in this Detailed Scope of Services.

Prepare Preliminary Contract Documents. The Engineer shall prepare preliminary contract documents. The Owner shall provide a legal review of the Agreement Between Owner and Contractor template that is provided by the Engineer to make sure that it complies with local, state, and federal law. The Engineer shall use contract provisions prepared for the Owner and modify as applicable for this project. Documents to include consist of the following:

- Advertisement for Bids
- Instruction to Bidders
- Bid Proposal
- DBE Guidance and Forms
- Construction Contract Notification
- Buy American Guidance
- Wage Rate Determinations
- Agreement between Owner and Contractor
- Contractual Requirements
- Safety Plan Compliance Document
- Final Review and Acceptance Document
- Environmental Permitting Documents
- Notice of Award
- FAA General Provisions
- Local and State Special Provisions

Prepare Technical Specifications. The Engineer shall prepare preliminary technical specifications for the identified items of work. Specifications to be used shall reference FAA Advisory Circular 150/5370-10H, Standards for Specifying Construction of Airports and any applicable FAA Regional Guidance.

Prepare Modification to Standards Request. Based on the preliminary design, the Engineer shall prepare the necessary documentation for the applicable Modification to Standards to be submitted to the FAA for approval.

Prepare Preliminary Estimate of Construction Cost. The Engineer shall prepare a preliminary estimate of construction costs. Construction costs shall be developed based on research of local suppliers and material availability and recent bid tabulations for similar work in the region.

Prepare Preliminary Construction Schedule. The Engineer shall prepare a preliminary schedule of construction activities based on the preliminary phasing plan with construction durations based on average production rates for completion of the major project work elements.

Update Signage and Marking Plan. Not included in this Detailed Scope of Services.

Preliminary Internal Plans and Specifications Review. The Engineer shall conduct an internal preliminary plans and specifications review of the design completed in the Preliminary Engineering Phase of the project.

Preliminary Design Review Meeting with Owner. The Engineer shall conduct a preliminary design review at the 30% design completion stage with the Owner to obtain comments on the preliminary design. The Engineer shall attempt to include appropriate Federal and State agency representatives either in person or by teleconference, depending on the project Detailed Scope of Services. The Engineer shall schedule an inspection of the project site with the Owner to review elements of the design. It is anticipated the following staff members shall attend the preliminary design review meeting:

- Project Manager (Engineer In Training II)

Periodic Owner Meetings. It is anticipated that the Engineer shall attend one (1) miscellaneous meeting to coordinate preliminary design activities and issues with the Owner. It is anticipated the following staff members shall attend the periodic owner meetings:

- Project Manager (Engineer In Training II)

Periodic Agency Meetings. It is anticipated that the Engineer shall attend one (1) miscellaneous meeting to coordinate preliminary design activities and issues with the Agency. It is anticipated the following staff members shall attend the periodic owner meetings:

- Project Manager (Engineer In Training II)

FINAL PLANS AND SPECIFICATIONS

Prepare Engineer's Responses to Review Comments. The Engineer shall provide a written statement summarizing the review comments to include justification for items to remain and the applicable action on areas of design modification.

Prepare Final Plans. The Engineer shall complete the development of the drawings to 90% completion, which is intended to be a complete set in pending final review and approval by the Owner. The plan set to include the following drawings:

- Cover Sheet
- Project Work Description
- Construction Safety and Phasing Plan
- Construction Safety and Phasing Plan Details and Notes
- Erosion Control Plan and Details
- Existing Utility Plan
- General Project and Construction Notes
- Electrical Demolition Plan
- Electrical Plan
- Electrical Details
- Electrical Notes

Prepare Final Contract Documents / Technical Specifications. The Engineer shall complete the development of the specifications to 90% completion, which is intended to be a complete set in pending final review and approval by the Owner.

Prepare Final Construction Safety and Phasing Plan. The Engineer shall finalize the Construction Safety Phasing Plan to include (landside) traffic control plan and submit the plan to the FAA for review and approval.

Update Final Quantities and Construction Cost Estimate. The Engineer shall update the opinion of construction costs and determine the bid schedule of work.

Prepare Engineering Design Report Supplement. The Engineer shall prepare a supplement to the Engineering Design report as applicable for modifications made during the final design process for submittal to the FAA for approval.

Update Construction Schedule. The Engineer shall finalize the construction schedule for use in the contract documents.

FAA Plans and Specifications Review. The Engineer will submit and coordinate with the FAA ADO on a review of the 90% plans and specifications.

Final Internal Plans and Specifications Review. The Engineer shall conduct an internal final plans and specifications review of the design completed in the Final Engineering Phase of the project.

Final Plans and Specifications Revisions. The Engineer shall complete the development of the drawings to 100% completion, which is intended to be a complete set in pending final review and approval by the Owner.

Final Design Review Meeting with Owner. The Engineer shall conduct a final design review at the 90% design completion stage with the Owner to obtain comments on the final design. The Engineer shall attempt to include appropriate Federal and State agency representatives either in person or by teleconference, depending on the project Detailed Scope of Services. The Engineer shall schedule an inspection of the project site with the Owner to review elements of the design. It is anticipated the following staff members shall attend the final review meeting:

- Project Manager (Engineer In Training II)

Periodic Owner Meetings. It is anticipated that the Engineer shall attend one (1) miscellaneous meeting to coordinate final design activities and issues with the Owner. It is anticipated the following staff members shall attend the periodic owner meetings:

- Project Manager (Engineer In Training II)

Periodic Agency Meetings. It is anticipated that the Engineer shall attend one (1) miscellaneous meeting to coordinate preliminary design activities and issues with the Agency. It is anticipated the following staff members shall attend the periodic owner meetings:

- Project Manager (Engineer In Training II)

BIDDING SERVICES

Print and Distribute Plans and Specifications. The Engineer shall print and issue the Bid Documents to prospective bidders. The documents shall also be made available to prospective bidders utilizing and on-line service.

Bid Invitations and Advertisement. The Engineer shall coordinate with the Owner on the placement of the Advertisement for Bids in the appropriate local legal publication as well as regional trade organizations.

Attend Pre-Bid Conference and Site Visit. Not included in this Detailed Scope of Services.

Document and Respond to Contractor Questions. The Engineer shall maintain a record of Contractor requests and questions along with the corresponding response.

Create and Maintain Planholder's List. The Engineer shall maintain a planholder's list as plans and specifications are issued to Contractors.

Issue Addenda. The Engineer shall issue written addenda as appropriate to interpret, clarify or expand the bidding documents. The Engineer shall send the written addenda to all plan-holders who received plans and specifications from the Engineer.

Attend Bid Opening. The Engineer shall perform the bid opening at Princeton City Hall.

Prepare Bid Tabulation. The Engineer shall prepare a bid tabulation following the bid opening.

Bidder Contractual Requirements Review. The Engineer shall review bidder responsiveness, responsibility and completeness of submittal. The Engineer shall advise the Owner when an issue may need the review of the Owner's legal representative.

Prepare Recommendations of Award. The Engineer shall advise the Owner as to the acceptability of subcontractors, DBE subcontractors, and other persons and organizations proposed by the prime Contractor(s) for those portions of the work as to which such acceptability is required by the bidding documents. The Engineer shall make recommendations for award for one (1) contract.

Prepare and Submit FAA Grant Application. The Engineer shall prepare the Application for Federal Assistance and State Funding Applications. The FAA Grant Application will not be submitted until the agreement is in place for the ALP Update Project currently anticipated for Fiscal Year 2022. If the ALP Update Project does not commence in Fiscal Year 2022, the FAA Grant Application will be submitted at that time for the Beacon Project only.

Prepare Award and Construction Contract Documents. The Engineer shall prepare the awarding contracts for construction, materials, equipment and services for one (1) contract. Items shall include a written Notice of Award, coordination of the Agreement Between Owner and Contractor and Notice to Proceed for submittal and approval by the Owner. The Owner shall provide a legal review of the Agreement Between Owner and Contractor that is submitted by the Engineer to make sure that it complies with local, state, and federal law.

CONSTRUCTION ADMINISTRATION / CONSTRUCTION OBSERVATION

PROJECT MANAGEMENT

Overall Project Management. The Engineer shall provide project management services to manage the completion of the project within the conditions of this Agreement. Project management is crucial to the success of all projects; specifically, it is crucial to this project. The Engineer has John Glesne identified as the project manager for the project. Project management is the discipline of planning, organizing, and managing resources to successfully meet this project's objectives and goals. It is the project manager's responsibility to notify the Owner of any issues, problems, or concerns regarding the project; the delegation of all activities to the project team; and handling all subconsultant coordination. In addition, if any items arise during the duration of the project that are outside this Detailed Scope of Services of work, the project manager shall address them with the Owner.

Project Startup Meeting. Not included in this Detailed Scope of Services.

Project Budget Setup. Not included in this Detailed Scope of Services.

Bi-Weekly Budget Review / Projections. The Project Manager shall review budgets and budget projections on a bi-weekly basis and coordinate any known issues with the Owner.

Monthly Invoicing. The Project Manager shall prepare monthly billings of project accounting.

Periodic Internal Meetings. The Project Manager and lead construction staff shall conduct periodic status meetings to review schedule and outstanding issues encountered.

Develop Quality Control Plan. Not included in this Detailed Scope of Services.

FAA Grant Coordination / Reimbursement Processing. The Engineer shall prepare the Request for Reimbursement during the design phase of the project.

FAA Grant Pre-Application Checklist. Not included in this Detailed Scope of Services.

Monthly Status Reports. The Engineer shall prepare and submit monthly status reports to the Owner noting project progress, issues encountered and action requirements by the Owner.

FAA Quarterly Reports. The Engineer shall prepare and submit the quarterly FAA reports.

DBE Reporting. The Engineer shall prepare a Disadvantaged Business Enterprise (DBE) annual reporting forms as applicable to the project.

CONSTRUCTION ADMINISTRATION

Quality Acceptance Construction Materials Testing. The Engineer shall sub-consult with a material testing firm to provide the required quality acceptance testing. The Engineer shall coordinate the development of a contract between the Engineer and the materials testing firm.

Prepare Construction Management Plan (if paving costs exceed \$500,000 in overall cost). Not included in this Detailed Scope of Services.

Prepare and Conduct Project Kickoff Meeting. Not included in this Detailed Scope of Services.

Prepare and Conduct Pre-Construction Conference. Conduct a pre-construction meeting at the Airport. The Engineer shall prepare the pre-construction agenda, conduct the pre-construction conference and site visit at the Airport. The detailed discussion of the project to include:

- Roles and responsibilities
- Contractor's representatives
- Schedules
- Safety
- Security
- Testing requirements
- Resident Engineer's role
- Labor requirements
- DBE and Civil Rights
- Environmental and materials storage
- Plans and Specifications
- Materials certification requirements
- Shop drawing requirements

It is anticipated that the following engineering staff members shall attend the pre-construction conference:

- Project Manager (Engineer In Training II)
- Resident Engineer (Engineer In Training I)

Prepare and Conduct Pre-Phase Meetings. Not included in this Detailed Scope of Services.

Shop Drawing / Certification Review. Review Contractor shop drawings and certifications for compliance with the project plans and specifications for up to one (1) contract. Issue the appropriate response to the Contractor.

- Estimate based on up to 2 reviews of 2 shop drawings (average of 1 hour each for review, response, and filing in project records) total for the project
- Estimate based on up to 2 reviews of 5 material submittals (average of 0.5 hour each for review, response, and filing in project records) total for the project

Review Contractor Requests for Information (RFI) and Responses. Review Contractor requests for information up to one (1) contract. Coordinate with Owner staff as applicable and issue the written response to the Contractor.

- Estimate based on responses to up to 2 RFIs (average of 2 hours each for review, response, and filing in project records) total for the project

Prepare Change Orders. The Engineer shall prepare change orders for modifications to the Contractors work, payment or schedule as the issue arise during the construction phase for up to one (1) contract.

- Estimate based on up to 1 change order total (average of 4 hours each) for the project

Prepare Periodical Estimates. The Engineer shall prepare periodical pay estimates based on the Contractor's completed and accepted work on the project at a frequency agreed upon by the Owner and the Contractor for up to one (1) contract.

- Estimate based on up to 2 pay estimates total (average of 2 hours each) for the project

Project Records and Payrolls. Maintain a record of all the project documents and correspondence. Conduct a review of the Contractor and subcontractor payrolls for conformance with the project wage rates and regulations for up to one (1) contract.

- Estimate based on 1 month of payroll records (average of 4 hours per month)

Weekly Construction Progress Meetings. The Engineer shall coordinate progress meetings on a scheduled agreed upon by the Owner and the Contractor. The Engineer shall prepare the progress meeting agendas, conduct the meetings and issue meeting minutes to the appropriate parties. The Engineer shall coordinate with the Owner

on user attendees at the meeting based on the progress of the work. Also, the Engineer shall submit weekly FAA construction status reports to the Owner and Contractor.

- Estimate based on 2 weekly meetings

Conduct Substantial Completion / Punchlist Inspection of Project. The Engineer shall coordinate with the Owner and the Contractor to conduct a pre-final inspection with all parties and prepare the final inspection punchlist for one (1) contract. It is assumed that one (1) engineering staff member shall attend the pre-final inspection. The Engineer shall verify that punchlist items have been completed and recommend to the Owner acceptance of the work. Review O&M Manuals and any required training materials for completeness.

Conduct Final Inspection of Project. The Engineer shall coordinate with the Owner and the Contractor to conduct a final inspection meeting at the Airport for one (1) contract. It is assumed that one (1) engineering staff member shall attend the final inspection. The Engineer shall follow-up on any new deficiencies that are identified or punchlist items that have not been satisfactorily corrected.

Subconsultant Coordination. The Engineer shall coordinate the applicable subconsultant tasks to support the agreed Detailed Scope of Services and the Engineer's Agreement with the Owner.

Analyzing Grades per FAA Requirement. Not included in this Detailed Scope of Services.

P-610 QA Analysis Forms. The Engineer shall complete the required material acceptance forms as required by the FAA specifications for this project. It is anticipated that these forms will be needed for miscellaneous concrete items.

P-304 CTB, P-401, P-403, P-501 QA Analysis Forms. Not included in this Detailed Scope of Services.

Tribal Monitoring Coordination. Not included in this Detailed Scope of Services.

FAA Grant Coordination / Reimbursement Processing. Not included in this Detailed Scope of Services.

Periodic Owner Meetings. It is anticipated that the Engineer shall attend one (1) monthly Owner meeting to coordinate any issues with the Owner. It is anticipated the following staff members shall attend the periodic owner meetings:

- Project Manager (Engineer In Training II)

Periodic Agency Meetings. It is anticipated that the Engineer shall attend one (1) monthly agency meetings to coordinate issues with the Owner and Agencies. It is anticipated the following staff members shall attend the periodic owner meetings:

- Project Manager (Engineer In Training II)

FAA Flight Check Coordination. Not included in this Detailed Scope of Services.

CONSTRUCTION OBSERVATION

Construction Surveying - Establish Project Control. The Engineer shall provide control points and alignment data as required by the project specifications. It is estimated that 1 round trip at 4 hours per trip shall be required by the survey crew.

Observation - Full Time and Periodic. The Engineer shall provide part time construction observation for this project. It is estimated at this time that 14 working days be allowed for the project. If the actual construction time exceeds that estimate, additional construction observation time shall be required, and the Engineer's fee shall be equitably adjusted.

- Construction time to complete the beacon replacement and associated items is estimated at 14 working days. The Engineer estimates that the Resident Engineer shall make four (4) periodic site visits at two (2) hours per day. Travel time was estimated at four (4) round trips at two (2) hours per trip for the Resident Engineer.

- It is anticipated that the Project Manager shall make one (1) site visit to the project during construction operations to visit with the Owner and conduct a review of the construction progress. Time on site is estimated at 2 hours. Travel time is estimated at 1 round trip at 6 hours per trip for the Project Manager.

Archaeological Observation - Periodic. Not included in this Detailed Scope of Services.

Although the Engineer shall perform construction administration and observation on this project, the Contractor is responsible for the means and methods of construction. The Engineer has no control over the Contractor's work product.

AERONAUTICAL SURVEY SERVICES

Not included in this Detailed Scope of Services.

FAA PROJECT CLOSEOUT REPORT

The Engineer shall prepare the FAA Project Closeout Report. The FAA Project Closeout Report will not be submitted until all tasks are completed for the ALP Update Project currently anticipated for FY 2022. If the ALP Update Project does not commence in Fiscal Year 2022, the FAA Project Closeout Report will be submitted at the completion of the Beacon Project only.

Overall Project Management. The Engineer shall provide project management services to manage the completion of the project within the conditions of this Agreement. Project management is crucial to the success of all projects; specifically, it is crucial to this project. The Engineer has John Glesne identified as the project manager for the project. Project management is the discipline of planning, organizing, and managing resources to successfully meet this project's objectives and goals. It is the project manager's responsibility to notify the Owner of any issues, problems, or concerns regarding the project; the delegation of all activities to the project team; and handling all subconsultant coordination. In addition, if any items arise during the duration of the project that are outside this Detailed Scope of Services, the project manager shall address them with the Owner.

Prepare Final Payment. Prepare final outlay request for final grant payment and required acceptance forms.

Prepare DBE Summary Report. Prepare required FAA documentation regarding DBE participation on the project based on data obtained from the Contractor.

Prepare Executive Summary. The Engineer shall perform appropriate post-construction photographic documentation of the project and any adjacent properties that could have been affected by construction activities. The Engineer shall also prepare an Executive Summary of the project.

Prepare Quantity Revision Summary. Perform three-way check of all project costs and explanations of cost variations from plan.

Prepare ALP Update. Not included in this Detailed Scope of Services.

Exhibit A Update. Not included in this Detailed Scope of Services.

Prepare Record Drawings.

- Prepare record drawings and provide one (1) bound hard copy set and one (1) electronic set (PDF format) to the Owner.
- Deliver one (1) set of Operation and Maintenance (O&M) Manuals as provided by the Contractor.

Prepare Closeout Report Document.

- Prepare summaries of all test results on materials installed as required and final testing report.
- Once FAA has approved the Closeout Report, the Engineer shall provide one (1) copy to the Owner.

OWNER'S RESPONSIBILITIES

Project Representative. The Owner shall designate a Project Representative with authority to administer the Engineer's consultant contract. All requests for information or a decision by the Owner on any aspect of the work shall be directed to the Owner's Project Representative.

Submittal Reviews. The Owner shall review submittals by the Engineer and provide prompt decisions and responses to questions in order to minimize delay in the progress of the Engineer's work.

Outlay Reviews. The Owner shall review and approve outlays and other information submitted by the Engineer in a prompt manner.

Historical Information. The Owner shall furnish the Engineer one copy of As-Built drawings, maps, records, surveys, reports, preliminary designs, etc. that are pertinent to the project.

Agreement Between Owner and Contractor. The Owner shall provide a legal review of the Agreement Between Owner and Contractor template that is provided by the Engineer to make sure that it complies with local, state, and federal law.

Disadvantaged Business Enterprise (DBE) Plan. The Owner has an approved DBE Plan and shall make determinations on accomplishments and participation.

PRINCETON MUNICIPAL AIRPORT
BEACON REPLACEMENT
KEY TASKS AND MILESTONES

Task	Deadline
Develop draft Detailed Scope of Services	December 8, 2021
Submit draft Detailed Scope of Services to Owner and FAA	December 10, 2021
Comments on draft Detailed Scope of Services received from Owner and FAA (2 weeks allotted)	December 23, 2021
Detailed Scope of Services Refined by KLJ and resent to Owner/FAA	December 30, 2021
Owner reviews and approves Detailed Scope of Services	January 7, 2022
Scope and Hours negotiated Between Owner and Engineer	January 7, 2022
Agreement Signed	January 20, 2022
Owner issues Notice to Proceed to Engineer	January 20, 2022
CSPP Submittal to FAA	February 7, 2022
90% Design (3 weeks allotted)	February 7, 2022
Design - Preliminary General and Civil Specifications	February 7, 2022
Submit 90% Plans and Specifications to FAA for Review	February 7, 2022
90% Plans and Specifications Comments due back from FAA Review (2 weeks allotted)	February 18, 2022
Internal KL&J Review	February 25, 2022
Design - Final Plans and Specifications	February 28, 2022
Advertise for Bids	March, 3/10/17, 2022
Bid Opening	March 24, 2022
Project Award	April 2022
Submit FAA Application for Federal Assistance	April 2022
Issue Notice of Award to Contractor	May 2022
Start Construction	July 2022
End Construction	August 2022