Supplemental Letter Agreement

In accordance with the Master Agreement for Professional Services between City of Minot, North Dakota ("Client"), and Short Elliott Hendrickson Inc. ("Consultant"), effective 8/31/2021, this Supplemental Letter Agreement dated _____ authorizes and describes the scope, schedule, and payment conditions for Consultant's work on the Project described as: Electrical Vault Rehabilitation - Design.

Client's Authorized Representative: Jennifer Eckman, Airport Director
Address: Minot International Airport (MOT)
305 Airport Road Suite 216, Minot ND 58703
Telephone: 701-857-4724 **email:** jennifer.eckman@minotnd.org

Project Manager: Lindsay Reidt, PE
Address: 3535 Vadnais Center Dr.
St. Paul, MN 55110-5196
Telephone: 763-370-4055 **email:** lreidt@sehinc.com

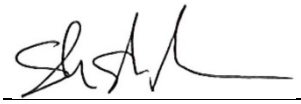
Scope: The Basic Services to be provided by Consultant are included in Attachment A.

Schedule: Services to be initiated at the direction of the City of Minot, with a service completion date no later than June 30, 2024. A schedule is included in Attachment A.

Payment: A retainer in the amount of $0.00 will be paid in advance of Consultant starting work and will be applied to the final invoice(s). The lump sum fee is $89,900.00 including expenses and equipment. See Attachment B reflecting the estimate of labor, fees, and expenses.

The payment method, basis, frequency, and other special conditions are set forth in attached Exhibit A-2.

Other Terms and Conditions: Other or additional terms contrary to the Master Agreement for Professional Services that apply solely to this project as specifically agreed to by signature of the Parties and set forth herein: None.

Short Elliott Hendrickson Inc.	**City of Minot, North Dakota**
By: 	By: _____
Shawn McMahon	
Title: Regional Practice Center Leader	Title: _____

ATTACHMENT A
Minot International Airport (MOT)
Minot, North Dakota
Electrical Vault Rehabilitation
Scope of Work - Design

General – This project will replace several pieces of equipment inside the existing electrical vault, including the control panel, relay-based interface panel, ATCT lighting panel, ATG radio control, and most of the regulators. The existing equipment was installed in 1993 when the vault was constructed and needs replacement, with much of the equipment approaching 30 years of life. Airport staff has experienced and documented consistent maintenance challenges with the equipment and replacement parts are becoming increasingly challenging to obtain. The current infrastructure in its current condition poses a risk that airfield lighting will become inoperable without notice with the potential of a delayed maintenance period, potentially causing safety issues and flight delays. The vault rehabilitation will ensure airfield safety by providing a well operating and maintainable lighting system. Per Table J-4 in the AIP Handbook, the minimum useful life for airfield electrical/lighting equipment is 10 years. See attached **Figure 2**.

Figure 2. Project Exhibit

Proposed project schedule:

February 5, 2024 – City of Minot consideration of Design contract

February 15, 2024 – Submit Engineer's Design Report and CSPP to FAA

March 2024 – Final plans and specifications posted for bidding (Design contract complete)

April 2024 – Bid opening

April 2024 – City of Minot consider Contract Award and Construction Administration Contract contingent upon grant reception

April 2024 – Grant application submittal

May 2024 – Start SEH Construction Administration contract

September 2024 – Construction

(Construction administration services, as well as completion of the grant closeout report, will be included in subsequent work orders.)

Electrical Vault Rehabilitation (Design) - Project Deliverables – The project deliverables of this scope include the following:

1. Project Formulation
2. Engineer's Design Report
    a. Including Construction Safety and Phasing Plan (CSPP) and Safety Plan Narrative
    b. 7460/Airspace Submittal
3. Environmental determination (Categorical Exclusion)
4. Plan drawings
5. Bidding documents
6. FAA Plan and Specification review
7. Bidding and contract award recommendation
8. Project management and meetings

Work Element 1: Project Formulation

Task 1.1 – Scoping, Review, and Coordination – Short Elliott Hendrickson (SEH and/or Consultant) will coordinate with the Minot International Airport (MOT) (sponsor) to develop the appropriate scope of work approved by funding partners. Additional coordination will include task definition and establishment of project goals and objectives. The scope of work will be presented to FAA and NDAC for review and will be updated based on input received.

Task 1.2 – Project Formulation – SEH will complete the project and grant pre-application documentation, environmental review submittals, cost breakdowns, and eligibility determinations for the approved scope of work.

Work Element 2: Preliminary Design

Task 2.1 – Site Visit and Vault Inspection – A site visit to inspect the existing electrical vault building including equipment in the vault building and associated controls in the SRE building and ATCT. The existing generator for the airfield lighting systems will also be inspected. The site visit will verify base maps, utility locations, equipment locations, and other relevant site features to ensure conformance to bidding documents, and overall impacts to airport infrastructure, SEH will provide escorting and oversight during the inspection. The visit will be attended by the electrical engineer (Barr Engineering) and a project engineer (SEH).

Work Element 3: Engineer's Design Report

Task 3.1 – Engineer's Design Report - Complete Engineer's Design Report according to FAA requirements and submit to FAA for review at 60%. The report will be completed with the following sections:

Scope of Work – SEH will develop a brief narrative of the work scope, delineation of eligible/ineligible work items, any unique or unusual situations, and historical background on the proposed project. Three meetings are estimated with sponsor and/or FAA to review the project.

Photographs – SEH will coordinate with MOT staff to capture photographs of representative areas of existing site conditions. The photographs will be included within the report.

Applicable AIP Standards – All applicable AIP standards will be referenced in the report by FAA Advisory Circulars.

Airport Operational Safety Considerations – SEH will develop a preliminary Construction Safety and Phasing Plan (CSPP), and confirm with sponsor and FAA, to evaluate proposed phasing and sequencing, construction limits, haul routes, contractor staging areas, and anticipated impacts to airport users. All airport facilities, including approach procedures and navigational aids, will be evaluated for potential impacts due to construction. Construction Safety and Phasing Plan and Safety Plan Narrative will be delivered to FAA for review and comment during EDR review process.

Airfield Lighting and Signage – Airfield lighting and signage impacts will be evaluated. Temporary outages will be needed for replacement of the existing equipment. Temporary lighting options will be considered for high priority circuits. The results of the field inspection will be included in this section.

Navigational Aids – Any temporary impacts due to vault equipment as a result of phasing will be discussed in this section.

Environmental Considerations – SEH will complete a request for environmental Simple Written Record (SWR) for the project. SEH will also identify necessary permits, if required for contractor to procure.

Existing Utilities – SEH will develop a drawing that identifies and delineates existing underground utilities in and adjacent to the project area. This will include a desktop locate of utilities to validate against existing airport record drawings.

Miscellaneous Work Items – SEH will provide a narrative to address other work components of the project, such as site access, and other related work items.

Benefit Cost Analysis – The proposed electrical vault work does not require BCA analysis. A detailed BCA will not be required.

Modification to AIP Design Standards – No modifications to design standards are anticipated, but this task will explore the proposed project components to confirm that no modifications to design standards will be requested.

AIP Non-eligible Work Items – Any potential non-eligible work items will be identified. If non-eligible work items are identified, the process for separating these work components from eligible components will be addressed.

Disadvantaged Business Enterprise (DBE) – The current status of the Sponsor's DBE program and project requirements will be identified and included in the report. SEH will assist Sponsor in determining goal and good faith effort determinations, as well as including specification language in bidding documents.

Project Schedule – SEH will develop a schedule and associated chart to identify the project schedule and milestones during the design and bidding process.

Engineer's Estimate of Probable Cost – SEH to provide an itemized summary of the engineer's estimate of probable construction costs. Any ineligible work components will be called out separately. Local, state, and federal funding sources will be shown.

Preliminary Project Budget – SEH will develop a preliminary project budget that will include anticipated engineering costs, construction costs, and administrative costs. Potential funding sources and prorations will also be included.

Work Element 4: Plan Drawings for Electrical Vault Rehabilitation

Final design and plan drawings will be prepared in accordance with federal and state guidelines. FAA Advisory Circular (AC) 150/5300-13B, *Airport Design,* will be utilized in the development of the plan set. Other applicable ACs, FAA Orders, Regulations and Policy Memorandums will be used as needed. Specific tasks included with this work element include:

Task 4.1 – Construction Safety and Phasing Plan Development – SEH will refine and update the preliminary Construction Safety and Phasing Plan (CSPP) that was developed as part of the Engineer's Design Report. SEH will meet with MOT staff, FAA staff (including ADO and Tech Ops), airfield tenants and users to evaluate potential risks and determine appropriate mitigation tactics. The preliminary CSPP will be enhanced to determine final phasing and sequencing, construction limits, haul routes, contractor staging areas, and anticipated impacts to airport users and airfield facilities. A review and coordination meeting will be held with MOT and FAA prior to 7460 submittal to limit closure times and impact to IFR procedures. A figure will include points of interest requested by FAA, including RSA, OFZ, and TOFA. A final CSPP will be uploaded for FAA airspace review via the 7460 OE/AAA review process.

A detailed phasing plan will be developed to determine the least impactful alternative for equipment replacement.

Task 4.2 – Construction Plan Sheets – Specific plan sheets to be developed and included in the plan set are as follows:

- Title Sheet
- Construction Safety Plan
- Construction Phasing Plan
- Terminal Access Route Plan
- Statement of Estimated Quantities
- Details and Construction Notes
- Utility Locations Plan, showing impacts to lights, sign, NAVAIDS, and markings.
- Removal Plan
- Electrical Plan and Details
- Vault layout and details

Work Element 5: Construction Bidding Documents for Electrical Vault Rehabilitation

Elements of the Construction Bidding Documents will be prepared in accordance with FAA Advisory Circulars (AC) 150/5300-13B, *Airport Design* and other applicable AC's, Orders, Regulations and Policy Memorandums. Specific tasks included with this work element include:

Task 5.1 – Construction Bidding Documents – A bid proposal project manual will be prepared that will consist of a table of contents, advertisement for bids, proposal documents, schedule of prices, bid alternatives (if applicable), State and Federal requirements, wage rates, technical specifications, required FAA standard contracts and clauses, DBE goals and GFE, and special provisions.

Work Element 6: FAA Construction Plans and Specifications Review

Task 6.1 – FAA Coordination – SEH will coordinate with the FAA on submitting a 60% EDR, complete set of construction plans, and specifications for FAA review.

Task 6.2 – Review and Address FAA Comments – SEH will review and address all FAA comments on the plans and specifications and develop documentation to track any comments received and how those comments were addressed.

Work Element 7: Bidding and Contract Award Recommendation

Task 7.1 – Bidding and Award – Assist the Client with obtaining construction bids for proposal improvements, including advertising in local paper, city website, and other required locations. Make a recommendation to the Client on award of construction contract. Assist the Client with securing a grant from the Federal Aviation Administration for this project.

Work Element 8: Project Management – This task includes the overall project management of Work Elements 1 through 7 noted above. Project Management includes administration of the project, design team meetings, agency and Sponsor meetings, airfield user and tenant outreach meetings, and related project administration tasks.

Task 8.1 – Quality Control – This task includes effort to perform a quality control review of the bidding documents, including EDR, plans, specifications, and other required deliverables.

Task 8.2 – Design Team Meetings and Sponsor Meetings –This task includes meetings by the design team to discuss project elements, schedule, issues, and provide coordination between team members.

Task 8.3 – Agency Meetings –This task includes meetings by the design team, North Dakota Aeronautics Commission, FAA ADO, FAA Tech Ops, FAA ATC Tower manager, MOT staff, and other individuals and agencies as needed, to discuss the project design development, schedule, and any other related items.

Task 8.4 – Overall Project Management –This task includes project coordination and administration, including Sponsor and agency communication, internal meetings, subconsultant oversight, progress reports, budget updates and monthly invoices.

Subconsultants: Barr Engineering of Bloomington, MN will complete the electrical inspection and design.

Exclusions:

1. FAA Reimbursable Agreement and/or flight check coordination
2. Construction inspections
3. Construction administration
4. Contractor coordination
5. Post design services
6. Project Record Drawings
7. FAA Closeout Report

Exhibit A-2
to Supplemental Letter Agreement
Between City of Minot, North Dakota (Client)
and
Short Elliott Hendrickson Inc. (Consultant)
Dated _____

Payments to Consultant for Services and Expenses Using the Lump Sum Basis Option

The Agreement for Professional Services is amended and supplemented to include the following agreement of the parties:

A. Lump Sum Basis Option

The Client and Consultant select the Lump Sum Basis for Payment for services provided by Consultant. During the course of providing its services, Consultant shall be paid monthly based on Consultant's estimate of the percentage of the work completed. Necessary expenses and equipment are provided as a part of Consultant's services and are included in the initial Lump Sum amount for the agreed upon Scope of Work. Total payments to Consultant for work covered by the Lump Sum Agreement shall not exceed the Lump Sum amount without written authorization from the Client.

The Lump Sum amount includes compensation for Consultant's services and the services of Consultant's Consultants, if any for the agreed upon Scope of Work. Appropriate amounts have been incorporated in the initial Lump Sum to account for labor, overhead, profit, expenses and equipment charges. The Client agrees to pay for other additional services, equipment, and expenses that may become necessary by amendment to complete Consultant's services at their normal charge out rates as published by Consultant or as available commercially. Amendment to be approved by Client in advance via written authorization.

B. Expenses Not Included in the Lump Sum

The following items involve expenditures made by Consultant employees or professional consultants on behalf of the Client and shall be paid for as described in this Agreement.

1. Expense of overtime work requiring higher than regular rates, if authorized in advance by the Client.
2. Other special expenses required in connection with the Project.

The Client shall pay Consultant monthly for expenses not included in the Lump Sum amount.

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ATTACHMENT B
ESTIMATED FEES AND EXPENSES
ELECTRICAL VAULT REHABILITATION
ENGINEER'S DESIGN REPORT, FINAL DESIGN, AND PLANS AND SPECIFICATIONS, BIDDING
MINOT INTERNATIONAL AIRPORT (MOT)
MINOT, NORTH DAKOTA

Task No.	Task Description	Principal	Project Manager	Project Engineer	Senior Technician	Environmental Scientist	Admin Technician
Project Formulation							
1.1	Scoping, Review, and Coordination	2	8	10			1
1.2	Project Formulation		4	4			1
Preliminary Design							
2.1	Site Visit and Inspection		4	16			
Engineer's Design Report							
3.1	Engineer's Design Report	1	6	25	8	2	2
	Including: Scope of Work						
	Photographs						
	Applicable AIP Standards						
	Airport Operational Safety Considerations						
	Airfield Lighting and Signage						
	Navigational Aids						
	Environmental Considerations						
	Existing Utilities						
	Miscellaneous Work Items						
	Modification to AIP Design Standards						
	AIP Non-eligible Work Items						
	Disadvantaged Business Enterprise (DBE)						
	Project Schedule						
	Engineer's Estimate of Probable Cost						
	Preliminary Project Budget						
Plan Drawings for Vault Rehabilitation							
4.1	Construction Safety and Phasing Plan		4	8	8		
4.2	Construction Plan Sheets		6	25	16		
	Including: Title						
	Construction Safety Plan						
	Construction Phasing Plans						
	Terminal Access Route Plan						
	Statement of Estimated Quantities						
	Details and Construction Notes						
	Utility Locations Plan						
	Removal Plan						
	Electrical Plan and Details						
	Vault layout and details						
Construction Bidding Documents for Vault Rehabilitation							
5.1	Construction Bidding Documents	2	4	8			2
FAA Construction Plans and Specifications Full Review							
6.1	FAA Coordination		4	4			
6.2	Review and Address FAA Comments		2	6	4		
Bidding and Contract Award Recommendation							
7.1	Bidding and Award	0	4	4			2
Project Management							
8.1	Quality Control	2	2	4			
8.2	Design Team Meetings & Sponsor Meetings	2	4	6	4		
8.3	Agency Meetings	4	4				
8.4	Overall Project Management	2	8				2
	Total hours per labor category	15	64	120	40	2	10

ESTIMATE OF LABOR COSTS:

Labor Category	Hours	Rate	Extension
Principal	15	$82.21	$1,233.15
Project Manager	64	$76.97	$4,926.08
Project Engineer	120	$49.11	$5,893.20
Senior Technician	40	$45.99	$1,839.60
Environmental Scientist	2	$48.00	$96.00
Admin Technician	2	$32.45	$64.90
Total Direct Labor Costs:	243		$14,052.93
Direct Salary Costs plus Overhead (88%)			$26,419.51
Total Labor Costs			**$40,472.44**
Fixed Fee on Labor Costs (15%)			**$6,070.87**

ESTIMATE OF EXPENSES:

Direct Expenses	Quantity	Rate	Extension
Flight	2	$1,000.00	$2,000.00
Per Diem	4	$200.00	$800.00
Computer Charge	243	$5.80	$1,409.40
Reproductions / Miscellaneous	1	$100.00	$100.00
Subconsultant - Barr Engineering	1	$39,000.00	$39,000.00
Total Expenses			**$43,309.40**

SUMMARY:

Total Labor Costs + Expenses + Fixed Fee	$89,852.71
Estimated Total	**$89,900.00**

resourceful. naturally.
engineering and environmental consultants

BARR

December 26, 2023

Ms. Lindsay Reidt, PE
SHORT, ELLIOTT, HENDRICKSON, INC.
3535 Vadnais Center Drive
St. Paul, Minnesota 55110

RE: MINOT INTERNATIONAL AIRPORT (MOT) – ELECTRICAL VAULT IMPROVEMENTS
PROPOSAL FOR ELECTRICAL ENGINEERING SERVICES

Dear Lindsay:

Thank you for contacting us regarding electrical engineering services for design of the MOT Airport electrical vault improvements. We are providing this letter to outline our understanding of the project, our proposed scope of services, and our proposed fees for the design and bid phase of the project.

PROJECT DESCRIPTION

We understand from your emails received December 6 and 22, 2023 and associated phone conversations that MOT airport would like to replace existing constant current regulators and control system within the existing vault, as recommended by the evaluation report from earlier this year.

We understand also that the airport would like to evaluate options regarding replacement of their existing vault standby generator, to provide a basis of design for a future generator replacement project. This aspect of the work will expand upon the options discussed in the *Evaluation of Existing Airfield Electrical Systems* which was issued in the first quarter 2023.

This proposal is intended to outline our scope of service pertaining to design and bid phase activities. However, we are not including construction phase services in this proposal. Such services may be provided in a separate, future proposal.

SCOPE OF SERVICES

In support of your efforts, Barr proposes to provide the following subconsultant services to Short, Elliott, Hendrickson (SEH):

1. Review of existing record documents available.

2. Provide electrical design and circuiting redlines for SEH to incorporate on the AutoCAD drawing of the vault plan and ATCT plan, as has been our usual method on similar past projects.

3. Provide electrical design redlines for detail sheets for SEH to incorporate in their AutoCAD drawings, as has been our usual method for airfield related plans (2 sheets anticipated).

4. Provide electrical design and AutoCAD drawing production for electrical schematics showing functionality of the proposed new control system (4 sheets anticipated).

5. Provide technical specifications for the electrical work.

6. Bid-phase assistance including addressing questions which may arise from bidders and addenda items as necessary.

7. Work associated with the existing generator will include detailed evaluation of the existing system, as well as evaluating options such as in-kind replacement and whether it would be possible to utilize the existing generator that serves the terminal building. Examination of each option will include a preliminary opinion of probable cost (OPC) to assist in evaluating the best option.

8. Construction phase services are not included in the scope of this proposal.

PROPOSED FEE

Barr Engineering proposes to provide the outlined scope of services to SEH on an hourly basis to a maximum budget in accord with the following amounts:

Electrical Design/Bid	$32,500
Site Visit	$ 6,500
Total Budget	$39,000

Services are billed monthly according to the work complete. Reimbursables such as automobile mileage are included in the total above.

Thank you for the opportunity to present this proposal. We look forward to working with you on this project.

Sincerely,

BARR ENGINEERING CO.

Mark E. Ziemer, P.E.

Senior Electrical Engineer