

# PROPOSED STATEMENT OF SERVICES

## APPENDIX B

|                |                 |
|----------------|-----------------|
| PSA No:        | 25-23-1-012     |
| Amendment No:  | 1               |
| Program No:    | HFHWY00239      |
| Federal No:    | 2000(045)       |
| Date Prepared: | January 9, 2023 |

### Amendment No. 1 Alaska/Richardson/Steese Highway Corridor Action Plan

Amend the current Statement of Services with the following:

#### SCOPE

#### INTRODUCTION AND BACKGROUND

In response to planned increase in industrial traffic between Tetlin and Fort Knox as a result of the Manh Choh Mine ore hauling vehicles, the State of Alaska Department of Transportation and Public Facilities (Department) Northern Region, Division of Planning is seeking professional planning services to develop an Alaska/Richardson/Steese Highway Corridor Action Plan (Plan). The Plan area will include sections of the Alaska, Richardson, and Steese Highway corridors between Tetlin and Fort Knox. This is a 20 to 25 year multi modal transportation focused Plan that will address existing policies, laws and regulations; safety concerns (crash data); traffic and freight movement; legal load limits; traffic volume congestion and capacity; economic and environmental impacts (air quality); improved infrastructure needed to address safety concerns and traffic movement (pavement; bridges; alternative routes; and facilities along the corridor, such as bus stops); maintenance and operation needs; forecasted population, traffic, tourism and economic development; federal and state performance measures; and workforce development needs.

The goals and objectives of this Plan are to:

- Recommend policy goals and investment priorities/opportunities
- Address safety, congestion, maintenance, and environmental concerns related to increased corridor usage
- Identify potential study area gaps in transportation safety and mobility along the corridor
- Provide recommendations on needs, infrastructure improvements, route alternatives, additional studies or analyses needed, policy or law changes, and funding/partnership opportunities to help develop projects recommended in this study.

The Department, working with its facilitation and planning contractor, has developed a Transportation Advisory Committee (TAC) to assist with input and guidance for the Plan. The Contractor for this Plan will work with the TAC and conduct TAC meetings throughout the duration of the Plan. The Plan Contractor will also be responsible for broader public involvement and stakeholder engagement efforts.

The project will be executed in two phases. The first phase, Phase 1, will be a short-term and medium-term Plan that primarily addresses the effects and impacts of the Manh Choh Mine ore hauling operations on the transportation system and environment, with a planning horizon of mine's opening, 5 years hence, and 10 years hence (2024, 2029, and 2034 respectively). The second phase, Phase 2, will be a long-term Corridor Action Plan, which will focus on regional and statewide economic, social, and transportation conditions expected in 2045 (20-to-25-year planning horizon).

## **SCOPE**

The following tasks are anticipated but not limited to:

- 1. Scoping and Tetlin-Fort Knox TAC Meeting** - The contractor shall initiate scoping activities for the project contract, beginning with a presentation at a Tetlin – Fort Knox TAC meeting the last week of October, 2022. This is anticipated to be at an in-person location in Fairbanks, Alaska. At this meeting the Contractor shall bring a “strawman” scope template that attempts to address all major study scope issues. Contractor shall solicit additional input from committee members, and will address that input with the revised scope, showing dispensation of comments. This information (how comments and issues were addressed in the contract) shall be made available to the public and posted on the project website. The Contractor will use information from the meeting to generate this scope of work for the remaining project tasks.
- 2. Project Management Plan (PMP)** – Develop a project management plan that identifies the project team, schedule, scope, budget, potential project challenges and mitigation recommendations to address project challenges, and reporting/communication methods for the team. This document will be used for internal communication and management purposes only. This task also includes the work necessary for contract and project management over the Plan. This work includes the scheduling, budgeting, monitoring, invoicing and reporting for the project; Department coordination; and subcontracting management.
- 3. Public Involvement Plan (PIP) and Public Involvement Activity** – Prepare a PIP in accordance with Department public outreach requirements and the State of Alaska’s Open Meeting Act. The PIP should identify key stakeholders and communities to be involved throughout the planning process within the study area; public involvement methods must include facilitation for TAC meetings; use of publicinput.com and existing Department outreach platforms such as Facebook, website, publicinput.com, and govdelivery.com; other public outreach methods; and a public involvement timeline. The PIP must provide equitable considerations to all populations within the study area.
  - A. Draft and Final PIP** – The Contractor shall prepare the Draft and Final PIP that addresses all elements listed above.
  - B. TAC Meetings-** The Contractor shall organize, conduct (inform and be informed), and summarize regularly scheduled TAC meetings. The first of the meetings is expected to be conducted after January 2023 and TAC are expected to occur every other month. The frequency and schedule of the TAC meetings will be dictated by the deliverable schedule and set within the PIP.
  - C. Public Outreach Data Gathering** – The Contactor shall use a variety of tools and methods to acquire data and information to support Task 4 Data Assembly and Task 5 Existing Conditions. Outreach shall include resource and regulatory agencies, government agencies, organizations, applicable Native corporations and associations, interest groups, and the public.
  - D. Public Outreach to Inform** - The Contactor shall use a variety of tools and methods to inform the public about the project progress and findings at key points of the project. Following the draft Plan, the Contractor will conduct virtual open houses as well as a series of in-person open houses in the communities of Tok, Delta Junction, and

Fairbanks. The Contractor shall provide, or assist the Department in providing, updates to FAST Planning. The Contractor shall present the informational progress reports and draft Phase 1 and Phase 2 Plan to public interest groups as required (Chamber Transportation Committee).

- E. **Public Hearing-** The Contractor shall prepare and conduct a public hearing in the spring of 2023, and more detailed in the PIP.

4. **Data Assembly** – Collect, analyze, and provide a summary of existing planning documents/efforts within the study area. Existing transportation studies that need to be analyzed and may impact this Plan can be found on the Department and Fairbanks Area Surface Transportation (FAST) Planning Metropolitan Planning Organization (MPO) websites. The State Rail Plan, Air Quality Plan, FAST Freight Mobility Plan, FAST Non-Motorized Transportation Plan, Interior Alaska Transportation plan, Alaska Statewide Transportation Plan, Richardson-Steese Highway Expressway Corridor Planning & Environmental Linkage Study, and relevant Fairbanks North Star Borough transportation and land use plans should all be considered in this task. An assessment of current safety plans/policies/guidelines/standards should be evaluated. Military and private industry plans should also be included as part of this assessment.

5. **Existing Conditions** – Document the following:

- A. **Land Use and Environmental** - Documentation of landownership; land use; laws and regulations; government powers including planning, permitting, maintenance responsibilities; existing right-of-way; air quality non-attainment area; and environmental conditions, such as historic sites, permafrost, and wetlands/flooding areas. The Plan must address segmentation between urban vs. rural.
- B. **Transportation and Public Facilities** – Documentation of existing and planned facilities along the corridor, including, but not limited to freight routes, roadways and road/rail intersections, rail crossings, public transportation, school bus stops, truck depots, emergency response buildings, scenic byways, bridges, pavement conditions, and freight limits and restrictions.
- C. **Traffic Conditions**– Documentation of existing routes, load capacity, weight/limit restrictions, level of service, congestion, air quality (as a result of transportation use), safety corridors, transit use, and other related traffic conditions.
- D. **Maintenance and Operations** – Documentation of maintenance and operations efforts including programs, facilities, resources, and equipment available.
- E. **Crashes and Fatalities** – Documentation of crash and safety data within the study area. Provide a summary of historical trends involving fatalities and serious injuries across jurisdictions. Provide locations where there are crashes and the severity of the crashes, as well as contributing factors (behavioral factors) and crash types by relevant road users. Snow/seasonal travel conditions (winter blowing snow and visibility) need to be documented and utilized as part of the analysis.
- F. **Technology** – Documentation of existing technology infrastructure (Road, Weather Information Systems (RWIS)), data management stations, and count stations, or other technologies that help document and record transportation data within the study area. Documentation of electric vehicles conversion plans and trends.
- G. **Environmental** – Documentation of agency data regarding air, noise, water, and other

impacts resulting from future corridor transportation uses.

- H. **Commercial Vehicle Laws and Regulations** - Document existing laws, regulations that govern trucking and truck configurations, load limits, and potential land use or noise ordinances that could be employed with public will.
- I. **Bridges Conditions** – Interview and coordinate with the Department’s Bridge Design Section for information. Document conditions and load capacities of all existing and proposed replacement bridges along the corridor and subject highways. Document the capabilities of bridges for the loads by Manh Choh Mine ore hauling vehicles, and if there is a need for any operating restrictions. (For example, uncoupling loads or mandated slower speed on the bridges may have an adverse effect on capacity operation and safety performance that would require special analysis).
- J. **Pavements Conditions**- Interview and coordinate with the Department’s Materials and Pavement Sections for information. Document conditions and load capabilities of pavement structures along the Corridor, and how remaining pavement life will be impacted by the Manh Choh Mine ore hauling vehicles.
- K. **Field Review**- The Contractor’s key personnel shall perform a field review of the corridor.

**6. Phase 1: Short-Term and Medium-Term Plan**- This task and Phase 1 Plan will focus on the short-term and medium-term effects of the Manh Choh Mine ore haul between Tetlin and Fort Knox, currently planned to begin in 2024. The planning analyses will be performed for 1) 2024, the mine’s expected opening year; 2) 2029, the five-year horizon and cited as the final year of the ore haul; and, 3) 2034, a 10-year horizon to examine the case of extended mine operations. These dates will be adjusted if mine operation schedules change significantly.

- A. **Forecasts / Travel Demand** – Provide forecasted population, tourism, economic development, transportation demand trends and drivers. This forecast should include direct and indirect activities that may impact safety, traffic levels, mobility, land, and transportation use, as well as tourism and economic development. Forecasts will be developed for Plan years 2024, 2029 and 2034. Forecasts include baseline conditions (no-mine activity) and forecasts with the Manh Choh Mine in operation.
  - i. **Socio-Economic Forecasts** – The Contractor shall compile existing research, existing reports, and data/opinions provided by local and State economists on the socio-economic forecasts at the communities, corridor, region, and State levels as it pertains to the short-term and medium-term planning.
  - ii. **Military Forecasts** – The Contractor shall, through research or interviews, summarize the forecast of Military activities which may affect the short-term and medium-term Plan.
  - iii. **Traffic/Travel Demand Forecasts** – The Contractor shall use the FAST Planning area travel demand model for urbanized areas within and adjacent to Fairbanks. Rural or small urban areas will use regression methods to forecast traffic. Forecasts will include motorized (automobile, freight, transit, military, tourism, schools, and other discrete/unique motor modes) and non-motorized modes of travel (bicycle, pedestrian). Forecasts will be developed for the two scenarios of with and without Manh Choh Mine ore haul vehicles. The Manh

Choh mine traffic is expected to be provided by the mine owner, Kinross. If not, the Contractor will provide forecasts using best practices and estimates.

- iv. **Land Use** – The Contractor will reconcile land-use type and availability and development demand, and will provide an estimate of the changing land-use patterns that may occur.

B. **Analysis** – Prior to Plan Analysis, the Contractor shall prepare proposed performance measures for analysis elements for Department approval and TAC review. The Contractor shall provide a detailed analysis of Manh Choh Mine ore haul impacts resulting from the information discovered through Tasks 1-6 for Plan years 2024, 2029, and 2034. The analysis should identify issues, challenges, needs, and concerns related to each area.

- i. **Operational Performance Analysis of Transportation Elements** – For all travel modes the Contractor shall provide a planning-level operational analysis to estimate traffic operational performance with and without Manh Choh Mine operations for planning years 2024, 2029, and 2034. Operational analysis shall comply with macroscopic tools provided in the Highway Capacity Manual, FHWA CAP-X and other methods.
- ii. **Traffic Safety Performance Analysis of Transportation Elements** – For all travel modes the Contractor shall provide a planning-level operational analysis to estimate traffic safety performance with and without Manh Choh Mine operations for planning years 2024, 2029, and 2034. The Department’s HSIP Handbook methods and Highway Safety Manual methods will be used for predictive analyses. The analysis will consider route roadway and intersection geometric and traffic control safety elements that will require modifications or replacement because of the truck size, configuration, and performance characteristics (such as turning swept paths, acceleration, stopping distance).
- iii. **Environmental Analysis of Transportation Elements** – Using the air quality model for FAST Planning area, the Contractor shall estimate the incremental air quality impacts caused by Manh Choh Mine ore haul operations over the Plan years. Other environmental impacts shall be evaluated on a qualitative basis, or through interviews with regulatory or resource agencies.
- iv. **Bridge Analysis**- The Contractor will work with the Department’s Bridge Design Section to determine if the forecast Manh Choh Mine ore haul traffic can be accommodated by the existing bridges along the route. The Contractor will assist Bridge Design in developing improvements or operational restrictions to mitigate ore haul impacts.
- v. **Pavement Analysis**- The Contractor will provide an estimate of pavement management impacts to the ore haul route imposed by ore haul vehicles.
- vi. **Maintenance and Operations (M&O) Analysis of Transportation Elements** – The Contractor shall determine the incremental M&O impacts and burdens of the pending and enhanced conditions over baseline conditions. This shall also include an analysis of the effects of conditions on pavement and bridge maintenance costs.

- C. **Phase 1 Recommendations and Reports** – Provide policy, project, and funding recommendations/strategies for needed policy and infrastructure improvements required to mitigate the Manh Choh Mine ore haul vehicle impacts. The Plan should recommend both short-term (2029) and medium-term (2034) alternative freight routes, facility operation and maintenance needs, safety improvements, infrastructure needs, regulatory framework improvements, and performance targets and measures based on clearly defined screening criteria. The Contractor shall provide recommendations for alternative freight routes through an analysis and modeling effort.

On uninterrupted flow highways and expressways in both rural and urban settings, the analyses will be conducted by segments defined by similar traffic, roadside, and geometric conditions. On interrupted flow facilities, the analysis will focus on intersections where the ore haul vehicles are under signal or roundabout control, or would affect other vehicles in those junctions. Merge and diverge ramps for interchange junctions will be evaluated if affected by ore haul vehicles.

- i. **Range of Alternative** – The Contractor will develop a range of feasible infrastructure improvements, ITS enhancements, or policy changes to mitigate incremental impacts identified in Task 6B, above. The Contractor will provide planning-level cost opinions and other impact opinions of the mitigation alternatives.
- ii. **Screening of Mitigations** – The Contractor and Department will screen the mitigation, and advance those that are feasible (cost, schedule, environmental basis) for further evaluation. Those projects that do not provide adequate mitigation, or are not feasible because of cost or other impacts will be discarded without additional analysis.
- iii. **Mitigation Effectiveness** -The Contractor will evaluate the feasible mitigation alternative projects and policies using performance elements listed under Task 6B, above. The Contractor shall refine project costs, using parametric cost units at an applicable planning level.
- iv. **Draft Plan Report** – The Contractor will prepare a Draft Plan Report for Department review summarizing all work for this plan culminating in the recommendation of projects and policies required to mitigate short-term and medium-term impacts. Following Department review and comment and any resulting revisions, the Draft Plan will be made available for Public review and comment, and will be the Plan presented in open houses cited in Task 3D, above. Projects will be ranked and prioritized based on mitigation effectiveness, costs, and available funding.
- v. **Final Report** – Following the Public review period and open houses, and additional Department and agency review and comment, the Contractor will assemble comments, provide proposed resolutions, and make revisions as necessary to the Plan. The Plan will be submitted as a draft Final for Department approval and then, upon approval, submitted as the Final Plan.
- vi. **Funding/Partnerships** – For the Draft and Final Plan (Task 8D), the Contractor will provide recommendations on potential funding partnerships, sources, and implementation ideas so that projects identified in this Plan can be developed.

**7. Geographic Information System (GIS)** – The contractor will present and demonstrate the data collected using a geospatial information system and graphics platform for TAC, public and

community presentations and for the final Plan. Documentation of all existing conditions will be included in GIS for the purposes of planning and securing funding from certain agencies, especially crash data.

- 8. Phase 2: Long-Term Planning / Corridor Action Plan** – Following the completion of the Phase 1 Short-Term and Medium-Term Plan, the Department and Contractor shall jointly determine the scope and extent of the Long-Term Plan to be negotiated and performed under an amendment to this contract. The intent of the Corridor Action Plan will be to establish for a 20- to 25-year planning horizon the future traffic conditions, development, socio-economic conditions, military, and other elements that affect the Alaska / Richardson / Steese Highway Corridor, and proactively address those needs with projects and policies.

**ANTICIPATED NOTICE TO PROCEED AND TASK COMPENSATION TYPE AND SCHEDULE**

| <b>Notice to Proceed</b> | <b>Tasks</b>  | <b>Contract / Compensation Form</b> | <b>Begin</b> | <b>End</b>   |
|--------------------------|---|-------------------------------------|--------------|--------------|
| NTP 1                    | 1. Scoping and Tetlin-Fort Knox TAC Meeting   | Fixed Price (FP)                    | October 2022 | January 2023 |
| NTP 2                    | 2. Project Management Plan (PMP)  | Time and Expense (T&E)              | January 2023 | January 2023 |
| NTP 2                    | 3. Public Involvement Plan (PIP) and Public Involvement Activity (NTP 2 will accommodate Public activities that support Phase 1 Plan) | T&E                                 | January 2023 | July 2023    |
| NTP 2                    | 4. Data Assembly  | T&E                                 | January 2023 | April 2023   |
| NTP 2                    | 5. Existing Conditions  | T&E                                 | January 2023 | April 2023   |
| NTP 2                    | 6. Phase 1: Short-Term and Medium-Term Plan   | T&E                                 | January 2023 | July 2023    |
| NTP 2                    | 7. Geographic Information System (GIS)  | T&E                                 | January 2023 | July 2023    |
| Future Amendment         | 8. Phase 2: Long-Term Planning / Corridor Action Plan   | To be negotiated (TBN)              | TBN          | TBN          |

**ANTICIPATED TASK DELIVERABLES**

1. Scoping and Tetlin-Fort Knox TAC Meeting- Meeting preparation, power point presentations
  2. PMP - (1) electronic copy
  3. PIP and Public Involvement Activities– (1) electronic copy of PIP, subsequent deliverables as stated in PIP.
  4. Data Assembly Technical Memorandum- Summarizing Task activities and findings for inclusion in Phase 1 and Phase 2 reports.
  5. Existing Conditions Technical Memorandum- Summarizing Task activities and findings for inclusion in Phase 1 and Phase 2 reports.
  6. Phase 1: Short-Term and Medium-Term Plan- Draft and Final Reports
  7. GIS – Maps and Graphics – electronic (for presentations) and hard copy (for the report)
- Phase 2: Long-Term Planning / Corridor Action Plan - TBN