

# Draft Preliminary Scope of Work

## Crete, NE-BNSF Railway Corridor Highway/Rail Grade Crossing Safety Study Project

The Crete, NE-BNSF Railway Corridor Highway/Rail Grade Crossing Safety Study Project will examine eight existing at-grade crossings in the vicinity of Crete, NE, to look for opportunities to improve safety, mobility, emergency access, and railroad operating efficiency in this busy BNSF rail corridor. There have been several highway-rail incidents in the City and adjacent portions of Saline County. The study will conduct an Alternatives Analysis for the corridor, located on BNSF's Hastings Subdivision, that consists of examining past accident history, performing traffic modeling and analyses to determine potential safety and mobility improvements for the Crete area for the future. These potential options include the following specific highway/rail at grade crossings;

- Conceptual engineering for a potential railroad/vehicle grade separation at Main Avenue (BNSF Milepost 79.64);
- Conceptual engineering for grade crossing upgrades/modifications and/or closures at:
  - Road 2000 (BNSF Milepost 82.24)
  - Blue River Road (BNSF Milepost 81.23)
  - Arizona Avenue, (BNSF Milepost 80.68)
  - W 13th Street, (BNSF Milepost 80)
  - Hawthorne Avenue, (BNSF Milepost 79.25)
  - Boswell Avenue, (BNSF Milepost 79.03) and
  - SH 103 (BNSF 77.65).

The analysis will also look at the adjustments of crossing warning systems timing, railroad signal systems, and track alignment and superelevation to accommodate consistent railroad speed regimes through the City of Crete and its environs. This could potentially improve mobility through Crete by reducing times vehicles wait at crossings for trains to pass and improve Amtrak and BNSF train schedule performance.

The study will also complete an environmental evaluation for the corridor, preliminary engineering for each discrete capital project, as well as cost estimates. The project will develop environmental documentation to enable the city to pursue future construction funding opportunities, conduct technical studies, and develop engineering to a 30% level for each project element. Its scope includes tasks appropriate to the Federal Railroad Administration's (FRA's) Railroad Crossing Elimination (RCE) Grant Program Tracks 1 and 2 (Project Planning and Development Lifecycle Stages). This would position the project to enter the next two FRA Lifecycle Stages, Final Design and Construction.

## **Task 1 – Project Administration and Management**

Project management will be provided throughout the duration of the project, including the work necessary to guide and direct overall processes and the project team. Project management will consist of overseeing production efforts that include contract administration, progress monitoring, and directing the project's quality control activities. It is estimated that the substantive tasks included in this RCE Tracks 1 and 2 Project Planning and Development lifecycle stages will require approximately [xx] months ([xxx] years) to complete, excluding an estimated [x] months of project initiation and project closeout.

### **Deliverables:**

- Develop Project Management Plan for project in accordance with FRA requirements
- Project Closeout Report, in accordance with FRA requirements

## **Task 2 – Preliminary Project Purpose and Need and Stakeholder and Community Engagement Plan**

The community engagement consultant will prepare a draft and a final Stakeholder and Community Engagement Plan and will work with the Project Leadership Team (PLT) and the project's engineering/planning consultant to prepare a preliminary Project Purpose and Need to initiate the engagement process. The Stakeholder and Community Engagement Plan will identify a comprehensive set of strategies designed to elicit feedback from all stakeholders and preferences for interaction (in person or virtual) to ensure that a wide range of viewpoints are captured.

### **Deliverables:**

- Draft and Final Stakeholder and Community Engagement Plan

## **Task 3 – Stakeholder and Community Engagement**

In accordance with the final Stakeholder and Community Engagement Plan (Task 2), the stakeholder and community engagement consultant will work with the grantee and the PLT to implement the plan and will ensure that all voices are heard.

### **Deliverables:**

- Final community engagement Report

## **Task 4 – Alternatives Analysis**

The Grantee (City), in collaboration with BNSF Railway, will assess the condition of current railroad operations and roadway infrastructure and other relevant conditions within the project area. This assessment will include information on the roadway crossing characteristics, train operations and safety, road network performance and traffic analysis, maintenance activities, and engineering/capacity constraints of the existing highway facilities and/or railway infrastructure. This task will identify any planned or programmed infrastructure improvements contained in state and local planning documents

and check to determine whether rail operators have planned infrastructure enhancements within the project study area [to be defined].

**Deliverables:**

- Type, Size and Location (TS&L) Analysis for grade separation of Main Avenue
  - Conceptual design report for bridge/structures needed for grade separation of the crossing
  - Conceptual right-of-way needs and cost estimates
- Conceptual design and alternatives analysis for grade crossing upgrades/modifications and/or closures at:
  - Road 2000 (BNSF Milepost 82.24)
  - Blue River Road (BNSF Milepost 81.23)
  - Arizona Avenue, (BNSF Milepost 80.68)
  - W 13th Street, (BNSF Milepost 80)
  - Hawthorne Avenue, (BNSF Milepost 79.25)
  - Boswell Avenue, (BNSF Milepost 79.03) and
  - SH 103 (BNSF 77.65).
- Conceptual design for railway infrastructure improvements necessary to achieve identified speeds (wayside signal, track, etc)
- Conceptual cost estimates for each project element

**Task 5 – Environmental**

The Grantee will complete the following tasks to prepare complete environmental documentation and permitting of the project:

- Wetland Delineation Report
- Section 106 Assessment for Cultural and Historical Resources
- Biological Assessment
- Noise Assessment
- Visual Assessment
- Environmental Review Summary (NEPA classification)
- Nebraska Environmental Protection Act Requirements
- Wetland Mitigation Plan (if needed)

**Task 6 – Preliminary Engineering/Cost Estimating**

The project’s engineering/planning consultant will complete preliminary engineering for FRA review and approval, consistent with the FRA-approved National Environmental Policy Act (NEPA) document. Preliminary engineering will include all design development and documentation to demonstrate the effectiveness, feasibility, and readiness of the Project. The project’s engineering/planning consultant will

prepare the preliminary engineering plans (30%) and specifications for the construction of each discrete capital projects. It is anticipated this will include:

- Preliminary engineering and designs for a potential railroad/vehicle grade separation at Main Avenue;
- Preliminary engineering designs for grade crossing upgrades/modifications and/or closures at:
  - Road 2000 (BNSF Milepost 82.24)
  - Blue River Road (BNSF Milepost 81.23)
  - Arizona Avenue, (BNSF Milepost 80.68)
  - W 13th Street, (BNSF Milepost 80)
  - Hawthorne Avenue, (BNSF Milepost 79.25)
  - Boswell Avenue, (BNSF Milepost 79.03) and
  - SH 103 (BNSF 77.65).
- Preliminary right-of-way report with costs
- Preliminary Cost Estimates (30%) for each project element
- Preliminary BNSF Railway Engineering Report (e.g. wayside signal, track, etc)

**Deliverables:**

- Preliminary Engineering Report
- Preliminary Right-of-Way Report
- 30% Cost Estimate Report