



December 7, 2023

Ms. Shawna Burkhart  
City Manager  
City of Bay City  
1901 Fifth Street  
Bay City, Texas 77414

RE: **Proposal for Professional Engineering Services: City Wide Quiet Zone**

Dear Ms. Burkhart:

HDR Engineering, Inc. (HDR) is pleased to submit this proposal for the for the above referenced project. This proposal provides a general overview of the project, proposed scope of services, and a fee summary.

**GENERAL OVERVIEW:**

The City of Bay City currently has two independent railroad companies that traverse through the City's jurisdiction. The Burlington Northern Sante Fe Railway (BNSF) runs north/south and Union Pacific Railroad (UPRR) runs west/east. The following are the two identified rail Routes:

**UPRR's Angleton Subdivision**

This main line between Avenue A and TxDOT's FM 457 traverses through the City from east to west. Lane and North Industrial Road. The CP/DME Railroad also maintains trackage rights on this segment. This rail segment includes eleven (11) public rail crossings and no other types of rail crossings. Based on this information gathered, all of the public crossings on the UP Angleton Subdivision meet the minimum warning device requirements for a quiet zone.

**BNSF's Bay City Subdivision**

This main line between Grace Street and Nichols Avenue traverses through the City from north to south and intersects with UP's Angleton Subdivision. Just south of this intersection, the mainline turns east towards Nichols Avenue. This rail segment has fifteen (15) grade crossings, thirteen (13) public and two (2) private. Only one public crossing on the BNSF Bay City Subdivision (4<sup>th</sup> Street, 023380Y) is currently equipped with the minimum warning devices requirements. The other crossings in the corridor will need to be updated accordingly.

The City has request HDR to provide a proposal to coordinate with both railroad companies, identify improvement required to meet the identified supplementary safety measures (SSM) required to establish the city wide quiet zone and provide the necessary documentation to the Federal Railroad administration (FRA) to establish a City wide quiet

zone in the City limits. HDR (“Consultant”) proposes to complete the study using the tasks described in the following scope of work. Quiet zone requirements as well as the review and implementation process are outlined in the FRA’s Quiet Zone Rule.

### **SCOPE OF SERVICES:**

HDR will perform the following Scope of Services on this Project:

#### **Task 1: Initiate Study**

- **Online Kick-off Meeting:** Consultant will hold a kickoff meeting with the City and other interested stakeholders to discuss the overall study process, key deliverables, and study timeline. Consultant will prepare an MS PowerPoint summary including a base map of the proposed crossing locations, a summary of the relevant FRA grade crossing inventory information, and a summary of the FRA accident/incident reports for the past five years (accidents within this time frame are included in the FRA’s quiet zone risk calculations).
- **Project Management Plan (PMP):** Consultant will develop a PMP to summarize the scope of work, key deliverable due dates, public engagement timelines, and review/revision periods.
- **Project Management Team (PMT):** Consultant will work with the city to establish a PMT consisting of stakeholders from the City of Bay City and other agencies. The PMT will guide the overall development of the study. Monthly PMT check-in meetings will be held via teleconference to provide updates on study progress and to receive comments on draft materials.
- **Contact Stakeholders:** Early communication with relevant stakeholders will be critical to study success. Consultant will establish contact with representatives from the FRA, UP, BNSF, TxDOT, and other partner agencies to inform them of the study and request information needed to complete the study.

#### **Task 2: Preliminary Investigation/Risk Index Update and Review**

- **Data Collection:** Consultant will collect grade crossing inventory forms and accident/incident reports for each grade crossing in the study corridor. Data in the inventory will be compared and confirmed against the TxDOT grade crossing database and or the railroad’s internal records. Confirm inventory traffic counts with City and collect updated traffic counts from the City if available. Traffic counts should be within one to three years for the FRA risk calculations. Grade crossing information will be summarized to highlight which crossings will need to be upgraded to meet the minimum requirements for quiet zone implementation.
- **Map/Layout Development:** Consultant will prepare base map showing crossing locations and type. Prepare individual crossing aerials to highlight layout and characteristics of each crossing.

- **Initial Risk Calculations:** Consultant will conduct preliminary risk calculation using FRA's online risk calculator. The inputs for each crossing will be updated based on the collected data. This calculation of the current risk levels will highlight the relative risk from crossing to crossing. Safety improvements at high-risk crossings will be more effective than improvements at low-risk crossings.

### **Task 3: Preliminary Design Stage and Agency Input**

- **Field Diagnostic Meetings:** Consultant will coordinate and facilitate an on-site meeting with representatives from FRA, TxDOT, UPRR, BNSF, the City, and other partner stakeholders. The purpose of the meeting is to conduct a crossing-by-crossing walkthrough to determine existing conditions and identify relevant safety issues that should be addressed. Appropriate supplementary safety measures (SSMs) and alternative safety measures (ASMs) will be identified by the diagnostic team. Consultant will prepare diagnostic meeting packets for the participants including:
  - a. Evaluation form and aerial image of each crossing to record findings and discussion
  - b. Overview map of the corridor
  - c. FRA grade crossing inventory forms for each crossing
  - d. Accident/incident reports for each crossing (within past five years).

Consultant will prepare and distribute meeting minutes documenting the discussion and recommendations of the group. Draft minutes will be submitted to attendees for review and comment prior to being finalized.

### **Task 4: Concept Development and Evaluation**

- **Improvement Scenario Development:** Consultant will develop up to five quiet zone implementation scenarios based on the SSM and ASM improvements recommended during the diagnostic meeting. Consultant will work with the City to develop a range of scenarios with specific focuses including: 1) providing the greatest reduction in risk level, 2) identifying the lowest cost option that allows for implementation, and 3) identifying the scenario with the smallest impact to access to properties adjacent to the crossings. For this task, consultant will use a custom spreadsheet tool to mix and match improvement options at each crossing. This will allow the consultant to quickly develop improvement scenarios and immediately see their impact on estimated risk levels and their relation to the risk thresholds required for quiet zone implementation.

Consultant will work to create improvement scenarios that result in a quiet zone risk level below the Risk Index With Horns (RIWH) threshold as calculated by the FRA quiet zone calculator. Meeting this threshold will allow for easier implementation and substantially reduce the potential that the quiet zone would be revoked in the future. Improvement scenarios that result in a

quiet zone risk level below the Nationwide Significant Risk Threshold (NSRT) will also be considered.

- **Open House:** Coordinate and facilitate a public open house to present the findings of the study, outline the various improvement scenarios developed for the corridor, and describe the benefits and costs of each. The open house will also provide an overview of the quiet zone review and implementation process.

#### **Task 5: Final Report and Presentation to City Council**

- **Draft and Final Report:** Consultant will prepare draft final report summarizing the quiet zone evaluation process including the diagnostic review recommendations, the proposed improvement scenarios (with planning-level layouts and cost estimates), and a discussion of the next steps required for quiet zone implementation. The final report will include detailed implementation plan and the following information:
  - a. Recommended prioritization of crossing safety improvements.
  - b. Planning-level layouts and cost estimates for proposed improvements.
  - c. Estimated timeline for implementation including construction, document review time by the FRA and railroad, and a final date for quiet zone establishment.
  - d. Summary of quiet zone risk levels used to establish quiet zone designation.
  - e. Identification of potential funding sources. Potential sources of funding include TxDOT Section 130 funds and Federal Consolidated Rail Infrastructure and Safety improvements (CRISI) program funding. In some cases, railroads may also provide incentive funding in exchange for crossing closure, consolidation, or other similar efforts.

The report will be finalized after incorporating feedback from City staff and the Bay City Council

- **Presentation to City Council:** Consultant will develop and present a PowerPoint presentation summarizing the findings of the draft report to the City Council to discuss the proposed improvement options and the benefits and costs of each. It is assumed that this meeting will be held in person.

#### **Task 6: Quiet Zone Implementation**

- **Documents for Quiet Zone Implementation:** Consultant will prepare and submit documents to establish a Quiet Zone Notice of Intent (NOI) approval from the FRA, Railroads, and other stakeholders as required by the FRA Quiet Zone Rule.
- Once the notice the NOI is approved by all governing bodies this contract will be completed.

**Other Additional Services**

Other Additional Services are those services that are beyond the Scope of Services section of this proposal. Additional Services shall only be performed when directed by the City to HDR. These services are following phases, not considered normal or customary engineering services and may include, but not be limited to, the following:

- No fees are included in this proposal to implement the identified improvements in the approved NOI, CWT Waiver Request, and Notice of Establishment (NOE). The specific documentation required will not be known until the preferred implementation scenario is selected by the City and approved by all governing bodies. Services for developing and submitting these documents and any additional quiet zone implementation services will be negotiated under a separate agreement.
- Services resulting from significant changes in the extent of the project or its design including but not limited to changes in size, complexity, schedule, or character of construction or method of financing; and revising previously accepted studies, reports design documents or Contract Documents when such revisions are due to causes beyond HDR’s control.
- Preparing documents for alternate bids outside of the original scope requested by the City or documents for out of sequence work.
- Preparing to serve, or serving as a consultant, or witness for the City in any litigation, public hearing or other legal or administrative proceedings involving the Project.

HDR will endeavor to appraise the City of any potential additional or extended services that may result from the above listed items, prior to HDR’s expenditure of time on such services. As previously noted, any such extended or additional services shall only be performed when directed by the City to HDR. Any appropriate engineering fee for these additional services will be negotiated with the City as an amendment to HDR’s contract, as required.

**FEES:**

Task 1 (Lump Sum):	\$ 8,800.00
Task 2 (Lump Sum):	\$ 11,500.00
Task 3 (lump Sum):	\$ 18,200.00
Task 4 (Lump Sum):	\$ 25,700.00
Task 5 (Lump Sum):	\$ 14,200.00
Certified Mailing (Lump Sum):	\$ 100.00
<b>Total Fee:</b>	<b>\$ 78,500.00</b>

**SCHEDULE:**

The anticipated project schedule will take 7 Months to complete.

**TERMS AND CONDITIONS:**

The terms and conditions between the City and the HDR for this proposed project are attached as Attachment "A".

HDR will invoice monthly. The invoice package will include the percentage of the project complete.

We appreciate the opportunity to be of service on this project. If you have any questions, please do not hesitate to contact me at (713)-622-9264.

Sincerely,

HDR ENGINEERING, INC.



---

David Weston  
Vice President/ Area Manager

ACCEPTANCE: City of Bay City

---

City of Bay City

Date \_\_\_\_\_

Attachments

- Terms and Conditions