Appendix H

Hazardous Materials Review

Hazardous Materials Review

Control Number: 51299

Project Name: BNSF, Bridgeport

Project Number: RRZ-TMT-26-1(161)

Author: Aaron Bedea

Approved By:Aaron Bedea on 5/22/2024

The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by NDOT pursuant to 23 USC 326 and the First Renewed Memorandum of Understanding dated September 17, 2021, and executed by FHWA and NDOT.

Project Name: BNSF, Bridgeport
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1.0 Introduction

A hazardous materials review was conducted in association with the NDOT for this construction project. The purpose of this review is to identify environmental concerns associated with hazardous materials which could potentially be encountered during the construction project.

Databases were searched to identify facilities with releases that have occurred within 0.10 miles of project excavation or soil/groundwater contamination that may have migrated to within 0.10 miles of project excavations. The recommended search radii found in the NDOT Hazardous Materials Review Guidance Manual was used to identify hazardous materials of concern. Facilities listed in environmental programs which are not related to hazardous materials, such as air permitting, livestock waste control and septic related onsite waste treatment, were not considered.

1.1 Project Improvements

The project goal is to construct a viaduct at the location where U.S. Highway 26 (US-26) and Nebraska Highway 92 (N-92) crosses the BNSF Railway's railroad tracks west of the City of Bridgeport. The project would close the existing at-grade railroad crossing and construct a new viaduct which would consist of a pier and abutment configuration. Roads at viaduct ends would need to be reconstructed. During construction of the project, two separate and temporary hard-surfaced roads would be constructed, which would run along the north side of the existing road at the points where the realigned US-26/N-92 would tie back into the existing highway. Once construction is complete, the old US-26/N-92 pavement would be left in place to provide access to the businesses and electrical substations on the west side of the railroad tracks and connected to the new US-26/N-92 alignment via a new drive. The project includes three stormwater detention basins.

1.2 Methodology

The methodology used to identify the presence of sites within the project footprint which have the potential to impact the project included use of the following resources:
The Nebraska Department of Environment and Energy (NDEE) Interactive Mapping System (IMS) webpage, used to locate facilities managed under NDEE programs. (NDEE IMS)

1.3 Impact Criteria

The magnitude of the project impact from an identified site depends on several factors, including the distance between a potential source of a hazardous material as defined in NDOT's Hazardous Material Review Guidance (2023) document and the project; regulatory status of the identified sites (e.g., active or inactive); known or suspected releases into soil, surface water or groundwater; the hydrogeologic relationship of the source of contamination to the project; and the depth and/or duration of construction. This HMR considers these factors as part of the evaluation of whether an identified site has the potential to impact the project. Identified sites were categorized as having either low, medium or a high potential to impact the project area. The following describes the categories:

Low Potential Site

Through investigation, it is determined that it is unlikely that contamination would be encountered during construction. There is a low potential that human populations or environmental concerns adjacent to project limits will be adversely impacted.

Medium Potential Site

During the investigation, it is determined that it is unclear whether contamination is located within the project footprint. A subsurface investigation or further coordination with regulatory agencies determines the likely hood that contamination would be located within the project footprint. On a case-by-case basis, a commitment to the contractor and NDOT project manager to look for signs of contamination in specific areas can be included in the HMR rather than proceeding with a subsurface investigation. Although potential contamination exists within the project limits, management of any encountered hazardous materials will be handled by the Contractor according to applicable Federal, State, and Local laws, policies, and regulations. Therefore, the NEPA specialist will ensure the risk is communicated to Civil Rights staff for incorporation into the Civil Rights analysis as well as considered in NEPA review.

High Potential Site

Through file review or subsurface investigation, it has been determined that it is likely that contamination would be encountered during construction. Although a high potential for contamination exists within the project limits, management of any encountered hazardous materials will be handled by the Contractor according to applicable Federal, State, and Local laws, policies, and regulations. Therefore, the NEPA specialist will ensure the risk is communicated to Civil Rights staff for incorporation into the Civil Rights analysis as well as considered in the NEPA review.

2.0 Environmental Setting

Expected soil disturbance on project is <10ft bgs. Estimated depth to groundwater is approximately 5-10 feet below ground surface based on reported static water levels of registered monitoring wells (NDNR registered well database) near the project. Subsurface flow is typically towards the E/SE. The project is in the Valleys and Valley-side slopes topographic region of Nebraska. The Valleys region includes major stream valleys of Nebraska, which in this case is the valley of the North Platte River. This area has relatively low relief, and the surface soils consist of fine to coarse sands with moderate soil fertility. Surface drainage is towards the E, unless influenced by local topography variations.

Adjacent Land Use

Commercial

Agricultural

Residential

3.0 Results

The following sections summarize the review of regulatory databases, the visual reconnaissance, and (when applicable) NDEE file review. The evaluation of the project impacts from hazardous materials is based on several factors. The HMR resource reviews were used to identify and evaluate sites with potential concerns related to hazardous material that are located adjoining, or within the vicinity of the proposed project improvements.

3.1 Regulatory Database Search

The results of the database search are listed in Table 1 and include facilities that are listed in regulatory databases related to hazardous material and/or petroleum product release. These types of sites may include but are not limited to superfund, brownfield, leaking storage tank, release assessment, RCRA with violations, Tier II Chemical Reporting, and any property with past known releases or contaminant migration. These types of sites were reviewed and included in Section 3.4 if they are considered a site of concern within their designated 0.10- and 1-mile NDOT hazardous material study area.

Any site not adjacent to, and upgradient from the project with a Leaking underground Storage Tank (LST), a site with only a SARA Title 3 designation or Resource Conservation & Recovery Act (RCRA) without infraction, a site closed by the NDEE for further evaluation or remediation, or any sites whose appearance within the mapping system is not hazardous material in nature (i.e., On-site Water Treatment, Permit-for-Construction) will not be brought forward for discussion.

Table 1. Database and Search Radius

Facility name	Regulatory Database and Program	Distance Relative to Project
Conoco Bulk Plant	RA	Adjacent
725 Railroad Ave Bridgeport, NE		
Martin Torres Aguilar Property	IWM	485ft
814 W 4th St Bridgeport, NE		
21st Century Equipment Inc	RCR	Adjacent

Not Applicable = Historic site that is not listed in any of the databases. ;ASB = Asbestos Abatement Remediation (ASB);BF = Brownfields (BF);CR = Continuous Release (CR);DOD = US Department of Defense (DOD);EA = Environmental Assistance (EA);GW = Ground Water (GW);HCP = Haul Collect and Process Tires (HCP);IWM = This is QA test and it should work;LL = Low Level Radioactive Waste (LL);LST = Leaking Underground Storage Tank (LST);ME = Mineral Exploration (ME);OA = Onsite Assistance CWA104(g)(1) (OA);PRR = Petroleum Release Remediation (PRR);RA = Release Assessment (RA);RAP = Remedial Action Plan Monitoring (RAP);RCR = Resource Conservation Recovery (RCR);SF = Superfund (SF);SW = Surface Water (SW);TBA = Targeted Brownfield Assessment (TBA);UIC = Underground Injection Control (UIC);

3.2 Visual Reconnaissance

A visual reconnaissance was conducted on 5/14/2024 in coordination with this project.

The purpose of the visual reconnaissance was to assess the project area for potential hazardous materials concerns associated with current land use and observable site activities. The visual reconnaissance assessed the project area for obvious evidence of potential contamination sources, such as but not limited to, current hazardous materials storage or use; unusually stained soils, concrete slabs, or pavements; sumps, dumps, drums, tanks, and electrical transformers; stressed vegetation; and discarded containers.

Site Reconnaissance Observations:

A windshield site reconnaissance survey was completed as part of the 2016 HMR on May 20, 2014 (Olsson 2016). The summary of observations from this survey include the following:

- The WAPA substation located on the south side of N-92/US-26 was observed. No detailed observations of the facility could be made from public right-of-way.
- A natural gas line on the north side of N-92/US-26 running east-west. Only meters were noted aboveground, and there were no records of releases from this pipeline.
- The 21st Century Equipment facility was observed on the north side of N-92/US-26. Two small portable tanks were observed, but the tank contents were not known and no known releases or spills were reported for this facility.
- The Panhandle Co-op facility was observed with small saddle tanks and large aboveground tanks, which likely stored agricultural chemicals. There were no reported spills for this area of the facility. Bulk storage tanks were observed further to the southeast, where spills have been documented.
- The concrete batch plant located on the south side of N-92/US-26 was observed with aboveground tanks visible on the exterior and more tanks present in the enclosure on-site. Contents of the tanks were not known, but there were no regulatory records of spills from this facility.
- A Waste Connections transfer facility was observed on the south side of N-92/US-26 and the west side of J Street. Several trash receptacles were observed. This facility was included on the NDEE IWM database, but after a minor violation was addressed did not have any further violations.

A visual reconnaissance was conducted for this HMR report on April 5, 2024, by Chase Jelden. The purpose of the visual reconnaissance was to assess the project area for potential hazardous materials concerns associated with current land use and observable site activities. The visual reconnaissance assessed the project area for obvious evidence of potential contamination sources, such as current hazardous materials storage or use; unusually stained soils, concrete slabs, or pavements; sumps, dumps, drums, tanks, and electrical transformers; stressed vegetation; and discarded containers.

The visual reconnaissance started on the southern edge of the project limits near the Morill County Shop and traversed east to west and south the north, covering each block of the Study Area. Many agricultural, commercial, and light industrial properties are present within the project limits, including agricultural repair facilities, electrical utility storage yards, county maintenance buildings or storage, ready mix concrete plant, and bulk fertilizer storage and distribution. A substation for Nebraska Electric Utility and the ready mix concrete plant are within fenced in areas within the project limits.

Under Ground Storage Tanks:
Along US-385 and US-26 there are several fueling stations that were either currently operating or appeared to be closed. At the Cenex fueling station, near the northwest corner of the highway intersection, the operating fueling station appeared to have both gasoline and diesel underground storage tanks, as well as a large above ground storage tank for propane delivery.

Above Ground Storage Tanks:
Above ground storage tanks (ASTs) were located throughout the project limits and the contents or

size of the tanks varied. At the fertilizer distribution facility, there were several large ASTs for bulk liquid fertilizer storage, buildings used to store dry fertilizer, several 1,000-gallon diesel or gasoline ASTs, and propane tanks that ranged from 5 gallons to several thousand gallons.

Pipeline Markers:
Natural gas pipelines run through the alleys of each residential street supplying the businesses and residential properties with natural gas.

Trash/Collection Equipment:
The County storage lot and ready mix facility had several areas of stockpiled rock or concrete in the fenced-in area. Empty dumpsters, recycling containers, and piles for metal recycling are also located inside this fenced-in areas.

Stains or Stressed Vegetation:
Numerous areas of oil-stained gravel or pavement were noted throughout the project area, not exceeding 2 feet in diameter.

Drains:
Throughout the city limits, the roads and streets contained curb and gutters that drain into the stormwater sewer system.

Electrical/Transformer Equipment:
Pole- and pad-mounted electrical transformers were observed throughout the project area. Prior to 1979, polychlorinated biphenyl (PCB) materials were used to manufacture electrical transformers. They have since been banned due to their environmental toxicity. The United States Environmental Protection Agency (EPA) defines PCB equipment as containing greater than 500 parts per million (ppm) PCBs; “PCB contaminated equipment” as containing 50 to 500 ppm PCBs; and “non-PCB equipment” as containing less than 50 ppm PCBs. Any electrical equipment with no label or unknown concentration is assumed to be “PCB contaminated equipment” per EPA regulation and should be managed accordingly. The Pole and pad mounted transformers appeared to be replaced throughout the City with new equipment. The substation is located on the west edge of the City and south of US-26 in a fenced-in property.

3.3 Historical Use Information

The objective of the historical review is to develop a history of the previous uses of the property and surrounding area in order to help identify the likelihood of past uses having led to recognized environmental conditions. To evaluate the past uses of the project corridor and identify any sites with potential to impact the project, historic aerial photographs for direct observation of site conditions may be reviewed. These observations may include the locations of tanks, drums, pits, ponds, lagoons, stained/stressed vegetation, or other site development features that can indicate potential contaminant sources. Any concerns or findings found during historical review will be addressed within Section 3.4 Regulatory File Review.

3.4 Regulatory File Review

Facility Name	Discussion
Conoco Bulk Plant	The Conoco Bulk Plant facility adjoins the project limits and is hydrologically upgradient from the project limits. The site is listed in the RA and PRR databases within the HMR search criteria. The RA file is related to a 2003 Phase II Environmental Site Assessment (ESA) and 2011 Tier I Investigation which was conducted for the former bulk oil storage warehouse/station (Conoco Bulk Plant). The facility was operated from the 1960s to early 2000s and operated ASTs with product lines, loading rack and pump station. The 2003 Phase II ESA discovered elevated levels of total petroleum hydrocarbons (TPH) as gasoline and diesel, and gasoline constituents. The Tier I Investigation discovered low concentrations of petroleum contamination in surface soil and groundwater. NDEE determined that the levels of contamination were low enough to close the site with no cleanup or additional investigation based on commercial receptor exposure to the contaminated soil and groundwater. The location shown on the Environmental Facility Location Map is the approximate source area for the contamination as reported in the NDEE files. The project involves construction of new concrete pavement along Railroad Avenue and the soil disturbance depth is anticipated to be minimal. Groundwater will be encountered and require dewatering near the bridge foundations upgradient of this facility. The identified contamination in the NDEE files was located adjacent to but not within the anticipated construction limits. Based on the project construction and distance to the known low contamination concentrations, this facility is considered to have a low potential to impact the project.
Martin Torres Aguilar Property	The Martin Torres Aguilar Property is approximately 485 feet northwest and hydrologically upgradient from the project limits. The site is listed in the IWM database. In 2002, NDEQ issued a notice of violation letter to the property owner for unlawful disposal of solid waste on the property. No other files could be found on the NDEE database, but this database is considered inactive. Therefore, this facility is considered to have a low potential to impact the project limits.

4.0 Findings and Mitigation Measures

The findings and recommendations of this hazardous materials review must be viewed in recognition of certain limiting conditions, as describes within the most recent NDOT Hazardous Material Review Guidance Manual. Results of this HMR are based on a visual reconnaissance of current conditions within the project area, a review of readily available standard historical sources, environmental agency database search, and/or regulatory records review.

4.1 Findings

No hazardous material facilities/sites were identified that will impact the project. Due to the lack of hazardous material impacts, there is a low potential of encountering contamination during project excavations. It is recommended that no further investigation is necessary.

4.1.1 Asbestos

The scope of work described by the bridge determination and project description has a low potential to encounter asbestos. No asbestos mitigation is required.

4.1.2 Lead

Consistent with the project description/bridge determination, lead poses a low potential to impact the project, therefore no commitment language is necessary

4.2 Mitigation Measures

Project Name: BNSF, Bridgeport

Project Number: RRZ-TMT-26-1(161)

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Unexpected Waste

If contaminated soils/groundwater or unexpected wastes are discovered, The Contractor shall stop all work within the immediate area. The Contractor shall secure the area of the discovery and notify the NDOT Highway Project Manager (HPM). The Contractor shall not re-enter the discovery area until notified by the HPM. At the time of discovery, the HPM and Contractor shall utilize the NDOT Unexpected Waste Action Plan (UWAP) to coordinate appropriate actions. The actions to be carried out by the HPM are (but not limited to): verification that the Contractor has suspended construction activities in the area of the discovery, contact the Environmental Section Manager and make an entry into Site Manager that an unexpected waste discovery was made. The HPM shall then utilize the UWAP Notification Form (NDOT Form 691) to properly document the extent and type of waste. The HPM will ensure that proper disposal of the waste and any required health and safety mitigation is implemented by the Contractor. The Contractor is required by NDOTs Standard Specification section 107.11 (Hazardous Material Discoveries) to handle and dispose of regulated material in accordance with applicable laws.

Contractor Commitment: If contaminated soils/groundwater or unexpected wastes are discovered, The Contractor shall stop all work within the immediate area. The Contractor shall limit access to authorized personnel within the area of the discovery and notify the NDOT Highway Project Manager (HPM). The Contractor shall not re-enter the discovery area until notified by the HPM. At the time of discovery, the HPM and Contractor shall utilize the NDOT Unexpected Waste Action Plan (UWAP) to coordinate appropriate actions. The Contractor is required by NDOTs Standard Specification section 107.11 (Hazardous Material Discoveries) to handle and dispose of regulated material in accordance with applicable laws.

5.0 References

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Nebraska Department of Transportation

Project Description

Project Name:	BNSF, Bridgeport	
Project No.:	RRZ-TMT-26-1(161)	
Control No.:	51299	
Initial Draft:	Date: 12/15/2023	Written By: Krista Schnepf

Updates/Reviews

Date	Update/Review By *(name)*	Items Updated	Plan Level *(PIH, etc.)*
3/25/24	Todd Hill	Updated Project Number & Name	

Project Description: This proposed Project involves constructing a viaduct at the location where U.S. Highway 26 (US-26)/Nebraska Highway 92 (N-92) crosses the BNSF Railway's (BNSF) railroad tracks west of the City of Bridgeport, Morrill County, Nebraska. The existing at-grade crossing is located west of the intersection of Recreation Road and Fifth Street (US-26/N-92) in the City of Bridgeport. The proposed Project would close the existing at-grade BNSF railroad crossing, 089-081-B, at US-26/N-92 mile marker 60.92 and would construct a new viaduct. The proposed viaduct would diverge from the existing highway alignment at about J Street on the east, pass to the south of the two electrical substations west of the railroad tracks, and reconnect to the existing US-26/N-92, approximately 0.4 mile west of the existing US-26/N-92 at-grade crossing.

The proposed Project would involve constructing a new, two-lane grade-separated viaduct to carry US-26/N-92 over the existing BNSF single mainline track plus future mainline tracks. The existing at-grade crossing of the railroad tracks would be removed. The proposed viaduct is anticipated to consist of a pier and abutment configuration. Proposed viaduct sections would generally be 54 feet wide and would likely include two 12-foot-wide through lanes with 10-foot-wide shoulders, a 7-foot-6-inch-wide sidewalk on the north side of the viaduct, a 1-foot-4-inch bridge rail on the south side, and a 1-foot-wide bridge rail between the westbound traffic lane and the sidewalk. In addition, roads at the viaduct ends would need to be reconstructed to provide access to nearby residences and businesses. The viaduct would conform to BNSF design standards and would provide adequate vertical clearance of 23 feet 4 inches for continued use of the BNSF mainline and siding tracks. The bridge length would accommodate the existing single mainline track plus an additional two future mainline tracks. Viaduct approach grades of three to five percent are expected. As a result, multiple access points to adjacent properties would be eliminated from US-26/N-92, reducing cross-traffic conflicts and allowing traffic to flow more smoothly.

During construction of the proposed Project, two separate and temporary hard-surfaced roads would be constructed, which would run along the north side of the existing road at the points where the realigned US-26/N-92 would tie back into the existing highway. Between the tie-in points, the existing US-26/N-92 pavement and the existing railroad crossing would be utilized to handle traffic during construction. The viaduct and a majority of the new roadway could be constructed without affecting traffic on existing US-26/N-92, thus minimizing the time traffic would need to run on the temporary roads. Access to the residential neighborhood

located north of US-26/N-92 would be maintained via I Street and 4th Street. For homes which abut US-26/N-92, the contractor would work with residents prior to construction activities to maintain access via temporary roads or phased paving. Access to Recreation Road would be maintained for vehicular traffic and recreational vehicles via temporary roads or phased paving, thus no detour route for Recreation Road would be required. Furthermore, a detour would not be feasible because the length of the only possible detour route would exceed 38 miles and would substantially affect the businesses located to the west of the railroad tracks. In addition, the proposed Project would maintain access to the Bridgeport State Recreation Area (SRA) and adjacent businesses at all times and would accommodate ingress and egress to and from a public street throughout construction. This may require the phased construction of new driveways and connections to existing streets to allow access from the public street during construction.

Once construction is complete, the old US-26/N-92 pavement would be left in place to provide access to the businesses and electrical substations on the west side of the railroad tracks and would be connected to the new US-26/N-92 alignment via a new drive. On the east side, Railroad Avenue would be improved with concrete pavement and would provide access to Recreation Road as well as connect to G Street and H Street. Both I Street and J Street would connect to the newly constructed US-26/N-92.

Although current NDOT policy regarding new viaduct construction generally requires the closure of two at-grade crossings (one at or near the location of the structure and one other as selected and approved by NDOT and the political subdivision), only two at-grade crossings are near the City of Bridgeport. One is on US-26/N-92, which provides access to the city from the west, and one is on Nebraska Highway 88 (N-88), which provides access to the city from the south. Closing both crossings with the construction of only one viaduct would greatly disrupt the state and federal transportation network from either the west or south. Therefore, on September 3, 2014, the NDOT Director approved the request to except this proposed Project from the policy. Thus, the proposed Project requires only one at-grade closing, at the location of the proposed viaduct.

Three stormwater detention basins are planned for conveying stormwater runoff from the roadway of the Preferred Alternative. The basins would be excavated to a depth of approximately one foot above the highest groundwater levels as measured by static water levels in wells within the environmental study area. These detention basins would provide for better local stormwater drainage as there is no existing stormwater system adjacent to the proposed Project to tie into. The detention basins would also help improve drainage on existing streets adjacent to the Project. It is anticipated that the detention basins would detain water for no more than 72 hours. The basins would vary in size from approximately 0.25 acre to 0.5 acre, with final dimensions to be determined during the final design process.