

I-29 Improvements in Sioux City  
Woodbury County, Iowa  
IM-029-6(168)146--13-97

FINAL ENVIRONMENTAL IMPACT STATEMENT

Prepared in Accordance with:  
The National Environmental Policy Act, as amended  
42 USC 4332(2)(c)

by the  
U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION

IOWA DEPARTMENT OF TRANSPORTATION

The signatures are considered acceptance of the general project location and concepts described in the environmental document unless otherwise specified by the approving officials. However, such approval does not commit to approve any future grant request to fund the preferred alternative.

2/2/09  
Date of Approval

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For Iowa Department of Transportation

February 2, 2009  
Date of Approval

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The purpose of this planning study is to improve Interstate 29 in Woodbury County, Iowa. The project begins approximately 0.7 miles west of the Hamilton Boulevard Interchange and continues approximately 3.5 miles south to approximately 0.25 mile south of the Burlington Northern Santa Fe Railroad Bridge over the Missouri River along the existing I-29 corridor. The proposed project includes expanding the existing four lane roadway to six lanes and improving safety by modifying interchanges. This condensed Final Environmental Impact Statement (Final EIS) summarizes the Draft EIS and reports the final results of the environmental analysis for the Project. The focus is on the changes that have occurred since the publication of the Draft EIS.

Comments on this FEIS are due by April 3, 2009 and should be sent to the persons listed above.

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ACRONYMS

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# ACRONYMS

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AASHTO	American Association of State Highway and Transportation Officials
BMP	Best Management Practices
BNSF	Burlington Northern Santa Fe
CE	Categorical Exclusion
CFR	Code of Federal Regulations
CWA	Clean Water Act
dBA	A-weighted decibel unit
DOI	Department of Interior
DOT	Department of Transportation
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FHWA	Federal Highway Administration
I-29	Interstate 29
Iowa DNR	Iowa Department of Natural Resources
Iowa DOT	Iowa Department of Transportation
L&C NHT	Lewis & Clark National Historic Trail
L&WCF	Land and Water Conservation Act
MSAT	Mobile Source Air Toxics
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Study Program
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
PEM	Palustrine Emergent Wetlands
PSS	Palustrine Scrub-Scrub Wetlands
REC	Recognized Environmental Condition
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SHPO	State Historic Preservation Office
SIMPCO	Siouxland Interstate Metropolitan Planning Council

SMAC	Siouxland Metropolitan Advisory Council
TV	Television
UP	Union Pacific
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
VMT	Vehicle Miles of Travel

SECTION 1

# PURPOSE AND NEED FOR ACTION

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# PURPOSE AND NEED FOR PROPOSED ACTION

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The Federal Highway Administration (FHWA), in cooperation with Iowa Department of Transportation (Iowa DOT) is proposing to improve approximately 3.5 miles of Interstate 29 (I-29) in Sioux City, Iowa. This condensed<sup>1</sup> Final Environmental Impact Statement (Final EIS) reports the final results of the environmental analysis for the proposed action, which is described below. This Final EIS was prepared in compliance with the requirements of the National Environmental Policy Act of 1969 (NEPA) and with guidelines in the *FHWA's Technical Advisory T6640.8A Guidance for Preparing and Processing Environmental and Section 4(f) Documents*.<sup>2</sup> The purpose of this Final EIS is to provide a full and fair discussion of the significant environmental impacts of the proposed action and to inform decision makers and the public of the reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment.

The interim results of the analysis were published in March 2008 in the *I-29 Improvements in Sioux City, Woodbury County, Iowa Draft Environmental Impact Statement* (Draft EIS), which was made available to the appropriate agencies and to the public for review and comment. This Final EIS is in a condensed format and summarizes the Draft EIS, with focus on changes that have occurred since publication of the Draft EIS. For more detail, see the Draft EIS, which has section numbers corresponding to those in the Final EIS. Note that any references in this Final EIS to sections, figures, and tables pertain to this document unless the Draft EIS is specified.

## 1.1 The Proposed Action and the Project Study Area

The proposed action consists of improving approximately 3.5 miles of I-29 in Sioux City, Iowa. The proposed improvement consists of reconfiguring four interchanges to increase safety, enhance connections to the local roadway system, add one lane in each direction, and improve or eliminate some of the traffic merging issues that occur in this 3.5-mile long corridor.

The area examined in this environmental analysis (project study area) includes the area along I-29 from approximately 0.7 miles west of the existing Hamilton Boulevard Interchange with I-29, along the existing I-29 alignment to approximately 0.25 mile south of the Burlington Northern Santa Fe Railroad (BNSF) Bridge over the Missouri River (Figure 1-1, *Location Map*). The project study area includes the following interchanges:

- Hamilton Boulevard
- US 77/Wesley Parkway (Wesley Parkway)

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<sup>1</sup> “[The condensed] approach avoids repetition of material from the Draft Environmental Impact Statement (Draft EIS) by incorporating, by reference, the draft EIS” (FHWA, Technical Advisory T 6640.8A).

<sup>2</sup> The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)-which authorizes the Federal surface transportation programs for highways, with “Section 303” (the current section of the Federal code that deals with issues formerly addressed in Section 4(f)). This Final EIS retains the term “4(f)”, however, in keeping with current guidance from FHWA and Iowa DOT.

- Nebraska Street/Pierce Street
- Floyd Boulevard/Virginia Street (Floyd Boulevard)

The Missouri River parallels much of the project corridor on the south and west. Railroad right-of-way owned by BNSF and Union Pacific (UP) Railroads parallels much of the project corridor's eastern and northern boundaries. The land adjacent to the railroad right-of-way has been developed or is likely to be developed in many areas along the project corridor. The project corridor locally serves the Sioux City Downtown Central Business District and adjoining industrial areas. The project study area was selected after reviewing relevant traffic patterns in the corridor as part of a previous I-29 corridor study completed in 1997 (Iowa DOT, 1997).

## 1.2 Project Background

I-29 is an interstate highway in the Midwestern United States that was authorized by the Federal-Aid Highway Act of 1956. As such, I-29 became part of the Dwight D. Eisenhower National System of Interstate and Defense Highways. It runs from Kansas City, Missouri to the Canadian border near Pembina, North Dakota. This interstate system consists of controlled-access freeways allowing for generally consistent safe high-speed driving. The interstate highway system remains an important component to daily life in the United States providing an efficient means of delivering goods and services. In urban areas such as Sioux City, many residents use the interstate on a daily basis. The project corridor in Sioux City is part of larger component that connects Sioux City to Sioux Falls, South Dakota and Council Bluffs, Iowa. The portion of the interstate within Sioux City was open to traffic in 1961. Since 1961, no major roadway improvements have occurred to the mainline of this section of the Interstate except for two partial resurfacing projects that occurred in 1970 and 2002. The majority of the interstate roadway pavement in the project study area is original pavement constructed approximately 46 years ago.

Iowa DOT in conjunction with Siouxland Interstate Metropolitan Planning Council (SIMPCO) and the City of Sioux City commissioned several studies to learn more about the functional needs of I-29 from the Iowa/South Dakota border to Sergeant Bluff, Iowa. These studies resulted in a final report in 1997 that drew attention to the need for numerous improvements along I-29 through Sioux City as well as specific needs for the corridor adjoining the Downtown Central Business District. Studies, including the 1997 final report, that contributed to the understanding of the project corridor safety and operational needs included:

- *Report 1, I-29 Corridor Study, Sioux Gateway Airport to South Dakota Border.* Stanley Consultants, Inc., February 1993.
- *Report 2, Development of Alternative Improvement Schemes, I-29 Corridor Study, Sioux Gateway Airport to South Dakota Border.* Stanley Consultants, Inc., June 1996.
- *Report 3, Refinement of Selected Improvement Concepts, I-29 Corridor Study, Sioux Gateway Airport to South Dakota Border.* Stanley Consultants, Inc., January 1997.
- *Final Report, Refinement of Selected Improvement Concepts, I-29 Corridor Study, Sioux Gateway Airport to South Dakota Border.* Stanley Consultants, Inc., July 1997.



Between 2001 and 2003 the Sergeant Bluff/Sioux Gateway Airport Interchange was redesigned and reconstructed. The bridge clearance over I-29 needed to be increased by approximately two feet and the on- and off-ramps were reconfigured to meet current Iowa DOT standards and improve capacity.

In 2004, the Iowa DOT began the early planning process of improving ten miles of I-29 through Sioux City. Initially, the planning process assumed the interstate had the same safety, capacity, and traffic flow issues throughout the ten mile corridor. As the planning process continued, it became evident that portions of the ten mile corridor had different characteristics and functioned differently than other parts of I-29 within Sioux City. As a result, the FHWA divided the project into three individual projects. The northern-most of the three projects is the I-29/Riverside Boulevard Interchange project with project limits beginning at the South Dakota border and ending at Judd Street. The southern-most of the three projects is the I-29/System Interchange project with project limits beginning 0.25 miles south of the BNSF Railway Bridge to approximately 0.75 miles south of the Sergeant Bluff/Sioux Gateway Airport Interchange. Both the northern-most and the southern-most projects were classified by FHWA as Categorical Exclusions (CE) type projects. The project that is located between the two CE projects is the project that is described in detail in Section 1.1, *The Proposed Action and Study Area*, and is the project study area used for this Final EIS document.

### 1.3 Purpose of the Project

The purposes of the proposed improvements are to improve traffic operations, and provide a safe facility that serves the local, regional, and national traffic demands of the I-29 Sioux City corridor from approximately 0.7 miles west of the existing Hamilton Boulevard Interchange with I-29 to about 0.25 mile south of the BNSF Railroad Bridge in Sioux City, Iowa. See Figure 1-1 for the location of the project study area.

### 1.4 Need for the Project

The purpose of the project is to provide an operationally improved and safe facility that serves the local, regional, and national traffic demands of the I-29 Sioux City Corridor. The four key needs for the Project are discussed in detail in Section 1.4, *Need for Proposed Action* of the Draft EIS and include:

- Improve Safety - The need to improve safety is evident considering all four interchanges in the project corridor are above the statewide average for crash rates according to 2001-2003 crash data. The project would address the need to provide a reduction in the number and severity of traffic accidents in the project corridor.
- Improve Traffic Operations – The project would remedy the following specific design deficiencies that affect the flow of vehicles:

- I-29 ramp sequence and spacing<sup>3</sup> is not adequate between the Hamilton Boulevard Interchange and the Wesley Parkway Interchange, between the Wesley Parkway Interchange and the Nebraska Street/Pierce Street Interchange, and near the Floyd Boulevard Interchange.
  - Lane balance issues exist between Wesley Parkway and Floyd Boulevard.
  - I-29 exit and entrance ramp designs are either too short or do not meet current design standards at Hamilton Boulevard, Nebraska Street/Pierce Street, and Floyd Boulevard.
  - Guide signage is poorly located throughout the corridor and does not exist in some locations near the Wesley Parkway Interchange.
  - Roadway needs to be updated to current standards to accommodate new driving speeds and improved vehicle performance characteristics.
- Provide for Driver Expectancy - In the project corridor, short acceleration and deceleration lanes, tight curves, and poor sight distance are existing factors that contribute to crashes by not consistently meeting driver expectations. The project would improve:
    - The horizontal stopping sight distance on I-29 at Wesley Parkway, near Pearl Street, at the Floyd Boulevard Interchange, and south of the BNSF Railroad Bridge does not meet minimum criteria based on American Association of State Highway and Transportation Officials (AASHTO) Policy.
    - A sag curve just east of the Nebraska Street/Pierce Street Interchange and a crest curve over the Nebraska Street/Pierce Street Interchange do not meet the minimum criteria for vertical stopping sight distance. Decision sight distance from the Hamilton Boulevard Interchange to the Nebraska/Pierce Interchange does not meet current standards.
  - Improve Roadway Infrastructure Condition - The roadway infrastructure is reaching the end of its useful life and the need for new pavement throughout the corridor and new or upgraded bridge structures over Floyd Boulevard and Bacon Creek will exist prior to the design year 2030.

## 1.5 Updates to Section 1

There has not been any new information on the Purpose and Need for the project since publication of the Draft EIS.

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<sup>3</sup> Ramp sequence and spacing refers to the distance between interchange on- and off-ramps.

**Figure 1-1. Location Map**

**8.5x11 Graphic**

SECTION 2  
ALTERNATIVES

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# ALTERNATIVES

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Alternatives are strategies that can satisfy the purpose of and need for the project. This section includes a summary of the process used for identifying and screening alternatives, the range of alternatives developed, alternatives eliminated, and alternatives retained for analysis. The detailed information for Steps 1-3 is included in the Draft EIS. Step 4 was completed after the Draft EIS comments were evaluated and agency concurrences on the preferred alternative were received. The information for Step 4, identifying the preferred alternative, is included in Section 2.5 of this Final EIS.

## 2.1 Process for Identifying and Screening Alternatives

A detailed process was used to identify and evaluate the alternatives that meet the project purpose and to address problems identified as needs that can be satisfied by the project. Alternative solutions were developed and screened as follows:

Step 1 Develop a range of alternatives to consider.

Step 2 Evaluate the range of alternatives. Eliminate from further consideration any that do not meet the project purpose and need or have unacceptable impacts.

Step 3 Identify the alternatives that meet the project purpose and need and should be carried forward for detailed study. Develop preliminary alignments and other details for each.

Step 4 Identify the preferred alternative based on engineering considerations, potential environmental impacts, input from regulatory agencies, and public opinion.

The following explains what was done during these steps.

## 2.2 Step 1: Range of Alternatives

The following alternatives were initially considered:

No-Build Alternative - The no-build alternative is defined as no new major construction along the I-29 corridor. Improvements implemented with the No-Build alternative would be limited to short-term restoration activities (maintenance improvements) needed to ensure continued roadway pavement and the structural integrity of the bridges over the Floyd River and Bacon Creek. The design of the existing roadway, including its location, geometric features, and current capacity constraints, would remain unchanged. Under this alternative, some minor improvements at high volume ramp intersections could occur. Under the no-build alternative, it is assumed that other committed and planned improvements (as detailed in Iowa DOT multi-year programs for the Sioux City Metropolitan Area) would still be undertaken and that safety concerns identified in Section 1, *Purpose and Need*, would still remain.

Build Alternatives - Six initial concepts were developed that considered project purpose and need, potential environmental constraints, future traffic projections, and order of magnitude

costs. The development and evaluation of the initial concepts also considered operational and driver expectancy issues, constructability, maintenance of traffic during construction, environmental impacts, estimated right-of-way impacts, and order of magnitude costs. A complete description of the six initial concepts is in Section 2, *Alternatives*, of the Draft EIS.

## 2.3 Step 2: Alternatives Eliminated From Consideration

The No-Build Alternative, though unable to meet the project purpose and need, was carried forward in accordance with 40 Code of Federal Regulations (CFR) 1502.14, Alternatives including the proposed action, of the Regulations for Implementing NEPA. As the range of alternatives was evaluated, other alternatives that did not meet the project purpose and need were eliminated from further consideration as follows:

Concept 2 - The main disadvantages of Concept 2 were the five-leg intersection at Gordon Drive and Pierce Street, the use of Gordon Drive as part of the northbound frontage road, and the conversion of Pierce to two-way traffic. The elimination of Concept 2 was based primarily on concerns about two-way traffic on Pierce Street. Two-way traffic was noted as being incompatible with existing one-way traffic in the downtown area and concerns surfaced regarding traffic backing up during railroad grade crossing blockages. Additionally, the five-leg intersection at Gordon Drive and Pierce Street was anticipated to operate at level of service (LOS) D and provided undesirable intersection geometry, introducing the potential for wrong-way traffic on the northbound exit ramp.

Concept 3 - Concept 3 provided the most direct access to and from downtown and I-29 and fully satisfied traffic operations criteria, it provided these advantages by eliminating access from Gordon Drive to Wesley Parkway and isolating the Tyson Events Center. Concept 3 also included the most bridges and correspondingly the highest construction cost. Finally, traffic patterns between Gordon Drive and Wesley Parkway would have been diverted to other city streets by Concept 3. For these reasons, Concept 3 was not recommended for further refinement or modification.

Concept 4 - Concept 4 did not advance for further development because of changes this alternative made to downtown access and accompanying operations problems at key intersections. Direct access from Gordon Drive to I-29 and Wesley Parkway was severed in the concept, forcing traffic to divert to Virginia Street or through downtown. The rerouting of this traffic tended to focus traffic on Virginia Street and severe traffic operation problems were anticipated on the intersections along Virginia Street. The concept also severed interstate connections for Floyd Boulevard, the industrial areas adjacent to Floyd Boulevard south of Gordon Drive, and the Tyson Events Center. The local stakeholders on the Siouxland Metropolitan Advisory Council (SMAC) strongly objected to Concept 4.

Stockyard Interchange Concept - Upon completion of further study of the Stockyard Interchange concepts, the City of Sioux City determined that the Stockyards Interchange was not desirable because of its effects on access from I-29 to the Hoeven Valley corridor to the north. Additionally, the City of Sioux City determined that the likely delay on constructing I-29 improvements caused by the time required to obtain and clear the necessary right-of-way was not

desirable. The City of Sioux City sent a letter to the Iowa DOT on May 9, 2006 requesting that the Stockyards Interchange concept be eliminated from further consideration.

## 2.4 Step 3: Alternatives Carried Forward

Three build concepts were carried forward because they meet the aspects of the project's purpose and need. The three build concepts carried forward in the Draft EIS were Concept 1 (Alternative A), Concept 5 (Alternative B), and Concept 6 (Alternative C), as shown on Figures 2-3a, b, c, *Alternatives Carried Forward* in the Draft EIS. Alternatives A, B, C and the No-Build Alternative<sup>4</sup> were carried forward for impact analysis. A brief summary of the major components of the three build alternatives is presented below.

### **Alternative A:**

- Reconstructing 15 bridges.
- Providing a full access interchange for Hamilton Boulevard.
- Extending 3<sup>rd</sup> Street to Wesley Parkway to provide additional access from Wesley Parkway to downtown.
- Reconstructing the existing Wesley Parkway Interchange as a two-level interchange.
- Providing southbound access from Wesley Parkway through the south side frontage road and the Nebraska/Pierce Street interchange.
- Providing southbound access to Wesley Parkway through the south side frontage road and the Hamilton Boulevard exit ramp.
- Providing direct access to and from Wesley Parkway through northbound exit and entrance ramps.
- Connecting northbound and southbound downtown frontage roads directly to Iowa 12, locally known as Gordon Drive, at Virginia Street.
- Providing northbound entrance access from downtown through a frontage road and US 77, locally known as the Wesley Parkway Interchange.
- Constructing braided downtown and Floyd Boulevard ramps.
- Providing an interchange for downtown access to and from Nebraska Street and Pierce Street, similar to the existing downtown interchange.
- Providing full access interchange for Floyd Boulevard, which separates industrial traffic from downtown commercial traffic.

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<sup>4</sup> The No-Build Alternative is included in accordance with 40 CFR 1502.14, Alternatives including the proposed action, of the Regulations for Implementing NEPA.

**Alternative B:**

- Reconstructing 13 bridges.
- Providing a full access interchange for Hamilton Boulevard.
- Extending 3<sup>rd</sup> Street to Wesley Parkway to provide additional access from Wesley Parkway to downtown.
- Shifting Gordon Drive to the north in the vicinity of Pearl Street to accommodate the I-29 alignment.
- Reconstructing the existing Wesley Parkway Interchange as a two-level interchange.
- Provisioning full access to and from Wesley Parkway except for southbound access to Wesley Parkway.
- Extending the north frontage road to Nebraska Street and the south frontage road to Pierce Street, which is extended under I-29 providing additional access to and from the downtown area.
- Connecting Floyd Boulevard to Virginia Street with a one-way pair of frontage roads.
- Combining access to Floyd Boulevard and to Downtown in the form of a split-diamond interchange with ramps connecting from I-29 to Floyd Boulevard and Virginia Street.

**Alternative C:**

- Reconstructing 9 bridges.
- Constructing braided ramps between Hamilton Boulevard and Wesley Parkway.
- Reconstructing the existing Wesley Parkway Interchange as a two-level interchange.
- Realigning Wesley Parkway to tie directly into 3<sup>rd</sup> Street.
- Constructing a split diamond interchange between Wesley Parkway and Pearl Street to access the downtown area, removing the need for an interchange at the Nebraska and Pierce Street locations.
- Modifying the on and off ramps of the Floyd Boulevard Interchange and keeping Floyd Boulevard in its existing location.



## 2.5 Step 4: Preferred Alternative

Step 4 and was completed after agencies and the public had a chance to review and comment on the Draft EIS. The information below is an update to Section 2 of the Draft EIS.

FHWA, in coordination with Iowa DOT and public input, identified Alternative B as the preferred alternative for the following reasons:

- Evaluation of the existing and planned transportation network indicated that Alternative B would best meet the project purpose and need.
- Alternative B would satisfy traffic operations criteria at all locations.
- Alternative B would separate Floyd Boulevard traffic from downtown traffic, per stakeholder preference.
- Alternative B would provide more convenient local access during construction compared to the other two alternatives.
- Alternative B received the most support from stakeholders and agencies.
- Alternative B would take less time to construct compared to the other alternatives.
- Alternative B would reduce the number of I-29 entrances and exits by consolidating Floyd Boulevard and downtown access, per agency preference.
- Alternative B would minimize parkland impacts.

Alternative B was identified as the preferred alternative after reviewing all the reasonable alternatives under consideration (including the No-Build Alternative) with respect to their ability to meet the project purpose and need.

Subsequent to the Draft EIS, FHWA and Iowa DOT (the signatory agencies) further evaluated potential impacts, as discussed in Section 3, *Environmental Analysis* and reviewed the comments received on the Draft EIS, as addressed in Section 4, *Comments and Coordination*. Based on the updated information obtained in this manner, the signatory agencies decided that the preferred alternative to implement for the project is Alternative B. From this point forward Alternative B will be referred to as the Preferred Alternative. Figures 2-1a, b, and c shows the Preferred Alternative.

The alignment for the Preferred Alternative has not been modified from the Draft EIS. No comments received from the public or agencies required the evaluation of additional or different alternatives than what was presented in the Draft EIS. Agency support for the Preferred Alternative is discussed in Section 4, *Comments and Coordination* of this Final EIS.

**Figure 2-1a. Preferred Alternative (Western Section of Corridor)**

**11x17**

**Figure 2-1b. Preferred Alternative (Central Section of Corridor)**

**11x17**

**Figure 2-1c. Preferred Alternative (Southern Section of Corridor)**

**11x17**

SECTION 3

## ENVIRONMENTAL ANALYSIS

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## Environmental Analysis

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Section 3 of the Draft EIS included the environmental analysis for resources located within the project study area. This included a description of the affected environment where the existing natural and human environmental resources were identified. The environmental consequences sections within Section 3 of the Draft EIS described how the existing natural and human environments would be impacted by the proposed improvements.

This section of the Final EIS summarizes the results of the environmental analysis of the Draft EIS and describes any changes, updates, or modifications that have occurred since the Draft EIS was signed. In addition, this section addresses comments that were received during the Draft EIS review period concerning the environmental impact analysis.

### 3.1 Summary of Environmental Analysis

The potential environmental impacts of the Preferred Alternative are summarized in Table 3-1 along with the appropriate section of the Draft EIS that provides a detailed discussion of the impacts.

**Table 3-1. Summary of Potential Impacts**

<b>Resource Area</b>	<b>Preferred Alternative</b>	<b>Draft EIS Section</b>
Land Use		
Right-of-Way	15.0 acres	Section 3.1.3 – <i>General Land Use</i>
Navigation	No Impact	Section 3.1.5 – <i>Navigation</i>
Utilities	Adverse Impact	Section 3.1.6 – <i>Utilities</i>
Socioeconomics		
Environmental Justice	No Impact	Section 3.2.2 – <i>Environmental Justice</i>
Business Relocations	7 businesses 9 structures	Section 3.2.5 – <i>Business Relocation Impacts</i>
Property Taxes	\$2 million decrease	Section 3.2.8 – <i>Property Taxes</i>
Surface Water	< 1% increase	Section 3.3 – <i>Surface Water and Water Quality</i>
Wetlands and Waters of the U.S.	0.1 acres	Section 3.4 – <i>Wetlands and Other Waters of the U.S.</i>
Floodplains	Negligible Impact	Section 3.5 – <i>Floodplains</i>
Ecological		
Federal Listed Species	Bald Eagle & Pallid Sturgeon Habitat	Section 3.6.1.3 – <i>Threatened and Endangered Species</i>
Air Quality	Beneficial Impact	Section 3.7 – <i>Air Quality</i>
Noise	No Impact	Section 3.8 – <i>Noise</i>
Cultural Resources		
Archaeological	No Impact	Section 3.9.1.1 – <i>Archaeological Resources</i>
Historic Structures	0.7 acres	Section 3.9.1.2 – <i>Historic Structures</i>
Parks and Recreational Areas	4.0 acres	Section 3.10 – <i>Parks, Recreational Areas, and Other Public Use Lands</i>
Section 4(f) Properties	No Impact	Section 3.11 – <i>Section 4(f) Properties</i>
Regulated Materials	13 parcels 2.0 acres	Section 3.12 – <i>Regulated Materials</i>
Visual Impacts	Negligible Impact	Section 3.13 – <i>Visual Resources/Aesthetics</i>

The following is a brief summary of each resource area shown in Table 3-1. For a detailed discussion on a specific resource area refer to Draft EIS Section shown in the table.

- **Right-of-Way** - The proposed improvements to I-29 in the project study area would use both existing and additional right-of-way throughout the corridor. As a result of new right-of-way acquisition, there would be direct conversions of commercial and industrial property to roadway uses. Given the absence of residential uses in the area, there would be no conversion of residential lands to roadway uses. Approximately 15.0 acres of new roadway right-of-way be converted to roadway uses for the construction of the Preferred Alternative. Of the 15.0 acres, 8.1 acres of the new right-of-way needed would be converted from commercial uses and 6.7 acres would be converted from public and utility uses. Of the 6.7 acres approximately 0.7 acres is owned by the State of Iowa. Approximately 0.2 acre of railroad right-of-way and less than 0.1 acre of industrial use property be converted to public roadway right-of-way.
- **Navigation** - The Sioux City region currently has seven port facilities, six of which are privately-owned and -operated. The public port is owned by the City of Sioux City and serves as the berth for the Argosy Riverboat Casino. During navigable river flow conditions, northbound spring shipments consist primarily of fertilizer, while southbound fall shipments typically carry grain and other agricultural products. All six privately-owned port terminals are served by UP Railroad connections and all but one, owned by Nutra-Flo Company, are located outside the project study area. With the recent reductions and elimination of shipping seasons, much of the goods and commodities formerly shipped by river barge have shifted to rail.

The Preferred Alternative would not impact navigation on the Missouri River. No structural changes to bridges that would affect barge shipping traffic, such as changes in pier spacing and horizontal and vertical clearances are proposed. Likewise, improvements to I-29 associated with the Preferred Alternative do not require shoreline cut or fill activities that could impact surface water flow or the navigable channel.

- **Utilities** - The Siouxland region is served primarily by major national and regional utility companies. MidAmerican energy provides electrical and natural gas services throughout the area. Local and long-distance telephone service providers include Qwest Communications, McLeod USA, MCI, AT&T, FiberComm, and Northwest Iowa Telephone Co. FiberComm, Northwest Iowa Telephone Co., and Thompson Electric Company provide fiber optic communications in the area. Water and wastewater services are provided by the City of Sioux City, which also service outlying areas. The Sioux City Water Plant treats and provides drinking water to Sioux City and neighboring communities through its distribution system; the plant is located adjacent to the I-29 right-of-way in the vicinity of Wesley Parkway.

The Preferred Alternative would require the relocation of existing public and private utilities found within the existing I-29 right-of-way as well as those adjacent or in close proximity to the right-of-way. The types of required utility relocations would be typical of projects involving the construction of roadways utilizing both existing and expanded



right-of-way. Utility impacts could include fiber optic cable, overhead and underground electric lines, gas mains, telephone cable and cable TV lines, water main, and sanitary and storm sewers. Additional information about the relocation of the public utilities is included in Section 3.2, *Updates to Environmental Analysis*.

- ***Environmental Justice*** - The minority and low-income populations located near the I-29 corridor would not be directly impacted by the Preferred Alternative. The nearest neighborhood is located atop a bluff adjacent to the existing I-29 roadway. The bluff is outside of new roadway right-of-way proposed for the Preferred Alternative. The Preferred Alternative includes improvements to and minor realignments of Wesley Parkway and I-29 on the southeast side of the neighborhood. These improvements would not require the displacement of any residences in the neighborhood. The existing access point to Wesley Parkway from the neighborhood would be maintained at its current location.
- ***Business Relocations*** - The business displacements that would occur as a result of construction of a proposed alternative would be concentrated in the downtown commercial area of Sioux City, typically in the Leech Avenue, Dace Avenue, and Gordon Drive areas northeast of the existing I-29 right-of-way. Another area of potential business relocations is the Tri-View Avenue area north of I-29 between the Hamilton Boulevard and Wesley Parkway Interchanges. The preferred Alternative would potentially require the displacement and relocation of one billboard, seven businesses, and a total of nine buildings associated with those businesses.
- ***Property Taxes*** - A short-term property tax revenue loss would occur in the City of Sioux City resulting from the conversion of taxable land into non-taxable transportation right-of-way use with construction of the Preferred Alternative.

Approximately \$2 million dollars of taxable value would be eliminated from tax rolls due to the conversion of land and structures to public right-of-way as a result of construction of the Preferred Alternative. This taxable value represents 0.09 percent of the total taxable value in the City of Sioux City and would result in the loss of approximately \$90,200 in annual property tax revenues. However, it is expected that a portion of this lost tax revenue would be replaced over time as higher-valued land uses develop adjacent to the proposed project in accordance with the City of Sioux City's land use and redevelopment plans.

- ***Surface Water*** - The Preferred Alternative is located adjacent to the Missouri River. Most of the corridor area drains into the Missouri River either directly or via tributaries. The existing I-29 corridor in Woodbury County crosses the Floyd River, Perry Creek, and Bacon Creek.

An impact analysis was conducted to approximate the effect of the Preferred Alternative impact to stormwater peak flows in the project study area. The amount of pervious area to be covered by additional pavement (beyond the existing pavement footprint) was calculated. The Preferred Alternative would result in less than one percent increase in

runoff and a negligible change in peak flows. More information concerning surface water is included in Section 3.2, *Updates to Environmental Analysis*.

- **Wetlands and Waters of the U.S.** - Existing data and a field survey were used to identify and characterize potential wetlands and other waters of the U.S. within the project study area. A windshield survey of the corridor was conducted in June 2005 by Iowa DOT Office of Location and Environment Water Resources staff to locate wetland resources in the project corridor.

The windshield survey identified four waterways (Missouri River, Floyd River, Bacon Creek, and Perry Creek) and three wetland areas in the project study area. One of the wetland areas occurs at the point where Perry Creek enters the Missouri River and is on the outside edge of the study area. This wetland area includes two wetland types: Palustrine, Emergent (PEM) and Palustrine Scrub-Shrub (PSS). Another area is a narrow drainage containing reed canary grass (*Phalaris arundinacea*) south of the Hamilton Boulevard Interchange. This wetland was determined to be non-jurisdictional (i.e., not regulated by the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (CWA)) in a previous study completed for Hamilton Boulevard Interchange Improvements<sup>5</sup>. The third wetland covers 0.10 acre and is a highly disturbed bottom portion of a shallow drainage adjacent to Floyd Boulevard. This non-jurisdictional wetland near Floyd Boulevard was identified as PEM.

The Preferred Alternative would result in a 0.1 acre impact to the wetland near Floyd Boulevard which would be considered a minimal impact under the USACE Section 404 Nationwide Permit process.

- **Floodplain** - Sioux City, Iowa has not mapped a floodway along the Missouri River, but across the river South Sioux City, Nebraska has a mapped floodway. Projects should limit any encroachment into the 100-year floodplain so that water surface increases do not exceed elevations of the Nebraska-side floodway. The Preferred Alternative project study area crosses the Floyd River, Perry Creek, and Bacon Creek. These tributaries of the Missouri River have been mapped as part of Sioux City's participation in the National Flood Insurance Study Program (NFIP). Bacon Creek has a 100 year floodplain but no floodway. Perry Creek and the Floyd River have a 100 year floodplain and a floodway. The modeling shows that the overall impact of the Preferred Alternative would be negligible because of the large size of the floodplain in comparison to the limited width of floodplain encroachment. More information about impacts to floodplains is included in Section 3.2, *Updates to Environmental Analysis*.
- **Federal Listed Species** – No federal or state threatened or endangered species were observed in the project study area. However, early coordination with the U.S. Fish and Wildlife Service (USFWS) identified the federally threatened bald eagle (*Haliaeetus*

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<sup>5</sup> Iowa DOT, 2003. I-29 Hamilton Boulevard Interchange Improvement, Woodbury County, Sioux City, Iowa. *Project Concept Assessment of Impacts*, October 2003.

*leucocephalus*) and endangered pallid sturgeon (*Scaphirhynchus albus*) as potentially being in or near the project area.

Any planned in-stream work would require additional consultation with USFWS under Section 7 of the Endangered Species Act (ENSA) and may necessitate preparation of an incidental take agreement.

- **Air Quality** - For the Preferred Alternative, the amount of Mobile Source Air Toxics (MSATs) emitted would be proportional to the vehicle miles traveled (VMT), assuming that other variables such as fleet mix and travel speeds are the same for each alternative. The VMT for the Preferred Alternative is expected to be slightly higher than that for the No-Build Alternative, because the additional capacity increases the efficiency of the roadway and would attract rerouted trips from elsewhere in the transportation network. This increase in VMT would lead to higher MSAT emissions in the project study area for the Preferred Alternative, along with a corresponding decrease in MSAT emissions along parallel routes. Also, emissions would likely be lower in the design year than present levels as a result of Environmental Protection Agency's (EPA) national control programs that are projected to reduce MSAT emissions by 57 to 87 percent between 2000 and 2020.
- **Noise** - The predominant source of noise in the project study area is from I-29 traffic noise. Local roadways are an additional source of noise. The 2030 traffic noise estimates indicate that the Preferred Alternative would increase noise levels by a maximum of three (+3) A weighted decibel units (dBA) and decrease by a maximum of three (-3) dBA over the 2003 modeled existing noise levels. Since the average human ear is not able to hear a difference in noise unless the change is increased or decreased by three or more dBA, no change in noise would be noticeable under the Preferred Alternative. Therefore, noticeable impacts to the ambient noise environment would not occur.
- **Archaeological** - A Phase I Archaeological Survey covered approximately 1,400 acres within the project study area and approximately 44 acres of a potential borrow area located outside the project study area. The study included pre-field research, such as looking at previous studies and area history; bucket auger tests; shovel tests; and hand probe cores (Benn, 2005). No prehistoric material was recovered and no early historic remains were located within the project study area or the potential borrow site. Archaeological impacts would not be expected to occur with the implementation of the Preferred Alternative. Additional information concerning archaeology surveys is included in Section 3.2, *Updates to Environmental Analysis*.
- **Historic Structures** - A Historical/Architectural Intensive Level Survey was conducted for 91 properties in the project study area (Nash, 2005). Of these 91 properties, 26 have at least one principal building that appeared to be over 50 years of age or older. The remaining 65 properties were less than 40 years old and were considered modern. Of the 26 properties evaluated, seven were found to either be listed, in the process of being listed, or eligible for listing on the National Register of Historic Places (NRHP). The Iowa

State Historic Preservation Office (SHPO) concurred with these findings on October 2, 2005.

The Preferred Alternative would impact approximately 0.7 acres of a parking lot associated with the Municipal Auditorium/Tyson Events Center, which is currently in the process of being listed on the NRHP. Despite the impacts to the parking lot no impacts would occur to the Municipal Auditorium building. On October 22, 2007 FHWA concurred that no use of the Municipal Auditorium building would occur by constructing the Preferred Alternative.

- **Park and Recreational Areas** – The Preferred Alternative would require the acquisition of approximately 4.1 acres of Chris Larsen Park, or approximately 3.6 percent of the park area. Of the 4.1 acres the State of Iowa owns approximately 0.7 acres and the City of Sioux City owns 3.4 acres. Existing park property that would be needed for incorporation in roadway right-of-way is located adjacent to the existing right-of-way and is not actively used other than for passive-use open space. Some minor amounts of paved ground would also be incorporated into new roadway right-of-way. Temporary construction impacts to three trails (Lewis & Clark Trail, Perry Creek Trail, and Floyd River Trail) are likely to occur during construction and may require the temporary closure of the trail. However, after the construction of the Preferred Alternative is complete, the trails would be reopened and the trail system would no longer be impacted. Additional information concerning impacts to trails is included in Section 3.2, *Updates to Environmental Analysis*.
- **Section 4(f) Properties** – The Preferred Alternative would impact portions of Chris Larsen Park that are Section 4(f) resources but would not have adverse effects on the activities, features, and attributes of Chris Larsen Park. The impacted Section 4(f) resources to be incorporated into permanent right-of-way are not currently used by park patrons except as passive open space, parking areas, and paved roadway. The FHWA concurred on October 22, 2007 that the portions of Chris Larsen Park proposed to become roadway right-of-way under the Preferred Alternative were *de minimis* and would not impact the recreational use, features, or activities of the Park. The Sioux City Parks and Recreation Department concurred that the impacts to Chris Larsen Park would not impact the activities, features, or attributes of the park in a letter dated January 24, 2008.
- **Regulated Materials** – The Preferred Alternative would impact 2.0 acres (3.56 percent) of potentially contaminated properties in the project corridor. The recognized environmental conditions (REC) sites with the most potential impact under the Preferred Alternative include 1100 Tri-View Ave (I L L Inc.), 205 S. Court (Mid-American Dairymen), 301 S. Floyd (Nguyen Liquors, INC), 514 S. Floyd (Nutra-Flo Company), 1005 Gordon Drive (Holiday Station), 1200 Bluff Road (John Morrell & Co.), and 1101 Tri-View Ave (Sioux City Wastewater Treatment Plant). In addition, contaminated soil was recently encountered during completion of a geotechnical soil boring just north of the existing mainline and east of the Perry Creek conduit. These sites have potential soil and groundwater contamination or they generate regulated material waste on-site.

- **Visual Impacts** - In general, the viewshed in the project study area would be similar to what currently exists if the preferred Alternative was constructed. I-29 would be wider, with six travel lanes instead of four, and some of the on- and off-ramps would be slightly relocated. The overall visual impact to the corridor would be negligible since the aesthetic appeal would remain relatively unchanged.

## 3.2 Updates to the Environmental Analysis

The information below updates the environmental resources in the Draft EIS that need updating due to changes in governmental regulations or require clarification to address comments.

### Utilities

Since the Draft EIS was signed, additional information about the relocation of public utilities, included in Section 3.1.6, *Utilities* of the Draft EIS, is available. The City of Sioux City plans to relocate the water main and the sanitary sewer main in areas where the proposed Preferred Alternative alignment conflicts with these existing services.

Approximately 3,000 linear feet of existing water main is planned to be relocated or abandoned. Water main currently located under the existing I-29 pavement must be abandoned and water main located within proposed new right-of-way that conflicts with the preferred alternative must be relocated. Table 3-2 describes the potential relocation of the Sioux City water main impacted by the proposed Preferred Alternative.

**Table 3-2. Relocation of Water Main**

Existing		Proposed (Relocated)		
Approximate Length (linear feet)	Existing Location	Approximate Length (linear feet)	Proposed Location	Impacts to REC
1,700	Along Tri-View Avenue between Hamilton Boulevard and Wesley Parkway.	1,500	North side of Tri-View Avenue through private property.	Property not a REC.
800	In the area of Pearl Street and Gordon Drive.	700	Northeast quadrant as Pearl Street meets Gordon Drive southwest of the Events Center parking lot through City property.	Impact to low risk REC.
200	In the intersection of Pierce Street and Gordon Drive.	200	Diagonal across the intersection of Pierce Street and Gordon Drive through City and Iowa DOT property.	Property not a REC.
300	Along Larsen Park Road south of I-29 in the area of Virginia Street.	300	Along Larsen Park Road south of I-29 in the area of Virginia Street through City and Iowa DOT property.	Impact to low risk REC.

Approximately 12,400 linear feet of existing sanitary sewer is planned to be relocated or abandoned because of conflicts with the proposed pavement location of the proposed Preferred Alternative. Table 3-3 describes the relocation of the Sioux City sanitary sewer impacted by the proposed Preferred Alternative.

The majority of the properties located in the project study area are considered recognized REC sites. The level of risk associated with these sites are described in Section 3.12 Regulated Materials section and are shown in Figures 3-5a, b, and c, *Regulated Materials*, of the Draft EIS document. It is likely that the relocation of the water and sewer mains would come into contact with contaminated soil. The relocation of the water main would impact low risk REC sites. The relocation of the sanitary sewer main would impact two low risk REC sites and possibly one high risk REC site, depending on which option is selected near the Floyd River Lift Station. Special provisions would be written into the construction documents that address both the materials needed for pipe being placed into the ground and the methods of constructing in areas where contamination may be present. Some containment methods may be determined to include lower cost solutions as appropriate and feasible, such as capping or plugs to prevent contaminant migration.

**Table 3-3. Relocation of Sanitary Sewer**

Existing		Proposed (Relocated)		
Approximate Length (linear feet)	Existing Location	Approximate Length (linear feet)	Proposed Location	Impacts to REC
6,700	From the north side of I-29 west of Hamilton Boulevard, under northbound I-29 lanes at Wesley Parkway, to the Perry Creek Lift Station.	7,200	North of I-29 along Zenith Drive & Tri-View Avenue, crossing to south of I-29 west of Wesley Parkway. Maintained on City and Iowa DOT property.	Impact to low risk REC.
2,900	From the south side of I-29 near Pierce Street to north of I-20 between Virginia Street and Floyd Boulevard.	4,200 total	2,900 linear feet would be south of I-29 located between I-29 and Larsen Park Road through City and Iowa DOT property. 600 linear feet would be located north of I-29 between Virginia Street and the existing I-29 northbound onramp through private property. 200 linear feet located on Iowa DOT property between Pierce Street and Nebraska Street.	Impact to low risk REC.
2,800	Option A: On the north side of I-29 from the Floyd River to the Floyd Lift Station.	Option A: 2,600	Shift sewer slightly north of current location to be outside the Iowa DOT right-of-way ending at the Floyd River Lift Station.	Impact to high risk REC.
		Option B: 3,400	Located north of the Morrell property ending at the Floyd River Lift Station.	Impact to high risk REC.
		Option C: 2,900	Sewer located south of I-29 outside Iowa DOT right-of-way ending at the Floyd River Lift Station.	Property not a REC.

## Surface Water Quality

Typical pollutants found in highway stormwater runoff are discussed in Section 3.3.2.3, *Operation Maintenance Impacts* of the Draft EIS. The following information is provided to better define the impacts the Preferred Alternative would have on the surface water quality in the project study area.

Research shows that occasional high levels of chloride occur in drainage ditches and waterways due to rapid runoff and snowmelt. This occurrence is also known as the “first flush” which means that a larger amount of pollutants are found in runoff at the beginning of the storm event than near the end of the storm event. Trace pollutants, such as metals, can be found in deicing salts even after the “first flush” occurs.

The Preferred Alternative would increase the amount of pavement in the project study area by approximately 30 percent. This would increase the amount of deicing chemicals used during inclement winter weather by approximately 30 percent. Therefore, it is expected that the concentration of pollutants found in stormwater runoff would be higher under the Preferred Alternative than under existing conditions especially in the spring when the snow melts.

As required in Iowa DOT’s *Construction Manual*, contractors constructing in or near the Floyd River, Bacon Creek, and Missouri River would observe and comply with all federal and state laws, local ordinances, and regulations that affect the conduct of the work. This includes meeting the requirements of the National Pollutant Discharge Elimination Permitting (NPDES)<sup>6</sup> for construction affecting areas greater than one acre. Implementation of erosion control measures known as Best Management Practices (BMPs) and other construction techniques would minimize erosion and sedimentation to the extent practicable. Some of the techniques that could be used are listed below. The application of these construction practices would reduce the effects of turbidity and sedimentation in the Floyd River, Bacon Creek, and Missouri River. The proposed Preferred Alternative would be designed to meet the NPDES stormwater runoff management requirements to minimize impacts to water quality.

## Perry Creek Crossing

Section 3.5.2 of the Draft EIS discusses floodplain impacts. At the time the Draft EIS was prepared, plans were to reconstruct the proposed I-29 section on grade over Perry Creek without any modifications to the existing Perry Creek conduit. Recently, more detailed design investigations have determined that the bearing capacity of the Perry Creek conduit’s timber pile foundation would not support the additional loads of the proposed widened I-29 cross section. This affects the viability of reconstructing of the I-29 section on grade as an alternative for crossing the conduit. Three other alternatives for the I-29 crossing of Perry Creek, with varying I-29 profile impacts, are currently under consideration. These alternatives include:

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<sup>6</sup> The NPDES is a federal program implemented by the EPA through the Iowa Department of Natural Resources intended to regulate stormwater discharges associated with construction activity.



- Alternative 1: I-29 bridges over an unmodified Perry Creek conduit.
- Alternative 2: I-29 bridges over a modified Perry Creek conduit.
- Alternative 3: Reconstruction of the Perry Creek conduit beneath I-29.

#### *Alternative 1: I-29 Bridges over an Unmodified Perry Creek Conduit*

This alternative involves constructing bridges to span over the Perry Creek without modifying the existing conduit. The I-29 profile would be adjusted to maintain minimum clearances and provide earth cover for the conduit. Higher fill heights for the ramps and frontage roads would result in grading impacts encroaching further into adjacent properties. Along the southbound entrance ramp from Wesley Parkway, the foreslope of the ramp section would extend into a ditch paralleling the ramp and across the right-of-way boundary into property currently being utilized as parkland. In order to keep the ramp embankment from filling in the ditch and to minimize park impacts, a retaining wall paralleling the ramp would need to be added.

Along the northbound exit ramp to Wesley Parkway, the higher profile grade would preclude the widening and re-decking of the existing bridge over the Perry Creek conduit, instead requiring an all new bridge. The higher fill heights would also cause grading impacts to occur further into adjacent properties, increasing impacts to the Municipal Auditorium/Tyson Events Center parking lot to the west of Pearl Street. The higher profile grade elevations of the northbound and southbound frontage roads running between Hamilton Boulevard and Wesley Parkway do not appear to impact right-of-way needs for either roadway. The Wesley Parkway and Third Street profiles do not appear to impact their right-of-way need lines or other major design components.

This alternative would provide the most conventional structural design and minimize risks otherwise incurred through modifying the existing conduit. It would result in two separate bridge structures that would need to be maintained.

There are no anticipated ramifications for the existing Perry Creek conduit associated with the construction of the bridges. As a result, no floodplain impacts would occur to the Perry Creek floodplain.

#### *Alternative 2: I-29 Bridges over a Modified Perry Creek Conduit*

This alternative involves constructing bridges to span over a modified segment of the Perry Creek conduit. The modification of the Perry Creek conduit would entail the removal of the existing conduit lid and supporting the top of the walls with tiebacks or supporting struts. The alternative would also require a slight profile adjustment in order to provide minimum clearances, but significantly less than that required by Alternative 1.

This alternative would be a more complicated structural design than Alternative 1. The existing walls would require tie-backs into the adjacent embankment and a somewhat slower, possibly more expensive, staged modification. Similar to Alternative 1, Alternative 2 would result in two separate bridge structures that would need to be maintained.

The conduit's size and capacity would not be affected by the modification. As a result, no floodplain impacts would occur to the Perry Creek floodplain.

#### *Alternative 3: Reconstruction of the Perry Creek Conduit beneath I-29*

This alternative involves the reconstruction of an approximately 200-foot segment of the conduit under I-29 and constructing pavement on grade. This will involve replacing the conduit walls and top slab with a new structure. One of the main structural advantages of this option is the elimination of the added costs due to the long term maintenance of bridges over the conduit, leaving only the reconstructed conduit to maintain. The other benefits are a smaller overall project footprint than Alternative 1 since Alternative 3 will require only slight upward profile adjustments and simplified construction. This alternative is also the most costly. In addition, it should be noted that contaminated soil was encountered in a geotechnical soil boring completed just north of the existing mainline and east of the Perry creek conduit. The contamination encountered could be a result of the timber pile supports used during construction of the conduit. Therefore, potentially contaminated soil could be encountered during reconstruction of the Perry Creek conduit.

The conduit's size and capacity will not be affected by the reconstruction. As a result, no floodplain impacts will occur to the Perry Creek floodplain.

#### **Perry Creek Flood Damage Reduction Project**

The USACE commented that the Perry Creek conduit should not be disturbed and requested that preliminary plans for construction activity in the vicinity of the conduit be sent to them for review.

The USACE also commented that the I-29 embankment tends to block Perry Creek flows in excess of the channel and conduit capacity from the natural flow path into the Missouri River and forces flow to the east, towards the Floyd River. The comment letter stated that the design of the I-29 improvements should make provisions for floods in excess of the capacity of the Perry Creek Project.

The design team would submit Preliminary plans to the attention of the Readiness Branch for review and would coordinate with the USACE regarding both of these issues as the project progresses.

#### **Floyd River Crossing**

There is an erosion control weir located within the channel just downstream of the existing I-29 Floyd River bridge crossing. The weir may create an increased scour risk to a proposed new structure at the Floyd River, which would occur with any of the alternatives. Iowa DOT would observe and evaluate the weir and, if it is determined that is posing a potential problem for the bridge, would ask that the owner to repair it at that time.

## Threatened and Endangered Species

In Section 3.6.1.3, *Threatened and Endangered Species* of the Draft EIS the bald eagle is included as an endangered species. On August 9, 2007, the bald eagle was removed from the federal list of threatened and endangered species. The species is still protected by the Bald and Golden Eagle Protection Act, the Lacey Act, and the Migratory Bird Treaty Act.

Iowa species of special concern were also described in Section 3.6.1.3, *Threatened and Endangered Species* of the Draft EIS. However, two plant species of special concern were not included in the discussion. A field survey conducted as part of a biological resources technical memo for this study identified two Iowa species of special concern in the project study area. The sand cherry (*Prunus pumila*) and spurred violet (*Viola adunca*) were observed in a habitat area south of I-29 and west of the Hamilton Boulevard Interchange at the western edge of the project study area. The spurred violet was observed in habitat area north of I-29 and south of the railroad at the western edge of the project study area. These areas are shown in Figures 3-1a, b, and c, *Updated Natural Environmental Resources*. The Preferred Alternative would impact 0.14 acres of the species of special concern. However, Iowa Code does not require any permitting for potential impacts to these species.

## Potential Borrow Sites

One additional potential borrow site was identified after the Draft EIS was signed. This potential borrow site is approximately 44-acres, and is located on private property approximately four miles outside the project study area, northeast of the I-29/Pierce Street Interchange. The site is located adjacent to the northbound on ramp of the U.S. 75/130<sup>th</sup> Street Interchange and is currently zoned for agricultural use.

No cultural resource materials were found on this potential borrow site and no additional archaeological investigation is needed. These findings were received by SHPO on August 15, 2008. Iowa SHPO concurred with the findings on August 18, 2007. A copy of this correspondence is found in Appendix A, *Agency Coordination*. In addition, no wetlands or threatened or endangered species habitat were found within the potential borrow site.

The one additional potential borrow site is located within the Loess Hills landform. The Iowa DOT and the Iowa DNR entered into a Memorandum of Agreement (MOA) in November 2008 regarding transportation land use within the Loess Hills. The Loess Hills MOA implementing processes are:

- A. Iowa DOT, in consultation with Iowa DNR, will develop an implementing process that provides for early input coordination with Iowa DNR prior to a decision to encroach upon Loess Hills land. This consultation process will follow the protocols established by this MOA, and will include standardized data transmittal plan agreed to by both agencies;
- B. By means of the process established in paragraph A, above, Iowa DNR will be afforded the opportunity to provide early input into borrow site selection when borrows are proposed within the Loess Hills mapped feature established by the 2002 National Park Service (NPS) report;

- C. On a case by case basis, Iowa DNR will be asked to provide input regarding establishing mitigative buffer zones adjacent to areas of natural cover. Iowa DOT's Office of Location and Environment will provide Iowa DNR a formal evaluation of both natural cover areas and potential buffer zones as part of this effort;
- D. Should there be an instance where Iowa DOT cannot avoid a natural area, or one of the 12 special areas or Glenwood locality described in the 2002 NPS report, Iowa DOT will advise Iowa DNR of the circumstances involved, and will include a discussion of Iowa DOT's efforts to avoid or minimize the effects of proposed construction. This activity could include mutually agreed upon mitigation or other remedial actions appropriate to the scale of impacts;
- E. The consultation process described in the MOA will be carried out for each incursion into the Loess Hills mapped feature. Results of this consultation will then be documented within the National Environmental Policy Act (NEPA) compliance report prepared for each project, and also retained with the NEPA administrative record, as evidence of compliance with MOA stipulations;
- F. The consultative process described by the MOA will be carried forward in each instance where encroachment into the Loess Hills landform may be necessary. In the interests of efficiency, it is agreed that the consultative process described herein will be completed within 30 days, except under extraordinary circumstances.

Iowa DOT has been in consultation with Iowa DNR since receiving the May 6, 2008 comment letter. A copy of this letter is in Appendix A, Agency Coordination. In mid October 2008 an extensive plant survey of the site was completed by Iowa DOT's Office of Location and Environment and revealed no threatened, endangered, and/or special concern species were present within the site. Iowa DNR concurred with the findings of the plant survey in an email dated December 9, 2008. This email acknowledged that no further surveys were needed and that the terms of the MOA were met concluding the MOA process. A copy of the email is in Appendix A, *Agency Coordination*.

For more information about the previously identified potential borrow sites see Section 3.9.1.1, *Archaeological Resources* and Section 3.9.2.1, *Archaeological Impacts* of the Draft EIS.

## Lewis & Clark and Other Associated Trails

The following information is provided to clarify Section 3.10, *Parks, Recreational Areas, and Other Public Use Lands* of the Draft EIS. These areas are shown in Figures 3-2a, b, and c, *Updated Human Environmental Resources*.

The trail that runs along the riverfront in Chris Larsen Park is one continuous paved trail and is known locally as the Lewis and Clark Trail. Trail maps available through Siouxland Trails Foundation via links from the Sioux City Parks and Recreational Department's website label the trail as the Lewis and Clark Trail.

However, the Sioux City Parks and Recreation Department considers this trail to be three different segments. The Lewis and Clark Trail is approximately two miles long and connects Riverside Park, which is located west of the project study area, to Chris Larsen Park. The trail

that runs through Chris Larsen Park is called the Riverfront Trail and is approximately two miles long. The Gateway 2000 Rivers Edge Trail is approximately three miles long and goes through Chautauqua Park, which is south of the project study area.

In 1978 Congress passed an amendment to the National Trails System Act that designated approximately 3,700 miles, from the Wood River in Illinois along the Missouri River to the mouth of the Columbia River in Oregon, as the Lewis and Clark National Historic Trail (L&C NHT). This designation included the Missouri Riverfront in Sioux City, Iowa but no maintained or groomed trail exists. The L&C NHT follows the outbound and inbound routes of the Lewis and Clark Expedition, but since the land use has changed since the 1804-1806 Lewis and Clark Expedition the location of where the trail may have been is unknown. The National Park Service considers the Missouri River corridor as the L&C HNT at a minimum. Congress purposely did not define the width of the trail so that the trail could encompass as much land as appropriate for the area. In some areas the entire view shed is considered the L&C NHT, and in some cases the entire watershed.

The proposed Preferred Alternative would not impact the L&C NHT since it is a designation for the entire Missouri River through Sioux City. The designation of the L&C NHT occurred approximately 20 years after I-29 was constructed. The change in land use as well as the change in the Missouri River even prior to the construction of I-29 would have irreparably compromised the actual location of the 1804-1806 Lewis and Clark Expedition. Phone conversations with the National Park Service in August 2008 indicated that the proposed project is consistent with the existing developed use of the area. A memo dated August 14, 2008 that describes the details of these phone conversations is included in Section 4.2, *Federal, State, and Local Agency Coordination*. Therefore, no impact would occur to the L&C NHT if the Preferred Alternative were constructed.

Access to the riverfront area, which is also the area designated as the L&C NHT, would not change if the proposed Preferred Alternative were constructed. Currently, vehicles are able to access the riverfront by using Hamilton Boulevard or Floyd Boulevard. Pedestrians have an additional option to access the riverfront area by using the Pierce Street underpass. The proposed Preferred Alternative includes these same access points to the riverfront and enhances the viewshed of the riverfront from downtown. More information about the viewshed of the Preferred Alternative is in Section 3.13.2 *Environmental Consequences of Visual Resources of the Draft EIS*.

## Chris Larsen Park

Chris Larsen Park is the location of the August 20, 1804 Lewis and Clark campsite. The Lewis and Clark Expedition camped near the mouth of the Floyd River (Figures 3-2a, b, and c, *Updated Human Environmental Resources*). A historical marker commemorates the campsite and is located near the casino parking lot that is east of Floyd Boulevard, on the south side of I-29. The marker is located off the northeast corner of the parking lot and is shown on Figure 3-2c, *Updated Human Environmental Resources (Southern Section of Corridor)*. While the original location of the campsite is unknown it is thought to be located north by approximately one half

mile of the marker as the waters of the Missouri River have changed since 1804. The proposed Preferred Alternative would not impact the campsite commemorative marker.

Near the western end of Chris Larsen Park the City of Sioux City owns a parcel of land that is available for lease. Approximately 1.6 acres of a 13.9 acre parcel located immediately south of the Hamilton Boulevard Interchange is available by lease. The expected tenant would be a convenience store or a restaurant to serve lodging in the area as well as I-29 traffic. The Preferred Alternative would not impact the parcel of land that is available for lease in its current state. However, if access to the leased property is needed for a business use, it will need to potentially be removed from Chris Larsen Park Road or rerouted in some other fashion to this parcel, as the Hamilton Boulevard Interchange cannot be modified to allow this access.

### Section 4(f) Properties

On October 22, 2007 FHWA concurred that the level of documentation needed for the type of impacts from the proposed project on Section 4(f) property was “*de minimis*”. The Sioux City Parks and Recreation Department concurred that the impacts to Chris Larsen Park would not impact the activities, features, or attributes of the park in a letter dated January 24, 2008. The impacts from the three build alternatives to the Section 4(f) property was presented at the May 22, 2008 Public Hearing. More information about the May 22, 2008 Public Hearing is included in Section 4.0 Comments and Coordination. No public comments concerning the impacts to the Section 4(f) property were received during the comment period of the Draft EIS.

### Section 6(f) Properties

There are three parcels of land that are considered Section 6(f) properties. These properties are described in Section 3.11.1.4, *Section 6(f) Properties* and shown in Figures 3-4a, b, and c, *Human Environmental Resources*, in the Draft EIS. Three parcels of land were purchased with the funds from the Land and Water Conservation Act (L&WCF), project number 19-01156, which is called the Sioux City Riverfront Trail project. Therefore, these three parcels of land are federally protected from being converted to another land use other than public outdoor recreation use. The proposed Preferred Alternative does not impact the three properties that are considered Section 6(f) properties.

The portion of the Lewis and Clark Trail that runs through Chris Larsen Park, also known as the Riverfront Trail, crosses through the three parcels of land considered Section 6(f) property. The Preferred Alternative would temporarily impact portions of the Trail during construction. The portions of this Trail that crosses the Section 6(f) parcels would not be impacted by the Preferred Alternative. If the Trail on the Section 6(f) property is severed, moved, or blocked during construction activities, then the Iowa DOT would need to notify the Iowa Department of Natural Resources (DNR) of the temporary non-conforming use of the property.

## Traffic

The following four bullets replace the five bullets listed in Section 3.15.4, *Traffic* of the Draft EIS document. The preliminary staging plan was based on the following assumptions that are subject to change based on final staging plans to be developed during the final design process:

- It is the Iowa DOT's intention to maintain two lanes of traffic in both directions on the mainline of I-29, except for limited sites such as in the area of Bacon Creek Bridge where a single lane in each direction would be maintained.
- No designated detoured traffic routes would utilize Chris Larsen Park Road.
- Active traffic would continue during I-29 bridge construction at most locations. Limited closures would be allowed for setting beams and pouring bridge decks at night, on weekends, and on non-event dates.
- Pedestrian traffic in the project study area would be maintained when possible during construction.

**Figure 3-1a. Updated Natural Environmental Resources (Western Section of Corridor)**

**11x17 Graphic**



**Figure 3-1b. Updated Natural Environmental Resources (Central Section of Corridor)**

**11x17 Graphic**

**Figure 3-1c. Updated Natural Environmental Resources (Southern Section of Corridor)**

**11x17 Graphic**

**Figure 3-2a. Updated Human Environmental Resources (Western Section of Corridor)**

**11x17 Graphic**

**Figure 3-2b. Updated Human Environmental Resources (Central Section of Corridor)**

**11x17 Graphic**

**Figure 3-2c. Updated Human Environmental Resources (Southern Section of Corridor)**

**11x17 Graphic**

SECTION 4

## COMMENTS AND COORDINATION

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## SECTION 4

# COMMENTS AND COORDINATION

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This section summarizes the public involvement and agency coordination that has taken place since the Draft EIS was issued. Diverging from the order in Section 4 of the Draft EIS, this section addresses public involvement first, followed by the agency coordination efforts. The comment letters received from the agencies subsequent to circulation of the Draft EIS, along with the signatory agencies' written responses to the comments, are reprinted at the end of this section.

## 4.1 Public Involvement

The extensive public involvement program to engage the general public and other parties interested in the project continued after the Draft EIS was circulated for review. Throughout the course of the project, correspondence received from the public was logged, and, if requested, a response was sent to the specific public entity or individual.

After the circulation of the Draft EIS, an Open Forum Location Design Public Hearing was held on Thursday, May 22, 2008, between 5:00 and 7:00 p.m. at the Sioux City Convention Center, 801 Fourth Street, Sioux City, Iowa, to discuss the location and design of the I-29 improvements. The meeting was publicized in the following ways:

- A Public Hearing notice was sent to the Sioux City Journal (published on April 22, 2008 and May 15, 2008), the Dakota Star, the Sergeant Bluff Advocate, the Sioux City Globe (published on April 24, 2008 and May 15, 2008), the Mundo Latino (published on April 24, 2008 and May 16, 2008), and the Hispanos Unidos (published on May 1, 2008).
- A letter dated May 8, 2008 announcing the meeting was sent to approximately 200 property owners and stakeholders along the corridor.
- A letter dated April 29, 2008 announcing the meeting was sent to 15 agencies.

The hearing was attended by 120 people, along with media representation from KTIV-TV, KMEG-TV, and the Sioux City Journal.

The transcript of the hearing, including written statements received at or following the hearing, was provided to Iowa DOT staff, Iowa DOT Commissioners, and the FHWA for their review before project plans are completed. Copies were also forwarded to those that sent a written request to the Iowa DOT Office of Location and Environment.

The purpose of the public hearing was to discuss the proposed improvement and the Draft EIS for Segment 2, answer questions, and gather public input on the proposed improvement and alternatives. The hearing also provided an opportunity for the public to review and comment on the proposed *de minimis* effect of this I-29 Segment 2 on portions of Chris Larsen Park (a Section 4(f) Resource). *De minimis* impacts on publicly owned parks, recreation areas, and wildlife and waterfowl refuges are defined as those that do not “adversely affect the activities, features, and attributes” of the Section 4(f) Resource.

A variety of displays were available at the meeting, including boards with text and graphics showing:

- The three proposed alternatives and *de minimis* park impacts.
- An updated three-dimensional animation for the proposed Alternative B depicting development that has occurred since the November 2006 Public Involvement meeting.
- An aesthetic concept slide show presenting the proposed look for the I-29 corridor in Downtown Sioux City. The aesthetic concept may change from the concept presented at the meeting in accordance with approved cost sharing and final design plans.

The following summarizes comments received at the meeting:

- The majority of the comments received were in support of Alternative B with a few persons offering support for Alternative A.
- Additional concerns were voiced regarding the need to complete connections between existing trails, specifically from east and south of Bacon Creek to west of the Floyd River, along Hamilton Boulevard to the Riverfront Trail and a connection from the Transit Avenue Trail to the Riverfront Trail.
- Landowners from several of the downtown businesses attended the meeting to discuss concerns regarding short-term and long-term impacts to their businesses. Wellmark, Hardees, Staples, and First American Bank were a few of the businesses represented at the meeting.
- Several positive comments were received regarding the updated 3-dimensional animation for the alternative.
- There were some inquiries regarding how right-of-way requirements could potentially affect the ability of facilities and businesses to operate.

A total of seven written comments were received from the public hearing. Of the seven, five written comments were received at the meeting, and two were received after the meeting. Concerns and issues identified in the written comments were similar to those expressed informally at the meeting and included:

- Support of Alternative A as best for providing access to downtown merchants and providing hospital access for eastbound emergency vehicle traffic.
- Questions regarding noise levels, timing of construction, right-of-way requirements, and separation of buildings from the roadway.
- Concerns regarding impacts to and opportunities to improve trail system interconnections and access.
- Concerns regarding the loss of facility and business parking for right-of-way.

The design team considers comments received from the public as further project development is completed. By seeking public involvement proactively and allowing the public to reach a



decision with the design team, better decisions with more positive community support are ultimately achieved.

### 4.1.1 Project Website

An informational project website, <http://www.iowadot.gov/i29/index.htm>, was established as another means of disseminating information about the project. The web address for this site was provided to the public at the November 30, 2006 public information meeting and the May 22, 2008 Public Hearing. The site includes the goals of the project, a description of the project, background information, and displays and handouts from the most recent public information meeting. This site also contains a “contact us” page with contact information and an online form for submitting questions and comments.

### 4.1.2 Mailing List

A mailing list of 200 names was developed and updated prior to the public information meetings. This list included property owners, interested parties, and representatives from local interest groups. In addition, the list included state, county, and local elected officials as well as representatives from appropriate agencies. This mailing list was used to invite the public to the project public information meetings.

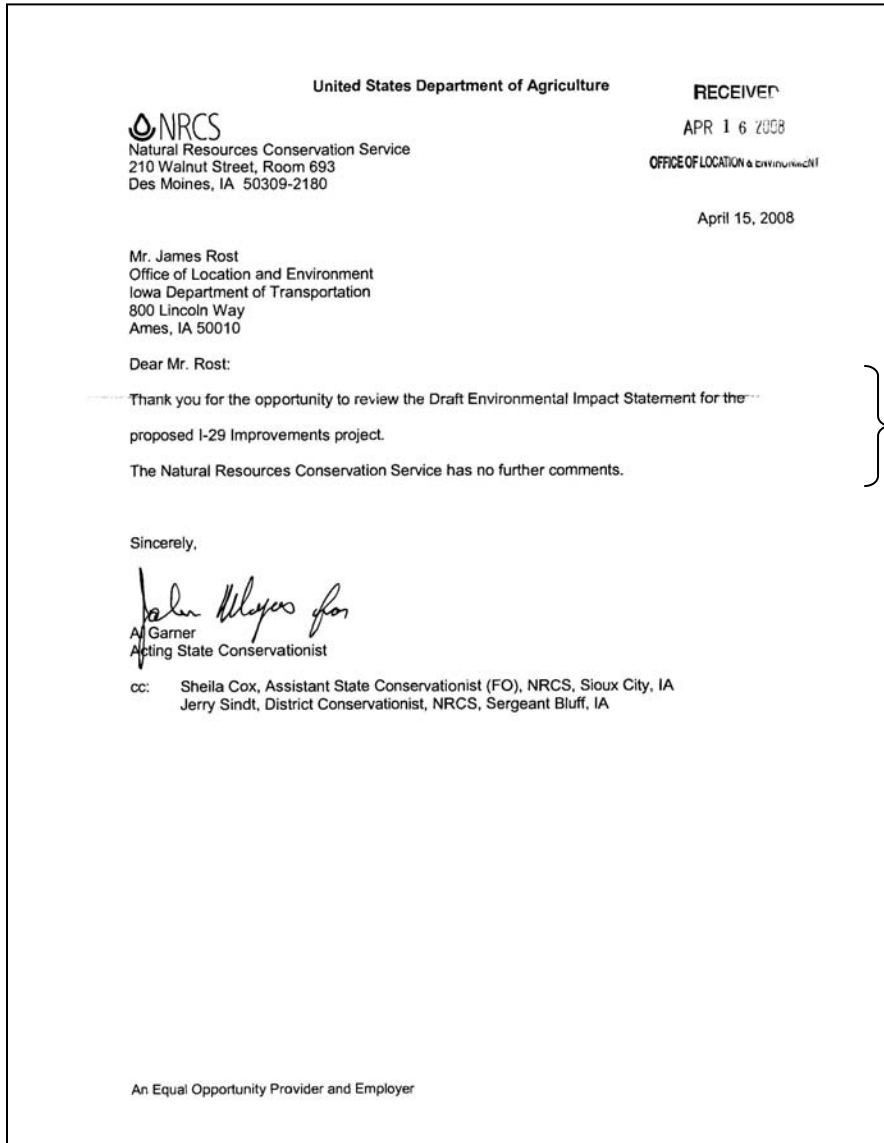
## 4.2 Federal, State, and Local Agency Coordination

The signatory agencies used the comments received from resource agencies as well as the public to revise the EIS. The comment letters and the signatory agencies’ responses are included on the following pages. The letters are organized and numbered in the order in which they were received. The signatory agencies’ responses, printed to the right of the letters, are keyed to the comments in the letters. For use in locating letters and responses, the following is a list of the correspondence received from the Draft EIS:

- Agency Letter #1, April 15, 2008, Natural Resource Conservation Service
- Agency Letter #2, April 23, 2008, U.S. Army Corps of Engineers
- Agency Letter #3, May 1, 2008, U.S. Army Corps of Engineers
- Agency Letter #4, May 6, 2008, Iowa Department of Natural Resources
- Agency Letter #5, May 15, 2008, U.S. Department of Homeland Security, United States Coast Guard
- Agency Letter #6, June 4 2008, U.S. Environmental Protection Agency
- Agency Letter #7, June 6, 2008, U.S. Department of Interior
- Agency Letter # 8, June 9, 2008, Iowa Department of Natural Resources
- Agency Correspondence Memorandum #9, August 14, 2008, National Park Service

**Agency Letter #1, April 15, 2008**  
**Natural Resource Conservation Service**

**Response to Comments:**



Comment #1-1: No response needed.

**Agency Letter #2, April 23, 2008**  
**U.S. Army Corps of Engineers**

**Response to Comments:**

**Newell, Deeann [DOT]**

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**From:** Johnson, Neal J MVR [Neal.J.Johnson@usace.army.mil]  
**Sent:** Wednesday, April 23, 2008 2:49 PM  
**To:** Newell, Deeann [DOT]  
**Subject:** Draft EIS for I-29 Improvements in Sioux City (UNCLASSIFIED)

Classification: UNCLASSIFIED  
Caveats: NONE

DeeAnn:

We have no further comments at this time beyond what we and the Omaha District gave you in our letters dated November 24, 2004, November 30, 2004, December 20, 2004, and December 27, 2004. All those letters are in Appendix A of the Draft EIS.

Thanks.

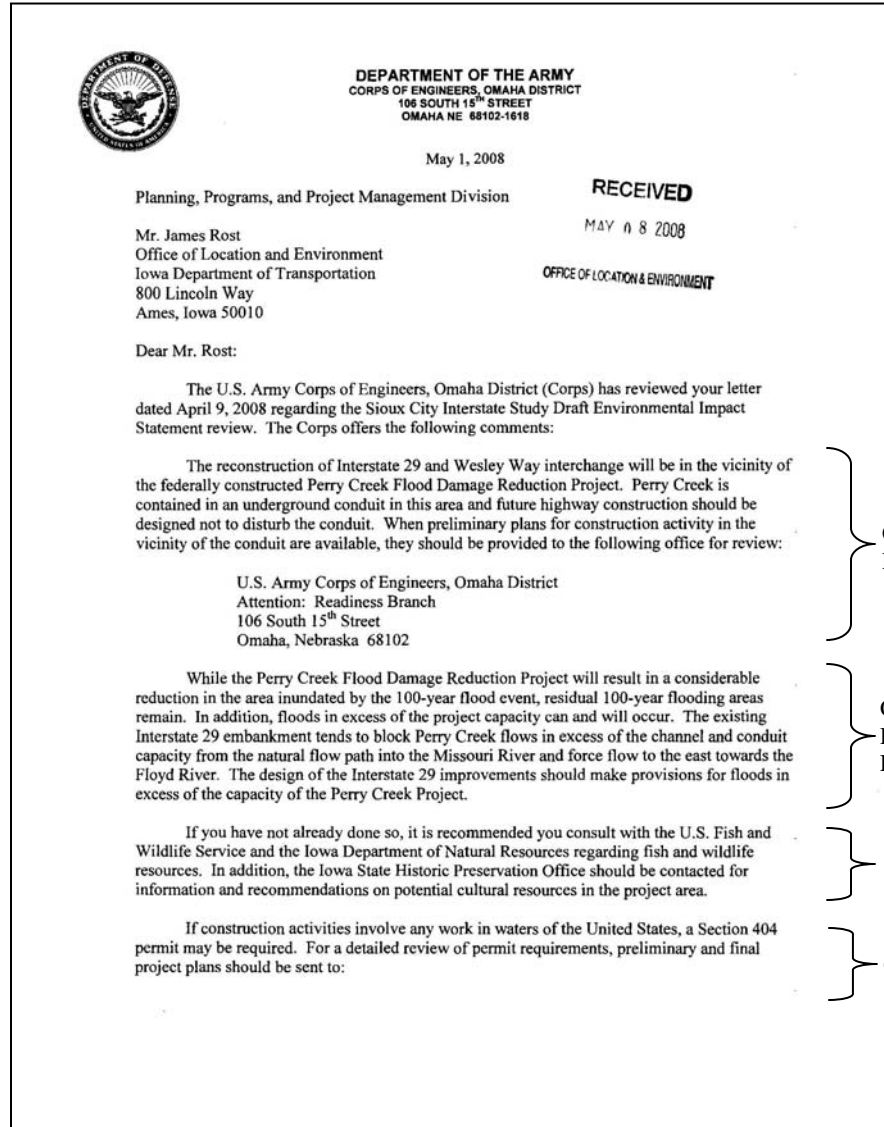
Neal  
Classification: UNCLASSIFIED  
Caveats: NONE

1

} Comment #2-1: No response needed.

**Agency Letter #3, May 1, 2008**  
**U.S. Army Corps of Engineers, Page 1**

**Response to Comments:**



Comment #3-1: Information concerning the Perry Creek Flood Damage Reduction Project is included in Section 3.2, *Updates to the Environmental Analysis*.

Comment #3-2: Information concerning the Perry Creek Flood Damage Reduction Project is included in Section 3.2, *Updates to the Environmental Analysis* of this Final EIS.

Comment #3-3: Correspondence with the U.S. Fish and Wildlife Service, Iowa Department of Natural Resources, and Iowa State Historic Preservation Office is in Appendix A of the Draft EIS.

Comment #3-4: No response needed.

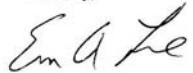
**Agency Letter #3, May 1, 2008**  
**U.S. Army Corps of Engineers, Page 2**

**Response to Comments:**

U.S. Army Corps of Engineers  
Rock Island District  
Attention: Regulatory Branch  
P.O. Box 2004  
Clock Tower Building  
Rock Island, Illinois 61204-2004

If you have any questions, please contact Mr. Dave Crane of my staff at (402) 995-2676.

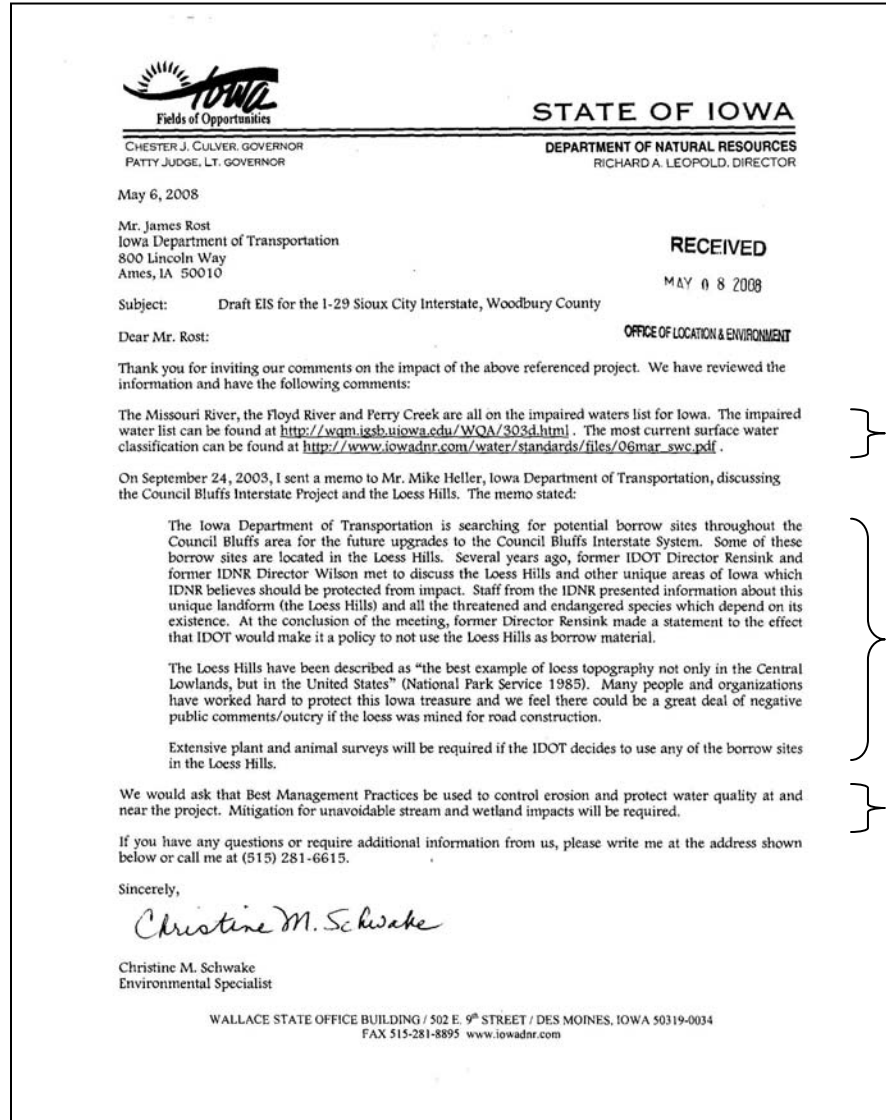
Sincerely,



Eric A. Laux, Chief  
Environmental, Economics, and  
Cultural Resources Section  
Planning Branch

**Agency Letter #4, May 6, 2008**  
**Iowa Department of Natural Resources**

**Response to Comments:**




} Comment #4-1: No response needed.

} Comment #4-2: Information about an additional potential borrow site was added to Section 3.2, *Updates to Environmental Analysis*. This potential borrow site is located within the Loess Hills, but is a remnant of the U.S. 75 bypass project constructed in 2001. This site is not a pristine or virgin Loess Hill site.

} Comment #4-3: Information about using Best Management Practices is included in Section 3.2, *Updates to the Environmental Analysis*.

**Agency Letter #5, May 15, 2008**  
**U.S. Coast Guard, Page 1**

**Response to Comments:**

<p>U.S. Department of Homeland Security <b>United States Coast Guard</b></p> 	<p>Commander Eighth Coast Guard District</p>	<p>1222 Spruce Street St. Louis, MO 63103-2832 Staff Symbol: dwb Phone: (314)269-2380 Fax: (314)269-2737 Email: peter.j.sambor@uscg.mil</p>
<p>RECEIVED MAY 27 2008</p>		<p>16591.3/0.05 FLR 0.02 BCR May15, 2008</p>
<p>Mr. James Rost Office of Location and Environment Iowa Department of Transportation 800 Lincoln Way Ames, IA 50010</p>	<p>OFFICE OF LOCATION &amp; ENVIRONMENT</p>	
<p>Subj: I-29 SIOUX CITY, IOWA INTERSTATE STUDY</p>		
<p>Dear Mr. Rost:</p>		
<p>Among the alternatives listed in the draft Environmental Impact Statement is the building of a new bridge at mile 0.05 on the Floyd River and one at mile 0.02 on Bacon Creek, which flow into the Missouri River. The waterways for the subject project conform to criteria for advance approval of bridges as set forth in Title 33, Code of Federal Regulations, Section 115.70, as amended. This regulation provides for the advance approval by the Commandant, U.S. Coast Guard, of the location and plans of bridges to be constructed across navigable waterways or waterways navigable-in-law but not actually navigated other than by logs, logs rafts, rowboats, canoes and small motorboats. Clearances provided for high water stages and drift will be considered adequate to meet the reasonable needs of navigation.</p>		
<p>A Coast Guard Bridge Permit is not required. However, we will need as-built drawings of the replacement bridges, in 8 1/2 by 11 inch format, when the project is completed. The Coast Guard offers no objection to the project upon compliance with the laws and regulations listed below:</p>		
<ul style="list-style-type: none"> <li>a. Executive Order 11990 - Protection of Wetlands.</li> <li>b. Executive Order 11988 - Floodplain Management.</li> <li>c. Section 106 of the National Historic Preservation Act (P. L. 89-665) and Executive Order 11593.</li> <li>d. Section 401 of the Federal Water Pollution Control Act, as amended (P. L. 92-500).</li> <li>e. Fish and Wildlife Coordination Act (P. L. 85-624).</li> <li>f. Endangered Species Act (P. L. 93-205).</li> <li>g. Section 309 of the Clean Air Act (P. L. 90-148).</li> <li>h. Noise Control Act (P. L. 92-574).</li> </ul>		

Comment #5-1: No response needed.

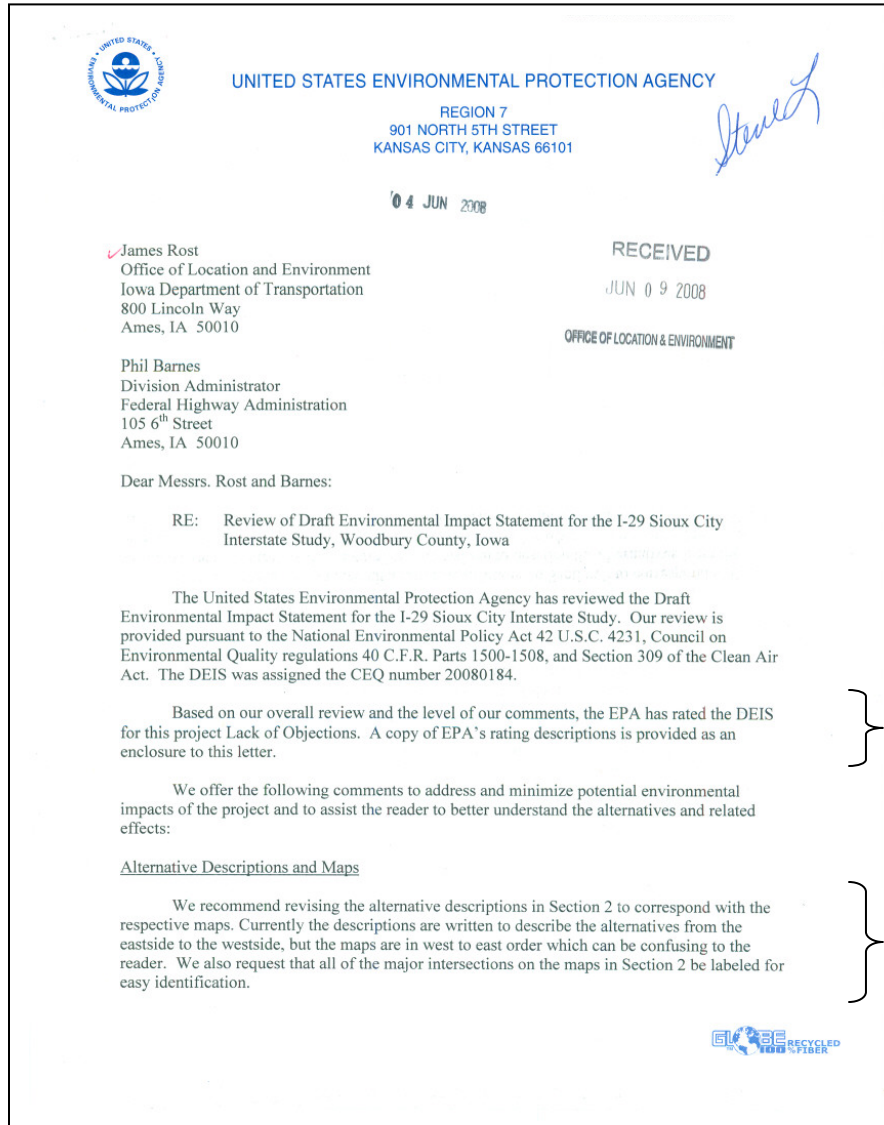
Comment #5-2: No response needed.





**Agency Letter #6, June 4, 2008**  
**U.S. Environmental Protection Agency, Page 1**

**Response to Comments:**



} Comment #6-1: No response needed.

} Comment #6-2: The discussions of the alternatives in Section 2.4, *Alternatives Carried Forward* were described from west to east. Labels of major intersections are shown in Figure 2-1, *Preferred Alternative*.

**Agency Letter #6, June 4, 2008**  
**U.S. Environmental Protection Agency, Page 2**

**Response to Comments:**

Sewer Relocation & Regulated Materials

We recommend including an analysis of potential environmental impacts related to the relocation of approximately 9000 feet of sanitary sewer as described in paragraph 3.1.6 Utilities. The areas for relocation should be identified to avoid all "regulated materials" sites to prevent further contamination. In addition we recommend developing a strategy to handle any hazardous substances that may be encountered during construction.

We appreciate the opportunity to provide comments regarding this project and your DEIS. If you have any questions or concerns, please contact me at (913) 551-7975.

Sincerely,





Kimberly O. Johnson, P.E.  
NEPA Reviewer  
Environmental Services Division

Enclosure

} Comment #6-3: Information concerning the relocation of the sanitary sewer is included in Section 3.2, *Updates to the Environmental Analysis*.

**Agency Letter #7, June 6, 2008**  
**U.S. Department of Interior, Page 1**

**Response to Comments:**

	<p>United States Department of the Interior  OFFICE OF THE SECRETARY  Washington, DC 20240</p>	<p><i>Stall</i></p> 
	<p>JUN 6 2008</p>	<p>9043.1  PEP/NRM</p>
ER 08/406		<p>RECEIVED</p>
Mr. Philip Barnes Division Administrator Federal Highway Administration 105 Sixth Street Ames, Iowa 50010-6337		<p>JUN 12 2008</p>
		<p>OFFICE OF LOCATION &amp; ENVIRONMENT</p>

Dear Mr. Barnes:

As requested, the Department of the Interior (Department) has reviewed the draft Environmental Impact Statement (EIS) for **I-29 improvements in Sioux City, Woodbury County, Iowa**. The Department offers the following comments for your consideration.

**Section 4(f) Comments**

The Federal Highway Administration (FHWA) and the Iowa Department of Transportation (IDOT) propose to improve approximately 3.5 miles of I-29 in Sioux City, Iowa. The proposed improvement will consider reconfiguring four interchanges to increase safety, enhance connections to the local roadway system, add one lane in each direction, improve traffic operation, replace aging infrastructure, and improve or eliminate some of the traffic merging issues that occur in this corridor. The draft EIS identified several properties in the project study area eligible to be considered under Section 4(f) of the Department of Transportation Act of 1966 (48 U.S.C. 1653(f)). The FHWA, IDOT, and the City of Sioux City, determined that only four parcels of Chris Larson Park met the definition of a Section 4(f) resource. The four parcels include the Flight 232 Memorial and gardens, a playground, open space, and maintained open space with a parking lot for park and trail users. In addition, seven historic structures were identified as present within the project area eligible for listing on the National Register of Historic Places. These structures are the Sergeant Floyd Riverboat (Sergeant Floyd River Museum and Welcome Center); the Grand Avenue (also known as Gordon Drive) Viaduct over the Floyd River, railroad yards, and Bacon Creek; the Municipal Auditorium; Hobson School; Wall Street Mission (also known as the Hobson Hall); the Octagonal house, a house that is octagonal in shape and has been in existence since at least 1880; and the Simmons Hardware Company Building (also known as the Battery Building).

**Agency Letter #7, June 6, 2008**  
**U.S. Department of Interior, Page 2**

**Response to Comments:**

Mr. Philip Barnes 2

According to the draft EIS, all three of the Build Alternatives would impact portions of Chris Larsen Park that are Section 4(f) resources: Alternative A would impact approximately 4.9 acres, Alternative B would impact approximately 3.4 acres, and Alternative C would impact approximately 5.3 acres of the Section 4(f) property. The impacted resources would be incorporated into permanent right-of-way but are not currently used by park patrons except as passive open space, parking areas, and a paved roadway. The FHWA, the Sioux City Parks and Recreation Department, and the IDOT concurred that the impacts to Chris Larsen Park would not impact the recreational use, features, or activities of the park.

Temporary impacts would occur to the Lewis & Clark Trail, Perry Creek Trail, and Floyd River Trail from the construction of all alternatives. Some relocation of trail segments may be necessary but these will be relocated in the same general vicinity in order to maintain the connectivity to the existing trail system. Since the Trails would essentially be unchanged, the FHWA concurred with the IDOT there would be no Section 4(f) use of the trails.

No historic Section 4(f) resources would be directly impacted by Alternatives A, B, or C. However, impacts would occur to one of the parking lots of the Municipal Auditorium. Despite the impacts to the parking lot, no impacts would occur to the building itself, which is the Section 4(f) resource. Therefore, the FHWA concurred with the IDOT that there would be no use of any of the historic Section 4(f) resources.

The Department would agree with the FHWA that properties identified as eligible for Section 4(f) consideration would not be adversely affected by the project. However, we would recommend that in all future documentation of similar types of determinations that the FHWA clearly identify that the intent is to make a *de minimis* finding for affects to some resources. While the regulations and guidance from the FHWA do not specifically call for a declaration of a *de minimis* finding in the document, we find it much easier to review and agree if we were told what the determination was, or at least if such wording appeared somewhere in the text. Since the Department does not review *de minimis* findings, except in certain circumstances, this declaration would tend to speed our review of the 4(f) portion of any document.

**Section 6(f) Comments**

The National Park Service (NPS) has reviewed this project in relation to any possible conflicts with the Land and Water Conservation Fund (L&WCF) and the

Comment #7-1: Information concerning the *de minimis* finding was included in Section 3.2, *Updates to the Environmental Analysis*.

**Agency Letter #7, June 6, 2008**  
**U.S. Department of Interior, Page 3**

**Response to Comments:**

Mr. Philip Barnes 3

Urban Park and Recreation Recovery programs and found that L&WCF project 19-01156, Sioux City Riverfront Trail would be affected.

We recommend you consult directly with the official who administers the L&WCF program in the State of Iowa to determine any potential conflicts with Section 6(f)(3) of the L&WCF Act (Public Law 88-578, as amended). This section states:

No property acquired or developed with assistance under this section shall, without the approval of the Secretary [of the Interior], be converted to other than public outdoor recreation uses. The Secretary shall approve such conversion only if he finds it to be in accord with the then existing comprehensive statewide outdoor recreation plan and only upon such conditions as he deems necessary to assure the substitution of other recreation properties of at least equal fair market value and of reasonably equivalent usefulness and location.

The administrator for the L&WCF program in Iowa is Ms. Kathleen Moench, Federal Aid Coordinator, Budget and Finance Bureau, Department of Natural Resources, Wallace State Office Building, East Ninth Street and Grand Avenue, Des Moines, Iowa 50319.

**General Comments**

As documented in the draft EIS, the U.S. Fish and Wildlife Service provided technical assistance to the transportation agencies during earlier planning stages for this study. The draft EIS adequately addresses the potential impacts of the project alternatives on fish and wildlife resources, including federally listed threatened and endangered species. We have no further comments regarding these resources.

The Lewis and Clark National Historic Trail (NHT), defined as the outbound and return route of the 1804-1806 Corps of Discovery Expedition, and authorized in the 1978 amendment to the National Historic Trails Act, is the administrative responsibility of the NPS. The NPS is in charge with the identification and protection of this historic route, including its historic remnants and artifacts saved in perpetuity for public enjoyment and education. Near Sioux City, Iowa, the NHT follows the historic as well as contemporary course of the Missouri River. In the southeastern third of this project, the highway is between the Missouri River and industrial development. The Lewis and Clark campsite of August 20, 1804, is located in this section near the mouth of the Floyd River. The southern terminus of

Comment #7-2: Information to clarify Section 6(f) property was added to Section 3.2, *Updates to the Environmental Analysis*.

Comment #7-3: No response needed.

Comment #7-4: Information regarding the Lewis and Clark National Historic Trail and the camp site are included in Section 3.2, *Updates to the Environmental Analysis*. The location of the camp site is shown on Figures 3-2b, *Updated Human Environmental Resources*.



**Agency Letter #7, June 6, 2008**  
**U.S. Department of Interior, Page 4**

**Response to Comments:**

Mr. Philip Barnes 4

the I-29 improvement is 0.25 miles south of the Burlington Northern Santa Fe Railroad Bridge over the Missouri River, which is 0.68 miles north of the Sergeant Floyd Monument National Historic Landmark.

The area through which this project extends is highly developed. Irretrievable conversion of the landscape from the conditions experienced by the Corps of Discovery has already occurred. However, opportunities for public enjoyment of the NHT remain in the area. The NPS is concerned about the continued availability of publically accessible park and recreational facilities along the Missouri River floodplain in City-managed parklands. The draft EIS describes potential impacts to Chris Larsen Park and the trail system.

According to the three alternatives described in the draft EIS, between 3.6 to 5 percent of the total park area would be converted to right-of-way during construction. All alternatives will temporarily close recreational trails associated with Chris Larsen Park, though no long-term loss of these resources will occur. If all alternatives offer the same benefit for driver safety, the NPS recommends supporting Alternative B since it converts the least amount of parkland to right-of-way.

Due to the existence of two trails with similar names in close proximity of the proposed I-29 improvement project (Lewis and Clark Trail maintained by the city of Sioux City, and the NHT administered by the NPS), we recommend clearly defining both in the final EIS to alleviate any confusion. In addition, some discussion of potential impacts upon the NHT would be appropriate.

**Specific Comment**

Concerning section 3.3.2.3 of the draft EIS (Operational and Maintenance Impacts to Surface Waters, page 3-33, first partial paragraph; and Section 6, References, page 6-4), the study cited as "U.S. Geographical Survey Research Project R-18-0" (should be U.S. Geological Survey) in the text contains an incomplete citation in the references section. There was insufficient information provided in the draft EIS to confirm that this is an U.S. Geological Survey publication as this is not the format generally assigned to our publications or project numbers. In addition, the statement, "...additional input of sodium chloride ions from deicing salts would be offset by a proportional increase in snowmelt/water runoff for dilution" seems to oversimplify the potential impacts associated with highway runoff. Trace metals can be found in deicing salts and concentration of salts in runoff can vary due to "first flush" phenomena (see Granato, G.E., 1996, Deicing Chemicals as Source of Constituents of Highway Runoff, Transportation Research Record 1533,

Comment #7-5: Information about continued availability of publically accessible park and recreational facilities is discussed in Section 3.2, *Updates to the Environmental Analysis*.

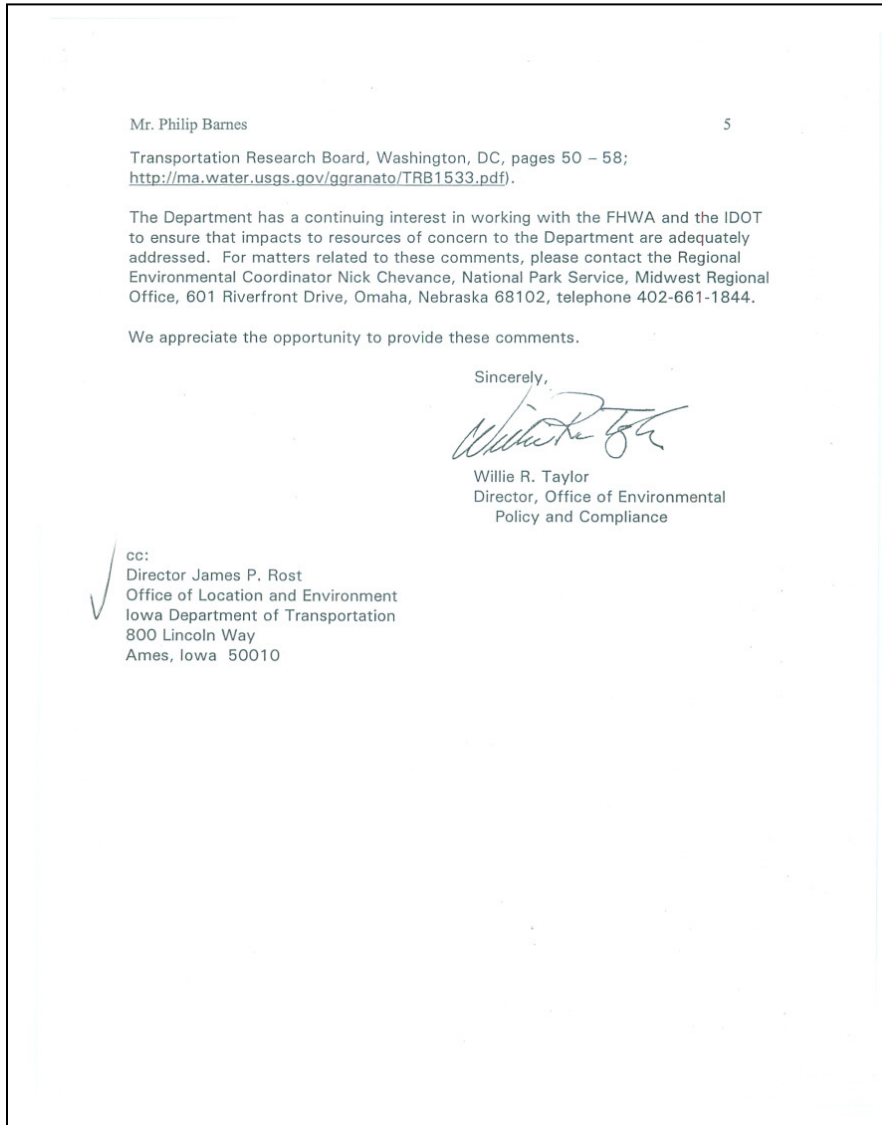
Comment #7-6: No response needed.

Comment #7-7: Information to clarify the location and designation of the Lewis and Clark Trail is included in Section 3.2, *Updates to the Environmental Analysis*.

Comment #7-8: Information to clarify the types of contaminates found in surface water runoff is included in Section 3.2, *Updates to the Environmental Analysis*.

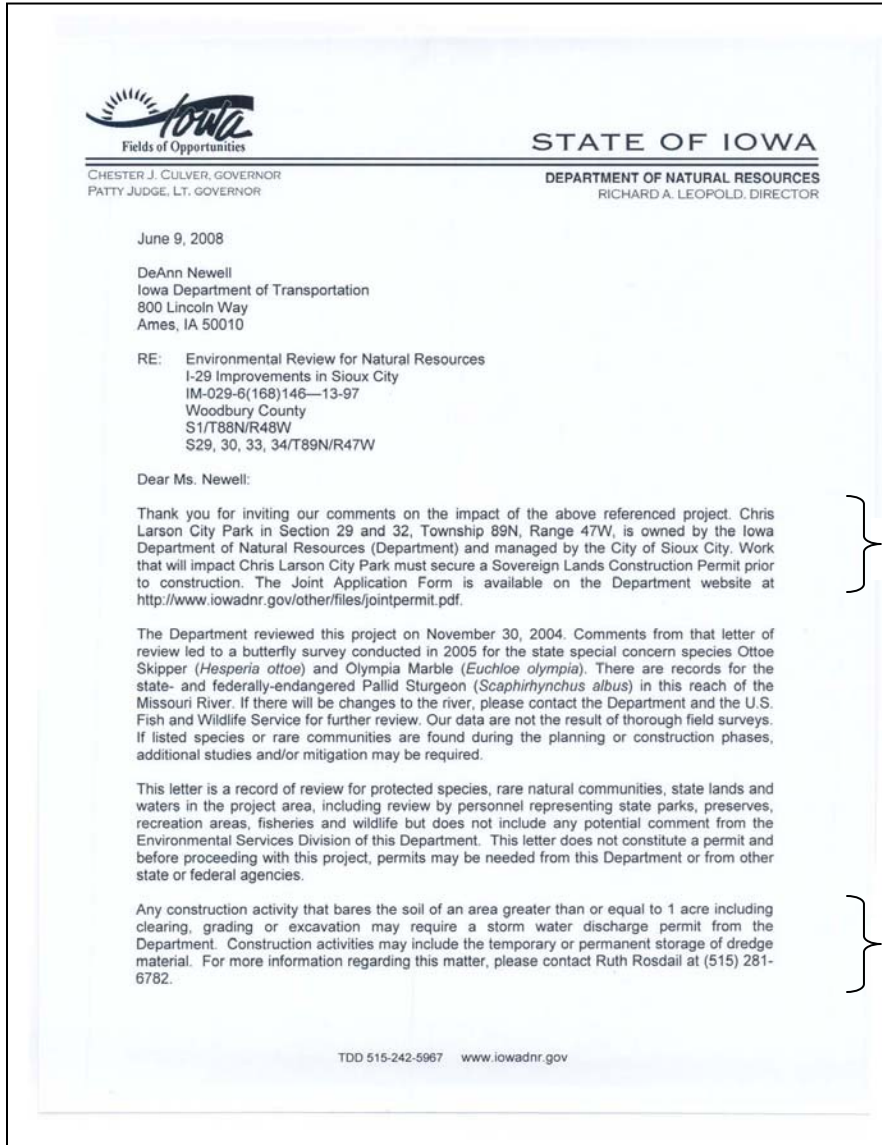
**Agency Letter #7, June 6, 2008**  
**U.S. Department of Interior, Page 5**

**Response to Comments:**



**Agency Letter #8, June 9, 2008**  
**Iowa Department of Natural Resources, Page 1**

**Response to Comments:**



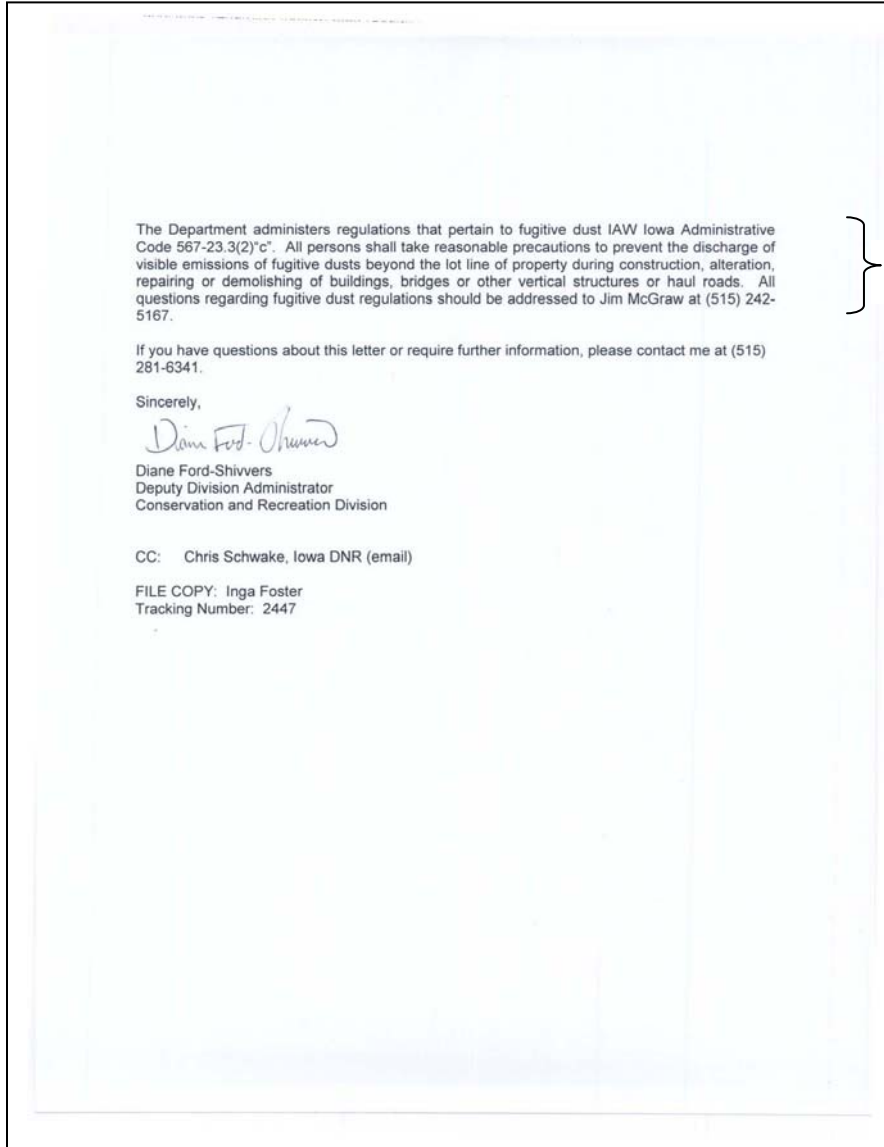
} Comment #8-1: No response needed.

} Comment #8-2: No response needed.



**Agency Letter #8, June 9, 2008  
Iowa Department of Natural Resources, Page 2**

**Response to Comments:**



} Comment #8-3: No response needed.

**Agency Correspondence Memorandum #9, August 14, 2008  
National Park Service, Page 1**

**Response to Comments:**

Memorandum

8/14/2008

To: Stacy Woodson

From: Jenny Reinertsen

Subject: Comments 4 – 7 from United States Department of the Interior

Stacy,

In its comments letter, the Department raises two issues that you asked me to address.

1. The Department references the campsite of Lewis and Clark on August 20, 1804
2. The Department asks that two trails be delineated, the Sioux City Lewis and Clark trail in Larsen Park, and the National Parks administered trail, also called the Lewis and Clark trail in the same vicinity.

Discussion:

1. Lewis and Clark Campsite.

I performed a web search for this site, and was unable to find any information. I called the Sgt Floyd River Museum and was directed to Grace in the research arm of the museum. Grace directed me to Skip Meisner, a local historian, who stated that the actual location of the campsite is unknown, as did Grace. There is, however, a historical marker located near the end of Floyd Blvd that designates the site. There is a casino parking lot directly to the southeast of where Floyd Blvd. ends at the Missouri River. The marker is located on the northeast corner of the parking lot. This is on the northwest side of the mouth of the Floyd River. The UTM Coordinates are: 414,012.167 Easting and 3,653,028.987 Northing.

I also called the Historic Sites Inventory Manager at Iowa's Historical Society. He guided me to the Office of the State Archeologist. I spoke to Joe Artz, Director of Geospatial Programs. Mr. Artz sent me a form via e-mail. The form was a request for a professional archeologist search to determine the likely location of the actual campsite. As we discussed, the marker should suffice for the location of the campsite. The actual campsite is most likely north of the marker as the waters of the Missouri River have receded dramatically, even since 1938.

Nick Chevance of the National Park Service stated in a phone conversation on 8/14/2008 that specification of the location of the marker was what the National Park Service was looking for.

**Agency Correspondence Memorandum #9, August 14, 2008  
National Park Service, Page 2**

**Response to Comments:**

2. Second Trail

I used aerial photographs and conversations with the city of Sioux City and local historians to determine that the trail already marked on the maps of the construction area in the draft EIS is the only trail in the area. The trail does continue outside the beginning and end boundaries shown on the draft EIS map, and does have some offshoots that could be added. There don't appear to be two trails as the Department referenced.

Trails in General: National Historic Trails are established according to the National Trails System Act. It reads:

“..NATIONAL SCENIC AND NATIONAL HISTORIC TRAILS

SEC. 5. [16USC1244] (a) National scenic and national historic trails shall be authorized and designated only by Act of Congress. There are hereby established the following National Scenic and National Historic Trails:

.....

(6) The Lewis and Clark National Historic Trail, a trail of approximately three thousand seven hundred miles, extending from Wood River, Illinois, to the mouth of the Columbia River in Oregon, following the outbound and inbound routes of the Lewis and Clark Expedition depicted on maps identified as, 'Vicinity Map, Lewis and Clark Trail' study report dated April 1977. The map shall be on file and available for public inspection in the office of the Director, National Park Service, Washington, D.C. The trail shall be administered by the Secretary of the Interior....”

And:

“(3) National historic trails, established as provided in section 5 of this Act, which will be extended trails which follow as closely as possible and practicable the original trails or routes of travel of national historic significance. Designation of such trails or routes shall be continuous, but the established or developed trail, and the acquisition thereof, need not be continuous onsite. National historic trails shall have as their purpose the identification and protection of the historic route and its historic remnants and artifacts for public use and enjoyment. Only those selected land and water based components of a historic trail which are on federally owned lands and which meet the national historic trail criteria established in this Act are included as Federal protection components of a national historic trail. The appropriate Secretary may certify other lands as protected segments of an historic trail upon application from State or local governmental agencies or private interests involved if such segments meet the national historic trail criteria established in this Act and such criteria supplementary thereto as the appropriate Secretary may prescribe, and are administered by such agencies or interests without expense to the United States.”

I spoke with Nick Chevance of the National Park Service. Mr. Chevance stated that there is no actual groomed physical trail. The Lewis and Clark trail, essentially, runs along the shore of the Missouri River. Staff at the recently designated National Historic Trail is, at

**Agency Correspondence Memorandum #9, August 14, 2008  
National Park Service, Page 3**

**Response to Comments:**

this point, working to increase public awareness of the existence of the trail. Their intent is primarily to identify camp areas, and work to prevent desecration of those sites.

The letter from the DOI references two similarly named trails. In fact there are not only not two groomed identifiable trails, but they are not similarly named. The trail noted on the existing maps from the draft EIS is actually called the River's Edge Trail. This is maintained by Sioux City. Jeff Hubbard at the Parks and Recreation Department gave me the information. The northern edge of the Missouri River should be designated at the Lewis and Clark National Historic Trail.

SECTION 5  
BIBLIOGRAPHY

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## BIBLIOGRAPHY

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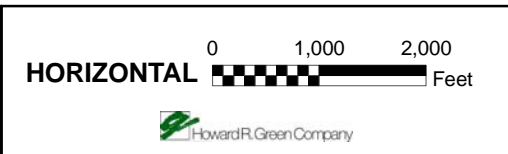
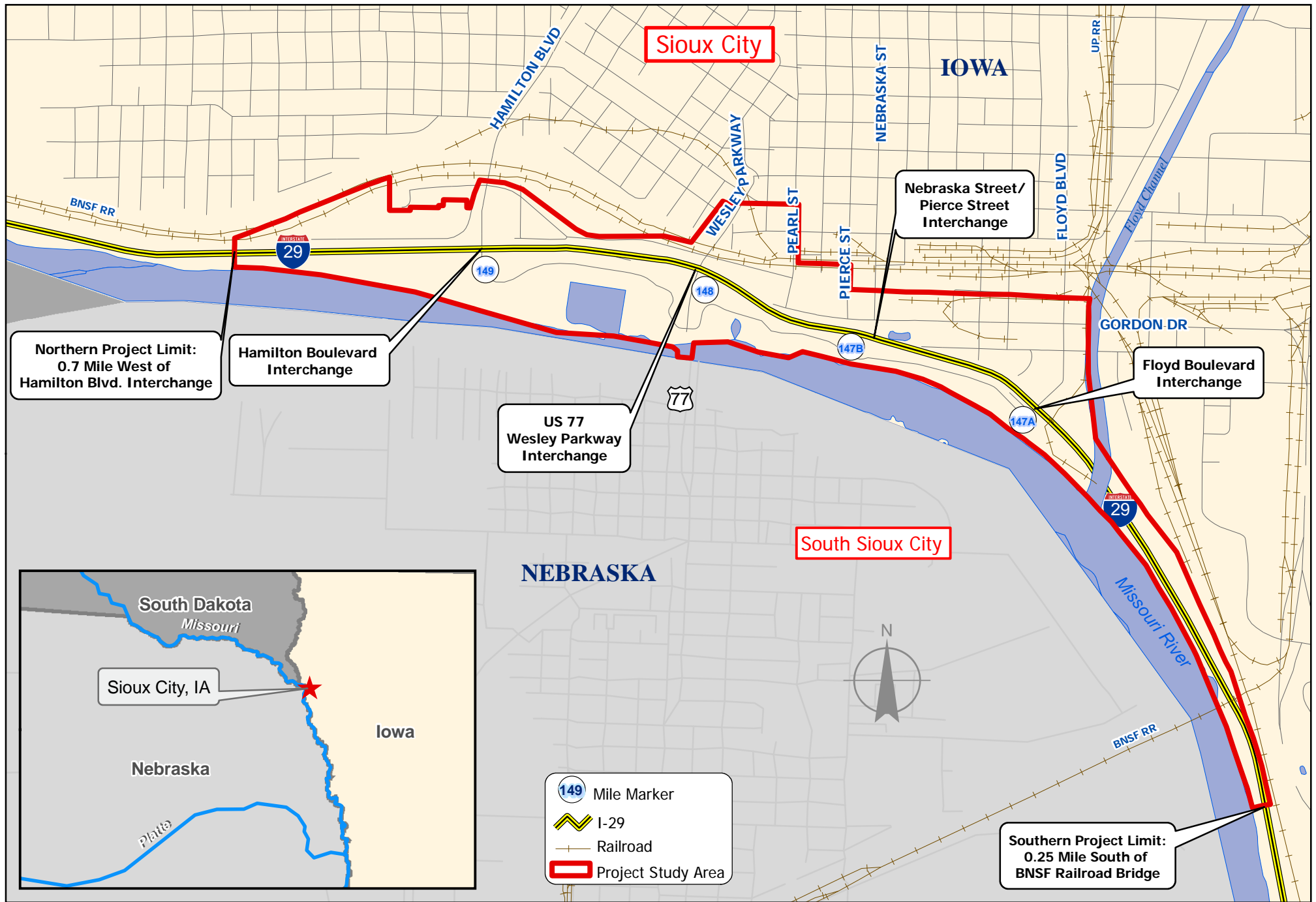
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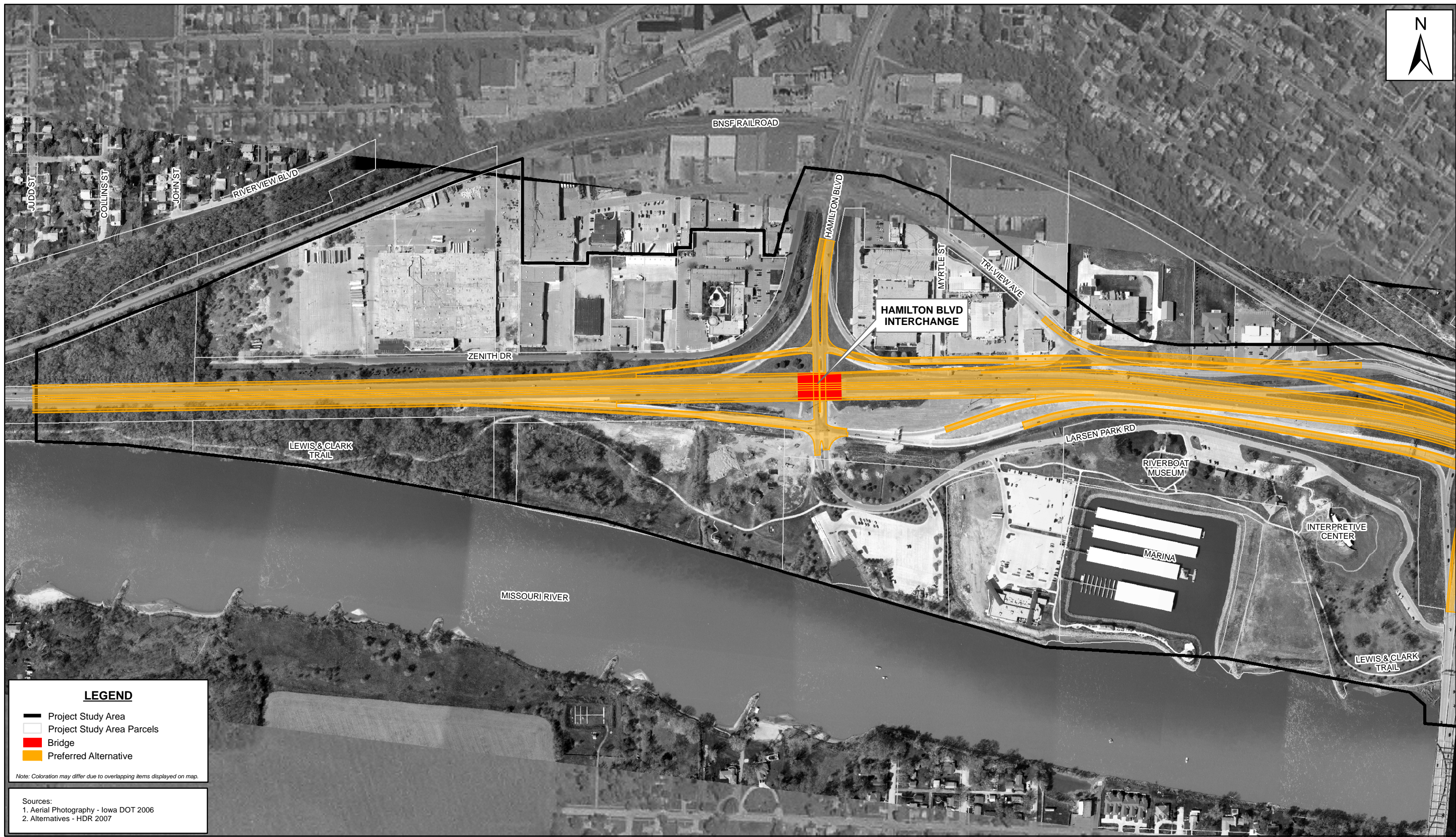
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Environmental Impact Statement  
Sioux City, Iowa**

**LOCATION MAP**

Date  
DEC 2008

Figure  
1-1



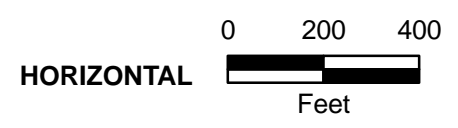


**LEGEND**

- Project Study Area
- Project Study Area Parcels
- Bridge
- Preferred Alternative

Note: Coloration may differ due to overlapping items displayed on map.

Sources:  
 1. Aerial Photography - Iowa DOT 2006  
 2. Alternatives - HDR 2007



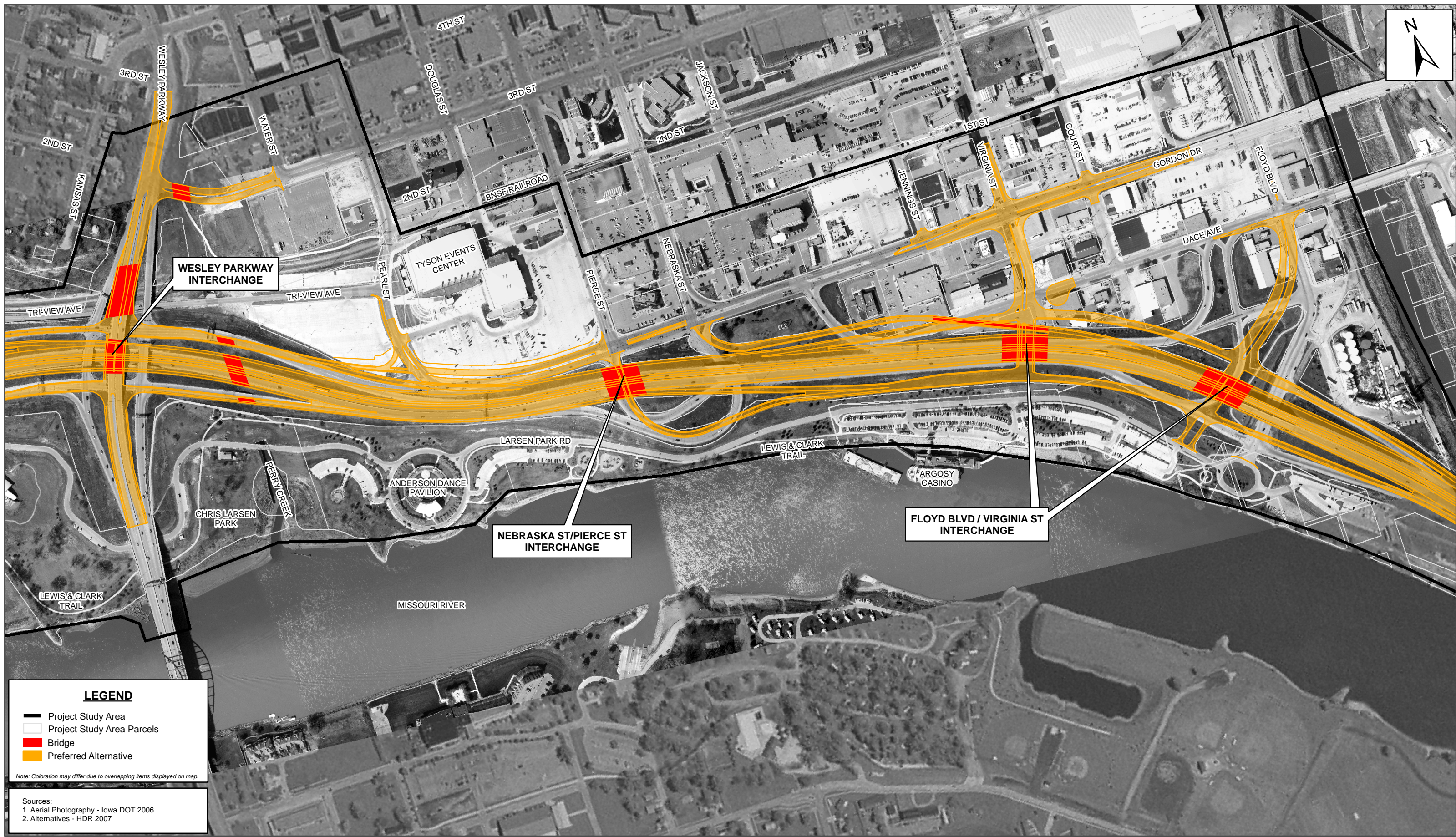
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 Sioux City, Iowa**

**PREFERRED ALTERNATIVE  
 (Western Section of Corridor)**

Date  
 DEC 2008

Figure  
 2-1a





**WESLEY PARKWAY INTERCHANGE**

**NEBRASKA ST/PIERCE ST INTERCHANGE**

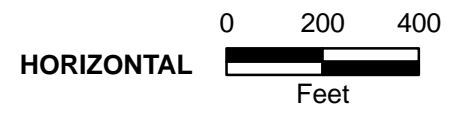
**FLOYD BLVD / VIRGINIA ST INTERCHANGE**

**LEGEND**

- Project Study Area
- Project Study Area Parcels
- Bridge
- Preferred Alternative

Note: Coloration may differ due to overlapping items displayed on map.

**Sources:**  
 1. Aerial Photography - Iowa DOT 2006  
 2. Alternatives - HDR 2007



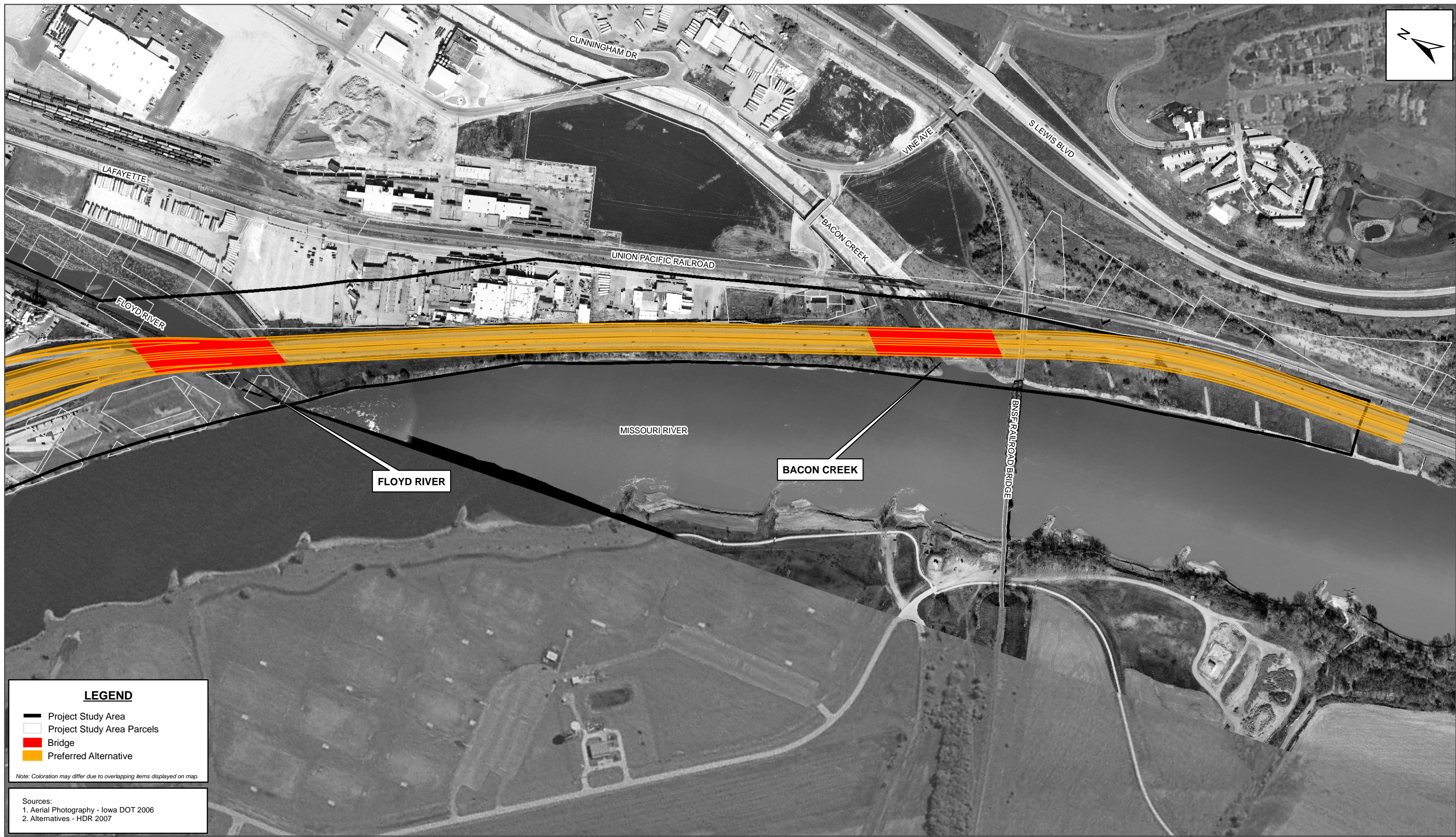
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 Sioux City, Iowa**

**PREFERRED ALTERNATIVE  
 (Central Section of Corridor)**





Date  
 DEC 2008

Figure  
 2-1b



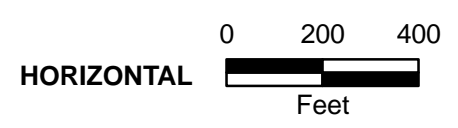


**LEGEND**

-  Project Study Area
-  Project Study Area Parcels
-  Bridge
-  Preferred Alternative

Note: Coloration may differ due to overlapping items displayed on map.

Sources:  
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 2. Alternatives - HDR 2007



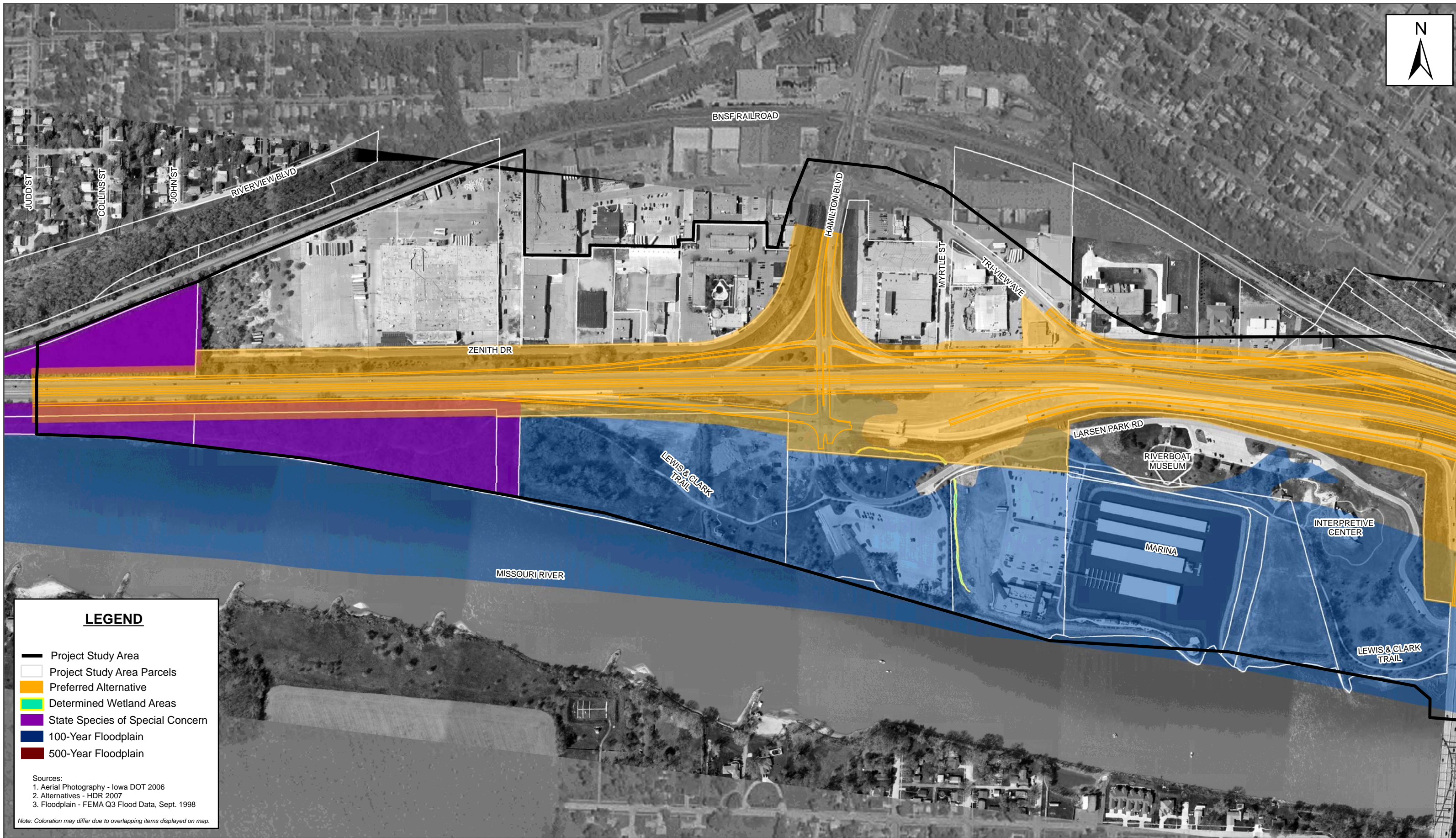
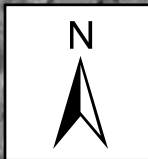
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 Sioux City, Iowa**

**PREFERRED ALTERNATIVE  
 (Southern Section of Corridor)**



Date  
 DEC 2008

Figure  
 2-1c



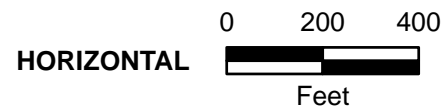


**LEGEND**

-  Project Study Area
-  Project Study Area Parcels
-  Preferred Alternative
-  State Species of Special Concern
-  100-Year Floodplain
-  500-Year Floodplain

Sources:  
 1. Aerial Photography - Iowa DOT 2006  
 2. Alternatives - HDR 2007  
 3. Floodplain - FEMA Q3 Flood Data, Sept. 1998

Note: Coloration may differ due to overlapping items displayed on map.



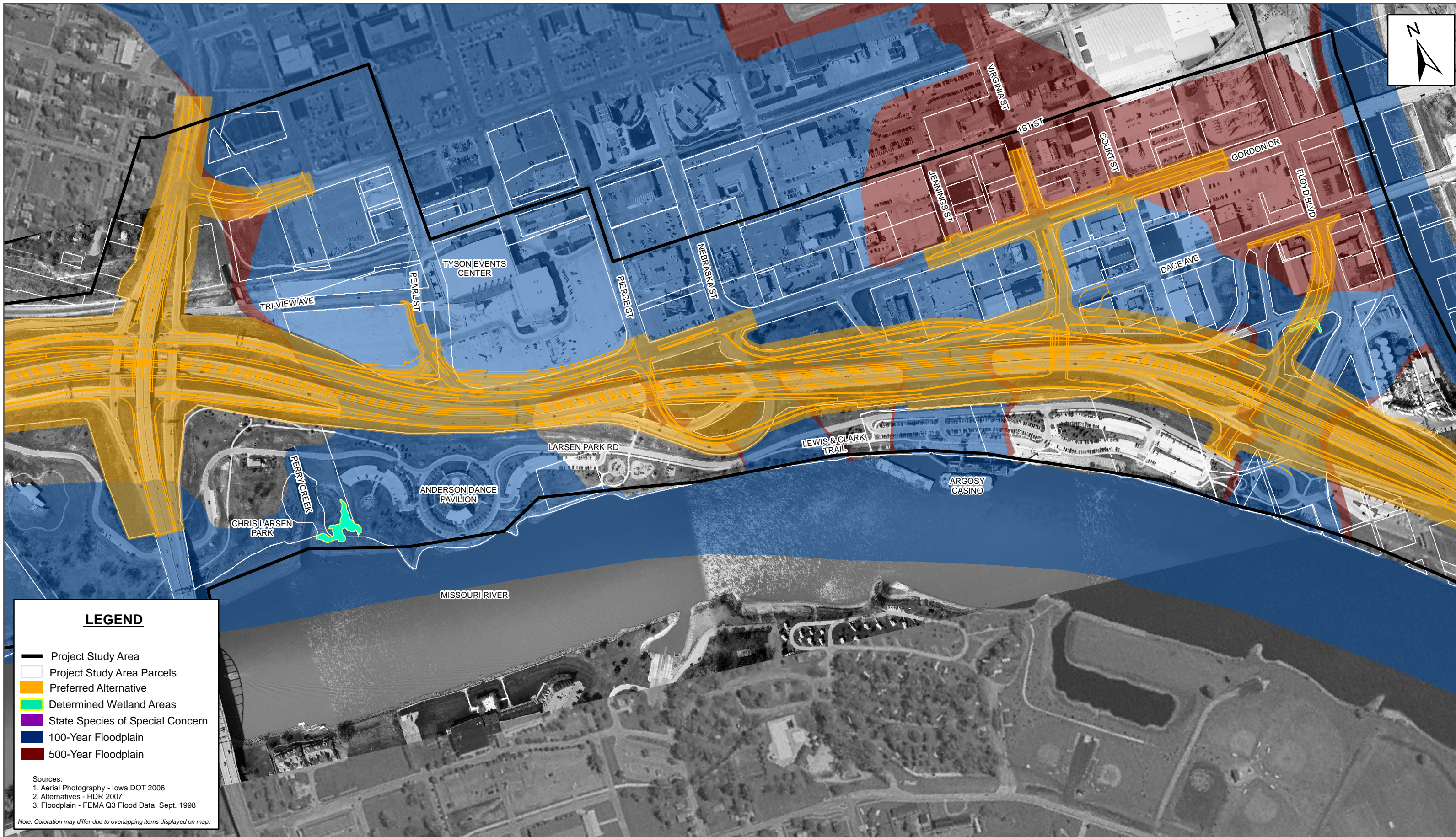
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 Sioux City, Iowa**

**UPDATED NATURAL ENVIRONMENTAL  
 RESOURCES  
 (Western Section of Corridor)**

Date  
DEC 2008

Figure  
3-1a



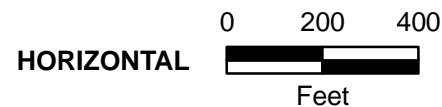


**LEGEND**

- Project Study Area
- Project Study Area Parcels
- Preferred Alternative
- Determined Wetland Areas
- State Species of Special Concern
- 100-Year Floodplain
- 500-Year Floodplain

Sources:  
 1. Aerial Photography - Iowa DOT 2006  
 2. Alternatives - HDR 2007  
 3. Floodplain - FEMA Q3 Flood Data, Sept. 1998

Note: Coloration may differ due to overlapping items displayed on map.



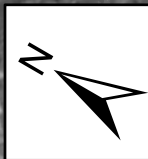
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 Sioux City, Iowa**

**UPDATED NATURAL ENVIRONMENTAL  
 RESOURCES  
 Central Section of Corridor)**

Date  
 DEC 2008

Figure  
 3-1b



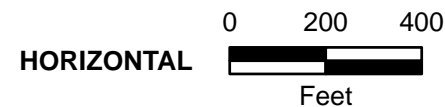


**LEGEND**

-  Project Study Area
-  Project Study Area Parcels
-  Preferred Alternative
-  Determined Wetland Areas
-  State Species of Special Concern
-  100-Year Floodplain
-  500-Year Floodplain

Sources:  
 1. Aerial Photography - Iowa DOT 2006  
 2. Alternatives - HDR 2007  
 3. Floodplain - FEMA Q3 Flood Data, Sept. 1998

Note: Coloration may differ due to overlapping items displayed on map.



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**UPDATED NATURAL ENVIRONMENTAL  
 RESOURCES  
 (Southern Section of Corridor)**

Date  
DEC 2008

Figure  
3-1c

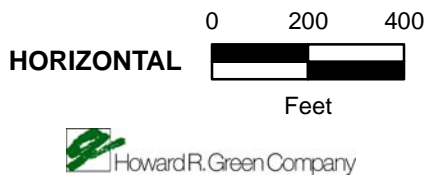




**LEGEND**

- Private Well
- Municipal Well
- Noise Monitoring Location
- ◆ Noise Receiver
- Project Study Area
- Railroad
- Section 4(f) Trail
- Trail
- Project Study Area Parcel
- Section 4(f) Historic Parcel
- Section 4(f) Parcel
- Section 6(f) Parcel
- Chris Larsen Park
- Preferred Alternative

Sources:  
 1. Aerial Photography - Iowa DOT 2006  
 2. Alternatives - HDR 2007



**I-29 Sioux City Interstate Study  
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 Sioux City, Iowa**

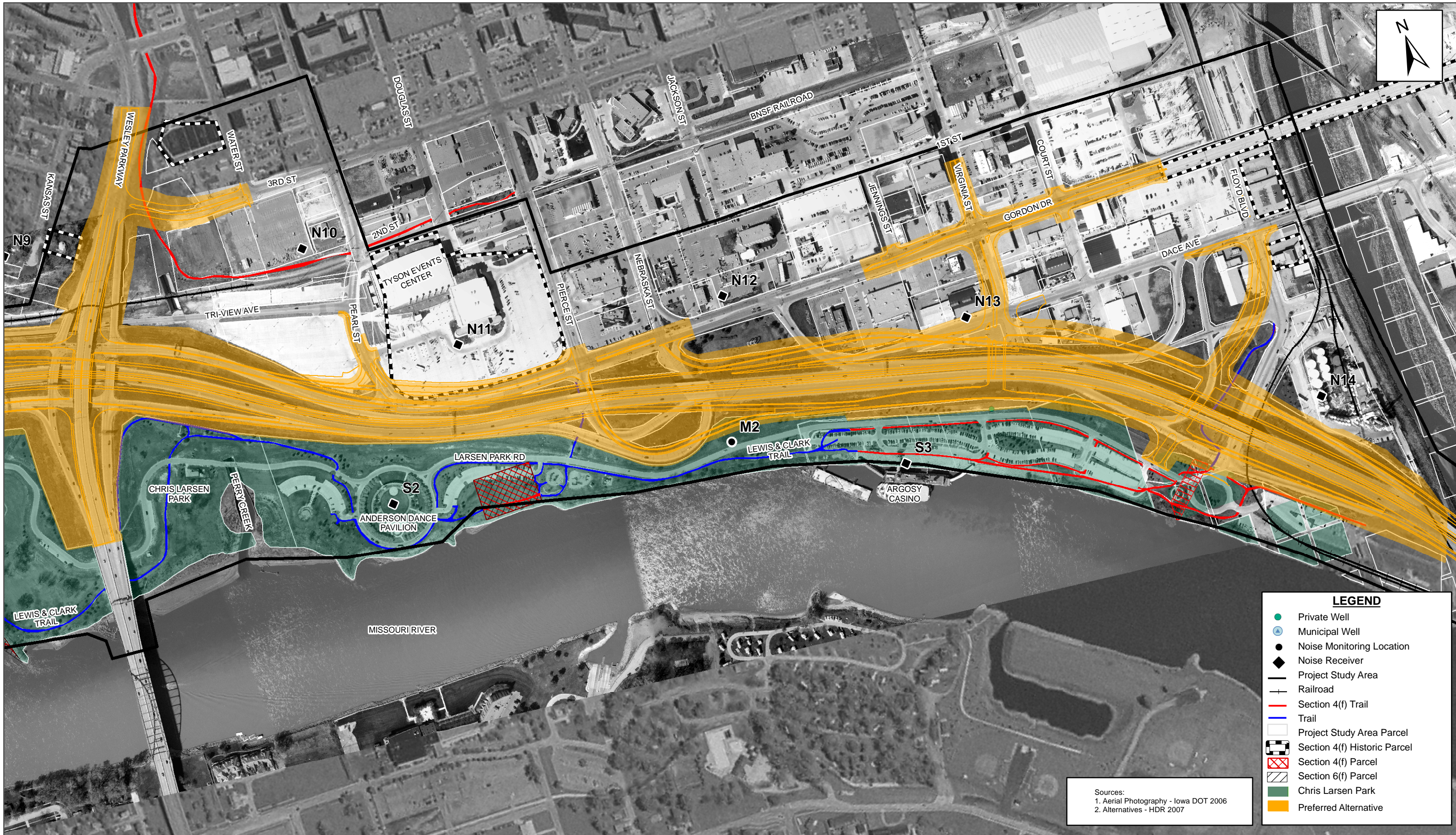
UPDATED HUMAN ENVIRONMENTAL  
 RESOURCES  
 (Western Section of Corridor)

Date  
 DEC 2008

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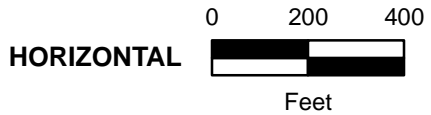
Figure  
 3-2a





Sources:  
 1. Aerial Photography - Iowa DOT 2006  
 2. Alternatives - HDR 2007

LEGEND	
	Private Well
	Municipal Well
	Noise Monitoring Location
	Noise Receiver
	Project Study Area
	Railroad
	Section 4(f) Trail
	Trail
	Project Study Area Parcel
	Section 4(f) Historic Parcel
	Section 4(f) Parcel
	Section 6(f) Parcel
	Chris Larsen Park
	Preferred Alternative



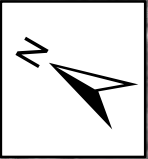
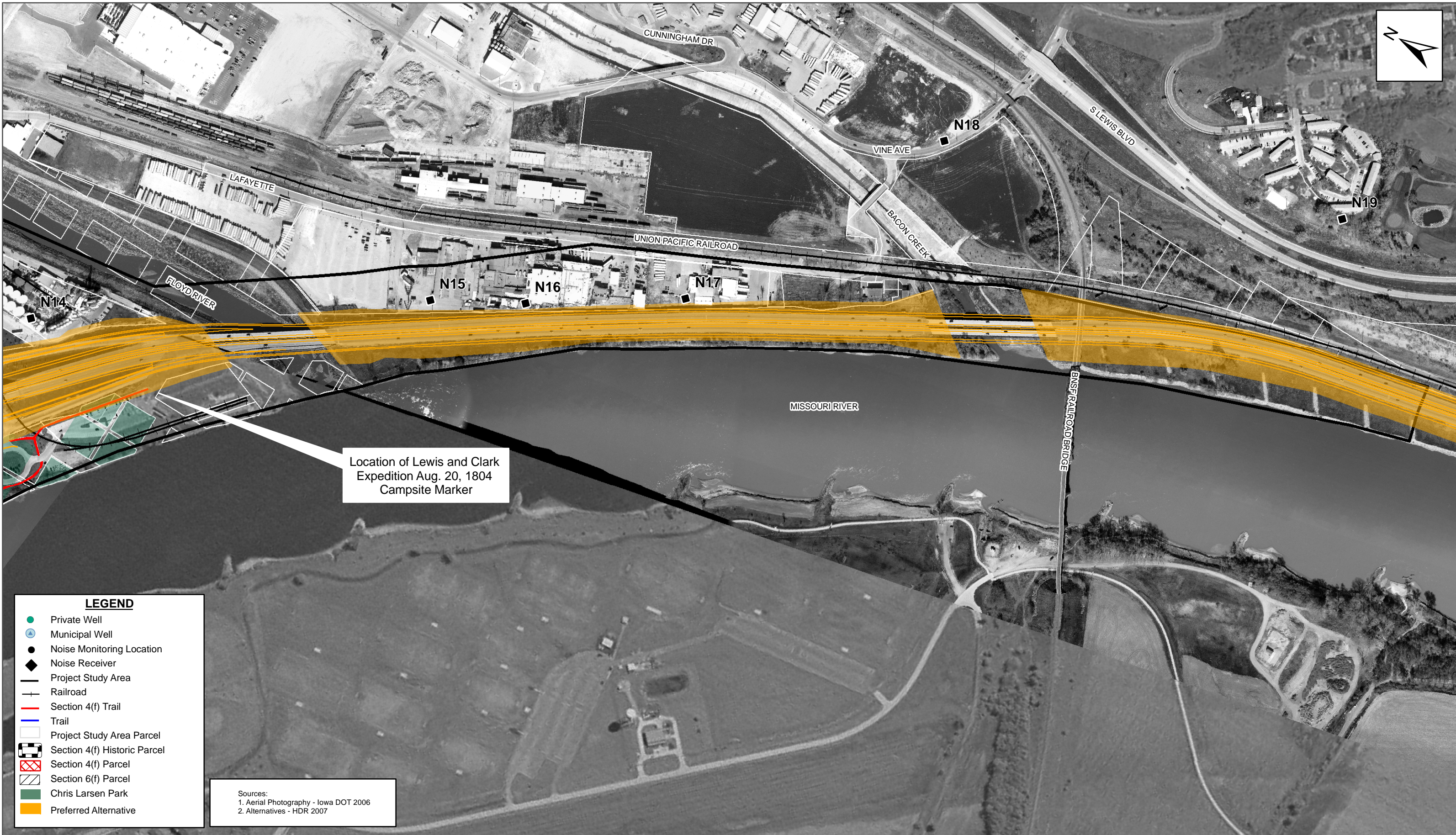
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**UPDATED HUMAN ENVIRONMENTAL  
 RESOURCES  
 (Central Section of Corridor)**

Date  
 DEC 2008

Figure  
 3-2b





Location of Lewis and Clark Expedition Aug. 20, 1804 Campsite Marker

**LEGEND**

- Private Well
- Municipal Well
- Noise Monitoring Location
- ◆ Noise Receiver
- Project Study Area
- Railroad
- Section 4(f) Trail
- Trail
- Project Study Area Parcel
- Section 4(f) Historic Parcel
- Section 4(f) Parcel
- Section 6(f) Parcel
- Chris Larsen Park
- Preferred Alternative

Sources:  
 1. Aerial Photography - Iowa DOT 2006  
 2. Alternatives - HDR 2007



**I-29 Sioux City Interstate Study  
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 Sioux City, Iowa**

UPDATED HUMAN ENVIRONMENTAL  
 RESOURCES  
 (Southern Section of Corridor)

Date  
 DEC 2008

Figure  
 3-2c