

I-29 Improvements in Sioux City
Woodbury County, Iowa
IM-29-6(104)142--13-97

DRAFT 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

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For Federal Highway Administration

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The Iowa Department of Transportation and Federal Highway Administration have initiated the planning studies for the improvements to Interstate 29 in Woodbury County, Iowa. The project begins approximately 0.25 mile south of the Burlington Northern Santa Fe Railroad Bridge over the Missouri River and continues approximately 3.5 miles north to approximately 0.7 miles west of the Hamilton Boulevard Interchange 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 Draft Environmental Impact Statement (DEIS) identifies three Build Alternatives and the No Build Alternative for detailed evaluation. Potential impacts of the alternatives have been evaluated and include those to wetlands, water resources, historic buildings, homes, businesses, parks, and public facilities and services.

Comments on this Draft EIS are due June 9 2008 and should be sent to James Rost, Iowa DOT, as listed above.

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SUMMARY

SUMMARY

Summary of Project Location

The Interstate 29 (I-29) study area is located in Sioux City, Iowa between the Missouri River and the Downtown Central Business District. The 3.5 mile corridor begins approximately 0.25 miles south of the Burlington Northern Santa Fe (BNSF) Railway Bridge over the Missouri River to approximately 0.7 miles west of the existing Hamilton Boulevard Interchange along the existing I-29 corridor.

Summary of Proposed Action

The Iowa Department of Transportation (Iowa DOT) and the Federal Highway Administration (FHWA) are proposing 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 specific project study area described above includes the following interchanges:

- Floyd Boulevard
- Nebraska Street/Pierce Street
- US 77/Wesley Parkway (Wesley Parkway)
- Hamilton Boulevard

Summary of Purpose and Need for Proposed Action

The purpose of the proposed improvements 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.
- Improve safety because all four interchanges in the project corridor are above the statewide average for crash rates according to the most recent data available, 2001-2003 crash data.
- Improve traffic operations from out-of-date design features that affect continuity, lane balance, ramp sequence and spacing, and guide signs.
- Provide improved driver expectancy by correcting existing short acceleration and deceleration lanes, tight curves, and poor sight distances.
- The roadway infrastructure is reaching the end of its useful life. The need for new pavement throughout the corridor and new or upgraded bridge structures over Bacon Creek and Floyd Boulevard will exist prior to the design year 2030.

Summary of Alternatives

Four alternatives were identified for detailed evaluation for this project, the no-build alternative and three build alternatives. Other alternatives were initially considered but were screened from detailed evaluation because they did not meet the goals and criteria for the project.

The No-Build Alternative is defined as no new major construction along the I-29 corridor. It does not meet the project purpose and need, but was carried forward as a basis for comparison for the build alternatives. Improvements implemented with the no-action alternative could include short-term restoration activities (maintenance improvements) needed to ensure adequate roadway pavement and 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.

The Build Alternatives (proposed alternatives) represent the range of reasonable and representative alternatives that meet project purpose and need. While the detail of these concepts and differences between these concepts is best communicated by graphic representation as presented in Section 2, *Alternatives*, this summary provides a written description of key attributes of each of the build alternatives.

Alternative A

Alternative A includes:

- A full access interchange is provided for Floyd Boulevard which separates industrial traffic from downtown commercial traffic.
- An interchange for downtown provides access to and from Nebraska Street and Pierce Street, similar to the existing downtown interchange.
- The Downtown and Floyd Boulevard ramps cross each other (i.e., they are “braided”).
- The northbound entrance access from downtown occurs by way of a frontage road and the US 77, locally known as the Wesley Parkway Interchange.
- The northbound and southbound downtown frontage roads tie directly to IA 12, locally known as Gordon Drive, at Virginia Street via connector roadways.
- The northbound exit and entrance ramps provide direct access to and from Wesley Parkway.
- The southbound access to Wesley Parkway occurs through the south side frontage road and the Hamilton Boulevard exit ramp.
- The southbound access from Wesley Parkway occurs through the south side frontage road and the Nebraska/Pierce Street interchange.
- The existing Wesley Parkway Interchange will be reconstructed as a two-level interchange.

-
- 3rd Street would be extended to Wesley Parkway to provide additional access from Wesley Parkway to downtown.
 - A full access interchange is provided for Hamilton Boulevard

Alternative B

Alternative B includes:

- An access to Floyd Boulevard and to Downtown is combined in the form of a split-diamond interchange with ramps connecting from I-29 to Floyd Boulevard and Virginia Street.
- A one-way pair of frontage roads connects Floyd Boulevard to Virginia Street.
- The north frontage road extends to Nebraska Street and the south frontage road extends to Pierce Street, which is extended under I-29 providing additional access to and from the downtown area.
- Full access to and from Wesley Parkway is provided except for southbound access to Wesley Parkway.
- The existing Wesley Parkway Interchange will be reconstructed as a two-level interchange.
- Gordon Drive will shift to the north in the vicinity of Pearl Street to accommodate the I-29 alignment.
- 3rd Street will extend to Wesley Parkway to provide additional access from Wesley Parkway to downtown.
- A full access interchange is provided for Hamilton Boulevard.

Alternative C

Alternative C includes:

- Modifying the on and off ramps of the Floyd Boulevard Interchange and keeping Floyd Boulevard in its existing location.
- A split diamond interchange will be constructed between Wesley Parkway and Pearl Street to access the downtown area, removing the need for an interchange at the Nebraska and Pierce Street locations.
- Wesley Parkway will be realigned to tie directly into 3rd Street.
- The existing Wesley Parkway Interchange will be reconstructed as a two-level interchange.
- Braided ramps will be constructed between Hamilton Boulevard and Wesley Parkway.

Summary of Environmental Resources Impacts

In general, the three Build Alternatives impact the environmental resource areas similarly because the three Build Alternatives are similar in design. Impacts to the natural occurring resources such as the Floyd River, floodplains, and wetlands are generally the same under each of the three Build Alternatives. The most variation in impacts for the three Build Alternatives relates to the acquisition of additional right-of-way. Alternative A requires the most additional right-of-way (18.1 acres), followed by Alternative C (16.4 acres), and then Alternative B (15.0 acres). Related resources that are impacted by additional right-of-way needs include: socioeconomics, business relocations, regulated materials, parkland impacts, and historic property impacts. The Summary of Impacts Table below describes the impacts mentioned in Section 3, *Environmental Analysis*.

Summary of Impacts Table

Resource	Alternative A	Alternative B	Alternative C
Right-of-Way	18.1 acres	15.0 acres	16.4 acres
Business Relocations	1 billboard 6 businesses 8 structures	1 billboard 7 businesses 9 structures	1 billboard 1 storage tank 4 businesses 4 structures
Taxable Land Removed	\$4 million	\$2.7 million	\$1.5 million
Parkland Impacts	5.7 acres	4.1 acres	5.6 acres
Historic Property Impacts (Tyson Events Center Parking Lot)	1.4 acres	0.7 acres	0.5 acres
Recognized Environmental Condition Impacts	11 parcels 1.8 acres	12 parcels 2.0 acres	10 parcels 2.2 acres

Potential beneficial impacts are anticipated through the project study area due to improved access and mobility under each of the three Build Alternatives. Temporary adverse impacts are anticipated during the construction of the proposed improvements under all three of the Build Alternatives. Temporary impacts include impacts to surface water, such as increased turbidity, to the Floyd River and Bacon Creek during the demolition and construction of bridges and to the Lewis and Clark Trail. Section 3, *Environmental Analysis*, describes the impacts that would occur to the environmental resources in the project study area.

Local Concerns

Access and visibility to Downtown Sioux City from I-29 are concerns for those who live and work in Sioux City. These concerns were expressed throughout the agency coordination and public involvement activities for this project and were considered while preparing this DEIS. The public involvement activities are discussed in Section 4, *Comments and Coordination*.

Section 2, *Alternatives* describes the accessibility to the Downtown area and visibility is discussed in Section 3.13, *Visual Resources/ Aesthetics*.

Regulatory Compliance

The planning, agency coordination, public involvement, and impact evaluation for the project have been coordinated according to the National Environmental Policy Act, the Clean Water Act, the Clean Air Act, the Farmland Protection Act, Executive Order 11990 on Wetlands Protection, Executive Order 11988 on Floodplain Protection, Executive Order 12898 on Environmental Justice, the Fish and Wildlife Coordination Act, the Endangered Species Act, the National Historic Preservation Act, Section 4(f) on the Transportation Act of 1966, and other state and federal laws, policies, and procedures for environmental impact analysis and preparation of environmental documents.

Other Federal Actions

Additional agency coordination will be required prior to construction regardless of the build alternative selected. For example, permits to construct in a floodplain would be needed prior to construction from the Army Corps of Engineers. In addition, there are several other Federal actions that have occurred or are currently occurring in or near the project study area. These include the following:

- Army Corps of Engineers - Reconstruction of Perry Creek levees to protect residences against a 100-year flood. This project is described in Section 3.5, *Floodplains*.
- Army Corps of Engineers - Seasonal spring rise called “spring pulse” of the Missouri River to benefit habitat for the endangered pallid sturgeon. This project is described in Section 3.16, *Cumulative Impacts*.
- Department of Interior - Nomination of the Municipal Auditorium to the National Register of Historic Places. This project is described in Section 3.9.2, *Historic Structure Impacts*.
- Environmental Protection Agency - Brownfields redevelopment project to assess, clean up, and reuse the 215 acre former Sioux City Stockyards area. This project is described in Section 3.16, *Cumulative Impacts*.
- Federal Emergency Management Agency - Modifications of the National Flood Insurance rates and hazard maps for the Perry Creek corridor. This project is described in Section 3.5, *Floodplains*.
- Federal Highway Administration - Categorical exclusion of I-29 from 0.25 miles south of the BNSF Railway Bridge to 0.75 miles south of the Sergeant Bluff/Sioux Gateway Airport Interchange. This project is discussed in Sections 1.2, *Project Background* and 3.16, *Cumulative Impacts*.
- Federal Highway Administration - Categorical exclusion of I-29 from approximately 0.7 miles west of the Hamilton Boulevard Interchange to the South Dakota border. This project is discussed in Sections 1.2, *Project Background* and 3.16, *Cumulative Impacts*.

ACRONYMS

ACRONYMS

AASHTO	American Association of State Highway and Transportation Officials
ADA	Americans with Disabilities Act
ADT	Average Daily Traffic
AHNT	Ash, Howard, Needles, and Tamman
ASTM	American Standard of Testing Measures
BMP	Best Management Practices
BNSF	Burlington Northern Santa Fe
C-D	Collector-Distributor
CE	Categorical Exclusion
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
cfs	Cubic Feet per Second
CWA	Clean Water Act
D&I	Dakota & Iowa
dBA	A-weighted decibel unit
DEIS	Draft Environmental Impact Statement
EDR	Environmental Data Resources
ENSA	Endangered Species Act
EIS	Environmental Impact Statement
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Environmental Site Assessment
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
ft	Feet
GIS	Geographic Information System

I-29	Interstate 29
IAC	Iowa Administrative Code
Iowa DNR	Iowa Department of Natural Resources
Iowa DOT	Iowa Department of Transportation
LAWCON	Land and Water Conservation Act
Leq	Equivalent Sound Level
LRTP	Long Range Transportation Plan
LOS	Level of Service
MLK	Martin Luther King, Jr.
MPO	Metropolitan Planning Organization
MSA	Metropolitan Statistical Area
MSAT	Mobile Source Air Toxics
MUTCD	Manual on Uniform Traffic Control Devices
MVM	Million Vehicle Miles
NAAQS	National Ambient Air Quality Standards
NAC	Noise Abatement Criteria
NAFTA	North American Free Trade Act
NENE	Nebraska Northeastern
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Study Program
NGPC	Nebraska Game and Parks Commission
NPDES	National Pollutant Discharge Elimination System
NRCS	National Resource Conservative Service
NRHP	National Register of Historic Places
NWI	National Wetland Inventory
PEM	Palustrine Emergent Wetlands
PIM	Public Information Meeting
PMT	Project Management Team
PSS	Palustrine Scrub-Scrub Wetlands
RCRA	Resource Conservation and Recovery Act
REC	Recognized Environmental Condition

ROD	Record of Decision
SCIS	Sioux City Interstate Study
SCS	Soil Conservation Service
SF	Summary File
SHPO	State Historic Preservation Officer
SI&A	Structural Inventory and Appraisal
SIMPCO	Siouxland Interstate Metropolitan Planning Council
SIP	State Implementation Plan
SMAC	Siouxland Metropolitan Advisory Council
SWPPP	Stormwater Pollution Prevention Plan
TDM	Travel Demand Management
TNM	Traffic Noise Model
TSM	Transportation System Management
UIFL	United Indoor Football League
UP	Union Pacific
USACE	U.S. Army Corps of Engineers
USC	United States Code
USDOT	U.S. Department of Transportation
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
USHL	U.S. Hockey League
VMT	Vehicle Miles of Travel
vpd	Vehicle per Day
WTP	Water Treatment Plant
yr	Year