

INTERSTATE 35/80 INTERCHANGE WITH IOWA 141  
POLK COUNTY, IOWA  
IM-80-3(178)127--13-77

**ENVIRONMENTAL ASSESSMENT**

Submitted Pursuant to 42 USC 4332(2)(c)

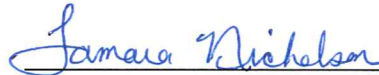
By The

U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION  
And  
IOWA DEPARTMENT OF TRANSPORTATION  
OFFICE OF LOCATION AND ENVIRONMENT

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 requests to fund the preferred alternative.



For the Iowa Division Administrator  
Federal Highway Administration



For the Office of Location Environment  
Iowa Department of Transportation



Date of Approval for Public Availability

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## PREFACE

The Transportation Equity Act of the 21<sup>st</sup> Century (TEA-21) (23 CFR) mandated environmental streamlining in order to improve transportation project delivery without compromising environmental protection. In accordance with TEA-21, the environmental review process for this project has been documented as a Streamlined Environmental Assessment (EA). This document addresses only those resources or features that apply to the project. This allowed study and discussion of resources present in the study area, rather than expend effort on resources that were either not present or not impacted. Although not all resources are discussed in the EA, they were considered during the planning process and are documented in the Streamlined Resource Summary, shown in Appendix A.

The following table shows the resources considered during the environmental review for this project. The first column with a check means the resource is present in the project area. The second column with a check means the impact to the resource warrants more discussion in this document. The other listed resources have been reviewed and are included in the Streamlined Resource Summary.

### Resources Considered

SOCIOECONOMIC	NATURAL ENVIRONMENT
<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Land Use <input type="checkbox"/> <input type="checkbox"/> Community Cohesion <input checked="" type="checkbox"/> <input type="checkbox"/> Churches and Schools <input checked="" type="checkbox"/> <input type="checkbox"/> Environmental Justice <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Economic <input type="checkbox"/> <input type="checkbox"/> Joint Development <input checked="" type="checkbox"/> <input type="checkbox"/> Parklands and Recreational Areas <input checked="" type="checkbox"/> <input type="checkbox"/> Bicycle and Pedestrian Facilities <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Right-of-Way <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Relocation Potential <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Construction and Emergency Routes <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Transportation	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Wetlands <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Surface Waters and Water Quality <input type="checkbox"/> <input type="checkbox"/> Wild and Scenic Rivers <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Floodplains <input checked="" type="checkbox"/> <input type="checkbox"/> Wildlife and Habitat <input checked="" type="checkbox"/> <input type="checkbox"/> Threatened and Endangered Species <input checked="" type="checkbox"/> <input type="checkbox"/> Woodlands <input checked="" type="checkbox"/> <input type="checkbox"/> Farmlands
CULTURAL	PHYSICAL
<input checked="" type="checkbox"/> <input type="checkbox"/> Historical Sites or Districts <input checked="" type="checkbox"/> <input type="checkbox"/> Archaeological Sites <input type="checkbox"/> <input type="checkbox"/> Cemeteries	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Noise <input type="checkbox"/> <input type="checkbox"/> Air Quality <input checked="" type="checkbox"/> <input type="checkbox"/> Mobile Source Air Toxics (MSATs) <input type="checkbox"/> <input type="checkbox"/> Energy <input checked="" type="checkbox"/> <input type="checkbox"/> Contaminated and Regulated Materials Sites <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Visual <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Utilities
<input type="checkbox"/> <b>CONTROVERSY POTENTIAL:</b>	
<input type="checkbox"/> <b>Section 4(f):</b>	

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## **APPENDCIES**

Appendix A – Streamlined Resource Summary

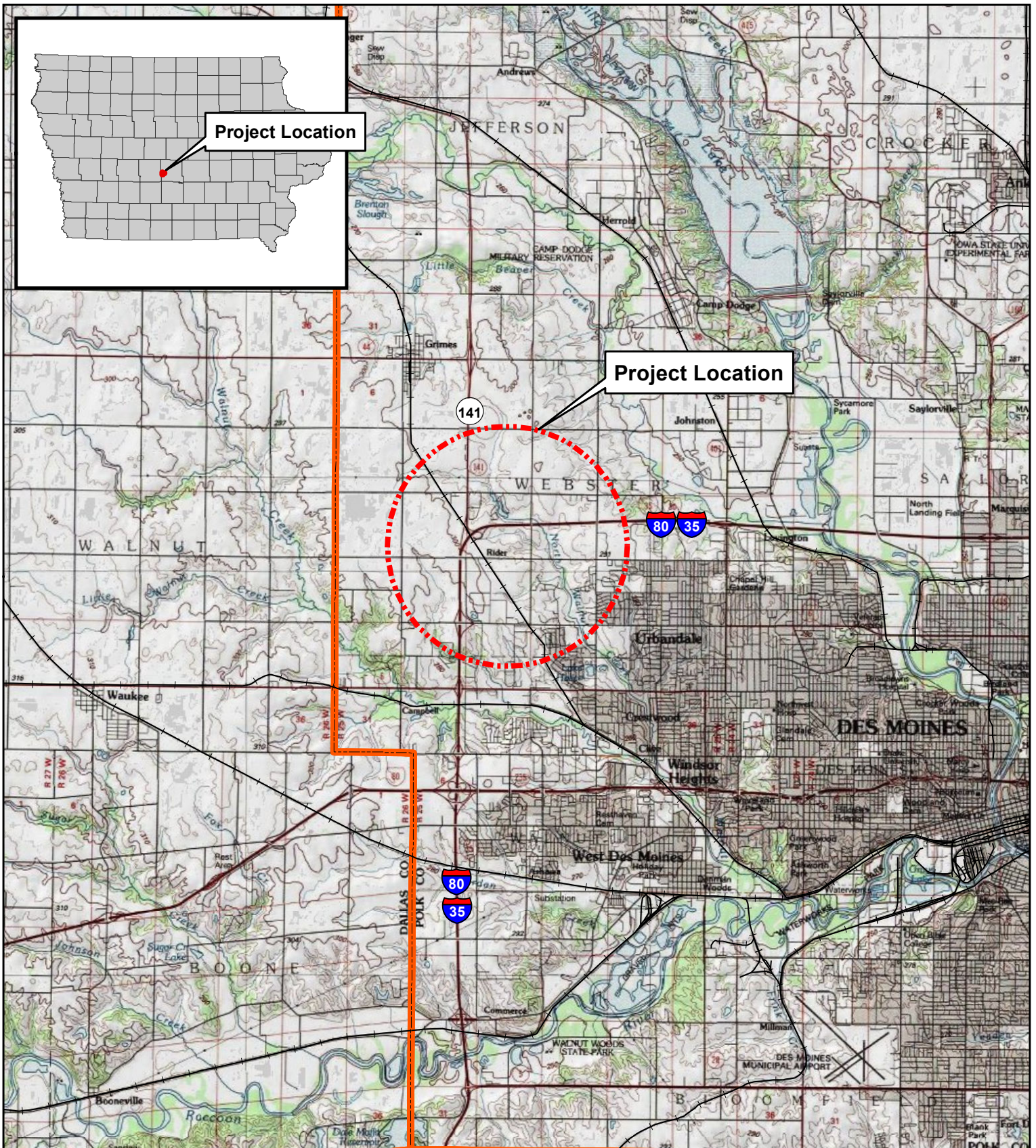
Appendix B – Agency and Tribal Coordination



Appendix C – Constructability and Phased Construction of the Preferred Alternative

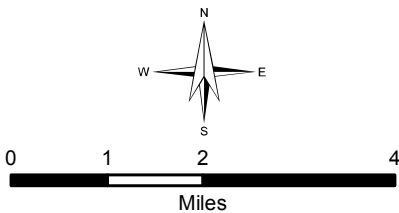
## **1.0 Description of Proposed Action**

The Iowa DOT, in partnership with the Cities of Urbandale, Grimes, and Johnston, Iowa, located in the Des Moines Metropolitan Area, is proposing to construct improvements in the Interstate 35 (I-35)/Interstate 80 (I-80)/Iowa Highway 141 (IA 141) Interchange Corridor. The proposed improvements include the construction or replacement of Interstate System entrance and exit ramps, bridges, auxiliary travel lanes, and collector-distributor roadways.

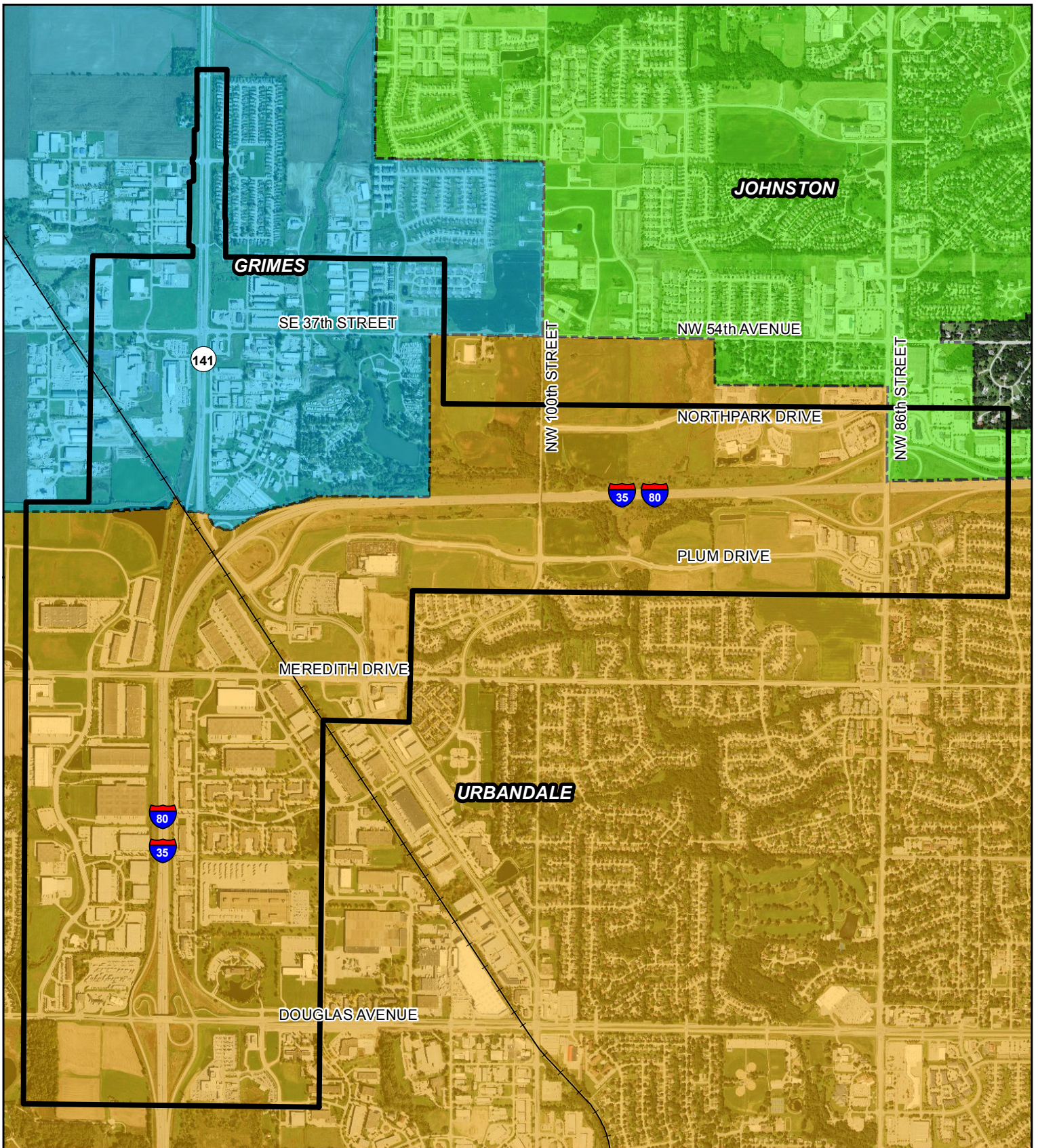
The proposed project is located primarily within the City of Urbandale, with portions located within the Cities of Grimes and Johnston. The project study area is bounded by a northern boundary located approximately 3,900 feet north of the IA 141/SE 37th Street intersection, the eastern merge/diverge points of the NW 86<sup>th</sup> Street Interchange to the east, the southern merge/diverge points of the Douglas Avenue Interchange to the south, and a line running parallel to I-35/I-80 approximately 1,500 feet to the west. The location of the proposed project in relationship to the Des Moines Metropolitan Area is shown in Figure 1. The Project study area is shown in Figure 2.







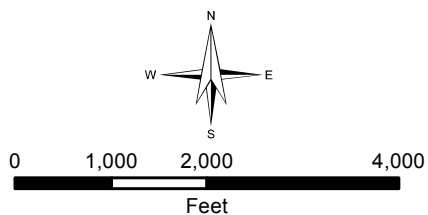
 County Boundary  
 Railroad



**Figure 1**  
**Project Location Map**  
 I-80/I-35/IA-141 Interchange  
 Polk County, Iowa



-  Study Area
-  Grimes City Limits
-  Johnston City Limits
-  Urbandale City Limits
-  Railroad



**Figure 2**  
**Project Study Area**

I-80/I-35/IA-141 Interchange  
Polk County, Iowa



## **2.0 Project History**

The convergence of I-35 and I-80 in the project study area is a prominent intersection of two major highways on the Interstate System. The construction of the Interstate System in the 1960s became the first major land use change since farming became a dominant land use in the late 1800s. In the 1960s, northbound and southbound directional ramps between IA 141 and I-35/I-80 were added and modified again in the late 1970s to increase interchange approach roadway capacity. To accommodate traffic demands and improve mobility on the Interstate System, I-35 and I-80 were later widened to six through-travel lanes during the 1990s and into 2000.

A review of aerial photographs for the project study area dating to the 1930s shows increasing urbanization since the construction of the Interstate System in the 1960s as the Des Moines Metropolitan Area has continued expansion in a northwesterly direction. Development within the project study area began to occur in the 1970's initially at the southern end of the project study area and north of the I-35/I-80/IA 141 Interchange. The most expansive period of development occurred between 1990 and 2008, establishing many of the current land uses in the project study area, including low-rise commercial and light industrial buildings, "big box" retail stores, and highway traveler businesses such as fast food restaurants, hotels, and fuel convenience stores. As new developments occurred, the local roadway network was expanded between 1990 and 2012, and is planned to continue expanding.

In December 1995, an Interchange Justification Report (IJR) was approved to reconfigure the I-35/I-80/IA 141 Interchange, including the extension of NW Urbandale Drive to the Interstate System. Beginning in 1997, construction to improve the I-35/I-80/IA 141 Interchange eliminated the northbound direct access ramp from IA 141 to I-35/I-80 and altered the eastbound I-35/I-80 loop off-ramp. The current westbound loop on ramp from IA 141 to I-35/I-80 was added and the westbound diagonal off-ramp was reconfigured.

In 2007, the Des Moines Area Metropolitan Planning Organization (DMAMPO) conducted a Regional Freeway System Study to evaluate transportation system improvement scenarios with particular interest in "new or modified freeway interchanges." During the course of the study, the DMAMPO made recommendations on improvements that should be included in Long Range Transportation Planning efforts. Included in the recommendations were the additions of interchange access at Meredith Drive and NW 100th Street to provide more direct access to employment centers along the I-35/I-80 Corridor.

A previous study was completed in 2008 by the Cities of Urbandale, Grimes, and Johnston for the construction of an interchange and street improvement project to replace an existing bridge over I-35/I-80 at NW 100th Street. An Environmental Assessment (EA) was completed in July 2008 and a Finding of No Significant Impact (FONSI) determination was received in December 2008; however, the project failed to meet the Federal Highway Administration (FHWA) Policy Point Criteria to provide new Interstate System access at that point in time.

In 2012, the City of Urbandale and the Iowa DOT partnered on the completion of a traffic operations analysis of the project study area to identify transportation system issues and potential solutions for further study. The study was completed in response to the need to balance long term regional highway mobility, safety, and access needs with future land development plans. The study included an examination of traffic operations, safety, and access issues surrounding the I-35/I-80/IA 141 Interchange area, and recommendations for potentially feasible build alternatives that could be carried forward in a future National Environmental Policy Act (NEPA) and IJR documentation process.

In March 2013, the 2008 EA was reevaluated to include improvements to the NW 100th Street/NW 54th Avenue intersection. The reevaluation expanded the original study area to include street improvements east, west, and north of the intersection being improved.

In 2014, the City of Urbandale began work on design for the NW 100th Street Bridge and roadway widening. The City of Urbandale plans to rebuild the existing NW 100th Street bridge in 2016. Through coordination with the Iowa DOT, the bridge is proposed to be 335 feet long. This bridge length provides the Iowa DOT with options for the future expansion of the I-35/I-80 corridor accommodating additional mainline lanes and the creation of a collector-distributor roadway system through the area.

In December 2015, the 2008 EA was reevaluated again to include the NW 100<sup>th</sup> Street Interchange ramps. The reevaluation expanded the original study area to include a diamond shaped interchange in the area of NW 100<sup>th</sup> Street and existing Interstate.

The proposed action has been recognized by the Des Moines Area Metropolitan Planning Organization (DMAMPO) and was included in the DMAMPO Horizon Year 2035 Metropolitan Transportation Plan (HY 2035 MTP). The Iowa DOT anticipates programming the design and construction of the alternative identified by the outcome of the study. The proposed project is also consistent with comprehensive planning documents of the Cities of Urbandale, Grimes, and Johnston.

### **3.0 Purpose and Need for Action**

The purpose of the project is to improve safety and increase traffic capacity at the I-35/I-80/IA 141 Interchange and evaluate new Interstate System access in the I-35/I-80/IA 141 Interchange Corridor between the existing interchanges at Douglas Avenue and NW 86th Street.

#### **Need for Action**

- Increase interchange traffic capacity
- Improve safety

### **3.1 Increase Interchange Traffic Capacity**

According to 2012 traffic count data from the Iowa DOT, the I-35/I-80/IA 141 Interchange serves more than 125,000 vehicles per day. The northbound exit loop ramp from I-35/I-80 to IA 141 carries over 13,000 vehicles per day, or approximately 27 percent of the northbound I-35/I-80 mainline traffic. Approximately 88 percent of the vehicles using the northbound exit loop ramp make a right turn to northbound IA 141. Due to the high volume of vehicles moving between I-35/I-80 and northbound IA 141, delays at either ramp terminal intersection have the potential to cause back-ups on the loop ramp that spill onto the I-35/I-80 mainline.

During peak hour traffic, the ramp terminal intersections experience back-ups between 400 and 500 feet onto the ramps. AASHTO 2004<sup>1</sup> states the capacity of a loop ramp is between 800 and 1,200 vehicles per hour with the higher figure being applicable only to locations where there are no trucks and the design speed is 30 mph or higher. With over 13,000 vehicles per day, the existing 30 mph loop ramp experiences peak hour traffic volumes of 1,495 vehicles per hour, exceeding the capacity of the loop. The peak hour no build traffic volumes are projected to be 1,570 vehicles per hour in 2020 and 2,200 vehicles per hour in 2040.

### **3.2 Improve Safety**

Throughout the study area, particularly at the I-35/I-80/IA 141 interchange, congestion is one of the leading contributing factors to crashes along the analysis segments. Based on the crash history between 2009 and 2013, the more frequent major causes and manner of collisions are indicative of congestion, queue spillback, and speed differential between the high speeds of approaching freeway traffic and slow moving exit/entrance/queued traffic. Overall, the most common major type of crash involved “Driving Too Fast for Conditions” (32 percent of all study area occurrences), “Ran Off Road” (right or left), and “Swerving/Evasive Action.”

During an eight-year period between January 1, 2006 and December 31, 2013, the I-35/I-80/IA 141 Interchange experienced 477 reported crashes (approximately 60 crashes per year). Of the 477 reported crashes, 42 percent (201 crashes) occurred at the signalized ramp terminal intersections along IA 141/NW Urbandale Drive. Based on crash data for the most recent five years and current daily traffic volumes for the ramp terminal intersections, the crash rate for the westbound ramp terminal intersection is 1.22 crashes per million entering vehicles. The crash rate for the westbound ramp terminal is higher than the statewide average crash rate for similar intersections (1.0 crashes per million entering vehicles).

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<sup>1</sup> AASHTO – American Association of State Highway and Transportation Officials, A Policy on Geometric Design of Highways and Streets, 2004.

Additionally, the speed difference between vehicles exiting on the northbound loop ramp to IA 141 and the vehicles on the mainline creates safety concerns across all three lanes of northbound I-35/I-80 near the I-35/I-80/IA 141 Interchange. According to travel time evaluations, traffic in the right-most lane travels at an average speed of 56 miles per hour (mph) between Meredith Drive and the IA 141 Interchange. The reduced traffic speed is caused by loop ramp back-ups, exiting vehicles, and heavy truck traffic (approximately 5 percent of the total traffic volume) that decrease speed to position in line for the exit loop ramp at its posted speed limit of 25 mph. In comparison, the average speed of traffic in the left-most lane is 6 to 9 mph greater than the right-most lane. Beyond the loop ramp exit, the average speed of traffic increases nearly 10 mph. The speed differential, along with the limited sight distance on the mainline due to the horizontal and vertical alignment, is a contributing factor to the number of crashes.

The northbound I-35/I-80 peak hour traffic volumes at the interchange with IA 141 are projected to increase from 5,445 vehicles per hour (existing) to 7,880 vehicles per hour (2040), an increase of 45 percent. Level of Service (LOS) is used to rate traffic operations along a stretch of roadway. Similar to an academic report card, LOS assigns a letter grade to indicate how well vehicles are traversing through a roadway segment with LOS A representing good operations and LOS F representing poor operations. The diverge segment representing the northbound exit from I-35/80 to the loop ramp to IA 141 was found to operate at a LOS E during the existing PM peak hour. This movement is anticipated to further degrade in operations to LOS F by 2040. The identified speed differential is reflective of the high volume exiting northbound I-35/80 at the loop ramp to IA 141 and the corresponding existing LOS E traffic operations. It can be expected as traffic volumes continue to grow and LOS F is attained at the exit movement that stop-and-go traffic will be experienced along mainline I-35/80 in advance of the northbound exit loop location in the future, further increasing the number of potential crashes.

## **4.0 Alternatives**

This section will discuss the alternatives considered to address the project's purpose and need. A range of alternatives was developed, including the construction or replacement of Interstate System entrance and exit ramps, bridges, auxiliary travel lanes, and collector-distributor roadways. The alternatives are presented in Figure 3. The No Build Alternative, the alternatives considered but dismissed, and the Preferred Alternative are discussed below.

### **4.1. No Build Alternative**

The No Build Alternative takes no action to reconfigure the I-35/I-80/IA 141 Interchange from its current alignment. The No Build Alternative retains the existing loop ramps to/from IA 141, the southbound IA 141 entrance ramp to southbound/westbound I-35/I-80, and the ramps to/from IA 141 and I-35/I-80.

For the purposes of this study, the No Build Alternative includes the construction of future planned construction projects. The No Build Alternative includes two additional through lanes, eight (8) total, on I-35/I-80. Transportation improvements sponsored by municipalities within the project study area, as documented in the DMAMPO 2035 Long Range Transportation Plan (LRTP), are also considered complete. Additionally, the bridge reconstruction and interchange ramp construction at NW 100<sup>th</sup> Street, planned to be constructed in 2016-2018, are considered complete in the No Build Alternative.

### **4.2. Alternatives Considered but Dismissed**

Five different build alternatives were developed for this project. Of the five, four were dismissed from further review. The five build alternatives are shown on Figure 3.

#### **4.2.1 Alternative 1**

Alternative 1 includes the following interchange modifications:

- Addition of a dual-lane flyover ramp
- Existing loop ramps would remain in place
- Addition of auxiliary lanes between Douglas Avenue and the proposed flyover ramp
- Closure of the SE 41<sup>st</sup> Street/IA 141 intersection

#### **4.2.2 Alternative 2**

Alternative 2 includes the following interchange modifications:

- Addition of a dual-lane flyover ramp
- Removal of the existing loop ramps
- Closure of the SE 41<sup>st</sup> Street/IA 141 intersection
- Realignment of the southbound/westbound I-35/I-80 to IA 141 exit ramp
- Addition of I-35/I-80 southbound entrance/northbound exit ramps on Meredith Drive
- Addition of an auxiliary lane located between Douglas Avenue and the Proposed IA 141 flyover ramp

#### **4.2.3 Alternative 3**

Alternative 3 includes the following interchange modifications:

- Addition of a dual-lane flyover ramp
- Removal of the existing loop ramps
- Closure of the SE 41<sup>st</sup> Street/IA 141 intersection
- Realignment of the southbound/westbound I-35/I-80 to IA 141 exit ramp
- Realignment of the IA 141/NW Urbandale Drive northbound/eastbound entrance ramp
- Addition of I-35/I-80 entrance/exit ramps on Meredith Drive
- Realignment and extension of Plum Drive to connect to Meredith Drive

#### **4.2.4 Alternative 4**

Alternative 4 includes the following interchange modifications:

- Addition of a dual-lane flyover ramp
- Removal of the existing loop ramps
- Closure of the SE 41<sup>st</sup> Street/IA 141 intersection
- Realignment of the southbound/westbound I-35/I-80 to IA 141 exit ramp
- Realignment of the IA 141 to northbound/eastbound I-35/I-80 entrance ramp
- Addition of I-35/I-80 entrance/exit ramps on Meredith Drive
- Addition of a frontage road between I-35/I-80 and Plum Drive that connects to Meredith Drive to NW 100<sup>th</sup> Street

### 4.3. Summary of Alternatives Dismissed

A comparison of the preliminary impacts that the No Build and five different Build Alternatives would have on resources in the study area are included in Table 1.

**Table 1. Preliminary Comparison of Alternative Impacts**

	No Build Alternative	Alternative 1*	Alternative 2*	Alternative 3*	Alternative 4*	Alternative 5*
Right of Way (acres)	0	17.6	44.6	63.5	57.3	52.1
Floodplains (acres)	0	1.68	1.70	1.70	1.70	4.16
Wetlands (acres)	0	2.93	5.28	6.75	6.36	7.84
Surface Water and Water Quality (linear feet)	0	973	2,347	2,896	2,763	3,210
Woodlands (acres)	0	0.00	0.08	0.09	0.08	6.72
Opinion of Probable Construction Cost (\$ Millions)	0	54.8	60.8	91.2	79.9	100

*\*Impacts based on a review of available desktop level data and preliminary NEPA impact areas at the time alternatives were dismissed.*

#### 4.3.1 Alternative 1

Compared to the alternatives considered, Alternative 1 would have fewer potential impacts to streams, wetlands, woodlands, and floodplains. Alternative 1 would also require the least amount of right-of-way. However, retaining the existing loop ramps at the I-35/I-80/IA 141 Interchange does not meet current design standards and practices. On the exit loop ramp, the bridge location and vertical alignment restricts the ability of the driver to identify the location of the loop ramp exit point which is a safety concern. The entrance loop ramp currently has an acceleration lane that is approximately 30 feet short of current Iowa DOT standards. Alternative 1 does not meet current design standards and does not improve safety in the corridor. Therefore, Alternative 1 was dismissed from further investigation.

#### 4.3.2 Alternative 2

Compared to the alternatives considered, Alternative 2 is the first of the build alternatives that removes the existing loop ramps. This alternative has the least impacts to the floodplains, wetlands, surface water, and woodlands compared to the Alternatives 3, 4, and 5 that remove the existing loop ramps. Alternative 2 is considered the base alternative among the four proposed build alternatives that remove the existing loop ramps. Each subsequent alternative incorporates additional components such as varying levels of connectivity, access, and operational improvements. Alternative 2 meets the purpose and need, but it was dismissed from further consideration because it provides less direct connectivity as it uses more of the existing roadway network when compared to Alternatives 3, 4, and 5.

### 4.3.3 Alternative 3

Compared to the alternatives considered, Alternative 3 would have the second greatest potential impacts to streams, wetlands, and woodlands. Alternative 3 would have similar potential floodplain impacts as Alternatives 2 and 4, and greater impacts than Alternative 1. Alternative 3 would also require the greatest amount of right-of-way. Alternative 3 has less future adaptability when compared to Alternatives 4 and 5. Alternative 3 was dismissed from further consideration, based on its potential right-of-way need, increased potential impacts to natural resources, and limited future expandability.

### 4.3.4 Alternative 4

Compared to the alternatives considered, Alternative 4 would have greater potential impacts to streams and wetlands than Alternatives 1 and 2, but fewer than Alternatives 3 and 5. Alternative 4 would have greater potential impacts to woodlands than Alternative 1, and fewer impacts than Alternatives 3 and 5. Alternative 4 would have similar potential floodplain impacts as Alternatives 2 and 3, and slightly greater than Alternative 1. Alternative 4 would also require the second highest amount of right-of-way.

Alternative 4 has operational and safety concerns related to driver expectancy at the terminal intersections of the two-way frontage road. For example, if a driver is traveling eastbound on the frontage road they could continue onto northbound/eastbound I-35/I-80 with a through movement at the I-35/I-80/NW 100<sup>th</sup> Street Interchange. Moreover, if a driver is traveling westbound on the frontage road, a through movement at the I-35/I-80/Meredith Drive Interchange would result in a wrong-way entry into on-coming northbound/eastbound I-35/I-80 traffic. Alternative 4 was dismissed from further consideration due to operational and safety concerns associated with the two-way frontage road and higher amount of potential right of way needs compared to other alternatives.

## 4.4. Preferred Alternative

Alternative 5 is being carried forward as the preferred build alternative. Alternative 5 includes the following interchange modifications:

- Addition of a dual-lane flyover ramp
- Addition of SE 37<sup>th</sup> Street overpass, slip ramp, and auxiliary lane
- Removal of the existing loop ramps
- Closure of the SE 41<sup>st</sup> Street/IA 141 intersection
- Realignment of the southbound/westbound I-35/I-80 to IA 141 exit ramp
- Realignment of the IA 141/NW Urbandale Drive northbound/eastbound entrance ramp connecting to the collector-distributor road on the south side of I-35/I-80
- Addition of one-way collector-distributor (C-D) roads on each side of I-35/I-80 between the Meredith Drive Interchange and the NW 100<sup>th</sup> Street Interchange
- Realignment of the southbound IA 141 to southbound/westbound I-35/I-80 entrance ramp
- Addition of I-35/I-80 entrance/exit ramps on Meredith Drive

Compared to the other alternatives, the Alternative 5 features the construction of a full interchange at Meredith Drive, a modified interchange with IA 141, and the construction of C-D roads connecting Meredith Drive to NW 100<sup>th</sup> Street. Compared to the alternatives considered, Alternative 5 would have the greatest potential impacts to streams, wetlands, woodlands, and floodplains. Alternative 5 would have the third highest amount of potential right-of-way and has the greatest opinion of probable construction costs of the build alternatives. Alternative 5 addresses the geometric, traffic capacity, and safety concerns associated with the existing loop ramps meeting the purpose and need of the project. In addition,



Alternative 5 provides better connectivity than the other build alternatives through the inclusion of the C-D roads.

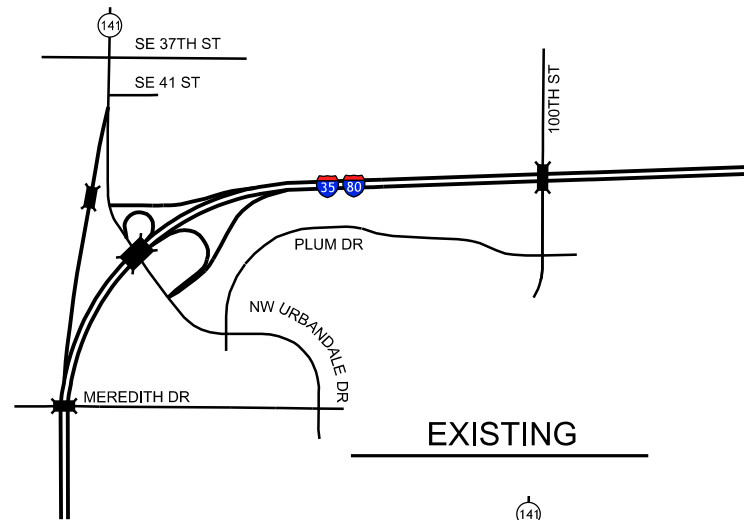
The opinion of probable construction cost for Alternative 5 is \$100 million, the highest of the alternatives evaluated. However, the improvements are proposed to be implemented in a phased approach and in conjunction with other proposed projects. Additional information regarding the constructability and phased construction of the Preferred Alternative is provided in Section 5.4 Cumulative Impacts and in Appendix C along with a graphic depicting the phased approach.

The NW 100<sup>th</sup> Street Interchange and Bridge projects are assumed to be completed by the City of Urbandale and Iowa DOT prior to the I-35/I-80/IA 141 Interchange improvements and therefore are not included in this proposed action as shown in Figure 4. Construction of these improvements began in 2016. The NW 100<sup>th</sup> Street Interchange and Bridge projects are described in more detail in Section 5.4 Cumulative Impact section of this document.

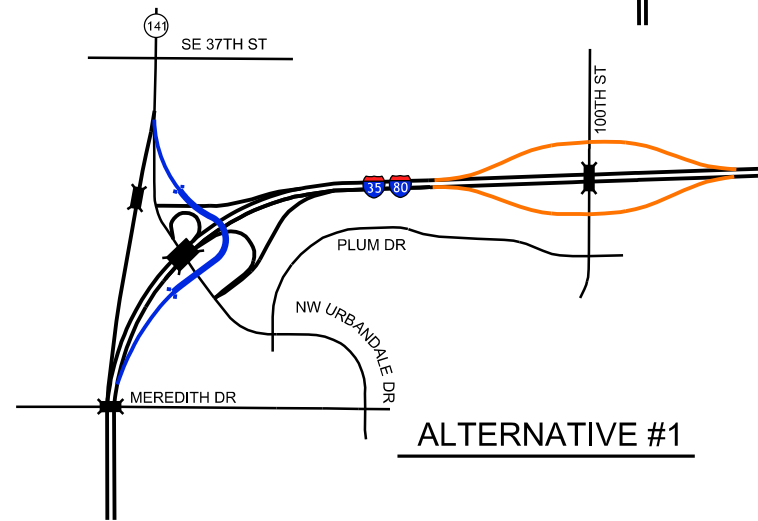
The construction of Alternative 5 would require some reconstruction of the NW 100<sup>th</sup> Street Interchange. The on/off ramps in the northwest, southwest, and southeast quadrants would require some reconstruction. The on/off ramps in the northwest and southwest quadrants would no longer connect directly to the I-35/I-80 mainline. Rather, these ramps would be reconstructed to tie into proposed C-D roads. The northeast quadrant would not require reconstruction of the exit ramp from I-35/I-80 onto NW 100<sup>th</sup> Street. The reconfiguration of the on/off ramps would change how drivers access the Interstate System. The NW 100<sup>th</sup> Street Interchange is a diamond style interchange with direct access to the Interstate. Under Alternative 5, a driver who wants to go southbound on the Interstate from NW 100<sup>th</sup> Street would travel on the C-D road through the IA 141 Interchange to the Meredith Drive Interchange at which point the driver can then merge onto the Interstate. Similarly, a driver who wants to go northbound on the Interstate from Meredith Drive would travel on the C-D road through the IA 141 Interchange to the NW 100<sup>th</sup> Street Interchange at where the driver can merge onto the Interstate.

After reviewing the reasonable alternatives under consideration, Iowa DOT has identified Alternative 5 as the Preferred Alternative and is referred to as the Preferred Alternative throughout the remainder of this document. This alternative is preferred because it meets the project purpose and need offering more capacity than the other build alternatives. The Preferred Alternative is carried forward and refined as further detailed evaluation of the environmental impacts occurs.

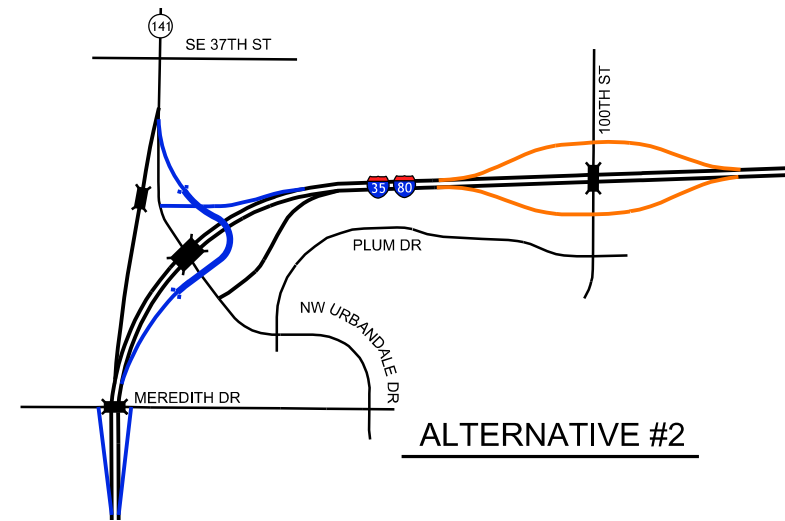
Final selection of an alternative will not occur until FHWA and Iowa DOT evaluate all comments received as a result of their review of this document and the public hearing. Following public and agency review of this EA, FHWA and Iowa DOT will determine if an EIS is required. If one is not required, the selected alternative will be identified in the Finding of No Significant Impact (FONSI) document. If an EIS is required, then a preferred alternative would be selected through that process.



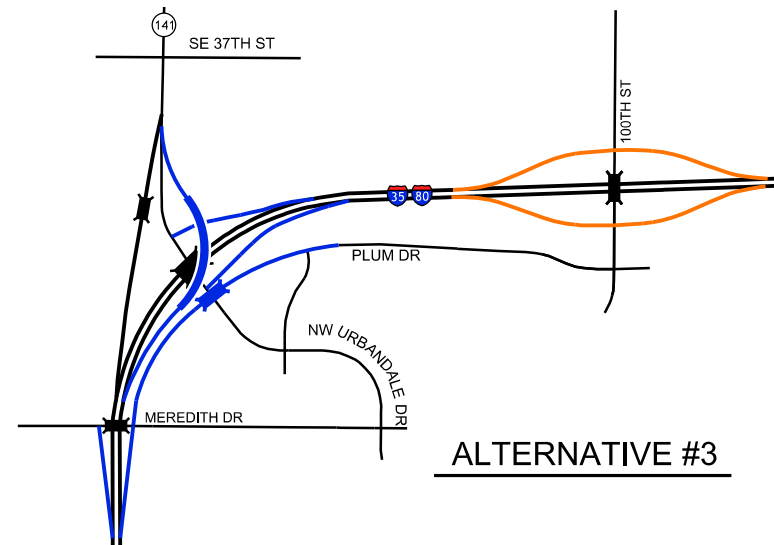
EXISTING



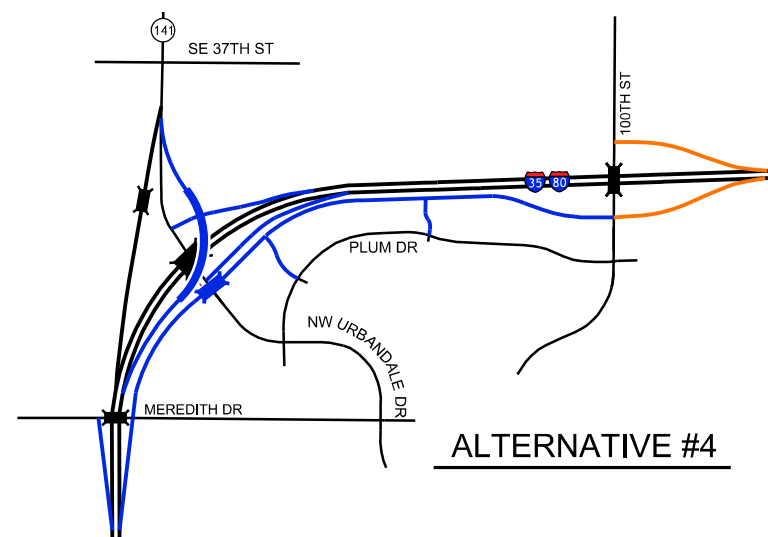
ALTERNATIVE #1



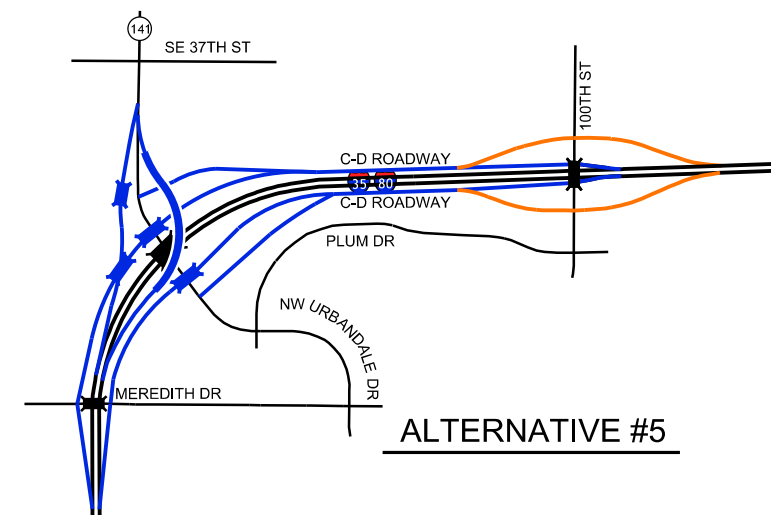
ALTERNATIVE #2



ALTERNATIVE #3






ALTERNATIVE #4



ALTERNATIVE #5

LEGEND

-  SEPARATE PROJECT (NW 100TH ST BRIDGE INTERCHANGE PROJECT) NOT INCLUDED IN PROPOSED ACTION
-  PROPOSED I-35/I-80/IA 141 INTERCHANGE IMPROVEMENTS
-  EXISTING / NO IMPROVEMENT

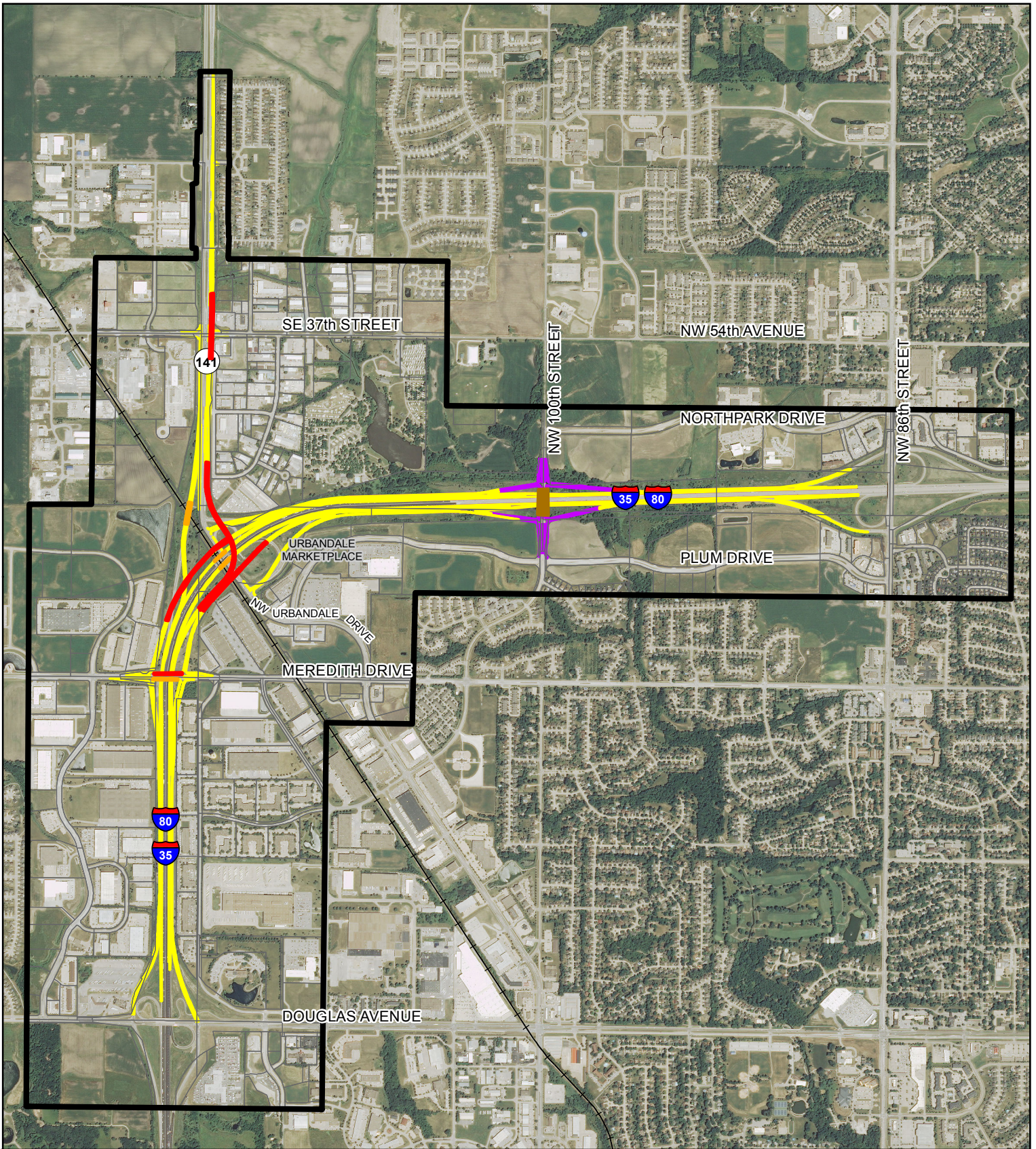


NOT TO SCALE

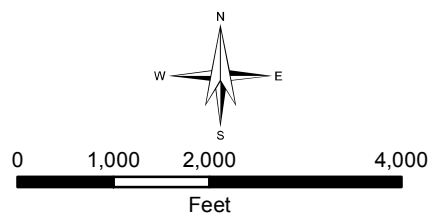


ALTERNATIVES CONSIDERED  
I-35/I-80/IA141 INTERCHANGE  
POLK COUNTY, IOWA

JULY 2015  
FIGURE 3  
PAGE 12



- Proposed Pavement
- NW 100th St. Interchange
- NW 100th St. Bridge
- Proposed Bridges
- Existing Bridges
- Study Area
- +— Railroad
- Parcel Boundaries



**Figure 4**  
**Proposed Alternative**

I-80/I-35/IA-141 Interchange  
Polk County, Iowa

## 5.0 Environmental Analysis

This section describes the existing socioeconomic, cultural, natural, and physical environments in the project corridor and the potential impacts associated with the Preferred Alternative. The resources with a check in the second column of the “Resources Considered” table located in the Preface to this document warrant further discussion as presented below.

Each resource section includes an analysis of the No Build Alternative and the impacts of the Preferred Alternative. Because it is early in the design process, a preliminary NEPA impact area was used for estimating direct and indirect impacts on the evaluated environmental resources. The preliminary NEPA impact area includes roadway right-of-way needs and the area where construction could occur. The area actually impacted by the Preferred Alternative will likely be less than what is portrayed within the preliminary NEPA impact area, and some impacts to resources are expected to be minimized or avoided as the Project design is refined. Consequently, the potential impacts discussed in this section of the EA are conservative, as efforts to minimize direct and indirect impacts will be made during final design.

### 5.1. Socioeconomic Impacts

Evaluating the direct and indirect impacts that a transportation project has on socioeconomic resources requires consideration of impacts on land use as well as the project’s consistency with development and planning by a city or other public entity.

#### 5.1.1. Land Use

The project study area is located in the Des Moines Metropolitan Area and is generally a suburban area. A mix of land uses is present within the project study area as shown in Figure 5.

Land use along the north-south segment of I-35/I-80/IA 141 in the project study area is commercial office and warehouse with areas of agricultural and undeveloped land. Commercial retail land uses are located adjacent to the NW 54<sup>th</sup> Avenue and IA 141 intersection. High density residential manufactured home land use is present at the northeast end of the north-south segment.

Land use south of the east-west segment of I-35/I-80 is vacant, commercial, agricultural, and woodland. A cluster of big box commercial is present on the west end of the segment and a cluster of hotel and restaurant commercial land use is present on the east end. A number of undeveloped commercial lots are along Plum Drive between NW Urbandale Drive and NW 86<sup>th</sup> Street. According to the Official Zoning Map of the City of Urbandale (dated June 22, 2009) this area is zoned Planned Unit Development (PUD) and Office/Service District (C-O). Parcels are zoned PUD to “promote and encourage development or redevelopment of tracts of land on a planned, unified basis by allowing greater flexibility and diversification.”<sup>2</sup>

The area north of I-35/I-80 is split between commercial land uses and agricultural land uses along North Park Road. According to the Official Zoning Map of the City of Urbandale, the agricultural land uses are zoned as an Agricultural Reserve District.

Several areas of residential development are located at the edge of the project study area in the Cities of Grimes and Urbandale. The largest collection of residential land uses is located southeast of the I-35/I-80/NW 86<sup>th</sup> Street Interchange. A smaller group of residential land uses is located south of Plum

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<sup>2</sup> City of Urbandale Zoning Code, Title XV, Chapter 160, Section 160.24

Drive near NW 100<sup>th</sup> Street. Additional isolated residential land uses are located in the southern portion of the project study area.

The Cities of Grimes, Johnston, and Urbandale provide land use control through their own zoning and subdivision regulations. These jurisdictions have comprehensive plans and other planning documents to address land use and improvements in the I-35/I-80/IA 141 Interchange Corridor. A summary of these plans are below:

*The City of Grimes Comprehensive Plan (RDG Planning & Design - 2010)* - The City of Grimes plan recognizes existing land uses within the project corridor to be primarily light industrial. The plan states the “industrial base has developed in relationship to the Interstate 35/80 and Highway 141 Interchange south of Grimes.”<sup>3</sup> The future land use plan for the City of Grimes retains the light industrial land uses adjacent to the I-35/I-80/IA 141 Interchange, with additional business park land uses east of the existing light industrial areas. The plan also discusses transportation improvements in the city and states, “the city should closely monitor and work with the DOT on other regional projects such as improvements to the Highway 141 Interchange on Interstate 35/80.”<sup>4</sup>

*Johnston 2030 Comprehensive Plan (Hoisington Koegler Group Inc. - 2010)* - The City of Johnston plan recognizes existing commercial land uses adjacent to the northeast quadrant of the I-35/I-80/NW 86<sup>th</sup> Street Interchange. The 2030 Future Land Use Plan for the City of Johnston does not envision changes to land use within the project study area.

*Urbandale Comprehensive Plan (City of Urbandale Planning and Zoning Commission – 2003)* - The City of Urbandale plan mentions the expansion of “single-story business park/research flex space in the Interstate corridor.” The plan also identifies the I-35/I-80 corridor as key to economic development. The plan notes overall north-south access improved with the construction of the I-35/I-80/IA 141 Interchange, but does not mention improvements to the interchange.

### ***Preferred Alternative***

The Preferred Alternative would directly change existing land use to roadway right-of-way where the improvements require additional right-of-way. Potential right-of-way changes that would result from the construction of the Preferred Alternative are discussed in Section 5.1.3. Indirectly, areas adjacent to the roadway right-of-way have the potential to be developed. Many of the vacant, undeveloped, or zoned PUD development parcels within the project study area would likely become commercial or light industrial. As development within the corridor is proposed, each city will review land use and zoning changes in accordance with city code and the comprehensive plans referenced above.

### ***No Build Alternative***

The No Build Alternative would not change development patterns within the study area. Land uses within the study area would continue to change as development occurs along the corridor in concurrence with the rules, plans, and policies of the cities of Grimes, Johnston, and Urbandale.

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<sup>3</sup> The City of Grimes Comprehensive Plan, RDG, (2010), 24.

<sup>4</sup> *Ibid.*, 80.

### **5.1.2. Economic**

The project study area covers a commercial and industrial corridor adjacent to I-35/I-80/IA 141/NW Urbandale Drive, and anchored by I-35/I-80 interchanges at Douglas Avenue, IA 141/NW Urbandale Drive, and NW 86<sup>th</sup> Street. The project study area is located within cities of Grimes, Johnston, and Urbandale, with the largest proportion within the City of Urbandale. The City of Grimes is located in the northern portion of the project study area, primarily north of the I-35/I-80/IA 141 Interchange. The City of Johnston provides governance over a small portion of the project study area located northeast of the I-35/I-80/NW 86<sup>th</sup> Street Interchange.

Economic activity based on the average taxable retail sales per capita for the fiscal year 2014 (FY2014) in the cities of Grimes (\$23,065) and Urbandale (\$15,862) are both higher than the Iowa state average per capita (\$11,560). The City of Johnston (\$7,820) is lower than the Iowa state average per capita according to the Iowa State University FY 2014 Retail Trade Analysis Report. In general, these economic data indicate the project study area is economically vibrant and poised to support growth, economically and/or in population.

In 2015, the City of Urbandale designated an Urban Renewal Area northwest section of the city. The Northwest Market Center Urban Renewal Area (Northwest Market Center) covers the entire project study area within the City of Urbandale city limits. The Northwest Market Center supports the city's economic development within the commercial corridor adjacent to I-35/I-80.

In addition to the Northwest Market Center, a collection of retail businesses have located in the southeast quadrant of the I-35/I-80/IA 141 Interchange in a development known as the Urbandale Marketplace. The retail establishments within the Urbandale Marketplace are served by access locations on Plum Drive, north of the Plum Drive/NW Urbandale Drive intersection. Businesses located in the Urbandale Marketplace include Target, Home Depot, Stacey's Bridal, GameStop, Great Clips, and several other service businesses.

There are several highway-oriented businesses along IA 141/NW Urbandale Drive including three gas stations. QuikTrip and BP are located at the intersection of IA 141/SE 37<sup>th</sup> Street and Kum & Go is located near the intersection of NW Urbandale Drive/Plum Drive. Additionally, there is a McDonald's near the intersection of NW Urbandale Drive/Plum Drive. These types of businesses typically rely on drive-by traffic to attract customers.

Currently, the existing locations for regional system access within the Northwest Market Center are the I-35/I-80 interchanges at Douglas Avenue, IA 141, and NW 86<sup>th</sup> Street. The City of Urbandale has improved many of the local roadway connections within the area included in the 2035 DMAMPO long-range transportation plan, including the construction or widening of Plum Drive, NW 121<sup>st</sup> Street, and Meredith Drive. In addition, the City of Urbandale has plans to improve the NW 100<sup>th</sup> Street Bridge over I-35/I-80 as well as construct an interchange at NW 100<sup>th</sup> Street. These projects are discussed in more detail in the Cumulative Impact Section 5.4.

Within the City of Grimes, IA 141 is a primary regional connection with adjacent land uses consisting of commercial and industrial. A concentrated location of commercial and industrial land uses is located in the northeast quadrant of the I-35/I-80/IA 141 Interchange. This commercial area has access locations on SE 37<sup>th</sup> Street and IA 141.

Existing regional economic activity from freight transportation currently utilizes the interchanges on I-35/I-80 at Douglas Avenue, IA 141, and NW 86<sup>th</sup> Street to access commercial and industrial land uses throughout the study area.

***Preferred Alternative***

The businesses in the area of the interchange are a mixture of commercial, light industrial (i.e. light manufacturing, distribution centers) and offices. Each of the businesses will be affected differently based on the type of business and location. The Preferred Alternative will affect travel patterns surrounding NW Urbandale Drive and IA 141. Access changes due to the removal of the northbound I-35/I-80 loop ramp would result in some increased trip lengths to access businesses located in the Urbandale Marketplace; however, travel distances may be reduced for businesses on the south side of Meredith Drive due to the new interchange ramps at Meredith Drive. The increase or decrease in travel patterns are a permanent effect.

The Urbandale Marketplace is located at the intersection of NW Urbandale Drive and Plum Drive, along with Target, Stacey's formalwear shop, McDonalds, Kum & Go service station, Firestone Complete Auto Care, and Home Depot. While most of these are destination based, some of them (i.e. McDonald's, Kum & Go service station) rely partially on convenience based use due to their location relative to the Interstate (highway oriented business). Both the convenience and destination businesses may see a temporary decrease in business during construction. After construction is complete and drivers become familiar with the configuration of the Preferred Alternative, business could increase as traffic congestion is reduced in the area.

Existing Interstate traffic would exit at NW Urbandale Drive and travel approximately 1,200 feet southwest to the Urbandale Marketplace area. Under the Preferred Alternative, to arrive at the Urbandale Marketplace area and other retail services in this area, northbound traffic on I-35/I-80 would have two options, both using the Meredith Drive exit ramp. One option is to use the Meredith Drive exit ramp and travel east on Meredith Drive approximately 2,500 feet to NW Urbandale Drive, then drive north on NW Urbandale Drive approximately 2,000 feet to Plum Drive. The second option is to use the Meredith Drive exit ramp and travel approximately one mile north/east on the C-D, local road system, then turn right to head south on NW 100<sup>th</sup> Street for about 500 feet, then turn right to head west on Plum Drive.

Conversely, west/southbound traffic on I-35/I-80 would also have two options for accessing the Urbandale Marketplace area. One option is use the NW 100<sup>th</sup> Street exit ramp, turn left and travel south on NW 100<sup>th</sup> Street approximately 1,000 feet, then turn right heading west on Plum Drive. The second option is to exit onto the C-D road located just west of the NW 100<sup>th</sup> Street Interchange, and turn left onto NW Urbandale Drive.

The Preferred Alternative may affect regional economic activity through increased efficiency of traffic at the I-35/I-80/IA 141 Interchange. The Preferred Alternative would also provide additional access to/from I-35/I-80 at Meredith Drive.

***No Build Alternative***

The No Build Alternative will not modify access and expected travel patterns in the study area. Anticipated increases in crashes and congestion at the I-35/I-80/IA 141 Interchange could result in negative impacts to economic activity that offset any potential benefits of increased traffic volume through the area.

### **5.1.3. Right-of-Way and Relocation Potential**

To assess the potential impacts associated with the alternatives, right of way acquisition and property relocations were evaluated based on existing right of way, private and public property boundaries, and future right of way needs.

The I-35/I-80/IA 141 Interchange study area is approximately 2,168 acres, consisting of 648 parcels. Of the 648 parcels, 162 are under public ownership of the municipalities within the study area or the State of Iowa. The area under public ownership, approximately 550 acres, is primarily used as roadway right-of-way. The additional 1,618 acres within the study area is privately owned.

#### ***Preferred Alternative***

The Preferred Alternative would impact 22 parcels as shown in Figure 6. The majority of the impacts is partial and does not impact current functionality of the property.

One of the 22 impacted parcels, located in the southeast quadrant at the Meredith Drive Interchange (4500 114<sup>th</sup> Street, Urbandale), would be a potential full acquisition. The proposed northbound off-ramp at the Meredith Interchange would impact the majority of an office building's parking lot, but not pose a direct impact to the building itself. The impacts to existing parking at this location would place the building in violation of the City of Urbandale's Off-Street Parking Code (Section 160.29) because there would not be enough parking spaces for the amount of office space in the building (over half of the building's parking stalls would be impacted). Insufficient parking results in the building potentially becoming a total acquisition under the Preferred Alternative. This building currently contains the offices of several different tenants. In 2015, six tenants were located in this building. The Preferred Alternative would potentially result in the relocation of these six tenants.

There is vacant land located just north of this parcel that could potentially compensate for the lost parking spaces and thus mitigate the parking space reduction for the building located at 4500 114<sup>th</sup> Street. Additional coordination with the property owner would take place during the design process of the project.

No other potential full acquisitions are anticipated. Other impacted parcels went through similar analysis, notably the 12001 Meredith Drive property located at the northwest quadrant of the Meredith Drive Interchange. Anticipated parking impacts to other properties did not violate the City of Urbandale's Off-Street Parking Code. Meaning the buildings would have enough parking spaces after the Preferred Alternative is constructed to be in compliance with current city code.

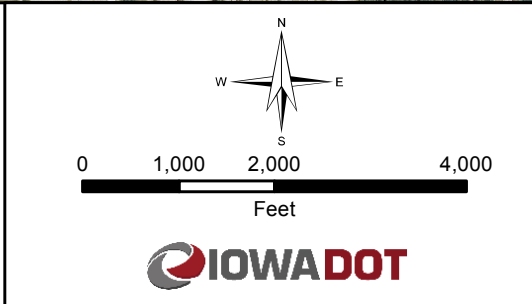
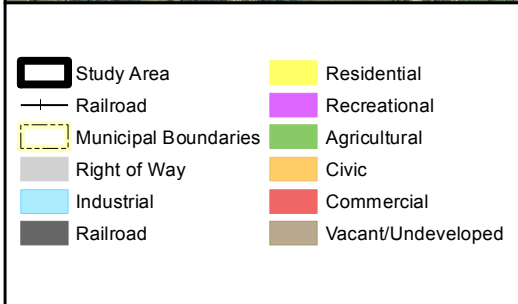
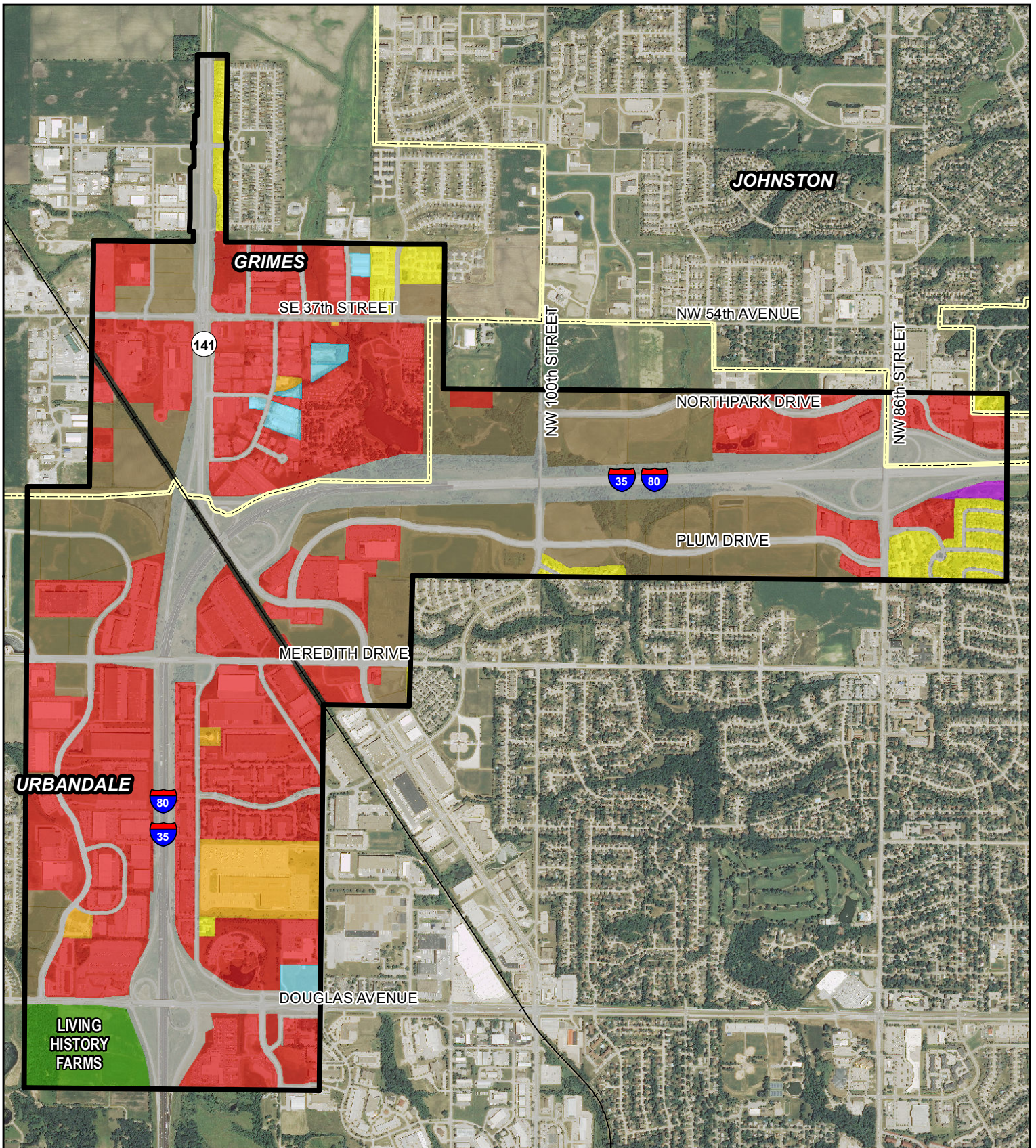
No residences would be relocated if the Preferred Alternative is implemented.

Preliminary estimates indicate the construction of the Preferred Alternative would potentially require 8.5 acres of new roadway right-of-way as shown in Figure 6. The 8.5 acres includes the full acquisition of the office building located at 4500 114<sup>th</sup> Street, Urbandale. The amount of right-of-way needed may change as the design process continues. Right-of-way would be acquired in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970.

#### ***No Build Alternative***

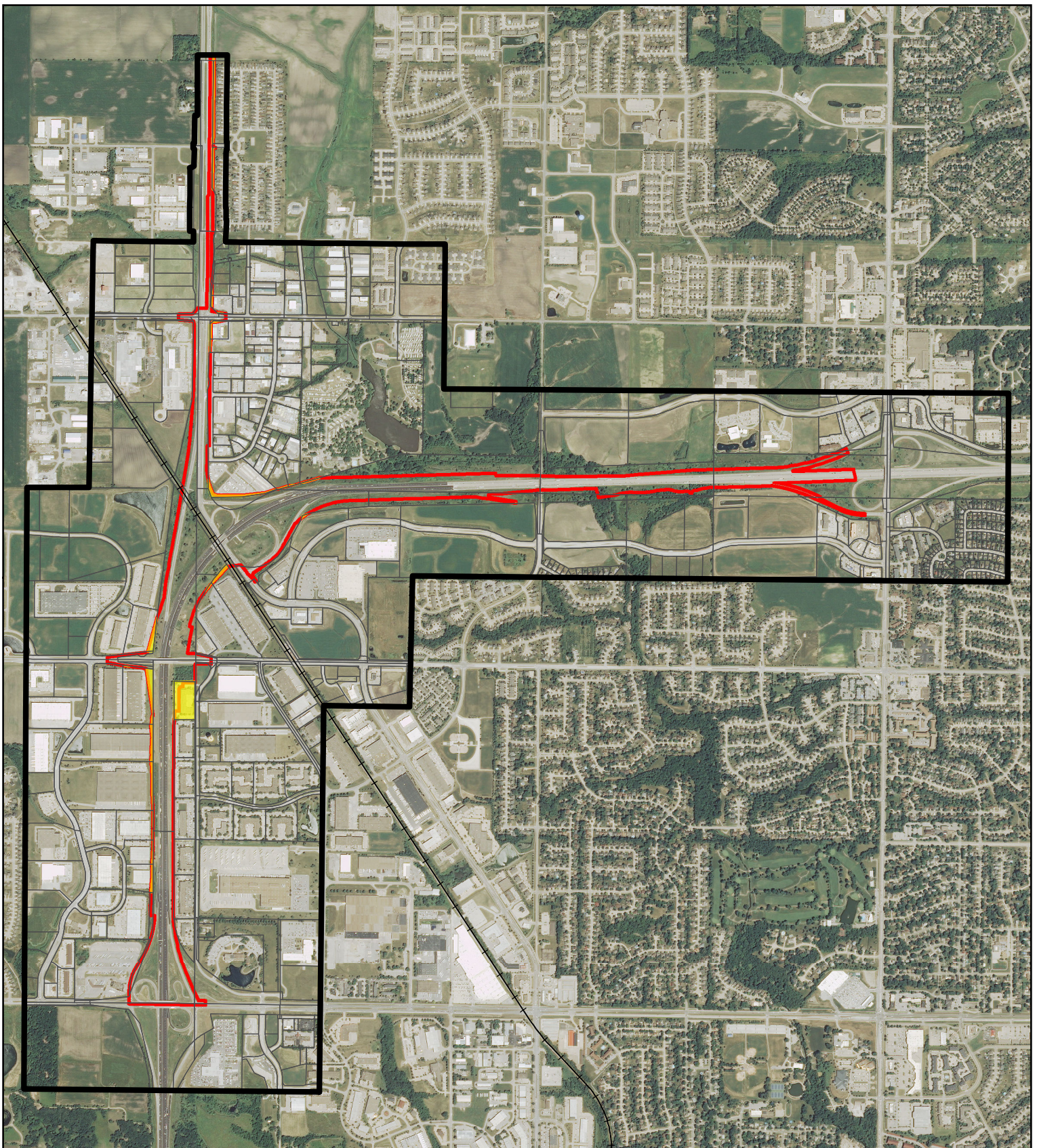
The No Build Alternative would not require acquisition of any property or the relocation of any residences or businesses.







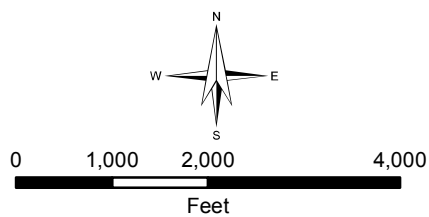


**Figure 5**  
**Land Use Map**

I-80/I-35/IA-141 Interchange  
Polk County, Iowa



-  Potential Impact Area
-  Potential ROW Impacts
-  Parcel Boundaries
-  Study Area



**Figure 6**  
**Potential Right-of-Way**  
**Impacts**

I-80/I-35/IA-141 Interchange  
 Polk County, Iowa

#### **5.1.4. Construction and Emergency Routes**

This section addresses potential impacts from construction routes and impacts on emergency routes. Emergency vehicles (ambulances, fire trucks, and police cruisers) respond to events using routes that are designated to reduce response times and account for access limitations.

Emergency services within the project study area are provided by the cities of Grimes, Johnston, and Urbandale. The cities of Grimes and Johnston maintain emergency service stations outside the project study area. The City of Urbandale maintains one emergency service station within the project study area, 3927 121<sup>st</sup> Street, just west of the I-35/I-80 corridor. Emergency services are provided across municipal boundaries as part of mutual aid response in the Des Moines Metropolitan Area. Emergency routes vary based on the location of an incident and the department's response.

##### ***Preferred Alternative***

The construction of the Preferred Alternative would be staged so traffic and access to property would be maintained; therefore, emergency service vehicles would still be able to access properties within the project study area. Detailed construction staging plans for the Preferred Alternative would be developed during final design. Temporary pavement might be used during construction to accommodate the staging of traffic and to maintain access to properties. The Preferred Alternative would be staged and constructed for traffic to maximize use of the existing roadway system as much as possible to reduce disruption to traffic and access. The Preferred Alternative would also be staged and constructed for rail traffic to continue use of the existing rail system under the existing interchange. Therefore, the impacts of the Preferred Alternative to access during construction would be minimal.

The Preferred Alternative would provide new access to I-35/I-80 via interchanges at Meredith Drive and NW Urbandale Drive which would create additional access locations for emergency services as needed in response to incidents along I-35/I-80. Within the City of Grimes, emergency service routes may change for the properties located northeast of the I-35/I-80/IA 141 Interchange due to the access closure along IA 141. Routes that would currently use northbound IA 141 and SE 41<sup>st</sup> Street to access properties in the northeast quadrant of the I-35/I-80/IA 141 Interchange would change as a result of the closure of the IA 141/SE 41<sup>th</sup> Street intersection. The out of distance travel is anticipated to be under a mile for emergency services to access properties along NW 111<sup>th</sup> Street, NW 114<sup>th</sup> Street, and NW 52<sup>nd</sup> Avenue. Impacts to emergency services are anticipated to be minimal and additional coordination with emergency service providers would occur as the design of the Preferred Alternatives is advanced.

##### ***No Build Alternative***

The No Build Alternative would not have impacts as no construction would take place at the I-35/I-80/IA 141 Interchange. The No Build Alternative would not change access to the properties in the northeast quadrant of the I-35/I-80/IA 141 Interchange allowing emergency services to continue to utilize the intersection of IA 141/SE 47<sup>th</sup> Street as required. However, the No Build Alternative will not improve congestion or safety at the I-35/I-80/IA 141 Interchange which may delay the response of emergency services. The No Build Alternative would not provide new access to I-35/I-80, which would result in no change to emergency service response from existing conditions.

### **5.1.5. Transportation**

Transportation resources in the study area include the highway and the surrounding network of roadways, railroads, airports, and waterways as well as the equipment used (such as public transit buses) for the movement of people and materials. Air and water transportation are not present in the study area and are not discussed in this EA.

Transit service in the I-35/I-80/IA 141 project study area is provided by the Des Moines Area Region Transit Authority (DART). Service in and around the project study area is provided by two fixed and two on-demand routes. Flex Route 74 (NW Urbandale) operates weekdays between 6:30 and 9:45 A.M., and 3:45 and 6:30 P.M. Flex Route 74 serves both the Meredith Drive and Douglas Avenue corridors with one-hour headways. The second fixed route – Express Route 93 (NW 86<sup>th</sup>) – operates along NW 86<sup>th</sup> Street between 4:45 and 8:45 A.M., and 1:00 and 6:30 P.M. with 20 minute headways.

The two on-demand routes primarily serve the City of Grimes and connecting Cities of Granger, Johnston, and Polk City. The first, the Grimes/NW Johnston On-Call, operates weekdays between 5:45 A.M. and 8:45 A.M., and 3:45 P.M. and 6:30 P.M. The Grimes/NW Johnston On-Call route operates within a fixed service boundary located just north of the I-35/I-80/IA 141 project study area. The second on-demand route, Granger/Grimes/Polk City On-Call, serves the three cities between 8:30 A.M. and 3:00 P.M.

Freight transportation within the project study area is primarily carried along I-35/I-80/IA 141. Commercial and industrial land uses adjacent to the I-35/I-80/IA 141 corridors utilize truck freight transportation for the movement of goods. A United States Postal Service mail distribution center is located east of I-35/I-80 between Douglas Avenue and Meredith Drive. This distribution center relies on freight transportation to ship postal products around the nation. Additionally, freight movement through the corridor is supported by a Pilot Travel Center located on Douglas Avenue adjacent to I-35/I-80.

Rail transportation within in the project study area is operated by the Iowa Interstate Railroad along a Norfolk Southern line of track extending from downtown Des Moines and terminating in the City of Grimes. According to the Iowa Railroad Traffic Density Map (Iowa DOT, dated July 1, 2014), this rail segment carries approximately 20,000 Gross Tons per mile annually. In 2000, the DMAMPO completed at *Commuter Rail Feasibility Study* (R.L. Banks & Associates, Inc.) which identified the rail corridor as a potential commuter route with a potential park-and-ride facility along Meredith Drive.

#### ***Preferred Alternative***

The Preferred Alternative would create temporary route changes along Meredith Drive if the Preferred Alternative is constructed. DART's on-demand routes might experience temporary delays within the project study area as a result of construction. Improvements in capacity and safety at the I-35/I-80/IA 141 Interchange would benefit on-demand routes when traveling through the project study area.

The Preferred Alternative would change the pattern of freight transportation movement within the project study area. The removal of the loop ramps at I-35/I-80/IA 141 would change access to and from the Interstate System along IA 141/NW Urbandale Drive. The construction of interchanges at Meredith Drive and NW Urbandale Drive would provide additional access to and from the Interstate System. In addition, the proposed C-D roads would provide additional capacity of the system reducing congestion and improving the movement of goods through the corridor.

The Preferred Alternative's northbound IA 141 flyover roadway would create one additional grade separated crossing over the rail line traversing the I-35/I-80/IA 141 Interchange. Construction would be staged to minimize the potential impact to operations on the railroad.

### ***No Build Alternative***

The No Build Alternative would have no impacts on rail transportation. The No Build Alternative would not improve congestion or safety at the I-35/I-80/IA 141 Interchange which may delay freight transportation and public transit routes in the vicinity of the interchange.

## **5.2. Natural Environment Impacts**

This section characterizes the natural resources in the study area and addresses potential impacts of the No Build Alternative and the Preferred Alternative. The resources discussed are wetlands, surface waters and water quality, and floodplains. Figure 7 presents the environmental constraints map.

### **5.2.1. Wetlands**

Waters of the U.S. (WOUS), including wetlands, waterways, lakes, natural ponds, and impoundments, are regulated by the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act, which requires a permit to authorize the discharge of dredged or fill material into waters of the U.S. (33 USC 1251 et seq.). Executive Order 11990, Protection of Wetlands, requires Federal agencies, including FHWA, to implement "no net loss" measures for wetlands (42 Federal Register (FR) 26951). These no net loss measures include a phased approach to wetland impact avoidance, then minimization of impacts if wetlands cannot be avoided, and finally mitigation to compensate for impacts.

Field reviews for wetlands were conducted in 2014 to delineate wetlands located within the project study area. The wetland delineation identified 23 wetlands within the study area. Of these 23 wetlands, the Preferred Alternative would potentially impact the three wetlands described in Table 2. The Preferred Alternative may impact additional ditch wetlands which were originally constructed in upland areas, but now function as storm water features.

**Table 2. Wetland Delineation Results**

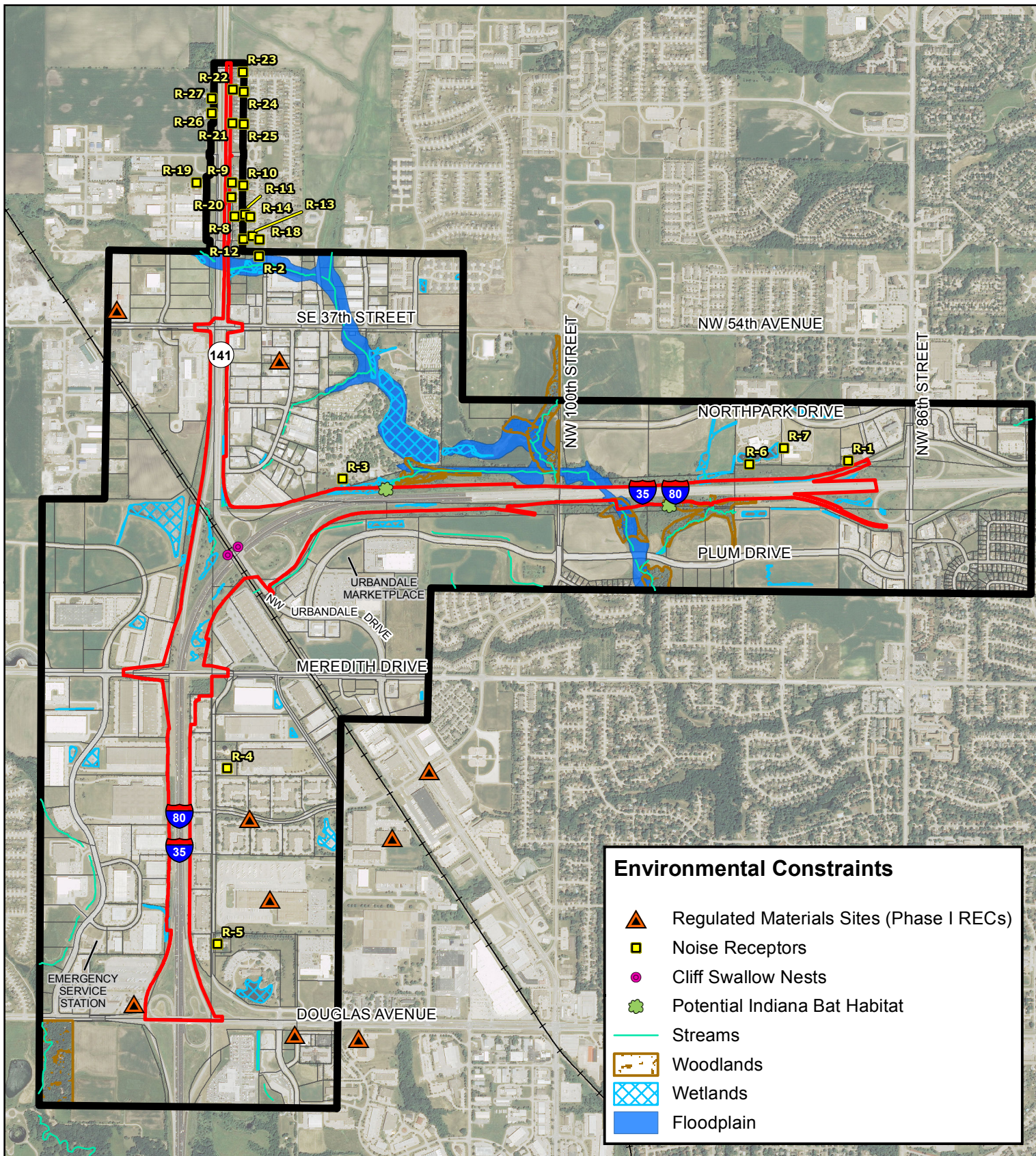
Wetland ID	Observed Cowardin Classification	Size of Wetland in Wetland Investigation Area (acres)	Size of Impact within Alternative 5 Footprint (acres)	Discussion
141 Ditch South	PEMB	0.57	0.49	This wetland is located in a broad rectangular ditch on the east side of IA 141 and is fed by culverts and road runoff. 141 Ditch South is connected to an intermittent tributary via a series of culverts at the south end of the wetland.
Cutty's South	PEMB/ PFO1A	2.58	1.29	Cutty's South is a saturated emergent wetland with a small fringe of forested wetland. The wetland drains gradually from the base of the 35/80 embankment to an intermittent tributary of North Walnut Creek. Wetland boundaries are distinct.
East NWC Tributary	PEMA	2.04	0.08	This wetland is located in a depression adjacent to a tributary of North Walnut Creek on the north side of 35/80. Wetland boundaries are distinct.
Total		5.19	1.86	

***Preferred Alternative***









The Preferred Alternative potentially impacts 1.86 acres of wetlands as shown in Figure 7. The Preferred Alternative was evaluated using the preliminary impact area with the understanding that adjustments can be made later in the design process to minimize wetland impacts. The current preliminary impact area includes a buffer for flexibility in completing the final design. Consequently, the area of wetlands impacted is expected to be less than described in Table 2. During final design, potential minimization of wetland impacts under the Preferred Alternative would be evaluated and the design would be altered to minimize wetland impacts where practical. The USACE Section 404 permit application would include the detailed final design as well as efforts to minimize impacts on wetlands and other WOUS. Where wetland impacts cannot be avoided, mitigation would occur at ratios determined by the USACE.





***No Build Alternative***

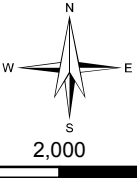

The No Build Alternative would not involve construction and therefore would not affect wetlands.



**Environmental Constraints**

-  Regulated Materials Sites (Phase I RECs)
-  Noise Receptors
-  Cliff Swallow Nests
-  Potential Indiana Bat Habitat
-  Streams
-  Woodlands
-  Wetlands
-  Floodplain

-  Potential Impact Area
-  Study Area
-  Railroad
-  Parcel Boundaries

  
 0 1,000 2,000 4,000  
 Feet  


**Figure 7**  
**Environmental Constraints**  
 I-80/I-35/IA-141 Interchange  
 Polk County, Iowa

### **5.2.2. Surface Waters and Water Quality**

A review of USGS 7.5' Quadrangle maps was conducted to identify water bodies and streams in the project study area. North Walnut Creek crosses under Iowa 141 in the north part of the project area and continues running approximately southeast before crossing I-35/80 east of the I-35/I-80/IA 141 Interchange. Five unnamed, intermittent tributaries of North Walnut Creek are located in the project study area as shown in Figure 7. In general, streams in the project study area appear to have been straightened or altered likely with the construction of the Interstate system. North Walnut Creek is a tributary of Walnut Creek and the Raccoon River. North Walnut Creek is wooded in much of the study area. Two impounded ponds are located in the project study area. The Cutty's Lake impoundment is located north of I-35/I-80 and west of IA 141 in Cutty's Campground. The other impoundment is located in the northeast quadrant of the I-35/I-80/Douglas Avenue Interchange.

The contractor would be required to implement Iowa DOT's Construction Manual to minimize temporary impacts on water quality during construction. The Iowa DNR administers the Federal National Pollutant Discharge Elimination System (NPDES) program and issues general permits for stormwater discharges from construction activities. The purpose of this program is to improve water quality by reducing or eliminating contaminants in stormwater. The NPDES program requires preparation of a Stormwater Pollution Prevention Plan (SWPPP) for construction sites of more than one acre.

The specific sediment, erosion control, and spill prevention measures would be developed during the detailed design phase and would be included in the plans and specifications. The SWPPP would address requirements specified in the Iowa DOT Construction Manual, which are often implemented to meet measures anticipated by the Iowa DNR. The SWPPP would likely include installation of silt fences, buffer strips, or other features to be used in various combinations to reduce the amount of sediment reaching streams in the project study area. A standard construction best management practice (BMP) is re-vegetation and stabilization of roadside ditches to provide opportunities for the runoff from paved surfaces to slow down, infiltrate the vegetation, and minimize sedimentation reaching streams. The Iowa DOT would require the contractor to comply with the measures specified in the SWPPP.

#### ***Preferred Alternative***

The Preferred Alternative could permanently impact approximately 948 linear feet of streams depending on the design and construction methods of the Preferred Alternative. The majority of the impacted stream segments are located within the area of the IA 141 Interchange. Major stream crossings of the alignment occur on IA 141 (north of SE 37<sup>th</sup> Street), and I80/I35 (east of NW 100<sup>th</sup> Street). No ponds would be impacted by the Preferred Alternative.

#### ***No Build Alternative***

The No Build Alternative would not involve construction and therefore would not impact surface waters or water quality.

### **5.2.3. Floodplains**

Agency coordination letters were sent to the Iowa DNR and Federal Emergency Management Agency (FEMA) on May 13, 2014. No response was received from FEMA regarding the project. The Iowa DNR did provide a response, but did not have comments regarding floodplains.

Floodplain information was obtained from the FEMA Firmette online database for the project study area. North Walnut Creek and associated tributaries have 100-year and 500-year floodplain information.



### ***Preferred Alternative***

The Preferred Alternative would impact approximately 1.9 acres of the 500-year floodplain as shown in Figure 7. This floodplain area is located north of SE 37<sup>th</sup> Street, along IA 141, and at the crossing of North Walnut Creek. During final design, an Iowa DNR Flood Plain Construction Permit, and potentially a Section 404 Permit, may be required.

### ***No Build Alternative***

The No Build Alternative would not involve construction and therefore would not impact any floodplains located within the project study area.

## **5.3. Physical Impacts**

This section characterizes physical resources in the study area and addresses potential impacts of the No Build Alternative and the Preferred Alternative. The resources discussed are noise, visual, and utilities.

### **5.3.1. Noise**

A traffic noise study was completed for the proposed I-35/I-80/IA 141 Interchange improvements. The study was conducted in accordance with the Iowa DOT's traffic noise policy and the requirements set forth in the FHWA Noise Standard at 23 Code of Federal Regulations (CFR) Part 772.

Land use throughout the project area is mostly commercial office buildings, light industrial or undeveloped land. One campground (Cutty's Campground) is located north of I-80 WB/I-35 SB near the IA 141 Interchange. Within the office area east of I-80/I-35, there are two residences on 114<sup>th</sup> Street just north of Douglas Avenue. Residential areas are also located on the east side of IA 141 between SE 37<sup>th</sup> Street and SE 19<sup>th</sup> Street. Two single-family residences are located on the west side of IA 141 north of SE 28<sup>th</sup> Street. There are other residences in the general project area, but located over 1,000 feet from the Interstate.

Modeled receptors in the FHWA approved Transportation Noise Model (TNM) v2.5 were identified by areas of frequent human exterior use within the project area. The receptor locations represent the most conservative (highest noise levels) receptor for their respective common noise environment (CNEs). The noise abatement criteria are described in Table 3. Modeled receptors are listed in the Table 4 and shown on Figure 7. The locations used for the noise analysis are based on anticipated frequent human use activity areas.

**Table 3. Noise Abatement Criteria**

Activity Category	Activity Criteria dB(A)		Activity Description
	Noise Abatement Criteria (NAC)	Approaching NAC	
A	57	56	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67	66	Residential.
C	67	66	Active sport areas, amphitheatres, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails and trail crossings.
D	52	51	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.
E	72	71	Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A-D or F.
F	-	-	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical) and warehousing.
G	-	-	Undeveloped lands that are not permitted for development.

Source: Table 5: 23 CFR, Part 772, Table 1 Noise Abatement Criteria (NAC)

**Table 4. Summary of Modeled Receptors**

Receptor Number	Description	Location	Activity Category
R-1	Hotel	8800 Northpark Drive	E
R-2	Office	3350 SE Crossroads Drive	E
R-3*	Campground	2500 SE 37 <sup>th</sup> Street	C
R-4	Daycare Center	4401 114 <sup>th</sup> Street	C
R-5*	Residential	3931 114 <sup>th</sup> Street	B
R-6*	Office	9100 Northpark Drive	E
R-7	Office	8900 Northpark Drive	E
R-8	Mobile Home Park	1900 SE 28th Street	B
R-9	Mobile Home Park	1900 SE 28th Street	B
R-10	Mobile Home Park	1900 SE 28th Street	B
R-11	Mobile Home Park	1900 SE 28th Street	B

Receptor Number	Description	Location	Activity Category
R-12	Mobile Home Park	1900 SE 28th Street	B
R-13	Mobile Home Park	1900 SE 28th Street	B
R-14**	Mobile Home Park	1900 SE 28th Street	B
R-18	Mobile Home Park	1900 SE 28th Street	B
R-19	Daycare Center	2860 Grimes Boulevard	C
R-20***	Mobile Home Park	1900 SE 28th Street	B
R-21	Mobile Home Park	1900 SE 28th Street	B
R-22	Mobile Home Park	1900 SE 28th Street	B
R-23	Mobile Home Park	1900 SE 28th Street	B
R-24	Mobile Home Park	1900 SE 28th Street	B
R-25	Mobile Home Park	1900 SE 28th Street	B
R-26	Residential	SE Grimes Boulevard	B
R-27	Residential	SE Grimes Boulevard	B

\* Denotes field monitored locations

\*\* R-15, R-16, and R-17 were not used in the traffic noise evaluation.

\*\*\* R-20 as monitored in the field and used for noise model validation only.

Table 5 summarizes the modeled noise levels for the existing, No Build, and Preferred Alternative scenarios. Modeled noise levels range from 55 dB(A) to 68 dB(A) under the existing scenario, 58 dB(A) to 70 dB(A) under the No Build scenario, and 56 dB(A) to 71 dB(A) under the Preferred Alternative scenario.

The increase in traffic noise levels between the existing scenario and the No Build Alternative are a result of the forecasted increase in traffic volumes from 2015 to 2040. The increase in traffic noise from existing conditions to Preferred Alternative conditions is due to increases in traffic volumes and changes in geometry. Compared to the existing traffic noise level, the Preferred Alternative traffic noise levels increase up to 5 dB(A).

**Table 5. Summary of Noise Results**

Modeled Receptor	Activity Category	NAC (approaching) dB(A)	Existing Noise Levels dB(A)	Predicted Noise Levels			Impacted (Yes/ No)
				No Build Alternative dB(A)	Preferred Alternative dB(A)	Build Increase Over Existing	
R-1	E	71	68	70	<b>71</b>	3	<b>Yes</b>
R-2	E	71	55	58	56	1	No
R-3	C	66	67	70	<b>67</b>	0	<b>Yes</b>
R-4	C	66	60	62	63	3	No
R-5	B	66	60	62	62	2	No
R-6	E	71	67	70	68	1	No
R-7	E	71	62	65	65	3	No
R-8	B	66	65	68	65	0	No
R-9	B	66	67	69	<b>67</b>	0	<b>Yes</b>
R-10	B	66	59	62	62	3	No
R-11	B	66	57	60	59	2	No
R-12	B	66	60	62	59	-1	No

Modeled Receptor	Activity Category	NAC (approaching) dB(A)	Existing Noise Levels dB(A)	Predicted Noise Levels			Impacted (Yes/ No)
				No Build Alternative dB(A)	Preferred Alternative dB(A)	Build Increase Over Existing	
R-13	B	66	56	59	58	2	No
R-14	B	66	56	59	58	2	No
R-18	B	66	55	58	56	1	No
R-19	C	66	57	60	59	2	No
R-21	B	66	66	69	<b>71</b>	5	<b>Yes</b>
R-22	B	66	66	69	<b>70</b>	4	<b>Yes</b>
R-23	B	66	59	62	63	4	No
R-24	B	66	56	59	60	4	No
R-25	B	66	55	58	59	4	No
R-26	B	66	66	68	<b>68</b>	2	<b>Yes</b>
R-27	B	66	66	69	<b>68</b>	2	<b>Yes</b>

**Preferred Alternative**

Based on the Preferred Alternative scenario traffic noise levels, traffic noise impacts occur at seven (7) receptor locations. None of the noise levels increase more than 10 dB(A) over the existing noise levels and therefore there are no traffic noise impacts based on a substantial increase.

Noise barriers were evaluated for all impacted receptors based on the Preferred Alternative. Based on Iowa DOT’s Noise Policy (Policy No. 500.07) optional reasonableness factors, it is “unreasonable” to consider the implementation of noise barriers at receptor locations R-1, R-3, R-9, R-21, and R-22. The noise barrier evaluated for receptors R-26 and R-27 was determined to not meet the reasonableness criteria for cost-effectiveness. Therefore, noise barriers are not likely to be implemented. Table 6 summarized the noise barrier evaluation.

**Table 6. Summary of Noise Barrier Evaluation**

Noise Barrier ID/ Associated Receptor(s)	Location	Length (ft)	Height (ft)			Cost*		Noise Barrier Implementation	
			Min	Avg	Max	Total	Per Benefitted	Likelihood	Reason
R-1	North of I80/I35; West of NW 86th St.	400	8	13	26	\$132,523	\$18,932	Unreasonable	Date of Development: High No Noise Level Increase: Low No
R-3	North of I80/I35; West of NW 100th St.	2,877	---	---	20	NA	NA	Unreasonable	Does Not Achieve Noise Reduction Design Goal Date of Development: High No Noise Level Increase: High No
R-9	Mobile Home Park east of IA 141; South of SE 28th St.	700	18	20	20	\$345,136	\$38,348	Unreasonable	Date of Development: High No Noise Level Increase: High No
R-21/ R-22	Mobile Home Park east of IA 141; North of SE 28th St.	1,200	8	10	12	\$300,011	\$16,667	Unreasonable	Date of Development: High No Noise Level Increase: Low No
R-26/ R-27	Residences west of IA 141; North of SE 28th St.	900	12	16	20	\$354,030	\$177,015	Unreasonable	Not Cost Effective

\* Cost based on \$25 per square foot

### ***No Build Alternative***

A traffic noise impact evaluation is not necessary due to the No Build condition having no new construction. Noise level increases from the existing conditions are due to forecasted increases in traffic volumes.

#### **5.3.2. Visual**

Currently, motorists traveling on I-35/I-80 between Douglas Avenue and the existing I-35/I-80/IA 141 Interchange view one- and two-story office park buildings, parking lots, trees, and maintained grass beyond the roadway right-of-way. At the existing interchange location, commercial land uses and retail developments can be seen north and south of I-35/I-80. East of the I-35/I-80/IA 141 Interchange, motorists view vacant land, trees, and the NW 100<sup>th</sup> Street Bridge over I-35/I-80. After the NW 100<sup>th</sup> Street Bridge over I-35/I-80, vacant land turns to two-story office buildings and multi-story hotels adjacent to the I-35/I-80/NW 86<sup>th</sup> Street Interchange.

Several prominent features that can be seen from the I-35/I-80 corridor include water towers for the cities of Johnston and Urbandale, the indoor golf driving range located north of I-35/I-80, and a fountain water feature located west of the I-35/I-80/IA 141 Interchange.

Traveling along IA 141/NW Urbandale Drive, the view includes commercial land uses, the railroad corridor, the I-35/I-80 Bridge over IA 141, and the recently constructed Toyota of Des Moines car dealership located west of IA 141. Vacant land can also be seen along IA 141/NW Urbandale Drive.

One variable message sign is located in the project study area north of Douglas Avenue along I-35/I-80.

Views from land uses within the study area include the Interstate System, local roadways, adjacent land uses and parking lots, and trees located along I-35/I-80. Currently, I-35/I-80 is located above adjacent properties at the IA 141 Interchange; therefore, the I-35/I-80/IA 141 Interchange currently obstructs views looking north to south and south to north of the interchange. Between Douglas Avenue and Meredith Drive, land uses adjacent to I-35/I-80 are able to view land uses on the opposite side of the roadway as they are generally at the same elevation as the roadway. East of the I-35/I-80/IA 141 Interchange land uses adjacent to I-35/I-80 have a view of trees on both sides of the Interstate and limited views of traffic as the roadway is obstructed by foliage.

### ***Preferred Alternative***

The Preferred Alternative would create visual impacts due to the addition of the northbound flyover from I-35/I-80 to IA 141. Conceptual design estimates the northbound flyover being situated approximately 26 feet above the I-35/I-80 mainline, and approximately 56 feet above IA 141/NW Urbandale Drive. Views from the northbound flyover are expected to be limited by the height of barrier walls on the bridge structure. The Preferred Alternative would provide additional views of the City of Grimes and commercial land uses along IA 141 as motorists descend the northbound flyover.

The flyover ramp extends north and after crossing over IA 141/NW Urbandale Drive the flyover elevation comes back down to almost the existing ground line before elevating again to go over SE 37<sup>th</sup> Street. Local access from the flyover ramp is provided to SE 37<sup>th</sup> Street via a slip ramp connection that exists to the left to IA 141 south of SE 37<sup>th</sup> Street. Additional capacity along southbound IA 141 is provided by an auxiliary lane between SE 37<sup>th</sup> Street and the southbound IA 141 on-ramp to I-35/I-80. The overpass of SE 37<sup>th</sup> Street would be elevated over IA 141 to the Iowa DOT clearance standard of about 27 feet. It is

anticipated that the views from lower elevations of the flyover ramp and the SE 37<sup>th</sup> Street overpass will be similar to the existing view from IA 141 which includes commercial and retail areas.

The Preferred Alternative would create visual impacts for land use adjacent to the proposed Meredith Drive Interchange ramps. Views from land uses south of Meredith Drive and immediately east and west of I-35/I-80 will potentially have views of traffic exiting or entering I-35/I-80, interchange ramp grading, or retaining wall structures.

The visual elements of the flyover and the SE 37<sup>th</sup> Street overpass will be consistent with other bridges over the Interstate System and local roads in Iowa. The addition of artistic features was considered during the concept design phase, but since the project study area includes primarily light industrial and commercial land, using standard bridge aesthetic design elements were deemed appropriate.

The Preferred Alternative would require changes to Interstate signage in the corridor which would create additional changes in the view from the road, but are required to provide information prior to exits. At this time, no additional variable message signs are planned in the corridor.

### ***No Build Alternative***

The No Build Alternative would not impact the visual characteristics.

### **5.3.3. Utilities**

Results from an October 2011 Iowa One Call design information search indicated that the following companies have utilities located in the I-35/I-80/IA 141 project study area:

- Iowa Network Services (INS)
- PAETEC (Formerly McCloud USA)
- MCI
- Iowa Health System
- Quest Local Net
- Mediacom Communication Corp
- MidAmerican Energy Company
- Water Development Company SW
- Iowa Department of Transportation (DOT)
- Urbandale Water Department
- City of Grimes
- Iowa Communication Network

These companies were contacted in October 2011 asking for information regarding the location of their services in relationship to the Rider Corner project study area. The information received was reviewed in June 2015.

### ***Preferred Alternative***

The Preferred Alternative would cross water main, fiber optic, electric, phone, and gas utilities as describe in Table 7. The “yes” in Table 7 indicates that the Preferred Alternative would cross the existing utility in some way. For example, the proposed flyover could impact clearances to the overhead wires such that these lines may need to be raised or relocated. Impacts to these utilities will be determined during the final design process and the location of the existing utilities could influence final design. Design

requirements will determine if impacts to utilities may be fully avoided, minimized, or, in some cases relocated.

**Table 7. Utility Impacts**

Utility	Company	Location of Utility	Potential Impact (Yes / No)
Water main	City of Urbandale	<ul style="list-style-type: none"> <li>Water main is located on the east side of NW 100<sup>th</sup> Street south of the NW 100<sup>th</sup> Street Bridge. It does not cross I-35/I-80.</li> </ul>	No
		<ul style="list-style-type: none"> <li>Water main crosses under I-35/I-80 along the south side of Meredith Dr.</li> </ul>	Yes
Fiber Optic	NetINS	<ul style="list-style-type: none"> <li>Fiber buried in the west ditch of IA 141.</li> <li>Fiber buried in the west ditch of the railroad which is leased from Verizon Business.</li> </ul>	Yes Yes
	PAETEC	<ul style="list-style-type: none"> <li>Aerial fiber crossing over I-35/I-80 on the north side of Meredith Dr.</li> <li>Underground fiber in the business park located east of I-35/I-80/IA 141 and north of Meredith Dr.</li> </ul>	Yes No
	Fiber Utilities	<ul style="list-style-type: none"> <li>Fiber between the office parks located on 174<sup>th</sup> St located east of I-35/I-80/IA 141 and north of Meredith Dr.</li> </ul>	No
	Mediacom	<ul style="list-style-type: none"> <li>Fiber crossing I-35/I-80/IA 141 on the west side of NW 86<sup>th</sup> St.</li> </ul>	Yes
Electric	MidAmerican	<ul style="list-style-type: none"> <li>Overhead electric crossing I-35/I-80/IA 141 on the north side of NW 100<sup>th</sup> St.</li> <li>Underground electric crossing diagonally under I-35/I-80/IA 141 between the NW 100<sup>th</sup> St Bridge and the Rider Corner Interchange.</li> <li>Overhead electric on the west side of the railroad.</li> <li>Overhead electric crossing I-35/I-80/IA 141 on the north side of Meredith Dr.</li> <li>Underground electric powering street lights on both sides of Meredith Dr. on the bridge over I-35/I-80/IA 141.</li> </ul>	Yes Yes Yes Yes Yes
	Iowa DOT	<ul style="list-style-type: none"> <li>Underground electric power street lights located on the inside of I-35/I-80/IA 141 loop ramps and on the outside of the exit ramps.</li> <li>Underground electric to traffic signal located at the northbound exit ramp and the NW Urbandale Dr. intersection.</li> </ul>	Yes Yes
Phone	Century Link	<ul style="list-style-type: none"> <li>Phone line crosses I-35/I-80 on the north side of Douglas Avenue.</li> </ul>	No
Gas	MidAmerican	<ul style="list-style-type: none"> <li>8 inch diameter underground gas main crosses I-35/I-80/IA 141 on the east side of the railroad's right of way through the existing Rider Corner Interchange.</li> </ul>	Yes

**No Build Alternative**

The No Build Alternative would have no impact on utilities in the study area.

**5.4. Cumulative**

Cumulative impacts are those that result from past, present, and reasonably foreseeable actions, combined with the potential impacts of the proposed improvements. Cumulative impacts can result from individually minor, but collectively substantial impacts taking place over a period of time. A cumulative impact assessment looks at the collective effects imposed by individual land use plans and projects in the same vicinity of the proposed project.

The DMAMPO Long Range Transportation Plan (LRTP) includes several projects located within and adjacent to the project study area. A number of these projects were recently completed as shown in green in Figure 8. Several other local network expansion projects are programmed in various community Capital Improvement Programs as shown in orange, yellow, red, and purple in Figure 8.

*Recently Completed Projects:*

- NW 54<sup>th</sup> Avenue 2 lanes gravel to pavement
- 128<sup>th</sup> Street widened from 2 to 4 lanes
- North Park Drive constructed 3 lanes wide
- Plum Drive constructed 5 lanes wide
- 121<sup>st</sup> Street widened from 2 to 5 lanes
- Meredith Drive widened from 2 to 4 lanes
- Douglas Avenue improved west of I-35/I-80
- I-35/I-80/Douglas Avenue Interchange improved

The combined value of street capital improvements within three miles of the I-80/I-35/IA 141 Interchange included within the MPO’s 2035 LRTP is over \$177 million. Figure 9 shows how some of the projects in the immediate study area and their construction sequencing to occur within the next five years and beyond. Table 8 describes the planned projects in the corridor between 2016 and beyond.

**Table 8. Planned Projects Within or Near Study Area**

<b>Project Year</b>	<b>Project Description</b>	<b>Project Proponents</b>
2016	NW 100 <sup>th</sup> Street; Grade and Pave	Cities of Grimes, Johnston, and Urbandale
	NW 100 <sup>th</sup> Street Bridge over I-35/I-80 (Under Construction)	City of Urbandale
2017	NW 54 <sup>th</sup> Avenue; Grade and Pave	City of Johnston
	IA 141 Widening Project, North of SE 37 <sup>th</sup> Street	Iowa DOT
2017/ 2018	NW 100 <sup>th</sup> Street Interchange Ramps, Grade/Pave (Part of Preferred Alternative, Initial Build Phase)	City of Urbandale, Iowa DOT
2019/ 2020	I-35/I-80 Improvements Grade/Pave (Part of Preferred Alternative, Initial Build Phase)	Iowa DOT



Project Year	Project Description	Project Proponents
	I-35/I-80/IA 141 Interchange Bridge (Part of Preferred Alternative, Initial Build Phase)	Iowa DOT
	I-35/I-80/IA 141 and Meredith Drive Interchange Improvements, Grade/Pave (Part of Preferred Alternative, Initial Build Phase)	Iowa DOT
2020	I-35/I-80/IA 141 Loop Ramp Removal (Part of Preferred Alternative, Initial Build Phase)	Iowa DOT
Planned	Construction of C-D Roads between Meredith Drive and NW 100 <sup>th</sup> Street (Part of the Preferred Alternative, Final Build Phase)	Iowa DOT
Planned	Construction of the SE 37 <sup>th</sup> Street Overpass	Iowa DOT
Planned	SE 37 <sup>th</sup> Street Widening	City of Grimes
Planned	Douglas Avenue Improvements	City of Urbandale

The City of Urbandale has several local infrastructure and capital improvement projects that are underway and planned for construction in the next couple of years as described in Table 9. In addition, there is development occurring in Urbandale as described in Table 10.

The City of Grimes has plans to improve SE 37<sup>th</sup> and S. James Street intersection as well as improve SE 37<sup>th</sup> Street from SE Keystone to S. James Street. Both of these projects are likely to occur in 2018 and 2019, respectively. Both of these projects are currently not included in the Grimes's Capital Improvement Plan.

**Table 9. Urbandale Infrastructure Projects**

Project Year	Project Description
2016	100 <sup>th</sup> Street Trail from Plum Drive to NW 54 <sup>th</sup> Avenue
2016	100 <sup>th</sup> Street Water Main Extension
2016	Douglas Parkway at 121 <sup>st</sup> Street, Left Turn Lanes for Westbound Traffic
2016-2017	Douglas Avenue Urbanization
2016-2017	Douglas Avenue Streetscape at I-35/I-80
2017/ 2018	NW 54 <sup>th</sup> Avenue Reconstruction from Corporate limits with Grimes to Corporate Limits with Johnston

**Table 10. Development in Urbandale**

<b>Project Year</b>	<b>Project Location</b>	<b>Project Description</b>
2015/ 2016	SE Quadrant of NW Urbandale Drive and Meredith Drive	Two retail buildings.
2015/ 2016	SE Quadrant of Douglas Drive and 109 <sup>th</sup> Street	Retail building.
2016	Meredith Drive, 100 <sup>th</sup> Street to NW Urbandale Drive, South of Plum Drive.	Retail center.
2016/ 2017	SW Quadrant of NW Urbandale Drive and Meredith Drive	Retail center.
2017	NW Quadrant of I-35/ I-80 and 100 <sup>th</sup> Street	Change in zoning for an 80 acre site including retail near the interstate, and office/warehouse for the remainder of the site.

The NW 100<sup>th</sup> Street Interchange ramps, bridge, and pavement widening projects were evaluated in a July 2008 Environmental Assessment and December 2008 Finding of No Significant Impact, recently amended and signed by FHWA on December 21, 2015. The Preferred Alternative includes the NW 100<sup>th</sup> Street Interchange as an existing condition since the proposed NW 100<sup>th</sup> Street Interchange project is expected to be constructed between 2016 and 2018.

The construction of the Preferred Alternative would require some reconstruction of the NW 100<sup>th</sup> Street Interchange. The on/off ramps in the northwest, southwest, and southeast quadrants would require some reconstruction. The on/off ramps in the northwest and southwest quadrants would no longer connect directly to the I-35/I-80 mainline. Rather, these ramps would be reconstructed to tie into proposed C-D roads. The northeast quadrant would not require reconstruction of the exit ramp from I-35/I-80 onto NW 100<sup>th</sup> Street. The reconfiguration of the on/off ramps would change how drivers access the Interstate system. The NW 100<sup>th</sup> Street Interchange is a diamond style interchange with direct access to the Interstate.

Under the Preferred Alternative, a driver who wants to go southbound on the Interstate from NW 100<sup>th</sup> Street would travel on the C-D road through the IA 141 Interchange to the Meredith Drive Interchange at which point the driver can then merge onto the Interstate. Similarly, a driver who wants to go northbound on the Interstate from Meredith Drive would travel on the C-D road through the IA 141 Interchange to the NW 100<sup>th</sup> Street Interchange at where the driver can merge onto the Interstate.

Based on the Eleven Steps in Cumulative Analysis it was determined that cumulative impacts associated with the recently completed, present, and future actions along with the Preferred Alternative would be minor. Resources potentially experiencing cumulative impacts include land use, economics, right of way, construction and emergency routes, and noise.

The recently completed roadway projects and the proposed projects listed in Tables 8, 9, and 10 are consistent with the Cities of Grimes, Johnston, and Urbandale comprehensive plans for economic growth. Improvements to the transportation network would enhance the opportunity for these communities to attract additional development in the area. As these projects are constructed the land that is currently agricultural, vacant, and undeveloped in the project study area is likely to develop with or without the Preferred Alternative being implemented.

The construction of these projects in conjunction with the Preferred Alternative would:

- Have a minor impact on land use that as the existing agriculture, vacant, and undeveloped land is developed into commercial or light industrial uses.
- Have a general beneficial impact on the economics in the region since additional businesses would be located in the area increasing the tax base.
- Have minor impacts on the amount of land being converted to roadway right of way including potential wetlands.
- Have a minor impact on the water quality in the area should development continue to occur and additional pavement is added to the area.
- Have a minor change to the routes that emergency vehicles use since more buildings would be located in the study area as well as the ability to use new and improved roads that are constructed in part of the development.
- Have a minor impact to the traffic noise experienced in the study area since the area would attract more traffic.

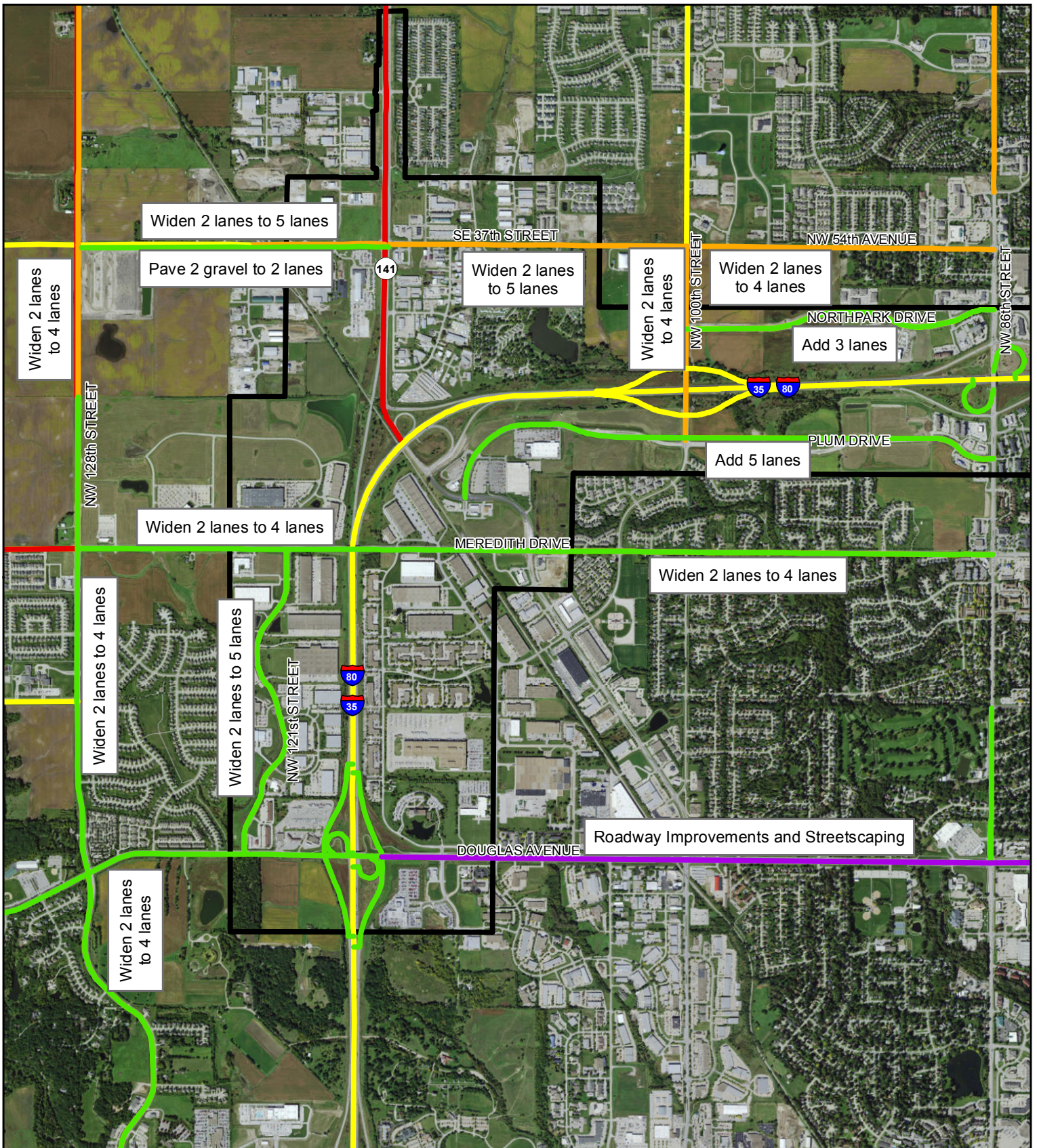
In summary, the overall cumulative impacts of the Preferred Alternative are not considered to be collectively significant.

### 5.5. Streamlined Resource Summary

Resources not discussed in the body of the EA are located in the Streamlined Resource Summary, Appendix A. The summary includes information about the resources, the method used to evaluate them, and when the evaluation was completed. Table 11 summarizes the Preferred Alternative's impacts to resources discussed in Section 5.0.

**Table 11. Summary of Impacts**

Issue	No Build Alternative	Preferred Alternative
Right of Way Acquisition (acres)	0	8.5
Potential Displacements (number)	0	1 Building / 6 Tenants
Wetland Impacts (acres)	0	1.86
Surface Waters and Water Quality (linear feet)	0	948
Floodplains (acres)	0	1.9
Noise Impacts (number)	1	7
Utilities (number of crossings)	0	13
Visual	No Change	Minor Change



**DMAMPO 2035 LRTP Completed Projects**

**DMAMPO 2035 LRTP Projects**

- 2011 - 2015
- 2016 - 2025
- 2026 - 2035

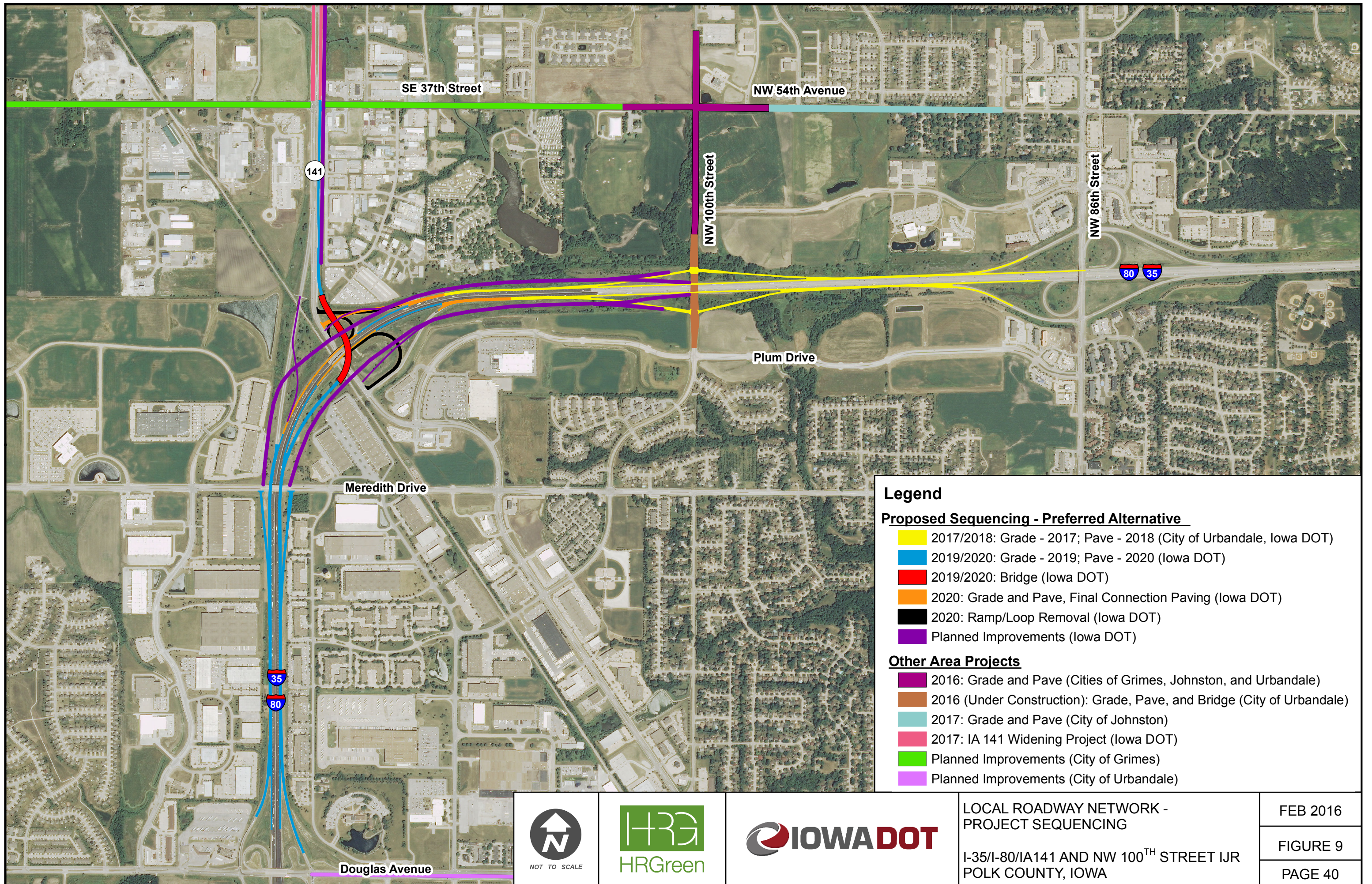
**DMAMPO 2050 LRTP Project**

**Study Area**

0 1,000 2,000 4,000  
Feet

**Figure 8**  
**Planned and**  
**Constructed Projects**

I-80/I-35/IA-141 Interchange  
Polk County, Iowa



**Legend**

**Proposed Sequencing - Preferred Alternative**

- █ 2017/2018: Grade - 2017; Pave - 2018 (City of Urbandale, Iowa DOT)
- █ 2019/2020: Grade - 2019; Pave - 2020 (Iowa DOT)
- █ 2019/2020: Bridge (Iowa DOT)
- █ 2020: Grade and Pave, Final Connection Paving (Iowa DOT)
- █ 2020: Ramp/Loop Removal (Iowa DOT)
- █ Planned Improvements (Iowa DOT)

**Other Area Projects**

- █ 2016: Grade and Pave (Cities of Grimes, Johnston, and Urbandale)
- █ 2016 (Under Construction): Grade, Pave, and Bridge (City of Urbandale)
- █ 2017: Grade and Pave (City of Johnston)
- █ 2017: IA 141 Widening Project (Iowa DOT)
- █ Planned Improvements (City of Grimes)
- █ Planned Improvements (City of Urbandale)

## 6.0 Disposition

This Streamlined EA concludes that the proposed project is necessary for safe and efficient travel within the project corridor and that the proposed project meets the purpose and need. The project will have no significant adverse social, economic, or environmental impacts of a level that would warrant an environmental impact statement. Alternative selection will occur following completion of the public review period and public hearing.

This EA is being distributed to the agencies and organizations listed. Individuals receiving this EA are not listed for privacy reasons.

### *Federal Agencies*

- Federal Aviation Administration
- Federal Emergency Management Agency
- U.S. Army Corps of Engineers – Rock Island District (Regulatory) and Omaha District (Planning)
- U.S. Department of Agriculture – Natural Resources Conservation Service
- U.S. Department of the Interior – Office of Environmental Policy and Compliance
- U.S. Environmental Protection Agency – Region 7, National Environmental Policy Act Team
- U.S. Fish & Wildlife Service – Rock Island Field Office

### *State Agencies*

- Iowa Department of Agriculture and Land Stewardship
- Iowa Department of Natural Resources – State Office and Field Office #5
- Iowa Soil and Water Conservation
- State Historical Society of Iowa

### *Local/Regional Units of Government*

- Polk County Board of Supervisors
- Polk County Conservation Board
- Polk County Engineer
- Polk County Historical Society
- Cities of Grimes, Johnston, and Urbandale – Mayor, Public Works Department, Parks and Recreation Director
- Cities of Grimes, Johnston, and Urbandale – City Clerk
- Cities of Grimes, Johnston, and Urbandale – Mayor, City Council, City Manager
- Cities of Grimes, Johnston, and Urbandale – Mayor, City Council, Public Works Director

*Locations Where this Document is Available for Public Review*

- Grimes Public Library, 200 North James Street, Grimes, IA 50111
- Johnston Public Library, 6700 Merle Hay Road, Johnston, IA 50131
- Urbandale Public Library, 3520 86<sup>th</sup> Street, Urbandale, IA 50322
- Federal Highway Administration, 105 6th Street, Ames, IA 50010
- Iowa Department of Transportation, 800 Lincoln Way, Ames, IA 50010
- Iowa Department of Transportation, District 1 Office,

*The following permits may be required for this project*

- Department of the Army Permit from the U.S. Army Corps of Engineers, Rock Island District (Section 404 Wetland Permit)
- Water Quality Certification from Iowa DNR (Section 401 Water Quality Certification)
- Iowa DNR National Pollutant Discharge Elimination System General Permit No. 2 for Storm Water Discharge Associated with Construction Activities (NPDES Storm Water Permit)

Unless significant impacts are identified as a result of public review or at the public hearing, a Finding of No Significant Impact (FONSI) will be prepared for this proposed action as a basis for federal-aid corridor location approval.

## 7.0 Comments and Coordination

### 7.1. Agency and Tribal Coordination

Early agency coordination letters were sent to resource agencies May 13, 2014. Table 12 provides the list of agencies contacted for coordination on the I-35/I-80/IA 141 project; those agencies that provided a response are indicated with the date the response was received.

**Table 12. Agency Coordination**

Agency Type	Agency	Date of Response
Federal	U.S. Environmental Protection Agency	07/03/2014
Federal	Federal Emergency Management Agency	None
Federal	U.S. Fish and Wildlife Service	None
Federal	U.S. Department of Interior	None
Federal	U.S. Army Corps of Engineers	06/05/2014
Federal	U.S. Department of Agriculture	None
Federal	U.S. Department of Housing and Urban Development	None
State	Iowa Department of Natural Resources	05/16/2014
State	Iowa Department of Natural Resources	07/09/2014
State	Iowa Department of Natural Resources	05/14/2014
State	State Historic Preservation Office	None
State	Iowa Interstate Railroad, Limited	None
State	Iowa Department of Natural Resources	None
Local	Urbandale Historical Society	None
Local	Grimes Heritage Society	None
County	Polk County Board of Supervisors	None
County	Polk County Conservation	None
County	Polk County Public Works	None
Regional	DMAMPO	None
Regional	Des Moines Area Regional Transit Authority (DART)	None
Non-Governmental	Iowa Interstate Railroad, Ltd.	None
Local	City of Johnston	None
Local	City of Grimes	None
Local	City of Urbandale	None
Local	Walnut Creek Watershed Coalition c/o City of Windsor Heights	None

The response letter from the U.S. Environmental Protection Agency (EPA) provided the following comments and recommendations:

- No issues that would hinder the project.
- Recommend contacting IDNR and City of Urbandale to determine the best method of compliance with local and state ordinances and standards.
- Recommend mitigation for impacted wetlands take place in the same HUC 8 or smaller watershed.
- Recommend contacting USACE to determine permitting requirements.
- Recommend including an analysis and disclosure of greenhouse gas (GHG) emissions and climate change impacts in the environmental analysis.



The response letter from the U.S. Army Corps of Engineers (USACE) provided the following comments and recommendations:

- Does not involve Rock Island District administered land; no Rock Island District real estate coordination necessary.
- Project may require Department of the Army Section 404 permit.
- Coordinate with Iowa Historic Preservation Agency.
- Contact U.S. Fish and Wildlife Service.
- Levee systems will not be impacted by the proposed project unless the study is revised or expanded, contact Iowa Emergency Management Division about floodway impact.

The response letter from the Iowa Department of Natural Resources (Iowa DNR) Environmental Services Division provided the following comments and recommendations:

- Waters of the U.S. (including wetlands) should not be disturbed if a less environmentally damaging alternative exists.
- Unavoidable adverse impacts should be minimized; remaining impacts should be compensated for through restoration.
- Proposed placement of dredged or fill material into waters of the U.S. (including jurisdictional wetlands) requires Department of the Army authorization.

The response letter from the Iowa DNR Conservation and Recreation Division provided the following comments and recommendations:

- No site-specific records of rare species and significant natural communities found that would be impacted by the project.
- The Indiana bat is known to inhabit this area of the state and may occur in the area of the project.
- Suggest contacting U.S. Fish and Wildlife Service.

Tribal coordination letters were sent on August 25, 2015. The letter includes a determination of “No Historic Properties Affected“. The letter asks that tribes respond within 30 days if there are concerns regarding the proposed project and impacts to sites of religious or cultural significance to the tribe. As of September 1, 2015, no responses were received. The coordination letter and list of the tribes contacted are included in Appendix B.

## **7.2. Public Involvement**

Two public information meeting were held during the development and selection of alternatives for this project. The first was held at the Urbandale Library (Rooms A & B), 3520 86th St., in Urbandale on May 29, 2014. Approximately 75 people registered their attendance at the meeting to discuss alternatives being considered and the project’s purpose and need.

Following further alternative refinement and alternative evaluation, a second public information meeting was held to discuss the alternatives being considered. This meeting was held at the Giovannetti Community Shelter, 9000 Douglas Avenue, in Urbandale on May 5, 2015. Approximately 126 people registered their attendance at the meeting to discuss alternatives being considered and the purpose and need of the project.

## 8.0 References

City of Grimes, *The City of Grimes Comprehensive Plan*, <http://www.grimesiowa.gov/Portals/0/pages/home/Grimes%20Comprehensive%20Plan%202010%20web1.pdf>. September 2010. Web. May 11, 2016.

City of Johnston, *Johnston 2030 Comprehensive Plan*, <http://www.cityofjohnston.com/?nid=109>. December 6, 2010. Web. May 11, 2016.

City of Urbandale, *Official Zoning Map*, <http://urbandale.org/DocumentCenter/Home/View/992>, June 22, 2009. Web. May 11, 2016.

City of Urbandale, *Urbandale Comprehensive Plan*, City of Urbandale Planning and Zoning Commission, June 24, 2003. Web. May 11, 2016.

City of Urbandale, "Zoning Code, Title XV, Chapter 160, Section 160.24".

HR Green, Inc., *Habitat Assessment, Interstate 35, 80 and Iowa 141 Interchange*, April 2015.

HR Green, Inc., *Interstate 35/Interstate 80 and Iowa Highway 141 Interchange Justification Report*, February 2016.

HR Green, Inc., *Limited Phase I Environmental Site Assessment, IA 141/I-80/I-35 Interchange, Polk County, Iowa*, January 2014.

HR Green, Inc., *I-35/I-80/IA 141 Interchange, Traffic Noise Analysis Technical Memorandum*, June 2015.

HR Green, Inc., *Technical Memorandum #6, I-35/I-80/IA 141 Interchange Alternatives Screening*, June 2015.

HR Green, Inc., *Wetland Delineation Report, Interstate 35, 80, and Iowa 141 Interchange*, April 2015.

Hoisington Koegler Group, Inc., *Johnston 2030 Comprehensive Plan*, 2010.

Institute of Transportation Engineers, *Freeway and Interchange Geometric Design Handbook*, 2005.

RDG Planning & Design, *City of Grimes Comprehensive Plan*, 2010.

Wapsi Valley Archaeology, *A Phase IA Archaeological Resources Assessment for the Proposed I-80/I-35/IA-141 Interchange (A.K.A. Ryder Corner) Improvement Project, Urbandale and Grimes, Polk County, Iowa*, February 2014.

Wapsi Valley Archaeology, *Reconnaissance Level Historical and Architectural Survey for the I-80/I-35/IA-141 Interchange Improvements Project, Urbandale and Grimes, Polk County, Iowa*, January 2014.

**APPENDIX A**

**STREAMLINED RESOURCE SUMMARY**

**SOCIOECONOMIC IMPACTS SECTION:**

<b>Land Use</b>	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Other
Completed by and Date:	Consultant, 6/1/2015
<b>Community Cohesion</b>	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Other
Completed by and Date:	Consultant, 5/1/2015
<b>Churches and Schools</b>	
Evaluation:	Resource is in the study area but will not be impacted
Method of Evaluation:	Database
Completed by and Date:	Consultant, 5/1/2015
<b>Environmental Justice</b>	
Evaluation:	Resource is in the study area but will not be impacted
Method of Evaluation:	Database
Completed by and Date:	Consultant, 6/8/2015
<b>Economic</b>	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Database
Completed by and Date:	Consultant, 6/9/2015
<b>Joint Development</b>	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Other
Completed by and Date:	Consultant, 5/1/2015
<b>Parklands and Recreational Areas</b>	
Evaluation:	Resource is in the study area but will not be impacted
Method of Evaluation:	Database
Completed by and Date:	Consultant, 6/10/2015
<b>Bicycle and Pedestrian Facilities</b>	
Evaluation:	Resource is in the study area but will not be impacted
Method of Evaluation:	Database
Completed by and Date:	Consultant, 6/11/2015
<b>Right-of-Way</b>	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Other
Completed by and Date:	Consultant, 6/12/2015
<b>Relocation Potential</b>	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Other
Completed by and Date:	Consultant, 6/19/2015

**SOCIOECONOMIC IMPACTS SECTION Continued:**

<b>Construction and Emergency Routes</b>	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Other
Completed by and Date:	Consultant, 6/18/2015
<b>Transportation</b>	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Other
Completed by and Date:	Consultant, 6/17/2015

**CULTURAL IMPACTS SECTION:**

<b>Historic Sites or Districts</b>	
Evaluation:	Resource is in the study area but will not be impacted. Concurrence received from SHPO Historian on April 27, 2016 and on June 8, 2016. (See Appendix B.) Concurrence is based on understanding that the A.J. Reeves home will be avoided.
Method of Evaluation:	Report
Completed by and Date:	Subconsultant, 5/17/2016
<b>Archaeological Sites</b>	
Evaluation:	Resource is in the study area but will not be impacted. Concurrence received from SHPO Archaeologist on December 1, 2015. (See Appendix B.)
Method of Evaluation:	Report
Completed by and Date:	Subconsultant, 5/17/2016
<b>Cemeteries</b>	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Database
Completed by and Date:	Consultant, 5/1/2015

**NATURAL ENVIRONMENT IMPACTS SECTION:**

<b>Wetlands</b>	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Report
Completed by and Date:	Consultant, 04/01/2015
<b>Surface Waters and Water Quality</b>	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Field Review/Field Study
Completed by and Date:	Consultant, 6/16/2015
<b>Wild and Scenic Rivers</b>	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Database
Completed by and Date:	Consultant, 5/1/2015
<b>Floodplains</b>	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Database
Completed by and Date:	Consultant, 6/15/2015
<b>Wildlife and Habitat</b>	
Evaluation:	Resource is in the study area but will not be impacted. Cliff swallow nests are present on the existing southbound 141 bridge. Existing nests will be removed when the nests are not active. The Migratory Bird Treaty Act (16 U.S.C. 703-712) will be followed for protected species listed in 50 CFR 10.13 located within the study area.
Method of Evaluation:	Report
Completed by and Date:	Consultant, 4/1/2015
<b>Threatened and Endangered Species</b>	
Evaluation:	Resource is in the study area but will not be impacted
Method of Evaluation:	Report
Completed by and Date:	Consultant, 4/1/2015
<b>Woodlands</b>	
Evaluation:	Resource is in the study area but will not be impacted
Method of Evaluation:	Report
Completed by and Date:	Consultant, 4/1/2015
<b>Farmlands</b>	
Evaluation:	Resource is in the study area but will not be impacted
Method of Evaluation:	Database
Completed by and Date:	Consultant, 5/20/2015

**PHYSICAL IMPACTS SECTION:**

<b>Noise</b>	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Report
Completed by and Date:	Consultant, 6/24/2015
<b>Air Quality</b>	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Other
Completed by and Date:	Consultant, 5/1/2015
<b>MSATs</b>	
Evaluation:	<p>This project has been determined to generate minimal air quality impacts for CAAA criteria pollutants and has not been linked with any special MSAT concerns. As such, this project will not result in changes in traffic volumes, vehicle mix, basic project location, or any other factor that would cause an increase in MSAT impacts of the project from that of the no build alternative.</p> <p>Moreover, EPA regulations for vehicle engines and fuels will cause overall MSAT emissions to decline significantly over the next several decades. Based on regulations now in effect, an analysis of national trends with EPA's MOBILE6.2 model forecasts a combined reduction of 72 percent in the total annual emission rate for the priority MSAT from 1999 to 2050 while vehicle-miles of travel are projected to increase by 145 percent. This will both reduce the background level of MSAT as well as the possibility of even minor MSAT emissions from this project.</p>
Method of Evaluation:	FHWA Interim Guidance Update on Mobile Source Air Toxic Analysis in NEPA Documents, September 30, 2009
Completed by and Date:	Consultant, 6/1/2015
<b>Energy</b>	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Other
Completed by and Date:	Consultant, 5/1/2015
<b>Contaminated and Regulated Materials Sites</b>	
Evaluation:	Resource is in the study area but will not be impacted
Method of Evaluation:	Report
Completed by and Date:	Consultant, 1/15/2014
<b>Visual</b>	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Other
Completed by and Date:	Consultant, 6/15/2015
<b>Utilities</b>	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Other
Completed by and Date:	Consultant, 6/10/2015

**APPENDIX B**

**AGENCY AND TRIBAL COORDINATION**





# STATE OF IOWA

TERRY E. BRANSTAD, GOVERNOR  
KIM REYNOLDS, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES  
CHUCK GIPP, DIRECTOR

May 14, 2014

MS DEEANN NEWELL  
IOWA DEPARTMENT OF TRANSPORTATION  
800 LINCOLN WAY  
AMES IA 50010

RECEIVED

MAY 16 2014

Office of Location & Environment

RE: I-80 / I-35 / IA 141 Interchange  
Polk County  
IM-080-3(178)127—13-77

Dear Ms. Newell:

This letter is in response to your letter dated May 13, 2014 concerning the preparation of an Environmental Assessment for the I-80 / I-35 / IA 141 Interchange improvement project. Thank you for inviting our comments on the impact of this project.

As you know, waters of the United States (includes wetlands) should not be disturbed if a less environmentally damaging alternative exists. Unavoidable adverse impacts should be minimized to the extent practicable. Any remaining adverse impacts should be compensated for through restoration and creation activities (enhancement and/or preservation may be in addition to the restoration/creation). We would ask that Best Management Practices be used to control erosion and protect water quality near the project.

Any proposed placement of dredged or fill material into waters of the United States (including jurisdictional wetlands) requires Department of the Army authorization. When detailed plans are available, please complete and submit the joint application form to the Rock Island District Corps of Engineers (1 copy) and Iowa Department of Natural Resources (2 copies) for processing. The application form may be obtained at <http://www.iowadnr.gov/InsideDNR/RegulatoryLand/FloodPlainManagement/FloodPlainDevPermits.aspx>.

An electronic copy of the application form and instructions may also be obtained on the Corps' website: <http://www.mvr.usace.army.mil>.

If you have any questions, please call me at (515) 281-6615.

Sincerely,

Christine Schwake  
Environmental Specialist



# STATE OF IOWA

TERRY E. BRANSTAD, GOVERNOR  
KIM REYNOLDS, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES  
CHUCK GIPP, DIRECTOR

May 14, 2014

DeeAnn Newell  
IDOT - NEPA Section  
Office of Location & Environment  
800 Lincoln Way  
Ames, IA 50010

RE: I-35/I-80/IA141 Interchange, Polk County, Iowa  
Environmental Assessment IM-080-3(178)127--13-77

Dear Ms. Newell:

This letter is in response to your request for information on potential impacts to I-35/I-80/IA 141 Interchange project in Polk County, Iowa, as they relate to the Federal Land & Water Conservation Fund (LWCF).

After review of the Federal LWCF projects awarded to Polk County, the City of Urbandale, City of Grimes and City of Johnston, it does not appear that there are any federal program conflicts within the area of potential effect. I have also checked for projects that were awarded a Resource Enhancement & Protection Fund (REAP) or Recreation Infrastructure Fund grant. Again, I do not find any potential conflicts.

Your early coordination process is very helpful to our office and the National Park Service as we both are responsible for ensuring LWCF projects remain in outdoor recreation, and conversions are kept to a minimum.

If our department or the Park Service discovers a potential conflict with the interchange project, we will be in contact with your office right away. If you have any questions, I can be reached at 515-281-3013.

Sincerely,

*Kathleen Moench*

Kathleen Moench  
Budget & Finance Bureau

Enclosures



REPLY TO  
ATTENTION OF

DEPARTMENT OF THE ARMY  
CORPS OF ENGINEERS, ROCK ISLAND DISTRICT  
PO BOX 2004 CLOCK TOWER BUILDING  
ROCK ISLAND, ILLINOIS 61204-2004

June 3, 2014

RECEIVED

JUN - 5 2014

Regional Planning and  
Environmental Division North

Office of Location & Environment

DeeAnn Newell  
NEPA Team Leader  
Iowa Department of Transportation  
800 Lincoln Way  
Ames, Iowa 50010

Dear Ms. Newell:

I received your letter dated May 13, 2014, requesting comments regarding the preparation of an Environmental Assessment for the construction of highway, bridge and local street improvements within the I-35/I-80 and IA 141 Interchange Corridor in the cities of Urbandale and Grimes, Iowa (RE: Project #IM-080-3(178)127—13-77). Rock Island District Corps of Engineers staff reviewed the information you provided and have the following comments:

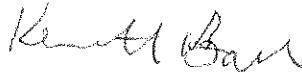
- a. Your proposal does not involve Rock Island District administered land; therefore, no further Rock Island District real estate coordination is necessary.
- b. It appears your project may impact waters of the United States (including jurisdictional wetlands) and may require Department of the Army Section 404 permit. We require additional details of your project before we can make a final determination of permit requirements. When detailed plans are available, please complete and submit an application packet to the Rock Island District for processing. The application should include determinations of wetlands and other waters of the United States, size estimations of impacts to those areas, and wetland types and relative functions. If you have any questions regarding permit requirements under Section 404 of the Clean Water Act, please contact Mr. Mike Hayes of our Regulatory Branch. You may reach Mr. Hayes by writing to our address above, ATTN: Regulatory Branch (OD-PP), or by telephoning 309/794-5367.
- c. The Responsible Federal Agency should coordinate with Ms. June Strand, Iowa Historic Preservation Agency, ATTN: Review and Compliance Program, State Historical Society of Iowa, 600 East Locust, State Historic Building, Des Moines, Iowa 50319 to determine impacts to historic properties.
- d. The Rock Island Field Office of the U.S. Fish and Wildlife Service should be contacted to determine if any federally-listed endangered species are being impacted and, if so, how to avoid or minimize impacts. The Rock Island (County) Field Office address is: 1511 - 47th Avenue, Moline, Illinois 61265. Mr. Kraig McPeck is the acting Field Supervisor. You can reach him by calling 309/757-5800.
- e. There are no flood risk management projects within or immediately adjacent to the proposed project study area. Therefore, the Des Moines, West Des Moines, and Van Meter (inactive) levee systems will not be impacted by the proposed project unless the study area is revised or expanded.

The Iowa Emergency Management Division should be contacted to determine if the proposed project may impact areas designated as floodway. Mr. John Wagman is the Iowa State Hazard Mitigation Team Leader. His address is: 7105 NW 70<sup>th</sup> Ave., Camp Dodge-Bldg. W4, Johnston, Iowa 50131. You can reach him by calling 515/725-3231.

No other concerns surfaced during our review. Thank you for the opportunity to comment on your proposal. If you need more information, please call Ms. Wendy Frohlich of our Environmental Compliance Branch, telephone 309/794-5573.

You may find additional information about the Corps' Rock Island District on our website at <http://www.mvr.usace.army.mil> . To find out about other Districts within the Corps, you may visit: <http://www.usace.army.mil/Locations.aspx>.

Sincerely,



Kenneth A. Barr  
Chief, Environmental Planning  
Branch, (RPEDN)

## Newell, Deeann [DOT]

---

**From:** Summerlin, Joe <summerlin.joe@epa.gov>  
**Sent:** Thursday, July 03, 2014 8:58 AM  
**To:** Newell, Deeann [DOT]  
**Subject:** I-35/I-80/IA141 Interchange EA

Ms. DeeAnn:

Thank you for contacting the U.S. Environmental Protection Agency (EPA). We received your letter dated June 3, 2014 in regards to I-35/I-80/IA 141 Interchange. Based on a precursory map reconnaissance using NEPAassist, there appears to be no issues that would hinder this project. Here are a few considerations IowaDOT might include in the NEPA process.

Regarding stormwater runoff during construction, the IDNR requires construction activity that disturbs one or more acres to be covered by a storm water permit before any soil is disturbed at the site. The permit coverage must be continued until all building is completed and the ground is completely stabilized with a permanent, perennial, vegetative cover. EPA recommends contacting IDNR as well as the City of Urbandale to determine the best method of compliance with local and state ordinances and standards.

In the event that there are jurisdictional Waters and/or Wetlands of the United States impacted by any proposed future action, we recommend that any mitigation should occur in the same HUC 8 or smaller watershed as the location of the project impacts. We advise avoiding and minimizing impacts to wetlands and streams as much as possible before moving towards determining the amount of compensatory mitigation that is required. We urge you to contact the appropriate authorities at the US Army Corp of Engineers to determine whether a CWA Section 404 permit may be required for such action.

Pursuant to draft Council on Environmental Quality (CEQ) guidance and Executive Order 13514, the EPA recommends that the IowaDOT include an analysis and disclosure of greenhouse gas (GHG) emissions and climate change associated with the RFD for the planning area, potential climate change impacts from the emissions, reasonable alternatives and/or practicable mitigation to reduce project-related GHG emissions, and a discussion of any appropriate climate change adaptation issues. For the EIS analysis, we suggest the following approach:

- Estimate the anticipated GHG emissions associated with the proposed project. We recommend that GHG emissions be estimated in CO<sub>2</sub>-equivalent terms and translated into equivalencies that are more easily understood by the public (e.g., annual GHG emissions from x number of motor vehicles, see <https://www.epa.gov/cleanenergy/energy-resources/calculator.html>).
- Assess and identify measures to reduce GHG emissions associated with the proposed project, including alternatives and/or potential requirements to mitigate emissions.
- Describe any existing regional, tribal or state climate change plans or goals that cover the project area. Include a summary discussion of ongoing and projected regional climate change relevant to the project area in the “affected environment” section of the EA, based on U.S. Global Change Research Program assessments. This would enable the EA to identify potential impacts that may be exacerbated by climate change (e.g., reclamation could become more difficult with climate change, or the impacts of water consumption could increase). It would also enable the IowaDOT to determine whether it may be appropriate to consider reasonable alternatives to adapt to anticipated climate change.

Respectfully,

Joe Summerlin  
NEPA Reviewer

EPA Region 7  
11201 Renner Blvd.  
Lenexa, KS 66219  
**(913) 551-7029**



# STATE OF IOWA

TERRY E. BRANSTAD, GOVERNOR  
KIM REYNOLDS, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES  
CHUCK GIPP, DIRECTOR

July 3, 2014

Iowa Department of Transportation  
Attn: DeeAnn Newell  
800 Lincolnway  
Ames, IA 50010

**RECEIVED**

JUL 09 2014

Office of Location & Environment

RE: Environmental Review for Natural Resources  
I-35/I-80/IA 141 Interchange  
Polk County

Dear Ms. Newell:

Thank you for inviting Department comment on the impact of this project. The Department has searched for records of rare species and significant natural communities in the project area and found no site-specific records that would be impacted by this project. However, these records and data are not the result of thorough field surveys. If listed species or rare communities are found during the planning or construction phases, additional studies and/or mitigation may be required. If the construction plans change, the Department should be contacted for another review.

The Indiana bat (*Myotis sodalis*), a state- and federally-endangered species, is known to inhabit this area of the state and may occur in the area of this project. Indiana bats are found in areas of mature upland forest and along wooded corridors of small streams. The bats forage for insects beneath the canopy. Female Indiana bats form maternity colonies under loose tree bark.

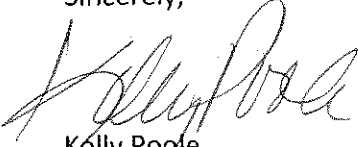
The enclosed guidelines provide information about the habitat requirements and survey methods for Indiana bat summer habitat. If it appears that you will disturb potential Indiana bat summer habitat, we suggest that you contact the U.S. Fish and Wildlife Service regarding this project. The Rock Island Field Office may be reached at (309) 757-5800 or 1511 47<sup>th</sup> Ave. Moline, IL, 61265-7022.

This letter is a record of review for protected species, rare natural communities, state lands and waters in the project area, including review by personnel representing state parks, preserves, recreation areas, fisheries and wildlife but does not include comment from the Environmental Services Division of this Department. This letter does not constitute a permit. Other permits may be required from the Department or other state or federal agencies before work begins on this project.

Please reference the following DNR Environmental Review/Sovereign Land Program tracking number assigned to this project in all future correspondence related to this project: 10227.

If you have questions about this letter or require further information, please contact me at (515) 281-8967.

Sincerely,

A handwritten signature in cursive script, appearing to read "Kelly Poole".

Kelly Poole  
Environmental Specialist  
Conservation and Recreation Division

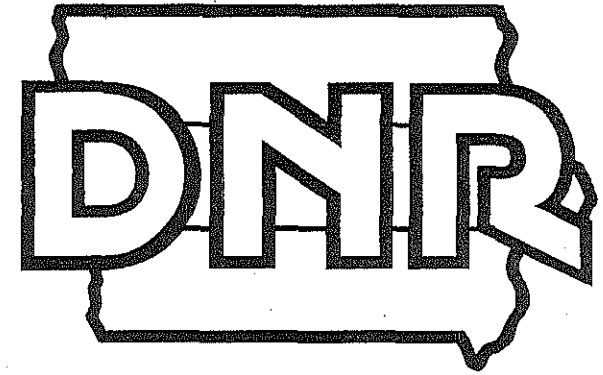
FILE COPY: Kelly Poole

Tracking Number: 10227

Enclosure

CC: U.S. Fish and Wildlife Service, Rock Island Field Office, 1511 47<sup>th</sup> Ave., Moline, IL 61265-7022  
(w/o enclosure)





Counties Affected:

*Adair, Appanoose, Boone, Cedar, Clarke, Dallas, Davis, Decatur, Des Moines, Guthrie, Henry, Iowa, Jasper, Jefferson, Johnson, Keokuk, Lee, Louisa, Lucas, Madison, Mahaska, Marion, Marshall, Monroe, Muscatine, Polk, Poweshiek, Ringgold, Scott, Story, Tama, Taylor, Union, Van Buren, Wapello, Warren, Washington, and Wayne*

### Additional Information

The Iowa Department of Natural Resources is available to identify qualified professionals who conduct habitat surveys and bat surveys.

Please contact the US Fish and Wildlife Service for information about the most current federal guidelines for the Indiana bat.

These guidelines may be revised based on the availability of new research or management information or to clarify particular points in the guidelines.

These guidelines were prepared to provide information about the Indiana bat and its summer habitat requirements in Iowa and to prevent inadvertent harm to the species through various human activities. This update of the guidelines is in response to changes in the US Fish and Wildlife Service requirements for protecting this endangered species. The changes include:

- No cut dates changed to April 1 through September 30
- Updated US Fish and Wildlife Service guidelines for mist net surveys

The Indiana bat is a federal (50 CFR Part 17) and state (Code of Iowa, Chapter 481B) endangered species that occurs in southern Iowa from April through September.

Female Indiana bats (*Myotis sodalis*) have their young beneath loose or peeling tree bark. Most nursery colonies have been found on the trunk or large branches beneath the bark of standing dead trees. The nursery colonies are located along streams and rivers or in upland forest areas.

Trees that retain sheets or plates of bark that provide space beneath the bark when dead, such as red oak, post oak, and cottonwood, are potential roost trees. Live trees such as shagbark and shellbark hickory are also occasionally used as roosts.

Indiana bats have also been captured on the edge of urban areas. It is likely that the bats would use areas on the edge of urban areas only if there is suitable habitat such as a greenbelt or a large park with a natural forest component. This would exclude city parks that are maintained as mowed areas.

### US Fish and Wildlife Service

Rock Island Field Office  
1511 47<sup>th</sup> Ave  
Moline IL 61265-7022

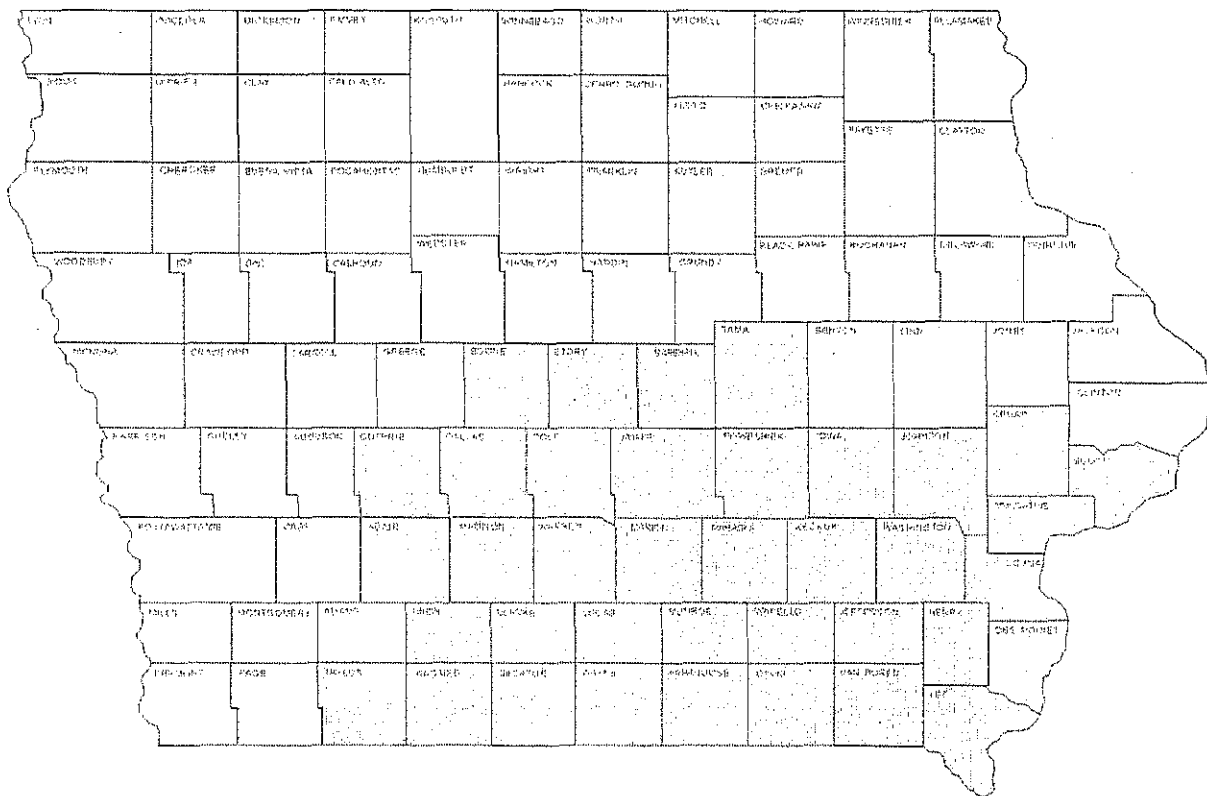
Phone: (309) 757-5800

### Iowa Department of Natural Resources

Endangered Species Coordinator  
Wallace State Office Building  
502 E 9<sup>th</sup> St  
Des Moines IA 50319-0034

Phone: (515) 281-5918  
Fax: (515) 281-6794

## Indiana Bat Summer Habitat in Iowa



### Counties Affected

*Adair, Appanoose, Boone, Cedar, Clarke, Dallas, Davis, Decatur, Des Moines, Guthrie, Henry, Iowa, Jasper, Jefferson, Johnson, Keokuk, Lee, Louisa, Lucas, Madison, Mahaska, Marion, Marshall, Monroe, Muscatine, Polk, Poweshiek, Ringgold, Scott, Story, Tama, Taylor, Union, Van Buren, Wapello, Warren, Washington, and Wayne*

*The US Fish and Wildlife Service considers these counties, as being within the potential range of the species in Iowa.*

## Summer Habitat Requirements

In Iowa, records for the Indiana bat have occurred in areas of 10% or greater forest cover and near permanent water. Trees with slabs or plates of loose bark are considered suitable as summer roosts.

Suitable summer habitat in Iowa is considered to have the following within a one-half or one mile radius of a location:

- Forest cover of 10% or greater within one-half mile.
- Permanent water within one-half mile.
- The potential roost trees ranked as moderate or high for peeling or loose bark within one mile.

## Survey Methods for Indiana Bat Summer Habitat

### Step 1:

Determine if there is 10% or greater forest cover or if a 10 acre block of forest that is connected to another forest area and permanent water is within 1/2 mile of the project site go to Step 2.

If forest area is less than 10 acres and isolated by 1/4 mile or more from other forest, then there is no need to continue survey efforts.

### Step 2:

Conduct a survey of the project area that will be cleared or cut to determine if standing trees that have 10% or greater loose or peeling bark on the trunks and main limbs are present. The amount of loose or peeling bark is based on visual estimation. This will include both upland and floodplain forests. Areas that are too large for complete counts may be sampled using techniques such as point-quarter, tenth-acre quadrats or other acceptable forest sampling techniques.

If clearing and grubbing activities will not begin until after April 1, the survey should extend 50 yards beyond the area to be cleared. This buffer will reduce the potential for harm to roosting bats near the edge of the area to be disturbed.

If a survey of the habitat within the project area finds that suitable summer habitat for the Indiana Bat, as defined above, is present then there are two options available:

### Option 1:

Conduct a mist net survey of the project area for the presence Indiana bats. The US Fish and Wildlife Service has guidelines for conducting mist net surveys. You may request a copy of the survey guidelines from the Rock Island Field office at the address listed on the back of this document. Submit results to the Rock Island Field Office and the Iowa Department of Natural Resources.

If Indiana bats are found during the survey then no removal of trees will be allowed between April 1 and September 30.

### Option 2:

If the proposed project will disturb or remove less than 2-acres of forest, tree clearing and cutting may be done after September 30 and before April 1.

Office of Location & Environment

800 Lincoln Way, Ames, IA 50010

Phone: 515-239-1097 | Email: [matt.donovan@dot.iowa.gov](mailto:matt.donovan@dot.iowa.gov)

August 25, 2015

Ref. IM-080-3(178)--13-77

Primary System

Polk County

Mr. Lance Foster, THPO  
Iowa Tribe of Kansas and Nebraska  
3345 B. Thrasher Rd.  
White Cloud, KS 66094

Mr. Foster:

**RE: Phase IA Archaeological Resources Assessment- Proposed I-80 /I-35/IA-141 Interchange Project / Ryder's Corner- Urbandale and Grimes, Polk County, IA; Finding of Determination-*No Historic Properties Affected***

Enclosed for your information is the phase IA assessment for the above-mentioned federally funded project, along with project corridor map. The project proposes a series of road improvement projects, including an interchange improvement, along I-80 / I-35 / IA-141 in Polk County, Iowa.

After completing the archaeological assessment of the project area, the consultant recommended a phase I archaeological investigation if the project area would be impacted. The preferred alternative will not be outside of the current transportation right-of-way and will not cause any impacts. Based on this review, the determination for this project is ***No Historic Properties Affected***.

As part of this coordination effort, we request that you contact us in the next 30-days if you have any concerns that the project could impact any sites of religious or cultural significance to your tribe. After 30-days, project development will continue. Enclosed with the package is a postage-paid notification form that you may use, if you wish, to return comments about the project. Please feel free to call me at (515) 239-1035. If you wish to contact a representative of the U.S. government, call Mr. Michael LaPietra, Federal Highway Administration, Iowa Division, at (515) 233-7302.

If you have any questions, please contact me at (515) 239-1097 or [matt.donovan@dot.iowa.gov](mailto:matt.donovan@dot.iowa.gov).

Sincerely,



Matthew J.F. Donovan, RPA  
Office of Location and Environment

MJFD  
Enclosure  
cc: Mike LaPietra – Federal Highway Administration

## List of Tribes Contacted

Tribe	Prefix	First	Last	Contact Title	Address Line 1	Address Line 2	City	State	Zip
Flandreau Santee Sioux	Mr.	Sam	Allen	THPO	P.O. Box 283		Flandreau	SD	57028
Iowa Tribe of Kansas and Nebraska	Mr.	Lance	Foster	THPO	3345 Thrasher Road		White Cloud	KS	66094
Iowa Tribe of Oklahoma	Mr.	Bobby	Walkup	Tribal Chairman	335588 E. 750 Road		Perkins	OK	74059
Miami Tribe of Oklahoma	Mr.	George	Strack	THPO	202 S. Eight Tribes Trail	P.O. Box 1326	Miami	OK	74355
Omaha Tribe of Nebraska	Mr.	Thomas	Parker	THPO	P.O. Box 368		Macy	NE	68039
Otoe-Missouria Tribe	Mr.	David	Echohawk		8151 Hwy 177		Red Rock	OK	74651
Peoria Tribe of Indians of Oklahoma	Mr.	Logan	Pappenfort	NAGPRA Representative	118 S. Eight Tribes Trail	P.O. Box 1527	Miami	OK	74355
Ponca Tribe of Nebraska	Mr.	Randy	Teboe	THPO	PO Box 288		Niobrara	NE	68760
Prairie Band Potawatomi Nation	Ms.	Hattie	Mitchell	NAGPRA Representative	Government Center	16281 Q Road	Mayetta	KS	66509
Sac and Fox Nation of Oklahoma	Ms.	Sandra Kaye	Massey		920883 S Hwy 99	Building A	Stroud	OK	74079
Sac and Fox Tribe of the Mississippi in Iowa	Mr.	Johnathan	Buffalo	Historic Preservation Director	349 Meskwaki Road		Tama	IA	52339
Sisseton - Wahpeton Oyate	Ms.	Dianne	Desrosiers	THPO	12554 BIA Hwy 711	PO Box 907	Agency Village	SD	57262
Spirit Lake Tribe	Mr.	Erich	Longie	THPO	P.O. Box 359		Fort Totten	ND	58335
Three Affiliated Tribes - Mandan, Hidatsa & Arikara	Mr.	Pete	Coffey	Compliance Officer	Tribal Historic Preservation	404 Frontage Road	New Town	ND	58763
Yankton Sioux Tribe			THPO Office Representative		PO Box 1153		Wagner	SD	57380

Office of Location & Environment  
800 Lincoln Way, Ames, IA 50010

800 Lincoln Way, Ames, Iowa 50010

515-239-1097

FAX 515-239-1726

August 27, 2015

Ref. No IM-080-3(178)- -13-77

PIN 13-77-080-050

Doug Jones

Polk County

Review & Compliance

Community Program Bureau

State Historical Society of Iowa

R&C# \_\_\_\_\_

600 East Locust St.

Des Moines, IA 50319

Dear Doug:

**RE: Phase I A Archaeological Resources Assessment- Proposed I-80 /I-35/IA-141 Interchange Project / Ryder's Corner- Urbandale and Grimes, Polk County, IA Finding of Determination-No Historic Properties Affected (Revised)**

Enclosed for your review and comment is the Phase I A investigation for the above-mentioned federally funded project, along with project corridor map. The project proposes a series of road improvement projects, including an interchange improvement, along I-80 / I-35 / IA-141 in Polk County, Iowa.

In order to assess any known or potential archaeological / historic resources, an area of 2,445 acres was reviewed in a variable project corridor. This assessment was conducted using project area inspection, soil reviews, along with a review of the previous archaeological and historic studies in the area.

After completing the review / assessment of the project area, the cultural resources consultant, Wapsi Valley Archaeology recommended that 486.8 acres of the project area should be investigated by Phase I archaeological surveys, if impacted.

A review conducted by the engineering consultant, HR Green, and the Iowa Department of Transportation's Location group, and Iowa DOT's cultural resources management section, determined that the preferred alternative, would require 10.1 acres of additional right-of-way outside of the current transportation right-of-way. The required additional right-of-way is located in areas determined to be low-potential for intact archaeological resources.

This review by engineering consultant and the Iowa DOT, also determined that the project corridor would also not impact the Living History Farms Historic District to the south of the set project area.

Based on this review, the determination for *archaeological resources* for this project is ***No Historic Properties Affected***. If you concur with this determination, please sign the concurrence line below and return this letter to our office.



Matthew J.F. Donovan, RPA  
[Matt.Donovan@dot.iowa.gov](mailto:Matt.Donovan@dot.iowa.gov)

Concur:

---

SHPO Archaeologist

---

Date

Office of Location and Environment  
800 Lincoln Way | Ames, Iowa 50010  
Phone: 515.239.1097 | Email: matt.donovan@dot.iowa.gov

March 28<sup>th</sup>, 2016- Resubmittal  
(November 18<sup>th</sup>, 2015)

Ref.: IMN-035-4(158)87- -0E-77  
Primary System  
Polk County  
HAP 191

RECEIVED

MAR 30 2016

by SHPO

R&C: 151177084

Ms. Sara Andre  
State Historic Preservation Office  
600 East Locust  
Des Moines, IA 50319

RE: Phase I Archaeological Investigation for I-35 / 80 / 235 Interchange Project, Polk County;  
Section 7, 17, 18, 19, T79N-R23W / Section 13, T79N-R24W **No Historic Properties Affected**

Dear Sara:

Enclosed for your review and comment are the resubmitted Phase I architectural survey and site forms for a proposed I-35 / 80 / 235 Interchange project in Polk County, Iowa. A total area of 92.8 acres was reviewed and surveyed by this investigation.

This investigation was conducted using an extensive archival / records search, along with property visits to the project areas. Iowa Site Inventory Forms were completed for each property and digital photographs were taken to document the standing structures.

Fourteen properties were examined by this architectural study. Of these properties, only one was recommended for avoidance or further investigation, the A. J. Reeves home. (Property 77-11582) A review of the proposed design plans indicated that this property will be avoided by the proposed project.

Based on the findings of this architectural investigation, *with the understanding that that the A.J. Reeves home will be avoided by this project*, the determination in regards to the architectural resources is **No Historic Properties Affected**.

If you concur with this determination, please sign the concurrence line below.

Sincerely,



Matthew J.F. Donovan, RPA  
Office of Location and Environment

MJFD  
Enclosures

cc: Deanna Newell- NEPA  
Marlin Ingalls- OSA / HAP  
Tony Gustafson- District 1

Concur: \_\_\_\_\_

SHPO Historian

Date: 4/27/2016

Comments:



SMARTER | SIMPLER | CUSTOMER DRIVEN

www.iowadot.gov

Office of Location & Environment

800 Lincoln Way, Ames, IA 50010

800 Lincoln Way, Ames, Iowa 50010

515-239-1097

FAX 515-239-1726

8/26/2015

Ref. No

IM-080-3(178)- -13-77

06/08/2016 (Resubmittal)

PIN 13-77-080-050

Sara Andre

Polk County

Review & Compliance

Community Program Bureau

State Historical Society of Iowa

R&C# 140577089

600 East Locust St.

Des Moines, IA 50319

Dear Sara:

**RE: Phase I A Historic Architectural Assessment- Proposed I-80 /I-35/IA-141 Interchange Project / Ryder's Corner- Urbandale and Grimes, Polk County, IA Finding of Determination-*No Adverse Effect (Revised)***

Enclosed for your review and comment is the Phase I-A Historical Architecture evaluation for the above-mentioned federally funded project, along with project corridor map. The project proposes a series of road improvement projects, including an interchange improvement, along I-80 / I-35 / IA-141 in Polk County, Iowa.

These proposed roadway and interchange improvements included modifications to the exiting shoulders, exit and on-ramp repairs / modifications, over-all lane improvements.

In order to assess any known or potential historic architectural resources, an area of 2,445 acres was reviewed in a variable project corridor. This assessment was conducted using project area inspection, wind-shield surveys, along with a review of the previous architectural historic studies in the area.

Within the original potential project corridor, the Flynn Farm Historic District was determined to be located on the southern extent of the proposed project corridor. As the project was better defined by the consulting engineers, the project's design limits were set at Douglas Avenue, avoiding any impacts to the Flynn Farm district.



Based on this review, with the understanding that the Flynn Farm Historic District will be avoided by this project, the determination for *architectural resources* for this project is **No Adverse Effect**. If you concur with this determination, please sign the concurrence line below and return this letter to our office.

*Matthew J. F. Donovan*

Matthew J.F. Donovan, RPA  
[Matt.Donovan@dot.iowa.gov](mailto:Matt.Donovan@dot.iowa.gov)

Concur:

*[Handwritten signature]*

SHPO Historian

*6/15/2016*

Date



www.iowadot.gov

Office of Location & Environment

800 Lincoln Way, Ames, IA 50010

Phone: 515-239-1097 | Email: matt.donovan@dot.iowa.gov

July 29, 2016

Ref. No IM-080-3(178)127--13-77

Primary System

Polk County

R&C: 20140577089

RECEIVED

AUG 03 2016

by SHPO

Mr. Dan Higginbottom  
State Historical Society of Iowa  
600 East Locust St.  
Des Moines, IA 50319

**RE: Phase I A Archaeological Resources Assessment- Proposed I-80/I-35/IA-141 Interchange Project, Ryder's Corner- Urbandale and Grimes, Polk County, IA; Finding of Determination-No Historic Properties Affected (Revised) Requested Additional Information**

Dear Dan:

Per your request, enclosed are the current project design plans and the preferred alternative project corridor plan for your review and use for the above-mentioned federally funded project. As mentioned, this project proposes a series of road improvement projects, including an interchange improvement, along I-80/I-35/IA-141, modifications to the exiting shoulders, exit and on-ramp repairs and modifications, and over-all lane improvements in Urbandale and Grimes, Polk County, Iowa.

The Phase IA archaeological resources assessment reviewed a study area of 2,445 acres (989 ha) for archaeological and historical resources. A majority of the study area was revealed to be disturbed due to construction activities. An area of 486.8 acres (197 ha) was found to be relatively undisturbed, including the Living History Farms property and areas close to North Walnut Creek. An intensive Phase I archaeological investigation was recommended for these areas should they be impacted. Our office agrees with these recommendations.

After consultation and review by, our office, the engineering consultant, and the Iowa DOT's design and location engineers, a preferred alternative was determined. The preferred alternative requires 10.1 acres of additional right-of-way outside of the current transportation right-of-way. The additional right-of-way is located in areas determined by the phase IA assessment to be low-potential for intact archaeological resources as they have been previously disturbed by construction and urbanization activities.

Concern was also expressed in regards to the projects proximity to the Flynn Farm Historic District. In review of the proposed preferred alternative's location, the project will begin north of Douglas Avenue/I-80/35 interchange. The project begin will be well outside of the historic district.

Based on the proposed project design outlined above, our office has given this a project determination of **No Historic Properties Affected**. If you concur, please sign the concurrence line below, add your

comments, and return this letter. If you have any questions, please contact me at 515-239-1097 or matt.donovan@dot.iowa.gov.

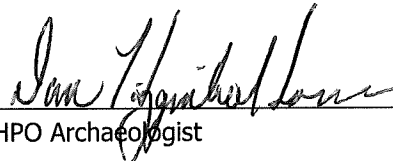
Sincerely,



Matthew J.F. Donovan, RPA  
Office of Location and Environment

MJFD: enclosure

Cc: Scott Dockstader – District 1 Engineer  
Tony Gustafson – Assistant District 1 Engineer  
DeeAnn Newell – NEPA/OLE

Concur:  Date: 8/4/16  
SHPO Archaeologist

Comments:

**APPENDIX C**

**CONSTRUCTABILITY AND PHASED CONSTRUCTION  
OF THE PREFERRED ALTERNATIVE**

## **CONSTRUCTABILITY AND PHASED CONSTRUCTION OF THE PREFERRED ALTERNATIVE**

The Preferred Alternative is included in the Des Moines Area Metropolitan Area (DMAMPO) Long Range Transportation Plan (LRTP). The Preferred Alternative will be constructed in two phases, the initial build phase and the final build phase. The initial build phase of construction has funding programmed in the Iowa Department of Transportation (DOT) 2016-2019 State Transportation Improvement Plan beginning in 2018. The final build phase is not included in the STIP or the Transportation Improvement Plan (TIP) programs at this time. The Iowa DOT will work with the Iowa DOT Commission to program funding to complete the final build phase as traffic operations in the area dictate the need and as funding becomes available.

This Preferred Alternative's construction sequencing was evaluated and documented in the *Interchange Justification Report (IJR), Interstate 35/Interstate 80 and Iowa Highway 141 Interchange, NW 100<sup>th</sup> Street Interchange, Polk County, Iowa* study. The Preferred Alternative's construction sequencing was planned with consideration given to other projects being planned by local agencies. Figure C1 shows the currently anticipated construction sequencing of study-area-wide improvements.

### **Initial Build Phase:**

The initial build phase will be built in five parts that are sequenced as follows:

**2017/2018: Grade-2017; Pave-2018 (City of Urbandale, Iowa DOT)** – This includes the construction of the NW 100<sup>th</sup> Street Interchange as a diamond style interchange. Auxiliary lanes and additional freeway mainline lanes would tie into existing pavement at the IA 141 interchange to the west and NW 86<sup>th</sup> Street interchange to the east, but would accommodate the future IA 141 interchange improvements. The NW 100<sup>th</sup> Street Interchange improvements and associated auxiliary lane improvements are planned for 2017/2018.

**2019/2020: Grade-2019; Pave-2020 (Iowa DOT)** - The next phase includes the construction of the I-35/I-80 ramps south of Meredith Drive and freeway mainline capacity improvements tying into existing infrastructure at Douglas Avenue and IA 141. At Meredith Drive, diagonal ramps are added in the southwest and southeast interchange quadrants to accommodate northbound exit and southbound entrance movements. These two Meredith Drive ramps function in conjunction with the remaining IA 141 interchange ramps to provide full movements to and from the Interstate, connected by the local roadway network. I-35/I-80 auxiliary lanes are added between the Douglas Avenue on-ramp and IA 141 flyover ramp in the northbound direction and the IA 141 directional on-ramp and Douglas Avenue off-ramp in the southbound direction. The existing SE 41<sup>st</sup> Street intersection with IA 141 is closed. These proposed improvements are anticipated in 2019/2020.

**2019/2020: Bridge (Iowa DOT)** - This includes the construction of the northbound I-35/I-80 to northbound IA 141 directional flyover ramp, with clearance and pier locations constructed in locations that accommodate both existing and future build conditions. These improvements will occur concurrently in 2019/2020 with the Meredith Drive and freeway improvements.

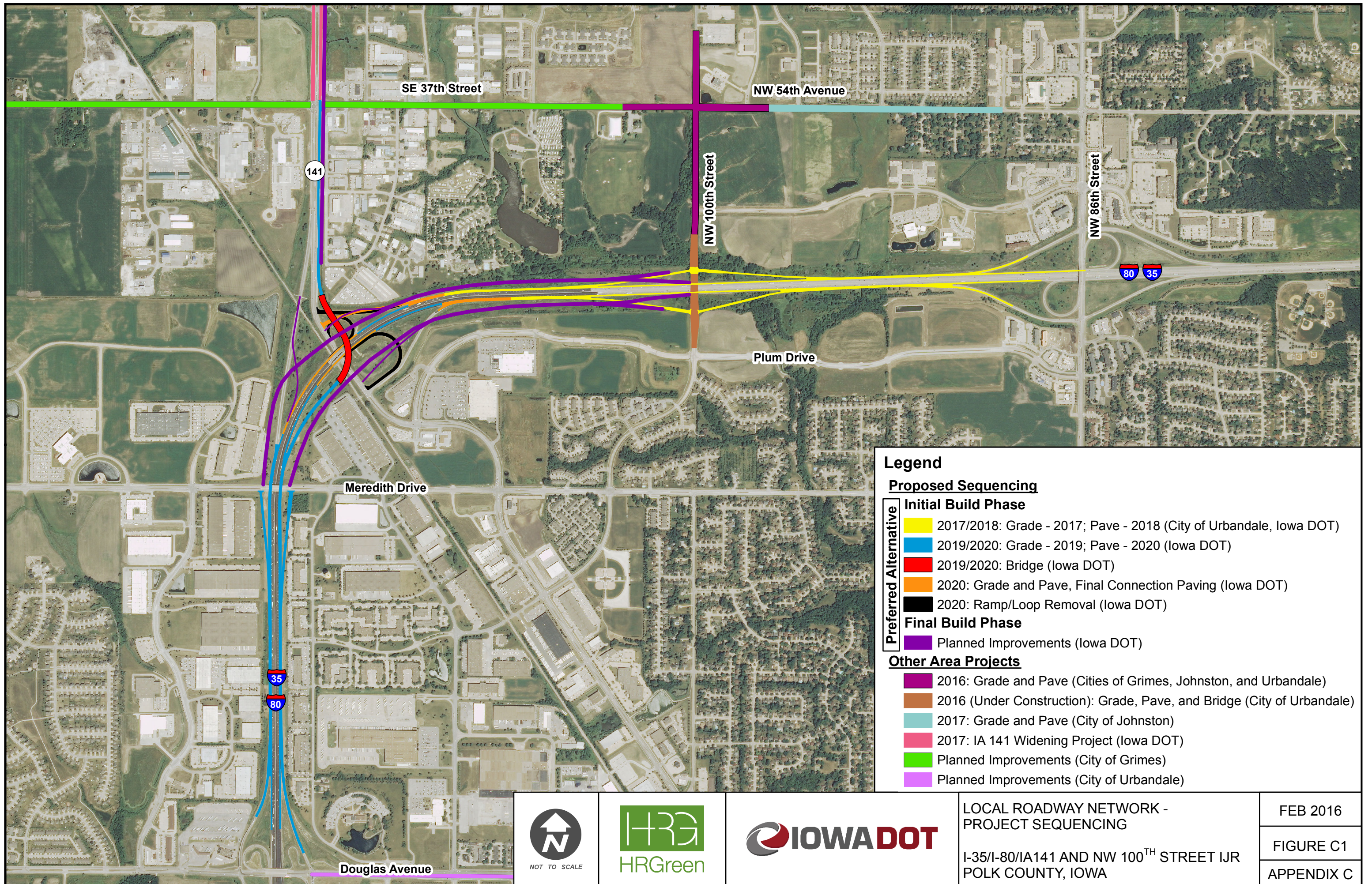
**2020: Grade and Pave, Final Connection Paving (Iowa DOT)** - This includes the new westbound I-35/I-80 ramp to IA 141. The westbound I-35/I-80 off-ramp terminal intersection with IA 141 is relocated south of the existing intersection. This phase is expected to occur in 2020.

**2020: Ramp/Loop Removal (Iowa DOT)** - This includes the removal of the existing loop ramps. The eastbound to northbound exit loop ramp will be able to be removed after the northbound flyover ramp and Meredith Drive ramps are complete, as the loop ramp movement is now accommodated via the northbound off-ramp to Meredith Drive and northbound flyover to northbound IA 141. The westbound/southbound on-ramp loop will likely need to be removed prior to the new southbound on-ramp from Meredith Drive being completed for construction staging purposes and traffic detoured on the local roadway network. The Iowa DOT has programmed the Meredith Drive and IA 141 interchange improvements for years 2019 and 2020.

**Final Build Phase:**

The final build phase will be built in one part as described below:

**Planned Improvements (Iowa DOT)** – This includes the construction of the C-D roadways between Meredith Drive and the NW 100<sup>th</sup> Street Interchange. In addition, the northbound IA 141 grade separation over the SE 37<sup>th</sup> Street intersection is also part of these Iowa DOT planned improvements.



**Legend**

**Proposed Sequencing**

**Initial Build Phase**

- █ 2017/2018: Grade - 2017; Pave - 2018 (City of Urbandale, Iowa DOT)
- █ 2019/2020: Grade - 2019; Pave - 2020 (Iowa DOT)
- █ 2019/2020: Bridge (Iowa DOT)
- █ 2020: Grade and Pave, Final Connection Paving (Iowa DOT)
- █ 2020: Ramp/Loop Removal (Iowa DOT)

**Final Build Phase**

- █ Planned Improvements (Iowa DOT)

**Other Area Projects**

- █ 2016: Grade and Pave (Cities of Grimes, Johnston, and Urbandale)
- █ 2016 (Under Construction): Grade, Pave, and Bridge (City of Urbandale)
- █ 2017: Grade and Pave (City of Johnston)
- █ 2017: IA 141 Widening Project (Iowa DOT)
- █ Planned Improvements (City of Grimes)
- █ Planned Improvements (City of Urbandale)



LOCAL ROADWAY NETWORK -  
PROJECT SEQUENCING

I-35/I-80/IA141 AND NW 100<sup>TH</sup> STREET IJR  
POLK COUNTY, IOWA

FEB 2016

FIGURE C1

APPENDIX C