US 30
PROPOSED EXPANSION
TAMA COUNTY, IOWA
NHSX-030-6(187)—3H-86

ENVIRONMENTAL ASSESSMENT AND SECTION 4(f) *DE MINIMIS* IMPACT FINDING

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.

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Federal Highway Administration

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Iowa Department of Transportation

9/26/2013
Date of Approval for Public Availability

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PREFACE

The Transportation Equity Act of the 21st 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.

Table 1: Resources Considered

SOCIOECONOMIC		NATURAL ENVIRONMENT	
☑	☑ Land Use	☑	☑ Wetlands
☐	☐ Community Cohesion	☑	☑ Surface Waters and Water Quality
☐	☐ Churches and Schools	☐	☐ Wild and Scenic Rivers
☐	☐ Environmental Justice	☑	☑ Floodplains
☑	☑ Economic	☑	☑ Wildlife and Habitat
☐	☐ Joint Development	☑	☑ Threatened and Endangered Species
☑	☑ Parklands and Recreational Areas	☑	☑ Woodlands
☐	☐ Bicycle and Pedestrian Facilities	☑	☑ Farmlands
☑	☑ Right-of-Way		
☑	☑ Relocation Potential		
☑	☑ Construction and Emergency Routes		
☑	☑ Transportation		
CULTURAL		**PHYSICAL**	
☑	☑ Historical Sites or Districts	☑	☑ Noise
☑	☑ Archaeological Sites	☑	☐ Air Quality
☐	☐ Cemeteries	☑	☐ Mobile Source Air Toxics (MSATs)
		☑	☐ Energy
		☑	☑ Contaminated and Regulated Materials Sites
		☑	☑ Visual
		☑	☑ Utilities
☑	**CONTROVERSY POTENTIAL:** Several relocations would be required.		
☑	**Section 4(f): Historic Sites** Three parcels with historic properties eligible for listing on the NRHP, but not the structures themselves, are included in the preliminary impact area.		

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DESCRIPTION OF THE PROPOSED ACTION

SECTION 1
DESCRIPTION OF THE PROPOSED ACTION

This Environmental Assessment (EA) has been prepared in compliance with the requirements of the National Environmental Policy Act of 1969 (NEPA). This EA informs the public and interested agencies of the proposed action and alternatives to the proposed action in order to gather feedback on the improvements under consideration.

1.1 Proposed Action

The Iowa Department of Transportation (Iowa DOT) in coordination with the Federal Highway Administration (FHWA) is proposing to expand an 11.5-mile segment of U.S. Highway 30 (US 30) from a rural two-lane highway to a rural four-lane divided highway (the Project) in Tama County, Iowa. The Project begins at the east end of the existing US 30 Tama-Toledo bypass approximately 700 feet east of M Avenue and proceeds east to just west of the Tama and Benton County Line near the intersection with Iowa Highway 21 (IA 21). Access control for the four-lane highway would be Priority III[1], at a minimum, with access allowed at selected at-grade intersections and right-in/right-out access approximately every 1,000 feet. Figure 1-1 shows the general location of the Project on a topographic map. Section 4, Alternatives, describes the proposed improvements, including the location, termini, and configuration of the Project.

1.2 Study Area

The area investigated for the Project (Study Area) is in a predominantly rural area of Tama County, east of the city of Tama. The Study Area corridor includes the Project described in Section 1.1, with a buffer to include the potential area required for right-of-way (ROW) and construction of alternatives initially identified for review (see Figure 1-2). Section 4 describes the alternatives considered for this Project. Section 5, Environmental Analysis, includes figures with expanded views of the Study Area showing features and environmental constraints on aerial photographs. The Study Area is irregular in shape because it includes access modifications for crossing roads. The Study Area consists primarily of agricultural land. It also includes some farmsteads, rural residences, part of the Iowa River Corridor Wildlife Management Area (WMA), part of the Otter Creek Marsh WMA, and a cell tower.

[1] Iowa DOT defines Priority III access as four-lane rural highways with access at interchanges and selected at-grade locations. Access spacing has a 1,000-foot minimum requirement but a preferred distance of 0.25 mile (http://www.iowadot.gov/traffic/sections/itsauwz/accessmanagement.aspx).

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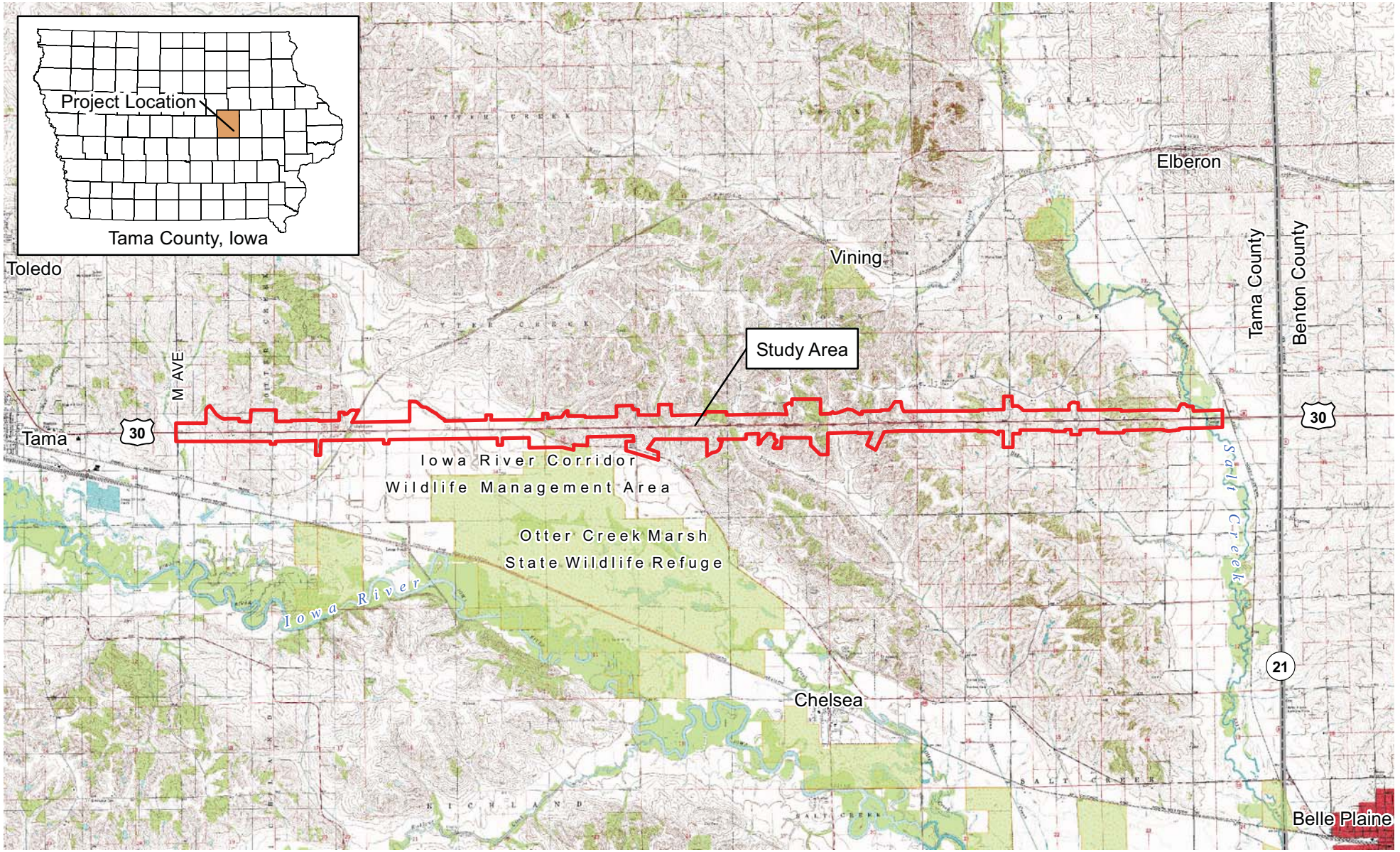


1.5 0.75 0 1.5
Miles
Scale

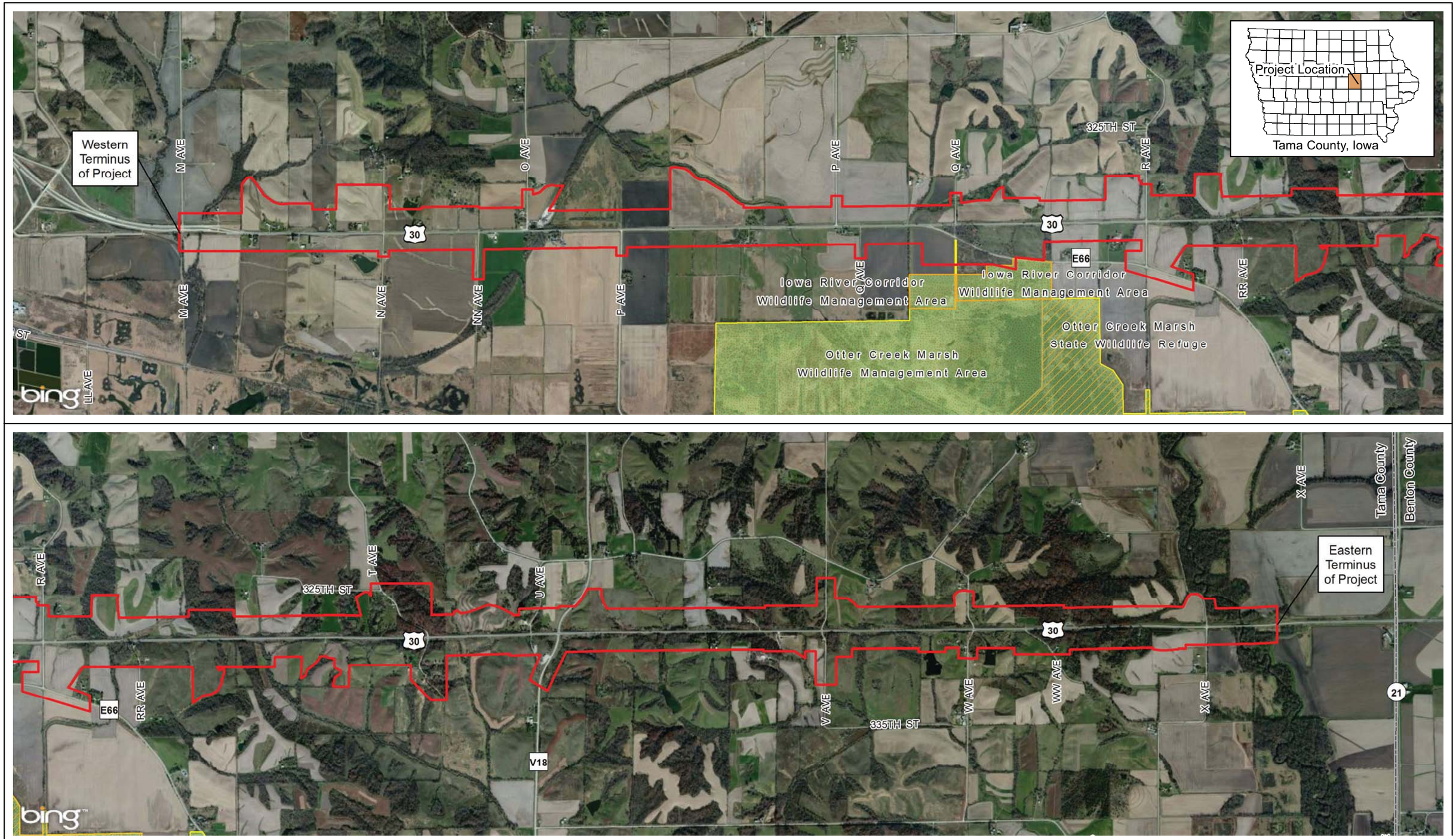
Iowa Department of Transportation

Project Location

US 30 Tama County Proposed Expansion
Tama County, Iowa
Environmental Assessment

DATE
April 2013

FIGURE
1-1



2,500 1,250 0 2,500 Feet

Scale

Legend

- Study Area Boundary
- County Boundary
- Otter Creek Marsh State Wildlife Refuge
- Otter Creek Marsh Wildlife Management Area
- Iowa River Corridor Wildlife Management Area

Iowa Department of Transportation

Study Area

US 30 Tama County Proposed Expansion
Tama County, Iowa
Environmental Assessment

DATE
July 2013

FIGURE
1-2

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SECTION 2

PROJECT HISTORY

SECTION 2
PROJECT HISTORY

This section describes the Project background and the events leading up to the proposed action. It also discusses other projects in or near the Study Area.

A Planning Study for the US 30 corridor through both Tama and Benton counties was initiated in the mid-1990s. Alternative roadway alignments were presented at a public meeting in September 1999. The proposed concept for the improvements to US 30 included upgrading the existing rural two-lane highway to a rural four-lane divided highway generally following the existing alignment. The proposal at that time was to add two new lanes along the north side of the existing roadway from the east corporate limits of Tama to just east of the Salt Creek Bridge near the Tama and Benton County Line. The new lanes would then transition to the south side of the existing highway and remain there until the intersection of US 30 and US 218.

Iowa DOT determined that the original US 30 corridor, as identified in the 1990s Planning Study, would be divided and developed as two separate corridor studies. The studies were split near the Tama and Benton County Line as follows:

- The west section (Tama County) starts at the new US 30 Tama-Toledo bypass alignment on the east side of Tama near M Avenue. The Project proceeds east to just west of the Tama and Benton County Line, where it would tie into the proposed four-lane section of US 30 planned as part of the Benton County Project.

- The east section (Benton County) was addressed in a separate EA. This section starts at the eastern terminus of the Project just west of the Tama and Benton County Line and extends east past US 218 to tie into the existing four-lane section of US 30.

Iowa DOT conducted a public information meeting on April 20, 2010, prior to initiation of the NEPA process for the Tama County and Benton County studies. The meeting was held to inform the public of the initiation of environmental field reviews along US 30 in both Tama and Benton counties, to obtain input on public concerns with regard to the studies, and to acquire background information on potential constraints in the Study Area. The EA for the Benton County study was issued to the public for review in June 2012, and a Finding of No Significant Impact (FONSI) for the project was approved by FHWA on December 11, 2012. Section 7, Comments and Coordination, includes a summary of public and resource agency input on the Tama County study. Iowa DOT sent early coordination letters to federal, state, and local agencies and has used the concurrence point process to receive additional input from designated agencies (see Section 7.1, Agency and Tribal Coordination).

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SECTION 3

PURPOSE AND NEED FOR ACTION

SECTION 3
PURPOSE AND NEED FOR ACTION

3.1 Purpose of the Proposed Action

The purpose of the proposed action is to upgrade and modernize US 30 from the east end of the existing US 30 Tama-Toledo bypass in the city of Tama to just west of the Tama and Benton County Line near the intersection with IA 21. This would be done while meeting Iowa DOT's current design standards for an expressway.

3.2 Need for the Proposed Action

The need for the proposed action is based on three primary factors noted below and described in detail in the following sections:

- Safety
- Capacity
- System continuity

3.2.1 Safety

Iowa DOT performed a crash analysis for the Study Area from the existing US 30 Tama-Toledo bypass in Tama to the Tama and Benton County Line near the intersection with IA 21. The area included in the crash analysis was approximately 0.6 miles longer than the Study Area. Crashes were analyzed for the 5-year period of 2007 through 2011. The statewide average crash rate for a rural U.S. highway during that period was 93 crashes per hundred million vehicle miles traveled (HMVMT) (Iowa DOT July 6, 2010). The 12.1-mile stretch of US 30 in Tama County was divided into two subsegments for crash analysis, as follows:

- Subsegment 1, from the intersection of US 30 and M Avenue to the junction of US 30 and County Highway E66: 80.7 crashes per HMVMT
- Subsegment 2, from the junction of US 30 and County Highway E66 to the intersection of US 30 and IA 21: 115.0 crashes per HMVMT[1]

The crash rate for Subsegment 1 is slightly less than the statewide average crash rate, but the crash rate for Subsegment 2 exceeds the statewide average. During the 5-year analysis period, a total of 32 crashes were recorded for Subsegment 1 and 71 crashes for Subsegment 2 (Iowa DOT January 23, 2013). From 2007 to 2011, 32 of the crashes in Subsegment 1 occurred at intersections; the highest number of crashes by intersection was 6 at the intersection with R Avenue and 5 each at the intersections with County Highway E66 and X Avenue. During the 5-year analysis period, 71 of the crashes in Subsegment 2 occurred on

[1] Due to the tentative tie-in location of the Tama US 30 improvement project described in this EA with the adjacent Benton County US 30 improvement project, crash data for Segment 2 is extended beyond the project limits as described in Section 1.2.

US 30; the highest number of crashes between intersections was 15 between R and T avenues and 11 between X Avenue and IA 21.

The segment of US 30 from approximately 0.5 miles east of M Avenue to the Tama and Benton County Line is rated as the 43rd highest segment for multi-vehicle cross centerline crashes on rural, primary two-lane roads in Iowa. From 2001 to 2009, there were 11 multi-vehicle cross centerline crashes within this segment of US 30 (0.105 per mile per year). Of these crashes, three were fatal or major injury events (Iowa DOT September 28, 2010).

3.2.2 Capacity

Ames, Iowa, and Cedar Rapids, Iowa, the two major cities connected by the US 30 Expressway, have shown growth in the recent past and are expected to continue to grow. Consequently, future traffic volumes and patterns have been projected to grow as well. Traffic projections were prepared by Iowa DOT for the year 2017 (Program Year) and the year 2037 (Design Year) for the two subsegments identified above. The subsegments were analyzed using the future year traffic projections and the Highway Capacity Manual 2000 (HCM) methodology. The analysis for the entire length of the Project (11.5 miles) projected a 47 percent increase in traffic from the estimated Average Daily Traffic (ADT) of 4,700 vehicles per day in 2017 to the estimated ADT of 6,900 vehicles per day in 2037 (Iowa DOT February 16, 2011). The current two-lane highway and at-grade major intersections are not sufficient to meet anticipated future traffic movements and volumes; the segment of US30 from east of Tama to IA 21 was rated as poor for structural adequacy, service, and vehicle to capacity ratio (Iowa DOT April 14, 2010). The percentage of truck traffic during this period is expected to rise slightly from 20 percent of total traffic volume in 2017 to 21 percent in 2037. A four-lane facility would more efficiently accommodate the estimated increase in total traffic volume.

Based on projected traffic volumes, crash data, and turning movements, Study Area intersections were evaluated to determine whether changes to the intersections were warranted.

3.2.3 System Continuity

US 30 across Iowa is part of the Commercial Industrial Network (CIN)[2]. As part of the CIN, other segments of US 30 in the State of Iowa have been developed as four-lane expressways. However, between the cities of Ames and Cedar Rapids, there are a few two-lane sections that have not been upgraded to four lanes. The Benton County project for expanding US 30 to four lanes would start at the eastern terminus of the Project, just west of the Tama and Benton County Line, and extend east to the west junction of US 218 to tie into the existing four-lane section of US 30.

The segment of US 30 from east of Tama to IA 21 at the Tama and Benton County Line was rated as poor for continuity (Iowa DOT April 14, 2010). Upgrading this segment of US 30 in

[2] Iowa DOT defines the Commercial Industrial Network as a "designated road system of primary highways that connect the State's regional growth areas and carry a significant amount of the State's commercial traffic; the CIN does not include the interstate system."

Tama County to a full four-lane facility would allow traffic to flow more smoothly and would provide the efficiency and connectivity of a continuous expressway.

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SECTION 4

ALTERNATIVES

SECTION 4
ALTERNATIVES

This section discusses the alternatives investigated to address the purpose and need for action. A range of alternatives was developed. The No Build Alternative, the alternatives considered but dismissed, and the Proposed Alternative are discussed below.

4.1 No Build Alternative

Under the No Build Alternative, the proposed expansion of US 30 would not be constructed. The road network would continue to be used in its existing configuration. This alternative would not improve safety, would not provide system continuity for more efficient traffic flow, and would not increase the capacity of US 30. The No-Build Alternative was carried forward for detailed study because it provides a baseline for comparing the potential impacts of other alternatives and consideration of a no action alternative is required by Council on Environmental Quality regulations for implementing NEPA (40 Code of Federal Regulations [CFR] 1500-1508).

4.2 Alternatives Considered but Dismissed

Three alternatives were developed for increasing the capacity of the roadway. The alternative carried forward in this EA is discussed in Section 4.3, Proposed Alternative.

The three potential roadway alternatives considered would expand US 30 from two lanes to four lanes. During early planning, each roadway alternative was proposed to have a median width of 82 feet. Recently, Iowa DOT has approved a reduced median width of 64 feet to help minimize ROW impacts. The median width at selected at-grade intersections with higher traffic volumes will be evaluated during the design phase to determine if a wider median would be needed to accommodate the turning traffic. The expanded US 30 would consist of two 24-foot-wide sections of pavement that accommodate 12-foot-wide driving lanes. Outside shoulders would be 10 feet wide and inside shoulders would be 6 feet wide. Access control for the four-lane highway would be Priority III[1], at a minimum, with access allowed at selected at-grade intersections and right-in/right-out access approximately every 1,000 feet.

All three of the alternatives would tie into the existing US 30 Tama-Toledo bypass east of Tama near M Avenue and tie into the proposed US 30 improvements west of the Tama and Benton County Line. New bridges would be built to cross Otter Creek under all three

[1] Iowa DOT defines Priority III access as four-lane rural highways with access at interchanges and selected at-grade locations. Access spacing has a 1,000-foot minimum requirement but a preferred distance of 0.25 mile (Iowa DOT n.d.).

alternatives. All three alternatives would use the existing Salt Creek Bridge (located near the eastern terminus of the Project) for the eastbound lanes; consequently, all three alternatives would follow a similar path east of X Avenue. A new bridge would be constructed north of the existing US 30 bridge for the westbound lanes. All intersections with existing roads would be at-grade. Intersections with County Highway E66, T Avenue, County Highway V18, V Avenue, W Avenue, and WW Avenue would be realigned to meet the proposed US 30. Q Street would be closed between US 30 and the existing E-66. The existing intersection of US 30 and County Highway E66 would be closed. County Highway E66 would intersect with US 30 at R Avenue. A cul-de-sac or turnaround would be constructed at the west end of the existing intersection of Q Street and County Highway E66. Approximately 30 feet of Q Street south of the existing County Highway E66 would be re-graded to better align with the existing County Highway E66. All three alternatives would have a temporary impact during construction to an access road to the Otter Creek Marsh WMA. Figure 1-2 shows the Study Area and general location of the Project.

Table 4-1 provides a comparison of impacts for the three alternatives that was conducted during Concurrence Point 3 (see Section 7.2 for further information). Subsequent to Concurrence Point 3, further design occurred on the alternative selected to be carried forward for detailed evaluation, requiring a recalculation of impacts for that alternative.

Table 4-1
Environmental Impacts of Alternatives

Environmental Resource	Alternative 1	Alternative 2	Alternative 3	No Build
Archaeological Sites	2	1	0	0
Historical Properties	0	1	0	0
Floodplains (acres)	100	100	109	0
Open Water (acres)	1.3	1.1	2.0	0
Recreational Areas (acres)	0.05	0.05	0.05	0
Regulated Materials	5	6	7	0
Sovereign Lands (acres)	0.5	0.5	0.5	0
Streams (feet)	18,264	19,439	19,566	0
Special Rivers	686 feet of the 18,264 feet of streams	697 feet of the 19,439 feet of streams	686 feet of the 19,566 feet of streams	0
T&E, Wildlife, Plant (species)	2	2	2	0
Utilities	0	1	0	0
Wetlands (acres)	41.4	29.4	47.2	0
Woodlands(acres)	126	123	131	0
Properties				
Businesses	3	3	4	0
Farmland (acres)	441	442	486	0
Homes	14	18	12	0

4.2.1 Alternative 1

The Alternative 1 alignment is generally shifted approximately 120 feet to the north of the existing US 30. Alternative 1 would extend east from the existing US 30 Tama-Toledo bypass and generally parallel the existing US 30. Under this alternative, construction would be staged. The westbound lanes would be constructed while traffic remains on the existing US 30; subsequently, both directions of traffic would flow on the newly constructed westbound lanes while the existing US 30 is removed and the eastbound lanes are constructed. This alternative would require acquisition of ROW on both the north and south sides of the existing US 30 roadway.

Alternative 1 was dismissed for several reasons. Construction of Alternative 1 would require approximately 7 years due to the staging required to construct the westbound lanes first, followed by construction of the eastbound lanes. Additionally, this alternative would impact the most archaeological sites.

4.2.2 Alternative 2

The Alternative 2 alignment is shifted approximately 120 feet to the south of the existing US 30. Alternative 2 would extend east from the existing US 30 Tama-Toledo bypass and generally parallel the existing US 30. Under this alternative, construction would also be staged. The eastbound lanes would be constructed while traffic remains on the existing US 30; subsequently, both directions of traffic would flow on the newly constructed eastbound lanes while the existing US 30 is removed and the westbound lanes are constructed. While ROW would be acquired from both the north and south sides, the majority of ROW would be acquired from the south side.

Alternative 2 was dismissed for several reasons. Construction of Alternative 2 would require approximately 7 years due to the staging required to construct the eastbound lanes first, followed by construction of the westbound lanes. Additionally, this alternative would impact historic structures at one of the sites. This alternative would impact the greatest length of special rivers compared to Alternatives 1 and 3 and would require the most relocation of residences of any of the alternatives. A cell tower is located within the impact area of Alternative 2 and would potentially need to be relocated.

4.3 Proposed Alternative

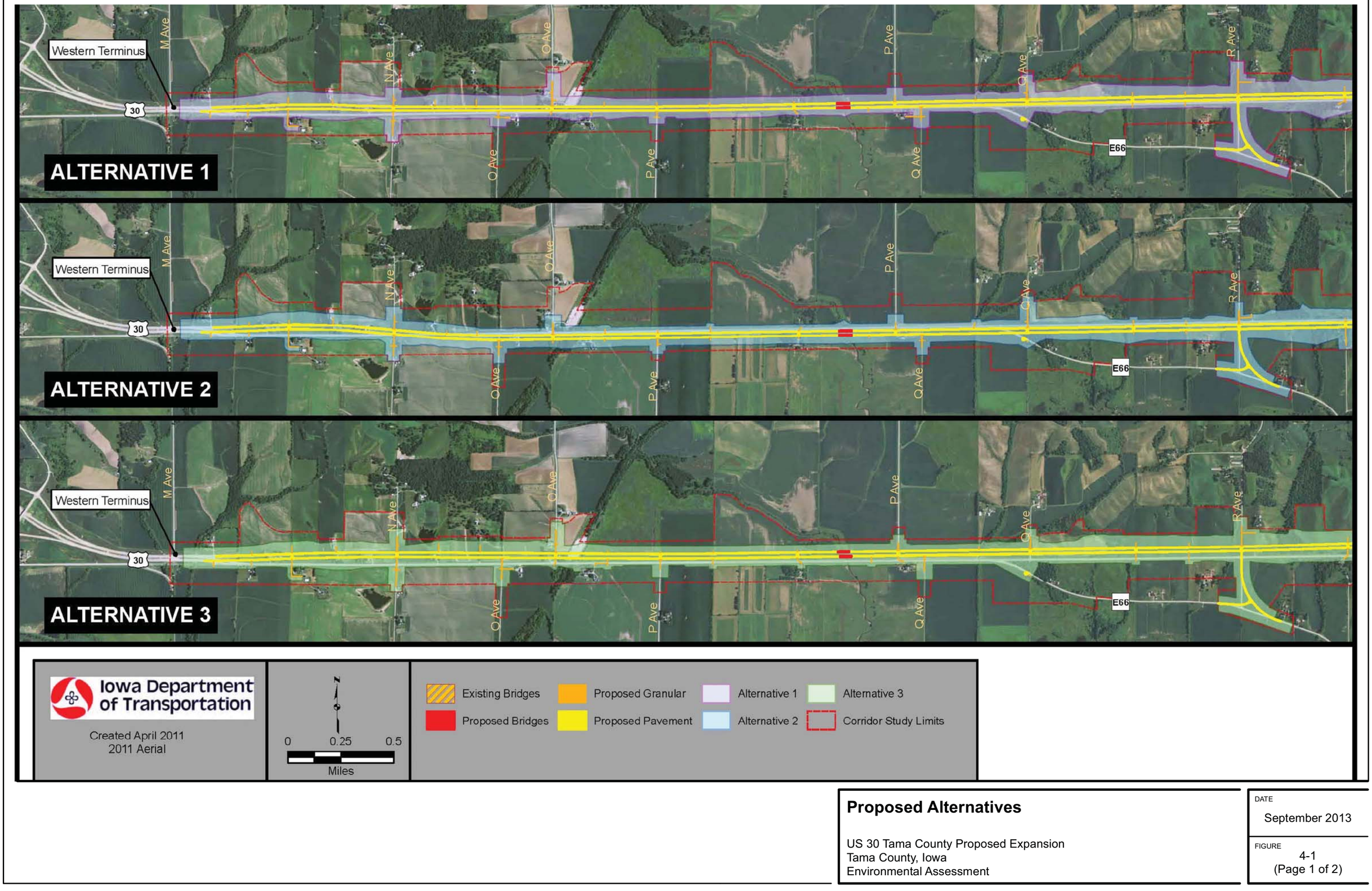
Iowa DOT has identified Alternative 3 as the Proposed Alternative. The Alternative 3 alignment is shifted approximately 225 feet to the north of the existing US 30. This alignment would extend east from the existing US 30 Tama-Toledo bypass and generally parallel the existing US 30. This alternative would not require staged construction (with the exception of where the roadway connects at each end); all four lanes would be constructed while maintaining traffic flow on the existing US 30. This alternative would acquire ROW primarily to the north of the existing roadway, while generally maintaining the ROW line on the south side.

Because staging is not required, construction of Alternative 3 would require approximately 4 years and would be much quicker to construct than the other two alternatives. Traffic operations along US 30 could continue at full capacity while the Alternative 3 alignment is constructed offset from the current alignment. Consequently, there would be less construction disturbance over the time of the Project compared to the other two alternatives, which would reduce the potential for erosion, sediment runoff, and other construction impacts. Also, it may be possible to reuse some of the existing US 30 for frontage roads; this potential would be further reviewed during final design. Additionally, Alternative 3 would not impact any known archaeological sites and would require the least relocation of residences of any of the alternatives.

Iowa DOT has identified the Proposed Alternative as the preferred alternative. This alternative is preferred because it meets the purpose of and need for the proposed action, could be built with minimal impacts to the existing roadway, and could be constructed in 4 years at a cost that is 13.5 percent less than the other two build alternatives[2]. Portions of the existing roadway could be used for frontage roads. The alternative would require less staging than the other alternatives, which reduces the amount of time that the area would be exposed and modified by construction activities by approximately 3 years compared to the other two alternatives evaluated. Alternative 3 will undergo additional design and be carried through the EA as the Proposed Alternative.

The public and the resource agencies will have the opportunity to comment on the Proposed Alternative during the NEPA process. Final selection of an alternative would not occur until Iowa DOT and FHWA evaluate all comments received as a result of the public hearing on the US 30 Tama County Proposed Expansion EA. Following public and agency review of this EA, FHWA and Iowa DOT would determine if an environmental impact statement (EIS) is required. If an EIS is not required, the selected alternative would be identified in a FONSI document. If an EIS is required, then a preferred alternative would be selected through that process.

[2] Cost is estimated based on an average increase in construction cost of 4.5% per year due to inflation.



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Proposed Alternatives

US 30 Tama County Proposed Expansion
Tama County, Iowa
Environmental Assessment

DATE
September 2013

FIGURE
4-1
(Page 1 of 2)

ALTERNATIVE 1

ALTERNATIVE 2

ALTERNATIVE 3

Eastern Terminus

325th St
320th St
T Ave
U Ave
V Ave
W Ave
WW Ave
X Ave
V18
30

Iowa Department of Transportation

Created April 2011
2011 Aerial

0 0.25 0.5
Miles

Existing Bridges
Proposed Bridges
Proposed Granular
Proposed Pavement
Alternative 1
Alternative 2
Alternative 3
Corridor Study Limits

Proposed Alternatives

US 30 Tama County Proposed Expansion
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FIGURE
4-1
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SECTION 5

ENVIRONMENTAL ANALYSIS

SECTION 5
ENVIRONMENTAL ANALYSIS

This section describes the existing socioeconomic, natural, and physical environments in the Project corridor that would be affected by the Proposed Alternative. The resources with a checkmark in the second column in Table 1, located at the beginning of this document, are discussed below.

Each resource section addressed below includes an analysis of the impacts of the two alternatives carried forward for detailed study: the No Build Alternative and Proposed Alternative. In addition, when warranted, each resource is evaluated for measures to avoid, minimize, or mitigate adverse impacts. The Study Area includes the preliminary impact area of the Proposed Alternative used for determining impacts on the evaluated environmental resources. The preliminary impact area includes roadway right–of-way needs and the area where construction could occur. Because it is early in the design process, the area potentially affected by the Project would likely be less than what is portrayed within the preliminary impact area. Some of the potentially impacted resources would be avoided as the Project design is refined. For example, as the roadway design is refined, some of the potential impacts to residences and businesses would likely be minimized or avoided. Consequently, the preliminary impact line and potential impacts discussed in this section of the EA are conservative, because the actual impact area may be refined and reduced in size resulting in fewer impacts.

Figures 5-1 through 5-9 (arranged in order from the Project's western terminus to its eastern terminus) show the preliminary impact area and the location of evaluated resources.

Section 5.5, Cumulative Impacts, addresses reasonably foreseeable projects and their potential for impacting the same resources as those the Proposed Alternative is expected to impact.

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, economic resources, parklands and recreational areas, ROW, relocation potential, construction and emergency routes, and transportation.

5.1.1 Land Use

Evaluation of land use as it relates to transportation projects refers to the determination of direct and indirect effects on existing land uses, such as agricultural, residential, and commercial and industrial, as well as consistency with regional development and land use planning. Direct effects on existing and future land uses were determined by comparing the

preliminary impact area to the existing land uses. Indirect effects were determined by evaluating potential access restrictions, out-of-distance travel, and induced development.

Tama County enacted a zoning ordinance in 1998 that divides the County into agricultural, residential, commercial, and industrial districts. Farmsteads, composed of dwellings and outbuildings, are permitted in agricultural districts. The zoning ordinance restricts non-agricultural land uses within agricultural zones of the County. Rural residences (dwellings outside of a city not associated with a farm), churches, schools, child care centers, and other public uses can be located within an agricultural district if they meet the requirements for a provisional use. These requirements include a lot size of 40 acres or more; or, if the lot size is at least 1 acre, and the corn suitability rating is less than 70 or there is an adjacent rural residence; or by approval of the County Board of Supervisors in accordance with the terms specified in the zoning ordinance. Within the guidelines of the zoning ordinance, home-based businesses are allowed in agricultural and residential districts (Tama County Board of Supervisors, July 7, 1998).

The Study Area primarily is a mix of agricultural and residential zoning. Of the 1,993 acres in the Study Area, 1,507 acres are agricultural, 89 acres are rural residential, and 395 acres are existing ROW. Of the remaining acreage within the Study Area, approximately 2 acres are former commercial land owned by the State of Iowa, and approximately 1 acre is within the Iowa River Corridor WMA and the Otter Creek Marsh WMA. The 1,507 acres of agricultural land includes approximately 1,195 acres of agricultural parcels, 273 acres of agricultural parcels with dwellings, and 38 acres of forest reserve[1] (agricultural land with at least 2 acres of timber [200 trees per acre] that is exempt from taxation).

There are approximately 40 residences in the Study Area, including 25 residences on agricultural land (farmsteads) and 15 rural residences on small acreages (ranging from 0.4 to 20.1 acres of land). Four businesses (two active and two former) are located within the Study Area. The active businesses include John Ernest Vineyard and Winery, located on the east side of N Avenue approximately 0.25 miles north of US 30, and Specialty Painting, a home-based business located at 2213 Highway 30. The former Smith Auto Shop located at 2369 Highway 30 (on the northwest corner of O Avenue and US 30) was purchased by the State of Iowa (Tama County Planning and Zoning, July 25, 2011). The former Twin Oaks Woodcrafts, located at 2317 Highway 30, was purchased by the State of Iowa on November 26, 2012 (Tama County Assessor, n.d.).

There has been no recent development in the Study Area and no development is anticipated with existing conditions (Tama County Planning and Zoning, April 5, 2013).

No Build Alternative

The No Build Alternative would result in continued use of US 30. This continued use would not affect the overall land use. The land use, characterized as predominantly agricultural

[1] Forest reserve land is not a protected category of land, but as designated, provides a tax incentive for preservation.

with scattered rural residences, would remain essentially unchanged. No development is anticipated to occur along US 30 in its current configuration in the future (Tama County Planning and Zoning, April 5, 2013).

Proposed Alternative

The Proposed Alternative would be constructed in a predominantly agricultural area, with no development plans documented for non-agricultural use at this time. As described in detail in Section 4.3, the Proposed Alternative would expand the existing two-lane highway to a four-lane highway. Construction of the Proposed Alternative would result in the direct conversion (to transportation use) of approximately 611 acres of agricultural land (582 acres of farmland (which includes cropland as well as pastureland and farmsteads, and 28 acres of forest reserve), 44 acres of residential land, and 3 acres of former commercial and rural residential land (purchased by the State of Iowa for ROW under hardship acquisitions). (acreages are based on the property classification by the Tama County assessors) (Tama County Assessor, n.d.). The amount of land converted is approximately 0.1 percent of the total land in Tama County. The Proposed Alternative is consistent with the existing zoning ordinance and the Region Six Long Range Transportation Plan (Tama County Board of Supervisors, July 7, 1998; Region 6 Planning Commission, October 27, 2008). Future land use is not projected to change. The potential for development of service stations and convenience stores along US 30 and rural residences north of US 30 has been considered, but applications for permits, rezoning requests, or purchases of property in anticipation of such developments have not occurred (Tama County Zoning, April 13, 2012; Tama County Zoning, April 5, 2013). Development could eventually occur along the improved highway 30 under favorable economic conditions, but is not reasonably foreseeable.

5.1.2 Economic

This section addresses the economic character of the Study Area. Resources evaluated include tax revenues and public expenditures, employment, and businesses.

Taxable valuations for fiscal years 2013 in Tama County are approximately $829 million (Iowa Department of Management, July 23, 2012). Other tax-levying entities in the Study Area, and their respective taxable valuations, include South Tama County Community School District ($307 million), Belle Plaine Community School District ($22 million), Elberon Fire District ($18 million), Otter Creek Township ($28 million), York Township ($23 million), Iowa Valley Community College ($487 million), and Tama County Agricultural Extension ($829 million) (Iowa Department of Management, July 23, 2012; Iowa Department of Education, January 12, 2012). Parts of the Chelsea and Vining Fire Districts are also within the Study Area; however, taxes for these districts are not assessed on land and residences in the Study Area. Tama County contracts with these districts to provide fire coverage in rural areas within these district boundaries. Iowa Valley Community College operates in several counties and has taxable valuations in these counties in addition to part of Tama County (Iowa Department of Education, January 12, 2012). Belle Plaine Community School District operates in both Tama and Benton counties and has taxable valuation in both counties (US Census, November 28, 2010; Iowa Department of Management, July 23, 2012).

Projected expenditures by Tama County for fiscal year 2013 are approximately $28.7 million. Property taxes fund approximately half of this budget, with the remainder funded by the State of Iowa (revenue sharing and grants), federal funds, other County taxes, and various fees and payments for services. South Tama County Community School District has a fiscal year 2013 budget of $20.0 million; approximately 20 percent of the revenue for the budget is generated by property taxes. Belle Plaine Community School District has a fiscal year 2013 budget of $10.1 million; approximately 22 percent of the revenue for the budget is generated by property taxes. Otter Creek Township has a fiscal year 2013 budget of approximately $10,400; 100 percent of the revenue for the budget is generated by property taxes. York Township has a fiscal year 2013 budget of approximately $11,400; 100 percent of the revenue for the budget is generated by property taxes. The Benefitted Elberon Fire District (rural areas outside of Elberon included within the Elberon Fire District) has a fiscal year 2012 budget of approximately $6,300 and is the taxation entity; 100 percent of the revenue for the budget is generated by property taxes (Iowa Department of Management, July 23, 2012).

Most of the land in the Study Area is classified by the Tama County Assessor as agricultural land. Table 5-1 summarizes acres of land in the Study Area by property classification by Tama County for purposes of assessing property taxes. Approximately 40 residences are located in the Study Area, including 25 residences on agricultural land (farmsteads) and 15 rural residences on small acreages.

Table 5-1
Acres of Land by Property Class in Study Area

Property Class	Acres
Agricultural	1,195
Agricultural dwellings[1]	273
Forest reserve[2]	38
Rural residences	89
Commercial (former)[3]	2
Conservation land[4]	1
Existing ROW	395
Total	**1,993**

Sources: Tama County Assessor, n.d.; Iowa DOT, n.d.
Notes:
1 Agricultural parcels with farmsteads.
2 Agricultural land with at least 2 acres of timber [200 trees per acre] that is exempt from taxation.
3 Former commercial land that was sold to the State of Iowa for US 30 ROW.
4 Approximately 0.7 acre of the Iowa River Corridor WMA owned by USFWS, and 0.3 acre of the Otter Creek Marsh WMA owned by the Iowa DNR.

Non-farm employment accounts for 85.5 percent of total employment in Tama County; farm employment accounts for 14.5 percent of total employment. Private employment comprises approximately 66.7 percent of total non-farm employment, while government employment constitutes approximately 33.3 percent. Local government is the largest employment sector (29.2 percent of non-farm employment), followed by retail trade (10.6 percent), transportation and warehousing (5.2 percent), manufacturing (4.9 percent), construction (4.8 percent), and other services (4.8 percent). Total employment (full and part-time) has

declined from 8,645 in 2001, to 7,815 in 2011 (U.S. Department of Commerce, April 2013). The unemployment rate was 7.9 percent in February 2013 (Iowa Workforce Development, n.d.).

One agricultural (farm-based) business operates in the Study Area. The John Ernest Vineyard and Winery is located at 3291 N Avenue, approximately 900 feet northeast of N Avenue and US 30. This business is a retail outlet for wine, with a vineyard on the premises, and operates a gift shop and banquet room (John Ernest Vineyard and Winery, n.d.). The John Ernest Vineyard and Winery is a destination business (businesses with a high percentage of destination-oriented customers—regular customers who are intent on stopping at a specific, specialized business).

One home-based business operates in the Study Area: Specialty Painting, a painting contractor located at 2213 Highway 30. This property is zoned as an agricultural dwelling (Tama County Assessor, n.d.). Specialty Painting, not traffic dependent, is a residential and commercial painting contractor that specializes in decorating and design, and makes murals, portraits, calligraphy, banners, and signs (Tama County Iowa Economic Development Commission, n.d.; Specialty Painting, n.d.).

Twin Oaks Woodcrafts, formerly located 2317 Highway 30 (a rural residence), made specialty woodcraft items (Tama County Iowa Economic Development Commission, n.d.). The property was acquired by the State of Iowa for ROW as a hardship acquisition, on November 26, 2012 (Tama County Assessor, n.d.). Smith Auto Shop, formerly located at 2369 Highway 30 (on the northwest corner of O Avenue and US 30) was also purchased by the State of Iowa as a hardship acquisition (Tama County Planning and Zoning, July 25, 2011).

No Build Alternative

The No Build Alternative would result in continued use of the existing US 30. No new commercial facilities are planned to develop within or near the US 30 Study Area. The tax base under this Alternative would reflect historic and current growth rates, with no reasonably foreseeable substantial increases in taxable property.

Proposed Alternative

ROW for the Project would need to be acquired from agricultural and residential landowners. Two residences and two businesses have already been acquired through hardship acquisitions (Tama County Assessor, n.d.). Eleven residences would potentially be relocated. Consequently, the amount of tax revenue from the affected properties would decrease. Given the Tama County tax base, with the potential ROW acquisition and residential relocations, the decrease in revenue would be approximately 0.2 percent. Taxable valuations for school districts with land within the preliminary impact area (Belle Plaine and South Tama County Community School District) would decrease by approximately 0.5 percent and 0.4 percent, respectively. York and Otter Creek townships would experience an approximate 2.8 and 3.9 percent decrease in their tax base, respectively. Taxable valuations for the Benefitted Elberon Fire District would decrease by 1.0 percent. These estimated decreases in the tax

base are conservative; some of the relocations may not be required when final design of the Proposed Alternative is completed. Efforts will be made to minimize residential relocations as the design is refined and finalized. Some of the residences acquired for ROW could potentially be relocated on the same parcel of land, or onto another parcel in the general vicinity of the acquisitions, which could offset some of the tax revenue decrease.

Businesses in the vicinity of the Project would be affected by temporary restrictions in access during construction as well as the long-term access route modifications to comply with access control restrictions along the highway. As noted above, John Ernest Vineyard and Winery is a retail outlet for wine and operates a gift shop and banquet room. The vineyard is not dependent on incidental highway traffic for sales, but the ability of traffic to reach this business would be affected by diminished access to US 30 and N Avenue during construction. The impact of roadway construction activities on the John Ernest Vineyard and Winery depends upon individual customers' attitudes regarding shopping at a specialty business near a construction site. Decisions would be based on such factors as: the availability of substitute products and locations; the convenience of access during construction; the duration of the Project; environmental factors such as visibility, dust, and noise; and other factors that can vary by customer. Based on aerial photography, approximately one-fourth of the acreage of grapevines within the John Ernest Vineyard and Winery are located within the preliminary design's impact area. ROW requirements would be minimized during the final design process to minimize the impact on the vineyard. The State of Iowa would coordinate with the business owner during the ROW acquisition process to negotiate compensation for ROW acquired. Access to the property would be maintained at all times.

Specialty Painting is a painting contractor located along the Project, and is a destination rather than an impulse business not dependent upon incidental highway traffic access to support the business. However, access for the employees and owners of the business would be temporarily diminished by construction and by controlled access to US 30. Direct eastbound access from the business would not be provided with the proposed four-lane divided highway. Vehicles from Specialty Painting turning east on US 30 would need to drive west to M Avenue and turn around.

Completion of construction would have a long-term beneficial impact on access to businesses in and near the Study Area because of improved and safer access. No adverse effects on business income are anticipated because access would be maintained at all times during construction.

Widening of US 30 would provide a temporary boost to the construction and retail businesses in and near the Study Area. The impact on income is anticipated to be minor.

5.1.3 Parklands and Recreational Areas

To assess the potential impacts associated with the Proposed Alternative, sources were reviewed and a site visit was performed to identify parkland and recreational areas located within and near the Study Area. Parks and recreation areas were evaluated to determine the

eligibility of properties or sites for protection under Section 4(f) of the U.S. Department of Transportation Act and to evaluate them relative to the alternatives being considered.

There are no public parks or recreation areas located within the Study Area. Parks and recreation areas near the Study Area are accessible from US 30 and other roads. No recreational trails are planned or present within 1 mile of the Study Area (Tama County Zoning, June 21, 2011). The closest existing recreational trail is the South Tama Recreational trail, located approximately 2 miles west of the Study Area in western Tama. A trail following the Iowa River Corridor is planned for sometime after 2012. At its closest point, this trail would be located approximately 1.5 miles south of the Study Area (Region Six Planning Commission, October 27, 2008). No parks, recreation areas, or trails qualifying as Section 4(f) resources are located within or adjacent to the Study Area.

Section 6(f) of the Land and Water Conservation Fund Act of 1965 (LAWCON) states that public-use lands developed with LAWCON funds cannot be converted to anything other than outdoor public recreation lands without approval from the Secretary of DOI. Iowa DNR indicated in a letter dated February 24, 2011, (see Appendix B), that no parks or recreation areas that used LAWCON funding are within the Study Area (Iowa DNR, February 24, 2011). Consequently, no Section 6(f) resources occur within the Study Area.

No Build Alternative

The No Build Alternative would not require acquisition of any land from parks or recreational properties.

Proposed Alternative

There are no public parks or recreation areas located within the Study Area. There are also no Section 6(f) resources within the Study Area. Therefore there would be no impact to Section 6(f) properties, no impacts to park or recreation areas, and no Section 4(f) use of parks or recreational areas from the Proposed Alternative.

5.1.4 Right-of-Way

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

Approximately 395 acres of existing ROW are located within the Study Area. The existing US 30 ROW in the Study Area is generally 120 feet wide from M Avenue to P Avenue, approximately 150 feet wide from P Avenue to S Avenue, and 170 feet wide east of S Avenue. The existing ROW expands to approximately 450 feet wide near streams, to accommodate culverts and drainage ditches. In the vicinity of Salt Creek, the existing ROW is up to 650 feet wide. The existing ROW is approximately 1,200 feet wide in the vicinity of the intersection of US 30 and V18. County roads intersecting US 30 generally have 66 feet of ROW width. ROW areas are wider at intersections with US 30 where the intersecting

road is not perpendicular to the highway (Iowa DOT, n.d.). Property in the Study Area is both privately and publicly owned.

No Build Alternative

The No Build Alternative would not require acquisition of any ROW along US 30.

Proposed Alternative

The preliminary impact area for the Proposed Alternative includes approximately 658 acres of private ROW from a total of 153 parcels. The preliminary impact area includes approximately 611 acres of agricultural land (582 acres of farmland and 28 acres of forest reserve), 44 acres of residential land, 3 acres of land acquired by the State of Iowa through hardship acquisitions, and 0.1 acre of WMA land (the WMA land would not be acquired as ROW, but would be temporarily affected during construction). ROW acquisition and relocations would be conducted in accordance with the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (42 U.S. Code [USC] 4601 et seq.).

5.1.5 Relocation Potential

As discussed in the Land Use and Economic sections (5.1.1 and 5.1.2, respectively), the Study Area is a mix of primarily agricultural lands (some with dwellings) and rural residences on acreages. Four businesses are, or were formerly, located in the Study Area. A former business was located on commercial land, one of the businesses currently operating is on land zoned agricultural, and two businesses (one currently operating and one former) are or were based out of rural residences. The State of Iowa purchased a commercial parcel at 2369 Highway 30, and a residential parcel at 2373 Highway 30, in January 2011, as a hardship acquisition (Tama County Zoning, July 25, 2011). The former Twin Oaks Woodcrafts, located 2317 Highway 30 (a rural residence), was sold to the State of Iowa for ROW acquisition (as a hardship acquisition) on November 26, 2012 (Tama County Assessor, n.d.).

No Build Alternative

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

Proposed Alternative

To assess the potential impacts associated with the Proposed Alternative, ROW acquisition and property relocations were evaluated based on the conceptual design for the proposed expansion of US 30 in Tama County. The affected area for this analysis is the preliminary impact area. The preliminary impact area is conservative, containing a buffer that will be refined as the design progresses.

The Proposed Alternative would potentially require 11 relocations (eight rural residences and three dwellings on farmsteads) and could involve the acquisition of up to 136 acres of property (if all of the acreage of each of the relocations would be acquired); two of these

residences have already been acquired through hardship acquisition. Ten of the potential relocations are owner-occupied; one is a rental unit. The residential properties range in size from 1.0 to 15.1 acres and have assessed values ranging from approximately $31,500 to $146,430. The farmsteads are located on properties ranging in size from 18.8 to 35.8 acres and are assessed at values ranging from $110,760 to $146,560 (Tama County Assessor, February 2013).

All but three of the properties with the potential to be acquired are located along US 30. Other residential relocations are located along O, V, and W Avenues near US 30 (see Figures 5-1 through 5-9). Where feasible, the residences acquired for ROW would be relocated on the current property. Any residences not relocated on the same property could potentially be relocated in the general vicinity of the original property.

As noted in Section 5.1.1, the entire properties of two businesses were recently acquired through hardship acquisition. Neither of the two operating businesses would be relocated; only a partial acquisition of property would be required from these parcels.

Relocations would be conducted in accordance with the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 and Iowa Code 316, the Relocation Assistance Law that establishes a uniform policy for the fair and equitable treatment of displaced persons. The policy serves to minimize the hardships of relocation.

5.1.6 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.

No construction is currently ongoing within the Study Area (Tama County Zoning. April 5, 2013). Other than ongoing roadway maintenance, no roadway improvement projects are planned in the study area. Construction is planned for the US 30 Benton County project adjacent to the Study Area, and the potential for cumulative impacts with that project are addressed in Section 5.5, Cumulative Impacts. Traffic delays or detours from other projects are not anticipated in the Study Area.

Transportation projects have the potential for impacting emergency routes both during and after construction. To determine the emergency routes, the locations of public service providers (hospitals, fire departments, and police stations) within or near the Study Area were reviewed using public databases. The Study Area does not contain any hospitals or emergency service facilities, but emergency response service routes extend through the Study Area. Marengo Memorial Hospital in Marengo, Iowa is approximately 15 miles southeast of the Study Area and Marshalltown Medical and Surgical Center is approximately 18 miles northwest of the Study Area (American Hospital Directory, June 10, 2011). Five fire departments are located within or near the Study Area: Chelsea Fire Department, Elberon Fire and Rescue, Tama Fire Department, Toledo Fire Department, and Vining Fire Department. Emergency response is provided to the Study Area by the Tama, Chelsea, and

Vining Fire Departments, and Elberon Fire and Rescue. The closest police station is located in the City of Tama, approximately 1 mile west of the Study Area.

No Build Alternative

The No Build Alternative would not result in any expansion of US 30 in the Study Area. There would be continued use of the two-lane US 30 that experiences frequent crashes and does not meet the need for capacity improvement to address the anticipated future traffic demands. The increased risk of crashes could require occasional detours off US 30 during emergency situations. Access to and from emergency service providers would continue along the same routes as currently used.

Proposed Alternative

Construction of the Proposed Alternative would not require a detour route for vehicles traveling along US 30. Emergency services vehicles would be allowed to access properties along US 30 during construction, but may need to use alternative routes, where feasible, to reach locations north of US 30 during construction.

Construction equipment would slightly add to the level of traffic within the Study Area. Movement of the equipment would occur throughout the period of construction but is not expected to adversely affect traffic operations. Two lanes of traffic are anticipated to be maintained on US 30 throughout the construction process, thereby maintaining traffic flow. After two new lanes are constructed, the traffic would be diverted from the existing to the new lanes, while the second set of lanes would be constructed.

When construction is complete, the expanded US 30 would provide a direct and safe route for emergency vehicles to travel on and cross US 30. In the long term, access for emergency vehicles would improve because the expanded US 30 would have sufficient capacity for anticipated traffic volumes and safety would be improved.

5.1.7 Transportation

Transportation resources include roadways, railroads, airports, and waterways as well as the equipment used (such as public transit buses) for the movement of people and materials. The transportation resources in the Study Area include US 30, County Highways E66 and V18, and the surrounding local county road network. Between M Avenue and IA 21, there are 30 residences that directly access US 30 (with no other access). Other residences access county roads that link to US 30 or other county roads.

Public bus service is available in Tama County, including the Study Area, through Peoplerides, a public transit system sponsored by the Region 6 Planning Commission. Service is offered on a reservation basis (Region 6 Planning Commission, n.d.). Rail and water transportation are not present in the Study Area and are not discussed in this EA.

The Toledo Municipal Airport (8C5) has one 1,850-foot runway and is located 1.8 miles northwest of the west end of the Study Area. The airport is owned by the City of Toledo and

is open to the public (Federal Aviation Administration (FAA), June 30, 2011). The Belle Plaine Municipal Airport (TZT) has two 4,000-foot-long runways and is located 6 miles southeast of the east end of the Study Area. The airport is owned by the City of Belle Plaine and is open to the public (FAA, January 13, 2011).

No Build Alternative

Under the No Build Alternative US 30 would remain a two-lane highway with at-grade intersections. The current two-lane highway and at-grade major intersections are not sufficient to meet anticipated future traffic movements and volumes. Accidents would continue to occur at a rate above the statewide average for rural highways. No other reasonably foreseeable projects planned in the Study Area would address these issues, thus this alternative does not meet the Project need. Airport operations would be unaffected.

Proposed Alternative

Construction of the Proposed Alternative would improve traffic flow and safety along US 30 through the addition of traffic lanes. There would not be any substantial out-of-distance travel required, as the proposed US 30 route would parallel the existing route approximately 200 feet to the north of the existing route.

The US 30 Tama County Proposed Expansion could result in an obstruction of airspace during bridge construction through the use of a crane. As design advances, construction of US 30 would be further evaluated for the potential to avoid or minimize an airspace obstruction at the Toledo Municipal and Belle Plaine Municipal airports; further coordination with FAA would occur as needed.

5.2 Cultural Impacts

This section identifies existing historic and archaeological resources and potential impacts on those resources. Direct effects have been assessed by determining whether historic properties are present and whether property acquisition or temporary construction easements would impact the resource. Indirect effects on cultural resources as a result of noise, vibration, and access restriction were also evaluated.

5.2.1 Historical Sites or Districts

A Phase I Historic Architecture Survey completed in July 2000, studied the entire 11.5-mile Study Area (Louis Berger Group, Inc., July 2000). The survey identified three historic properties with structures potentially eligible for listing on the NRHP: the Zeman Gothic Barn (Site 86-00028), the Seabert Gothic Revival House (Site 86-00778), and the Ledvina Farmstead (Site 86-00804). The Zeman Barn, a Gothic Roof Barn eligible under Criterion C, was planned to be demolished during construction of the Tama-Toledo Bypass (US DOT and Iowa DOT, February 16, 2004). The Seabert House, located at 2254 Highway 30, is a Gothic Revival house, eligible under Criterion C. The Ledvina Farmstead, an intact farmstead demonstrating stock-raising in upland areas in the early to middle part of the twentieth century, is also eligible under Criterion C (Louis Berger Group, Inc., July 2000; Iowa DOT,

November 15, 2011). The Ledvina Farmstead includes multiple structures that qualify as a Historic District.

An Intensive Level Architectural History Survey for the Proposed U.S. Highway 30 Project Corridor, Tama County, Iowa, was completed in August 2011 (Wapsi Valley Archaeology, August 2011). The survey reaffirmed that the Seabert House (now the Seabert/Gray Gothic Revival House) and Ledvina Farmstead Historic District (now the Ledvina/Willier Farmstead) are eligible for listing on the NRHP. The survey also recommended that the Dvorak Farmstead (Site 86-01101), located at 3316 T Avenue (southwest of US 30 and T Avenue), is eligible for listing on the NRHP under Criterion C. Fourteen of the fifteen buildings in the farmstead were recommended eligible for listing. The survey re-examined other properties not previously identified as eligible for listing on the NRHP in the US 30 Tama County Study Area. No other properties were recommended eligible for listing on the NRHP. The survey also noted that the Zeman Gothic Barn (now the Zeman/Kucera Gothic Barn), planned for demolition for the construction of the Tama-Toledo Bypass, is still standing. However, the barn has been heavily modified by the new owner of the property and is no longer recommended eligible for listing on the NRHP (Wapsi Valley Archaeology, August 2011). The Iowa State Historic Preservation Office (SHPO) concurred with the survey and its recommendations (Iowa DOT, November 15, 2011; see Appendix B). The three historic sites are shown in Figures 5-1, 5-4, and 5-6; the boundaries of the historic properties include the individual structures, and not the property boundaries or accesses. Historic sites of significance eligible for listing on the NRHP are protected under Section 4(f) of the U.S. Department of Transportation Act of 1966.

No Build Alternative

The No Build Alternative would not result in expansion of US 30 in the Study Area. No construction activities would occur and no new ROW would be needed. Therefore, the No Build Alternative would have no effect on historic structures or districts.

Proposed Alternative

The Proposed Alternative would result in construction in the Study Area, including some land, but not structures, of the three historic properties: the Seabert/Gray Gothic Revival House, the Ledvina/Willier Farmstead, and the Dvorak Farmstead. The Seabert/Gray Gothic Revival House is approximately 15 feet south of the preliminary impact area for US 30. Access to the property would be modified by removing the existing access and constructing a new access road to the west of the existing road. The preliminary impact area for the proposed access would be approximately 175 feet west of and 150 feet south of the Seabert/Gray Gothic Revival House and would not affect the Seabert/Gray Gothic Revival House. Impact on the house would be avoided, as recommended in a letter by the Tama County Historical Society (see Appendix B). The Ledvina/Willier Farmstead is located west of the intersections of US 30, R Avenue, and County Highway E66. The Ledvina/Willier Farmstead is located approximately 200 feet south of the preliminary impact area for US 30, 450 feet west of the preliminary impact area for R Avenue, and 230 feet north of the preliminary impact area for County Highway E66. The Ledvina (now Willier) property would be affected by proposed construction, but none of the structures would be affected.

The Dvorak Farmstead is located approximately 340 feet southwest of the preliminary impact area for T Avenue where access to US 30 would be modified. Part of the Dvorak property would be affected by construction, but the historic structures associated with the farmstead would not be affected. Consequently, only the accesses and a portion of the properties excluding the historic boundaries would be affected by the Project. Iowa DOT prepared an effect determination indicating a conditional no adverse effect on historic properties (Iowa DOT, August 20, 2013). The conditions placed on the determination are that the present project corridor remains in place and the Project does not impact the three historic properties (Seabert/Gray Gothic Revival House, the Ledvina/Willier Farmstead, and the Dvorak Farmstead) recommended for avoidance. The effect determination requested that Iowa SHPO concur with a finding of "No Adverse Effect" on historic properties (see Appendix B). Iowa SHPO has been consulted regarding the determination, and a letter noting concurrence is pending.

Given that the historic structures of the Seabert/Gray Gothic Revival House, the Ledvina/Willier Farmstead, and the Dvorak Farmstead will be avoided, and a determination of "No Adverse Effect" for these historic properties, SHPO has been informed of FHWA's intent to make a Section 4(f) de minimis impact determination for the three properties.

5.2.2 Archaeological Sites

A Phase I Archaeological Study, completed in 2004, included the entire Study Area in Tama County. A total of 128 sites were reviewed within the Study Area during the Phase I study; five were recommended as potentially eligible for listing on the NRHP (Louis Berger Group Inc., 2004). A Phase II Archaeological Study, completed in September 2010, concluded that the five archaeological sites initially identified as potentially eligible were not eligible for listing on the NRHP (Louis Berger Group, Inc., September 2010). On September 23, 2010, Iowa SHPO concurred with the finding that the sites were not eligible for listing on the NRHP (Iowa DOT, September 23, 2010; see Appendix B).

A supplemental Phase I Archaeological Study was conducted in 2011 to investigate additional project areas outside of the original study limits for the Project (Wapsi Valley Archaeology, October 2011). The survey included 48 additional survey segments encompassing 361.4 acres, and investigated 51 archaeological sites, including 11 previously recorded sites. The report was revised and resubmitted based on Iowa SHPO input. Of these sites, 46 were determined not eligible for listing on the NRHP, and 5 were recommended for Phase II investigations or avoidance (Wapsi Valley Archaeology, April 2012). Site 13TM589 is a Late Woodland open habitation site. Sites 13TM595, 13TM597, and 13TM598 are multiple component prehistoric/historic sites, with the historic components associated with the Dvorak Farmstead. Site 13TM596 is a historic farmstead site consisting of a partially collapsed house and the remains of a storm cellar and well.

Iowa DOT submitted a letter to SHPO indicating that the five sites would either be avoided, or undergo a Phase II investigation (Iowa DOT, April 16, 2012). Iowa SHPO responded with a letter (SHPO, n.d.) indicating receipt of the letter and report on April 17, 2012 and that Iowa DOT could proceed with the next step of the process if no further input was received by

May 17, 2012; no further input was received after the 30-day review period, indicating Iowa SHPO concurrence on the Iowa DOT determination.

No Build Alternative

There are five potentially NRHP-eligible sites within the Study Area; however, the No Build Alternative would have no effect on historic properties (archaeological sites) because US 30 would not be expanded under this alternative.

Proposed Alternative

On September 23, 2010, Iowa SHPO concurred with the finding of "No Historic Properties Affected" regarding archaeological sites reviewed in the original Study Area (Iowa DOT, September 23, 2010; see Appendix B). Subsequently, the Study Area was expanded and additional sites were investigated, of which five were determined to be potentially eligible for listing on the NRHP. The fives sites recommended for avoidance are all outside of the preliminary impact area. Iowa DOT prepared an effect determination indicating a conditional no adverse effect on archaeological sites as historic properties (Iowa DOT, August 20, 2013). The conditions placed on the determination are that the present project corridor remains in place and the Project does not impact the five archaeological sites recommended for avoidance. The effect determination requested that Iowa SHPO concur with a finding of "No Adverse Effect" (see Appendix B). Iowa SHPO has been consulted regarding the determination, and a letter noting concurrence is pending.

5.3 Natural Environment Impacts

This section characterizes the natural resources in the Study Area and addresses potential impacts of the No Build Alternative and the Proposed Alternative. The resources discussed are wetlands, surface waters and water quality, floodplains, wildlife and habitat, threatened and endangered species, woodlands, and farmlands.

5.3.1 Wetlands

Waters of the United States (WUS), 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, the Corps is authorized to issue permits which allow for the discharge of dredged or fill material into waters of the U.S (33 USC 1251 et seq.). Executive Order (EO) 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 of unavoidable impacts.

In early 2011, Iowa DOT conducted a desktop review to identify WUS present in the Study Area. On-site wetland delineations were performed during the 2011 growing season using methods outlined in the USACE's 1987 Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region.

A total of 279 wetlands were identified within the Study Area (Figures 5-1 through 5-9). The wetlands, totaling 69.4 acres, range in size from 0.001 acre to 8.01 acres.

No Build Alternative

The No Build Alternative would not result in expansion of US 30 in the Study Area. No construction activities would occur and no new ROW would be needed. Therefore, the No Build Alternative would not impact any wetlands.

Proposed Alternative

Based on the preliminary impact area, the Proposed Alternative would impact 188 wetlands totaling 47.5 acres. The affected wetlands range in size from less than 0.1 acre to 5.6 acres. As design advances, efforts will be made to reduce the impact on wetlands; considering the nature and size of the Project, the impacts are expected to require an individual Section 404 Permit from USACE. The wetland impacts would be offset through the development of wetland mitigation approved by the USACE through the Section 404 Permit process. In a letter dated March 17, 2011 to Iowa DOT as part of early coordination on the Project, USACE indicated that "Compensation for any remaining adverse impacts should occur through restoration, enhancement, creation, and/or preservation. Best Management Practices should be used to control erosion and to protect water quality. Construction activities should be conducted during a period of low flow. All disturbed areas must be seeded with native grasses, and appropriate erosion control measures must be implemented. Clearing of vegetation should be limited to that which is absolutely necessary for construction of the Project."

5.3.2 Surface Waters and Water Quality

Water resources include rivers, small streams, creeks, lakes, ponds, and other surface water bodies. For the purpose of this analysis, the topic of water quality is also assumed to apply to groundwater. Important criteria in evaluating surface water and groundwater are adequate quantity and quality of these waters. Surface water features in the Study Area were verified through the use of aerial photography, topographic mapping, and field verification. Twelve surface waters (open waters), totaling approximately 4.39 acres, are located in the Study Area (Iowa DOT, n.d.). There are 58 stream segments totaling 32,848 linear feet in the Study Area (Iowa DOT, n.d.).

Groundwater in the Study Area was evaluated through background research. Potential impacts on surface water, groundwater, and water quality (of both surface water and groundwater) were evaluated by considering the proximity of the Project to water resources and the aspects of the Project Iowa DNR is responsible for water quality programs and standards in Iowa. Evaluation of existing surface water conditions was conducted using the Iowa DNR's surface water data bank. Under Section 303(d) of the Clean Water Act (33 USC 1251 et seq.), which protects waters of the U.S., states are required to develop lists of impaired surface waters that do not meet water quality standards in the state.

The primary surface water bodies within the Study Area are Otter Creek, Plague Mine Creek, Hog Run Creek, and Salt Creek. There are numerous unnamed perennial and intermittent waterways, small agricultural drainages, and roadway drainage ditches. Water clarity in the surface waters was high and there was little evidence of nutrient enrichment. No streams are impaired within or near the Study Area and other surface waters were not assessed for impairment (Iowa DNR, February 4, 2011). Fifty-eight streams that USACE considers potentially jurisdictional under Section 404 of the Clean Water Act were identified in the Study Area (Figures 5-1 through 5-9). Otter Creek and Salt Creek both have been designated by Iowa DNR as a Class "B" Limited Resource stream, which is a warm water stream with aquatic life (Iowa DNR, n.d., a; Iowa DNR, n.d., b). Iowa DNR has designated Salt Creek from its confluence with South Branch Salt Creek to the Tama and Benton County Line, as a protected stream (streams protected from channel changes). All of Salt Creek within the Study Area is mapped as a special protected river. No other surface waters in the Study Area are mapped as special protected rivers (567 Iowa Administrative Code 72.50).

The Iowa Geological Survey has records of 32 groundwater wells within the Study Area (Figures 5-1 through 5-9). The drill dates of the wells range from 1914 to 2008, and the well depths range from 14 to 485 feet (Iowa DNR, Geological Survey, n.d.). Static water levels (meaning the depth to standing water in the well when the well is not operating) were recorded at the time the wells were constructed and range from 4 feet to 63 feet below the ground surface (Iowa DNR, n.d., c; Iowa DNR, n.d., d).

No Build Alternative

The No Build Alternative would not result in expansion of US 30 in the Study Area. The No Build Alternative would have no impact on the quality of surface water or groundwater in the Study Area.

Proposed Alternative

Construction of the Proposed Alternative would impact 48 locations of surface waters, or approximately 19,566 linear feet of waters of the U.S., including Otter Creek, Plague Mine Creek, and Salt Creek, within the preliminary impact area. Eight open waters with approximately 3.48 acres are within the preliminary impact area. As design advances, additional care will be taken to avoid and minimize impacts to surface waters. Considering the nature and size of the Project, and the abundance of wetlands and waters of the U.S. in the Study Area, impacts will require an Individual Section 404 Permit from the USACE. Unavoidable impacts would be offset by development of mitigation to offset those impacts, as approved by USACE through the Section 404 Permit process. The stream channel of Salt Creek would not be modified as a result of the construction of a new bridge over Salt Creek, in accordance with 567 Iowa Administrative Code 72.50.

Based on the preliminary impact area and the approximate location of documented groundwater wells, the Proposed Alternative would likely impact 13 groundwater wells. Actual well locations would be confirmed during a physical survey as the design process advances. Iowa DOT requires proper capping and sealing of any wells on property to be acquired. A certified well contractor would be required to cap and seal the wells in

accordance with Iowa DNR requirements. Proper capping would eliminate the potential for introducing contamination down the well and into the groundwater. To mitigate impacts on wells that supply water to properties that would not be acquired, Iowa DOT would replace the well or provide a connection to an existing waterline in the area. The Proposed Alternative is not expected to generate long-term impacts on groundwater.

Approximately 1,023 acres of land are expected to be graded for the Proposed Alternative, with approximately 76 acres of new pavement constructed for the proposed highway. Eleven residences and farmsteads would be relocated (including two residences acquired through hardship acquisition); two business properties have been acquired; existing facilities would be demolished (unless buildings were relocated) and the ground would be graded in those locations.

Any septic systems affected by ROW acquisition and construction would need to be properly decommissioned. Waste pits would need to be pumped out by a licensed contractor. Any residential relocations (including farmsteads) would need to have a new septic system installed that conforms to State of Iowa standards (567 Iowa Administrative Code 69).

Surface water runoff would increase after construction is completed because the surface area of the new roadway would be larger than that of the existing two-lane roadway. Pollutants from street runoff (oil, grease, salt, and metals) would be dispersed differently as a result of the new roadway and at-grade intersection configurations. The increase in traffic volumes resulting from the improvements would be approximately a few percent a year; consequently, the slight annual increase in pollutants would be minimal and would not adversely impact water quality.

The contractor would be required to implement Iowa DOT's Construction Manual to minimize temporary impacts on water quality during construction. 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 the program is to improve water quality by reducing or eliminating contaminants in stormwater. A NPDES construction stormwater permit will be required for the project.

The NPDES permit requires preparation of a Stormwater Pollution Prevention Plan (SWPPP) for construction sites of more than 1 acre in size. The specific sediment, erosion control, and spill prevention measures would be developed during the Project's detailed design phase and would be included in the plans and specifications. The SWPPP would address requirements specified by Iowa DOT in its Construction Manual, which are often implemented to meet measures anticipated by Iowa DNR. Although it is not possible to speculate on specific details of the SWPPP at this stage in the design process, the SWPPP would include erosion and sediment control best management practices such as: installation of silt fences; buffer strips; or other features to be used in various combinations. A standard construction best management practice (BMP) is revegetation and stabilization of roadside ditches to provide opportunities for the runoff from the impermeable road surface to infiltrate, to reduce runoff velocities, and to minimize increases in sedimentation. Iowa DOT would require the contractor to comply with measures specified in the SWPPP. Following the specifications

and permit conditions outlined above, the Proposed Alternative would not have an adverse affect on water quality.

5.3.3 Floodplains

EO 11988, Floodplain Management (42 FR 26951), requires that federal agencies identify potential floodplain encroachment of projects they fund and that they assess the impact of this encroachment on human health, safety, and welfare and on the natural and beneficial values of the floodplain. For purposes of EO 11988, floodplain is synonymous with the 100-year floodplain. Floodplains present in the Study Area were identified by reviewing Federal Emergency Management Agency (FEMA) flood insurance maps and U.S. Geological Survey (USGS) 7.5-minute quadrangle maps (Iowa DNR. n.d., d). The Study Area crosses four areas of FEMA-mapped 100-year floodplains with a total area of 227.8 acres (Figures 5-3, 5-4, 5-5, and 5-9). These floodplains are associated with an unnamed tributary of the Iowa River near the west end of the Study Area (near M Avenue); Otter Creek in the western part of the Study Area, near P and Q avenues; Plague Mine Creek in the middle of the Study Area, near S Avenue; and Salt Creek, located near the easter edge of the Study Area, east of X Avenue. All of the waterways with designated FEMA floodplains are aligned essentially north and south and bisect the Study Area. There are no designated FEMA floodways in the Study Area (FEMA, January 19, 2006).

No Build Alternative

The No Build Alternative would not result in expansion of US 30 in the Study Area. No construction activities would occur and no new ROW would be needed. The No Build Alternative would have no impact on any floodways, or the floodplains in the Study Area.

Proposed Alternative

Of the 227.8 acres of FEMA-mapped floodplain in the Study Area, approximately 109.8 acres from four areas (Otter Creek, an unnamed perennial stream east of Otter Creek, Plague Mine Creek, and Salt Creek) are within the preliminary impact area. Floodplain impacts cannot be avoided because of the east and west nature of the Study Area and the north and south nature of the floodplains. Coordination with Iowa DNR, USACE, and FEMA occurred as part of the early consultation process. In a letter dated March 2, 2011 (see Appendix B), Iowa DNR indicated that any construction within a 100-year floodplain would require a floodplain development permit. In a letter dated March 17, 2011 (see Appendix B), USACE-Rock Island District indicated that coordination should be performed with Iowa Emergency Management Agency to determine if the proposed project would impact any area designated as a floodway. There would be no impacts on designated floodways. No comments were received from either agency regarding floodplains. As design advances, efforts will be made to reduce the impacts on floodplains. In addition, an Iowa DNR Flood Plain Development Permit and a Clean Water Act Section 404 Permit would be required and applied for during final design. The Project would add additional water conveyance structures such as culverts and bridges, and should not raise the 100-year flood elevation from existing conditions.

5.3.4 Wildlife and Habitat

Vegetation, as considered for this analysis, would include farmland (cropland and pasture) as well as restored prairies and maintained areas. A review of aerial photographs and a reconnaissance field survey of the Study Area were conducted to identify existing vegetation and potential wildlife habitat. The potential construction footprint of the Project was reviewed to identify vegetated areas that may be affected. Maps and aerial photography of the area, information from Iowa DNR and USFWS, and a site visit were used to characterize wildlife and habitat in and near the Study Area.

The Study Area is located in the rolling loess prairies region at the boundary of the Eastern Broadleaf Forest Province and the Prairie Parkland Province (a mix of prairies and forest). The alternation of forest and prairie in the province results chiefly from local soil conditions and slope exposure; trees are commonly found near streams and on north-facing slopes. The forest is dominated by oak and hickory, with eastern cottonwood, black willow, and American elm in local favorable areas. Grasses and crops are the dominant vegetation in non-wooded areas. The most prevalent type of grassland is bluestem prairie, dominated by such plants as big bluestem, little bluestem, switchgrass, and Indian grass, along with many species of wildflowers and legumes. Most of the area is cultivated (primarily corn and soybeans, with areas of pasture), and only remnants of the original vegetation remains (U.S. Department of the Interior, January 14, 2013; U.S. Forest Service, October 30, 1996). Woodlands are discussed in Section 5.3.6.

The Study Area supports a typical range of wildlife adapted to a mix of prairie, forested, and cropland environments, such as deer, fox, squirrel, rabbit, and other fur-bearing animals (such as beaver, mink, otters, and muskrat). The Study Area supports populations of migratory birds (such as belted kingfisher, bank swallow, spotted sandpiper, green-backed heron, horned lark, eastern meadowlark, mourning dove, ducks, geese, eagles, bitterns, herons, terns, and pelicans) protected under the Migratory Bird Treaty Act (MBTA) (U.S. Forest Service, October 30, 1996).

Parts of Iowa River Corridor WMA (owned by USFWS) and Otter Creek Marsh WMA (owned by Iowa DNR) (see Figures 1-1 and 1-2) are also located in the Study Area. Iowa DNR directly manages Otter Creek Marsh WMA and also manages Iowa River Corridor WMA through a memorandum of understanding with USFWS (USFWS, April 1, 2011). The WMAs are managed to provide habitat for Iowa's native wildlife species and those species that migrate through Iowa (Iowa DNR, n.d., e). The primary management objective is to develop and restore wildlife habitat to ensure that wildlife species have a safe place to breed, rest, and feed. The wetland habitat in the WMAs provides important cover for breeding waterfowl and other migratory species (USFWS, April 1, 2011). Wetlands are further discussed in Section 5.3.1.

Publicly-owned parks, recreation land, and wildlife and waterfowl refuges are protected under Section 4(f) of the U.S. Department of Transportation Act of 1966, if these lands are officially designated as such and they are determined to be significant (FHWA, July 20, 2012). Iowa DOT determined that the Otter Creek Marsh WMA is not protected under Section 4(f) and FHWA concurred with this finding (Iowa DOT, April 25, 2013).

No Build Alternative

The No Build Alternative would not result in expansion of US 30 in the Study Area. The No Build Alternative would not affect the farmland, natural areas, maintained grass areas, or woodlands within the Study Area. No impacts on Section 4(f) properties would occur.

Proposed Alternative

The Proposed Alternative would result in the grading of up to 0.1 acre of gravel road and drainage ditch (grassland) area on Otter Creek Marsh WMA. No WMA land would be permanently converted to ROW.

Wildlife such as deer, fox, squirrel, rabbit, and fur-bearing animals in the area would seek shelter in adjacent areas. These animals are well adapted to the area and any disturbance would be temporary and minimal. There is a potential for bird species protected under the MBTA to be adversely affected by the removal of habitat; mitigation to prevent an adverse impact is discussed below.

Clearing of vegetation would be kept to a minimum and provisions of the MBTA would be adhered to as applicable. The provisions of the MBTA are applicable to construction activities (such as clearing, grubbing, and tree removal) that may result in the taking of migratory birds, eggs, or young, including active nests. The MBTA is applicable year round, but most migratory bird nesting activities occur during the period of April 1 to July 31. Some raptors (owls) will begin nesting as early as February, however, and some songbirds may complete nesting as late as mid-September, allowing the MBTA to apply from February to September. To the extent possible, therefore, vegetation-clearing activities along the riparian corridor would be completed during the period from October through January (outside of the nesting period) to avoid or minimize adverse impacts on nesting migratory birds. If clearing activities were required during the nesting period, a survey of the affected habitats would be conducted prior to clearing to determine if nesting migratory birds are present. This survey would be coordinated with USFWS and the results would be submitted to USFWS to determine if any migratory birds would be affected.

Planned relocation of the County Highway E66 and US 30 intersection and the closure of Q Avenue on the south side of US 30 would temporarily affect access to the Otter Creek Marsh WMA. An access road from County Highway E66 provides the only access to a boating ramp and lake in the northern part of the WMA. To match the profile of the new US 30 alignment, this access road would be reconstructed and the parallel drainage ditch would be improved. The reconstruction will require this access road to be closed temporarily (Iowa DOT, April 10, 2013). Relocation of the intersection of County Highway E66 from Q to R Avenue would increase the distance of travel required to access the WMA by approximately 1.5 miles for eastbound traffic on US 30. Out-of-distance travel for westbound US 30 traffic would be minimal; less than 0.1 miles.

5.3.5 Threatened and Endangered Species

Threatened and endangered (T&E) species are protected under the Endangered Species Act of 1973, as amended (16 USC 1531 et seq.). The Endangered Species Act provides for the protection of animal and plant species that are determined to have a declining population and are in jeopardy of becoming extinct. USFWS has the authority of the federal government to administer the protection of such species. During the summer of 2011, database research and desktop analysis was completed to determine potential suitable habitat for federally listed species in the Study Area. Field surveys were conducted in the summer of 2012.

USFWS lists three federally-protected species in Tama County: Indiana bat, western prairie fringed orchid, and prairie bush clover (USFWS, December 2012). Federally protected species are listed in Table 5-2. The Indiana bat was identified (captured) within the Study Area (near US 30 and T Avenue) in a mist net survey conducted in July 2012 (Stantec Consulting Services, Inc., July 2012). A threatened and endangered species study identified approximately 117 acres of Indiana bat habitat in six sites within the US 30 Tama County Study Area: one area north of US 30, east of T Avenue; three areas south of US 30, east of T Avenue; one area south of US 30, between WW Avenue and X Avenue; and one area south of US 30, between WW Avenue and X Avenue (Iowa DOT, n.d.). Indiana bat habitat is defined as forest cover of 15 percent or greater and permanent water within 0.5 miles, along with living shagbark or shellbark hickory, or dead shagbark, shellbark, or bitternut hickory; American or slippery elm; eastern cottonwood; silver maple; or white, red, post, or shingle oak; and the presence of 10 percent or more peeling bark or slabs and plates of loose bark on trees (Iowa DOT, July 20, 2011). Critical habitat has not been designated within Iowa for the Indiana bat (USFWS, May 16, 2013, a).

No other federally protected species were identified within the Study Area in USFWS and Iowa DNR databases. A population of western prairie fringed orchid is known or believed to exist in Tama County (USFWS, May 16, 2013, b. A population of prairie bush clover is known or believed to exist in Tama County (USFWS, May 16, 2013, c). Critical habitat has not been designated for the western prairie fringed orchid or the prairie bush clover (USFWS, February 2009; USFWS, November 2009).

Table 5-2
USFWS Federally Listed Species in Tama County

Common Name	Scientific Name	Status	Habitat
Western prairie fringed orchid	*Platanthera praeclara*	Federally listed as threatened	Wet prairies and sedge meadows
Prairie bush clover	*Lespedeza leptostachya*	Federally listed as threatened	Dry to mesic[1] prairies with gravelly soil
Indiana bat	*Myotis sodalis*	Federally listed as endangered	Hibernate in caves and mines; summer habitat is small stream corridors with well developed riparian woods; upland forests

Sources: USFWS, December 2012, Iowa County Distribution of Federally Threatened, Endangered, Proposed, and Candidate Species; USFWS, February 2009, Western Prairie Fringed Orchid 5-Year Review: Summary and Evaluation; USFWS, November 2009, Prairie Bush Clover Fact Sheet; USFWS, September 2009, Indiana Bat, 5-Year Review: Summary and Evaluation.
Note:
1 Mesic means characterized by, related to, or requiring a moderate amount of moisture.

Iowa DNR lists 15 state-protected species: three birds, nine plants, and three reptiles (two turtles and one snake) occurring in Tama County. A review of the Iowa DNR Natural Areas Inventory database identified one occurrence of a state-listed species, Blanding's turtle (*Emydoidea blandingii*), within a 1-mile radius of the Project. The T&E species study noted that the project corridor [Study Area] has low potential to provide suitable habitat for the Blanding's turtle (Stantec Consulting Services, Inc., July 2012). During a field survey in 2011, no suitable habitat was found for western prairie fringed orchid or prairie bush clover (Iowa DOT, December 29, 2011).

No Build Alternative

The No Build Alternative would not involve construction of the Project and thus would not affect potential T&E species within the Study Area.

Proposed Alternative

The Proposed Alternative may affect, but is not likely to adversely affect the federally listed Indiana bat, which was identified northeast of US 30 and T Avenue. A Determination of Effect and an Indiana Bat Summer Habitation Form have been prepared by Iowa DOT (see Appendix D). Five areas of Indiana bat habitat (a total of 57.5 acres) are within the preliminary impact area: an area north of US 30 near T Avenue (where a male Indiana bat was captured in a mist net survey in July 2012), two areas south of US 30 near T Avenue, an area north of US 30 between WW and X Avenues, and an area south of US 30 between WW and X Avenues (Iowa DOT, n.d.). Mitigation regarding impacts to Indiana bat habitat will be coordinated with USFWS and Iowa DNR following final design.

Based on literature and data reviews for the Project, field surveys, reviews of historic aerial photography, and coordination with USFWS and Iowa DNR, Iowa DOT has determined, under the delegated authority provided by the Federal Highway Administration, that the project may affect, but is not likely to adversely affect federally or state listed species and the

project will not result in the destruction or adverse modification of federally designated critical habitat. Consultation with the USFWS and Iowa DNR will be initiated.

To minimize potential impacts on state-listed species, Iowa DOT would minimize impacts on habitat favorable to these species to the extent practical during final design. Clearing of potential habitat (at the edge of wetlands, in shallow wetlands, or in moist prairies) favorable to state-protected species would be kept to a minimum, and provisions of laws regarding state-protected species would be adhered to as applicable.

5.3.6 Woodlands

A woodland is defined in the Iowa DOT Office of Location and Environment Manual (Iowa DOT, August 2009) as "1. The area consists of three acres or greater of forested land having at least 200 trees (3" diameter at breast height [dbh] or greater) per acre; or 2. The area consists of 1 acre or greater but less than three acres of forested land having at least 200 trees (3" dbh or greater) per acre and is connected to a larger tract of forested land with the entire area being greater than three acres (not including treed fencerows, property lines, etc.)". Based on field surveys conducted by Iowa DOT, 30 woodland areas totaling 265.2 acres are located within the Study Area (Figures 5-1 through 5-9).

No Build Alternative

The No Build Alternative would not result in expansion of US 30 in the Study Area. The No Build Alternative would have no impact on the woodland in the Study Area.

Proposed Alternative

Based on the preliminary impact area, the Proposed Alternative could impact 130.9 acres of the 265.2 acres of woodland present within the Study Area (Iowa DOT, n.d.). As design advances, efforts will be made to reduce the impact on the woodland. Mitigation will be required because the Iowa DOT standard for woodland impacts is 1 acre or more.

Impact to woodland will be mitigated in accordance with Iowa Code 314.23, Environmental Protection, which states: "Woodland removed shall be replaced by plantings as close as possible to the initial site, or by acquisition of an equal amount of woodland in the general vicinity for public ownership and preservation, or by other mitigation deemed to be comparable to the woodland removed, including, but not limited to, the improvement, development, or preservation of woodland under public ownership."

5.3.7 Farmlands

A federal project, program, or other activity that requires conversion of farmland to nonagricultural uses must comply with the provisions of the Farmland Protection Policy Act (FPPA). The purpose of the FPPA is to "minimize the extent to which Federal programs contribute to the unnecessary and irreversible conversion of farmland to nonagricultural uses; encourage alternative actions, if appropriate, that could lessen the adverse effects on farmland; and to assure that Federal programs are administered in a manner that, to the extent

practicable, will be compatible with State, unit of local government, and private programs and policies to protect farmland" (7 USC 4201(b)).

The FPPA governs impacts on farmland only. The FPPA defines farmland as prime farmland, unique farmland, or farmland that is of state or local importance. Land that is already in or committed to urban development or water storage does not qualify as farmland and is therefore not subject to the FPPA.

No Build Alternative

The No Build Alternative would not result in expansion of US 30 in the Study Area. Under the No Build Alternative, no impacts on farmland or farm facilities would occur.

Proposed Alternative

Early in the engineering design process, the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Farmland Conversion Impact Rating for Corridor Type Projects (NRCS-CPA-106) form was completed for the generalized corridor to assess the effects of this conversion on farming and farm-related services in the area. This assessment considers the effects that the Project's conversion of farmland would have on existing and future land use, the amount of existing farmable land in the county, the creation of economically non-farmable parcels, impacts on other on-farm investments, and effects on local farm services. A total of 582 acres of farmland, which includes cropland, pasture land, and farmsteads, would potentially be converted for ROW. Sites receiving a score of less than 160 points need not be given further consideration for protection. The Project received a score of 152 out of the possible 260 points for Tama County (see Appendix C). Of the 582 acres to potentially be converted, the NRCS indicated that 202 acres of prime and unique farmland and 211 acres of statewide and local important farmland were included in that total. Because the score was less than 160 points, the Project does not warrant an in-depth site review, and the Project is cleared from significant concerns in conjunction with the FPPA.

The Proposed Alternative would not create any areas of non-farmable land as a result of diagonal severance; areas of ROW acquisition are adjacent to existing ROW. All of the farmland in the Study Area would still be accessible from existing roads.

5.4 Physical Impacts

This section characterizes physical resources in the Study Area and addresses potential impacts of the No Build Alternative and the Proposed Alternative. The resources discussed are noise, contaminated and regulated materials sites, visual, and utilities.

5.4.1 Noise

Sound levels are measured in units called decibels (dB). Because the human ear does not respond equally to all frequencies (or pitches) measured, sound levels are often adjusted, or weighted, to correspond to the frequency response of human hearing and the human perception of loudness. The weighted sound level is expressed in units called A-weighted

decibels (dBA) and is measured with a calibrated sound level meter. Sound levels that correlate with the human perception are also expressed with the descriptor L_{eq}, defined as energy-equivalent sound level.

Typical agricultural cropland environments have a background noise level of about 45 dBA. The range of sound pressure levels most frequently encountered in evaluating traffic-generated noise on highways is 50 to 95 dBA. The dominant noise source in the Study Area is vehicular traffic on US 30 and connecting roads as well as noise generated from farm equipment. Traffic noise consists of vehicular engine noise, exhaust noise, and tire noise from contact with the roadway surface. Other noise sources include aircraft overflights and traffic on other local roadways. Land uses in the Study Area likely to be sensitive to noise include agricultural farmsteads and residential properties located along US 30 and adjacent side roads. Part of the Iowa River Corridor WMA and the Otter Creek Marsh WMA are located at the southern edge of the Study Area. Commercial land uses would generally be less sensitive to noise. FHWA has developed Noise Abatement Criteria (NAC) based on land use activity. For residential areas (as well as other designated sensitive land uses), the Noise Abatement Criterion is 67 dBA; for businesses, it is 72 dBA. The Iowa DOT noise policy defines a noise impact as occurring when levels approach or exceed the NAC or when predicted future noise levels are 10 dBA or more above existing levels. Iowa DOT defines "approach" as coming within 1 dBA of the NAC, which are 66 dBA for residential areas and 71 dBA for businesses (Iowa DOT, July 29, 2011).

Traffic noise for the existing and future environment was predicted by roadway categories and other factors and by a detailed noise study (HDR, April 2013). The purpose of the noise study was to identify current noise levels in the Study Area and to quantify the impacts of the Preferred Alternative relative to the NAC noise levels. Traffic noise levels were estimated using the FHWA Traffic Noise Model, Version 2.5, based on traffic volume forecasts for peak hours in 2037 because these volumes would correspond to the highest projected noise levels.

As discussed in Section 5.1.1, Land Use, the Study Area is primarily agricultural; 40 noise receivers (all residential) were identified by the noise study. No future non-agricultural development is planned in the Study Area.

Eight rural residences, three farmsteads with residences, and two businesses could potentially be acquired to expand US 30. After construction, approximately 18 residences (that would not be relocated) would be farther from US 30; 11 residences and two businesses would be closer to the highway.

Receptor locations were not assigned for the Iowa River Corridor WMA and the Otter Creek Marsh WMA. The access road to these WMAs would result in noise generated through vehicle use, and the portion of the Iowa River Corridor WMA is at the far edge of the corridor and negligibly influenced by vehicle noise from US 30. Additionally, the roadway alignment in this area would be shifted to the north away from the WMAs causing a reduction in noise levels at the WMAs.

No Build Alternative

The No Build Alternative would not result in expansion of US 30 in the Study Area. Noise levels would increase at all receptor sites under the No Build Alternative due to increasing traffic volumes over time. Noise level values were not developed for the No Build Alternative. Iowa Policy Number 500.07 only requires comparison of existing and future build conditions.

Proposed Alternative

Under the Proposed Alternative, traffic is projected to increase, causing an overall increase in traffic noise along US 30. At specific receiver locations, noise levels would be between 5.7 dBA lower and 7.4 dBA higher than existing noise levels in the Study Area. The noise decreases are associated with receivers south of US 30 where the revised alignment is moving farther away from those residences, and the increases are primarily associated with the alignment moving closer to receivers north of US 30. There are no instances of noise levels under the Proposed Alternative substantially exceeding existing condition noise levels (an increase of 10 dBA or more) in the Study Area. Traffic noise levels generated from the Proposed Alternative would vary from 43.5 dBA (approximately 1,456 feet from centerline of US 30) to 61.5 dBA (approximately 86 feet from existing centerline of US 30, but approximately 210 feet from the nearest edge of pavement under the Proposed Alternative). The Proposed Alternative would not impact any receptors. Traffic noise impacts were not identified as a result of the proposed Project; therefore noise abatement measures were not evaluated.

During the construction phase of the Project, noise from on-site construction equipment and construction activities would add to the noise environment in the immediate Study Area. The driving and operation of construction equipment would also generate ground vibrations. The vibrations are not projected to be of a sufficient magnitude to affect normal activities of occupants in the Study Area. Increased truck traffic on area roadways would also generate noise associated with the transport of heavy materials and equipment. The noise increase and vibrations from construction activities would be temporary in nature and are expected to occur during normal daytime working hours. Equipment operating at the Project site would conform to contractual specifications requiring the contractor to comply with all local noise control rules, regulations, and ordinances. Although construction noise impacts would be temporary, the following BMPs would be implemented to minimize such impacts:

- Iowa DOT would inform residents in the area of construction activities to alert people of temporary higher noise levels so they can plan activities accordingly.
- Whenever possible, limit operation of heavy equipment and other noisy procedures to non-sleeping hours.
- Install and maintain effective mufflers on equipment.
- Limit unnecessary idling of equipment.

5.4.2 Contaminated and Regulated Materials Sites

Properties in the Study Area where hazardous materials have been stored may present a future risk if spills or leaks have occurred. Contaminated or potentially contaminated properties are of concern for transportation projects because of the associated liability of acquiring the property through ROW purchase, the potential cleanup costs, and safety concerns related to exposure to contaminated soil, surface water, or groundwater.

A Phase I Environmental Site Assessment (ESA) was conducted to identify and describe regulated materials sites found within and near a 1,000-foot-wide corridor centered on the center line of US 30. This Phase I ESA involved a windshield survey to determine uses of properties and to observe any releases of regulated materials; it also involved an in-depth assessment conducted by reviewing agency records and/or interviewing property owners and/or operators, where necessary. For this Phase I ESA, all properties considered to be regulated materials sites were identified and evaluated as having recognized environmental conditions (RECs) (Montgomery Watson, May 2001). The potential environmental risk of each REC was assessed using high, moderate, low, and minimal risk criteria from Iowa DOT's Office of Location and Environment Manual (Iowa DOT, August 2009).

The Iowa DNR Facility Explorer (Iowa DNR, n.d., f), the Iowa DNR Interactive Mapping Leaking Underground Storage Tank (LUST) Sites (Iowa DNR, n.d., g), and the Iowa DNR and Public Safety State Fire Marshal Office Storage Tanks database (Iowa DNR and Public Safety State Fire Marshal Office, n.d.) were reviewed to update the status of identified sites and to identify any new sites. In addition, the U.S. Environmental Protection Agency (USEPA) Envirofacts database (USEPA, April 12, 2013), the National Response Center (NRC) database (NRC, April 11, 2013), and the Pipeline and Hazardous Materials Safety Administration (PHMSA) Incident Reports Database (PHMSA, April 11, 2013) were reviewed. A site visit, consisting of a windshield survey and photograph documentation, was conducted by HDR on November 30, 2010, to update conditions in the Study Area.

The records review and field reconnaissance of the Study Area resulted in the following risk classifications of sites within the Study Area:

- Minimal risk – the agricultural land including residences with no aboveground storage tanks (ASTs), and rural residences (19 properties). There are 11 residences that were constructed after the Phase I ESA was completed. Based on the site visit and database review, these sites are also assumed to have a minimal risk.
- Low risk – 10 farms with ASTs, one farm with an underground storage tank (UST) that has been removed, three transportation spill sites along US 30 (near NN Avenue, O Avenue, and V18), and Tama County Chelsea Shop—a roads maintenance facility near US 30 and V18.
- Moderate risk – a rural residence with a UST (possibly still present) and a gasoline pump; a former grain elevator and asphalt batch plant on two parcels of land near US 30 and O Avenue; and the former Milo's gas station.
- High risk – former Smith Auto Shop, general store, and gas station.

A natural gas line crosses US 30 approximately 1,000 feet east of N Avenue; this gas line is still in service (Montgomery Watson, May 2001; PHMSA, n.d.).

In support of the concurrence point process (described in Section 7.2), and in consideration of the Phase I ESA and a records search and site visit, Iowa DOT identified six regulated material sites:

- Former Gladstone Elevator, on an agricultural parcel (Parcel 0109000) northeast of US 30 and O Avenue and on an adjacent parcel at 3297 O Avenue
- Former Ledvina farm, 2691 Highway E66
- Former Collins farm, 2740 Highway 30
- Former Smith Auto Shop, 2369 Highway 30
- Former Milo's gas station, 3223 Highway 30
- Chelsea Shop (Tama County Roads), south of US 30 and east of V18

Two of these sites, the former Ledvina farm and the Chelsea Shop, are rated as low risk. The former Ledvina farm is listed as a UST site by USEPA and Iowa DNR. A 500-gallon non-regulated farm UST was removed in December 1988 (Iowa DNR, n.d., UST details). This site is not listed by Iowa DNR or USEPA as a LUST site. Iowa DNR lists this site as "Non-regulated Closed" (Iowa DNR, n.d.). In accordance with Iowa DOT's Office of Location and Environment Manual (Iowa DOT, August 2009), the former Ledvina farm is considered low risk.

The Chelsea Shop site is listed by Iowa DNR as a LUST site. There were two USTs at this site, a 580-gallon gasoline tank and a 1,500-gallon diesel tank. Both tanks were installed in 1981 and removed in 1989. Cleanup of the site was completed in April 1993 and the site was classified as requiring no further action. There are currently two ASTs situated within a concrete berm at the site (south of the main shop building). In accordance with Iowa DOT's Office of Location and Environment Manual (Iowa DOT, August 2009), the Chelsea Shop site is considered low risk.

The remaining sites identified by Iowa DOT are rated as moderate to high risk. The following paragraphs provide details of conditions at the moderate and high-risk sites, along with the rationale for the risk classification. The Phase I ESA identified most of the moderate and high-risk sites with a number based on the Public Land Survey range in which it is located and a sequential numbering of contaminated sites (the exception was the former Gladstone Elevator). The locations of the moderate- and high-risk sites, as defined by Iowa DOT, are labeled in Figures 5-1 through 5-9, as applicable.

The former Gladstone Elevator, located on two parcels of property (3297 O Avenue and an adjacent agricultural parcel with no address [Parcel 0109000]) northeast of US 30 and O Avenue (see Figure 5-2), was identified in the 2001 Phase I ESA as a low risk site. The

grain elevator operated from at least as early as the 1950s to the 1970s (the former grain elevators are visible on these properties in aerial photography from the 1950s (Iowa DNR, n.d.). A former asphalt batch plant also operated at this site (on both parcels of land) from approximately 2008 to 2011. The batch plant was mostly removed by June 2011 (Tama County Zoning, June 29, 2011). Soil staining was observed in the vicinity of the batch plant during a site visit November 30, 2010. Contaminants typically identified at asphalt batch plant sites include benzene, ethyl benzene, toluene, xylenes, polycyclic aromatic hydrocarbon (PAH), and other volatile organic compounds. This site is not listed in USEPA or Iowa DNR databases. In accordance with Iowa DOT's Office of Location and Environment Manual (Iowa DOT, August 2009), this site is considered a moderate risk.

The former Collins farm (Site FS 14-50), currently a rural residence, is located at 2740 Highway 30 (see Figure 5-5). The 2001 Phase I ESA identified the presence of a gasoline pump near the barn. A fill pipe or vent for a UST was not identified during the site visit and it is unknown if a UST is present. If a UST is still present, it would be located approximately 30 feet west of the house (Montgomery Watson, May 2001). This site is not in USEPA or Iowa DNR databases. In accordance with Iowa DOT's Office of Location and Environment Manual (Iowa DOT, August 2009), this site is considered a moderate risk.

The former Milo's gas station (Site FG 13-36), located at 3223 Highway 30 (northeast of US 30 and W Avenue), is currently a rural residence (see Figure 5-8). The gas station operated from the 1960s to the 1970s. The site currently includes a house, an old schoolhouse, and the former gas station building. An unknown number of USTs were believed to have been removed. Three ASTs were also believed to have been removed. One AST remains at the site (Montgomery Watson, May 2001). This site is not in USEPA or Iowa DNR databases. The Phase I ESA rated this site as high risk due to the potential for petroleum contamination. In accordance with Iowa DOT's Office of Location and Environment Manual (Iowa DOT, August 2009), this site is considered a moderate risk.

The former Smith Auto Shop (Site FG 14-14), located at 2369 Highway 30 (northwest of US 30 and O Avenue; see Figure 5-2), was purchased by the State of Iowa in January 2011, as discussed above in Section 5.1.5, Relocation Potential. A gas station and general store operated here from the 1940s to the 1960s. It is believed that there were two to three USTs at the site; the status of these USTs is unknown (Montgomery Watson, May 2001). This site is not in USEPA or Iowa DNR databases. The Phase I ESA rated this site as high risk. Soil staining was observed during the Phase I ESA and the November 2010 site visit. The former auto shop building is still present at the site. In accordance with Iowa DOT's Office of Location and Environment Manual (Iowa DOT, August 2009), this site is considered a high risk.

No Build Alternative

The No Build Alternative would not involve construction of the Project and regulated materials sites would not be affected. Any contamination at the sites has the potential to migrate. Petroleum contamination could possibly degrade naturally over time

Proposed Alternative

Under the Proposed Alternative, the proposed expansion of US 30 would require additional ROW to accommodate wider pavement and shoulders, realignment of intersections with county roads, and changes in access to residences and farm fields. As part of ROW acquisition, relocation of 11 residences (eight rural residences and three dwellings on farmsteads) would be conducted. Two businesses and two residences have been purchased for ROW acquisition as hardship acquisitions (see Section 5.1.5, Relocation Potential). Regulated materials that could be encountered during demolition of the current residential and commercial structures on these properties include fuel storage tanks, asbestos, lead-based paint, light ballasts with polychlorinated biphenyls (PCBs), mercury in thermostats and other electrical components, and refrigerants in appliances and air conditioning units. Any appliances in residences or businesses to be demolished must be de-manufactured at a licensed facility before recycling or disposal, in accordance with Iowa Administrative Code 567, Chapter 118.

Any fuel or lubricants would be recycled or disposed of as hazardous waste. Storage tanks would be cleaned and recycled. All buildings to be demolished would be inspected for asbestos-containing materials (ACM). Bridges, other than those constructed entirely of Portland cement concrete or wood, would also be inspected for asbestos. In accordance with National Emission Standards for Hazardous Air Pollutants (NESHAP) and the Iowa Clean Air Act, Iowa DNR would be notified 10 working days before demolition begins. All building debris and waste material would be recycled or disposed of in a licensed facility in accordance with applicable regulations.

Additionally, solid waste from animal operations could be encountered. These facilities, if affected, would be demolished in accordance with Iowa Administrative Code 567-65. All manure would be removed from the facility within 6 months of closure and properly disposed of through land application. Solid wastes would be properly handled and disposed of in accordance with Iowa DNR requirements to prevent adverse impacts on surface waters.

Two former gas station sites, one LUST site, a former grain elevator and asphalt batch plant site, two former UST sites, and two transportation spill sites are within or near the preliminary impact area. Contamination associated with LUSTs (primarily benzene, toluene, ethylbenzene, and xylenes) could be encountered in the soil or groundwater, depending on the proximity of construction relative to the LUSTs and the depth of excavation or grading activities. Contaminants typically identified at asphalt batch plant sites include benzene, ethyl benzene, toluene, xylenes, PAH, and other volatile organic compounds. The contractor should be informed of the potential for encountering contaminated soil. The regulated materials sites discussed below could potentially be disturbed during construction of the Proposed Alternative.

The former Smith Auto Shop (with a former gas station) is entirely within the preliminary impact area. Based on the preliminary design, the roadway would pass through the site at the northern edge of the garage building. The drainage ditch on the south side of the roadway would pass through the location of the former garage. Although the location of the former USTs and fuel pumps is unknown, they likely were located south or east of the former garage

building. The proposed drainage ditch on the south side of the roadway would pass through the likely location of the former fuel pumps and USTs. The risk of encountering soil contamination is high during clearing, grubbing, and grading. The air in the vicinity of grading would be monitored for volatile organic compounds (VOCs) to determine the need for worker protection. If any contamination above regulatory limits is encountered, notification of the proper agencies as well as proper handling and disposal of any contaminated soil (including decontamination of equipment) would be warranted.

The former Milo's gas station is entirely within the preliminary impact area. Based on the preliminary design, the eastbound roadway would pass through the site at the location of the gas station building. The drainage ditch on the south side of the roadway would pass through the location of the former gas station. Although the location of the former USTs and fuel pumps is unknown, they likely were located south of the former gas station building. The proposed drainage ditch on the south side of the roadway would pass through the likely location of the former fuel pumps and USTs. The risk of encountering soil contamination is moderate during clearing, grubbing, and grading. The air in the vicinity of grading would be monitored for VOCs to determine the need for worker protection. If any contamination above regulatory limits is encountered, notification of the proper agencies as well as proper handling and disposal of any contaminated soil (including decontamination of equipment) would be warranted.

The former Gladstone Elevator and the former asphalt batch plant that operated at the same site are mostly within the preliminary impact area. Contaminants that could be encountered include pesticides and fungicides from the former grain elevator and benzene, ethyl benzene, toluene, xylenes, PAH, and other VOCs from the former asphalt batch plant sites. The risk of encountering soil contamination is moderate during clearing, grubbing, and grading. The air in the vicinity of grading would be monitored for VOCs to determine the need for worker protection. If any contamination above regulatory limits is encountered, notification of the proper agencies as well as proper handling and disposal of any contaminated soil (including decontamination of equipment) would be warranted.

The former Collins farm (Site FS 14-50) is partially within the preliminary impact area. It is not known if the gasoline pump identified in the 2001 Phase I ESA is still present. The Phase I ESA noted that the gasoline pump was located near the barn. The barn is located approximately 100 feet south of the preliminary impact area. The Phase I ESA had also noted that if a UST was present, it was located approximately 30 feet west of the house (Montgomery Watson, May 2001). The house is approximately 10 feet south of the preliminary impact area. The risk of encountering contamination during construction is moderate. The air in the vicinity of grading would be monitored for VOCs to determine the need for worker protection. If any contamination above regulatory limits is encountered, notification of the proper agencies as well as proper handling and disposal of any contaminated soil (including decontamination of equipment) would be warranted.

The transportation spill sites are all located within the preliminary impact area. The risk of encountering contamination during construction is low. If any contamination above regulatory limits is encountered, notification of the proper agencies as well as proper

handling and disposal of any contaminated soil (including decontamination of equipment) would be warranted.

5.4.3 Visual

The project corridor extends through agricultural land (including farm residences and forest preserve land) primarily, with some rural residences and limited commercial land. The Project corridor crosses four perennial streams (Otter Creek, Plague Mine Creek, Hog Run Creek, and Salt Creek); with the exception of Salt Creek, agricultural fields extend close to these streams and riparian area is minimal. Wooded riparian area is more extensive along Salt Creek; however, within the Project Area, a corridor was previously cleared for construction of the existing US 30 bridge. Otter Creek Marsh WMA is at the southern edge of the Study Area. The Iowa River and several associated conservation areas are south of the Project Area.

The eastern portion of the project corridor from County Highway E66 continuing east to the east end of the project is an area that is recognized for its scenery. This corridor has many acres of woodland and rolling hills known locally as the Bohemie Alps (also referred to as the Bohemian Alps). This area of Tama County was settled by many families of Czechoslovakian descent and the rolling hills and natural resources reminded them of their homeland.

No Build Alternative

The No Build Alternative would have no impact on visual features.

Proposed Alternative

Impacts to visual resources along US 30 will be minor in scope because the corridor currently includes the two-lane highway. Expansion of the highway system would occur primarily within or adjacent to the existing transportation corridor and not introduce occupants of the current environment to new types of features. New ROW would be derived from existing farmland, woodland, and wetlands. Visual affects to Otter Creek, Plague Mine Creek, and Hog Run Creek would be minor, as these streams have been previously modified. Impacts to Salt Creek would also be minimal; the existing bridge would be reused for eastbound traffic and the proposed bridge would be constructed in an area that previously has been mostly cleared of trees. Visual impacts to Salt Creek would also be limited due to its protected status; the stream channel cannot be modified along much of its course, including all of the Project Area. Otter Creek Marsh WMA would be minimally affected by the Project; an access road at the intersection of E-66 within the WMA boundaries (but extending out from the main area of the WMA) could be temporarily affected by minor grading.

Impacted woodlands and wetlands would be mitigated according to a ratio acceptable to the regulatory agencies during Section 404 permitting. The preferred alternative was selected in part due to a shortened construction time so that the landscape may return to its natural state

more quickly. Consequently, the impacts to the visual environment are anticipated to be minor.

5.4.4 Utilities

The potential for the Project to affect utilities in the Study Area was considered by identifying utility locations and orientation in relation to US 30. Potential effects were evaluated with respect to major utilities crossed by or located within the ROW for the Proposed Alternative.

The following utility companies and municipalities provide service to the Study Area:

- Water – Powesheik Water Association
- Electricity and gas – TIP Rural Electric Cooperative, Grundy County Rural Electric Cooperative, Consumers Energy Rural Electric Cooperative, and Aliant Energy
- Telecommunications –Mediacom and Windstream

Most of the residents in the Study Area are on the Powesheik Rural Water system, but a few residents continue to rely on private wells for domestic water supply (Tama County Zoning, July 25, 2011; Iowa DNR, n.d., c). Sanitary sewer service is not provided in the Study Area. Private septic systems are used to treat sewage (Tama County Planning, July 25, 2011).

A cell tower owned by USCOC of Greater Iowa, LLC is located at 3311 RR Avenue. The cell tower is accessed from County Highway E66 and RR Avenue.

No Build Alternative

Under the No Build Alternative, US 30 would not be expanded and utility line relocation would not affect utility service.

Proposed Alternative

Under the Proposed Alternative, local water, electric, gas, and telecommunication lines would be temporarily affected during clearing, grubbing, and grading activities. As detailed design plans are developed for the Proposed Alternative, construction activities would be coordinated with public utilities to avoid potential conflicts and to minimize planned interruptions of service to accommodate any needed utility relocations as a result of the Project. When service interruptions are unavoidable, an effort would be made to limit their duration.

The cell tower located at 3311 RR Avenue would not be affected by the Proposed Alternative. Access from County Highway E66 via US 30 and R Avenue would be temporarily affected by construction; however, alternate access routes from County Highway E66 east of RR Avenue would remain open throughout construction on County Highway E66 and R Avenue.

5.5 Cumulative

A cumulative impact is defined as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time" (40 CFR 1508.7). Cumulative impacts include the direct and indirect impacts of a project together with impacts from reasonably foreseeable future actions of others. For a project to be reasonably foreseeable, it must have advanced far enough in the planning process that its implementation is likely. The impacts of reasonably foreseeable future actions not associated with the expansion of US 30 in Tama County include the impacts of other federal, state, and private actions. Reasonably foreseeable actions are not speculative, are likely to occur based on reliable sources, and are typically characterized in planning documents.

The assessment of the cumulative impacts of federal, state, and private actions is required by Council of Environmental Quality (CEQ) regulations developed for implementing NEPA. Cumulative impacts of the Proposed Alternative were evaluated in accordance with CEQ guidance (CEQ, January 1997; CEQ, June 2005) and other sources, including FHWA's "Interim Guidance: Questions and Answers Regarding Indirect and Cumulative Impact Considerations in the NEPA Process" (FHWA, January 31, 2003) and FHWA's "Position Paper: Secondary and Cumulative Impact Assessment in the Highway Project Development Process" (FHWA, April 1992).

The assessment focused on several resources susceptible to cumulative impacts. Additionally, the timelines of other reasonably foreseeable major projects that would likely occur in the time frame of the Project were compared to assess the combined effects of these projects on the target resources. The cumulative impact assessment also considered the baseline conditions of the target resources and the region's resources, and determined whether any regionally significant cumulative impacts could occur.

Local Projects

Two other projects are located near the Study Area: the US 30 Marshall and Tama Counties Improvements and the US 30 Benton County Proposed Expansion. Figure 5-10 shows the locations of these projects in relation to the Study Area. The latter project extends from the eastern limits of the Study Area at the intersection with IA 21 west of the Tama and Benton County Line eastward approximately 14 miles to the junction of US 218. The US 30 Marshall and Tama Counties Improvements modernize US 30 by upgrading from two lanes to four lanes in addition to the construction of two bypasses: Le Grand and Tama-Toledo. The US 30 Benton County Proposed Expansion converts the segment of US 30 between the US 30 Marshall and Tama Counties Improvements and the US 30 Tama County Proposed Expansion from two to four lanes. Construction of the US 30 Marshall and Tama Counties Improvements is complete whereas the US 30 Benton County Proposed Expansion is programmed for ROW acquisition in Fiscal Year (FY) 2014 and 2015, with grading scheduled for FY 2016 and paving scheduled for FY 2017. The US 30 Tama County Proposed Expansion has yet to be programmed.

No other road projects are planned in or near the Study Area (Region 6 Planning Commission, n.d.).

Key Resources Affected

The analysis of cumulative impacts focuses on the key resources potentially affected by the Proposed Alternative and other reasonably foreseeable actions in the Study Area whose impacts overlap with those of the Proposed Alternative. Specifically, the analysis focuses on ROW and farmlands, relocation potential, transportation, historical sites or districts, wetlands, surface waters and water quality, floodplains, wildlife and habitat, T&E species, woodlands, contaminated and regulated material sites, and utilities. The Proposed Alternative would be constructed within a transportation corridor in a rural area and would require an increase in ROW to accommodate the additional lanes and at-grade intersections. The Proposed Alternative would alter (improve) traffic flow and would reduce available farmland in the Study Area.

Economic

Two taxing entities (Belle Plaine Community School District and Benefitted Elberon Fire District) would be affected by both the Benton and Tama county projects. However, the cumulative effect on both of these taxing districts would be minor (0.5 to 1.0 percent).

Right-of-Way and Farmlands

Construction of the Proposed Alternative would result in a net loss of available farmland and the acquisition of additional ROW. As discussed in Section 5.1.1 and Section 5.3.7, efforts will be made to minimize the amount of ROW acquired and the impacts on farmland to the extent practicable as design advances. The other reasonably foreseeable projects in the vicinity of the Study Area would also result in a net loss of available farmland. The total net loss in Marshall, Tama, and Benton Counties would be 2,095 acres of farmland; approximately 0.2 percent of total farmland in these counties. Of the total farmland converted, approximately 1,630 acres are prime farmland or state or local important soils (NRCS, April 20, 2012, a; NRCS, April 20, 2012, a; NRCS, May 15, 2013; USDOT and Iowa DOT, March 8, 1994). Indirect impacts on farmland are anticipated to be minimal (see Section 5.1.1, Land Use).

Relocation Potential

The Proposed Alternative for the Benton County US 30 Proposed Expansion could result in 11 residential relocations of approximately 176 acres of property (ten rural residences and five dwellings on farmsteads) as well as one full and one partial business relocations. The US 30 Marshall and Tama Counties Improvements required relocations of 17 farmsteads, 17 residences, and 3 businesses, and the US 30 Tama County Proposed Expansion could potentially require 11 residential and two business relocations. Relocations have been or will be minimized to the extent practicable; in each county, however, numerous homes and businesses are located adjacent to US 30, making it impossible to avoid all relocations. The majority of displaced residents and businesses are expected to relocate within the same

county and the relocations would be completed in accordance with applicable regulations. Therefore, the cumulative impact of the relocations, though adverse, is not considered significant for the counties affected.

Transportation

Construction of the Proposed Alternative in Benton County would have a beneficial impact on transportation in the US 30 corridor by improving the safety of crossing or merging onto US 30 and creating direct, grade-separated access across US 30 at IA 21 and US 218. The US 30 Marshall and Tama Counties Improvements and US 30 Tama County Proposed Expansion projects would have similar effects on transportation, leading to a beneficial cumulative impact on transportation.

Public transportation (for example, bus and paratransit) and air transportation operate in and near the Study Area; however, these forms of transportation would not be affected by the Proposed Alternative. Rail and water transportation are not present in or near the Study Area. Thus, there would be no cumulative impact on these modes of transportation.

The Proposed Alternative in Benton County has the potential to obstruct airspace temporarily during construction. Long-term obstructions are expected to be avoided or minimized in compliance with FAA regulations. Construction of the interchange included in the US 30 Marshall and Tama Counties Improvements had a similar potential for airspace obstruction but this project has been completed and no longer has the potential to obstruct airspace. The US 30 Tama County Proposed Expansion could result in an obstruction of airspace during bridge construction through the use of a crane. After further coordination with FAA as design advances, the Proposed Alternative would not be considered a significant contributor to cumulative impacts on air transportation.

Historical Sites or Districts

Three historic properties were identified within the US 30 Benton County Study Area; however, the Proposed Alternative would not adversely affect the properties. Three archaeological sites and two historic properties potentially eligible for listing on the NRHP were identified in the vicinity of the US 30 Marshall and Tama Counties Improvements. The two historic properties also qualified for protection under Section 4(f) (23 CFR 774, Parks, Recreation Areas, Wildlife and Waterfowl Refuges, and Historic Sites), but there were no feasible and prudent alternatives to avoid the impacts. Impacts were mitigated through a Memorandum of Agreement. Three historic properties have been identified within the vicinity of the US 30 Tama County Proposed Expansion. However, it is anticipated that Iowa SHPO would concur that the US 30 Tama County Proposed Expansion would result in a determination of "No Adverse Effect" on the properties; no other reasonably foreseeable project would affect the properties. Consequently, no cumulative impacts on historic sites or districts are projected to occur from the Proposed Alternative. Historic resources qualifying for protection under Section 4(f) are also not expected to experience cumulative impacts resulting from the US 30 Tama County Proposed Expansion because the Proposed Alternative would not impact any Section 4(f) resources.

Wetlands

The US 30 Marshall and Tama Counties Improvements (previously constructed) has caused wetland impacts and the US 30 Benton County improvement project (planned for construction) and US 30 Tama County Proposed Expansion project also would impact wetlands. The wetlands affected by the three projects (a total of approximately 136 acres) would be spread over approximately 33 miles. The only areas where wetlands could be impacted by more than one project would be in the Salt Creek drainage that is near the boundary of the Tama County and Benton County projects. The Proposed Action in Benton County and the Proposed Alternative in Tama County could potentially impact approximately 20.9 acres of contiguous wetlands in the Salt Creek floodplain (3.6 acres in Benton County and 17.3 acres in Tama County). These impacts are based on the preliminary impact area for each project, which includes a buffer to provide flexibility in design details. Given that cumulative wetland impacts in the area of US 30 are expected to be minimized to the extent practicable and that the impacts would be addressed under Section 404 of the Clean Water Act with mitigation in accordance with Section 404 permits, no adverse cumulative impacts on wetlands are anticipated.

Surface Waters and Water Quality

The Proposed Alternative in Tama County, as well as the other reasonably foreseeable projects, would require grading of more than 1 acre and an NPDES construction permit with a SWPPP that identifies measures for protecting surface water quality. The preliminary impact area of the Proposed Alternative would, for the most part, not be located in the same watershed as the US 30 Marshall and Tama Counties Improvements and the US 30 Benton County Proposed Expansion. There could be minor cumulative impacts associated with the Salt Creek drainage near the boundary of the Tama County and Benton County projects. Given the protective measures to minimize runoff and erosion, and the compensatory mitigation for stream impacts that would be addressed under Section 404 of the Clean Water Act, adverse cumulative impacts on surface waters and water quality are not anticipated.

Floodplains

Because of their generally east and west orientation, the projects considered in the cumulative impacts analysis would cross several different floodplains, including the Salt Creek floodplain near the boundary of the Tama County and Benton County projects. With the minimization of floodplain impacts and the approval process for an Iowa DNR Flood Plain Development Permit for each project, the cumulative impact on floodplains would be minor.

Wildlife and Habitat

Most of the wildlife habitat in or near the Study Area is in woodland or WMA areas. Only one small area of woodland (approximately 4 acres) is within the Benton County Study Area and WMAs in Benton County are located approximately 5 miles south of the Study Area. Impacts on woodlands in Benton County are limited to an area 8 miles east of Tama County. No impacts on WMAs would occur. The majority of the affected area in Benton County has

been disturbed for agricultural and residential development. The area affected by the US 30 Marshall and Tama Counties Improvements project was previously developed urban and agricultural area and the Finding of No Significant Impact (FONSI) stated that no wildlife habitat would be affected. Consequently, the Project would have no cumulative impact on wildlife and habitat.

Threatened and Endangered Species

T&E species were determined not to be present in Benton County (based on field reviews and studies). The FONSI for the US 30 Marshall and Tama Counties Improvements EA stated that no T&E species would be affected. Consequently, the Project would have no cumulative impact on T&E species.

Woodlands

Although the Proposed Alternative in Benton County would have an impact on woodlands and the US 30 Marshall and Tama Counties Improvements project caused some woodland impacts, the US 30 Tama County Proposed Expansion is expected to have the greatest impact of the three projects. Because Iowa Administrative Code 314.23 requires that woodlands removed from all three projects be replaced at a nearby location for preservation, there would only be temporary reduction in woodland area in the short term, as the mitigation area's trees mature. There would be no long-term cumulative impact to woodlands.

Contaminated and Regulated Material Sites

Six moderate- to high-risk regulated material sites were identified within the Benton County Study Area affected by the Proposed Alternative in Benton County. The US 30 Marshall and Tama Counties Improvements did not impact regulated material sites. One high-risk regulated materials site (a former auto shop and gas station) and three moderate-risk regulated material sites (a UST at a rural residence, a former grain elevator and asphalt batch plant [on the same site], and a former gas station) have been identified within the Study Area of the US 30 Tama County Proposed Expansion. However, any site encountered would be handled in accordance with regulations, and the sites are distant from one another; therefore, there would be no cumulative impacts from disturbing contamination.

Utilities

Some of the same utilities (for example, Powesheik Water Association) would be affected by both the Tama County and Benton County projects; however, impacts on utilities would be of limited duration, and construction activities would be coordinated to avoid or minimize impacts, especially in the area near the boundary between the Tama County and Benton County projects. Although some utility relocations would likely be required, the disturbances would be minimized. There were no long-term impacts on utilities from the US 30 Marshall and Tama Counties Improvements project. Cumulative impacts on utilities are not anticipated.

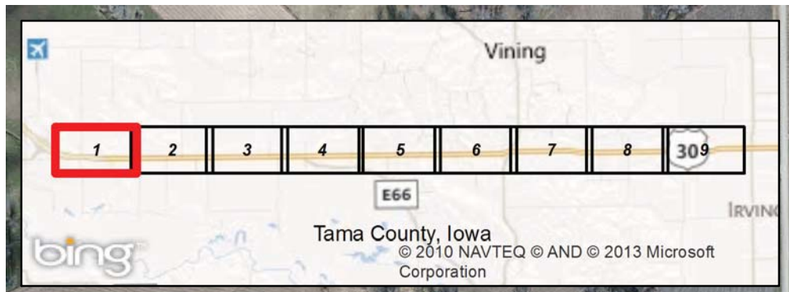
5.6 Streamlined Resource Summary

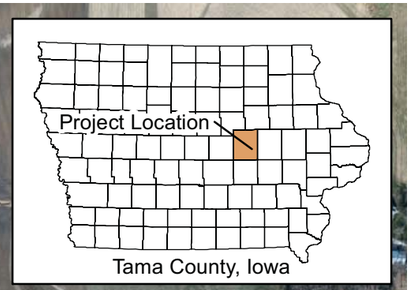
The streamlined process developed by Iowa DOT and FHWA was used to focus the analysis on those resources potentially affected by the Project and to eliminate or decrease the description and impact analysis of resources not affected by the Project. Appendix A contains a Streamlined Resource Summary indicating the process used to identify resources that are not within the Study Area or would not be affected by the Project. It also includes the rationale for performing only limited analysis on resources not described or analyzed in Section 5. Table 5-3 summarizes the differences in impacts on resources which would result from the No Build Alternative and the Proposed Alternative. The table does not list resources for which the anticipated impact would not differ substantially.

Table 5-3
Summary of Impacts

Resource	No Build Impacts	Build Impacts
Land use	No change	Conversion of up to 611 acres of agricultural land, 44 acres of residential land, and 3 acres of commercial land to transportation use
Economic	No change in current trends	Safer access to businesses; 0.2 percent reduction in Tama County tax valuation; reduction in school district tax valuation by as much as 0.5 percent; 2.8 and 3.9 percent decrease in the tax base of York and Otter Creek townships, respectively; and 1.0 percent decrease in the tax base of the Benefitted Elberon Fire District.
Parklands and recreation areas	No change	No impacts
Right-of-way	None	Acquisition of up to 658 acres of additional ROW
Relocation potential[a]	None	Potential relocation of 11 residences (eight rural residences and three dwellings on farmsteads) with two business relocations
Construction and emergency routes	No construction impacts or change in emergency routes	Temporary increase in travel distance for emergency routes during construction; long-term improved access across US 30
Transportation	No change Temporary road closures due to accidents at at-grade intersections would continue.	Increased safety and improved access across US 30. Temporary crane use for bridge may have effect on air space.
Historical sites or districts	No effect on historic properties	No adverse effect on historic properties; de minimis impact on Section 4(f)

Resource	No Build Impacts	Build Impacts
		properties
Archaeological sites	No effect on historic properties	No effect on historic properties
Wetlands	No impact	Up to 47.5 acres of impact
Surface waters and water quality	No impact	Up to 19,566 linear feet of surface waters affected; slight increase in surface water runoff due to additional paved surfaces
Floodplains	No impact	Up to 109.8 acres affected. 100 year flood elevation not projected to be above existing conditions.
Wildlife and habitat	No impact	Vegetation clearing would be minimized and MBTA requirements would be followed; temporary impact to up to 0.1 acre of an entrance of Otter Creek Marsh WMA.
Threatened and endangered species	No impact	Up to 57.5 acres of Indiana bat habitat affected; the Project may affect, but not likely to adversely affect, Indiana bat. No affect to any other state or federally listed species.
Woodlands	No impact	Up to 130.9 acres affected
Farmlands	No impact	Up to 582 acres directly converted
Noise	Not evaluated, as this is no longer required in updated noise evaluation guidance.	No receptors affected
Contaminated and regulated materials sites	No impact	Moderate risk of encountering contamination at three sites, high risk of encountering contamination at one site.
Visual	No Impact	Minimal impact from expansion of current transportation ROW.
Utilities	No impact	Potential limited disruptions of utility service could occur.





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Western Terminus of Project

Historic Site 86-00778

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Image courtesy of USGS © 2013 Microsoft Corporation

Legend

- Cell Tower
- Cemetery
- Regulated Materials Site
- Indiana Bat Capture
- Residence Relocation
- Business Relocation
- Noise Receptor (1)
- Groundwater Well
- Waters of the U.S.
- Wetland Impact
- Wetland
- Indiana Bat Habitat
- 100-Year Floodplain
- Wildlife Management Area
- Woodland
- Preliminary Impact Area

Iowa Department of Transportation

Environmental Constraints

US 30 Tama County Proposed Expansion
Tama County, Iowa
Environmental Assessment

DATE
April 2013

FIGURE
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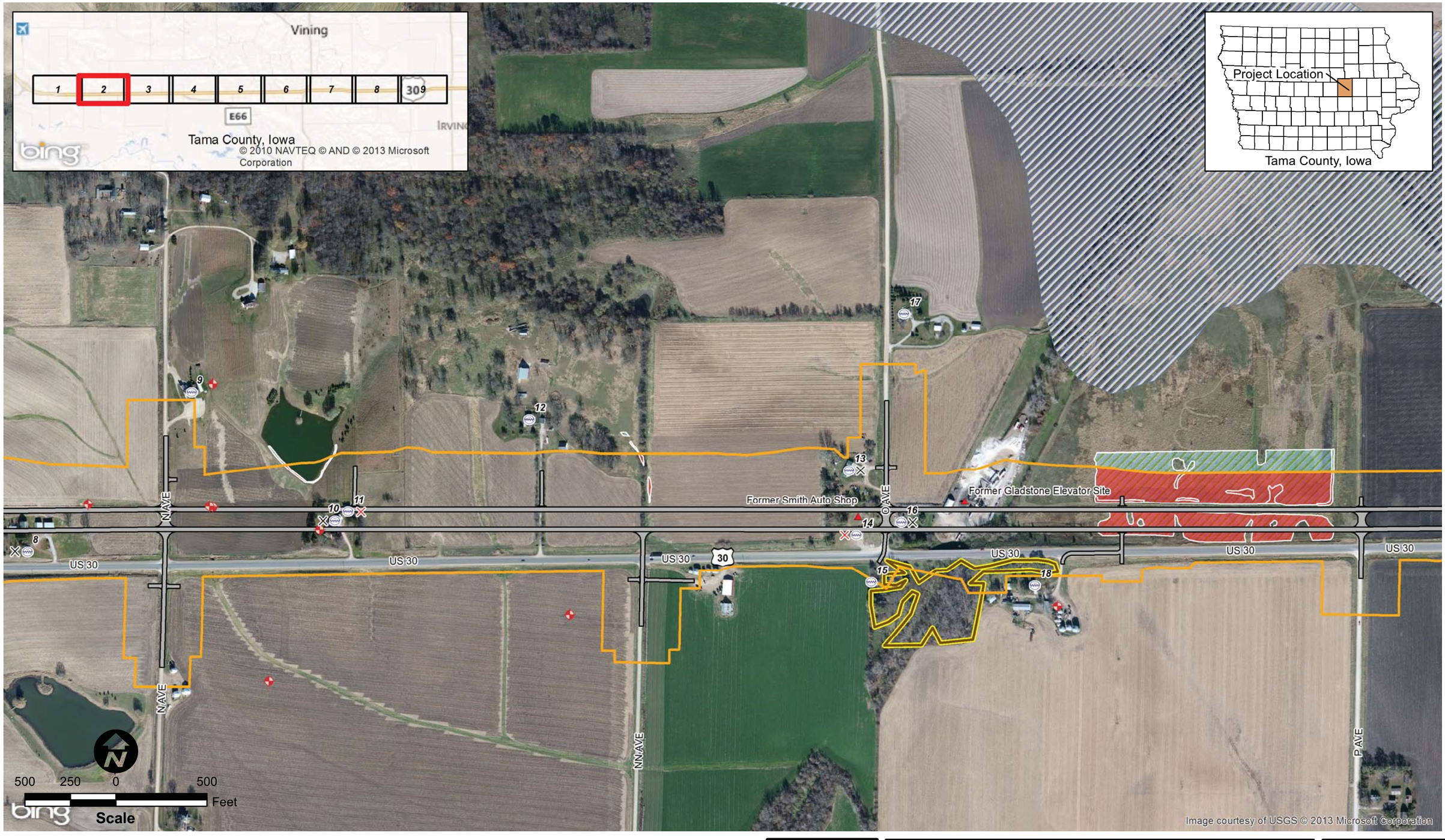

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Iowa Department of Transportation

Environmental Constraints

US 30 Tama County Proposed Expansion
Tama County, Iowa
Environmental Assessment

DATE
April 2013

FIGURE
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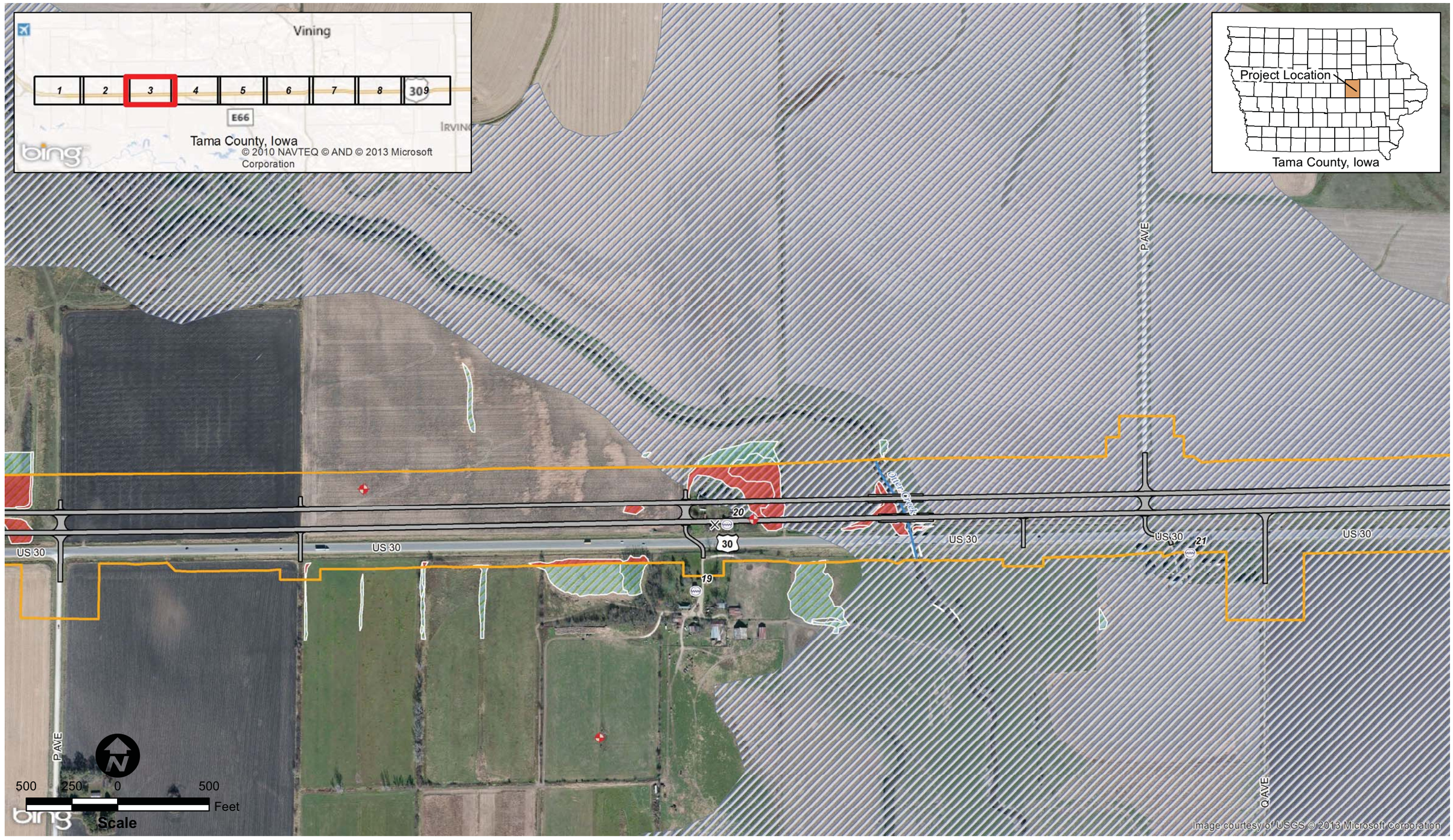

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Iowa Department of Transportation

Environmental Constraints

US 30 Tama County Proposed Expansion
Tama County, Iowa
Environmental Assessment

DATE
April 2013

FIGURE
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Iowa Department of Transportation

Environmental Constraints

US 30 Tama County Proposed Expansion
Tama County, Iowa
Environmental Assessment

DATE
April 2013

FIGURE
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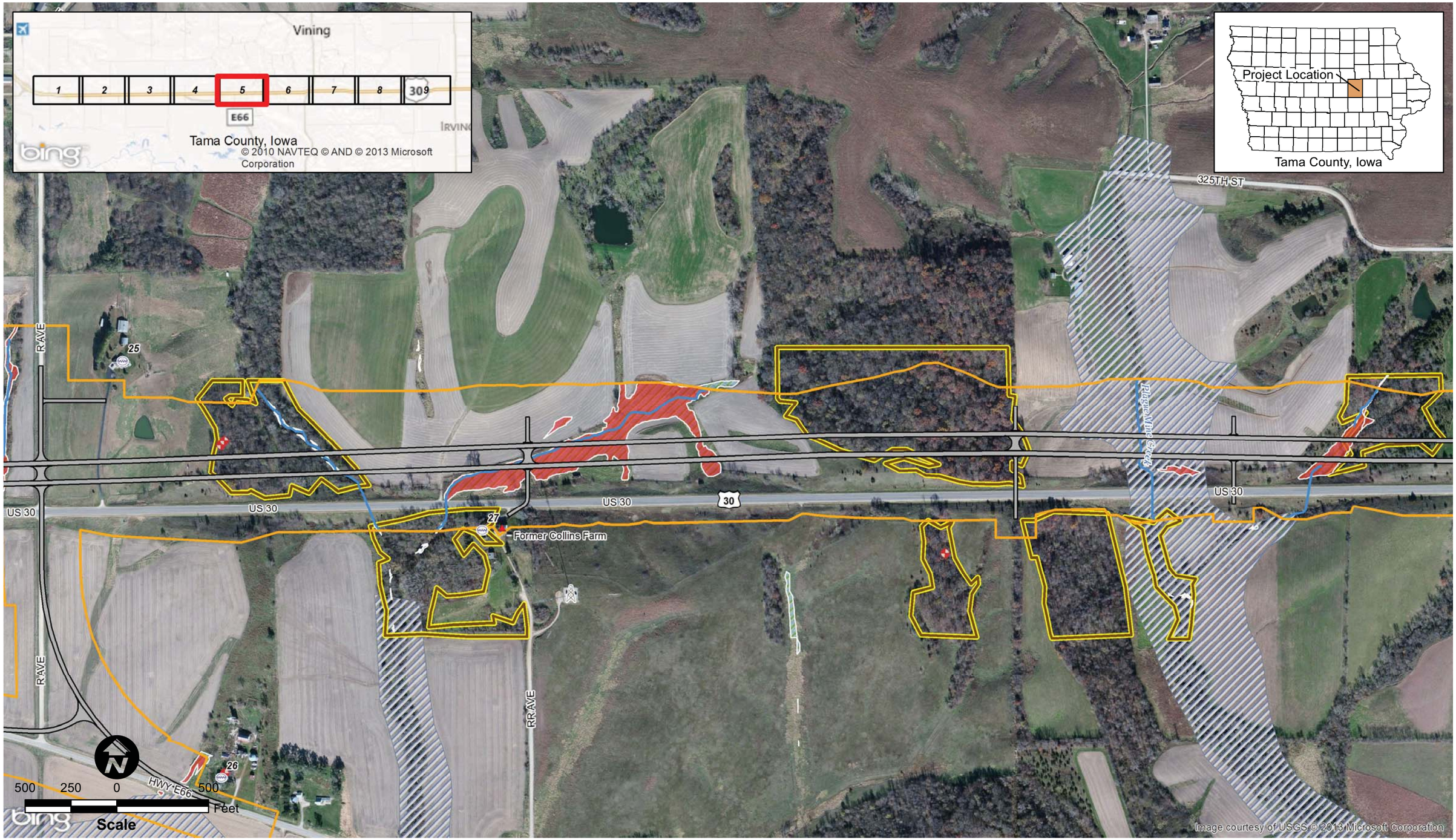

Legend

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Iowa Department of Transportation

Environmental Constraints

US 30 Tama County Proposed Expansion
Tama County, Iowa
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DATE
April 2013

FIGURE
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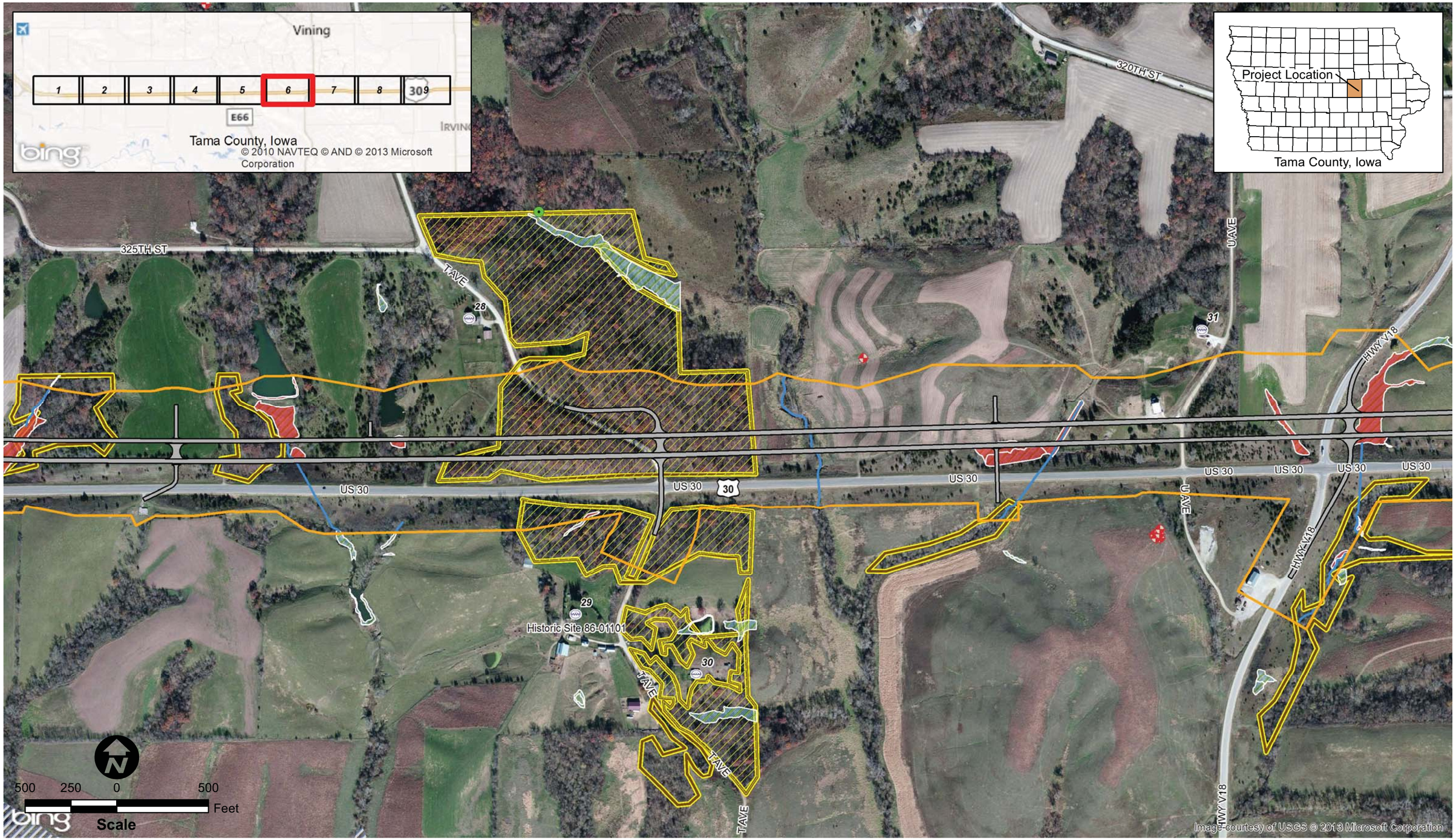

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Iowa Department of Transportation

Environmental Constraints

US 30 Tama County Proposed Expansion
Tama County, Iowa
Environmental Assessment

DATE
April 2013

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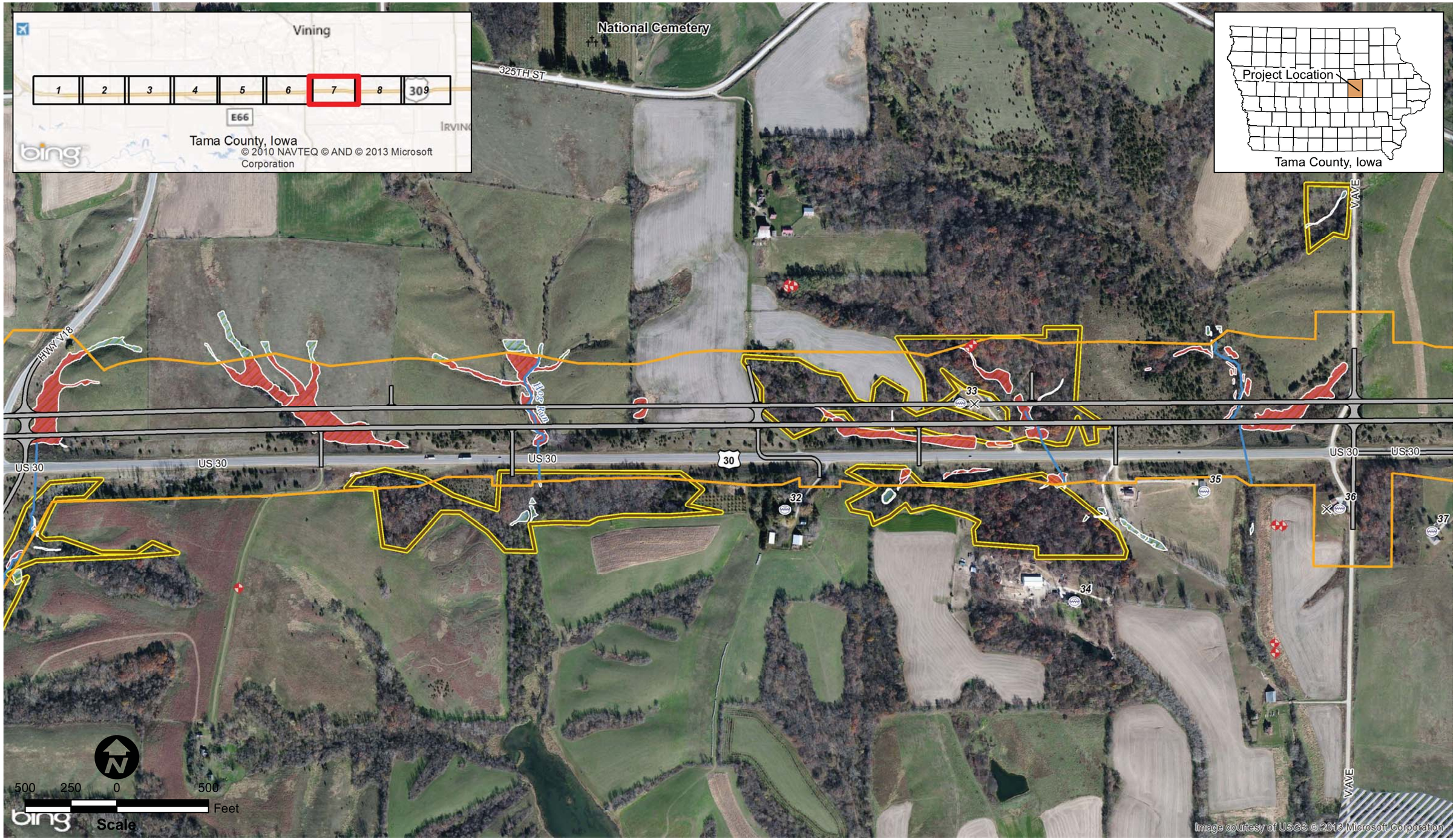

Legend

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Iowa Department of Transportation

Environmental Constraints

US 30 Tama County Proposed Expansion
Tama County, Iowa
Environmental Assessment

DATE
April 2013

FIGURE
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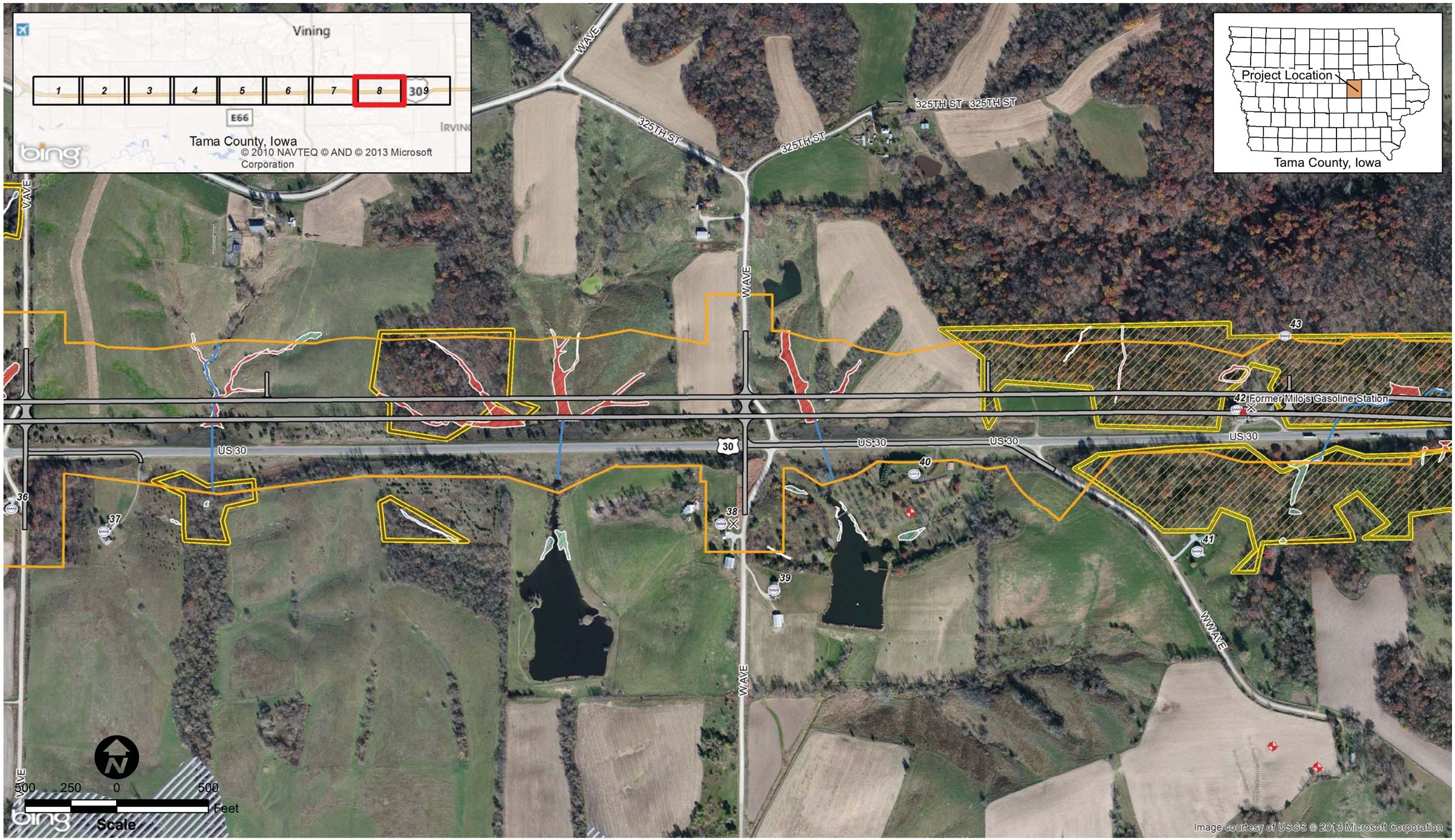

Legend

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Iowa Department of Transportation

Environmental Constraints

US 30 Tama County Proposed Expansion
Tama County, Iowa
Environmental Assessment

DATE
April 2013

FIGURE
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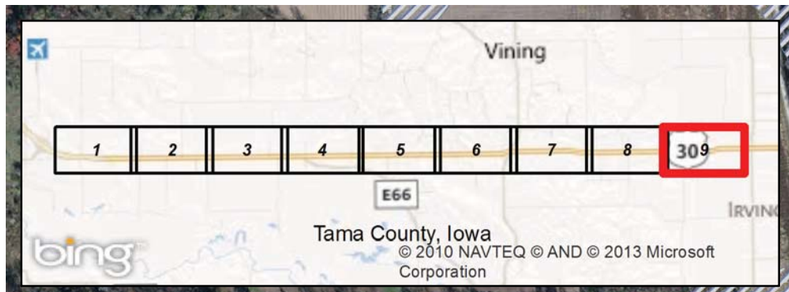

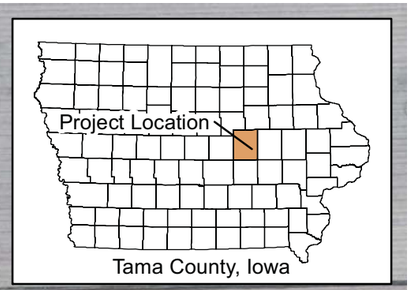

Eastern Terminus of Project

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Image courtesy of USGS © 2013 Microsoft Corporation

Legend

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Iowa Department of Transportation

Environmental Constraints

US 30 Tama County Proposed Expansion
Tama County, Iowa
Environmental Assessment

DATE
April 2013

FIGURE
5-9

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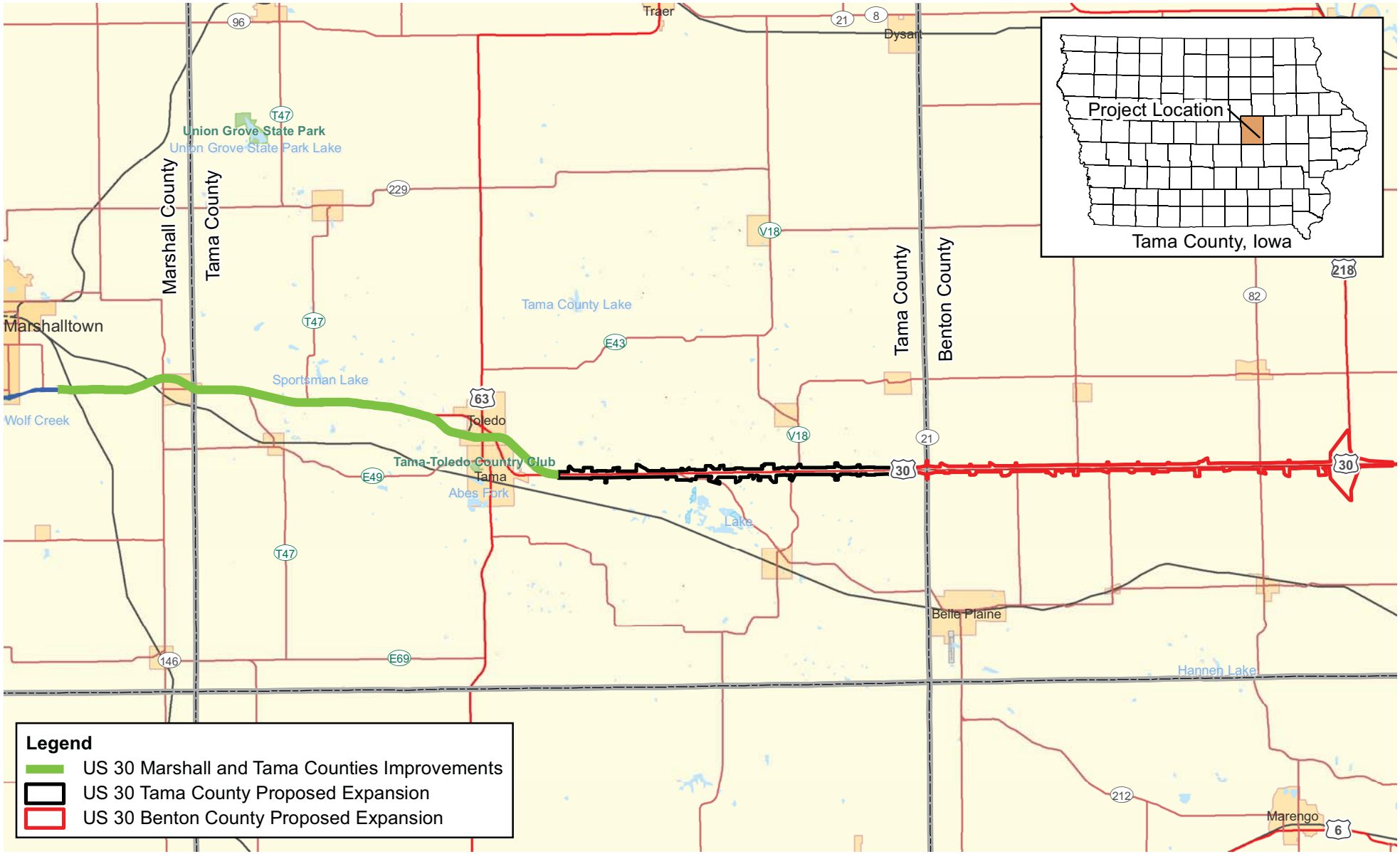

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Iowa Department of Transportation

Projects in or near the Study Area

US 30 Tama County Proposed Expansion
Tama County, Iowa
Environmental Assessment

DATE
April 2013

FIGURE
5-10

SECTION 6

DISPOSITION

SECTION 6
DISPOSITION

This streamlined EA concludes that the Project is necessary for safe and efficient travel within the Project corridor and that the Project meets the purpose and need. The Project would have no significant adverse social, economic, or environmental impacts of a level that would warrant an EIS. Selection of the alternative to implement would occur following completion of the public review period and public hearing.

This EA is being distributed to the agencies and organizations listed in Sections 6.1 and 6.2, below. Individuals receiving this EA are not listed for privacy reasons.

6.1 Federal Agencies

Federal Aviation Administration
Federal Emergency Management Agency (FEMA)
Federal Highway Administration – Iowa Division
U.S. Army Corps of Engineers (USACE) – Rock Island District (Regulatory)
U.S. Department of Agriculture (USDA) – Natural Resources Conservation Service
U.S. Department of the Interior – Office of Environmental Policy and Compliance
U.S. Environmental Protection Agency (EPA) – Region 7, National Environmental Policy Act Team
U.S. Fish and Wildlife Service (USFWS) – Rock Island Field Office

6.2 State Agencies

Iowa Department of Agriculture and Land Stewardship
Iowa Department of Natural Resources (Iowa DNR) – State Office and Field Office #1 (Manchester)
Iowa Department of Transportation (Iowa DOT)
State Historical Society of Iowa

6.3 Local/Regional Units of Government

Region 6 Planning Commission
Tama County Board of Supervisors
Tama County Conservation Board
Tama County Engineer
Tama County Historic Preservation Commission
Tama County Historical Society
Tama Soil and Water Conservation District
Iowa Valley Resource Conservation and Development
City of Tama – Mayor, City Clerk, Street Superintendent
City of Toledo – Mayor, City Clerk, Superintendent of Public Works

City of Vining – City Clerk
City of Chelsea – City Clerk
City of Elberon – City Clerk

6.4 Locations Where this Document Is Available for Public Review

The Louise & Lucile Hink/Tama Public Library
401 Siegel Street
Tama, IA 52339

Toledo Public Library
206 East High Street
Toledo, IA 52342

Chelsea Public Library
600 Station Street
Chelsea, IA 52215

Elberon Public Library
106 Main Street
Elberon, IA 52225

Federal Highway Administration
105 6th Street
Ames, IA 50010

Iowa Department of Transportation
800 Lincoln Way
Ames, IA 50010

Iowa Department of Transportation
1020 S. 4th St.
Ames, IA 50010

6.5 Potential Permits Required for the Project

The Project would require a Section 404 Clean Water Act permit for wetland and stream impacts and a National Pollutant Discharge Elimination System General Stormwater Discharge Permit for Construction Activities. The Project would cross perennial streams with FEMA-mapped floodplains, and consequently require Floodplain Development Permits and Iowa Sovereign Lands Permits. The FAA Notice Criteria Tool would need to be completed to determine if coordination with FAA would be needed regarding potential airspace obstruction at Toledo Municipal Airport and Belle Plaine Municipal Airport.

6.6 Statewide Transportation Improvement Program and Transportation Improvement Program Status

The Project construction is currently not included in the Final Iowa Statewide Transportation Improvement Program (STIP) 2013-2016 (Iowa DOT, October 18, 2012). Iowa DOT is currently working on including the final design stage in the 2014-2017 Iowa Statewide Transportation Improvement Plan. Final design cost is estimated to be $3-5 Million.

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SECTION 7

COMMENTS AND COORDINATION

SECTION 7
COMMENTS AND COORDINATION

This section includes a summary of agency coordination, public involvement, and tribal coordination that has occurred during the development of this EA. Future public involvement efforts that are planned for the Project are also discussed. Appendix B contains agency and tribal comment letters received in response to Iowa DOT's coordination request letters to initiate the NEPA process for the Project.

7.1 Agency and Tribal Coordination

Early agency coordination began on February 10, 2011, with letters sent to the Federal, state, and local government agencies listed below. In addition, correspondence was sent to American Indian (tribes) on February 16, 2011. The letters announced the initiation of the NEPA process for the US 30 Tama County Proposed Expansion, solicited feedback as it relates to the agencies' relevant areas of expertise, and solicited tribal interest in the Project. No responses were received from tribal representatives.

Federal Agencies

- Federal Emergency Management Agency
- U.S. Army Corps of Engineers (USACE) – Rock Island District
- U.S. Department of Agriculture (USDA) – Natural Resources Conservation Service (NRCS)
- U.S. Department of the Interior – Office of Environmental Policy and Compliance
- U.S. Environmental Protection Agency (EPA) – Region 7
- U.S. Fish and Wildlife Service (USFWS) – Rock Island Field Office

State Agencies

- Iowa Department of Agriculture and Land Stewardship
- Iowa Department of Natural Resources (Iowa DNR) – State Office and Field Office #1 (Manchester)
- State Historical Society of Iowa, State Historic Preservation Office (SHPO)

Local/Regional Units of Government

- Region 6 Planning Commission
- Tama County Board of Supervisors
- Tama County Conservation Board

- Tama County Engineer
- Tama County Historic Preservation Commission
- Tama County Historical Society
- Tama Soil and Water Conservation District
- Iowa Valley Resource Conservation and Development
- City of Tama – Mayor, City Clerk, Street Superintendent
- City of Toledo – Mayor, City Clerk, Superintendent of Public Works
- City of Vining – City Clerk
- City of Chelsea – City Clerk
- City of Elberon – City Clerk

Tribes

- Iowa Tribe of Kansas and Nebraska
- Iowa Tribe of Oklahoma
- Otoe-Missouria Tribe
- Sac and Fox Nation of Mississippi in Iowa
- Sac and Fox Nation of Missouri
- Sac and Fox of Oklahoma

Written responses to the request for early coordination are provided in Appendix B. The substantive comments received are summarized as follows:

- USACE: The proposed EA for US 30 does not involve Rock Island District administered land; therefore no further Rock Island District real estate coordination is necessary.

  A Section 404 permit may be required for this Project; a completed application packet should be submitted to the Rock Island District for processing.

  FHWA should coordinate with Iowa Historic Preservation Agency [State Historical Society of Iowa] to determine impacts on historic properties.

  The Rock Island Field Office of USFWS should be contacted to determine if any federally listed endangered species are being impacted and, if so, how to avoid or minimize impacts.

  The Iowa Emergency Management Division should be contacted to determine if the proposed project may impact areas designated as floodway.

- NRCS: Please take into account prime farmland conversions associated with this undertaking. Document any impacts or conversions of prime farmland on Form AD-1006. If this project will impact agricultural wetlands through actions such as filling

and clearing woody vegetation or increasing drainage, please indicate the location of such impacts.

- Iowa Department of Agriculture and Land Stewardship: We acknowledge receipt of the materials and the opportunity to review and comment. We recommend providing a copy of your proposal to the Tama Soil and Water Conservation District.
- Iowa DNR: The Department has found no site-specific records within the project corridor regarding rare species and significant natural communities. However, if listed species or rare communities are found during the planning and construction phases, additional study or mitigation may be required.

  A stormwater discharge permit for construction would be required if the Project would disturb more than 1 acre.

  Visible emissions of fugitive dust in accordance with Iowa Administrative Code 567-23.3(2)"c" should be managed to prevent their transport into adjacent properties during construction.

  An Iowa DNR floodplain development permit will be required for any construction within the 100-year floodplain. A sovereign lands construction tracking number has been assigned to this project.

  After review of the Land and Water Conservation Fund (LWCF) recreational projects, no Federal projects were found within the Study Area limits. Therefore the Project should not be affected by Section 6(f) of the LWCF Act.

  Waters of the U.S., including wetlands, should not be disturbed if a less environmentally damaging alternative exists. Unavoidable adverse impacts should be minimized to the extent practicable. Compensation for any remaining adverse impacts should occur through restoration, enhancement, creation, and/or preservation. Best Management Practices should be used to control erosion and to protect water quality. Construction activities should be conducted during a period of low flow. All disturbed areas must be seeded with native grasses, and appropriate erosion control measures must be implemented. Clearing of vegetation should be limited to that which is absolutely necessary for construction of the Project.
- State Historical Society of Iowa: It is currently unknown whether any significant historic properties will be affected by this proposed undertaking. It is unclear whether additional cultural resource survey will be needed to address any proposed corridor alignment modifications. The Area of Potential Effect for this proposed Project will need to be reviewed to see whether the Project will affect any significant historic properties under 36 CFR Part 800.4.
- Tama County Conservation Board: An area of concern is the potential impacts on wetlands and riparian creeks and drainages in and adjacent to the Project Study Area. Impacts to significant natural resources such as the Iowa River, Salt and Otter creeks, and Otter Creek State Marsh should be minimized. Another concern is the portion of the project beginning at the intersection of US 30 and County Road E-66 and continuing east to the end of the Project as it passes through an area of significant scenic beauty in the county. It is suggested that the Project corridor warrants extra

effort and innovations during design to minimize impacts on the natural resource and to maintain the scenic beauty.

- Tama County Historical Society: There is a house, built in the 1850s, that served as a stagecoach stop which sits on a hill on the south side of US 30 in Section 31 of Otter Creek Township. The Tama County Historic Preservation Committee is interested in the restoration of the house as a historic site. We request that this house not be moved or destroyed.

7.2 NEPA/404 Merge Consultation

As part of Iowa DOT's NEPA/404 Merge Process, selected resource agencies were asked to participate in addressing concurrence point 1 (purpose and need) and concurrence point 2 (alternatives to be considered). For this Project, Iowa DOT proposed, and the resource agencies agreed on, the use of a streamlined process whereby concurrence point packages would be provided electronically, and agencies would respond back with comments and concurrence electronically. A package of information supporting concurrence points 1 and 2 was provided to the selected resource agencies on July 19, 2012. Through subsequent correspondence, the concurrence point agencies (Iowa DNR, EPA, USACE, and USFWS) concurred with the proposed purpose of and need for the Project, and the range of alternatives considered. Concurrence was concluded on August 22, 2011. In addition, on April 17, 2012, information was sent to the agencies regarding concurrence point 3 (alternatives to be carried forward). A meeting was held on May 16, 2012. All resource agencies concurred on Iowa DOT's approach as of May 29, 2012. Concurrence point 4 (preferred alternative) is scheduled to be reviewed in fall 2013.

7.3 Public Involvement

A public involvement program was conducted during Project development to effectively engage the general public and interested parties in the Project. The key components of this program are outlined in the following sections.

7.3.1 Public Meetings

The US 30 Tama County Proposed Expansion Project was being planned at the same time as the US 30 Benton County Proposed Expansion. Consequently, a public information meeting (PIM) was held at the Belle Plaine High School in Belle Plaine, Iowa from 4:30 to 6:30 P.M. on April 20, 2010, to inform the public that environmental field reviews along U.S. 30 in both Benton and Tama counties had been initiated and that the planning study for the Project was being restarted. (As indicated in Section 2 of this EA, initial planning studies for this Project started in the mid-1990s.) The meeting was attended by 75 people. The general input at the meeting was positive, with many attendees wanting the Project to start as soon as possible. Several attendees were interested in the timing of the US 30 projects in Benton and Tama counties and when ROW acquisition would occur for those projects. The public was interested in what environmental field studies would be conducted, on which side of the highway the new lanes would be built, and how much impact the construction would have on adjacent properties. For a few property owners, a concern was access control and whether it would affect their entrances and side roads. Elected officials and their representatives were

favorable towards the Project because of potential future benefits to the counties and incorporated towns.

The following is a summary of public comments received, with the response to each comment in italics following the comment:

- A property on both sides of the highway is currently involved in an estate disbursement process and the estate executor was interested in the acquisition process. – *Response: Acquisition for the Project would not likely occur until after the estate has been disbursed.*
- A landowner asked whether their residence might be acquired. – *Response: The US 30 projects are in the planning stages of identification of potential alternatives. Other meetings will be held to display the preferred alternative to the public. At that time, additional information will be presented regarding whether particular residences would need to be acquired.*
- The Benton County engineer noted that he had been told of a pioneer cemetery on the south side of US 30 on top of a hill between 17th Drive and the creek to the east. – *Response: The cemetery was located and is outside the Project's Study Area and would not be affected.*

A second PIM was held at the Tama County Economic Development Commission Office from 5:00 to 7:00 p.m. on June 7, 2011, with 116 public attendees. The purpose of the meeting was to provide the opportunity for the public to learn about the current status of the proposed improvements of US 30 from the Tama Bypass to the Benton County line and review and comment on the range of alternatives for the expansion of U.S. 30 from two lanes to four lanes. The majority of the comments generally focused on support for the Project and on getting it built as quickly as possible. Attendees noted concerns with the existing two-lane facility, relocation and farmland impacts and how access to properties would be spaced and maintained. Several attendees were surprised that an alignment south of existing US 30 was being considered because of the alignment of the recently constructed Tama-Toledo Bypass lanes being north of the existing US 30 alignment. Most attendees seemed to prefer the alignment north of existing US 30. Many attendees asked questions concerning the timing and scheduling of the Project.

The following is a summary of public comments received, with the response to each comment in italics following the comment:

- Property owners have plans to build a new house and stated they were signing papers the next day. They are looking to build more set back on the property. – *Response: Iowa DOT staff suggested they build back as far as they felt comfortable as a specific alternative is not yet selected and the amount of land required for acquisition is as yet unknown.*
- Two attendees commented they would like to see the old railroad bridge removed and closed off. They weren't interested in a box culvert as they don't want to see a bike trail or all-terrain vehicle riders. One mentioned that he has been moving large stumps under the bridge to prevent access through. They also discussed the flooding

issue of Otter Creek noting that it was nearly over the road in two different locations. – *Response: This issue will be reviewed further and addressed during the future design efforts.*

- Several attendees indicated an interest in seeing E66 dead-ended, with E66 traffic rerouted to US 30 on R Avenue and that Q Avenue should be closed on the south side of US 30. There has been concern with the steep grade on Q Avenue and the poor sight distance where it intersects US 30. – *Response: The Iowa DOT has coordinated this issue with Tama County and is currently showing the existing connection of E66 with US 30 closed and a cul-de-sac/turn around built. The new connection for E66 will be at R Avenue. Q Avenue on the south side of existing US 30 will also be closed.*
- The project was laid out with limited access, which means a number of properties will have right in/right out access. Several people questioned the need for this level of access control for low traffic farmsteads. Some asked if there would be left turn lanes at the turn around points. There were a few comments from people expressing that limited access was a bad idea, but they were happy to hear that Iowa DOT was addressing safety concerns. – *Response: The access points were discussed and it was explained that the access points shown were a starting point for how the access control might look for the Project. Revisions will be made as the Project moved through the design phases. However, access will be limited to full access points at intersections and at approximately 0.5-mile spacing. Right in/right out access points will be allowed at 0.25-mile spacing between the full access points as needed.*
- There were several residential property owners whose homes and/or land would be acquired or impacted in Alternative 2 but not the other Alternatives. They were all supportive of the project, but were opposed to Alternative 2. – *Response: It was explained that their comments would be noted and at the time of the meeting, a decision on the preferred alternative had not been made. The acquisition/relocation process was described and pamphlets on the process were provided.*
- One residential property owner's home will be acquired under all three Alternatives. They own 20 acres with room to rebuild on remaining land before acquisition. They would like to build their home on their remaining land. – *Response: Iowa DOT discussed the possibility of a hardship acquisition. The owners were provided contact information if they wished to request an advance purchase. Iowa DOT explained that until an alignment is selected and design work has been accomplished, Iowa DOT may only be in a position to consider a total acquisition.*
- One residential property owner pointed out that the proposed entrance on the north side of their property is in an area that is extremely wet on a regular basis. – *Response: The access points were discussed and it was explained that the access points shown were a starting point for how the access control might look for the Project. Revisions will be made as the Project moved through the design phases.*
- One residential property owner of the acreage just west of N Avenue and north of US 30 may be requesting an early acquisition due to medical reasons; their property is a total acquisition under any of the three alternatives. – *Response: Iowa DOT*

discussed the possibility of a hardship acquisition. The owners were provided contact information if they wished to request an advance purchase.

- A few residential property owners plan to build a new house set back further on their property. – *Response: No response required.*
- A couple recommended saving two ponds near N Avenue and one near W Avenue because a lot of time and money has been spent to get those ponds in great condition; they don't want construction to cause silting problems. – *Response: Property features, such as ponds and timber areas, are taken into consideration in the alignment layout process. Iowa DOT tries to minimize impacts to property as much as possible and takes into consideration the effects of the construction activities in these areas.*
- Two residential property owners who both own land on the north side of US 30, east of WW Avenue (a heavily wooded area characterized by narrow deep lots), expressed concern that Iowa DOT was not showing access to these properties. – *Response: Access is not currently provided to these properties from US 30. The proposed design replaces access points in approximately the same locations as currently exist, with some modifications to fit the proposed roadway design.*
- One property owner, who owns a trucking company, expressed concern that all three alternatives show his proposed access as right in/right out in the westbound direction and is worried that he would have to take his semis to the next intersection and make a U-turn to get in or out of his property. – *Response: Revisions to access control can be made as the project advances through the design phases to take into consideration impacts from access locations.*
- Several commenters preferred Alternative 3. One of them indicated their preference because it would maintain the right-of-way lines on the south side of the present highway, another stated that it would be the best for their farm and gives them best exit and crossovers from their property, and another mentioned it would remove the ravine on the front side of their property. – *Response: No response required.*
- Two residential property owners preferred Alternative 2 because it would bypass more residences and take less Tama County farmland out of production, with Alternative 1 being the second best choice, and Alternative 3 being the worst. They also suggested that the best option would be to use the existing roadbed as one lane and construct another lane to the south of the existing roadbed. They are concerned about the amount of homes and land being acquisitioned. – *Response: Two of the three alternatives allow us to try to minimize right of way impacts to a certain extent. However, changes in design standards over the years (for example, flatter grade profile, wider shoulders, and flatter foreslopes) necessitate a wider project right-of-way. Because of these changes, Iowa DOT would not be able to utilize the existing roadbed without acquiring right-of-way from both sides. Alternative 1, with some exceptions, holds the south right-of-way line. Alternative 2 does the same, except that it tries to hold the north right-of-way line. Alternative 3 has higher right-of-way impacts but reduces the construction time.*

- Several residential property owners preferred Alternative 2. The properties include ponds and several timber areas that would be impacted with the other Alternatives. They questioned the use of the existing roadway, especially since it has just been repaved. – *Response: Property features such as farmsteads and outbuildings, as well as farm ponds and timber areas, are taken into consideration in the alignment layout process. Iowa DOT tries to minimize impacts to property as much as possible. Changes in design standards over the years (for example, flatter grade profile, wider shoulders, and flatter foreslopes) necessitate a wider project right-of-way which means the Iowa DOT would not be able to utilize the existing roadbed without acquiring right-of-way from both sides of US 30. But probably more importantly, the new second set of lanes will be much flatter than the existing lanes, which would create crossroad grade differentials at intersections.*
- One residential property owner preferred Alternative 1, but also thought Alternative 3 could be useful where a short frontage road could enhance access for farmers and their large machines; they were against Alternative 2. They also commented on their displeasure for a connection of E66 near the top of the hill and suggested to purchase right-of-way near the present connection and connect them at 90 degrees to US 30. – *Response: It was explained that their comments would be noted and at the time of the meeting, a decision on the preferred alternative had not been made. The connection for E66 is currently being shown as closed and relocated to R Avenue. This is mainly due to the profile in this area which does not allow for adequate sight distance at the current connection of E66 and US 30.*
- One residential property owner preferred Alternative 3 because the other two alternatives would destroy their family farm, which has sentimental and historical value. – *Response: No response required.*
- Two residential property owners commented that their property would be impacted by the proposed improvement to US 30. They feel that their property value will decrease because of the exposure the project has had for many years. They are unable to take care of their property and would like to sell it because of health reasons. – *Response: The widening of US 30 in Tama County has taken longer than many would have preferred because of funding limitations and statewide priorities. Please note that the project presented at the public information meeting is not yet included in the department's five-year program. However, the initial planning activities underway now in the corridor are the first steps that need to be taken for the programming of the project.*
- One residential property owner preferred Alternative 2 because their property sits 100 feet higher than R Avenue and the other alternatives would be far too steep. – *Response: All accesses will be evaluated during the design process.*
- One commenter indicated that they were pleased that progress was occurring on this project that has been discussed for many years. – *Response: No response required.*

7.3.2 Correspondence

Throughout the course of the Project, correspondence was received from the public through a variety of means, including the PIMs, telephone calls, letters, and email. All public correspondence was logged.

7.3.3 Future Public Involvement

A public hearing on the Signature EA is anticipated for late summer 2013.

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SECTION 8

REFERENCES

SECTION 8
REFERENCES

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APPENDIX A

STREAMLINED RESOURCE SUMMARY

SOCIOECONOMIC IMPACTS SECTION:

Land Use	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Database
Completed by and Date:	Consultant, 7/19/2011
Community Cohesion	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Database
Completed by and Date:	Consultant, 7/19/2011
Churches and Schools	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Database
Completed by and Date:	Consultant, 7/19/2011
Environmental Justice	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Database
Completed by and Date:	Consultant, 7/19/2011
Economic	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Database
Completed by and Date:	Consultant, 7/19/2011
Joint Development	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Other
Completed by and Date:	Consultant, 7/19/2011
Parklands and Recreational Areas	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Database
Completed by and Date:	Consultant, 7/19/2011
Bicycle and Pedestrian Facilities	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Database
Completed by and Date:	Consultant, 7/19/2011
Right-of-Way	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Database
Completed by and Date:	Consultant, 7/19/2011
Relocation Potential	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Database
Completed by and Date:	Consultant, 7/19/2011

SOCIOECONOMIC IMPACTS SECTION Continued:

Construction and Emergency Routes	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Database
Completed by and Date:	Consultant, 7/19/2011
Transportation	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Database
Completed by and Date:	Consultant, 7/19/2011

CULTURAL IMPACTS SECTION:

Historic Sites or Districts	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Report
Completed by and Date:	Subconsultant, 7/19/2011
Archaeological Sites	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Report
Completed by and Date:	Subconsultant, 7/19/2011
Cemeteries	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Database
Completed by and Date:	Consultant, 7/19/2011

NATURAL ENVIRONMENT IMPACTS SECTION:

Wetlands	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Field Review/Field Study
Completed by and Date:	IA DOT NEPA Manager, 7/19/2011
Surface Waters and Water Quality	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Field Review/Field Study
Completed by and Date:	IA DOT NEPA Manager, 7/19/2011
Wild and Scenic Rivers	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Database
Completed by and Date:	Consultant, 7/19/2011
Floodplains	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Database
Completed by and Date:	Consultant, 7/19/2011
Wildlife and Habitat	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Field Review/Field Study
Completed by and Date:	IA DOT NEPA Manager, 8/1/2011
Threatened and Endangered Species	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Field Review/Field Study
Completed by and Date:	IA DOT NEPA Manager, 8/1/2011
Woodlands	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Field Review/Field Study
Completed by and Date:	IA DOT NEPA Manager, 7/19/2011
Farmlands	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Database
Completed by and Date:	Consultant, 7/19/2011

PHYSICAL IMPACTS SECTION:

Noise	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Database
Completed by and Date:	Consultant, 7/19/2011
Air Quality	
Evaluation:	Resource is in the study area but will not be impacted
Method of Evaluation:	Database
Completed by and Date:	Consultant, 7/19/2011
MSATs	
Evaluation:	This project will not result in any meaningful changes in traffic volumes, vehicle mix, location of the existing facility, or any other factor that would cause an increase in emissions impacts relative to the no-build alternative. As such, FHWA has determined that this project will generate minimal air quality impacts for Clean Air Act criteria pollutants and has not been linked with any special MSAT concerns. Consequently, this effort is exempt from analysis for MSATs. Moreover, EPA regulations for vehicle engines and fuels will cause overall MSATs to decline significantly over the next 20 years. Even after accounting for a 64 percent increase in VMT, FHWA predicts MSATs will decline in the range of 57 percent to 87 percent, from 2000 to 2020, based on regulations now in effect. This will both reduce the background level of MSATs as well as the possibility of even minor MSAT emissions from this project.
Method of Evaluation:	FHWA Interim Guidance on Air Toxic Analysis in NEPA Documents, February 3, 2006
Completed by and Date:	Consultant, 7/19/2011
Energy	
Evaluation:	Resource is in the study area but will not be impacted
Method of Evaluation:	Other
Completed by and Date:	Consultant, 7/19/2011
Contaminated and Regulated Materials Sites	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Report
Completed by and Date:	IA DOT NEPA Manager, 7/19/2011
Visual	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Database
Completed by and Date:	Consultant, 7/19/2011
Utilities	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Database
Completed by and Date:	Consultant, 7/19/2011

APPENDIX B

AGENCY AND TRIBAL COORDINATION

SEP 1 7 2002

Iowa Department of Transportation

800 Lincoln Way, Ames, Iowa 50010

515-239-1097
515-239-1726 FAX

Date: September 13, 2002

NHS-30-6(88)- -19-86
NHS-30-6(87)- -19-06
Tama and Benton
Primary

Ralph Christen
Review and Compliance
Bureau of Historic Preservation
State Historical Society of Iowa
600 East Locust
Des Moines, IA 50319

R&C: 990300072

Dear Ralph:

RE: Architectural Resource Survey for U.S. Highway 30: Tama Bypass to U.S. 218
Tama and Benton Counties, Iowa

Enclosed for your review is the Phase I Cultural Resource Investigation for the above-mentioned federal funded project. This project purposes the construction of two additional lanes of traffic from the Tama Bypass to U.S. 218. This project has a corridor length of 14.62 miles.

This survey was conducted using an extensive archival / records search, along with field investigations and photographic documentation of each property. During the survey, 50 properties were recorded, most of which were turn-of-century and early twentieth century farmsteads. Two of these properties had been previously recorded, one of which was determined eligible for the National Register, the Zeman Barn.

The Zeman Barn (Property 86-00028) represents a Gothic Roof Barn. The property, located in Section T83-R14W, was determined eligible for the National Register under Criterion C.

During this survey, four properties were recorded and determined eligible for the National Register. These properties are described as follows:

The Seabert House (Property 86-00778) represents an example of Gothic Revival, an uncommon style of rural Iowa Architecture. The property, located at 2254 Highway 30 (Section, 31, T83N-R14W) was determined eligible for the National Register under Criterion C.

The Ledvina Farmstead (Properties 86-00804 to 86-00806) represents an intact farmstead, which demonstrates the practice of stock raising used by farmers in the upland region of Tama County, during the early and middle parts of the 20th Century. The property, located at 2691 Highway E66 (Sec.35, T83N-R14W) was determined eligible for the National Register under Criterion C for its intact example of a 20th Century cattle-raising farmstead.

The Kozik Farmstead (Properties 06-00605 to 06-00608) represents an intact farmstead that demonstrates the farming practice of mixed livestock raising, both cattle and swine, in Tama County in the early parts of the 20th century. The property, located at 1046 U.S. Highway 30 (Sec.31, T83N-R12W), was determined eligible for the National Register under Criterion C.

The Bullock Gas Station (Property 06-00611) represents a "house with canopy" type gas station and has an association with the development of an automotive service industry along national routes like the Lincoln Highway. The property, located at 1395 Highway 30 (Sec.27, T83N-R12W) was determined eligible for the National Register under Criterion A and Criterion C.

All five of these properties were recommended for avoidance or mitigation. It you concur with the findings of this survey, please sign the concurrence line below, return this letter and add any comments you might have.

Sincerely,

Matthew J. Donovan

Matt Donovan
Office of Environmental Services
Matt.Donovan@dot.state.ia.us

MJFD
Enclosure

cc: Scott Dockstader- District 1
Keith A. Cadwell- Design
Sharon J. Dumdei- Right of Way
Randy Withrow- Louis Berger Group Inc.

Concur _____ Date 10/17/02
SHPO Historian

Comments:

SEP 21 2010

Iowa Department of Transportation

800 Lincoln Way, Ames, Iowa 50010-6993 515-239-1795
FAX 239-1726

September 20, 2010

Ref. No. NHS-030-6(88)--19-86
NHS-030-6(87)--19-06
Tama / Benton Counties
Primary Roads

Doug Jones
Review and Compliance
Department of Cultural Affairs
State Historical Society of Iowa
600 East Locust
Des Moines, IA 50319-0290

R&C# 990300072

Dear Doug:

RE: Phase II Investigations for Six Archaeological Sites:
U.S. 30-Tama/Benton / *No Historic Properties Affected*
(13BE134, 13TM401, 13TM403, 13TM411, 13TM419, and 13TM423)

Enclosed for your review and comment is the Phase II archaeological investigations for six archaeological sites located in Tama and Benton Counties, Iowa. These sites were recommended for Phase II investigations in order to determine if these sites contained artifacts or archaeological materials that would yield significant information regarding local or regional history or prehistory.

Five of these sites (13TM401, 13TM403, 13TM411, 13TM419, and 13TM423) were identified as prehistoric scatters or open habitations. Sites 13TM401 and 13TM411 also contain historic components that had previously been determined not eligible for the National Register.

Archaeological site 13BE134 was identified as a late nineteenth to early twentieth century farmstead established by Eleazar W. Stocker, one of the first settlers in Kane Township and a prominent citizen of Benton County.

The Phase II investigations of these six sites, which included geophysical investigations at Site 13BE134, determined that all six of these sites were *not eligible* for the National Register and no further work was recommended for them.

Based on the results of these Phase II investigations, the determination for these six archaeological sites is ***No Historic Properties Affected***. If you concur with this finding, please sign the concurrence line below, add any comments you might have, and return this letter. If you have any questions regarding these Phase II investigations, please don't hesitate to contact me.

Sincerely,

Matthew J.F. Donovan

Matthew J.F.Donovan
Office of Location & Environment
Matt.Donovan@dot.state.ia.us

MJFD
Enclosure
cc: Scott Dockstader, District 1
Dee Ann Newell- NEPA / OLE
Randy Withrow- Louis Berger Group

Concur: Douglas W. Jones 9/23/2010

SHPO archaeologist Date

United States Department of Agriculture

NRCS
Natural Resources Conservation Service
210 Walnut Street, Room 693
Des Moines, IA 50309-2180

February 15, 2011

Mr. Jorge Zamora
Iowa Department of Transportation
800 Lincoln Way
Ames, Iowa 50010

RE: U.S. Highway 30 – Tama County, Iowa - Environmental Assessment

Dear Mr. Zamora:

Please take into account prime farmland conversions associated with this undertaking. Document any impacts or conversions of prime farmland on Form AD-1006 (attached). If this project will impact agricultural wetlands through actions such as filling and clearing woody vegetation or increasing drainage, please indicate the location of such impacts.

Sincerely,

John Myers
State Resource Conservationist

Attachment (Form AD-1006)

Fields of Opportunities

STATE OF IOWA

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

DEPARTMENT OF NATURAL RESOURCES
ROGER L. LANDE, DIRECTOR

February 24, 2011

RECEIVED
FEB 28 2011
Office of Location & Environment

Jorge Zamora
Iowa Department of Transportation
NEPA Document Manager
800 Lincoln Way
Ames, IA 50010

RE: U.S. Highway 30, Tama County – Environmental Assessment, NHS-030-6(88)-3H-86

Dear Mr. Zamora,

Thank you for the early coordination letter on the highway improvement to U.S. Hwy 30 through Tama County.

After review of the Land and Water Conservation Fund (LWCF) recreational projects located along the corridor, I have found that no federal projects are located within the study area limits. Therefore the project should not be affected by 6(f).

If you have any questions, please do not hesitate to contact me at 515-281-3013, or by email at kathleen.moench@dnr.iowa.gov.

Sincerely,

Kathleen Moench

Kathleen Moench
LWCF Federal Aid Coordinator

STATE HISTORICAL SOCIETY of IOWA

A Division of the Iowa Department of Cultural Affairs

Terry E. Branstad, Governor
Kim Reynolds, Lt. Governor

Mary Cownie, Director

February 24, 2011

In reply refer to:
R&C#: 990300072

Jorge Zamora, NEPA Document Manager
Office of Location and Environment
Planning & Research Division
Iowa Department of Transportation
800 Lincoln Way
Ames, IA 50010

RE: FHWA – TAMA COUNTY – NHS-030-6(88)—3H-86 – US HWY 30 PROPOSED WIDENING TO PROJECT TO 4 LANE RURAL DIVIDED HIGHWAY PROJECT – PROPOSED ENVIRONMENTAL ASSESSMENT PREPARATION (EA) FOR PROJECT

Dear Mr. Zamora,

Thank you for notifying our office about the above referenced proposed project. We understand that this project will be a federal undertaking for the Federal Highway Administration (FHWA) and will need to comply with Section 106 of the National Historic Preservation Act (NHPA) of 1966 and its implementing regulations, 36 CFR Part 800 (revised, effective August 5, 2004) and with the National Environmental Policy Act (NEPA).

It is our understanding that cultural resource studies have started for this undertaking and that we have previously consulted on those studies. It is currently unknown whether any significant historic properties will be affected by this proposed undertaking. Also, it is unclear whether additional cultural resource survey will be needed to address any proposed corridor alignment modifications. Per our programmatic agreement, our office understands that additional appropriate cultural resources investigations will be implemented and conducted, if needed, to determine whether any historic properties will be affected by the proposed undertaking. If during your scoping process, a cultural resource issue is identified, our agency can provide further technical assistance to your agency.

Our office will be a consulting party to the responsible federal agency and your agency acting on behalf of FHWA in accordance with our Programmatic Agreement as part of the Section 106 consultation process. We request that all correspondence related to this undertaking for Section 106 consultation be provided to our office through the Office of Location and Environment at the Iowa Department of Transportation in accordance with our Programmatic Agreement.

We look forward to consulting with your office and the Federal Highway Administration on the Area of Potential Effect for this proposed project and whether this project will affect any significant historic properties under 36 CFR Part 800.4. We will need the following types of information for our review:

- The Area of Potential Effect (APE) for this project needs to be adequately defined (36 CFR Part 800.16 (d)).
- Information on what types of cultural resources are or may be located in the APE (36 CFR Part 800.4).
- The significance of the historic properties in the APE in consideration of the National Register of Historic Places Criteria.
- A determination from the responsible federal agency of the undertaking's effects on historical properties within the APE (36 CFR Part 800.5).

Also, the responsible federal agency will need to identify and contact all potential consulting parties that may have an interest in historic properties within the project APE (36 CFR 36 Part 800.2 (c)).

Please reference the Review and Compliance Number provided above in all future submitted correspondence to our office for this project. We look forward to further consulting with your agency and the Federal Highway Administration on this project. Should you have any questions please contact me at the number below.

Sincerely,

Douglas W. Jones

Douglas W. Jones, Archaeologist and Review and Compliance Program Manager
State Historic Preservation Office
State Historical Society of Iowa
(515) 281-4358

cc: Mike La Pietra, FHWA
Randall Faber, OLE, IDOT, Ames
Matt Donovan, OLE, IDOT, Ames
Ralph Christian, Historian, State Historical Society of Iowa

IOWA DEPARTMENT OF AGRICULTURE AND LAND STEWARDSHIP

Bill Northey, Secretary of Agriculture

February 25, 2011

Iowa Department of Transportation
800 Lincoln Way
Ames, IA 50010

Dear Mr. Jorge Zamora,

This letter is to acknowledge receipt of your February 10, 2011, correspondence relative to proposed plans for US 30 Dyersville Interchange, Tama County.

We have not given this proposal thorough review, but do acknowledge having received materials and being given the opportunity to review and comment if we so choose. This acknowledgment is not an indication of approval on our part.

If you have not already done so, I suggest that a copy of your proposal also be mailed to:

Tama SWCD
102 Hwy 30 W
Toledo, IA 52342

We appreciate the consideration you have given us in this matter.

Sincerely,

Chuck Gipp

Chuck Gipp, Director
Division of Soil Conservation
Ph: 515-281-5851

CRG:klf

From: tracers@pcpartner.net
To: Zamora, Jorge [DOT]
Subject: U.S. Highway 30 expansion
Date: Saturday, February 26, 2011 1:17:36 PM

Jorge Zamora
NEPA Document Manager

We have your letter of February 10th concerning the expansion of Highway 30 east of Tama, Iowa. We do have one concern. There is a house built in the 1850's
and served as a stagecoach stop, that sits on a hill on the south side of Highway 30 in Section 31 of Otter Creek Township. The house is owned by Wayne and Karren Gray.

The Tama County Historic Preservation Committee is very interested in the restoration of the house as a historic site. We are doing research on this particular house at the present time to find the actual date the house was built.
We would greatly appreciate not moving or destroying this house.

If you need more information you can contact me at tracers@pcpartner.net or 641-481-0373.

I am chairman of the Tama County Historical Society, and Co-Chair of the Tama County Historic Preservation Committee.

Joyce Wiese.

Iowa
Fields of Opportunities

STATE OF IOWA

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

DEPARTMENT OF NATURAL RESOURCES
ROGER L. LANDE, DIRECTOR

RECEIVED
MAR 04 2011
Office of Location & Environment

March 2, 2011

Jorge Zamora
NEPA Document Manager
Iowa Department of Transportation
800 Lincoln Way
Ames, IA 50010

Dear Mr. Zamora:

This letter is in response to the February 10th request concerning the Tama County US Highway 30 project. After a cursory review by our program staff, we have the following comments. You are welcome to visit our offices and conduct a more thorough review of our records.

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, enhancement, creation and/or preservation activities.

We would ask that Best Management Practices be used to control erosion and protect water quality near the project. You are encouraged to conduct your construction activities during a period of low flow. You are required to seed all disturbed areas with native grasses and to implement appropriate erosion control measures to insure that sediments are not introduced into waters of the United States during construction of this project. Clearing of vegetation, including trees located in or immediately adjacent to waters of the state, should be limited to that which is absolutely necessary for construction of the project.

Any construction within the 100-year floodplain will require a DNR floodplain development permit.

It is our policy that companies and their consultants conduct their own review for these sites. If you need advice for locating relevant information, please call me at (515)281-7276.

Sincerely,

Christine Spackman
Business Assistance Coordinator

502 EAST 9th STREET / DES MOINES, IOWA 50319-0034
PHONE 515-281-5918 FAX 515-281-6794 www.iowadnr.gov

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

March 17, 2011

REPLY TO
ATTENTION OF

Planning, Programs, and
Project Management Division

Mr. Jorge Zamora
NEPA Document Manager
Iowa Department of Transportation
800 Lincoln Way
Ames, Iowa 50010

Dear Mr. Zamora:

I received your letter dated February 10, 2011, concerning the proposed Environmental Assessment (EA) for U.S. Highway 30, Tama County, Iowa. 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. Any proposed placement of dredged or fill material into waters of the United States (including jurisdictional wetlands) requires Department of the Army authorization under Section 404 of the Clean Water Act. Based on the information you provided, a Section 404 permit may be required for this project. A completed application packet should be submitted to the Rock Island District for processing as soon as possible. The application should include final plans, wetland delineations, details of proposed impacts to wetlands and other waters of the United States, a statement explaining how impacts associated with the proposed activity are to be avoided, a description of planned components that are intended to minimize impacts to wetlands and streams, and a complete wetland/stream mitigation plan. The requirements for a complete mitigation plan are described in the Federal Register (Volume 73, No. 70) dated April 10, 2008, under "Compensatory Mitigation for Losses of Aquatic Resources; Final Rule".

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. Rick Nelson is the Field Supervisor. You can reach him by calling 309/757-5800.

e. 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 70th 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 Mr. Randy Kraciun of our Environmental and Economics Branch, telephone 309/794-5174.

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/about/Pages/Locations.aspx**.

Sincerely,

Kenneth A. Barr
Chief, Environmental and
Economic Branch

TAMA COUNTY CONSERVATION BOARD

Phone: (641) 484-2231
e-mail: tccb@tamacounty.org

2283 Park Road
Toledo, IA 52342

Check out our website at:
www.tamacounty.org

March 18, 2011

50 years TAMA COUNTY CONSERVATION IN 2009

Jorge Zamora, NEPA Document Mgr.
Iowa Dept. of Transportation
800 Lincoln Way
Ames, IA 50010

Re: US Hwy 30 Environment Assessment,
NHS-030-6(88)-3H-86

Dear Mr. Zamora;

Regarding plans to widen US 30 from just east of Tama to 0.5 mi west of the US 30 and Hwy 21 junction we would like to offer the following comments.

One area of concern is the potential impacts on wetlands and riparian creeks and drainages in and adjacent to the project area. Impacts to significant natural resources such as the Iowa River, Salt Creek, Otter Creek, and Otter Creek State Marsh should be minimized.

Also of concern is the portion of the project beginning at the intersection of US 30 and County Road E-66 and continuing east to the end of the project as it passes through an area of significant scenic beauty in our county.

The corridor holds many acres of woodland and rolling hills known locally as the Bohemie Alps. This area of Tama County was settled by many families of Czech descent as the rolling hills and natural resource reminded them of their homeland.

As the local conservation agency for Tama County we would suggest that the project corridor warrants extra effort and innovations during design to minimize impacts on the natural resource and to maintain the scenic beauty.

Thanks for your time and assistance.

Invest in Iowa
Our Outdoors
Our Heritage
Our People
REAP
Resource Enhancement And Protection

Sincerely,

Robert F. Etzel, Director

mycountyparks.com

Fields of Opportunities

STATE OF IOWA

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

DEPARTMENT OF NATURAL RESOURCES
ROGER L. LANDE, DIRECTOR

RECEIVED
MAY 25 2011
Office of Location & Environment

April 7, 2011

Iowa Department of Transportation
Attn: Jorge Zamora
800 Lincoln Way
Ames, IA 50010

RE: Environmental Review for Natural Resources
US Highway 30 widening
Tama/Benton County

Dear Mr. Zamora:

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 within the project corridor provided for this review. 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.

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 any 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.

Any construction activity that bares the soil of an area greater than or equal to one acre including clearing, grading or excavation may require a storm water discharge permit from the Department. Construction activities may include the temporary or permanent storage of dredge material. For more information regarding this matter, please contact Ruth Rosdail at (515) 281-6782.

The Department administers regulations that pertain to fugitive dust IAW Iowa Administrative Code 567-23.3(2)"c." All persons shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of property during construction, alteration, repairing or demolishing of buildings, bridges or other vertical structures or haul roads. All questions regarding fugitive dust regulations should be directed to Jim McGraw at (515) 242-5167.

Please reference the following IDNR Environmental Review/Sovereign Land Program tracking number assigned to this project in all future correspondence related to this project: 5935. If you

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

Sincerely,

Kelly Poole
Environmental Specialist
Conservation and Recreation Division

FILE COPY: Kelly Poole

Tracking Number: 5935

CC: Chris Schwake, Iowa DNR (email)

Iowa Department of Transportation

800 Lincoln Way, Ames, Iowa 50010 515-239-1097
FAX 515-239-1726

October 11, 2011 Ref. No NHSX-030-6(187)- -3H-86
NHS-030-6(88)- -19-86
Tama Bypass
Primary Road

Doug Jones
Review and Compliance
Community Programs Bureau
State Historical Society of Iowa
600 East Locust
Des Moines, IA 50319

R&C# 990300072

Dear Doug:

RE: Supplemental Phase I Archaeological Investigation for U.S. 30 / Tama County
Sections 26 thru 31, T83N- R13W

Enclosed for your review and comment is the supplemental Phase I archaeological report for the above-mentioned federal-funded project. This supplemental archaeology was conducted to investigate additional project areas outside of the original study limits for the U.S. 30 Tama County project. The original cultural resources surveys for this project were conducted in 1995 and 2000.

The U.S. 30 Tama County project proposes the development of four-lane highway corridor. This supplemental investigation surveyed a project corridor that measures 11.75 miles in length. This corridor begins roughly at the U.S. Highway 30 Tama / Toledo Bypass and extends east to State Highway 21 at the Benton / Tama county line. This investigation surveyed forty-eight additional survey segments encompassing 361.4 acres.

The archaeological investigations for these segments were conducted using extensive archival / records searches along pedestrian surveys of the project areas. Subsurface testing was conducted using shovel and auger testing. During this survey, fifty-one archaeological sites were investigated, which included eleven sites previously recorded.

Of these sites, forty-five were determined not eligible for the National Register and no further work was recommended for them. Five archaeological sites were recommended for Phase II investigations or avoidance. These sites are as follows:

Site 13TM589 represents a Late Woodland open habitation site. Due to the possibility of intact archaeological features, this site is recommended for a Phase II investigation, if avoidance is not possible.

Sites 13TM595, 13TM597, 13TM598 represent a multiple component prehistoric / historic sites. The prehistoric components of these sites do not appear to be eligible for the National Register. However, the historic components of sites appear to be associated with the Dvorak Farmstead, a property determined eligible for the National Register of Historic Places by the architectural historic survey conducted for this current cultural resources study. Due to this, additional testing is recommended for these sites, if avoidance is not possible.

Site 13TM596 represents a historic farmstead-site. The remains of the farmstead consist of a partially collapsed house and the remains of a storm cellar and well amid trees, rubble, and mowed grass. Because of the appearance of intact features along with the indication that the farmstead was occupied through the 19th and 20th centuries, additional testing is recommended for the site, if avoidance is not possible.

Once design plans are finalized for this project, a determination will be made regarding any possible impacts to the five archaeological sites recommended for Phase II investigations. If there is the possibility that any of these sites might be impacted, Phase II investigations will be scheduled for them.

If finalized design plans determined that these sites will be avoided, a separate letter of determination will be sent to your office for concurrence.

If you concur with the findings of this Phase I investigations and its recommendations, please sign the concurrence line below. If you have any questions, please do not hesitate to contact me.

Sincerely,

Matthew J.F. Donovan, RPA
Office of Location & Environment
Matt.Donovan@dot.iowa.gov

MJFD
Enclosure
cc: Scott Dockstader, District 1
Dee Ann Newel, NEPA / OLE
Mike Finn, Principal Investigator / Waspi Valley Archaeology

Concur:

_____ _____
SHPO Archaeologist Date

Comments:

Iowa Department of Transportation

800 Lincoln Way, Ames, Iowa 50010
515-239-1097
FAX 515-239-1726

October 18, 2011 Ref. No NHSX-030-6(187)- -3H-86
NHS-030-6(88)- -19-86
Tama Bypass
Primary Road

Ralph Christian
Review and Compliance
Community Programs Bureau
State Historical Society of Iowa
600 East Locust
Des Moines, IA 50319

R&C# 990300072

Dear Ralph:

RE: Supplemental Phase I Intensive Level Architectural Survey
U.S. 30 / Tama County
Sections 26 thru 31, T83N- R13W

Enclosed for your review and comment is the supplemental Phase I Intensive Level Architectural Survey for the above-mentioned federal-funded project. This supplemental architectural survey was conducted to investigate additional project areas outside of the original study limits for the U.S. 30 Tama County project. The original cultural resources surveys for this project were conducted in 1995 and 2000.

The U.S. 30 Tama County project proposes the development of four-lane highway corridor. This supplemental investigation surveyed a project corridor that measures 11.75 miles in length. This corridor begins roughly at the U.S. Highway 30 Tama / Toledo Bypass and extends east to State Highway 21 at the Benton / Tama county line. This investigation surveyed forty-eight additional survey segments encompassing 361.4 acres.

The architectural investigations for these segments were conducted using extensive archival / records searches along field inspections of the project areas. Each property visited during the field inspections where documented and photographed.

The current investigation reviewed twenty-three properties that had not been previously surveyed. The current investigation determined that one property, the Larry Dvorka Farmstead, was determined eligible under Criterion C. This investigation also revisited three properties previously surveyed and found eligible for the National Register under Criterion A and C.

The Larry Dvorka Farmstead (Site 86-01101) represents an early 20th Century cattle raising farmstead. This farmstead consists of fifteen structures, of which fourteen structures are considered contributing elements to the farmsteads eligibility. (One of the fifteen structures is a modern garage that was determined not historic.) Due to the farmstead representing an excellent example of an early 20th century cattle-raising operation, the Dvorka farmstead was determined eligible for the National Register under Criterion A and C.

As mentioned, the current investigation revisited three properties previously determined eligible for the National Register. These properties, the Zeman/ Kucera Gothic Barn (Site 86-00028), the Seabert / Gray Gothic Revival House (Site 86-00778), and Ledvina / Willier Farmstead (Site 86-00804) were reexamined.

Of these previously recorded properties, the Zeman/Kucera Gothic Barn has undergone extensive remodeling by its current owner. (The barn has been converted into a living space.) Due to this remodeling, the property is no longer considered eligible for the National Register of Historic Places.

This current project corridor will avoid impacting the three architectural properties previously determined eligible for the National Register. Once design plans are finalized for the segment of this project near the Dvorka Farmstead, a determination will be made regarding any possible impacts to the Dvorka property.

If finalized design plans determined that the Dvorka Farmstead will be avoided, a separate letter of determination will be sent to your office for concurrence.

If you concur with the findings of this Phase I architectural survey and its recommendations, please sign the concurrence line below. If you have any questions, please do not hesitate to contact me.

Sincerely,

Matthew J.F. Donovan

Matthew J.F. Donovan, RPA
Office of Location & Environment
Matt.Donovan@dot.iowa.gov

MJFD
Enclosure
cc: Scott Dockstader, District 1
Dee Ann Newel, NEPA / OLE
Kristy Medanic, Principal Investigator / Waspi Valley Archaeology

Concur:

SHPO Historian

Nov. 15, 2011
Date

Comments:

From:	Newell, Deeann [DOT]
To:	Zamora, Jorge [DOT]
Subject:	FW: 990300072 NHSX-030-6(187)--3H-86 & NHS-030-6(88)--19-86 SUpp Phase I Survey for US HWY 30 in Tama County
Date:	Monday, January 30, 2012 8:25:18 AM

From: Jones, Doug [DCA]
Sent: Friday, January 27, 2012 4:42 PM
To: Donovan, Matt [DOT]
Cc: Jones, Doug [DCA]; Higginbottom, Daniel [DCA]; Nurit Finn; Dockstader, Scott [DOT]; Newell, Deeann [DOT]; Thompson, Jerome [DCA]; Faber, Randall [DOT]
Subject: 990300072 NHSX-030-6(187)--3H-86 & NHS-030-6(88)--19-86 SUpp Phase I Survey for US HWY 30 in Tama County

Mr. Donovan,

We sincerely apologize for our lengthy delay in response. We have reviewed the report WVA#575 entitled "Phase I Intensive Archaeological Survey for proposed Improvements to U.S. Highway 30 in Tama County, Iowa" for the above referenced undertaking. We do concur that the following sites are not NRHP: 13TM388, 13TM400, 13TM410, 13TM423, 13TM425, 13TM464, 13TM466, 13TM474, 13TM585, 13TM586, 13TM587, 13TM588, 13TM593, 13TM594, 13TM599, 13TM600, 13TM604, 13TM605, 13TM606, 13TM607, 13TM608, 13TM609, 13TM610, 13TM611, 13TM612, 13TM613, 13TM615, 13TM617, 13TM618, 13TM619, 13TM620, 13TM622, 13TM623.

We also concur that the following sites are not evaluated for their NRHP eligibility: 13TM589, 13TM590, 13TM595, 13TM596, 13TM597, 13TM598

We will need additional information for the following sites before we can provide any further comments about their National Register eligibility status:
13TM34 (does this site extend into the woods to the east? We noticed there were no subsurface tests conducted in the woods and we did not see an explanation why there were no tests conducted in the woods near this site?)

13TM63 (does this site extend across the road to the east? We noticed there were no subsurface tests conducted in this area and we did not see an explanation why there were no tests conducted in the woods near this site?)

13TM442 (we note that there were only two conducted subsurface tests within the previously recorded site boundaries. Why were there no subsurface tests conducted immediately adjacent to the east of this site?)

13TM584 (does this site extend into the woods to the east? We noticed there were no subsurface tests conducted in the woods and we did not see an explanation why there were no tests conducted in the woods near this site?)

13TM591 (does this site extend into the woods to the east? We noticed there were no subsurface tests conducted in the woods and we did not see an explanation why there were no tests conducted in the woods near this site?)

13TM592 (does this site extend into the woods? We noticed there were no subsurface tests conducted in the woods to the north, east, and south and we did not see an explanation why there were no tests conducted in the woods near this site?)

13TM595 (does this site extend into the woods? We noticed there were no subsurface tests conducted

in the woods to the north and south and we did not see an explanation why there were no tests conducted in the woods near this site?)

13TM601 (does this site extend into the woods to the east or west? We noticed there were very few subsurface tests conducted in the woods to the west or east of the site and we did not see an explanation why there were no additional tests conducted in those locations? Does this site potentially extend to the north beyond the survey boundaries?)

13TM602 (does this site extend into the woods to the east? We noticed there were no subsurface tests conducted in the woods and we did not see an explanation why there were no tests conducted in the woods near this site?)

13TM603 (does this site extend into the woods to the west? We noticed there were no subsurface tests conducted in the woods and we did not see an explanation why there were no tests conducted in the woods near this site?)

13TM614 (does this site extend into the woods to the east and south? We noticed there were no subsurface tests conducted in the woods and we did not see an explanation why there were no tests conducted in the woods near this site?)

13TM616 (does this site extend into the woods to the east? We noticed there were no subsurface tests conducted in the woods and we did not see an explanation why there were no tests conducted in the woods near this site?)

13TM621 (does this site extend into the woods to the west? We noticed there were no subsurface tests conducted in the woods and we did not see an explanation why there were no tests conducted in the woods near this site?)

We noted the following sites were not reinvestigated but were located within the survey area. These sites were not discussed within the results section from the surveyed areas and they are not included in Table 8:

13TM447 in Area 9
13TM504 in Area 30
13TM428 in Area 39
13TM511 in Area 6
13TM501 in Area 27
13TM502 in Area 27
13TM384 in Area 26
13TM503 in Area 28

We would recommend that the report would be enhanced and clarified by including these sites in Table 8 and briefly discussing these sites in the results section so that it is clear in the final recommendations that these sites are still considered not NRHP eligible by your agency.

We noted that it was not very clear from the information in the report why either no subsurface testing or very limited subsurface testing was conducted within certain wooded sections of the surveyed areas. Please provide further clarification on this issue in regard to the following Surveyed Areas: 2, 6, 9, 10, 11, 12, 13, 30, 34, 36, 44, 45, 46

We will be able to provide further comments on these sites and areas when additional information is provided to our office. Any questions, please feel free to contact me.

Douglas W. Jones, Archaeologist and Review and Compliance Program Manager
and Interim Deputy State Historic Preservation officer
State Historic Preservation Office
State Historical Society of Iowa
(515) 281-4358

Iowa Department of Transportation

800 Lincoln Way, Ames, Iowa 50010 515-239-1097
FAX 515-239-1726

April 16, 2012 Ref. No NHSX-030-6(187)- -3H-86
NHS-030-6(88)- -19-86
Tama Bypass
Primary Road

Doug Jones
Review and Compliance
Community Programs Bureau
State Historical Society of Iowa
600 East Locust
Des Moines, IA 50319

R&C# 990300072

Dear Doug:

RE: Supplemental Phase I Archaeological Investigation for U.S. 30 / Tama County
Sections 26 thru 31, T83N- R13W- ***Revised Report***

Enclosed for your review and comment is the revised supplemental Phase I archaeological report for the above-mentioned federal-funded project. As previously stated, this supplemental archaeology was conducted to investigate additional project areas outside of the original study limits for the U.S. 30 Tama County project. The original cultural resources surveys for this project were conducted in 1995 and 2000.

This revised report was produced to address your concerns and questions forwarded to your office on January 27th, 2012. The following information regards the reports methods and findings.

The U.S. 30 Tama County project proposes the development of four-lane highway corridor. This supplemental investigation surveyed a project corridor that measures 11.75 miles in length. This corridor begins roughly at the U.S. Highway 30 Tama / Toledo Bypass and extends east to State Highway 21 at the Benton / Tama county line. This investigation surveyed forty-eight additional survey segments encompassing 361.4 acres.

The archaeological investigations for these segments were conducted using extensive archival / records searches along pedestrian surveys of the project areas. Shovel and auger tests were used to conduct subsurface testing within the project area. During this survey, fifty-one archaeological sites were reviewed and investigated, which included eleven sites previously recorded.

Of these sites, forty-five were determined not eligible for the National Register and no further work was recommended for them. Five archaeological sites were recommended for Phase II investigations or avoidance. These sites are as follows:

Site 13TM589 represents a Late Woodland open habitation site. Due to the possibility of intact archaeological features, this site is recommended for a Phase II investigation, if avoidance is not possible.

Sites 13TM595, 13TM597, 13TM598 represent a multiple component prehistoric / historic sites. The prehistoric components of these sites do not appear to be eligible for the National Register. However, the historic components of sites appear to be associated with the Dvorak Farmstead, a property determined eligible for the National Register of Historic Places by the architectural historic survey conducted for this current cultural resources study. Due to this, additional testing is recommended for these sites, if avoidance is not possible.

Site 13TM596 represents a historic farmstead-site. The remains of the farmstead consist of a partially collapsed house and the remains of a storm cellar and well amid trees, rubble, and mowed grass. Because of the appearance of intact features along with the indication that the farmstead was occupied through the 19th and 20th centuries, additional testing is recommended for the site, if avoidance is not possible.

As noted previously, once design plans are finalized for this project, a determination will be made regarding any possible impacts to the five archaeological sites recommended for Phase II investigations. If there is the possibility that any of these sites might be impacted, Phase II investigations will be scheduled for them.

If finalized design plans determined that these sites will be avoided, a separate letter of determination will be sent to your office for concurrence.

If you concur with the findings of this revised report regarding the Phase I investigations and its recommendations, please sign the concurrence line below. If you have any questions, please do not hesitate to contact me.

Sincerely,

Matthew J.F. Donovan, RPA
Office of Location & Environment
Matt.Donovan@dot.iowa.gov

MJFD
Enclosure
cc: Scott Dockstader, District 1
Dee Ann Newel, NEPA / OLE
Mike Finn, Principal Investigator / Waspi Valley Archaeology

Concur:

_____ _____
SHPO Archaeologist Date

Comments:

STATE HISTORICAL SOCIETY of IOWA

A Division of the Iowa Department of Cultural Affairs

Terry E. Branstad, Governor
Kim Reynolds, Lt. Governor

Mary Cownie, Director

Your request for comment by the State Historic Preservation Officer has been received.

Date Received: **4/17/2012** End of Review Period: **5/17/2012**

Agency: **FHWA** SHPO R&C #: **990300072**

NHSX-030-6(187)--3H-86 - US HWY 30 - REVISED, SUPPLEMENTAL REPORT: PH I INTENSIVE ARCHAEOLOGICAL SURVEY FOR PROPOSED IMPROVEMENTS TO U.S. HIGHWAY 30 IN TAMA COUNTY,IOWA, VOL. I, II, III [WVA #575] - SEC. 26 - 31, T83N-R13W

In accord with federal regulations, our office will respond **ONLY** when:

- The SHPO has received incomplete information or inadequate documentation under 36CFR800 11(a), (d), and (e) **OR**
- The SHPO objects to your definition of the Area of Potential Effect (APE) for the undertaking **OR**
- The SHPO objects to your finding of whether a property is or is not eligible for listing on the National Register of Historic Places **OR**
- The SHPO objects to your finding of the project's effect on a historic property **OR**
- The project is proposed to have a "No Adverse Effect," with or without conditions, and where the SHPO disagrees with the finding **OR**
- The project is determined to have an "Adverse Effect" on a historic property and the federal agency is consulting with SHPO on how to resolve such "Adverse Effects"

Otherwise, at the end of the 30-day period, you may either proceed to the next step in the process based on the finding or determination, or consult with the Advisory Council on Historic Preservation in lieu of the SHPO. In order to determine the next step in the process, please review the appropriate section of the federal regulations [36CFR800.4(d)(1) or the Programmatic Agreement under which your project is being reviewed.

Be advised that the successful conclusion of consultation with the SHPO does not fulfill the agency's responsibility to consult with other parties who may have an interest in properties that may be affected by this project. Nor does it override the sovereign status of federally recognized American Indian Tribes in the Section 106 consultation process.

We have made these comments and recommendations according to our responsibility defined by Federal law pertaining to the Section 106 process. The responsible federal agency does not have to follow our comments and recommendations to comply with the Section 106 process. It also remains the responsible federal agency's decision on how you will proceed from this point for this project.

Should you have any questions please contact me at the number or email below, **referencing the R&C # above.**

SHPO Review & Compliance Coordinator
(515) 281-8743

Iowa Department of Transportation

800 Lincoln Way, Ames, Iowa 50010
515-239-1097
FAX 515-239-1726

August 20, 2013

Ref. No NHSX-030-6(187)- -3H-86
NHS-030-6(88)- -19-86
Tama Bypass
Primary Road

Doug Jones
Ralph Christian
Review and Compliance
Community Programs Bureau
State Historical Society of Iowa
600 East Locust
Des Moines, IA 50319

R&C# 990300072

Dear Doug and Ralph:

RE: Determination of Effect for the U.S. 30 / Tama Project Corridor
Finding of Conditional No Adverse Effect

Enclosed for your review and comment is the Determination of Effect for the above-mentioned federal-funded project.

As previously noted, the U.S. 30 Tama County project proposes the development of four-lane highway corridor. This corridor begins roughly at the U.S. Highway 30 Tama / Toledo Bypass and extends east to State Highway 21 at the Benton / Tama county line

Based on the enclosed project corridor map and the location of previously recorded archaeological sites and historic properties, the determination for this project is ***Conditional No Adverse Effect.***

The conditions placed on this determination are that the present project corridor remains in place and the project does not impact those archaeological sites and historic properties recommended for avoidance.

Please note that Federal Highway Administration (FHWA) intends to make a finding of de minimus impact for this project. .

If you concur with the finding of determination for this project, please sign the concurrence line below and return this letter.

If you have any questions, please do not hesitate to contact me at 515-239-1097 or matt.donovan@dot.iowa.gov.

Sincerely,

Matthew J.F. Donovan, RPA
Office of Location & Environment
Matt.Donovan@dot.iowa.gov

MJFD
Enclosure
cc: Scott Dockstader, District 1
Dee Ann Newel, NEPA / OLE
Michael Finn, Principal Investigator / Waspi Valley Archaeology

Concur:

_____
SHPO Archaeologist Date

_____ _____
SHPO Historian Date

Comments:

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APPENDIX C

FARMLAND PROTECTION FORMS

U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service

NRCS-CPA-106
(Rev. 1-91)

FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

PART I *(To be completed by Federal Agency)*	3. Date of Land Evaluation Request **5/2/13**	4. Sheet 1 of **2**
1. Name of Project **US 30 Tama County Proposed Expansion**	5. Federal Agency Involved **Federal Highway Administration**	
2. Type of Project **Highway expansion**	6. County and State **Tama County, IA**	

PART II *(To be completed by NRCS)*	1. Date Request Received by NRCS **5/2/13**	2. Person Completing Form **Robert J. Vobora**
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES ☑ NO ☐		4. Acres Irrigated **0** / Average Farm Size **315**
5. Major Crop(s) **Corn-Soybeans**	6. Farmable Land in Government Jurisdiction Acres: **390914** % **84.5**	7. Amount of Farmland As Defined in FPPA Acres: **390914** % **84.5**
8. Name Of Land Evaluation System Used **Tama County, Iowa**	9. Name of Local Site Assessment System **None**	10. Date Land Evaluation Returned by NRCS **5/15/13**

PART III *(To be completed by Federal Agency)*	Alternative Corridor For Segment ____ Corridor A	Corridor B	Corridor C	Corridor D
A. Total Acres To Be Converted Directly	**582**			
B. Total Acres To Be Converted Indirectly, Or To Receive Services	**0**			
C. Total Acres In Corridor	**582**			
PART IV *(To be completed by NRCS) Land Evaluation Information*				
A. Total Acres Prime And Unique Farmland	**202**			
B. Total Acres Statewide And Local Important Farmland	**211**			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	**.0001**			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	**79.6**			
PART V *(To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)*	54			

PART VI *(To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))*	Maximum Points				
1. Area in Nonurban Use	15	**15**			
2. Perimeter in Nonurban Use	10	**10**			
3. Percent Of Corridor Being Farmed	20	**16**			
4. Protection Provided By State And Local Government	20	**20**			
5. Size of Present Farm Unit Compared To Average	10	**10**			
6. Creation Of Nonfarmable Farmland	25	**0**			
7. Availablility Of Farm Support Services	5	**5**			
8. On-Farm Investments	20	**20**			
9. Effects Of Conversion On Farm Support Services	25	**0**			
10. Compatibility With Existing Agricultural Use	10	**2**			
TOTAL CORRIDOR ASSESSMENT POINTS	160	**98**	**0**	**0**	**0**
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland (From Part V)	100	**54**	**0**	**0**	**0**
Total Corridor Assessment (From Part VI above or a local site assessment)	160	**98**	**0**	**0**	**0**
TOTAL POINTS *(Total of above 2 lines)*	260	**152**	**0**	**0**	**0**

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used?
	582		YES ☐ NO ☑

5. Reason For Selection:

Signature of Person Completing this Part: | DATE

NOTE: Complete a form for each segment with more than one Alternate Corridor

CORRIDOR - TYPE SITE ASSESSMENT CRITERIA

The following criteria are to be used for projects that have a linear or corridor - type site configuration connecting two distant points, and crossing several different tracts of land. These include utility lines, highways, railroads, stream improvements, and flood control systems. Federal agencies are to assess the suitability of each corridor - type site or design alternative for protection as farmland along with the land evaluation information.

(1) How much land is in nonurban use within a radius of 1.0 mile from where the project is intended?
More than 90 percent - 15 points
90 to 20 percent - 14 to 1 point(s)
Less than 20 percent - 0 points

(2) How much of the perimeter of the site borders on land in nonurban use?
More than 90 percent - 10 points
90 to 20 percent - 9 to 1 point(s)
Less than 20 percent - 0 points

(3) How much of the site has been farmed (managed for a scheduled harvest or timber activity) more than five of the last 10 years?
More than 90 percent - 20 points
90 to 20 percent - 19 to 1 point(s)
Less than 20 percent - 0 points

(4) Is the site subject to state or unit of local government policies or programs to protect farmland or covered by private programs to protect farmland?
Site is protected - 20 points
Site is not protected - 0 points

(5) Is the farm unit(s) containing the site (before the project) as large as the average - size farming unit in the County ? (Average farm sizes in each county are available from the NRCS field offices in each state. Data are from the latest available Census of Agriculture, Acreage or Farm Units in Operation with $1,000 or more in sales.)
As large or larger - 10 points
Below average - deduct 1 point for each 5 percent below the average, down to 0 points if 50 percent or more below average - 9 to 0 points

(6) If the site is chosen for the project, how much of the remaining land on the farm will become non-farmable because of interference with land patterns?
Acreage equal to more than 25 percent of acres directly converted by the project - 25 points
Acreage equal to between 25 and 5 percent of the acres directly converted by the project - 1 to 24 point(s)
Acreage equal to less than 5 percent of the acres directly converted by the project - 0 points

(7) Does the site have available adequate supply of farm support services and markets, i.e., farm suppliers, equipment dealers, processing and storage facilities and farmer's markets?
All required services are available - 5 points
Some required services are available - 4 to 1 point(s)
No required services are available - 0 points

(8) Does the site have substantial and well-maintained on-farm investments such as barns, other storage building, fruit trees and vines, field terraces, drainage, irrigation, waterways, or other soil and water conservation measures?
High amount of on-farm investment - 20 points
Moderate amount of on-farm investment - 19 to 1 point(s)
No on-farm investment - 0 points

(9) Would the project at this site, by converting farmland to nonagricultural use, reduce the demand for farm support services so as to jeopardize the continued existence of these support services and thus, the viability of the farms remaining in the area?
Substantial reduction in demand for support services if the site is converted - 25 points
Some reduction in demand for support services if the site is converted - 1 to 24 point(s)
No significant reduction in demand for support services if the site is converted - 0 points

(10) Is the kind and intensity of the proposed use of the site sufficiently incompatible with agriculture that it is likely to contribute to the eventual conversion of surrounding farmland to nonagricultural use?
Proposed project is incompatible to existing agricultural use of surrounding farmland - 10 points
Proposed project is tolerable to existing agricultural use of surrounding farmland - 9 to 1 point(s)
Proposed project is fully compatible with existing agricultural use of surrounding farmland - 0 points

APPENDIX D

INDIANA BAT FORMS

Iowa Department of Transportation

Determination of Effect for Threatened & Endangered Species

Form 760004 (07-13)

Project Name:			Highway No.:	County:
Tama Bypass to Benton County			U.S. 30	Tama
Project No.:	**Letting Date:**	**PLSS/UTM:**	**Station No.:**	
NHSX-030-6(187)--3H-86				

Project Description:

Improvements to U.S. Highway 30 to a four lane highway.

Are there documented occurrences of T&E species within 1 mile of the project? ☒ Yes ☐ No

If yes, list species:

Indiana bat (Myotis sodalis) - State E, Federal E
Blanding's turtle (Emydoidea blandingii) - State T

Are there documented occurrences of T&E species within the limits of construction? ☐ Yes ☒ No

If yes, list species:

Is there likely to be habitat for T&E species within the project's limits of construction? ☒ Yes ☐ No

If yes, list species:

Indiana bat

Describe current geographic setting *(native habitats, adjacent land use, etc.)* and potential project impacts:

Woodland consisting of suitable Indiana bat habitat, homesteads, disturbed land, and cultivated farmland

Will the project likely require borrow? ☒ Yes ☐ No

DETERMINATION OF EFFECT - ACTION

☐ No Effect ☐ No Effect *(by following recommendations)* ☐ Needs Further Study
☒ May Affect – Not Likely to Adversely Affect ☐ May Affect – Likely to Adversely Affect

Further Study – *Consisting of the Following*	Iowa DOT Recommendations

References:

☒ Natural Areas Inventory ☒ T&E Species Range Maps ☒ Aerial Photos ☐ Soils of Concern Data
☒ Other:

Prepared by:	Date:
Jill Rudloff	8-2-2013
Agency Concurrence:	**Date:**

INDIVIDUAL SPECIES EVALUATION - Determination of Effect for Threatened & Endangered Species (Continued)

Project Name:			Highway No.:	County:
Tama Bypass to Benton County			U.S. 30	Tama
Project No.:	**Letting Date:**	**PLSS/UTM:**	**Station No.:**	
NHSX-030-6(187)--3H-86				

SPECIES EVALUATION

Species of Concern: ☒ Federal ☒ State
Indiana bat (Myotis sodalis)

Species Trait or Characteristic:
Suitable summer habitat

Description of Project Impacts:
Impact to potentially suitable summer habitat

Direct Effects from habitat/species impacts: ☐ Take ☐ Harm ☒ Harass

The proposed project may directly affect the Indiana bat by reducing the amount of potential roosting and foraging habitat in the project area.

☐ Effects beneficial, insignificant, and/or discountable ☒ Effects possible but can be managed ☐ Effects are major

Indirect Effects from habitat/species impacts: ☐ Harm ☒ Harass

Traffic volume on U.S. 30 will increase with time, which may result in increased noise levels that could potentially increase disturbance to bats.

☐ Effects beneficial, insignificant, and/or discountable ☒ Effects possible but can be managed ☐ Effects are major

Cumulative Effects from habitat/species impacts: ☐ Harm ☐ Harass

No known cumulative effects from adjacent projects are known at this time.

☐ Effects beneficial, insignificant, and/or discountable ☐ Effects possible but can be managed ☐ Effects are major

NOTES:

The Iowa DOT has determined, under the delegated authority provided by the Federal Highway Administration, that the project may affect, but is not likely to adversely affect federally or state listed species and the project will not result in the destruction or adverse modification of federally designated critical habitat.

To avoid potential impacts to Indiana bats Iowa DOT Standard Note 232-9 will be included in project plans. Standard Note 232-9 requires tree removal after September 15th and before April 15th.

A mitigation packet will be prepared and submitted for review upon final design and known impacts.

SPECIES SPECIFIC DETERMINATION OF EFFECT

☒ May Affect – Not Likely to Adversely Affect ☐ May Affect – Likely to Adversely Affect

Prepared by:	Date:
Jill Rudloff	8-2-2013
Agency Concurrence:	**Date:**

IOWA DEPARTMENT OF TRANSPORTATION

Indiana Bat Summer Habitat Documentation Form

For transportation projects requiring **tree removal** in Range of Potential Indiana Bat Habitat in Iowa

Project Information: Project Number __NHSX-030-6(187)--3H-86__

Route number __U.S. Hwy 30__

Project termini ___Tama Bypass to Benton County__

Type of project ___Improvements__

Form completed by __J. Rudloff__ Date ___8-2-2013__

For purposes of documenting the consideration of the above described project's anticipated effect upon Indiana bat summer habitat, the following questions have been answered based on Iowa DNR **Guidelines for the Protection of Indiana Bat Summer Habitat** (revised February, 2004) and guidance from the US Fish and Wildlife Service (personal communication from Heidi Woeber, Rock Island Office, December, 2004):

Within 0.5 mile of the site to be cleared,

1) Are there at least 75 acres (15%) of concentrated rural or urban fringe forest cover, AND
2) Permanent water in the form of a stream, river, lake or farm pond?

YES__X__ NO__ __

If both of these conditions are not present within 0.5 mile and the answer is **NO**, suitable habitat does not exist, and no special clearing restrictions apply. ***(End of documentation. Place this form in project file.)***

If adequate forest cover and permanent water are **both** present in the vicinity, and the above answer is **YES**, we must now consider whether potential summer roost trees are actually present in the area to be cleared:

3) Does the area to be cleared include:
   any *living* trees of the following species: shagbark or shellbark hickory, OR
   any *dead* trees of the following species: shagbark, shellbark, or bitternut hickory, American elm, slippery elm, eastern cottonwood, silver maple, white oak, red oak, post oak, and shingle oak, AND
4) The presence of 10% or more peeling bark or slabs/plates of loose bark on trees?

YES__X__ NO__ __

If the required amount of loose bark is not present and the answer is **NO**, suitable habitat does not exist, and no special clearing restrictions apply. ***(End of documentation. Place this form in project file.)***

If the answer for potential roost trees is **YES**, further coordination with the US Fish and Wildlife Service and Iowa DNR will be necessary by the Office of Location and Environment:

U.S. Fish and Wildlife Service
Rock Island Field Office
4469 48th Avenue Court
Rock Island, IL 61201
309/793-5800

Iowa DNR
Wallace State Office Building
502 E. Ninth
Des Moines, IA 50319
515/281-8524

This form is meant to be completed by field personnel who are most familiar with conditions at the project site.

--- Jill Rudloff, Office of Location and Environment, 515/239-1698

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