MUSCATINE

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City Administrator Report to Mayor & City Council

February 7, 2014, Edition No. 115

Weekly Update:

1. Mississippi Drive Corridor: Please see the two attachments. I am attaching the "draft" 4(f) document and the Environmental Assessment for the Mississippi Drive Corridor Project. While they are both fairly long...20 pages for the 4(f) and 36 pages for the 36 pages the Environmental Assessment, you may want to look them over to see if you have any problems. At this point, barring major issues, they should be pretty much ready to be submitted for review/approval by all affected regulatory agencies. I am planning to have the documents sent to IDOT for their review by next Monday, February 10th. The sooner the process begins, the sooner we can get closer.
2. Recycle the Dress:Due to the weather, Recycle the Dress is rescheduled for next Saturday, February 8, 2014 from 9:00 am - 2:00 pm. Please forward to those who might be interested in attending.
3. MFPRSI: Please find attached the MFPRSI Board Meeting Agenda for the forthcoming meeting on February 27, 2014.
4. Fire Department: Attached is a copy of the article pertaining to the department's regional fire training exercise on 9th Street.

MISSISSIPPI DRIVE (IOWA 92)
FROM MAIN STREET TO THE NORBERT F. BECKEY BRIDGE
MUSCATINE, MUSCATINE COUNTY, IOWA

STP-U-5330(614)--27-70

DRAFT SECTION 4(f) STATEMENT

Submitted Pursuant to 23 CFR 774
by the

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

and

IOWA DEPARTMENT OF TRANSPORTATION
OFFICE OF LOCATION AND ENVIRONMENT

and

CITY OF MUSCATINE, IOWA

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1.0 INTRODUCTION

This document addresses the impacts from the associated improvements to Mississippi Drive on the TeStrake Building, a National Register-eligible property located at 205-207 Green Street in Muscatine, Iowa, that is eligible for review under Section 4(f) of the 1966 U.S. Department of Transportation Act (Figure 1). The Section 4(f) legislation, as established in 1966, provides for the protection of publicly owned parks, recreation areas, historic sites, wildlife and/or waterfowl refuges from conversion to transportation use. Section 4(f) states that the Secretary of the U.S. Department of Transportation Administration may not approve a project which requires the use of any publicly owned land from a public park, recreation area, wildlife and waterfowl refuge, or historic site of national, state or local significance unless:

> "(a) The Administration determines that: (1) There is no feasible and prudent avoidance alternative, as defined in § 774.17, to the use of land from the property; and (2) The action includes all possible planning, as defined in § 774.17, to minimize harm to the property resulting from such use; or (b) The Administration determines that the use of the property, including any measure(s) to minimize harm (such as any avoidance, minimization, mitigation or enhancement measures) committed to by the applicant, will have a *de minimis* impact, as defined in § 774.17, on the property. (c) If the analysis in paragraph (a)(1) of this section concludes that there is no feasible and prudent avoidance alternative, then the Administration may approve only the alternative that causes the least overall harm in light of the statute's preservation purpose."

The purpose of this Draft Section 4(f) Statement is to provide information to public agencies and the general public, as required by the Secretary of Transportation. This information will be used in making decisions regarding the use of the property protected by Section 4(f) legislation. The Final Section 4(f) Statement will contain the determinations necessary to implement the project, including the identification of a Preferred Alternative and the required findings in compliance with Section 4(f) regulations and regulations relating to other environmental resource impacts.

This Draft Section 4(f) Statement is being prepared in conjunction with an Environmental Assessment for the Mississippi Drive corridor project.

AECOM

FIGURE 1
CARVER CORNER
CONVENTIONAL INTERSECTION
ALTERNATIVE

Draft Section 4(f) Statement
Mississippi Drive Corridor
Muscatine, Iowa

FEBRUARY 2014

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2.0 DESCRIPTION OF AND PURPOSE AND NEED FOR THE PROPOSED ACTION

2.1 Proposed Action

The proposed action consists of upgrading Mississippi Drive (Iowa Highway 92) through downtown Muscatine, Iowa. The Mississippi Drive Corridor Project begins at the Main Street/Grandview Avenue intersection, continuing to the East 2nd Street/Norbert F. Beckey Bridge intersection which marks the end of the project. The total length of the project is approximately 1.6 miles (see Figure 1 in the EA).

The current roadway is a 3- to 4-lane urban facility ranging from 40-64 feet wide, with a combination of divided and undivided section. Mississippi Drive is generally not considered to be pedestrian friendly because the roadway is quite wide. The proposed project would narrow Mississippi Drive to better connect the downtown to the Mississippi River riverfront area. Also, this project consists of incorporating bike trail and measures to reduce flooding on the roadway.

2.2 Project History

The City of Muscatine has been working toward revitalizing the downtown riverfront for several years to transform the City's riverfront into a recreational attraction for local residents and regional visitors. As part of this effort, the Mississippi Drive Corridor, which is adjacent to the Mississippi River, has been targeted for improvements.

In 2007, the City prepared a planning study that examined several issues in association with Mississippi Drive, such as pedestrian safety, flooding issues, traffic calming and aesthetics. Several stakeholder and public meetings were held to gain input about the corridor. The results of this study are contained in the report entitled "Mississippi Drive Corridor Study."

2.3 Purpose and Need for Action

The purpose and need for the project is stated in the attached Environmental Assessment (EA). It is summarized below for ease of reference.

2.3.1 Purpose

The purpose of the proposed Mississippi Drive (Iowa 92) improvements is to safely accommodate future traffic and pedestrians, including bicyclists along the corridor as well as between the riverfront and downtown; to correct roadway deficiencies to limit future flooding of Mississippi Drive; and to provide the transportation infrastructure needed to support planned and future economic development.

2.3.2 Need

This project is needed to provide better access to vehicles traveling through the downtown, to provide safe access to pedestrians crossing Mississippi Drive, to reduce instances of closure of Mississippi Drive due to flooding, and to foster economic development. It is supported by several factors, including decreasing traffic volumes throughout the corridor, future traffic volume projections, need for pedestrian access and safety, flooding issues and planned development (see pages 1-4 in the EA for more detail on the need for this project).

3.0 ALTERNATIVES

3.1 No Action Alternative

The No Action Alternative would be the continuation of the street system as it exists at the present time. No physical changes would be made in the pavement width, land configuration, intersection layouts or traffic patterns.

If no changes are made to Mississippi Drive at Carver Corner, it is expected that there will continue to be a lack of pedestrian access and safety. This will continue to be a facility that is over-sized for the amount of traffic that it is carrying. This width presents challenges in terms of pedestrian access to the area. Crossing Mississippi Drive between the riverfront and the downtown area will be unchanged and therefore remain a challenge to pedestrian safety as well.

In addition, the No Action Alternative would not address the planned development and land-use plans established for the Mississippi Drive corridor. The city has been actively beautifying the land along the riverfront for many years. The streetscape would remain unchanged under No Action, and therefore plans to improve the viewshed, amenities, visual and recreational focus points, and green areas would not be realized.

For these reasons, the No Action Alternative would not meet the purpose and need requirements of this project. Impacts associated with this alternative are presented below in the Least Harm Analysis section.

3.2 Conventional Intersection Alternative

An alternative under consideration is the Conventional Intersection. This alternative would also be a 2-lane roadway with a center turn lane and would include the other features mentioned with the above alternatives.

The south approach on Green Street would be aligned with the north leg, making intersection operations simpler, safer, and traffic signal operation more efficient. This alternative would be similar to the existing condition, both in appearance and operation.

Although this alternative would not avoid acquisition of the Puritan Ice Company property (now owned by TeStrake), it is favored by the City Council, public and local residents, as expressed at a public information meeting. It moves the travel lanes farther away from homes along Green Street, provides one large parcel for development and gateway enhancements, while also meeting the purpose and need for the project. Impacts associated with this alternative are presented below in the Least Harm Analysis section.

4.0 SECTION 4(f) PROPERTIES

4.1 Methodology for Identifying Section 4(f) Properties

4.1.1 Parks and Trails

City land-use maps and comprehensive plans were consulted to determine park and trail locations. Park and trail locations were also identified through field observations. The roles and significance of the parks and trails were discussed with city leaders and staff. One park and trail are located within the project area.

4.1.2 Historic and Archaeological Properties

Multiple sources were consulted to identify known architectural and archaeological properties. The National Register of Historic Places list was reviewed. A review of current resource location and survey information was conducted on files at the Office of State Archaeologist, University of Iowa (OSA) and the Iowa State Historic Preservation Office (SHPO) which identify the location of known cultural resources. Also, reviews of historic and archival documents such as previous surveys, NRHP nomination forms, historic maps, etc., were done for the project area.

Field work for architectural and archaeological resources was conducted along the corridor. Reconnaissance and intensive level surveys were conducted beginning in 2011. Phase I and Phase II archaeological surveys were conducted, where possible, along the corridor.

Of the 128 properties previously surveyed and 27 properties not previously surveyed for historic architecture, only one NRHP eligible structure would be impacted by the project. Archaeological surveys found eight sites or potential sites. Of these sites, six remained undetermined as to their NRHP eligibility. Monitoring during construction is recommended.

4.2 Properties Not Evaluated in this Section 4(f) Statement

4.2.1 Riverside Park

Riverside Park is a 31-acre park that is located along the Mississippi riverfront between Broadway Street and Mad Creek. This park has playground equipment, recreational trails, shelters, fountain with splash pad, boat ramp, picnic tables and basketball courts. Being on the Mississippi River, it also has scenic views of the river. This park will be avoided by project activities as it parallels the river and is east of Mississippi Drive, separated by parking lots and the UP Railroad line.

4.2.2 Running River Trail

The Running River Trail is over 5 miles in length and extends from Musser Park to Weed Park. It is part of the Great American Trail system and passes through Riverside Park. It will not be impacted by the project as it is avoided as described above.

4.2.3 Historic Districts and Individual Structures

There are two historic districts within the project area: Downtown Commercial Historic District and West Hill Historic District. Each contains numerous structures that contribute to the eligibility of their respective districts. In addition, there are several individual historic structures located within the project area. Each of these properties will be avoided but were considered for potential vibration impacts. Below is a table listing these properties.

TABLE 1
HISTORIC DISTRICTS AND INDIVIDUAL STRUCTURES
NOT DISCUSSED IN THIS SECTION 4(f) STATEMENT

Address	Property Name	Year	Eligibility	Approx. Distance To Project R-O-W;
	Downtown Commercial Historic District		NRHP Listed - 2006	
	West Hill Historic District	1836	NRHP Listed - 2008	
1000 Hershey Ave.	McKee & Bliven Button Company	1900	Eligible, SHPO, 2008	<100 Feet
1001 Hershey Ave.	Hershey Lumber Company Offices	1885	Eligible, SHPO, 2008	<100 Feet

TABLE 1
HISTORIC DISTRICTS AND INDIVIDUAL STRUCTURES
NOT DISCUSSED IN THIS SECTION 4(f) STATEMENT

Address	Property Name	Year	Eligibility	Approx. Distance To Project R-O-W;
1033 Hershey Ave.	Maid Rite Sandwich Shop No. 2	1957	Eligible, SHPO, 2008	<100 Feet
107 Iowa St.	Gaeta Fruit Store and Confectionary	1885	Downtown Commercial Historic District	>100 Feet
101 E Mississippi Dr.	Commercial Building	1920	Downtown Commercial Historic District	<100 Feet
117-119 E Mississippi Dr.	Henderson Chevrolet-Oldsmobile	1952	Downtown Commercial Historic District	<100 Feet
101 W Mississippi Dr.	Hotel Muscatine	1910	Downtown Commercial Historic District	<100 Feet
221-25 W Mississippi Dr.	Bennett Mill	1851	Downtown Commercial Historic District	<100 Feet
301 W Mississippi Dr.	Green & Stone Park House	1860	Downtown Commercial Historic District	>100 Feet
305 W Mississippi Dr.	Sieg Auto Parts Building	1946	Downtown Commercial Historic District	<100 Feet
315-317 W Mississippi Dr.	Citizens Electric Light and Power Company	1890	Downtown Commercial Historic District	<100 Feet
119 W Mississippi Dr.	United Way/Red Cross Building	1975	Downtown Commercial Historic District (NC)	>100 Feet
501 E Mississippi Dr.	Musser, Peter, House	1874	Eligible, SHPO, 2004	<100 Feet
505 E Mississippi Dr.	Garvin House	1885	Eligible, SHPO, 2004	>100 Feet
102-104 Walnut St.	McKibben, S. M., House	1866	NRHP Listed - 1974	>100 Feet
419 E 2nd St.	Building	1890	Downtown Commercial Historic District	>100 Feet
417 E 2nd St.	Building	1900	Downtown Commercial Historic District	>100 Feet
413 E 2nd St.	Biesesi Block	1912	Downtown Commercial Historic District	>100 Feet
411 E 2nd St.	Trinity Episcopal Church	1851	NRHP Listed - 1976 Downtown Commercial Historic District	>200 Feet
200-202 E 2nd St.	Building	1910	Downtown Commercial Historic District	>200 Feet
204 E 2nd St.	Building	1883	Downtown Commercial Historic District	>200 Feet
206 E 2nd St.	Otto Block	1888	Downtown Commercial Historic District	>200 Feet
208 E 2nd St.	Dillaway Retail and Wholesale	1880	Downtown Commercial Historic District	>200 Feet
210 E 2nd St.	Building	1880	Downtown Commercial Historic District	>200 Feet
212 E 2nd St.	Building	1880	Downtown Commercial Historic District	>200 Feet
214 E 2nd St.	Commercial Building	1880	Downtown Commercial Historic District	>200 Feet
130 E 2nd St.	Houdek Block	1899	Downtown Commercial Historic District	>200 Feet
126-130 E 2nd St.	Commercial Building	1899	Downtown Commercial Historic District	>200 Feet
124 E 2nd St.	Silverhorns	1895	Downtown Commercial Historic District	>200 Feet
122 E 2nd St.	Commercial Building	1880	Downtown Commercial Historic District	>200 Feet
110-114 E 2nd St.	Commercial Building	1900	Downtown Commercial Historic District	>200 Feet
106-108 E 2nd St.	Fisch Building	1880	Downtown Commercial Historic District	>200 Feet
102 E 2nd St.	Commercial Building	1890	Downtown Commercial Historic District	>200 Feet
100 E 2nd St.	Henderson Building	1865	Downtown Commercial Historic District	>200 Feet
100 W 2nd St.	Muscatine State Bank	1910	Downtown Commercial Historic District	>200 Feet
106 W 2nd St.	Commercial Building	1890	Downtown Commercial Historic District	>200 Feet
120-122 W 2nd St.	Commercial Building	1885	Downtown Commercial Historic District	>200 Feet
124-126 W 2nd St.	Commercial Building	1885	Downtown Commercial Historic District	>200 Feet
128 W 2nd St.	Shamrock Hall	1885	Downtown Commercial Historic District	>200 Feet

TABLE 1
HISTORIC DISTRICTS AND INDIVIDUAL STRUCTURES
NOT DISCUSSED IN THIS SECTION 4(f) STATEMENT

Address	Property Name	Year	Eligibility	Approx. Distance To Project R-O-W;
200-204 W 2nd St.	Tappe Block	1871	Downtown Commercial Historic District	>200 Feet
206 W 2nd St.	C. Weed's Building	1856	Downtown Commercial Historic District	>200 Feet
208-210 W 2nd St.	Weed's Block	1855	Downtown Commercial Historic District	>200 Feet
216 W 2nd St.	Commercial Building	1885	Downtown Commercial Historic District	>200 Feet
222 W 2nd St.	Commercial Building	1865	Downtown Commercial Historic District	>200 Feet
224 W 2nd St.	Bridgeman and Sons Insurance	1899	Downtown Commercial Historic District	>200 Feet
228 W 2nd St.	Mull, Charles & Son, Wholesale Grocery	1890	Downtown Commercial Historic District	>200 Feet
515 E 2nd St.	Commercial Building	1904	Not Evaluated	<100 Feet
507-511 E 2nd St.	Garage	1920	Not Evaluated	<100 Feet
408 E 2nd St.	Baker Hospital No. 2 (HNI Headquarters)	1930	Not Evaluated	>100 Feet
400 W 2nd St.	Springer, Louis, House	1855	West Hill Historic District	>200 Feet
406 W 2nd St.	Crowley, Lepha, House	1904	West Hill Historic District	>200 Feet
412 W 2nd St.	Jackson, Alexander, Rental House	1850	West Hill Historic District	>200 Feet
414 W 2nd St.	Bishop, William F., House	1894	West Hill Historic District	>200 Feet
502 W 2nd St.	Jehring House	1942	West Hill Historic District	>200 Feet
506 W 2nd St.	Richman, Judge DeWitt, House	1882	West Hill Historic District	>200 Feet
510 W 2nd St.	Hill-Titus House	1874	West Hill Historic District	>200 Feet
516 W 2nd St.	Musser, P. M., House	1885	West Hill Historic District	>200 Feet
608 W 2nd St.	Johnson, William F., House	1867	West Hill Historic District	>200 Feet
612 W 2nd St.	Whicher, Stephen E., House	1865	West Hill Historic District	>200 Feet
706 W 2nd St.	Bowman, Emerson and Ella, House	1909	West Hill Historic District	>200 Feet
718 W 2nd St.	Baird, L. A., House	1884	West Hill Historic District	>200 Feet
814 W 2nd St.	Smalley, Abraham, House	1861	West Hill Historic District	>200 Feet
115 Chestnut St.	Commercial Building	1870	Downtown Commercial Historic District	>200 Feet
116 Chestnut St.	Schroeder, A., Block	1895	Downtown Commercial Historic District	>200 Feet
117 Chestnut St.	Commercial Building	1855	Downtown Commercial Historic District	>200 Feet
118 Chestnut St.	Commercial Building	1900	Downtown Commercial Historic District	>200 Feet
119 Chestnut St.	Commercial Building	1925	Downtown Commercial Historic District	>200 Feet
311 Green St.	House	1860	Not Evaluated	>100 Feet
1215 Hershey Ave.	Commercial Building	1870	Not Eligible, SHPO, 1998	NA
1030 Hershey Ave.	Beach Lumber and Supply Company	1903	Not Eligible, SHPO, 2007	NA
1216 Hershey Ave.	Rosenmund Building	1890	Not Evaluated	>100 Feet
1303 Hershey Ave.	Commercial Building	1890	Not Evaluated	>100 Feet
109-113 Iowa St.	Fitzgerald Block	1885	Downtown Commercial Historic District	>100 Feet
Iowa St.	Levee or Steamboard Landing	1936	Not Evaluated	>200 Feet

TABLE 1
HISTORIC DISTRICTS AND INDIVIDUAL STRUCTURES
NOT DISCUSSED IN THIS SECTION 4(f) STATEMENT

Address	Property Name	Year	Eligibility	Approx. Distance To Project R-O-W;
107 Locust St.	Fulliam, Jr., Edmond B., House	1932	West Hill Historic District	>100 Feet
112 Locust St.	Fay, Pliney, House	1854	West Hill Historic District	>200 Feet
227 Mulberry St.	Commercial Building	1905	Not Evaluated	>200 Feet
126 Pine St.	Muscatine Municipal Electric Plant Substation and Service Building	1936	Downtown Commercial Historic District	>200 Feet
107 Spruce St.	Bartlett-Kautz House	1889	West Hill Historic District	>100 Feet
108 Spruce St.	Hoover, Henry and Sarah, House	1878	West Hill Historic District	>100 Feet
107 Elm St.	Hershey Lumber Building	Pre-1883	More Research Recommended	>100 Feet
1029 Hershey Ave.	Hershey Hose Company/Fire Station No. 3	1910	More Research Recommended	<100 Feet
1045 Hershey Ave.	Kern Meat Market / Busch Drugstore	1880	More Research Recommended	<100 Feet
1203 Hershey Ave.	Appel Grocery and Sample Rooms; White Way Hotel	1865	More Research Recommended	<100 Feet
1309 Hershey Ave.	Modern Dairy	1927	More Research Recommended	>200 Feet
1404 Hershey Ave.	W.H. Franklin Blacksmith and Wagon Shop	1875?, 1920?	More Research Recommended	>300 Feet
1212 Hershey Ave.	Building	Pre-1883, 1885	More Research Recommended	>100 Feet
103 Grandview Ave.	Clark's Standard Service Station	1949	More Research Recommended	>100 Feet
200 Green Street	A&W Root Beer Stand	1954	Not Eligible, SHPO, 2012	NA
202 Green Street	Adolph Bomke House	1910	Not Eligible, SHPO, 2012	NA
204 Green Street	George Niebert House	1875	Not Eligible, SHPO, 2012	NA
206 Green Street	Harry Shifflet House	1930	Not Eligible, SHPO, 2012	NA
208 Green Street	Robert Rankins House	1880	Not Eligible, SHPO, 2012	NA

4.3 Properties Evaluated in this Section 4(f) Statement

4.3.1 Puritan Ice Company (Eligible)

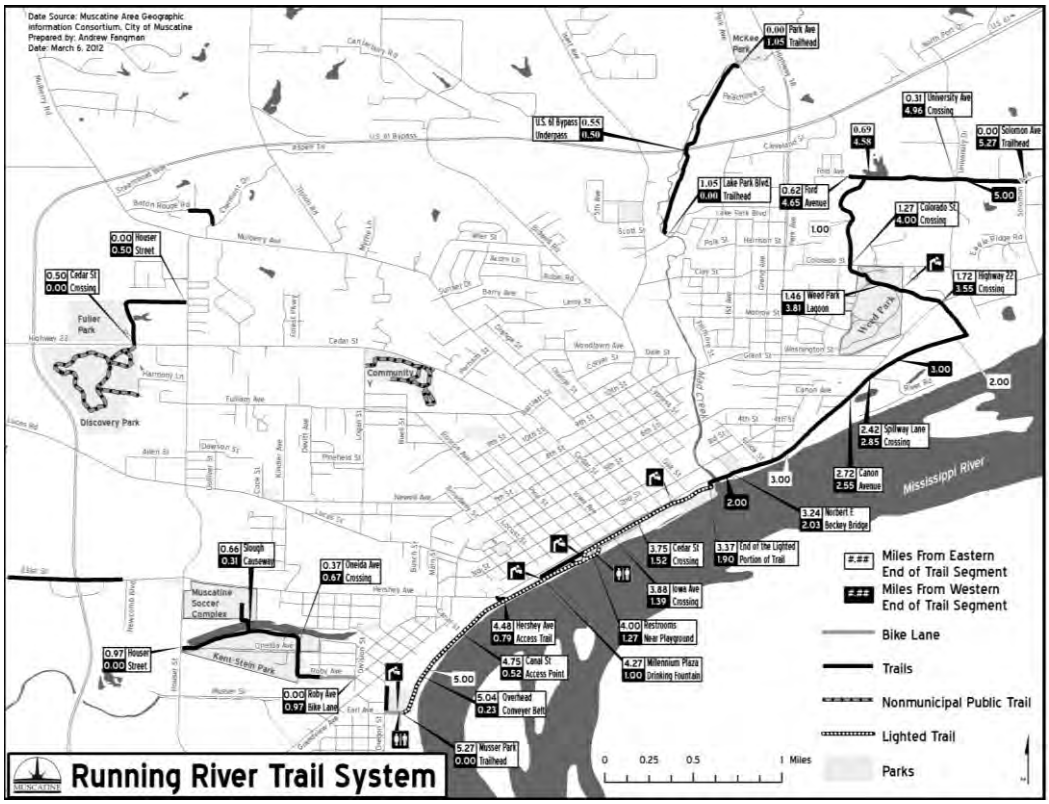
The Puritan Ice Company, now known as the TeStrake site, is a privately owned building site located at 205-207 Green Street, Muscatine, Iowa. This property was evaluated in 2007 as part of an architectural survey of properties at the Hershey Avenue and Green Street intersection. It was determined to be eligible for listing on the National Register of Historic Places under Criterion A for its association with significant events. The company played a significant and unique role in the business history of Muscatine. The Iowa State Historic Preservation Office (SHPO) concurred with this determination in 2008; and in 2012, SHPO determined the project would have an adverse effect on the resources (see Appendix A for a copy of the SHPO determination of effect letter).

Puritan Ice Company Looking From the South (Ice Building Has Kent Feeds Sign)

The Puritan Ice Company began its operation in 1909 as manufacturers of pure distilled water ice. In 1920, the original brick building was expanded and the business was expanded to include coal, in addition to ice. It continued its operation into the 1940s. In 1943, the complex was adapted to serve as the new Muscatine Processing Corporation, a soybean processing and soy products company. In 1957, the TeStrake Brothers purchased the property for use as feed dealers and began to offer grinding services as well. The grinding business lasted into the 1990s; however, the trucking portion of the business continued into the 2000s. As of 2014, much of the building site serves primarily as storage; however, the business employs 1 to 4 persons as part of a wholesale feeds business. The current property boundaries are the recommended boundary for the historic site and include the main factory building, office building and a gable-roof building, possibly used for bulk oil storage during the time it operated as the Muscatine Processing Corporation.

4.3.2 Running River Trail - Hershey Avenue Access Trail

The city of Muscatine owns and maintains several miles of recreational trails within the city. The trail within the Mississippi Drive project area is the Running River Trail System. It begins 0.80 mile south of the project area at Musser Park and travels north adjacent and parallel to the Mississippi River for over 2 miles before traversing away from the river. Total length of this 10-foot wide, paved trail is over 5 miles. The portion of trail from Musser Park to Mad Creek is lighted. Restrooms and drinking fountains are located in Riverside Park in which the trail passes through. The map below shows the trail system in Muscatine.



Access to the Running River Trail is offered at limited locations within the project area, including the Hershey Avenue Access Trail, Iowa Avenue crossing, and Cedar Street crossing. The Hershey Avenue Access Trail is a short section of trail (250 feet) that connects the main trail to the Carver Corner area. The trail provides easy access to the McKee Button Company Factory, a National Register-eligible structure.

5.0 IMPACTS TO SECTION 4(f) PROPERTIES

The following paragraphs discuss the impacts to the Puritan Ice Company building and the Running River Trail by the Proposed Alternative, Conventional Intersection Alternative.

5.1 Puritan Ice Company (Eligible)

Currently, Green Street travels on the west side of the Puritan Ice House building. At the intersection with Hershey Avenue, Green Street has an offset intersection. To improve the safety and operation of this intersection, several alternatives were evaluated. They are discussed further in Section 6, Avoidance Alternatives. The Conventional Intersection Alternative would align Green Street at the intersection by curving Green Street eastward starting south of Puritan Ice Company. The entire Puritan Ice Company Ice House and related buildings would be impacted by the roadway.

Figure 1 shows the Conventional Intersection Alternative at the Puritan Ice Company property in detail.

5.2 Running River Trail - Hershey Avenue Access Trail

During construction of Mississippi Drive, there will be temporary closure of the Hershey Avenue Access Trail. This 250-foot trail will be closed no longer than is deemed necessary while the roadway is under construction. As part of the project, this trail will be connected to the Mississippi Drive project area. The remainder of the trail will not be impacted by construction of the roadway and will remain open throughout the duration of project construction activities.

Figure 2 shows the Proposed Alternative (3-Lane Alternative) near the Hershey Avenue Access Trail.

6.0 AVOIDANCE ALTERNATIVES

In addition to the No Build Alternative, other build alternatives were investigated to determine if the TeStrake property could be avoided. Although none of the alternatives impact them, there are historic properties on the north side of Hershey Avenue in the Carver Corner area. The Maid Rite Sandwich Shop No. 2 at 1033 Hershey Avenue and the Hershey Lumber Company Office at 1001 Hershey Avenue are National Register-eligible. Three other buildings were evaluated in a reconnaissance survey and found to be potentially or likely eligible for the National Register. All five of these structures are on the north side of Hershey Avenue and should continue to be avoided. These properties are shown on Figure 1. The alternatives are described below.

6.1 West Avoidance Sub-Alternative

An alternative was considered in the very early planning process of the Mississippi Drive project that would reconstruct Green Street on the west side of the existing roadway. This alternative would have all the features of the other alternatives, such as one lane in each direction with a center turn lane, 8-foot sidewalks on both sides and pedestrian crossings, among other upgrades (Figure 3). This alternative would entirely avoid the Puritan Ice Company (TeStrake) property.

In shifting the roadway in this area to the west, four residences, a business and a mini strip plaza which contains three business spaces would be displaced. This mini strip plaza has no active businesses as of January 2014. Signs advertising available spaces for lease are displayed. The houses and business have a small setback from Green Street, so any move of the roadway to the west would impact them. The mini strip mall has a greater setback; however, if the building was able to remain, the parking for this facility would be entirely removed which could likely result in a total acquisition of the property. Another business on Hershey Avenue would be impacted but would be a partial acquisition.

AECOM

FIGURE 2
CARVER CORNER
HERSHEY AVENUE ACCESS
TRAIL CONNECTION

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Mississippi Drive Corridor
Muscatine, Iowa

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FIGURE 3
CARVER CORNER
WEST AVOIDANCE ALTERNATIVE

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Mississippi Drive Corridor
Muscatine, Iowa

FEBRUARY 2014

60163579

This alternative would meet the purpose and need for the project; however, it has severe impacts. Impacts associated with this alternative are presented below in the Least Harm Analysis section.

6.2 Realigned Conventional Intersection Sub-Alternative

An alternative was developed to avoid the Puritan Ice Company property and the residences and businesses on the west side of Green Street. This alternative would be a 2-lane roadway that would curve to the east immediately after passing by the Puritan Ice Company. The south approach to Green Street would be realigned to line up with the north approach to create a traditional four-leg crossing intersection. The south leg of the Hershey Avenue/Green Street intersection would begin north of the Puritan Ice Company property, thus avoiding impacts to it (Figure 4).

A tight S-curve configuration is used to align the north and south legs of Green Street at Hershey Avenue and avoid the Section 4(f) property. The first curve radius north of the Puritan Ice Company property is 200 feet, which does not meet the minimum horizontal curve radius of 250 feet as stated in the Iowa DOT Design Manual (Chapter 1C-1). The second curve radius, just south of the Hershey Avenue/Green Street intersection, is 181 feet. This curve also does not meet minimum Iowa DOT design criteria for this type of facility. Further, the second curve is located too close to the Hershey Avenue/Green Street intersection than is recommended by AASHTO. These curves would be tight enough that trucks would not be able to stay within their lanes, which would create safety and operational deficiencies since this roadway is a designated truck route. The trucks used for the design of this project are 67-foot tractor-trailer vehicles, the maximum legal trucks in the state of Iowa.

The Realigned Conventional Intersection does not meet the project's purpose and need for safety, and the tight S-curve is not considered a sound design practice.

6.3 Running River Trail – Hershey Avenue Access Trail Avoidance

There is no avoidance alternative to the temporary closure of the Hershey Avenue Access Trail. The trail must be closed during construction for safety of pedestrians and bicyclists. In addition, the trail will be connected to the Mississippi Drive area as part of construction of the project. It will be necessary to close the trail in order to construct this connection.

7.0 LEAST HARM ANALYSIS

The No Action and Realigned Conventional Intersection Alternatives were eliminated from further discussion because they do not meet the project purpose and need. In order to determine which alternative(s) is the best of the Mississippi Drive Carver Corner area, a Least Harm Analysis was conducted for the West Avoidance and Conventional Intersection Alternatives. This analysis includes the following factors as described in 23 CFR 774.3(c):

i. The ability to mitigate adverse impacts to each Section 4(f) property (including any measures that result in benefits to the property);

ii. The relative severity of the remaining harm, after mitigation, to the protected activities, attributes or features that qualify each Section 4(f) property for protection;

iii. The relative significance of each Section 4(f) property;

iv. The views of the official(s) with jurisdiction over each Section 4(f) property;

v. The degree to which each alternative meets the purpose and need for the project;

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FIGURE 4
CARVER CORNER
REALIGNED CONVENTIONAL
AVOIDANCE ALTERNATIVE
Draft Section 4(f) Statement
Mississippi Drive Corridor
Muscatine, Iowa

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vi. After reasonable mitigation, the magnitude of any adverse impacts to resources not protected by Section 4(f); and

vii. Substantial differences in costs among the alternatives.

7.1 Conventional Intersection and West Avoidance Alternatives Factor Analysis

The Conventional Intersection directly impacts the Puritan Ice Company property, while the West Avoidance Alternative would avoid impact to Puritan Ice Company. The seven factors listed above have been analyzed and evaluated for the two alternatives considered for the Mississippi Drive Carver Corner area. Table 2 provides a succinct comparison of these alternatives. Each factor is discussed below.

i. As part of mitigation for the Conventional Intersection Alternative, the property will be documented, including a detailed history of events that contribute to the significance of the property. Once the documentation is approved by SHPO, the buildings can be razed. The mitigation for the Puritan Ice Company will be outlined in a Memorandum of Agreement and included in Appendix B. Mitigation for the four houses and five businesses displaced by the West Avoidance Alternative would include relocation assistance to find replacement housing or commercial space and fair market value compensation.

ii. None of the properties along Green Street -- Puritan Ice Company on the east and the four houses and four businesses on the west -- have enough space on their existing lots to move the structures away from the construction limits of the project. Therefore, with either alternative, it is expected the buildings would be razed.

iii. The buildings that would be impacted by the West Avoidance Alternative are not eligible for the National Register (SHPO, 2012). The Puritan Ice Company was determined eligible for the National Register in 2008 and would be impacted by the Conventional Intersection Alternative. Therefore, the Puritan Ice Company has more significance from a 4(f) standpoint.

iv. The Iowa SHPO concurred with the intensive survey of the Puritan Ice Company conducted in 2008 that determined it is eligible for listing on the National Register of Historic Places. The Iowa SHPO also concurred with the intensive survey and NRHP evaluation of five buildings on Green Street in that they are not eligible for listing on the National Register (see SHPO letter in Appendix A, dated May 10, 2012). The Puritan Ice Company has more significance than the properties on the west side of Green Street from a National Register standpoint.

v. The Conventional Intersection Alternative meets the purpose and need of the project by addressing all aspects, including safety, operations and potential for future economic development. The offset intersection that currently exists would be corrected improving both safety and operations. In addition, space would be created in the southeast quadrant of Green Street and Hershey Avenue, allowing for potential development as well as possible gateway enhancements. The West Avoidance Alternative does not meet the purpose and need of the project. The offset intersection at Green Street and Hershey Avenue/Mississippi Drive would not be corrected, thus the safety and operations would be similar to existing conditions. The southeast quadrant would not be as developable as all the structures would remain.

vi. The Conventional Intersection Alternative would impact one other business on Hershey Avenue by acquiring a portion of it. No other impacts to homes or businesses are anticipated. The West Avoidance Alternative would impact four houses and five businesses (four total acquisitions on Green Street and one partial acquisition on Hershey Avenue).

vii. The Conventional Intersection and West Avoidance Alternatives are very similar with regard to criteria, such as lane width, lane configuration, access, sidewalks, etc. With regard to

construction cost, the alternatives would be very similar. Right-of-way costs would likely be higher for the West Avoidance Alternative.

TABLE 2
LEAST HARM ANALYSIS COMPARISON OF ALTERNATIVES

Alternative	Meet Purpose/Need?	Use Section 4(f) Resource?	Other Impacts
Conventional Intersection	Yes	Yes – Puritan Ice Company	1 Business (Partial on Hershey Avenue)
West Avoidance	No	No	4 Houses; 5 Businesses (4 Total on Green Street, 1 Partial on Hershey Avenue)

8.0 MEASURES TO MINIMIZE HARM

Two build alternatives (West Avoidance and Realigned Conventional Intersection) avoid impacts to the Puritan Ice Company (see Section 6.0 for more description of these alternatives). No minimization alternatives were developed as part of this project. Minimization is by conducting mitigation which is proposed to be in the form of documentation of the historic property.

On _____, 2014, the city of Muscatine Historic Preservation Commission was invited to give input on the minimization and mitigation measures for the Puritan Ice Company. The Commission advised that they _____. Appendix C shows a copy of the minutes from this meeting.

Following this meeting, the Iowa DOT and SHPO worked together to develop the Memorandum of Agreement. This plan calls for recordation of the Puritan Ice Company property. The building(s) will be documented according to "Iowa Historic Property Study: Ice Houses" shown in the attached MOA (Appendix B). The end result of this recordation will be a booklet suitable for the general public. The booklet will be made available via website, paper, CD or other. It will be available to each MOA signatory as well as at the Muscatine Public Library and Muscatine Historic Preservation Commission.

On _____, 2014, the Muscatine Historic Preservation Commission reviewed the MOA and concurred with the stipulations to it. On _____, 2014, the Muscatine City Council reviewed the MOA.

Signatories to the MOA will be the city of Muscatine, Iowa DOT, FHWA and the Iowa SHPO. As a result of the signatures, the stipulations of the MOA may be executed.

9.0 COORDINATION

Throughout the planning stages of this project, the Iowa SHPO was consulted regarding the evaluation of impacts to cultural resources on the Mississippi Drive Corridor. The comments of SHPO regarding the project's impacts from the proposed improvements on the Puritan Ice Company property have been incorporated into the Memorandum of Agreement. This Memorandum of Agreement was reached between FHWA, SHPO, Iowa DOT and the city of Muscatine and includes mitigative measures for the Puritan Ice Company. The MOA is attached in Appendix B.

10. SUMMARY AND DISPOSITION OF THE DRAFT SECTION 4(f) STATEMENT

10.1 Summary

The Conventional Intersection Alternative directly impacts the Puritan Ice Company while meeting the project's purpose and need. The West Avoidance Alternative does not meet the project's purpose and need and also has severe impacts, including the acquisition of several houses and five businesses.

10.2 Disposition

This Draft Section 4(f) Statement will be circulated to appropriate resource and regulatory agencies in conjunction with the Mississippi Drive Environmental Assessment. Following review and comment of this Draft Section 4(f) Statement, a Final Section 4(f) Statement will be prepared that incorporates comments received in the Draft. It will be distributed to those agencies that comment on the current document with the Finding of No Significant Impact.

For the Division Administrator
Federal Highway Administration

Date

MISSISSIPPI DRIVE (IOWA 92)
FROM MAIN STREET TO THE NORBERT F. BECKEY BRIDGE
IN
MUSCATINE, MUSCATINE COUNTY, IOWA
STP-U-5330(614)--27-70

ENVIRONMENTAL ASSESSMENT

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

By The

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
and
CITY OF MUSCATINE, IOWA

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

_____	_____
For the City of Muscatine	For the Office of Location & Environment Iowa Department of Transportation
_____	_____
For the Iowa Division Administrator Federal Highway Administration	Date of Approval for Public Availability

The following persons may be contacted for additional information:

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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** Click here to enter text.
☑	**Section 4(f): Historic Sites Puritan Ice House** **Recreational Trail – Running River Trail - Hershey Avenue Access Trail**

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A. Streamlined Resource Summary
B. Agency and Tribal Coordination

1. DESCRIPTION OF THE PROPOSED ACTION

The proposed action consists of upgrading Mississippi Drive (Iowa Highway 92) through downtown Muscatine, Iowa. The Mississippi Drive Corridor Project begins at the Main Street/Grandview Avenue intersection, continuing to the East 2nd Street/Norbert F. Beckey Bridge intersection, which marks the end of the project. It passes through a mix of commercial, residential, Central Business District and industrial land uses. The total length of the project is approximately 1.6 miles, including 19 intersections (6 with traffic signals). Refer to the vicinity map on Figure 1.

The current roadway is a 3- to 4-lane, urban facility with both divided and undivided medians. The roadway, ranging from 40 to 64 feet wide, is considered difficult to cross for pedestrians, especially for small children or elderly. The width of this roadway is being considered to be narrowed to improve the accessibility to the downtown from the Mississippi River riverfront area by pedestrians. This project also includes accommodations for bicycles and pedestrians and measures to reduce flooding on the roadway.

2. PROJECT HISTORY

The city of Muscatine has been working toward revitalizing the downtown riverfront for several years to transform the city's riverfront into a recreational attraction for local residents and regional visitors. As part of this effort, the Mississippi Drive Corridor, which is adjacent to the Mississippi River, has been targeted for improvements.

In 2007, the city prepared a planning study that examined several issues associated with Mississippi Drive, including pedestrian safety, flooding issues, traffic calming and aesthetics. Several stakeholder and public meetings were held to gain input about the corridor. The results of this study are contained in the report entitled "Mississippi Drive Corridor Study."

3. PURPOSE AND NEED FOR ACTION

3.1 Purpose

The purpose of the proposed Mississippi Drive improvements is to safely accommodate future vehicular and pedestrian traffic, including bicyclists along the corridor as well as between the riverfront and downtown, to correct roadway deficiencies, to limit future flooding of Mississippi Drive, and to provide the transportation infrastructure needed to support planned and future economic development.

3.2 Need

This project is needed to provide better access to vehicles traveling through the downtown, to provide safe access to pedestrians crossing Mississippi Drive, to reduce instances of closure of Mississippi Drive due to flooding, and to foster economic development.

3.2.1 Traffic

Traffic on Mississippi Drive has been declining on average since 1998 according to Iowa DOT traffic counts (see historic traffic trends below in Table 2). The major factor in this decline was the opening of the U.S. 61 bypass which eliminated the need for much of the traffic to travel through the Central Business District of Muscatine. In February and March 2011, traffic data was collected at 11 intersections along the corridor. Based on these traffic counts, Average Daily Traffic (ADT) ranges from 8,500 to 10,000 vehicles per day (vpd). The existing traffic counts, along with the width of the corridor which is mostly 4 lanes wide (approximately 40 to 64 feet), creates excess capacity, a tendency for traffic to exceed the speed limit, and a challenge for pedestrians crossing the roadway safely.

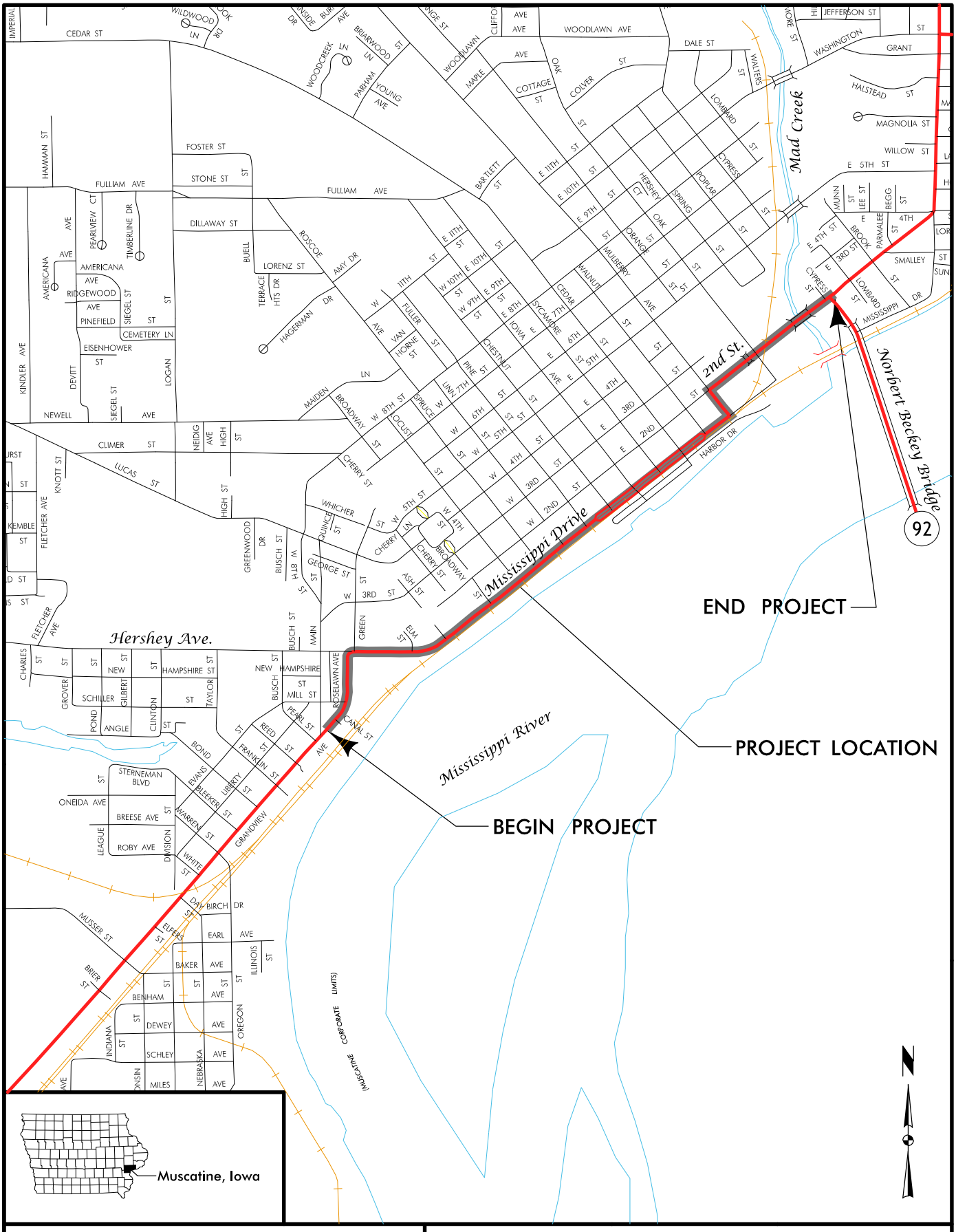

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FIGURE 1
Location Map

Environmental Assessment
Mississippi Drive Corridor
Muscatine, Iowa

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TABLE 2
HISTORIC TRAFFIC COUNTS

Location (Mississippi Drive Intersects)	Year			
	1998	**2002**	**2006**	**2010**
Main Street	10100	9900	9700	7272
Hershey Avenue and Green Street	12000	11800	12000	8767
Iowa Avenue	11000	10100	9900	7662
Cedar Street	9700	9800	9000	7296
Mulberry Avenue	12300	12800	9100	9494
Oak Street	12600	12300	12600	9903

Source: Iowa DOT

Traffic projections were conducted for the design year of 2040 based on a 0.5% growth per year. The population of Muscatine has been steady over the last four decades and is projected to increase by 1.64% by 2020 according to Muscatine's Comprehensive Plan. As a result, forecasted traffic volumes through the design year 2040 show minimal growth. Table 3 below shows current and future Average Daily Traffic (ADT) for the corridor.

TABLE 3
EXISTING AND PROJECTED AVERAGE DAILY TRAFFIC

Location	Existing (2011)	Projected Traffic (2040)
2nd Street (Mulberry Avenue to Norbert F. Beckey Bridge)	10,000	11,600
Mississippi Drive (Elm to Mulberry Avenue)	8,500	10,000
Hershey Avenue (Green Street to Mississippi Drive)	9,000	10,500

Source: Iowa DOT and Stanley Consultants

3.2.2 Safety and Pedestrian Access

Pedestrian safety is a frequent issue of concern among the public and stakeholders in Muscatine. The concern is due to the wide roadway (as much as 64 feet) that must be crossed which can be challenging for elderly and persons with young children, the lack of pedestrian refuges and protected crosswalks, as well as the lack of convenient access for bicyclists reaching the recreational trail along the river from downtown. Extensive free parking exists along the riverfront, as well as many outdoor recreational opportunities, which creates a need to access the riverfront. An active railroad parallels Mississippi Drive through the Central Business District separating the roadway and the riverfront. The track is fenced from the corridor for safety purposes but has openings at Cedar Street and Iowa Avenue for both vehicles and pedestrians, and additional openings at Sycamore and Chestnut Streets for pedestrians only. On weekdays, the riverfront is used extensively for parking by persons who work or shop in the downtown. Special events on the riverfront attract many visitors to downtown several times each year. During these times, parking lots are used for event setup and are not available for parking. This creates large numbers of people crossing Mississippi Drive to reach the venue and the potential for pedestrian crashes.

A crash analysis was conducted for the Mississippi Drive Corridor as part of this project. Data was examined from the Iowa DOT Office of Traffic and Safety for the 5-year period from 2005 to 2009. A total of 73 crashes were reported in that timeframe, with 53 crashes occurring at intersections and 20 crashes occurring on road segments between intersections. Table 4 below shows the most common types of accidents and the number of each along the Mississippi Drive Corridor. No reported pedestrian accidents occurred in this timeframe; however, one bicycle/car crash occurred in 2006 at the intersection of Cedar and Mississippi Drive.

TABLE 4
MOST COMMON TYPES OF ACCIDENTS ON MISSISSIPPI DRIVE CORRIDOR

Type of Accident	Number
Failure to Yield at Intersections/Driveways	15
Losing Control/Running Off Road	12
Rear End Crashes	10
Speeding/Driving Too Fast for Conditions	7

Source: Iowa DOT Office of Traffic and Safety for Years 2005-2009

3.2.3 Flooding

Mississippi Drive runs parallel to the Mississippi River, with less than 300 feet between them. Frequent flooding between Mulberry Avenue and Iowa Avenue causes Mississippi Drive to be closed, detouring traffic onto local streets in the downtown area and limiting access to businesses located on Mississippi Drive. The most recent occurrence was spring 2010; Mississippi Drive was closed for approximately two weeks in April.

The first intersection to flood is at Walnut. Floodwaters begin flooding this intersection through a storm inlet located at a low point in the south curb. This inlet has a direct discharge pipe to the river, and water begins flooding the street when the river elevation reaches 549.7, or during a 7-year flood event. The second intersection to flood is at Sycamore Street. The south gutter line at this intersection is at Elevation 552.3, an 18-year flood event. The intersections at Mulberry Avenue, Cedar Street and Iowa Avenue begin flooding when they experience a flood greater than 25-year frequency (552.47). Intersections west of Iowa Avenue are considerably higher and flood much less frequently.

Note: All elevations discussed above are NAVD 1988 datum.

3.2.4 Planned Development and Land-Use Plans

The city of Muscatine Comprehensive Plan (September 2013) lists several goals under economic development. Some of these goals include: retention and expansion of existing businesses, recruitment and establishment of new businesses, strong retail sector, and development and revitalization of specifically targeted areas. One of the targeted areas is the downtown area which includes Mississippi Drive. Actions under this goal include infrastructure improvements, aesthetic enhancements, and promoting economic development. Future land-use goals were presented in the Comprehensive Plan that relate to critical corridors, which include Mississippi Drive and the downtown area. Mississippi Drive should serve as a welcoming corridor and have a mix of residential and non-residential land uses that enhance the Muscatine community. Likewise, the downtown area is envisioned to have enhanced livability, strong retail and a historic flavor to help improve the quality of life in Muscatine.

In keeping with goals of the Comprehensive Plan and future land use, the city has already purchased and has been actively beautifying the land along the riverfront between the river and road/active railroad track corridor. Beautification projects already completed include a paved recreational trail, visual and recreational focus points, green areas, statuary reflecting the history of the city and resting areas for pedestrians.

The Bi-State Regional Commission determined that the proposed project is consistent with long-range transportation goals for the area (see letter dated 12/9/2010 in Appendix B). In addition, the project is anticipated to further the *Comprehensive Economic Development Strategy* for the Bi-State Regional General Economic Development Goal G – Continue to Make the Best Use of Existing Infrastructure. The Mississippi Drive Corridor Project to reconstruct the business route in Muscatine is consistent with long-term plans and is an important element of revitalization within the Bi-State region.

4. ALTERNATIVES

This section discusses the alternatives investigated to address the purpose and need for the proposed action. The No Build Alternative, the alternatives considered but dismissed, the alternative variations at Carver Corner, and the Proposed Alternative for the mainline portion of the project are discussed below.

4.1 No Build Alternative

Under the No Build Alternative, no improvements would be made to the existing roadway. Only maintenance and repairs would be done. The roadway's geometric features and access control would remain unchanged. The No Build Alternative would not have any direct or indirect impacts to adjacent properties. No additional right-of-way would be acquired and no modifications would be done to the Carver Corner intersection area. Therefore, there would not be any impact to Section 4(f) resources and no disruption to local businesses.

However, the No Build Alternative would not meet the purpose and need for the project. It would not improve the safety for pedestrians and bicyclists, nor would it address the flooding issues currently experienced on Mississippi Drive. It would not enhance the downtown character or provide any gateway opportunities. With future traffic volumes showing slight increases, the roadway is oversized for the current and projected need. For these reasons, the No Build Alternative was eliminated from further consideration.

4.2 Alternatives Considered But Dismissed

In addition to the No Build Alternative, two mainline alternatives and five Carver Corner alternatives were considered. One mainline alternative and one Carver Corner Sub-Alternative remain. Each dismissed alternative is described below and shown on Figures 2 and 3A-C.

4.2.1 5-Lane Alternative

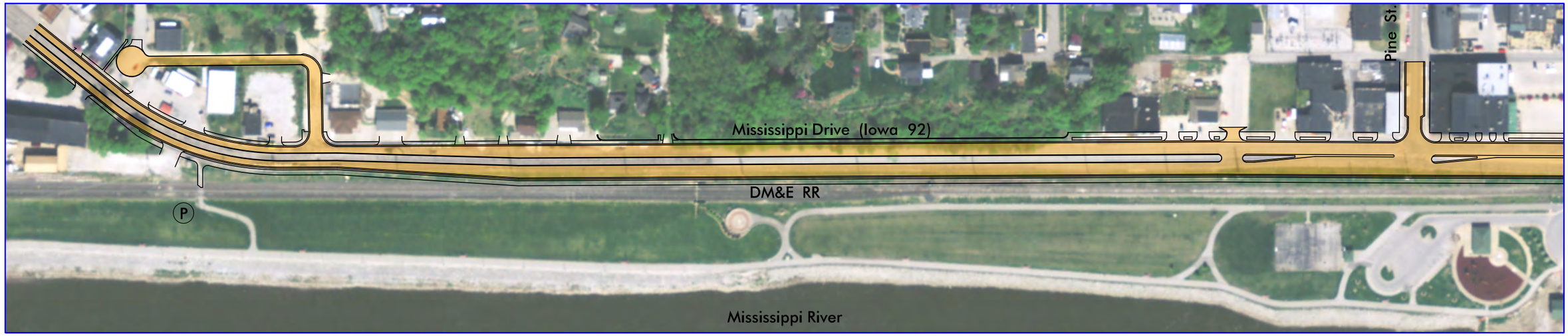
This alternative follows the existing alignment along the entire route, except at Carver Corner (discussed in sections below). In the downtown area between Linn Street and Walnut Street, the corridor would be a 4-lane boulevard, including two through driving lanes in each direction with a curbed median. Left-turn lanes in the boulevard section would be accommodated with channelized left-turn lanes.

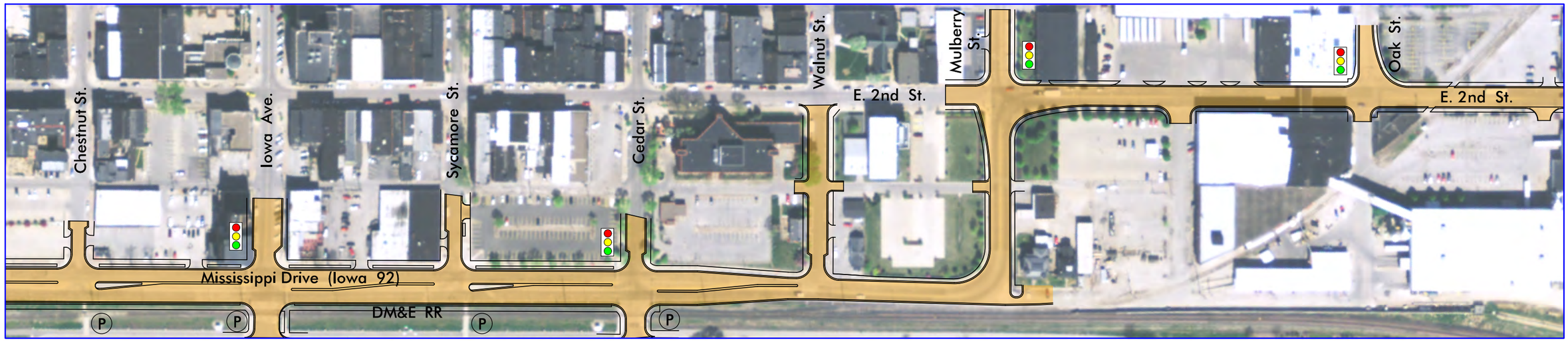
The 5-Lane Alternative was dismissed because it would have severe impacts to adjacent properties in the bluff area, Carver Corner area and on 2nd Street. This alternative also provides more capacity than is necessary, based on the traffic analysis. Constructing a 5-lane roadway would limit the potential for streetscape and other visual improvements to the corridor. Finally, it would not meet the project's purpose and need in improving safety for pedestrians and bicyclists since the roadway would be as wide or wider than it is currently. A narrower width is more pedestrian friendly.

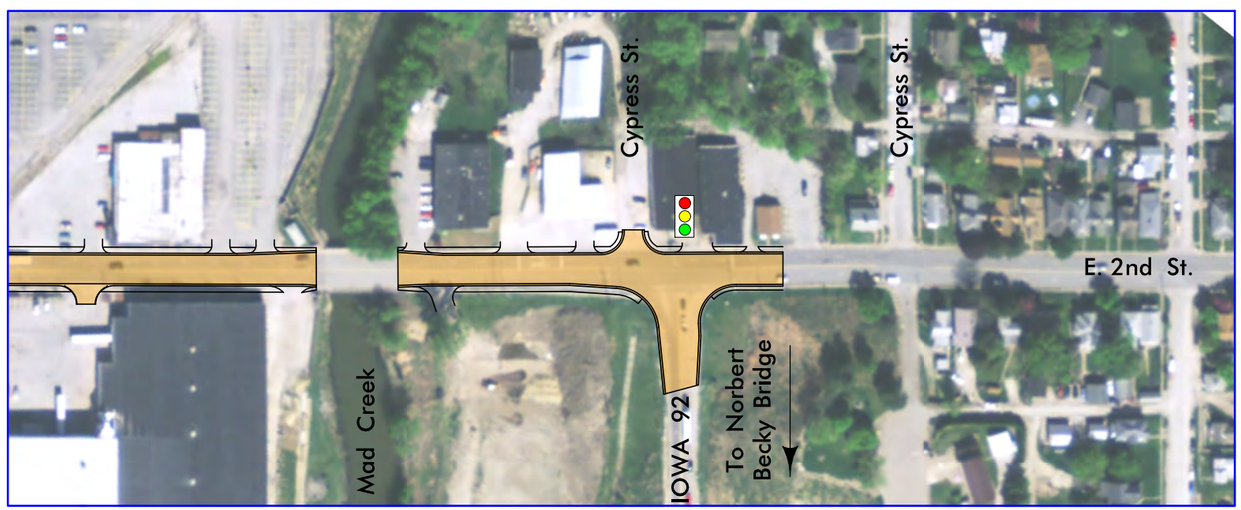
Related to the 5-Lane Alternative, some recreational trails were considered but dismissed. These options are described below.

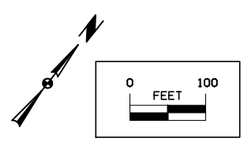
4.2.1.1 Recreational Trail Alternatives. An option was also considered to provide a recreational path on the river side of the corridor between the road and the railroad right-of-way. However, the city staff and members of the public were very resistant to the idea of a recreational path at this location. The reasons given were limited available space and the fact that this path would be redundant to the existing recreational facilities along the riverfront. So, this option was dismissed from further consideration as well.

One element in considering pedestrian and bike facilities was to consider what to do in regard to on-street parking. Therefore, an option that included on-street parking along the downtown portion of the corridor was considered. However, during discussion with the city, it was noted that there is sufficient, even excess, existing parking along the riverfront. There were also other priorities that were considered more important, such as providing sufficient space for pedestrians and storm water management facilities, and limiting the crossing









(P) Pedestrian Access Across RR to Riverside Park and Trail

Existing Traffic Signal

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FIGURE 2
5–LANE ALTERNATIVE DISMISSED FROM FURTHER CONSIDERATION

Environmental Assessment
Mississippi Drive Corridor
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distance for pedestrians at intersections. Therefore, on-street parking was dismissed from further consideration along the corridor.

In addition to the recreational path discussed above, on-street bicycle lanes were also considered to accommodate bicycle traffic. However, again due to the lack of space, as well as insufficient connectivity with other facilities and a desire by the city to encourage other routes for bicyclists, striped bicycle lanes were eliminated from further consideration. An accommodation for bicyclists is provided though by use of 12-foot wide outside driving lanes and 2-foot gutter pans, which provide space for bicyclists to share the roadway with motorized vehicles.

4.2.2 Carver Corner Sub-Alternatives

The Carver Corner intersection currently operates as a signalized crossing intersection. The east-west roadway is Hershey Avenue, and the north-south roadway is Green Street. The two approaches for Green Street are offset by approximately 50 feet at the intersection, creating an intersection with deficiencies in both geometry and safety. In addition, there are Section 4(f) resources in this intersection area which necessitate developing multiple alternatives that avoid or minimize impacts to these resources. These alternatives are also discussed in the Section 4(f) Statement attached to this document. To address these deficiencies, several alternative intersection options were evaluated and are shown on Figures 3A-C.

4.2.2.1 Four-Leg Roundabout Sub-Alternative. The east and west approaches of Hershey Avenue and the north and south approaches of Green Street are realigned to form the four approaches of the roundabout. The center of the roundabout would be located to the south and east of the existing intersection.

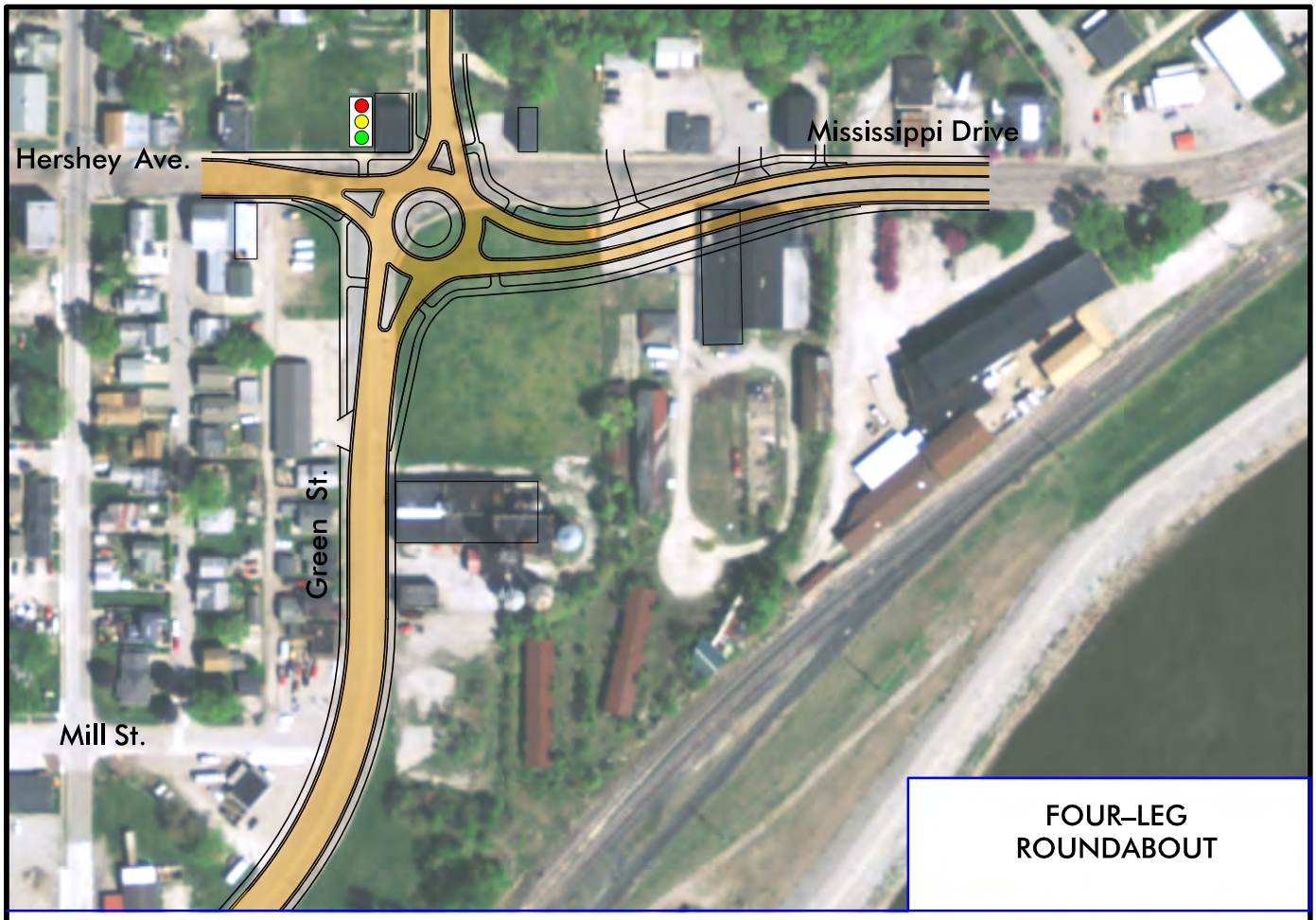
This alternative would be difficult to construct due to the steep slope of the north leg of Green Street. A building at the northwest corner of this intersection would be impacted in order to make the slope flatter in the transition to the south. This alternative also impacts the Section 4(f) resource to the south; so for these associated property impacts, this alternative was dismissed from further consideration.

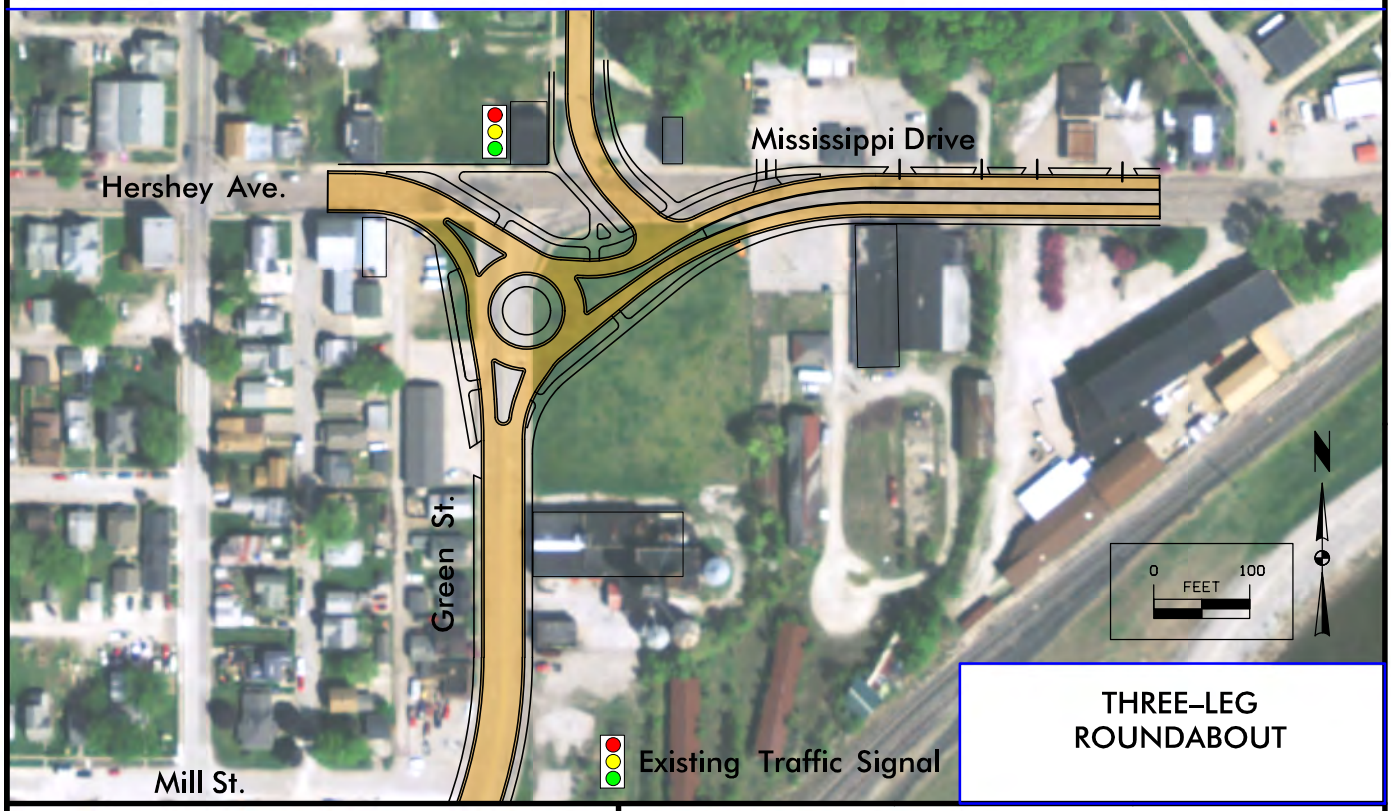
4.2.2.2 Three-Leg Roundabout Sub-Alternative. The east and west approaches on Hershey Avenue and the south approach on Green Street form the three legs of the roundabout, whose center is located south of the existing intersection. The north leg of Green Street is realigned to intersect Hershey Avenue east of the roundabout. The north approach on Green Street would have turning movements limited to westbound right turns from Hershey Avenue and southbound right turns from Green Street. Since Green Street is offset from the roundabout, this creates two closely spaced intersections which are not desirable from a geometric and safety standpoint.

This alternative was dismissed from further consideration because of engineering issues including geometric and safety concerns mentioned above. Also, turning movements to and from Green Street are limited. This alternative, while meeting the purpose and need for the project, was not favored by the public when it was shown at a Public Information Meeting on October 12, 2011, because they felt there are better options for this intersection.

4.2.2.3 Sweeping Curve Roadway Sub-Alternative. This alternative creates a sweeping curve between the south approach on Green Street and the east approach on Hershey Avenue. The west approach on Hershey Avenue then tees into the new roadway, creating an intersection that is farther south and east from the existing configuration. The north leg of Green Street intersects Hershey Avenue west of the main intersection with sufficient spacing, allowing full movement capability for both intersections. The heaviest traffic movements through the intersection (previously westbound to southbound lefts and northbound to eastbound rights) are now through movements. Therefore, traffic signal operations become simpler and more efficient.

As an alternate to the Sweeping Curve Sub-Alternative, a three-leg modern roundabout configuration also would work well as compared to the signalized intersection.





AECOM

FIGURE 3A
CARVER CORNER
SUB–ALTERNATIVES DISMISSED
FROM FURTHER CONSIDERATION
Environmental Assessment
Mississippi Drive Corridor
Muscatine, Iowa

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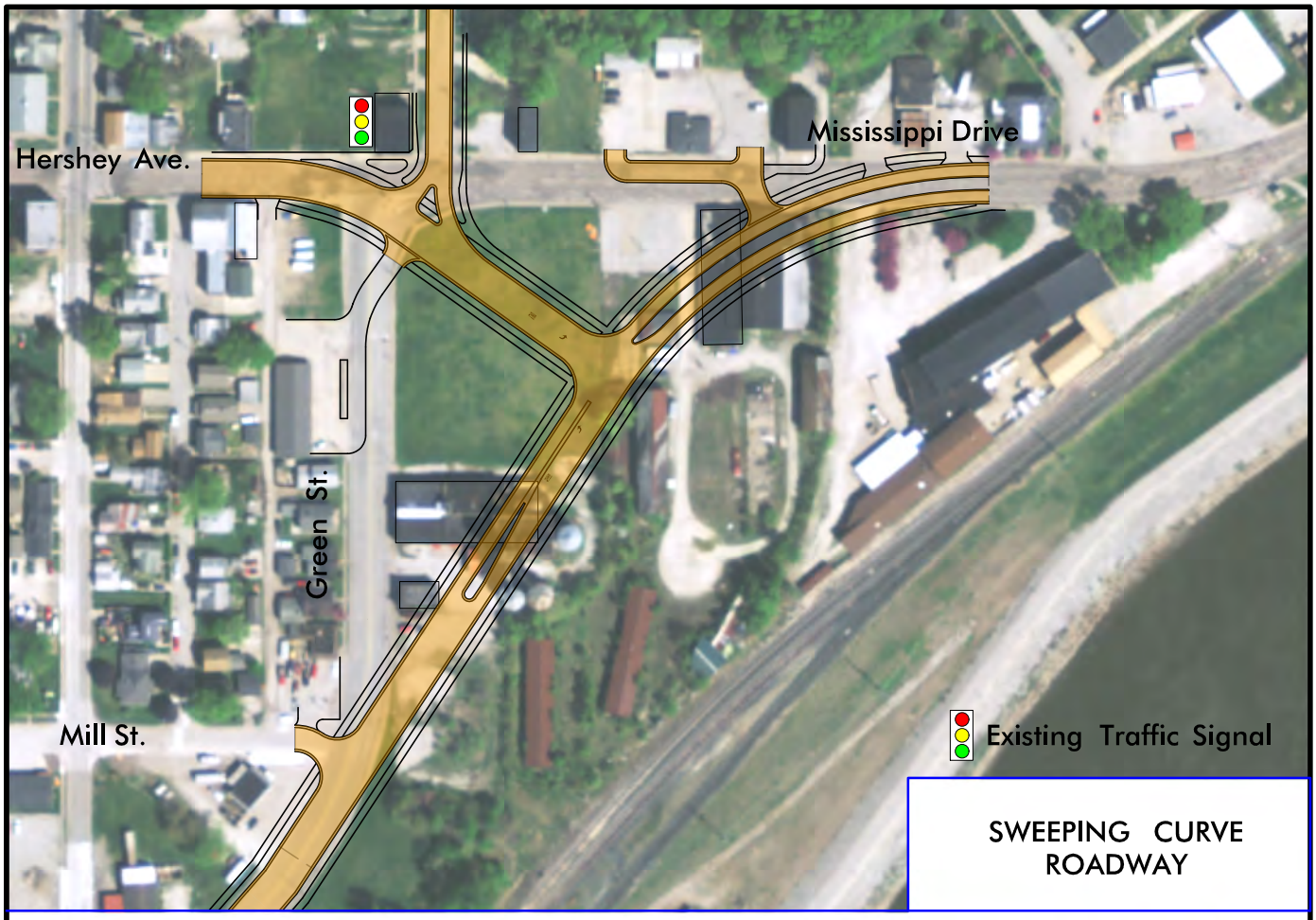

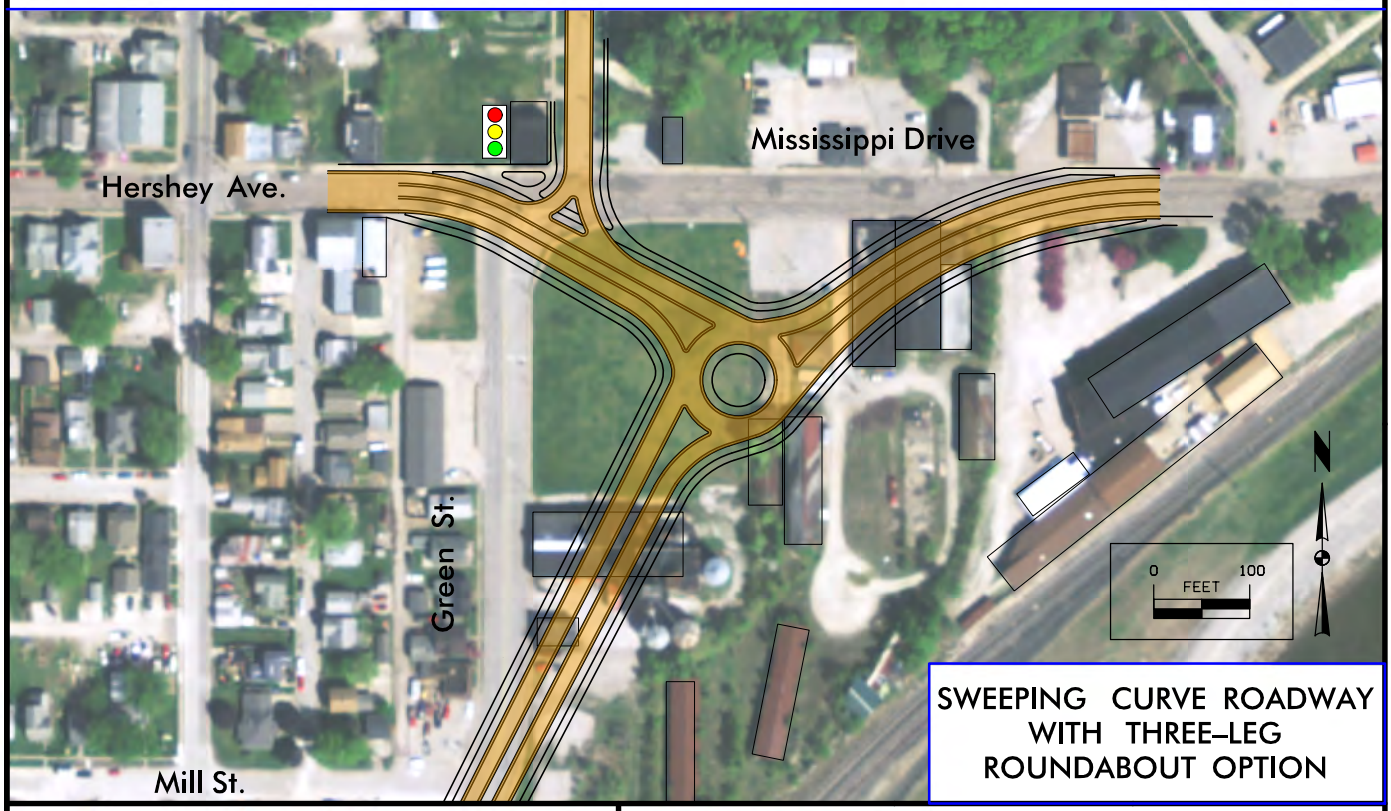

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FIGURE 3B
CARVER CORNER
SUB–ALTERNATIVES DISMISSED FROM FURTHER CONSIDERATION
Environmental Assessment
Mississippi Drive Corridor
Muscatine, Iowa

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AECOM

FIGURE 3C
CARVER CORNER
SUB–ALTERNATIVES DISMISSED FROM FURTHER CONSIDERATION
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This alternative was dismissed from further consideration on the basis that it does not provide the best opportunities for future economic development. This alignment would create three smaller parcels that could limit the type and size of development that can utilize the space.

4.2.2.4 Realigned Conventional Intersection Sub-Alternative. The south approach on Green Street would be realigned to line up with the north approach to create a traditional four-leg crossing intersection. The south leg of this intersection would begin north of the Section 4(f) resource (the Puritan Ice Company property), thus avoiding impacts to it.

A tight S-curve configuration is used to align the north and south legs of Green Street at Hershey Avenue and avoid the Section 4(f) property. The first curve radius north of the Puritan Ice Company property is 200 feet, which does not meet the minimum horizontal curve radius of 250 feet as stated in the Iowa DOT Design Manual (Chapter 1C-1). The second curve radius, just south of the Hershey Avenue/Green Street intersection, is 181 feet. This curve also does not meet minimum Iowa DOT design criteria for this type of facility. Further, the second curve is located too close to the Hershey Avenue/Green Street intersection than is recommended by AASHTO. These curves would be tight enough that trucks would not be able to stay within their lanes, which would create safety and operational deficiencies since this roadway is a designated truck route. The trucks used for the design of this project are 67-foot tractor-trailer vehicles, the maximum legal trucks in the state of Iowa.

Although this alternative was developed to avoid a 4(f) resource, it is undesirable from an engineering standpoint.

4.3 Proposed Alternative

4.3.1 Mainline Alternative

The Proposed Alternative for the mainline portion of Mississippi Drive is the Three-Lane Alternative (Figure 4). The alignment follows the existing alignment for the entire route, except at Carver Corner (those alternatives are discussed below). The cross section includes one driving lane in each direction, with several left-turn variations throughout the corridor. They are described as follows:

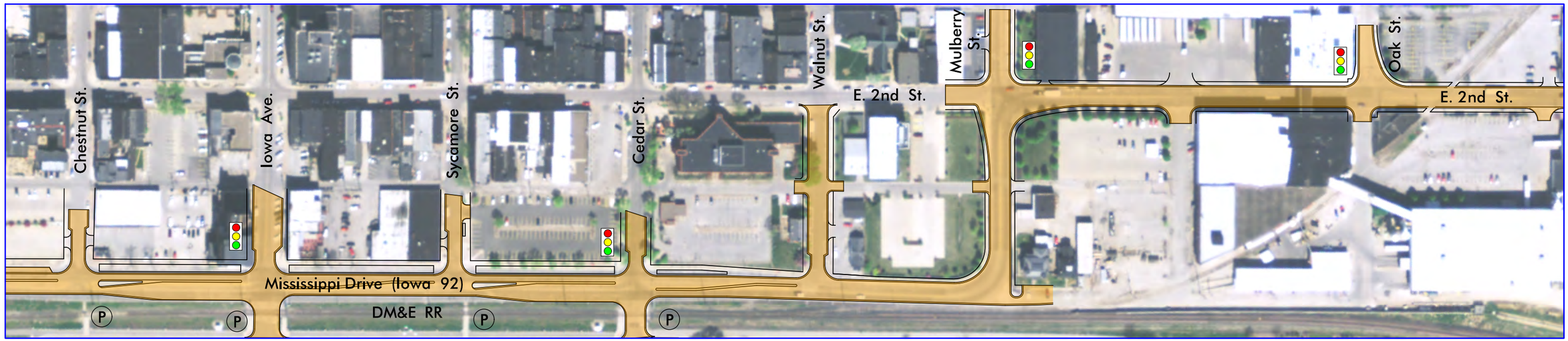
- Two-Way Left-Turn Lane (16 Feet Wide) – Between Main Street and Hershey Avenue and Between Walnut Street and Norbert F. Beckey Bridge

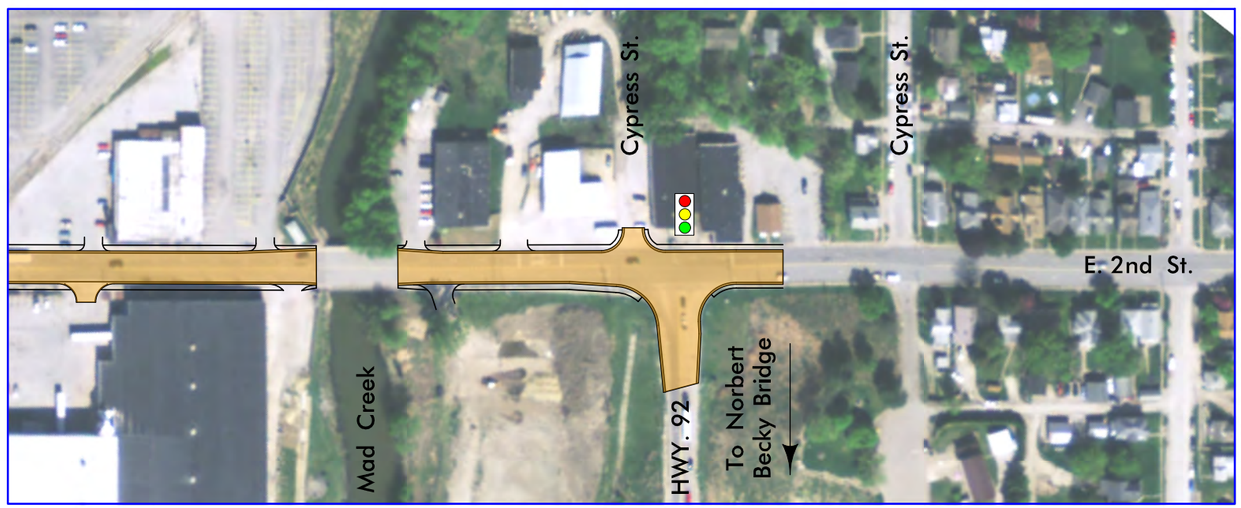
- Mountable Center Median (0-14 Feet Wide) – Between Green Street and Linn Street. The 0 foot wide mountable medians are proposed as painted centerline at the westbound left-turn lane of the Hershey Avenue/Green Street intersection and through the segment between Broadway Street and Spruce Street. The mountable median widens/tapers from 0 to 14 feet where a wider separation and channelizing of the through traffic is proposed.

- Channelized Left-Turn Lanes With Non-Mountable Median Islands (16 Feet Wide) – Between Linn Street and Walnut Street. Non-mountable medians taper to 4 feet wide where left-turn lanes are proposed.

Right-turn lanes were also added at the Iowa Avenue and Cedar Street intersections in the downtown area to allow right-turn queues to get out of the through traffic stream when trains traveling through Muscatine are present in the crossing.

There is an area along the corridor between Broadway Street and Linn Street referred to as the Bluff area. A natural bluff occurs on the north side, and the railroad line is located on the south side of Mississippi Drive, which limits the corridor width on both sides. Therefore, through this area the mainline is proposed to be two lanes with no median. A 7-foot wide walkway will be provided on the bluff side of the roadway.





0 FEET 100

(P) Pedestrian Access Across RR to Riverside Park and Trail

Existing Traffic Signal

AECOM

FIGURE 4
3–LANE ALTERNATIVE
PROPOSED ALTERNATIVE

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Designated loading zones are planned to be provided at key locations for trucks providing goods and services to businesses along Mississippi Drive. This will provide a safe area for loading and unloading trucks while not disrupting traffic. Also, this project would eliminate uncontrolled access areas along the roadway; however, all intersections would remain open.

4.3.2 Carver Corner Sub-Alternative (Conventional Intersection)

Several alternatives were under consideration at this location, including roundabout options. However, the Proposed Alternative for Carver Corner is the Conventional Intersection, shown in Figure 5.

4.3.2.1 Conventional Intersection Sub-Alternative. Under the Conventional Intersection, the south approach on Green Street would be aligned with the north leg, making intersection operations simpler and traffic signal operation more efficient. This alternative would be similar to the existing condition, both in appearance and operation.

Although this sub-alternative has significant impacts to the Puritan Ice Company (TeStrake property), it is favored by the City Council, public and local residents, as expressed at a public information meeting. It moves the travel lanes farther away from homes along Green Street, provides one large parcel for future development and gateway enhancements, while also meeting the purpose and need for the project.

4.3.3 Flood Control Alternatives

As part of the project, there are three options for addressing the flooding issues on Mississippi Drive. A demountable wall would only be placed at the Cedar Street and Iowa Avenue crossings and at the Sycamore Street pedestrian crossing under Alternatives 1 and 2. Two of the options would provide flood protection to a 554.0 flood elevation, which represents a 34-year flood event. The third option would provide flood protection to a 552.3 flood elevation, which represents an 18-year flood event.

Alternative 1: This alternative includes 2,332 feet of a mix of four types of flood barriers that would be placed along an existing fence line on the river side of the railroad. These four types of barriers include concrete curb, demountable wall, permanent cast-in-place, decorative concrete wall and earthen berm. Erecting a demountable wall is labor-intensive and requires space for storage of posts and barrier panels. The cost of this alterative is approximately $1,200,000.

Alternative 2: This alternative would be very similar to Alternative 1 but with a different mix of barrier types; more permanent decorative wall would be used in place of the demountable wall. This would not require as much labor to erect when a flood is eminent, and less storage space would be needed for posts and barrier panels. The cost of this alterative is approximately $1,200,000.

With Alternatives 1 and 2, it would also be necessary to construct a closure structure on the riverfront to prevent river water from “backing” into the storm sewer. The outfall storm sewers at Walnut and Mulberry would both be diverted to the proposed new closure structure. It would be necessary to provide temporary pumping at this structure to remove water collected by the inlets during rainfall events. Temporary plugs would have to be installed in the six inlets along Harbor Drive. A temporary plug would also have to be installed in one inlet in the Iowa Avenue intersection. Four manhole castings would have to be replaced with bolted and sealed covers.

Alternative 3 (Recommended Option): This alternative would not require any constructed barriers but would only provide protection for an 18-year flood event. This could be accomplished by employing the following modifications:

- Raise the intersection at Walnut Street to eliminate this “low spot” and divert drainage west and east to Cedar Street and Mulberry Avenue. Plug and abandon the storm sewer outfall from this intersection to the Mississippi River.

COVENTIONAL INTERSECTION

AECOM

FIGURE 5
PROPOSED ALTERNATIVE
CARVER CORNER AREA

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- Modify inlet piping on Harbor Drive to divert storm water to the east to the existing Mulberry outfall which enters the river.

- Install a closure structure and provide temporary pumping on the Mulberry Avenue outfall, as needed and similar to Alternatives 1 and 2, and install one temporary plug in one inlet at Iowa Avenue.

This alternative would provide flood protection for nearly all flooding experienced in Muscatine. Only four historical flood events have exceeded this level of protection. This is the least expensive option at approximately $450,000, and the recommended option.

4.4 Alternative Selection

Final selection of an alternative will not occur until Federal Highway Administration (FHWA) and Iowa DOT evaluate all comments received as a result of public and agency review of this EA and the public hearing on this document. Following public and agency review of this EA, FHWA and Iowa DOT will determine if an Environmental Impact Statement (EIS) is required. If an EIS is required, then a Preferred Alternative will be selected through that process.

If an EIS is not required, the selected alternative will be identified with a Finding of No Significant Impact (FONSI) document for this EA.

5. ENVIRONMENTAL ANALYSIS

This section describes the socioeconomic, cultural, natural and physical environments in the project corridor that will be affected by the proposed alternative. The resources with a check in the second column in Table 1, located at the beginning of this document, are discussed below. Figure 6 shows the general environmental constraints within the project area.

5.1 Socioeconomic Impacts

5.1.1 Land Use

Existing conditions were confirmed during field visits to the project area in spring 2011. In addition, various long-range plans for the area were collected and reviewed to determine future planned land uses in the area. The Mississippi Drive project is consistent with long-range planning and transportation plans for the area, including the city of Muscatine Comprehensive Plan and Bi-State Regional Commission's *Comprehensive Economic Development Strategy.*

The Mississippi Drive project is within the corporate limits of Muscatine, Iowa, which is a city defined by the Mississippi River. Existing land use in the corridor is a mix of residential, commercial, industrial and recreational. Starting at Main Street, land use is residential with single-family homes; it transitions to commercial and industrial land use near Carver Corner. Traveling north, land use on the west side of Mississippi Drive is again single-family residential until the downtown Central Business District (CBD) begins. The CBD extends from Linn Street to Mulberry Avenue. On the east side of Mississippi Drive, from Ash Street to Mulberry Avenue, land use is recreational, with the Mississippi River and Riverview Park paralleling the roadway. Land use transitions to industrial, then a mix of commercial and residential as the project moves north to 2nd Street and the end of the project.

5.1.1.1 No Build Alternative. Under the No Build Alternative, land use would remain as it is currently. No changes to Mississippi Drive would occur and thus any associated changes to land use would not occur. The No Build Alternative is not consistent with city and regional planning, as improvements to Mississippi Drive are included in plans, as mentioned above.

Green St.
Elm. St.
Bluff
Area
Mississippi Drive (Iowa 92)
DM&E RR
Hershey Ave.
Trail Connector
Running River Trail
RIVERSIDE PARK
Mississippi River
Pine St.
Chestnut St.
Iowa Ave.
Sycamore St.
Cedar St.
Walnut St.
Mulberry St.
E. 2nd St.
E. 2nd St.
Mississippi Drive (Iowa 92)
DM&E RR
Mad Creek
Cypress St.
E. 2nd St.
Oak St.
HWY. 92

P Pedestrian Access Across RR to Riverside Park and Trail

Existing Traffic Signal

NRHP – Eligible or Listed

Downtown Commercial Historic District

West Hill Historic District

0 100 FEET

AECOM

FIGURE 6
CORRIDOR CONSTRAINTS

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5.1.1.2 Proposed Alternative. The 3-Lane Aternative is consistent with current and future land-use plans as it will be constructed primarily within existing right-of-way.

5.1.1.3 Carver Corner Sub-Alternative (Conventional Intersection). The Conventional Intersection is also consistent with current and future land-use plans. This alternative provides opportunity for redevelopment in that area. It would provide the most space and appeal for redevelopment of all the alternatives considered (RDG, 2012).

5.1.2 Economic

The Mississippi Drive project corridor is dominated by the Central Business District through the downtown area, businesses at Carver Corner and businesses at the north end of the project. There is a wide range, including commercial, retail, restaurants and industrial businesses. None of the active businesses will be acquired as part of the project.

5.1.2.1 No Build Alternative. The No Build Alternative will not affect current economic activity within the Mississippi Drive project corridor.

5.1.2.2 Proposed Alternative and Carver Corner Sub-Alternative (Conventional Intersection). The businesses within the project area are concerned with access as several have direct access onto Mississippi Drive. Ensuring that their establishments can be reached by customers, both walk-up and vehicular, as well as the ability to ship and receive delivery vehicles is very important. During construction, continuous access will be available to businesses, but the access may be from an alternate route at times, depending on construction staging. Signage to direct drivers will be provided.

Two businesses (one total and one partial acquisition) in the Carver Corner area are anticipated to be acquired. One property (the partial acquisition) is being used primarily for storage. The total acquisition property has 1 to 4 employees. The loss of this business would have some impact to the tax base of the city of Muscatine. However, this should be offset in time because the city is planning to redevelop the southeast portion of the Carver Corner area following construction of the roadway.

Following construction, traffic will be slowed and pedestrian access will be improved. Therefore, it is anticipated that businesses along the Mississippi Drive Corridor and CBD will have improved visibility compared to current conditions.

5.1.3 Parks and Recreational Areas

There is one park in the Mississippi Drive project area named Riverside Park. This city-owned park is located along the Mississippi River riverfront, from Ash Street north to Oak Street between the river and the railroad tracks. It is approximately 14 acres in size and contains a picnic shelter, playground equipment, basketball court/skating rink, interactive fountain/splash pad, open space, a play field and restrooms; the Running River Trail (a 10-foot recreational trail) passes through Riverside Park.

5.1.3.1 No Build Alternative. No impact to Riverside Park would occur under the No Build Alternative.

5.1.3.2 Proposed Alternative. No right-of-way impacts to Riverside Park would occur under the 3-Lane Alternative. During construction, there could be some temporary closure of one or more accesses to the park, depending on how the construction is staged.

5.1.3.3 Carver Corner Sub-Alternative (Conventional Intersection). No parks or recreational facilities are located in the Carver Corner area so none will be affected.

5.1.4 Bicycle and Pedestrian Facilities

Currently there are several bicycle trails along the project corridor. A 10-foot wide recreational trail travels through the project, running parallel to the Mississippi River within Riverside Park. Near the bluff area of the project, but still in Riverside Park, the trail splits with one leg paralleling the railroad tracks. The trails rejoin near the north end of the park, then the trail continues north passing under the Norbert F. Beckey Bridge and extending out of the project corridor. Near the McKee Button Factory (Elm Street), the trail splits off and crosses the railroad to travel adjacent to Mississippi Drive, while the main trail continues along the river. This connector trail is the Hershey Avenue Access Trail (250 feet).

A sidewalk is provided on the west side of Mississippi Drive, from the beginning of the project at Main Street to Broadway Street. No sidewalks are provided in the bluff area, but sidewalks begin again within the CBD and extend to the north end of the project at the Norbert F. Beckey Bridge.

Pedestrian signalized crossings are available at three intersections with Mississippi Drive: Mulberry Avenue, Cedar Street and Iowa Avenue. Fencing along the railroad in Riverside Park is provided for safety, but there are access points in the fence for pedestrian-only crossings at Chestnut and Sycamore Streets and the Hershey Avenue Access Trail. Vehicle-pedestrian access is provided at Iowa Avenue and Cedar Street.

5.1.4.1 No Build Alternative. No impacts to any trails would occur and no changes would be expected under the No Build Alternative. It would not improve safety conditions for pedestrians, as crossings would still be wide and challenging for families with small children, bicyclists and others.

5.1.4.2 Proposed Alternative. The 3-Lane Alternative would be a narrower cross section with a center refuge for pedestrians to use while crossing, if needed, thereby improving the safety of the corridor. A 7-foot sidewalk would be added on the west side of Mississippi Drive through the bluff area to provide a safe and accessible access for pedestrians. During construction, there would be no disruption in use of most of the recreational trails along the Mississippi River; however, near McKee Button Factory, some disruption would occur as the project is tied into the existing trail. In addition, there would be some disruption of use of sidewalks throughout the project construction. These impacts would be temporary, only for the duration of construction. Overall, safety and access to pedestrians/bicyclists would be improved.

5.1.4.3 Carver Corner Sub-Alternative (Conventional Intersection). The Conventional Intersection would provide sidewalks on both sides of the roadway and crossings at the intersection. The proposed sidewalks would tie into existing sidewalks/trails so there would be continuity in access. To construct this alternative, there would be disruption of the existing sidewalks. As the sidewalk/trail is completed near the McKee Button Factory, some temporary disruption to the Running River Trail connection would occur. This is discussed further in the attached Draft Section 4(f) Statement.

5.1.5 Right-of-Way

Existing right-of-way widths in the project corridor vary, depending on the street. The approximate existing right-of-way widths are show below on Table 5. Potential right-of-way impacts are discussed below.

TABLE 5
EXISTING RIGHT-OF-WAY

Roadway	Segment	Approximate Range of Width
Grandview Avenue	Main Street – Hershey Avenue	60-61 Feet
Hershey Avenue	Grandview Avenue –Mississippi Drive	61 Feet
Mississippi Drive	Hershey Avenue – Iowa Avenue	88-101 Feet
	Iowa Avenue – Cedar Street	82-88 Feet
	Cedar Street – Mulberry Avenue	49-82 Feet
Mulberry Avenue	Mississippi Drive – 2nd Street	60-62 Feet
2nd Street	Mulberry Avenue – Norbert F. Beckey Bridge	59-60 Feet

5.1.5.1 No Build Alternative. The No Build Alternative would not require acquisition of any right-of-way.

5.1.5.2 Proposed Alternative. The 3-Lane Alternative would not require the acquisition of any right-of-way as it is wide enough to allow for the proposed improvements. It currently accommodates a 4-lane roadway, with parking along the side in many locations; and the proposed new roadway would have one less lane and no available parking. Therefore, no additional right-of-way is needed.

5.1.5.3 Carver Corner Sub-Alternative (Conventional Intersection). The Conventional Intersection would require approximately 3.8 acres of new right-of-way in the Carver Corner area. Also, two businesses would be acquired (one total and one partial acquisition) in order to construct this alternative.

All properties to be acquired would fall under the State of Iowa's Acquisition and Relocation Program. This program will be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Public Law 91-646), as amended, by the Surface Transportation and Uniform Relocation Assistance Act of 1987. The program provides relocation resources to all residential and business relocatees without discrimination. This includes just compensation for such acquired properties (42 USC 4601 et seq., as amended, 1989).

In addition, it is FHWA's policy that persons displaced from their property receive uniform and equitable treatment and do not disproportionately bear the impacts of a project that is intended to provide benefits to a larger group of people (U.S. Department of Transportation – Federal Highway Administration and Iowa Department of Transportation, 1999). FHWA has programs and policies that enforce the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, such as an early acquisition program to assist individuals who meet certain hardship criteria and policies to ensure comparable (that is, equal or better) property for business relocations.

It is the policy of the state of Iowa that displaced individuals and businesses receive fair and equitable treatment and do not suffer disproportionately from highway projects planned for the public as a whole. Persons required to relocate their business as a result of this or any highway project are eligible for relocation assistance and may be eligible for moving assistance and expenses incurred in searching for a replacement location. A relocation assistance agent will work with each relocatee to smooth the transition.

5.1.6 Construction and Emergency Routes

Maintaining traffic during construction is critical to ensure access to businesses and residences along the route while also allowing for emergency vehicles, if needed. Construction and emergency routes are discussed in the following paragraphs.

5.1.6.1 No Build Alternative. The No Build Alternative would not require any construction or emergency routes.

5.1.6.2 Proposed Alternative and Carver Corner Sub-Alternative (Conventional Intersection). Because the proposed project is part of the State and Federal Highway System, detour routes must be established which follow Iowa DOT guidelines. Detour routes will be reviewed and approved during the final design phase of the project. Local city detours may also be established to maintain traffic through the area. Coordination with city officials, as well as Iowa DOT, will be done as the project develops.

In order to best accommodate the needs of daily traffic through the city of Muscatine, the project is proposed to be constructed in stages. Stage 1 would be from Main Street to Sycamore Street, which includes Carver Corner; Stage 2 would be from Sycamore Street to the Norbert F. Beckey Bridge intersection. Since there is parking along the riverfront, it will be necessary to keep one of the accesses to the riverfront area open at all times, either Iowa Avenue or Cedar Street, to allow for public parking. Signage on adjacent routes to direct drivers to the open access may be necessary during construction.

Close coordination with HON Industries and other local downtown businesses during construction will be necessary to minimize any impacts to the operations of those businesses.

5.2 Cultural Impacts

As part of the Mississippi Drive project, a Phase 1A Cultural Resources Assessment of architectural and archaeological resources was conducted in May 2011. The report, dated May 24, 2011, stated that the corridor evaluated ranged from 60 to 155 feet.

In January 2012, a Phase I Archaeological Investigation for the Proposed Mississippi Drive Corridor was completed. The surveyed area covered 15.5 acres and made recommendations for further testing of several areas.

In November 2013, a Supplemental Phase I Survey was completed to further investigate two of the sites identified in previous surveys. In addition, a Phase II Archaeological Investigation was done on Site 13MC242. An intensive level architectural survey was conducted on five buildings on Green Street. The results of these reports are discussed in the following sections.

5.2.1 Historical Sites or Districts

The Phase 1A architectural review found 128 previously surveyed properties and 22 previously unsurveyed resources within the project corridor. The Downtown Commercial Historic District is adjacent to the project, and 47 of the 128 previously surveyed properties are in this district. Also, the West Hill Historic District is adjacent to the corridor, of which 23 of the 128 of the previously recorded properties are located. Seven properties were identified as individually listed on the National Register of Historic Places (NRHP).

An intensive level survey was conducted on five buildings along Green Street in April 2012. According to the report, all of the properties are considered not eligible for listing on the NRHP.

5.2.1.1 No Build Alternative. The No Build Alternative would not impact any historical sites or districts.

5.2.1.2 Proposed Alternative. The 3-Lane Alternative would not directly impact any structures within the project corridor. There are numerous properties considered to be eligible for listing on the NRHP that are less than 100 feet from the proposed construction. These properties may require vibration monitoring or special construction methods that would limit the potential for producing vibrations, such as sawcutting pavement to be removed.

5.2.1.3 Carver Corner Sub-Alternative (Conventional Intersection). Based on prior surveys, there are four NRHP-eligible properties in the Carver Corner area. A supplemental survey was conducted to evaluate another five properties in this area along Green Street. None were determined to be eligible for listing on the National Register. The State Historic Preservation Office (SHPO) concurred with this finding on May 14, 2012 (see letter in Appendix B). Of the four NR-eligible properties in the Carver Corner area, one will be impacted by the project. This property is known as the Puritan Ice Company, a commercial property located at 205-207 Green Street. In accordance with FHWA guidelines and requirements, a Section 4(f) Statement has been prepared to address the impacts to this property. The Draft Section 4(f) Statement appears at the back of this document. A Memorandum of Agreement for the mitigation of this structure appears in Appendix B of the Draft Section 4(f) Statement.

5.2.2 Archaeological Sites

Archaeological resources along the Mississippi Drive Corridor must be determined as part of the project. For this project, a Phase 1A archaeological assessment was conducted in May 2011 which used information from previous surveys and other databases to locate known sites and the potential for other significant sites in the project corridor.

The Phase 1A archaeological survey found that six previous archaeological surveys had been conducted within or adjacent to the project corridor. Those surveys covered approximately one-third of the project corridor. Several potential historic archaeological resources were identified that would require additional survey to determine their significance.

5.2.2.1 No Build Alternative. The No Build Alternative would not impact any archaeological sites.

5.2.2.2 Proposed Alternative and Carver Corner Sub-Alternative (Conventional Intersection). Following the results of the Phase 1A archaeological assessment, a Phase I Archaeological investigation was completed in January 2012. It examined seven potential archaeological sites in and/or adjacent to Mississippi Drive. Of the seven sites, three were not able to be evaluated. Historical records for two of them are located under the Mississippi Drive pavement, and the third is on a private property for which access was denied. The two potential sites located under Mississippi Drive will be monitored during construction to determine their presence and, if so, their National Register eligibility.

The remaining potential sites, including the site where access was denied, will need to be evaluated further if project construction cannot avoid them. The Iowa SHPO concurred with this investigation on February 7, 2012 (see letter in Appendix B).

A Supplemental Phase I investigation was conducted in November 2013 to examine two sites (13MC325 and 13MC326) along Mississippi Drive. As a result, neither site is recommended eligible for the NRHP. SHPO concurred with this recommendation on _____ (see letter in Appendix B).

Four sites remain (13MC297, 13MC323, 13MC324 and the Russell Farnham Cabin) whose archaeological significance has not been established because the majority of the sites are located under Mississippi Drive. Therefore, monitoring for these sites will occur during construction. Iowa DOT, FHWA, SHPO and the city of Muscatine agreed to the conditions of monitoring in a Memorandum of Agreement (see Appendix B of the attached Section 4(f) Statement).

Also in November 2013, a Phase II Archaeological survey was conducted on one site (13MC242) within the project area. This site was determined not eligible for the NRHP. SHPO concurred with this recommendation on _____ (see letter in Appendix B).

5.3 Natural Environment Impacts

5.3.1 Surface Waters and Water Quality

The Mississippi Drive Corridor is dominated by the Mississippi River which runs parallel to and adjacent with the project. Although the river is less than 300 feet from Mississippi Drive in the downtown area, it will not be crossed or encroached upon. The downtown portion of Mississippi Drive occurs within the 100-year floodplain, which results in flooding and subsequent closure of the roadway. This project includes proposed changes to address this flooding. This issue is discussed in more detail below in the Flood Plain section.

Historically, Papoose Creek flowed through the CBD and discharged into the Mississippi River at the foot of Sycamore Street. The creek was enclosed in a very large, buried, brick-arch sewer in the 1890s and has functioned ever since as a combined sewer carrying both storm and sanitary sewage to the Papoose Creek Pump Station on the riverfront. During dry weather and small rainfall events, all combined sewage is pumped to the Wastewater Treatment Plant in the southern part of Muscatine. During heavy rains, the pumps cannot keep up, and combined sewage overflows into the river. A sewer project is currently underway that will ultimately separate storm and sanitary sewers that are tributary to Papoose Creek Sewer, subsequently eliminating this CSO (Combined Sewer Overflow). This project is scheduled for completion by the year 2028.

Another stream, Mad Creek, lies within the project corridor. It crosses 2nd Street just south of the Norbert F. Beckey Bridge (Iowa 92) intersection before flowing into the Mississippi River. The city of Muscatine has no

plans to replace or upgrade this bridge as part of this project. Therefore, impacts to this stream are not anticipated or would be minor and temporary during the construction of the adjacent roadway.

5.3.1.1 No Build Alternative. No impacts to surface waters or water quality would occur with the No Build Alternative. There would be no construction to impact Mad Creek, Papoose Creek Sewer or the Mississippi River from the No Build Alternative.

5.3.1.2 Proposed Alternative and Carver Corner Sub-Alternative (Conventional Intersection). Construction of the 3-Lane Alternative and the Conventional Intersection would not be expected to impact the Mississippi River, Papoose Creek Sewer or Mad Creek.

As part of the proposed roadway improvements, sustainable storm water management strategies will be implemented. Sustainable storm water management practices have many benefits, including reduced runoff volumes, reduced peak flow rates, increased filtration and contaminated spill containment. Some of the strategies suggested for the Mississippi Drive project include dry swales, bio-retention cells, storm water planters and permeable pavement. Any of these strategies would help improve the water quality of Mad Creek and the Mississippi River.

The contractor would be required to implement Iowa DOT's Construction Manual to minimize temporary impacts on water quality during construction. The Iowa DNR administers the Federal National Pollutant Discharge Elimination System (NPDES) program and issues general permits for storm water discharges from construction activities. The purpose of the program is to improve water quality by reducing or eliminating contaminants in storm water. The NPDES program requires preparation of a Storm Water Pollution Prevention Plan (SWPPP) for construction sites of more than 1 acre.

The specific sediment, erosion control and spill prevention measures would be developed during the detailed design phase and would be included in the plans and specifications. The SWPPP would address requirements specified 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 is likely to include installation of silt fences, buffer strips or other features to be used in various combinations, as well as the stipulation that drums of petroleum products be placed in secondary containment to prevent leakage onto ground surfaces. A standard construction best management practice (BMP) is re-vegetation and stabilization of roadside ditches to provide opportunities for the runoff from the impermeable area 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.

5.3.2 Flood Plains

Executive Order 11988, Flood Plain Management (42 CFR 26951), requires that federal agencies identify potential flood plain encroachment of projects they fund and assess the impacts of this encroachment on the human health, safety and welfare, and on the natural and beneficial values of the flood plain. The Mississippi River parallels the project corridor, with a portion of Mississippi Drive located within the 100-year floodplain.

Mississippi Drive has flooded numerous times over the years, requiring road closure and traffic detouring. Most historical flooding has been confined to the 4-block roadway segment between Iowa Avenue and Mulberry Avenue. The two lowest intersections are at Sycamore and Walnut Streets. The intersections at Iowa, Cedar and Mulberry lie somewhat higher and flood less frequently.

Roadway flooding is exacerbated and, at times, caused by the existing sewer system. Inlets in the intersections at Walnut and Mulberry are collected by storm sewers that discharge directly into the Mississippi River. When river water elevations rise, the water "backs out" of these inlets into the roadway. The intersection at Walnut begins flooding at a river elevation of 549.7 (a 7-year flood event) and at Mulberry at 551.62 (a 15-year flood event). The Sycamore intersection, although nearly as low as the Walnut intersection, does not flood until the river exceeds elevation 552.0 (a 17-year flood event). As rising water in the Walnut intersection exceeds 552.0, it spills over the Cedar Street intersection and runs downhill into the Sycamore intersection. Two inlets in the

Sycamore intersection are directly connected to an existing storm sewer (the Papoose Creek sewer) and would begin flooding the intersection at elevation 550.2 as the river rises inside Papoose Creek Sewer; however, existing slide gates are closed to prevent this from happening. Table 6 below lists the flood event frequencies and elevations.

TABLE 6
FLOOD EVENT FREQUENCIES (BASED ON 1988 DATUM)

Event	Elevation
2-Year	545.32
Flood Stage	546.51
5-Year	548.97
10-Year	550.62
18-Year	552.30 (Flood of 2011)
25-Year	553.07
50-Year	554.87
99-Year	556.12 (Record Flood of July, 1993)
100-Year	556.42
500-Year	557.57

The eastbound lanes at the Walnut Street intersection are completely covered with water at elevation 550.50 (a 10-year flood event), and Mississippi Drive would likely close at this elevation if the river is expected to continue rising.

5.3.2.1 No Build Alternative. Under this alternative, no changes to the roadway, storm sewer or flood protection would occur, and Mississippi Drive would continue to flood every 10 years. The city has a well-developed response plan for closing the roadway and diverting traffic. Traffic is disrupted and a few businesses are inconvenienced, but damage from a 10-year flood, or even a 25-year flood, is generally minimal.

There are costs associated with this alternative, including placing/retrieving detour signage, but post-flooding clean-up on the riverfront would be required whether a new protection plan is implemented or not.

5.3.2.2 Proposed Alternative. As part of the 3-Lane Alternative, there are three options for addressing the flooding issues on Mississippi Drive. A demountable wall would only be placed at the Cedar Street and Iowa Avenue crossings and at the Sycamore Street pedestrian crossing under Alternatives 1 and 2. Two of the options would provide flood protection to a 554.0 flood elevation, which represents a 34-year flood event. The third option would provide flood protection to a 552.3 flood elevation, which represents an 18-year flood event. This is the recommended option. All three alternatives are discussed above in Section 4.3.3.

5.3.2.3 Carver Corner Sub-Alternative (Conventional Intersection). No special flood protection is needed or required in this portion of the corridor as flooding is not an issue in the Carver Corner area.

5.4 Physical Impacts

5.4.1 Contaminated and Regulated Materials Sites

In November 2010, a review and database search of potentially contaminated sites was done within the project area. Sites were found to be located within the proximity of the project. These are discussed below in the following sections.

5.4.1.1 No Build Alternative. No Recognized Environmental Conditions (REC) listed would be impacted under the No Build Alternative. No ground disturbance would occur, and thus no additional studies or remedial action would be necessary.

5.4.1.2 Proposed Alternative. The 3-Lane Alternative is in the proximity of four sites, summarized in Table 7 below.

TABLE 7
SITES OF RECOGNIZED ENVIRONMENTAL CONDITIONS
ALONG MISSISSIPPI DRIVE

Site Address	Environmental Category*	Potential Impact
1000 Hershey Avenue	CERC-NFRAP; RCRA-SQG; TRIS	No impact; no right-of-way from the property.
109 Pine Street	RCRA-Conditionally Exempt SQG	New storm sewer and roadway construction adjacent to this building; no right-of-way from the property and therefore no impact.
101 Walnut Street	LUST With No Further Action Required According to Iowa DNR	New storm sewer and roadway construction adjacent to this building; no right-of-way from the property and therefore no impact.
Orange and 2nd Streets	CORRACTS Database; RCRA-TSDF; TRIS	No impact likely; no excavation through this site nor new storm sewer.

*CERC-NFRAP: Comprehensive Environmental Response, Compensation and Liability Information System-No Further Remedial Action Planned
RCRA-SQG: Resource Conservation and Recovery Act-Small Quantity Generator (Generates 100kg to 1000kg of Hazardous Waste per Month)
TRIS: Toxic Chemical Release Inventory System (Identifies Facilities That Release Toxic Chemicals Into the Air, Water and Land in Reportable Quantities)
RCRA-Conditionally Exempt : SQG (Generates Less Than 100 kg of Hazardous Waste or Less Than 1 kg of Acutely Hazardous Waste per Month)
LUST: Leaking Underground Storage Tank
CORRACTS: List of Handlers with RCRA Corrective Action Activity
RCRA-TSDF: Resource Conservation and Recovery Act-Treat, Store or Dispose Facility of Hazardous Waste

A Phase 1 Environmental Site Assessment (ESA) was conducted at 1000 Hershey Avenue in December 2009. It concluded that no further action was required. A Phase 1 ESA was conducted at 109 Pine Street in April 2011, and it concluded that further testing of site soils and groundwater be performed if right-of-way were to be acquired from this property. During the final design and construction stages of this project, these areas in question will be evaluated to ensure there is no impact or that further testing is required. The other two sites (109 Pine Street and Orange and 2nd Streets) are not anticipated to be impacted by the project.

5.4.1.3 Carver Corner Sub-Alternative (Conventional Intersection). The November 2010 review found a contaminated site in the Carver Corner area at 1030 Hershey Avenue. This is the site of a former LUST site. A Phase I ESA was conducted in August 2010 at this site and found that it consisted primarily of petroleum products. A contamination plume was discovered to extend between 1030 Hershey Avenue and 1056 Hershey Avenue. The Conventional Intersection is not anticipated to impact the site.

Further testing to evaluate the site prior to construction activities will be done. Also, proper precautions will need to be taken during construction to ensure the safety of workers in the area.

5.4.2 Visual

Visual impacts can be described in two ways: views from a vehicle traveling on the roadway and views of the roadway from pedestrians, residents and others adjacent to the facility. The viewshed of the Mississippi Drive

Corridor is dominated by the Mississippi River which has a significant influence on the character and feeling of the corridor, downtown and city as a whole. The city of Muscatine has worked to improve the viewshed of the river through the downtown area over the past several years. Many improvements have been added along the riverfront to enhance the city, such as bike trails, green space and sculptural artwork. The improvement of Mississippi Drive is one element of the overall visual improvement planned by the city of Muscatine.

5.4.2.1 No Build Alternative. No visual impacts would occur under the No Build Alternative. The roadway would remain unchanged, thus the views from the roadway and of the roadway would remain the same.

5.4.2.2 Proposed Alternative. Drivers traveling along Mississippi Drive would not have a significantly different view. However there would be distinct crosswalks for pedestrians and potentially new wayfinding and interpretive elements within the corridor. Other enhancements may be added near the Norbert F. Beckey Bridge to act as a sort of gateway to Iowa and the city of Muscatine. These will be added as funding becomes available. Overall, the view for a driver would be improved.

For pedestrians/bicyclists, the view would also be similar; however, they would have a narrower, safer crossing on distinct crosswalks. Potential enhancements would be added in the form of wayfinding, interpretive elements and plantings. The view for pedestrians would be improved.

5.4.2.3 Carver Corner Sub-Alternative (Conventional Intersection). The Carver Corner area also has opportunities for some gateway-type enhancements if funding is available. These could include plantings, interpretive elements or other features. With the Conventional Intersection, the visual focus could be located on the west edge of the newly aligned roadway. The view for a driver or pedestrian would be improved since the area would be opened up and available for redevelopment.

5.4.3 Utilities

This project is located in an urban setting so there are a full range of utilities within the corridor, including water mains, gravity sewers, force mains, gas pipelines, fiber optic cables, telephone and communication lines, storm sewer and electrical transmission lines.

5.4.3.1 No Build Alternative. The No Build Alternative would not impact any of the utilities along the corridor.

5.4.3.2 Proposed Alternative. Water mains occur along the entire project corridor. Muscatine Power & Water, the city's public utility provider, will be encouraged to improve or replace any aging mains, services and valves. This improvement will be the decision of Muscatine Power & Water; but at a minimum, valve box elevations will require adjustment to provide installations flush with the new pavement.

Gas, telephone and fiber optic/communications lines are not expected to be impacted by the proposed roadway improvements.

Some storm sewer modifications are proposed as part of the roadway improvement in the 4-block vicinity of Iowa to Mulberry where flooding is prevalent. The existing storm sewer system has inlets at Walnut and Mulberry that discharge directly into the Mississippi River. When the river elevations rise, the water can back up into the roadway. There are options for correcting this situation, as described above in Section 4.3.3. This alternative would not require any constructed floodwall barriers and would only provide protection for an 18-year flood event but is the least costly of the three alternatives. This alternative would provide flood protection by raising the intersection at Walnut Street, modifying inlet piping on Harbor Drive to divert storm water and install a closure structure, and provide temporary pumping on the Mulberry Avenue outfall, as needed.

Currently, electrical transmission lines are above ground. It is recommended these be buried during construction of the proposed roadway. If, however, this is not fiscally feasible, installing necessary conduits and manholes at the time of roadway construction would be prudent. This improvement will be the decision of Muscatine Power and Water, in conjunction with the city of Muscatine. The exact location of the potential improvements is not known at this time.

5.4.3.3 Carver Corner Sub-Alternative (Conventional Intersection). Water mains occur along the entire project corridor. Muscatine Power & Water will be encouraged to improve or replace any aging mains, services and valves. This improvement will be the decision of Muscatine Power & Water; but at a minimum, valve box elevations will require adjustment to provide installations flush with the new pavement.

Gas, telephone and fiber optic/communications lines are not expected to be impacted by the proposed roadway improvements.

Some storm sewer improvements are proposed in the Carver Corner area to increase its carrying capacity, replace existing inlets, and to accommodate the realigned roadway and intersection improvements.

Overhead electrical transmission lines go behind the McKee Button Factory and continue southwest and do not rejoin the corridor. Therefore, no changes in the Carver Corner area are planned.

5.5 Cumulative

This section addresses cumulative impacts of other projects on and near the Mississippi Drive project corridor over time. Cumulative impacts are the combination of direct and indirect impacts of the Mississippi Drive project added to the impacts of other past, present and reasonably foreseeable action of other projects. For a project to be reasonably foreseeable, it must have advanced far enough in the planning process that its implementation is likely. Reasonably foreseeable future actions are not speculative, are likely to occur based on reliable sources, and are typically characterized in planning documents.

5.5.1 Past Actions

Mississippi Drive (Iowa 92) through the Central Business District area was the primary travel route through Muscatine until 1985 when Iowa DOT constructed a U.S. 61 bypass on the western side of the city. This 4-lane roadway took much of the traffic from Mississippi Drive, which resulted in lower traffic volumes through downtown Muscatine.

In the mid-1980s, the city of Muscatine invested $20 million to redevelop the Mississippi River waterfront. The city worked to remove industrial businesses from this area to create more aesthetic and recreational open space areas. The parks, trails and open space now allow an unobstructed view of the Mississippi River from the downtown area.

The city of Muscatine recently completed a trail extension from Weed Park to Solomon Avenue which ultimately connects to Wildcat Den State Park. This extension is approximately 1.5 miles in length. The trail adds a link so that now a bicyclist can ride on a paved surface, with the exception of 1 mile of granular trail from Wildcat Den State Park south into Muscatine at Musser Park, south of the Mississippi Drive project corridor. The cost of this trail link was $450,000 and it was completed in late 2011.

The Mad Creek Levee Project is under construction by the U.S. Army Corps of Engineers in an agreement with the city of Muscatine. This project will extend the flood protection for the Mad Creek corridor and was completed by late fall 2012.

5.5.2 Present Actions

The city of Muscatine has a project underway to improve and enhance Cedar Street, from Parham Street to Houser Street. In 2012, this project phase is for the utility work. In 2014, Cedar Street was expected to be reconstructed and widened to allow for a bike lane. Iowa Highway 22 enters Muscatine from the west and becomes Cedar Street, which continues directly downtown. Traffic during construction will be disrupted with detours and potential delays.

Phase 2 of the West Hill Sewer Separation Project is currently under construction. This project will continue until the year 2028 and will ultimately separate all sewers tributary to Papoose Creek Sewer and eliminate the present combined sewer overflow described in Section 5.3.1.

5.5.3 Future Actions

The city of Muscatine has a recreational trail extension in the 2014 Capital Improvement Plan. The Mississippi River Trail travels along the Mississippi River and ends at Musser Park, south of the Mississippi Drive project corridor. The trail extension would be from Musser Park south to Wiggins Road.

Cedar Street reconstruction, from Houser Street to U.S. 61, is listed as a street improvement project in the Capital Improvement Plan for fiscal year 2015. This project would be a continuation of the ongoing Cedar Street project. The cost of this reconstruction is listed at $3 million.

As part of the city of Muscatine's Comprehensive Plan, critical issues were identified. One of the issues listed is the need to create gateways or entrances into the city. These would be located at prominent existing or proposed entries into the city. These gateways would provide visual welcoming elements for the driver. Visual elements could include vegetative landscaping, rock landscaping, signage and lighting. As part of the Mississippi Drive Corridor project, improving aesthetics and adding welcoming features have been considered. These elements will be added and incorporated into the project as funding becomes available.

5.5.4 Conclusion

The overall cumulative impact of the Mississippi Drive project and the consequences of subsequent related actions to resources examined in this EA have been evaluated and are not considered to be collectively significant.

5.6 Summary and Comparison of Alternatives

Resources not discussed in the body of the EA are located in the Streamlined Resource Summary (Appendix A). The resource summary includes information about the resources, the method used to evaluate them, and when the evaluation was completed.

This section summarizes the impacts of the No Build Alternative, the Proposed Alternative and the Conventional Intersection at Carver Corner for the improvements to the Mississippi Drive Corridor. The impacts discussed within the body of the EA and general features of each alternative are summarized below in Table 8.

TABLE 8
SUMMARY OF IMPACTS

	No Build Alternative	Proposed Alternative	
		3-Lane Alternative	Conventional Intersection
Length (Mi.)	**1.6**	**1.6**	**NA**
Right-of-Way Acquired (Acres)	**0**	**0**	**3.8**
Businesses Displaced	**0**	**0**	**2 (1 Total and 1 Partial)**
Homes Displaced	**0**	**0**	**0**
Compatible with Land-Use Plans	**No**	**Yes**	**Yes**
Reduces Flooding of Mississippi Drive	**No**	**Yes**	**NA**
Archaeology Sites Impacted	**0**	**0-4**	**0**
Historic Properties Impacted	**0**	**0**	**1**
Visual	**No Change**	**Beneficial Change**	**Beneficial Change**
Utilities	**No Change**	**Requires Some Storm Sewer Modification**	**Minor Impact**
Bike Trail Impacts	**No**	**Temporary During Construction**	**Temporary During Construction**
Park Impacts	**No**	**No**	**No**

NA – Not Applicable

6. DISPOSITION

This Streamlined EA concludes that the proposed project is necessary for safe and efficient travel within the project corridor and that the proposed project meets the purpose and need. The project will have no significant adverse social, economic or environmental impacts of a level that would warrant an environmental impact statement. Alternative selection will occur following completion of the public review period and public hearing. Permits that will be required for this project include an NPDES permit and a construction permit for work done on Iowa DOT right-of-way. Also, stipulations of the Memorandum of Agreement for cultural resources must be met as this project moves forward.

The proposed project is included in the Transportation Improvement Plan for FY 2012 and 2013, with $8.5 million for road reconstruction.

7. COMMENTS AND COORDINATION

7.1 Agency and Tribal Coordination

Early agency coordination was initiated in November 2010 through letters to local, state and federal agencies to solicit input on the proposed Mississippi Drive project. Coordination response letters appear in Appendix B. The agencies contacted are listed below.

Federal Emergency Management Agency
Federal Railroad Administration
U.S. Army Corps of Engineers
U.S. Department of Interior – Office of Environmental Policy & Compliance
U.S. Environmental Protection Agency Region VII
U.S. Fish and Wildlife Service
Iowa Department of Cultural Affairs
Iowa Department of Natural Resources
Bi-State Regional Commission
Muscatine Chamber of Commerce
Muscatine County Engineer
Muscatine Historical Preservation Commission
Muscatine Public Works
Muscatine Parks and Recreation Department
Honorable Mayor Richard O'Brien and City Council
Melon City Bike Club
American Discovery Trail Society
Iowa Natural Heritage Foundation
IC&E Railroad
Canadian Pacific Railroad
Honorable Senator James Hahn
Honorable Representative Nathan Reichert

Iowa Tribe of Kansas and Nebraska
Iowa Tribe of Oklahoma
Otoe-Missouri Tribe
Sac & Fox Nation of the Mississippi in Iowa
Sac & Fox Nation of Missouri
Sac & Fox of Oklahoma
Winnebago Tribe of Nebraska

*Agencies responding to early coordination are shown in **bold**.

Comments received include:

- Bi-State Regional Commission commented that this project is consistent with long-term plans and is an important project in the Bi-State region.

- Iowa Department of Natural Resources, Conservation and Recreation Division, said the Slender Dayflower, a state-threatened species, is known to occur within the railroad right-of-way between Mississippi Drive and the Mississippi River. (A survey was conducted for the plant, but it was not found within the project corridor.)

- Iowa Department of Natural Resources, Budget and Finance Bureau, stated no Section 6(f) lands occur within the city of Muscatine.

- Iowa Department of Natural Resources, Environmental Services Division, commented that according to their records, five contaminated sites were found in the project area. A list of underground storage tanks was also attached.

- State Historical Society of Iowa mentioned previous studies completed and the need for continued coordination as this project moves through the Section 106 process.

- U.S. Army Corps of Engineers, Rock Island District, stated that no concerns surfaced at this time; however, if the project would disturb any wetlands or other waters of the U.S., further coordination would be required.

- The Sac & Fox Nation of the Mississippi Nation in Iowa stated that they would like a copy of the archaeology report and continued notification on this project.

- Canadian Pacific Railroad asked about potential right-of-way impacts to the railroad corridor.

7.2 Public Involvement

A public information meeting was held on May 11, 2011, at the Stanley Consultants Auditorium in Muscatine, Iowa. Approximately 25 people attended the meeting. The intent of this meeting was to gain input from the public about issues, concerns and suggestions along the corridor. The following major issues and comments were expressed at the meeting:

- Concern that it is dangerous to cross the road (Mississippi Drive) and railroad to go from riverfront/parking to businesses.

- Comments about using signage/wayfaring to direct people to parking, businesses, amenities, bike trails, etc.

- Suggestion that the project plan should integrate traffic calming.

- Comments were made in favor of a roundabout at Carver Corner and in opposition to a roundabout at this location.

- Suggestion at Carver Corner to smooth the curve.

- Statement that the 3-lane concept adds safety.

- Comment about improving the intersection at Norbert F. Beckey Bridge and 2nd Street so it is wider and more open.

- Comment that solving the flooding issue on Mississippi Drive is key.

- Comments regarding accommodating pedestrian traffic.

- Requests to use local artists for enhancements, have a cultural diversity focus on the HNI overpass, and prioritize beautifying downtown.

- Suggestion to use a removable flood barrier on the river side of the railroad tracks from the Mulberry and Mississippi Drive intersection to the levee.

A second public information meeting was held on October 12, 2011, at Riverview Center in Muscatine, Iowa, to present alternatives for the Mississippi Drive Corridor and gain input on these alternatives. This meeting was attended by approximately 54 persons. Comments and concerns are summarized below.

- A question was asked regarding the 3-lane option's ability to accommodate increased development. The response was that the 3-lane can accommodate most future development. If a large event center were added, some challenges to the level of service may occur.

- There were questions about the roundabout option at Carver Corner regarding safety and its ability to accommodate trucks. The response was that they are safer than traditional intersections and can accommodate truck traffic.

- There were a few comments that said multi-use trail is not necessary on both sides of the roadway.

- A few people expressed they were in favor of the 3-lane option.

- Comments regarding flooding were mentioned, such as addressing the issue of the storm sewer backing up along Mississippi Drive and flooding at the intersection of Iowa Avenue and Mississippi Drive.

- A suggestion was made to consider retention ponds and/or permeable pavement between the railroad tracks and the river.

- There were comments both for and against the "sweeping curve" option at Carver Corner.

- One person commented that there is not enough traffic to warrant the 5-lane option.

- There were several comments for and against the "roundabout" option at Carver Corner.

- The need to make this corridor pedestrian friendly and safe to cross was expressed by a few participants.

- Aesthetic issues were brought up in comments, including the need to remove some existing buildings near the Norbert F. Beckey Bridge and near Carver Corner.

- There was a concern that landscaping could be costly and any done should require "zero" maintenance.

- Having trees is important, but placing trees to hide degraded buildings will not solve the issues.

- There were some comments that the project should maintain historic structures and adapt them for future development, and especially preserve noted historic buildings such as the McKee Button Factory.

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Recycle The Dress Event 2014

RESCHEDULED EVENT!

Over the past two years, over 200 Muscatine County and surrounding area high school girls have participated in Recycle the Dress! It is back for the third year!

Recycle The Dress Event 2014!

Bring your friends and try on as many dresses as you like! First come, first serve! We have dresses, shoes, jewelry, and handbags.

Saturday, February 8, 2014

9:00 am - 2:00 pm.

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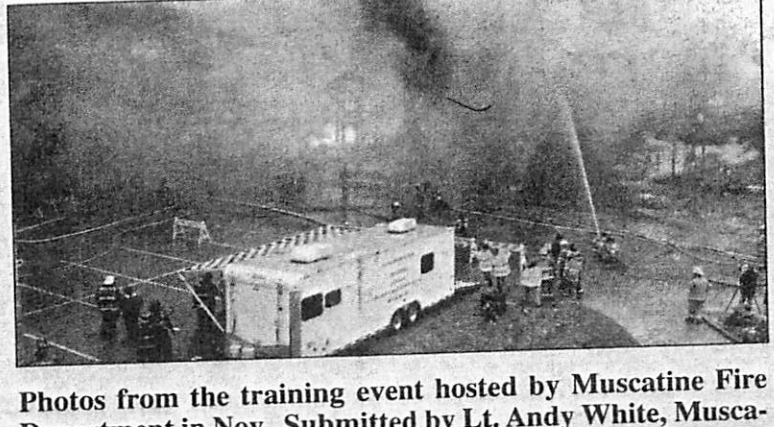
Muscatine Fire Department hosted a training event on Nov. 16 that involved live fire training in four homes simultaneously. Then at the end of the day, all four houses were burned at the same time. A total of 200 firefighters from 24 agencies, six counties and two states attended. This large event took three months to plan. A formal IAP was written and executed. The entire event was NIMS compliant and was run under one incident commander with four area commanders. See more information and photos inside. Submitted by Lt. Andy White, Muscatine Fire Department.

Muscatine Fire Department hosted a training event on Nov. 16 that involved live fire training in four homes simultaneously. The houses were donated by the Muscatine School District to the Muscatine Fire Department for training use. The Muscatine Fire Department decided to hold the largest training event the region has ever had the chance in which to participate. They decided that at the end of the day, all four houses would be burned at the same time. A total of 200 firefighters from 24 agencies, six counties and two states attended. This large event took three months to plan. A formal IAP was written and executed. The entire event was NIMS compliant and was run under one incident commander with four area commanders (each in charge of one house).

There were 33 evolutions held during the day. Each evolution involved 80 firefighters, six pump operators, 16 command staff and eight executive command staff. A total of 110 people per evolution times 33 evolutions in the day. The 33 evolutions with live fire in four homes involved 33 fire attacks, 33 ventilations, 33 search and rescue operations, 33 fire development evolutions, 33 incident command evolutions, 132 staging officer evolutions, 12 radio frequencies utilized, 188 firefighters on scene and accounted for at all times, 45 pieces of fire apparatus on scene, 66 relay pump evolutions, 132 pump operator evolutions, 1,504 man hours of training (volunteers and career combined). Photos and information submitted by Lt. Andy White, Muscatine Fire Department.

Worthington Fire Department held their annual Christmas Party on Jan. 4, with retired member Rod Meyer, after 33 years of service on the department. Al Esch, President of the IFA, was present to honor Rod for his years of service. From left to right are: Al Esch, Rod Meyer and Fire Chief Rick Wolfe.



Photos from the training event hosted by Muscatine Fire Department in Nov. Submitted by Lt. Andy White, Muscatine Fire Department.

Upcoming Events

Feb. 15, 2014: Tama Fire Department's Annual Ball, 8 p.m. to midnight, Eagle's Club, 112 East 3rd St., Tama. Live music by band Limited Edition. Donation $5

NOTICE OF MEETING OF THE BOARD OF TRUSTEES
MUNICIPAL FIRE AND POLICE RETIREMENT SYSTEM OF IOWA
THURSDAY, FEBRUARY 27, 2014 10:00 am

LOCATION: MFPRSI OFFICES 7155 LAKE DRIVE SUITE 201, WEST DES MOINES, IA, 50266
OFFICE PHONE: (888) 254-9200

PRELIMINARY AGENDA [See Notes 1, 2, 3, 4 below]

MANAGERS

A. SERVICE FIRMS REVIEW: INVESTMENT MANAGERS

CONSENT ITEMS

MINUTES B. MINUTES AND SCHEDULES
1. **REVIEW & APPROVAL OF MINUTES OF PREVIOUS MEETING(S)**
2. **SCHEDULES – CALENDARS – CONTRACT SUMMARY**

FINANCIAL C. FINANCIAL REPORTS
1. **STATUS & ANY PROPOSED MODIFICATION OF THE BUDGET**
2. **MEDICAL BOARD CONTRACT RENEWAL**

ACTIVITY D. BENEFIT ACTIVITY REPORTS
1. **COMMUNICATION PROGRAM ACTIVITY**
2. **DROP PROGRAM ACTIVITY UPDATE**

PROJECTS E. DEVELOPMENT PROGRAM REPORTS
1. **LEGISLATIVE REPORT**

DISCUSSION/ACTION ITEMS

F. BOARD INQUIRIES & ANY MISC. DISCUSSION ITEMS

G. DISCUSSION OF LEGAL MATTERS, IMMINENT/PENDING LITIGATION CASES (NONE)

H. CONSIDERATION OF & DETERMINATION ON APPEAL CASE (VEASLEY & OUTLAW)

I. INVESTMENT PROGRAM UPDATE

J. INVESTMENT PERFORMANCE REPORT

K. STATEMENT OF INVESTMENT POLICIES & OBJECTIVES

L. PRELIMINARY REVIEW OF SYSTEM FUNDING POLICY

NOTES: 1) Subject to additions & modifications as topics develop. At the discretion of the Chairperson of the Board, the scheduling of individual subjects during the meeting may be adjusted to facilitate the efficient utilization of time. 2) You are hereby notified that the above named public body will hold a meeting at the dates, time and place specified. A vote may be considered to go into closed session pursuant to Iowa Code 21.5(c)(f). 3) Consent Agenda: Subjects that require only consent or approval by the Board of Trustees, including informational topics. Subjects upon which information is provided for the Board but which will not be reviewed at the Board meeting except at the request of an individual Board member or the administration. 4) The Board of Trustees will work through the agenda until completion. Breaks will occur periodically as deemed necessary by the Board chairperson.

NEXT BOARD MEETING: APRIL 10, 2014