

I-70 SECOND TIER EIS RE-EVALUATION

Urban SIU – Jackson County
Project J4I1486D



Prepared for the
*Federal Highway
Administration*

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1 Introduction

The Missouri Department of Transportation (MoDOT) and the Federal Highway Administration (FHWA) prepared a Second Tier Draft Environmental Impact Statement (EIS) to discuss and compare alternatives for improving I-70 in the Kansas City metropolitan area just west of The Paseo to the US-40 / 31st Street interchange. MoDOT and FHWA proposed improving the existing I-70 corridor extending approximately 4.2 miles from west of The Paseo interchange (downtown Kansas City, Missouri) to the US-40 / 31st Street interchange to meet the current and future traffic, safety, and access needs to/from and across I-70. The Second Tier Draft EIS was approved in January 2014, but due to budget constraints, the project development process was paused. The project development process was reactivated a few years later and a Re-Evaluation of the Second Tier EIS was completed in 2017 with a Record of Decision (ROD) made shortly thereafter, also in 2017. Under the National Environmental Policy Act (NEPA) re-evaluation of an EIS is warranted when there has been several years (generally three to five) since the original NEPA approval and/or when changes related to the original study have occurred. Due to the amount of time that has passed since the initial evaluation and ROD, this NEPA re-evaluation assesses whether the purpose and need remains valid, and the Preferred Alternative still meets the purpose and need of the I-70 Second Tier EIS. The project is located entirely within the City of Kansas City, Missouri.

2 Background

2.1 The I-70 Corridor

One of the most important limited-access highways across the United States is I-70, which provides an east-west connection across much of the United States. Construction of the I-70 corridor in Missouri began in 1956 and continued for nine years to span more than 250 miles across the state. Short portions of the corridor have been reconstructed, but otherwise, the newest sections of I-70 are more than 50 years old. With maintenance provided by MoDOT, the facility has outlasted its original design life of 20 years and has carried traffic volumes of both cars and heavy trucks that have far exceeded the expectations of the original designers.

2.2 First Tier EIS

A First Tier EIS was completed in 2011 for I-70 from the end of the last ramp termini east of the Missouri and Kansas state line to the I-470 interchange. This EIS was separated into five sections of independent utilities (SIUs), outlined below, which allows each SIU to be studied or built without studying or building the entire corridor.

1. **Downtown SIU:** Downtown Loop to west of The Paseo
2. **Urban SIU:** West of The Paseo to U.S. 40 / 31st Street interchange
3. **I-435 Interchange SIU:** U.S. 40 / 31st Street (including the interchange) to Blue Ridge Cutoff (including the interchange)
4. **Suburban SIU:** Blue Ridge Cutoff to Lee's Summit Road (including the interchange)
5. **I-470 Interchange SIU:** Lee's Summit Road to east of I-470 and I-470 from 39th Street interchange to the U.S. 40 interchange

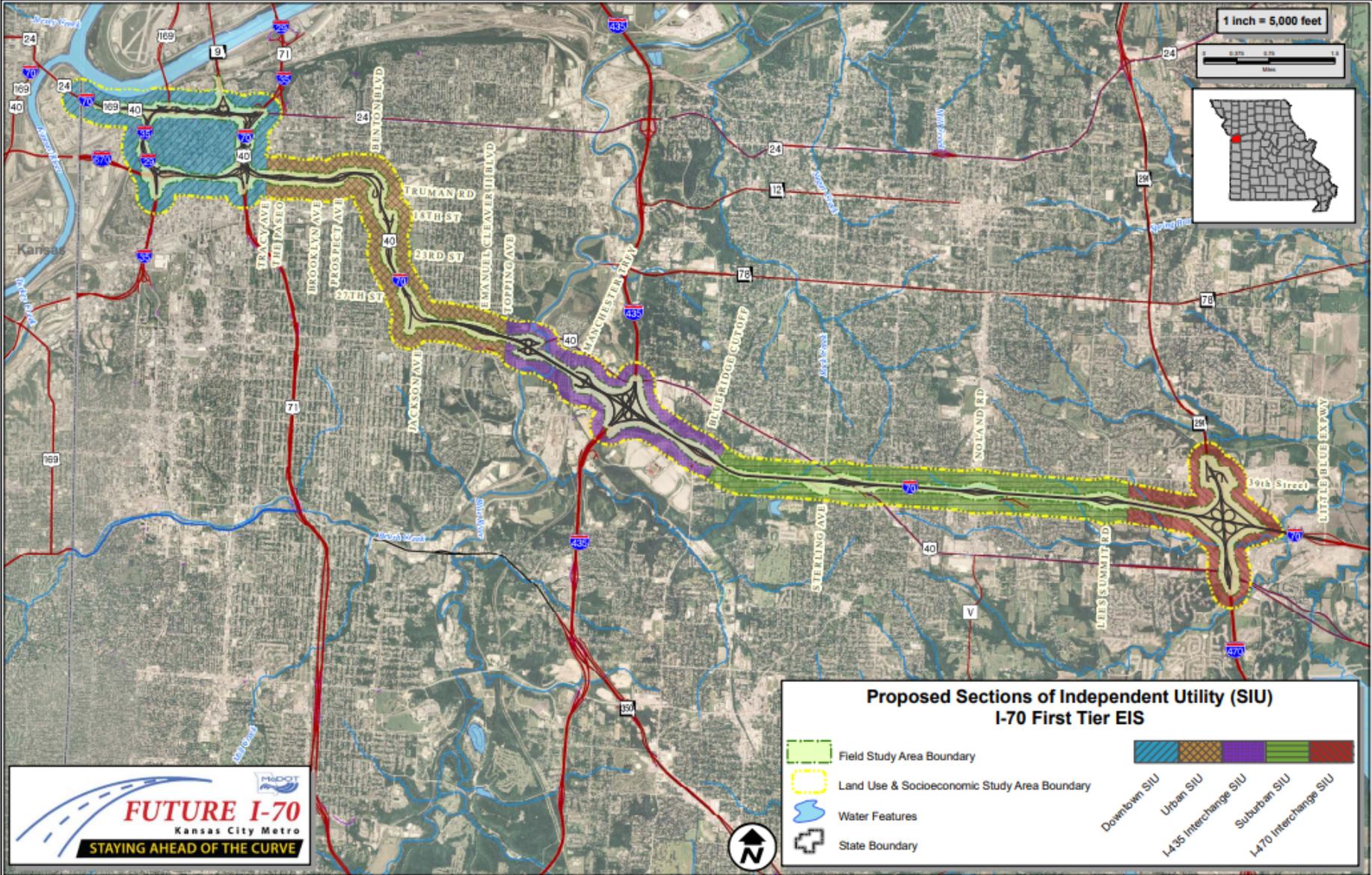
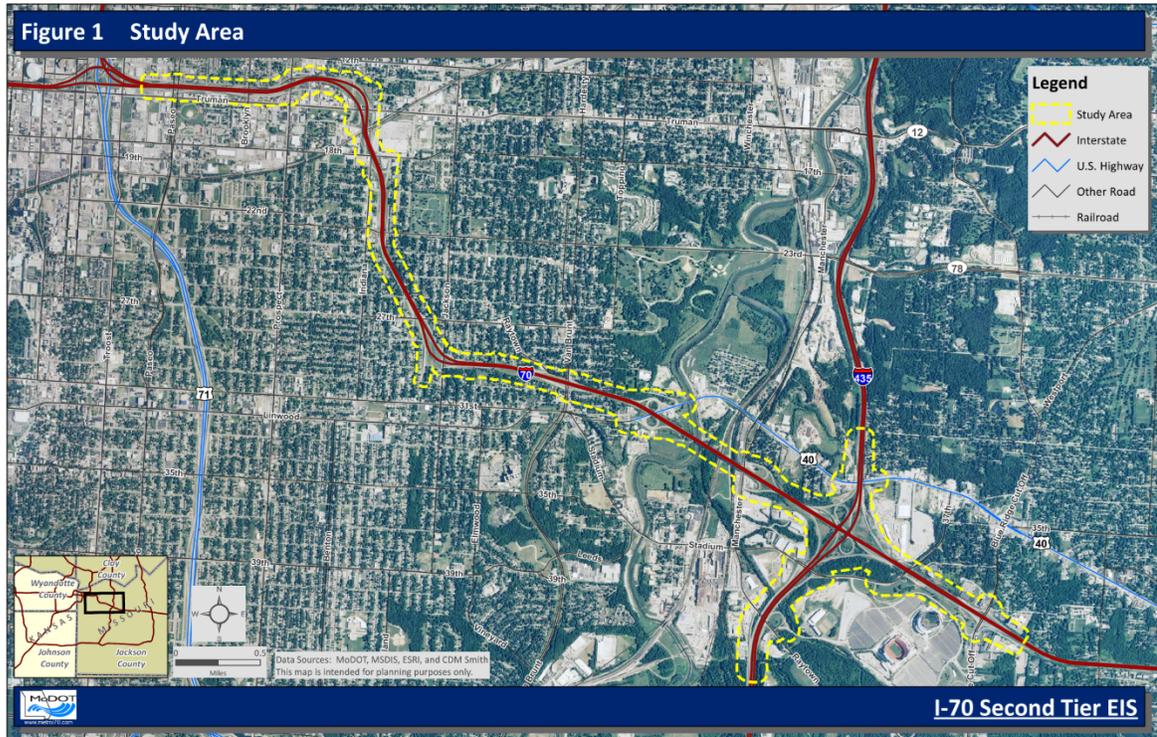


Figure 1: SIU Map (source: I-70 First Tier Condensed EIS)

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2.3 Second Tier EIS

The I-70 Second Tier EIS is a combination of the Urban and I-435 SIUs as shown in Figure 2. MoDOT combined these SIUs because they have the same selected improvement strategy from the First Tier EIS; both required the same level of environmental analysis, an EIS, in the Second-Tier evaluation process; and both have similar improvement needs.



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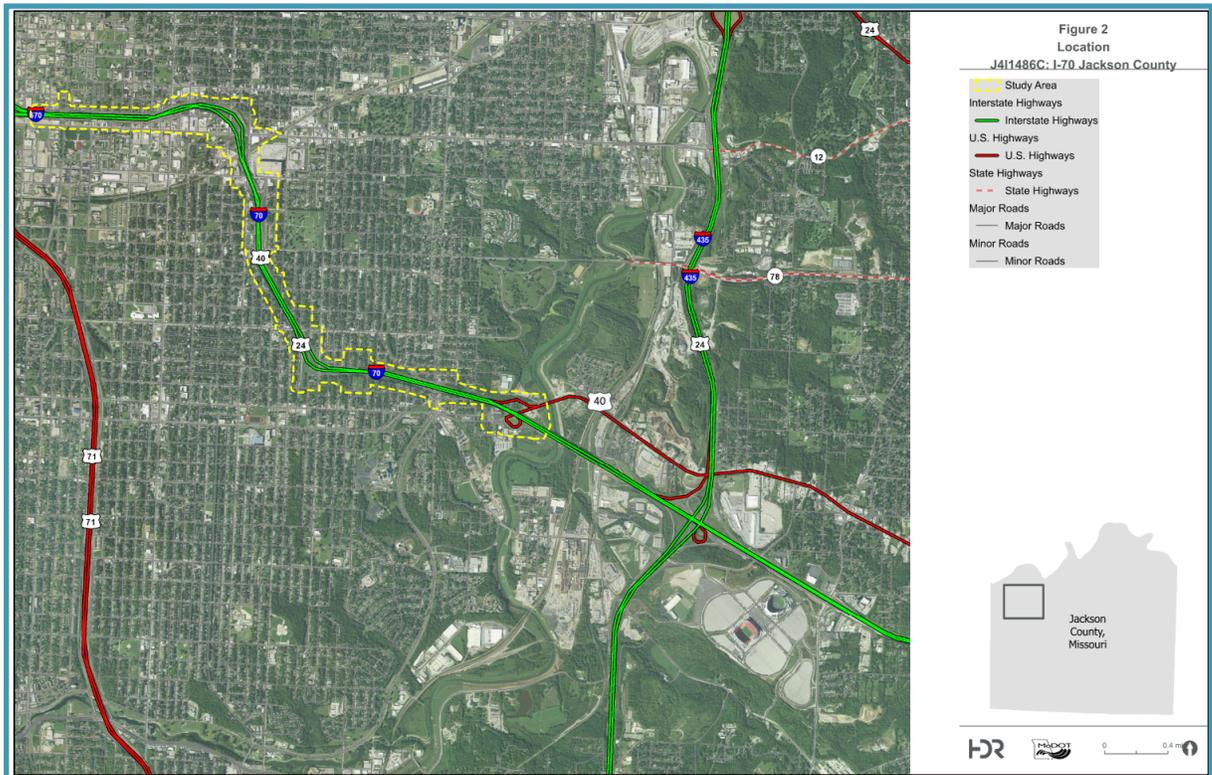
Figure 2: I-70 Second Tier EIS Study Area (Source: I-70 Second Tier EIS, 2014)

The I-70 Draft Second Tier EIS was published in January 2014. MoDOT suspended the project development process between January 2015 and June 2016 due to budget constraints. In 2017, MoDOT reactivated the project and published a Draft EIS Re-evaluation in July 2017. A Final EIS and ROD was approved in December 2017. Since then, the I-435 Interchange SIU has been completed under a Categorical Exclusion while the Urban SIU has not. In 2021, MoDOT moved forward with the Urban SIU. It has been at least three years since the ROD; therefore, the Second Tier EIS must be reevaluated to determine any change in impacts and if the Preferred Alternative still satisfies the purpose and need of the project.

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2.4 Project J4I1486D

Project J4I1486D, Urban SIU, begins at The Paseo Interchange and extends to US-40 as shown in Figure 2. The remaining portion of the Second Tier EIS Study Area not included in Project J4I1486D is the I-435 SIU, which has been completed. Therefore, this re-evaluation focuses only on the Urban SIU, and any reference to the Second Tier EIS henceforth excludes the I-435 SIU.



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Figure 3: Project J4I1486D Study Area

As part of the Second Tier EIS, 12 initial alternatives were developed based on initial engineering and environmental analysis, Mid-America Regional Council's (MARC) Congestion Management Process (CMP) toolbox, First Tier EIS outcomes, as well as comments and feedback from local agencies, stakeholders, and the public. The 12 Initial Alternatives were evaluated against the purpose and need for improving I-70. Four alternatives were carried forward for further evaluation (see Table 3), and the Second Tier EIS preferred alternative combined improvements from the Geometric Improvements and Interchange Consolidations alternative.

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Alternative	Conclusion
Alternative 1: No-Build	Data showed that current roadway conditions would be inadequate in the near future, rendering this alternative not viable.
Alternative 5: Geometric Improvements (Preferred Alternative)	Determined to be least impactful to environmental concerns and fulfilled the purpose and need at the highest level, including improving operations and safety. Portions of Alternative 12 were included in the Preferred Alternative.
Alternative 9: Zonal Collector-Distributor (C-D) System	Does not allow for the construction of C-D systems in two consecutive zones due to interchange spacing issues.
Alternative 12: Interchange Consolidations and Rebuild the Truman Road Interchange	It was determined to be impractical to construct the full interchange at Truman Road without substantial Section 4(f) park impacts. To avoid the park the interchange would have been a non-typical interchange in the middle of the Benton Curve requiring several blocks of business relocations.

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Table 1: Second Tier EIS Alternative Screening Conclusions

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The location specific improvements listed below are described starting from The Paseo and moving along I-70 to the east. The identified improvements include:

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The Paseo interchange: Improve short ramp lengths at The Paseo interchange and replace the diamond interchange in place with lengthened ramps where feasible. Remove 14th Street connections to the ramps. The ramps will connect with The Paseo only. Add westbound and eastbound auxiliary lanes between The Paseo and Prospect Avenue.

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Brooklyn Avenue interchange: Remove the westbound I-70 on-ramp from Brooklyn Avenue and the eastbound I-70 off-ramp to Brooklyn Avenue to improve the interchange spacing along I-70. The existing Brooklyn Avenue interchange is a half diamond configuration. Brooklyn Avenue would still cross under I-70.

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Prospect Avenue interchange: Improve short ramp lengths at Prospect Avenue and replace the diamond interchange in place with lengthened ramps where feasible. Remove 14th Street connections to the ramps. The ramps will connect with Prospect Avenue only. Add an eastbound auxiliary lane between Prospect Avenue and Truman Road.

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Benton Boulevard and Truman Road interchanges: Consolidate the two westbound on-ramps from Benton Boulevard and Truman Road into one on-ramp using a partial split-diamond configuration. Build a connector road from Truman Road to Benton Boulevard resulting in an improved weaving area length with the Prospect Avenue off-ramp.

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Benton Curve: Improve the tight curve at Benton Boulevard within the available right-of-way (ROW) to the extent possible.

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Truman Road interchange: Replace the eastbound off-ramp at Truman Road as is.

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18th Street and 23rd Street interchanges: Lengthen the 18th Street westbound on-ramp acceleration lane. Add a westbound separated auxiliary lane between 23rd Street and 18th Street, improve short ramp lengths, and replace the quarter cloverleaf interchange at 18th Street and the diamond interchange at 23rd Street in place. Add westbound and eastbound auxiliary lanes

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1 between 23rd Street and 27th Street.

2 **27th Street and Jackson Avenue interchanges:** Add an eastbound connector road between 27th
3 Street and Jackson Avenue, improve short ramp lengths, and replace with a split diamond
4 interchange. Remove the ramp connections to Myrtle Avenue and Wenzel Avenue, including the
5 eastbound off-ramp to Myrtle Avenue.

6 **Jackson Curve:** Improve the tight curve at Jackson Avenue within the available ROW to the extent
7 possible.

8 **Van Brunt Boulevard interchange:** Improve the short ramp lengths at the Van Brunt Boulevard
9 interchange and replace the diamond interchange in place. Remove the ramp connections to
10 Raytown Road and 29th Terrace. Add westbound and eastbound auxiliary lanes between Jackson
11 Avenue and Van Brunt Boulevard.

12 **U.S. 40 interchange:** Add an eastbound auxiliary lane between Van Brunt Boulevard and U.S. 40.

13 **Manchester Trafficway interchange:** Add westbound and eastbound auxiliary lanes between the
14 U.S. 40 and the Manchester Trafficway interchanges and improve the westbound weaving area
15 between I-435 and Manchester Trafficway as part of the on-going Manchester Bridge
16 replacement project. This on-going Manchester Design/Build project was awarded in 2013.

17 **I-435 interchange:** Realign the southbound I-435 to eastbound I-70 off-ramp and replace with a
18 two-lane ramp to eliminate the left lane exit. Replace I-435 bridges over I-70. Improve weave
19 distance from I-435 to westbound I-70 as part of a separate Manchester Bridge replacement
20 project.

21 **Blue Ridge Cutoff interchange:** No identified improvements. The diamond interchange will
22 remain in place.

23 The Preferred Alternative would include local street cul-de-sacs as a result of removing local road
24 connections to on- and off-ramps or other ramp revisions.

25 2.4.1 2017 EIS Re-evaluation Preferred Alternative

26 Following the publication of the I-70 Second Tier Draft EIS, the following changes and clarifications
27 were made to the Preferred Alternative during the 2017 EIS Re-evaluation.

28 **Blue Ridge Cutoff and I-435 Interchanges:** These interchanges were completed under separate
29 projects and are no longer relevant in the Preferred Alternative for Project J4I1486D.

30 **Bus on Shoulder:** The footprint for the proposed Preferred Alternative was developed to
31 accommodate bus on shoulder if it is desired in the future. Commencement of bus on shoulder
32 service would be subject to further traffic and operations analysis, coordination with other
33 regional transit initiatives and studies, development of operating agreements with transit
34 operators, and assessment of potential partnership on funding resources. The Preferred
35 Alternative included wider shoulders to accommodate bus on shoulder but did not explicitly
36 identify bus on shoulder. This revision was made because agency comments requested bus on
37 shoulder operations be identified in the Preferred Alternative.

38 **Cul-De-Sacs:** While local street connections to on- and off-ramps from I-70 would still be

1 removed, local road connectivity would be maintained. All cul-de-sacs were removed from the
2 Preferred Alternative improvements. This revision was made because agency comments
3 requested the removal of all cul-de-sacs to maintain connectivity, easier maintenance, and better
4 emergency response capability.

5 **Brooklyn Avenue:** The Brooklyn Avenue half diamond interchange would not be closed. The
6 existing Brooklyn Avenue half diamond interchange would remain open and in place. In addition,
7 the eastbound I-70 off ramp to Brooklyn Avenue would be converted to a decision lane exit to
8 allow for an auxiliary lane between The Paseo and Prospect Avenue. The westbound I-70 on-ramp
9 from Brooklyn Avenue would be lengthened by removing the 14th Street connection into the on-
10 ramp. This revision was made because public comments expressed concerns with patrons getting
11 to their business location.

12 **Traffic:** While the Preferred Alternative still improves travel flow through the Study Area, changes
13 made since the publication of the I-70 Second Draft Tier EIS resulted in changes to the 2040 travel
14 speeds in the study area. During the westbound AM, peak period travel speeds that changed the
15 most from the I-70 Second Tier Draft EIS were from the Paseo to Prospect Avenue (decreased),
16 Jackson Avenue to U.S. 40 (increased), and U.S. 40 to Manchester Trafficway (increased). During
17 the eastbound PM peak period travel speeds that changed the most from the I-70 Second Tier
18 Draft EIS were from Jackson Avenue to U.S. 40 (decreased), 40 to Manchester Trafficway
19 (decreased), and Manchester Trafficway to Blue Ridge Cutoff (increased). The traffic information was
20 updated because more recent traffic data was available.

21 **Safety:** After the publication of the I-70 Second Tier Draft EIS, MoDOT conducted a Highway
22 Safety Manual (HSM) analysis for the Updated 2022 Preferred Alternative. The results of this
23 analysis project that the changes to the Preferred Alternative would provide additional
24 improvements to safety in corridor. In the I-70 Second Tier Draft EIS, the total number of crashes
25 decreased by approximately 9 percent from the No-Build Alternative versus the Preferred
26 Alternative. The updated results indicated that the decrease in crashes between the two
27 alternatives would be 19 percent with much of the improvement because of the revised I-435
28 Interchange design. In addition, the number of fatal or disabling crashes would decrease almost
29 13 percent from the No-Build Alternative versus the Preferred Alternative. This was an
30 improvement from approximately 3 percent in the I-70 Second Tier Draft EIS. The crash analysis
31 was updated because more recent crash data was available.

32 **Cost:** The total estimated cost of the Preferred Alternative was revised to \$265 million (2016
33 dollars). The cost estimates were revised to reflect the Preferred Alternative revisions above.

34 3 Purpose and Need Validation

35 As noted in the Second Tier EIS, the goal of I-70 improvements along the entire Missouri corridor
36 is to provide a safe, efficient, environmentally sound, and cost-effective transportation facility
37 that responds to the needs of the study corridor and to the expectations of a nationally important
38 interstate.

- 39 • **Improve Safety:** Reduce crash rates and crash severity on I-70.

- 1 • **Reduce Congestion:** Remove key bottlenecks; reduce the potential for ramp back-up onto the
2 freeway; and improve multi-modal travel times in coordination with plans put forward by
3 local and regional agencies.
- 4 • **Restore and Maintain Existing Infrastructure:** Improve bridge and pavement conditions on I-
5 70 and implement cost-effective investment alternatives.
- 6 • **Improve Accessibility:** Provide travel options for all residents; increase safe access across I-70
7 for non-motorized travel; support local and regional land use plans.
- 8 • **Improve Goods Movement:** Improve the efficiency of freight movement on I-70.

9 I-70 is a vital part of the interstate system. Across the United States, I-70 is one of the nation’s
10 longest interstate routes, running east to west connecting 10 states from Maryland to Utah.
11 Within Missouri, I-70 connects the metropolitan areas of St. Louis, Columbia, and Kansas City.
12 Locally, the I-70 corridor is vital to serving the greater Kansas City regional transportation
13 demands including commuters, transit, and local and national freight movements. The
14 importance of this route will only continue to increase as the Greater Kansas City Metro Area
15 grows, therefore the purpose and need remains valid for Project J4I1486D.

16 3.1 Improve Safety

17 Improving safety on I-70 is a key element of the proposed improvements. Traffic crashes are a
18 cost to the travelers of I-70 in a variety of ways. Some crashes result in property damage, cause
19 severe injury, and even loss of life. Traffic crashes also create congestion from blocked travel
20 lanes resulting in increased gas consumption and lost time. Study area improvements are
21 intended to reduce the crash rates and to reduce the crash severity.

22 Historic crash data was collected and analyzed for the five-year period from 2016 through 2020.
23 Crash records were collected from the MoDOT Transportation Management System (TMS), which
24 originate from Highway Patrol records, for mainline I-70, the I-70 ramps, and the local roadway
25 network, focusing on a buffered corridor area extending from Troost Avenue to US-40 / 31st
26 Street. Within that area 1,527 mainline crashes, 127 ramp crashes, and 1,628 local street crashes
27 were reported over the five-year period. The number of reported crashes for each year of the
28 analysis period was constant in the range of 630 to 730 crashes per year between 2016 and 2019
29 before taking a dip in 2020, as a result of reduced travel during the pandemic. Overall, the crash
30 rate across the entire corridor was up to three times higher than the statewide average.

Year	EB I-70	WB I-70	Ramps	I-70 Subtotal	Local Roads	Study Area Total
2016	180	159	14	353	344	697
2017	148	153	27	328	310	638
2018	154	171	25	350	352	702
2019	178	167	38	383	348	731
2020	99	118	23	240	274	514
5-Yr Total	759	768	127	1,654	1,628	3,282

31 **Table 2: Distribution of crashes by year and location.** (Source: I-70 Jackson County Access Justification Report, 2023)

1 Over the five-year analysis period, nine fatal crashes were reported, with five occurring along the
2 mainline (or ramps) of I-70, and four occurring on the local street network. An additional 64
3 crashes resulted in a disabling injury or suspected serious injury (highway patrol reporting
4 terminology changed in 2019 from disabling injury to suspected serious injury; therefore, these
5 crash types are combined). Of the 64, 37 occurred on I-70 and 27 occurred on the local street
6 network. Crashes resulting in minor injuries were more common with 423 reported on I-70 and
7 594 reported on the local street network, for a total of 1,017 minor injury crashes. The remaining
8 2,192 reported crashes recorded property damages only. Since current crash statistics illustrate
9 above average crash rates compared to the state with some accidents resulting in severe or fatal
10 injuries, the Improve Safety purpose and need remains valid for Project J4I1486D.

11 3.2 Reduce Congestion

12 Since the original construction, some interstate design standards have been revised and leave I-70
13 with some outdated design features. The Benton and Jackson curves have reduced interstate
14 operations due to poor sight distance and 45 mile per hour curves in the roadway which results in
15 higher-than-average crash rates. Several interchanges have short merge lane lengths and weave
16 areas which limits the distance vehicles must accelerate up to the speed of the traffic. There is
17 approximately one full or partial interchange every half mile which is closer than current
18 interchange spacing guidelines that call for at least 1 mile within urban areas. A combination of
19 these substandard highway characteristics increases congestion.

20 According to the Access Justification Report (AJR) for the project, current traffic demand has
21 reached capacity across all intersections within the corridor. The 2026 and 2045 No-Build models
22 predict that the corridor will not meet demand during peak AM and PM hours across all
23 intersections. With outdated highway characteristics and unmet travel demand, the Reduce
24 Congestion purpose and need remains valid for Project J4I1486D.

25 3.3 Restore and Maintain Existing Infrastructure

26 Built in the 1950s, I-70 has far outlasted its original design life of 20 years and has carried traffic
27 volumes of both cars and heavy trucks that have far exceeded original expectations. Traffic
28 growth on I-70 is the result of population and economic growth in the Kansas City Metropolitan
29 Area and the increase in travel through the region by cars and trucks. While MoDOT has
30 maintained portions of the corridor, it is an ongoing issue which is exacerbated by the outdated
31 design. Aging infrastructure is not unique to this project but remains critical path to ensure safe
32 and efficient use of the corridor. Therefore, the Restore and Maintain Existing Infrastructure
33 purpose and need remains valid for Project J4I1486D.

34 3.4 Improve Accessibility

35 The project corridor has 18 roadway bridges or underpasses and two pedestrian bridges crossing
36 over I-70 which provide opportunities for enhancement. Some I-70 bridges and underpasses are
37 connected to interchanges while others only provide access across the freeway. An inventory of
38 the existing pedestrian crossings was completed as part of the re-evaluation of the Preferred
39 Alternative. This inventory included an assessment of the distance between crossings, the type of
40 crossing (vehicular bridge vs. dedicated pedestrian bridge), and the connectivity of those crossings

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to the local system of sidewalks, trails, and parks. Figure 3 summarizes the inventory and illustrates the deficiencies present which includes limited access to I-70 and across it.



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Figure 4: Existing Connectivity

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It is important to provide facilities for bicyclists and pedestrians. Improvement of accessibility across I-70 for pedestrians, bicyclists, and those without motor vehicles, is needed to serve and support the wide variety of land uses adjacent to the freeway. Table 3 below shows how census block groups within the Study Area have a higher percentage of workers who utilize forms of transportation other than passenger vehicles compared to Kansas City, Jackson County, and Missouri. Since the Second Tier EIS, the percentage of workers who use taxi, motorcycles, bicycles, or other modes of transportation remains double compared to Kansas City. The project corridor populous still utilizes public transportation three times more than Kansas City; and workers who walk to work has increased 2.3% within the project corridor. Therefore, the modal relationships characteristics element of the purpose and need remains valid for Project J4I1486D.

5-Year Average	2006-2010 Average				2015-2019 Average			
	Study Area	Kansas City	Jackson County	Missouri	Study Area	Kansas City	Jackson County	Missouri
Number of Workers	3,401	217,774	315,553	2,722,375	3,855	247,394	343,971	2,855,423
Drove Alone	68.66%	80.61%	82.05%	81.29%	+4.60%	+1.13%	+1.61%	+1.22%
Carpooled	13.97%	9.27%	8.99%	10.36%	-4.35%	-1.49%	-2.20%	-1.67%
Public Transportation	10.29%	3.71%	2.73%	1.48%	-0.35%	-1.12%	-0.79%	-0.16%
Walked	3.26%	2.03%	1.57%	1.77%	+2.29%	-0.19%	-0.01%	-0.20%
Taxicab, motorcycle, bicycle, or other	2.82%	1.30%	1.22%	1.21%	-1.86%	-0.08%	-0.08%	-0.05%
Worked from home	1.00%	3.08%	3.46%	3.89%	-0.33%	+1.76%	+1.45%	+0.87%

*Shading indicates a positive (Green) or negative (Red) change in percentage from 2010.

Table 3: Means of transportation percent change from the 2010 to 2019 5-year average. (Source: US Census Bureau, 2019 ACS)

3.5 Improve Goods Movement

This portion of the I-70 corridor is vital to serving the greater Kansas City regional transportation demands which includes freight movements. In addition to serving local needs, I-70 in Kansas City is also the main artery for freight traffic traveling to and from other cities and places across the state and nation. Freight traffic is heavy along the corridor, which carries around 18 percent trucks on a daily basis. Most of these trucks are part of the long-haul freight network, although there are some freight generators located within the corridor, most notably a large United States Postal Service facility at 18th Street and Indiana Avenue. As discussed previously, the highway design is not up to current standards which results in poor movement within the Study Area. Stretches of the highway have insufficient shoulder widths, short merge lane lengths and weave areas, and poor sight distance such as in the Jackson and Benton curves. These deficiencies are highlighted in Figure 4.

4 Preferred Alternative Changes

4.1 Proposed Modifications

As part of the re-evaluation effort, several project considerations have resulted in refinements to the Preferred Alternative that was established in 2017. These considerations include:

- limiting environmental impacts such as to Environmental Justice populations;
- the future of the “Downtown Loop” located west of the western project terminus;
- completion of and tie-in to the I-435 / I-70 interchange located east of the eastern project terminus;
- the I-70 corridor statewide;
- Transportation Systems Management and Operations (TSMO) considerations; and
- Providing a flexibility for design-build delivery.

Modifications to the 2017 Preferred Alternative have been based on public feedback as well as engineering analysis for operations, safety, and geometry. These modifications include the following and are illustrated in Appendix A:

- Extending the fourth lane on eastbound I-70. Traffic analysis illustrated that this modification would increase safety and accessibility and would reduce congestion.
- Combining ramp access for eastbound I-70 between Indiana Avenue and 23rd Street, as well as an outer road connecting 23rd Street to 18th Street. The combined ramp access would result in:
 - Improved safety
 - Slower speeds on the Collector Distributor Road
 - Reduced congestion on I-70 between 18th and 23rd Streets
 - Reduced ramp conflict points along I-70 from four locations to two locations
 - Maintaining all local access to the interstateThe addition of a one-way outer road would result in:
 - Improved safety
 - Removal of ramp connections to Askew Avenue
 - Ramp geometrics improved for 18th Street on-ramp to westbound I-70
 - Separation of local traffic from ramp traffic
 - Trucks more easily accessing westbound I-70
- Two-way outer road between Jackson Avenue and 27th Street. Benefits of this refinement would be:
 - Norton Avenue and Mersington Avenue would connect to two-way roads
 - Widening of Myrtle Avenue to allow two-way traffic could be done without impacting adjacent neighborhood
 - Area created for green infrastructure and a trail
 - 29th Street is reconnected to Myrtle Avenue
- Pedestrian connectivity was evaluated in more detail as part of the re-evaluation. As noted previously, an inventory of existing pedestrian crossings was completed. Existing pedestrian bridges cross over I-70 at Cypress Avenue and Oakley Avenue. Several “dead end areas” were identified where connectivity is lacking, including:
 - Between 23rd Street and Cleveland Avenue, west side of I-70

- Between Cleveland Street and 27th Street, east side of I-70
- Between Lister Avenue and Van Brunt Boulevard, both sides of I-70
- Between Van Brunt Boulevard and US-40 / 31st Street, both sides of I-70

- To help address multi-modal needs in the corridor several improvements are under consideration as part of the Updated 2022 Preferred Alternative, including connectivity enhancements along the Cleveland Avenue Bridge and along US-40 under I-70. In addition, the following locations were identified as potential sites for new pedestrian bridge crossings: 21st Street, 25th Street, Brighton Considering the current distance between pedestrian crossings, these location refinements would increase walkability for neighborhoods across I-70, would increase functionality, and would provide for wider pedestrian bridges that would increase safety and accessibility. The proposed refinements also include the shared-use paths on local street where feasible. The benefits of shared-use paths include increased accessibility, increased multi-modal use, and connections to future City of Kansas City multimodal plans.

Other considerations not carried forward:

- Re-routing of Benton Boulevard could increase safety and increase mobility for local traffic. However, through coordination with the Kansas City Parks and Recreation Department, it was determined that re-routing of Benton Boulevard is not desired for this important roadway that is part of the original Kansas City Parks and Boulevard System.

4.2 Reasons for Selecting the Updated 2022 Preferred Alternative

The proposed modifications described above resulted in an Updated 2022 Preferred Alternative. The Updated 2022 Preferred Alternative has been selected as part of the Second Tier EIS Re-Evaluation for the following reasons:

- It would address the Purpose and Need for improving I-70.
- It would improve safety, by reducing crashes of all severities – especially those associated with horizontal curves, closely-spaced ramps / weaves, lane / shoulder widths, and congestion – compared to the No-Build conditions.
- It would improve 2045 PM peak hour travel speeds compared to the No-Build Alternative.
- It would improve freight flows by virtue of its mobility and safety benefits.
- It considers public comments and concerns.
- It would require the fewest number of relocations of homes and businesses in Environmental Justice areas compared to other Alternatives, including the Preferred Alternative, studied in 2017. Otherwise, it would have comparable human and natural environmental impacts to the alternative studied in 2017.
- It would have a comparable estimated cost to the alternative studied in 2017. The total estimated cost of the Second Tier EIS Preferred Alternative was \$265 million (2016 dollars). The revised cost estimate is approximately \$300 million.
- It would improve multi-modal access across the interstate.
- It would rebuild and/or rehabilitate the existing infrastructure.

As noted above the proposed modifications have been proposed as refinements to the previous

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Preferred Alternative, intended to better address Purpose and Need, improve safety, improve traffic flow, improve multi-modal access, and reduce environmental impacts. Most of the impacts identified in the I-70 Second Tier EIS are now fewer. Specifically, as detailed further in this document, right-of-way displacement and acquisitions, economic growth and development, environmental justice, community cohesion, wetlands and waters of the U.S., and noise would have fewer impacts under the Updated 2022 Preferred Alternative than the previous Preferred Alternative. This re-evaluation document demonstrates that the Updated 2022 Preferred Alternative still meets the purpose and need of the project identified in the I-70 Second Tier EIS. Therefore, there is no need to supplement the 2014 I-70 Second Tier EIS or prepare a new Record of Decision at this time.

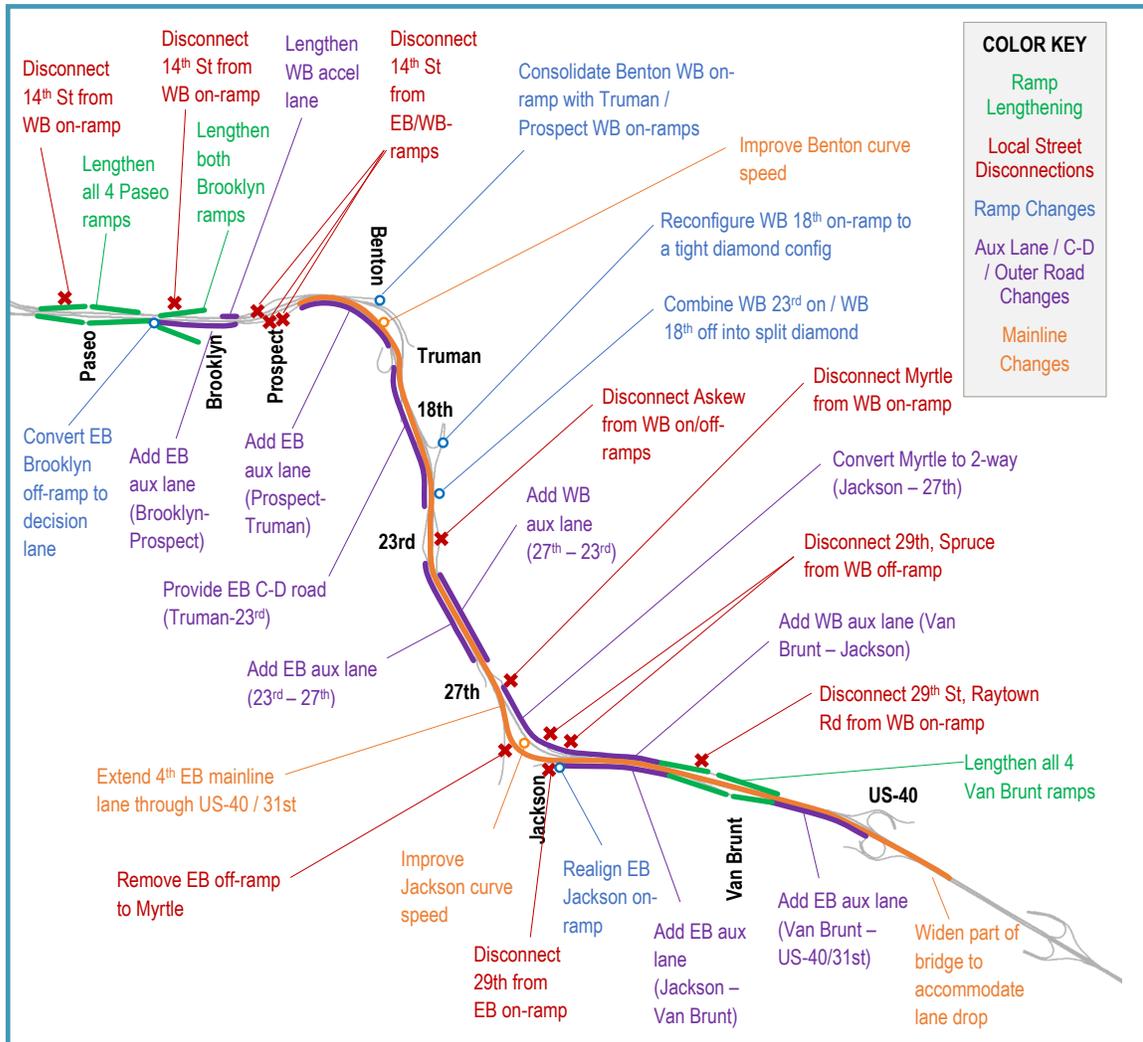


Figure 5 Key Elements of the Updated 2022 Preferred Alternative, Shown on Existing Configuration.
 (Source: I-70 Jackson County AJR, 2023)

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4.3 Project Delivery Determination

MoDOT uses innovative contracting to ensure that the public receives full value for every tax dollar invested in Missouri’s transportation system. Innovative contracting methods provide the ability to accelerate project delivery, reduce cost, improve quality and minimize impacts to the traveling public.

1 To select an appropriate project delivery method, a project must be evaluated to determine how
2 the project aligns with each available delivery method. A Project Delivery Determination (PDD)
3 Tool has been established to guide project teams through the evaluation to determine
4 appropriate delivery methods. This PDD is considered a national best practice to weigh project
5 characteristics against key factors for consideration. Although all projects benefit from this
6 review, it is especially important that large and/or complex projects be considered so that the
7 most appropriate delivery method is used.

8 MoDOT generally uses two primary delivery methods: Design-Bid-Build (DBB) and Design-Build
9 (DB). DBB is the traditional project delivery method in which an agency designs, or retains a
10 designer to furnish complete design services, and then advertises and awards a separate
11 construction contract based on the designer’s completed construction documents. In DBB, the
12 agency “owns” the details of design during construction and as a result, is responsible for the cost
13 of any errors, omissions, and unknowns encountered in construction. Design-Build is a project
14 delivery method in which the agency procures both design and construction services in the same
15 contract from a single, legal entity referred to as the design-builder. This method uses Request for
16 Qualifications (RFQ)/Request for Proposals (RFP) procedures rather than the DBB Invitation for
17 Bids procedures. The design-builder controls the details of design and is responsible for the cost
18 of any errors or omissions encountered in construction.

19 Through a formal PDD process which assesses project goals, project risks, project complexity,
20 schedule, and costs, MoDOT has determined that the procurement method for this proposed
21 project would be Design-Build Delivery. The Updated 2022 Preferred Alternative discussed here
22 and in the AJR (available upon request) represents a buildable alternative for the improved
23 performance of the interstate and interchanges at this time in the design development. As the
24 project design develops further, modifications may need to be incorporated, requiring additional
25 NEPA Re-Evaluation and revision to the AJR document. Modifications would be based on market
26 conditions and/or proposed improvements to the Updated 2022 Preferred Alternative solutions
27 that may improve performance.

28 4.4 Prospect Avenue Bridge Replacement

29 Due to the existing poor condition of the Prospect Avenue bridge over I-70, located within the
30 limits of Project J4I1486D, MoDOT has advanced plans for replacing it as a separate project,
31 including improvements to the interchange ramps and to 14th Street. The replacement plans for
32 the Prospect Avenue bridge have considered Project J4I1486D, including increasing vertical
33 clearance over I-70 allowing for improvements on I-70, minimizing right-of-way impacts,
34 improving safety and operations of Prospect Avenue, and incorporating transit and pedestrian
35 and non-motorized user facilities. Construction is expected to begin in Summer 2023. Additional
36 information about the Prospect Avenue bridge replacement is available at
37 <https://www.modot.org/prospect-ave-over-i-70>.

38 5 Public/Stakeholder Involvement Process

39 During the development of the Second Tier EIS, MoDOT provided many opportunities for the
40 public and stakeholders to engage in reviews and to provide input both in person and online. The

1 project team used several approaches to reach the public including public meetings and a hearing,
2 Community Connection Team (CCT) meetings, mobile meetings, Government Relations Briefings,
3 a Community Advisory Group (CAG), and engagement tools such as MindMixer.

4 For this Second Tier EIS Re-evaluation, public engagement continued through the use of several
5 approaches including a project website (<https://www.modot.org/improvei70/home>), public
6 meetings, CAG meetings, neighborhood association advisory group (NAAG) meetings, and one-on-
7 one stakeholder meetings.

8 CAG and NAAG meetings were held in February 2022 and had members present from 11 advisory
9 groups. Follow-up meetings were held in September 2022. Overall, both groups had general
10 questions about the project or concerns regarding topics similar to the first public meeting which
11 are listed below. The first public meeting was held on March 1 and 3, 2022 with a second meeting
12 held on September 13, 2022. All three meetings were held both in person and virtually. A total of
13 55 community members attended the first meeting and 18 individuals completed comment
14 forms. The results of these meetings are summarized below, as well.

- 15 • Interchange Ramps
 - 16 ○ Many ramps identified as too short; suggestions included removal or extension
- 17 • Lanes on I-70
 - 18 ○ Concerns voiced about additional lanes
 - 19 ○ Anticipated problems with additional lanes are noise and more traffic
 - 20 ○ Encourage use of routing to other interstates around KC area
- 21 • Bike & Ped
 - 22 ○ Improvements in connectivity and mode choices
 - 23 ○ Incorporate Complete Streets concepts on connecting street system
- 24 • Lighting
 - 25 ○ Better lighting on bridges
- 26 • Excessive Speeds
 - 27 ○ Address excessive speeds on the interstate
 - 28 ○ Additional enforcement
- 29 • Environmental
 - 30 ○ Overall health & well-being concerns
 - 31 ○ Air quality concerns
- 32 • Commuter Traffic
 - 33 ○ Acknowledge post covid changes in traffic patterns
- 34 • Climate Change/Sustainability/Resilience
 - 35 ○ Implementation of more green Infrastructure
- 36 • KCATA
 - 37 ○ Allow for bus on shoulder operations

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39 The project team incorporated the feedback into the modified design to improve safety, reduce
40 congestion, and reconnect the community. For example, in response to concerns for short ramps,
41 they were extended in key places to better improve safety. In December 2022, an Updated 2022

1 Preferred Alternative was released to the public.

2 Because the project area spans five miles of I-70 from The Paseo to U.S. 40, several factors were
3 taken into consideration to reach a wide-variety of stakeholders, such as:

- 4 • Offering materials in multiple formats (print and digital).
- 5 • Offering information through a variety of communications channels (social media, news
6 media, postal service, physical locations along the corridor).
- 7 • Offering materials in multiple languages (English, Spanish, and Vietnamese).

8
9 To supplement feedback collected at these meetings, an interactive online map and survey was
10 available through MoDOT’s project webpage which allowed for interested parties to read about
11 the project and provide feedback. Feedback on the interactive map was accepted until March 31,
12 2022. The interactive map had 1270 total visits, 500 unique users, and 52 comments which were
13 reflective of the first public meeting. After the first round of public engagement, modifications
14 were made to the Preferred Alternative and presented at the second public meeting. A survey
15 was provided to participants which was also sent to more than 500 emails and linked on the
16 project webpage. There were 24 attendees at this meeting, 12 of whom completed a hard copy
17 survey. In total the survey had 186 responses. Overall, the attendees had positive feedback to the
18 Updated 2022 Preferred Alternative. In comparison to public feedback from the 2014 Draft EIS,
19 the public still favored roundabouts, the local road improvements, and adding the ability for
20 buses to operate on the outside shoulder. However, one change noted is the reintroduction of the
21 Brooklyn Avenue interchange removal which was previously discouraged by the public.

22 Ongoing public involvement would take place during construction through various media deemed
23 suitable at that point in time.

24 Public Involvement materials are included in Appendix B.

25 In addition, MoDOT consulted with federal, state, and local agencies, including federally
26 recognized tribes with an interest in the area. Correspondence is included in Appendix C.

27 28 **6 Resource Impacts**

29 The following form includes an analysis of changes found during this re-evaluation and the
30 previous Tier 2 EIS/ROD for each resource. The form identifies if there is an impact to the resource
31 (Yes/No) and whether the impact has changed or remained the same from the 2017 EIS/ROD.

7 Environmental Re-evaluation/Consultation Form (NEPA)

23 CFR 771.129

Federal Highway Administration/Missouri Department of Transportation

FHWA REGION Missouri Division	STATE PROJECT NO. J4I1486D	PROJECT TITLE, DOCUMENT TYPE Second Tier Environmental Impact Statement for Route I-70, Jackson County, from west of the Paseo interchange to the US-40 interchange.
DATE APPROVED	FEDERAL AID NO. 0701216	

REASON FOR CONSULTATION:

The I-70 Second Tier EIS was published in January 2014. MoDOT suspended the project development process between January 2015 and June 2016 due to budget constraints. In July 2016 MoDOT reopened the project and published a Draft EIS Re-evaluation for FHWA review in July 2017. A Final EIS and Record of Decision (ROD) was approved in December 2017. Since then, the I-435 Interchange SIU had been completed while the Urban SIU has not. In 2021, MoDOT decided to continue funding the Urban SIU. It had been at least three years since the ROD, therefore the Second Tier EIS must be reevaluated by FHWA to determine whether a supplement to the EIS is needed. This document is the environmental Re-evaluation for the Second Tier EIS. Based on the changes Identified, FHWA will determine whether the I-70 Second Tier EIS needs to be supplemented.

WILL THE TIME LAPSE OR MODIFIED ALIGNMENT CHANGE THE IMPACTS TO THE FOLLOWING:

1) LAND USE	
Is there an impact to this resource?	YES [] NO [X]
Change since the 2nd Tier EIS?	More Impacts [] Same [X] Fewer Impacts []
<p>The Study Area is fully developed into residential and commercial properties as shown in Google imagery which illustrates minimal change in land use from 2014 to 2023, see Figure 6 and Figure 8 below. As shown in Figure 8, current zoning within the project corridor is a mixture of public, residential, commercial, and vacant land. The Updated 2022 Preferred Alternative would have minimal effects on the overall existing land use and zoning in the Study Area as it aims to make improvements within the existing ROW to the extent possible. Furthermore, the Updated 2022 Preferred Alternative is consistent with the City of Kansas City, Missouri’s three area plans that project J4I1486D is a part of which include; Truman Plaza, Heart of the City, and Riverfront Industrial. Impacts to land use are not anticipated to change from what was concluded in the I-70 Second Tier EIS. Therefore, environmental impact on land use for project J4I1486D has not changed since the Second Tier EIS.</p>	

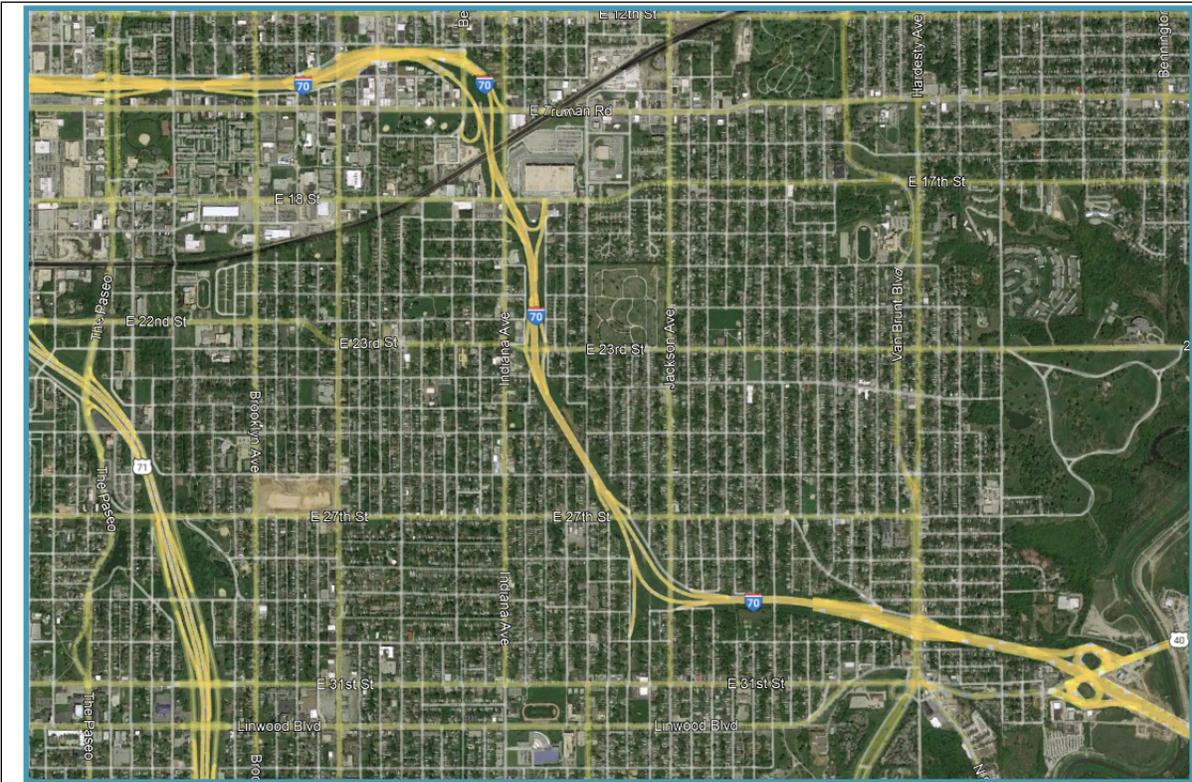


Figure 6: Google aerial imagery (2014) depicting land use within Project J4I1486D.

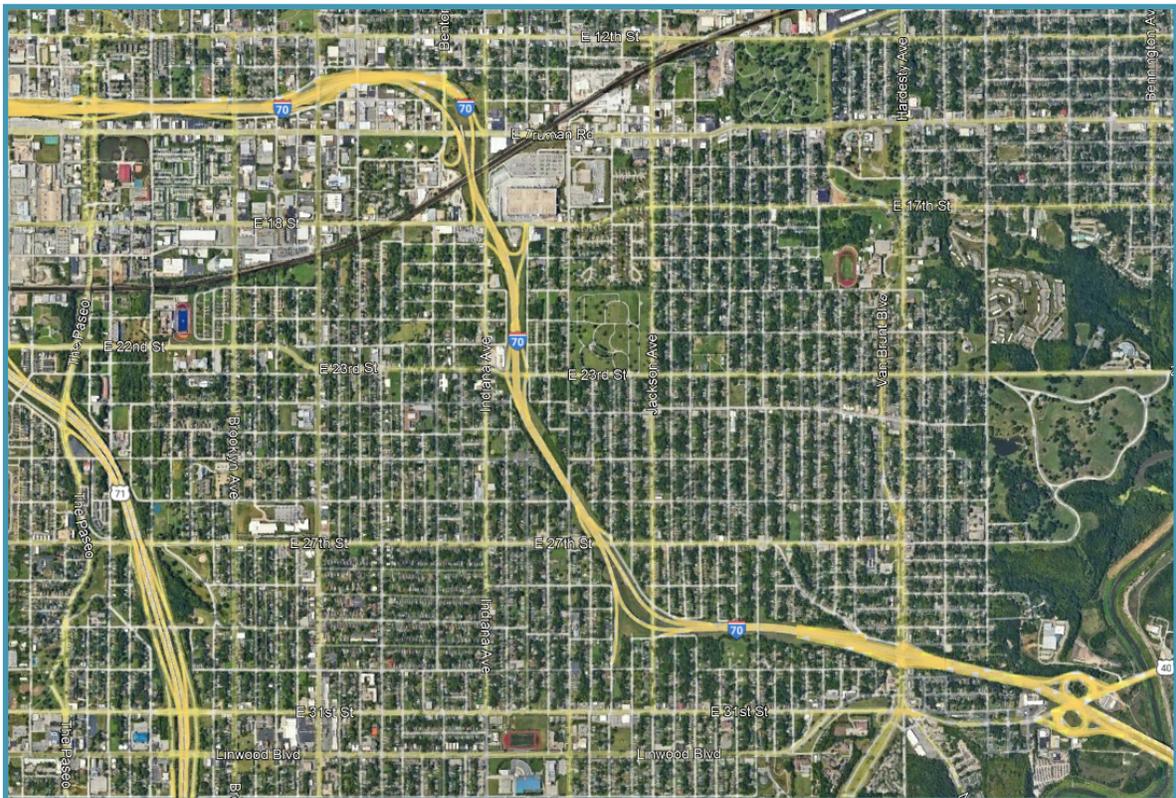


Figure 7: Google aerial imagery (2023) depicting land use within Project J4I1486D

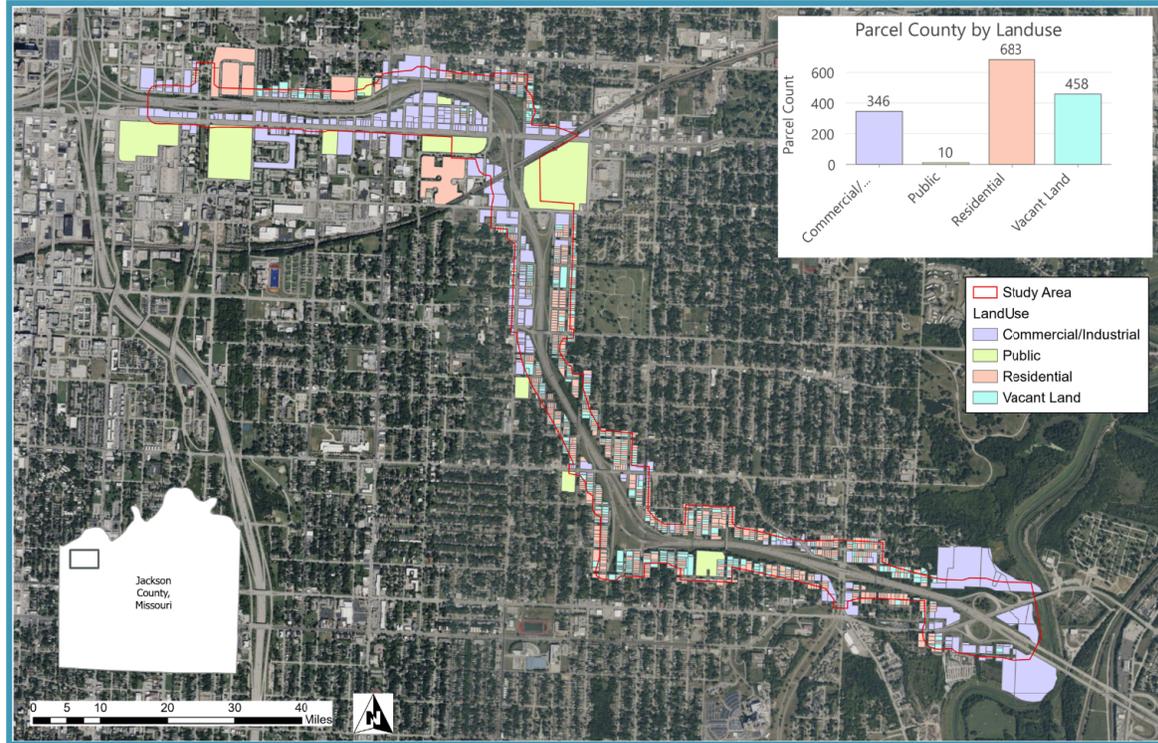


Figure 8: USDA aerial imagery (2023) and 2021 zoning within Project J411486D.

2) PRIME AND UNIQUE FARMLAND

Is there an impact to this resource?

YES [] NO [X]

Change since the 2nd Tier EIS?

More Impacts [] Same [X] Fewer Impacts []

The entire Study Area is in the urbanized city of Kansas City, Missouri. United States Department of Agriculture (USDA) web

soil survey shows 153 acres have farmland of statewide importance within the Study Area, shown in Figure 9. All 153 acres has already been developed and no impacts to farmland would occur because of the Preferred Alternative. This is consistent with the findings in the Second Tier EIS, therefore the impact to prime and unique farmland has not changed.

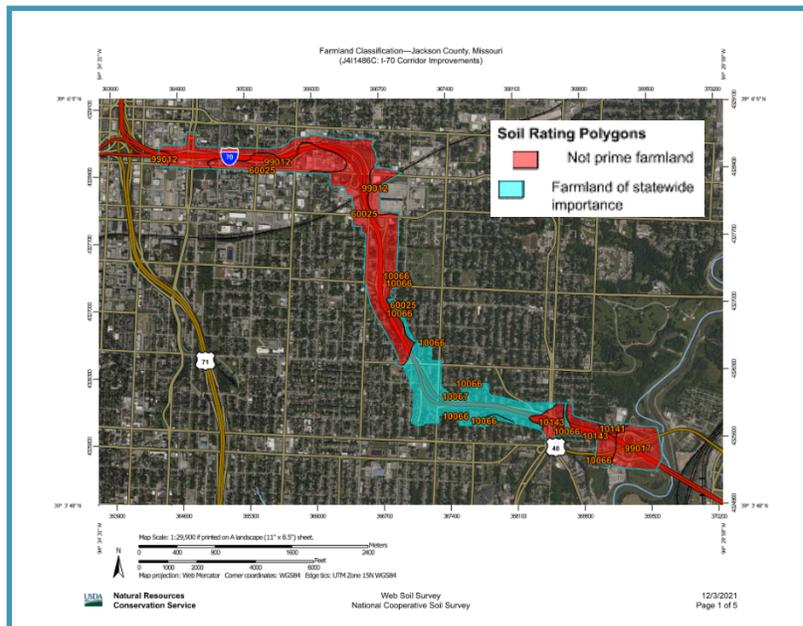


Figure 9: USDA Web Soil Survey prime farmland classification (Source: USDA Web Soil Survey, Accessed December 2022).

3) RIGHT-OF-WAY ACQUISITION AND DISPLACEMENTS

Is there an impact to this resource? YES [X] NO []

Change since the 2nd Tier EIS? More Impacts [] Same [] Fewer Impacts [X]

The changes to the Preferred Alternative since the 2017 Approved I-70 Draft Second Tier EIS have resulted in 33.9 fewer acres of ROW and 8 fewer partial or full acquisition of parcels, specifically the removal of cul-de-sacs from the Preferred Alternative improvements. The Updated 2022 Preferred Alternative would require approximately 2.10 acres of additional ROW. This decreased from 36 acres in the Approved 2017 I-70 Draft Second Tier EIS. The Updated 2022 Preferred Alternative would require displacement of 11 residences and partial acquisition of 5 residential properties and 3 commercial properties. This decreased from 22 residences and 5 commercial properties in the I-70 Second Tier EIS. One of the commercial properties would require a business relocation while the other 2 are owned by the United States Postal Service and Railroad. Therefore, the right-of-way acquisition and displacements impacts would be fewer than the 2017 Approved I-70 Draft Second Tier EIS.

Property acquisition of affected properties will be conducted in accordance with the relocation procedures established in the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (referred to as the Uniform Act), as amended (42 U.S.C. 4601). The Uniform Act and Missouri state laws require that just compensation be paid to the owner(s) of private property taken for public use. The Uniform Act is carried out without discrimination and in compliance with Title VI (the Civil Rights Act of 1964), the President's Executive Order on Environmental Justice, and the Americans with Disabilities Act.

An appraisal of fair market value is the basis for determining just compensation to be offered the owner for property to be acquired. The Uniform Act defines an appraisal as a written statement independently and impartially prepared by a qualified appraiser setting forth an opinion of defined value of an adequately described property as of a specific date, supported by the presentation and analysis of relevant market information.

4a) COMMUNITY IMPACTS – ECONOMIC GROWTH AND DEVELOPMENT

Is there an impact to this resource? YES [X] NO []

Change since the 2nd Tier EIS? More Impacts [] Same [] Fewer Impacts [X]

The Study Area for Project J4I1486D is impoverished as shown in Table 4 where the median household income is almost half that of Kansas City, Jackson County, and the entire state of Missouri which verifies the importance for economic growth and development in the area. Furthermore, Table 2 above shows the number of workers in the Study area increasing from 3,401 in 2010 to 3,855 in 2019 which emphasizes the need to accommodate a growing economy. This data is further supported by the Climate and Economic Justice Screening tool which shows that all the census blocks in the Study Area are either low income, in poverty, unemployed, or have less than 10% of the population 25 and older with a high school diploma.

	Missouri	Jackson County	Kansas City, Missouri	Study Area
Median household income in the past 12 months (in 2019 inflation-adjusted dollars)	\$ 55,461.00	\$ 55,134.00	\$ 54,194.00	\$ 28,077.33
Median household income in the past 12 months (in 2013 inflation-adjusted dollars)	\$ 47,380.00	\$ 47,015.00	\$ 45,275.00	\$ 23,444.75
Percent Change	+17%	+17%	+20%	+20%

Table 4: Median household income in 2019 and 2013 (Source: U.S. Census Bureau, ACS 2019).

The Preferred Alternative would affect businesses and jobs in three ways; access changes, business relocations, and travel times. The changes to the Preferred Alternative have resulted in fewer access changes and an increased connectivity between north and south of I-70 for both vehicular and multi-modal traffic. The Updated 2022 Preferred Alternative would not relocate any businesses. Therefore, the Updated 2022 Preferred Alternative would have fewer impacts than noted in the Tier 2 EIS.

**I-70 Second Tier Environmental Impact Statement
NEPA Re-Evaluation – J4I1486D I-70 Corridor Improvements**

4b) COMMUNITY IMPACTS – ENVIRONMENTAL JUSTICE

Is there an impact to this resource?

YES [X] NO []

Change since the 2nd Tier EIS?

More Impacts [] Same [] Fewer Impacts [X]

Executive Order 12898, enacted in 1993, requires each federal agency to make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects on minority and low-income populations.

As identified in the Second Tier EIS, the Study Area has a strong environmental justice presence. Based on U.S. Census Bureau data on minorities from the 2020 Decennial Census and income data from the 2019 American Community Survey, this has not changed since the Second Tier Draft. Table 5 illustrates the magnitude of poverty and minority presence in Project J4I1486D and the surrounding area.

Disseminating from the Biden-Harris Justice40 initiative, the White House Council on Environmental Quality launched the Climate and Economic Justice Screening Tool (CEJST). The tool highlights disadvantaged census tracts based on 8 categories and 28 criteria. Communities are considered disadvantaged if they are in census tracts that meet the thresholds for at least one of the tool’s categories of burden or if they are on land within the boundaries of federally recognized tribes. A community can also be disadvantaged if it is surrounded by disadvantaged communities and is at or above the 50% percentile for low income.

This tool was utilized to further explore the community within the Study Area that may have been overlooked in previous evaluations. It is important to note that the data for this tool is geographically divided by census tract which does not provide as fine of detail compared to the smaller scale block group which is used in the Community Impacts sections below. The CEJST data was accessed in March 2023 and used to create Figure 10 which shows that every census tract within the Study Area is considered disadvantaged.

Category	Socioeconomic burden	Environmental, climate, or other burdens	*3400	*3700	*5400	*6000	*6100	*6300	*6500	*6400	
Energy	Low income ¹	PM 2.5 in the air ≥ 90th percentile									
Health	Low income ¹	Asthma ≥ 90th percentile	X	X	X	X	X	X	X	X	
		Diabetes ≥ 90th percentile	X	X	X	X	X		X	X	
		Heart disease ≥ 90th percentile		X							
		Low life expectancy ≥ 90th percentile		X		X	X	X	X		
Transportation	Low income ¹	Diesel particulate matter ≥ 90th percentile		X	X	X	X		X		
		Transportation barriers ≥ 90th percentile (NEW)									
		Traffic proximity and volume ≥ 90th percentile			X	X	X	X	X	X	X
		Total Criterion Exceeded	2	5	4	5	5	3	5	3	

¹Low Income = 65th percentile or above for census tracts that have people in households whose income is less than or equal to twice the federal poverty level, not including students enrolled in higher education (NEW method of calculation)

*Last four digits of the Census Tract number

Figure 10: CEJST data for each census block within the NEPA Study Limits (Source: CEJST, Accessed March 2023).

While the CEJST highlights several disadvantaged criteria, the criteria in the following categories are not applicable to this transportation project; climate change, housing, legacy pollution, water and wastewater, and workforce development. As an example, the historic development criteria under the housing category was derived from the redlining maps created by the federal government’s Home Owner’s Loan Corporation between 1935 to 1940. These redline maps discriminated against minority groups for approving home loans which ultimately has no direct correlation to transportation infrastructure. As an additional example, while climate change is relevant to transportation projects, the criteria used in the CEJST tool to evaluate climate change includes agricultural loss, building and population loss, flood risk, and wildfire risk. None of those burdens are found within the corridor. Those criteria pertinent to the project have been included in the above table. The health category is directly correlated because of the potential to improve physical health through bicycle and pedestrian accessibility and the consideration of vehicle emissions and particulate matter on human health. The Modified Improved Alternative would positively affect the disadvantaged criteria in Figure 10 through enhanced bicycle pedestrian access, decreased traffic congestion, refined interchanges, and potential for noise abatement at two locations.

Changes made to the Preferred Alternative because of resource agency and public comments on the I-70 Second Tier EIS resulted in fewer impacts to Environmental Justice populations. Based on the comments heard the Brooklyn Avenue half diamond interchange will remain open and all cul-de-sacs previously proposed have been removed from the Preferred Alternative. By removing these improvements from the Preferred Alternative, the impacts that they could have caused to Environmental Justice populations have been reduced.

**I-70 Second Tier Environmental Impact Statement
NEPA Re-Evaluation – J4I1486D I-70 Corridor Improvements**

These changes and other changes made to the Preferred Alternative as described earlier, have led to fewer relocations and decreased the amount of ROW and thus the impacts to Environmental Justice populations have lessened. All the relocations and 83 percent of the ROW required by the Updated 2022 Preferred Alternative are within Environmental Justice areas.

Noise impacts within Environmental Justice areas are also possible. A preliminary noise barrier evaluation identified 20 locations in the Study Area where noise barriers could be warranted based on noise levels, all of which are in Environmental Justice areas. Only two of these noise barriers met feasibility and reasonableness criteria and are recommended for detailed analysis during the final design phase.

The Updated 2022 Preferred Alternative would also provide benefits to all residents in the Study Area including minority and low-income populations. The Updated 2022 Preferred Alternative would decrease congestion along I-70. This would improve travel for residents in the Study Area who utilize I-70 to get to work or other destinations. In addition, it would improve travel for residents who ride transit and use I-70 in the Study Area as well as improve safety not only on I-70, but on the local road network around I-70. The improved travel times on I-70 would also benefit commuters, who may or may not be Environmental Justice populations.

Throughout the study process the Study Team involved and consulted with members of the public and project stakeholders. Multiple methods of public outreach were used to increase the likelihood of minority and low-income persons' participation. The distribution of public outreach activities included those areas that are Environmental Justice areas.

The Updated 2022 Preferred Alternative would minimally impact minority and low-income populations along the corridor through right-of-way acquisition and noise; however, these impacts have decreased since the I-70 Second Tier EIS through minimizing the amount of right-of-way. A noise analysis has also been conducted and identified two feasible noise walls that could reduce noise to sensitive receptors. Since the right-of-way has been reduced and noise mitigation is being considered, it was determined that the Updated 2022 Preferred Alternative would not result in disproportionately high and adverse effects on minority and low-income populations along the I-70 corridor, in accordance with provisions of Executive Order 12898 and FHWA Order 6640.23. No further Environmental Justice analysis is required.

**I-70 Second Tier Environmental Impact Statement
NEPA Re-Evaluation – J411486D I-70 Corridor Improvements**

	Missouri	Jackson County, Missouri	Block Group 1, Census Tract 37	Block Group 2, Census Tract 154.01	Block Group 3, Census Tract 154.01	Block Group 1, Census Tract 160	Block Group 2, Census Tract 160	Block Group 2, Census Tract 161	Block Group 1, Census Tract 163	Block Group 1, Census Tract 164	Block Group 1, Census Tract 165	Block Group 2, Census Tract 165
Total Households:	2,433,819	295,018	466	421	440	266	317	659	310	724	263	436
Household income in the past 12 months below poverty level:	309,471	38,614	133	351	317	164	41	68	108	252	79	108
Household income in the past 12 months at or above poverty level:	2,124,348	256,404	333	70	123	102	276	591	202	472	184	328
Percentage of Households in Poverty	12.72%	13.09%	28.54%	83.37%	72.05%	61.65%	12.93%	10.32%	34.84%	34.81%	30.04%	24.77%
Total Population:	6,154,913	717,204	1,049	418	1,328	853	903	1,175	775	1,741	736	1,132
Population of one race:	5,741,742	652,019	961	388	1,185	758	800	1,115	645	1,557	671	1,052
White alone	4,740,335	435,820	132	185	82	150	133	124	396	410	109	78
Black or African American alone	699,840	158,559	675	187	823	449	575	947	98	804	420	844
American Indian and Alaska Native alone	30,518	4,410	6	3	5	1	3	2	9	7	1	23
Asian alone	133,377	15,201	3	2	44	14	4	1	5	5	3	6
Native Hawaiian and Other Pacific Islander alone	9,730	1,811	0	1	0	1	3	0	0	1	0	0
Some Other Race alone	127,942	36,218	145	10	231	143	82	41	137	330	138	101
Population of two or more races:	413,171	65,185	88	30	143	95	103	60	130	184	65	80
Total Non-White Population	1,414,578	281,384	917	233	1,246	703	770	1,051	379	1,331	627	1,054
Percent Minority	23%	39%	87%	56%	94%	82%	85%	89%	49%	76%	85%	93%

Table 5: Poverty Level and Population by Race within Missouri, Jackson County, and Study Area Block Groups (Source: U.S. Census Bureau, 2020 Decennial Census and 2021 ACS). Households with two more races were considered minority for calculating percent minority.

4c) COMMUNITY IMPACTS – COMMUNITY COHESION	
Is there an impact to this resource?	YES [] NO [X]
Change since the 2nd Tier EIS?	More Impacts [] Same [] Fewer Impacts [X]
<p>Community cohesion is the social and physical network of an area that helps to define a groups identity and relationships within a unique congregation. Transportation networks provide that physical network to foster community cohesion. Within the Study Area, I-70 has served in part as a barrier to this cohesiveness given the disparity towards low income and minority groups and the lack of accessible multi-modal crossings. Impacts to community cohesion will be fewer then as discussed in the I-70 Second Tier EIS because of the increased multi-modal access, decrease in impacts to community centers, and increased connectivity in local roadway networks.</p> <p>To help address multi-modal needs in the corridor several improvements are under consideration as part of the Updated 2022 Preferred Alternative, including connectivity enhancements along the Cleveland Avenue Bridge and along US-40 under I-70. In addition, the following locations were identified as potential sites for new pedestrian bridge crossings: 21st Street, 25th Street, Brighton Avenue, and Topping Avenue. Improvements are also being considered to pedestrian bridges in the Study Area by making them more accessible in accordance with the Americans with Disabilities Act (ADA) as outlined in MoDOT’s Engineering Policy Guide (EPG).</p> <p>The Updated 2022 Preferred Alternative would no longer require land from the City Union Mission Family Center property and would not impact the building or recreation areas. Previously, MoDOT coordinated with representatives from the City Union Mission and they did not express any concerns with the project or the ROW that was previously required.</p> <p>All cul-de-sacs have been removed from the Updated 2022 Preferred Alternative improvements allowing the area to maintain community connectivity and cohesion. This revision was made because agency comments requested the removal of all cul-de-sacs to maintain connectivity, easier maintenance, and better emergency response capability.</p> <p>Temporary traffic impacts from construction of the Updated 2022 Preferred Alternative would involve lane closures but could avoid detours. The proposed project would likely be sequenced such that I-70 would remain open to traffic for the duration of construction. While construction would impact travel for the community, access would remain open to all businesses, residences, and public spaces.</p>	
5) WETLANDS AND WATERS OF THE U.S.	
Is there an impact to this resource?	YES [X] NO []
Change since the 2nd Tier EIS?	More Impacts [] Same [] Fewer Impacts [X]
<p>The impacts to wetlands and waters of the U.S. will remain the same as stated in the I-70 Second Tier EIS. Current National Hydrography Dataset by the United States Geological Survey (USGS) and Wetland Inventory by the United States Fish and Wildlife Service (USFWS) show there are no water features located within the project area. A previous wetland delineation performed in 2013 by HNTB Corporation identified two wetlands and an unnamed tributary to the Blue River within the study limits. It was determined that the Preferred Alternative would impact 0.02 acres of wetland, but not impact the tributary. On February 13, 2014 the United States Army Corps of Engineers’ (USACE) provided a preliminary jurisdictional determination for the proposed impacts and a determination that the improvements would be permitted under nationwide permit (NWP) 14. USACE confirmed their jurisdiction of all unnamed tributaries to the Blue River and adjacent wetlands. HNTB proposed that the two wetlands were hydrologically isolated within upland and therefore non-jurisdictional. Therefore, the 0.02 acres of impacts to wetlands were non-jurisdictional.</p> <p>As part of the re-evaluation effort, a wetland delineation was conducted on June 16, 2022 by HDR Environmental Scientists to confirm the previous wetland delineation results. There were several roadside ditches, two wetlands within the U.S. 40 interchange, and an ephemeral, unnamed tributary of the Blue River just north of that interchange. These water features were all surveyed in the 2013 delineation. Construction limits based on the Updated 2022 Preferred Alternative no longer show impacts to the proposed non-jurisdictional wetlands, nor to the ephemeral stream (though the construction limits to about it). When the project moves into final design and impacts are refined, the USACE should be consulted to confirm jurisdiction of the ephemeral stream and wetlands. Since Project J4I1486D is currently estimated not impact any wetlands or Waters of the U.S., there will be fewer impacts than the I-70 Second Tier EIS.</p>	

USACE was contacted March 30, 2023 to re-evaluate the project and provide any comment on its potential to impact jurisdictional waters and wetlands. They replied on April 19, 2023 stating that the previously approved NWP 14 dated February 13, 2014 was no longer valid and that any discharge of dredged or fill material in any waters of the United States, including wetlands, would require a new permit.

New Commitment: As final design progresses MoDOT will obtain the necessary permits from USACE if discharge of dredged or fill material in any waters of the United States, including wetlands, is expected.

6) GROUNDWATER

Is there an impact to this resource?

YES [] NO [X]

Change since the 2nd Tier EIS?

More Impacts [] Same [X] Fewer Impacts []

There are no public drinking wells or sole-source aquifers within the Study Area which has been confirmed using MDNR's Geosciences Technical Resource Assessment Tool; therefore, no effects to those types of groundwater supplies are anticipated. The use of vegetated slopes and swales as well as runoff detention systems in appropriate locations can provide treatment of potentially polluted runoff from the roadway, thereby avoiding or minimizing impacts to groundwater quality. To protect the environment from sedimentation and construction pollutants during the building phase, the control of water pollution is to be accomplished by the use of MoDOT's Stormwater Pollution Prevention Plan and Best Management Practices. Control measures could include temporary berms, ditch checks, slope drains, sediment basins, straw bales, silt fences, erosion control blankets, seeding, and mulching.

7) FLOODPLAINS

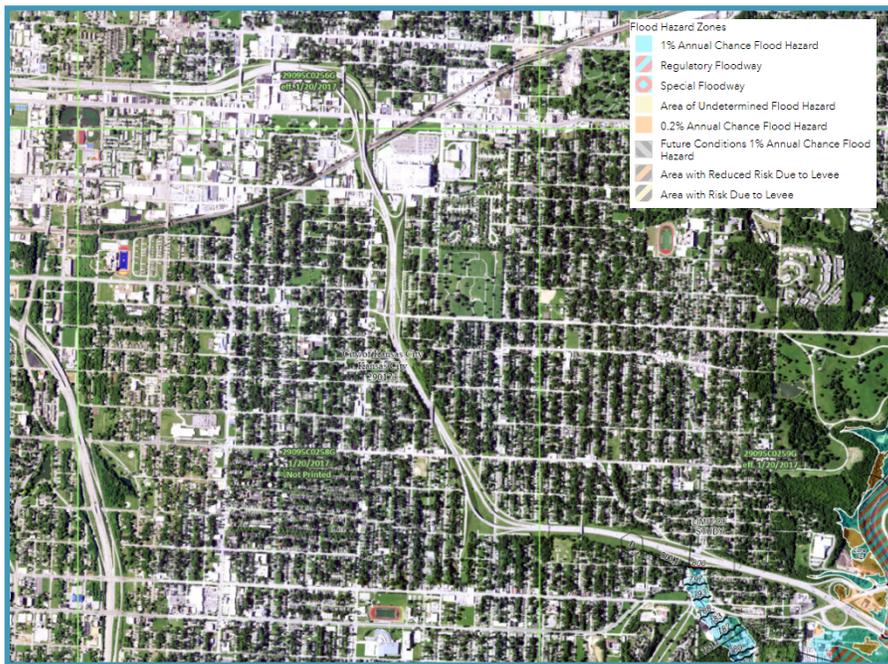
Is there an impact to this resource?

YES [X] NO []

Change since the 2nd Tier EIS?

More Impacts [X] Same [] Fewer Impacts []

In the I-70 Second Tier EIS there no impacts to floodplains were expected. There are 100-year and 500-year floodplains associated with Blue River that are located within the limits of Project J4I1486D, near the Van Brunt Boulevard interchange and the US 40 interchange. The Additional design detail of the Updated 2022 Preferred Alternative show that project slope limits may slightly infringe upon the 100-year and 500-year floodplains between the US 40 interchange and Fremont Avenue, as well as near Van Brunt Boulevard for a total of 0.26 acres. As final design progresses, this impact may be avoided. However, if not, MoDOT will coordinate with City of Kansas City and Missouri State Emergency Management Agency to obtain any necessary permits.



New Commitment: As final design progresses MoDOT will coordinate with City of Kansas City and Missouri State Emergency Management Agency to obtain any necessary permits for floodplain impacts, if necessary. Additionally, if the final design includes a floodplain encroachment that would cause significant impacts, a finding that it is the only practicable alternative as required by 23 CFR 650, Subpart A would be prepared. Further, structures would be designed to FEMA standards as required by 23 CFR 650, Subpart A.

Figure 11: FEMA NFLH Map

of the Study Area (Source: FEMA NFLH, Accessed March 2023).

8) AIR QUALITY

Is there an impact to this resource?

YES [] NO [X]

Change since the 2nd Tier EIS?

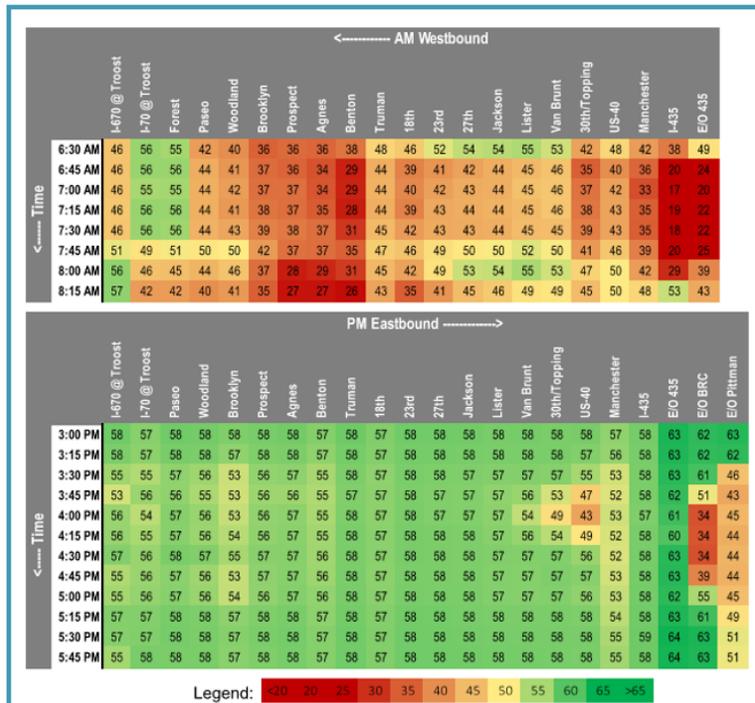
More Impacts [] Same [X] Fewer Impacts []

The impacts to air quality would remain the same as stated in the I-70 Second Tier EIS. There are no existing violations of carbon monoxide (CO) in the Study Area. Since the Study Area is in attainment for CO, no additional analysis is required. The Updated 2022 Preferred Alternative includes horizontal and vertical improvements to increase the average design speed throughout the corridor. Because CO emissions are greatest from vehicles operating at low speeds, the faster and consistent speed associated with the Updated 2022 Preferred Alternative has the potential to decrease CO emissions throughout the corridor. This project is not expected to produce a projected violation of the CO National Ambient Air Quality Standards (NAAQS).

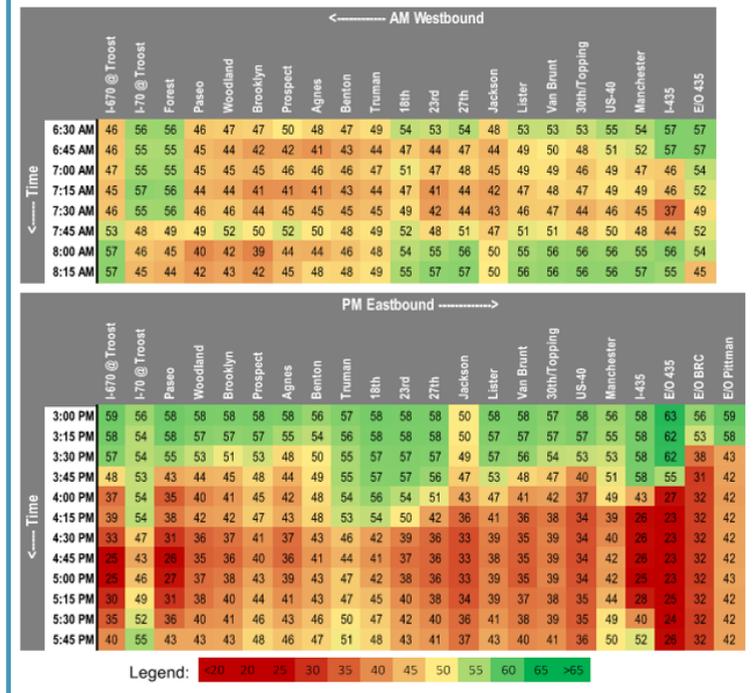
The Updated 2022 Preferred Alternative is expected to decrease the time vehicles spend on I-70, because of improved traffic flow. From the AJR, the 2026 No-Build and Updated 2022 Preferred Alternative peak AM and PM speeds illustrate the overall increase in speeds and reduction in congestion. In addition, the number of hybrid and electric vehicles in the overall vehicle fleet may continue to increase as current trends suggest.

These factors will decrease the amount of greenhouse gases released into the atmosphere. However, the expected increase in traffic volumes may negate some or all of these benefits.

The Updated 2022 Preferred Alternative includes improvements promoting alternate commuting options and therefore aim at reducing the vehicles miles traveled (VMT) in the corridor. The Updated 2022 Preferred Alternative includes improved existing and/or consideration of additional bicycle and



2045 Modified Pref. Alt. Freeway Results Summary
(speeds in mph and throughputs in veh)



2026 No-Build Freeway Results Summary
(speeds in mph and throughputs in veh)

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pedestrian access across I-70 to allow increased opportunities to bike or walk. By reducing the VMT, particulate matter would be reduced and both volatile organic compounds (VOC) and nitrogen oxides (NOx), ingredients in ozone formation, would be reduced as compared to the No-Build Alternative. However, this minor reduction in VOC and Nox may be offset, because NOx emissions increase when traffic speeds are high and consistent. Emissions will further be reduced by improved traffic flow which allows for vehicles to operate more efficiently and decreases idle time.

During the re-evaluation efforts, the City of Kansas City, Missouri raised concerns relative to air quality along the corridor. The information below addresses these concerns.

The Kansas City area air quality monitoring region is currently designated in attainment of the NAAQS, for all criteria pollutants. This ozone status includes Platte, Clay, and Jackson counties in Missouri. On October 1, 2015, the EPA strengthen the NAAQS for ground level ozone to 70 parts per billion (ppb). States are required to have approved state implementation plans to address nonattainment areas and areas will be required to meet the new standard between 2013 and 2021.

A portion of Jackson County in the downtown Kansas City area was in nonattainment for the 1-hour SO₂ NAAQS from 2013 to 2021 (though SO₂ is not a pollutant of concern from a vehicle emissions standpoint). The Kansas City area (Clay, Jackson, and Platte counties) is a maintenance area for the previous ozone NAAQS. None of the monitors in the Kansas City area are in violation of the current 2015 ozone NAAQS. However, it's possible that Kansas City becomes designated a nonattainment area at some point, but it may not happen unless/until EPA establishes a new ozone standard as a result of their next ozone NAAQS review. Regardless of Kansas City's official status, ozone continues to be an air quality concern in the area. EPA EJScreen tool shows the greater Kansas City metro as being in the national 80-90th percentile for Ozone. Furthermore, the CEJST results in Figure 10 list majority of census blocks in the Study Area in the 90th percentile for Diesel Particulate Matter. This is likely a result of the 18% of all traffic consisting of freight movement. Therefore, improvements of the Updated 2022 Preferred Alternative resulting in free-flowing traffic will ultimately result in decreased ozone and diesel emissions.

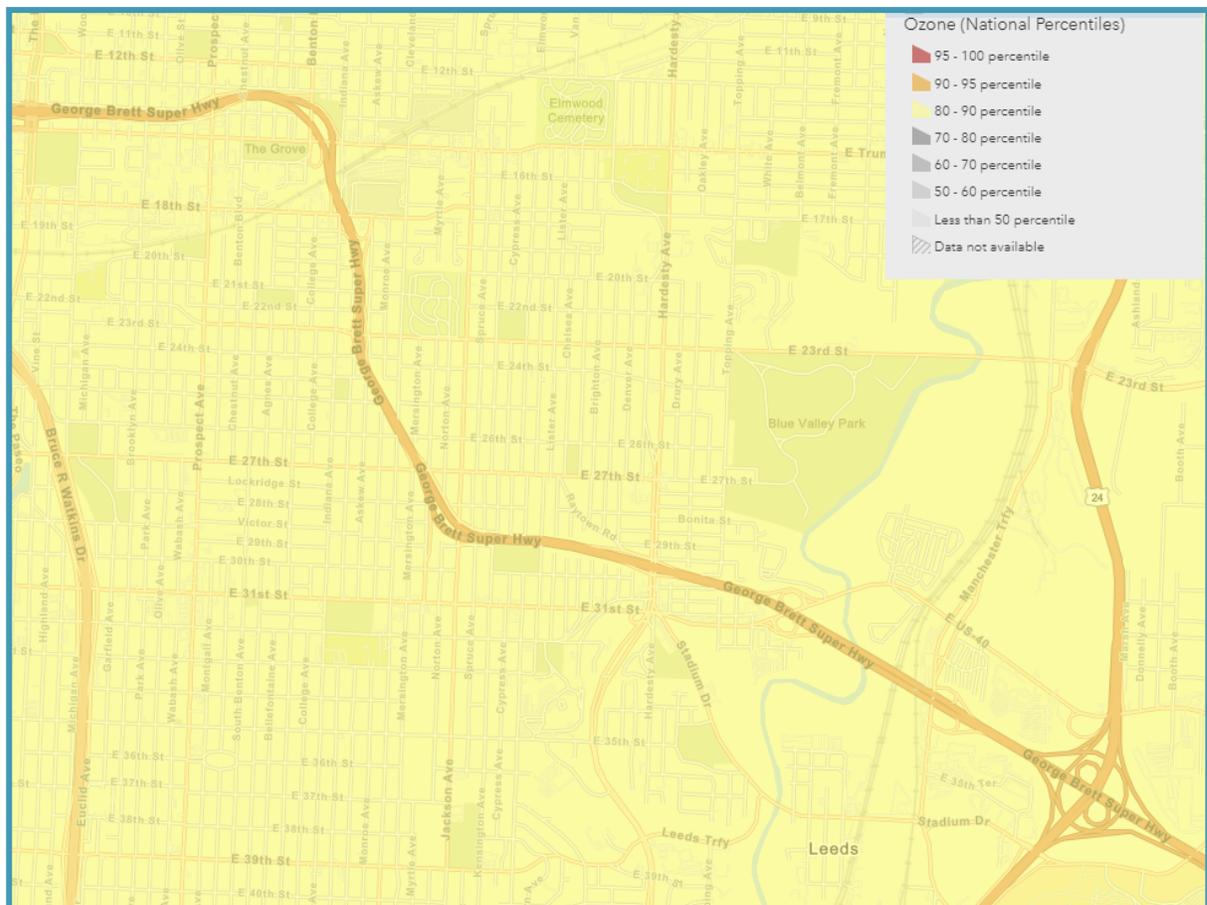


Figure 12: EPA EJScreen Tool for Ozone within Kansas City, MO (Source: EPA EJScreen Tool, Accessed May 2023).

9) NOISE

Is there an impact to this resource?

YES [X] NO []

Change since the 2nd Tier EIS?

More Impacts [] Same [] Fewer Impacts [X]

Based on a noise screening, the I-70 Second Tier EIS estimated noise impacts to 922 noise sensitive receptors as a result of the Preferred Alternative. Since that time, a detailed noise analysis was completed for the Updated 2022 Preferred Alternative. The analysis determined that the noise impacts that would result from the Updated 2022 Preferred Alternative would be to 377 noise sensitive receptors. Of those, 130 noise sensitive receptors are considered first-row impacted receptors. Sixteen noise barriers under the Updated 2022 Preferred Alternative were evaluated for their ability to feasibly and reasonably reduce noise levels at the first-row impacted receptors. Barriers for some impacted receptors could not be considered because either the impacted receptor is isolated (cannot achieve 5dBA noise reduction at a minimum of 2 receptors) or due to engineering feasibility issues regarding required gaps for driveways or other access. The noise barriers were analyzed for the impacted receptors in NSA 1 thru NSA 11, NSA 13, and NSA 14. Out of sixteen evaluated barriers, two noise barriers, NW05a and NW09, meet the MoDOT feasibility and reasonability requirements and is recommended as part of the Updated 2022 Preferred Alternative. Locations of the evaluated noise barriers are shown in Figure. Results of the noise barrier analysis are summarized in the Table below.

Noise Barrier	Length (feet)	Avg. Height (feet)	Number of First-Row Impacted Receptors ¹	Feasibility	Reasonableness				Is Noise Barrier Feasible and/or Reasonable?
				≥ 5 dBA Insertion Loss for a Minimum of Two First-Row Impacted Receptors ¹	Number of First-Row Benefited Receptors with ≥ 7 dBA Noise Reduction	Percent of First-Row Benefited Receptors with ≥ 7 dBA Noise Reduction ²	Total Benefits	Square Feet per Benefited Receptor ³	
NW01	1,364	18	16	Yes	12	100%	24	1,364	No
NW02	836	20	6	N/A ¹	N/A ⁴	N/A ⁴	N/A ⁴	N/A ⁴	No
NW03	841	20	8	Yes	1	100%	1	16,821	No
NW04	1,643	14.9	5	Yes	3	100%	3	8,214	No
NW05a	979	15.7	3	Yes	3	100%	12	1,282	Yes
NW05b	1,591	20	11	Yes	6	100%	16	1,989	No
NW05c	528	20	3	N/A ⁴	N/A ⁴	N/A ⁴	N/A ⁴	N/A ⁴	No
NW06	502	20	3	Yes	1	100%	1	10,030	No
NW07	673	18.4	13	Yes	6	100%	7	1,774	No
NW08a	1,166	20	5	Yes	1	100%	1	23,325	No
NW08b	433	16	11	Yes	3	100%	3	2,310	No
NW09	1,695	18.7	31	Yes	26	100%	26	1,224	Yes
NW10	697	13.5	2	Yes	2	100%	2	4,732	No
NW11	1,252	20	3	Yes	3	100%	12	2,086	No
NW13a	693	15.9	10	Yes	2	100%	2	5,544	No
NW13b	1,008	14.8	3	Yes	2	100%	2	7,437	No

¹ MoDOT requires at least a 5 dBA insertion loss for a minimum of two first-row, impacted receivers.

² Noise abatement measures must provide a minimum noise reduction of 7 dBA for 100 percent of first-row benefited receptors.

³ Noise abatement measures shall not exceed 1,300 square feet per benefited receptor, in the case of noise walls.

⁴ Per MoDOT policy, if a noise abatement measure is deemed infeasible, a reasonableness analysis will not be performed.

Table 6: Noise Barrier Analysis Results.

During final design of the Updated 2022 Preferred Alternative, MoDOT will conduct a detailed design noise analysis using the FHWA Traffic Noise Model (TNM 2.5) or the most current noise analysis software to determine feasibility and reasonableness for the benefit of all predicted traffic noise impacts identified in the traffic noise analysis. The location, length, height, cost, and receptors studied and benefited should be included in the study. The final decision to construct the proposed noise barrier should be made upon completion of the project design and the public involvement process taking into consideration the opinions of benefited property owners and residents, and upon FHWA approval.

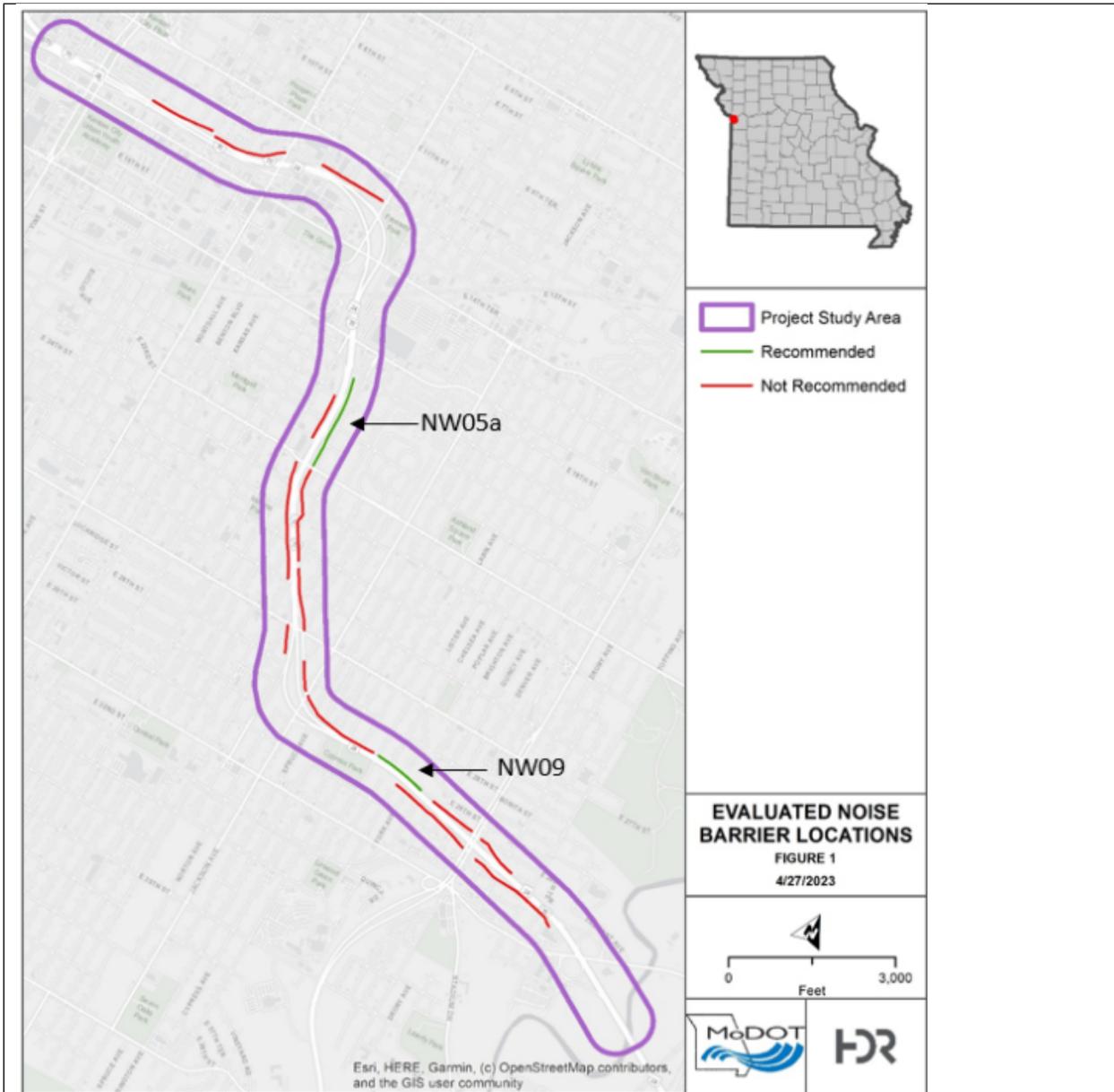


Figure 13: Evaluated Noise Barrier Locations.

10) VISUAL ENVIRONMENT

Is there an impact to this resource?

YES [] NO [X]

Change since the 2nd Tier EIS?

More Impacts [] Same [X] Fewer Impacts []

The visual quality of an area may depend on the preferences and subjective values of the viewer. FHWA produced a manual titled “Visual Impact Assessment for Highway Projects” which MoDOT used to survey the Project during the 2014 I-70 Second Tier EIS. It was determined that the visual impacts of the Preferred Alternative would have no overall change to the existing visual environment. The changes presented in the Updated 2022 Preferred Alternative including minor widening of the shoulders, longer on- and off-ramps, and less than 3 acres of new right-of-way, are not expected to dramatically change the views of highway. Considering the existing visual environment has remained largely unchanged since the Second Tier EIS and the changes to the Updated 2022 Preferred Alternative are not substantially different from the Preferred Alternative, impacts to the visual environment would remain the same.

11) THREATENED AND ENDANGERED SPECIES

Is there an impact to this resource?

YES [] NO [X]

Change since the 2nd Tier EIS?

More Impacts [] Same [X] Fewer Impacts []

Since the publication of the I-70 Second Tier EIS, new information from updated surveys has been collected. The updated species list includes gray bat, Indiana bat, northern long-eared bat, tri-colored Bat, and monarch butterfly indicated by US Fish and Wildlife Service Information for Planning and Conservation website (Project Code: 2023-0020539, April 6, 2023) (Appendix D). The monarch butterfly and tri-colored bat have been added as a candidate and proposed endangered species, respectively. Northern long-eared bat has been up-listed from threatened to endangered effective March 31, 2023. Additional information was provided from reviews of the Missouri Department of Conservation (MDC) Heritage database (December 2022, Appendix D) and the Missouri Speleological Survey cave database information (current to 2015).

Species/ Critical Habitat	Scientific Name	Federal Status	2017 I-70 ROD Status	2021 Re-Evaluation
MAMMALS				
Gray bat	<i>Myotis grisescens</i>	E ¹	E	No Change from the 2017 I-70 ROD
Indiana bat	<i>Myotis sodalis</i>	E	E	No Change from the 2017 I-70 ROD
Northern Long-eared bat	<i>Myotis septentrionalis</i>	E	T ²	Species listed as Endangered March 31, 2023.
Tricolored bat	<i>Perimyotis subflavus</i>	PE ³	-	Species listed as Proposed Endangered in 2022.
INSECTS				
Monarch butterfly	<i>Danaus plexippus</i>	C ⁴	-	Species listed as a Candidate in 2021.

¹ Endangered; ² Threatened; ³ Proposed Endangered; ⁴ Candidate

Table 7: USFWS listed species of concern as of April 2023.

Gray bats are cave obligate species which congregate in maternity or bachelor colonies in the summer utilizing dome cave and mine habitat, and mixed colonies during winter hibernation in vertical or pit-type caves and mines, utilizing mainly stream corridors for foraging spring through fall. If a project will impact caves or mines or will involve tree removal around these areas (particularly within stream corridors, riparian areas, or associated upland woodlots), gray bats could be affected. There are no known caves or quarries within two (2) miles of the project area and no known gray bat summer records within seven (7) miles of the project area. There will be no impact to gray bat cave habitat nor any streams or riparian corridors in the project area, and there will be **No Effect** on gray bats from this project.

Indiana and northern long-eared bats can occur in any forested area in the state of Missouri. These species hibernate in caves or mines only during the winter. The rest of the year they roost under loose tree bark in tree crevices or cavities during the day and forage around tree canopies of floodplain, riparian, and upland forests at night. Trees which should be considered potential roosting habitat include those exhibiting loose or shaggy bark, crevices, or hollows. Tree species often include but are not limited to: shellbark or shagbark hickory, white oak, cottonwood, and maple. Though there are no known summer records for either species within 40 miles of the project limits, removal of potential roost habitat at any time of the year could negatively impact these species. There will be approximately two (2) acres of tree clearing for the updated project limits. In August and October 2016 MoDOT Environmental staff conducted a habitat assessment for the 6.5-mile I-70 Paseo Blvd to Blue Ridge Cut-off interchange limits which included the Urban SIU (MoDOT Job#1486D) and the I-435 SIU limits (MoDOT Job#1597C). There was a single summer roost tree in the clearing limits for Job# J4I1597C, and several other examples of suitable trees in the study corridor limits for the I-70 Second Tier EIS. With seasonal tree clearing restrictions, MoDOT and FHWA made a “may affect, but not likely to adversely affect” determination for the Indiana bat and northern long-eared bat. MoDOT completed Programmatic Range-wide Consultation for bat habitat and requested concurrence with that determination. USFWS concurred on January 9, 2017. Job# J4I1597C has been completed and the Section 7 consultation for the rest of the corridor expired in January 2020. In June 2022, HDR conducted a habitat assessment of the Urban SIU study corridor from west of The Paseo to east of the interchange at US40/31st Street. Appendix D contains the results of the 2017 USFWS concurrence and results of the 2022 field review. HDR Environmental Scientists resurveyed the habitat on July 16, 2022 and found no suitable summer roosting habitat for Indiana or northern long-eared bats within the updated project limits. The effect determination for Indiana and northern long-eared bats has been updated to **No Effect** for both species. HDR verified this through the determination key available in IPaC (consistency

letter included in Appendix D).

Tri-colored bats mainly roost in foliage of live and dead trees in the spring, summer, and fall, and hibernate in caves and other subterranean habitats during the winter. These bats can occasionally be found roosting on bridges and in culverts. The primary threat to this species is white nose syndrome which typically afflicts bats during hibernation. Given the extreme losses from WNS and impact of wind industry related mortality- loss of roosting, foraging, and commuting habitat (forested habitat) between summer and winter resources can have a large impact depending on timing, location, and extent of removal. MDC Heritage Database shows records of tricolored bats within two miles of the project limits. There are no known summer or winter records within several miles of the project area.

Though there is no updated impact assessment guidance for tricolored bats from USFWS, there will be removal of mature trees (over three inches in diameter) in the project limits. MoDOT anticipates that a conservation measure requirement after the proposed endangered listing becomes final will be to remove all trees in the inactive season, between November 1 and March 31 in Missouri. MoDOT will include this tree clearing restriction for all trees over three inches in diameter and concludes that this project may affect but is not likely to jeopardize the existence of tricolored bats. MoDOT will continue to monitor updates in consultation requirements and follow up with USFWS prior to final design for this Urban SIU.

Monarch butterflies are found in a wide variety of habitats: fields and grasslands, roadsides, and urban and suburban plantings. Monarch butterfly is a candidate proposed for listing. Neither section 7 of the Endangered Species Act nor the implementing regulations for section 7 contain requirements for federal agencies with respect to candidate species. However, MoDOT does not anticipate there will be disturbance of suitable habitat for this species.

New Commitment: As final design progresses MoDOT will continue coordination with USFWS to determine the Project’s effect on any current and future protected species.

12) HISTORIC AND ARCHAEOLOGICAL SITES

Is there an impact to this resource? YES [X] NO []

Change since the 2nd Tier EIS? More Impacts [] Same [X] Fewer Impacts []

Previously, the Preferred Alternative was expected to impact The Paseo and Benton Boulevard which are contributing resources to the Kansas City Parks and Boulevards Historic District. The Updated 2022 Preferred Alternative would not result in changes to the areas adjacent to the Kansas City Parks and Boulevards Historic District that would diminish the district’s integrity, nor would it diminish the district’s ability to convey its significance. The Updated 2022 Preferred Alternative would have no adverse effect to the Kansas City Parks and Boulevards Historic District.

Since the publication of the I-70 Second Tier EIS MoDOT received a letter from the State Historic Preservation Office (SHPO) stating their concurrence of no adverse effect on the historic resources in the Study Area based on their review of the Final Cultural Resource Archival and Architectural Review. This letter is included in Appendix F.

In addition, a Phase I Archaeological Survey for the Preferred Alternative was completed since the publication of the I-70 Second Tier EIS. The archaeological survey of the proposed construction easement associated with the I- 70 Second Tier EIS study within Kansas City revealed that a large portion of this area had been previously disturbed. Most of this disturbance was caused by the original construction of the interstate. However, some archaeological remains do appear to exist in at least eight locations, where construction rubble and some artifacts were identified. These locations do seem to have been less disturbed by the interstate construction, but it was unclear, due to the limitations of shovel testing within an urban environment, if these remains represent intact subsurface deposits or just rubble from buildings torn down during construction.

To further review the historic resources for this EIS Re-evaluation, MoDOT decided to perform a Phase 1 archaeological survey of the eight proposed sites and review the architectural resources in the corridor. In the summer of 2022, HDR historians surveyed the archeological and architectural resources. Of the eight potential sites, seven met criteria to be a site. If any of these potential sites may be impacted by the Updated 2022 Preferred Alternative, a Phase 2 survey is recommended to determine NRHP eligibility. There were 213 potentially historic buildings which were surveyed for NRHP eligibility and one building was determined eligible for listing in the NRHP, St. Stephen Baptist Church. The project area of potential effects still intersects the Kansas City Parks and Boulevards Historic District. Neither of these historic resources are expected to be impacted and HDR professional architectural historians recommend the project will result in no adverse effects. MoDOT submitted the cultural survey to Missouri SHPO for concurrence with no adverse effect to architectural resources and the potential for seven archaeological sites to be eligible for NRHP listing. Therefore, Project J4I1486D would

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have no impact on architectural resources but may have the potential to affect archaeological sites within the corridor which would require further surveying if impacts are anticipated.

During the EIS efforts, FHWA consulted on a government-to-government basis with tribes that might attach religious and cultural significance to the project area. Through this effort, FHWA invited 13 tribal governments as consulting parties to identify properties of tribal interest. Though only the Miami Tribe of Oklahoma specifically requested to be a consulting party, FHWA again invited any tribe that might attach religious and cultural significance to the project area to consult on this proposed project. As such, FHWA sought comment on the cultural resources survey findings, as well as provided the tribes with an invitation to consult in the development of the Programmatic Agreement.

New Commitment: MoDOT will follow the Programmatic Agreement, developed with SHPO, which addresses additional archaeological testing, and if necessary, mitigation measures for the seven potentially eligible archaeological sites that may be impacted by the Project.

13) PUBLIC LANDS AND SECTION 4(f) AND 6(f)

Is there an impact to this resource? YES NO

Change since the 2nd Tier EIS? More Impacts Same Fewer Impacts

Section 4(f) resources include publicly owned lands such as parks, institutions, wildlife refuges, and historic sites that are open to the public. Section 4(f) resources within the Study Area include Cypress Park, Grove Park, Indiana Park, Van Brunt Park, and Parade Park, as well as the Kansas City Parks and Boulevards Historic District (The Paseo, Benton Boulevard, and Van Brunt Boulevard). The Kansas City Parks and Boulevards Historic District includes over 135 miles of boulevards and parkways which Kansas City Parks and Recreation manages as greenspace. The I-70 Second Tier EIS included impacts to the Kansas City Parks and Boulevards Historic District while all other parks would not be impacted. Impacts to Cypress Park were going to be avoided by designing a retaining wall as close to I-70 as possible. The 4(f) *De Minimis* impact determination was presented to the Kansas City Parks and Recreation Board and a letter stating their support was signed by Mark McHenry, Director of Kansas City Parks and Recreation and sent to FHWA.

Previously, the Preferred Alternative was expected to impact the Paseo and Benton Boulevard which are contributing resources to the Kansas City Parks and Boulevards Historic District. The Updated 2022 Preferred Alternative would not result in changes to the areas adjacent to the Kansas City Parks and Boulevards Historic District that would diminish the district's integrity, nor would it diminish the district's ability to convey its significance. The preferred alternative would have no adverse effect to the Kansas City Parks and Boulevards Historic District. Based on input from the department, it was determined that Benton Boulevard would remain on existing alignment. As the project moves into final design and construction, coordination with the Parks Department will be necessary and previous Section 4(f) determinations will be reassessed, as necessary. Design features would still be implemented to avoid impacts to Cypress Park. In summary, the Updated 2022 Preferred Alternative would have the same impacts to parks as was shown in the I-70 Second Tier EIS.

Section 6(f) properties or those properties which have received funding from the Land and Water Conservation Fund managed by the National Park Service. Section 6(f) protected properties cannot be converted to a use other than public outdoor recreation unless approval is received from the NPS. There are no Section 6(f) properties located within the project limits.

14) HAZARDOUS MATERIALS SITES

Is there an impact to this resource? YES NO

Change since the 2nd Tier EIS? More Impacts Same Fewer Impacts

Hazardous materials are defined in a number of ways, depending on the applicable regulatory programs. In general, they are dangerous or potentially harmful to human health or the environment when not managed properly. Missouri Department of Natural Resources' (MDNR) E-Start database and EPA Enviromapper were used to identify underground storage tanks, brownfield and superfund sites, and RCRA facilities. There were five active underground storage tanks, one long-term stewardship cleanup site, and 12 active RCRA facilities within the Study Area. Four of these sites are intersected by the construction limits of the Updated 2022 Preferred Alternative, two RCRA facilities and two USTs, but MoDOT does not currently plan to impact them. In fact, the Updated 2022 Preferred Alternative has resulted in significantly fewer right-of-way impacts and the 16 hazardous waste sites identified in the I-70 Second Tier EIS would no longer be impacted through

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right-of-way acquisition. Therefore, the impacts to hazardous waste sites are fewer than what was stated in the I-70 Second Tier EIS. MoDOT's goals for addressing hazardous materials are to avoid unacceptable cleanup costs and legal liability and to comply with federal and state laws and regulations regarding cleanup. Additional information regarding the identified MDNR E-Start database resources within the project limits is included in Appendix G.

15) MITIGATION AND ENVIRONMENTAL COMMITMENTS

MoDOT and FHWA have committed to the following mitigation measures to offset the potential impacts detailed previously in this document. Mitigation measures committed to previously in the 2017 EIS/ROD are listed below (*italicized text*), revised commitments are labeled as "**Revised Commitment:**", and new commitments are labeled as "**New Commitment:**". Revised comments have been adjusted to accommodate design-build procurement method and/or updates in MoDOT policies and procedures.

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1. *A Transportation Management Plan (TMP) will be developed and include:*
 - *A Traffic Operations Plan will be developed during project design and be included in the construction contract. A TMP will lay out a set of coordinated traffic management strategies to manage the work zone impacts.*
 - *MoDOT will send a news release out to local newspapers and radio stations giving local commuters information about construction activities that could impact their daily travels. This information will also be posted on MoDOT's website.*

Revised Commitment: MoDOT will ensure a Traffic Management Plan (TMP) is developed for construction to respond to temporary disruptions in travel patterns and travel time. Once developed, MoDOT will assess the impacts of the TMP within the framework of NEPA. If the TMP could result in impacts that were not previously reviewed under NEPA—such as new or additional road closures, access changes, or other circumstances that could cause new or modified impacts to resources, MoDOT's environmental section will review these impacts prior to implementing the TMP.

2. *MoDOT will acquire all properties needed for this project in accordance with the Uniform Relocation Assistance and Real Property Acquisition Act as amended (Uniform Act; 42 U.S.C 4601), and other regulations and policies as appropriate.*

This commitment remains valid and MoDOT will ensure compliance.

3. *MoDOT will continue to coordinate with the Kansas City Area Transit Authority (KCATA) and other agencies on their plans for service and transit stops. Additional amenities will be considered in the design phase of the project in accordance with the MoDOT EPG.*

This commitment remains valid and MoDOT will ensure compliance.

4. *MoDOT will coordinate with local agencies as bridge and pavement upgrades in the corridor take place to discuss aesthetics and non-motorized enhancements will be considered during the design phase of each project. MoDOT will consider aesthetic and landscaping opportunities in the design phase of the project in accordance with the MoDOT EPG.*

Revised Commitment: MoDOT will coordinate with local agencies and offer opportunities to supply additional funding and/or maintenance of aesthetic applications above the baseline.

5. *To avoid right of way impacts to Cypress Park, retaining walls will be constructed at this location. Construction impacts to the park will also be avoided by building the retaining wall as close to I-70 as possible.*

Revised Commitment: Design features will be pursued to avoid impacts at Cypress Park.

6. ~~*During the ROW phase, per the MoDOT EPG, three notices will be sent in writing and personally served or sent by certified or registered first-class mail with return receipt requested to impacted property owners. The three types of notices that will be sent are; general information notice, notice of relocation eligibility, and vacancy notice.*~~

This commitment is omitted due to redundancy as it is a federal requirement within the Uniform Relocation Assistance and Real Property Acquisition Act as amended (Uniform Act; 42 U.S.C 4601), and therefore included within commitment 2.

7. *MoDOT will coordinate the preservation/replacement of existing aesthetic features at the Boulevard crossings and interchanges with the City of Kansas City, Missouri Parks and Recreation Department during the design process.*

This commitment remains valid and MoDOT will ensure compliance.

8. *MoDOT will continue ongoing consultation with the Kansas City, Missouri Parks and Recreation Department regarding trails and bike routes as the project moves into the design phase. MoDOT will coordinate with City of Kansas City, Missouri's Livable Streets policy and MARC's Complete Streets policy.*

This commitment remains valid and MoDOT will ensure compliance.

9. *MoDOT will facilitate opportunities to train and/or identify local workers and suppliers during the design and construction phases.*

This is a Standard Construction Commitment and is applicable to Project J4I1486D to be carried forward.

10. *Signage opportunities, including replacements and additions will be considered in the design phase of the project in accordance with the MoDOT EPG. At the time of the first phase of design MoDOT will coordinate with KCMO to discuss signage.*

Revised Commitment: Signage opportunities, including replacements and additions will be considered in the design phase of the project in accordance with the MoDOT EPG and KCMO if warranted (e.g. signage on city streets).

This is a Standard Construction Commitment and is applicable to Project J4I1486D to be carried forward.

11. *Lighting design will be considered in the design phase of the project in accordance with the MoDOT EPG.*

This is a Standard Construction Commitment and is applicable to Project J4I1486D to be carried forward.

12. *If remediation is needed at the 1301 Prospect Avenue hazardous waste site, it will be determined during the design and construction phases. MoDOT will coordinate with MDNR and the EPA during the design phase including providing design drawings at the locations of identified sites and get their input and concurrence. Any avoidance or mitigation activities resulting from the coordination with the regulatory agencies will be incorporated into the final design and construction documents.*

Not applicable as this property would not be impacted under the current Updated 2022 Preferred Alternative. If it becomes evident during final design that this property would be impacted, This commitment remains valid and MoDOT will ensure compliance.

13. *Any previously known and unknown hazardous waste sites that are found during project construction will be handled in accordance with federal and state laws and regulations. If regulated solid or hazardous wastes are found during construction activities, the MoDOT construction inspector will direct the contractor to cease work at the suspect site. The construction inspector will contact the appropriate environmental specialist to discuss options for remediation. The environmental specialist, the construction office, and the contractor will develop a plan for sampling, remediation, and continuation of project construction. Independent consulting, analytical, and remediation services will be contracted if necessary. MDNR and EPA will be contacted for coordination and approval of required activities.*

This is a Standard Construction Commitment and is applicable to Project J4I1486D to be carried forward.

14. *The contractor will identify all borrow and waste sites prior to initiating construction. The contractor shall be responsible for obtaining all necessary environmental clearances, approvals, and permits for use of all borrow and/or waste sites.*

This is a Standard Construction Commitment and is applicable to Project J4I1486D to be carried forward.

15. *MoDOT will notify the City of Kansas City, Missouri and the MDNR if and when, hazardous waste issues emerge during project construction.*

This commitment remains valid and MoDOT will ensure compliance.

16. *If cultural resources that may be eligible for listing on the National Register of Historic Places (NRHP) or archaeological artifacts are encountered during construction, the Contractor shall first stop all work within a 50-foot buffer around the limits of the resource, and secondly, shall notify the appropriate MoDOT Resident Engineer or Construction Inspector who will contact the MoDOT's Historic Preservation (HP) section. MoDOT HP shall contact the appropriate staff at FHWA and SHPO to report the discovery after a preliminary evaluation of the resource/artifact is made and reasonable efforts to see if it can be avoided. The contractor will take steps to preserve any such objects that may be encountered and to deliver them to MoDOT. If it is necessary to discontinue operations in a particular area to preserve such objects, this section of the specifications is basis for a work suspension. If it is determined that the cultural resource is a historic property that will be adversely affected by the undertaking, MoDOT will immediately notify FHWA and SHPO of this finding and provide recommendations to minimize and/or mitigate the adverse effect. FHWA will notify the Advisory Council on Historic Preservation and any Indian tribe that might attach religious and cultural significance to the affected property within 48 hours of this determination. FHWA shall take into account Council and Tribal recommendations regarding National Register eligibility and proposed actions, and then direct MODOT to carry- out the appropriate actions. MoDOT will provide FHWA and SHPO with a report of the actions when they are completed. FHWA shall provide this report to the Advisory Council and the Indian tribes. The Miami Tribe of Oklahoma has specifically requested to be a consulting party.*

This commitment remains valid and MoDOT will ensure compliance.

17. *Pollution control measures outlined in the Missouri Standard Specifications for Highway Construction will be used to minimize impacts associated with the construction of any alternative; these measures pertain to air, noise, and water pollution as well as traffic control (e.g., detours) and safety measures. Best management practices will be employed to minimize or mitigate potential impacts.*

This is a Standard Construction Commitment and is applicable to Project J4I1486D to be carried forward.

18. *During final design, MoDOT will conduct a detailed design noise analysis using the FHWA Traffic Noise Model (TNM 2.5) or the most current noise analysis software to determine feasibility and reasonableness for the benefit of all predicted traffic noise impacts identified in the traffic noise analysis. The location, length, height, cost, and receptors studied and benefited should be included in the study. The final decision to construct the proposed noise barrier should be made upon completion of the project design and the public involvement process taking into consideration the opinions of benefited property owners and residents, and upon FHWA approval.*

This commitment remains valid and MoDOT will ensure compliance.

19. *If meeting the project schedule requires that earth removal, grading, hauling, and/or paving must occur during evening, nighttime, and/or weekend hours in the vicinity of residential neighborhoods, the contractor shall notify MoDOT as soon as possible. In such instance(s), all reasonable attempts shall be made to notify and to make appropriate arrangements for the mitigation of the predicted construction noise impacts upon the affected property owners and/or residents.*

This is a Standard Construction Commitment and is applicable to Project J4I1486D to be carried forward.

20. *Emissions from construction equipment will be controlled in accordance with emission standards prescribed under state and federal regulations.*

This is a Standard Construction Commitment and is applicable to Project J4I1486D to be carried forward.

21. *The project area is within MoDOT's Transportation Separate Storm Sewer System (TS4) Permit area and permit requirements apply. The Contractor shall include in the project's design, where feasible and appropriate, permanent stormwater BMPs to potentially detain and/or treat new stormwater from the project, if the project fits MoDOT's definition of redevelopment or new development, to the maximum extent practicable.*

This commitment remains valid and MoDOT will ensure compliance.

22. *MoDOT will implement its SWPPP to prevent or minimize adverse stormwater and construction impacts to streams, water courses, lakes, ponds, or other water impoundments within and adjacent to the project area. The plan provides for temporary erosion and sediment control measures that will be included within construction contract documents. MoDOT's SWPPP and construction contract documents will be used to develop a project specific SWPPP which will outline specific BMPs that will be used to protect the waters of the US. The project specific SWPPP will be updated when land disturbance operations require the deployment or alteration of BMPs during field operations. Seed and mulch, rock linings, and pavement surfaces will be used to achieve final stabilization of all erodible areas.*

This commitment remains valid and MoDOT will ensure compliance.

23. *MoDOT contractors will locate and protect all temporary storage facilities for petroleum products, other fuels, and chemicals to prevent accidental spills from entering the streams within the project vicinity. The contractor will clean-up any such spills to prevent the possibility of pollution due to runoff.*

This is a Standard Construction Commitment and is applicable to Project J4I1486D to be carried forward.

24. *MoDOT contractors will avoid disposing of cement sweepings, washings, concrete wash water from concrete trucks, and other concrete mixing equipment, treatment chemicals, or grouting and bonding materials into streams, wetlands, or into any location where water runoff will wash pollutants into streams or wetlands.*

This is a Standard Construction Commitment and is applicable to Project J4I1486D to be carried forward.

25. *MoDOT will avoid clearing vegetation to the extent practical and where not avoidable will use vegetated slopes, swales, and runoff detention systems to minimize impacts in accordance with the MoDOT EPG.*

This is a Standard Construction Commitment and is applicable to Project J4I1486D to be carried forward.

26. *Design of the drainage system as it relates to the improvements proposed in the Preferred Alternative will be made during the design phase of the project in accordance with MoDOT EPG and through coordination with local agencies. MoDOT is aware that this area is served by the City of Kansas City, Missouri's combined sewer system and will consult with them during design.*

This commitment remains valid and MoDOT will ensure compliance.

27. *MoDOT will follow best management practices in accordance with the MoDOT EPG during the design and construction phases.*

This commitment remains valid and MoDOT will ensure compliance.

28. *MoDOT will coordinate with the City of Kansas City, Missouri should any wells be encountered and closed in accordance with their standards.*

This commitment remains valid and MoDOT will ensure compliance.

29. *MoDOT obtained a preliminary jurisdictional determination for the proposed impacts from the USACE and that the improvements would be permitted under nationwide permit (NWP) 14. This information will be used by MoDOT to obtain a Section 404 Permit for construction of the project, if required.*

This commitment is not applicable because there are no jurisdictional wetlands or waters of the United States within the project.

30. *If suitable roost trees for the Indiana and northern long-eared bats are present and need to be removed for construction, MoDOT will only allow clearing of potentially suitable roost habitat between November 1st and March 31st. However, MoDOT anticipates a conservation measure for the protection of tricolored bats that will include removing all trees over three inches in diameter only between November 1st and March 31st.*

This commitment remains valid and MoDOT will ensure compliance.

**I-70 Second Tier Environmental Impact Statement
NEPA Re-Evaluation – J4I1486D I-70 Corridor Improvements**

31. *Prior to demolition of existing bridges, MoDOT will conduct surveys to determine the absence or presence of swallow nests in the bridge superstructure. If nests are present and impacts are anticipated to species protected by the Migratory Bird Treaty Act, precautions will be implemented to avoid impacts and/or additional consultation with USFW will be completed. These efforts will be completed between April 1st and July 31st.*

This commitment remains valid and MoDOT will ensure compliance.

32. *Tree removal will be completed in accordance with MoDOT EPG and through continued coordination with local agencies.*

This commitment remains valid and MoDOT will ensure compliance.

33. *MoDOT's utility engineers and representatives of the utilities will work out details of individual utility relocations on a case-by-case basis.*

This commitment remains valid and MoDOT will ensure compliance.

34. *MoDOT will coordinate with the City of Kansas City, Missouri on any utility removal, relocation, additions, or re-design of utilities needed due to this project.*

This commitment remains valid and MoDOT will ensure compliance.

35. *All construction activities will comply with the existing rules and regulations of governmental agencies having jurisdiction over streams and water supplies in the area.*

This is a Standard Construction Commitment and is applicable to Project J4I1486D to be carried forward.

36. *Painted structures shall be tested prior to painting and demolition to determine proper disposal for the waste generated during the project. The inspection reports must be included in the construction bid proposal.*

This commitment remains valid and MoDOT will ensure compliance.

37. *Bridge work involving removal of lead or non-lead paint by sandblasting or power washing must follow the procedures outlined in MoDOT Standard Specification 1081, "Coating of Structural Steel, for proper removal and disposal of paint, blast residue or wash water".*

This is a Standard Construction Commitment and is applicable to Project J4I1486D to be carried forward.

38. *All structures, including bridges that will be renovated or demolished will be inspected for asbestos. The reports from these hazardous material inspections must be included in the construction bid proposal. Demolition or renovation is a three-step process under the asbestos regulations. All structures that meet the criteria as described above must be inspected by an Asbestos Building Inspector. Following the inspection, regardless of whether asbestos is present or not, an Asbestos Demolition Notification shall be made to MDNR no fewer than 10 working days prior to beginning the project. If regulated amounts of asbestos are present, an Asbestos Project Notification will also be submitted and an Asbestos Post-Notification will be filed after the work is completed. If abatement is necessary, a certified Contractor Supervisor will be present during the abatement and a licensed asbestos contractor will do the abatement. MoDOT would ensure these materials, depending on their condition and quantity, are removed and disposed of according to current regulations and procedures.*

This is a Standard Construction Commitment and is applicable to Project J4I1486D to be carried forward.

39. *MoDOT will notify the City of Kansas City, Missouri regarding any demolition as part of the project.*

This commitment remains valid and MoDOT will ensure compliance.

40. *Specific materials used in construction of the projects will be determined during the design phase of the project in accordance with MoDOT EPG.*

This commitment remains valid and MoDOT will ensure compliance.

41. *MoDOT will obtain and comply with all required burning permits.*

This commitment remains valid and MoDOT will ensure compliance.

42. **New Commitment:** If there are changes in the project scope, project limits, existing conditions, pertinent regulations or environmental commitments, MoDOT must re-evaluate potential impacts prior to implementation. Environmental commitments are not subject to change without prior written approval from FHWA
43. **New Commitment:** As final design progresses MoDOT will coordinate with City of Kansas City and Missouri State Emergency Management Agency to obtain any necessary permits for floodplain impacts, if necessary. Additionally, if the final design includes a floodplain encroachment that would cause significant impacts, a finding that it is the only practicable alternative as required by 23 CFR 650, Subpart A would be prepared. Further, structures would be designed to FEMA standards as required by 23 CFR 650, Subpart A.
44. **New Commitment:** As final design progresses MoDOT will obtain the necessary permits from USACE if discharge of dredged or fill material in any waters of the United States, including wetlands, is expected.
45. **New Commitment:** MoDOT will follow the Programmatic Agreement, developed with SHPO, which addresses additional archaeological testing, and if necessary, mitigation measures for the seven potentially eligible archaeological sites that may be impacted by the Project.
46. **New Commitment:** Ongoing public involvement would take place during construction through various media deemed suitable at that point in time.

8 Conclusion

Most of the impacts identified in the I-70 Second Tier EIS are now fewer. Right-of-way displacement and acquisitions, economic growth and development, environmental justice, community cohesion, wetlands and waters of the U.S., and noise are all anticipated to have fewer impacts under the Updated 2022 Preferred Alternative than the previous Preferred Alternative. Hazardous materials sites are now expected have no impacts versus the few impacts from the previous Preferred Alternative. The only potential increase in impacts is to floodplains between the US 40 interchange and Fremont Avenue, as well as near Van Brunt Boulevard for a total of 0.26 acres. However, as slope limits in the design are finalized this impact may change.

This re-evaluation document demonstrates that the 2014 I-70 Second Tier EIS remains valid. The Updated 2022 Preferred Alternative still meets the purpose and need of the project identified in the I-70 Second Tier EIS. Therefore, there is no need to supplement the 2014 I-70 Second Tier EIS and a final EIS may be prepared at this time.

FHWA-MO—EIS-13-02-F
I-70 Second Tier Environmental Impact Statement Re-Evaluation

Route I-70, Jackson County
From west of The Paseo interchange
to the US-40 / 31st Street interchange
Job Number J4I1486D

Submitted Pursuant to
42 U.S.C. 4332(2)(c), 49 U.S.C. 303

by the

U.S. Department of Transportation
Federal Highway Administration
and the
Missouri Department of Transportation

Date of Approval

For FHWA

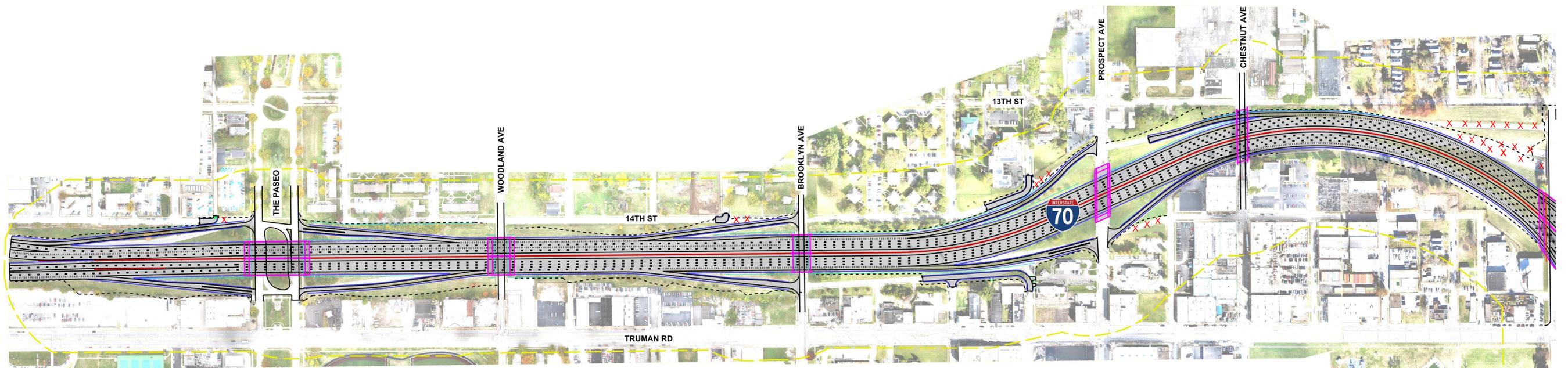
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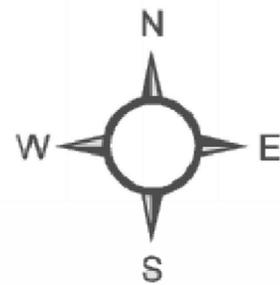
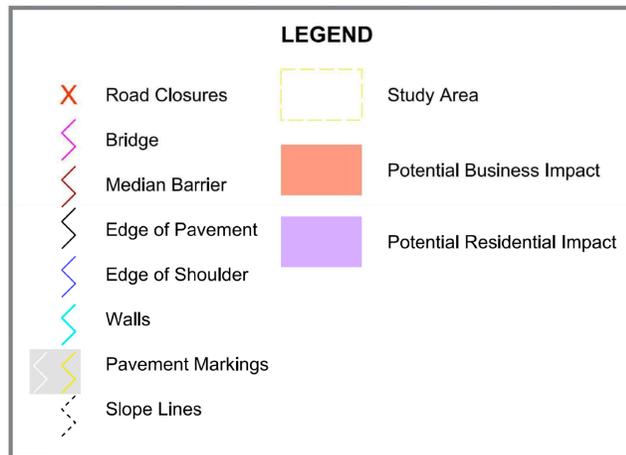
Appendix A

Updated 2022 Preferred
Alternative

IMPROVE I-70 KC **UPDATED 2022 Preferred Alternative Concept**



Segment one within project study area



DRAFT - subject to change

December 2022

A re-evaluation of the I-70 corridor between The Paseo and U.S. 40



IMPROVE I-70 KC **UPDATED 2022 Preferred Alternative Concept**



Segment two within project study area

LEGEND	
X	Road Closures
—	Bridge
—	Median Barrier
—	Edge of Pavement
—	Edge of Shoulder
—	Walls
—	Pavement Markings
—	Slope Lines
—	Study Area
—	Potential Business Impact
—	Potential Residential Impact



DRAFT - subject to change

December 2022

A re-evaluation of the I-70 corridor between The Paseo and U.S. 40

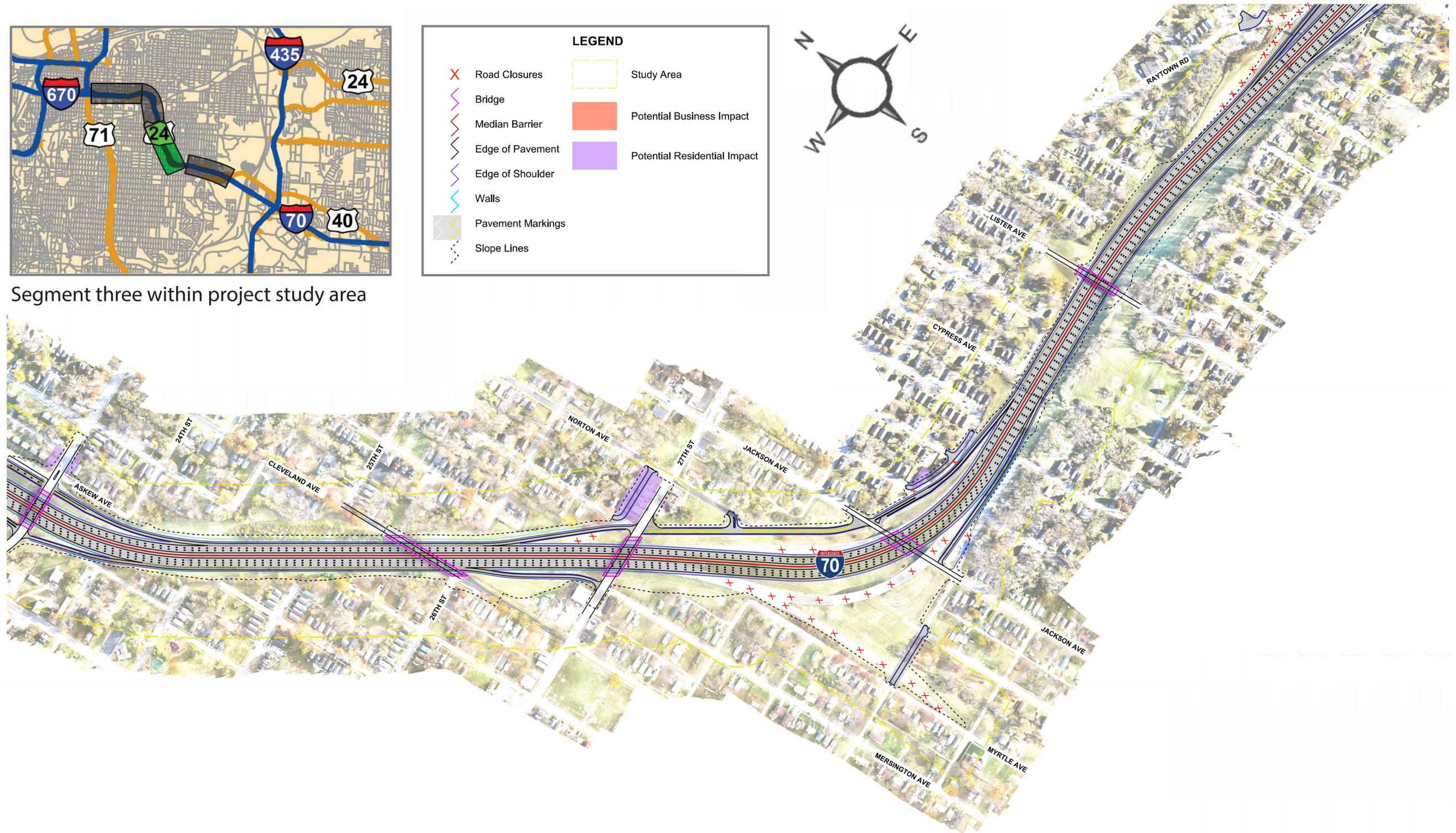
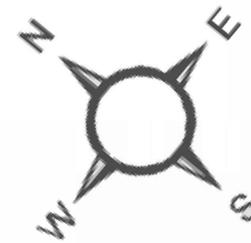


IMPROVE I-70 KC **UPDATED 2022 Preferred Alternative Concept**



Segment three within project study area

LEGEND			
	Road Closures		Study Area
	Bridge		Potential Business Impact
	Median Barrier		Potential Residential Impact
	Edge of Pavement		
	Edge of Shoulder		
	Walls		
	Pavement Markings		
	Slope Lines		



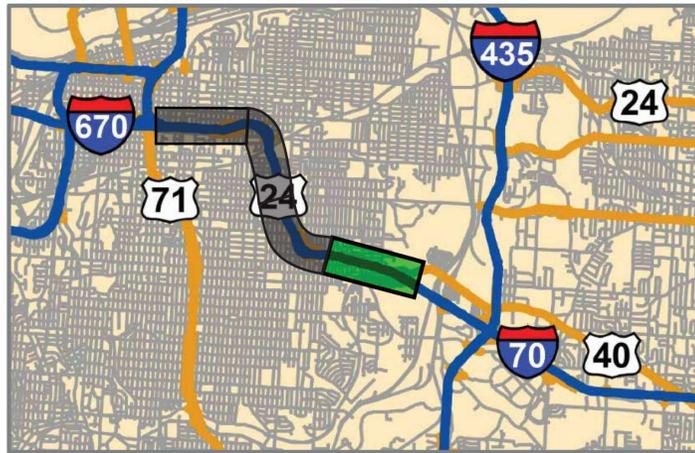
DRAFT - subject to change

December 2022

A re-evaluation of the I-70 corridor between The Paseo and U.S. 40

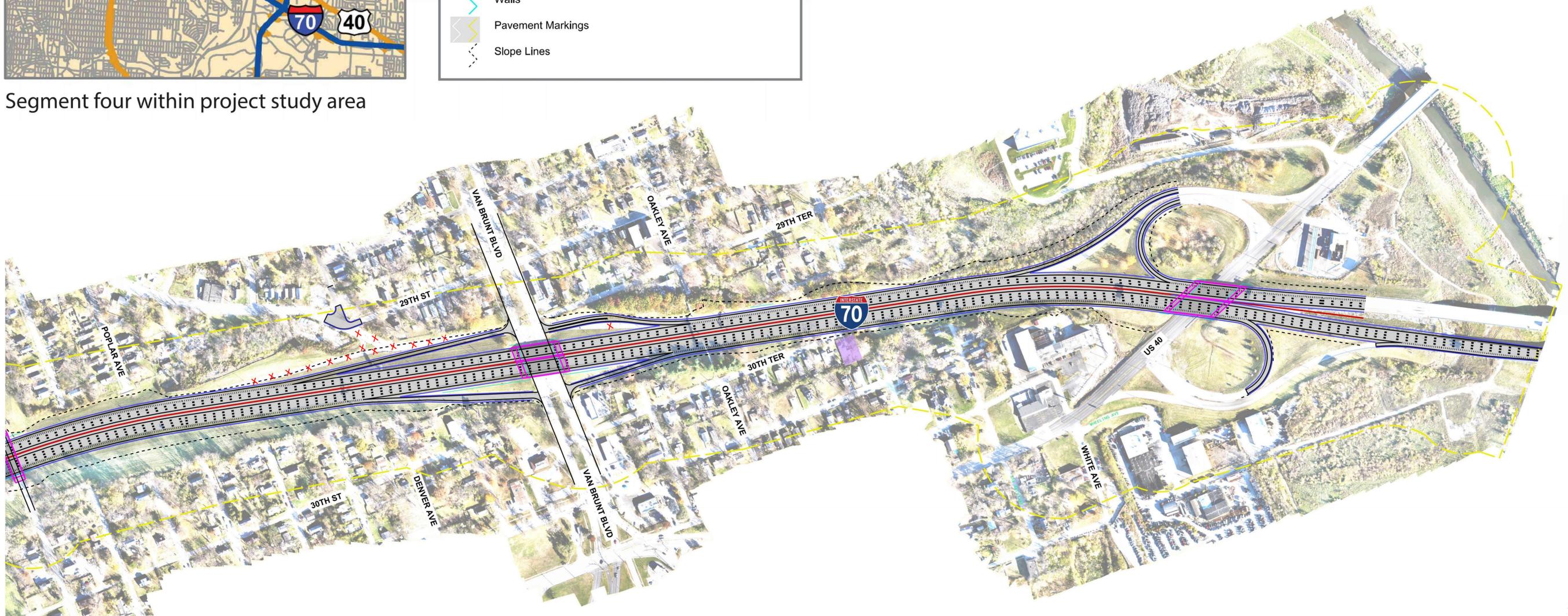
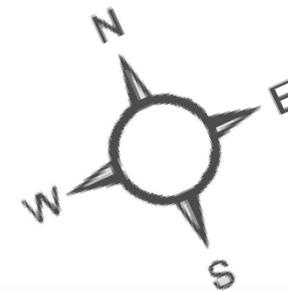


IMPROVE I-70 KC **UPDATED 2022 Preferred Alternative Concept**



Segment four within project study area

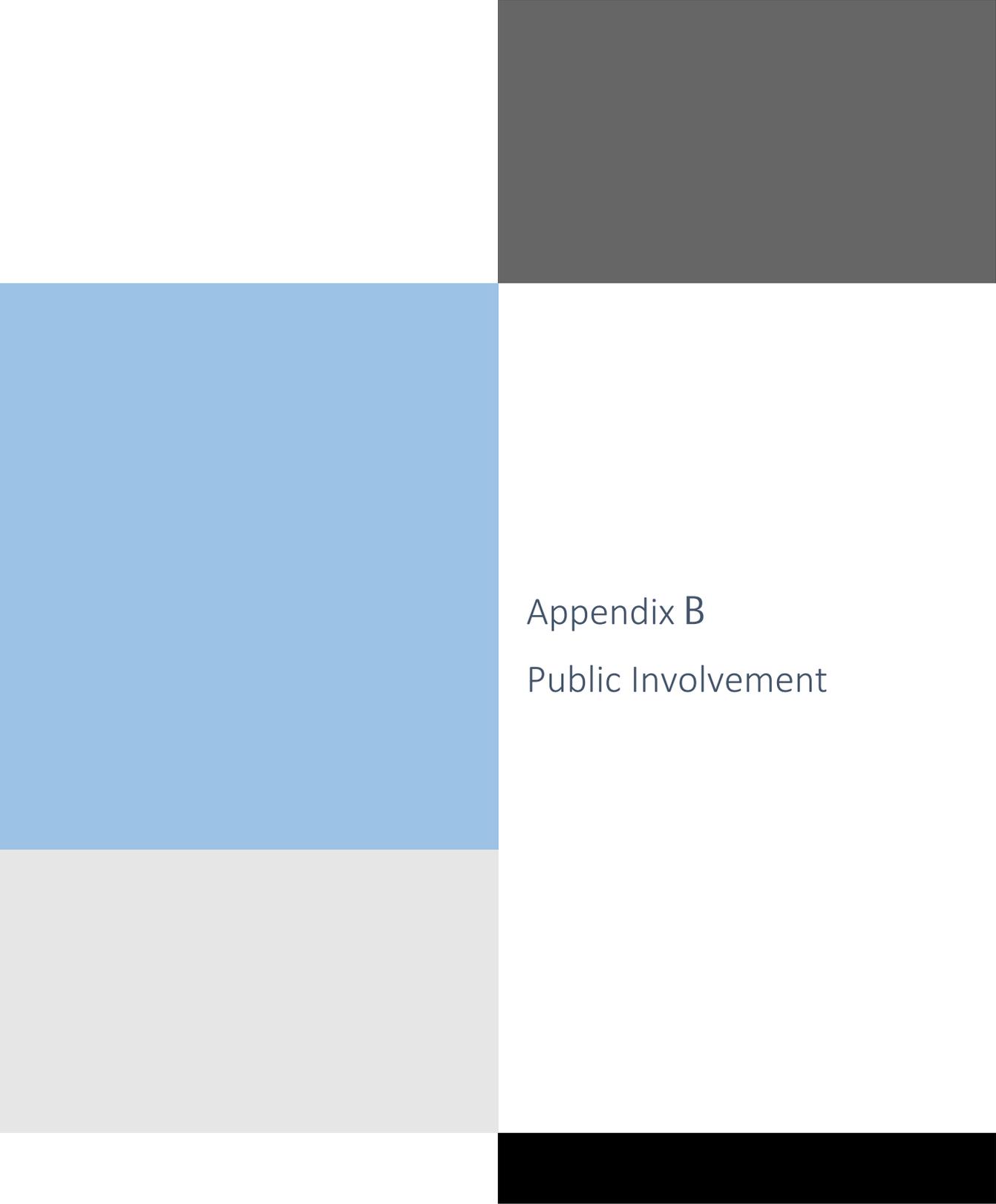
LEGEND		
✗	Road Closures	Study Area
—	Bridge	Potential Business Impact
—	Median Barrier	Potential Residential Impact
—	Edge of Pavement	
—	Edge of Shoulder	
—	Walls	
—	Pavement Markings	
—	Slope Lines	



DRAFT - subject to change
December 2022

A re-evaluation of the I-70 corridor between The Paseo and U.S. 40



A decorative graphic on the left side of the page consists of four stacked rectangular blocks: a dark grey block at the top, a blue block, a light grey block, and a black block at the bottom. The text 'Appendix B' and 'Public Involvement' is positioned to the right of the blue and light grey blocks.

Appendix B
Public Involvement

Improve I-70
Public
Involvement
Toolkit

Improve I-70 KC Toolkit

Below is content you can easily copy and paste for your email blasts, an electronic or print newsletter, website and social media channels!

Please feel free to edit the content and help spread the word about **Improve I-70 KC**.

Email Content

Hello community partner,

The Missouri Department of Transportation (MoDOT) is hosting two, in-person public meetings as part of an I-70 Environmental Study Re-Evaluation between The Paseo to east of U.S. 40. Since the previous study was completed several years ago, conditions have likely changed, and public input is necessary. A National Environmental Policy Act (NEPA) re-evaluation of the project area is needed to gain a current understanding of those changes.

MoDOT Needs Your Input! Two Public Meetings Coming Up

MoDOT needs to know what has changed in the project area over the last decade. Please join the project team at one of two open house public meetings to provide input, ask questions, and learn more.

Both meetings are conveniently located on [Kansas City Area Transportation Authority \(KCATA\)](#) bus routes. A translator will be available for Spanish-speaking attendees. Face masks may be required.

Public Meeting #1

4-6 p.m. on Tuesday, March 1, 2022

[Gregg/Klice Community Center](#)

1600 E. 17th Terrace

Kansas City, MO 64108

Public Meeting #2

4-6 p.m. on Thursday, March 3, 2022

[Linwood YMCA](#)

3800 Linwood Boulevard

Kansas City, MO 64128

Ways to Engage

There are multiple ways to provide input, ask questions, and learn more about this project.

- Visit the project webpage at <http://modot.org/improvei70kc>
- Attend a public meeting 4-6 p.m. on Tuesday, March 1, or Thursday, March 3
- Request a speaker for your meeting
- Sign up for project update emails

If you have any questions, please reach out to the project team by email at improvei70kc@modot.mo.gov or phone 816-216-6571.

Social Media Content

TWITTER

[Post #1]

MoDOT wants your input! Continue the conversation as we re-evaluate the I-70 corridor between The Paseo to east of U.S. 40. A re-evaluation is necessary because several years have passed & conditions may have changed. Public meeting info & details here: <http://modot.org/improvei70kc>

[Post #2]

Join MoDOT and the project team at 1 of 2 open house public meetings! Public meeting #1 from 4-6 p.m. on Tuesday, March 1 at the Gregg/Klice Community Center. Public meeting #2 from 4-6 p.m. on March 3 at the Linwood YMCA. Add one to your calendar: <https://linktr.ee/ImproveI70KC>

[Post #3]

Don't forget! The first public meeting for Improve I-70 KC is from 4-6 p.m. tomorrow, March 1 at the Gregg/Klice Community Center. Come talk to the team about what's changed over the last decade around I-70 from The Paseo to U.S. 40! Learn more: <http://modot.org/improvei70kc>

[Post #4]

Thank you to everyone who attended the first public meeting regarding improvements to I-70. If you were unable to attend, you can still comment online! The next meeting is from 4-6 p.m. tomorrow, March 3 at the Linwood YMCA. We hope to see you there!

FACEBOOK

[Post #1]

MoDOT wants your input! Continue the conversation as we re-evaluate the I-70 corridor between The Paseo to east of U.S. 40. A re-evaluation is necessary because several years have passed & conditions may have changed. Public meeting info & details here: <http://modot.org/improvei70kc>

Join MoDOT and the project team at one of two open house public meetings, from 4-6 p.m. on Tuesday, March 1 at the Gregg/Klice Community Center, and 4-6 p.m. on March 3, at the Linwood YMCA.

[Post #2]

Don't forget! The first public meeting for Improve I-70 KC is from 4-6 p.m. tomorrow, March 1 at the Gregg/Klice Community Center. Come talk to the team about what's changed over the last decade around I-70 from The Paseo to U.S. 40! Learn more: <http://modot.org/improvei70kc>

[Post #3]

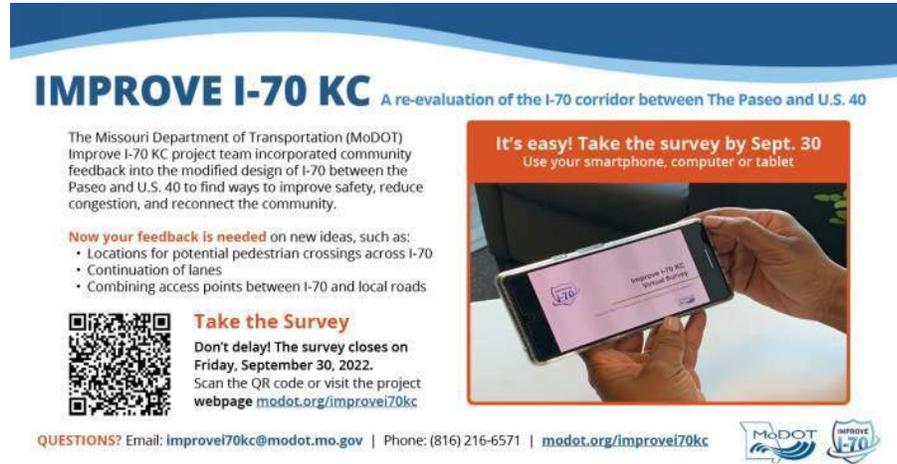
Thank you to everyone who attended the first public meeting regarding improvements to I-70. If you were unable to attend, you can still comment online! The next meeting is from 4-6 p.m. tomorrow, March 3 at the Linwood YMCA. We hope to see you there!

Survey Email Request

From: Boucher, Gina <gina@parsonkc.com>
Sent: Thursday, September 15, 2022 9:15 AM
Subject: Take the Survey! Improve I-70 KC

CAUTION: [EXTERNAL] This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Please take a few minutes to participate in the [Improve I-70 KC Survey](#) for the segment between The Paseo & U.S. 40. Your input is appreciated!



IMPROVE I-70 KC A re-evaluation of the I-70 corridor between The Paseo and U.S. 40

The Missouri Department of Transportation (MoDOT) Improve I-70 KC project team incorporated community feedback into the modified design of I-70 between the Paseo and U.S. 40 to find ways to improve safety, reduce congestion, and reconnect the community.

Now your feedback is needed on new ideas, such as:

- Locations for potential pedestrian crossings across I-70
- Continuation of lanes
- Combining access points between I-70 and local roads

Take the Survey
Don't delay! The survey closes on Friday, September 30, 2022. Scan the QR code or visit the project webpage modot.org/improvei70kc

It's easy! Take the survey by Sept. 30
Use your smartphone, computer or tablet



QUESTIONS? Email: improvei70kc@modot.mo.gov | Phone: (816) 216-6571 | modot.org/improvei70kc



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Gina Boucher
Senior Communications Strategist
Email: gina@parsonkc.com
Direct: 816-601-0142
[Parson + Associates](#)

March Public Meeting Summary

From: improvei70kc <improvei70kc@modot.mo.gov>
Sent: Tuesday, February 15, 2022 11:38 AM
To: improvei70kc
Subject: We Need Your Input! Two Public Meetings Coming Up
Attachments: [Public Meeting_Facebook_Twitter.png](#); [MoDOT 1-70_PromoToolkit.docx](#)

CAUTION: [EXTERNAL] This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

The Missouri Department of Transportation (MoDOT) is hosting two, in-person public meetings as part of an I-70 Environmental Study Re-Evaluation between The Paseo to east of U.S. 40. Since the previous study was completed nearly five years ago, conditions have likely changed and public input is necessary. A National Environmental Policy Act (NEPA) re-evaluation of the project area is needed to gain a current understanding of those changes.

We Need Your Input! Two Public Meetings Coming Up

We need to know what has changed in the project area over the last decade. Please join us at one of two open house public meetings to provide input, ask questions, and learn more.

Both meetings are conveniently located on [Kansas City Area Transportation Authority \(KCATA\)](#) bus routes. A translator will be available for Spanish-speaking attendees. Face masks may be required.

Public Meeting #1

4-6 p.m. on Tuesday, March 1, 2022

[Gregg/Klice Community Center](#)

1600 E. 17th Terrace

Kansas City, MO 64108

Public Meeting #2

4-6 p.m. on Thursday, March 3, 2022

[Linwood YMCA](#)

3800 Linwood Boulevard

Kansas City, MO 64128

Please share this information! Attached is an invitation graphic and toolkit with messages to distribute through a website, email newsletter or social media channels.

Reach out by email or phone if you have any questions.

IMPROVE I-70 KC

A re-evaluation of the I-70 corridor between The Paseo to east of U.S. 40

PROJECT AREA MAP



SCAN ME

To learn more scan the QR code or visit the project webpage
modot.org/improvei70kc

PUBLIC MEETINGS

4:00-6:00 p.m.

Tuesday, March 1

Gregg/Klice Community Center

1600 E. 17th Terrace
Kansas City, MO 64108

4:00-6:00 p.m.

Thursday, March 3

Linwood YMCA

3800 Linwood Boulevard
Kansas City, MO 64128

CONTINUE THE CONVERSATION!

Join MoDOT and the project team to revisit past discussions, the purpose of a re-evaluation, and how previous community feedback has impacted the project. We want to know what's changed in the project area over the last decade.

Public meetings are accessible via KCATA buses. Face masks may be required.

QUESTIONS? Email: improvei70kc@modot.mo.gov | Phone: (816) 216-6571 | modot.org/improvei70kc





Public Meeting Summary of Outreach

The Missouri Department of Transportation (MoDOT) hosted two in-person, public open house meetings in March of 2022 for the Improve I-70 KC Environmental Impact Study (EIS) re-evaluation. Identical information was presented at each come-and-go meeting. Details are as follows:

Meeting #1

Tuesday, March 1, 2022
4-6 p.m.
Gregg/Klice Community Center
Center
1600 E. 17th Street
Kansas City, MO 64108

Meeting#2

Thursday, March 3, 2022
4-6 p.m.
Linwood YMCA/James B. Nutter
3800 Linwood Blvd.
Kansas City, MO 64128

Overview and Outreach Efforts

The project area spans five miles of I-70 from The Paseo to U.S. 40 and several factors were taken into consideration to reach a wide-variety of stakeholders, such as offering materials in multiple formats (print and digital), through a variety of communications channels (community publications, social media, news media, postal service, physical locations along the corridor), and in multiple languages (Spanish and Vietnamese). Additionally, the in-person public meetings were offered at two different locations along the corridor accessible by public transportation, and the same information is presented through a video accessible through the project webpage.

The goal of the public meetings was to:

- Provide multiple opportunities for the project team to re-engage stakeholders, update nearby stakeholders and inform the general public about the current project status, future plans and verify previous feedback.
- Determine if the needs of the community have changed since the December 2017 Environmental Impact Statement/Record of Decision.
- Re-evaluate potential impacts of the preferred alternative, existing conditions, and related mitigation measures that may have changed.

Printed and Mailed Postcard Invitations

Postcard invitations were mailed through the United States Postal Service to approximately **853** property owners, business owners and residents in the immediate project area. Postcards were also mailed to approximately **360** stakeholders and organizations, including neighborhood leaders, community

leaders, resource and social services agencies, state and city elected officials, faith-based institutions, civic organizations, city leadership, state leadership, and addresses collected from stakeholders in past studies for the project area.

Additionally, the printed postcard and fact sheet were translated for Vietnamese- and Spanish-speaking stakeholders.

Email Invitations and Toolkit

Email invitations and a toolkit of promotional information were mailed to approximately **449** stakeholders including neighborhood leaders, city leadership, state leadership, elected officials, organization leaders, large employers, environmental agencies, resource and social service agencies, community centers, school districts, and Native American groups.

Reminder emails were sent to all email addresses associated with the project (**over 449**).

The toolkit consisted of materials that could be shared electronically or in print form with organization contacts, including an invitation graphic with a QR code, introductory content, ready-made Facebook and Twitter posts, a link to the project website, fact sheet, interactive map and project team contact information.

Media Relations and Publications

A media alert and a news release were emailed by MoDOT Communications to news media representatives.

Printed ads were placed in the Kansas City Call and Dos Mundos (Spanish) community newspapers.

Postcard Drop

The week before the public meetings, the Parson + Associates team personally delivered stacks of postcards to the following locations along the corridor. Recipients were able to choose between English, English/Spanish and/or English/Vietnamese postcards.

Postcard Drop Locations

Location	Address
Clymer Community Center	1301 Vine St, Kansas City, MO 64106
Kansas City Missouri Police East Patrol Campus	2640 Prospect Ave, Kansas City, MO 64127
El Mercado Fresco - Fresh Market	2620 Independence Ave, Kansas City, MO 64124
Elotes De Sabores	2313 E 12th St, Kansas City, MO 64127
Friendly Assembly of God	1215 Benton Blvd, Kansas City, MO 64127
Friendship Baptist Church	3530 Chelsea Dr #3500, Kansas City, MO 64128
Gregg/Klice Community Center	1600 E 17th Terrace, Kansas City, MO 64108
Happy Food Center Inc	4019 E 31st St, Kansas City, MO 64128
J.A. Rogers Elementary School	6400 23rd St, Kansas City, MO 64129
Kansas City Public Library: Lucile H. Bluford Branch	3050 Prospect Ave, Kansas City, MO 64128
Kansas City MLB Urban Youth Academy	1622 E 17th Terrace, Kansas City, MO 64108
Linwood YMCA/James B. Nutter, Sr. Community Center	3800 Linwood Blvd, Kansas City, MO 64128
Morning Star Missionary Baptist Church Of Jesus Christ	2411 E 27th St, Kansas City, MO 64127
Negro Leagues Baseball Museum	1616 E 18th St, Kansas City, MO 64108
Kansas City Public Library: North East Branch	6000 Wilson Ave, Kansas City, MO 64123
Phap Hoa Temple	1001 Bales Ave, Kansas City, MO 64127
Rincon De Las Americas Restaurante Catracho	2349 Hardesty Ave, Kansas City, MO 64127
St Stephen Baptist Church	1414 E Truman Rd, Kansas City, MO 64106
Samuel U. Rodgers Health Center	825 Euclid Ave, Kansas City, MO 64124
San Antonio Meat Market	2904 Independence Ave, Kansas City, MO 64124
Soe Soe Grocery Store	3615 St John Ave, Kansas City, MO 64123
Splitlog Coffee Co. Pendleton Heights Coffee Shop	546 Olive St, Kansas City, MO 64124
Kansas City VA Medical Center	4801 Linwood Blvd, Kansas City, MO 64128
Northeast Kansas City Chamber of Commerce	2657 Independence Ave, Kansas City, MO 64124
St. Michael's Veterans Center Apartments	3838 Chelsea Dr, Kansas City, MO 64128

Resources and Attendance

The project team prepared a number of educational resources for the public meetings and to post online, including a glossary of terms, informational boards, a comment card, and a fact sheet in English, English/Spanish and English/Vietnamese.

Project team members were stationed next to six, 3'x4' informational boards with an overview, purpose, goals, general timeline and four draft images of the 2017 Preferred Alternative for attendees to review.

For both meetings, there was a combined total of 55 attendees and 18 completed comment forms.

Meeting #1

Date: Tuesday, March 1, 2022

Time: 4-6 p.m.

Location: Gregg/Kilce Community Center

A total of **33** community members attended the March 1 open house at Gregg/Klice Community Center; **10** of them completed comment forms.

Meeting #2

Date: Thursday, March 3, 2022

Time: 4-6 p.m.

Linwood YMCA/James B. Nutter Center

A total of **22** community members attended the March 3 open house at Linwood YMCA; **8** of them filled out comment forms.

KSHB Channel 41 reporters attended and reported on the March 3 meeting.
<https://www.kshb.com/news/local-news/modot-meets-with-residents-about-improving-stretch-of-interstate-70>

To complement the in-person experience and hard copy comment card, an interactive map and survey were posted on the project webpage to repeat information presented at the public meeting and to provide an opportunity for people to submit feedback online. The interactive map also outlines the primary changes from existing conditions for each segment for people to review and confirm.

Summary of Comments from Attendees

A total of 18 comment forms were collected at the open house events. Below are some of the highlights and comments as submitted:

What is your relationship with the I-70 corridor between the Paseo and U.S. 40? Check one.

Note: While the question asked respondents to “check one,” most checked multiple options.

Resident	Commuter	Business Owner/Employee	Property Owner	Renter/lessee	Other
12	3	4	1	2	Employee of urban design center Occasional user Local church Safety advocate Forgotten Homes NA Interested citizen

Preferred Alternative Concept: what do you think of the previously prepared preferred alternative concept? Select one and share why?

Note: 5 respondents did not answer this question.

Love it	Like it	It's okay	Needs work
0	3	3	6

Why?

Note: Most respondents did not answer this question.

Destroy homes	1
GHG emissions	1
Stormwater runoff	1
Noise	2
Need ped bridges	1
Need ADA access	1

What has changed in the I-70 corridor between The Paseo and U.S. 40 over the last 10 years?

Traffic/commuter increase	5
---------------------------	---

Demographics (increase)	3
Climate change	3
Increased environmental justice knowledge	2
More trash	2
Speed increase	2
Lack of other transit options	2
Poor entrance/exit in terms of distance	2
Deterioration of bridges	1
Green infrastructure options	1
Economic factors	1
Signs	1
Homelessness/panhandling	1
Increased accidents	1
Lack of community resources	1
Bigger trucks/more damage	1
More lanes/wider road	1
Destruction of homes/businesses	1
Increased commercialization near Paseo	1

What are your biggest concerns along the corridor? Check those that apply and explain if necessary.

Noise	12
Bike/pedestrian accessibility	9
Crashes on local streets	6
Interstate congestion	6
Restore/maintain existing infrastructure	6
Access to interstate	3
Crashes on interstate	3

Driving Experience	2
Movement of goods	2

Other:

Environment (climate change, ghg emissions, pollinator spaces)
(5)

Connectivity (3)

Clear crossings (2)

23rd Street access dangerous

Speed

Landscaping

Assure good on/off for transit

Make it a parkway

Repair what we have and focus new development on BRT and commuter rail

Overpass lighting

Homelessness

Expansion will increase demand

Addition of new baseball stadium

Traffic backup

Trash removal

Energy consumption

What else would you like us to know about the I-70 Corridor between Paseo and U.S. 40?

Big Goals: - understand the change in commuter traffic. KC has seen a huge reduction of local traffic due to COVID and the general population driving less. - prioritize reconnecting and rebuilding neighborhood connectivity and urban fabric. - Implement innovative research and solutions found on carbon reduction, sustainable/green infrastructure and noise reduction - green overpasses at strategic points - major beautification, water management solutions, signage, natives species planting. - Incorporate Census data! so much has changed in the last 10

years in the communities connected to interstate. - Allow for community feedback once the design process begins. Looking at conceptual drawings is way harder to understand than seeing a rendering with actual design solutions - many people may not understand the solutions you come up with until you give them an image of what it looks like, or a virtual experience of what it would be like to drive through the area.

Concern #1: Bridges at Woodland/ I-70 - Erosion on the slopes on the east/west side - Dirt needs to be replaced by rock or something that slides down on the sidewalk - On-going maintenance is needed - Better lighting Bridges at Brooklyn Ave - Dead plants on slopes - Better lighting Bridges at Prospect Ave - Entry onto I-70 going Northbound does not allow enough room to gain speed to merge onto traffic Bridges at Paseo - Erosion on slopes - Better lighting Concern #2 Noise Barrier from Paseo-Prospect Residential community

As you revise the study to arrive at a NEW preferred alternative to get a NEW ROD, do not miss climate change and its affects. Greta and I will be watching!

Cross country travel should be routed around KC via 435 and I-70. Must be removed in the urban core.

I hope this does not impact my home. I don't want to move.

We (KCATA) are planning to advance bus-on-shoulder operations at a future date.

Climate change changes everything.

Access and connectivity of exit ramps that currently restrict mobility, especially near downtown area.

Please continue to update study info on your website. Thank you!

We already lack quality, affordable homes. Expansion would destroy hundreds of homes making existing homes more expensive.

Better presentations - Speaker, introductions, video presentations, Q&A.

Expansion brings cost, destruction, pollutions and provides no benefits but initial jobs.

Lack of diversity, community impact. There should be a presentation video of the information.

September Public Meeting Summary



Public Meeting Summary of Outreach

The Missouri Department of Transportation (MoDOT) hosted a public meeting for the second round of engagement for the Improve I-70 KC Environmental Impact Study (EIS) re-evaluation in September 2022. The project team incorporated community feedback from spring 2022 into the modified design to find ways to improve safety, reduce congestion, and reconnect the community. Details are as follows:

Tuesday, September 13, 2022
5-7 p.m.
Gregg/Klice Community Center
1600 E. 17th Street
Kansas City, Missouri 64108

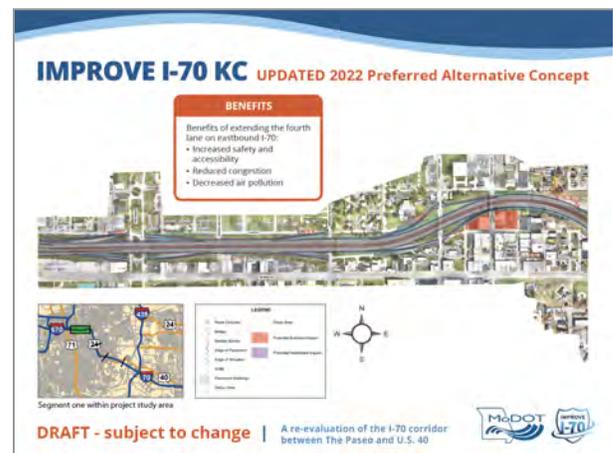
Overview and Outreach Efforts

Following the first round of public engagement in March 2022, many of the same strategies and tools were repeated for the second round of engagement. Because the project area spans five miles of I-70 from The Paseo to U.S. 40, several factors were taken into consideration to reach a wide-variety of stakeholders, such as:

- Offering materials in multiple formats (print and digital).
- Offering information through a variety of communications channels (social media, news media, postal service, physical locations along the corridor).
- Offering materials in multiple languages (English, Spanish, and Vietnamese).

The information presented at the meeting was made available for those who could not attend on a video accessible through the project webpage (<https://youtu.be/goer2yKHR58>).

Project display boards were also posted to the website (an example board is shown to the right; view the full set of boards in the Appendix).



The goals of the public meeting were to:

- Present proposed modifications to the Preferred Alternative Concept developed in 2017, based on comments from the public received at the March 2022 public meetings and community engagement following the meetings.

- Offer the public the opportunity to provide feedback on the proposed modifications.
- Elicit feedback on the new modified alternative designs, such as locations for potential pedestrian crossing across I-70, continuation of lanes, and combining access points between I-70 and local roads.

Printed and Mailed Postcard Invitations

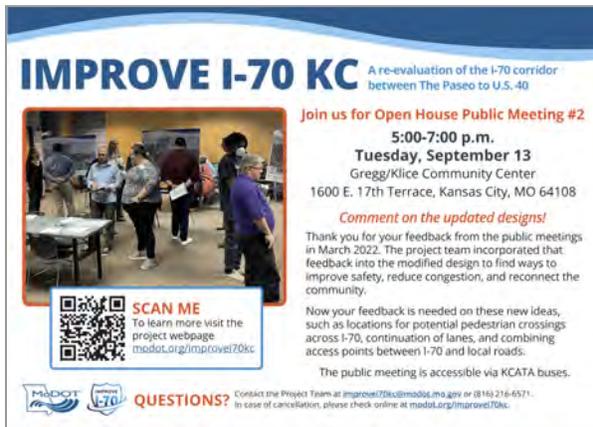


Image of the English postcard invitation front and back.

Postcard invitations were mailed through the United States Postal Service to approximately **853** property owners, business owners and residents in the immediate project area.

Postcards were also mailed to approximately **360** stakeholders and organizations, including neighborhood leaders, community leaders, resource and social services agencies, state and city elected officials, faith-based institutions, civic organizations, city leadership, state leadership, and addresses collected from stakeholders in past studies for the project area.



Images of the postcard invitation translated to Vietnamese and Spanish.

Additionally, the printed postcard was translated for Vietnamese- and Spanish-speaking stakeholders and delivered to targeted locations in the corridor.

Email Invitations and Toolkit

Email invitations were emailed to approximately **500** stakeholders including neighborhood leaders, city leadership, state leadership, elected officials, organization leaders, large employers, environmental agencies, resource and social service agencies, community centers, school districts, Native American groups, and email addresses collected from the most recent and past engagement efforts.

Reminder emails were sent to all email addresses associated with the project (**over 500**).

A toolkit of promotional information (*see Appendix*) was emailed to various individuals and agencies so they could share the information with their own constituencies. Those who received the promotional toolkit included: elected officials, civic organizations, Community Advisory Group members (CAG), Neighborhood Association Advisory Group members (NAAG), City Communications.

The promotional toolkit consisted of materials that could be shared electronically or in print form with organization contacts. It included an invitation graphic with a QR code, introductory content, ready-made Facebook and Twitter posts, and a link to the project webpage (<https://www.modot.org/improvei70kc>).

Media Relations and Publications

A media alert (<https://www.modot.org/node/26973>) and a news release were emailed by MoDOT Communications to news media representatives.

Postcard Drop

The week before the public meetings, stacks of postcards were hand-delivered to the following locations along the corridor. Recipients were able to choose between English, English/Spanish and/or English/Vietnamese postcards to share with their patrons.

Postcard Drop Locations

Name	Location
Gregg/Klice Community Center	1600 E 17th Terr
MLB Urban Youth Academy	1622 E 17th Terr
Museums at 18th and Vine (Jazz, Baseball)	
Saint Stephen Baptist Church	1414 E Truman Rd
Clymer Community Center	1301 Vine Street
Morning Star Baptist Church	2411 E 27 th
East Patrol Station	2640 Prospect Ave
Lucile H. Bluford Library Branch	3050 Prospect Ave
Linwood YMCA	3800 Linwood Blvd
Happy Foods Center	4019 E 31st St
Kansas City VA Medical Center	4801 Linwood Blvd
St. Michael Veterans Center	3838 Chelsea
Splitlog Coffee	546 Olive
El Mercado Fresco	2620 Independence Avenue
Northeast Chamber/Independence Avenue CID	2657 Independence Avenue
San Antonio Meat Market	2904 Independence Avenue
Northeast Branch KC Public Library	6000 Wilson
Samuel U. Rodgers	825 Euclid
Rincos De Las Americanas Food Store	
Carniceria El Torito	4901 St. John Ave
La Jarochita	109 Hardesty Ave
El Pulgarcito	4200 E Truman Road
OrderExpress	107 Hardesty Ave
El Mercado Fresco	5117 Independence Ave

Resources and Attendance

The project team prepared educational resources for the public meetings and to post online, including informational display boards, a comment card, a fact sheet, and a hard-copy survey. *Copies of the education resources are available in the Appendix.*

Project team members were stationed next to display boards to explain concepts to attendees as they visited each board.

There were **24** attendees at the meeting, **12** of whom completed a hard-copy survey.

- To complement the in-person experience and hard copy survey, a video recap was posted on the project webpage (<https://youtu.be/x-gLOO4rnOI>).
- As of November 2022, the Improve I-70 KC Public Meeting #2 video has **51** views.
- A digital survey was posted on the project webpage to provide an opportunity for people who could not attend to submit feedback online. A link to the survey was distributed to the **500+** email recipients of the meeting invitation.
- The online digital survey was open from September 13, 2022, to September 30, 2022.
- A promotional toolkit for the survey was distributed to the same recipients who received the promotional toolkit for the public meeting.

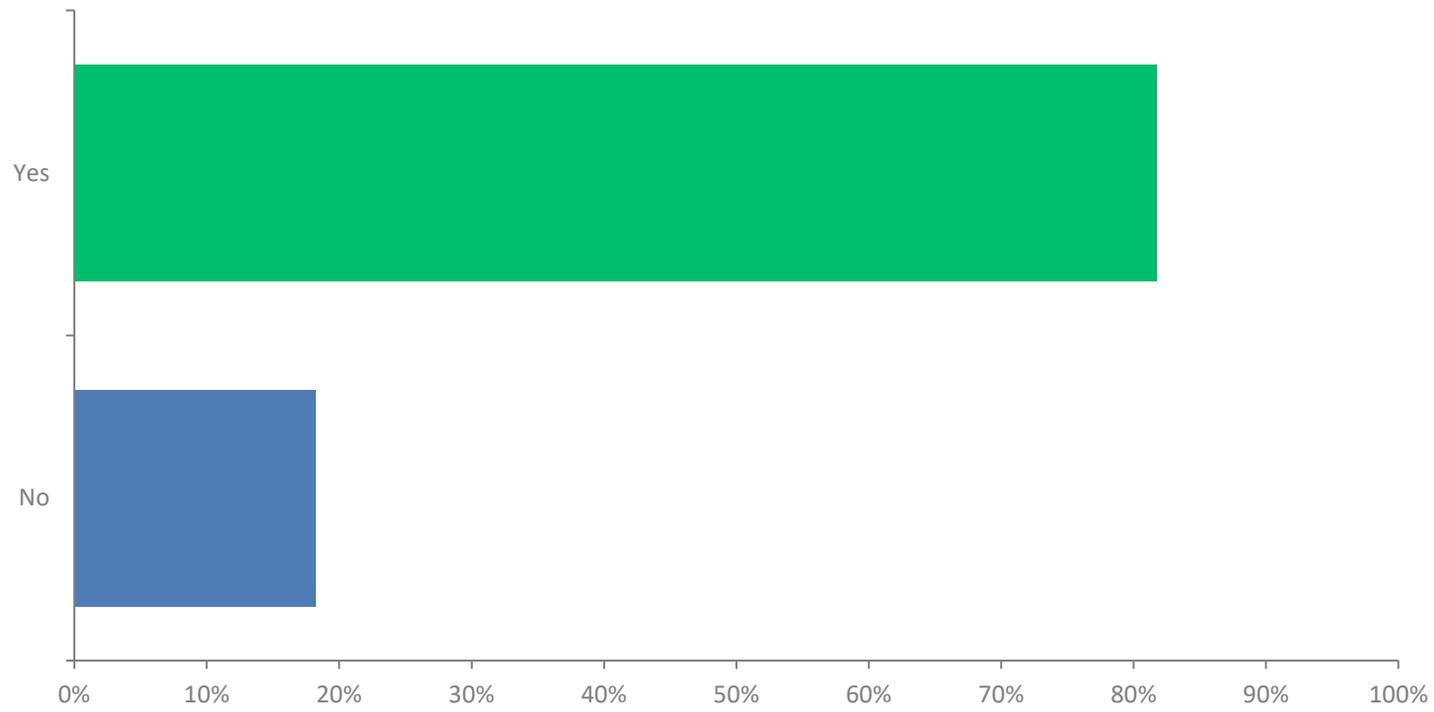
Survey Results

A total of **186** surveys were completed for the second round of public engagement.

- **174** people took the digital survey online.
 - Because of the detailed nature of some of the proposed modifications, video explanations were included with survey questions to better describe concepts to constituents.
- **12** people completed a hard-copy survey.
 - View hard-copy survey responses.
- The digital and hard-copy survey results were combined and are available on the [survey spreadsheet](#).

Q1: Do you support continuing the outside eastbound I-70 lane further east beyond Prospect Avenue? Video explanation

Answered: 181 Skipped: 5



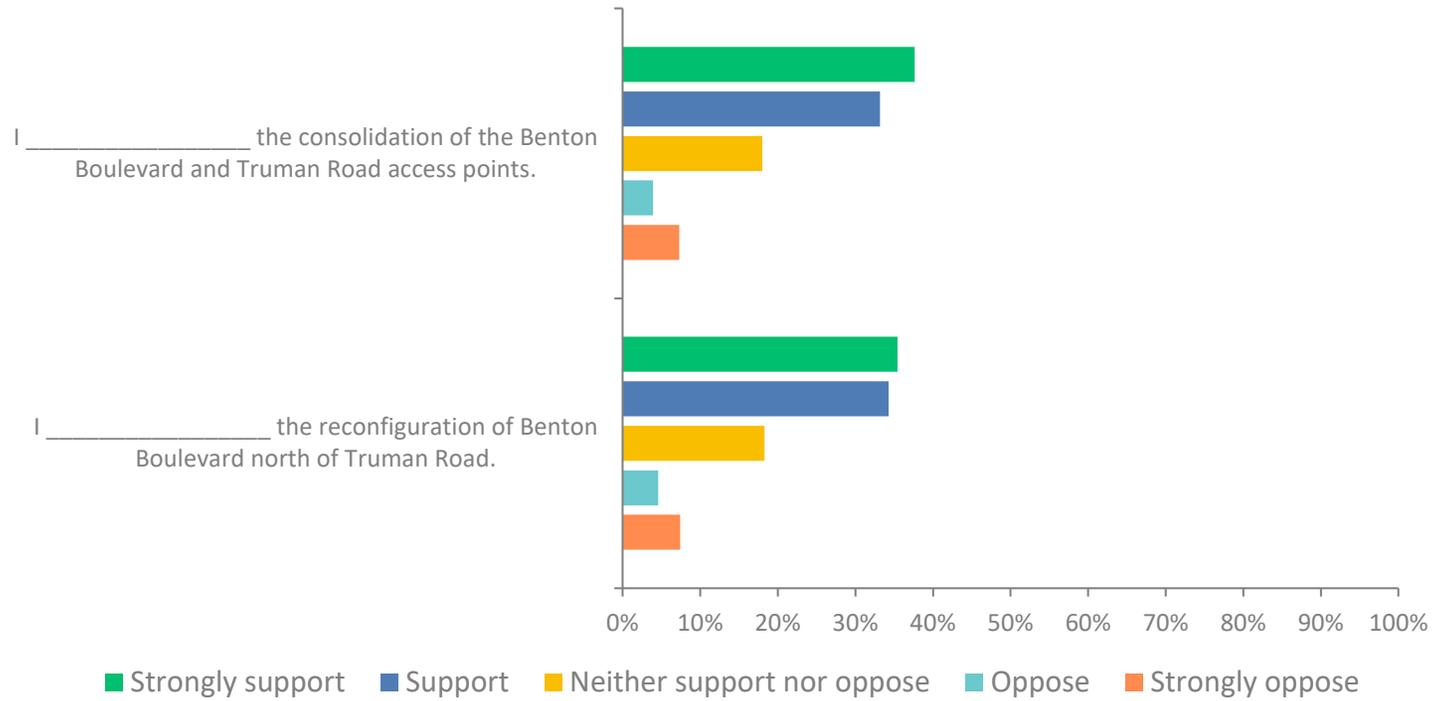
Q1: Do you support continuing the outside eastbound I-70 lane further east beyond Prospect Avenue? Video explanation

Answered: 181 Skipped: 5

ANSWER CHOICES	RESPONSES	
Yes	81.77%	148
No	18.23%	33
TOTAL		181

Q2: Benton Boulevard & Truman Road Video explanation

Answered: 178 Skipped: 8



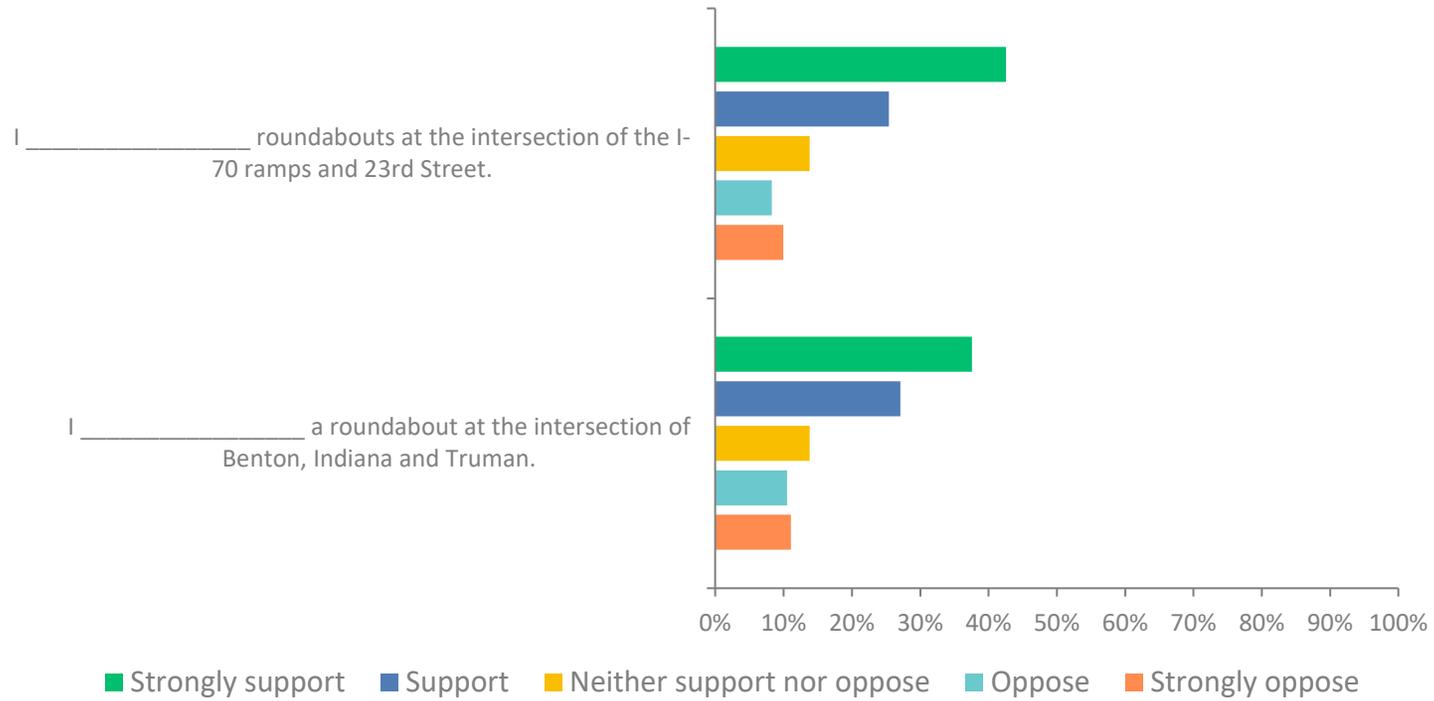
Q2: Benton Boulevard & Truman Road Video explanation

Answered: 178 Skipped: 8

	STRONGLY SUPPORT	SUPPORT	NEITHER SUPPORT NOR OPPOSE	OPPOSE	STRONGLY OPPOSE	TOTAL
I _____ the consolidation of the Benton Boulevard and Truman Road access points.	37.64% 67	33.15% 59	17.98% 32	3.93% 7	7.30% 13	178
I _____ the reconfiguration of Benton Boulevard north of Truman Road.	35.43% 62	34.29% 60	18.29% 32	4.57% 8	7.43% 13	175

Q3: Roundabouts Video explanation

Answered: 181 Skipped: 5



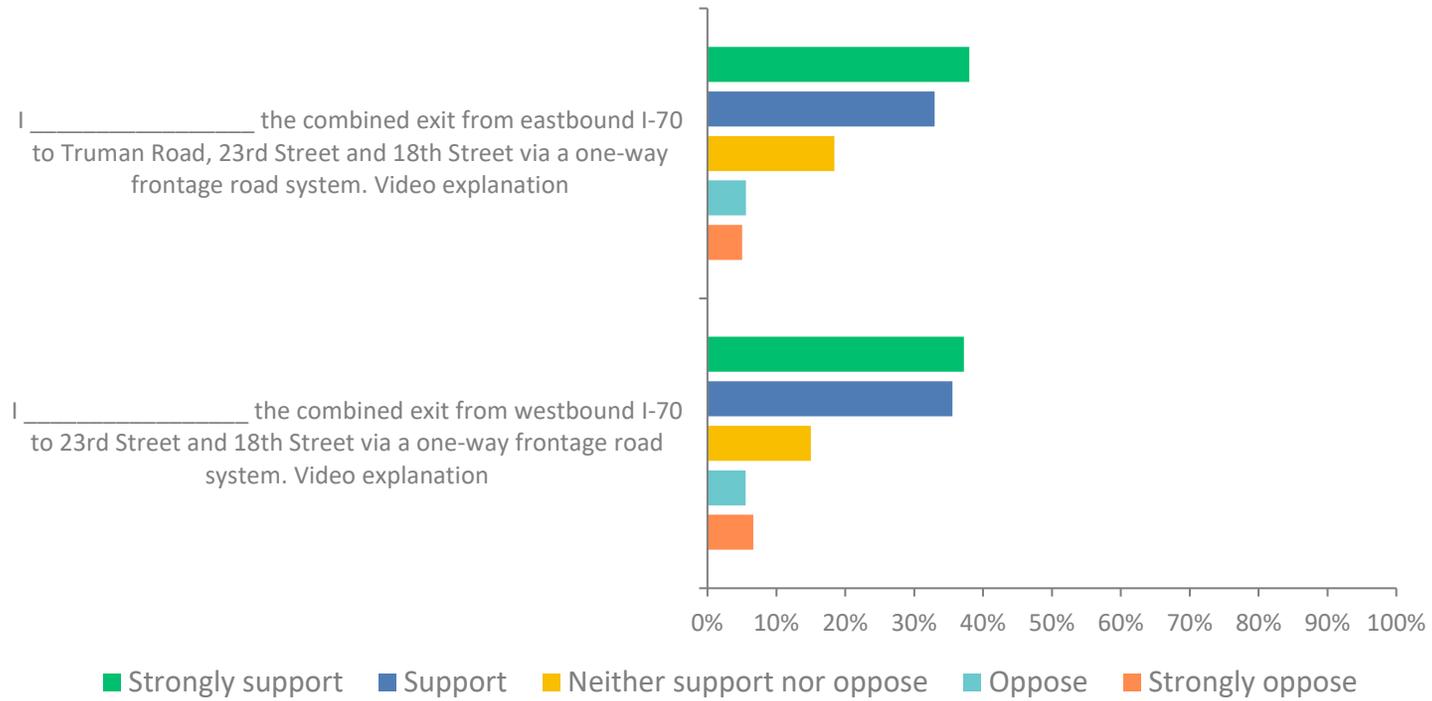
Q3: Roundabouts Video explanation

Answered: 181 Skipped: 5

	STRONGLY SUPPORT	SUPPORT	NEITHER SUPPORT NOR OPPOSE	OPPOSE	STRONGLY OPPOSE	TOTAL
I _____ roundabouts at the intersection of the I-70 ramps and 23rd Street.	42.54% 77	25.41% 46	13.81% 25	8.29% 15	9.94% 18	181
I _____ a roundabout at the intersection of Benton, Indiana and Truman.	37.57% 68	27.07% 49	13.81% 25	10.50% 19	11.05% 20	181

Q4: Combined Exits

Answered: 181 Skipped: 5



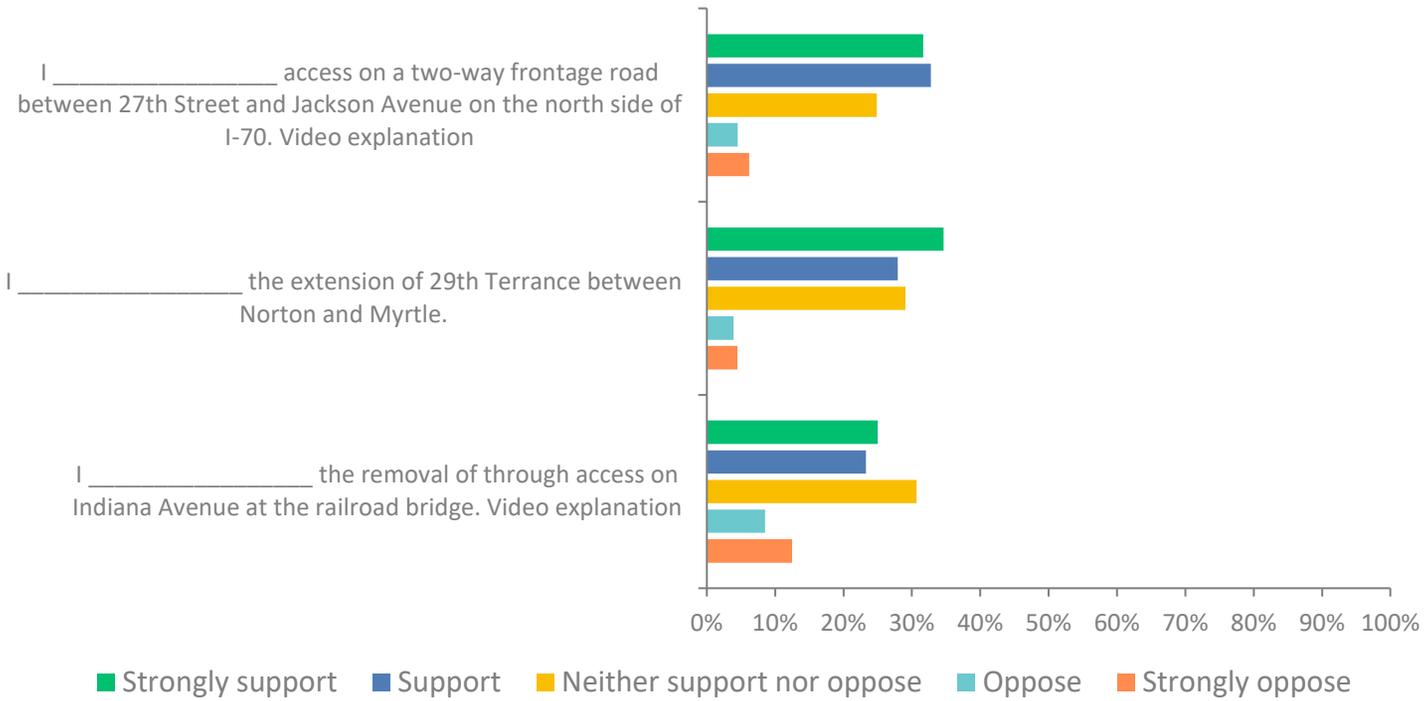
Q4: Combined Exits

Answered: 181 Skipped: 5

	STRONGLY SUPPORT	SUPPORT	NEITHER SUPPORT NOR OPPOSE	OPPOSE	STRONGLY OPPOSE	TOTAL
I _____ the combined exit from eastbound I-70 to Truman Road, 23rd Street and 18th Street via a one-way frontage road system. Video explanation	37.99% 68	32.96% 59	18.44% 33	5.59% 10	5.03% 9	179
I _____ the combined exit from westbound I-70 to 23rd Street and 18th Street via a one-way frontage road system. Video explanation	37.22% 67	35.56% 64	15.00% 27	5.56% 10	6.67% 12	180

Q5: Reconfiguration of Streets in Surrounding Neighborhoods

Answered: 179 Skipped: 7



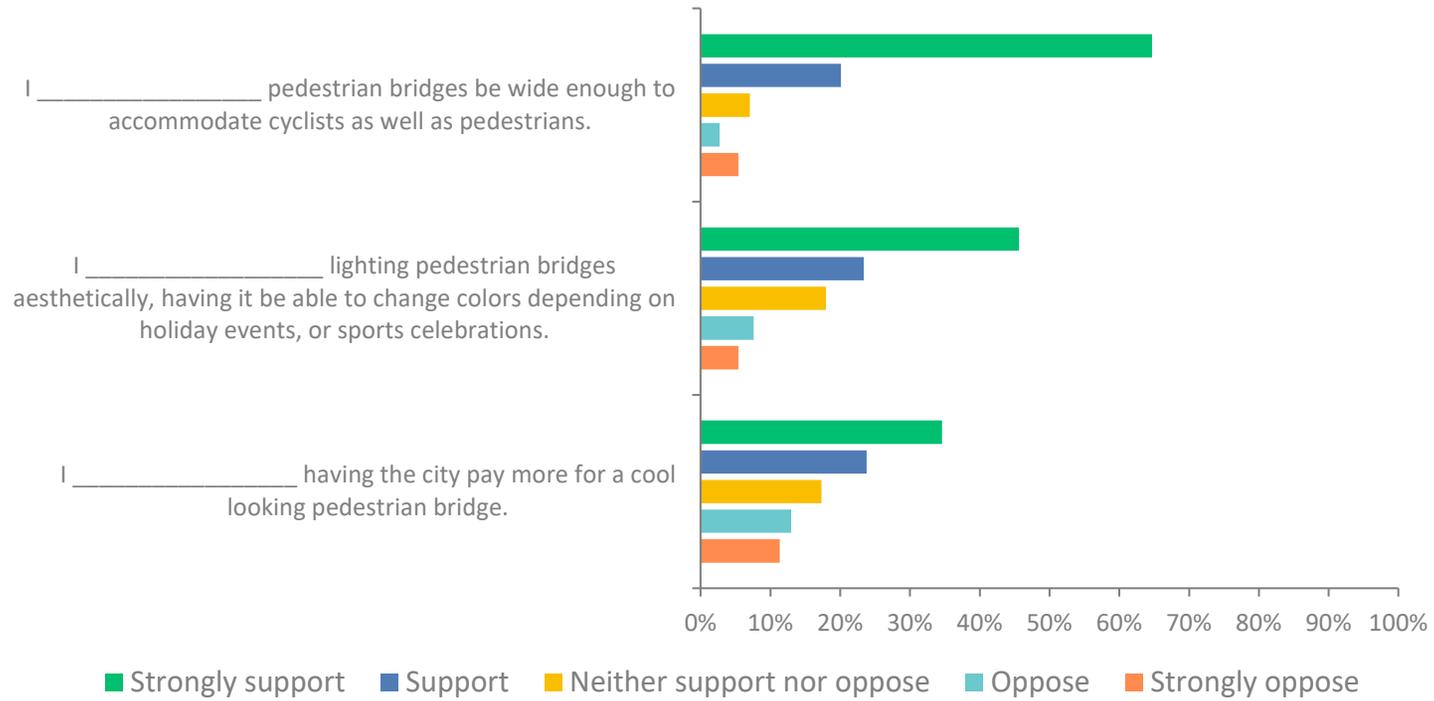
Q5: Reconfiguration of Streets in Surrounding Neighborhoods

Answered: 179 Skipped: 7

	STRONGLY SUPPORT	SUPPORT	NEITHER SUPPORT NOR OPPOSE	OPPOSE	STRONGLY OPPOSE	TOTAL
I _____ access on a two-way frontage road between 27th Street and Jackson Avenue on the north side of I-70. Video explanation	31.64% 56	32.77% 58	24.86% 44	4.52% 8	6.21% 11	177
I _____ the extension of 29th Terrance between Norton and Myrtle.	34.64% 62	27.93% 50	29.05% 52	3.91% 7	4.47% 8	179
I _____ the removal of through access on Indiana Avenue at the railroad bridge. Video explanation	25.00% 44	23.30% 41	30.68% 54	8.52% 15	12.50% 22	176

Q6: Pedestrian Bridges Video explanation

Answered: 185 Skipped: 1



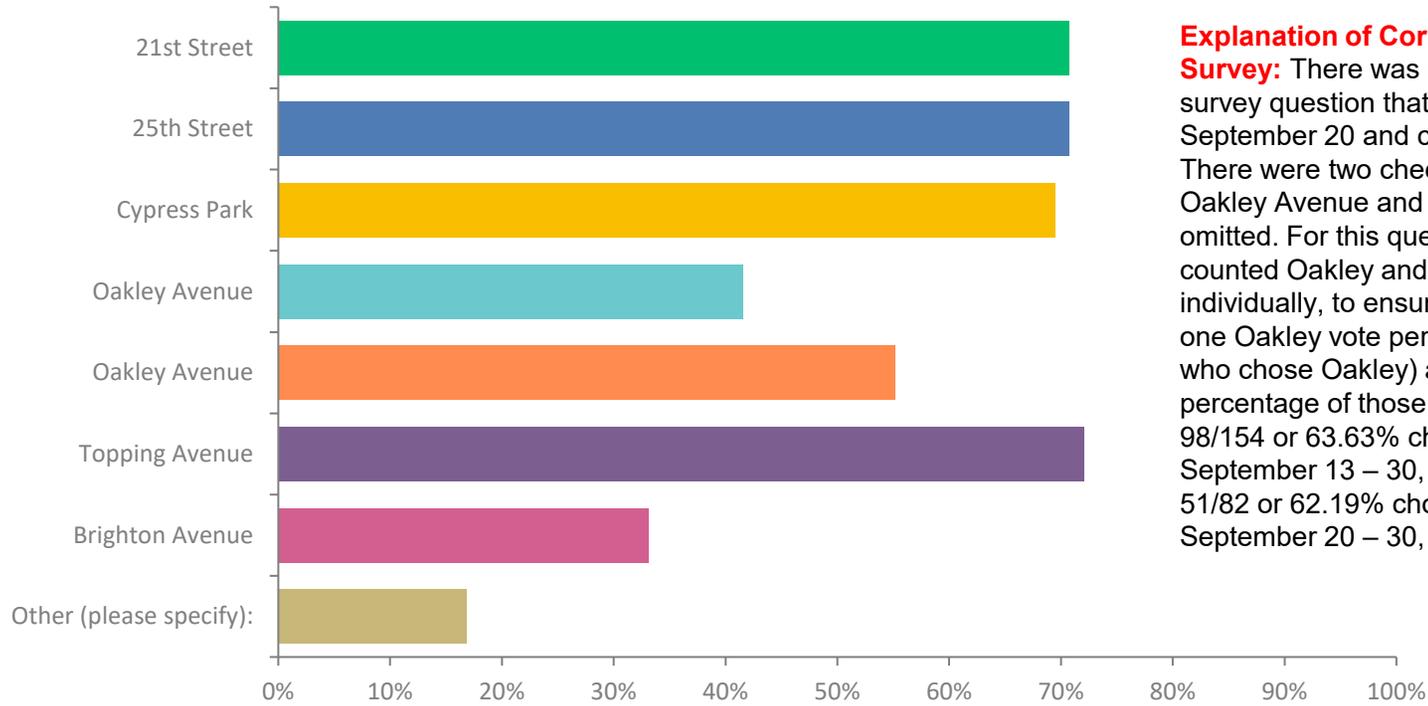
Q6: Pedestrian Bridges Video explanation

Answered: 185 Skipped: 1

	STRONGLY SUPPORT	SUPPORT	NEITHER SUPPORT NOR OPPOSE	OPPOSE	STRONGLY OPPOSE	TOTAL
I _____ pedestrian bridges be wide enough to accommodate cyclists as well as pedestrians.	64.67% 119	20.11% 37	7.07% 13	2.72% 5	5.43% 10	184
I _____ lighting pedestrian bridges aesthetically, having it be able to change colors depending on holiday events, or sports celebrations.	45.65% 84	23.37% 43	17.93% 33	7.61% 14	5.43% 10	184
I _____ having the city pay more for a cool looking pedestrian bridge.	34.59% 64	23.78% 44	17.30% 32	12.97% 24	11.35% 21	185

Q7: I support pedestrian bridges at the following locations (select all that apply):

Answered: 154 Skipped: 32



Explanation of Correction Made to Survey: There was an error in this survey question that was noticed on September 20 and corrected at that time. There were two checkboxes provided for Oakley Avenue and Brighton Avenue was omitted. For this question, I manually counted Oakley and Brighton checkboxes individually, to ensure that I only allotted one Oakley vote per person (for those who chose Oakley) and to find out the percentage of those who chose Brighton: 98/154 or 63.63% chose Oakley between September 13 – 30, 2022. 63. 51/82 or 62.19% chose Brighton between September 20 – 30, 2022.

Q7: I support pedestrian bridges at the following locations (select all that apply):

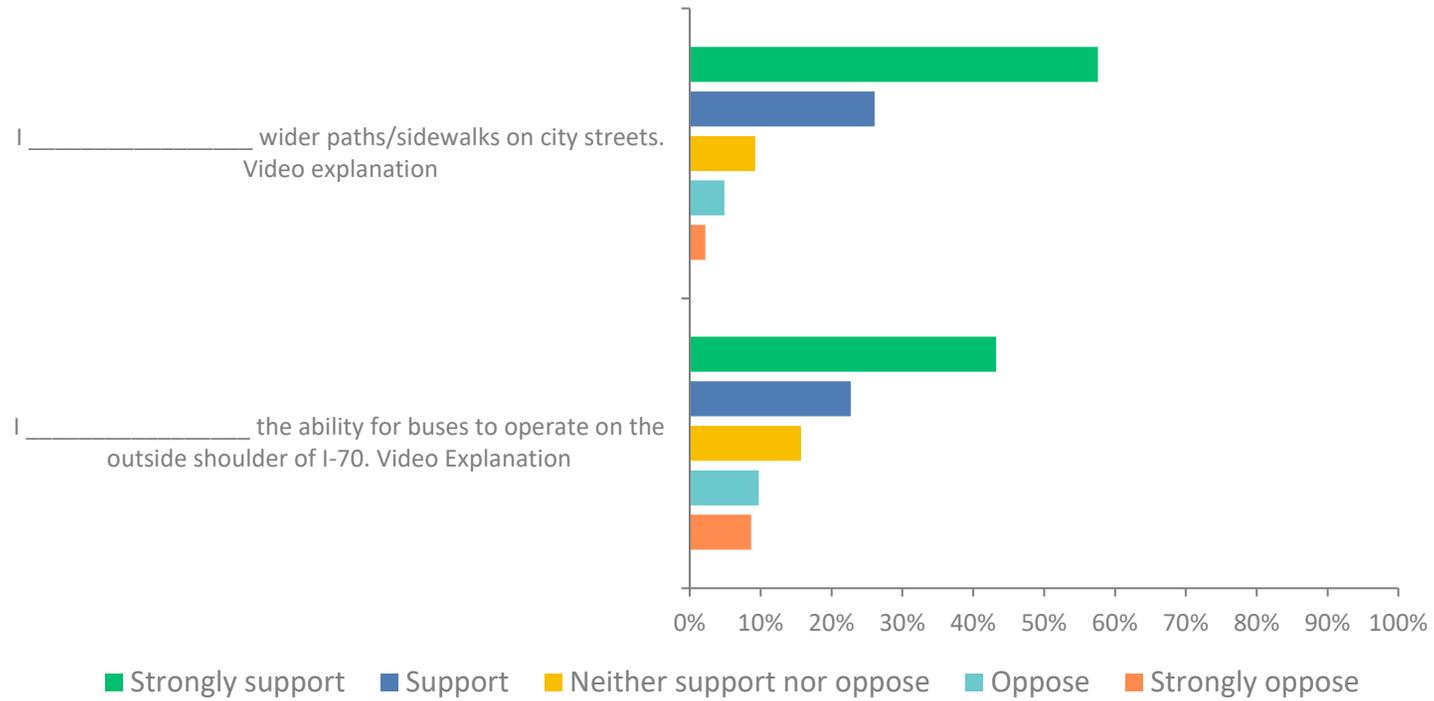
Answered: 154 Skipped: 32

See [Explanation of Correction Made to Survey](#) on previous slide.

ANSWER CHOICES	RESPONSES	
21st Street	70.78%	109
25th Street	70.78%	109
Cypress Park	69.48%	107
Oakley Avenue	41.56%	64
Oakley Avenue	55.19%	85
Topping Avenue	72.08%	111
Brighton Avenue	33.12%	51
Other (please specify):	16.88%	26
TOTAL		662

Q8: Sidewalks and Bus Shoulders

Answered: 185 Skipped: 1



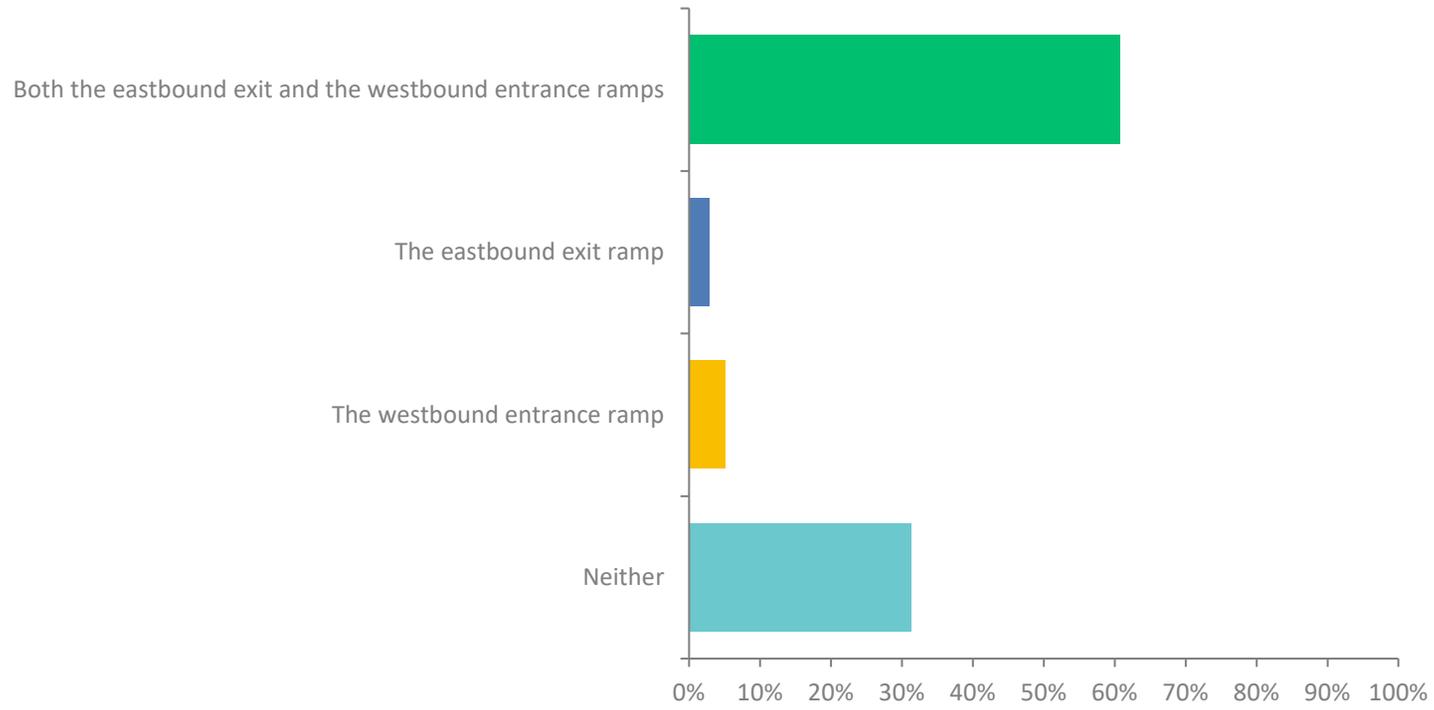
Q8: Sidewalks and Bus Shoulders

Answered: 185 Skipped: 1

	STRONGLY SUPPORT	SUPPORT	NEITHER SUPPORT NOR OPPOSE	OPPOSE	STRONGLY OPPOSE	TOTAL
I _____ wider paths/sidewalks on city streets. Video explanation	57.61% 106	26.09% 48	9.24% 17	4.89% 9	2.17% 4	184
I _____ the ability for buses to operate on the outside shoulder of I- 70. Video Explanation	43.24% 80	22.70% 42	15.68% 29	9.73% 18	8.65% 16	185

Q9: I support removal of the following ramps at Brooklyn Avenue interchange: Video explanation

Answered: 176 Skipped: 10



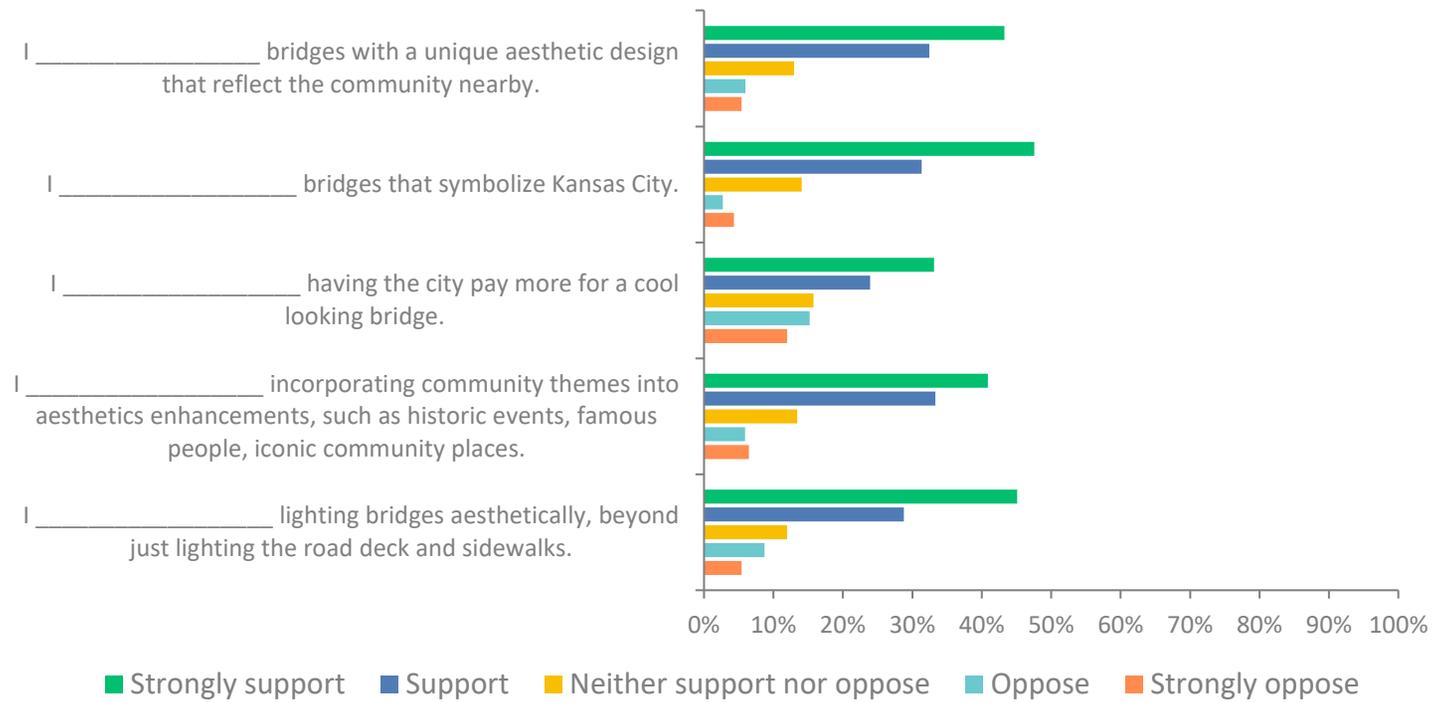
Q9: I support removal of the following ramps at Brooklyn Avenue interchange: Video explanation

Answered: 176 Skipped: 10

ANSWER CHOICES	RESPONSES	
Both the eastbound exit and the westbound entrance ramps	60.80%	107
The eastbound exit ramp	2.84%	5
The westbound entrance ramp	5.11%	9
Neither	31.25%	55
TOTAL		176

Q10: Aesthetics

Answered: 186 Skipped: 0



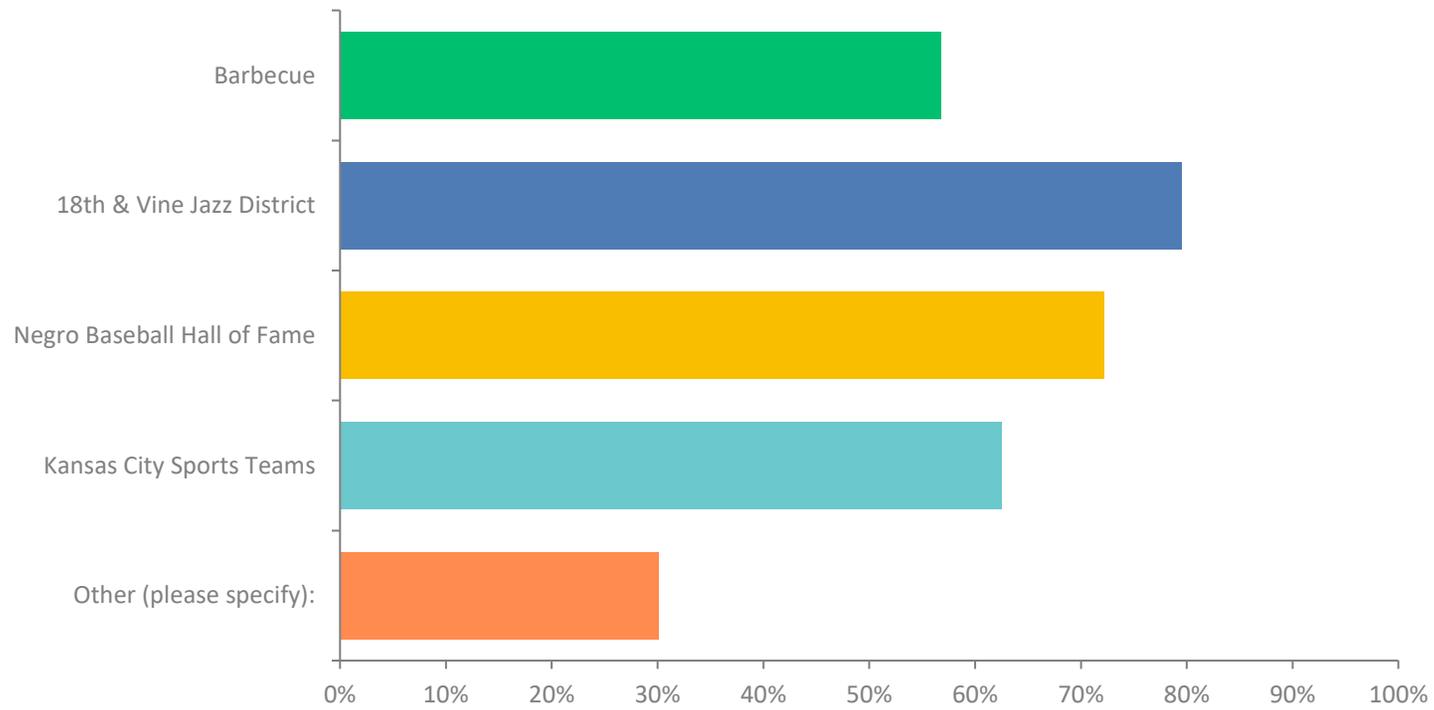
Q10: Aesthetics

Answered: 186 Skipped: 0

	STRONGLY SUPPORT	SUPPORT	NEITHER SUPPORT NOR OPPOSE	OPPOSE	STRONGLY OPPOSE	TOTAL
I _____ bridges with a unique aesthetic design that reflect the community nearby.	43.24% 80	32.43% 60	12.97% 24	5.95% 11	5.41% 10	185
I _____ bridges that symbolize Kansas City.	47.57% 88	31.35% 58	14.05% 26	2.70% 5	4.32% 8	185
I _____ having the city pay more for a cool looking bridge.	33.15% 61	23.91% 44	15.76% 29	15.22% 28	11.96% 22	184
I _____ incorporating community themes into aesthetics enhancements, such as historic events, famous people, iconic community places.	40.86% 76	33.33% 62	13.44% 25	5.91% 11	6.45% 12	186
I _____ lighting bridges aesthetically, beyond just lighting the road deck and sidewalks.	45.11% 83	28.80% 53	11.96% 22	8.70% 16	5.43% 10	184

Q11: I would support the following themes into aesthetic enhancements (select all that apply):

Answered: 176 Skipped: 10



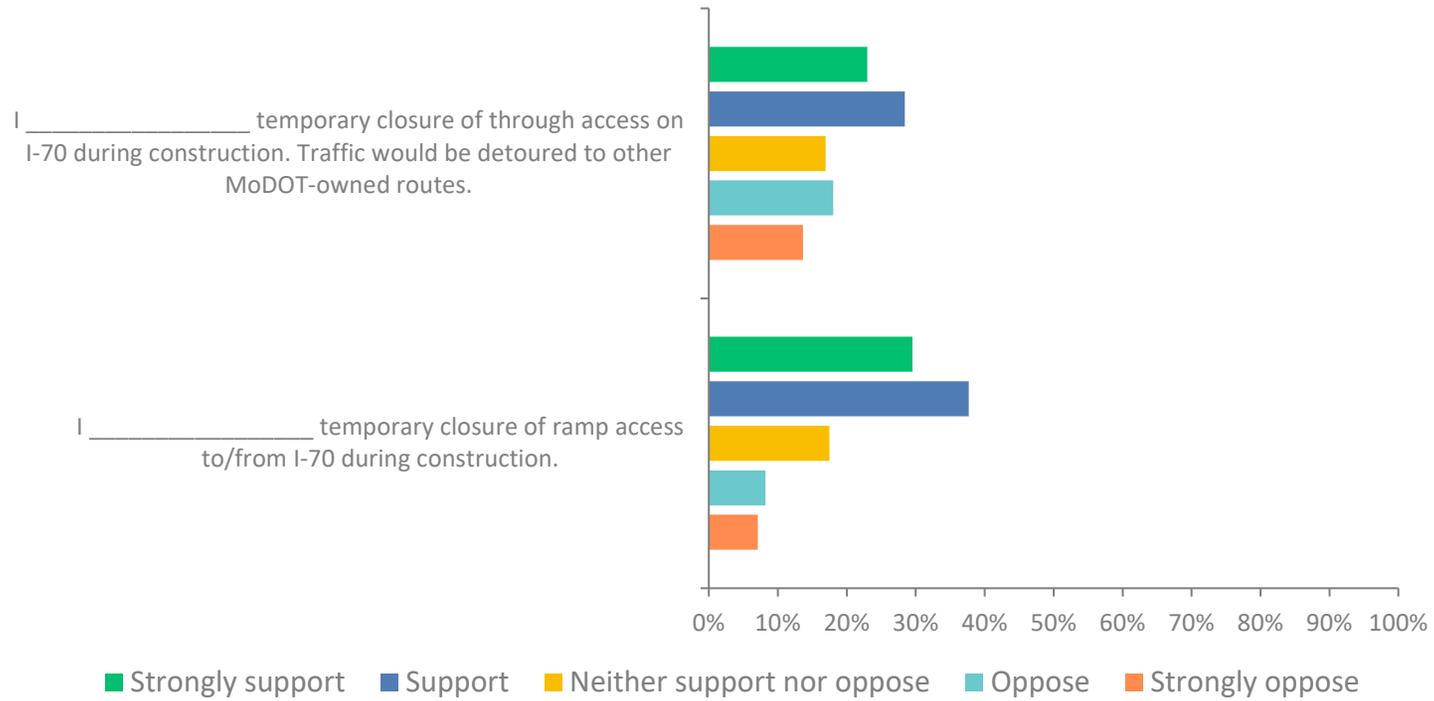
Q11: I would support the following themes into aesthetic enhancements (select all that apply):

Answered: 176 Skipped: 10

ANSWER CHOICES	RESPONSES	
Barbecue	56.82%	100
18th & Vine Jazz District	79.55%	140
Negro Baseball Hall of Fame	72.16%	127
Kansas City Sports Teams	62.50%	110
Other (please specify):	30.11%	53
TOTAL		530

Q12: Closures During Construction

Answered: 184 Skipped: 2



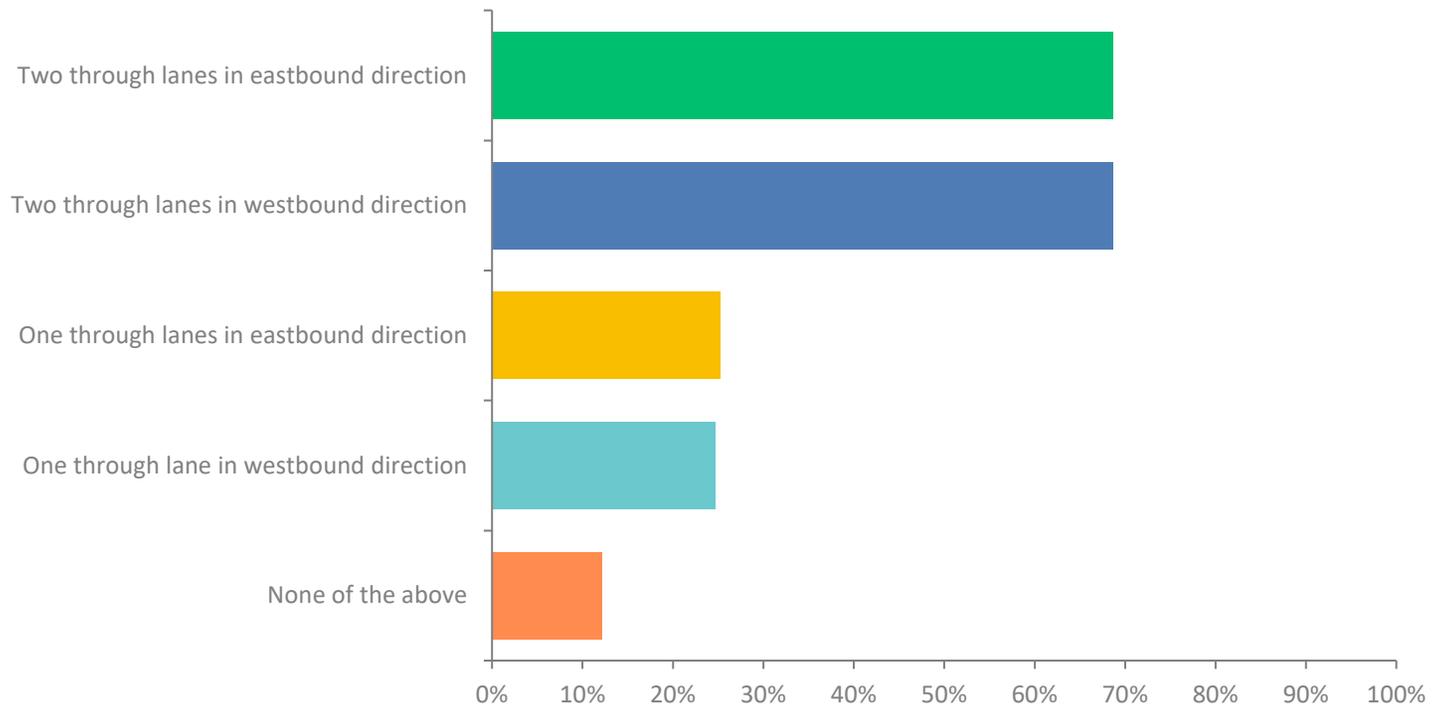
Q12: Closures During Construction

Answered: 184 Skipped: 2

	STRONGLY SUPPORT	SUPPORT	NEITHER SUPPORT NOR OPPOSE	OPPOSE	STRONGLY OPPOSE	TOTAL
I _____ temporary closure of through access on I-70 during construction. Traffic would be detoured to other MoDOT-owned routes.	22.95% 42	28.42% 52	16.94% 31	18.03% 33	13.66% 25	183
I _____ temporary closure of ramp access to/from I- 70 during construction.	29.51% 54	37.70% 69	17.49% 32	8.20% 15	7.10% 13	183

Q13: I support reducing lanes of traffic along I-70 during construction to _____ . (Check all that you support)

Answered: 182 Skipped: 4



Q13: I support reducing lanes of traffic along I-70 during construction to _____. (Check all that you support)

Answered: 182 Skipped: 4

ANSWER CHOICES	RESPONSES	
Two through lanes in eastbound direction	68.68%	125
Two through lanes in westbound direction	68.68%	125
One through lanes in eastbound direction	25.27%	46
One through lane in westbound direction	24.73%	45
None of the above	12.09%	22
TOTAL		363

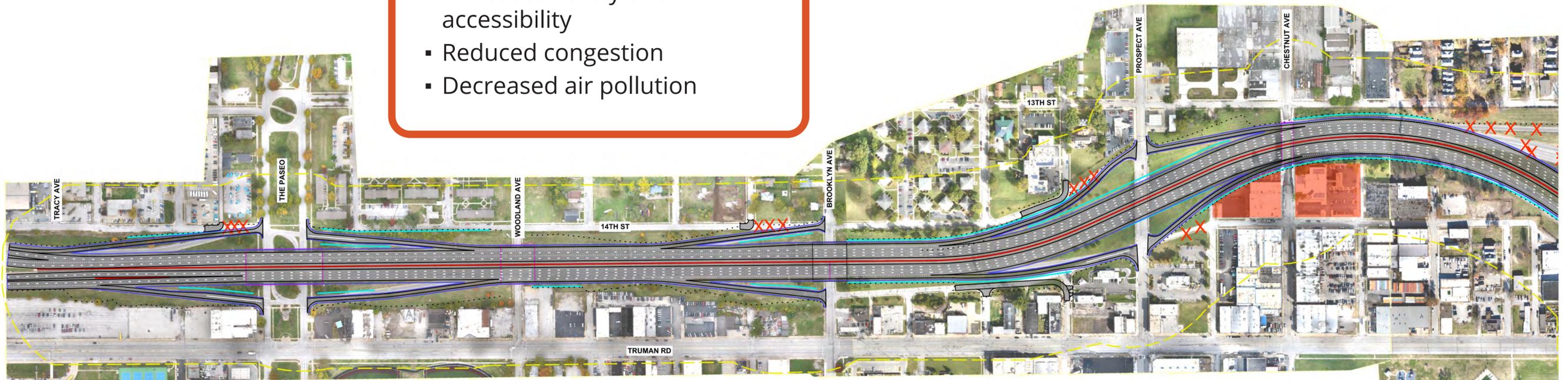
Appendix

IMPROVE I-70 KC **UPDATED 2022 Preferred Alternative Concept**

BENEFITS

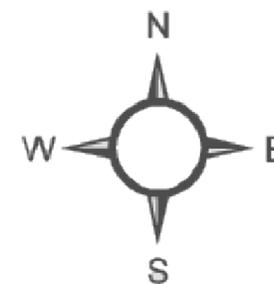
Benefits of extending the fourth lane on eastbound I-70:

- Increased safety and accessibility
- Reduced congestion
- Decreased air pollution



Segment one within project study area

LEGEND	
	Road Closures
	Bridge
	Median Barrier
	Edge of Pavement
	Edge of Shoulder
	Walls
	Pavement Markings
	Slope Lines
	Study Area
	Potential Business Impact
	Potential Residential Impact

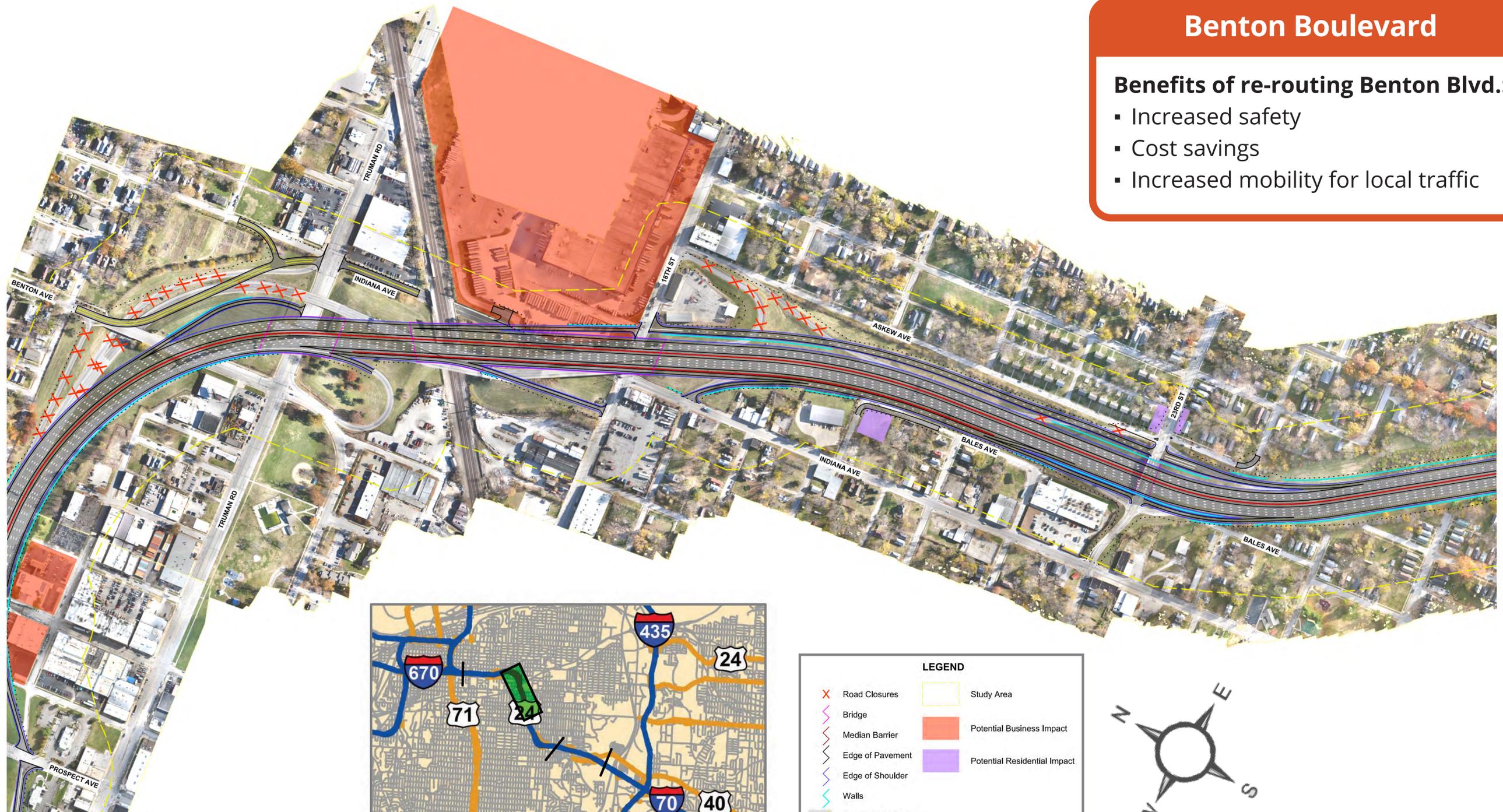


DRAFT - subject to change

A re-evaluation of the I-70 corridor between The Paseo and U.S. 40



IMPROVE I-70 KC **UPDATED 2022 Preferred Alternative Concept**



Benton Boulevard

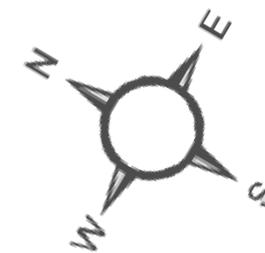
Benefits of re-routing Benton Blvd.:

- Increased safety
- Cost savings
- Increased mobility for local traffic



Segment two within project study area

LEGEND	
X	Road Closures
—	Bridge
—	Median Barrier
—	Edge of Pavement
—	Edge of Shoulder
—	Walls
—	Pavement Markings
—	Slope Lines
—	Study Area
—	Potential Business Impact
—	Potential Residential Impact



DRAFT - subject to change

A re-evaluation of the I-70 corridor between The Paseo and U.S. 40

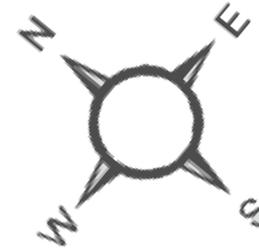


IMPROVE I-70 KC **UPDATED 2022 Preferred Alternative Concept**



Segment three within project study area

LEGEND	
	Road Closures
	Bridge
	Median Barrier
	Edge of Pavement
	Edge of Shoulder
	Walls
	Pavement Markings
	Slope Lines
	Study Area
	Potential Business Impact
	Potential Residential Impact



DRAFT - subject to change

A re-evaluation of the I-70 corridor between The Paseo and U.S. 40

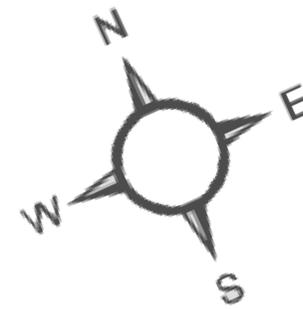


IMPROVE I-70 KC **UPDATED 2022 Preferred Alternative Concept**



Segment four within project study area

LEGEND			
	Road Closures		Study Area
	Bridge		Potential Business Impact
	Median Barrier		Potential Residential Impact
	Edge of Pavement		
	Edge of Shoulder		
	Walls		
	Pavement Markings		
	Slope Lines		



DRAFT - subject to change

A re-evaluation of the I-70 corridor between The Paseo and U.S. 40

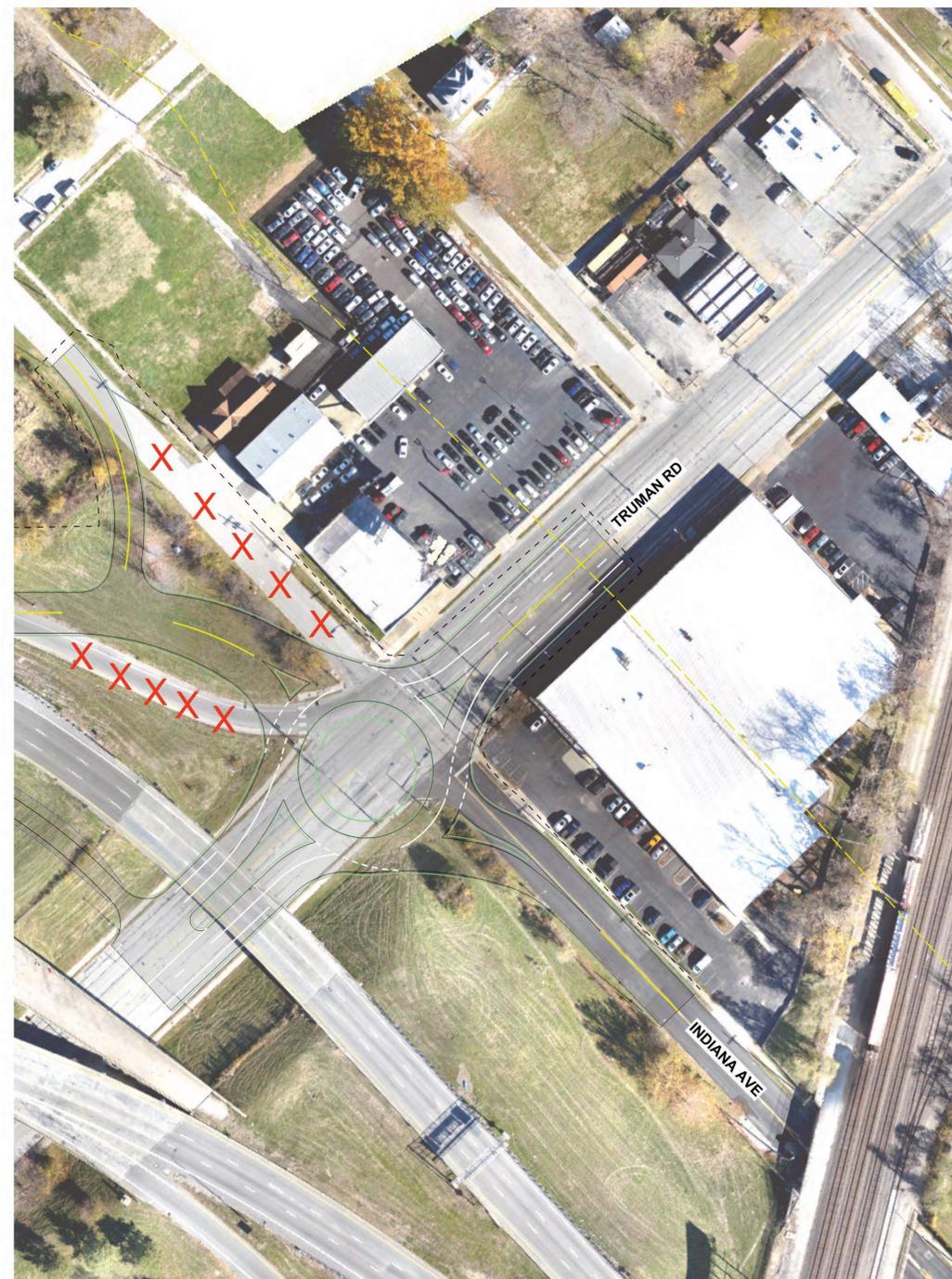


IMPROVE I-70 KC

A re-evaluation of the I-70 corridor between The Paseo and U.S. 40



23rd Street roundabout



Truman Road roundabout

Roundabouts

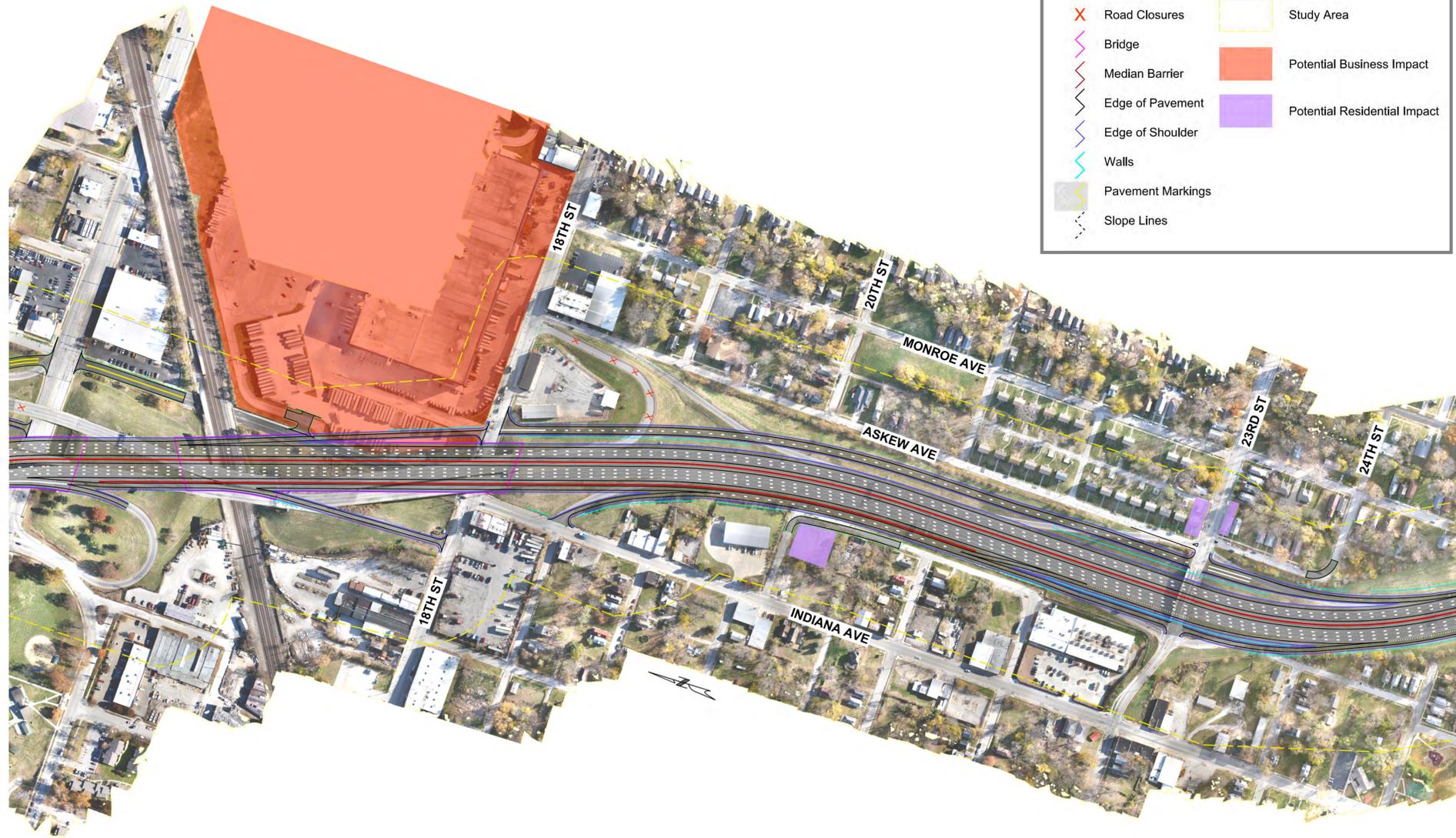
Benefits of roundabouts:

- Improved safety
- Reduced congestion
- Reduced pollution
- Cost savings
- Compliments multimodal access
- Opportunity for enhancements

LEGEND			
	Road Closures		Study Area
	Bridge		Potential Business Impact
	Median Barrier		Potential Residential Impact
	Edge of Pavement		
	Edge of Shoulder		
	Walls		
	Pavement Markings		
	Slope Lines		

IMPROVE I-70 KC

A re-evaluation of the I-70 corridor between The Paseo and U.S. 40



- Highlight of two areas:
1. Indiana Avenue and 18th Street
 2. 18th Street and 23rd Street

Ramp Combined Access

Benefits of ramp combined access for eastbound I-70:

- Improved safety
- Slower speeds on the Collector Distributor Road
- Reduced congestion on I-70 between 18th and 23rd Streets
- Reduces ramp conflict points along I-70 from four locations to two locations
- Maintains all local access to the interstate

One-way Outer Road

Benefits of one-way outer road connecting 23rd Street to 18th Street:

- Improved safety
- Removes ramp connection to Askew Avenue
- Ramp geometrics improved for 18th Street on-ramp to westbound I-70
- Separates local traffic from ramp traffic
- Easier for trucks to get to westbound I-70

IMPROVE I-70 KC

A re-evaluation of the I-70 corridor between The Paseo and U.S. 40



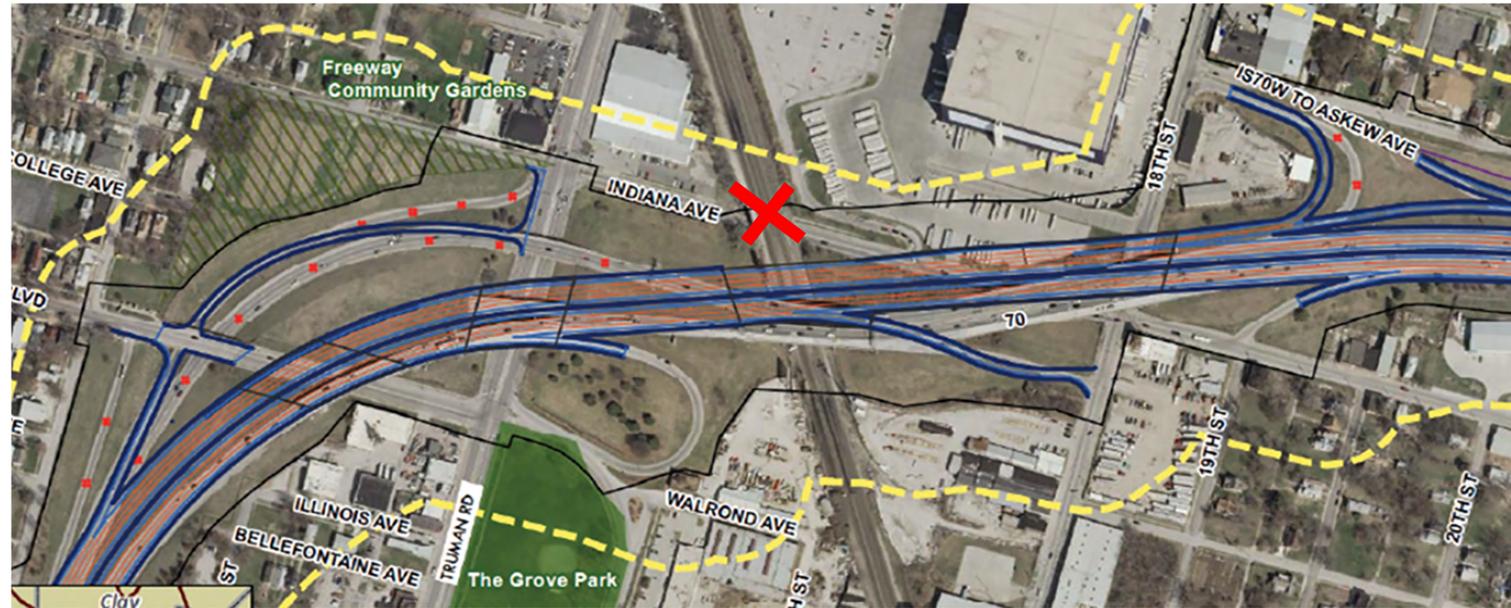
Jackson Avenue and 27th Street area

Two-way Outer Road

Benefits of two-way outer road between Jackson Avenue and 27th Street:

- Norton Avenue and Mersington Avenue would connect to two-way roads
- Widening of Myrtle Avenue to allow two-way traffic could be done without impacting adjacent neighborhood
- Area created for green infrastructure and a trail
- 29th Street is reconnected to Myrtle Avenue

IMPROVE I-70 KC **UPDATED 2022 Preferred Alternative Concept**



Indiana Avenue railroad bridge removal



Indiana Avenue railroad bridge street view



Traffic operations after Indiana Avenue railroad bridge removal

Railroad Bridge at Indiana Ave.

Benefits of Indiana Bridge removal:

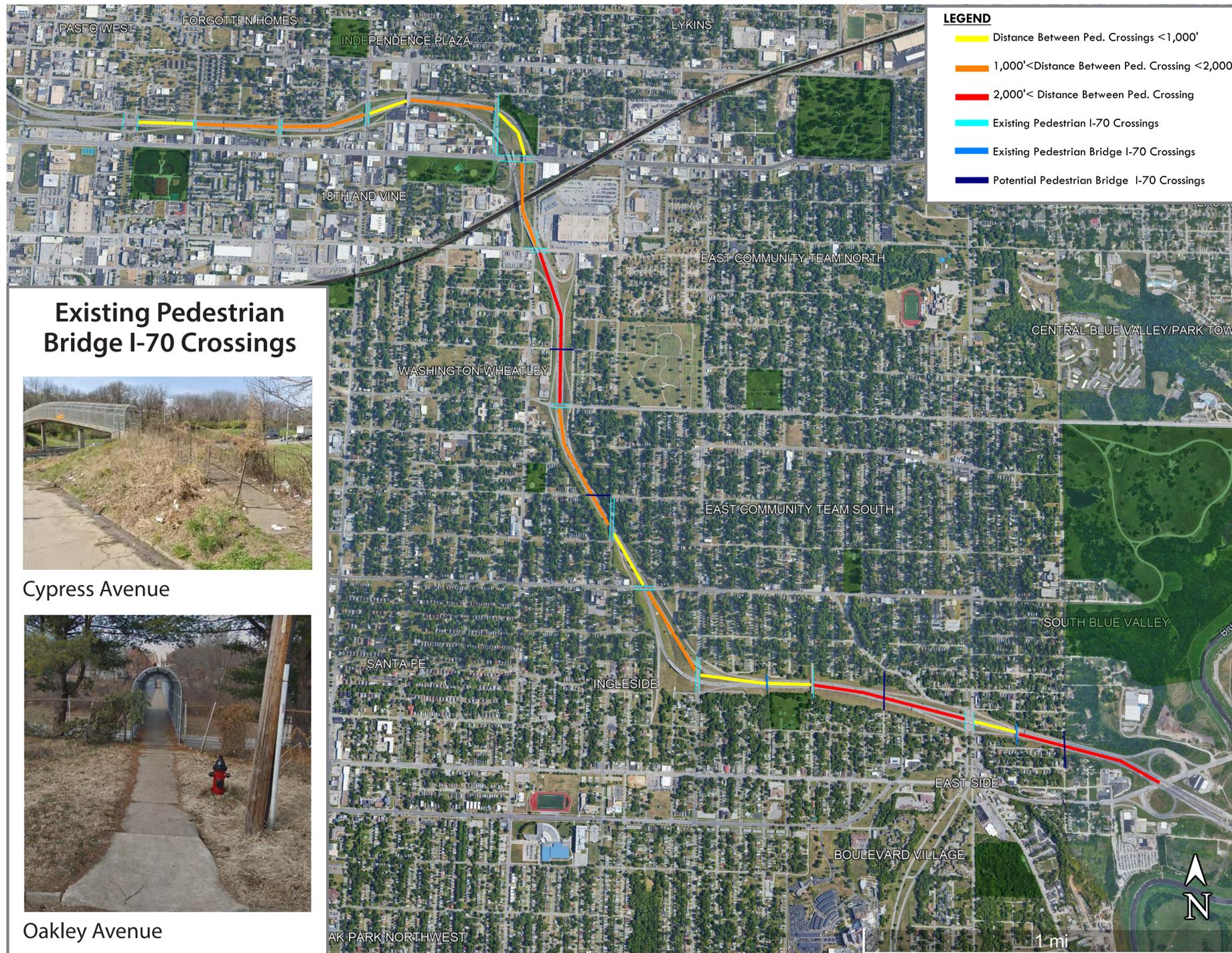
- Increased safety
- Provides more flexibility with construction activities
- Removes crumbling bridge from transit system

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A re-evaluation of the I-70 corridor between The Paseo and U.S. 40



IMPROVE I-70 KC **UPDATED 2022 Preferred Alternative Concept**



Existing Pedestrian Bridge I-70 Crossings



Cypress Avenue



Oakley Avenue

Pedestrian Connectivity

Benefits of pedestrian bridges in preferred locations:

- Increased walkability for neighborhoods across I-70
- Increased functionality
- Wider pedestrian bridges increase safety and accessibility



Two examples of improved pedestrian bridge crossings

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A re-evaluation of the I-70 corridor between The Paseo and U.S. 40



IMPROVE I-70 KC **UPDATED 2022 Preferred Alternative Concept**



Examples of wide shared-use paths on local streets

Shared-use Paths

Benefits of shared-use paths:

- Increased accessibility
- Increased multimodal use
- Ties into future KCMO multimodal plans

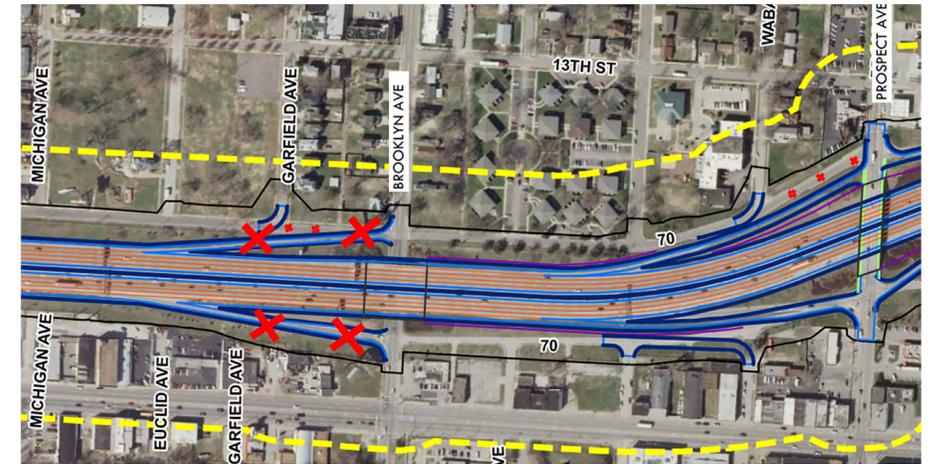


Example of buses on interstate shoulder

Bus on Shoulder

Benefits of bus on shoulder:

- Supports alternate routes for buses to provide timely connections to the community
- Creates a safer area for cars to pull out of traffic
- Allows maintenance and emergency vehicles a space to safely work
- Provides an escape lane to re-route traffic during accidents



Removal of direct access at Brooklyn Avenue

Brooklyn Avenue Ramps

Benefits of removal of Brooklyn Avenue ramps:

- Increased safety
- Decreased congestion
- Access could still be maintained via other nearby streets

DRAFT - subject to change

A re-evaluation of the I-70 corridor between The Paseo and U.S. 40



Improve I-70 KC Toolkit
PROMOTE Public Meeting #2

Below is content you can easily copy and paste for your email blasts, an electronic or print newsletter, website and social media channels!

Please feel free to edit the content and help spread the word about **Improve I-70 KC**.

Email Content

Hello Community Partner,

The Missouri Department of Transportation (MoDOT) is hosting open house public meeting #2 as part of the re-evaluation of the Environmental Impact Statement (EIS) of I-70 between The Paseo to east of U.S. 40.

Comment on updated designs at Open House Public Meeting #2

Thank you for your feedback from the public meetings in March 2022. The project team incorporated that feedback into a modified design to find ways to improve safety, reduce congestion, and reconnect the community. Now your feedback is needed on these new ideas, such as locations for potential pedestrian crossing across I-70, continuation of lanes, and combining access points between I-70 and local roads.

Open House Public Meeting #2

5-7 p.m. on Tuesday, September 13, 2022

[Gregg/Klice Community Center](#)

1600 E. 17th Terrace

Kansas City, MO 64108

The meeting is conveniently located on [Kansas City Area Transportation Authority \(KCATA\)](#) bus routes. Come and go anytime between 5-7 p.m. If you are unable to attend in person presentation information, opportunities for engagement and ways to submit comments will be available online after the meeting.

Ways to Engage

- Attend open house public meeting #2 from 5-7 p.m. on Tuesday, September 13
[Add it to your calendar!](#)
- Visit the project webpage at <http://modot.org/improvei70kc>
- Request a speaker for your meeting
- Sign up for project update emails

If you have any questions, please reach out to the project team by email at improvei70kc@modot.mo.gov or phone 816-216-6571.

Social Media Content

TWITTER

[Post #1]

Comment on updated designs! After the 1st round of public meetings in March 2022 community feedback was incorporated into the designs. MoDOT wants your feedback on these new ideas. Public meeting #2 info & details here: <http://modot.org/improvei70kc>

[Post #2]

Join MoDOT at public open house #2! Come & go from 5-7 p.m. on Tuesday, Sept. 13 @ the Gregg/Klice Community Center. Comment on new ideas such as potential pedestrian crossings, continuation of lanes, combining access points. Add it to your calendar: <https://evt.mx/W7TR2HRg>

[Post #3]

Don't forget! Public meeting #2 for Improve I-70 KC is from 5-7 pm on Sept. 13 @ the Gregg/Klice Community Center. Previous feedback helped find ways to improve safety, reduce congestion & reconnect communities. See the modified design and get an update. <http://modot.org/improvei70kc>

FACEBOOK

[Post #1]

Use email content from above.

IMPROVE I-70 KC

A re-evaluation of the I-70 corridor between The Paseo and U.S. 40

What's Happening?

The Missouri Department of Transportation (MoDOT) is improving aging infrastructure along I-70 between The Paseo and U.S. 40. For this section, MoDOT is conducting a re-evaluation of the second tier of the Environmental Impact Statement (EIS) to review the preferred alternative concept and gather feedback about any recent changes on the corridor.

Why is a Re-evaluation Needed?

Time. A National Environmental Policy Act (NEPA) re-evaluation is necessary because the final EIS document was completed several years ago.

Potential Changes. Existing conditions, possible solutions, potential impacts, and related mitigation measures may have changed.

Why is Feedback Important?

Throughout the project, MoDOT has worked with the local community, leaders, organizations and highway travelers to develop the preferred alternative concept. MoDOT wants to ensure that the preferred alternative concept is still the best option.

When is this Happening?

- The re-evaluation will be complete by spring 2023.
- Construction is anticipated to begin in 2024.



Why are Improvements Needed?

Improve safety. Reduce the overall crash rate.

Restore and maintain existing infrastructure. I-70 is more than 50 years old. Pavement and bridges are worn out.

Improve accessibility. Crossing conditions can be enhanced for pedestrians, transit and communities.

Improve goods movement. I-70 is a vital lifeline for moving people, goods, and information across Missouri and beyond.

Reduce congestion. Congestion occurs at spot locations along the corridor.

Visit the Project Webpage for Public Involvement Opportunities



SCAN ME

- Scan the QR code or visit <http://modot.org/improvei70kc>
- Participate in public involvement opportunities - take a survey, submit a comment, email the project team.
- Access resources, request a speaker or toolkit, sign up for project email updates, and more!

Purpose and Need By the Numbers

- **100,000 vehicles** travel the corridor each day
- **1,685 crashes** occurred along the corridor over the last five years
- **10 interchanges** are located within the project limits
- **25 bridges** are scheduled to be replaced
- The project corridor is approx. **5 miles long**
- Programmed budget is **\$149 million**

 **Translation Available!** For more language options, please visit the website above.

Para más opciones de idiomas, por favor visite el sitio web arriba mencionado.

Nếu quý vị muốn đọc tài liệu trên bằng tiếng Việt, xin vui lòng truy cập trang web ở trên.





Improve I-70 KC

A re-evaluation of the I-70 corridor between The Paseo & U.S. 40

Comment on updated designs! The Missouri Department of Transportation (MoDOT) appreciates the community’s feedback ideas presented in March 2022. The project team incorporated that feedback into the modified design to find ways to improve safety, reduce congestion, and reconnect the community.

Now your feedback is needed on these new ideas, such as locations for potential pedestrian crossings across I-70, continuation of lanes, and combining access points between I-70 and local roads.

1. Do you support continuing the outside eastbound I-70 lane further east beyond Prospect Avenue?

Yes No

Please explain your answer: _____

2. Benton Boulevard & Truman Road

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ the consolidation of the Benton Boulevard and Truman Road access points.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ the reconfiguration of Benton Boulevard north of Truman Road.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. Roundabouts

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ roundabouts at the intersection of the I-70 ramps and 23rd Street.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ a roundabout at the intersection of Benton, Indiana and Truman.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. Combined Exits

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ the combined exit from eastbound I-70 to Truman Road, 23rd Street and 18th Street via a one-way frontage road system.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ the combined exit from westbound I-70 to 23rd Street and 18th Street via a one-way frontage road system.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. Reconfiguration of Streets in Surrounding Neighborhoods

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ access on a two-way frontage road between 27th Street and Jackson Boulevard on the north side of I-70.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ the extension of 29th Terrance between Norton and Myrtle.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ the removal of through access on Indiana Avenue at the railroad bridge.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. Pedestrian Bridges

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ pedestrian bridges be wide enough to accommodate cyclists as well as pedestrians.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ lighting pedestrian bridges aesthetically, having it be able to change colors depending on holiday events, or sports celebrations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ having the city pay more for a cool looking pedestrian bridge.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. I support pedestrian bridges at the following locations (select all that apply):

- 21st Street Cypress Park Oakley Avenue
 25th Street Brighten Avenue Topping
 Other (please specify):

8. Sidewalks and Bus Shoulders

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ wider paths/sidewalks on city streets.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ the ability for buses to operate on the outside shoulder of I-70.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9. I support removal of the following ramps at Brooklyn Avenue interchange:

- Both the eastbound exit and the westbound entrance ramps
 The eastbound exit ramp
 The westbound entrance ramp
 Neither

10. Aesthetics

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ bridges with a unique aesthetic design that reflect the community nearby.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ bridges that symbolize Kansas City.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ having the city pay more for a cool looking bridge.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ incorporating community themes into aesthetics enhancements, such as historic events, famous people, iconic community places.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ lighting bridges aesthetically, beyond just lighting the road deck and sidewalks.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11. I would support the following themes into aesthetic enhancements (select all that apply):

- Barbecue
- Negro Baseball Hall of Fame
- 18th & Vine Jazz District
- Kansas City Sports Teams
- Other (please specify): _____

12. Closures During Construction

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ temporary closure of through access on I-70 during construction. Traffic would be detoured to other MoDOT-owned routes.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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13. I support reducing lanes of traffic along I-70 during construction to _____. (Check all that you support)

- Two through lanes in eastbound direction
- Two through lanes in westbound direction
- One through lanes in eastbound direction
- One through lane in westbound direction
- None of the above

14. If you have additional comments about the Improve I-70 project from The Paseo to U.S. 40, please share them with us:

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Improve I-70 KC

A re-evaluation of the I-70 corridor between The Paseo & U.S. 40

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Please explain your answer: _____

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I _____ the reconfiguration of Benton Boulevard north of Truman Road.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

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I _____ the removal of through access on Indiana Avenue at the railroad bridge.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

6. Pedestrian Bridges

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I Strongly oppose pedestrian bridges be wide enough to accommodate cyclists as well as pedestrians.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
I _____ lighting pedestrian bridges aesthetically, having it be able to change colors depending on holiday events, or sports celebrations.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
I Strongly oppose having the city pay more for a cool looking pedestrian bridge. <i>not appropriate word to use</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

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- Cypress Park
- Oakley Avenue
- 25th Street
- Brighten Avenue
- Topping
- Other (please specify):

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14. If you have additional comments about the Improve I-70 project from The Paseo to U.S. 40, please share them with us:

Strongly Oppose

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Improve I-70 KC

A re-evaluation of the I-70 corridor between The Paseo & U.S. 40

Comment on updated designs! The Missouri Department of Transportation (MoDOT) appreciates the community's feedback ideas presented in March 2022. The project team incorporated that feedback into the modified design to find ways to improve safety, reduce congestion, and reconnect the community.

Now your feedback is needed on these new ideas, such as locations for potential pedestrian crossings across I-70, continuation of lanes, and combining access points between I-70 and local roads.

1. Do you support continuing the outside eastbound I-70 lane further east beyond Prospect Avenue?

Yes No

Please explain your answer:

With the speed limit on I-70 it is really easy to miss the Prospect exit and for dangerous to get to

2. Benton Boulevard & Truman Road

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ the consolidation of the Benton Boulevard and Truman Road access points.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ the reconfiguration of Benton Boulevard north of Truman Road.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. Roundabouts

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ roundabouts at the intersection of the I-70 ramps and 23rd Street.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ a roundabout at the intersection of Benton, Indiana and Truman.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. Combined Exits

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ the combined exit from eastbound I-70 to Truman Road, 23rd Street and 18th Street via a one-way frontage road system.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ the combined exit from westbound I-70 to 23rd Street and 18th Street via a one-way frontage road system.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. Reconfiguration of Streets in Surrounding Neighborhoods

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ access on a two-way frontage road between 27th Street and Jackson Boulevard on the north side of I-70.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ the extension of 29th Terrance between Norton and Myrtle.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ the removal of through access on Indiana Avenue at the railroad bridge.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. Pedestrian Bridges

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ pedestrian bridges be wide enough to accommodate cyclists as well as pedestrians.	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ lighting pedestrian bridges aesthetically, having it be able to change colors depending on holiday events, or sports celebrations.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ having the city pay more for a cool looking pedestrian bridge.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. I support pedestrian bridges at the following locations (select all that apply):

- 21st Street
- Cypress Park
- Oakley Avenue
- 25th Street
- Brighten Avenue
- Topping
- Other (please specify):

8. Sidewalks and Bus Shoulders

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ wider paths/sidewalks on city streets.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ the ability for buses to operate on the outside shoulder of I-70.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9. I support removal of the following ramps at Brooklyn Avenue interchange:

- Both the eastbound exit and the westbound entrance ramps
- The eastbound exit ramp
- The westbound entrance ramp
- Neither

10. Aesthetics

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ bridges with a unique aesthetic design that reflect the community nearby.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ bridges that symbolize Kansas City.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ having the city pay more for a cool looking bridge.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ incorporating community themes into aesthetics enhancements, such as historic events, famous people, iconic community places.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ lighting bridges aesthetically, beyond just lighting the road deck and sidewalks.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11. I would support the following themes into aesthetic enhancements (select all that apply):

- Barbecue
- Negro Baseball Hall of Fame
- 18th & Vine Jazz District
- Kansas City Sports Teams
- Other (please specify): Art space - walk

*Meyer -
Jazz Museum
Al in Art*

12. Closures During Construction

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ temporary closure of through access on I-70 during construction. Traffic would be detoured to other MoDOT-owned routes.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ temporary closure of ramp access to/from I-70 during construction.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. I support reducing lanes of traffic along I-70 during construction to _____. (Check all that you support)

- Two through lanes in eastbound direction
- Two through lanes in westbound direction
- One through lanes in eastbound direction
- One through lane in westbound direction
- None of the above

14. If you have additional comments about the Improve I-70 project from The Paseo to U.S. 40, please share them with us:

Can't wait!

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Now your feedback is needed on these new ideas, such as locations for potential pedestrian crossings across I-70, continuation of lanes, and combining access points between I-70 and local roads.

1. Do you support continuing the outside eastbound I-70 lane further east beyond Prospect Avenue?

Yes No

Please explain your answer: NEEDED

2. Benton Boulevard & Truman Road

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ the consolidation of the Benton Boulevard and Truman Road access points.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ the reconfiguration of Benton Boulevard north of Truman Road.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. Roundabouts

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ roundabouts at the intersection of the I-70 ramps and 23rd Street.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ a roundabout at the intersection of Benton, Indiana and Truman.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. Combined Exits

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ the combined exit from eastbound I-70 to Truman Road, 23rd Street and 18th Street via a one-way frontage road system.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ the combined exit from westbound I-70 to 23rd Street and 18th Street via a one-way frontage road system.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. Reconfiguration of Streets in Surrounding Neighborhoods

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ access on a two-way frontage road between 27th Street and Jackson Boulevard on the north side of I-70.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ the extension of 29th Terrance between Norton and Myrtle.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ the removal of through access on Indiana Avenue at the railroad bridge.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

6. Pedestrian Bridges

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ pedestrian bridges be wide enough to accommodate cyclists as well as pedestrians.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ lighting pedestrian bridges aesthetically, having it be able to change colors depending on holiday events, or sports celebrations.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ having the city pay more for a cool looking pedestrian bridge.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

7. I support pedestrian bridges at the following locations (select all that apply):

- 21st Street
- Cypress Park
- Oakley Avenue
- 25th Street
- Brighten Avenue
- Topping
- Other (please specify):

8. Sidewalks and Bus Shoulders

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ wider paths/sidewalks on city streets.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ the ability for buses to operate on the outside shoulder of I-70.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9. I support removal of the following ramps at Brooklyn Avenue interchange:

- Both the eastbound exit and the westbound entrance ramps
- The eastbound exit ramp
- The westbound entrance ramp
- Neither

10. Aesthetics

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ bridges with a unique aesthetic design that reflect the community nearby.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ bridges that symbolize Kansas City.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ having the city pay more for a cool looking bridge.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
I _____ incorporating community themes into aesthetics enhancements, such as historic events, famous people, iconic community places.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ lighting bridges aesthetically, beyond just lighting the road deck and sidewalks.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11. I would support the following themes into aesthetic enhancements (select all that apply):

- Barbecue
- Negro Baseball Hall of Fame
- 18th & Vine Jazz District
- Kansas City Sports Teams
- Other (please specify): _____

12. Closures During Construction

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ temporary closure of through access on I-70 during construction. Traffic would be detoured to other MoDOT-owned routes.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ temporary closure of ramp access to/from I-70 during construction.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. I support reducing lanes of traffic along I-70 during construction to _____ . (Check all that you support)

- Two through lanes in eastbound direction
- Two through lanes in westbound direction
- One through lanes in eastbound direction
- One through lane in westbound direction
- None of the above

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1. Do you support continuing the outside eastbound I-70 lane further east beyond Prospect Avenue?

Yes No

Please explain your answer: _____

2. Benton Boulevard & Truman Road

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ the consolidation of the Benton Boulevard and Truman Road access points.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ the reconfiguration of Benton Boulevard north of Truman Road.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. Roundabouts

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ roundabouts at the intersection of the I-70 ramps and 23rd Street.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ a roundabout at the intersection of Benton, Indiana and Truman.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. Combined Exits

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ the combined exit from eastbound I-70 to Truman Road, 23rd Street and 18th Street via a one-way frontage road system.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ the combined exit from westbound I-70 to 23rd Street and 18th Street via a one-way frontage road system.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. Reconfiguration of Streets in Surrounding Neighborhoods

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ access on a two-way frontage road between 27th Street and Jackson Boulevard on the north side of I-70.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ the extension of 29th Terrance between Norton and Myrtle.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
I _____ the removal of through access on Indiana Avenue at the railroad bridge.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

6. Pedestrian Bridges

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ pedestrian bridges be wide enough to accommodate cyclists as well as pedestrians.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
I _____ lighting pedestrian bridges aesthetically, having it be able to change colors depending on holiday events, or sports celebrations.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ having the city pay more for a cool looking pedestrian bridge.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. I support pedestrian bridges at the following locations (select all that apply):

- 21st Street
- Cypress Park
- Oakley Avenue
- 25th Street
- Brighten Avenue
- Topping
- Other (please specify):

8. Sidewalks and Bus Shoulders

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ wider paths/sidewalks on city streets.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ the ability for buses to operate on the outside shoulder of I-70.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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- The eastbound exit ramp
- The westbound entrance ramp
- Neither

10. Aesthetics

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ bridges with a unique aesthetic design that reflect the community nearby.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ bridges that symbolize Kansas City.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ having the city pay more for a cool looking bridge.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ incorporating community themes into aesthetics enhancements, such as historic events, famous people, iconic community places.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ lighting bridges aesthetically, beyond just lighting the road deck and sidewalks.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11. I would support the following themes into aesthetic enhancements (select all that apply):

- Barbecue
- Negro Baseball Hall of Fame
- 18th & Vine Jazz District
- Kansas City Sports Teams
- Other (please specify): _____

12. Closures During Construction

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ temporary closure of through access on I-70 during construction. Traffic would be detoured to other MoDOT-owned routes.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
I _____ temporary closure of ramp access to/from I-70 during construction.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

13. I support reducing lanes of traffic along I-70 during construction to _____. (Check all that you support)

- Two through lanes in eastbound direction
- Two through lanes in westbound direction
- One through lanes in eastbound direction
- One through lane in westbound direction
- None of the above

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Now your feedback is needed on these new ideas, such as locations for potential pedestrian crossings across I-70, continuation of lanes, and combining access points between I-70 and local roads.

1. Do you support continuing the outside eastbound I-70 lane further east beyond Prospect Avenue?

Yes No

Please explain your answer: Yes but only if it does not take any homes

2. Benton Boulevard & Truman Road

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ the consolidation of the Benton Boulevard and Truman Road access points.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ the reconfiguration of Benton Boulevard north of Truman Road.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. Roundabouts

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I _____ roundabouts at the intersection of the I-70 ramps and 23rd Street.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
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4. Combined Exits

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I _____ the removal of through access on Indiana Avenue at the railroad bridge.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

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	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ pedestrian bridges be wide enough to accommodate cyclists as well as pedestrians.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ lighting pedestrian bridges aesthetically, having it be able to change colors depending on holiday events, or sports celebrations.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ having the city pay more for a cool looking pedestrian bridge.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

MoDOT should pay for this

7. I support pedestrian bridges at the following locations (select all that apply):

- 21st Street
- Cypress Park
- Oakley Avenue
- 25th Street
- Brighten Avenue
- Topping
- Other (please specify):

8. Sidewalks and Bus Shoulders

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10. Aesthetics

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ bridges with a unique aesthetic design that reflect the community nearby.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ bridges that symbolize Kansas City.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ having the city pay more for a cool looking bridge. <i>NO POT should pay</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
I _____ incorporating community themes into aesthetics enhancements, such as historic events, famous people, iconic community places.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ lighting bridges aesthetically, beyond just lighting the road deck and sidewalks.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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- Other (please specify): _____

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1. Do you support continuing the outside eastbound I-70 lane further east beyond Prospect Avenue?

Yes No

Please explain your answer: It would facilitate the eastbound PM peak movement better.

2. Benton Boulevard & Truman Road

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ the consolidation of the Benton Boulevard and Truman Road access points.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ the reconfiguration of Benton Boulevard north of Truman Road.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. Roundabouts

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ roundabouts at the intersection of the I-70 ramps and 23rd Street.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ a roundabout at the intersection of Benton, Indiana and Truman.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Not sure westbound 23rd St grade would accommodate a roundabout. Otherwise yes.

4. Combined Exits

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ the combined exit from eastbound I-70 to Truman Road, 23rd Street and 18th Street via a one-way frontage road system.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ the combined exit from westbound I-70 to 23rd Street and 18th Street via a one-way frontage road system.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. Reconfiguration of Streets in Surrounding Neighborhoods

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ access on a two-way frontage road between 27th Street and Jackson Boulevard on the north side of I-70.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ the extension of 29th Terrance between Norton and Myrtle.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ the removal of through access on Indiana Avenue at the railroad bridge.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

↳ Leave as a pedestrian underpass.

6. Pedestrian Bridges

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ pedestrian bridges be wide enough to accommodate cyclists as well as pedestrians.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ lighting pedestrian bridges aesthetically, having it be able to change colors depending on holiday events, or sports celebrations.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ having the city pay more for a cool looking pedestrian bridge.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. I support pedestrian bridges at the following locations (select all that apply):

- 21st Street Cypress Park Oakley Avenue
- 25th Street Brighten Avenue Topping
- Other (please specify):
Indiana underpass

8. Sidewalks and Bus Shoulders

Don't take more ROW to achieve this.

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ wider paths/sidewalks on city streets.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ the ability for buses to operate on the outside shoulder of I-70.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9. I support removal of the following ramps at Brooklyn Avenue interchange:

- Both the eastbound exit and the westbound entrance ramps
- The eastbound exit ramp
- The westbound entrance ramp
- Neither

10. Aesthetics

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ bridges with a unique aesthetic design that reflect the community nearby.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ bridges that symbolize Kansas City.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ having the city pay more for a cool looking bridge.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ incorporating community themes into aesthetics enhancements, such as historic events, famous people, iconic community places.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ lighting bridges aesthetically, beyond just lighting the road deck and sidewalks.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11. I would support the following themes into aesthetic enhancements (select all that apply):

- Barbecue
- Negro Baseball Hall of Fame
- 18th & Vine Jazz District
- Kansas City Sports Teams
- Other (please specify): Famous KC people

12. Closures During Construction

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ temporary closure of through access on I-70 during construction. Traffic would be detoured to other MoDOT-owned routes.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ temporary closure of ramp access to/from I-70 during construction.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. I support reducing lanes of traffic along I-70 during construction to _____. (Check all that you support)

- Two through lanes in eastbound direction
- Two through lanes in westbound direction
- One through lanes in eastbound direction
- One through lane in westbound direction
- None of the above

14. If you have additional comments about the Improve I-70 project from The Paseo to U.S. 40, please share them with us:

Good job.

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Improve I-70 KC

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Comment on updated designs! The Missouri Department of Transportation (MoDOT) appreciates the community's feedback ideas presented in March 2022. The project team incorporated that feedback into the modified design to find ways to improve safety, reduce congestion, and reconnect the community.

Now your feedback is needed on these new ideas, such as locations for potential pedestrian crossings across I-70, continuation of lanes, and combining access points between I-70 and local roads.

1. Do you support continuing the outside eastbound I-70 lane further east beyond Prospect Avenue?

Yes No

Please explain your answer: OVER THE YEARS I'VE WATCHED TRAFFIC TRY TO MOVE OVER TO THE NEXT LANE!

2. Benton Boulevard & Truman Road

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I <u>Support</u> the consolidation of the Benton Boulevard and Truman Road access points.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I <u>Support</u> the reconfiguration of Benton Boulevard north of Truman Road.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. Roundabouts

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I <u>Support</u> roundabouts at the intersection of the I-70 ramps and 23rd Street.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I <u>Support</u> a roundabout at the intersection of Benton, Indiana and Truman.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. Combined Exits

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ the combined exit from eastbound I-70 to Truman Road, 23rd Street and 18th Street via a one-way frontage road system.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
I _____ the combined exit from westbound I-70 to 23rd Street and 18th Street via a one-way frontage road system.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

5. Reconfiguration of Streets in Surrounding Neighborhoods

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I <u>Support</u> access on a two-way frontage road between 27th Street and Jackson Boulevard on the north side of I-70.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I <u>Support</u> the extension of 29th Terrance between Norton and Myrtle.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I <u>do not support</u> the removal of through access on Indiana Avenue at the railroad bridge.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

6. Pedestrian Bridges

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I <u>support</u> pedestrian bridges be wide enough to accommodate cyclists as well as pedestrians.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I <u>support</u> lighting pedestrian bridges aesthetically, having it be able to change colors depending on holiday events, or sports celebrations.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I <u>do not support</u> having the city pay more for a cool looking pedestrian bridge.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

7. I support pedestrian bridges at the following locations (select all that apply):

- 21st Street Cypress Park Oakley Avenue
 25th Street Brighten Avenue Topping
 Other (please specify):

8. Sidewalks and Bus Shoulders

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I <u>Support</u> wider paths/sidewalks on city streets.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I <u>Support</u> the ability for buses to operate on the outside shoulder of I-70.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9. I support removal of the following ramps at Brooklyn Avenue interchange:

- Both the eastbound exit and the westbound entrance ramps
 The eastbound exit ramp
 The westbound entrance ramp
 Neither

10. Aesthetics

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I <u>Support</u> bridges with a unique aesthetic design that reflect the community nearby.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I <u>Support</u> bridges that symbolize Kansas City.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ having the city pay more for a cool looking bridge.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
I <u>Support</u> incorporating community themes into aesthetics enhancements, such as historic events, famous people, iconic community places.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I <u>Support</u> lighting bridges aesthetically, beyond just lighting the road deck and sidewalks.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11. I would support the following themes into aesthetic enhancements (select all that apply):

- Barbecue
- Negro Baseball Hall of Fame
- 18th & Vine Jazz District
- Kansas City Sports Teams
- Other (please specify): _____

12. Closures During Construction

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I <u>Support</u> temporary closure of through access on I-70 during construction. Traffic would be detoured to other MoDOT-owned routes.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I <u>Support</u> temporary closure of ramp access to/from I-70 during construction.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. I support reducing lanes of traffic along I-70 during construction to _____. (Check all that you support)

- Two through lanes in eastbound direction
- Two through lanes in westbound direction
- One through lanes in eastbound direction
- One through lane in westbound direction
- None of the above

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Improve I-70 KC

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Now your feedback is needed on these new ideas, such as locations for potential pedestrian crossings across I-70, continuation of lanes, and combining access points between I-70 and local roads.

1. Do you support continuing the outside eastbound I-70 lane further east beyond Prospect Avenue?

Yes No

Please explain your answer: ELIMINATING MYRTLE EXIT SHOULD LESSEN ACCIDENTS

2. Benton Boulevard & Truman Road

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ the consolidation of the Benton Boulevard and Truman Road access points.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ the reconfiguration of Benton Boulevard north of Truman Road.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. Roundabouts

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ roundabouts at the intersection of the I-70 ramps and 23rd Street.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ a roundabout at the intersection of Benton, Indiana and Truman.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. Combined Exits

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ the combined exit from eastbound I-70 to Truman Road, 23rd Street and 18th Street via a one-way frontage road system.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ the combined exit from westbound I-70 to 23rd Street and 18th Street via a one-way frontage road system.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. Reconfiguration of Streets in Surrounding Neighborhoods

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ access on a two-way frontage road between 27th Street and Jackson Boulevard on the north side of I-70.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ the extension of 29th Terrance between Norton and Myrtle.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ the removal of through access on Indiana Avenue at the railroad bridge.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. Pedestrian Bridges

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ pedestrian bridges be wide enough to accommodate cyclists as well as pedestrians.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ lighting pedestrian bridges aesthetically, having it be able to change colors depending on holiday events, or sports celebrations.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ having the city pay more for a cool looking pedestrian bridge.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. I support pedestrian bridges at the following locations (select all that apply):

- 21st Street
- 25th Street
- Cypress Park
- Brighten Avenue
- Oakley Avenue
- Topping
- Other (please specify):

8. Sidewalks and Bus Shoulders

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ wider paths/sidewalks on city streets.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ the ability for buses to operate on the outside shoulder of I-70.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

9. I support removal of the following ramps at Brooklyn Avenue interchange:

- Both the eastbound exit and the westbound entrance ramps
- The eastbound exit ramp
- The westbound entrance ramp
- Neither

10. Aesthetics

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ bridges with a unique aesthetic design that reflect the community nearby.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ bridges that symbolize Kansas City.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ having the city pay more for a cool looking bridge.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
RESPECTABLE I _____ incorporating community themes into aesthetics enhancements, such as historic events, famous people, iconic community places.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ lighting bridges aesthetically, beyond just lighting the road deck and sidewalks.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11. I would support the following themes into aesthetic enhancements (select all that apply):

- Barbecue
- 18th & Vine Jazz District
- Other (please specify): _____
- Negro Baseball Hall of Fame
- Kansas City Sports Teams

12. Closures During Construction

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ temporary closure of through access on I-70 during construction. Traffic would be detoured to other MoDOT-owned routes.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ temporary closure of ramp access to/from I-70 during construction.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. I support reducing lanes of traffic along I-70 during construction to _____ . (Check all that you support)

- Two through lanes in eastbound direction
- Two through lanes in westbound direction
- One through lanes in eastbound direction
- One through lane in westbound direction
- None of the above

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Now your feedback is needed on these new ideas, such as locations for potential pedestrian crossings across I-70, continuation of lanes, and combining access points between I-70 and local roads.

1. Do you support continuing the outside eastbound I-70 lane further east beyond Prospect Avenue?

Yes No

Please explain your answer: _____

2. Benton Boulevard & Truman Road

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I <u>Rivers Brown</u> the consolidation of the Benton Boulevard and Truman Road access points.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I <u>Rivers Brown</u> the reconfiguration of Benton Boulevard north of Truman Road.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. Roundabouts

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I <u>Rivers Brown</u> roundabouts at the intersection of the I-70 ramps and 23rd Street.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
I <u>Rivers Brown</u> a roundabout at the intersection of Benton, Indiana and Truman.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. Combined Exits

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I <u>River Branch</u> the combined exit from eastbound I-70 to Truman Road, 23rd Street and 18th Street via a one-way frontage road system.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
I <u>River Branch</u> the combined exit from westbound I-70 to 23rd Street and 18th Street via a one-way frontage road system.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. Reconfiguration of Streets in Surrounding Neighborhoods

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I <u>Rivers Branch</u> access on a two-way frontage road between 27th Street and Jackson Boulevard on the north side of I-70.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I <u>River Branch</u> the extension of 29th Terrance between Norton and Myrtle.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
I <u>Rivers Branch</u> the removal of through access on Indiana Avenue at the railroad bridge.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. Pedestrian Bridges

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I <u>Rivers Branch</u> pedestrian bridges be wide enough to accommodate cyclists as well as pedestrians.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I <u>River Branch</u> lighting pedestrian bridges aesthetically, having it be able to change colors depending on holiday events, or sports celebrations.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I <u>Rivers Branch</u> having the city pay more for a cool looking pedestrian bridge.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. I support pedestrian bridges at the following locations (select all that apply):

- 21st Street
- Cypress Park
- Oakley Avenue
- 25th Street
- Brighten Avenue
- Topping
- Other (please specify):

8. Sidewalks and Bus Shoulders

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I <u>Rivers Branch</u> wider paths/sidewalks on city streets.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I <u>Rivers Branch</u> the ability for buses to operate on the outside shoulder of I-70.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9. I support removal of the following ramps at Brooklyn Avenue interchange:

- Both the eastbound exit and the westbound entrance ramps
- The eastbound exit ramp
- The westbound entrance ramp
- Neither

10. Aesthetics

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I <u>Rivers Branch</u> bridges with a unique aesthetic design that reflect the community nearby.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I <u>Rivers Branch</u> bridges that symbolize Kansas City.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I <u>Rivers Branch</u> having the city pay more for a cool looking bridge.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
I <u>Rivers Branch</u> incorporating community themes into aesthetics enhancements, such as historic events, famous people, iconic community places.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I <u>Rivers Branch</u> lighting bridges aesthetically, beyond just lighting the road deck and sidewalks.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11. I would support the following themes into aesthetic enhancements (select all that apply):

- Barbecue
- Negro Baseball Hall of Fame
- 18th & Vine Jazz District
- Kansas City Sports Teams
- Other (please specify): _____

12. Closures During Construction

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I <u>Rivers Brown</u> temporary closure of through access on I-70 during construction. Traffic would be detoured to other MoDOT-owned routes.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I <u>Rivers Brown</u> temporary closure of ramp access to/from I-70 during construction.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. I support reducing lanes of traffic along I-70 during construction to _____. (Check all that you support)

- Two through lanes in eastbound direction
- Two through lanes in westbound direction
- One through lanes in eastbound direction
- One through lane in westbound direction
- None of the above

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Now your feedback is needed on these new ideas, such as locations for potential pedestrian crossings across I-70, continuation of lanes, and combining access points between I-70 and local roads.

1. Do you support continuing the outside eastbound I-70 lane further east beyond Prospect Avenue?

Yes No

Please explain your answer: I do not think adding lanes helps capacity.

Traffic "appears" again after more lanes are added and congestion never leaves.
Congestion > slower traffic >> less severe and fatal crashes.

2. Benton Boulevard & Truman Road

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ the consolidation of the Benton Boulevard and Truman Road access points.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ the reconfiguration of Benton Boulevard north of Truman Road.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. Roundabouts

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ roundabouts at the intersection of the I-70 ramps and 23rd Street.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ a roundabout at the intersection of Benton, Indiana and Truman.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. Combined Exits

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ the combined exit from eastbound I-70 to Truman Road, 23rd Street and 18th Street via a one-way frontage road system.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ the combined exit from westbound I-70 to 23rd Street and 18th Street via a one-way frontage road system.	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. Reconfiguration of Streets in Surrounding Neighborhoods

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ access on a two-way frontage road between 27th Street and Jackson Boulevard on the north side of I-70. <i>add sidewalk next to it.</i>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ the extension of 29th Terrace between Norton and Myrtle. <i>YES!</i>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ the removal of through access on Indiana Avenue at the railroad bridge.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. Pedestrian Bridges

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ pedestrian bridges be wide enough to accommodate cyclists as well as pedestrians.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ lighting pedestrian bridges aesthetically, having it be able to change colors depending on holiday events, or sports celebrations.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ having the city pay more for a cool looking pedestrian bridge.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

but MoDOT should pay.

7. I support pedestrian bridges at the following locations (select all that apply):

21st Street Cypress Park Oakley Avenue

25th Street Brighten Avenue Topping

Other (please specify): *but they need maintained better than Cyprus*

8. Sidewalks and Bus Shoulders

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ wider paths/sidewalks on city streets.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ the ability for buses to operate on the outside shoulder of I-70.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**-Bus only lanes? Do they currently go on I-70?*

9. I support removal of the following ramps at Brooklyn Avenue interchange:

- Both the eastbound exit and the westbound entrance ramps
- The eastbound exit ramp
- The westbound entrance ramp
- Neither

-As a resident, Prospect and Benton seem much heavier used.

10. Aesthetics

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ bridges with a unique aesthetic design that reflect the community nearby.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ bridges that symbolize Kansas City.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ having the ^{MoDOT} city pay more for a cool looking bridge.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ incorporating community themes into aesthetics enhancements, such as historic events, famous people, iconic community places.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ lighting bridges aesthetically, beyond just lighting the road deck and sidewalks.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11. I would support the following themes into aesthetic enhancements (select all that apply):

- Barbecue
- Negro Baseball Hall of Fame
- 18th & Vine Jazz District
- Kansas City Sports Teams
- Other (please specify): Hispanic culture of the historic NE

12. Closures During Construction

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ temporary closure of <u>through</u> access on I-70 during construction. Traffic would be detoured to other MoDOT-owned routes. <u>Get'r'done</u>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ temporary closure of ramp access to/from I-70 during construction.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. I support reducing lanes of traffic along I-70 during construction to _____. (Check all that you support)

- Two through lanes in eastbound direction
- Two through lanes in westbound direction
- One through lanes in eastbound direction
- One through lane in westbound direction
- None of the above

14. If you have additional comments about the Improve I-70 project from The Paseo to U.S. 40, please share them with us:

This area of town could use significant re-investment. Typically cultural and pedestrian enhancements get "cut" first, and I'd like to see the city use this as an opportunity to re-invest in the area.

For more information, visit the project webpage modot.org/improvei70kc, or contact us at ImproveI70KC@modot.mo.gov or 816-216-6571.



Improve I-70 KC

A re-evaluation of the I-70 corridor between The Paseo & U.S. 40

Comment on updated designs! The Missouri Department of Transportation (MoDOT) appreciates the community's feedback ideas presented in March 2022. The project team incorporated that feedback into the modified design to find ways to improve safety, reduce congestion, and reconnect the community.

Now your feedback is needed on these new ideas, such as locations for potential pedestrian crossings across I-70, continuation of lanes, and combining access points between I-70 and local roads.

1. Do you support continuing the outside eastbound I-70 lane further east beyond Prospect Avenue?

Yes No

Please explain your answer: If there weren't so many on ramps, the lane would not be needed

2. Benton Boulevard & Truman Road

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ the consolidation of the Benton Boulevard and Truman Road access points.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ the reconfiguration of Benton Boulevard north of Truman Road.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. Roundabouts

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ roundabouts at the intersection of the I-70 ramps and 23rd Street.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
I _____ a roundabout at the intersection of Benton, Indiana and Truman.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

4. Combined Exits

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ the combined exit from eastbound I-70 to Truman Road, 23rd Street and 18th Street via a one-way frontage road system.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ the combined exit from westbound I-70 to 23rd Street and 18th Street via a one-way frontage road system.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. Reconfiguration of Streets in Surrounding Neighborhoods

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ access on a two-way frontage road between 27th Street and Jackson Boulevard on the north side of I-70.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ the extension of 29th Terrance between Norton and Myrtle.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ the removal of through access on Indiana Avenue at the railroad bridge.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. Pedestrian Bridges

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ pedestrian bridges be wide enough to accommodate cyclists as well as pedestrians.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ lighting pedestrian bridges aesthetically, having it be able to change colors depending on holiday events, or sports celebrations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
I _____ having the city pay more for a cool looking pedestrian bridge.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. I support pedestrian bridges at the following locations (select all that apply):

- 21st Street
- Cypress Park
- Oakley Avenue
- 25th Street
- Brighten Avenue
- Topping
- Other (please specify):

8. Sidewalks and Bus Shoulders

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ wider paths/sidewalks on city streets.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
I _____ the ability for buses to operate on the outside shoulder of I-70.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

9. I support removal of the following ramps at Brooklyn Avenue interchange:

- Both the eastbound exit and the westbound entrance ramps
- The eastbound exit ramp
- The westbound entrance ramp
- Neither

10. Aesthetics

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ bridges with a unique aesthetic design that reflect the community nearby.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ bridges that symbolize Kansas City.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ having the city pay more for a cool looking bridge.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ incorporating community themes into aesthetics enhancements, such as historic events, famous people, iconic community places.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ lighting bridges aesthetically, beyond just lighting the road deck and sidewalks.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

11. I would support the following themes into aesthetic enhancements (select all that apply):

- Barbecue
- Negro Baseball Hall of Fame
- 18th & Vine Jazz District
- Kansas City Sports Teams
- Other (please specify): _____

12. Closures During Construction

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ temporary closure of through access on I-70 during construction. Traffic would be detoured to other MoDOT-owned routes.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ temporary closure of ramp access to/from I-70 during construction.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. I support reducing lanes of traffic along I-70 during construction to _____. (Check all that you support)

- Two through lanes in eastbound direction
- Two through lanes in westbound direction
- One through lanes in eastbound direction
- One through lane in westbound direction
- None of the above

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Now your feedback is needed on these new ideas, such as locations for potential pedestrian crossings across I-70, continuation of lanes, and combining access points between I-70 and local roads.

1. Do you support continuing the outside eastbound I-70 lane further east beyond Prospect Avenue?

Yes No

Please explain your answer: Allow A Longer merge opp.

2. Benton Boulevard & Truman Road

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ the consolidation of the Benton Boulevard and Truman Road access points.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ the reconfiguration of Benton Boulevard north of Truman Road.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. Roundabouts

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ roundabouts at the intersection of the I-70 ramps and 23rd Street.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ a roundabout at the intersection of Benton, Indiana and Truman.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. Combined Exits

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ the combined exit from eastbound I-70 to Truman Road, 23rd Street and 18th Street via a one-way frontage road system.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ the combined exit from westbound I-70 to 23rd Street and 18th Street via a one-way frontage road system.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
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I _____ the extension of 29th Terrance between Norton and Myrtle.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ the removal of through access on Indiana Avenue at the railroad bridge.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

6. Pedestrian Bridges

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ pedestrian bridges be wide enough to accommodate cyclists as well as pedestrians.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ lighting pedestrian bridges aesthetically, having it be able to change colors depending on holiday events, or sports celebrations.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ having the city pay more for a cool looking pedestrian bridge.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. I support pedestrian bridges at the following locations (select all that apply):

- 21st Street
- Cypress Park
- Oakley Avenue
- 25th Street
- Brighten Avenue
- Topping
- Other (please specify):

8. Sidewalks and Bus Shoulders

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ wider paths/sidewalks on city streets.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ the ability for buses to operate on the outside shoulder of I-70.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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I _____ bridges that symbolize Kansas City.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ having the city pay more for a cool looking bridge.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ incorporating community themes into aesthetics enhancements, such as historic events, famous people, iconic community places.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I _____ lighting bridges aesthetically, beyond just lighting the road deck and sidewalks.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

11. I would support the following themes into aesthetic enhancements (select all that apply):

- Barbecue
- Negro Baseball Hall of Fame
- 18th & Vine Jazz District
- Kansas City Sports Teams
- Other (please specify): _____

12. Closures During Construction

	Strongly Support	Support	Neither Support nor Oppose	Oppose	Strongly Oppose
I _____ temporary closure of through access on I-70 during construction. Traffic would be detoured to other MoDOT-owned routes.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
I _____ temporary closure of ramp access to/from I-70 during construction.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

13. I support reducing lanes of traffic along I-70 during construction to _____ (Check all that you support)

- Two through lanes in eastbound direction
- Two through lanes in westbound direction
- One through lanes in eastbound direction
- One through lane in westbound direction
- None of the above

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For more information, visit the project webpage modot.org/improvei70kc, or contact us at ImproveI70KC@modot.mo.gov or 816-216-6571.

Community Advisory Group Meeting Notes

Improve I-70 KC

Community Advisory Group Meeting Notes



Date: February 22, 2022

Time: 3 p.m. virtual meeting - Zoom

Attendance

Missouri Department of Transportation (MoDOT) members present: Allan Ludiker, Lairyn McGregor, Matt Burcham, Matt Killion, Ericka Ross, Joshua Scott, Jeff Hardy, A.J. Byrd

City of Kansas City, Missouri (KCMO) staff present: Chad Thompson and Nick Bosonetto, Public Works; Kyle Elliott, City Planning and Development

Project team members present: Tawn Nugent and Lisa Stupps, TREKK; Jason Parson, Erin Barham, Kaley Wells and Gina Boucher, Parson + Associates; Jennifer Schwaller, HDR

Community Advisory Group (CAG) members present:

- Rev. John Miles, Morningside Baptist Church, representing the Ministers Union
- Cervente Sudduth, Dubois, Dubois Engineering, representing the Black Chamber
- Frank Weatherford, TranSystems, representing KCIC
- Adam Timmerman, Greater KC Chamber of Commerce
- Alex Gonzales, Hispanic Chamber, representing the MoDOT Diversity Council
- Matt Staub, representing 4th District Councilman, Eric Bunch
- Jim Wasner, representing 4th District at-Large Councilwoman Katheryn Shields
- Jared Campbell, Downtown Council of KC
- Ron Alchepohl, MARC
- Darryl Fields, MARC
- Michael Kelley, BikeWalkKC, representing Jackson County
- A.J. Hermann, representing Mayor's Office
- David Johnson, representing Kansas City Area Transportation Authority

Comments and Questions

Will the study of accessibility include potential Transit enhancements? Getting employees to jobs is very important to KCIC members.

The original 2nd Tier EIS was looking into that, including specific improvements for transit on the Corridor and within the study limits. MoDOT will look at going forward.

Is most of this route is signed with a limit of 55 mph? What are the actual observed prevailing speeds? Presuming they are higher, how do avoid having the smoothing of curves and reduction of congestion contribute to increased speeds/emissions/risks? What other design considerations can be made to design for safer speeds?

The entire corridor is 55 mph speed limit. The project team must implement a safe design speed, probably 55 mph. This is not in place right now for Jackson and Benton curves. The team will look at applying a 55 mph design speed for the curves and a safer roadway.

Increased speeds are a concern. Safety is more about friction between high/low speeds. The project team is doing a full safety analysis to understand that. At the curves, vehicles are breaking and slowing. If we get a prevailing speed of 55 and the corridor meets that design speed, the corridor will be safer. The team is also doing a full historical safety analysis to better understand where the problems are and how we can mitigate the problems.

There are theories that If people are traveling at a consistent speed, there are less emissions. Breaking, stopping and starting creates more emissions.

What considerations are being made around lighting for bike and pedestrian crossings?

Lighting concerns were brought up during outreach in the 2nd Tier EIS, not specific to bike/ped, however. MoDOT will likely carry forward with it. This is the information the project team wants to hear that from the public.

How are plans for mitigating impacts to highlighted businesses and residences being developed?

The maps developed in the 2nd Tier EIS highlight parcels that the project team thinks might be affected. Project team wants to hear from the public about this topic throughout outreach and as the project moves into design. The project team will look at ways to mitigate impacts.

What is the role of neighborhood and community groups in developing those plans?

There has been transition over the years. People moved in and out. Having neighbors' voices at the table will be important to help massage plans going forward and it will be important for them to have ownership going forward. The community important; we are listening and will include their voices on work going forward.

There's a trend toward intentionally loud vehicles, which neighborhoods near ramps suffer from when drivers accelerate onto interstates. Realizing these aren't a factor in the design of the road, are there any strategies for enforcing noise ordinances (perhaps with automated solutions) to reduce impact?

The project team will be performing a detailed noise study as part of this phase of work. Actual noise readings will be taken to validate the noise model. If there are impacts to noise-sensitive receptors, the project team will look at a mitigation strategy which is normally noise walls. The enforcement part, however, is not part of this project.

How do we discourage through traffic from utilizing this corridor so we're not shoving cross-country freight traffic through the heart of our city? Especially in light of our goals to reimagine the downtown loop.

This is part of the discussion and why we have the City representatives on the project team and MARC representatives on the Community Advisory Group (CAG). It will be a topic for further discussion.

Are there any plans to develop street sweeping or clearing strategies to effectively clear sidewalks, especially after weather events like heavy snowfall?

The City does have sidewalk clearing in the snow plan but it is not in the first tier.

Does this project contractually require the team to meet any infrastructure sustainability requirements? Thinking specifically about ENV SP certifications.

NEPA does not require sustainability or putting the project through Envision verification, but the project team is talking about climate change mitigation and will be considered when designing the project. The project team intends to build infrastructure that will last long time. The current corridor is the same as it has always been and needs repair and upgrades. Sustainable construction materials will also be considered. If the project were to go into some kind of grant program, it will be asked if it is built for Climate change mitigation

What are the goals for the DBE participation?

The DBE goals are unknown at this time. Also at this time, it is unknown whether the project will be Design-Build or Design-Bid-Build. Goals will be set at a later date.

What opportunities will there be for community workforce development in the construction phase of this project?

If the project becomes Design-Build, the DB documents will need to incorporate workforce development opportunities into the scoring, as well as incorporate workforce diversity.

Nice job. I believe the topics of interest for KCIC members will be addressed. Thank you.

Neighborhood Association
Advisory Group
Meetings

Improve I-70 KC
Neighborhood Association Advisory Group Meeting
Notes



Date: February 24, 2022

Time: 6 p.m. virtual meeting - Zoom

Attendance

Missouri Department of Transportation (MoDOT) members present: Allan Ludiker, Lairyn McGregor, Matt Burchum, Matt Killion, Ericka Ross, Joshua Scott, Jeff Hardy, A.J. Byrd., Prentiss Josey

City of Kansas City, Missouri (KCMO) staff present: Michael Shaw, Director of Public Works; Cynthia Jackson, Public Works

Project team members present: Tawn Nugent and Lisa Stupps, TREKK; Jason Parson, Erin Barham, Kaley Wells and Gina Boucher, Parson + Associates; Jennifer Schwaller, HDR

Neighborhood Association Advisory Group (NAAG) member present:

- Kim Mueller, Downtown Neighborhood Association
- Jim Wasner, PIAC, 4th District at-Large
- Cynthia Jackson, Public Works and Forgotten Homes Neighborhood
- Christina Hoxie, PIAC 4th District
- Rachel Riley, East 23rd Street PAC
- Synthia Isah, Dunbar, MARC, Heart of the City
- Bobbi Baker, Northeast KC Chamber, Independence Avenue CID
- Mike Spady, Independence Avenue CID
- Jim Pointer, Lykins Neighborhood Association
- Diana Graham, Lykins Neighborhood Association
- Jen Enderson, Forgotten Homes Neighborhood
- Sheron Fulson, PIAC, 3rd District
- Joe Cook, Paseo West Neighborhood Association

Comments and Questions

There have been citizen concerns regarding lighting of underpasses. PIAC has funded some lighting for safety. We are pleased you are gathering new info about walkability/bikeability. How will lighting be tied to uses at underpasses?

Thank you for the feedback. This is the kind of concern we want to hear from the public.

Please make sure we get equity lens before neighborhoods and elected officials.

The public meeting time, 4-6 p.m., is not conducive for working individuals.

Please make sure to sit down with neighborhoods along that stretch.

There is an area on 29th & Myrtle that comes onto I-70 (Mrs. Porter's residence).

MoDOT is simplifying and improving access in this area. Matt Killion said they have been looking at the existing exit ramp at Myrtle with the City of KCMO Public Works and an interim solution is coming in the

future. Ms. Fulson will talk with Michael Shaw for an update. Michael was pleased to see the Myrtle Street exit removed in this project.

MoDOT needs to talk one-on-one with elected officials (local and state elected officials), past and present, beforehand. They are already making comments and some have expressed concern.

Jason Parson added that if the project team is made aware of neighborhood meetings over the next months, the project team can provide someone to speak to the neighborhood group. The project team wants to make sure everyone can participate and know some people do not have access to website. Also, senior neighbors might not be computer literate.

Gina or Erin will follow up to make sure we are being as inclusive as possible.

Has there been consideration about making this stretch of I-70 a parkway, rather than an interstate?

Matt said this segment of I-70 will likely not be considered a candidate for a parkway.

Has there been consideration about doing something for streets that were cut off during initial construction.

Consideration will be made about removing dead-ends and cul-de-sacs that were created during initial construction.

Rachel Riley asked for a graphic flyer about the public meetings to get out to the community.

P+A emailed the electronic graphics.

Will the bridges on I-70 on Van Brunt, Jackson and 23rd Street be addressed?

Yes. One of the goals was to address infrastructure. All bridges need to be replaced and MoDOT will do so with any future construction project. They are studying now to see what this will look like.

Bobbi Baker said the NE Chamber would be very happy to host meetings at a later time that would be more conducive for working individuals.

Will the under-pathways from Center to Brooklyn be addressed?

Matt said this is a perfect comment/question to put in the interactive map as it is a specific issue with a specific location.

What are the project area boundaries?

Focus is on I-70 and what touches I-70.

Michael Shaw inquired about the maps on shown in the presentation. The maps we showed tonight are not on the website or interactive map to view.

Maps include proposed changes that resulted from the Tier 2 EIS. MoDOT wants to get feedback to see if changes are still appropriate and if anything else has changed on the corridor in the past 10 years. Tawn said the team will put the maps shown tonight in a more prominent place on the project website.

Can you discuss noise abatement, sound walls, etc.

There will be a noise study. MoDOT will develop noise abatement procedures which is usually sound walls. Other options could be slowing down traffic or building a mound or berm. There is not enough room for a mound or berm, so walls will be the preferred noise abatement method.

Kim Muller said Nashville had the same issue with noise. Sound walls do not abate noise, they just shift it around. She was hoping there were other solutions.

There are noise absorbing walls, but they are not very effective. MoDOT is looking for a 7 decibel reduction in noise which is not serene but livable. MoDOT has had success with sound walls.

Would slowing down traffic or creating a boulevard abate noise?

Yes, but this is an interstate and will not likely happening here.

Does noise abatement include jake brakes?

That is an enforcement issue. Most noise comes from tire/pavement interface.

Improve I-70 KC: The Paseo to U.S. 40

Summary of Neighborhood Presentations



Between the first sets of public meetings in March of 2022, and the second public meeting in September 2022, the project team reached out to neighborhood leaders to offer an individual neighborhood presentation about the Improve I-70 KC at their regularly scheduled community meeting.

Those we did not hear back from via email response were contacted by phone or by Facebook direct message. The following neighborhood groups were contacted:

1. Historic East Neighborhood Coalition
2. Crossroads Neighborhood Association
3. East 23rd Street PAC Neighborhood Association
4. Northeast Chamber/Independence Avenue CID
5. Vineyard Neighborhood Association
6. Blue Valley Neighborhood Association
7. CAM Neighborhood Association
8. Columbus Park Community Council
9. Downtown Neighborhood Association
10. Dunbar Neighborhood
11. East Area Community Coalition - E.A.C.C.
12. Fairlane Homes Association
13. Forgotten Homes Association
14. Independence Plaza Neighborhood Council, Inc.
15. Jazz Hill Tenants Association
16. Jersey Heights Neighborhood Association
17. Knoches Park Community Association
18. Parade Park Tenants Association
19. Paseo West Neighborhood Association
20. Renaissance Coves Homes Association
21. Scarritt Renaissance Neighborhood Association
22. Seven Oaks Neighborhood
23. South Roundtop Neighborhood Association
24. Washington Wheatley Neighborhood Association
25. Western Blue Township Homeowners Association
26. Westside Neighborhood Association
27. Sheffield Neighborhood
28. Lykins Neighborhood Association
29. Pendleton Heights
30. Indian Mound Neighborhood Association

Of the 30 neighborhoods contacted, five of them responded and were given presentations. Additionally, the team presented at the Mid-America Regional Council (MARC).

Improve I-70 KC Neighborhood Presentations

The following are questions and comments from discussion during Improve I-70 neighborhood presentations

Vineyard Neighborhood Association

6 p.m. on Tuesday, April 26, 2022

Virtual Zoom meeting

17 Attendees: Lisa Stupps, Gina Boucher and Ericka Ross from the team; Ike Graham, Lucinda, Virginia, Juanita, Donna Randle, Megan McNaughton (KC Library), Officer Gordillo, Barbara Walker, Majestic Williams, Michael, 123reubanks@gmail.com, Brandon Mason, Eleanor Mason, Melba Curls. Eloise Magitt and Jonas Byers signed on during the I-70 presentation.

Questions and Comments

Did I hear that bikes will be allowed on the highway? No. We want to take bicyclists and pedestrians into account when designing the preferred alternative. Crossing over or under I-70, bike lanes, sidewalks or trail facilities will be considered. We are working with bike/ped plans of KCMO. We are taking bike/ped lanes into consideration when we build bridges because they can change the width of the bridge.

Pedestrian bridges currently go to the park and to Oakley. MoDOT wants to know if the placement is right on these. They also want to know if routes over and under I-70 are in the best places. They want to know how the community sees connectivity and how they would like to see I-70 connected from one side to the other, etc..

Pedestrian crossings need to be fully covered.

As plans progress will you come back and keep us informed? Currently one representative from each neighborhood serves on the Neighborhood Advisory Association Group. We do not have a plan to formally come back to the Vineyard neighborhood but if you request it we will. MoDOT will host an open house in the summer where everyone can come.

I-70 Presentation to East 23rd St. PAC Neighborhood

6 p.m. on Monday, May 2, 2022

Virtual Zoom meeting

10 Attendees: Tawn Nugent, Ericka Ross, and Erin Barham from the team; Rachel Riley, Rochel Shelton, Gregg at NLS (legal representation for neighborhood organization?), Nancy Simmons, Gordillo, Jessie Jefferson, Ada Shaw signed on during the I-70 presentation.

Questions and Comments

Rachel: Share right at Bruce? End cap? (Rachel was asking about street connectivity and ramps at the third segment).

Ericka: She indicated that the City streets from Bruce and Ansel will connect to each other but not ramp.

Rachel: Van Brunt and Raytown Road same thing there? Residents had questions about taking the ramp out. Not a bad thing, just a change.

Ericka: That ramp will be removed and there will be a new map to the south to separate those areas. Consistent approach along the corridor, any city streets on or off, trying to connect back together for safety.

Rachel: Great! (Pleased with that news.)

Nancy: Having a lot of trouble with trash and homeless/houseless people under and around ramps by I-70. Is there anything to add to improve that, greatly appreciate it?

Erika: Some of it will be addressed, the way slopes are built under bridges, during the design stage of the project. As far as ongoing efforts, MoDOT has a litter contract in the works and should be effective within the next 30 days and I-70 is a route scheduled for pick up for trash twice a month. Hoping to see big improvement. A later strategy would be to remove people and belongings from places that threaten infrastructure. It will be addressed.

Tawn: By getting rid of some deadends, the attraction of dumping will be diminished.

Rachel. Awesome!

Shared contact information for the project: Phone 816-216-6571, email at improvei70kc@modot.mo.gov and webpage <http://modot.org/improvei70kc> .

Chat: Thank you Nancy Simons Blue valley neighborhood association vp 816-420-7684

Gregg converting blighted properties into quality housing that will be saved and secured. Works with Hoxie to hold community meetings about outreach.

I-70 Presentation to MARC Transportation

9:30 a.m. on Tuesday, May 17, 2022

Virtual Zoom meeting

54 Attendees: Tawn Nugent, Lisa Stupps and Erin Barham from the project team.

Questions and Comments

(CHAT) Mario Vasquez: What kind of attendance have you had at neighborhood meetings?

(CHAT) Erin: At the first NAAG, there were 13 participants from a variety of neighborhood groups. Our next NAAG is coming up in June. We also reached out to neighborhood groups to present information (like this morning), and we lined up 4-5 groups.

Lisa: pretty good, over 1200 people visiting webpage, online participation high, plus CAG and NAAG speaking events that we reached out to.

(CHAT) Dick Jarrold: Will the project include consideration for improvements that would accommodate future bus on shoulder operations, similar to what exists on I35 in KS?

(CHAT) Tawn: We are having conversations with KCATA about how accommodations can be made for future improvements.

X: Interstate or parkways..??

Lisa: Looking at crossings and overhead pedestrian structures, and if they are in the right place, do they need to be moved, distances between crossings (max or in distance) if we need to add more crossings?

Questions in the room?

(CHAT) Mario V.: If bridges and overpasses are proposed, what kinds of commitments can residents receive from MODOT that they will assume responsibility for cleaning up under those structures?
(verbally added on) MoDOT has washed their hands of trash pickup, said it's a City problem, how can we avoid this going forward?

Lisa: Looking at designing and building bridges that are hard for people to shelter under them, also will help with trash accumulation. MoDOT has a commitment to clean trash along this corridor...the crossings, they are responsible for cleaning. Efforts to work through the area and get it cleaned up.

(CHAT) Tom Jacobs: Have you considered increased canopy coverage near the highway to reduce particulate matter levels?

Lisa: Looking at aesthetics, design landscaping which helps with traffic calming, emissions...looking at that. Maintenance issue. Bridges, lighting, walls. Would like to have..

(CHAT) Ray Webb: Mario, my church is working with groups to pick up trash around 70/Sterling and working with homeless groups. MoDOT is seriously underfunded and staffed at this time.

Project contact information:

Phone: 816-216-6571

Email: improvei70kc@modot.mo.gov

Webpage <http://modot.org/improvei70kc>

I-70 Presentation to KC Crossroads

12 p.m. on Monday, May 16, 2022

Virtual Google meeting

23 Attendees: Ericka Ross, Lisa Stupps and Erin Barham from the project team

Julie Johnson, David Johnson, Graham, Jim, Leslie Tomlinson, Ryan Brazeal, Ryan Bilderback, Robert Harris, Taylor Goetzinger, Jacob Bowyer, Jeff Owens, Elizabethh Rosin, Erik Mullschleger, Consuelo Cruz, Jennifer Sheffield, Mr and Mrs Luna, Rick User, Lindsay Clausen, Derek Bolden, (+2 call in person)

Questions and Comments

Jeff O.: Good job.

Robert: He drives this every time he comes to work. Curves are ridiculous. Anything that can be done to smooth out will be awesome. The highway is what it is, so not sure, but a nice priority.

Lisa: Can get smoothed out so 55 MPH can be sustained.

Ericka: Can be smoothed out without impacts to residents.

Robert: Like working with Parks and Rec, that collaboration Comments...used the email, phone, webpage.

Crossroads Street Tree Initiative Update

Project contact information:

Phone: 816-216-6571

Email: improvei70kc@modot.mo.gov

Webpage <http://modot.org/improvei70kc>

I-70 Presentation to Historic East Neighborhood Coalition (HENC)

Friday, 10 a.m. on July 15, 2022

Virtual Zoom meeting

23 Attendees: Gina Boucher, Lisa Stupps and Erin Barham from the project team

Pastor Lee, Abby Judah (Legal Aid), Jessie Jefferson, Jimmy Fitzner (Indian Mound), Bishop G (South Roundtop), Jesse Love, LaMonica Upton (Center for Neighborhoods), Derrick Davis (KCOG Keeping Communities on Guard), Melissa Patterson Hazley (Renaissance/city council 3rd district candidate), Shatomi Luster-Edward (MU ext), John James, Shannon Jaax (KCPS), Constance Norton (Center for Neighborhoods)

Questions and Comments

MHP: I have to leave but I want to say - exhaust from cars is an issue too. We have the highest rate of childhood asthma probably due to the highways coming through our neighborhoods. More trees and barrier walls would be really helpful. See yall next time!

Need to verify if HENC was invited to NAAG (Jason Parson invited Pastor Lee.)

Project contact information:

Phone: 816-216-6571

Email: improvei70kc@modot.mo.gov

Webpage <http://modot.org/improvei70kc>

I-70 Presentation to Historic Northeast Neighborhoods

6 p.m. on Thursday, September 29, 2022

In person at Northeast Chamber, 2657 Independence Avenue, KCMO 64126

12 Attendees: Project team: Ericka Ross, MoDOT; Tawn Nugent and Lisa Stupps, Trekk; Stacey Lowe, KCMO Public Works. Eight guests attended.

Questions and Comments

Additional Lane

How does adding an additional lane decrease air pollution? Stop and go causes more emissions in a specific area during a similar time frame than if traffic is free-flowing traffic.

Where will the 4th lane be? Eastbound, southside

Will the Prospect exit be changing at all? Sometimes traffic stacks up.

Proposed changes will extend the lane and add extra storage.

Is the proposed lane all the way to 40? MoDOT is looking at it. They don't know for sure now. They are looking at benefits and effects. Goal is to take it to a logical exit where people want to go anyway.

Combining access at Benton Boulevard

A lot of people are weaving and in conflict with others getting off at Prospect. Ramps are close together. MoDOT would like to pull the distance apart a bit. Ramp from Truman would create extra distance from Prospect. The realignment of Benton to Indiana creates northwest continuity.

Do the X's on Benton Bridge over I-70 mean a proposal to take out the bridge? Yes, and take out Benton, but relocate it to Indiana.

How will the new proposed Benton connect to Northeast. Where does it come in? North of existing on-ramp at 13th. Instead of going to the bridge, it would go to Indiana. The entrance into Northeast put in by KC Parks should not be affected, however, MoDOT hasn't drilled down yet. If it is important to the community, MoDOT will take that into consideration. If it is a concern, they will look for ways to avoid it. This is just a high-level concept. Just because we draw on a map, it can shift or change. MoDOT would want to design to avoid the entrance or need to replace it.

Benton is more historically significant and hopefully Prospect would be changed instead.

MoDOT is working with KC Parks to make it look park-like.

One resident has property at 9th & Benton - How are you going to get on I-70 if you take Benton? South on Benton? Drive and make a right on Truman and drive a little and backtrack. Ericka said the reason for the backtrack is to get a longer ramp and room to get to a safer speed.

What about people going to work? Any access will have proper signage to get people where they need to go. MoDOT will make sure there is signage or striping that makes sense.

Will you come back to the community before the final design? There is a possibility of the project going to design-build. MoDOT can add stipulations to the contract. They will write stipulations into the contract. Once the design-builder designs it, they will bring the final, APPROVED designs to the community to show them what they are getting. That's why we are here now—to get public input before design.

Traffic will continue on the road, make a U-turn and get back on I-70. Backtrack to be further from Prospect.

There was concern about removing Benton Bridge. It makes sense to extend the entry ramp because there is no time to merge. If you take away Benton Bridge though, the next pedestrian crossing is 1/4 mile in each direction. So pedestrian traffic cannot get through the neighborhood unless a pedestrian bridge is added in that area.

Is there any other reason why you would need to remove the bridge? They will have to lower the grade of I-70 in the area to be able to get the ramp grade to tie into I-70 without being too steep. There is no way to build a ramp in that area without changing the grade of I-70. There is no room to get from Truman to I-70 and make a drivable ramp.

Can you provide an option instead of backtracking? 13th has a side road that takes the load off Benton. Widen 13th and let them merge with people on Prospect. What about ramp metering? Push them toward 13th Street. Residents want 13th to have a way to get onto Prospect. It already is an option. Prospect bridge getting replaced sooner than this project. **Just widen it up a little and have an access road.**

13th is KCMO-owned and I-70 and ramps are MoDOT-owned. Not many people use 13th Street. There are neighbors that fight with MDOT to clean up trash in that area. It would kill two birds with one stone. People don't want the front of their house to be an access to a highway. MoDOT is trying not to combine highways and neighborhood streets.

Residents said there would be pushback from the community if they try to speed up 13th. If there is an accident by Benton Blvd. people get off on Prospect. He lives north of Independence Avenue. If he wants to make a left on Independence Avenue, the light is too short.

Do modifications help that problem because it creates earlier access to Benton? Yes.

There are concerns about the ramp that goes into Askew. Concerns about steepness of ramp. One answer is to get rid of the ramp and add a ramp in another place.

Will USPS be affected by the project? Yes, but not the entire property. MoDOT might need some of their parking lot to make ramps safer, but still leave them room to do what they need. We have been closely coordinating with USPS to make sure to not affect their operations.

Regarding the Benton exit from the west downtown--Will that be different because Benton Bridge is coming out? It will stay the same.

How will we get across if the bridge comes down? Go to Truman, take a right turn and continue a block to where Benton originally intersected Truman.

Have you looked at changing the Truman off-ramp? It is the worst in the area. MoDOT looked at putting a roundabout there. They know it is not great. There is a park there that MoDOT does not want to disturb.

There is not enough time to speed down. Semis that get off don't have time to slow down. Accidents happen. Intersections are not good. Ramp is the main issue. No space to get to 25 before the sharp curve.

Frontage Road

Frontage road - like at Nall and Roe – one resident loves it.

There wouldn't be stoplights. Frontage Road gives drivers options to get off at a lower speed. It would be part of the project, but not on I-70. It would be a separate road from I-70 that would allow for decisions to be made at lower speeds for numerous streets instead of just one exit.

Benton curve is primarily bad in the morning and evening. If we take it away, will it take away congestion and the reason we need the extra lane to 40? Is there a way to get rid of congestion without the new five-mile extended lane? Lisa said there is also a through issue, people coming out of the loop, and a fourth lane will address that. Frontage road will address weave and other stuff. They go hand in hand.

Is the fourth lane different than frontage road? Yes.

One resident voiced that we need an extra lane if they put Kauffman Stadium downtown. One resident doesn't think extra lane solves issues and that taking away dangerous entry and exit is best. MoDOT doesn't like to add lanes due to cost. Only if it makes sense to do so. The added lane could help with potential growth when the stadium is moved downtown.

On the video survey, it says, "Benton ends here anyway, so it should be okay." But Laura Remy said that is not true. Benton intersects Truman and then there is a job where Benton picks up again and those wanting to continue on Benton will have to make a left turn from Truman. Relocated Benton adds ¼ mile to go to continue the intersection where Benton continues again.

Residents do not want the entry into the neighborhood from I-70 to come in behind the gateway into the community built by KC Parks. Investors in the neighborhood don't want to feel we are divided and there is no access into the community.

Lisa asked if it would be beneficial to move the pillars/entrance built by KC Parks. **One resident said she wouldn't be opposed but doesn't know about historical implications. That would need to be researched.**

Ericka said we can set parameters to preserve entrance or move it to another place and look how the neighborhood wants. Moving columns – they are more than willing to set that parameter.

Connecting communities is also a priority. MoDOT is working with KC Parks.

We need to have a broader historic conversation (KC Preservation) perspective and look at renderings first. Lisa said they will be doing renderings for aesthetics.

A resident asked about affecting the park. Lisa said that was if they put a roundabout in there and don't want to disturb the park. They don't want people to come off the ramp fast and go right into the roundabout.

Softening curves at Benton and Jackson - This is the biggest no-brainer of everything – fixing curves.

Two residents liked roundabouts; one did not. Others did not say.

“City needs more roundabouts.”

Where will roundabouts go? We don't know yet, but MoDOT is looking at 23rd Street. The point of the slide is just to get the public's input on roundabouts. Roundabouts will be up to the design-build team. If they put it at Benton Blvd. gives opportunities for landscaping, where new aligned Benton would come into Truman.

Would improvements to City streets be paid for by the City? If it is being done because of a MoDOT project, MoDOT will work with the City to decide who maintains or builds, etc.

Closing Street Under Indiana Bridge

There would be a lot of turning around if they close the street under the bridge. They want to keep it open. MoDOT has heard that a lot.

If you are taking the Benton Bridge, it would take the pedestrian bridge out. There are already bike lanes there. Bike lanes will be on the S, not Benton.

It is required that pedestrian bridges have fencings.

Art? Working with KC on where to put it.

What does a “cool” looking pedestrian bridge mean? Historic or modern? This is high level. Options are on the website. What is done on Prospect will set the tone for the whole corridor.

Will color changing lights be solar powered? This is high level. Solar is green and requires less maintenance.

Will bus on shoulder be in addition to extra lane and frontage? Yes. The outside shoulder would be 12-foot to accommodate buses on shoulder. People with accidents will pull into the bus lane. There would be more “beef” on the lane because it is made for buses.

Carpool lanes? They were looked at in the original study and dropped - not enough support. In 40-50 years, bus lane could become HOV lane. (Ericka). But it doesn't require it capacity-wise if a fourth lane is added.

There was opposition to removing Brooklyn ramps. If you get on I-70 going west at Paseo there is not enough room to get to the 670 lane. That is why Prospect and Brooklyn are helpful. If you get on at Paseo, you can't get over. If they remove Brooklyn ramps, they could extend Prospect acceleration ramp to make up for it. They were mostly concerned that removing Brooklyn ramps would put more traffic at Prospect and they weren't sure that it would be able to handle all the added traffic.

Last time, they said MoDOT said city street problems were not MoDOT's problem. Putting a load on prospect - Ericka said when they were designing Prospect Bridge, they had four lanes on the bridge. They worked with the City – MoDOT bridge is ready for whatever they are going to do in the future, but the bridge is all MoDOT has control over on Prospect. Lisa said MoDOT will look at where traffic is going -- City streets as well as I-70.

Laura lives between Benton and Prospect. Traffic on Prospect is already bad. These changes will only increase them. Lisa said that is why they are looking at taking ramps off City streets to keep I-70 traffic separate from City streets that are parallel to the interstate. Traffic modeling will also be done to take into account how the design will affect the city street traffic.

When is MoDOT going to go past The Paseo into downtown? It is a nightmare. There is a lot going on Downtown – lid over 670, extending streetcar. MoDOT is aware of the problem, but in the process of trying to figure it out.

The Royals stadium is going downtown. Does this take that into consideration? Ericka said If we change traffic patterns we need to consider where the traffic goes. There is consideration to be prepared but not enough data points to know. Before they build a downtown stadium, MoDOT makes them look at traffic and what it will do. They will need to sell it to the City and the public. There were similar concerns with Hy-Vee Arena and T-Mobile Center.

Bobbi said education and signage is important. They decommissioned 24 Highway, but it hasn't stopped trucks (i.e. trucks under bridge, trucks tearing up curbs).

Enforcement - we need to do it or it means nothing.

Interactive Online Map Survey Summary



Interactive Online Map and Survey

To supplement feedback collected at the Community Advisory Group (CAG) meeting, Neighborhood Association Advisory Group (NAAG), and two open house public meetings, community members also had the opportunity to submit feedback through an online survey and interactive online map embedded on the Missouri Department of Transportation (MoDOT) project webpage.

The online map is a visual and interactive tool for people to better understand the proposed changes for the I-70 project corridor between The Paseo and U.S. 40. It's critical to offer online options for people who might have been unable to attend either in-person community meeting. Also, the interactive online map features accessibility tools such as language translation, font size options, and buttons to easily share through other communications channels.

The online map displays the project area in four, clickable segments and detailed information for each segment, including an image of the draft 2017 preferred alternative concept and a list of the primary changes from existing conditions. There are five sidebar tabs that provide more information and detailed instructions for the following categories - About, Preferred Alternative Concept Changes, How to Comment on the Map, Feedback Survey, and Comment. People had the option to drag-and-drop a comment directly on the map at their convenience. All comments are public and available for other visitors to view and weigh in on.

Additionally, the team created a digital version of the survey that was offered at the in-person Open House meetings. The survey was linked on the interactive map and featured on a sidebar tab for community members to participate online. Surveys collected at the public meetings were entered into the same database as the survey featured on the interactive map, so a consolidated summary of the survey (both hard copy and digital responses) could be provided. Consequently, there were only two surveys added digitally.

Map comments were accepted until March 31, 2022. Below is a summary of outreach efforts and feedback from the interactive online map, hard-copy and digital surveys.

Overview and Outreach Efforts for the Interactive Online Map and Survey

The interactive online map and survey were embedded on the project webpage. The webpage address, with an invitation to participate in the interactive online map and survey, was included in all outreach materials advertising public open house meetings (for a detailed report, see attached Public Meeting Outreach Tracking_March 2022). Additionally, the link was shared multiple times with stakeholders who were asked to distribute the link with their contacts.

- **March 14, 2022:** Email from project team email - I-70 Corridor Study: Submit Comments on an Interactive Map
- **March 23, 2022:** Email from project team email - I-70 Corridor Study: Submit Comments on an Interactive Map
- **March 28, 2022:** Email from project team email - Submit your feedback today!
- **March 31, 2022:** Email from project team email - Improve I-70 KC: Last day to submit your feedback

Summary of Comments on Interactive Map

The following statistics summarize the analytics on the interactive online map for Improve I-70 KC: Paseo to U.S. 40. There were 42 unique stakeholders who made a total of 52 comments. However, there were 500 unique users who visited the site. That tells us that although only 42 users left comments, 500 were aware of the project through the map link.



Most Discussed Comments

The interactive online map provided an opportunity for visitors to the site to “like” or “dislike” comments, much like social media platforms. The following are the most discussed topics.

Of note, the City of Kansas City, Missouri concerns were added to the map and are also in the chart below. However, their concerns should be noted separately (text is verbatim):

- *General Concern from KCMO that the bridges are too easy to access for homelessness and illegal dumping of trash. We would like design aspects included to discourage this practice.*
- *KCMO General Comment on the bridges. KCMO would like aesthetic improvements to the bridges and would like a plan on how those improvements would be incorporated and constructed.*
- *KCMO Concern on the connections of high speed traffic and noise on the Mersington and Myrtle ramps.*

#1 – Underground Relocation	Up Votes 👍	Down Votes 👎
If going underground is viable, then relocation should be considered, maybe with eastbound and westbound on differing	1	53

alignments to simplify interchanges as much as possible (at Bruce R. Watkins and/or I-35 if an alignment that far south is chosen). The existing right-of-way would be sold where it is not needed to improve existing streets. That may require modifications outside the indicated study area and coordination with the Kansas side.		
Put it underground from 31st Street/70/40HWY to the other side of downtown.	1	53
#2 - Do NOT Increase Capacity	Up Votes 	Down Votes 
Very important that the capacity of the highway is NOT increased by these improvements. Ok to correct safety issues, but adding capacity subsidizes homeowners and developers building in the suburbs by shortening commute times at taxpayer expense and bringing MORE cars into the city at me and my neighbors expense (air quality, parking, etc). Do NOT add capacity. You are harming urban neighborhoods by doing so.	15	5
#3 - 29th & Jackson On-Ramp	Up Votes 	Down Votes 
Add a 200 foot merge lane here, it is extremely dangerous trying to go directly in to the #3 lane with out any clear vision of the highway as the Jackson Curve is higher than the on-ramp. Many accidents and slowdowns happen due to this dangerous area.	17	0
This on ramp just needs to go. It's way too short to be safe, has the hill which blocks the view. It's also very confusing since on and off ramps are usually paired but I-70 in KC has a number of bizarre exit only, on ramp only, left exit type ramps that are legacy baggage from the original build out decades ago.	3	0
#4 - The Paseo Overpass	Up Votes 	Down Votes 
The Paseo is one of KC's grand boulevards named after Mexico City's Paseo de la Reforma. A new I-70 overpass needs to have some effort placed on being more decorative. Civic pride.	12	1
#5 - 23rd / 22nd Street Route to Crown Center	Up Votes 	Down Votes 
The 23rd/22nd route is a new/improved route to access the Crown Center area. Improved signage should notify travelers of	10	0

that connection. The 23rd/22nd route has bike lanes. A reconstruction of the aging 23rd Street bridge should carry bike lanes or a widened multi-use sidewalk to provide access for residents on the other side of the interstate.		
#6 - NO Additional Lanes / Use Ramp Meters	Up Votes 	Down Votes 
I agree that additional lanes encourage sprawl and you can't build your way out of congestion. Therefore please consider smart highways and traffic management. Ramp meters would be beneficial. Look at the new I-25 ramp metering system in Denver that was brought over from a technology in Melbourne, Australia.	9	2

Other Comments with Interaction	Up Votes 	Down Votes 
<i>Auxiliary lanes between 27th and 23rd streets.</i>	5	2
<i>I hope the job doesn't increase the number of I-70 lanes along the whole length of this area. I'd rather MoDOT focus on what they have. Pedestrians and multimodal users could use a larger focus - adding an extra lane for commuters results in a bigger metro area and more dollars to fix bridges later.</i>	4	3
<i>Add large and bright signs on I-70W under 435 at the speed change. People are flying through 70mph+ in a 55 and continue that speed until at least Jackson Ave. The signs are not well placed and hard to see!!!!</i>	2	5
<i>Consider 1 exit from 70WB to all exits between Benton curve and the split similar to Roe/Nall in OP. This same design feature could be implemented between Van Brunt and 23rd St as well. This would allow all slower traffic off the highway onto a designated merge lane for vehicles coming onto 70 and exiting 70.</i>	6	0
<i>Is the WB 70 to SB 71 directional ramp still being considered? If so, have the reconstruction take that into consideration for the design so a future ramp can be accommodated without having to spend too much extra money tearing out new pavement.</i>	6	0
<i>Overall comment: Cross reference the KC Bike Plan to ensure modifications to I-70 will ensure sufficient widths and clearance for KCMO to construct their bike plan on the arterials without being restricted by I-70.</i>	6	0
<i>Absolutely the worst designed on ramp on 70 between 40 and Paseo. It's too short, and it's higher up than 70 almost causing</i>	6	0

wrecks daily. Get rid of it entirely. People can get on from Benton. Also think about getting rid of the Truman on ramp. Benton could handle the traffic from both.		
Auxiliary lanes between Jackson and Van Brunt.	5	1
Will there ever be a direct NB 71 to EB 70 ramp as originally proposed? If so, keep in mind the ramp tie-in necessary when designing this section of 70 to accommodate that future connection.	5	0
Knowing that funding is limited, the 70/470 cloverleaf design is outdated and no longer functions adequately for the high traffic volumes in this suburban environment. I hope improvements can be made here as well someday.	4	0
Understanding that this is not part of the Paseo to 40 highway study, the 4th EB lane that ends at the Pitman Road overpass should be extended to the Blue Ridge Blvd. exit now that the new Pitman bridge has been completed and the pillar is no longer in the way.	4	0
Extend the on-ramp from Van Brunt to I-70E, it is far too short and people risk accidents every time they try to get on the highway on this ramp, there is no merge lane, it just enters the #3 lane.	4	0
Auxiliary lanes needed between Van Brunt and 40.	3	1
Why keep this mess going -- Remove northside 70Hwy and realign traffic for along 670. Why funnel everything downtown at all?	3	0
The KC Bike Plan identifies this section of 18th Street as a major separation facility. Consider the widths and clearances required to adequately implement such a facility.	2	0
On and off ramps are way too short between Van Brunt and Benton.	2	0
Virtually every on ramp from Van Brunt into downtown both EB and WB lanes are too short and dangerous. When cars have to come to a complete stop to merge with 55mph traffic it is EXTREMELY UNSAFE. On/Off lanes should continue completely between interchanges to allow oncoming traffic to safely merge and allow space for vehicles exiting the highway to get over and slow down.	2	0
What do current traffic volumes show about the vehicle count exiting EB I-70 at Prospect? Is that the best place for a lane drop? Could that 4th lane be extended to the next exit to allow more merging time for traffic coming out of the downtown loop SE interchange?	1	0
the daily traffic backup on EB70 past the stadiums is the worst in the entire metro area. The right lanes end prematurely and need to be extended at least to Sterling Ave for safety of all motorists and to relieve congestion	1	0

<i>I believe that all segments of this project should include new concrete pavement for i-70. Concrete last longer, is less prone to potholes, and does need as much maintenance as asphalt does, and it can save MoDot money in the long run. I do have one little pet-peeve. The road markings on our highways tend to be sloppy, can ya'll at least make sure the markings are nice and neat. A lot of people pass through our big town, so it would at least be nice to make sure they have nice and neat roads.</i>	1	0
<i>St Stephen Baptist Church (SSBC) a Historical Landmark serves as a Gateway to downtown KCMO via I-70. GOAL: Improve safety/repairs & comfort for roadway users in and around the I-70/The Paseo to Truman Rd. area. - Provide continuous multimodal connections - Promote alternatives to driving and access to all alleyways & side roads adjacent to I-70/The Paseo to Truman Rd. - Add bicycle and pedestrian accommodations. - Improve lighting, landscaping & install sound barriers to SSBC.</i>	1	0
<i>Convert an existing lane to HOV & transit only to better manage traffic congestion and encourage carpooling & transit use.</i>	1	0
<i>We need to create pollinator habitat consisting of native plants and flowers in green spaces along highways and interstates that will provide habitat for pollinators that help pollination at our urban farms and gardens.</i>	1	0
<i>General Concern from KCMO that the bridges are too easy to access for homelessness and illegal dumping of trash. We would like design aspects included to discourage this practice</i>	1	0
<i>KCMO General Comment on the bridges. KCMO would like aesthetic improvements to the bridges and would like a plan on how those improvements would be incorporated and constructed.</i>	1	0
<i>The design of this area from Stadium Drive to 40hwy is a complete mess, extend #4 at a minimum to 40hwy, extending lane #5 off Stadium to Sterling will bring a huge relief to afternoon traffic. The bottleneck here is terrible, they should have taken this in to consideration when they redid the Stadium Drive,</i>	1	0
<i>Just let me know when you are ready to buy my house. We're ready for you.</i>	1	0
<i>KCMO Concern on the connections of high speed traffic and noise on the Merssington and Myrtle ramps</i>	0	1
<i>Another messy, short, low visibility onramp. And this one gets a lot of heavy truck traffic from the ice cream factory and the postal distribution center. There's too much grade, too much curve, and too short of a ramp.</i>	0	0
<i>what is the status of the merge ramp to direct connect NB 71 to EB 70?</i>	0	0

<i>Make a law that 18 wheelers can't drive in the fast lane and can't drive over 55 mph they're the ones creating unsafe driving conditions going 80 in the fast lane</i>	0	0
<i>I think 3 lanes would be beneficial. The traffic is always so congested. The roadways have been outgrown by increased traffic volume. There are far too many accidents taking place.</i>	0	0
<i>Create a special fund to install and maintain HEPA filters for nearby properties impacted by traffic pollution.</i>	0	0
<i>Enhance and connect Freeway Park and Grove Park with improved lighting and wider, more generous sidewalks</i>	0	0
<i>Consider a freeway cap, land bridge, or significantly enhanced crossings between Prospect, Chestnut, and Benton.</i>	0	0
<i>Construct new bridges for better local traffic circulation to restitch neighborhood grids.</i>	0	0
<i>Please build more lanes between Columbia and KC. I worry about the bumper to bumper traffic every time my Mizzou son drives back and forth. There is just no room for error, especially with the big trucks and so little room between cars.</i>	0	0

Survey Results

A total of 17 hard-copy surveys were collected at the open house events and two stakeholders completed the survey online. Below are some of the highlights and comments as submitted:

What is your relationship with the I-70 corridor between the Paseo and U.S. 40? Check one.

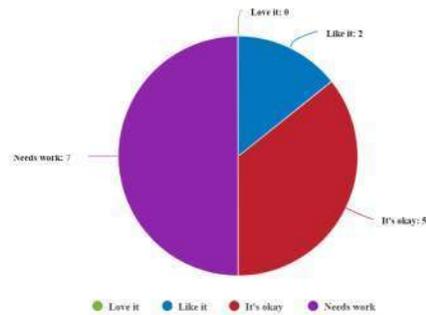
Note: While the question asked respondents to "check one," most checked multiple options.

Resident	Commuter	Business Owner/ Employee	Property Owner	Renter/ lessee	Other
13	3	5	1	2	Employee of urban design center Occasional user Local church Safety advocate Forgotten Homes NA Interested citizen

Preferred Alternative Concept: what do you think of the previously prepared preferred alternative concept? Select one and share why?

Note: 5 respondents did not answer this question.

Love it	Like it	It's okay	Needs work
0	3	4	7



Why?

Note: Most respondents did not answer this question.

Destroy homes	1
GHG emissions	1
Stormwater runoff	1
Noise	2
Need ped bridges	1
Need ADA access	1

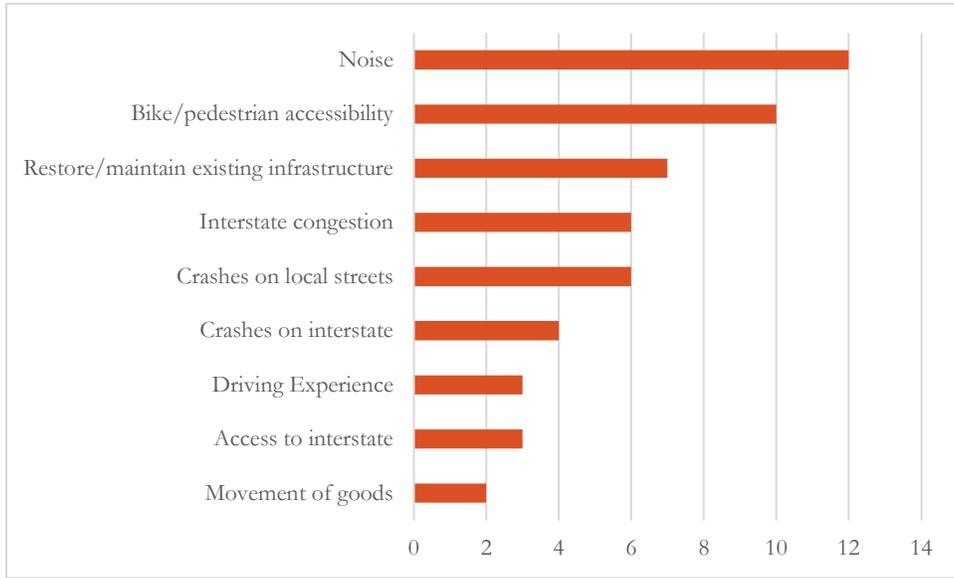
What has changed in the I-70 corridor between The Paseo and U.S. 40 over the last 10 years?



Traffic/commuter increase	5
---------------------------	---

Demographics (increase)	3
Climate change	3
Increased environmental justice knowledge	2
More trash	2
Speed increase	2
Lack of other transit options	2
Poor entrance/exit in terms of distance	2
Drivers' behavior (distracted, rubber neckers, do not yield, competitive driving culture)	2
Deterioration of bridges	1
Green infrastructure options	1
Economic factors	1
Signs	1
Homelessness/panhandling	1
Increased accidents	1
Lack of community resources	1
Bigger trucks/more damage	1
More lanes/wider road	1
Destruction of homes/businesses	1
Increased commercialization near Paseo	1
Lack of police presence	1

What are your biggest concerns along the corridor? Check those that apply and explain if necessary.



Noise	12
Bike/pedestrian accessibility	10
Crashes on local streets	6
Interstate congestion	6
Restore/maintain existing infrastructure	7
Access to interstate	3
Crashes on interstate	4
Driving Experience	3
Movement of goods	2

Other:

- Environment (climate change, ghg emissions, pollinator spaces) (5)
- Connectivity (3)
- Clear crossings (2)
- 23rd Street access dangerous
- Speed
- Landscaping
- Assure good on/off for transit
- Make it a parkway
- Repair what we have and focus new development on BRT and commuter rail
- Overpass lighting
- Homelessness

- Expansion will increase demand
- Addition of new baseball stadium
- Traffic backup
- Trash removal
- Energy consumption
- Jersey barrier needs to be updated to wall like Kansas did
- Genuine fear of getting in an accident. Bullying by people literally road racing, and by discourteous truck drivers who won't slow down when traffic thickens. Seemingly total absence of law enforcement.

What else would you like us to know about the I-70 Corridor between Paseo and U.S. 40? (text is verbatim)



- *Big Goals:* - understand the change in commuter traffic. KC has seen a huge reduction of local traffic due to COVID and the general population driving less. - prioritize reconnecting and rebuilding neighborhood connectivity and urban fabric. - Implement innovative research and solutions found on carbon reduction, sustainable/green infrastructure and noise reduction - green overpasses at strategic points - major beautification, water management solutions, signage, natives species planting. - Incorporate Census data! so much has changed in the last 10 years in the communities connected to interstate. - Allow for community feedback once the design process begins. Looking at conceptual drawings in way harder to understand than seeing a rendering with actual design solutions - many people may not understand the solutions you come up with until you give them an image of what it looks like, or a virtual experience of what it would be like to drive through the area.
- *Concern #1:* Bridges at Woodland/ I-70 - Erosion on the slopes on the east/west side - Dirt needs to be replaced by rock or something that slides down on the sidewalk - On-going maintenance is needed - Better lighting Bridges at Brooklyn Ave - Dead plants on slopes - Better lighting Bridges at Prospect Ave - Entry onto I-70 going Northbound doe snot allow enough room to gain speed to merge onto traffic Bridges at Paseo - Erosion on slopes - Better lighting Concern #2 Noise Barrier from Paseo-Prospect Residential community

- *As you revise the study to arrive at a NEW preferred alternative to get a NEW ROD, do not miss climate change and its affects. Greta and I will be watching!*
- *Cross country travel should be routed around KC via 435 and I-70. Must be removed in the urban core.*
- *I hope this does not impact my home. I don't want to move.*
- *We (KCATA) are planning to advance bus-on-shoulder operations at a future date.*
- *Climate change changes everything.*
- *Access and connectivity of exit ramps that currently restrict mobility, especially near downtown area.*
- *Please continue to update study info on your website. Thank you!*
- *We already lack quality, affordable homes. Expansion would destroy hundreds of homes making existing homes more expensive.*
- *Better presentations - Speaker, introductions, video presentations, Q&A.*
- *Expansion brings cost, destruction, pollutions and provides no benefits but initial jobs.*
- *Lack of diversity, community impact. There should be a presentation video of the information.*
- *Where the hell did traffic enforcement go, these problems increased when enforcement decreased*
- *most problems would be improved by traffic calming/speed control*
- *I am always thinking of ways to NOT take i-70, mostly because of driving behavior. Also, inbound traffic is going to always be congested when drivers from Independence, Raytown, etc., are transitioning from a wide-open, straight stretch of interstate to what is only an urban freeway requiring much slower speeds. Money might be better spent on law enforcement to break the habit of escalating speeds and aggressive driving.*

BikeWalkKC
Walk Audit Letter



Join BikeWalkKC: Walk Audits for Improve I-70 KC!

Take part in a series of walk audits for the I-70 corridor on Friday, June 3

Third District Councilwoman Melissa Robinson, [BikeWalkKC](#), the [City of Kansas City, Missouri](#), [Missouri Department of Transportation](#), [TREKK Design Group](#), [Parson + Associates](#) and others are coming together to conduct a walk audit of the crossings along a key stretch of the I-70 corridor from The Paseo to U.S. 40! The audit will take place at 10 a.m. on **Friday, June 3**. Volunteers will be grouped together to visit various pedestrian crossings. Walk with us! For more information about the walk audit, email policy@bikewalkkc.org or call 816-205-7056.

[Click here to sign up!](#)

What's going on with I-70?

The Missouri Department of Transportation (MoDOT) is conducting a corridor study of I-70 between The Paseo and U.S. 40. Some of the key goals are to repair existing infrastructure and improve connectivity. [You can learn more about the Improve I-70 KC project by clicking here.](#)

While much of the focus has been on road conditions, MoDOT recognizes that the highway cuts through several prominent neighborhoods on Kansas City's east side. The residents who live here have experienced harmful health, economic, and environmental outcomes as a direct result of I-70's construction. [It is one example in a long, historic list of highway projects which have harmed Black and Brown communities.](#)

Knowing this, it is important to examine aspects of the existing streets and sidewalks along the highway. **This is meant to serve as a means of strengthening connectivity, safety, and beginning to repair the damage caused.** To that end, [BikeWalkKC](#) in collaboration with many others, is hosting the walk audits to better understand the existing pedestrian elements in the area.

What's a Walk Audit?

A walk audit involves people walking along existing paths or sidewalks to evaluate opportunities and obstacles for easier and safer walking in that area. Data from the walk audit will help to inform existing and proposed improvements in the area as part of the [Improve I-70 KC re-evaluation](#).

[Click here to see what a walk audit looks like.](#)

How can I get involved?

The walk audits are scheduled to take place, rain or shine, at **10 a.m. on Friday, June 3**.

If you're interested in taking part in the walk audits, [please fill out this form](#) and BikeWalkKC will share more information closer to the day of the event. If you have additional questions, email policy@bikewalkkc.org or call 816-205-7056.



Appendix D

Missouri Department of
Conservation

From: Natural Heritage Review <NaturalHeritageReview@mdc.mo.gov>
Sent: Friday, April 29, 2022 11:26 AM
To: Waters, Ian
Subject: NHRR for I-70 Jackson County

CAUTION: [EXTERNAL] This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello,

At this time, we have no additional recommendations regarding your I-70 Jackson County project. Please let me know if you have any questions.

Thank you for using the Natural Heritage Review Program,

Hannah Roos

Environmental Review Coordinator
Missouri Department of Conservation
PO Box 180
Jefferson City, MO 65102
573-522-4115 ext. 3182

From: Hannah Roos <Hannah.Roos@mdc.mo.gov>
Sent: Thursday, December 1, 2022 12:06 PM
To: Waters, Ian
Cc: Bree.McMurray@modot.mo.gov
Subject: RE: I-70 Jackson County #10153 Natural Heritage Review

CAUTION: [EXTERNAL] This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Ian,
Our automated system searches several miles from a project boundary regardless of the type of project, which sometimes means species records trigger a response even when there is little chance of them being impacted. In the case of this project, a Pallid Sturgeon record in the Mississippi River triggered the Level Three response.

There are other records of species of conservation concern near the project including Peregrine Falcons and the Tri-colored bat, which was recently proposed endangered federally. I recommend resubmitting the project on the website to obtain an updated report and I would be happy to generate a more detailed Natural Heritage Review for you that includes the species records.

If you would still like to talk, I have availability most days. I do not have any blocked days in the next couple of weeks.

Thank you,
Hannah



Hannah Roos (she/her)
Environmental Review Coordinator
Phone 573-522-4115 ext. 3182
PO Box 180, Jefferson City, MO 65101

From: Waters, Ian <Ian.Waters@hdrinc.com>
Sent: Thursday, December 1, 2022 10:34 AM
To: Hannah Roos <Hannah.Roos@mdc.mo.gov>
Cc: Bree.McMurray@modot.mo.gov
Subject: I-70 Jackson County #10153 Natural Heritage Review

Morning Hannah,

I'm reaching out about MoDOT's I-70 Jackson County project to discuss the level 3 heritage review (attached) with you more which we previously received a response on April 29, 2022 from you stating "At this time, we have no additional recommendations regarding your I-70 Jackson County project." Bree McMurray, MoDOT Threatened and Endangered Species Specialist, and myself are specifically

interested in the federally and state protected species that are noted as occurring within 5 miles of the project. We are wanting to ensure due diligence for the protected species and their implication in the NEPA process for this project. Could we setup a short 15 minute call to discuss the heritage review with you further? What is your availability over the next few weeks?

Thanks,

Ian Waters

Environmental Scientist

HDR

10450 Holmes Road, Suite 600

Kansas City, MO 64131

D 816.347.1346 **M** 816.810.9067

ian.waters@hdrinc.com

hdrinc.com/follow-us



Missouri Department of Conservation
Natural Heritage Review Report

December 9, 2022

Science Branch
 P. O. Box 180
 Jefferson City, MO 65102
 Prepared by: Hannah Roos
 NaturalHeritageReview@mdc.mo.gov
 (573) 522 - 4115 ext. 3182

Ian Waters
 HDR
ian.waters@hdrinc.com

NHR ERT ID:	10153	NHR ERT Level:	3
Project type:	Transportation – Roads		
Location/Scope:	I-70 from Paseo interchange to US-40		
County:	Jackson		
Query reference:	I-70 Jackson County		
Query received:	12/2/2022		

This NATURAL HERITAGE REVIEW is not a site clearance letter. Rather, it identifies public lands and records of sensitive resources located close to and/or potentially affected by the proposed project. If project plans or location change, this report may no longer be valid. Because land use conditions change and animals move, the existence of an occurrence record does not mean the species/habitat is still present. Therefore, reports include information about records near but not necessarily on the project site. Lack of an occurrence record does not mean that a sensitive species or natural community is not present on or near the project area. On-site verification is the responsibility of the project. These records serve as one reference and additional information (e.g. wetland or soils maps, on-site inspections or surveys) should be considered. Look for additional information about the biological and habitat needs of records listed to avoid or minimize impacts. More information is at [Natural Areas | Missouri Department of Conservation \(mo.gov\)](#) and [Missouri Fish and Wildlife Information System \(MOFWIS\)](#).

Level 3: Records of federal-listed (also state-listed) species or critical habitats near the project site:

Natural Heritage records identify several federal- and state-listed species associated with the nearby Missouri River. Terrestrial projects that manage construction and include operation plans to avoid runoff of sediment or pollutants are unlikely to affect the aquatic species. Please visit [Best Management Practices for Construction and Development Projects Affecting Missouri Rivers and Streams \(mo.gov\)](#).

- **Missouri River:** The Missouri River (together with its tributary mouths) is home to many aquatic species of federal and state concern, including federal-listed Pallid Sturgeon, state-listed Lake Sturgeon, Flathead Chub, and others. Bluffs, banks, and floodplains may also include habitat used by listed Gray bats, Indiana bats and Bald Eagles. All of these are sampled at points but must be assumed to be present in suitable habitats through extended river reaches.
 - Terrestrial projects that manage construction and include operation plans to avoid runoff of sediment or pollutants are unlikely to affect the aquatic species.
 - Regulations enforced by other agencies to protect water quality and human health are generally adequate to protect the needs of wildlife as well.
 - Projects that place fill in or discharge water to the river are subject to federal permits, and strict observance of conditions required in those permits is important to minimize risk of damage to endangered species.

See General Recommendations for additional information on minimizing impacts to aquatic resources.

FEDERAL LIST species/habitats are protected under the Federal Endangered Species Act. **Contact U.S. Fish & Wildlife Service** (101 Park Deville Drive Suite A, Columbia, Missouri 65203-0007; 573-234-2132) for Endangered Species Act coordination and concurrence information).

Level 2: Records of state-listed (not federal-listed) endangered species AND / OR state-ranked (not state-listed endangered) species and natural communities of conservation concern. The Department tracks these species and natural communities due to population declines and/or apparent vulnerability.

Natural Heritage records identify no state-listed endangered species within the project area.

Natural Heritage records indicate the following state-ranked species near the project area:

Scientific Name	Common Name	State Rank	Proximity (miles)	Primary Habitat
<i>Taxidea taxus</i>	American Badger	S3	<5	Grassland matrix, Savanna pasture/orchard, Row/close grown crops
<i>Poliocitellus franklinii</i>	Franklin's Ground Squirrel	S2S3	<5	Grassland matrix, Roadside/railroad
<i>Perimyotis subflavus</i>	Tri-colored Bat	S2	<2	Habitat generalist
<i>Falco peregrinus</i>	Peregrine Falcon	S3	<1	Wetland matrix, Urban non-vegetated, Bluff

- **Peregrine Falcons:** Peregrine Falcons (*Falco peregrinus*) were introduced to downtown buildings in the St. Louis and Kansas City areas in the 1990s, and populations of this state endangered-list species have been increasing since. They nest April 15-July 15 on natural bluffs, building ledges and bridges. Work should be avoided within 1500 feet of nests when nest building or active nests (eggs or hatchlings) are present. Follow best management recommendations at [Peregrine Falcon Best Management Practices \(mo.gov\)](https://www.mo.gov/peregrine-falcon).

State Rank Definitions:

- S1: Critically imperiled in the state because of extreme rarity of or because of some factor(s) making it especially vulnerable to extirpation from the state. Typically, 5 or fewer occurrences or very few remaining individuals (<1,000).
- S2: Imperiled in the state because of rarity or because of some factor(s) making it very vulnerable to extirpation from the state (6 to 20 occurrences or few remaining individuals).
- S3: Vulnerable in the state either because rare and uncommon, or found only in a restricted range (even if abundant at some locations), or because of other factors making it vulnerable to extirpation. Typically 21 to 100 occurrences or between 3,000 and 10,000 individuals.
- S4: Uncommon but not rare, and usually widespread in the nation or state. Possible cause of long-term concern. Usually more than 100 occurrences and more than 10,000 individuals.
- S#S#: Range Rank: A numeric range rank (e.g., S2S3) is used to indicate the range of uncertainty about the exact status.
- ?: Denotes inexact or uncertain numeric rank.

There are no regulatory requirements associated with this status, however we encourage voluntary stewardship to minimize the risk of further decline that could lead to listing.

STATE ENDANGERED species are protected under the Wildlife Code of Missouri (3CSR10-4.111). See the [2022 Missouri Species and Communities of Conservation Concern Checklist](#) for a complete list.

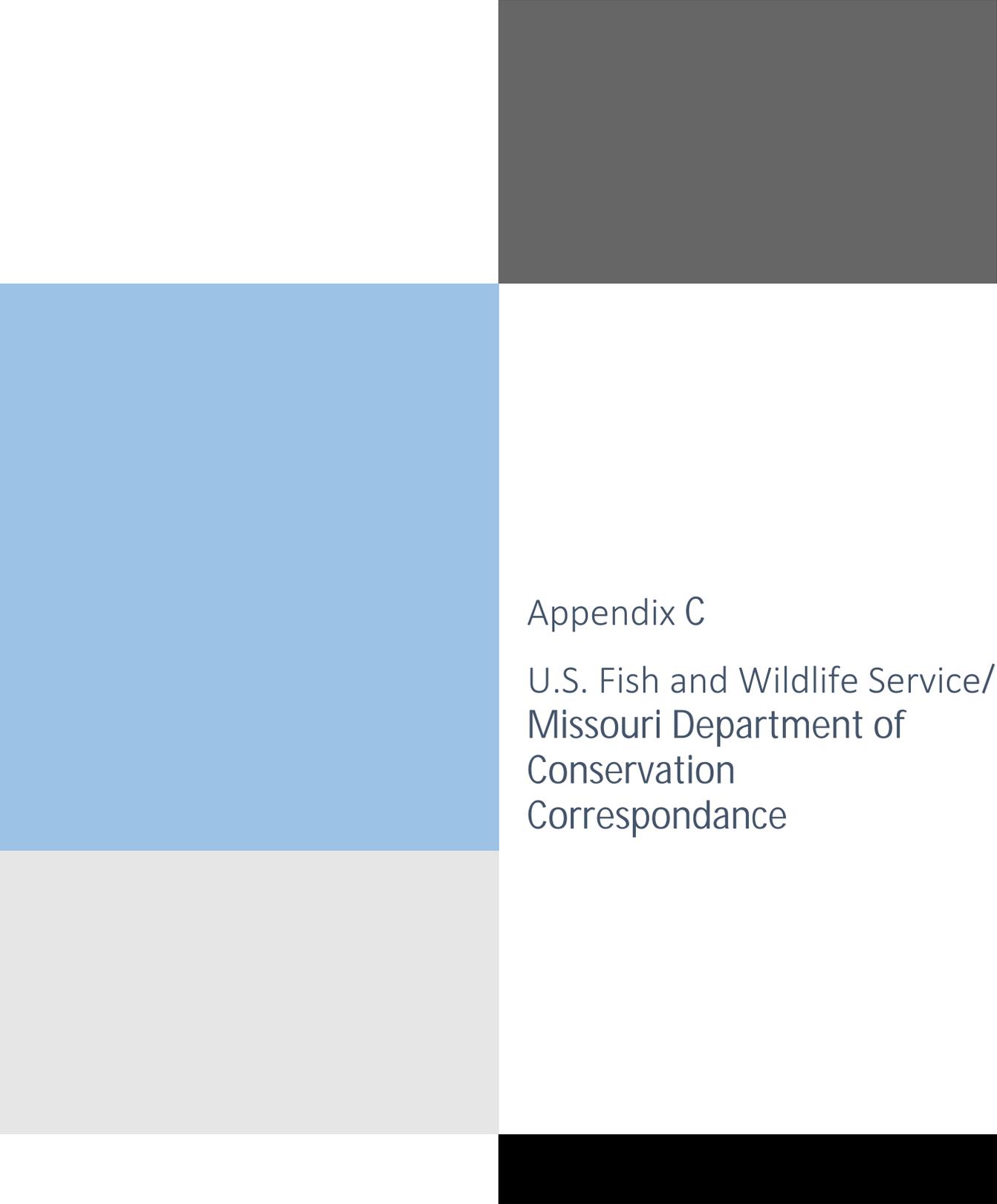
General recommendations related to this project or site, or based on information about the historic range of species (unrelated to any specific Natural Heritage records):

- **Transportation:** Transportation related projects typically change the plants and animals that live on the right-of-way or in the vicinity. Minimize erosion and sedimentation/runoff to nearby streams and lakes by carefully adhering to any Clean Water Act permit conditions ([Missouri DNR](#) or [US Army Corps of Engineers](#)); and include design elements to manage stormwater so that present water discharge rates from the site to streams during heavy rain events are not increased. Revegetation of disturbed areas is recommended to minimize erosion, as is restoration with native plant species compatible with the local landscape and wildlife needs. Annuals like ryegrass may be combined with native perennials for quicker green-up. Avoid aggressive exotic perennials such as crown vetch and sericea lespedeza.
- **Indiana Bats and Northern Long-eared Bats:** If this project has the potential to alter habitat (e.g. tree removal, projects in karst habitat) or cause direct mortality of bats, please coordinate directly with U.S. Fish and Wildlife Service (Ecological Services, 101 Park Deville Drive, Suite A, Columbia, Missouri 65203-0007; Phone 573-234-2132 Ext. 100 for Ecological Services) for further coordination under the Endangered Species Act.

Though Indiana and Northern Long-eared bats are not known to occur in the project area, these species should be assumed present wherever habitat exists. Indiana Bats (*Myotis sodalis*, federal and state-listed endangered) and Northern Long-eared Bats (*Myotis septentrionalis*, federal-listed threatened) hibernate during winter months in caves and mines. During the summer months, they roost and raise young under the bark of trees in riparian forests and upland forests near perennial streams. During project activities, avoid degrading stream quality and where possible leave snags standing and preserve mature forest canopy. Do not enter caves known to harbor Indiana Bats and/or Northern Long-eared Bats, especially from September to April.

- **Karst:** Jackson County has known karst geologic features (e.g. caves, springs, and sinkholes, all characterized by subterranean water movement). Few karst features are recorded in Natural Heritage records, and ones not noted here may be encountered at the project site or affected by the project. Cave fauna (many of which are species of conservation concern) are influenced by changes to water quality, so check your project site for any karst features and make every effort to protect groundwater in the project area. Please see [Management Recommendations for Construction and Development Projects Affecting Missouri Karst Habitat \(mo.gov\)](#).
- Invasive exotic species are a significant issue for fish, wildlife and agriculture in Missouri. Seeds, eggs, larvae, and aquatic plant material may be moved to new sites on boats or construction equipment, so inspect and clean equipment thoroughly before moving between project sites.
 - ◆ Remove any mud, soil, trash, plants (or plant material) or animals from equipment before leaving any water body or work area.
 - ◆ Drain water from boats and machinery that has operated in water, checking motor cavities, live-well, bilge and transom wells, tracks, buckets, and any other water reservoirs.
 - ◆ When possible, wash and rinse equipment thoroughly with hard spray or HOT water ($\geq 140^{\circ}$ F, typically available at do-it-yourself carwash sites), and dry in the hot sun before using again.

These recommendations are ones project managers might prudently consider based on a general understanding of species needs and landscape conditions. Natural Heritage records largely reflect sites visited by specialists in the last 30 years. Many privately owned tracts have not been surveyed and could host remnants of species once but no longer common.



Appendix C

U.S. Fish and Wildlife Service/
Missouri Department of
Conservation
Correspondance

U.S. Fish and Wildlife Service



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Missouri Ecological Services Field Office
101 Park Deville Drive
Suite A
Columbia, MO 65203-0057
Phone: (573) 234-2132 Fax: (573) 234-2181

In Reply Refer To:
Project Code: 2023-0020539
Project Name: I-70 Jackson County

April 06, 2023

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Threatened and Endangered Species

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and may be affected by your proposed project. The species list fulfills the requirement for obtaining a Technical Assistance Letter from the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. **Note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days.** The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

Consultation Technical Assistance

Refer to the Midwest Region [S7 Technical Assistance](#) website for step-by-step instructions for making species determinations and for specific guidance on the following types of projects:

projects in developed areas, HUD, pipelines, buried utilities, telecommunications, and requests for a Conditional Letter of Map Revision (CLOMR) from FEMA.

Federally Listed Bat Species

Indiana bats, gray bats, and northern long-eared bats occur throughout Missouri and the information below may help in determining if your project may affect these species.

Gray bats - Gray bats roost in caves or mines year-round and use water features and forested riparian corridors for foraging and travel. If your project will impact caves, mines, associated riparian areas, or will involve tree removal around these features – particularly within stream corridors, riparian areas, or associated upland woodlots –gray bats could be affected.

Indiana and northern long-eared bats - These species hibernate in caves or mines only during the winter. In Missouri the hibernation season is considered to be November 1 to March 31. During the active season in Missouri (April 1 to October 31) they roost in forest and woodland habitats. Suitable summer habitat for Indiana bats and northern long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and travel and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures. This includes forests and woodlots containing potential roosts (i.e., live trees and/or snags ≥ 5 inches diameter at breast height (dbh) for Indiana bat, and ≥ 3 inches dbh for northern long-eared bat, that have exfoliating bark, cracks, crevices, and/or hollows), as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure. Tree species often include, but are not limited to, shellbark or shagbark hickory, white oak, cottonwood, and maple. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet (305 meters) of other forested/wooded habitat. Northern long-eared bats have also been observed roosting in human-made structures, such as buildings, barns, bridges, and bat houses; therefore, these structures should also be considered potential summer habitat and evaluated for use by bats. If your project will impact caves or mines or will involve clearing forest or woodland habitat containing suitable roosting habitat, Indiana bats or northern long-eared bats could be affected.

Examples of unsuitable habitat include:

- Individual trees that are greater than 1,000 feet from forested or wooded areas;
- Trees found in highly-developed urban areas (e.g., street trees, downtown areas);
- A pure stand of less than 3-inch dbh trees that are not mixed with larger trees; and
- A stand of eastern red cedar shrubby vegetation with no potential roost trees.

Using the IPaC Official Species List to Make No Effect and May Affect Determinations for Listed Species

1. If IPaC returns a result of “There are no listed species found within the vicinity of the project,” then project proponents can conclude the proposed activities will have **no effect** on any federally listed species under Service jurisdiction. Concurrence from the Service is not required for **No Effect** determinations. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records. An example ["No Effect" document](#) also can be found on the S7 Technical Assistance website.
-

2. If IPaC returns one or more federally listed, proposed, or candidate species as potentially present in the action area of the proposed project – other than bats (see #3 below) – then project proponents can conclude the proposed activities **may affect** those species. For assistance in determining if suitable habitat for listed, candidate, or proposed species occurs within your project area or if species may be affected by project activities, you can obtain [Life History Information for Listed and Candidate Species](#) through the S7 Technical Assistance website.
3. If IPaC returns a result that one or more federally listed bat species (Indiana bat, northern long-eared bat, or gray bat) are potentially present in the action area of the proposed project, project proponents can conclude the proposed activities **may affect** these bat species **IF** one or more of the following activities are proposed:
 - a. Clearing or disturbing suitable roosting habitat, as defined above, at any time of year;
 - b. Any activity in or near the entrance to a cave or mine;
 - c. Mining, deep excavation, or underground work within 0.25 miles of a cave or mine;
 - d. Construction of one or more wind turbines; or
 - e. Demolition or reconstruction of human-made structures that are known to be used by bats based on observations of roosting bats, bats emerging at dusk, or guano deposits or stains.

If none of the above activities are proposed, project proponents can conclude the proposed activities will have **no effect** on listed bat species. Concurrence from the Service is not required for **No Effect** determinations. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records. An example "[No Effect](#)" document also can be found on the S7 Technical Assistance website.

If any of the above activities are proposed in areas where one or more bat species may be present, project proponents can conclude the proposed activities **may affect** one or more bat species. We recommend coordinating with the Service as early as possible during project planning. If your project will involve removal of over 5 acres of suitable forest or woodland habitat, we recommend you complete a Summer Habitat Assessment prior to contacting our office to expedite the consultation process. The Summer Habitat Assessment Form is available in Appendix A of the most recent version of the [Range-wide Indiana Bat Summer Survey Guidelines](#).

Other Trust Resources and Activities

Bald and Golden Eagles - Although the bald eagle has been removed from the endangered species list, this species and the golden eagle are protected by the Bald and Golden Eagle Act and the Migratory Bird Treaty Act. Should bald or golden eagles occur within or near the project area please contact our office for further coordination. For communication and wind energy projects, please refer to additional guidelines below.

Migratory Birds - The Migratory Bird Treaty Act (MBTA) prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Service. The Service has the responsibility under the MBTA

to proactively prevent the mortality of migratory birds whenever possible and we encourage implementation of recommendations that minimize potential impacts to migratory birds. Such measures include clearing forested habitat outside the nesting season (generally March 1 to August 31) or conducting nest surveys prior to clearing to avoid injury to eggs or nestlings.

Communication Towers - Construction of new communications towers (including radio, television, cellular, and microwave) creates a potentially significant impact on migratory birds, especially some 350 species of night-migrating birds. However, the Service has developed [voluntary guidelines for minimizing impacts](#).

Transmission Lines - Migratory birds, especially large species with long wingspans, heavy bodies, and poor maneuverability can also collide with power lines. In addition, mortality can occur when birds, particularly hawks, eagles, kites, falcons, and owls, attempt to perch on uninsulated or unguarded power poles. To minimize these risks, please refer to [guidelines](#) developed by the Avian Power Line Interaction Committee and the Service. Implementation of these measures is especially important along sections of lines adjacent to wetlands or other areas that support large numbers of raptors and migratory birds.

Wind Energy - To minimize impacts to migratory birds and bats, wind energy projects should follow the Service's [Wind Energy Guidelines](#). In addition, please refer to the Service's [Eagle Conservation Plan Guidance](#), which provides guidance for conserving bald and golden eagles in the course of siting, constructing, and operating wind energy facilities.

Next Steps

Should you determine that project activities **may affect** any federally listed species or trust resources described herein, please contact our office for further coordination. Letters with requests for consultation or correspondence about your project should include the Consultation Tracking Number in the header. Electronic submission is preferred.

If you have not already done so, please contact the Missouri Department of Conservation (Policy Coordination, P. O. Box 180, Jefferson City, MO 65102) for information concerning Missouri Natural Communities and Species of Conservation Concern.

We appreciate your concern for threatened and endangered species. Please feel free to contact our office with questions or for additional information.

John Weber

Attachment(s):

- Official Species List
-

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Missouri Ecological Services Field Office

101 Park Deville Drive

Suite A

Columbia, MO 65203-0057

(573) 234-2132

PROJECT SUMMARY

Project Code: 2023-0020539
Project Name: I-70 Jackson County
Project Type: Road/Hwy - Maintenance/Modification
Project Description: Project J4I1486D begins at The Paseo interchange and extends to US-40. This portion of I-70 was included in MDOT's Second Tier EIS as part of an improvement project which extended out to US-470. The project will include alignment changes, interchange improvements, and overall maintenance of the existing corridor. Timing of construction is to be determined.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@39.0826211,-94.54111678069262,14z>



Counties: Jackson County, Missouri

ENDANGERED SPECIES ACT SPECIES

There is a total of 5 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Gray Bat <i>Myotis grisescens</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6329	Endangered
Indiana Bat <i>Myotis sodalis</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949 General project design guidelines: https://ipac.ecosphere.fws.gov/project/XIJMOGLH2BBXRFBZ5S6N6YKKIM/documents/generated/6868.pdf	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045 General project design guidelines: https://ipac.ecosphere.fws.gov/project/XIJMOGLH2BBXRFBZ5S6N6YKKIM/documents/generated/6868.pdf	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

IPAC USER CONTACT INFORMATION

Agency: HDR, inc.
Name: Ian Waters
Address: 10450 Holmes Road
Address Line 2: Suite 600
City: Kansas City
State: MO
Zip: 64131
Email: ian.waters@hdrinc.com
Phone: 8163471346

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Highway Administration



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Missouri Ecological Services Field Office
101 Park Deville Drive
Suite A
Columbia, MO 65203-0057
Phone: (573) 234-2132 Fax: (573) 234-2181

In Reply Refer To:
Project code: 2023-0020539
Project Name: I-70 Jackson County

April 06, 2023

Subject: Consistency letter for the 'I-70 Jackson County' project under the amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion (dated March 23, 2023) for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (NLEB).

To whom it may concern:

The U.S. Fish and Wildlife Service (Service) has received your request dated April 06, 2023 to verify that the **I-70 Jackson County** (Proposed Action) may rely on the amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion (dated March 23, 2023) for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (PBO) to satisfy requirements under section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 *et seq.*).

Based on the information you provided (Project Description shown below), you have determined that the Proposed Action will have no effect on the endangered Indiana bat (*Myotis sodalis*) or the endangered northern long-eared bat (*Myotis septentrionalis*). If the Proposed Action is not modified, **no consultation is required for these two species**. If the Proposed Action is modified, or new information reveals that it may affect the Indiana bat and/or northern long-eared bat in a manner or to an extent not considered in the PBO, further review to conclude the requirements of ESA section 7(a)(2) may be required.

For Proposed Actions that include bridge/culvert or structure removal, replacement, and/or maintenance activities: If your initial bridge/culvert or structure assessments failed to detect Indiana bats and/or NLEB use or occupancy, yet later detected prior to, or during construction, please submit the Post Assessment Discovery of Bats at Bridge/Culvert or Structure Form (User Guide Appendix E) to this Service Office within 2 working days of the incident. In these instances, potential incidental take of Indiana bats and/or NLEBs may be exempted provided that the take is reported to the Service.

If the Proposed Action may affect any other federally-listed or proposed species and/or designated critical habitat, additional consultation between the lead Federal action agency and this Service Office is required. If the proposed action has the potential to take bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act may also be required. In either of these circumstances, please advise the lead Federal action agency accordingly.

The following species may occur in your project area and **are not** covered by this determination:

- Gray Bat *Myotis grisescens* Endangered
 - Monarch Butterfly *Danaus plexippus* Candidate
 - Tricolored Bat *Perimyotis subflavus* Proposed Endangered
-

PROJECT DESCRIPTION

The following project name and description was collected in IPaC as part of the endangered species review process.

NAME

I-70 Jackson County

DESCRIPTION

Project J4I1486D begins at The Paseo interchange and extends to US-40. This portion of I-70 was included in MDOT's Second Tier EIS as part of an improvement project which extended out to US-470. The project will include alignment changes, interchange improvements, and overall maintenance of the existing corridor. Timing of construction is to be determined.

DETERMINATION KEY RESULT

Based on the information you provided, you have determined that the Proposed Action will have no effect on the endangered Indiana bat and/or the endangered northern long-eared bat.

Therefore, no consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required for these two species.

QUALIFICATION INTERVIEW

1. Is the project within the range of the Indiana bat^[1]?

[1] See [Indiana bat species profile](#)

Automatically answered

Yes

2. Is the project within the range of the northern long-eared bat^[1]?

[1] See [northern long-eared bat species profile](#)

Automatically answered

Yes

3. Which Federal Agency is the lead for the action?

A) Federal Highway Administration (FHWA)

4. Are *all* project activities limited to non-construction^[1] activities only? (examples of non-construction activities include: bridge/abandoned structure assessments, surveys, planning and technical studies, property inspections, and property sales)

[1] Construction refers to activities involving ground disturbance, percussive noise, and/or lighting.

No

5. Does the project include *any* activities that are **greater than** 300 feet from existing road/rail surfaces^[1]?

[1] Road surface is defined as the actively used [e.g. motorized vehicles] driving surface and shoulders [may be pavement, gravel, etc.] and rail surface is defined as the edge of the actively used rail ballast.

No

6. Does the project include *any* activities **within** 0.5 miles of a known Indiana bat and/or NLEB hibernaculum^[1]?

[1] For the purpose of this consultation, a hibernaculum is a site, most often a cave or mine, where bats hibernate during the winter (see suitable habitat), but could also include bridges and structures if bats are found to be hibernating there during the winter.

No

7. Is the project located **within** a karst area?

No

8. Is there *any* suitable^[1] summer habitat for Indiana Bat or NLEB **within** the project action area^[2]? (includes any trees suitable for maternity, roosting, foraging, or travelling habitat)

[1] See the Service's [summer survey guidance](#) for our current definitions of suitable habitat.

[2] The action area is defined as all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action (50 CFR Section 402.02). Further clarification is provided by the [User's Guide for the Range-wide Programmatic Consultation for Indiana Bat and Northern Long-eared Bat](#).

No

9. Does the project include wetland or stream protection activities associated with compensatory wetland mitigation?

No

10. Does the project include slash pile burning?

No

11. Does the project include *any* bridge removal, replacement, and/or maintenance activities (e.g., any bridge repair, retrofit, maintenance, and/or rehabilitation work)?

Yes

12. Is there *any* suitable habitat^[1] for Indiana bat or NLEB **within** 1,000 feet of the bridge? (includes any trees suitable for maternity, roosting, foraging, or travelling habitat)

[1] See the Service's current [summer survey guidance](#) for our current definitions of suitable habitat.

No

13. Does the project include the removal, replacement, and/or maintenance of *any* structure other than a bridge? (e.g., rest areas, offices, sheds, outbuildings, barns, parking garages, etc.)

Yes

14. Is there *any* suitable habitat^[1] for Indiana bat or NLEB **within** 1,000 feet of the structure? (includes any trees suitable for maternity, roosting, foraging, or travelling habitat)

[1] See the Service's current [summer survey guidance](#) for our current definitions of suitable habitat.

No

15. Will the project involve the use of **temporary** lighting *during* the active season?

Yes

16. Is there *any* suitable habitat **within** 1,000 feet of the location(s) where **temporary** lighting will be used?

No

17. Will the project install new or replace existing **permanent** lighting?

Yes

18. Is there *any* suitable habitat **within** 1,000 feet of the location(s) where **permanent** lighting will be installed or replaced?

No

19. Does the project include percussives or other activities (**not including tree removal/trimming or bridge/structure work**) that will increase noise levels above existing traffic/background levels?

Yes

20. Will the activities that use percussives (**not including tree removal/trimming or bridge/structure work**) and/or increase noise levels above existing traffic/background levels be conducted *during* the active season^[1]?

[1] Coordinate with the local Service Field Office for appropriate dates.

Yes

21. Will *any* activities that use percussives (**not including tree removal/trimming or bridge/structure work**) and/or increase noise levels above existing traffic/background levels be conducted *during* the inactive season^[1]?

[1] Coordinate with the local Service Field Office for appropriate dates.

Yes

22. Are *all* project activities that are **not associated with** habitat removal, tree removal/trimming, bridge and/or structure activities, temporary or permanent lighting, or use of percussives, limited to actions that DO NOT cause any additional stressors to the bat species?

Examples: lining roadways, unlighted signage, rail road crossing signals, signal lighting, and minor road repair such as asphalt fill of potholes, etc.

No

23. Will the project raise the road profile **above the tree canopy**?

No

24. Is the location of this project consistent with a No Effect determination in this key?

Automatically answered

Yes, because the project action area is not within suitable Indiana bat and/or NLEB summer habitat and is outside of 0.5 miles of a hibernaculum.

25. Is the bridge removal, replacement, or maintenance activities portion of this project consistent with a No Effect determination in this key?

Automatically answered

Yes, because the bridge is more than 1,000 feet from the nearest suitable habitat and is therefore considered unsuitable for use by bats

26. Is the structure removal, replacement, or maintenance activities portion of this project consistent with a No Effect determination in this key?

Automatically answered

Yes, because the structure is more than 1,000 feet from the nearest suitable habitat and is therefore considered unsuitable for use by bats

27. Is the temporary lighting portion of this project consistent with a No Effect determination in this key?

Automatically answered

Yes, because the lighting will be more than 1,000 feet from the nearest suitable habitat

28. Is the permanent lighting portion of this project consistent with a No Effect determination in this key?

Automatically answered

Yes, because the lighting will be more than 1,000 feet from the nearest suitable habitat

DETERMINATION KEY DESCRIPTION: FHWA, FRA, FTA PROGRAMMATIC CONSULTATION FOR TRANSPORTATION PROJECTS AFFECTING NLEB OR INDIANA BAT

This key was last updated in IPaC on April 03, 2023. Keys are subject to periodic revision.

This decision key is intended for projects/activities funded or authorized by the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), and/or Federal Transit Administration (FTA), which may require consultation with the U.S. Fish and Wildlife Service (Service) under Section 7 of the Endangered Species Act (ESA) for the endangered **Indiana bat** (*Myotis sodalis*) and the endangered **northern long-eared bat** (NLEB) (*Myotis septentrionalis*).

This decision key should only be used to verify project applicability with the Service's [February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects](#). The programmatic biological opinion covers limited transportation activities that may affect either bat species, and addresses situations that are both likely and not likely to adversely affect either bat species. This decision key will assist in identifying the effect of a specific project/activity and applicability of the programmatic consultation. The programmatic biological opinion is not intended to cover all types of transportation actions. Activities outside the scope of the programmatic biological opinion, or that may affect ESA-listed species other than the Indiana bat or NLEB, or any designated critical habitat, may require additional ESA Section 7 consultation.

IPAC USER CONTACT INFORMATION

Agency: HDR, inc.
Name: Ian Waters
Address: 10450 Holmes Road
Address Line 2: Suite 600
City: Kansas City
State: MO
Zip: 64131
Email: ian.waters@hdrinc.com
Phone: 8163471346

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Highway Administration

Murphy, Gina L.

From: Matthew Burcham <Matthew.Burcham@modot.mo.gov>
Sent: Tuesday, January 10, 2017 10:08 AM
To: Nazar, Christopher R; Murphy, Gina L.; Rowson, Randy; Rowson, Randy
Cc: Gerri A. Doyle; Susan E. Barry; Bree K. McMurray
Subject: FW: PA Sect 7consultation AT NEPA STAGE_ Jackson Co I-70_Paseo to Blue Ridge Cutoff_ J4I2337 including I-435/70 interchange_J4I1597C

Randy; the response we were hoping for from FWS. Please update the appropriate sections in the document and place this correspondence in the suitable appendix. If you want to run by the text for those sections by Bree and I please do so.

Thank you,

Matt Burcham

Senior Environmental Specialist
573-526-6679
601 W. Main Street
P.O. Box 270
Jefferson City, MO 65102

From: Roberts, Andy [mailto:andy_roberts@fws.gov]
Sent: Monday, January 09, 2017 11:36 AM
To: Bree K. McMurray
Cc: Gayle Unruh; Richard Moore; Matthew Burcham; raegan.ball.dot.gov; Roopa.Banerjee@dot.gov; Karen Herrington
Subject: Re: PA Sect 7consultation AT NEPA STAGE_ Jackson Co I-70_Paseo to Blue Ridge Cutoff_ J4I2337 including I-435/70 interchange_J4I1597C

Dear Ms. McMurray:

The U.S. Fish and Wildlife Service has reviewed your December 9, 2016, request regarding the I-70 improvements (Paseo to Blue Ridge Cutoff) in Jackson County, Missouri. We offer the following comments pursuant to the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.), National Environmental Policy Act of 1969 (42 U.S.C. 4321-4347), and the Endangered Species Act of 1973, as amended (16 U.S.C. 1531-1544).

We agree with your approach outlined in the NEPA document (EIS/ROD update) and concur with your determination that the proposed overall project may affect, but is not likely to adversely affect the Indiana bat or northern long-eared bat. As such, we do not have any comments on the December 9, 2016, programmatic consultation documentation that you provided.

We appreciate the information you provided for this project and your continued coordination.

Sincerely,

Andy Roberts

On Fri, Dec 9, 2016 at 4:39 PM, Bree K. McMurray <Bree.McMurray@modot.mo.gov> wrote:

Request for concurrence on the NEPA determinations and submission of Programmatic Section 7 consultation for summer bat habitat for Indiana and northern long-eared bats.

FHWA kindly requests a written reply regarding concurrence at the NEPA stage for the effects determination with supporting information in the EIS/ROD update. FHWA is also submitting FINAL Programmatic Consultation for suitable summer habitat for Indiana and northern long-eared bats for some elements of the project that will be constructed both in 2018-2019 and others that are not in the city's long range plan until 2031-2040.

Consultation Code: 03E14000-2017-SLI-0200

Species listed: gray, Indiana, northern long-eared bats

Good afternoon Andy and John,

I am transmitting Section 7 consultation for **NLAA determination for Indiana bats and northern long-eared bats and requesting final concurrence from the Service at the NEPA Document stage for the project listed above.** Attached please find the Programmatic Bat Habitat Consultation form, updated IPaC OSL for the total project area, project location maps/aerials, and suitable bat habitat locations, and the T&E assessment from the condensed NEPA EIS/ROD document. There are no plans developed for the areas of the project with suitable summer bat roost habitat.

The I-70 Second Tier EIS/Record of Decision is being updated for improvements on Interstate 70 in Jackson County MO between The Paseo and Blue Ridge Cutoff, approximately 6.5 miles along existing interstate highway in a highly urbanized area. The improvements include rebuilding and/or rehabilitating I-70 pavement and bridges, improving horizontal and vertical alignment, increasing ramp lengths, extending weave areas, addition of auxiliary lanes, improving bicycle/pedestrian access across I-70, and considering aesthetic enhancements. The interchange at I-70/I-435 will be constructed first, possibly in the next 2-3 years. The portion of the project between The Paseo and Manchester Bridge at Blue River is in the city's long range plan for the decade 2031-2040, about 25 years from now.

In total, **roughly 3-5 acres of tree clearing** will be necessary for the full construction of this project. The first phase interchange project will account for roughly 2.0 acres of tree clearing and project limits are currently the existing Right of Way limits (see attachment). A habitat assessment in Aug 2016 conducted by MoDOT resulted in the discovery of a single suitable bat roost tree within the existing R/W limits in that location. During an October 2016 habitat assessment conducted for the larger 6.5 mile corridor, MoDOT determined that there is potentially suitable roost habitat in the other areas of the currently proposed project limits as well.

Excerpt from EIS/ROD submission to FHWA for signature:

3.2 Changes and Clarifications from the Second Tier Draft EIS

3.2.10 Wildlife, Plants, and Threatened and Endangered Species

Since the publication of the Draft I-70 EIS, new information from updated surveys. The updated species list includes Indiana bats, gray bats, and northern long-eared bats indicated by US Fish and Wildlife Service Information for Planning and Conservation website (Consultation Code: 03E14000-2017-SLI-0200, November 2016). Additional information was provided by MoDOT Design Environmental Section from reviews of the Missouri Department of Conservation (MDC) Heritage database (September 2016) and the Missouri Speleological Survey cave database information (current to 2015).

Gray bats - Gray bats are cave obligate species which congregate in maternity or bachelor colonies in the summer utilizing dome cave and mine habitat, and mixed colonies during winter hibernation in vertical or pit-type caves and mines, utilizing mainly stream corridors for foraging spring through fall. There are no known caves within a few miles of the project area and no known gray bat cave resources within 100 miles of the project area. If a project will impact caves or mines or will involve tree removal around these areas (particularly within stream corridors, riparian areas, or associated upland woodlots), gray bats could be affected. There is no known gray bat cave habitat nor any known gray bat records within several miles of the project area and there will be **No Effect on gray bats** from this project.

Indiana and northern long-eared bats – Both of these species can occur in any forested area in the state of Missouri. These species hibernate in caves or mines only during the winter. The rest of the year they

roost under loose tree bark in tree crevices or cavities during the day and forage around tree canopies of floodplain, riparian, and upland forests at night. Trees which should be considered potential roosting habitat include those exhibiting loose or shaggy bark, crevices, or hollows. Tree species often include, but are not limited to: shellbark or shagbark hickory, white oak, cottonwood, and maple.

In October 2016 MoDOT Environmental staff and the consultant surveyed the I-70 Second Tier project limits to update the impact assessment for the Combined FEIS and ROD. There are no known winter cave records for Indiana or northern long-eared bats within several miles of the project area. Even though the nearest known summer records for either species are between 40-70 miles from the project area, Indiana and northern long-eared bats could utilize suitable habitat in the project area., There are examples of suitable summer roost habitat in the clearing limits for this project, and MoDOT and FHWA expect to apply the conservation measure of only clearing suitable roost trees during the non-breeding season (November 1 to March 31). Given the small amount of overall tree removal for this section (less than 5.0 ac), small number of potentially suitable bat roost trees, and the inclusion of the conservation measure to remove suitable habitat during the non-breeding season, MoDOT and FHWA have determined this project **May Affect, but is Not Likely to Adversely Affect Indiana and northern long-eared bats**. Acting as the designated non-federal representative for FHWA for the purposes of USFWS Section 7 Endangered Species Act consultation, MoDOT will submit consultation and request concurrence with the “not likely to adversely affect” determination prior to final design.

Appendix E contains the results of the field review.

**Note, the commitment for seasonal tree clearing is also added to the NEPA commitments section of the EIS/ROD document.

The current estimated footprint for the total corridor is noted as “slope limits” (thin black line) in the attached Jackson Co I-70_Paseo to Blue Ridge Cutoff J414337 map. Those were the limits surveyed as the footprint for impacts to potentially suitable summer bat roost habitat in October 2016. All suitable roost trees evaluated at that time were within 100’ of existing roads. MoDOT and FHWA intend to apply the seasonal tree clearing conservation measure, only removing potential Indiana bat and northern long-eared bat suitable roost trees between November 1 and March 31 of any year. In this way, as currently estimated, this project qualifies for consultation for bat habitat impacts under Programmatic Consultation.

Since the construction timeline for the larger project area is so far in the future (2031-2040 in Kansas City, MO Long Range Transportation Plan, if the footprint increases during the design phase for road construction, consultation will need to be re-evaluated. Additionally, if there are any new listings of

species that were not addressed in the NEPA EIS document, effects to listed species will have to be re-evaluated and consultation may need to be revised or reinitiated.

Acting as the designated non-federal representative on behalf of Federal Highway Administration in Missouri for the purpose of USFWS Section 7 consultation, MoDOT agrees with the effects determinations in the NEPA EIS documentation. **FHWA is requesting concurrence** with the determination that the construction of this project May Affect, but Not Likely to Adversely Affect Indiana and northern long-eared bats based on the conservation measure to remove suitable summer roost trees only in the non-breeding season. If the Service concurs, that documentation will become part of the Record of Decision for this project in winter 2016-2017 and FHWA will consider USFWS Section 7 ESA complete. In the future, if the footprint for design and construction changes, or additional species are listed, the effects determinations will need to be reevaluated and consultation revisited.

Please do not hesitate to contact me with questions or comments.

Bree K. McMurray

Threatened and Endangered Species Specialist

Missouri Dept. of Transportation

Design-Environmental and Historic Preservation

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Jefferson City, MO 65102

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--

Andy Roberts

U.S. Fish and Wildlife Service

Ecological Services

101 Park DeVille Drive, Suite A

Columbia, Missouri 65203

573-234-2132 x 110

573-234-2181 (fax)

Missouri Department of Conservation



Missouri Department of Conservation
Natural Heritage Review Report

December 9, 2022

Science Branch
 P. O. Box 180
 Jefferson City, MO 65102
 Prepared by: Hannah Roos
 NaturalHeritageReview@mdc.mo.gov
 (573) 522 - 4115 ext. 3182

Ian Waters
 HDR
ian.waters@hdrinc.com

NHR ERT ID:	10153	NHR ERT Level:	3
Project type:	Transportation – Roads		
Location/Scope:	I-70 from Paseo interchange to US-40		
County:	Jackson		
Query reference:	I-70 Jackson County		
Query received:	12/2/2022		

This NATURAL HERITAGE REVIEW is not a site clearance letter. Rather, it identifies public lands and records of sensitive resources located close to and/or potentially affected by the proposed project. If project plans or location change, this report may no longer be valid. Because land use conditions change and animals move, the existence of an occurrence record does not mean the species/habitat is still present. Therefore, reports include information about records near but not necessarily on the project site. Lack of an occurrence record does not mean that a sensitive species or natural community is not present on or near the project area. On-site verification is the responsibility of the project. These records serve as one reference and additional information (e.g. wetland or soils maps, on-site inspections or surveys) should be considered. Look for additional information about the biological and habitat needs of records listed to avoid or minimize impacts. More information is at [Natural Areas | Missouri Department of Conservation \(mo.gov\)](#) and [Missouri Fish and Wildlife Information System \(MOFWIS\)](#).

Level 3: Records of federal-listed (also state-listed) species or critical habitats near the project site:

Natural Heritage records identify several federal- and state-listed species associated with the nearby Missouri River. Terrestrial projects that manage construction and include operation plans to avoid runoff of sediment or pollutants are unlikely to affect the aquatic species. Please visit [Best Management Practices for Construction and Development Projects Affecting Missouri Rivers and Streams \(mo.gov\)](#).

- **Missouri River:** The Missouri River (together with its tributary mouths) is home to many aquatic species of federal and state concern, including federal-listed Pallid Sturgeon, state-listed Lake Sturgeon, Flathead Chub, and others. Bluffs, banks, and floodplains may also include habitat used by listed Gray bats, Indiana bats and Bald Eagles. All of these are sampled at points but must be assumed to be present in suitable habitats through extended river reaches.
 - Terrestrial projects that manage construction and include operation plans to avoid runoff of sediment or pollutants are unlikely to affect the aquatic species.
 - Regulations enforced by other agencies to protect water quality and human health are generally adequate to protect the needs of wildlife as well.
 - Projects that place fill in or discharge water to the river are subject to federal permits, and strict observance of conditions required in those permits is important to minimize risk of damage to endangered species.

See General Recommendations for additional information on minimizing impacts to aquatic resources.

FEDERAL LIST species/habitats are protected under the Federal Endangered Species Act. **Contact U.S. Fish & Wildlife Service** (101 Park Deville Drive Suite A, Columbia, Missouri 65203-0007; 573-234-2132) for Endangered Species Act coordination and concurrence information).

Level 2: Records of state-listed (not federal-listed) endangered species AND / OR state-ranked (not state-listed endangered) species and natural communities of conservation concern. The Department tracks these species and natural communities due to population declines and/or apparent vulnerability.

Natural Heritage records identify no state-listed endangered species within the project area.

Natural Heritage records indicate the following state-ranked species near the project area:

Scientific Name	Common Name	State Rank	Proximity (miles)	Primary Habitat
<i>Taxidea taxus</i>	American Badger	S3	<5	Grassland matrix, Savanna pasture/orchard, Row/close grown crops
<i>Poliocitellus franklinii</i>	Franklin's Ground Squirrel	S2S3	<5	Grassland matrix, Roadside/railroad
<i>Perimyotis subflavus</i>	Tri-colored Bat	S2	<2	Habitat generalist
<i>Falco peregrinus</i>	Peregrine Falcon	S3	<1	Wetland matrix, Urban non-vegetated, Bluff

- **Peregrine Falcons:** Peregrine Falcons (*Falco peregrinus*) were introduced to downtown buildings in the St. Louis and Kansas City areas in the 1990s, and populations of this state endangered-list species have been increasing since. They nest April 15-July 15 on natural bluffs, building ledges and bridges. Work should be avoided within 1500 feet of nests when nest building or active nests (eggs or hatchlings) are present. Follow best management recommendations at [Peregrine Falcon Best Management Practices \(mo.gov\)](https://www.mo.gov/peregrine-falcon).

State Rank Definitions:

- S1: Critically imperiled in the state because of extreme rarity of or because of some factor(s) making it especially vulnerable to extirpation from the state. Typically, 5 or fewer occurrences or very few remaining individuals (<1,000).
- S2: Imperiled in the state because of rarity or because of some factor(s) making it very vulnerable to extirpation from the state (6 to 20 occurrences or few remaining individuals).
- S3: Vulnerable in the state either because rare and uncommon, or found only in a restricted range (even if abundant at some locations), or because of other factors making it vulnerable to extirpation. Typically 21 to 100 occurrences or between 3,000 and 10,000 individuals.
- S4: Uncommon but not rare, and usually widespread in the nation or state. Possible cause of long-term concern. Usually more than 100 occurrences and more than 10,000 individuals.
- S#S#: Range Rank: A numeric range rank (e.g., S2S3) is used to indicate the range of uncertainty about the exact status.
- ?: Denotes inexact or uncertain numeric rank.

There are no regulatory requirements associated with this status, however we encourage voluntary stewardship to minimize the risk of further decline that could lead to listing.

STATE ENDANGERED species are protected under the Wildlife Code of Missouri (3CSR10-4.111). See the [2022 Missouri Species and Communities of Conservation Concern Checklist](#) for a complete list.

General recommendations related to this project or site, or based on information about the historic range of species (unrelated to any specific Natural Heritage records):

- **Transportation:** Transportation related projects typically change the plants and animals that live on the right-of-way or in the vicinity. Minimize erosion and sedimentation/runoff to nearby streams and lakes by carefully adhering to any Clean Water Act permit conditions ([Missouri DNR](#) or [US Army Corps of Engineers](#)); and include design elements to manage stormwater so that present water discharge rates from the site to streams during heavy rain events are not increased. Revegetation of disturbed areas is recommended to minimize erosion, as is restoration with native plant species compatible with the local landscape and wildlife needs. Annuals like ryegrass may be combined with native perennials for quicker green-up. Avoid aggressive exotic perennials such as crown vetch and sericea lespedeza.
- **Indiana Bats and Northern Long-eared Bats:** If this project has the potential to alter habitat (e.g. tree removal, projects in karst habitat) or cause direct mortality of bats, please coordinate directly with U.S. Fish and Wildlife Service (Ecological Services, 101 Park Deville Drive, Suite A, Columbia, Missouri 65203-0007; Phone 573-234-2132 Ext. 100 for Ecological Services) for further coordination under the Endangered Species Act.

Though Indiana and Northern Long-eared bats are not known to occur in the project area, these species should be assumed present wherever habitat exists. Indiana Bats (*Myotis sodalis*, federal and state-listed endangered) and Northern Long-eared Bats (*Myotis septentrionalis*, federal-listed threatened) hibernate during winter months in caves and mines. During the summer months, they roost and raise young under the bark of trees in riparian forests and upland forests near perennial streams. During project activities, avoid degrading stream quality and where possible leave snags standing and preserve mature forest canopy. Do not enter caves known to harbor Indiana Bats and/or Northern Long-eared Bats, especially from September to April.

- **Karst:** Jackson County has known karst geologic features (e.g. caves, springs, and sinkholes, all characterized by subterranean water movement). Few karst features are recorded in Natural Heritage records, and ones not noted here may be encountered at the project site or affected by the project. Cave fauna (many of which are species of conservation concern) are influenced by changes to water quality, so check your project site for any karst features and make every effort to protect groundwater in the project area. Please see [Management Recommendations for Construction and Development Projects Affecting Missouri Karst Habitat \(mo.gov\)](#).
- Invasive exotic species are a significant issue for fish, wildlife and agriculture in Missouri. Seeds, eggs, larvae, and aquatic plant material may be moved to new sites on boats or construction equipment, so inspect and clean equipment thoroughly before moving between project sites.
 - ◆ Remove any mud, soil, trash, plants (or plant material) or animals from equipment before leaving any water body or work area.
 - ◆ Drain water from boats and machinery that has operated in water, checking motor cavities, live-well, bilge and transom wells, tracks, buckets, and any other water reservoirs.
 - ◆ When possible, wash and rinse equipment thoroughly with hard spray or HOT water ($\geq 140^{\circ}$ F, typically available at do-it-yourself carwash sites), and dry in the hot sun before using again.

These recommendations are ones project managers might prudently consider based on a general understanding of species needs and landscape conditions. Natural Heritage records largely reflect sites visited by specialists in the last 30 years. Many privately owned tracts have not been surveyed and could host remnants of species once but no longer common.

From: Natural Heritage Review <NaturalHeritageReview@mdc.mo.gov>
Sent: Friday, April 29, 2022 11:26 AM
To: Waters, Ian
Subject: NHRR for I-70 Jackson County

CAUTION: [EXTERNAL] This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello,

At this time, we have no additional recommendations regarding your I-70 Jackson County project. Please let me know if you have any questions.

Thank you for using the Natural Heritage Review Program,

Hannah Roos

Environmental Review Coordinator
Missouri Department of Conservation
PO Box 180
Jefferson City, MO 65102
573-522-4115 ext. 3182

From: Hannah Roos <Hannah.Roos@mdc.mo.gov>
Sent: Thursday, December 1, 2022 12:06 PM
To: Waters, Ian
Cc: Bree.McMurray@modot.mo.gov
Subject: RE: I-70 Jackson County #10153 Natural Heritage Review

CAUTION: [EXTERNAL] This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Ian,
Our automated system searches several miles from a project boundary regardless of the type of project, which sometimes means species records trigger a response even when there is little chance of them being impacted. In the case of this project, a Pallid Sturgeon record in the Mississippi River triggered the Level Three response.

There are other records of species of conservation concern near the project including Peregrine Falcons and the Tri-colored bat, which was recently proposed endangered federally. I recommend resubmitting the project on the website to obtain an updated report and I would be happy to generate a more detailed Natural Heritage Review for you that includes the species records.

If you would still like to talk, I have availability most days. I do not have any blocked days in the next couple of weeks.

Thank you,
Hannah



Hannah Roos (she/her)
Environmental Review Coordinator
Phone 573-522-4115 ext. 3182
PO Box 180, Jefferson City, MO 65101

From: Waters, Ian <Ian.Waters@hdrinc.com>
Sent: Thursday, December 1, 2022 10:34 AM
To: Hannah Roos <Hannah.Roos@mdc.mo.gov>
Cc: Bree.McMurray@modot.mo.gov
Subject: I-70 Jackson County #10153 Natural Heritage Review

Morning Hannah,

I'm reaching out about MoDOT's I-70 Jackson County project to discuss the level 3 heritage review (attached) with you more which we previously received a response on April 29, 2022 from you stating "At this time, we have no additional recommendations regarding your I-70 Jackson County project." Bree McMurray, MoDOT Threatened and Endangered Species Specialist, and myself are specifically

interested in the federally and state protected species that are noted as occurring within 5 miles of the project. We are wanting to ensure due diligence for the protected species and their implication in the NEPA process for this project. Could we setup a short 15 minute call to discuss the heritage review with you further? What is your availability over the next few weeks?

Thanks,

Ian Waters

Environmental Scientist

HDR

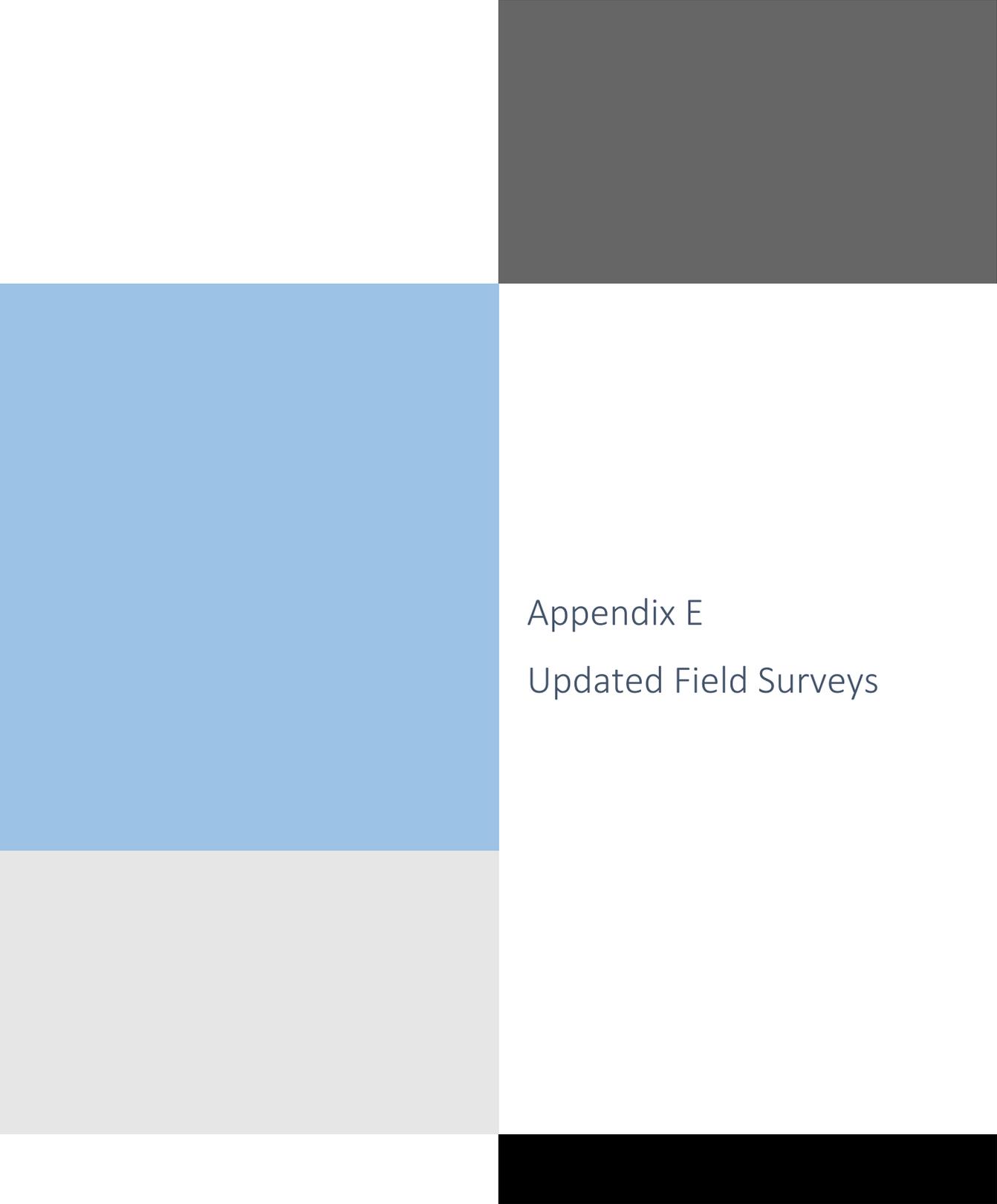
10450 Holmes Road, Suite 600

Kansas City, MO 64131

D 816.347.1346 **M** 816.810.9067

ian.waters@hdrinc.com

hdrinc.com/follow-us

A decorative graphic on the left side of the page consists of four stacked rectangular blocks: a dark grey block at the top, a blue block, a light grey block, and a black block at the bottom. The text is positioned to the right of the blue and light grey blocks.

Appendix E
Updated Field Surveys



Habitat Survey Report

I-70 Second Tier Draft EIS Re-Evaluation

Jackson County, MO
December 1, 2022

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APPENDICES

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1.0 Glossary

BGEPA	Bald and Golden Eagle Protection Act of 1940
DBH	Diameter at Breast Height
DEIS	Draft Environmental Impacts Statement
Disturb	To agitate or bother to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior
ESA	Endangered Species Act of 1973
IPaC	Information for Planning and Consultation
MBTA	Migratory Bird Treaty Act of 1918
MBTRA	Migratory Bird Treaty Reform Act of 2004
MDC	Missouri Department of Conservation
MoDOT	Missouri Department of Transportation
NEPA	National Environmental Policy Act of 1970
NLCD	National Land Cover Database
ROD	Record of Decision
SIU	Section of Independent Utility
Take	Pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb.
USFWS	United States Fish & Wildlife Service
USGS	United States Geological Survey

2.0 Introduction

The Missouri Department of Transportation (MoDOT) and Federal Highway Administration (FHWA) previously completed the I-70 Second Tier Draft Environmental Impacts Statement (DEIS) in 2014 for improvements to the Kansas City, MO I-70 corridor from the Paseo Dr. interchange to west of the I-470 interchange. A Final Environmental Impact Statement (EIS) and Record of Decision (ROD) was signed in 2017, but MoDOT did not complete the Urban Section of Independent Utility (SIU) within three years of the ROD and is in process of completing a reevaluation. The Urban SIU limits extend from the Paseo Dr. to US-40 interchange (the Project) (Appendix A, Figure 1). However, the US-40 interchange has been completed under a different project and is excluded from potential impacts. For the Project, MoDOT contracted TREKK for design services who contracted HDR Engineering, Inc (HDR) to resurvey the Project for threatened and endangered species and migratory birds within the approximately 583-acre National Environmental Policy Act (NEPA) Study Area (the Study Area) encompassing the proposed Project and any alternative alignments. The Study Area boundaries were set in the EIS to include environmental resources which may be impacted by the Project.

In October 2016, MoDOT Environmental staff surveyed the Study Area to reevaluate the impact assessment for the Second Tier Condensed Final EIS and ROD. Acting as the designated non-federal representative for FHWA for the purposes of U.S. Fish & Wildlife Service (USFWS) Section 7 Endangered Species Act (ESA) consultation, MoDOT submitted consultation with USFWS which is available in Appendix C. Since the Project impacts have changed from the 2016 reevaluation, the Study Area needs to be resurveyed.

The Study Area habitat has not significantly changed since the previous survey and is still highly disturbed. It contains the existing I-70 highway and fringes of the industrial and urban setting of Kansas City. While the Study Area extends past MoDOT right-of-way (ROW), the Project is anticipating minimal ROW acquisition and tree clearing. The purpose of this Habitat Survey report is to document suitable habitat for federally protected species and to ascertain the potential for impacts and incidental take of said species within the Study Area.

3.0 Regulatory Framework

The Project must abide several enacted laws protect wildlife and fish from unlawful take and disturbance. Federal laws pertinent to the Project include The Endangered Species Act (ESA) of 1973, Migratory Bird Treaty Act (MBTA) of 1918, Migratory Bird Treaty Reform (MBTRA) Act of 2004, and the Bald and Golden Eagle Protection Act (BGEPA) of 1940. "ESA establishes protections for fish, wildlife, and plants that are listed as threatened or endangered; provides for adding species to and removing them from the list of threatened and endangered species, and for preparing and implementing plans for their recovery; provides for interagency cooperation to avoid take of listed species and for issuing permits for otherwise prohibited activities; provides for cooperation with States, including authorization

of financial assistance; and implements the provisions of the Convention on International Trade in Endangered Species of Wild Flora and Fauna” (Endangered Species Act, 1973).

“MBTA prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (USFWS). The MBTRA amended the MBTA by stating the MBTA applies only to migratory bird species that are native to the United States or U.S. territories, and that a native migratory bird species is one that is present as a result of natural biological or ecological processes. The MBTRA requires the Service to publish a list of all nonnative, human-introduced bird species to which the MBTA does not apply, and an updated list was published in 2020” (Migratory Bird Treaty Act, 1918). Further protection has been extended to bald (*Haliaeetus leucocephalus*) and golden eagles (*Aquila chrysaetos*) despite their removal from the endangered species list. BGEPA prohibits anyone, without a permit issued by the Secretary of the Interior, from taking bald or golden eagles, including their parts, nests, or eggs (USFWS, 1940).

It is the responsibility of USFWS to regulate and enforce the ESA, BGEPA, MBTA and MBTRA. HDR consulted with the USFWS on December 1, 2022, via the Information for Planning and Consultation (IPaC) system to identify any protected species which have the potential to be impacted by the Project (Project Code: 2023-0020539). In Missouri, the USFWS has determined that four bats that are federally listed as threatened, endangered, or proposed endangered and that the Monarch butterfly (*Danaus plexippus*), a candidate species, could be potentially affected by the Project (Table 1).

Table 1: Threatened and endangered species.

Species/ Critical Habitat	Scientific Name	Federal Status	Missouri Status
Mammals			
Gray bat	<i>Myotis grisescens</i>	Endangered	Endangered
Indiana bat	<i>Myotis sodalis</i>	Endangered	Endangered
Northern Long-eared bat	<i>Myotis septentrionalis</i>	Threatened ¹	Endangered
Tricolored Bat	<i>Perimyotis subflavus</i>	Proposed Endangered	Not Listed
Insects			
Monarch butterfly	<i>Danaus plexippus</i>	Candidate	Not Listed

¹ USFWS has changed the federal status to endangered and will take effect on January 30, 2023.

USFWS ruled on November 30, 2022 to up-list the northern long-eared bat as endangered under the ESA and will take effect on March 30, 2023. The 4(d) rule for northern long-eared bat finalized in 2016 no longer applies to the northern long-eared bat due to the up-listing. This 4(d) rule streamlined the section 7 consultation for federal actions that may affect northern long-eared bat but would not cause prohibited take. USFWS has already updated programmatic consultation with FHWA. The tricolored bat has also been recently proposed endangered.

Missouri also extends protection to species which are listed as endangered in the state under the Missouri Endangered Species Law which is regulated and enforced by the Missouri Department of Conservation (MDC). HDR initiated consultation with MDC on December 22, 2021, through the Natural Heritage Review system which identified records of species listed under the Federal ESA, and possibly also records for species listed endangered by the state, or Missouri species and/or Natural Communities of Conservation Concern. The report stated the client consult further with USFWS and MDC. MDC was contacted on April 22, 2022, with a request for comment on the Project to which they responded on April 29, 2022, with no additional recommendations. With the proposed endangered listing for tricolored bat and the up-listing of the northern long-eared bat to endangered, MDC was asked to review the project again. They confirmed that the level 3 Natural Heritage Review was triggered by a pallid sturgeon (*Scaphirhynchus albus*) record in the Missouri River and records of species of conservation concern which include the tricolored bat and peregrine falcon (*Falco peregrinus*). No state-listed endangered species records were identified within the Study Area. All correspondence with MDC and USFWS is available in **Appendix C**.

4.0 Federally-Listed Species Background

4.1 Gray Bat (*Myotis grisescens*) – Federally Endangered, State **Endangered**

Gray bats (*Myotis grisescens*) are a cave obligate species that congregates in maternity or bachelor colonies in the summer in dome cave and mine habitat, and in mixed colonies during winter hibernation in vertical or pit-type caves and mines. Gray bats mainly utilize stream corridors for foraging. During the summer, Gray bats have been known to use the undersides of bridges and concrete box culverts to roost (USFWS, Gray Bat 5-Year Review draft, 2021).



Gray Bat, Credits: John MacGregor, [Kentucky Fish and Wildlife](#)

4.2 Indiana Bat (*Myotis sodalis*) – Federally Endangered, State (MO) Endangered; and Northern Long-eared Bat (*Myotis septentrionalis*) – Federally Threatened, State (MO) Endangered



Northern long-eared bat, Credits: Michael Durham, [Illinois Department of Natural Resources](#)

Indiana (*M. sodalis*) and Northern long-eared (*M. septentrionalis*) bats can occur in any forested area in the state of Missouri. These species hibernate in caves or mines only during the winter. The rest of the year they roost under loose tree bark in tree crevices or cavities during the day and forage around the tree canopies of floodplain, riparian, and upland forests at night. Trees which should be considered potential roosting habitat include those exhibiting loose or shaggy bark, crevices, or hollows. Tree species often include but are not limited to: shellbark hickory (*Carya laciniosa*), shagbark hickory (*Carya ovata*), white oak (*Quercus alba*), cottonwood (*Populus deltoids*), and maple (*Acer spp.*).

Suitable summer roosting habitat trees are those located in wooded areas that are 3 inches in diameter at breast height (DBH) or greater. Suitable summer roosting trees include live and dead hardwood trees that have shingle-like or loose bark, or trees with cavities, splits, crevices, hollow sections, and other damage. Individual trees which exhibit these qualities are only considered suitable habitat if located within 1,000 feet of forested habitat. Indiana and Northern long-eared bat species may utilize human-made structures such as buildings, barns, and bridges (Range-Wide Indiana Bat & Northern Long-Eared Bat Survey Guidelines, 2022).

4.3 Tricolored Bat (*Perimyotis sublavus*) – Federally Proposed Endangered

Tri-colored bats mainly roost in foliage of live and dead trees in the spring, summer, and fall, and hibernate in caves and other subterranean habitats during the winter. These bats can occasionally be found roosting on bridges and in culverts. The primary threat to this species is white nose syndrome which typically afflicts bats during hibernation. Given the extreme losses from WNS and impact of wind industry related mortality- loss of roosting, foraging, and commuting habitat (forested habitat) between summer and winter resources can have a large impact depending on timing, location, and extent of removal (USFWS, Tricolored Bat, 2022). Tricolored bats were recently listed as proposed endangered, but no guidelines have been authored yet by USFWS on surveying or identifying their habitat. For this report it is assumed they share similar habitat qualities with Indiana and northern long-eared bats.



Tricolored bat, Credits: MDC Staff

4.4 Monarch Butterfly (*Danaus plexippus*) – Federal Candidate



Monarch Butterfly, Credits: Noppadol Paothong, [MDC](#)

Monarch butterfly is native to the contiguous United States and inhabits fields, roadside areas, open areas, wetlands, or any other habitats that support milkweed which is a necessary plant for completing their life cycle. Habitat destruction and reduced connectivity has contributed to the decline of the species. USFWS listed the species as a candidate under the ESA which does not require consultation with USFWS under Section 7. However, consideration for minimizing potential impacts to the species and its habitat is encouraged by USFWS (USFWS, Monarchs, 2022).

4.5 Bald Eagle (*Haliaeetus leucocephalus*) – Federally delisted in 2007; and Golden Eagle (*Aquila chrysaetos*) – Not listed



The bald eagle is a large raptor which is only native to North America and is found in the contiguous United States and Alaska. They typically are found near rivers or large bodies of water and will nest in large trees which may be reused annually. Bald eagles are opportunistic feeders but primarily consume

fish (USFWS, Bald Eagle, 2022). MDC has a record of a bald eagle nest about one mile upstream of the Project.

Golden eagles are spread out worldwide with roughly 30,000 eagles in the United States. USFWS estimates 80% of the population is in the western half of the contiguous United States. They prefer open country around hills, cliffs, and bluffs and will prey on small mammals such as rabbits, prairie dogs, and ground squirrels (USFWS, Golden Eagle, 2022). Despite both species not being listed on the ESA, both species of eagles are protected by the BGEPA which is why they are included in this habitat report.

Bald eagle, Credits: [MDC Staff](#)

5.0 Methodology

Prior to conducting fieldwork, the following reference materials were reviewed in July 2022 to identify areas of potential suitable habitat, critical habitat, or previous occurrence records within the Project Study Area:

- Current aerial imagery
- United States Department of Geological Survey (USGS) National Land Cover Database (NLCD)
- Missouri Speleological Survey cave database
- MDC and USFWS records

After the desktop survey was completed, a terrestrial field survey was performed by HDR Environmental Scientists on July 16, 2022, to document the habitat types, wetlands, suitable summer bat roost trees, man-made structures with suitable habitat, and presence of protected species. USFWS Phase I of the *Range-Wide Indiana and Northern Long-Eared Bat Survey Guidelines* was followed for identifying suitable summer roost trees for Indiana and northern long-eared bats. USFWS guidelines for surveying bridges and structures for bats were also followed when surveying the several bridges in the Project (USFWS, March 2022). Since the tricolored bat was recently proposed as endangered, there are no defined survey guidelines. However, the tricolored bat can utilize the same habitat as the Indiana and northern long-eared bat so the previously mentioned guidelines will be utilized for all 3 species. Cellphone GPS was used in conjunction with ESRI Field Maps to collect geospatial data (accurate to ≤ 10 feet) and photographic documentation of wetland boundaries, habitat points, and other pertinent species information. The underside of bridges were surveyed for migratory birds and bats. Other man-made structures which could host bats or migratory birds were also documented.

6.0 Results

The Missouri Speleological Survey cave database showed no cave records within 2 miles of the Study Area, rendering the Project not likely to affect the Gray bat (Missouri Speleological Survey, 2015). The NLCD shows the entirety of the Project as developed to various degrees (National Land Cover Database, 2019) and aerial imagery confirms urban and industrial development. There were no established woodlands within the Study Area except for 6.5 acres located north of I-70 and U.S. 40 interchange. In addition, woodlands exist further north of the U.S. 40 interchange in Santa Fe Trail Park but are greater than 1,000 feet from the Study Area.



Figure 1: PP 2- Maintained landscape between Paseo Blvd. north and southbound, north of I-70.

From the western Project terminus to the Benton Blvd curve, the Study Area has few trees because of industrial development but does hold pockets of manicured parks (**Figure 1**). Urban housing increases south of E 23rd St which resulted in a higher tree density. Tree species in these neighborhoods are dominated by oak (*Quercus spp.*) and Maple (*Acer spp.*), with other less common species such as Black Walnut (*Juglans nigra*), American Sycamore (*Platanus occidentalis*), and conifers. Since these trees are ornamental and maintained, the trees lacked suitable roosting characteristics and no snags were identified. Along the ROW, tree species diversity was



Figure 2: T 2- Conifers and Quercus spp. adjacent to existing MoDOT right-of-way which are representative of the Study Area. Located north of I-70 and Cleveland Avenue.



Figure 3: T 1- Suitable roosting trees, *Platanus occidentalis*, with several cavities located at Benton Plaza and Walrond Avenue.

similar to the neighborhoods, but with an increase in trees less than 3 inches in DBH (**Figure 2**). Near the Benton Blvd. curve and Benton Plaza Park, HDR documented three American Sycamores which had summer roosting habitat qualities, but were not suitable habitat as they were greater than 1,000 feet from an established forest (**Figure 3**). At the eastern project limits, there was a suitable summer roost tree identified between the US-40 interchange and Freemont. This habitat is within 1,000 feet from an established forest and the Blue River. With only a single suitable summer roost tree, this habitat is not considered quality roosting habitat but may be used as foraging habitat. Photos of the corridor are documented in Appendix B with the photo locations shown in Appendix A, Figure 3.

There were 27 bridges within the Study Area that were surveyed for suitable summer roosting habitat and bat or bird activity (

Table 2). Six bridges were not surveyed due to access and inherent safety risks with vehicle traffic. Overall, the superstructure of the bridges lacked favorable characteristics as outlined by USFWS and there was no sign of bats or birds underneath the bridges. Representative photos were taken of the bridges and documented in Appendix B, with the photo locations shown in Appendix A, Figure 3. No other human-made structures that met suitable summer roosting habitat criteria were identified in the Study Area.



Figure 4: PP 8- A photo point taken of a bridge that allows I-70 to pass over Woodland Avenue. This picture is representative of most bridges in the study area.

Table 2: Bridges surveyed for habitat and bat or bird activity.

Bridge #	Street	Signs of Bat or Bird Activity
A0288	CST THE PASEO @ I-70 E	None
A0288	CST THE PASEO @ I-70 W	None
A0289	CST WOODLAND AVE @ I-70 E	None
A0289	CST WOODLAND AVE @ I-70 W	None
A0290	CST BROOKLYN AVE @ I-70 E	None
A0290	CST BROOKLYN AVE @ I-70 W	None
A0291	I-70 @ PROSPECT AVE	Not Surveyed (Safety) ¹
A0292	I-70, RP IS70W TO PROSP @ CHESTNUT AVE	Not Surveyed (Safety)
A0293	CST BENTON BLVD @ I-70	None
A0294	CST TRUMAN RD @ I-70	None
A0295	CST TRUMAN RD @ OVERPASS	None
A0296	CST TRUMAN RD @ I-70	None
A0298	I-70, RP INDIANA AVE TO @ BENTON BLVD	None
A0303	KCT RR @ I-70	Not Surveyed (Access)
A0304	KCT RR @ I-70	Not Surveyed (Access)
A0305	CST E 18 TH ST, CST INDIA @ I-70 E	None
A0305	CST E 18 TH ST, CST INDIA @ I-70 W	None
A0306	I-70 @ E 23 RD ST	None
A0307	I-70 @ CLEVELAND AVE	None
A0310	I-70 @ E 27 TH ST	Not Surveyed (Safety)
A0311	NORTON AVE @ I-70	None
A0313	CST JACKSON AVE @ I-70	None
A0315	CST JACKSON AVE @ I-70	None
A0318	I-70 @ OAKLEY OVERPASS	None
A0319	I-70 @ LISTER AVE	Not Surveyed (Safety)
A0320	CST VAN BRUNT BLVD @ I-70 E	None
A0320	CST VAN BRUNT BLVD @ I-70 W	None

¹ Some bridges were not surveyed due to safety concerns with access and vehicle traffic.

7.0 Conclusion

In total there is approximately 11 acres of trees within the right of way of the Study Area. The habitat was not suitable for summer roosting. There was a suitable roost tree identified between the US-40

interchange and Freemont Avenue, but a single tree does not make the habitat ideal for roosting. Based on the current concept, the total amount of tree clearing is estimated to be approximately 3.5 acres that is all within 100 feet of an improved surface, with none deemed suitable summer roosting habitat for the northern long-eared, Indiana, and tricolored bats (Appendix A, Figure 4). Bridges within the corridor could be utilized by bats but are greater than 1,000 feet from an established forest and experience consistent high levels of noise from vehicular traffic making them unsuitable for bat roosting. Based on the proposed design construction limits which is predominately within existing ROW, it is anticipated that the project will have **No Effect** on the **gray bat**, and **May Affect, But Not Likely to Adversely Affect** the **northern long-eared bat**, or **Indiana bat**. The Project is **Not Likely To Jeopardize The Continued Existence** of the **tricolored bat**, however there should be continued consultation with USFWS with regards to this species and its potential to be listed as endangered.

8.0 Qualifications

The following professionals conducted literature and records reviews, completed field review, assessed the potential impacts of the Project, and contributed to the preparation of this report.

Table 3: Qualifications of Environmental Professionals

Name	Responsibilities	Education	Experience
Ian Waters	Habitat Survey, GIS Analysis	B.S. in Fisheries, Wildlife, and Conservation Biology	8 years
Elizabeth Casey	Habitat Survey,	B.S. in Environmental Engineering (in progress)	< 1 year
Brittany Schweiger	QA/QC Review	M.S. Fish, Wildlife, and Conservation Ecology B.A. Biology B.A. Environmental Studies	6 years
Tim Fobes, PWS	QA/QC Review	M.S. in Biology, B.S. in Conservation	27 years
Jennifer Schwaller, CEP	Oversight, QA/QC Review	B.S. in Organismal Biology	21 years

9.0 References

Missouri Speleological Survey. (2015). *Missouri Cave Database*. Retrieved July 1, 2022

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- USFWS. (1918). *Migratory Bird Treaty Act*. Retrieved August 5, 2022, from U.S. Fish & Wildlife Service: <https://www.fws.gov/law/migratory-bird-treaty-act-1918>
- USFWS. (1940). *Bald and Golden Eagle Protection Act*. Retrieved August 5, 2022, from U.S. Fish & Wildlife Service: <https://www.fws.gov/law/bald-and-golden-eagle-protection-act>
- USFWS. (1973). *Endangered Species Act*. Retrieved August 5, 2022, from U.S. Fish & Wildlife Service: <https://www.fws.gov/law/endangered-species-act>
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- USFWS. (March 2022). *Bridge/Structure Bat Assessment Form Guidance*. Retrieved August 17, 2022, from <https://www.fws.gov/sites/default/files/documents/appendix-d-bridge-structure-bat-assessment-form-guidance-april-2020.pdf>
- USGS. (2019). *National Land Cover Database*. Retrieved July 1, 2022, from <https://www.mrlc.gov/data?f%5B0%5D=year%3A2019>

APPENDIX A

FIGURES

Figure 1: Location
 J411486C: I-70 Jackson County
 Habitat Survey Report

 NEPA Study Limits

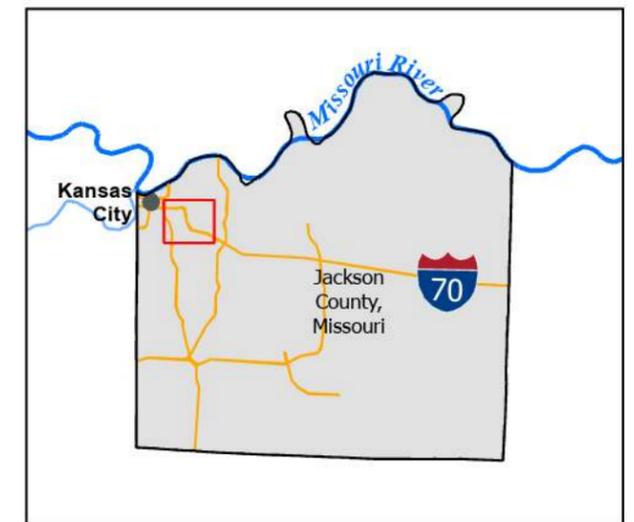
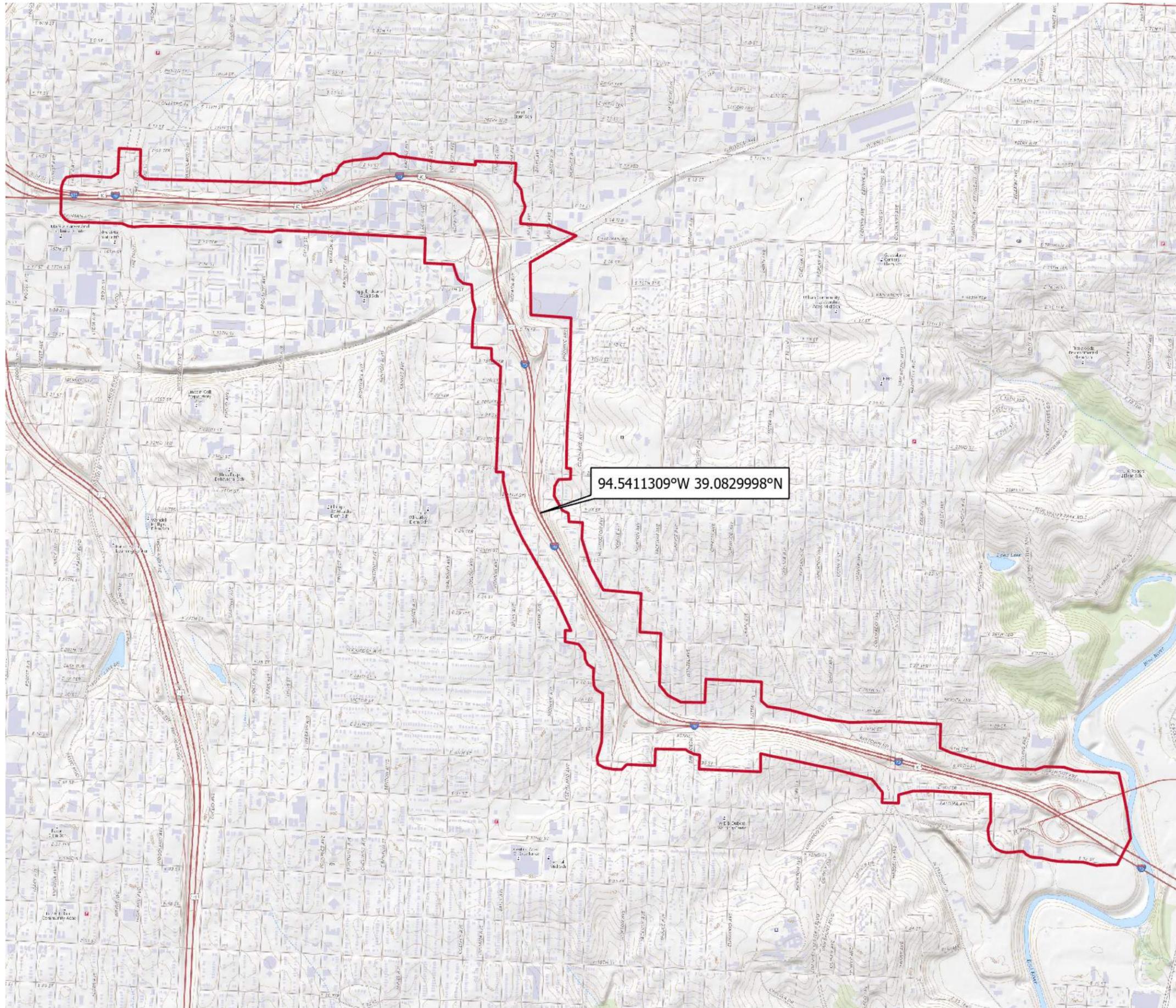
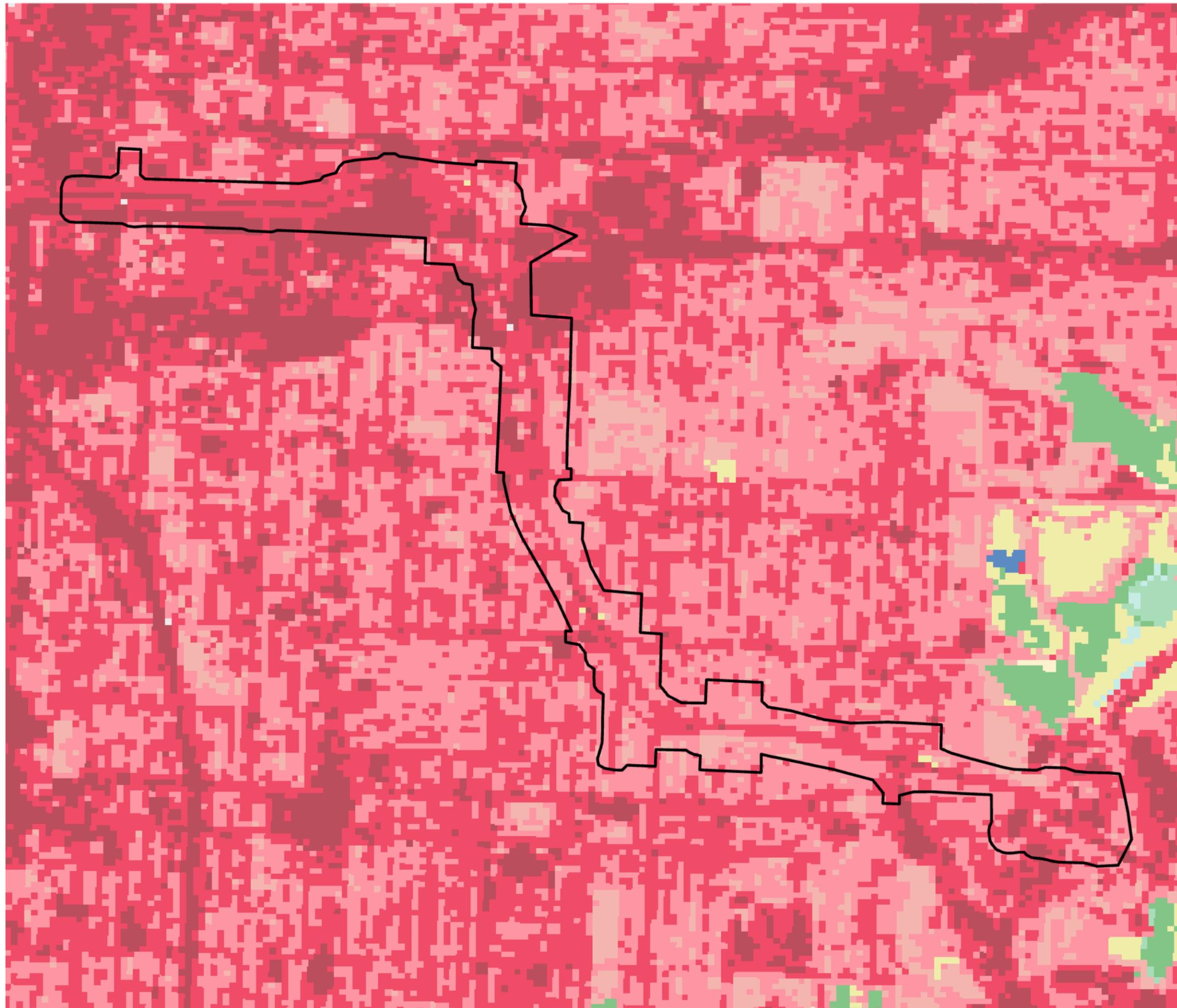


Figure 2: Land Cover
J411486C: I-70 Jackson County
Habitat Survey Report



-  NEPA Study Limits
- USDA NLCD Land Cover 
-  Open Water
-  Developed Open Space
-  Developed Low Intensity
-  Developed Medium Intensity
-  Developed High Intensity
-  Barren Land
-  Deciduous Forest
-  Grassland/Herbaceous
-  Pasture/Hay
-  Woody Wetlands
-  Emergent Herbaceous Wetlands



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Figure 3: Habitat Survey
J411486C: I-70 Jackson County
Habitat Survey Report

- NEPA Study Limits
- Habitat Survey
- Photo Point
- Bridges

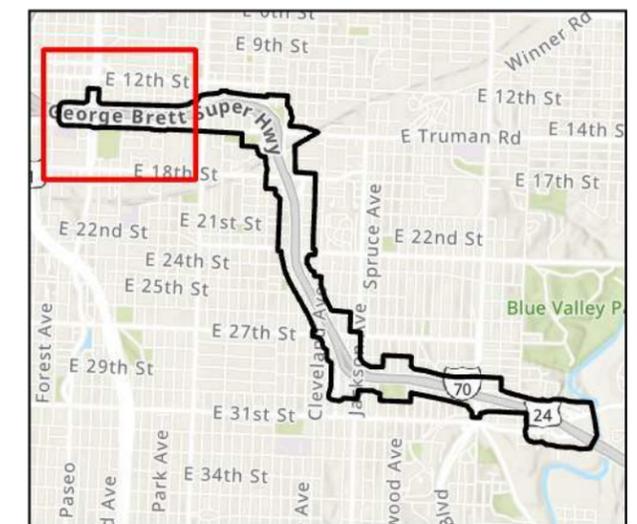
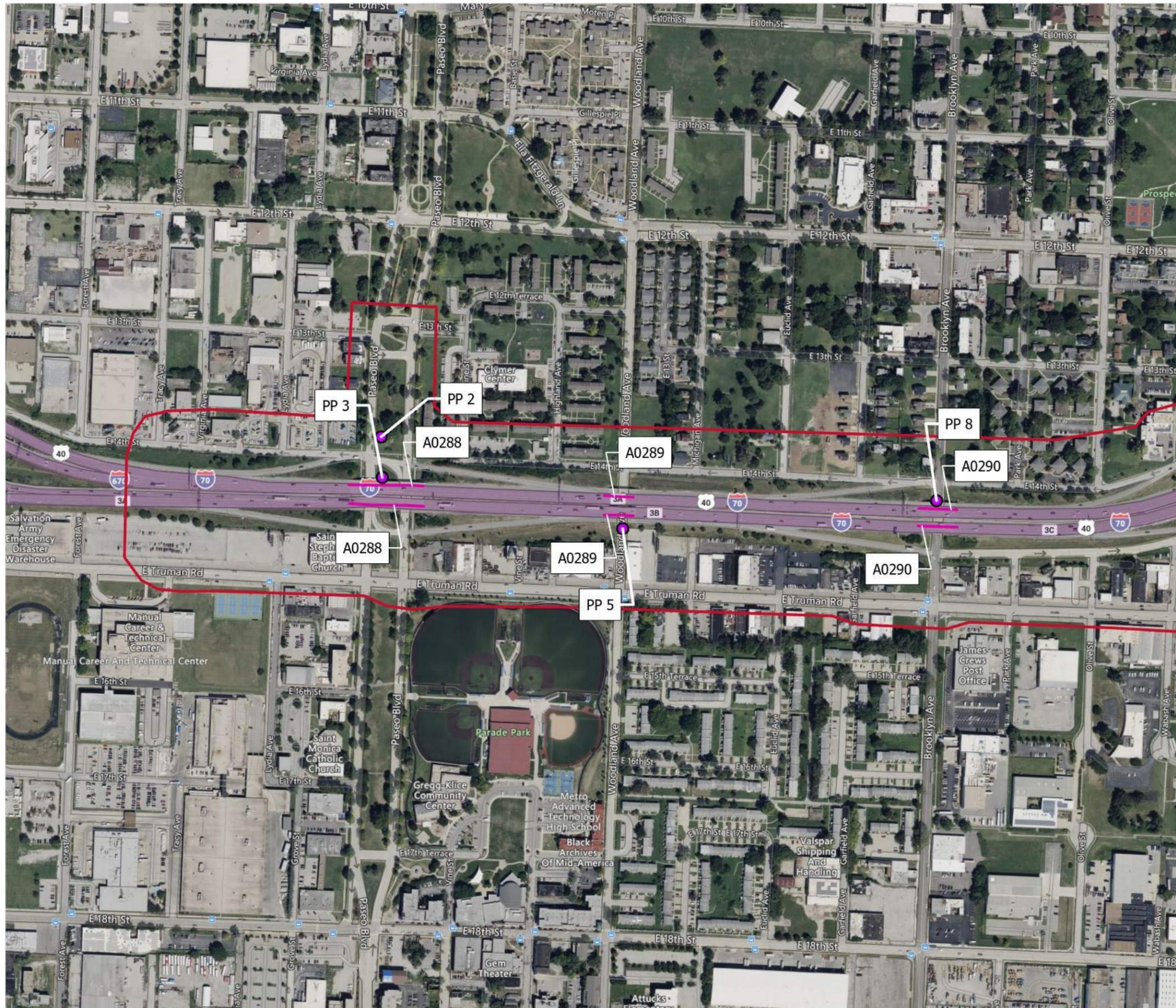
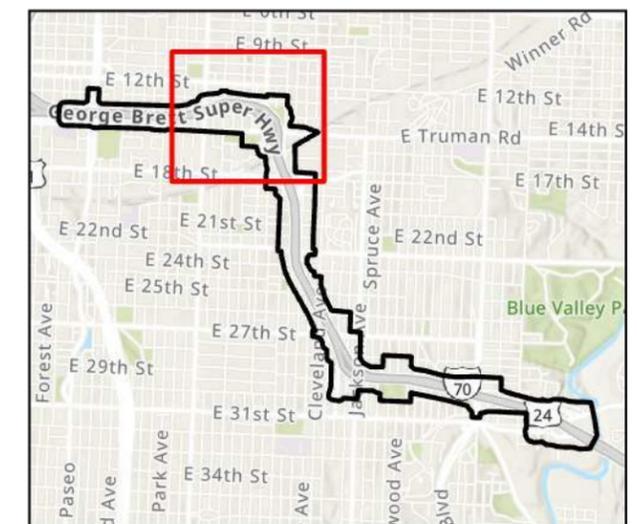
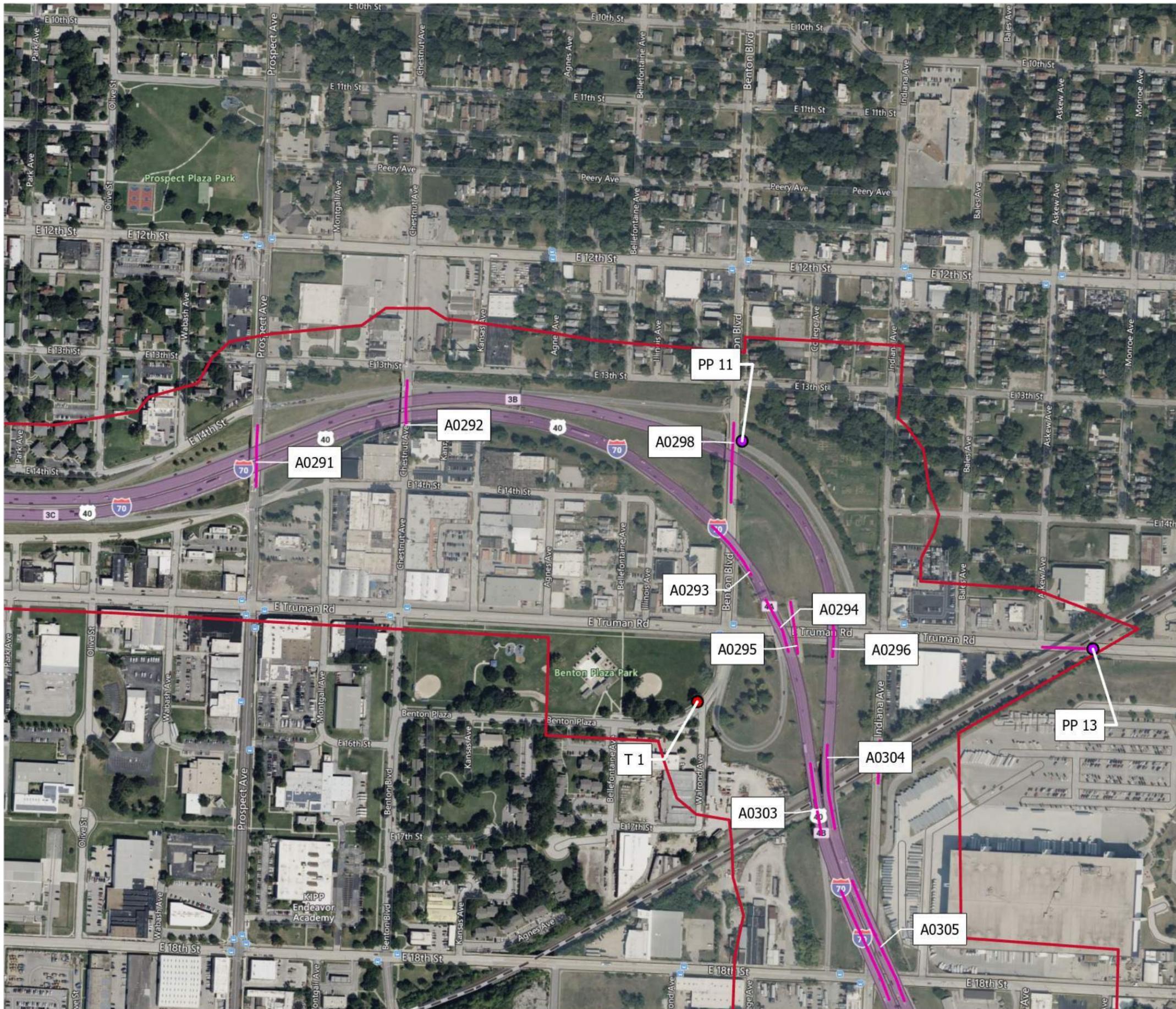


Figure 3: Habitat Survey
J411486C: I-70 Jackson County
Habitat Survey Report

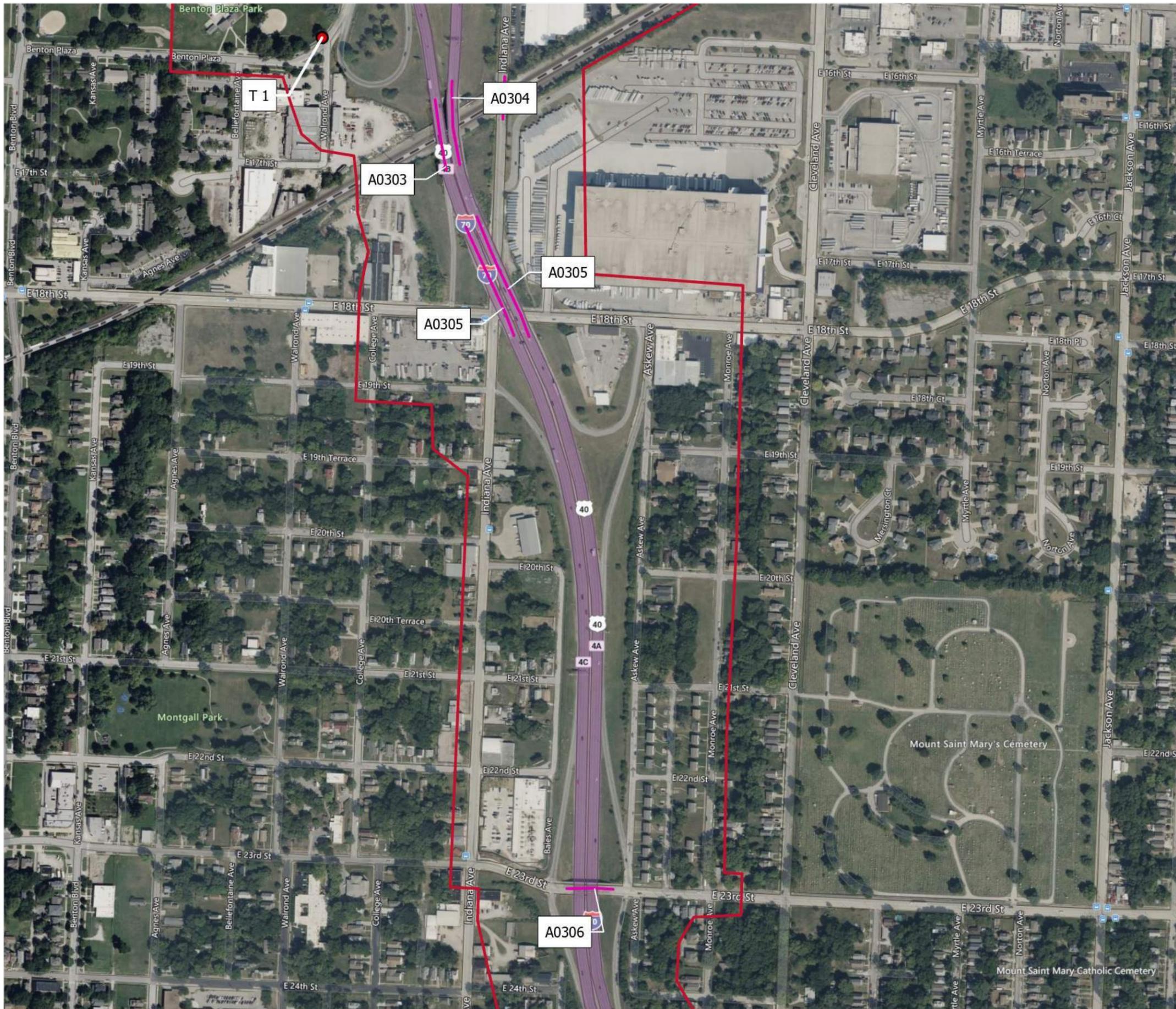
- NEPA Study Limits
- Habitat Survey
 - Photo Point
 - Trees
 - Bridges



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Figure 3: Habitat Survey
J411486C: I-70 Jackson County
Habitat Survey Report

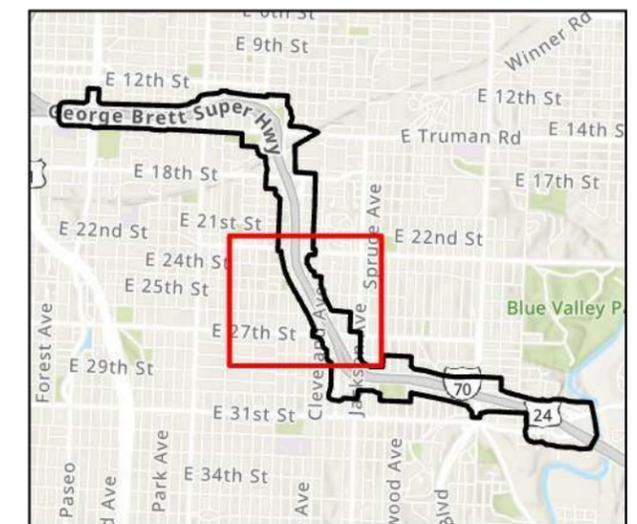
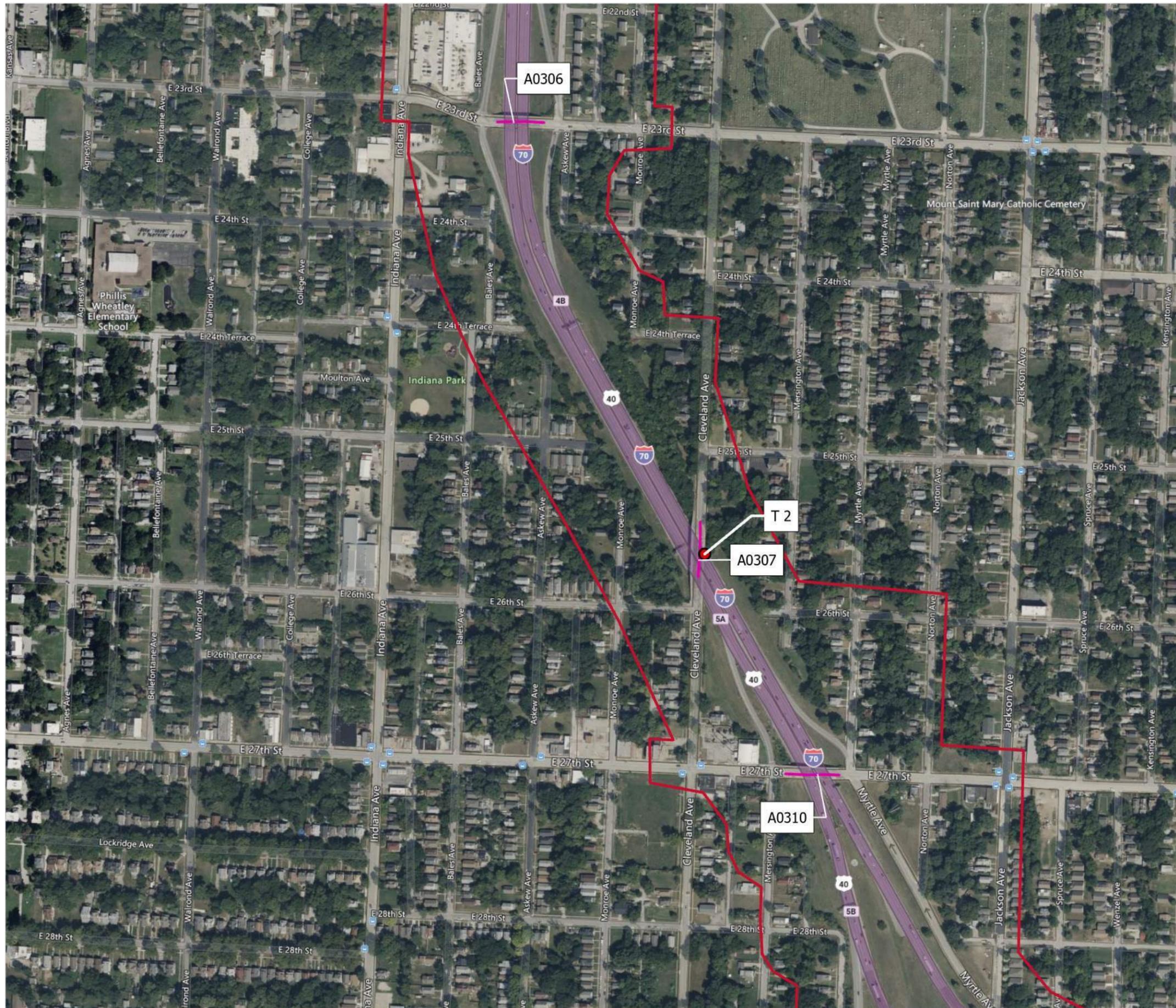
- NEPA Study Limits
- Habitat Survey
- Trees
- Bridges



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Figure 3: Habitat Survey
J411486C: I-70 Jackson County
Habitat Survey Report

- NEPA Study Limits
- Habitat Survey
- Trees
- Bridges

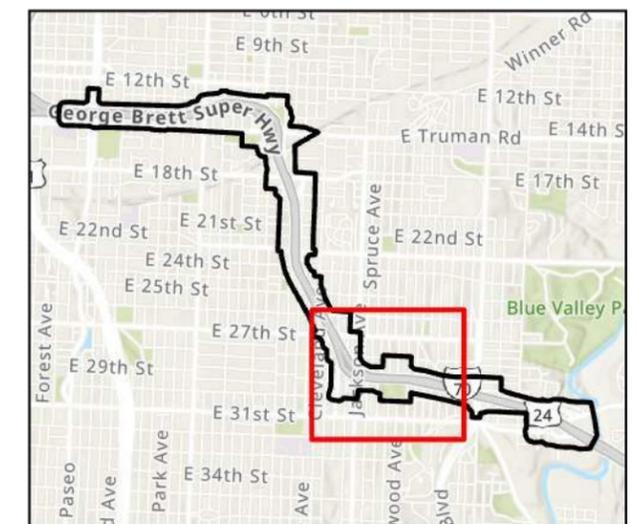




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Figure 3: Habitat Survey
J411486C: I-70 Jackson County
Habitat Survey Report

- NEPA Study Limits
- Habitat Survey
- Photo Point
- Bridges



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Figure 3: Habitat Survey
J411486C: I-70 Jackson County
Habitat Survey Report

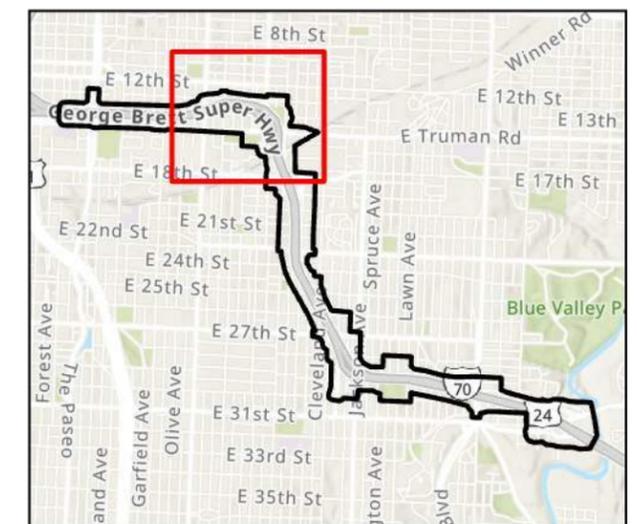
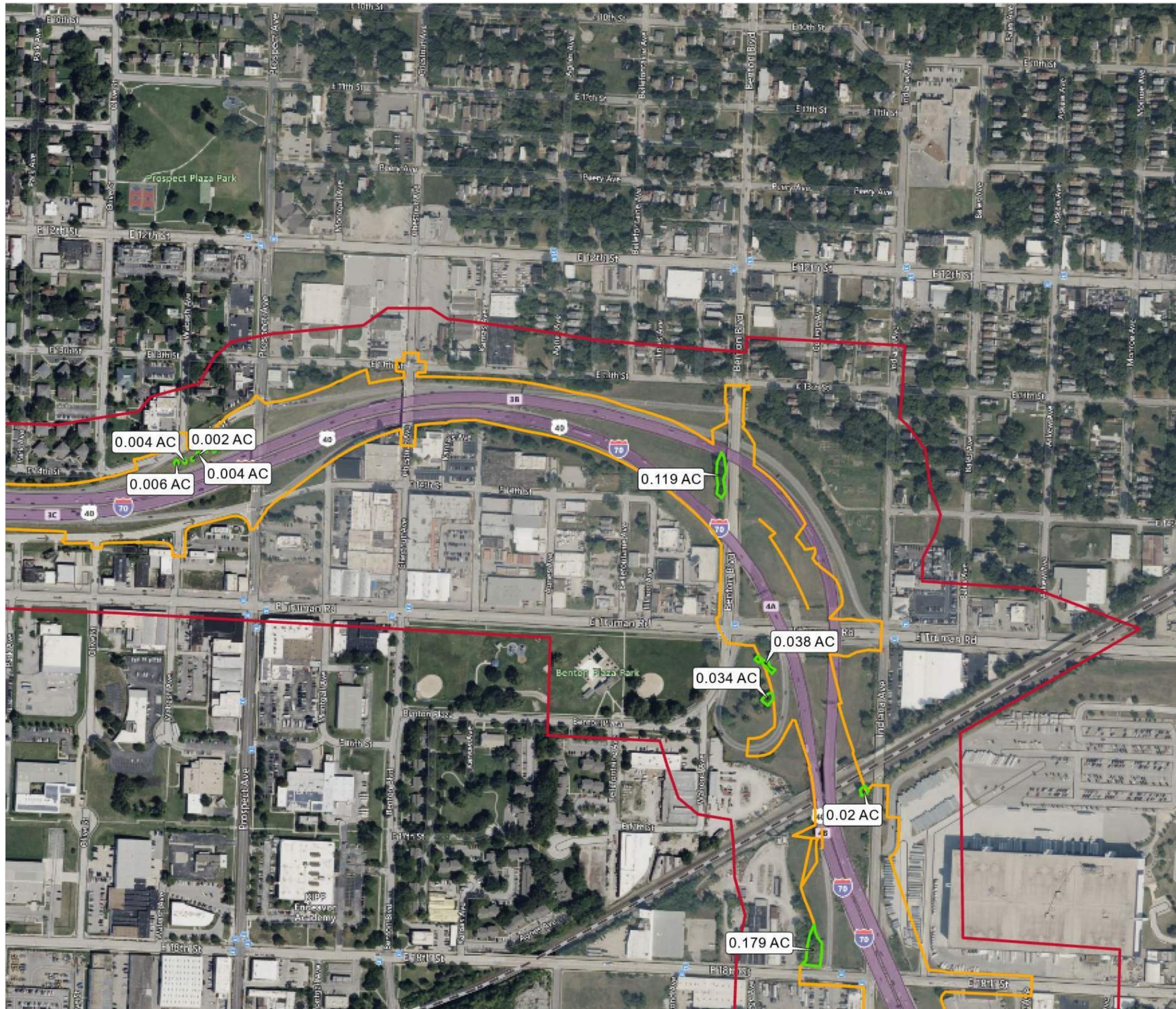
- NEPA Study Limits
- Habitat Survey
- Photo Point
- Trees
- Bridges



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Figure 4: Tree Clearing
 J411486C: I-70 Jackson County
 Habitat Survey Report

- NEPA Study Limits
- Slope Limits
- Tree Clearing



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Figure 4: Tree Clearing
 J411486C: I-70 Jackson County
 Habitat Survey Report

- ▭ NEPA Study Limits
- ▭ Slope Limits
- ▭ Tree Clearing

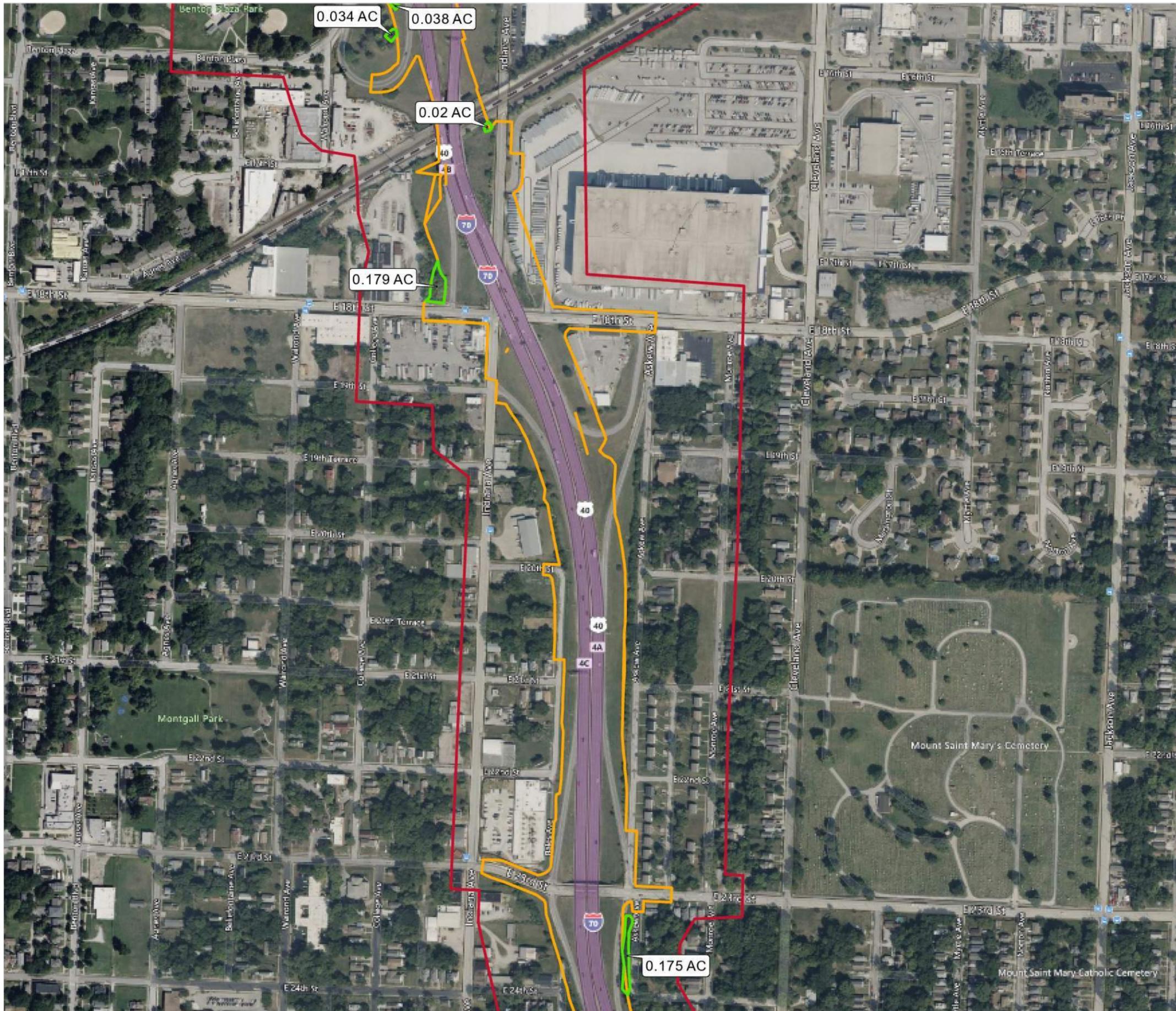


Figure 4: Tree Clearing
J411486C: I-70 Jackson County
Habitat Survey Report

- ▭ NEPA Study Limits
- ▭ Slope Limits
- ▭ Tree Clearing

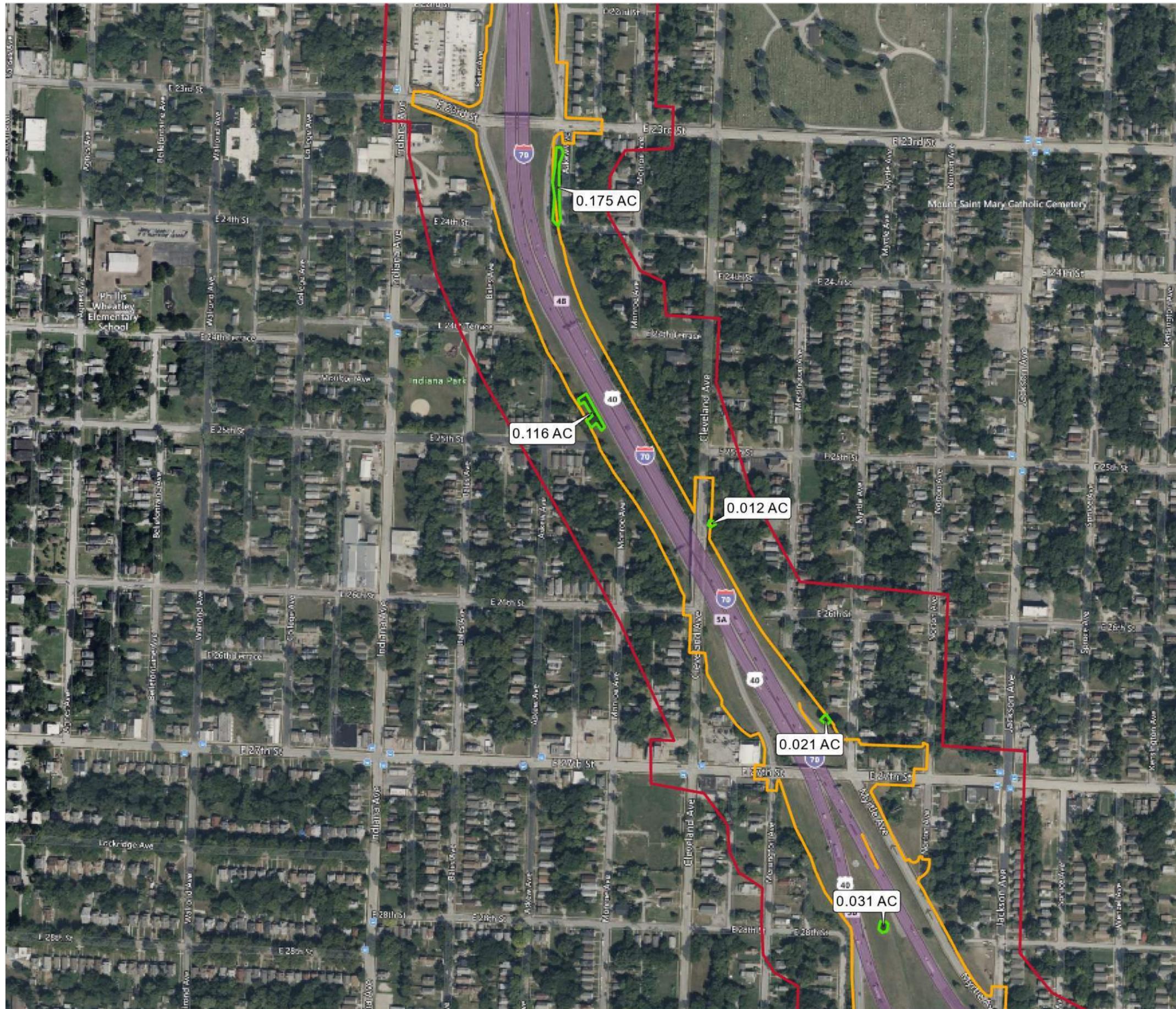
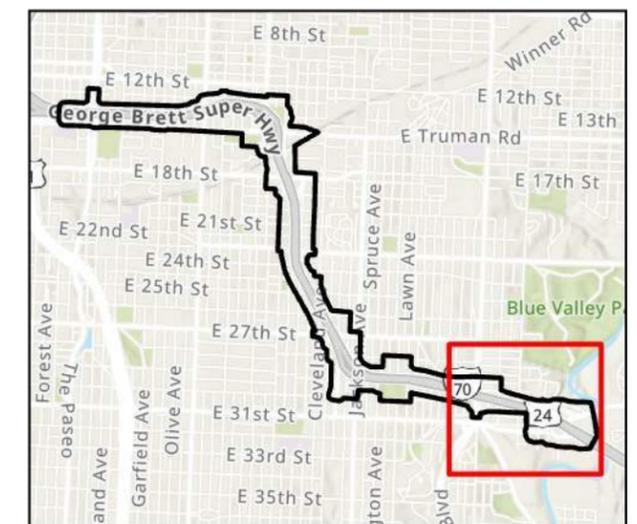
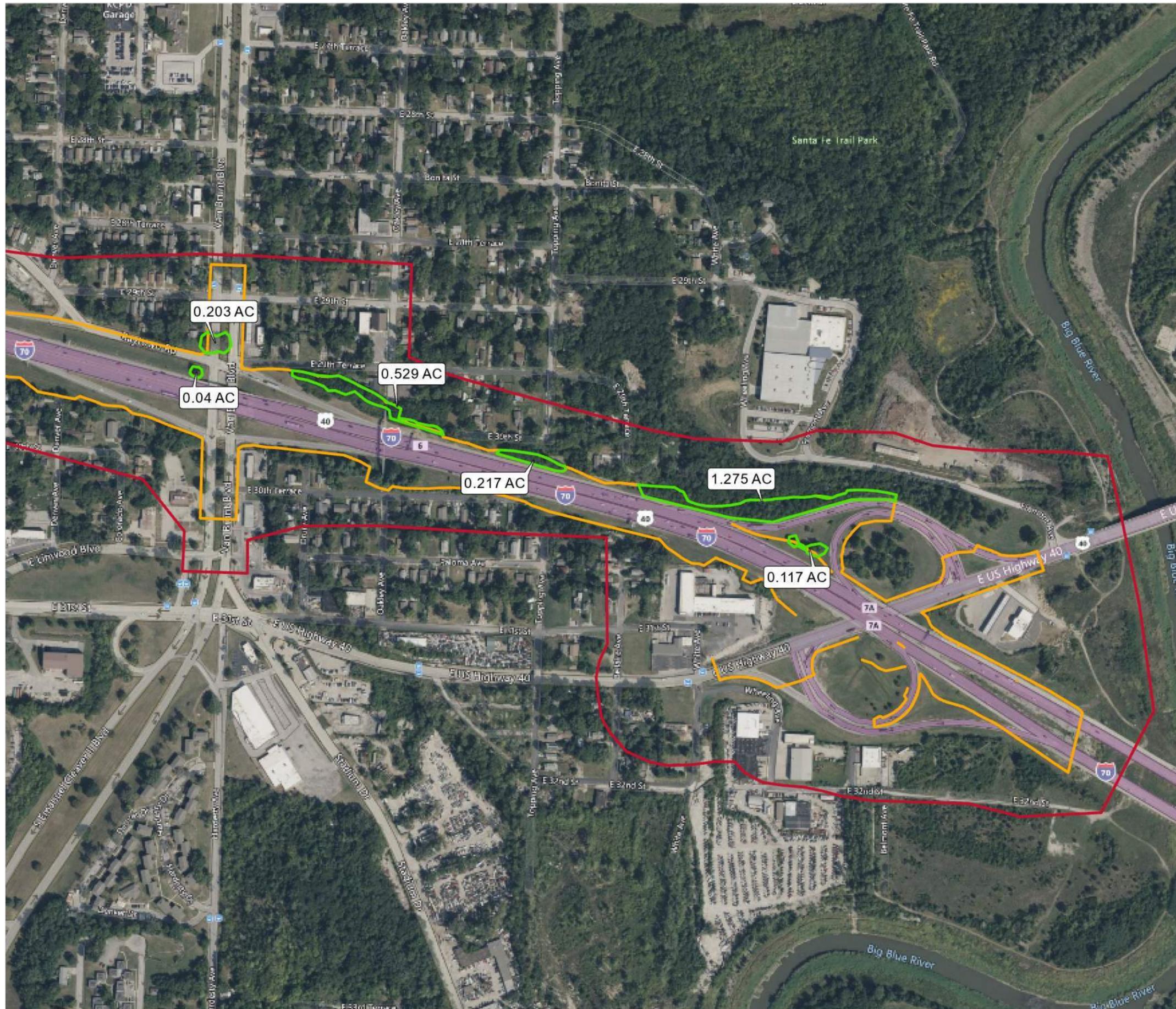







Figure 4: Tree Clearing
J411486C: I-70 Jackson County
Habitat Survey Report

- NEPA Study Limits
- Slope Limits
- Tree Clearing





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APPENDIX B

SITE PHOTOGRAPHS

Threatened and Endangered Species Photo Log



PP 2: Maintained landscape between Paseo Blvd. north and southbound, north of I-70.



T 1: American Sycamore (*Platanus occidentalis*) with several cavities located at Benton Plaza and Walrond Avenue. Orientation west.



T 2: Conifers and *Quercus spp.* adjacent to existing MoDOT right-of-way which are representative of the Study Area. Located north of I-70 and Cleveland Avenue. Orientation south.



T 2: Conifers and *Quercus spp.* adjacent to existing MoDOT right-of-way which are representative of the Study Area. Located north of I-70 and Cleveland Avenue. Orientation northwest.



T 3: Standing dead trees around 16 inches diameter at breast height with exfoliating bark making them suitable summer roost trees for northern long-eared and Indiana bats. Located between Freemont Avenue and the I-70 and US-40 interchange.



PP 3: A photo point taken between the north and south bound Paseo, north of I-70 where I-70 crosses both the north and south bound Paseo. This bridge is representative of the other I-70 overpasses. Orientation southwest.



PP 5: A photo point taken of a bridge that allows I-70 to pass over Woodland Avenue. This picture is representative of most bridges in the study area, including both northbound and southbound overpasses at this location. Orientation northwest.



PP 8: A photo point taken of a bridge that allows I-70 to pass over Woodland Avenue. This picture is representative of most bridges in the study area. Orientation east.



PP 11: A photo point taken of a bridge that allows Benton boulevard to pass over I-70. Orientation west.



PP 18: I-70 eastbound bridge showing a lack of suitable habitat for bats. Orientation west.



PP 26: Photo of woodland and scrub shrub habitat between Freemont Avenue (pictured) and the I-70 and US-40 interchange.

APPENDIX C

AGENCY COORDINATION

U.S. Fish and Wildlife Service



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Missouri Ecological Services Field Office
101 Park Deville Drive
Suite A
Columbia, MO 65203-0057
Phone: (573) 234-2132 Fax: (573) 234-2181

In Reply Refer To:
Project Code: 2023-0020539
Project Name: I-70 Jackson County

April 06, 2023

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Threatened and Endangered Species

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and may be affected by your proposed project. The species list fulfills the requirement for obtaining a Technical Assistance Letter from the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. **Note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days.** The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

Consultation Technical Assistance

Refer to the Midwest Region [S7 Technical Assistance](#) website for step-by-step instructions for making species determinations and for specific guidance on the following types of projects:

projects in developed areas, HUD, pipelines, buried utilities, telecommunications, and requests for a Conditional Letter of Map Revision (CLOMR) from FEMA.

Federally Listed Bat Species

Indiana bats, gray bats, and northern long-eared bats occur throughout Missouri and the information below may help in determining if your project may affect these species.

Gray bats - Gray bats roost in caves or mines year-round and use water features and forested riparian corridors for foraging and travel. If your project will impact caves, mines, associated riparian areas, or will involve tree removal around these features – particularly within stream corridors, riparian areas, or associated upland woodlots –gray bats could be affected.

Indiana and northern long-eared bats - These species hibernate in caves or mines only during the winter. In Missouri the hibernation season is considered to be November 1 to March 31. During the active season in Missouri (April 1 to October 31) they roost in forest and woodland habitats. Suitable summer habitat for Indiana bats and northern long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and travel and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures. This includes forests and woodlots containing potential roosts (i.e., live trees and/or snags ≥ 5 inches diameter at breast height (dbh) for Indiana bat, and ≥ 3 inches dbh for northern long-eared bat, that have exfoliating bark, cracks, crevices, and/or hollows), as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure. Tree species often include, but are not limited to, shellbark or shagbark hickory, white oak, cottonwood, and maple. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet (305 meters) of other forested/wooded habitat. Northern long-eared bats have also been observed roosting in human-made structures, such as buildings, barns, bridges, and bat houses; therefore, these structures should also be considered potential summer habitat and evaluated for use by bats. If your project will impact caves or mines or will involve clearing forest or woodland habitat containing suitable roosting habitat, Indiana bats or northern long-eared bats could be affected.

Examples of unsuitable habitat include:

- Individual trees that are greater than 1,000 feet from forested or wooded areas;
- Trees found in highly-developed urban areas (e.g., street trees, downtown areas);
- A pure stand of less than 3-inch dbh trees that are not mixed with larger trees; and
- A stand of eastern red cedar shrubby vegetation with no potential roost trees.

Using the IPaC Official Species List to Make No Effect and May Affect Determinations for Listed Species

1. If IPaC returns a result of “There are no listed species found within the vicinity of the project,” then project proponents can conclude the proposed activities will have **no effect** on any federally listed species under Service jurisdiction. Concurrence from the Service is not required for **No Effect** determinations. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records. An example ["No Effect" document](#) also can be found on the S7 Technical Assistance website.
-

2. If IPaC returns one or more federally listed, proposed, or candidate species as potentially present in the action area of the proposed project – other than bats (see #3 below) – then project proponents can conclude the proposed activities **may affect** those species. For assistance in determining if suitable habitat for listed, candidate, or proposed species occurs within your project area or if species may be affected by project activities, you can obtain [Life History Information for Listed and Candidate Species](#) through the S7 Technical Assistance website.
3. If IPaC returns a result that one or more federally listed bat species (Indiana bat, northern long-eared bat, or gray bat) are potentially present in the action area of the proposed project, project proponents can conclude the proposed activities **may affect** these bat species **IF** one or more of the following activities are proposed:
 - a. Clearing or disturbing suitable roosting habitat, as defined above, at any time of year;
 - b. Any activity in or near the entrance to a cave or mine;
 - c. Mining, deep excavation, or underground work within 0.25 miles of a cave or mine;
 - d. Construction of one or more wind turbines; or
 - e. Demolition or reconstruction of human-made structures that are known to be used by bats based on observations of roosting bats, bats emerging at dusk, or guano deposits or stains.

If none of the above activities are proposed, project proponents can conclude the proposed activities will have **no effect** on listed bat species. Concurrence from the Service is not required for **No Effect** determinations. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records. An example ["No Effect" document](#) also can be found on the S7 Technical Assistance website.

If any of the above activities are proposed in areas where one or more bat species may be present, project proponents can conclude the proposed activities **may affect** one or more bat species. We recommend coordinating with the Service as early as possible during project planning. If your project will involve removal of over 5 acres of suitable forest or woodland habitat, we recommend you complete a Summer Habitat Assessment prior to contacting our office to expedite the consultation process. The Summer Habitat Assessment Form is available in Appendix A of the most recent version of the [Range-wide Indiana Bat Summer Survey Guidelines](#).

Other Trust Resources and Activities

Bald and Golden Eagles - Although the bald eagle has been removed from the endangered species list, this species and the golden eagle are protected by the Bald and Golden Eagle Act and the Migratory Bird Treaty Act. Should bald or golden eagles occur within or near the project area please contact our office for further coordination. For communication and wind energy projects, please refer to additional guidelines below.

Migratory Birds - The Migratory Bird Treaty Act (MBTA) prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Service. The Service has the responsibility under the MBTA

to proactively prevent the mortality of migratory birds whenever possible and we encourage implementation of recommendations that minimize potential impacts to migratory birds. Such measures include clearing forested habitat outside the nesting season (generally March 1 to August 31) or conducting nest surveys prior to clearing to avoid injury to eggs or nestlings.

Communication Towers - Construction of new communications towers (including radio, television, cellular, and microwave) creates a potentially significant impact on migratory birds, especially some 350 species of night-migrating birds. However, the Service has developed [voluntary guidelines for minimizing impacts](#).

Transmission Lines - Migratory birds, especially large species with long wingspans, heavy bodies, and poor maneuverability can also collide with power lines. In addition, mortality can occur when birds, particularly hawks, eagles, kites, falcons, and owls, attempt to perch on uninsulated or unguarded power poles. To minimize these risks, please refer to [guidelines](#) developed by the Avian Power Line Interaction Committee and the Service. Implementation of these measures is especially important along sections of lines adjacent to wetlands or other areas that support large numbers of raptors and migratory birds.

Wind Energy - To minimize impacts to migratory birds and bats, wind energy projects should follow the Service's [Wind Energy Guidelines](#). In addition, please refer to the Service's [Eagle Conservation Plan Guidance](#), which provides guidance for conserving bald and golden eagles in the course of siting, constructing, and operating wind energy facilities.

Next Steps

Should you determine that project activities **may affect** any federally listed species or trust resources described herein, please contact our office for further coordination. Letters with requests for consultation or correspondence about your project should include the Consultation Tracking Number in the header. Electronic submission is preferred.

If you have not already done so, please contact the Missouri Department of Conservation (Policy Coordination, P. O. Box 180, Jefferson City, MO 65102) for information concerning Missouri Natural Communities and Species of Conservation Concern.

We appreciate your concern for threatened and endangered species. Please feel free to contact our office with questions or for additional information.

John Weber

Attachment(s):

- Official Species List
-

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Missouri Ecological Services Field Office

101 Park Deville Drive

Suite A

Columbia, MO 65203-0057

(573) 234-2132

PROJECT SUMMARY

Project Code: 2023-0020539

Project Name: I-70 Jackson County

Project Type: Road/Hwy - Maintenance/Modification

Project Description: Project J4I1486D begins at The Paseo interchange and extends to US-40. This portion of I-70 was included in MDOT's Second Tier EIS as part of an improvement project which extended out to US-470. The project will include alignment changes, interchange improvements, and overall maintenance of the existing corridor. Timing of construction is to be determined.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@39.0826211,-94.54111678069262,14z>



Counties: Jackson County, Missouri

ENDANGERED SPECIES ACT SPECIES

There is a total of 5 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Gray Bat <i>Myotis grisescens</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6329	Endangered
Indiana Bat <i>Myotis sodalis</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949 General project design guidelines: https://ipac.ecosphere.fws.gov/project/XIJMOGLH2BBXRFBZ5S6N6YKKIM/documents/generated/6868.pdf	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045 General project design guidelines: https://ipac.ecosphere.fws.gov/project/XIJMOGLH2BBXRFBZ5S6N6YKKIM/documents/generated/6868.pdf	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

IPAC USER CONTACT INFORMATION

Agency: HDR, inc.
Name: Ian Waters
Address: 10450 Holmes Road
Address Line 2: Suite 600
City: Kansas City
State: MO
Zip: 64131
Email: ian.waters@hdrinc.com
Phone: 8163471346

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Highway Administration



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Missouri Ecological Services Field Office
101 Park Deville Drive
Suite A
Columbia, MO 65203-0057
Phone: (573) 234-2132 Fax: (573) 234-2181

In Reply Refer To:
Project code: 2023-0020539
Project Name: I-70 Jackson County

April 06, 2023

Subject: Consistency letter for the 'I-70 Jackson County' project under the amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion (dated March 23, 2023) for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (NLEB).

To whom it may concern:

The U.S. Fish and Wildlife Service (Service) has received your request dated April 06, 2023 to verify that the **I-70 Jackson County** (Proposed Action) may rely on the amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion (dated March 23, 2023) for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (PBO) to satisfy requirements under section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 *et seq.*).

Based on the information you provided (Project Description shown below), you have determined that the Proposed Action will have no effect on the endangered Indiana bat (*Myotis sodalis*) or the endangered northern long-eared bat (*Myotis septentrionalis*). If the Proposed Action is not modified, **no consultation is required for these two species**. If the Proposed Action is modified, or new information reveals that it may affect the Indiana bat and/or northern long-eared bat in a manner or to an extent not considered in the PBO, further review to conclude the requirements of ESA section 7(a)(2) may be required.

For Proposed Actions that include bridge/culvert or structure removal, replacement, and/or maintenance activities: If your initial bridge/culvert or structure assessments failed to detect Indiana bats and/or NLEB use or occupancy, yet later detected prior to, or during construction, please submit the Post Assessment Discovery of Bats at Bridge/Culvert or Structure Form (User Guide Appendix E) to this Service Office within 2 working days of the incident. In these instances, potential incidental take of Indiana bats and/or NLEBs may be exempted provided that the take is reported to the Service.

If the Proposed Action may affect any other federally-listed or proposed species and/or designated critical habitat, additional consultation between the lead Federal action agency and this Service Office is required. If the proposed action has the potential to take bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act may also be required. In either of these circumstances, please advise the lead Federal action agency accordingly.

The following species may occur in your project area and **are not** covered by this determination:

- Gray Bat *Myotis grisescens* Endangered
 - Monarch Butterfly *Danaus plexippus* Candidate
 - Tricolored Bat *Perimyotis subflavus* Proposed Endangered
-

PROJECT DESCRIPTION

The following project name and description was collected in IPaC as part of the endangered species review process.

NAME

I-70 Jackson County

DESCRIPTION

Project J4I1486D begins at The Paseo interchange and extends to US-40. This portion of I-70 was included in MDOT's Second Tier EIS as part of an improvement project which extended out to US-470. The project will include alignment changes, interchange improvements, and overall maintenance of the existing corridor. Timing of construction is to be determined.

DETERMINATION KEY RESULT

Based on the information you provided, you have determined that the Proposed Action will have no effect on the endangered Indiana bat and/or the endangered northern long-eared bat.

Therefore, no consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required for these two species.

QUALIFICATION INTERVIEW

1. Is the project within the range of the Indiana bat^[1]?

[1] See [Indiana bat species profile](#)

Automatically answered

Yes

2. Is the project within the range of the northern long-eared bat^[1]?

[1] See [northern long-eared bat species profile](#)

Automatically answered

Yes

3. Which Federal Agency is the lead for the action?

A) Federal Highway Administration (FHWA)

4. Are *all* project activities limited to non-construction^[1] activities only? (examples of non-construction activities include: bridge/abandoned structure assessments, surveys, planning and technical studies, property inspections, and property sales)

[1] Construction refers to activities involving ground disturbance, percussive noise, and/or lighting.

No

5. Does the project include *any* activities that are **greater than** 300 feet from existing road/rail surfaces^[1]?

[1] Road surface is defined as the actively used [e.g. motorized vehicles] driving surface and shoulders [may be pavement, gravel, etc.] and rail surface is defined as the edge of the actively used rail ballast.

No

6. Does the project include *any* activities **within** 0.5 miles of a known Indiana bat and/or NLEB hibernaculum^[1]?

[1] For the purpose of this consultation, a hibernaculum is a site, most often a cave or mine, where bats hibernate during the winter (see suitable habitat), but could also include bridges and structures if bats are found to be hibernating there during the winter.

No

7. Is the project located **within** a karst area?

No

8. Is there *any* suitable^[1] summer habitat for Indiana Bat or NLEB **within** the project action area^[2]? (includes any trees suitable for maternity, roosting, foraging, or travelling habitat)

[1] See the Service's [summer survey guidance](#) for our current definitions of suitable habitat.

[2] The action area is defined as all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action (50 CFR Section 402.02). Further clarification is provided by the [User's Guide for the Range-wide Programmatic Consultation for Indiana Bat and Northern Long-eared Bat](#).

No

9. Does the project include wetland or stream protection activities associated with compensatory wetland mitigation?

No

10. Does the project include slash pile burning?

No

11. Does the project include *any* bridge removal, replacement, and/or maintenance activities (e.g., any bridge repair, retrofit, maintenance, and/or rehabilitation work)?

Yes

12. Is there *any* suitable habitat^[1] for Indiana bat or NLEB **within** 1,000 feet of the bridge? (includes any trees suitable for maternity, roosting, foraging, or travelling habitat)

[1] See the Service's current [summer survey guidance](#) for our current definitions of suitable habitat.

No

13. Does the project include the removal, replacement, and/or maintenance of *any* structure other than a bridge? (e.g., rest areas, offices, sheds, outbuildings, barns, parking garages, etc.)

Yes

14. Is there *any* suitable habitat^[1] for Indiana bat or NLEB **within** 1,000 feet of the structure? (includes any trees suitable for maternity, roosting, foraging, or travelling habitat)

[1] See the Service's current [summer survey guidance](#) for our current definitions of suitable habitat.

No

15. Will the project involve the use of **temporary** lighting *during* the active season?

Yes

16. Is there *any* suitable habitat **within** 1,000 feet of the location(s) where **temporary** lighting will be used?

No

17. Will the project install new or replace existing **permanent** lighting?

Yes

18. Is there *any* suitable habitat **within** 1,000 feet of the location(s) where **permanent** lighting will be installed or replaced?

No

19. Does the project include percussives or other activities (**not including tree removal/trimming or bridge/structure work**) that will increase noise levels above existing traffic/background levels?

Yes

20. Will the activities that use percussives (**not including tree removal/trimming or bridge/structure work**) and/or increase noise levels above existing traffic/background levels be conducted *during* the active season^[1]?

[1] Coordinate with the local Service Field Office for appropriate dates.

Yes

21. Will *any* activities that use percussives (**not including tree removal/trimming or bridge/structure work**) and/or increase noise levels above existing traffic/background levels be conducted *during* the inactive season^[1]?

[1] Coordinate with the local Service Field Office for appropriate dates.

Yes

22. Are *all* project activities that are **not associated with** habitat removal, tree removal/trimming, bridge and/or structure activities, temporary or permanent lighting, or use of percussives, limited to actions that DO NOT cause any additional stressors to the bat species?

Examples: lining roadways, unlighted signage, rail road crossing signals, signal lighting, and minor road repair such as asphalt fill of potholes, etc.

No

23. Will the project raise the road profile **above the tree canopy**?

No

24. Is the location of this project consistent with a No Effect determination in this key?

Automatically answered

Yes, because the project action area is not within suitable Indiana bat and/or NLEB summer habitat and is outside of 0.5 miles of a hibernaculum.

25. Is the bridge removal, replacement, or maintenance activities portion of this project consistent with a No Effect determination in this key?

Automatically answered

Yes, because the bridge is more than 1,000 feet from the nearest suitable habitat and is therefore considered unsuitable for use by bats

26. Is the structure removal, replacement, or maintenance activities portion of this project consistent with a No Effect determination in this key?

Automatically answered

Yes, because the structure is more than 1,000 feet from the nearest suitable habitat and is therefore considered unsuitable for use by bats

27. Is the temporary lighting portion of this project consistent with a No Effect determination in this key?

Automatically answered

Yes, because the lighting will be more than 1,000 feet from the nearest suitable habitat

28. Is the permanent lighting portion of this project consistent with a No Effect determination in this key?

Automatically answered

Yes, because the lighting will be more than 1,000 feet from the nearest suitable habitat

DETERMINATION KEY DESCRIPTION: FHWA, FRA, FTA PROGRAMMATIC CONSULTATION FOR TRANSPORTATION PROJECTS AFFECTING NLEB OR INDIANA BAT

This key was last updated in IPaC on April 03, 2023. Keys are subject to periodic revision.

This decision key is intended for projects/activities funded or authorized by the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), and/or Federal Transit Administration (FTA), which may require consultation with the U.S. Fish and Wildlife Service (Service) under Section 7 of the Endangered Species Act (ESA) for the endangered **Indiana bat** (*Myotis sodalis*) and the endangered **northern long-eared bat** (NLEB) (*Myotis septentrionalis*).

This decision key should only be used to verify project applicability with the Service's [February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects](#). The programmatic biological opinion covers limited transportation activities that may affect either bat species, and addresses situations that are both likely and not likely to adversely affect either bat species. This decision key will assist in identifying the effect of a specific project/activity and applicability of the programmatic consultation. The programmatic biological opinion is not intended to cover all types of transportation actions. Activities outside the scope of the programmatic biological opinion, or that may affect ESA-listed species other than the Indiana bat or NLEB, or any designated critical habitat, may require additional ESA Section 7 consultation.

IPAC USER CONTACT INFORMATION

Agency: HDR, inc.
Name: Ian Waters
Address: 10450 Holmes Road
Address Line 2: Suite 600
City: Kansas City
State: MO
Zip: 64131
Email: ian.waters@hdrinc.com
Phone: 8163471346

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Highway Administration

Murphy, Gina L.

From: Matthew Burcham <Matthew.Burcham@modot.mo.gov>
Sent: Tuesday, January 10, 2017 10:08 AM
To: Nazar, Christopher R; Murphy, Gina L.; Rowson, Randy; Rowson, Randy
Cc: Gerri A. Doyle; Susan E. Barry; Bree K. McMurray
Subject: FW: PA Sect 7consultation AT NEPA STAGE_ Jackson Co I-70_Paseo to Blue Ridge Cutoff_ J4I2337 including I-435/70 interchange_J4I1597C

Randy; the response we were hoping for from FWS. Please update the appropriate sections in the document and place this correspondence in the suitable appendix. If you want to run by the text for those sections by Bree and I please do so.

Thank you,

Matt Burcham

Senior Environmental Specialist
573-526-6679
601 W. Main Street
P.O. Box 270
Jefferson City, MO 65102

From: Roberts, Andy [mailto:andy_roberts@fws.gov]
Sent: Monday, January 09, 2017 11:36 AM
To: Bree K. McMurray
Cc: Gayle Unruh; Richard Moore; Matthew Burcham; raegan.ball.dot.gov; Roopa.Banerjee@dot.gov; Karen Herrington
Subject: Re: PA Sect 7consultation AT NEPA STAGE_ Jackson Co I-70_Paseo to Blue Ridge Cutoff_ J4I2337 including I-435/70 interchange_J4I1597C

Dear Ms. McMurray:

The U.S. Fish and Wildlife Service has reviewed your December 9, 2016, request regarding the I-70 improvements (Paseo to Blue Ridge Cutoff) in Jackson County, Missouri. We offer the following comments pursuant to the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.), National Environmental Policy Act of 1969 (42 U.S.C. 4321-4347), and the Endangered Species Act of 1973, as amended (16 U.S.C. 1531-1544).

We agree with your approach outlined in the NEPA document (EIS/ROD update) and concur with your determination that the proposed overall project may affect, but is not likely to adversely affect the Indiana bat or northern long-eared bat. As such, we do not have any comments on the December 9, 2016, programmatic consultation documentation that you provided.

We appreciate the information you provided for this project and your continued coordination.

Sincerely,

Andy Roberts

On Fri, Dec 9, 2016 at 4:39 PM, Bree K. McMurray <Bree.McMurray@modot.mo.gov> wrote:

Request for concurrence on the NEPA determinations and submission of Programmatic Section 7 consultation for summer bat habitat for Indiana and northern long-eared bats.

FHWA kindly requests a written reply regarding concurrence at the NEPA stage for the effects determination with supporting information in the EIS/ROD update. FHWA is also submitting FINAL Programmatic Consultation for suitable summer habitat for Indiana and northern long-eared bats for some elements of the project that will be constructed both in 2018-2019 and others that are not in the city's long range plan until 2031-2040.

Consultation Code: 03E14000-2017-SLI-0200

Species listed: gray, Indiana, northern long-eared bats

Good afternoon Andy and John,

I am transmitting Section 7 consultation for **NLAA determination for Indiana bats and northern long-eared bats and requesting final concurrence from the Service at the NEPA Document stage for the project listed above.** Attached please find the Programmatic Bat Habitat Consultation form, updated IPaC OSL for the total project area, project location maps/aerials, and suitable bat habitat locations, and the T&E assessment from the condensed NEPA EIS/ROD document. There are no plans developed for the areas of the project with suitable summer bat roost habitat.

The I-70 Second Tier EIS/Record of Decision is being updated for improvements on Interstate 70 in Jackson County MO between The Paseo and Blue Ridge Cutoff, approximately 6.5 miles along existing interstate highway in a highly urbanized area. The improvements include rebuilding and/or rehabilitating I-70 pavement and bridges, improving horizontal and vertical alignment, increasing ramp lengths, extending weave areas, addition of auxiliary lanes, improving bicycle/pedestrian access across I-70, and considering aesthetic enhancements. The interchange at I-70/I-435 will be constructed first, possibly in the next 2-3 years. The portion of the project between The Paseo and Manchester Bridge at Blue River is in the city's long range plan for the decade 2031-2040, about 25 years from now.

In total, **roughly 3-5 acres of tree clearing** will be necessary for the full construction of this project. The first phase interchange project will account for roughly 2.0 acres of tree clearing and project limits are currently the existing Right of Way limits (see attachment). A habitat assessment in Aug 2016 conducted by MoDOT resulted in the discovery of a single suitable bat roost tree within the existing R/W limits in that location. During an October 2016 habitat assessment conducted for the larger 6.5 mile corridor, MoDOT determined that there is potentially suitable roost habitat in the other areas of the currently proposed project limits as well.

Excerpt from EIS/ROD submission to FHWA for signature:

3.2 Changes and Clarifications from the Second Tier Draft EIS

3.2.10 Wildlife, Plants, and Threatened and Endangered Species

Since the publication of the Draft I-70 EIS, new information from updated surveys. The updated species list includes Indiana bats, gray bats, and northern long-eared bats indicated by US Fish and Wildlife Service Information for Planning and Conservation website (Consultation Code: 03E14000-2017-SLI-0200, November 2016). Additional information was provided by MoDOT Design Environmental Section from reviews of the Missouri Department of Conservation (MDC) Heritage database (September 2016) and the Missouri Speleological Survey cave database information (current to 2015).

Gray bats - Gray bats are cave obligate species which congregate in maternity or bachelor colonies in the summer utilizing dome cave and mine habitat, and mixed colonies during winter hibernation in vertical or pit-type caves and mines, utilizing mainly stream corridors for foraging spring through fall. There are no known caves within a few miles of the project area and no known gray bat cave resources within 100 miles of the project area. If a project will impact caves or mines or will involve tree removal around these areas (particularly within stream corridors, riparian areas, or associated upland woodlots), gray bats could be affected. There is no known gray bat cave habitat nor any known gray bat records within several miles of the project area and there will be **No Effect on gray bats** from this project.

Indiana and northern long-eared bats – Both of these species can occur in any forested area in the state of Missouri. These species hibernate in caves or mines only during the winter. The rest of the year they

roost under loose tree bark in tree crevices or cavities during the day and forage around tree canopies of floodplain, riparian, and upland forests at night. Trees which should be considered potential roosting habitat include those exhibiting loose or shaggy bark, crevices, or hollows. Tree species often include, but are not limited to: shellbark or shagbark hickory, white oak, cottonwood, and maple.

In October 2016 MoDOT Environmental staff and the consultant surveyed the I-70 Second Tier project limits to update the impact assessment for the Combined FEIS and ROD. There are no known winter cave records for Indiana or northern long-eared bats within several miles of the project area. Even though the nearest known summer records for either species are between 40-70 miles from the project area, Indiana and northern long-eared bats could utilize suitable habitat in the project area., There are examples of suitable summer roost habitat in the clearing limits for this project, and MoDOT and FHWA expect to apply the conservation measure of only clearing suitable roost trees during the non-breeding season (November 1 to March 31). Given the small amount of overall tree removal for this section (less than 5.0 ac), small number of potentially suitable bat roost trees, and the inclusion of the conservation measure to remove suitable habitat during the non-breeding season, MoDOT and FHWA have determined this project **May Affect, but is Not Likely to Adversely Affect Indiana and northern long-eared bats**. Acting as the designated non-federal representative for FHWA for the purposes of USFWS Section 7 Endangered Species Act consultation, MoDOT will submit consultation and request concurrence with the “not likely to adversely affect” determination prior to final design.

Appendix E contains the results of the field review.

**Note, the commitment for seasonal tree clearing is also added to the NEPA commitments section of the EIS/ROD document.

The current estimated footprint for the total corridor is noted as “slope limits” (thin black line) in the attached Jackson Co I-70_Paseo to Blue Ridge Cutoff J414337 map. Those were the limits surveyed as the footprint for impacts to potentially suitable summer bat roost habitat in October 2016. All suitable roost trees evaluated at that time were within 100’ of existing roads. MoDOT and FHWA intend to apply the seasonal tree clearing conservation measure, only removing potential Indiana bat and northern long-eared bat suitable roost trees between November 1 and March 31 of any year. In this way, as currently estimated, this project qualifies for consultation for bat habitat impacts under Programmatic Consultation.

Since the construction timeline for the larger project area is so far in the future (2031-2040 in Kansas City, MO Long Range Transportation Plan, if the footprint increases during the design phase for road construction, consultation will need to be re-evaluated. Additionally, if there are any new listings of

species that were not addressed in the NEPA EIS document, effects to listed species will have to be re-evaluated and consultation may need to be revised or reinitiated.

Acting as the designated non-federal representative on behalf of Federal Highway Administration in Missouri for the purpose of USFWS Section 7 consultation, MoDOT agrees with the effects determinations in the NEPA EIS documentation. **FHWA is requesting concurrence** with the determination that the construction of this project May Affect, but Not Likely to Adversely Affect Indiana and northern long-eared bats based on the conservation measure to remove suitable summer roost trees only in the non-breeding season. If the Service concurs, that documentation will become part of the Record of Decision for this project in winter 2016-2017 and FHWA will consider USFWS Section 7 ESA complete. In the future, if the footprint for design and construction changes, or additional species are listed, the effects determinations will need to be reevaluated and consultation revisited.

Please do not hesitate to contact me with questions or comments.

Bree K. McMurray

Threatened and Endangered Species Specialist

Missouri Dept. of Transportation

Design-Environmental and Historic Preservation

601 West Main

Jefferson City, MO 65102

(573) 526-0606

Email: bree.mcmurray@modot.mo.gov

--

Andy Roberts

U.S. Fish and Wildlife Service

Ecological Services

101 Park DeVille Drive, Suite A

Columbia, Missouri 65203

573-234-2132 x 110

573-234-2181 (fax)

Missouri Department of Conservation



Missouri Department of Conservation
Natural Heritage Review Report

December 9, 2022

Science Branch
 P. O. Box 180
 Jefferson City, MO 65102
 Prepared by: Hannah Roos
 NaturalHeritageReview@mdc.mo.gov
 (573) 522 - 4115 ext. 3182

Ian Waters
 HDR
ian.waters@hdrinc.com

NHR ERT ID:	10153	NHR ERT Level:	3
Project type:	Transportation – Roads		
Location/Scope:	I-70 from Paseo interchange to US-40		
County:	Jackson		
Query reference:	I-70 Jackson County		
Query received:	12/2/2022		

This NATURAL HERITAGE REVIEW is not a site clearance letter. Rather, it identifies public lands and records of sensitive resources located close to and/or potentially affected by the proposed project. If project plans or location change, this report may no longer be valid. Because land use conditions change and animals move, the existence of an occurrence record does not mean the species/habitat is still present. Therefore, reports include information about records near but not necessarily on the project site. Lack of an occurrence record does not mean that a sensitive species or natural community is not present on or near the project area. On-site verification is the responsibility of the project. These records serve as one reference and additional information (e.g. wetland or soils maps, on-site inspections or surveys) should be considered. Look for additional information about the biological and habitat needs of records listed to avoid or minimize impacts. More information is at [Natural Areas | Missouri Department of Conservation \(mo.gov\)](#) and [Missouri Fish and Wildlife Information System \(MOWFIS\)](#).

Level 3: Records of federal-listed (also state-listed) species or critical habitats near the project site:

Natural Heritage records identify several federal- and state-listed species associated with the nearby Missouri River. Terrestrial projects that manage construction and include operation plans to avoid runoff of sediment or pollutants are unlikely to affect the aquatic species. Please visit [Best Management Practices for Construction and Development Projects Affecting Missouri Rivers and Streams \(mo.gov\)](#).

- **Missouri River:** The Missouri River (together with its tributary mouths) is home to many aquatic species of federal and state concern, including federal-listed Pallid Sturgeon, state-listed Lake Sturgeon, Flathead Chub, and others. Bluffs, banks, and floodplains may also include habitat used by listed Gray bats, Indiana bats and Bald Eagles. All of these are sampled at points but must be assumed to be present in suitable habitats through extended river reaches.
 - Terrestrial projects that manage construction and include operation plans to avoid runoff of sediment or pollutants are unlikely to affect the aquatic species.
 - Regulations enforced by other agencies to protect water quality and human health are generally adequate to protect the needs of wildlife as well.
 - Projects that place fill in or discharge water to the river are subject to federal permits, and strict observance of conditions required in those permits is important to minimize risk of damage to endangered species.

See General Recommendations for additional information on minimizing impacts to aquatic resources.

FEDERAL LIST species/habitats are protected under the Federal Endangered Species Act. **Contact U.S. Fish & Wildlife Service** (101 Park Deville Drive Suite A, Columbia, Missouri 65203-0007; 573-234-2132) for Endangered Species Act coordination and concurrence information).

Level 2: Records of state-listed (not federal-listed) endangered species AND / OR state-ranked (not state-listed endangered) species and natural communities of conservation concern. The Department tracks these species and natural communities due to population declines and/or apparent vulnerability.

Natural Heritage records identify no state-listed endangered species within the project area.

Natural Heritage records indicate the following state-ranked species near the project area:

Scientific Name	Common Name	State Rank	Proximity (miles)	Primary Habitat
<i>Taxidea taxus</i>	American Badger	S3	<5	Grassland matrix, Savanna pasture/orchard, Row/close grown crops
<i>Poliocitellus franklinii</i>	Franklin's Ground Squirrel	S2S3	<5	Grassland matrix, Roadside/railroad
<i>Perimyotis subflavus</i>	Tri-colored Bat	S2	<2	Habitat generalist
<i>Falco peregrinus</i>	Peregrine Falcon	S3	<1	Wetland matrix, Urban non-vegetated, Bluff

- **Peregrine Falcons:** Peregrine Falcons (*Falco peregrinus*) were introduced to downtown buildings in the St. Louis and Kansas City areas in the 1990s, and populations of this state endangered-list species have been increasing since. They nest April 15-July 15 on natural bluffs, building ledges and bridges. Work should be avoided within 1500 feet of nests when nest building or active nests (eggs or hatchlings) are present. Follow best management recommendations at [Peregrine Falcon Best Management Practices \(mo.gov\)](https://www.mo.gov/peregrine-falcon).

State Rank Definitions:

- S1: Critically imperiled in the state because of extreme rarity of or because of some factor(s) making it especially vulnerable to extirpation from the state. Typically, 5 or fewer occurrences or very few remaining individuals (<1,000).
- S2: Imperiled in the state because of rarity or because of some factor(s) making it very vulnerable to extirpation from the state (6 to 20 occurrences or few remaining individuals).
- S3: Vulnerable in the state either because rare and uncommon, or found only in a restricted range (even if abundant at some locations), or because of other factors making it vulnerable to extirpation. Typically 21 to 100 occurrences or between 3,000 and 10,000 individuals.
- S4: Uncommon but not rare, and usually widespread in the nation or state. Possible cause of long-term concern. Usually more than 100 occurrences and more than 10,000 individuals.
- S#S#: Range Rank: A numeric range rank (e.g., S2S3) is used to indicate the range of uncertainty about the exact status.
- ?: Denotes inexact or uncertain numeric rank.

There are no regulatory requirements associated with this status, however we encourage voluntary stewardship to minimize the risk of further decline that could lead to listing.

STATE ENDANGERED species are protected under the Wildlife Code of Missouri (3CSR10-4.111). See the [2022 Missouri Species and Communities of Conservation Concern Checklist](#) for a complete list.

General recommendations related to this project or site, or based on information about the historic range of species (unrelated to any specific Natural Heritage records):

- **Transportation:** Transportation related projects typically change the plants and animals that live on the right-of-way or in the vicinity. Minimize erosion and sedimentation/runoff to nearby streams and lakes by carefully adhering to any Clean Water Act permit conditions ([Missouri DNR](#) or [US Army Corps of Engineers](#)); and include design elements to manage stormwater so that present water discharge rates from the site to streams during heavy rain events are not increased. Revegetation of disturbed areas is recommended to minimize erosion, as is restoration with native plant species compatible with the local landscape and wildlife needs. Annuals like ryegrass may be combined with native perennials for quicker green-up. Avoid aggressive exotic perennials such as crown vetch and sericea lespedeza.
- **Indiana Bats and Northern Long-eared Bats:** If this project has the potential to alter habitat (e.g. tree removal, projects in karst habitat) or cause direct mortality of bats, please coordinate directly with U.S. Fish and Wildlife Service (Ecological Services, 101 Park Deville Drive, Suite A, Columbia, Missouri 65203-0007; Phone 573-234-2132 Ext. 100 for Ecological Services) for further coordination under the Endangered Species Act.

Though Indiana and Northern Long-eared bats are not known to occur in the project area, these species should be assumed present wherever habitat exists. Indiana Bats (*Myotis sodalis*, federal and state-listed endangered) and Northern Long-eared Bats (*Myotis septentrionalis*, federal-listed threatened) hibernate during winter months in caves and mines. During the summer months, they roost and raise young under the bark of trees in riparian forests and upland forests near perennial streams. During project activities, avoid degrading stream quality and where possible leave snags standing and preserve mature forest canopy. Do not enter caves known to harbor Indiana Bats and/or Northern Long-eared Bats, especially from September to April.

- **Karst:** Jackson County has known karst geologic features (e.g. caves, springs, and sinkholes, all characterized by subterranean water movement). Few karst features are recorded in Natural Heritage records, and ones not noted here may be encountered at the project site or affected by the project. Cave fauna (many of which are species of conservation concern) are influenced by changes to water quality, so check your project site for any karst features and make every effort to protect groundwater in the project area. Please see [Management Recommendations for Construction and Development Projects Affecting Missouri Karst Habitat \(mo.gov\)](#).
- Invasive exotic species are a significant issue for fish, wildlife and agriculture in Missouri. Seeds, eggs, larvae, and aquatic plant material may be moved to new sites on boats or construction equipment, so inspect and clean equipment thoroughly before moving between project sites.
 - ◆ Remove any mud, soil, trash, plants (or plant material) or animals from equipment before leaving any water body or work area.
 - ◆ Drain water from boats and machinery that has operated in water, checking motor cavities, live-well, bilge and transom wells, tracks, buckets, and any other water reservoirs.
 - ◆ When possible, wash and rinse equipment thoroughly with hard spray or HOT water ($\geq 140^{\circ}$ F, typically available at do-it-yourself carwash sites), and dry in the hot sun before using again.

These recommendations are ones project managers might prudently consider based on a general understanding of species needs and landscape conditions. Natural Heritage records largely reflect sites visited by specialists in the last 30 years. Many privately owned tracts have not been surveyed and could host remnants of species once but no longer common.

From: Natural Heritage Review <NaturalHeritageReview@mdc.mo.gov>
Sent: Friday, April 29, 2022 11:26 AM
To: Waters, Ian
Subject: NHRR for I-70 Jackson County

CAUTION: [EXTERNAL] This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello,

At this time, we have no additional recommendations regarding your I-70 Jackson County project. Please let me know if you have any questions.

Thank you for using the Natural Heritage Review Program,

Hannah Roos

Environmental Review Coordinator
Missouri Department of Conservation
PO Box 180
Jefferson City, MO 65102
573-522-4115 ext. 3182

From: Hannah Roos <Hannah.Roos@mdc.mo.gov>
Sent: Thursday, December 1, 2022 12:06 PM
To: Waters, Ian
Cc: Bree.McMurray@modot.mo.gov
Subject: RE: I-70 Jackson County #10153 Natural Heritage Review

CAUTION: [EXTERNAL] This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Ian,
Our automated system searches several miles from a project boundary regardless of the type of project, which sometimes means species records trigger a response even when there is little chance of them being impacted. In the case of this project, a Pallid Sturgeon record in the Mississippi River triggered the Level Three response.

There are other records of species of conservation concern near the project including Peregrine Falcons and the Tri-colored bat, which was recently proposed endangered federally. I recommend resubmitting the project on the website to obtain an updated report and I would be happy to generate a more detailed Natural Heritage Review for you that includes the species records.

If you would still like to talk, I have availability most days. I do not have any blocked days in the next couple of weeks.

Thank you,
Hannah



Hannah Roos (she/her)
Environmental Review Coordinator
Phone 573-522-4115 ext. 3182
PO Box 180, Jefferson City, MO 65101

From: Waters, Ian <Ian.Waters@hdrinc.com>
Sent: Thursday, December 1, 2022 10:34 AM
To: Hannah Roos <Hannah.Roos@mdc.mo.gov>
Cc: Bree.McMurray@modot.mo.gov
Subject: I-70 Jackson County #10153 Natural Heritage Review

Morning Hannah,

I'm reaching out about MoDOT's I-70 Jackson County project to discuss the level 3 heritage review (attached) with you more which we previously received a response on April 29, 2022 from you stating "At this time, we have no additional recommendations regarding your I-70 Jackson County project." Bree McMurray, MoDOT Threatened and Endangered Species Specialist, and myself are specifically

interested in the federally and state protected species that are noted as occurring within 5 miles of the project. We are wanting to ensure due diligence for the protected species and their implication in the NEPA process for this project. Could we setup a short 15 minute call to discuss the heritage review with you further? What is your availability over the next few weeks?

Thanks,

Ian Waters

Environmental Scientist

HDR

10450 Holmes Road, Suite 600

Kansas City, MO 64131

D 816.347.1346 **M** 816.810.9067

ian.waters@hdrinc.com

hdrinc.com/follow-us



Wetland Delineation Report

I-70 Second Tier Draft EIS Re-Evaluation

Jackson County, MO

December 5, 2022



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Appendix D	HNTB Wetland Delineation, 2013

Missouri Department of Transportation
Kansas City, Missouri
I-70 Jackson County
WETLAND DELINEATION REPORT
Jackson County, Missouri

2.0 Background And Introduction

The Missouri Department of Transportation (MoDOT) and FHWA previously completed the I-70 Second Tier Draft Environmental Impact Statement (EIS) in 2014 for improvements to the Kansas City, MO I-70 corridor from the Paseo Dr. interchange to west of the I-470 interchange. MoDOT did not complete the Urban section of independent utility (SIU) within three years of the Draft EIS and is in process of completing a reevaluation. The Urban SIU limits extend from the Paseo Dr. to US-40 interchange (the Project) (**Appendix A, Figure 1**). However, the US-40 interchange has been completed under a different project and is excluded from potential impacts. For the Project, MoDOT contracted TREKK for design services who contracted HDR Engineering, Inc (HDR) to complete a wetland delineation within the approximately 583-acre NEPA Study Limits (the Study Area) encompassing the proposed Project and any alternative alignments. While the Study Area encompasses the US-40 interchange, this area has already been reconstructed under a separate project and is not pertinent to the Project.

The majority of the Study Area is previously disturbed since it contains the existing I-70 highway and fringes of the industrial and urban setting of Kansas City. While the Study Area extends past MoDOT right-of-way (ROW), the Project is anticipating minimal ROW acquisition. The purpose of this Wetland Delineation Report is to document the type, size, and location of potential Waters of the U.S. (WOUS), including wetlands in the Study Area.

3.0 Regulatory Framework

As described in Part 328 of Title 33 in the Code of Federal Regulations (CFR), the objective of the Clean Water Act (CWA) is to maintain and restore the chemical, physical, and biological integrity of the waters of the United States (33 CFR Section 328.4). Any person, firm, or agency planning to alter or work in a regulated water of the U.S. (WOTUS), including the discharge of dredged or fill material, must first obtain authorization from the USACE under CWA Section 404 and, if applicable, Section 10 of the Rivers and Harbors Act of 1899 (Title 33 United States Code Section 403) for work within navigable WOTUS.

This section discusses the regulatory framework that might apply to features identified within the Project Area that are potentially subject to federal jurisdiction.

3.1 Clean Water Act Section 404

Waters of the United States is the encompassing term for areas that qualify for federal regulation under Section 404 of the CWA. Section 404 of the CWA gives the U.S. Environmental Protection Agency (USEPA)

and USACE regulatory and permitting authority regarding discharge of dredged or fill material into “navigable waters of the United States.” Section 502(7) of the CWA defines navigable waters as “waters of the United States, including territorial seas.”

The Code of Federal Regulations (33 CFR 328.3), prior to the NWPR (no longer considered applicable in Missouri as of August 30, 2021, pending further litigation / court orders) and the 2023 final rule (effective March 20, 2023, but still pending litigation / court orders), defines waters of the U.S. as:

- All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- All interstate waters including interstate wetlands;
- All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:
 - Which are, or could be, used by interstate or foreign travelers for recreational or other purposes; or
 - From which fish or shellfish are, or could be, taken and sold in interstate or foreign commerce; or
 - Which are used, or could be used, for industrial purposes by industries in interstate commerce.
- All impoundments of waters otherwise defined as waters of the U.S. under the definition;
- Tributaries of waters of the U.S. identified above;
- The territorial seas; and
- Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in the paragraphs above.

The term “adjacent” means bordering, contiguous, or neighboring. Wetlands separated from other waters of the U.S. by manmade dikes or barriers, natural river berms, beach dunes, and the like are “adjacent” wetlands.

The authority to render an approved jurisdictional determination (AJD) based on the above and/or determined by a significant nexus analysis is within the regulatory authority of the USACE and USEPA and would be subject to the rules in effect at the time of review by the agencies.

3.2 Non-Jurisdictional Aquatic or Drainage Features

Some aquatic or drainage features might also be considered outside the USACE’s jurisdiction. In general, based on the current definitions and Rapanos Guidance, ponds constructed in uplands and remnant channels (e.g., erosional features) are not considered to be waters of the U.S. when they do not have a surface or groundwater connection to, do not exhibit significant nexus to, and are not adjacent to, a

navigable WOTUS and do not otherwise exhibit an interstate commerce connection. These non-jurisdictional aquatic and drainage features are common in areas with low to moderate rainfall and historically altered land uses (e.g., crops to rangeland), and are referred to in this report as features that are not waters of the U.S. The acreages associated with non-jurisdictional features are not included in total acreages for a proposed jurisdictional determination

The jurisdictional status of constructed ponds depends on whether they were constructed as an impoundment of a jurisdictional stream, or if they were constructed in uplands, away from waters of the U.S. However, the jurisdictional status of constructed ponds also depends on whether they have a surface hydrological connection to a water of the U.S. under present normal conditions. If a constructed pond lacks a drainage pipe (or other means) that provides flow sufficient to establish an OHWM directly downstream to a water of the U.S., then this pond may be considered a non-jurisdictional aquatic feature.

3.3 Guidance Based on Supreme Court Rulings

In January 2003 the USACE issued guidance in response to the U.S. Supreme Court's findings in the case of the Solid Waste Agency of Northern Cook County (SWANCC) v. USACE (531 U.S. 159 [2001]) that limited the jurisdiction over non-tidal isolated waters, including wetlands and open water areas excavated in uplands. In general, only wetlands that have a direct hydrological connection to waters of the U.S., or are within their floodplains, are considered potentially jurisdictional under Section 404.

On December 2, 2008, the USACE and the EPA issued the Rapanos Guidance (USACE, 2008), a revision to the joint guidance for Jurisdictional Determinations implementing the U.S. Supreme Court's findings in the Rapanos and Carabell cases (126 S. Ct. 2208 [2006]). The guidance generally does not allow for the agencies to assert jurisdiction over ephemeral features, including erosional features, swales, small washes characterized by low volume, infrequent, or short duration flow; and ditches excavated wholly in, and draining only, uplands and that do not carry a relatively permanent flow of water. Jurisdiction over water resources that are not traditional navigable waters (TNWs) or wetlands adjacent to a TNW is generally based on meeting one of the following two standards: 1) if a water body is relatively permanent, or if the water body is a wetland that "directly abuts" a relatively permanent water (RPW); or 2) if a water body, in combination with all wetlands adjacent to that water body, has a "significant nexus" to a TNW.

For non-navigable waters that are not relatively permanent and wetlands not directly abutting a RPW to be considered waters of the U.S., a significant nexus must exist with a measurable hydrologic, biological, or chemical connection to a TNW. Factors used in determining a significant nexus would include: 1) hydrologic conditions, such as volume, duration, and frequency of flow; 2) ecological factors, such as aquatic habitat that supports the biological functions of a TNW; and 3) chemical factors, such as maintenance of water quality in the TNW.

As noted previously, the Rapanos Guidance is the most recently approved and published guidance for jurisdictional determinations, and is currently in effect, but some differences occur from the NWPR, which is vacated as of August 30, 2021, pending further litigation / court orders, as well as the 2023 final rule, that became effective March 20, 2023, but is still pending litigation / court orders.

A ruling in the Sackett v. EPA case is expected in May or June 2023, which may also result in revisions to the definitions in the new rule or substantial changes via inter-agency regulatory guidance. Therefore, it is important to understand the findings of any delineation and professional opinions related to potential federal jurisdictional status of the non-contiguous wetlands, ephemeral streams, and excavated channels in this report may be subject to change depending on the outcome of pending litigation related to Clean Water Act definitions of waters of the U.S.

4.0 Delineation Methodology

Prior to field delineations, a desktop survey was conducted using U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) maps, the U.S. Geological Survey (USGS) National Hydrographic Dataset (NHD), the U.S. Department of Agriculture Natural Resources Conservation Service (USDA NRCS) Web Soil Survey, as well as historical and current color aerial photographs to identify possible wetlands and water resources within the Study Area. A wetland delineation was conducted in 2013 by HNTB for the I-70 Draft EIS (**Appendix D**) and shapefiles from the delineation were used to potentially reconfirm the previously identified wetlands and streams in the Study Area.

HDR field staff, consisting of Elizabeth Casey and Ian Waters, subsequently completed a delineation and jurisdictional assessment of potential WOUS, including wetlands, within the designated Study Area on June 16, 2022, in accordance with the 1987 Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory, 1987) and the Midwest Regional Supplement to the Corps of Engineers Wetland Delineation Manual Version 2.0 (Environmental Laboratory, August 2010). Sample points, waterways, and wetland boundaries were mapped in the field using GPS technology and were classified according to Classification of Wetlands and Deepwater Habitats of the United States (Cowardin et al., December 1979). Vegetation was classified according to the North American Digital Flora: National Wetland Plant List (Lichvar et al., 2018). A “Wetland Determination Data Form – Midwest Region” and “Waters of the US Determination Data Form” was completed for each sample point (**Appendix B**). Photographic documentation of observed wetlands, upland points, and drainage ditches is provided as **Appendix C**.

5.0 Delineation Results

The USGS topographic map for this location (Kansas City, Jackson, MO, 2021), USFWS NWI, and USGS NHD shows no wetlands or streams within the Study Area (**Appendix A, Figures 1 & 3**). Soil types within the Study Area are dominated by Urban and Snead-Rock complexes (**Appendix A, Figure 2**). There are two wetlands (**Table 1**), previously identified in the 2013 delineation, within the Study Area but not within the potential impacts of the Project. W-1 is located within the north loop of the I-70/US-40/East 31st Street interchange and W-2 is located within the south loop of the I-70/US-40/East 31st Street interchange. The wetlands were reconfirmed via photo points which showed hydrology and vegetation hydric indicators. Both wetlands are proposed non-jurisdictional as they are hydrologically isolated in upland.

Table 1: Wetlands

Wetland #	Wetland by Size and Type		Proposed Jurisdiction
	Emergent (ac.)	Forested (ac.)	
W-1	0.028	0.042	Non-Jurisdictional
W-2	0.102	0.00	Non-Jurisdictional
Total	0.13	0.042	

There is one ephemeral stream (S-1) previously identified in 2013 and reconfirmed in 2022, which extends into the Study Area just north of the US-40 interchange and continues east (**Table 2**). The stream begins as a concrete-lined drainage ditch near I-70 and changes to a silt bottom creek. This stream flows through a culvert underneath Fremont Ave. and connects to the Blue River, which is a section 10 waterway and resulting in S-1 proposed jurisdictional.

Table 2: Streams

Stream #	Stream Name	Stream Type	Proposed Jurisdiction	Length (ft)	OHWL Width (ft)	OHWL Depth (ft)
S-1	Unnamed Trib. Of Blue River	Ephemeral	Jurisdictional	908.54	3	1

Several roadside ditches have been surveyed during design of the Project and are mapped with the stream and wetlands in **Appendix A, Figure 4, Pg. 1-6**.

6.0 Discussion

Based on the information available to HDR at the time of the delineation, the Study Area was assessed to determine the presence or absence of wetlands and other waters in accordance with the procedures and guidelines established by USACE. One potentially jurisdictional waterway totaling 908.54 linear feet and two potentially non-jurisdictional wetlands totaling 0.172 acres were delineated. The Project is not likely to impact these resources as they exist within the previously completed US-40 interchange project. This delineation and jurisdictional assessment of waters in the Study Area is based on the best professional judgment of HDR’s team of wetland delineators, with extensive experience with delineation of similar resources. However, it does not constitute an Approved or Preliminary Jurisdictional Determination, which can only be officially rendered by the USACE Kansas City District’s Regulatory Branch through a review process.

7.0 Qualifications

The following professionals conducted literature and records reviews, completed field review, assessed the potential impacts of the Project, and contributed to the preparation of this report.

Table 3: Qualifications of Environmental Professionals

Name	Responsibilities	Education	Experience
------	------------------	-----------	------------

Ian Waters	Field Survey, GIS Analysis	B.S. in Fisheries, Wildlife, and Conservation Biology	8 years
Elizabeth Casey	Field Survey	B.S. in Environmental Engineering (in progress)	< 1 year
Brittany Schweiger	QA/QC Review	M.S. Fish, Wildlife, and Conservation Ecology B.A. Biology B.A. Environmental Studies	6 years
Tim Fobes, PWS	QA/QC Review	M.S. in Biology, B.S. in Conservation	27 years
Jennifer Schwaller, CEP	Oversight, QA/QC Review	B.S. in Organismal Biology	21 years

8.0 References

Cowardin, et al. December 1979. Classification of Wetlands and Deepwater Habitats of the United States. FWS/OBS-79/31. U.S. Department of the Interior, Washington D.C.

Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1. U.S. Army Engineer Waterways Experiment Station. Vicksburg, Mississippi.

Environmental Laboratory. August 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region Version 2.0. U.S. Army Corps of Engineers Research and Development Center, Vicksburg, Mississippi.

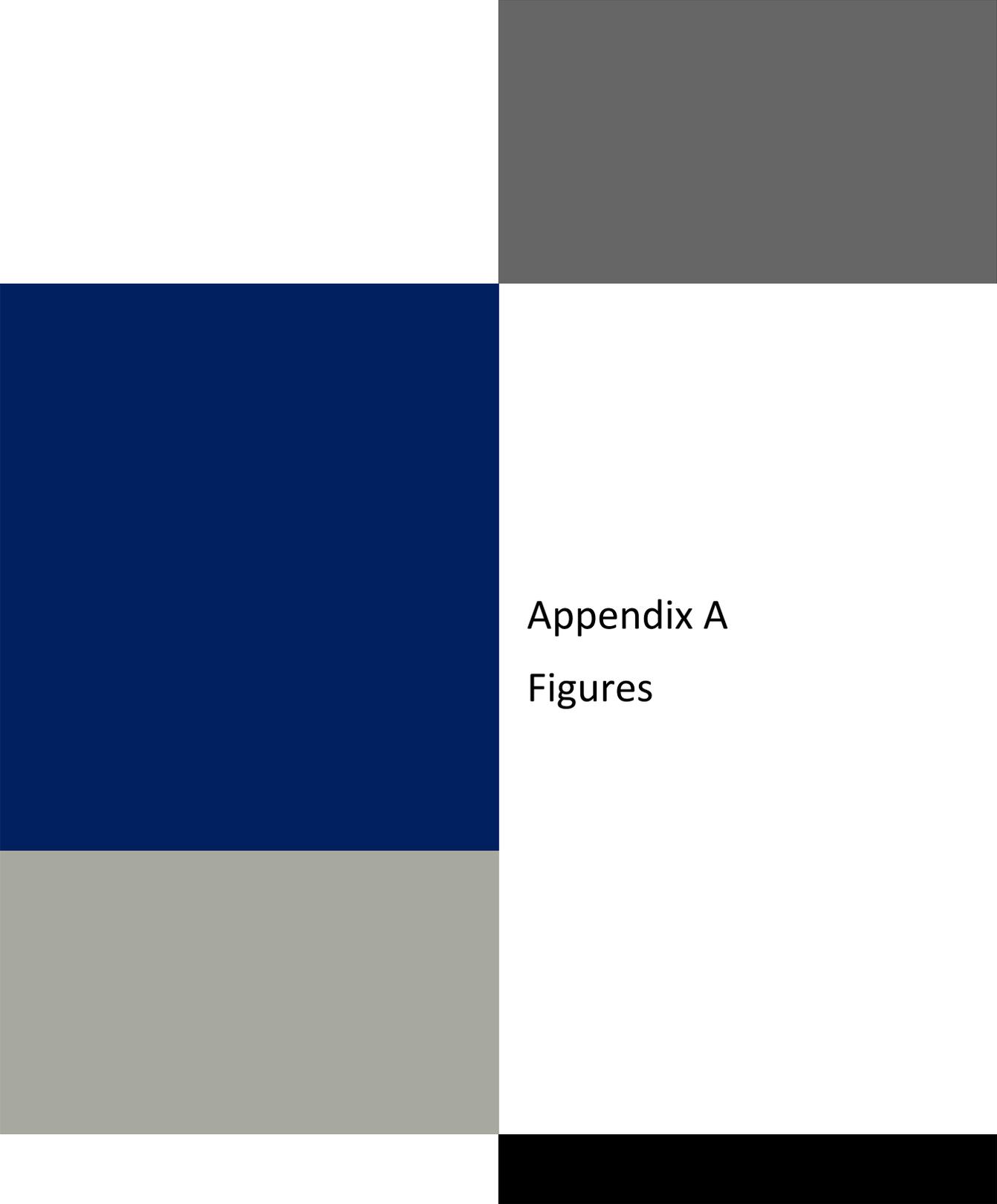
Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

NRCS. 2020. United States Department of Agriculture. Soil Survey Geographic (SSURGO) Database for Johnson County, Kansas. Available online at <http://soildatamart.nrcs.usda.gov>. Accessed March 2, 2020.

USACE, USEPA. January 9, 2001. January 2001 SWANCC Memorandum.

USACE, USEPA. January 15, 2003. January 2003 SWANCC Memorandum.

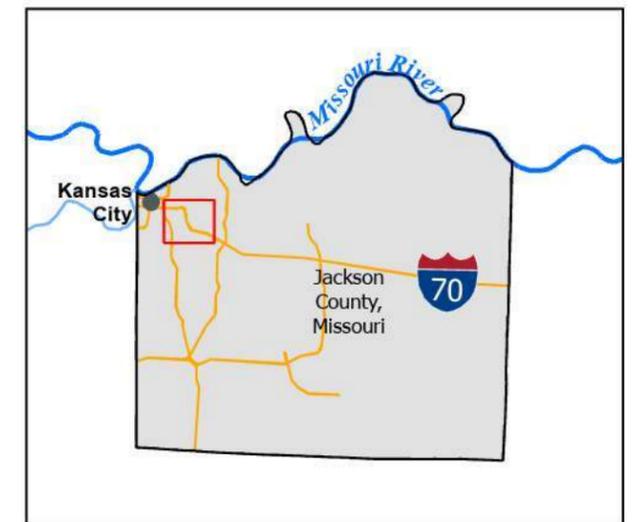
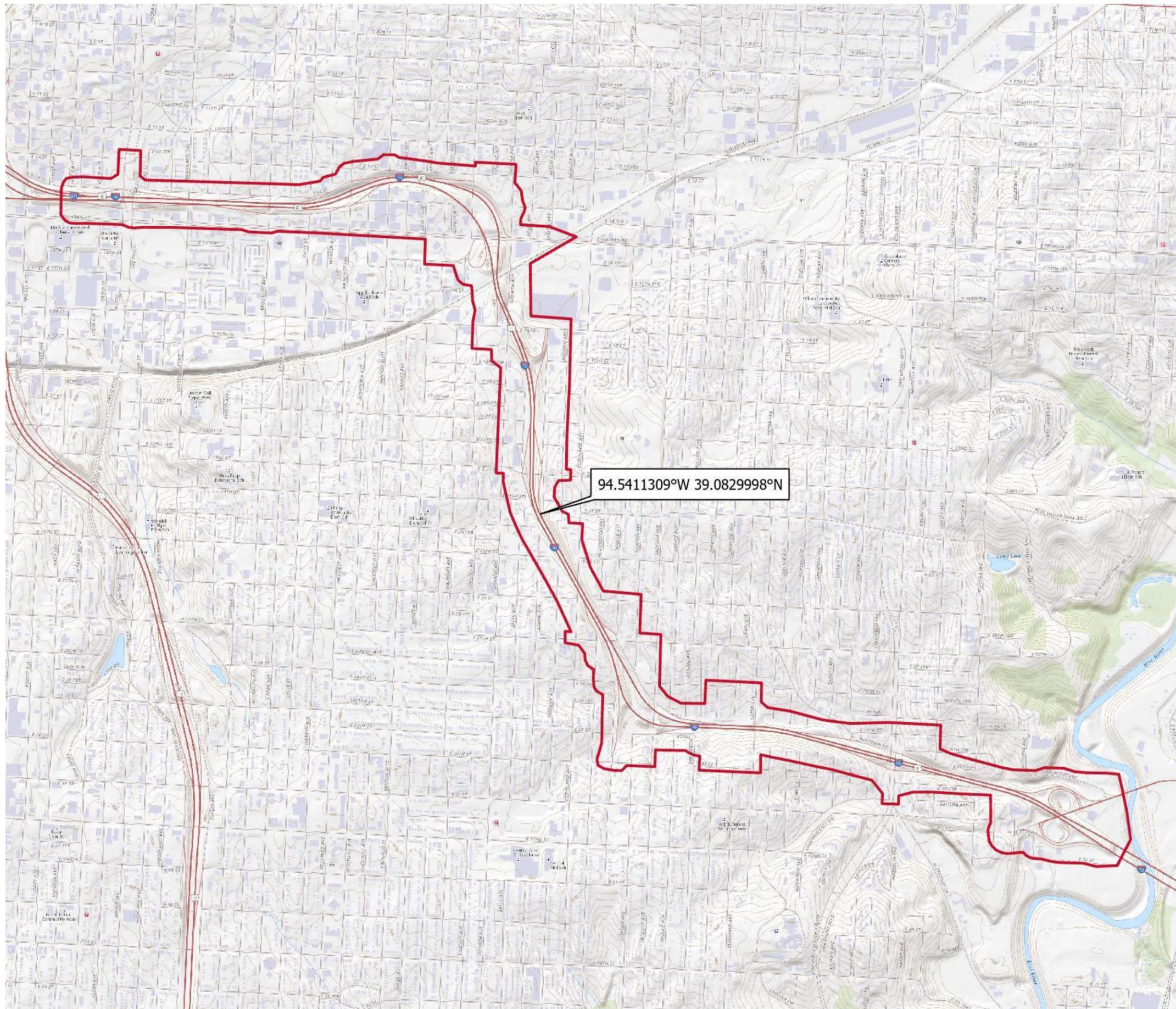
USACE, USEPA. December 2008. Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in *Rapanos v. United States & Carabell v. United States*.



Appendix A
Figures

Figure 1: Location
 J411486C: I-70 Jackson County
 Wetland Delineation Report

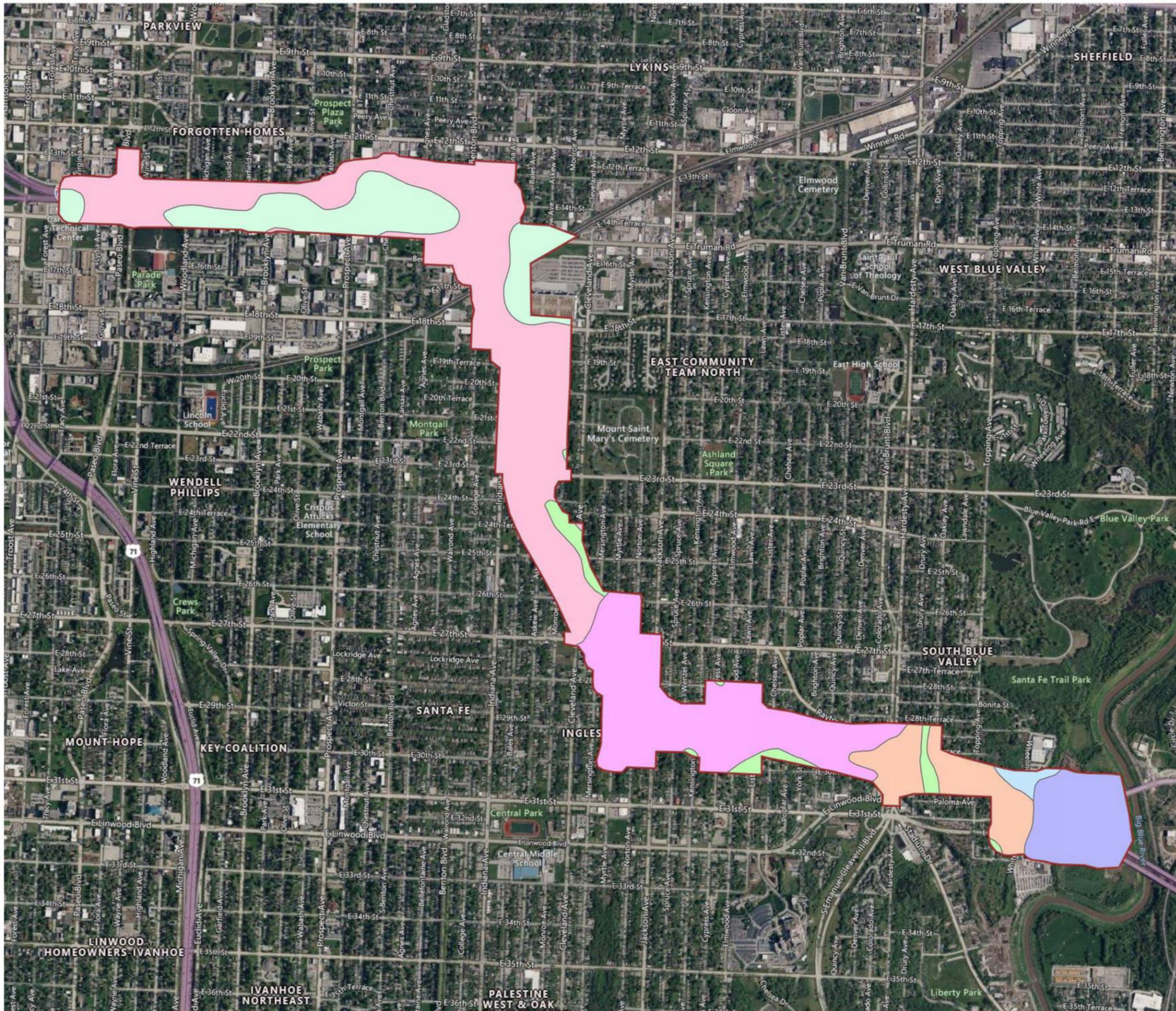
 NEPA Study Limits



0 0.2 mi



Figure 2: Soils
J411486C: I-70 Jackson County
Wetland Delineation Report



- ▭ NEPA Study Limits
- Mapunit Name
- ▭ Knox-Urban land complex, 5 to 9 percent slopes
- ▭ Knox-Urban land complex, 9 to 14 percent slopes
- ▭ Snead-Rock outcrop complex, 14 to 30 percent slopes
- ▭ Snead-Urban land complex, 9 to 30 percent slopes
- ▭ Urban land, bottomland, 0 to 3 percent slopes, rarely flooded
- ▭ Urban land, upland, 5 to 9 percent slopes
- ▭ Urban land-Harvester complex, 2 to 9 percent slopes

Figure 3: NWI / NHD
 J411486C: I-70 Jackson County
 Wetland Delineation Report

- NEPA Study Limits
- NWI
- Palustrine
- Riverine
- NHD

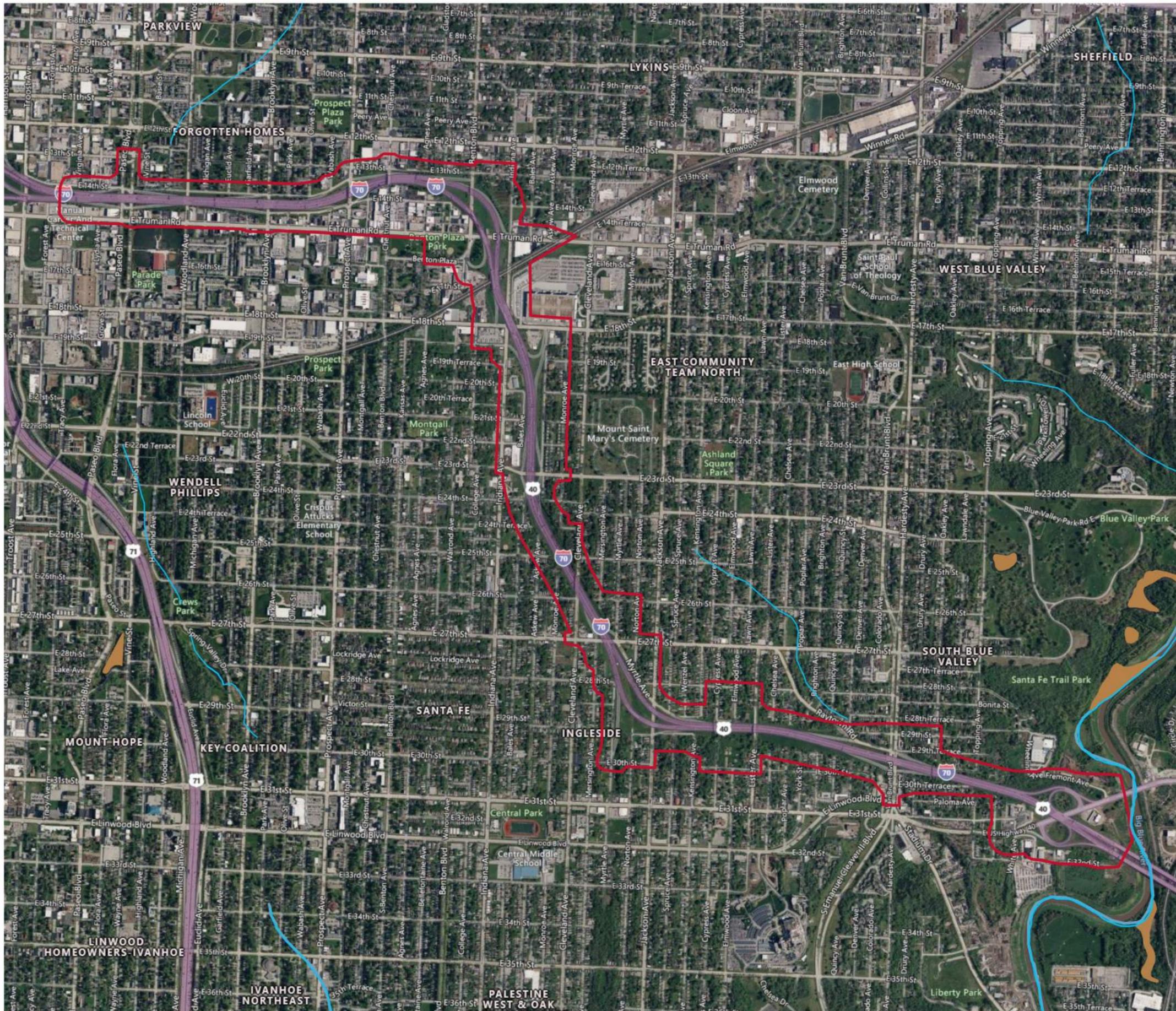
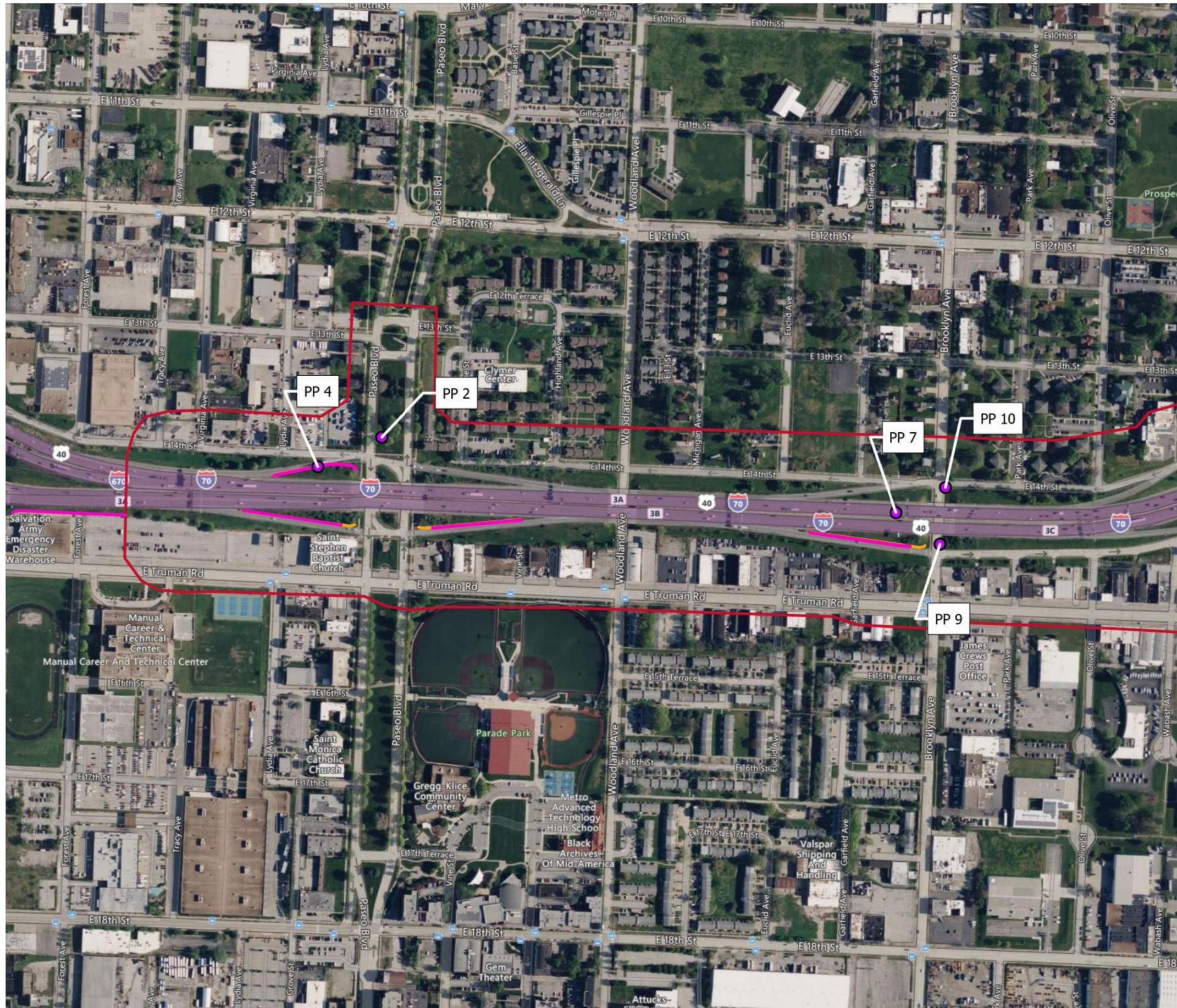


Figure 4: Wetland Delineation
 J411486C: I-70 Jackson County
 Wetland Delineation Report

- NEPA Study Limits
- Delineation 2022**
- Photo Point
- Ditches
- Delineation 2013**
- Ditches

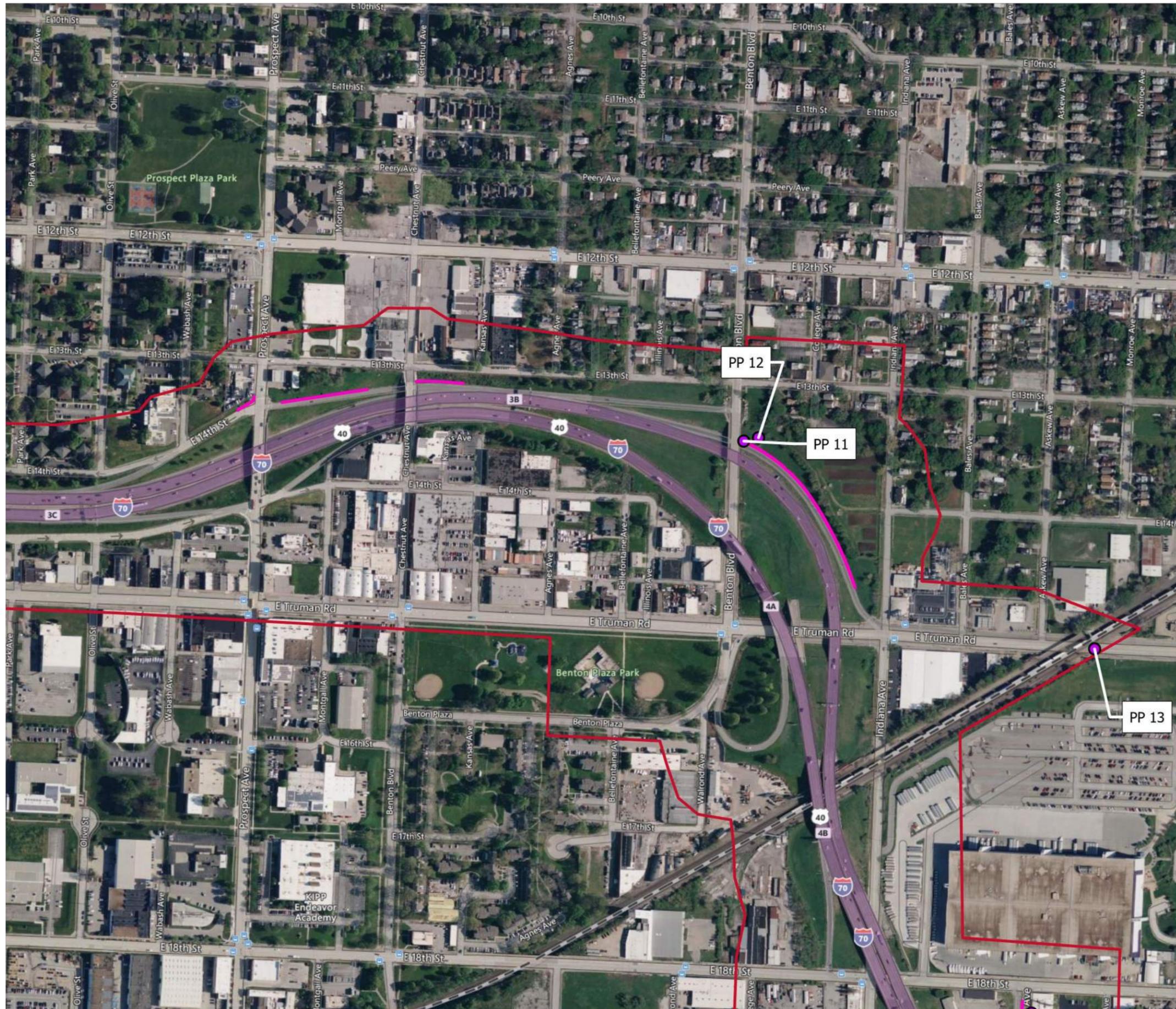


0 0.1 mi



**Figure 4: Wetland Delineation
J411486C: I-70 Jackson County
Wetland Delineation Report**

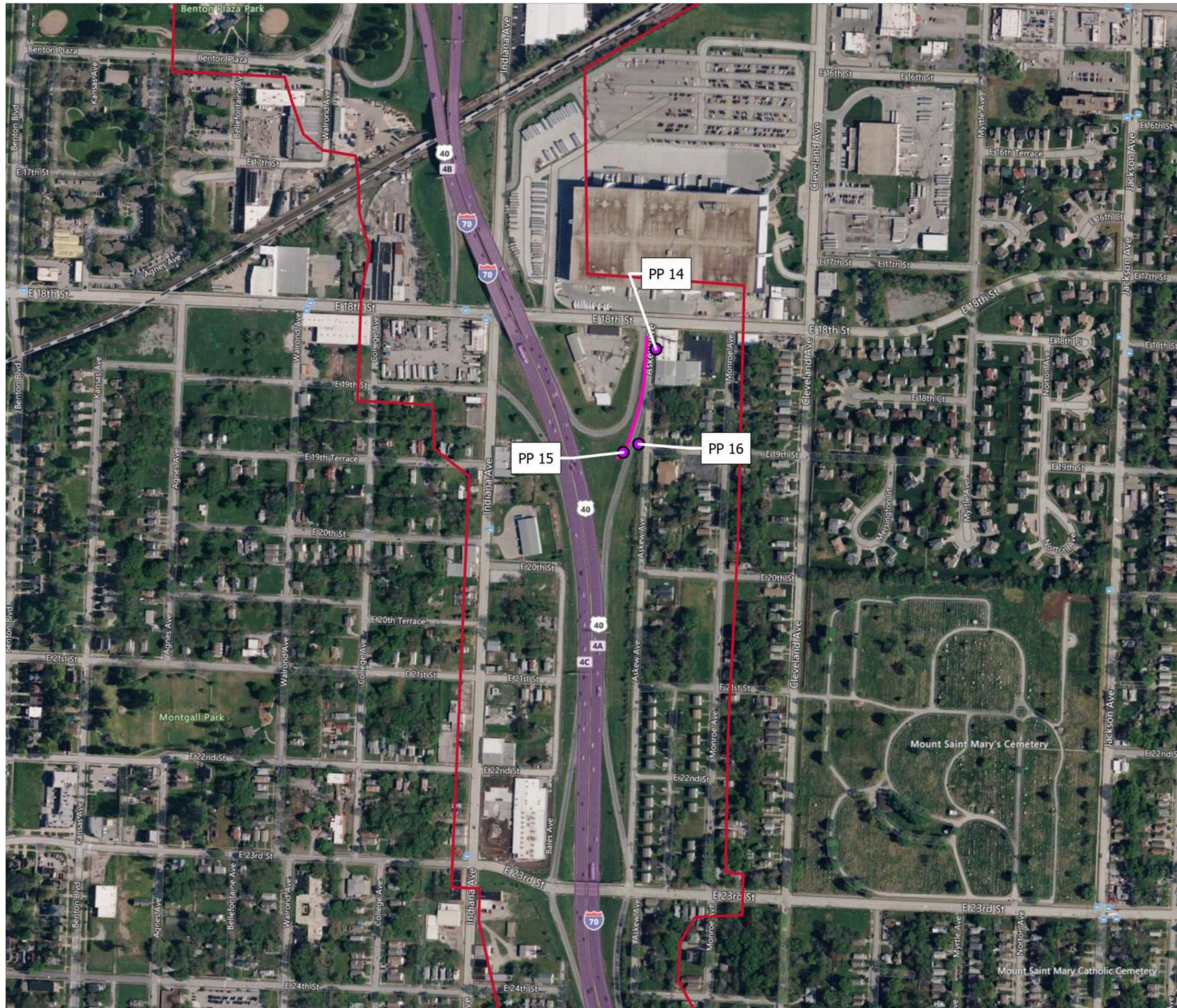
- NEPA Study Limits
- Delineation 2022
- Photo Point
- Ditches



0
0.1 mi
↑

Figure 4: Wetland Delineation
 J411486C: I-70 Jackson County
 Wetland Delineation Report

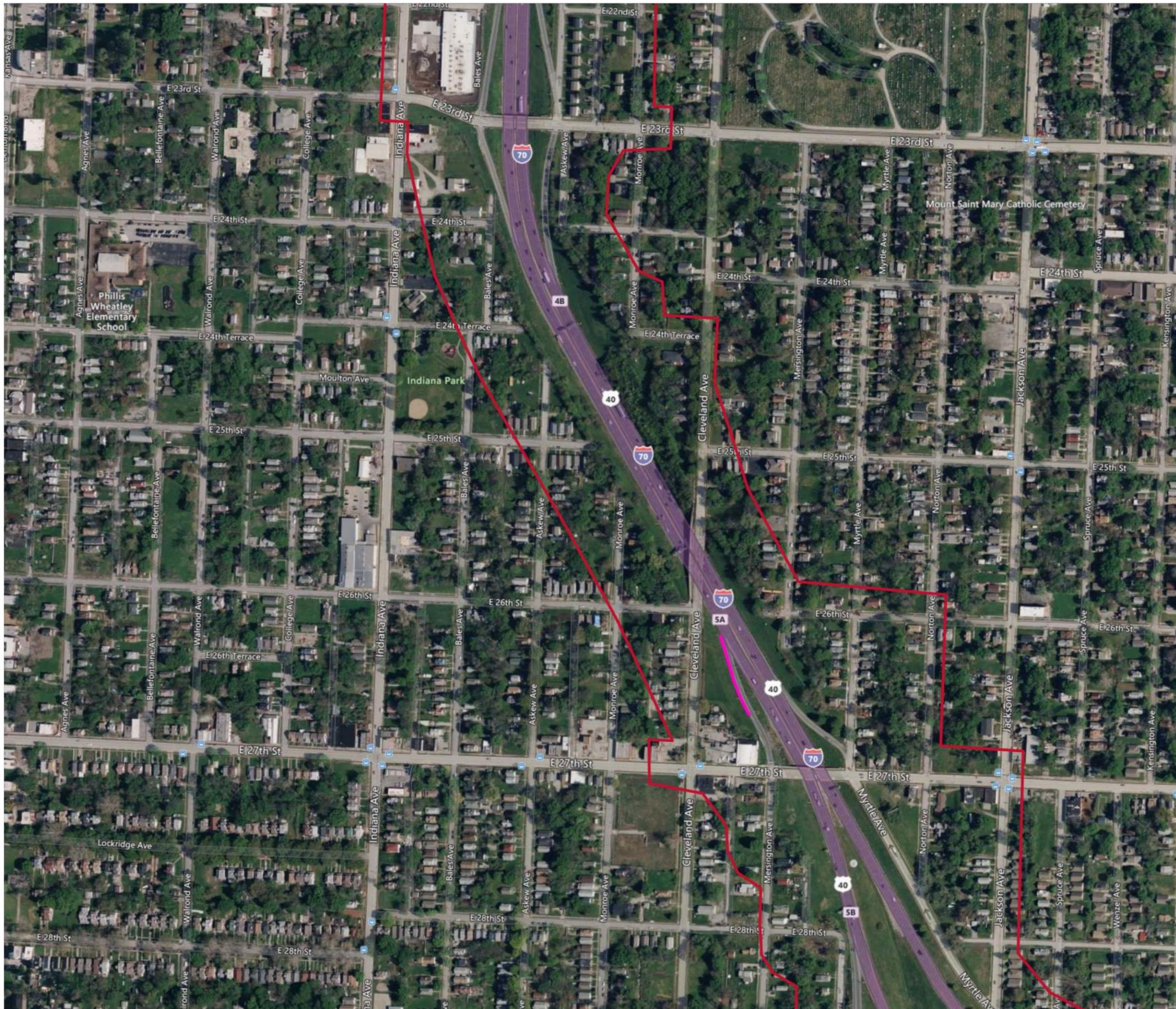
- NEPA Study Limits
- Photo Point
- Ditches



0
0.1 mi
↑

Figure 4: Wetland Delineation
 J411486C: I-70 Jackson County
 Wetland Delineation Report

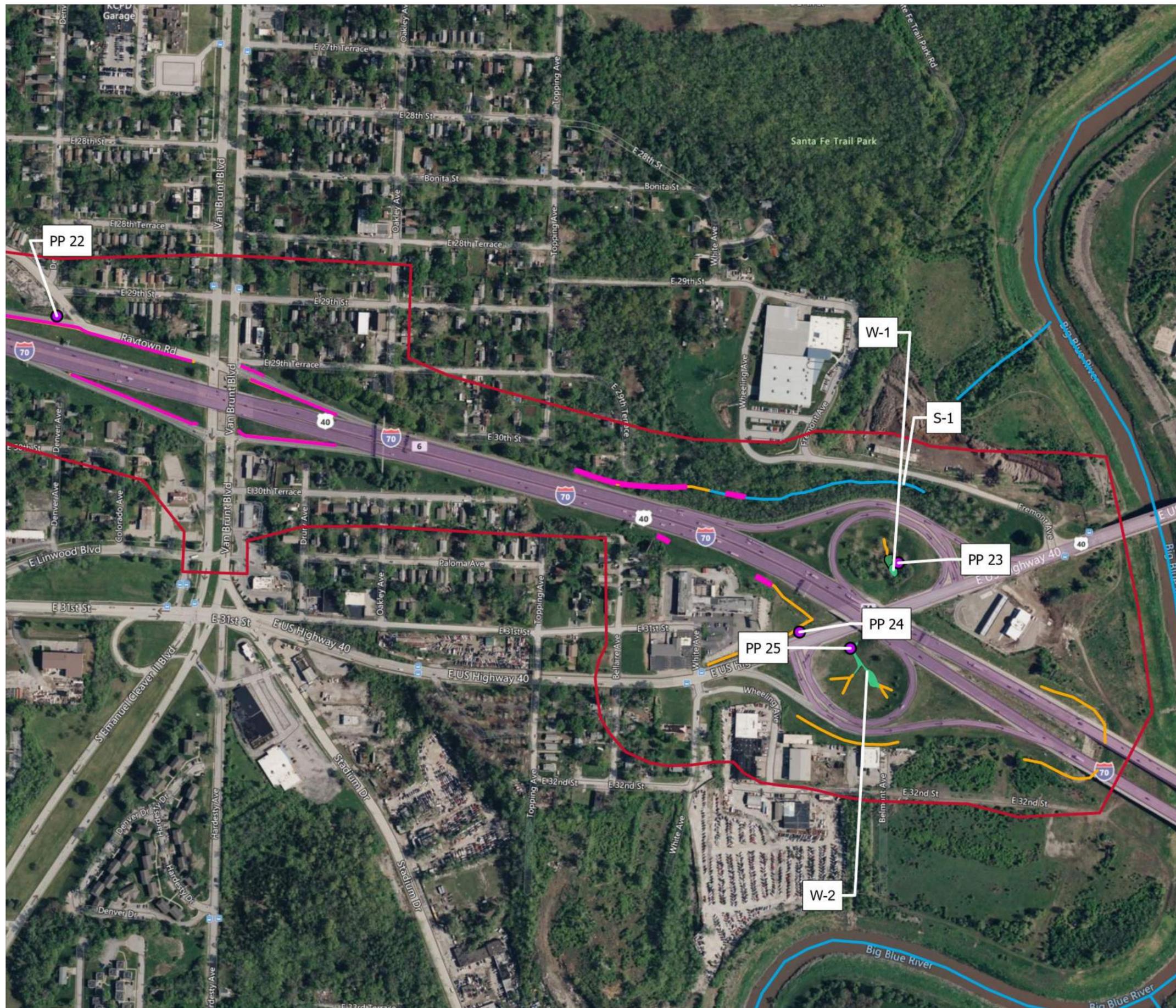
- NEPA Study Limits
- Ditches



0 0.1 mi



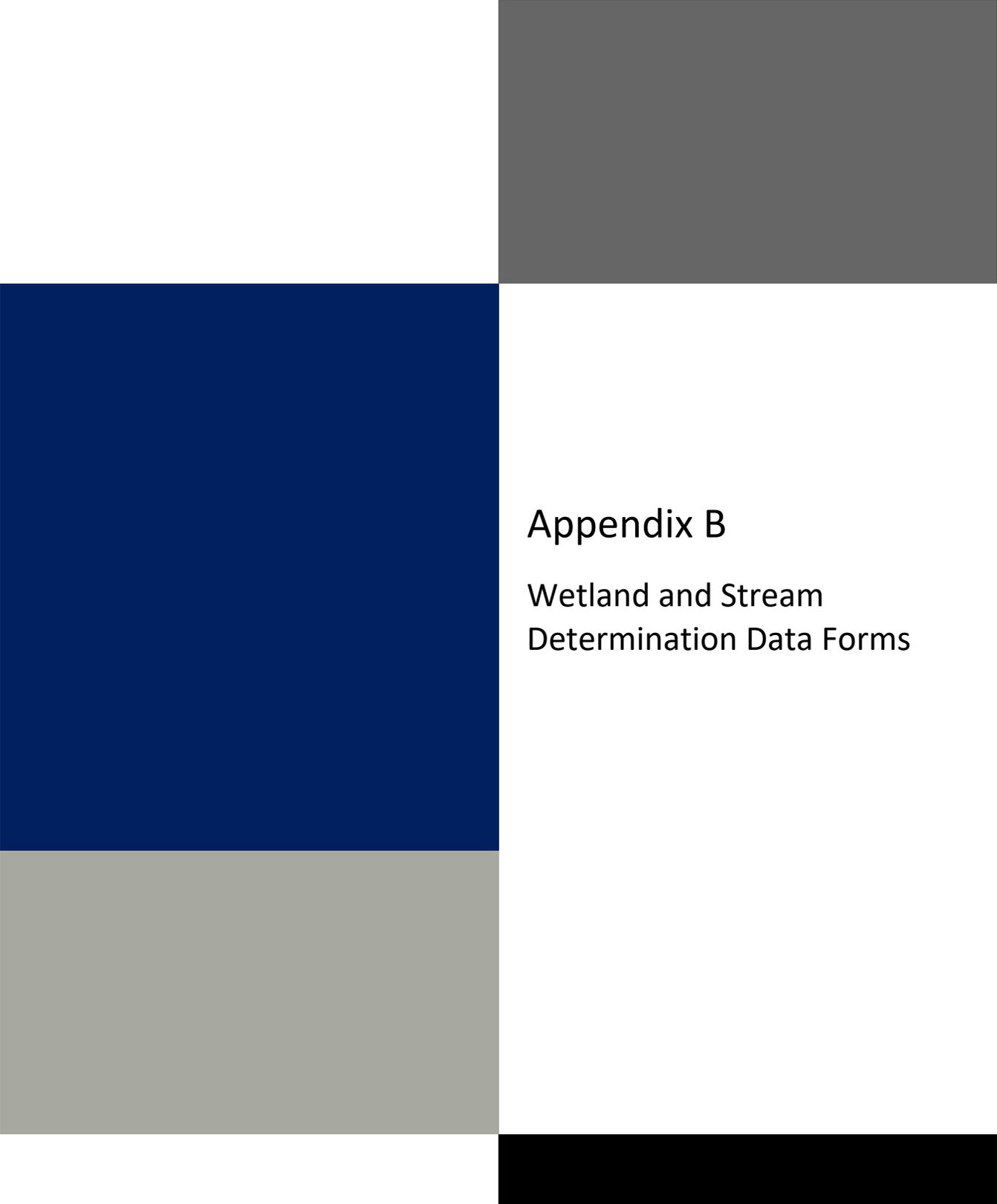
**Figure 4: Wetland Delineation
J411486C: I-70 Jackson County
Wetland Delineation Report**



- NEPA Study Limits
- Delineation 2022**
- Photo Point
- Ditches
- Delineation 2013**
- Ditches
- Streams
- Type**
- Emergent
- Forested



0
0.1 mi
↑



Appendix B

Wetland and Stream
Determination Data Forms

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I-70 Jackson County City/County: Kansas City/ Jackson County Sampling Date: 06-16-2022
 Applicant/Owner: Missouri Department of Transportation State: MO Sampling Point: DP 1
 Investigator(s): Elizabeth Casey and Ian Waters Section, Township, Range: _____
 Landform (hillside, terrace, etc.): toe slope Local relief (concave, convex, none): convex
 Slope (%): 2 Lat: 39.072974 Long: -94.535532 Datum: WGS84
 Soil Map Unit Name: Knox-Urban land complex, 9 to 14 percent slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: _____	

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ =Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ =Total Cover				
<u>Herb Stratum</u> (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Trifolium pratense</u>	5	No	FACU	
2. <u>Plantago lanceolata</u>	10	No	FACU	
3. <u>Festuca arundinacea</u>	40	Yes	FACU	
4. <u>Bromus inermis</u>	40	Yes	FACU	
5. <u>Ulmus pumila</u>	5	No	UPL	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
100 =Total Cover				
<u>Woody Vine Stratum</u> (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ =Total Cover				

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>0</u>	x 2 =	<u>0</u>
FAC species	<u>0</u>	x 3 =	<u>0</u>
FACU species	<u>95</u>	x 4 =	<u>380</u>
UPL species	<u>5</u>	x 5 =	<u>25</u>
Column Totals:	<u>100</u> (A)		<u>405</u> (B)
Prevalence Index = B/A =			<u>4.05</u>

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0¹

___ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: (Include photo numbers here or on a separate sheet.) _____

SOIL

Sampling Point: DP 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Gleyed Matrix (S4) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Dark Surface (S7) |
| <input type="checkbox"/> Stratified Layers (A5) | <input type="checkbox"/> Loamy Mucky Mineral (F1) |
| <input type="checkbox"/> 2 cm Muck (A10) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) | <input type="checkbox"/> Redox Depressions (F8) |

Indicators for Problematic Hydric Soils³:

- Coast Prairie Redox (A16)
- Iron-Manganese Masses (F12)
- Red Parent Material (F21)
- Very Shallow Dark Surface (F22)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: gravel
 Depth (inches): 0

Hydric Soil Present? Yes No

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

Secondary Indicators (minimum of two required)

- | | | |
|--|---|--|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Water-Stained Leaves (B9) | <input type="checkbox"/> Surface Soil Cracks (B6) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Aquatic Fauna (B13) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> True Aquatic Plants (B14) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Stunted or Stressed Plants (D1) |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input type="checkbox"/> Geomorphic Position (D2) |
| <input type="checkbox"/> Iron Deposits (B5) | <input type="checkbox"/> Thin Muck Surface (C7) | <input type="checkbox"/> FAC-Neutral Test (D5) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Gauge or Well Data (D9) | |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) | <input type="checkbox"/> Other (Explain in Remarks) | |

Field Observations:

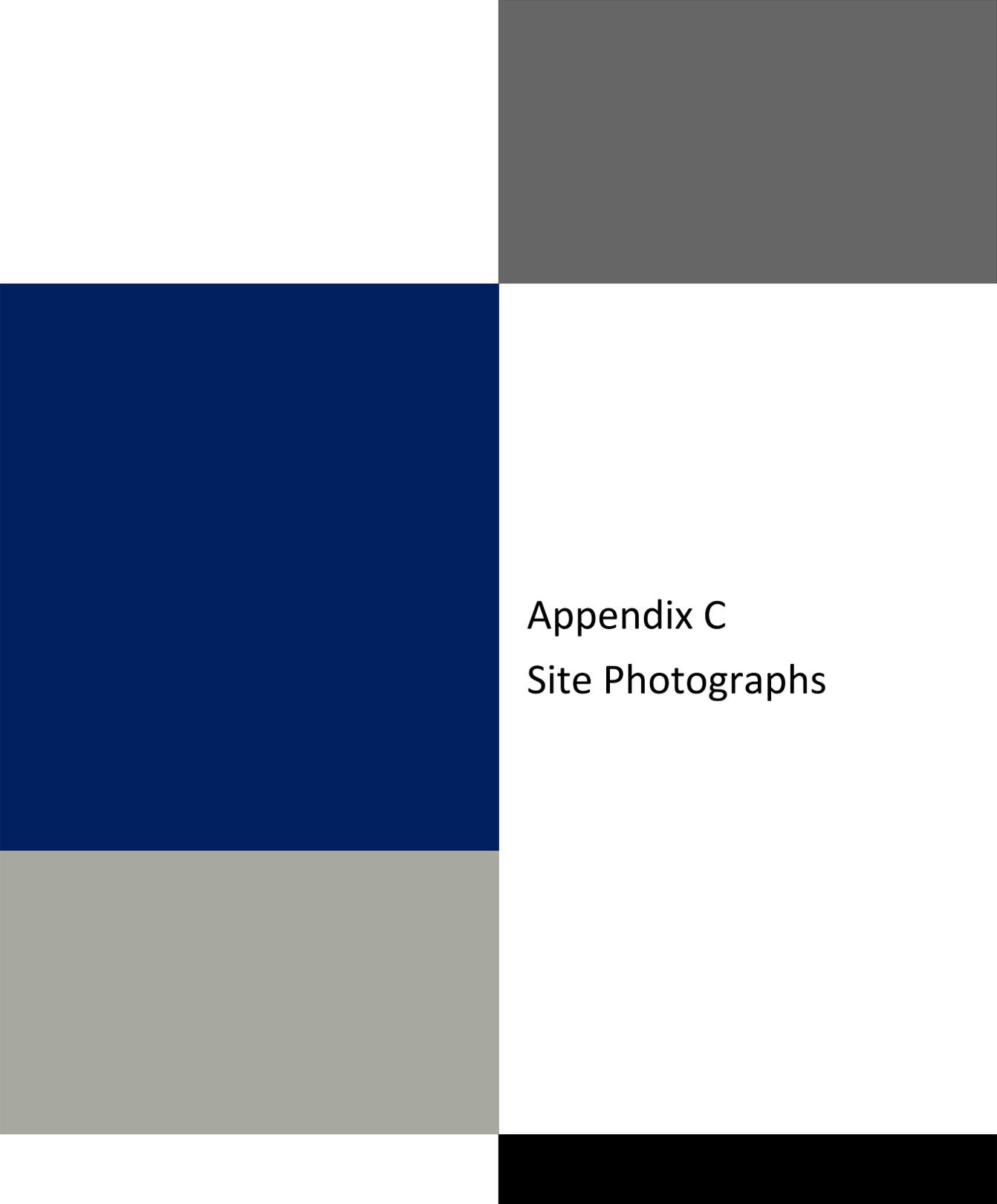
Surface Water Present? Yes No Depth (inches):
 Water Table Present? Yes No Depth (inches):
 Saturation Present? Yes No Depth (inches):
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrologic indicators were present.



Appendix C
Site Photographs

Photo Log

I-70 Jackson County



PP 2: Upland, landscaped green space between the north and south bound Paseo, north of East 14th Street. Orientation south.



PP 4: Roadside west of the south bound Paseo and north of I-70. This is representative of the other roadside ditches in the area. Orientation east.



PP 7: Roadside ditch in between east and westbound I-70, west of Brooklyn Avenue. A culvert opening is visible near the toe of slope. This ditch is representative of the other roadside ditches along the I-70. Orientation southwest.



PP 9: Roadside drainage ditch on the southeastern corner of I-70 and Brooklyn Avenue. Orientation east.



PP 10: Roadside ditch with manhole, north of I-70, at the corner of East 14th Street and Brooklyn Avenue. Orientation southwest.



PP 12: Roadside ditch at southeastern corner of Brooklyn Avenue and East 13th street. Orientation east.



PP 14: Roadside at Askew Avenue and East 18th Street. Orientation south.



PP 15: Roadside ditch and manhole at Askew Avenue and East 19th Street. Orientation northeast.



PP 16: Roadside at Askew Avenue and East 19th Street. Orientation west.



PP 17: Interchange between north and south bound I-70, in between Myrtle Avenue and Jackson Avenue. Orientation east.



PP 19: Roadside on Myrtle Avenue, south of East 29th Street. Orientation north.



PP 20: Roadside between Myrtle Avenue I-70 southbound exit and Norton Avenue. Orientation northeast.



PP 21: Concrete-lined drainage structure on the northwest corner of Cypress Park. Orientation north.



PP 22: Roadside ditch between I-70 northbound on-ramp and Raytown Road. Orientation west.



PP 24: Roadside ditch north of east U.S. 40 and south of I-70. Orientation southwest.



PP 25: Confirmation of 2013 delineated palustrine emergent wetland, W-2, within south loop of the I-70/U.S. 40/East 31st Street interchange. Orientation south.



PP 23: Confirmation of previously delineated forested and palustrine emergent wetland, W-1, within the north loop of the I-70/US 40/East 31st Street interchange.



DP 1: An upland data point north of Norton Avenue and south of I-70. Orientation north.



S 1: Concrete lined and natural drainage from I-70 which flows through culverts to the Blue River.



Appendix D
HNTB Wetland
Delineation, 2013

I-70
The Paseo to Blue Ridge Cutoff
Jackson County

PRELIMINARY
JURISDICTIONAL WATERS DETERMINATIONS
SUMMARY REPORT

Presented to
U.S. Army Corps of Engineers – KC District

On behalf of the
Missouri Department of Transportation

by
HNTB Corporation
HNTB

October 2013

**I-70 – The Paseo to Blue Ridge Cutoff
Kansas City, Missouri
Jackson County**

**Preliminary Jurisdictional Waters Determinations
Summary Report**

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EXHIBITS:

A – Vicinity Map

B-1 & B-2 – USGS / NWI Map

C-1 & C-2 – Soils Map (Soil Legend & Hydric Soils List follow)

APPENDIX A – Plan Views –

 D-1 through D-9 – Geometric Improvements Alternative

 E-1 through E-9 – Interchange Consolidations Alternative

 F-1 through F-9 – Preferred Alternative

APPENDIX B – Streams (Stream Data Forms w/Photos)

APPENDIX C – Wetlands (Wetland Determination Data Forms & Photo Sheets)

APPENDIX D – References (Books & Websites, and Maps)

APPENDIX E – Wetland Investigator Bio-Data

**I-70 – The Paseo to Blue Ridge Cutoff
Kansas City, Missouri
Jackson County**

**PRELIMINARY JURISDICTIONAL WATERS DETERMINATIONS
SUMMARY REPORT**

I. INTRODUCTION

The Missouri Department of Transportation (MoDOT) and the Federal Highway Administration (FHWA) propose improving the existing I-70 corridor, by improving the engineering issues in the corridor; such as short ramp lengths, tight curves, and weave areas; as well as consolidation of some closely spaced interchanges. The project will extend approximately 6.8 miles from the end of the last ramp termini west of The Paseo interchange to east of the Blue Ridge Cutoff interchange. A Second Tier Environmental Impact Statement (EIS) is being prepared for the proposed improvements for I-70, in accordance with the National Environmental Policy Act (NEPA) and the guidelines outlined in Section 6002 of the current transportation highway law known as Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU).

The following overview provides a summary of the field investigations performed to assess Waters of the U.S. located in and adjacent to the project area. This information is compiled for the purpose of providing data for impact analysis of three alternatives: 1) the Geometric Improvements Alternative, 2) the Interchange Consolidations Alternative, and 3) the Preferred Alternative, all of which are being studied in the Draft EIS. In addition, the data can be used for a Clean Water Act (CWA) Section 404 permit application in the design phase of the project. The field work was conducted by HNTB Corporation environmental personnel in April 2013. The Project Proponent and the Consultant for the project, and the respective contact persons, are as follows:

PROJECT PROPONENT

Missouri Department of Transportation – Dist. 4
Alan Zafft, P.E.
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CONSULTANT

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A. Purpose of and Need for the Project

The purpose of the project is to meet the current and future traffic needs, safety needs, access needs across and to/from I-70; and to provide future improvements and mode choices, which address the following items.

- *Improve Safety*: Reduce crash rates and crash severity on I-70.
- *Reduce Congestion*: Remove key bottlenecks; reduce the potential for ramp back-up onto the freeway; and improve multi-modal travel times in coordination with plans put forward by local and regional agencies.
- *Restore and Maintain Existing Infrastructure*: Improve bridge and pavement conditions on I-70 and implement cost-effective investment alternatives.
- *Improve Accessibility*: Provide travel options for all residents; increase safe access across I-70 for non-motorized travel; support local and regional land use plans.
- *Improve Goods Movement*: Improve the efficiency of freight movement on I-70.

B. Regulatory Background

Section 404 of the CWA prohibits the discharge of dredged or fill material into “Waters of the U.S.” unless exempted or authorized by the U.S. Army Corps of Engineers (USACE). Section 404 is the primary Federal statute that implements federal regulatory policies concerning the protection of wetlands and other waters of the U.S. as specified in various orders and regulations. The Rock Island District USACE maintains jurisdiction over the water resources in the area in which the project is located.

The inventory and investigations for Waters of the U.S. included the task of gathering data to analyze “Significant Nexus” for jurisdictional determination. The classes of water bodies that are automatically jurisdictional under the CWA are Traditional Navigable Waters (TNWs) and their adjacent wetlands, Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs, and wetlands directly abutting RPWs that flow directly or indirectly into TNWs. According to the EPA and USACE, an RPW is a tributary that is not a TNW and that typically flows year-round (perennial) or has continuous flow at least seasonally (typically 3 months - intermittent). Other water bodies that require a “Significant Nexus” finding in order to assert jurisdiction include:

- Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs.
- Non-RPWs that flow directly or indirectly into TNWs (a Non-RPW is an intermittent waterway, i.e., one that does not flow year-round and typically less than 3 months; or an ephemeral waterway, i.e., one that flows only during and shortly after a storm event)
- Wetlands adjacent to Non-RPWs that flow directly or indirectly into TNWs.

For isolated (interstate or intrastate) waters, including isolated wetlands, the USACE will elevate the action to USACE Headquarters for a review based on the USACE/EPA Memorandum Regarding *CWA Act Jurisdiction Following Rapanos*.

The USACE/EPA jurisdictional determination guidance also indicates that swales and erosional features, such as gullies and small washes characterized by low volume, infrequent, and short duration flow, “are generally not Waters of the U.S. because they are not tributaries or they do not have a significant nexus to TNWs.” The same holds true for “ditches (including roadside ditches) excavated wholly in and draining only uplands, and that do not carry a relatively permanent flow of water.”

II. METHODS

References used to identify streams and sites of potential jurisdictional wetlands included U.S. Geological Survey (USGS) maps; U.S. Fish and Wildlife Service National Wetlands Inventory (NWI) maps (see **Exhibits B-1** and **B-2**); the Natural Resources Conservation Service (NRCS) county soil survey maps (see **Exhibits C1** and **C-2**) and county hydric soils lists; and aerial photography (see **Exhibits D-1** through **D-9**, **E-1** through **E-9**, and **F-1** through **F-9**).

The stream crossings evaluated in this report include USGS blue line streams within the project area and other streams that exhibited a discernible channel (bed & bank) with an Ordinary High Water Mark (OHWM). Streams were photographed and were field-checked to determine the presence or absence of a discernible OHWM, and to determine the average width of the OHWM. In addition, the adjacent vegetation and the composition of the stream channel were also noted, as well as other pertinent data which is indicated on each stream data form in **Appendix A**. Field work at each stream also included observations to check for ponding or saturation on the terraces above the OHWM.

The NWI maps were also reviewed to determine locations of potential “vegetated wetlands” within the project area. The review of the NWI maps indicated that there are only two MWI-mapped areas within the study area. Subsequent field investigations revealed that these two areas, as well as six other areas contained potential wetlands. On-site Level 2 delineations were conducted at potential wetland areas using the Routine Method of the 1987 USACE Wetlands Delineation Manual and the Midwest Regional Supplement (Version 2.0), August 2010. Potential wetland areas were photographed and delineation forms were filled out to determine which wetland criteria (hydric soils, hydrophytic vegetation, wetland hydrology), if any, were met. At each data collection point, soil samples were taken, hydrology was evaluated, and vegetation was characterized and listed (see **Appendix B**). On-site measurements were taken to determine the location and extent of wetland boundaries.

No ponds were present within the potential impact area of the project.

The ArcGIS program was used to create stream and wetland shapes and determine the surface area of wetlands located within the project area.

III. RESULTS AND DISCUSSION

The project area is shown on all of the exhibits and includes potential construction limits of three project alternatives. The water resources within the potential impact areas of the project alternatives that were investigated in the field included 4 streams and 8 wetland areas. **Exhibits D-1 through D-9, E-1 through E-9, and F-1 through F-9** contain enlarged Plan View sheets showing the water resource locations in the east half of the project corridor where the streams and wetlands are located. The west half of the project corridor contains only roadside and interchange ditches. **Appendices A and B** contain data sheets and photographs of each of the streams and wetlands.

A. Streams

Within the area project area, field investigations were performed at four stream segments located within the potential impact area of the project. Photographs and pertinent information about each stream and adjacent riparian area are presented on Stream Data Forms in **Appendix A**. **Table 1** presents a summary of the streams, including type of stream/flow, OHWM width, potential jurisdictional determination, and hydric soil mapping designation. The following is a brief summary of each stream within the potential impact area of the project:

- **Stream S-1** is an ephemeral Non-RPW flowing on the north side of I-70 and eventually to the Blue River through an underground pipe and open channel (see Exhibits D-6 & D-7).
- **Streams S-2** is an ephemeral Non-RPW that flows through a culvert under I-70 (see Exhibit D-8).
- **Stream S-3** is an intermittent RPW, and an unnamed tributary of the Blue River, flowing from the southwest side of the I-70/I-435 interchange (see Exhibits D-8 & D-9).
- **Stream S-4** is an ephemeral Non-RPW flowing into Stream S-3 on the southwest side of the I-70/I-435 interchange (see Exhibits D-8 & D-9).

Table 1 - Streams

Stream #	Stream Name (if any)	Stream Type	Potentially Jurisdictional	Soil Mapping	OHWM Width (ft)	OHWM Depth (ft)
S-1	Unnamed Trib. of Blue River	Ephemeral Non-RPW	Yes	NH	3	1.0
S-2	Unnamed Tributary	Ephemeral Non-RPW	Yes	NH	5	0.5
S-3	Unnamed Trib. of Blue River	Intermittent RPW	Yes	NH	6	0.5
S-4	Unnamed Tributary	Ephemeral Non-RPW	Yes	NH	4	0.5

RPW = Relatively Permanent Water; NH = Non-hydric Soil

The Blue River and one of its unnamed tributaries flow under the Manchester Bridge, which is not included as part of the project being studied in the I-70 Second Tier EIS for the I-70 improvements. The area around the existing I-70 Manchester Bridge and the I-70 bridge over US40/East 31st Street are being cleared and permitted in a separate project. Round Grove Creek, flowing under I-435, is located near the south end of the study corridor, however, it is outside of the area of improvements. None of these streams are included in this report.

Two additional stream segments are located at the edges of the study corridor, but are not within the area of improvements. One is located at the north end of the project area, on the east side of I-435 (**Exhibit D-7**); and the other is located at the east end of the study corridor, on the south side of I-70 (**Exhibit D-9**). Both of these locations have already undergone widening improvements through a previous project, and as such, were not investigated in the field and are not included in this report.

B. Wetlands

Based on a review of NWI maps and subsequent field investigations, it was determined that eight vegetated wetland areas (exhibiting wetland hydrology, hydrophytic vegetation, and hydric soils) exist in the project area (see **Exhibits D-1 through D-5, E-1 through E-5, and F-1 through F-5**). Wetland photographs with explanations of each wetland area and Wetland Determination Data Forms are presented in **Appendix B**, and summarized in **Table 2**. The following is also a brief summary of each wetland area:

- **Wetland W-1** consists of both emergent and forested wetland vegetation, and is located within the north loop of the I-70/US 40/East 31st Street interchange.
- **Wetland W-2** contains an emergent wetland area (predominantly cattails) in a drainage ditch within the south loop of the I-70/U.S. 40/East 31st Street interchange.
- **Wetland W-3** is a PEM-designated wetland area consisting of both emergent and scrub-shrub wetland vegetation, and abuts stream S-3, which is considered to be a potential jurisdictional stream.
- **Wetland W-4** is a PEM-designated emergent wetland area containing cattails. It is located adjacent to a drainage ditch within the northwest loop of the I-70/I-435 interchange.
- **Wetland W-5** is a small emergent wetland area containing cattails, adjacent to a drainage ditch in the northwest quadrant of the I-70/I-435 interchange.
- **Wetland W-6** is an emergent wetland area containing cattails. It is located within a drainage ditch within the southeast loop of the I-70/I-435 interchange.
- **Wetlands W-7 and W-8** are emergent wetland areas containing cattails. They are located on the northeast side of the northeast quadrant of the I-70/I-435 interchange. Both appear to receive runoff from a large paved parking lot just to the east.

Only wetland W-3 appears to be a potential jurisdictional wetland, as it abuts stream S-3, which is considered to be a potential jurisdictional stream. All of the other wetland areas are characteristically isolated within or adjacent to drainage ditches along the roadside or within the interchanges. These isolated wetlands, being associated with roadside or interchange drainage ditches, do not appear to have a connection to jurisdictional waters, and are therefore considered to be potentially non-jurisdictional (also see discussion on Ditches in next section).

Table 2 - Wetlands

Wetland #	NWI	Soil Mapping	Adjacent/ Abutting/ Isolated	Adjacent Jurisdictional Waterway	Wetland Size by Type		
					Emergent (ac.)	Scrub-Shrub (ac.)	Forested (ac.)
W-1	None	NH	Isolated	None – potentially non-jurisdictional	0.028	0	0.042
W-2	None	NH	Isolated	None – potentially non-jurisdictional	0.102	0	0
W-3	PEMCh	NH	Abutting	Stream S-3 - RPW	0.082	0.033	0
W-4	PEMCx	NH	Isolated	None – potentially non-jurisdictional	0.053	0	0
W-5	None	NH	Isolated	None – potentially non-jurisdictional	0.005	0	0
W-6	None	NH	Isolated	None – potentially non-jurisdictional	0.017	0	0
W-7	None	NH	Isolated	None – potentially non-jurisdictional	0.061	0	0
W-8	None	NH	Isolated	None – potentially non-jurisdictional	0.031	0	0
TOTALS					0.379	0.033	0.042

NH = Non-hydric soil; RPW = Relatively Permanent Water; NRPW = Non Relatively Permanent Water

C. Ditches

The project area contains several roadside ditches, as well as ditches within interchanges (see **Exhibit** groups **B** through **F**). These drainage ditches have been excavated wholly in and draining only uplands, and do not carry a relatively permanent flow of water. As such, these ditches are considered to be potentially non-jurisdictional.

IV. CONCLUSIONS AND IMPACTS

The water resources within the project area that were investigated in the field included four streams and eight wetlands. All four of the streams are considered to be jurisdictional waters. The project area contains approximately 0.115 acre of potential jurisdictional wetlands (W-3) and approximately 0.339 acre of potential non-jurisdictional wetlands associated with roadside or interchange ditches. None of the roadside or interchange ditches appear to be jurisdictional as discussed above. The USACE is being requested to review the inventory of these water resources for the purpose of providing a preliminary jurisdictional determination of these water resources that would potentially be impacted.

A. Impacts of the Build Alternatives

The project Build Alternatives include: 1) the Geometric Improvements Alternative, 2) the Interchange Consolidations Alternative, and 3) the Preferred Alternative. **Tables 3** and **4** below contain summaries of the potential impacts of the three alternatives on the streams and wetlands within the impact areas. In addition, **Table 5** includes a summary of total water resource impacts by alternative.

Geometric Improvements Alternative

Stream Impacts – As a result of fill, stream relocation, and/or culvert extension, this alternative would impact a total of approximately 406 linear feet of Streams S-1 and S-2, equating to approximately 0.03 acre of surface area below the OHWM.

Wetland Impacts – This alternative would have no impacts on Wetland W-3, which is potentially jurisdictional. However, as a result of the placement of embankment fill, this alternative would impact approximately 0.02 acre of two potentially non-jurisdictional emergent wetlands.

Interchange Consolidations Alternative

Stream Impacts – As a result of fill, stream relocation, and/or culvert extension, this alternative would impact a total of approximately 1,391 linear feet of Streams S-1 through S-4, equating to approximately 0.10 acre of surface area below the OHWM.

Wetland Impacts – As a result of the placement of embankment fill, this alternative would impact approximately 0.03 acre of emergent wetland and approximately 0.02 acre of scrub-shrub wetland, both of which are contained within Wetland W-3, which is potentially jurisdictional. In addition, this alternative would result in impacts by filling approximately 0.14 acre of potentially non-jurisdictional emergent wetlands.

Preferred Alternative

Stream Impacts – This alternative would impact the same streams and have the same linear footage impacts as the Geometric Improvements Alternative.

Wetland Impacts – This alternative would impact the same wetlands and have the same acreage impacts as the Geometric Improvements Alternative.

After an alternative is selected through the NEPA process, and as the project proceeds into design, construction limits of the proposed improvements will be determined in more detail and impacts to jurisdictional Waters of the U.S. will be further analyzed. If fill material is to be discharged below the OHWM of a jurisdictional water, a Section 404 Permit application will be submitted to the USACE.

Table 3 – Potential Stream Impacts

Alternatives				Geometric Improvements		Interchange Consolidations		Preferred	
Stream #	Potentially Jurisdictional	Impact Type	OHWM Width (ft)	Impact Length (ft)	Impact Area (acres)	Impact Length (ft)	Impact Area (acres)	Impact Length (ft)	Impact Area (acres)
S-1	Yes	Fill/Relocation	3	276	0.019	276	0.019	276	0.019
S-2	Yes	Culvert Ext./ Fill/Relocation	3	130	0.009	1000	0.069	130	0.009
S-3	Yes	Culvert Ext./ Fill	6	0	0.000	44	0.006	0	0.000
S-4	Yes	Culvert Ext./ Fill	4	0	0.000	71	0.007	0	0.000
Totals				406	0.028	1391	0.100	406	0.028

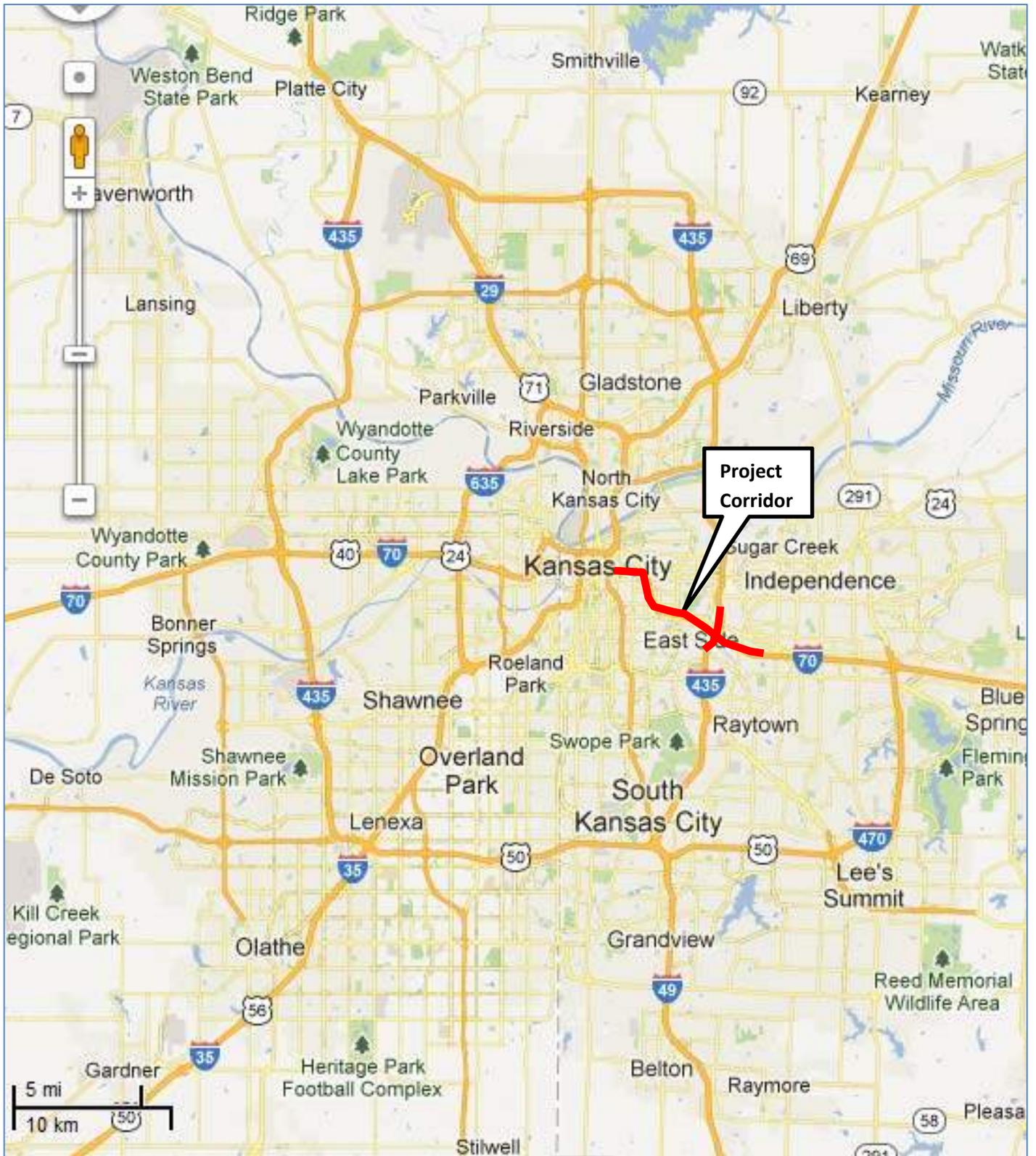
Table 4 – Potential Wetland Impacts

Alternatives		Geometric Improvements			Interchange Consolidations			Preferred		
Wetland #	Potentially Jurisdictional	Wetland Impacts by Type			Wetland Impacts by Type			Wetland Impacts by Type		
		EM (ac.)	SS (ac.)	FOR (ac.)	EM (ac.)	SS (ac.)	FOR (ac.)	EM (ac.)	SS (ac.)	FOR (ac.)
W-1	No	0	0	0	0	0	0	0	0	0
W-2	No	0.015	0	0	0.015	0	0	0.015	0	0
W-3	Yes	0	0	0	0.028	0.021	0	0	0	0
W-4	No	0	0	0	0.053	0	0	0	0	0
W-5	No	0.005	0	0	0.005	0	0	0.005	0	0
W-6	No	0	0	0	0.017	0	0	0	0	0
W-7	No	0	0	0	0.033	0	0	0	0	0
W-8	No	0	0	0	0.015	0	0	0	0	0
Subtotals		0.02	0	0	0.166	0.021	0	0.02	0	0
Totals		0.02			0.187			0.02		

EM = Emergent; SS = Scrub-shrub; FOR = Forested

Table 5 – Water Resources Impacts Summary

Alternatives	Potential Jurisdictional Streams		Potential Jurisdictional Wetlands (by type)			Potential Non-Jurisdictional Wetlands (by type)		
	Length (L.F.)	Surface Area (Ac.)	Emergent (Ac.)	Scrub-Shrub (Ac.)	Forested (Ac.)	Emergent (Ac.)	Scrub-Shrub (Ac.)	Forested (Ac.)
No-Build	0	0	0	0	0	0	0	0
Geometric Improvements	406	0.03	0	0	0	0.02	0	0
Interchange Consolidations	1,391	0.01	0	0.03	0.02	0.14	0	0
Preferred	406	0.03	0	0	0	0.02	0	0

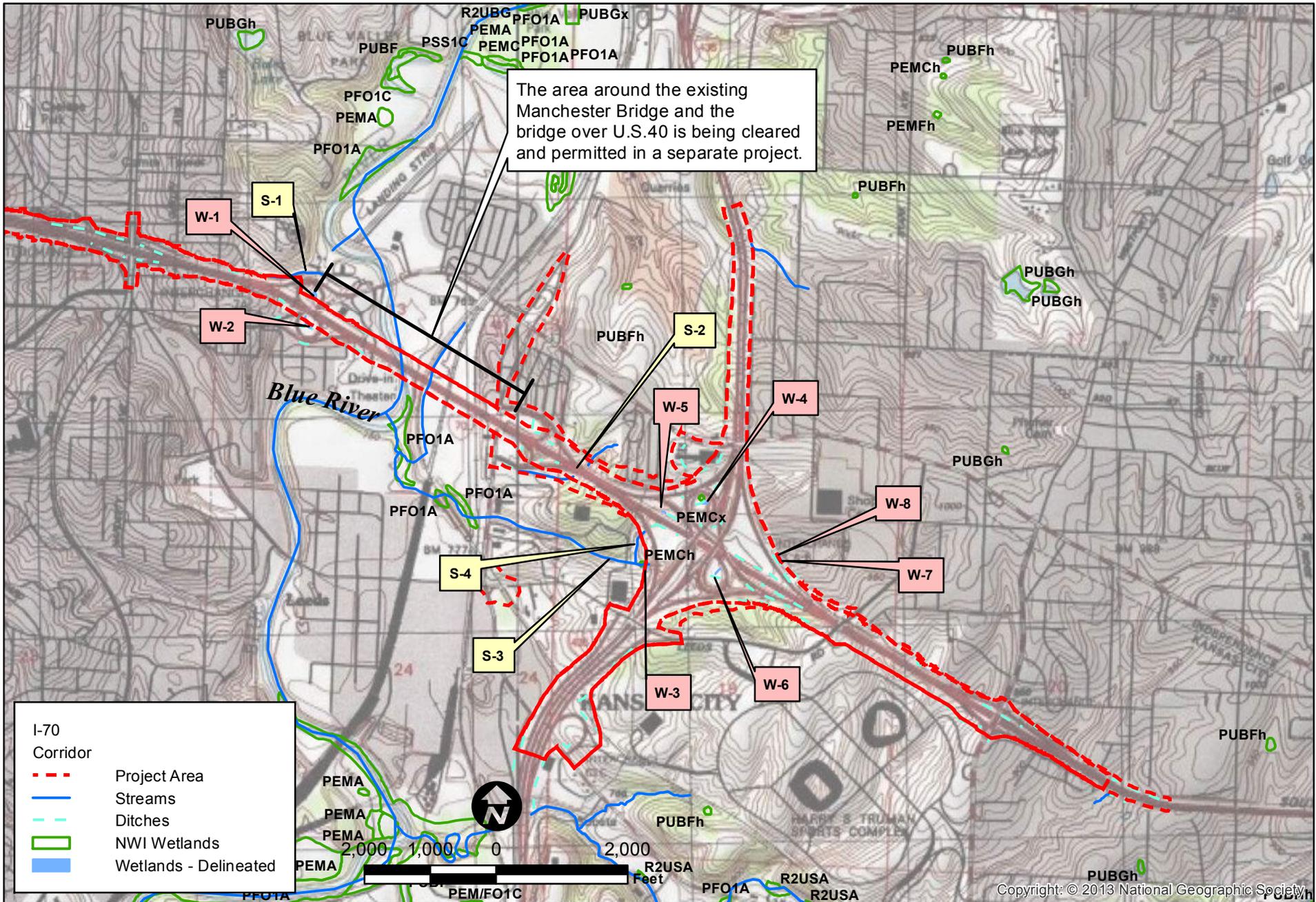


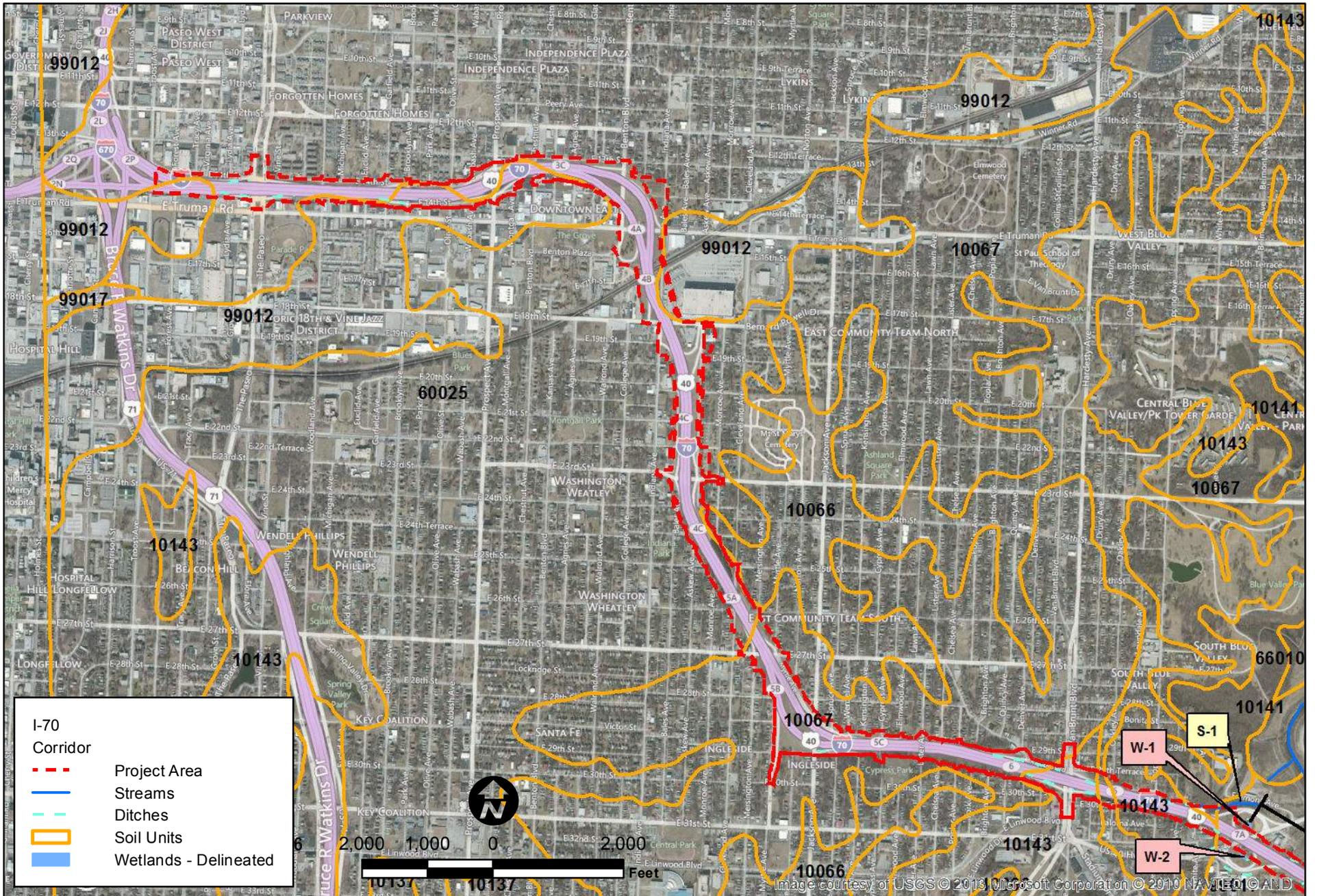
Source: 2013 Google Maps

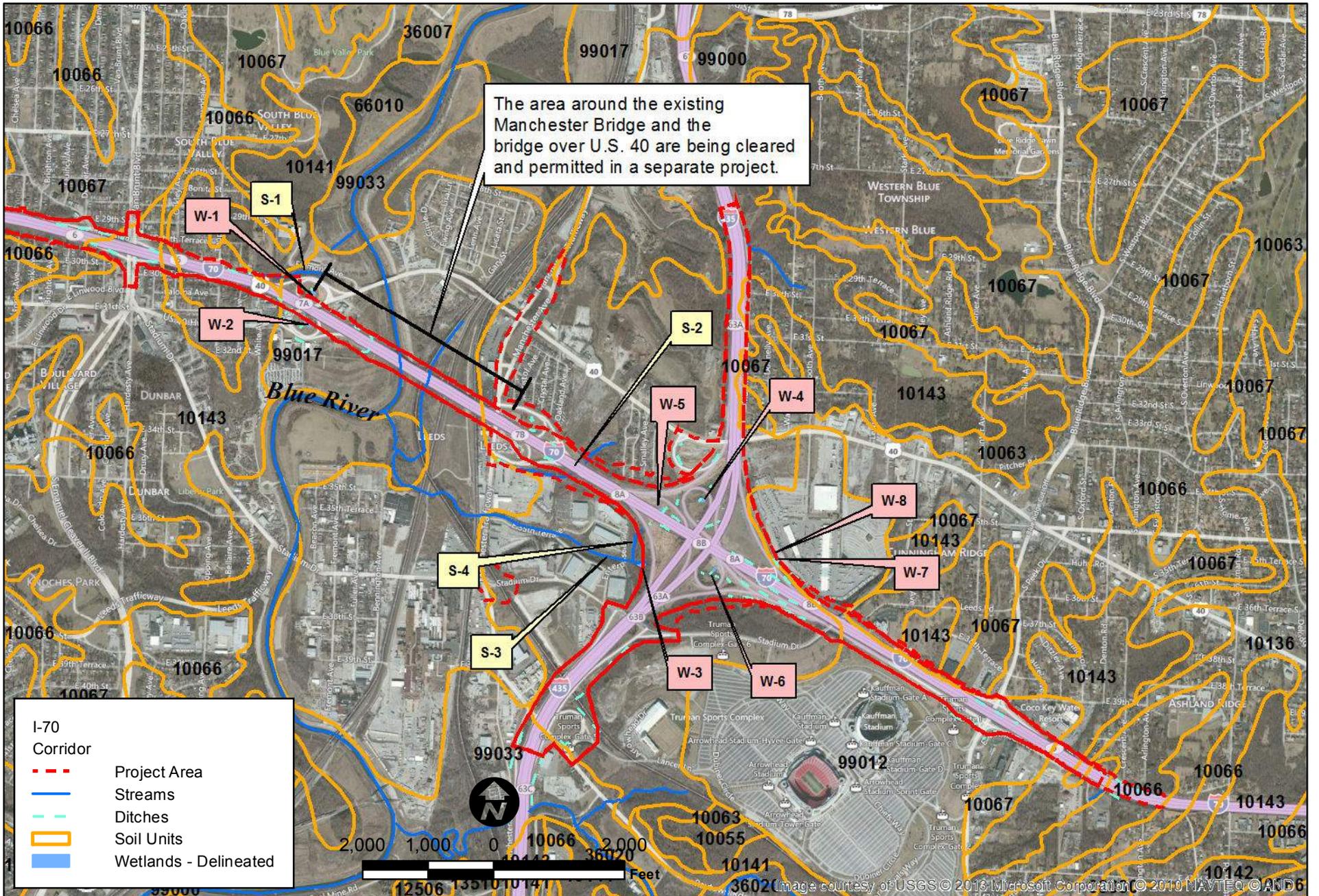
**I-70 Second Tier EIS
The Paseo to Blue Ridge Cutoff**

**Kansas City, Missouri
Jackson County**

**Exhibit A
Vicinity Map**







Map Unit Legend

Jackson County, Missouri

Map symbol	Map unit name
10000	Arisburg silt loam, 1 to 5 percent slopes
10024	Greenton-Urban land complex, 5 to 9 percent slopes
10026	Higginsville silt loam, 5 to 9 percent slopes
10028	Higginsville silt loam, 9 to 14 percent slopes, eroded
10032	Higginsville-Urban land complex, 5 to 9 percent slopes
10041	Knox silt loam, 14 to 20 percent slopes, eroded
10047	Knox silt loam, 20 to 25 percent slopes, severely eroded
10051	Knox silt loam, 20 to 35 percent slopes, eroded
10055	Knox silt loam, 5 to 9 percent slopes, eroded
10056	Knox silt loam, 9 to 14 percent slopes, eroded
10063	Knox silty clay loam, 9 to 14 percent slopes, severely eroded
10066	Knox-Urban land complex, 5 to 9 percent slopes
10067	Knox-Urban land complex, 9 to 14 percent slopes
10082	Arisburg-Urban land complex, 1 to 5 percent slopes
10088	Mandeville silt loam, 5 to 14 percent slopes
10104	McGirk silt loam, 5 to 9 percent slopes, eroded
10107	Menfro silty clay loam, 9 to 14 percent slopes, severely eroded
10113	Oska silty clay loam, 5 to 9 percent slopes, eroded
10116	Sampsel silty clay loam, 2 to 5 percent slopes
10117	Sampsel silty clay loam, 5 to 9 percent slopes
10118	Sampsel silty clay loam, 5 to 9 percent slopes, eroded
10120	Sharpsburg silt loam, 2 to 5 percent slopes
10122	Sharpsburg silt loam, 5 to 9 percent slopes, eroded
10128	Sharpsburg-Urban land complex, 2 to 5 percent slopes
10129	Sharpsburg-Urban land complex, 5 to 9 percent slopes
10132	Sibley silt loam, 2 to 5 percent slopes
10133	Sibley silt loam, 5 to 9 percent slopes
10136	Sibley-Urban land complex, 2 to 5 percent slopes
10137	Sibley-Urban land complex, 5 to 9 percent slopes
10141	Snead-Rock outcrop complex, 14 to 30 percent slopes
10142	Snead-Rock outcrop complex, 5 to 14 percent slopes
10143	Snead-Urban land complex, 9 to 30 percent slopes
10178	Udarents-Urban land-McGirk complex, 5 to 9 percent slopes
10179	Udarents-Urban land-Oska complex, 5 to 9 percent slopes
10180	Udarents-Urban land-Sampsel complex, 2 to 5 percent slopes
10181	Udarents-Urban land-Sampsel complex, 5 to 9 percent slopes
10182	Udarents-Urban land-Polo complex, 2 to 5 percent slopes
10183	Udarents-Urban land-Polo complex, 5 to 9 percent slopes
12503	Napier silt loam, 0 to 3 percent slopes
12506	Wiota silt loam, 0 to 2 percent slopes, rarely flooded
13510	Colo silty clay loam, 0 to 2 percent slopes, occasionally flooded
13512	Cotter silt loam, 0 to 2 percent slopes, rarely flooded
13516	Gilliam silt loam, 0 to 2 percent slopes, occasionally flooded
13518	Gilliam silty clay loam, 0 to 2 percent slopes, occasionally flooded
13552	Modale silt loam, 0 to 2 percent slopes, occasionally flooded
13572	Parkville silty clay, 0 to 2 percent slopes, occasionally flooded
30080	Greenton silty clay loam, 5 to 9 percent slopes
30178	Polo silt loam, 2 to 5 percent slopes
30180	Polo silt loam, 5 to 9 percent slopes, eroded

Map Unit Legend

Jackson County, Missouri

Map symbol	Map unit name
36007	Bremer silt loam, 0 to 2 percent slopes, occasionally flooded
36020	Kennebec silt loam, 0 to 2 percent slopes, occasionally flooded
36046	Wabash silty clay, 0 to 2 percent slopes, occasionally flooded
36050	Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded
40084	Oska silty clay loam, 5 to 9 percent slopes
60025	Urban land-Harvester complex, 2 to 9 percent slopes
60031	Winfield silt loam, 9 to 14 percent slopes, eroded
60055	Winfield silt loam, 2 to 5 percent slopes
60125	Harvester-Urban land complex, 9 to 14 percent slopes
60165	Menfro silt loam, 2 to 5 percent slopes
60168	Menfro silt loam, 5 to 9 percent slopes, eroded
60234	Weller silt loam, 2 to 5 percent slopes
60244	Winfield silt loam, 5 to 9 percent slopes, eroded
60261	Winfield silty clay loam, 5 to 9 percent slopes, severely eroded
66007	Leta silty clay, 0 to 2 percent slopes, occasionally flooded
66009	Haynie silt loam, 0 to 2 percent slopes, occasionally flooded
66010	Sarpy fine sand, 0 to 2 percent slopes, frequently flooded
66023	Sarpy fine sand, 0 to 2 percent slopes, occasionally flooded
99000	Pits, quarry
99001	Water
99003	Miscellaneous water
99007	Arents, earthen dam
99012	Urban land, upland, 5 to 9 percent slopes
99017	Urban land, bottomland, 0 to 3 percent slopes
99021	Udorthents, nearly level
99028	Urban land, upland, 9 to 14 percent slopes
99033	Udarents-Urban land complex, 2 to 9 percent slopes
99034	Udarents-Urban land complex, 9 to 20 percent slopes

Hydric Soils

Jackson County, Missouri

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
10000: Arisburg silt loam, 1 to 5 percent slopes	Haig	3	Ridges	Yes	2B3
10104: McGirk silt loam, 5 to 9 percent slopes, eroded	McGirk	95	Hills	Yes	2B3
10118: Sampsel silty clay loam, 5 to 9 percent slopes, eroded	Sampsel	90	Hillsides	Yes	2B3
10178: Udarents-Urban land-McGirk complex, 5 to 9 percent slopes	McGirk	15	Hills	Yes	2B3
12506: Wiota silt loam, 0 to 2 percent slopes, rarely flooded	Bremer	3	Stream terraces	Yes	2B3
13510: Colo silty clay loam, 0 to 2 percent slopes, occasionally flooded	Colo	85	Flood plains	Yes	2A
	Nodaway, frequently flooded	5	Flood plains	Yes	4
	Colo, ponded	3	Flood plains	Yes	3
13512: Cotter silt loam, 0 to 2 percent slopes, rarely flooded	Bremer	5	Flood plains	Yes	2B3
	Moniteau	5	Terraces	Yes	2B3
13516: Gilliam silt loam, 0 to 2 percent slopes, occasionally flooded	Gilliam	3	Flood plains	Yes	4
13518: Gilliam silty clay loam, 0 to 2 percent slopes, occasionally flooded	Haynie	5	Flood plains	Yes	4
13552: Modale silt loam, 0 to 2 percent slopes, occasionally flooded	Modale, frequently flooded	5	Flood plains	Yes	4
	Waldron, frequently flooded	5	Flood plains	Yes	4
13572: Parkville silty clay, 0 to 2 percent slopes, occasionally flooded	Myrick	3	Flood plains	Yes	2B3
	Parkville, frequently flooded	3	Flood plains	Yes	4

Hydric Soils

Jackson County, Missouri

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
30080: Greenton silty clay loam, 5 to 9 percent slopes	Sampsel	3	Hillsides	Yes	2B3
30180: Polo silt loam, 5 to 9 percent slopes, eroded	Sampsel	5	Hillsides	Yes	2B3
36007: Bremer silt loam, 0 to 2 percent slopes, occasionally flooded	Bremer	90	Stream terraces	Yes	2B3
	Colo	5	Flood plains	Yes	2A
36020: Kennebec silt loam, 0 to 2 percent slopes, occasionally flooded	Colo	3	Flood plains	Yes	2A
	Nodaway, frequently flooded	3	Flood plains	Yes	4
36046: Wabash silty clay, 0 to 2 percent slopes, occasionally flooded	Wabash	85	Flood plains	Yes	2A
	Wabash, frequently flooded	5	Flood plains	Yes	4
	Wabash, ponded	5	Flood plains	Yes	3
36050: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded	Zook	90	Flood plains	Yes	2A
	Bremer	2	Stream terraces	Yes	2B3
	Colo	2	Flood plains	Yes	2A
	Dockery	2	Flood plains	Yes	4
	Zook	2	Flood plains	Yes	3
60055: Winfield silt loam, 2 to 5 percent slopes	McGirk	2	Hills	Yes	2B3
	Okaw	2	Stream terraces	Yes	2B3
66007: Leta silty clay, 0 to 2 percent slopes, occasionally flooded	Booker	5	Flood plains	Yes	3
	Leta	5	Flood plains	Yes	4

Hydric Soils

Jackson County, Missouri

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
66009: Haynie silt loam, 0 to 2 percent slopes, occasionally flooded	Haynie	5	Flood plains	Yes	4
66010: Sarpy fine sand, 0 to 2 percent slopes, frequently flooded	Sarpy	90	Flood plains	Yes	4

Explanation of hydric criteria codes:

1. All Histels except for Folistels, and Histosols except for Folists.
2. Soils in Aquic suborders, great groups, or subgroups, Albolls suborder, Historthels great group, Histoturbels great group, Pachic subgroups, or Cumulic subgroups that:
 - A. are somewhat poorly drained and have a water table at the surface (0.0 feet) during the growing season, or
 - B. are poorly drained or very poorly drained and have either:
 - 1.) a water table at the surface (0.0 feet) during the growing season if textures are coarse sand, sand, or fine sand in all layers within a depth of 20 inches, or
 - 2.) a water table at a depth of 0.5 foot or less during the growing season if permeability is equal to or greater than 6.0 in/hr in all layers within a depth of 20 inches, or
 - 3.) a water table at a depth of 1.0 foot or less during the growing season if permeability is less than 6.0 in/hr in any layer within a depth of 20 inches.
3. Soils that are frequently ponded for long or very long duration during the growing season.
4. Soils that are frequently flooded for long or very long duration during the growing season.

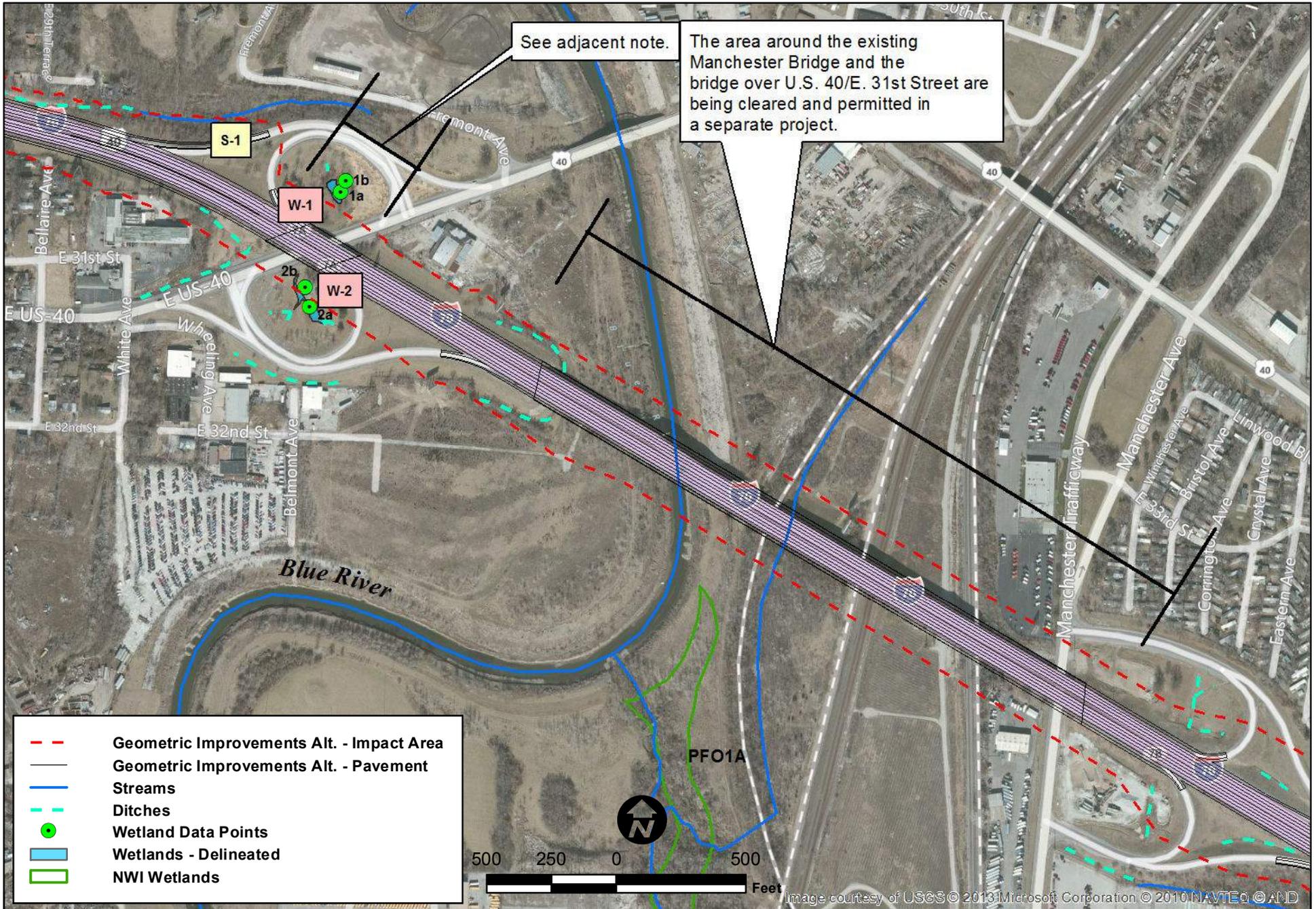
APPENDIX A

Plan Views

D-1 through D-9 – Geometric Improvements Alternative

E-1 through E-9 – Interchange Consolidations Alternative

F-1 through F-9 – Preferred Alternative



See adjacent note.

The area around the existing Manchester Bridge and the bridge over U.S. 40/E. 31st Street are being cleared and permitted in a separate project.

- Geometric Improvements Alt. - Impact Area
- Geometric Improvements Alt. - Pavement
- Streams
- Ditches
- Wetland Data Points
- Wetlands - Delineated
- NWI Wetlands



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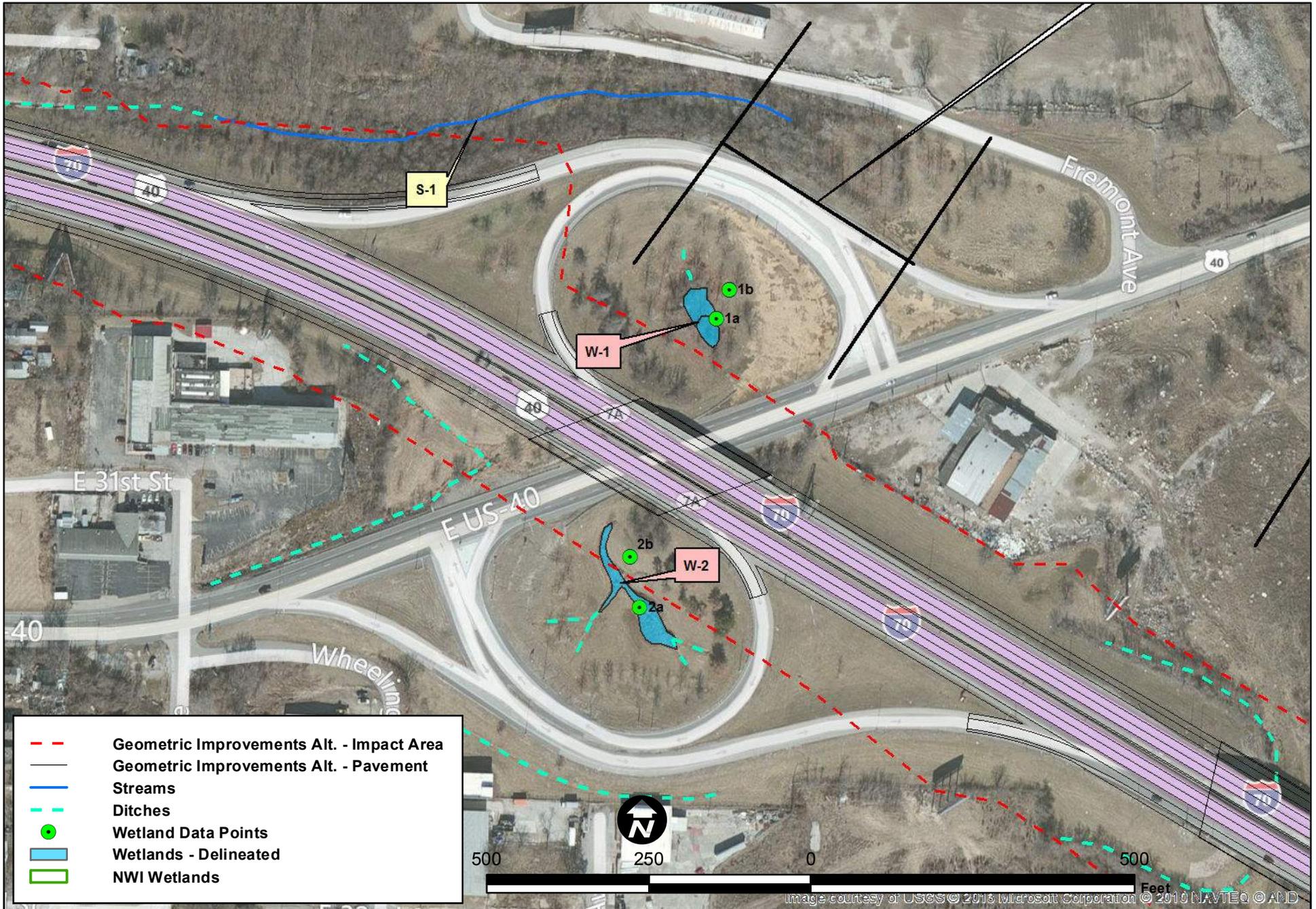


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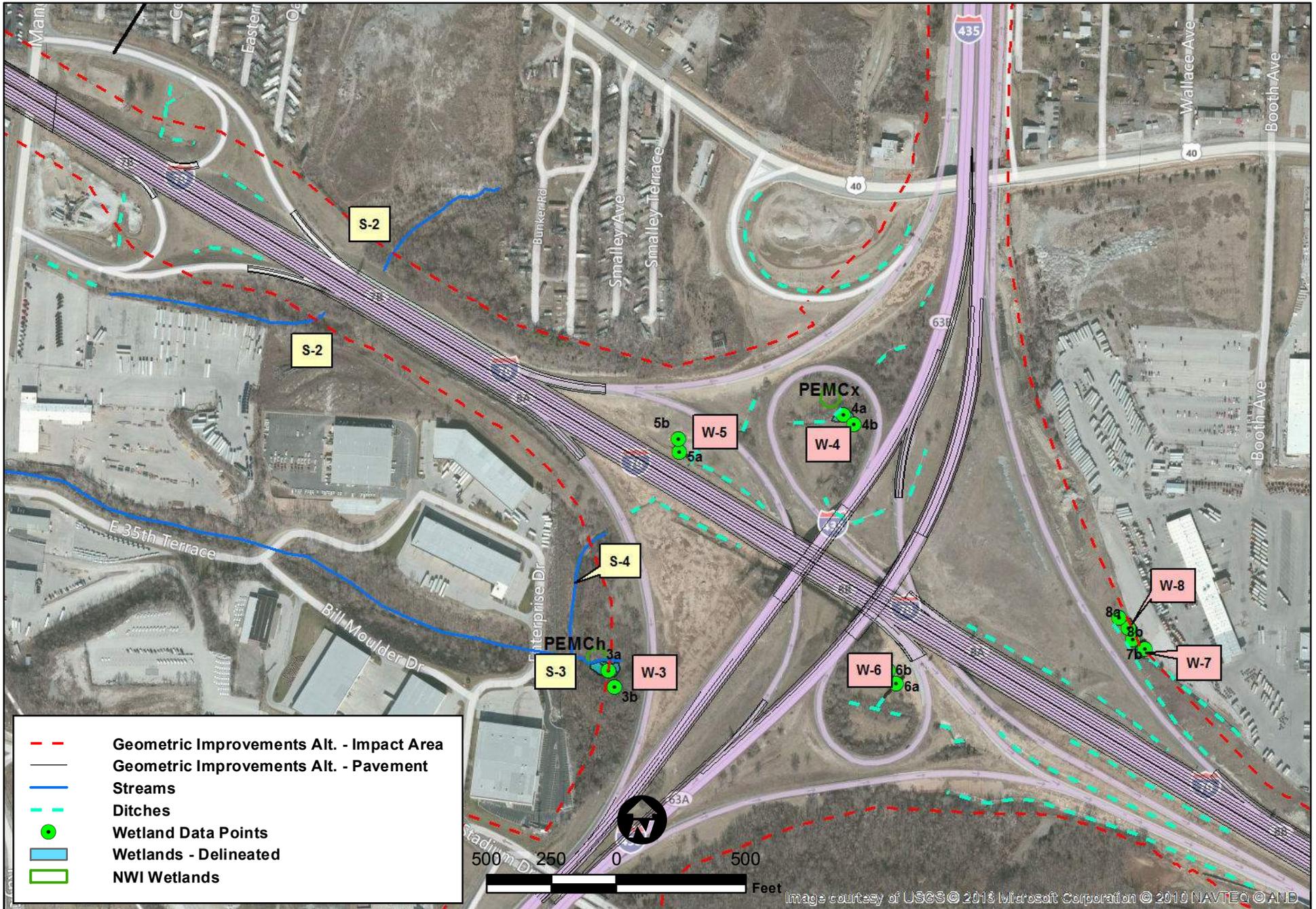
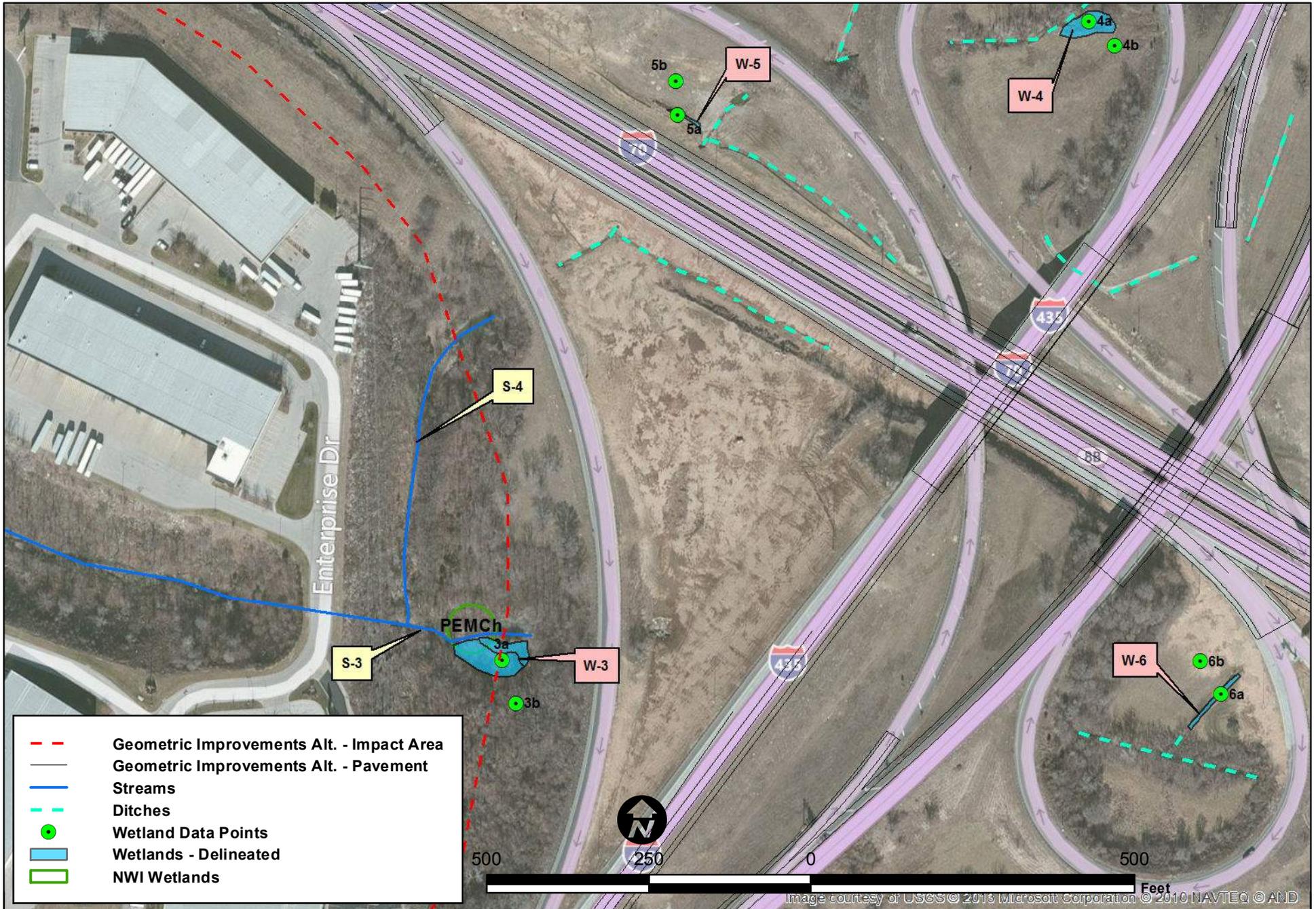
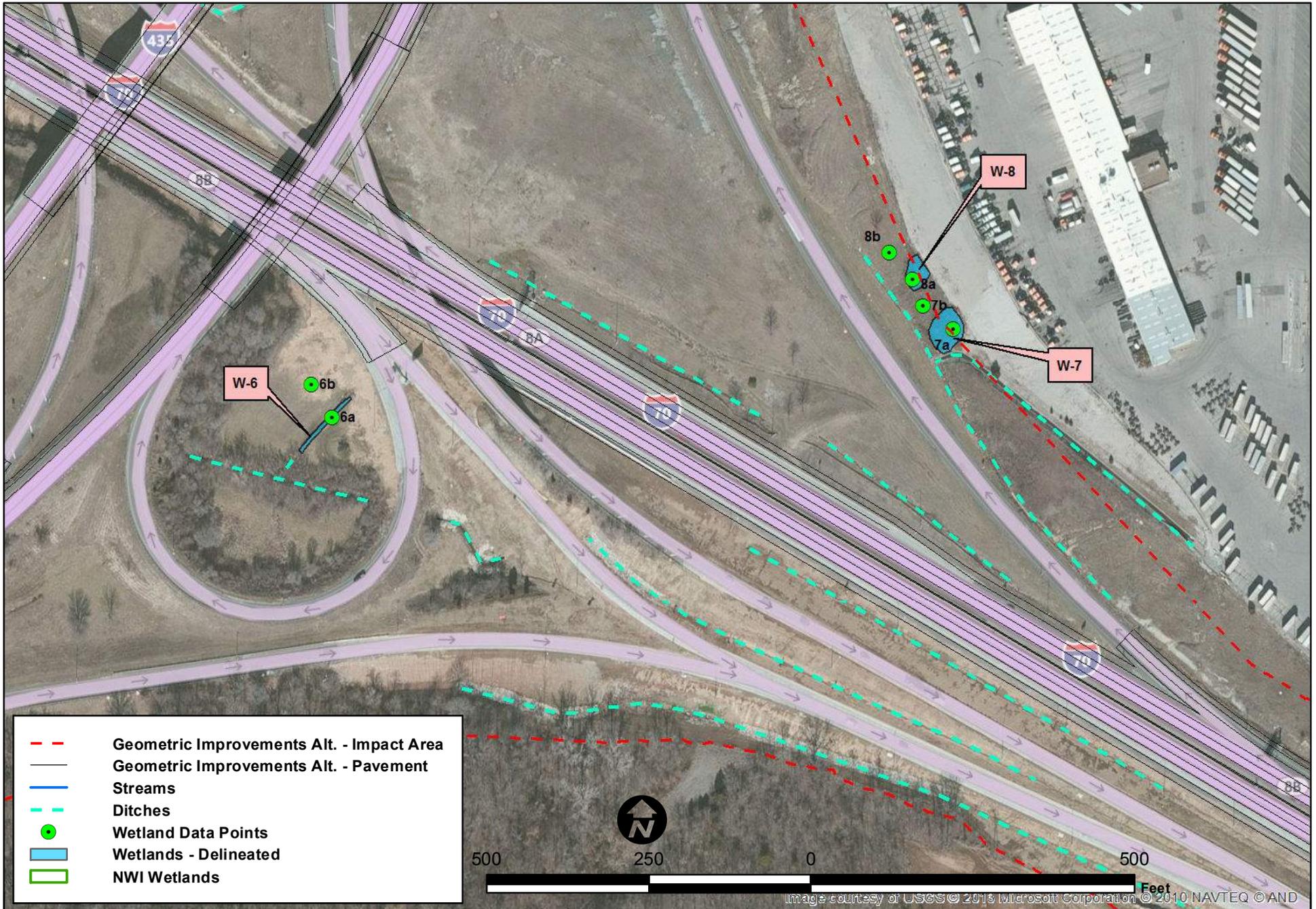
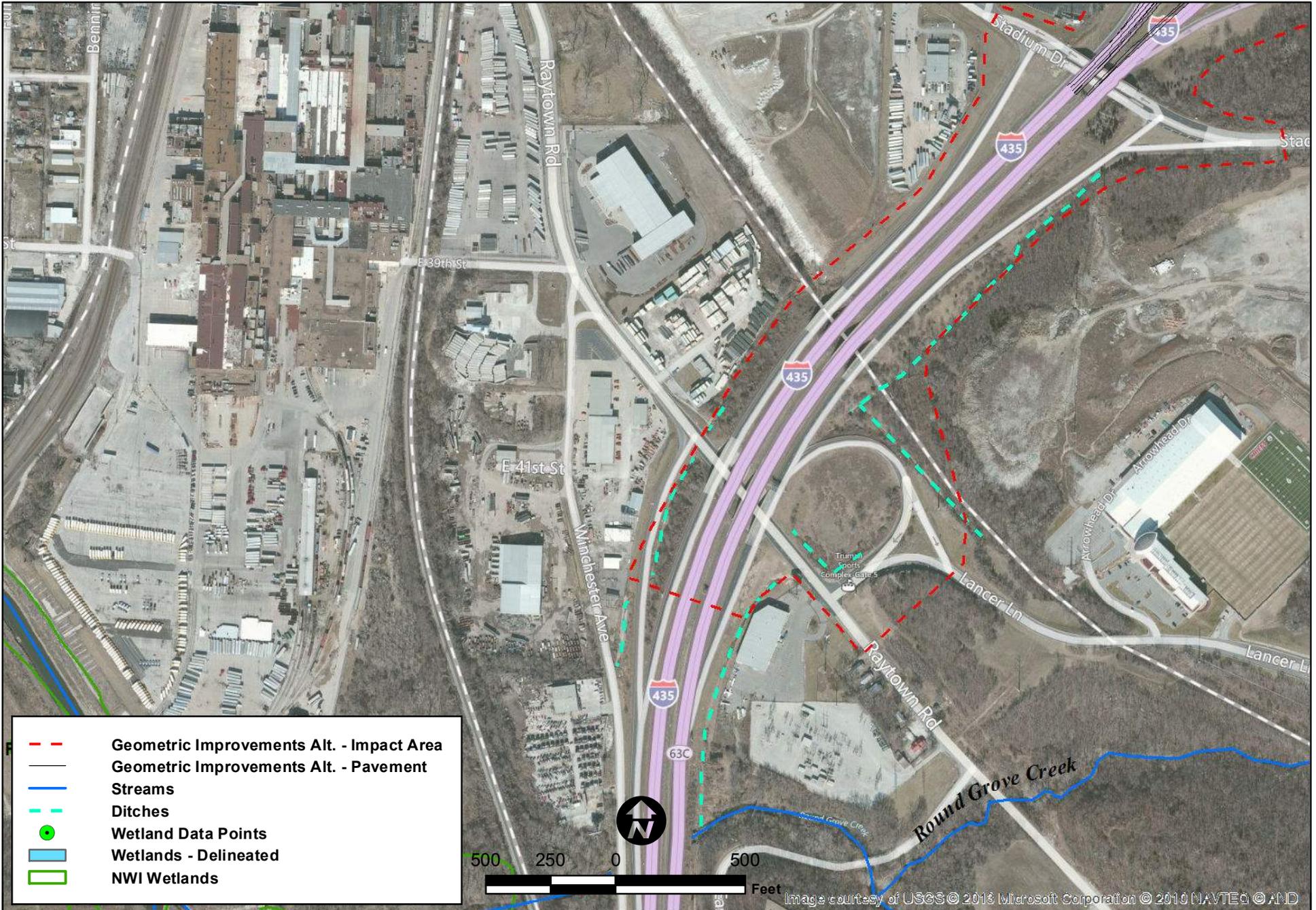


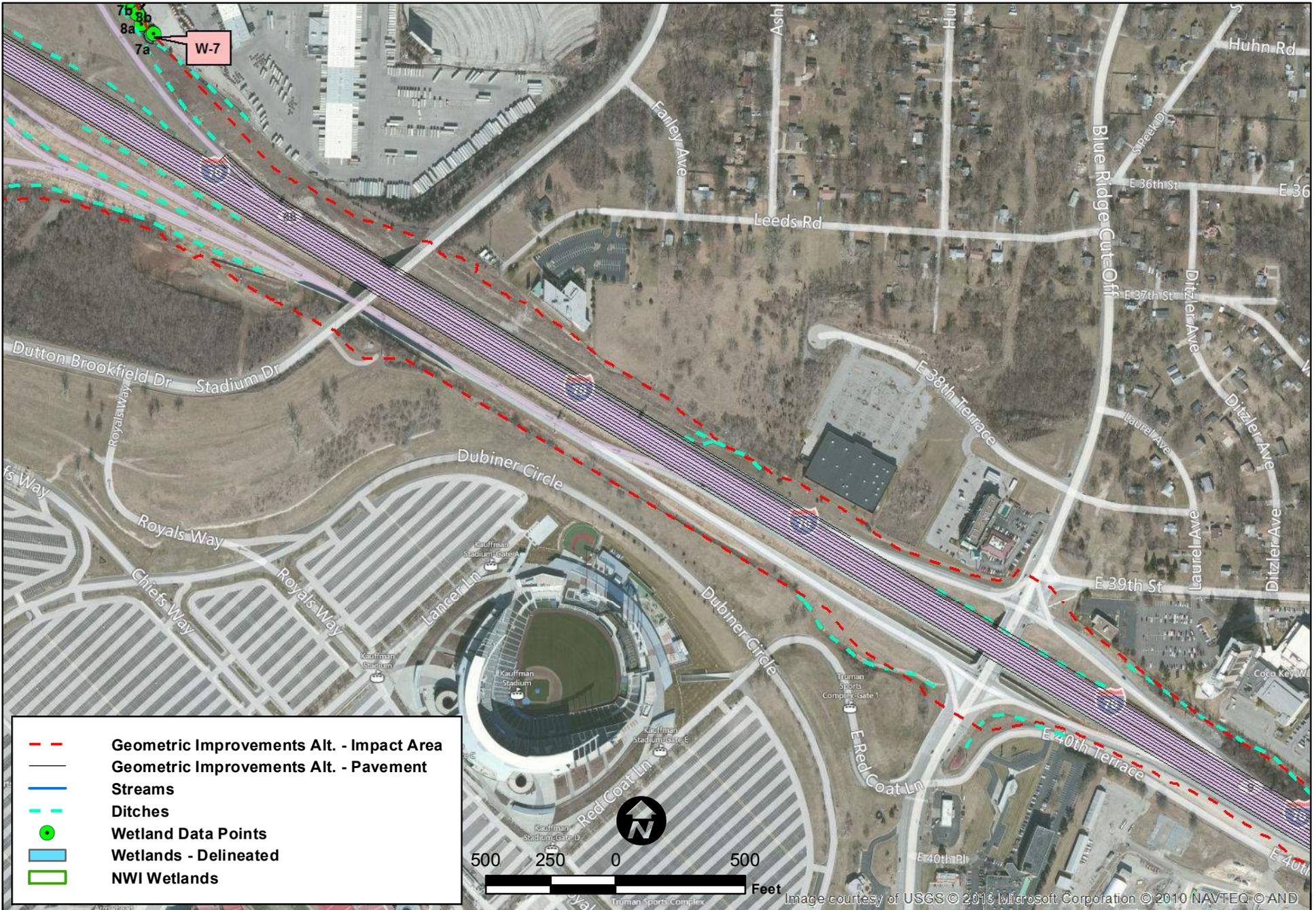
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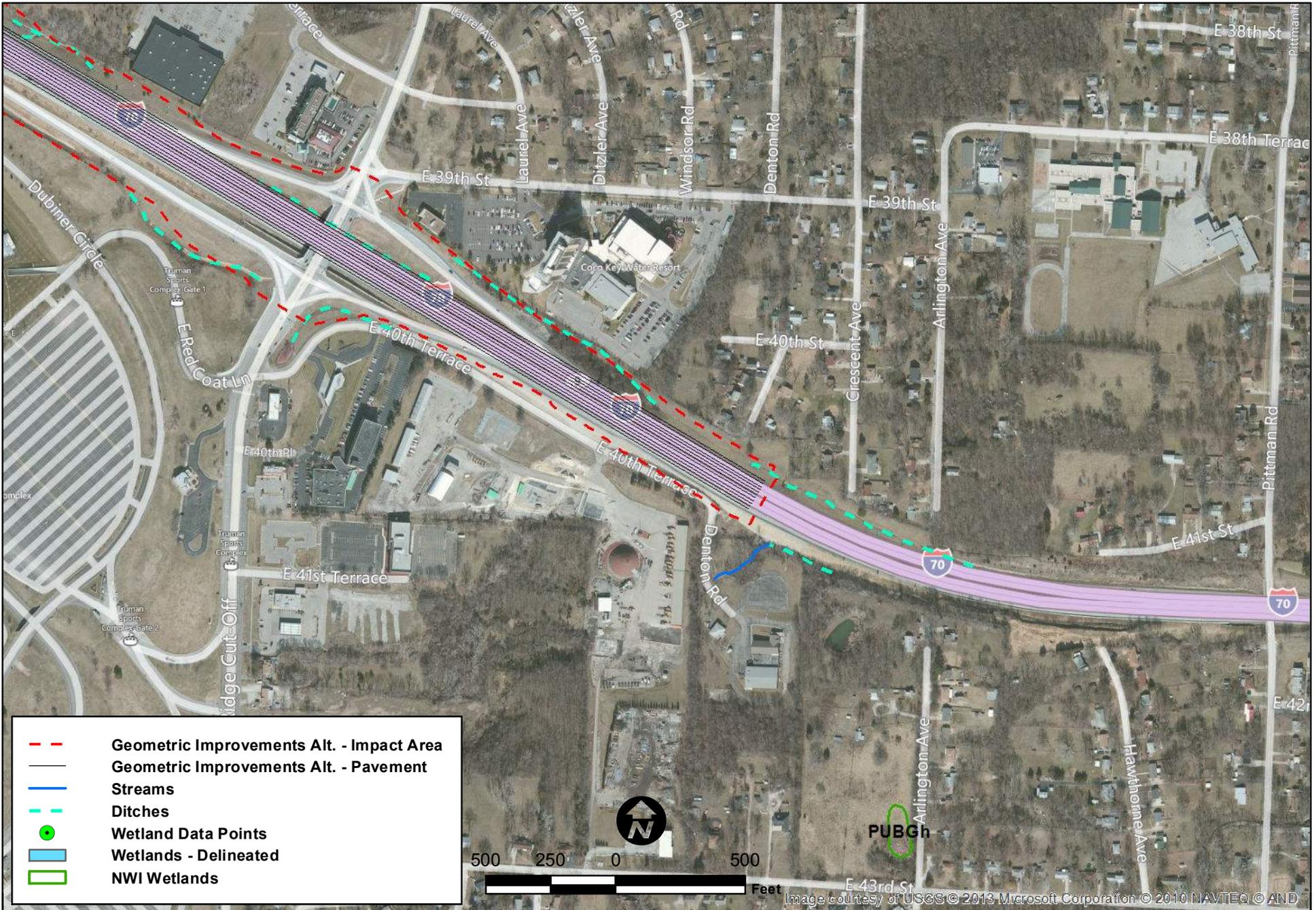










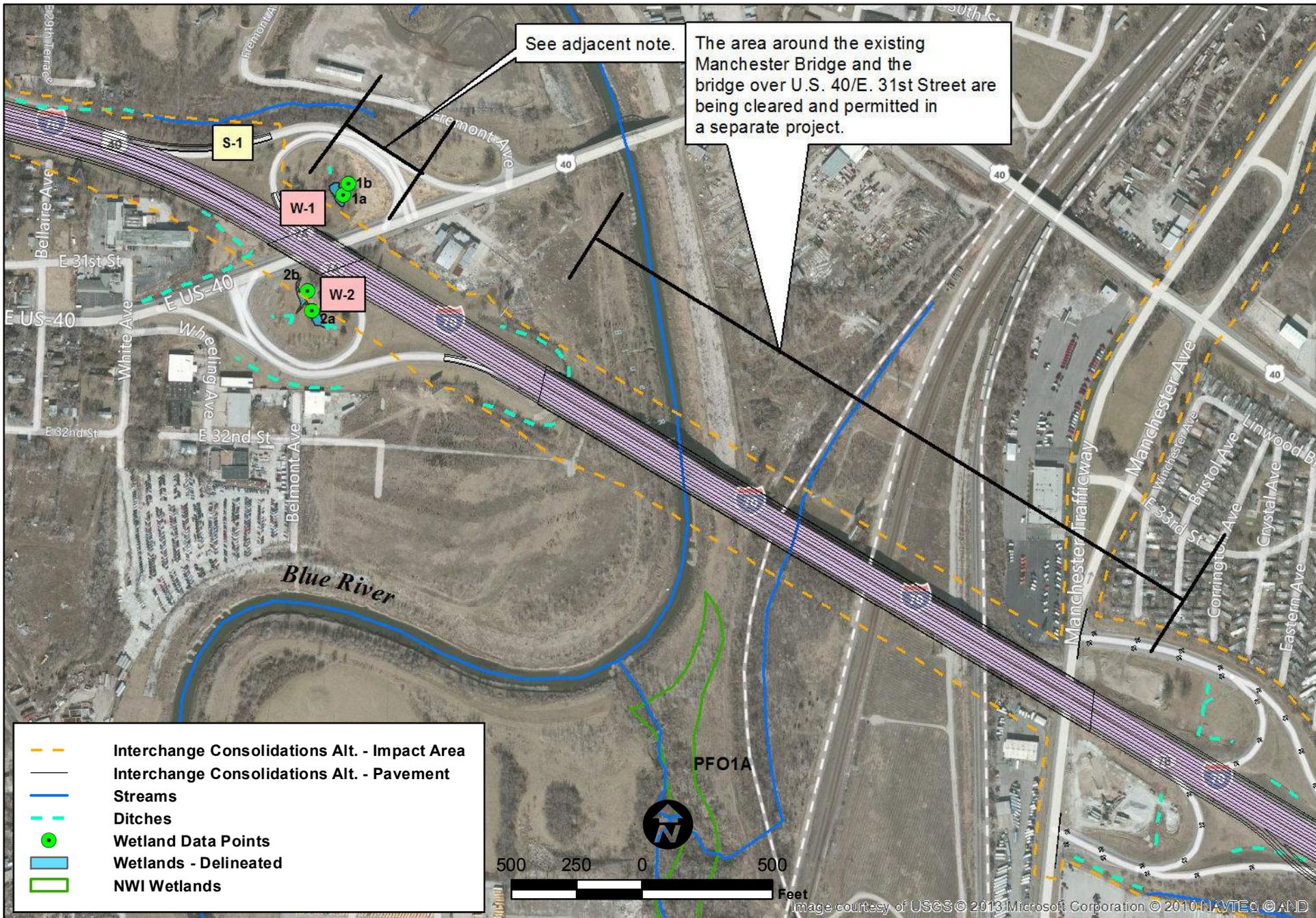


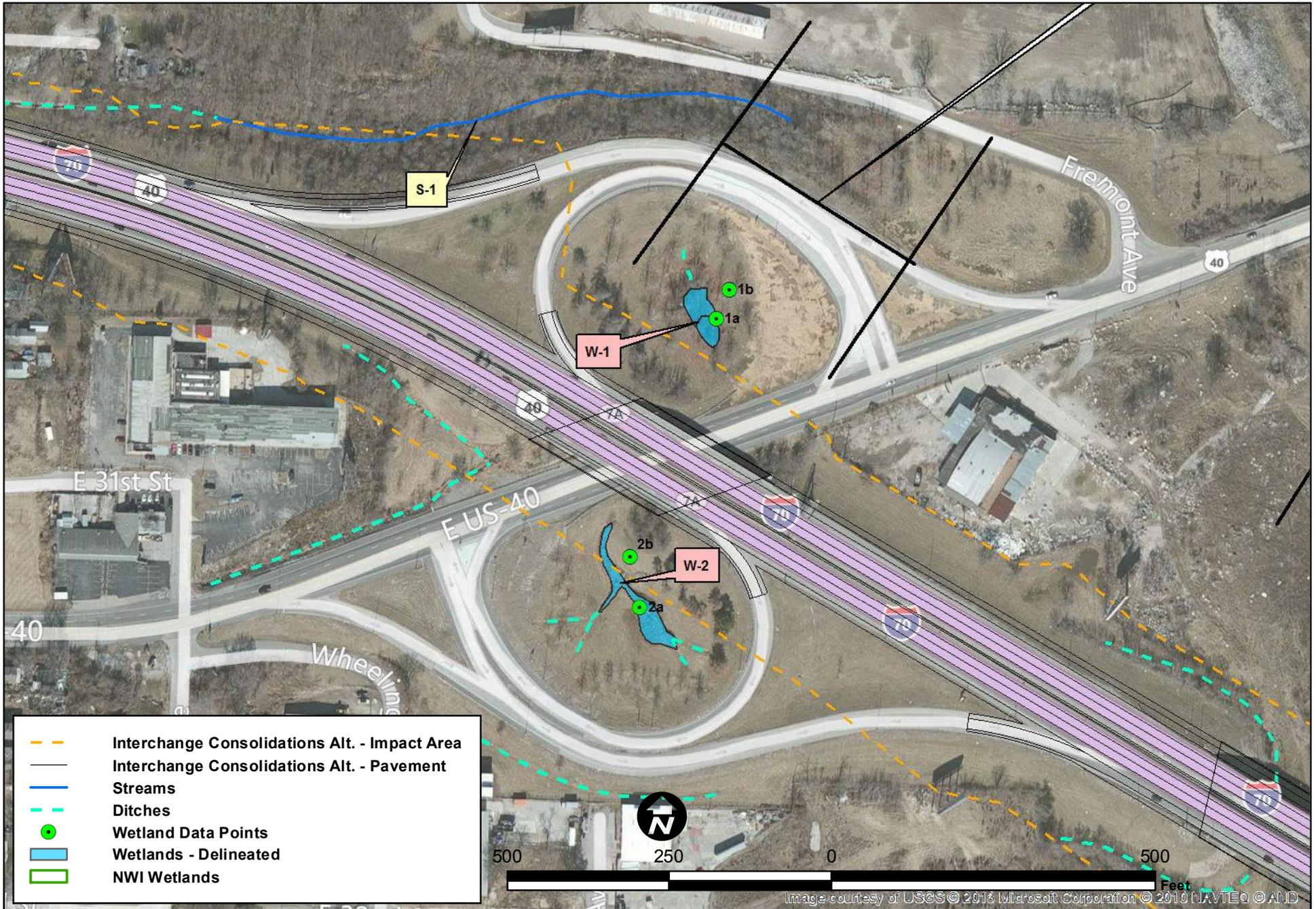
	Geometric Improvements Alt. - Impact Area
	Geometric Improvements Alt. - Pavement
	Streams
	Ditches
	Wetland Data Points
	Wetlands - Delineated
	NWI Wetlands

**I-70 Second Tier EIS
The Paseo to Blue Ridge Cutoff**

**Kansas City, Missouri
Jackson County**

**Exhibit D-9
Geometric Improvements Alt.
Plan View**

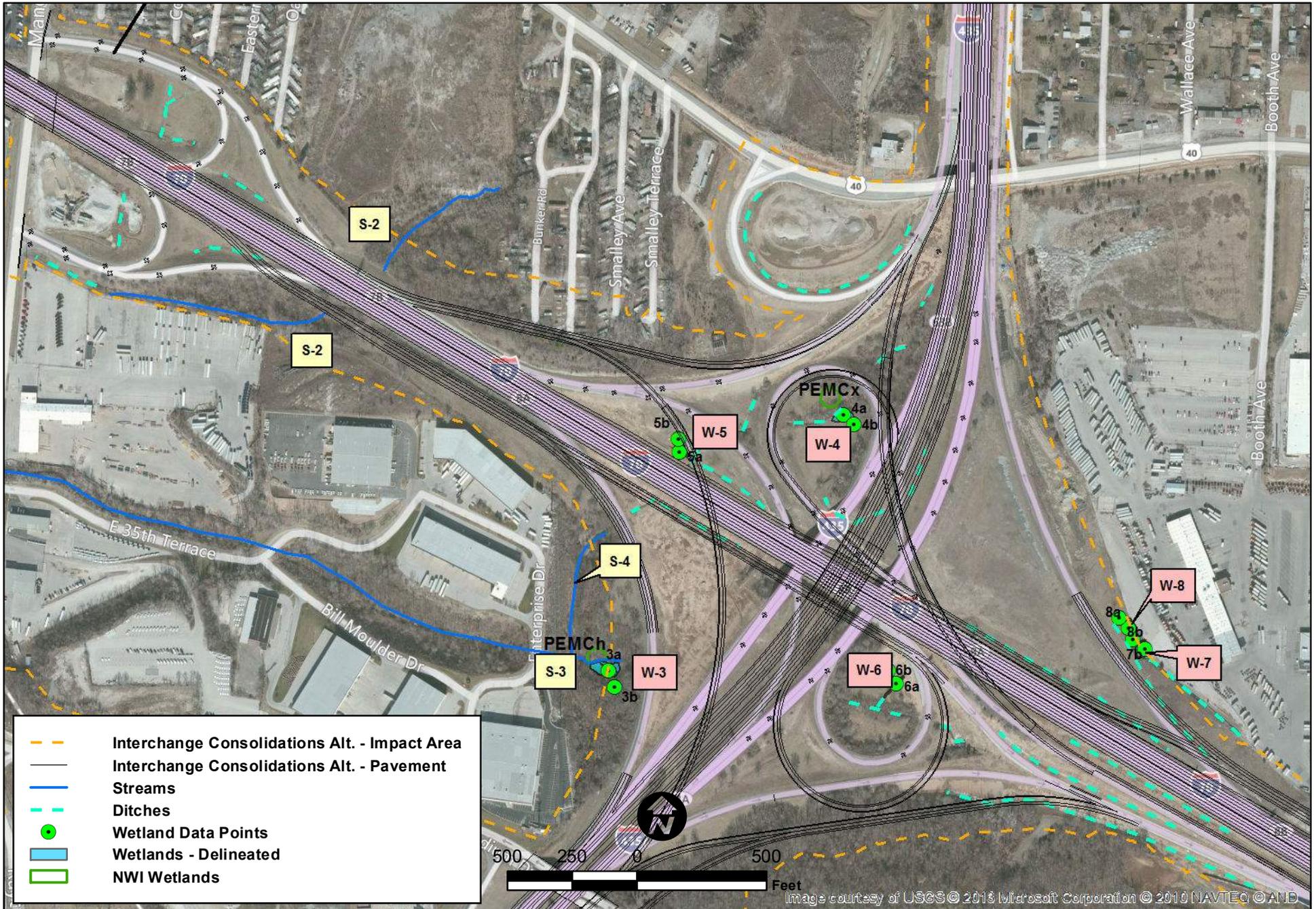


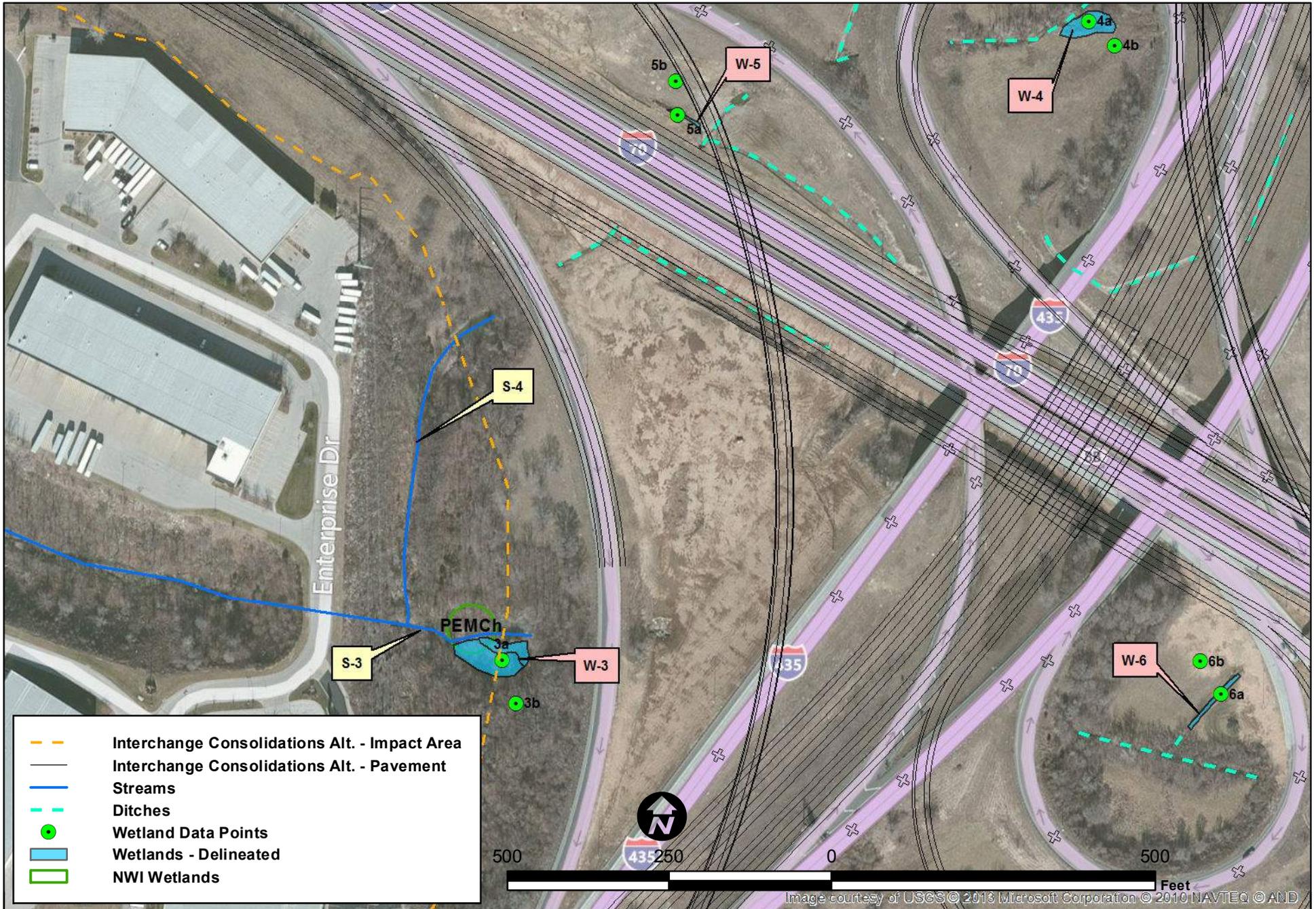


I-70 Second Tier EIS
 The Paseo to Blue Ridge Cutoff

Kansas City, Missouri
 Jackson County

Exhibit E-2
 Interchange Consolidations Alt.
 Plan View





I-70 Second Tier EIS
The Paseo to Blue Ridge Cutoff

Kansas City, Missouri
Jackson County

Exhibit E-4
Interchange Consolidations Alt.
Plan View

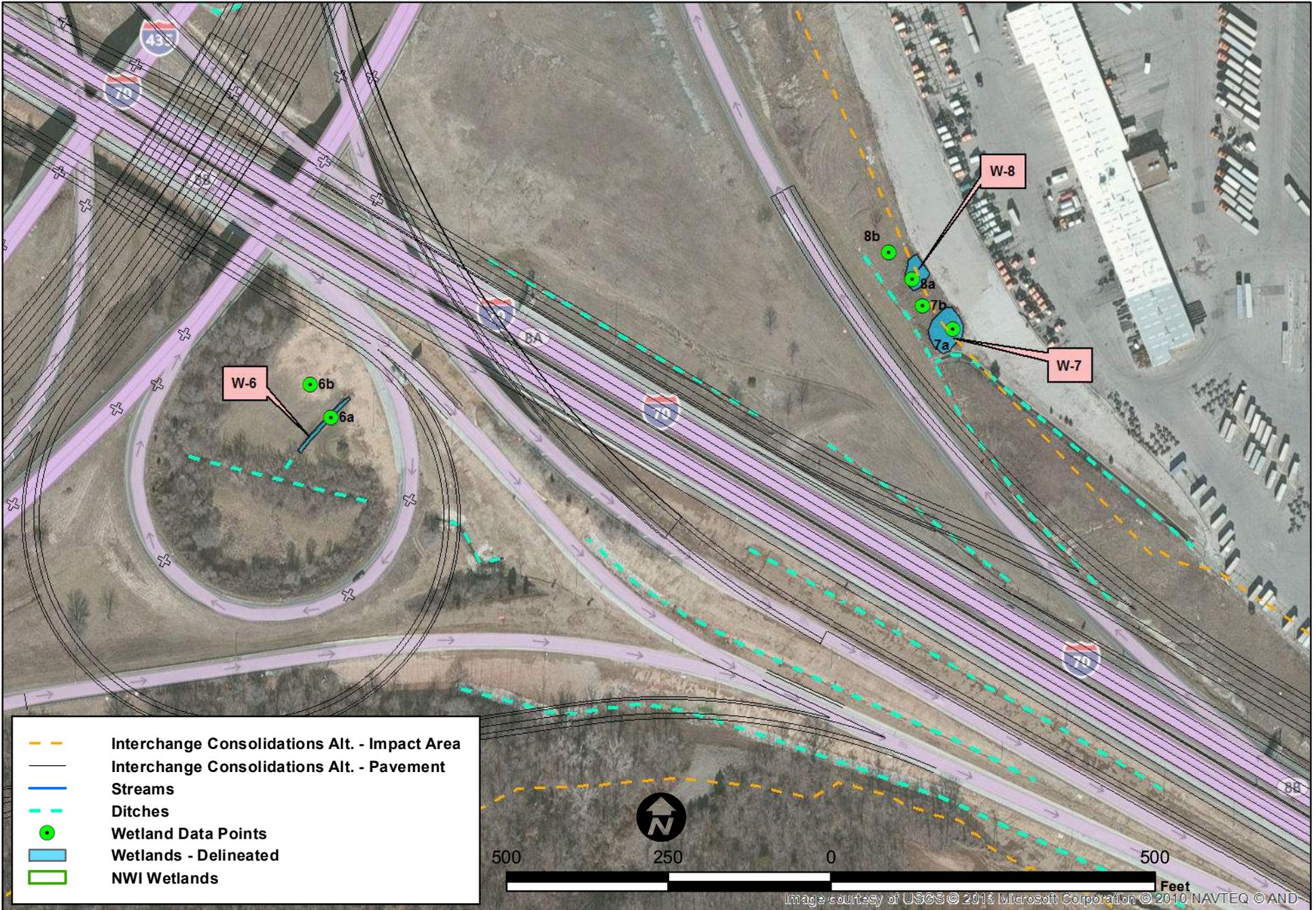


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**I-70 Second Tier EIS
The Paseo to Blue Ridge Cutoff**

**Kansas City, Missouri
Jackson County**

**Exhibit E-5
Interchange Consolidations Alt.
Plan View**

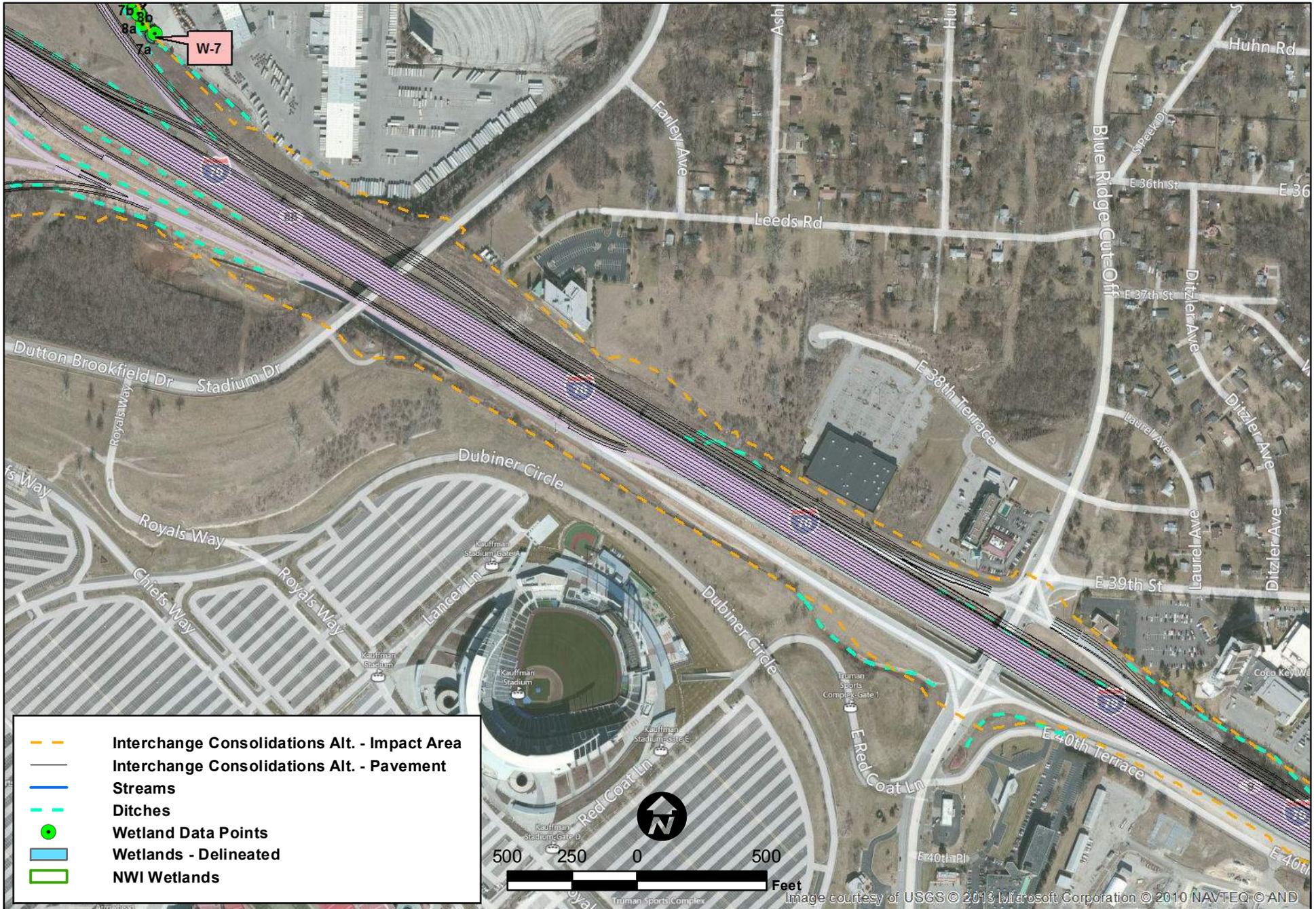




I-70 Second Tier EIS
The Paseo to Blue Ridge Cutoff

Kansas City, Missouri
Jackson County

Exhibit E-7
Interchange Consolidations Alt.
Plan View

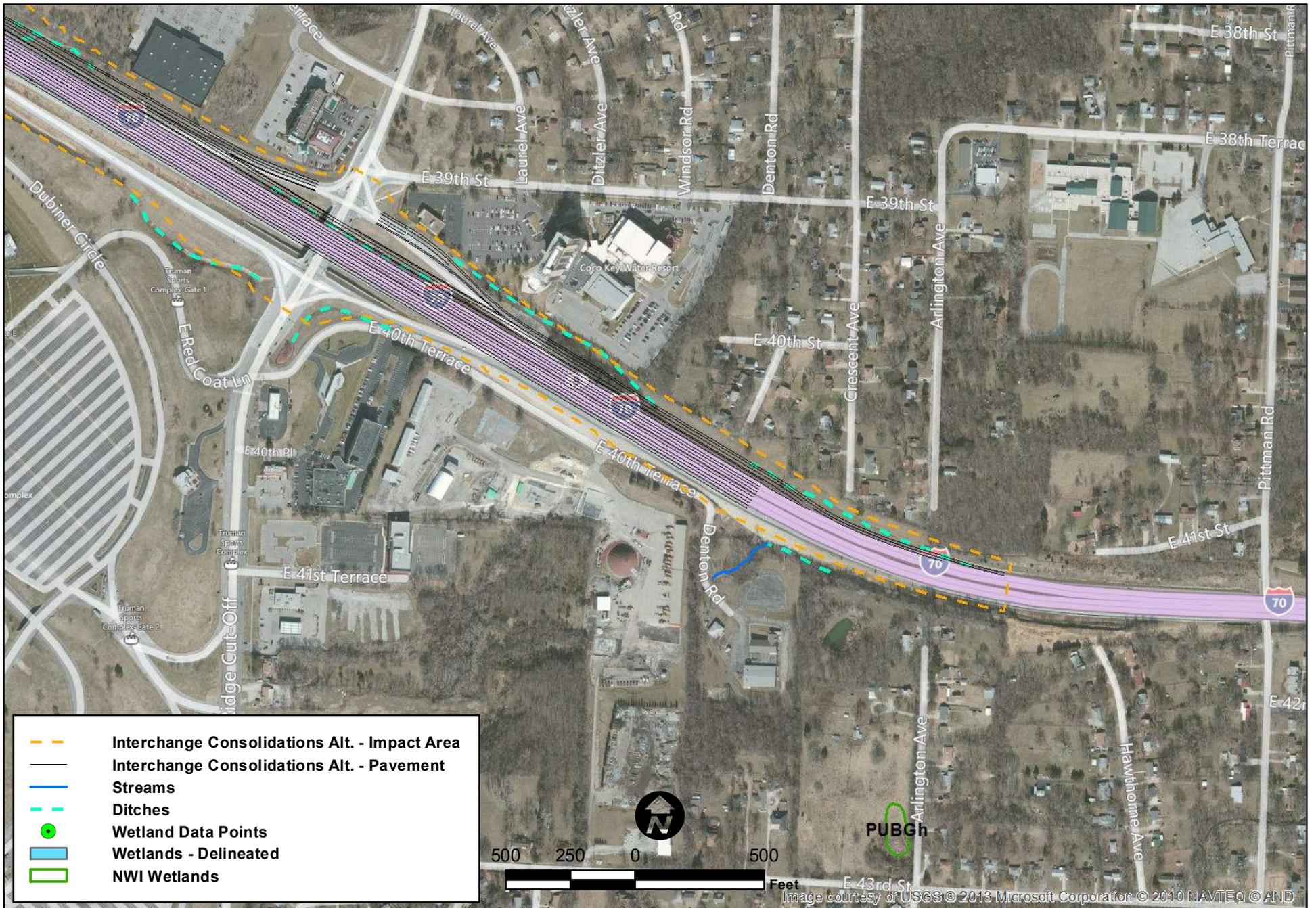


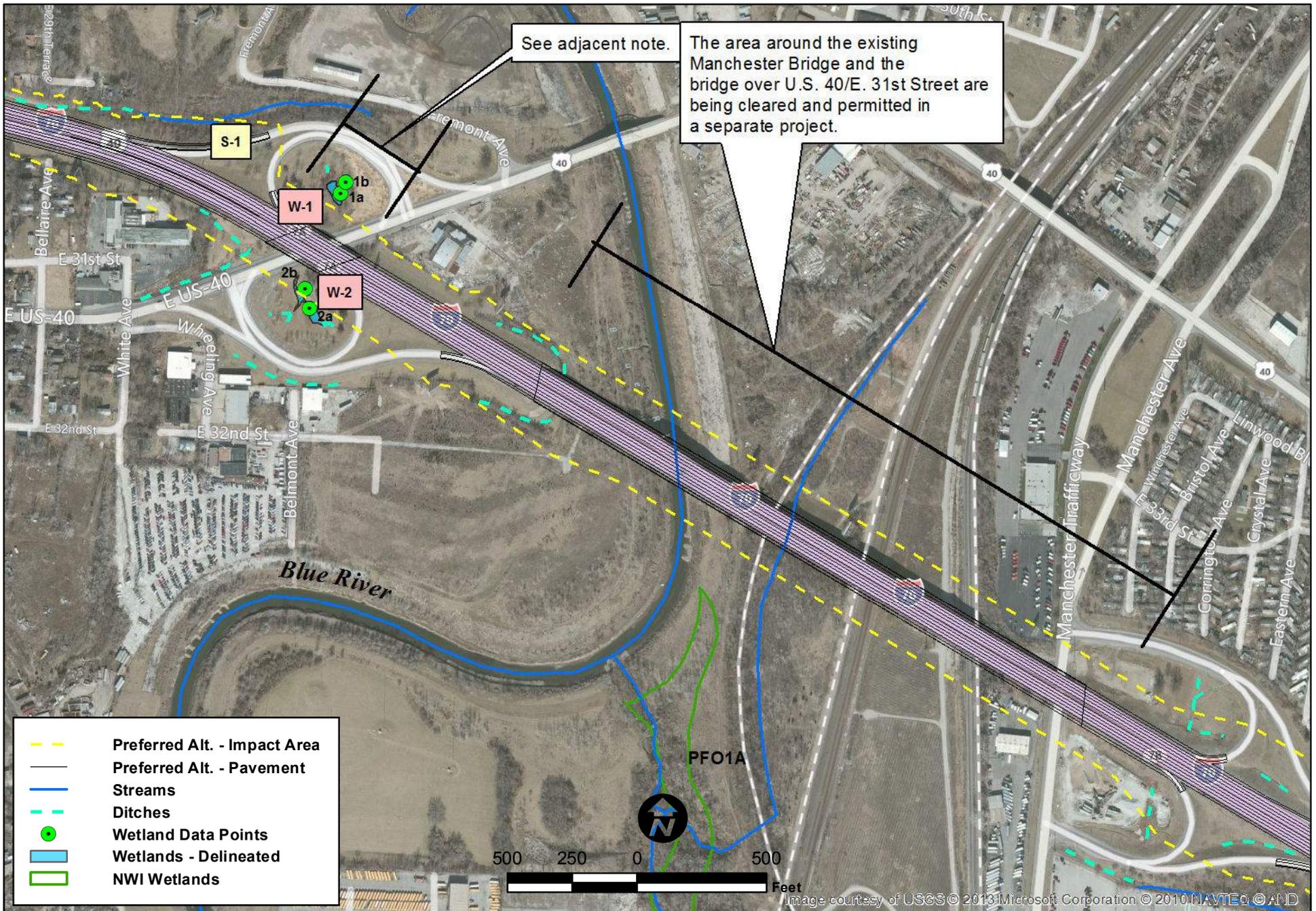
I-70 Second Tier EIS
The Paseo to Blue Ridge Cutoff

Kansas City, Missouri
Jackson County

Exhibit E-8
Interchange Consolidations Alt.
Plan View

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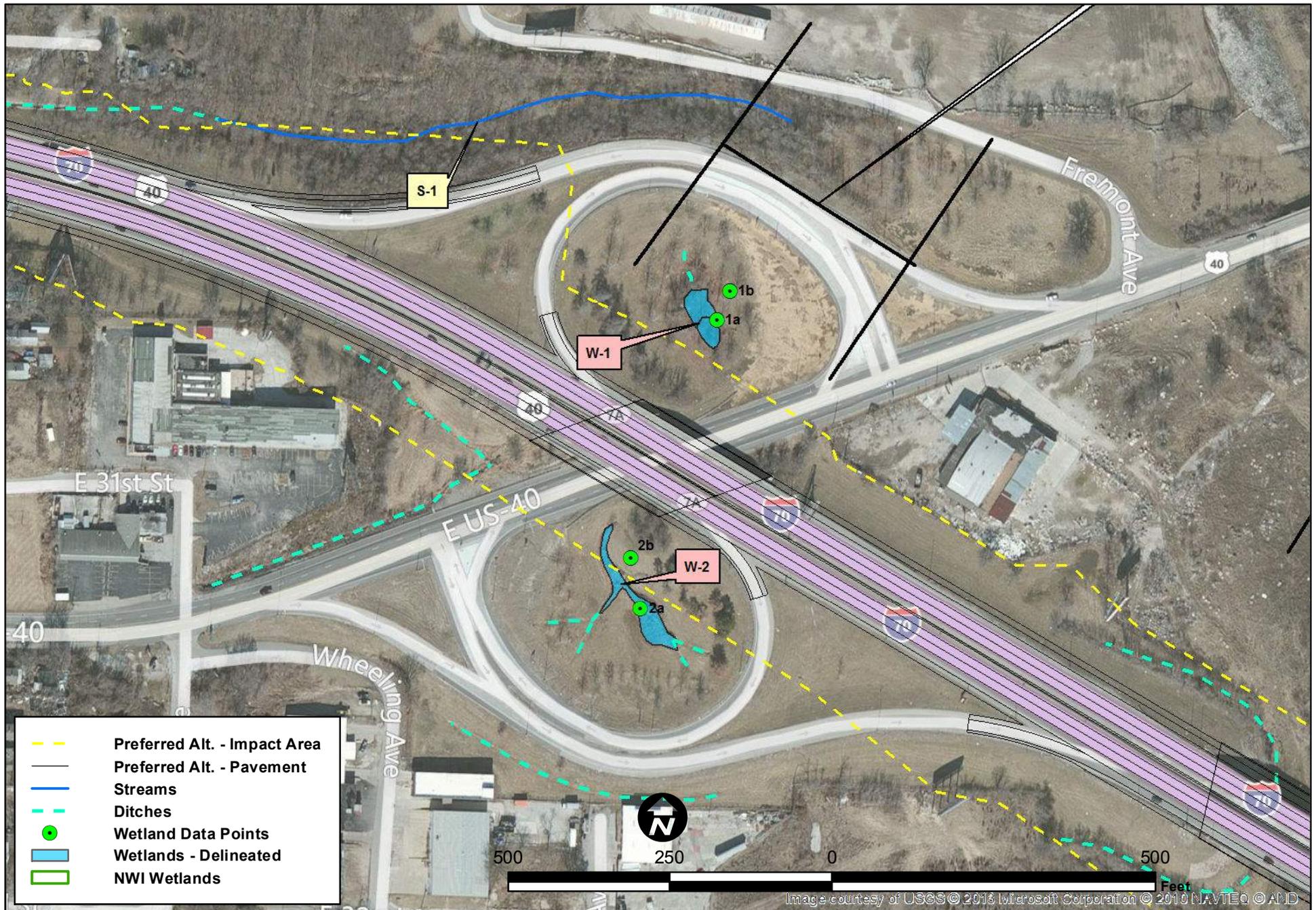


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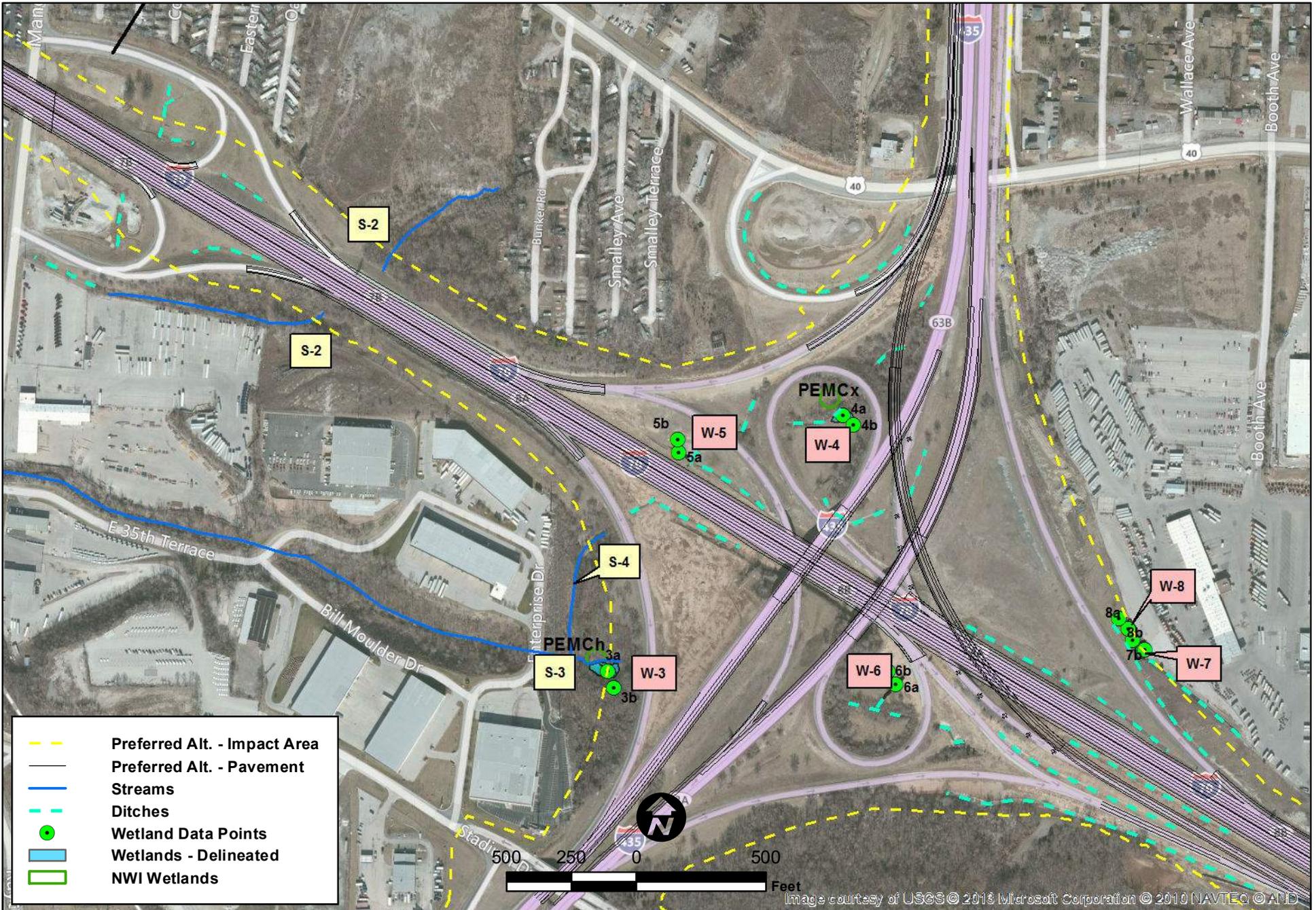


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I-70 Second Tier EIS
The Paseo to Blue Ridge Cutoff

Kansas City, Missouri
Jackson County

Exhibit F-3
Preferred Alternative
Plan View

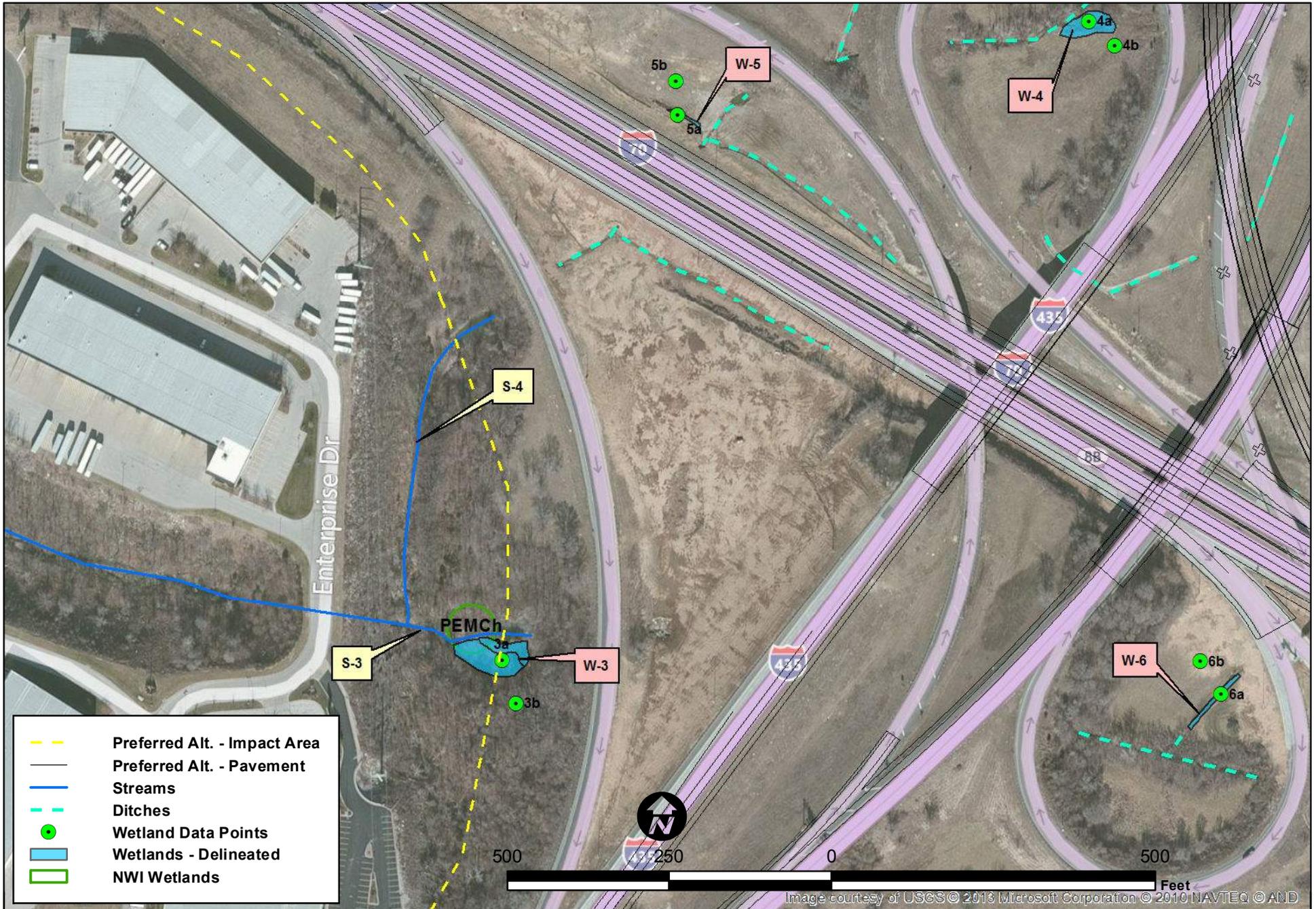
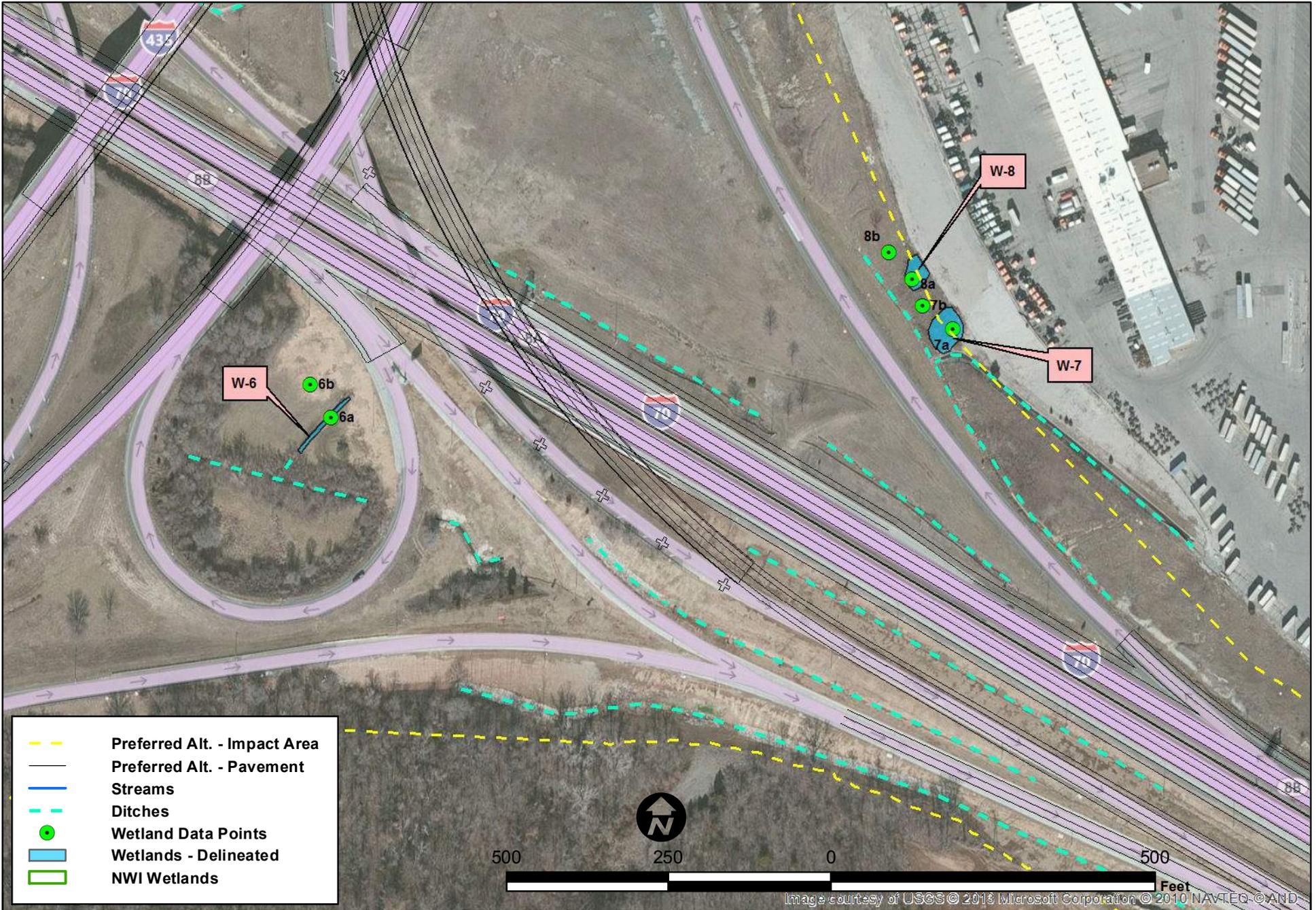


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I-70 Second Tier EIS
The Paseo to Blue Ridge Cutoff

Kansas City, Missouri
Jackson County

Exhibit F-4
Preferred Alternative
Plan View



- Preferred Alt. - Impact Area
- Preferred Alt. - Pavement
- Streams
- Ditches
- Wetland Data Points
- Wetlands - Delineated
- NWI Wetlands

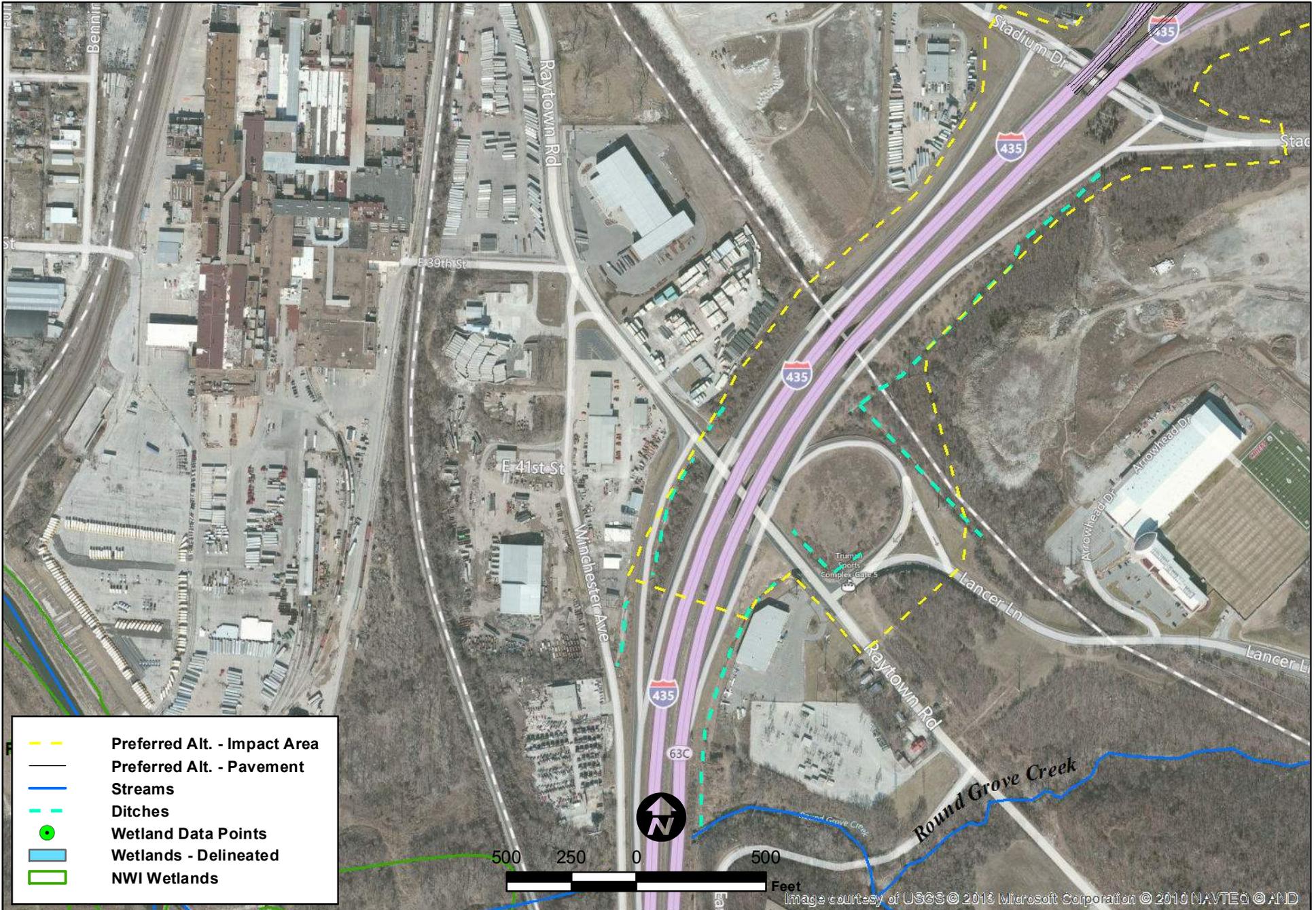


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I-70 Second Tier EIS
The Paseo to Blue Ridge Cutoff

Kansas City, Missouri
Jackson County

Exhibit F-5
Preferred Alternative
Plan View



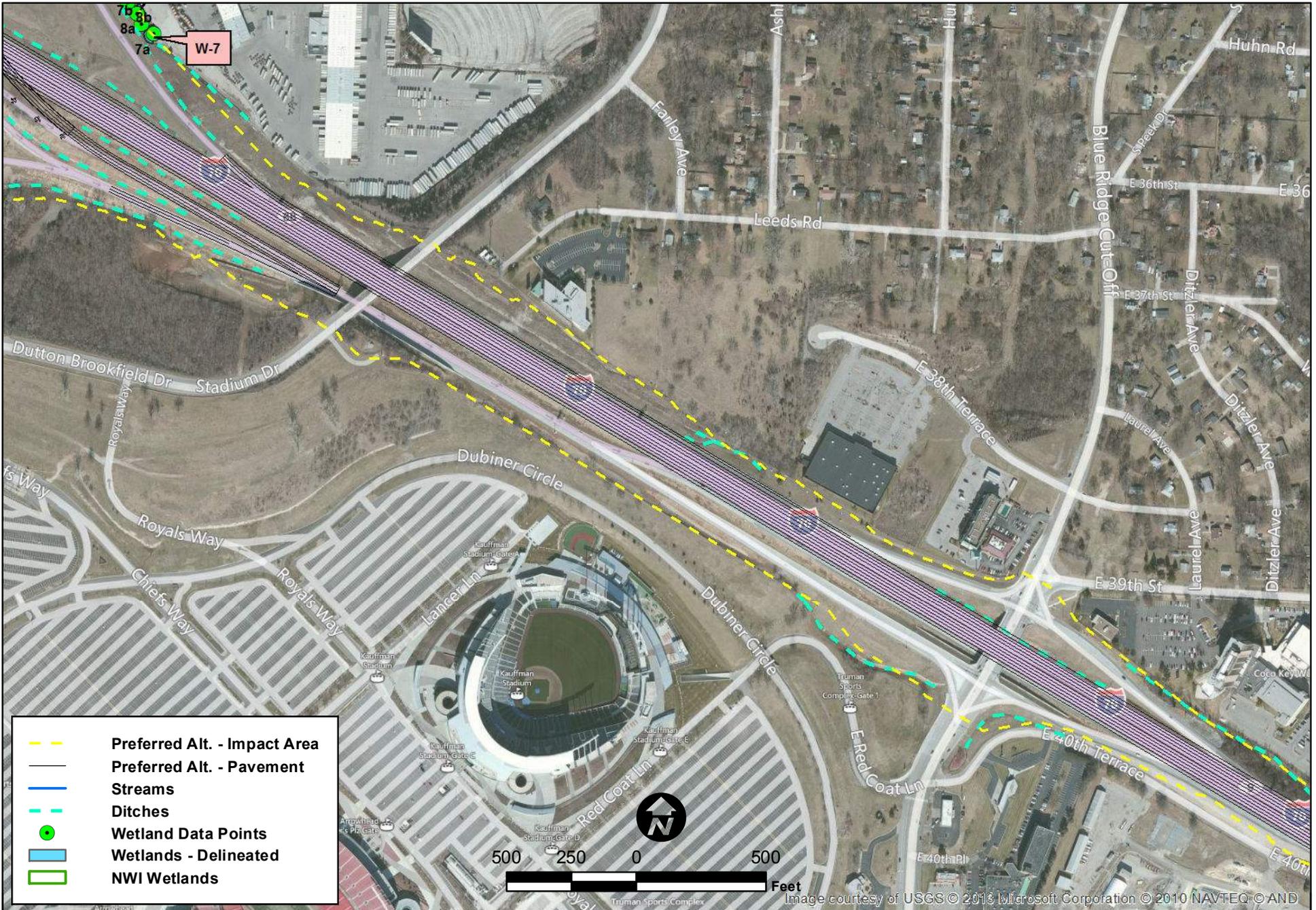
- Preferred Alt. - Impact Area
- Preferred Alt. - Pavement
- Streams
- Ditches
- Wetland Data Points
- Wetlands - Delineated
- NWI Wetlands

I-70 Second Tier EIS
The Paseo to Blue Ridge Cutoff

Kansas City, Missouri
Jackson County

Exhibit F-6
Preferred Alternative
Plan View





- - - Preferred Alt. - Impact Area
- ▨ Preferred Alt. - Pavement
- - - Streams
- - - Ditches
- Wetland Data Points
- ▭ Wetlands - Delineated
- ▭ NWI Wetlands

I-70 Second Tier EIS
The Paseo to Blue Ridge Cutoff

Kansas City, Missouri
Jackson County

Exhibit F-8
Preferred Alternative
Plan View

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	Preferred Alt. - Impact Area
	Preferred Alt. - Pavement
	Streams
	Ditches
	Wetland Data Points
	Wetlands - Delineated
	NWI Wetlands

I-70 Second Tier EIS
The Paseo to Blue Ridge Cutoff

Kansas City, Missouri
Jackson County

Exhibit F-9
Preferred Alternative
Plan View

APPENDIX B

Streams

Stream Data Forms w/Photos

I-70 – Paseo Blvd. to Blue Ridge Cutoff – Jackson County, Missouri
STREAM DATA FORM

Stream Number – Name: S-1

Location: (NAD83) Latitude: 39.070 N **Longitude:** -94.512 W

Stream Type (or USGS Designation): Ephemeral – Non-Relatively Permanent Water (Non-RPW)

OHWM Description: absence of vegetation

Average Width of Stream (at OHWM): 3 ft.

Average Depth of Stream (at OHWM): 1 ft.

Average Width TOB to TOB: 5 ft.

Average Depth from TOB to Bed: 1.5 ft.

Channelized? Yes No

Channel Incision or Headcutting: Incision

Banks Unstable or Extensively Eroding: Extensive Moderate Minimal

Bank Side Slopes: 1:1 (or less) 2:1 3:1 4:1 (or greater)

Human-induced Sedimentation: Extensive Moderate Minimal None

Channel Substrate: soil & rock rubble

Chemical Characteristics (clear, discolored, etc.): No water present at time of site visit

Stream Geometry (straight, meandering): straight

Bed Gradient (approx. avg. slope): 3%

Run/Riffle/Pool Complexes: Yes No

Riparian Buffer Width (native woody vegetation) on Each Side: Right Side 40' Left Side 40'

Adjacent Vegetation (general): Wooded – mulberry, tree of heaven, hackberry

Mapped Soils (NRCS): Hydric Hydric Inclusions Non-Hydric

Adjacent Wetlands Observed: No

Notes: Upstream of this open channel is concrete and asphalt roadside ditch in uplands. The channel flows to a culvert that is connected to an enclosed drainage system that eventually reaches the Blue River.



Photo A: Looking upstream. Soil substrate.



Photo B: Looking downstream. Rock rubble substrate.

I-70 – Paseo Blvd. to Blue Ridge Cutoff – Jackson County, Missouri
STREAM DATA FORM

Stream Number – Name: S-2 (unnamed tributary)
Location: (NAD83) Latitude: 39.062 N **Longitude:** -94.496 W
Stream Type (or USGS Designation): Ephemeral – Non-Relatively Permanent Water (Non-RPW)
OHWM Description: absence of vegetation
Average Width of Stream (at OHWM): 3 ft.
Average Depth of Stream (at OHWM): 0.5 ft.
Average Width TOB to TOB: 5 ft.
Average Depth from TOB to Bed: 2 ft.
Channelized? Yes No
Channel Incision or Headcutting: Incision on south side
Banks Unstable or Extensively Eroding: Extensive Moderate Minimal
Bank Side Slopes: 1:1 (or less) 2:1 3:1 4:1 (or greater)
Human-induced Sedimentation: Extensive Moderate Minimal None
Channel Substrate: soil & rock rubble
Chemical Characteristics (clear, discolored, etc.): No water present at time of site visit
Stream Geometry (straight, meandering): straight
Bed Gradient (approx. avg. slope): 2%
Run/Riffle/Pool Complexes: Yes No
Riparian Buffer Width (native woody vegetation) on Each Side: Right Side 50' Left Side 50'
Adjacent Vegetation (general): Wooded – cottonwood, mulberry, gray dogwood, honeysuckle
Mapped Soils (NRCS): Hydric Hydric Inclusions Non-Hydric
Adjacent Wetlands Observed: No
Notes: Flows to an enclosed drainage system that connects to an unnamed tributary of the Blue River



Photo A: Looking downstream toward culvert inlet on the north side of I-70.



Photo B: Looking upstream toward culvert outlet on the south side of I-70.

I-70 – Paseo Blvd. to Blue Ridge Cutoff – Jackson County, Missouri
STREAM DATA FORM

Stream Number – Name: S-3 (unnamed tributary of Blue River)
Location: (NAD83) Latitude: 39.058 N **Longitude:** -94.493 W
Stream Type (or USGS Designation): USGS Intermittent – Relatively Permanent Water (RPW)
OHWM Description: absence of vegetation
Average Width of Stream (at OHWM): 6 ft.
Average Depth of Stream (at OHWM): 0.5 ft.
Average Width TOB to TOB: 10 ft.
Average Depth from TOB to Bed: 2.5 ft.
Channelized? ___Yes ___X_No
Channel Incision or Headcutting: No
Banks Unstable or Extensively Eroding: ___Extensive ___X_Moderate ___Minimal
Bank Side Slopes: ___1:1 (or less) ___X_2:1 ___X_3:1 ___4:1 (or greater)
Human-induced Sedimentation: ___Extensive ___Moderate ___X_Minimal ___None
Channel Substrate: soil & rock rubble
Chemical Characteristics (clear, discolored, etc.): clear
Stream Geometry (straight, meandering): straight
Bed Gradient (approx. avg. slope): 2%
Run/Riffle/Pool Complexes: ___Yes ___X_No
Riparian Buffer Width (native woody vegetation) on Each Side: Right Side _100'_ ___ Left Side _100'_ ___
Adjacent Vegetation (general): Wooded – bitternut hickory, Chinese/Siberian elm, black walnut, hackberry
Mapped Soils (NRCS): ___Hydric ___Hydric Inclusions ___X_Non-Hydric
Adjacent Wetlands Observed: Yes – Potential emergent wetlands (PEMCh) abutting stream
Notes:



Photo A: Looking downstream (west).

I-70 – Paseo Blvd. to Blue Ridge Cutoff – Jackson County, Missouri
STREAM DATA FORM

Stream Number – Name: S-4 (unnamed tributary)
Location: (NAD83) Latitude: 39.059 N **Longitude:** -94.493 W
Stream Type (or USGS Designation): Ephemeral – Non-Relatively Permanent Water (Non-RPW)
OHWM Description: absence of vegetation
Average Width of Stream (at OHWM): 4 ft.
Average Depth of Stream (at OHWM): 0.5 ft.
Average Width TOB to TOB: 8 ft.
Average Depth from TOB to Bed: 3 ft.
Channelized? ___Yes ___X_No
Channel Incision or Headcutting: No
Banks Unstable or Extensively Eroding: ___Extensive ___X_Moderate ___Minimal
Bank Side Slopes: ___1:1 (or less) ___X_2:1 ___3:1 ___4:1 (or greater)
Human-induced Sedimentation: ___Extensive ___Moderate ___X_Minimal ___None
Channel Substrate: mostly rock rubble
Chemical Characteristics (clear, discolored, etc.): clear
Stream Geometry (straight, meandering): straight
Bed Gradient (approx. avg. slope): 2%
Run/Riffle/Pool Complexes: ___Yes ___X_No
Riparian Buffer Width (native woody vegetation) on Each Side: Right Side _30'_ Left Side _50'_
Adjacent Vegetation (general): Wooded – Chinese/Siberian elm, black walnut, hackberry
Mapped Soils (NRCS): ___Hydric ___Hydric Inclusions ___X_Non-Hydric
Adjacent Wetlands Observed: No
Notes: Flows to Stream S-3, which is an intermittent RPW.



Photo A: Looking upstream (north), near outlet of culvert under ramp to southbound I-435.



Photo B: Looking downstream (south).

APPENDIX C

Wetlands

(Wetland Determination Data Forms & Photo Sheets)

I-70 – Paseo Blvd. to Blue Ridge Cutoff – Jackson County, Missouri
WETLAND PHOTO SHEET

Potential Wetland Number: Wetland W-1

Location: (NAD83) Latitude: 39.069 N **Longitude:** -94.511 W

NWI Designation: None

Adjacent Waterway Name: None

Adjacent Waterway Type: ___ TNW RPW ___ Non-RPW (ephem.) None

Wetland Adjacency: ___ Adjacent to TNW ___ Adjacent but Not Directly Abutting RPW
___ Directly Abutting RPW ___ Adjacent to Non-RPW

Explain: Not adjacent – wetland is within interchange ramps

Flow Relationship: ___ Perennial ___ Intermittent Ephemeral ___ No Flow

Surface Flow: ___ Discrete ___ Confined ___ Discrete & Confined Overland Sheet ___ None

Subsurface Flow: ___ Yes No ___ Unknown

Chemical Characteristics (water color, oil on surface, etc.): somewhat cloudy

Wetland Supports: ___ Riparian Buffer Type: Width:

Vegetation Type ___ 85 Percent Cover

Explain: Emergent and wooded vegetation

___ Habitat for (sensitive species, aquatic/wildlife diversity, etc)

Explain:

Size: 0.07 acre: Emergent = 0.028 acre; Forested = 0.042 acre

Type: Emergent and Forested – potentially non-jurisdictional (no hydrologic connection to a Water of the U.S.)

Notes: Within interchange loop ramps. Inlet of culvert is plugged with silt and does not allow area to drain adequately.



Photo A – Looking northwest toward depression with cattails and mostly willow trees.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I-70 EIS: Paseo to Blue Ridge Cut-off City/County: Kansas City / Jackson Sampling Date: 4-15-2013
 Applicant/Owner: Missouri Department of Transportation State: MO Sampling Point: W-1a
 Investigator(s): Tim Flagler Section, Township, Range: Sec 13, T49N, R33W
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave
 Slope (%): 2% Lat: 39.069 Long: -94.511 Datum: NAD 83
 Soil Map Unit Name: Urban land, bottomland, 0 to 3% slopes, rarely flooded NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Remarks: <p style="font-size: 1.2em;">Part of this wetland is emergent and part is forested.</p>	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. R</u>)	Absolute % Cover	Dominant Species?	Indicator Status		
1. <u>Black Willow - Salix nigra</u>	40	Y	OBL	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)	
2. <u>Box Elder - Acer negundo</u>	10	N	FACW		
3. <u>Green Ash - Fraxinus pennsylvanica</u>	10	N	FACW		
4. <u>Sycamore - Platanus occidentalis</u>	5	N	FACW		
5. _____					
65 = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____	
Sapling/Shrub Stratum (Plot size: <u>15 ft. R</u>)	Absolute % Cover	Dominant Species?	Indicator Status		
1. <u>Black Willow - Salix nigra</u>	10	Y	OBL		Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain)
2. <u>Green Ash - Fraxinus pennsylvanica</u>	10	Y	FACW		
3. _____					
4. _____					
5. _____					
20 = Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	
Herb Stratum (Plot size: <u>5 ft. R</u>)	Absolute % Cover	Dominant Species?	Indicator Status		
1. <u>Cattails - Typha latifolia</u>	40	Y	OBL		Footnote: ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Mud Plantain - Heteranthera limosa</u>	5	N	OBL		
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
45 = Total Cover					
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status		
1. _____					
2. _____					
_____ = Total Cover					
Remarks: (Include photo numbers here or on a separate sheet.)					

SOIL

Sampling Point: W-1a

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 12	10YR 3/1	97	10YR 4/4	3	C	M	silty clay	

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I-70 EIS: Paseo to Blue Ridge Cut-off City/County: Kansas City / Jackson Sampling Date: 4-15-2013
 Applicant/Owner: Missouri Department of Transportation State: MO Sampling Point: W-1b
 Investigator(s): Tim Flagler Section, Township, Range: Sec 13, T49N, R33W
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none
 Slope (%): 20% Lat: 39.069 Long: -94.511 Datum: NAD 83
 Soil Map Unit Name: Urban land, bottomland, 0 to 3% slopes, rarely flooded NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: <div style="border: 1px solid black; padding: 5px; min-height: 40px;"> This is the upland sloped embankment. </div>	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30' R</u>)	Absolute % Cover	Dominant Species?	Indicator Status		
1. <u>Sycamore - Platanus occidentalis</u>	<u>5</u>	<u>Y</u>	<u>FACW</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33</u> (A/B)	
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
<u>5</u> = Total Cover					
Sapling/Shrub Stratum (Plot size: _____)				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____	
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
_____ = Total Cover					
Herb Stratum (Plot size: <u>5' R</u>)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
1. <u>Tall Fescue - Festuca arundinacea</u>	<u>60</u>	<u>Y</u>	<u>FACU</u>		
2. <u>Smooth Brome - Bromus inermis</u>	<u>20</u>	<u>Y</u>	<u>NL</u>		
3. <u>White Clover - Trifolium repens</u>	<u>5</u>	<u>N</u>	<u>FACU</u>		
4. <u>Deadnettle - Lamium purpureum</u>	<u>5</u>	<u>N</u>	<u>NL</u>		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
<u>90</u> = Total Cover					
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
1. _____	_____	_____	_____		
2. _____	_____	_____	_____	_____ = Total Cover	
Remarks: (Include photo numbers here or on a separate sheet.)					

SOIL

Sampling Point: W-1b

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 7	10YR 3/2	100	-	-	-	-	silt loam	
7 - 14	10YR 3/3	100	-	-	-	-	clay	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators:			Indicators for Problematic Hydric Soils³:					
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Coast Prairie Redox (A16)		
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> Dark Surface (S7)		
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Iron-Manganese Masses (F12)		
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Mucky Mineral (F1)			<input type="checkbox"/> Very Shallow Dark Surface (TF12)		
<input type="checkbox"/> Stratified Layers (A5)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)			<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> 2 cm Muck (A10)			<input type="checkbox"/> Depleted Matrix (F3)			³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Redox Dark Surface (F6)					
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Depleted Dark Surface (F7)					
<input type="checkbox"/> Sandy Mucky Mineral (S1)			<input type="checkbox"/> Redox Depressions (F8)					
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)								
Restrictive Layer (if observed):						Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>		
Type: _____								
Depth (inches): _____								
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)	
Field Observations:		
Surface Water Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Water Table Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes _____ No <input checked="" type="checkbox"/> (includes capillary fringe)	Depth (inches): _____	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

I-70 – Paseo Blvd. to Blue Ridge Cutoff – Jackson County, Missouri
WETLAND PHOTO SHEET

Potential Wetland Number: Wetland W-2

Location: (NAD83) Latitude: 39.068 N **Longitude:** -94.511 W

NWI Designation: None

Adjacent Waterway Name: None

Adjacent Waterway Type: ___ TNW RPW ___ Non-RPW (ephem.) None

Wetland Adjacency: ___ Adjacent to TNW ___ Adjacent but Not Directly Abutting RPW
___ Directly Abutting RPW ___ Adjacent to Non-RPW

Explain: Not adjacent – wetland is within interchange ramps

Flow Relationship: ___ Perennial ___ Intermittent Ephemeral ___ No Flow

Surface Flow: ___ Discrete ___ Confined ___ Discrete & Confined Overland Sheet ___ None

Subsurface Flow: ___ Yes No ___ Unknown

Chemical Characteristics (water color, oil on surface, etc.): No water on surface

Wetland Supports: ___ Riparian Buffer Type: Width:

Vegetation Type ___ 95 Percent Cover

Explain: Emergent vegetation

___ Habitat for (sensitive species, aquatic/wildlife diversity, etc)

Explain:

Size: 0.102 acre

Type: Emergent – potentially non-jurisdictional

Notes: Within interchange loop ramps.



Photo A – Looking northwest toward cattail swales (some mowed), within interchange loop ramps.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I-70 EIS: Paseo to Blue Ridge Cut-off City/County: Kansas City / Jackson Sampling Date: 4-15-2013
 Applicant/Owner: Missouri Department of Transportation State: MO Sampling Point: W-2a
 Investigator(s): Tim Flagler Section, Township, Range: Sec 13, T49N, R33W
 Landform (hillslope, terrace, etc.): drainage ditch Local relief (concave, convex, none): concave
 Slope (%): 2% Lat: 39.068 Long: -94.511 Datum: NAD 83
 Soil Map Unit Name: Urban land, bottomland, 0 to 3% slopes, rarely flooded NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Remarks: This is an emergent wetland area in an interchange ditch.			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: <u>5 ft. linear</u>)				
1. <u>Cattails - Typha latifolia</u>	<u>95</u>	<u>Y</u>	<u>OBL</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>95</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
 Total Number of Dominant Species Across All Strata: _____ (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:
 Total % Cover of: _____ Multiply by: _____
 OBL species _____ x 1 = _____
 FACW species _____ x 2 = _____
 FAC species _____ x 3 = _____
 FACU species _____ x 4 = _____
 UPL species _____ x 5 = _____
 Column Totals: _____ (A) _____ (B)
 Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:
 1 - Rapid Test for Hydrophytic Vegetation
 2 - Dominance Test is >50%
 3 - Prevalence Index is ≤3.0¹
 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
--	---	-----------------------------

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W-2a

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 4	10YR 3/1	98	2.5YR 3/4	2	C	PL	clay	
4 - 8	10YR 4/1	98	10YR 4/4	2	C	M	clay	
8 - 14	10YR 2/1	98	10YR 4/4	2	C	M	silty clay	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators:						Indicators for Problematic Hydric Soils³:		
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)			<input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)			<input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)		
Restrictive Layer (if observed): Type: _____ Depth (inches): _____						Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____		
³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.								
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)	
<input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> FAC-Neutral Test (D5)		
Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>1"</u> Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>Top 1"</u> (includes capillary fringe)		
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I-70 EIS: Paseo to Blue Ridge Cut-off City/County: Kansas City / Jackson Sampling Date: 4-15-2013
 Applicant/Owner: Missouri Department of Transportation State: MO Sampling Point: W-2b
 Investigator(s): Tim Flagler Section, Township, Range: Sec 13, T49N, R33W
 Landform (hillslope, terrace, etc.): slope Local relief (concave, convex, none): none
 Slope (%): 5% - 20% Lat: 39.068 Long: -94.511 Datum: NAD 83
 Soil Map Unit Name: Urban land, bottomland, 0 to 3% slopes, rarely flooded NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Remarks: <u>Dry upland area.</u>					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status		
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
_____ = Total Cover					
Sapling/Shrub Stratum (Plot size: _____)					
1. _____					
2. _____					
3. _____					
4. _____					
5. _____					
_____ = Total Cover					
Herb Stratum (Plot size: <u>5 ft. linear</u>)					
1. <u>Tall Fescue - Festuca arundinacea</u>	<u>98</u>	<u>Y</u>	<u>FACU</u>		
2. <u>Dandelion - Taraxacum officinale</u>	<u>2</u>	<u>N</u>	<u>FACU</u>		
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
_____ = Total Cover					
Woody Vine Stratum (Plot size: _____)					
1. _____					
2. _____					
_____ = Total Cover					

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
 Total Number of Dominant Species Across All Strata: 1 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:
 Total % Cover of: _____ Multiply by: _____
 OBL species _____ x 1 = _____
 FACW species _____ x 2 = _____
 FAC species _____ x 3 = _____
 FACU species _____ x 4 = _____
 UPL species _____ x 5 = _____
 Column Totals: _____ (A) _____ (B)
 Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:
 1 - Rapid Test for Hydrophytic Vegetation
 2 - Dominance Test is >50%
 3 - Prevalence Index is ≤3.0¹
 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
--	------------------------------	--

Remarks: (Include photo numbers here or on a separate sheet.)

I-70 – Paseo Blvd. to Blue Ridge Cutoff – Jackson County, Missouri
WETLAND PHOTO SHEET

Potential Wetland Number: Wetland W-3

Location: (NAD83) Latitude: 39.058 N **Longitude:** -94.493 W

NWI Designation: PEMCh

Adjacent Waterway Name: Stream S-5 (unnamed tributary of Blue River)

Adjacent Waterway Type: TNW RPW Non-RPW (ephem.) None

Wetland Adjacency: Adjacent to TNW Adjacent but Not Directly Abutting RPW
 Directly Abutting RPW Adjacent to Non-RPW

Explain: Above OHWM of stream on south side in level area

Flow Relationship: Perennial Intermittent Ephemeral No Flow

Surface Flow: Discrete Confined Discrete & Confined Overland Sheet None

Subsurface Flow: Yes No Unknown

Chemical Characteristics (water color, oil on surface, etc.): No water on surface at time of site visit

Wetland Supports: Riparian Buffer Type: _____ Width: _____

Vegetation Type 95 Percent Cover

Explain: Emergent and scrub-shrub vegetation (dominated by reed canarygrass)

Habitat for (sensitive species, aquatic/wildlife diversity, etc)

Explain:

Size: 0.115 acre: Emergent = 0.082 acre; Scrub-shrub = 0.033

Type: Emergent and Scrub-shrub – potentially jurisdictional (abutting stream)

Notes: Wetland is on level area at toe of slope, and abuts the stream channel.



Photo A – On south side of stream channel, looking east. Scrub-shrub wetland area is in background.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I-70 EIS: Paseo to Blue Ridge Cut-off City/County: Kansas City / Jackson Sampling Date: 4-15-2013
 Applicant/Owner: Missouri Department of Transportation State: MO Sampling Point: W-3a
 Investigator(s): Tim Flagler Section, Township, Range: Sec 19, T49N, R32W
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none
 Slope (%): 1% Lat: 39.058 Long: -94.493 Datum: NAD 83
 Soil Map Unit Name: Snead-Urban land complex, 9 to 30% slopes NWI classification: PEMCh

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Remarks:					
The majority of this area is emergent wetland, and the remainder is scrub-shrub wetland.					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30' R</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Black Willow - Salix nigra</u>	15	Y	OBL	Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: _____ (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
15 = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15' R</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Black Willow - Salix nigra</u>	25	Y	OBL	Total % Cover of: _____ Multiply by: _____
2. <u>Gray Dogwood - Cornus racemosa</u>	5	N	FACW	OBL species _____ x 1 = _____
3. <u>Box Elder - Acer negundo</u>	2	N	FACW	FACW species _____ x 2 = _____
4. <u>Cottonwood - Populus deltoides</u>	2	N	FAC	FAC species _____ x 3 = _____
5. _____	_____	_____	_____	FACU species _____ x 4 = _____
34 = Total Cover				UPL species _____ x 5 = _____
				Column Totals: _____ (A) _____ (B)
				Prevalence Index = B/A = _____
Herb Stratum (Plot size: <u>5' R</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Reed Canarygrass - Phalaris arundinacea</u>	95	Y	FACW	<input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
2. <u>Cattails - Typha latifolia</u>	2	N	OBL	<input type="checkbox"/> 2 - Dominance Test is >50%
3. _____	_____	_____	_____	<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
4. _____	_____	_____	_____	<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____	_____	_____	_____	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
97 = Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____	_____	_____	_____	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____	_____	_____	_____	
_____ = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.)				

SOIL

Sampling Point: W-3a

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 6	10Yr 3/1	97	7.5YR 4/3	3	C	PL	silty clay	
6							bedrock	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators:						Indicators for Problematic Hydric Soils³:		
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)			<input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)			<input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)		
Restrictive Layer (if observed):								
Type: <u>bedrock</u>								
Depth (inches): <u>6</u>						Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> FAC-Neutral Test (D5)		
Field Observations:		
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____
Water Table Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>3"</u>
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>0</u>
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I-70 EIS: Paseo to Blue Ridge Cut-off City/County: Kansas City / Jackson Sampling Date: 4-15-2013
 Applicant/Owner: Missouri Department of Transportation State: MO Sampling Point: W-3b
 Investigator(s): Tim Flagler Section, Township, Range: Sec 19, T49N, R32W
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none
 Slope (%): 28% Lat: 39.058 Long: -94.493 Datum: NAD 83
 Soil Map Unit Name: Snead-Urban land complex, 9 to 30% slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: <div style="border: 1px solid black; padding: 10px; min-height: 40px;"> This is the upland area on the hillside above the wetland. </div>	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30' R</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Red Oak - Quercus rubra</u>	<u>70</u>	<u>Y</u>	<u>FACU</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)
2. <u>Chinkapin Oak - Quercus muhlenbergii</u>	<u>10</u>	<u>N</u>	<u>FAC</u>	
3. <u>Black Walnut - Juglans nigra</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
4. _____				
5. _____				
<u>85</u> = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
<u>40</u> = Total Cover				
<u>10</u> = Total Cover				
<u>10</u> = Total Cover				
<u>10</u> = Total Cover				
<u>10</u> = Total Cover				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
<u>10</u> = Total Cover				
<u>10</u> = Total Cover				
<u>10</u> = Total Cover				
<u>10</u> = Total Cover				
<u>10</u> = Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<u>10</u> = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.)				

SOIL

Sampling Point: W-3b

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 9	10YR 3/3	100	-	-	-	-	silty clay loam	
9 - 14	10YR 4/3	100	-	-	-	-	silty clay loam	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators:						Indicators for Problematic Hydric Soils³:		
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)			<input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)			<input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)		
Restrictive Layer (if observed): Type: _____ Depth (inches): _____						Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>		
³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.								
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____		Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I-70 EIS: Paseo to Blue Ridge Cut-off City/County: Kansas City / Jackson Sampling Date: 4-15-2013
 Applicant/Owner: Missouri Department of Transportation State: MO Sampling Point: W-4a
 Investigator(s): Tim Flagler Section, Township, Range: Sec 18, T49N, R32W
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none
 Slope (%): 1% Lat: 39.061 Long: -94.490 Datum: NAD 83
 Soil Map Unit Name: Snead-Urban land complex, 9 to 30% slopes NWI classification: PEMCx

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Remarks:					
This is an emergent wetland adjacent to a ditch in the interchange.					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: 5' R _____)				
1. Cattails - <i>Typha latifolia</i>	95	Y	OBL	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
 Total Number of Dominant Species Across All Strata: _____ (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:
 Total % Cover of: _____ Multiply by: _____
 OBL species _____ x 1 = _____
 FACW species _____ x 2 = _____
 FAC species _____ x 3 = _____
 FACU species _____ x 4 = _____
 UPL species _____ x 5 = _____
 Column Totals: _____ (A) _____ (B)
 Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:
 1 - Rapid Test for Hydrophytic Vegetation
 2 - Dominance Test is >50%
 3 - Prevalence Index is ≤3.0¹
 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
--	---	-----------------------------

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W-4a

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 6	10YR 2/1	95	10YR 4/4	5	C	M	clay	road embankment mix
6 - 12	Chart 1-Gley 3N	95	10YR 4/4	5	C	M	clay	road embankment mix
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators:			Indicators for Problematic Hydric Soils³:					
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)			<input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input checked="" type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)			<input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)		
Restrictive Layer (if observed): Type: _____ Depth (inches): _____						Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____		
³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.								
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)			
<input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> FAC-Neutral Test (D5)				
Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>1"</u> Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>Top 1"</u> (includes capillary fringe)			Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:				
Remarks:				

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I-70 EIS: Paseo to Blue Ridge Cut-off City/County: Kansas City / Jackson Sampling Date: 4-15-2013
 Applicant/Owner: Missouri Department of Transportation State: MO Sampling Point: W-4b
 Investigator(s): Tim Flagler Section, Township, Range: Sec 18, T49N, R32W
 Landform (hillslope, terrace, etc.): hillalope Local relief (concave, convex, none): none
 Slope (%): 25% Lat: 39.061 Long: -94.490 Datum: NAD 83
 Soil Map Unit Name: Snead-Urban land complex, 9 to 30% slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: This is the upland portion of the interchange embankment.	

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
<u>Herb Stratum</u> (Plot size: <u>5' R</u>)				
1. <u>Tall Fescue - Festuca arundinacea</u>	<u>60</u>	<u>Y</u>	<u>FACU</u>	
2. <u>Smooth Brome - Bromus inermis</u>	<u>30</u>	<u>Y</u>	<u>NL</u>	
3. <u>Crown Vetch - Securigera varia</u>	<u>5</u>	<u>N</u>	<u>NL</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>95</u> = Total Cover				
<u>Woody Vine Stratum</u> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
 Total Number of Dominant Species Across All Strata: 2 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:
 Total % Cover of: _____ Multiply by: _____
 OBL species _____ x 1 = _____
 FACW species _____ x 2 = _____
 FAC species _____ x 3 = _____
 FACU species _____ x 4 = _____
 UPL species _____ x 5 = _____
 Column Totals: _____ (A) _____ (B)
 Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:
 1 - Rapid Test for Hydrophytic Vegetation
 2 - Dominance Test is >50%
 3 - Prevalence Index is ≤3.0¹
 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Remarks: (Include photo numbers here or on a separate sheet.)	Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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SOIL

Sampling Point: W-4b

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 8	10YR 3/2	100	-	-	-	-	silty clay loam	
8 - 14	10YR 3/3	100	-	-	-	-	silty clay loam	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators:						Indicators for Problematic Hydric Soils³:		
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)			<input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)			<input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)		
Restrictive Layer (if observed): Type: _____ Depth (inches): _____						Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>		
³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.								
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____		Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

I-70 – Paseo Blvd. to Blue Ridge Cutoff – Jackson County, Missouri
WETLAND PHOTO SHEET

Potential Wetland Number: Wetland W-5

Location: (NAD83) Latitude: 39.060 N **Longitude:** -94.492 W

NWI Designation: None

Adjacent Waterway Name: None (interchange ditch)

Adjacent Waterway Type: ___TNW ___RPW ___Non-RPW (ephem.) __X__Ditch

Wetland Adjacency: ___Adjacent to TNW ___Adjacent but Not Directly Abutting RPW
___Directly Abutting RPW __X__Adjacent to Non-RPW

Explain: Adjacent to drainage ditch within interchange loop ramp

Flow Relationship: ___Perennial ___Intermittent __X__Ephemeral ___No Flow

Surface Flow: ___Discrete ___Confined ___Discrete & Confined __X__Overland Sheet ___None

Subsurface Flow: ___Yes __X__No ___Unknown

Chemical Characteristics (water color, oil on surface, etc.): No water on surface at time of site visit

Wetland Supports: ___Riparian Buffer Type: _____ Width: _____

__X__Vegetation Type __80__Percent Cover

Explain: Emergent vegetation (dominated by cattails)

___Habitat for (sensitive species, aquatic/wildlife diversity, etc)

Explain:

Size: 0.005 acre

Type: Emergent – potentially non-jurisdictional

Notes: Wetland is within interchange loop ramp, adjacent to drainage ditch that is excavated wholly in and draining only uplands and does not carry a relatively permanent flow of water.



Photo A – Looking northwest within interchange.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I-70 EIS: Paseo to Blue Ridge Cut-off City/County: Kansas City / Jackson Sampling Date: 4-15-2013
 Applicant/Owner: Missouri Department of Transportation State: MO Sampling Point: W-5a
 Investigator(s): Tim Flagler Section, Township, Range: Sec 18/19, T49N, R32W
 Landform (hillslope, terrace, etc.): drainage ditch Local relief (concave, convex, none): concave
 Slope (%): 2% Lat: 39.060 Long: -94.492 Datum: NAD 83
 Soil Map Unit Name: Snead-Urban land complex, 9 to 30% slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Remarks: This is an emergent wetland in an interchange ditch.			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: 5' linear _____)				
1. Cattails - <i>Typha latifolia</i>	95	Y	OBL	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
95 = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
 Total Number of Dominant Species Across All Strata: _____ (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:
 Total % Cover of: _____ Multiply by: _____
 OBL species _____ x 1 = _____
 FACW species _____ x 2 = _____
 FAC species _____ x 3 = _____
 FACU species _____ x 4 = _____
 UPL species _____ x 5 = _____
 Column Totals: _____ (A) _____ (B)
 Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:
 1 - Rapid Test for Hydrophytic Vegetation
 2 - Dominance Test is >50%
 3 - Prevalence Index is ≤3.0¹
 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
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Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W-5a

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 12	10YR 3/1	97	7.5YR 4/6	3	C	PL	silty clay	
12							gravel	from interchange construction
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators:						Indicators for Problematic Hydric Soils³:		
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)			<input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)			<input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)		
Restrictive Layer (if observed): Type: <u>gravel</u> Depth (inches): <u>12</u>						Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)	
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> FAC-Neutral Test (D5)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)		
Field Observations:		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Surface Water Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>1"</u>		
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u> </u>		
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>Top 1"</u>		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I-70 EIS: Paseo to Blue Ridge Cut-off City/County: Kansas City / Jackson Sampling Date: 4-15-2013
 Applicant/Owner: Missouri Department of Transportation State: MO Sampling Point: W-5b
 Investigator(s): Tim Flagler Section, Township, Range: Sec 18/19, T49N, R32W
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none
 Slope (%): 15% Lat: 39.060 Long: -94.492 Datum: NAD 83
 Soil Map Unit Name: Snead-Urban land complex, 9 to 30% slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Remarks:					
This is the upland portion of the interchange embankment.					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
_____ = Total Cover				
Herb Stratum (Plot size: _____)				
1. Smooth Brome - <i>Bromus inermis</i>	80	Y	NL	
2. Field Pennycress - <i>Thlaspi arvense</i>	10	N	NI	
3. Crown Vetch - <i>Securigera varia</i>	5	N	NL	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
95 = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____				
2. _____				
_____ = Total Cover				

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
 Total Number of Dominant Species Across All Strata: 1 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:
 Total % Cover of: _____ Multiply by: _____
 OBL species _____ x 1 = _____
 FACW species _____ x 2 = _____
 FAC species _____ x 3 = _____
 FACU species _____ x 4 = _____
 UPL species _____ x 5 = _____
 Column Totals: _____ (A) _____ (B)
 Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:
 1 - Rapid Test for Hydrophytic Vegetation
 2 - Dominance Test is >50%
 3 - Prevalence Index is ≤3.0¹
 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
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Remarks: (Include photo numbers here or on a separate sheet.)
 Smooth brome is considered an upland grass.

SOIL

Sampling Point: W-5b

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 4	10YR 3/3	100	-	-	-	-	silty loam	
rock								rock rubble embankment mix
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators:						Indicators for Problematic Hydric Soils³:		
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)			<input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)			<input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)		
Restrictive Layer (if observed): Type: <u>rock rubble from road embankment</u> Depth (inches): <u>4</u>						Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____		Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

I-70 – Paseo Blvd. to Blue Ridge Cutoff – Jackson County, Missouri
WETLAND PHOTO SHEET

Potential Wetland Number: Wetland W-6

Location: (NAD83) Latitude: 39.058 N **Longitude:** -94.489 W

NWI Designation: None

Adjacent Waterway Name: None (interchange ditch)

Adjacent Waterway Type: ___TNW ___RPW ___Non-RPW (ephem.) X_Ditch

Wetland Adjacency: ___Adjacent to TNW ___Adjacent but Not Directly Abutting RPW
___Directly Abutting RPW X_Adjacent to Non-RPW

Explain: Adjacent to drainage ditch within interchange loop ramp

Flow Relationship: ___Perennial ___Intermittent X_Ephemeral ___No Flow

Surface Flow: ___Discrete ___Confined ___Discrete & Confined X_Overland Sheet ___None

Subsurface Flow: ___Yes X_No ___Unknown

Chemical Characteristics (water color, oil on surface, etc.): No water on surface at time of site visit

Wetland Supports: ___Riparian Buffer Type: ___ Width:

X_Vegetation Type 85_Percent Cover

Explain: Emergent vegetation (dominated by cattails)

___Habitat for (sensitive species, aquatic/wildlife diversity, etc)

Explain:

Size: 0.017 acre

Type: Emergent – potentially non-jurisdictional

Notes: Wetland is within interchange loop ramp, adjacent to drainage ditch that is excavated wholly in and draining only uplands and does not carry a relatively permanent flow of water.



Photo A – Looking southwest within northbound I-435 loop ramp of interchange.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I-70 EIS: Paseo to Blue Ridge Cut-off City/County: Kansas City / Jackson Sampling Date: 4-15-2013
 Applicant/Owner: Missouri Department of Transportation State: MO Sampling Point: W-6a
 Investigator(s): Tim Flagler Section, Township, Range: Sec 19, T49N, R32W
 Landform (hillslope, terrace, etc.): drainage ditch Local relief (concave, convex, none): concave
 Slope (%): 2% Lat: 39.058 Long: -94.489 Datum: NAD 83
 Soil Map Unit Name: Snead-Urban land complex, 9 to 30% slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Remarks: This is an emergent wetland in an interchange ditch.			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: 5' linear _____)				
1. Cattails - <i>Typha latifolia</i>	95	Y	OBL	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
95 = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
 Total Number of Dominant Species Across All Strata: _____ (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:
 Total % Cover of: _____ Multiply by: _____
 OBL species _____ x 1 = _____
 FACW species _____ x 2 = _____
 FAC species _____ x 3 = _____
 FACU species _____ x 4 = _____
 UPL species _____ x 5 = _____
 Column Totals: _____ (A) _____ (B)
 Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:
 1 - Rapid Test for Hydrophytic Vegetation
 2 - Dominance Test is >50%
 3 - Prevalence Index is ≤3.0¹
 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
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Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W-6a

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 12	10YR 3/1	97	7.5YR 4/6	3	C	PL	silty clay	
12							gravel	from interchange construction
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators:						Indicators for Problematic Hydric Soils³:		
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)			<input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)			<input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)		
Restrictive Layer (if observed): Type: <u>gravel</u> Depth (inches): <u>12</u>						Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)	
<input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> FAC-Neutral Test (D5)		
Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>2"</u> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u> </u> Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>Top 1"</u>		
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I-70 EIS: Paseo to Blue Ridge Cut-off City/County: Kansas City / Jackson Sampling Date: 4-15-2013
 Applicant/Owner: Missouri Department of Transportation State: MO Sampling Point: W-6b
 Investigator(s): Tim Flagler Section, Township, Range: Sec 19, T49N, R32W
 Landform (hillslope, terrace, etc.): slope Local relief (concave, convex, none): none
 Slope (%): 5% Lat: 39.058 Long: -94.489 Datum: NAD 83
 Soil Map Unit Name: Snead-Urban land complex, 9 to 30% slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Remarks:					
This is upland area of the interchange.					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status		
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
				_____ = Total Cover	
Sapling/Shrub Stratum (Plot size: _____)					
1. _____					
2. _____					
3. _____					
4. _____					
5. _____					
				_____ = Total Cover	
Herb Stratum (Plot size: 5' linear _____)					
1. Tall Fescue - <i>Festuca arundinacea</i>	95	Y	FACU		
2. White Clover - <i>Trifolium repens</i>	2	N	FACU		
3. Dandelion - <i>Taraxacum officinale</i>	2	N	FACU		
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
				99 = Total Cover	
Woody Vine Stratum (Plot size: _____)					
1. _____					
2. _____					
				_____ = Total Cover	

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
 Total Number of Dominant Species Across All Strata: 1 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:
 Total % Cover of: _____ Multiply by: _____
 OBL species _____ x 1 = _____
 FACW species _____ x 2 = _____
 FAC species _____ x 3 = _____
 FACU species _____ x 4 = _____
 UPL species _____ x 5 = _____
 Column Totals: _____ (A) _____ (B)
 Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:
 1 - Rapid Test for Hydrophytic Vegetation
 2 - Dominance Test is >50%
 3 - Prevalence Index is ≤3.0¹
 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
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Remarks: (Include photo numbers here or on a separate sheet.)

I-70 – Paseo Blvd. to Blue Ridge Cutoff – Jackson County, Missouri
WETLAND PHOTO SHEET

Potential Wetland Number: Wetland W-7

Location: (NAD83) Latitude: 39.058 N **Longitude:** -94.486 W

NWI Designation: None

Adjacent Waterway Name: None

Adjacent Waterway Type: ___ TNW ___ RPW ___ Non-RPW (ephem.) X None

Wetland Adjacency: ___ Adjacent to TNW ___ Adjacent but Not Directly Abutting RPW
___ Directly Abutting RPW ___ Adjacent to Non-RPW

Explain: Not adjacent to a waterway

Flow Relationship: ___ Perennial ___ Intermittent ___ Ephemeral X No Flow

Surface Flow: ___ Discrete ___ Confined ___ Discrete & Confined X Overland Sheet ___ None

Subsurface Flow: ___ Yes ___ No X Unknown

Chemical Characteristics (water color, oil on surface, etc.): No water on surface at time of site visit

Wetland Supports: ___ Riparian Buffer Type: Width:

X Vegetation Type ___ 95 Percent Cover

Explain: Emergent vegetation (dominated by cattails)

___ Habitat for (sensitive species, aquatic/wildlife diversity, etc)

Explain:

Size: 0.061 acre

Type: Emergent – potentially non-jurisdictional

Notes: Wetland is located at toe of embankment of parking lot and appears to receive runoff from it. Although the wetland is near a concrete drainage ditch that drains only uplands and does not carry a relatively permanent flow of water, it does not appear to receive water from the ditch.



Photo A – Looking northeast on east side of ramp to northbound I-435.



Photo B – On east side of ramp to northbound I-435, looking toward concrete drainage ditch.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I-70 EIS: Paseo to Blue Ridge Cut-off City/County: Kansas City / Jackson Sampling Date: 4-15-2013
 Applicant/Owner: Missouri Department of Transportation State: MO Sampling Point: W-7a
 Investigator(s): Tim Flagler Section, Township, Range: Sec 19, T49N, R32W
 Landform (hillslope, terrace, etc.): toe of slope Local relief (concave, convex, none): none
 Slope (%): 5% Lat: 39.058 Long: -94.486 Datum: NAD 83
 Soil Map Unit Name: Urban land, upland, 5 to 9% slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Remarks:					
This is an emergent wetland area fed by runoff from the large parking lot to the east.					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: _____ (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: _____)				Total % Cover of: _____ Multiply by: _____
1. _____	_____	_____	_____	OBL species _____ x 1 = _____
2. _____	_____	_____	_____	FACW species _____ x 2 = _____
3. _____	_____	_____	_____	FAC species _____ x 3 = _____
4. _____	_____	_____	_____	FACU species _____ x 4 = _____
5. _____	_____	_____	_____	UPL species _____ x 5 = _____
_____ = Total Cover				Column Totals: _____ (A) _____ (B)
Herb Stratum (Plot size: <u>5' R</u> _____)				Prevalence Index = B/A = _____
1. Cattails - <i>Typha latifolia</i>	95	Y	OBL	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is $\leq 3.0^1$ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
95 = Total Cover				
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present?
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: (Include photo numbers here or on a separate sheet.)				

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I-70 EIS: Paseo to Blue Ridge Cut-off City/County: Kansas City / Jackson Sampling Date: 4-15-2013
 Applicant/Owner: Missouri Department of Transportation State: MO Sampling Point: W-7b
 Investigator(s): Tim Flagler Section, Township, Range: Sec 19, T49N, R32W
 Landform (hillslope, terrace, etc.): slope Local relief (concave, convex, none): none
 Slope (%): 25% Lat: 39.058 Long: -94.486 Datum: NAD 83
 Soil Map Unit Name: Urban land, upland, 5 to 9% slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Remarks: This is the upland/dry portion of the roadside area.					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	0 _____ (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	1 _____ (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	0 _____ (A/B)
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
_____ = Total Cover				Prevalence Index worksheet:	
Sapling/Shrub Stratum (Plot size: _____)				Total % Cover of: _____ Multiply by: _____	
1. _____	_____	_____	_____	OBL species _____	x 1 = _____
2. _____	_____	_____	_____	FACW species _____	x 2 = _____
3. _____	_____	_____	_____	FAC species _____	x 3 = _____
4. _____	_____	_____	_____	FACU species _____	x 4 = _____
5. _____	_____	_____	_____	UPL species _____	x 5 = _____
_____ = Total Cover				Column Totals:	_____ (A) _____ (B)
Herb Stratum (Plot size: <u>5' R</u>)				Prevalence Index = B/A = _____	
1. Tall Fescue - <i>Festuca arundinacea</i>	90	Y	FACU	Hydrophytic Vegetation Indicators:	
2. Dandelion - <i>Taraxacum officinale</i>	2	N	FACU	<input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
3. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
92 = Total Cover					
Woody Vine Stratum (Plot size: _____)					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
_____ = Total Cover					
Remarks: (Include photo numbers here or on a separate sheet.)					

SOIL

Sampling Point: W-7b

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 6	10YR 3/2	100	-	-	-	-	silty clay loam	road embankment soil mix
6 - 10	10YR 3/3	100	-	-	-	-	silty clay	road embankment soil mix
10 - 14	10YR 4/2	100	-	-	-	-	silty clay	road embankment soil mix
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators:			Indicators for Problematic Hydric Soils³:					
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Coast Prairie Redox (A16)		
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> Dark Surface (S7)		
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Iron-Manganese Masses (F12)		
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Mucky Mineral (F1)			<input type="checkbox"/> Very Shallow Dark Surface (TF12)		
<input type="checkbox"/> Stratified Layers (A5)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)			<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> 2 cm Muck (A10)			<input type="checkbox"/> Depleted Matrix (F3)					
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Redox Dark Surface (F6)					
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Depleted Dark Surface (F7)					
<input type="checkbox"/> Sandy Mucky Mineral (S1)			<input type="checkbox"/> Redox Depressions (F8)					
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)						³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
Restrictive Layer (if observed):								
Type: _____								
Depth (inches): _____								
						Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>		
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)	
Field Observations:		
Surface Water Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	
Water Table Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	
(includes capillary fringe)		
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

I-70 – Paseo Blvd. to Blue Ridge Cutoff – Jackson County, Missouri
WETLAND PHOTO SHEET

Potential Wetland Number: Wetland W-8

Location: (NAD83) Latitude: 39.059 N **Longitude:** -94.486 W

NWI Designation: None

Adjacent Waterway Name: None

Adjacent Waterway Type: ___TNW ___RPW ___Non-RPW (ephem.) _X_None

Wetland Adjacency: ___Adjacent to TNW ___Adjacent but Not Directly Abutting RPW
___Directly Abutting RPW ___Adjacent to Non-RPW

Explain: Not adjacent to a waterway

Flow Relationship: ___Perennial ___Intermittent ___Ephemeral _X_No Flow

Surface Flow: ___Discrete ___Confined ___Discrete & Confined _X_Overland Sheet ___None

Subsurface Flow: ___Yes ___No _X_Unknown

Chemical Characteristics (water color, oil on surface, etc.): No water on surface at time of site visit

Wetland Supports: ___Riparian Buffer Type: _____ Width: _____

_X_Vegetation Type _95_Percent Cover

Explain: Emergent vegetation (dominated by cattails)

___Habitat for (sensitive species, aquatic/wildlife diversity, etc)

Explain:

Size: 0.031 acre

Type: Emergent – potentially non-jurisdictional

Notes: Wetland is located at toe of embankment of parking lot and appears to receive runoff from it. This wetland is just to the north of Wetland W-7.



Photo A – Looking north on east side of ramp to northbound I-435.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I-70 EIS: Paseo to Blue Ridge Cut-off City/County: Kansas City / Jackson Sampling Date: 4-15-2013
 Applicant/Owner: Missouri Department of Transportation State: MO Sampling Point: W-8a
 Investigator(s): Tim Flagler Section, Township, Range: Sec 19, T49N, R32W
 Landform (hillslope, terrace, etc.): toe of slope Local relief (concave, convex, none): none
 Slope (%): 4% Lat: 39.059 Long: -94.486 Datum: NAD 83
 Soil Map Unit Name: Urban land, upland, 5 to 9% slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No _____	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/>	No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No _____			
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No _____			
Remarks:					
This is an emergent wetland area fed by runoff from the large parking lot to the east.					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: _____)				
1. Cattails - <i>Typha latifolia</i>	95	Y	OBL	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
95 = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)
 Total Number of Dominant Species Across All Strata: _____ (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:
 Total % Cover of: _____ Multiply by: _____
 OBL species _____ x 1 = _____
 FACW species _____ x 2 = _____
 FAC species _____ x 3 = _____
 FACU species _____ x 4 = _____
 UPL species _____ x 5 = _____
 Column Totals: _____ (A) _____ (B)
 Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:
 1 - Rapid Test for Hydrophytic Vegetation
 2 - Dominance Test is >50%
 3 - Prevalence Index is ≤3.0¹
 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No _____
--	---	----------

Remarks: (Include photo numbers here or on a separate sheet.)

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I-70 EIS: Paseo to Blue Ridge Cut-off City/County: Kansas City / Jackson Sampling Date: 4-15-2013
 Applicant/Owner: Missouri Department of Transportation State: MO Sampling Point: W-8b
 Investigator(s): Tim Flagler Section, Township, Range: Sec 19, T49N, R32W
 Landform (hillslope, terrace, etc.): slope Local relief (concave, convex, none): none
 Slope (%): 25% Lat: 39.059 Long: -94.486 Datum: NAD 83
 Soil Map Unit Name: Urban land, upland, 5 to 9% slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Remarks:			
This is the upland/dry portion of the roadside area.			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: _____)				
1. Tall Fescue - <i>Festuca arundinacea</i>	90	Y	FACU	
2. Dandelion - <i>Taraxacum officinale</i>	2	N	FACU	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
92 = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.)				

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
 Total Number of Dominant Species Across All Strata: 1 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:
 Total % Cover of: _____ Multiply by: _____
 OBL species _____ x 1 = _____
 FACW species _____ x 2 = _____
 FAC species _____ x 3 = _____
 FACU species _____ x 4 = _____
 UPL species _____ x 5 = _____
 Column Totals: _____ (A) _____ (B)
 Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:
 1 - Rapid Test for Hydrophytic Vegetation
 2 - Dominance Test is >50%
 3 - Prevalence Index is ≤3.0¹
 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes No

SOIL

Sampling Point: W-8b

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0 - 6	10YR 3/2	100	-	-	-	-	silty clay loam	road embankment soil mix
6 - 10	10YR 3/3	100	-	-	-	-	silty clay	road embankment soil mix
10 - 14	10YR 4/2	100	-	-	-	-	silty clay	road embankment soil mix
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.					² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil Indicators:						Indicators for Problematic Hydric Soils³:		
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)			<input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8)			<input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)		
Restrictive Layer (if observed): Type: _____ Depth (inches): _____						Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>		
³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.								
Remarks:								

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____		Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

APPENDIX D

References

**Books & Websites,
and Maps**

References

BOOKS and WEBSITES:

Cowardin, Lewis M. et. al. 1979. Classification of Wetlands and Deepwater Habitats of the United States. U. S. Fish and Wildlife Service.

Environmental Laboratory. 1987. "Corps of Engineers Wetlands Delineation Manual," Technical Report Y-87-1, US Army Engineer Waterways Experiment Station, Vicksburg, Miss.

Knobel, Edward. Field Guide to the Grasses, Sedges and Rushes of the United States. Dover Publications, Inc. New York. 1977.

Midwestern Wetland Flora Field Office Illustrated Guide to Plant Species. USDA-Soil Conservation Service. Midwest National Technical Center. Lincoln, Nebraska.

Phillips Petroleum Company. 1980. Pasture and Range Plants. Phillips Petroleum Company.

Settergren, Carl and R. E. McDermott. Trees of Missouri. University of Missouri, Agricultural Experiment Station. 1966.

U. S. Army Corps of Engineers. 2010. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0)*. ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-08-27. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

U.S. Dept. of Agriculture, Natural Resources Conservation Service; Jackson County, Missouri – Hydric Soils List. 2008.

U.S. Dept. of Agriculture, Soil Conservation Service, George D. Preston.; Soil Survey of Jackson County, Missouri. National Cooperative Soil Survey, 1984.

U.S. Dept. of Agriculture, Soil Conservation Service, Web Soil Survey of Jackson County, Missouri. National Cooperative Soil Survey, Updated February 17, 2012.

U.S. Fish and Wildlife Service, 1996. National List of Vascular Plant Species That Occur in Wetlands: 1996 National Summary.

MAPS:

Aerial Photography. Microsoft Virtual Earth. 2010. Scale: 1" = 100'; 1" = 800'

National Wetlands Inventory Maps. U. S. Fish and Wildlife Service. Scale: 1:24,000

Soil Maps. Soil Survey of Jackson County, Missouri; NRCS Digital Data.

Topographic Maps. US Geological Survey, 7.5' Quadrangle, Scale: 1:24,000.

APPENDIX E

Wetland Investigator Bio-Data

TIMOTHY R. FLAGLER, PLA, ASLA

Education

Master of Landscape Architecture, Kansas State University, 1985

Master of Art, Fort Hays State University, 1976

Bachelor of Art, Fort Hays State University, 1974

Professional Registrations

Landscape Architect: Kansas, Missouri

Professional Affiliation

American Society of Landscape Architects

Society of Wetland Scientists

Kansas Wetland and Riparian Areas Alliance

Experience

Mr. Flagler joined HNTB in 1985, and has since played a key role in several major landscape, master planning, and environmental planning projects for the firm. His responsibilities include site planning and design, environmental assessment, stream investigations, wetland delineation, wetland mitigation site analysis, design of stream and wetland mitigation areas, development of graphic presentation exhibits and reports associated with landscape architecture, planning projects, environmental analysis, and preparation of environmental impact statements. He has also prepared plans for habitat mitigation and native landscape restoration. Mr. Flagler has also completed a six-day course in Wetland Delineation: Emphasis on Soils and Hydrology taught by the Wetland Training Institute. (June 25-30, 1995).



Appendix F

State Historic Preservation
Office Correspondence



FOR SHPO USE ONLY	
SHPO PROJECT NUMBER	SHPO LOG NUMBER

Have you ever served on active duty in the Armed Forces of the United States and separated from such service under conditions other than dishonorable? YES NO

Submit one application for each project for which comment is requested. Consult the [Instructions for Completion of the Review and Compliance Information Form](#) when completing this application. Submission of a completed Review and Compliance Information Form with adequate information and attachments constitutes a request for review pursuant to Section 106 or 110 of the National Historic Preservation Act of 1966 (as amended). We reserve the right to request more information. **Please refer to the CHECKLIST on Page 3 to ensure that all basic information relevant to the project has been included.** For further information, refer to our website at <http://mostateparks.com/shpo> and follow the links to Section 106 Review.

NOTE: Section 106 regulations provide for a 30-day response time by the Missouri State Historic Preservation Office from the date of receipt.

I. REVIEW TYPE

Section 106 Section 110 Courtesy Review

II. SUBMISSION TYPE

New Submission Existing Project (Provide Existing Project Number) 028-JA-14

Does this submission include a cultural resource investigation report? (If yes, you must include a [Cultural Resource Investigation Report Form](#)) YES NO

Does this submission include architectural plans and/or construction documents (If yes, include them in your submission)? YES NO

Is this submission related to a programmatic agreement (PA) or memorandum of agreement (MOA)? YES NO
If yes, provide PA or MOA Draft number 1 or MOA or PA Mitigation Stipulation number _____

III. PROJECT INFORMATION

PROJECT NAME (include any agency assigned project numbers and please do not include applicants' names)

I-70 Corridor Improvements, Jackson County (MoDOT Job #J411486D)

PROJECT DESCRIPTION (additional information may be provided in separate sheets)

MoDOT proposes to improve I-70 between The Paseo and Blue Ridge Cutoff in Kansas City. Improvements potentially include lengthening, replacing, and removing ramps; replacing bridges; adding connector roads; adding and removing lanes; and improving tight curves. Cultural resources surveys were previously performed for this project in 2013 and 2014 (MoDOT Job #J411486C), but funding for the project was put on hold. New archaeological and architectural resources surveys have been conducted in 2022 to support the current NEPA Second Tier EIS Re-evaluation.

IV. PROJECT LOCATION

STREET ADDRESS

I-70 between US-71 and US-40

CITY	STATE	ZIP
Kansas City	MO	

COUNTY	LATITUDE/LONGITUDE	SECTION	TOWNSHIP	RANGE
Jackson	Multiple	3-4; 10; 13-15	49N	33W

V. PROJECT CONTACT INFORMATION

PROJECT CONTACT NAME	PROJECT CONTACT ORGANIZATION
Michael Meinkoth	Missouri Department of Transportation

PROJECT CONTACT EMAIL	PHONE (EXT.)
michael.meinkoth@modot.mo.gov	(573) 526-3593

STREET ADDRESS
P.O. Box 270

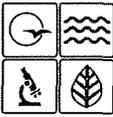
CITY	STATE	ZIP
Jefferson City	MO	65102

VI. FEDERAL INVOLVEMENT

Does this project involve approval, funding, permit, or license from a federal agency or involve federal land or property? YES (Please complete this section) NO (Skip to next section)

FEDERAL AGENCY	FEDERAL PROGRAM, FUNDING, OR PERMIT TYPE
Federal Highway Administration (FHWA)	NHPP

FEDERAL AGENCY CONTACT PERSON	EMAIL	PHONE
Taylor Peters	taylor.peters@dot.gov	(573) 638-2621



**STATE HISTORIC PRESERVATION OFFICE
REVIEW AND COMPLIANCE INFORMATION FORM (PAGE 2 OF 3)**

VII. CONTACTS FOR CC (please indicate all individuals to Cc for SHPO response letter)		
CONTACT NAME	ORGANIZATION	EMAIL
Michael Meyer	MoDOT	michael.meyer@modot.mo.gov
Karen Daniels	MoDOT	karen.daniels@modot.mo.gov
CONTACT NAME	ORGANIZATION	EMAIL

VIII. IDENTIFICATION OF HISTORIC PROPERTIES: ARCHAEOLOGY

Does this project involve ground-disturbing activity (including staging and borrow areas)? YES (Please complete this section) NO WILL SUBMIT LATER

DESCRIBE THE NATURE OF GROUND-DISTURBING ACTIVITY, INCLUDING BUT NOT LIMITED TO DEPTH, WIDTH, AND LENGTH

DESCRIBE THE PREVIOUS AND CURRENT LAND USE, CONDITIONS, AND DISTURBANCES

Will the project require fill material? YES (If yes, indicate borrow areas on project area map) NO

Are you aware of archaeological sites on or adjacent to the project area? YES (If yes, indicate all archaeological sites on project area map) NO

IX. IDENTIFICATION OF HISTORIC PROPERTIES: BUILDINGS AND STRUCTURES

Does the project area or APE include buildings, structures, objects, or designed landscape features (such as parks or cemeteries)? YES (Please complete this section and provide a map showing resource locations) NO (Skip to next section)

ADDRESS AND RESOURCE NAME OR NUMBER	DATE OF CONSTRUCTION	DATES OF ADDITIONS

If there are more resources include a separate page identifying this information.

Is the project area or APE within or adjacent to a property or district that is listed in or eligible for listing in the National Register of Historic Places? YES NO UNKNOWN

X. DETERMINATION OF EFFECT

No Historic Properties Affected
 Historic Properties Will Be Affected and the Project Will (Check One):
 Have **NO ADVERSE EFFECT** on Historic Properties within the area of potential effects (APE). Have an **ADVERSE EFFECT** on One or More Historic Properties in the APE and the Federal Agency, or Federally Authorized Representative, will Consult with the SHPO and Other Parties to Resolve the Adverse Effect Under CFR 800.6.

BASIS FOR DETERMINATION OF EFFECT



XI. ADDITIONAL REQUIREMENTS

Map Requirements: Attach a map depicting the project area, and, if necessary, a large scale project map. If project involves ground disturbance, the project footprint must be clearly delineated on the map. Please do not send an individual map with each structure or site. While a topographic map is preferred, other styles of maps are acceptable.

Photography requirements: Recent photographs of the complete exterior elevations of the building(s). **Good quality photographs are important for expeditious project review.** Our office does not accept images from online image servers (e.g., Google Earth or Maps) due to the time elapsed between the image capture and the project date. Photographs of neighboring or nearby buildings should also be submitted. All photographs should be labeled and keyed to a map of the project area. Images should be at a minimum of 300 pixels per inch or 1200 x 1800 pixels. Please provide clear recent photographs to aid in the assessment of effects for this project.

CHECKLIST: DID YOU PROVIDE THE FOLLOWING INFORMATION?

- | | |
|--|--|
| <input type="checkbox"/> Project area map (per project, not structure) | <input type="checkbox"/> Other supporting documents (if necessary to explain the document) |
| <input type="checkbox"/> Thorough project description detailing all aspects of project | <input type="checkbox"/> For new construction, rehabilitations, etc., attach work write-ups, plans, drawings, etc. |
| <input type="checkbox"/> Photographs of all structures and overview photographs for archaeology (Note: all photographs should be labeled and keyed to one map of the project area) | <input type="checkbox"/> Dates of construction of structures in project area |

Return this form and attachments to: MOSection106@dnr.mo.gov with the following subject heading format: "Review Request – (SHPO Project Number (if previously assigned), Project Title and/or Address)." Please note that our system cannot receive emails exceeding 10 MB in size. If your submission contains large files, you may provide this information to our office via a large-file transfer service such as your organization's FTP system, Dropbox, Google Drive, etc. If your organization does not have access to a large-file transfer service you may request that SHPO sends you an FTP upload request from the State of Missouri system by checking the box below:

- APPLICANT IS REQUESTING AN FTP UPLOAD LINK BE SENT TO THE FOLLOWING EMAIL ADDRESS

FOR SHPO USE ONLY

REVIEWER 1 NAME	DATE			
REVIEWER 2 NAME	DATE			
SURVEY ACREAGE				
NUMBER OF ELIGIBLE PROPERTIES				
NUMBER OF NOT ELIGIBLE PROPERTIES				
ARCHAEOLOGY REVIEW DETERMINATION				
<input type="checkbox"/> NHPA	<input type="checkbox"/> More Info	<input type="checkbox"/> Survey	<input type="checkbox"/> PA	<input type="checkbox"/> Other:
<input type="checkbox"/> NAE	<input type="checkbox"/> NRN	<input type="checkbox"/> Monitor	<input type="checkbox"/> ATF	
<input type="checkbox"/> AE	<input type="checkbox"/> Email	<input type="checkbox"/> MOA	<input type="checkbox"/> Continue to Consult	
ARCHITECTURE REVIEW DETERMINATION:				
<input type="checkbox"/> NHPA	<input type="checkbox"/> More Info	<input type="checkbox"/> Survey	<input type="checkbox"/> PA	<input type="checkbox"/> Other:
<input type="checkbox"/> NAE	<input type="checkbox"/> NRN	<input type="checkbox"/> Monitor	<input type="checkbox"/> ATF	
<input type="checkbox"/> AE	<input type="checkbox"/> Email	<input type="checkbox"/> MOA	<input type="checkbox"/> Continue to Consult	

STAFF COMMENTS

**PROGRAMMATIC AGREEMENT
AMONG THE FEDERAL HIGHWAY ADMINISTRATION,
THE MISSOURI STATE HISTORIC PRESERVATION OFFICER, AND
THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
REGARDING MODOT JOB J4I1486D
I-70 BETWEEN THE PASEO BOULEVARD TO EAST OF U. S. 40 (IMPROVE I-70 KC)
JACKSON COUNTY, MISSOURI**

UNDERTAKING: Improve I-70 KC: improvements to Interstate 70 (I-70) between The Paseo and U.S. Highway 40 potentially including lengthening, replacing and removing ramps; replacing bridges; adding connector roads; adding and removing lanes; and improving tight curves, within the City of Kansas City, Jackson County. Missouri Department of Transportation Job Number J4I1486D (Attachment A).

STATE: Missouri

AGENCY: Federal Highway Administration

WHEREAS, the Federal Highway Administration (FHWA) Missouri Division is the federal agency responsible for ensuring the undertaking complies with Section 106 of the National Historic Preservation Act (NHPA) (54 U.S.C. § 306108) codified in its implementing regulations 36 CFR Part 800, *Protection of Historic Properties*; and

WHEREAS, the duties of the Missouri State Historic Preservation Officer (SHPO) pursuant to Section 106 of the NHPA (54 USC 306108) and 36 CFR Part 800 include responsibilities to advise, assist, review, and consult with Federal agencies as they carry out their historic preservation responsibilities and to respond to Federal agencies' requests within a specified period of time; and

WHEREAS, the Missouri Highways and Transportation Commission (MHTC) is the board that governs the Missouri Department of Transportation (MoDOT), appoints the Director and authorizes the Statewide Transportation Improvement Program, and acting by and through MoDOT, has participated in the consultation and has been invited to be a signatory to this Agreement; and

WHEREAS, FHWA and MoDOT are conducting a re-evaluation of a Second-Tier Environmental Impact Statement (EIS) prepared under the National Environmental Policy Act (NEPA) for improvements to Interstate 70 (I-70) in Jackson County between The Paseo Boulevard and the Blue Ridge Cutoff (Record of Decision issued December 21, 2017)¹, and anticipates funding improvements to I-70 in Jackson County, Missouri, using funding from FHWA pursuant to the Infrastructure Investment and Jobs Act (IIJA) (commonly called the Bipartisan Infrastructure Legislation) (BIL) (PL 117-58); and

WHEREAS, the MoDOT, acting on behalf of the FHWA, has determined that the undertaking's area of potential effects (APE), as defined at 36 CFR Part 800.16(d), has been delineated based on the project area construction limits identified in the Second Tier EIS done in 2017, and

¹<https://www.modot.org/improvei70kc>

FHWA
Missouri, Jackson County
Improve I-70 KC Programmatic Agreement, MoDOT Job No. J4I486D

consists of the construction limits, any parcels marked for right of way acquisition at the time of the survey and any parcels with buildings that have a sight to potential sound wall locations identified along the corridor. The APE considers direct effects from construction related activities including ground disturbing activities related to construction, visual effects related to changes in ramps, bridges and sound walls, and vibration effects. The APE is further described and mapped in Attachment B to this Programmatic Agreement (PA); and

WHEREAS, the FHWA has notified the Advisory Council on Historic Preservation (Council) of the development of this PA (May 16, 2023) and the Council has chosen not to participate (<date of Council response>); and

WHEREAS, the FHWA recognizes that the Iowa Tribe of Kansas and Nebraska, Iowa Tribe of Oklahoma, Kaw Indian Nation of Oklahoma, Miami Tribe of Oklahoma, Osage Nation, Ponca Tribe of Nebraska, Ponca Tribe of Oklahoma, Sac and Fox Nation of the Missouri in Kansas and Nebraska, Sac and Fox Tribe of the Mississippi in Iowa, Sac and Fox Nation of Oklahoma, Shawnee Tribe, and the Wyandotte Nation have an interest in the undertaking area, and has consulted with them on a government-to-government basis April 12, 2023; and,

WHEREAS, to date no responses have been received from the Tribes; and

WHEREAS, the City of Kansas City, Missouri Historic Preservation Office was notified of undertaking and has been invited to participate in consultation on February 10, 2023; and

WHEREAS, the City of Kansas City, Missouri Historic Preservation Office chose not to participate in consultation on February 10, 2023; and

WHEREAS, public involvement for this undertaking will be handled in accordance with the MoDOT *Engineering Policy Guide*, Chapter 129: Public Involvement; and

WHEREAS, public input sessions were held virtually in March and September 2022 and the public identified the St. Stephen Baptist Church as a historic landmark and gateway to downtown Kansas City, and The Paseo overpass as a grand boulevard needing aesthetic treatments and civic pride; and

WHEREAS, in accordance with 36 CFR Part 800, the FHWA acknowledges and accepts the guidance outlined in the Council's *Recommended Approach for Consultation on the Recovery of Significant Information from Archaeological Sites*; and

WHEREAS, 36 CFR Part 800.11(c) provides for the confidentiality of archaeologically sensitive information where appropriate, and FHWA has accordingly modified the role of public involvement required by 36 CFR Part 800.2(d); and

WHEREAS, the consulting parties agree that it is in the public interest to expend funds to implement the recovery of significant information from archaeological sites to mitigate the adverse effects of the undertaking upon them; and

NOW, THEREFORE, the FHWA and the SHPO agree that the undertaking will be implemented in accordance with the following stipulations in order to take into account the effect of the undertaking on historic properties.

STIPULATIONS

FHWA, with the assistance of MoDOT, shall ensure that the following measures are carried out by, or under the direction of, a professional who meet the Professional Qualification Standards set forth in the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation (48 FR 44716):

I. CONSULTATION AND PUBLIC INVOLVEMENT

- A. The FHWA, assisted by MoDOT, shall consult with federally recognized Tribal Nations with ancestral, historic, and ceded land connections to Missouri and that may attach religious and/or cultural significance to historic properties in the county (counties) with the project and invite them to participate in Section 106 consultation per 36 CFR Part 800.2(c)(2).
- B. The FHWA and MoDOT, in consultation with the SHPO, shall work to identify other consulting parties to notify of the project and invite to participate in consultation per 36 CFR Part 800.2(c)(3) and 800.2(c)(5). These parties shall include, at a minimum:
 1. The local elected official(s) with jurisdiction over the project area.
 2. If communities in the project area have been designated Certified Local Governments (CLG) under the program jointly administered by the National Park Service and SHPO, the CLG point of contact.²
 3. Local historical societies serving the project area.³
 4. Local preservation organizations.
 5. Bridge preservation groups [for bridge projects]
 6. Communities participating in the Main Street Program in the project area.⁴
- C. Consultation shall occur at major milestones in the Section 106 process and shall also be timed to allow the consulting parties the opportunity to have input into the project through timing of the NEPA documentation. Consultation shall occur at:
 1. Project Kickoff—project notification and invitation to consult
 2. Verification/Validation of Purpose and Need and Initial Range of Alternatives/Development of Area of Potential Effects and discussion of field methods to be employed

² Missouri Certified Local Government Program, List of Missouri CLG:
https://mostateparks.com/sites/mostateparks/files/CLG_PrimaryContactList.pdf

³ State Historical Society of Missouri, Society Directory: <https://shsmo.org/local-societies/directory>

⁴ Missouri Main Street Connection, Participating Communities: <https://www.momainstreet.org/participating-communities/>

3. Validation of Previous Alternatives/Study of New Alternatives identified—Results of Background (Archival) Survey; preliminary discussion of results of built environment results
 4. Verification/Validation of the Preferred Alternative—
 - a. effects of the preferred alternative on built environment resources
 - b. preliminary archaeological results
 - c. Resolution of adverse effects including appropriate mitigation measures for adversely affected properties
- D. The public shall be kept informed of the status of the Section 106 process and informed of how to request consulting party status through the project website (if one is developed for the project), project publications, and through public meetings held for the project which will include displays on the Section 106 process and handouts explaining the Section 106 process and how to request consulting party status for the project.
1. Any substantive comments about historic properties or Section 106 concerns received from the public will be shared with the consulting parties and will be addressed in the Section 106 consultation process and the resolution discussed in the project documentation for the National Environmental Policy Act (NEPA).
 2. Consulting parties will be informed of substantive comments received from the public concerning Section 106 and historic properties and how they will be addressed.
- E. Any requests for consulting party status that are received shall be considered by FHWA, MoDOT, and the SHPO.

II. QUALIFICATION STANDARDS

- A. Actions prescribed by this Agreement that involve the identification, evaluation, recording, treatment, monitoring, or disposition of historic properties, or that involve the reporting or documentation of such actions in the form of reports, forms, or other records, shall be carried out by or under the direct supervision of a person or persons who meets the Secretary of the Interior's Professional Qualifications Standards (SOI) (published in 48 FR 44738-44739) for the resource being considered.

III. AREA OF POTENTIAL EFFECTS

- A. FHWA and MoDOT shall consult with SHPO, Tribal Nations and consulting parties to determine the APE for the project, with the understanding that the APE will be three dimensions (i.e., having height and depth as well as length and width), encompass the full range of alternatives and will be refined as alternatives are added and eliminated throughout the study. The APE shall consider:

1. Direct effects from construction-related activities including ground disturbance, demolition of resources, visual, auditory, vibration and atmospheric effects;
2. Proposed construction impacts, ground-disturbing and non-ground-disturbing, to justify the types and level of investigative effort to identify historic properties.
3. The APE may contract over time as alternatives are eliminated. Tribal Nations and other consulting parties will be consulted as this occurs.
4. Indirect effects, as clarified by the D. C. Circuit Court in *National Parks Conservation Assoc. v. Semonite* and the Council, as those effects “caused by the undertaking that are later in time or farther removed in distance but still reasonably foreseeable”⁵; and

B. The APE may expand if the Design-Build Process is utilized. If the Design-Build consultant proposes an alternative(s) that meets Purpose & Need that falls outside the original APE, FHWA and MoDOT shall consult per Stipulation III.A.

IV. IDENTIFICATION OF RESOURCES

- A. The Built Environment investigations shall be conducted in a manner consistent with MoDOT’s Built Environment Methods.
- B. The archaeological investigations shall be conducted in a manner consistent with the Secretary of the Interior’s Standards and Guidelines for Archeology and Historic Preservation and SHPO’s Guidelines for Phase I Archaeological Surveys and Reports.

C. Reporting

1. The results of the Built Environment and Archaeological surveys shall be reported in a single, comprehensive report. The report shall include:
 - a. Background Research Results including previous surveys, NRHP listed and determined eligible properties, previously reported sites, appropriate historic context, and historic mapping to understand the APE.
 - b. Field Survey Results will be reported on the MoDOT Section 106 Survey Memo, which meets the standards set by the Missouri SHPO for surveys done in Missouri. Any properties where access was denied or where survey was not possible for any reason shall be clearly identified on mapping and in the report text; and
 - c. Determinations made through consultation between MoDOT, FHWA, SHPO, the Tribal Nations and other consulting and interested parties shall be included in the Report.

⁵ *NPCA v. Semonite*, No. 18-5179 (D. C. Cir 2019); ACHP, Court Ruling on Definitions Informs Agencies on Determining Effects, 2019: <https://www.achp.gov/news/court-rules-definitions-informs-agencies-determining-effects>.

- d. The report shall be shared with FHWA, SHPO and consulting parties. SHPO and the consulting parties shall have thirty (30) days to comment on the results and findings of the report. The results and findings shall be the topics of meetings between MoDOT, FHWA, SHPO and the consulting parties as needed.
- D. Properties that could not be accessed for survey during the Phase I investigations shall be surveyed, in accordance with Stipulations IV.4-A-C or an Archaeological Research Design developed for the project (and located in Attachment C), as design proceeds and property is acquired. All properties that could not be accessed are identified in Attachment C.
- E. If the APE expands during the Design-Build process, the processes in Stipulation IV shall be followed for the identification of resources within that APE.

V. NATIONAL REGISTER OF HISTORIC PLACES ELIGIBILITY EVALUATION

1. MoDOT, in consultation with FHWA, SHPO, Tribal Nations, and other consulting and interested parties, shall apply the NRHP criteria (36 CFR Part 63), and applicable guidance issued by the Keeper of the National Register, to each property identified in the field survey or through consultation to determine if the property is eligible for listing in the NRHP (a historic property).
2. MoDOT will seek the concurrence of SHPO, Tribal Nations and other consulting parties, on eligibility for each resource identified as eligible for listing in the NRHP.
3. Properties that are eligible for listing in the NRHP shall have the following addressed in the report: the NRHP criteria the property is eligible for listing under; area(s) of significance, characteristics that qualify the property for inclusion in the NRHP, contributing and non-contributing elements, period(s) of significance and boundary of the historic property.
4. If the APE expands during the Design-Build process, the processes in Stipulation V shall be utilized to evaluate and consult about eligibility of resources.

VI. ASSESSMENT OF EFFECTS

- A. For each property listed in or eligible for listing in the NRHP, the criteria of adverse effects (36 CFR Part 800.5) shall be applied for each alternative under consideration. MoDOT shall consult with FHWA, SHPO, Tribal Nations and other consulting parties about the effects of the various alternatives on historic properties.
- B. If project activities are found to have adverse effects on properties eligible for the NRHP, consultation among FHWA, MoDOT, SHPO, Tribal Nations and other

consulting parties shall be conducted to resolve the adverse effects, consistent with guidance provided in 36 CFR Part 800.6. This consultation shall include efforts to develop and evaluate alternatives or modifications to the undertaking that could avoid or minimize the adverse effects on said historic properties.

- C. For projects utilizing the Design-Build process, the effects of the project on historic properties will be re-evaluated as the project design is developed through consistent communication between the Design-Build and MoDOT Historic Preservation staffs:
1. If there is an adverse effect finding, MoDOT shall provide FHWA with information to notify the Council of the adverse effect.
 2. FHWA and MoDOT shall consult with Tribal Nations, SHPO and the other consulting parties to resolve the adverse effect, per Stipulation VI to inform them of the resource, the change in effect and what is causing the change:
 - a. SHPO and the consulting parties will have thirty (30) days to review the information and provide comments.
 - b. If there is disagreement about the finding, FHWA and MoDOT will consult with the parties to resolve the disagreement.
 - c. If the disagreement cannot be resolved, procedures for resolution in 36 CFR 800.5(c)(2) shall be implemented.
 3. FHWA and MoDOT shall consult with the SHPO and consulting parties to resolve any adverse effects using the processes in Stipulation VII: Resolution of Adverse Effects.

VII. RESOLUTION OF ADVERSE EFFECTS

- A. If project activities are found to have adverse effects on historic properties, consultation among FHWA, MoDOT, SHPO, Tribal Nations and other interested parties shall be conducted to resolve the adverse effects, consistent with guidance provided in 36 CFR Part 800.6, through the implementation of a Mitigation Plan for Built Environment Resources or an Archaeological Data Recovery Plan(s) developed in accordance with the Council's *Recommended Approach for Consultation on the Recovery of Significant Information from Archaeological Sites* and the Secretary of the Interior's *Standards for Archaeological Documentation*.
- B. Mitigation measures that benefit and engage the public shall be developed to the extent practical. Public benefit mitigation measures may be used as a substitute for traditional mitigation measures in some cases.
- C. All mitigation measures shall be memorialized in a Mitigation Plan, which shall be developed and will contain all agreed upon mitigation measures.

- D. The Mitigation Plan or Archaeological Data Recovery Plan will be negotiated among the signatories and consulting parties and will become effective only upon written concurrence by representatives for all signatories and invited signatories.
- E. If adverse effects are avoided during the Design-Build process, the Mitigation Plan or Archaeological Data Recovery Plan can be amended by the signatories and consulting parties.

VIII. TREATMENT OF HUMAN REMAINS

- A. The FHWA recognizes that any human remains (other than from a crime scene or covered under Missouri's Cemeteries Law, §§ 214. RSMo) that may be discovered during project activities and are located on non-federal land are subject to the immediate jurisdiction of the SHPO, albeit FHWA or its delegate is responsible to have a professional archaeologist analyze the remains and advise SHPO of the physical location and cultural and biological characteristics, and if SHPO determines, as per the consultation conducted under Section 106, excavation is warranted such remains will be handled pursuant to the Missouri Unmarked Human Burial Sites Act, §§ 194.400 – 194.410, RSMo. All discoveries of human remains shall be treated as sensitive information and shall not be made available to the public.
- B. Native American skeletal remains, associated or unassociated funerary objects, sacred objects, and objects of cultural patrimony that may be discovered during the archaeological survey, testing, or data recovery excavations on federal land are the responsibility of the federal agency that manages that property. FHWA, in consultation with the involved Federal land-managing agency will notify any Tribe that might attach cultural affiliation to the identified remains as soon as possible after their identification. FHWA and the Federal Agency shall take into account Tribal recommendations regarding treatment of the remains and proposed actions, and then direct MoDOT to carry-out the appropriate actions.
- C. The USDOT is a signatory to the Memorandum of Understanding Regarding Interagency Coordination and Collaboration for the Protection of Indigenous Sacred Sites to affirm their commitment to improve the protection of, and access to, Indigenous sacred sites through enhanced and improved interdepartmental coordination, collaboration, and action and to demonstrate their commitment through the early consideration of the protection and access to Indigenous sacred sites in agency decision-making and regulatory processes.
- D. If human remains are encountered during archaeological investigations:
 - 1. The archaeologists shall immediately stop all work within a fifty (50)-meter (approximately 165-foot) radius of the remains and shall not resume without specific authorization from either the SHPO or the local law

- enforcement officer, or if on federal land the land management agency, whichever party has jurisdiction over and responsibility for such remains.
2. MoDOT HP staff will notify the local law enforcement (to ensure that it is not a crime scene) and the SHPO as per the Missouri Unmarked Human Burial Sites Act and contact FHWA and Tribes that have expressed interest in Section 106 undertakings in the County the remains were found in, within twenty-four (24) hours of the discovery.
 3. FHWA will notify any tribe that might attach cultural affiliation to the identified remains as soon as possible after their identification.
 4. FHWA shall, to the maximum extent possible, seek consensus and incorporate identifications, recommendations, and Native American traditional knowledge to the maximum extent possible regarding treatment of the remains and proposed actions, and then direct MoDOT HP to carry-out the appropriate actions in consultation with the SHPO and Tribes.
 5. MoDOT, under FHWA oversight, shall monitor the archaeological data recovery and handling of any such human remains and associated or unassociated funerary objects, sacred objects or objects of cultural patrimony, to assure itself that these are handled, excavated or processed in accordance with the Missouri Unmarked Human Burials Sites Act.
 6. Should, through consultation with Tribes, excavation be determined necessary, MoDOT will provide notification within twenty-four (24) hours to affiliated Tribes when physically transferring possession of ancestors or cultural items to SHPO for curation and continued consultation.

E. If human remains are encountered during construction:

1. The contractor shall immediately stop all work within a fifty (50)-meter (approximately 165-foot) radius of the remains and shall not resume without specific authorization from either the SHPO or the local law enforcement officer, or if on federal land the land management agency, whichever party has jurisdiction over and responsibility for such remains.
2. The contractor shall notify the MoDOT Construction Inspector and/or Resident Engineer who will contact the MoDOT HP section within twenty-four (24) hours of the discovery.
3. MoDOT HP staff will immediately notify the local law enforcement, or if on federal land the land management agency, (to ensure that it is not a crime scene) and the SHPO as per the Missouri Unmarked Human Burial Sites Act or to notify SHPO what has occurred and that it is covered by Missouri's Cemeteries Law, §§ 214. RSMo.
4. MoDOT HP staff will notify FHWA that human remains have been encountered within twenty-four (24) hours of being notified of the find.
5. If, within twenty-four (24) hours, the contractor is unable to contact appropriate MoDOT staff, the contractor shall initiate the involvement by local law enforcement, or if on federal land the land management agency,

and the SHPO. A description of the contractor's actions will be promptly made to MoDOT.

6. FHWA will notify any tribe that might attach cultural affiliation to the identified remains as soon as possible after their identification.
7. FHWA shall, to the maximum extent possible, seek consensus and incorporate identifications, recommendations, and Native American traditional knowledge regarding treatment of the remains and proposed actions, , and then direct MoDOT HP to carry-out the appropriate actions in consultation with the SHPO and Tribes.
8. MoDOT, under FHWA oversight, shall monitor the handling of any such human remains and associated funerary objected, sacred object or objects of cultural patrimony in accordance with the Missouri Unmarked Human Burial Sites Act.
9. Should, through consultation with Tribes, excavation be determined necessary, MoDOT will provide notification within twenty-four (24) hours to affiliated Tribes when physically transferring possession of ancestors or cultural items to SHPO for curation and continued consultation.

IX. POST-REVIEW DISCOVERIES

A. Planning for Subsequent Discoveries

MoDOT shall include in any environmental document, contract, and specifications a plan for post-review discovery of historic properties. Implementation of the plan as originally proposed or modified as necessary owing to the nature and extent of the properties discovered, will be in accordance with 36 CFR Part 800.4-6

B. If cultural resources are encountered during construction:

1. The contractor shall immediately stop all work within a fifty (50)-meter (approximately 165 foot) radius around the limits of the resource and shall not resume work without specific authorization from a MoDOT Historic Preservation Specialist.
2. The contractor shall notify the MoDOT Resident Engineer or Construction Inspector, who shall contact the MoDOT Historic Preservation (HP) section within twenty-four (24) hours of the discovery.
3. MoDOT HP shall contact FHWA, Tribes and SHPO within forty-eight (48) hours of learning of the discovery to report the discovery after a preliminary evaluation of the resource and reasonable efforts to see if it can be avoided.
4. FHWA shall make an eligibility and effects determination based upon the preliminary evaluation and consult with MoDOT, Tribes and SHPO to minimize or mitigate any adverse effect.

5. FHWA shall take into account Tribal recommendations regarding the eligibility of the property and proposed actions, and direct MoDOT to carry out the appropriate actions. The Council does not need to be notified if the SHPO, Tribes, and other parties agree to treatment plan.
 6. MoDOT shall provide FHWA and SHPO with a report of the actions when they are completed.
 7. Upon receipt, FHWA shall provide this report to the Tribes.
 8. MoDOT, in coordination with FHWA, will make this report available to the public and other consulting parties, if it is not limited by the requirements for confidentiality, as identified in Stipulation X.
- C. If the discovery is not limited by the confidentiality requirements of Section 304 of the NHPA and Stipulation X of this Agreement, the public shall be notified of the late discovery, in the following manner:
1. Information on the discovery shall be posted to the MoDOT website associated with the project, if one exists. This information will include the nature of the discovery, how it is being treated, and the evaluation of it. The website will include information on how to contact the project manager or the MoDOT HP Section with comments or concerns about the discovery.
 2. MoDOT will issue a press release about the discovery. The press release will include the nature of the discovery, how it is being treated and the evaluation. The press release will include a way for the public to contact the project manager or the MoDOT HP Section if they have comments or concerns about the discovery.

X. CONFIDENTIALITY

All parties to this Agreement acknowledge that information about historic properties or potential historic properties are or may be subject to the provisions of Section 304 of NHPA. Section 304 allows FHWA to withhold from disclosure to the public, information about the location, character, or ownership of a historic resource if the signatories and invited signatories determine that disclosure may: 1) cause a significant invasion of privacy; 2) risk harm to the historic resource; or 3) impede the use of a traditional religious site by practitioners. Having so acknowledged, all parties to this Agreement will ensure that all actions and documentation prescribed by this Agreement are, where necessary, consistent with the requirements of Section 304 of the NHPA.

XI. DURATION

This Agreement shall remain in effect for a period of ten (10) years after the date it takes effect, unless it is terminated prior to that time. No later than six (6) months prior to the conclusion of the ten (10)-year period, MoDOT will notify all parties in writing. The Agreement may be extended for an additional term, length of which will be agreed to by

the signatories and invited signatories. The extension will be codified through an amendment of the Agreement in accordance with Stipulation XIV. If any party objects to extending the Agreement, or proposes amendments, MoDOT will consult with the parties to consider amendments or other actions to avoid termination.

XII. REPORTING

At the end of each calendar year following the execution of this PA, the MoDOT, acting on behalf of FHWA, shall provide to all signatories a written report regarding the actions taken to fulfill the terms of the agreement, and shall file a copy with the Council per 36 CFR Part 800.6(b)(iv). The report shall include the following information:

- A. Any stipulations completed during the calendar year;
- B. Work done toward completion of any stipulations during the calendar year;
- C. Any consultation done regarding any of the stipulations during the calendar year, the subject of the consultation and parties consulted with; and
- D. The status of the project, including tasks that remain outstanding.

XIII. DISPUTE RESOLUTION

Any party to this Agreement may terminate it by providing thirty (30) calendar days-notice in writing to the other parties explaining the reason for termination, provided that the parties will consult during the period prior to termination to seek agreement on amendments and other actions that would avoid termination. In the event of termination, FHWA shall ensure that undertakings shall be reviewed individually in accordance with 36 CFR Part 800.3-800.6 that were previously covered by this Agreement.

At any time during implementation of this Agreement, should any member of the public raise an objection in writing pertaining to such implementation to any signatory or invited signatory to this Agreement, that signatory or invited signatory shall immediately notify FHWA. FHWA shall immediately notify the other signatories and invited signatories in writing of the objection. Any signatory or invited signatory may choose to comment on the objection to FHWA. FHWA shall establish a reasonable time frame for this comment period. FHWA shall consider the objection, and in reaching its decision, FHWA will take all comments from the other parties into account. Within fifteen (15) days following closure of the comment period, FHWA will render a decision regarding the objection and respond to the objecting party. FHWA will promptly notify the other parties of its decision in writing, including a copy of the response to the objecting party. FHWA's decision regarding resolution of the objection will be final. Following the issuance of its final decision, FHWA may authorize the action subject to dispute hereunder to proceed in accordance with the terms of that decision.

XIV. AMENDMENTS

Any signatory or invited signatory to this Agreement may at any time propose amendments, whereupon all signatories and invited signatories shall consult to consider such amendment. This Agreement may be amended only upon written concurrence of all signatories and invited signatories. The amendment will be effective on the date a copy signed by all of the signatories is filed with the Council.

XV. TERMINATION

Any party to this Agreement may terminate it by providing thirty (30) calendar days-notice in writing to the other parties explaining the reason for termination, provided that the parties will consult during the period prior to termination to seek agreement on amendments and other actions that would avoid termination. In the event of termination, FHWA shall ensure that undertakings shall be reviewed individually in accordance with 36 CFR Part 800.3-800.6 that were previously covered by this Agreement.

XVI. EXECUTION

Execution of this PA by the FHWA, the SHPO and the MHTC and the implementation of its terms evidence that FHWA has taken into account the effects of this undertaking on historic properties and afforded the Council an opportunity to comment. A copy of the executed PA shall be provided by FHWA to the Council for their records.

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**PROGRAMMATIC AGREEMENT
AMONG THE FEDERAL HIGHWAY ADMINISTRATION,
THE MISSOURI STATE HISTORIC PRESERVATION OFFICER, AND
THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
REGARDING MODOT JOB J411486D
I-70 BETWEEN THE PASEO BOULEVARD TO EAST OF U. S. 40 (IMPROVE I-70 KC)
JACKSON COUNTY, MISSOURI**

Signatory:

Federal Highway Administration

By: _____ Date: _____

FHWA
Missouri, Jackson County
Improve I-70 KC Programmatic Agreement, MoDOT Job No. J4I486D

**PROGRAMMATIC AGREEMENT
AMONG THE FEDERAL HIGHWAY ADMINISTRATION,
THE MISSOURI STATE HISTORIC PRESERVATION OFFICER, AND
THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
REGARDING MODOT JOB J4I1486D
I-70 BETWEEN THE PASEO BOULEVARD TO EAST OF U. S. 40 (IMPROVE I-70 KC)
JACKSON COUNTY, MISSOURI**

Signatory:

State Historic Preservation Officer

By: _____ Date: _____
Deputy State Historic Preservation Officer

FHWA
Missouri, Jackson County
Improve I-70 KC Programmatic Agreement, MoDOT Job No. J4I486D

**PROGRAMMATIC AGREEMENT
AMONG THE FEDERAL HIGHWAY ADMINISTRATION,
THE MISSOURI STATE HISTORIC PRESERVATION OFFICER, AND
THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
REGARDING MODOT JOB J4I1486D
I-70 BETWEEN THE PASEO BOULEVARD TO EAST OF U. S. 40 (IMPROVE I-70 KC)
JACKSON COUNTY, MISSOURI**

Invited Signatory:

Missouri Highways and Transportation Commission:

By: _____ Date: _____

Title: _____

Attest:

Approved as to form:

Commission Secretary

Commission Counsel

FHWA
Missouri, Jackson County
Improve I-70 KC Programmatic Agreement, MoDOT Job No. J4I486D

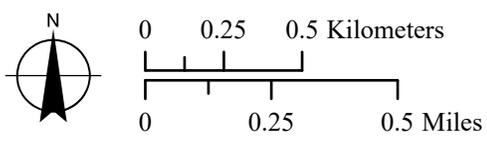
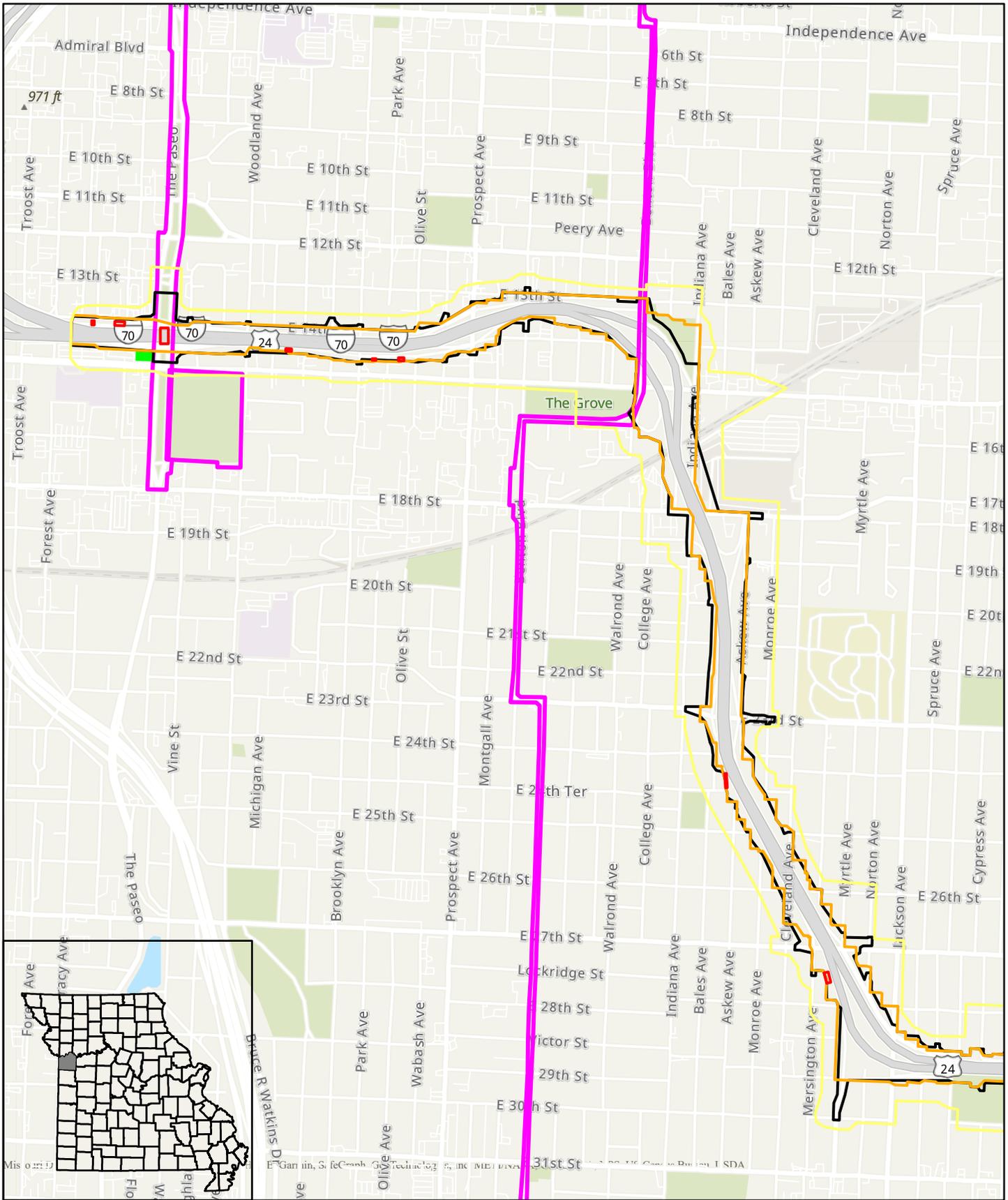
**PROGRAMMATIC AGREEMENT
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REGARDING MODOT JOB J4I1486D
I-70 BETWEEN THE PASEO BOULEVARD TO EAST OF U. S. 40 (IMPROVE I-70 KC)
JACKSON COUNTY, MISSOURI**

Signed

[Name of Invited Signatory]

By: _____ Date: _____

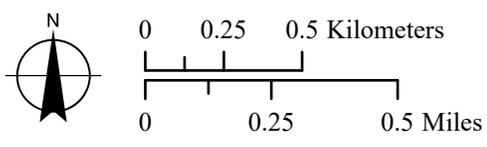
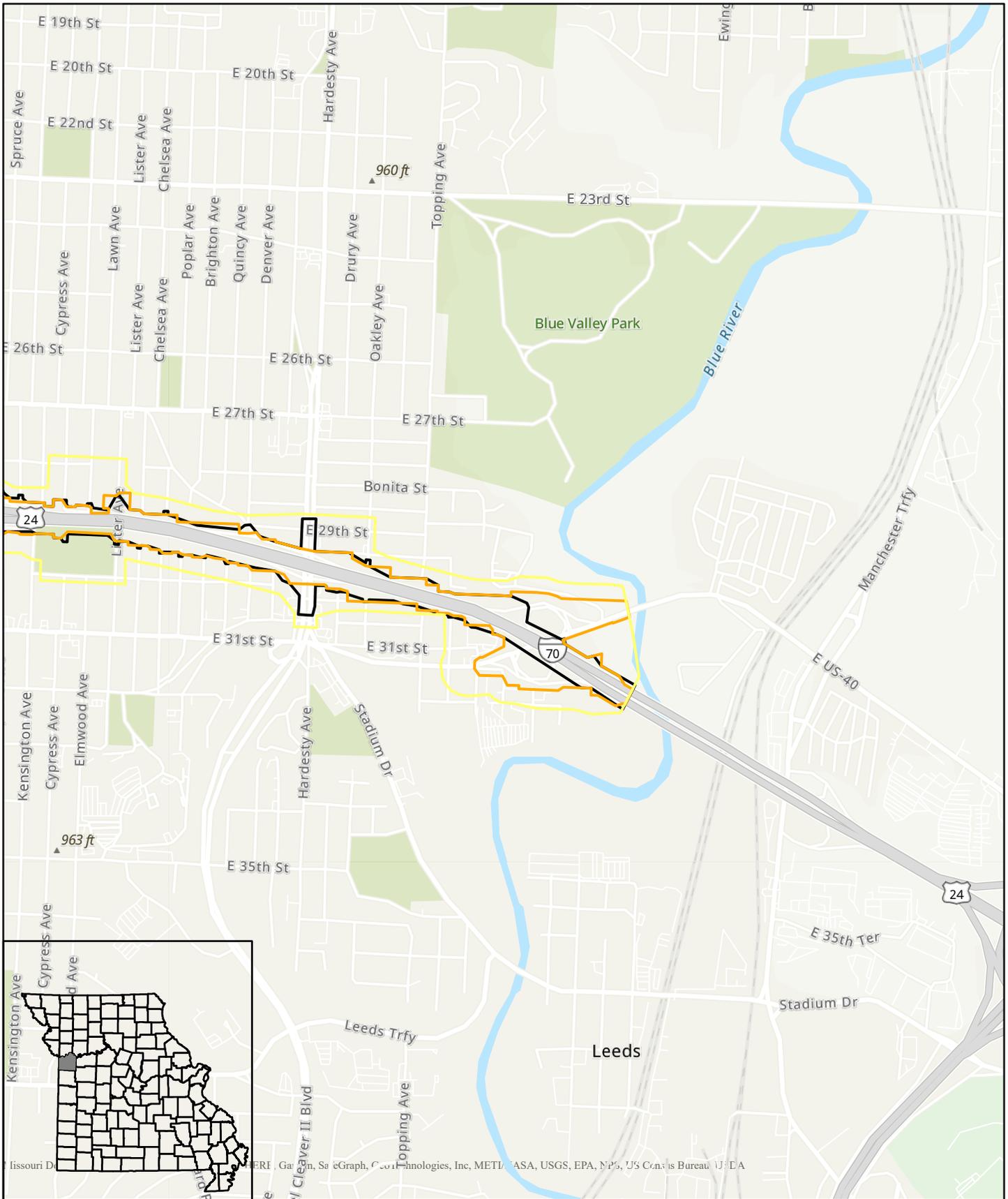
ATTACHMENT A: PROJECT LOCATION MAP



**Jackson County
Improve I-70
J411486D**

- APE/Construction Limits
- MoDOT ROW
- Archaeological Site
- NEPA Study Limits
- St Stephen Baptist Church
- Kansas City Parks and Boulevards Historic District

Figure 1: Map of the project location



**Jackson County
Improve I-70
J411486D**

- APE/Construction Limits
- MoDOT ROW
- Archaeological Site
- NEPA Study Limits
- St Stephen Baptist Church
- Kansas City Parks and Boulevards Historic District

Figure 2: Map of the project location, cont.

ATTACHMENT B: AREA OF POTENTIAL EFFECTS

The area of potential effects (APE) was delineated based on the project area construction limits identified in the Second Tier Environmental Impact Statement done in 2017. The APE consists of the construction limits, any parcels marked for proposed right of way acquisition at the time of the survey and parcels with buildings that have a line of sight to the potential sound wall locations identified along the corridor.

This APE considers direct effects from construction related effects including ground disturbing activities related to construction, visual effects related to changes in ramps, bridges and the construction of sound barriers, and vibration effects.

The APE is depicted on Attachment A, the Project Location Map.

ATTACHMENT C: ARCHAEOLOGICAL RESEARCH DESIGN

BACKGROUND

Missouri Department of Transportation (MoDOT) contracted HDR Engineering, Inc (HDR) to conduct a cultural resources background study in advance of improving I-70 between The Paseo and Blue Ridge Cutoff, located in Kansas City, Jackson County, Missouri. The proposed improvements potentially include lengthening, replacing, and removing ramps; replacing bridges; adding connector roads; adding and removing lanes; and improving tight curves.

RESULTS OF PREVIOUS WORK

In 2014, the Archaeological Research Center of St. Louis, Inc. conducted a Tier 2 archaeological survey of the proposed construction easements for the I-70 improvements and identified eight potential site locations (Harl 2014). In 2022, HDR re-visited these eight locations in order to determine if they represent archaeological sites with intact cultural deposits. The archaeological investigation consisted of systematic backhoe trenching, with a total of 10 backhoe trenches (BHTs) excavated at the locations of the eight previously identified sites. Two BHTs were excavated at Potential Sites 3 and 7, and one BHT was excavated at each of the remaining sites. When possible, trenches were placed over the positive shovel test locations; however, this was not always possible due to terrain, utility lines, and obstacles like pavement and trees. Trenching was conducted by a backhoe fitted with a 91 cm (36 in) wide, toothed bucket. Each trench was excavated by slowly peeling back thin layers of soil while being monitored for cultural materials. Additionally, a 5-gallon-bucket soil sample from every third excavator bucket load was screened for cultural materials. All cultural materials that were recorded were returned to the trench with the backfill.

All 10 BHTs were positive for cultural materials; the results of these trenches are summarized in Table 1. Potential Sites 1, 2, 3, 5, 6, 7, and 8 met the minimum requirements for being considered archaeological sites and were assigned site numbers from the Missouri State Historic Preservation Office (SHPO).

Table 1: Summary of sites

Location	Features	Site Number	Description	NRHP Eligibility
Site 1	Pit feature	23JA1860	Historical	Potentially eligible
Site 2	Pit feature	23JA1861	Historical	Potentially eligible
Site 3	Foundation; Wall	23JA1862	Historical	Potentially eligible
Site 4	None	n.a.	n.a.	Not eligible
Site 5	None	23JA1865	Historical	Potentially eligible
Site 6	None	23JA1866	Historical	Potentially eligible
Site 7	Foundation; possible foundation	23JA1863	Historical	Potentially eligible
Site 8	None	23JA1864	Historical	Potentially eligible

EVALUATION OF SITES

Phase II testing will be conducted at sites 23JA1860–23JA1866 within the area of potential effects (APE). The Phase II investigations will consist primarily of controlled mechanical excavation to locate features and determine site boundaries. Final National Register of Historic Places (NRHP) eligibility for each site will be determined in consultation with the SHPO and other consulting parties.

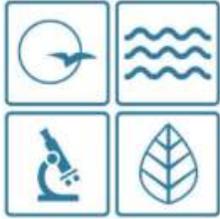
Archaeological testing will be conducted primarily by mechanical stripping or trenching using a backhoe. Although trenching (i.e. excavating a series of trenches, each measuring approximately 4 by 10 feet) may be employed, the preferred method will be to create large, continuous block excavations. Stripping the upper fill zone off a large block allows for the ready identification of features and the proper association of said features with individual historic properties. Mechanical excavation will be accomplished by slowly peeling back thin layers of soil while an archaeologist monitors for cultural material. Survey equipment providing sub-centimeter accuracy will be used to record trench and feature locations. If identified, features will not be fully excavated but may be sampled in order to determine research potential and integrity of deposits. If the field director determines that there is a reason to continue the excavation, MoDOT will consult with the SHPO prior to making any decision.

Artifact collection will adhere to the following guidance developed at previous urban excavations:

1. Certain categories of artifacts will be noted in the field notes and discarded:
 - a. Structural items (e.g., brick, foundation stones, plaster, mortar, sewer pipe).
 - b. Industrial byproducts and fuel (e.g., slag, coal, coke)
2. Artifacts post-dating 1970 will not be collected. This date was selected because most of the residences, business, and other properties within the project area were demolished or vacated due to the construction of I-70.
3. General collections (e.g., from trenches, but not from discrete features) will be limited, and restricted to temporally or functionally diagnostic artifacts.
4. Artifacts in obviously disturbed contexts will not be collected unless special circumstances apply.
5. Artifacts that have limited research potential (but that do not clearly fall under the previous criteria) should be collected for additional analysis, after which they will be evaluated for potential disposal.

All sites will be documented with photographs and notes identifying the deposits, as a well as a site form recording site boundaries, historic context, identifiable material culture, and eligibility determinations. Site forms will be submitted to the SHPO to update their records.

As plans for the project progress, impacts to MoDOT right of way may change from the original APE. If this happens, the processes in Stipulation IV shall be followed for the identification of resources within that APE.



MISSOURI
DEPARTMENT OF
NATURAL RESOURCES

Michael L. Parson
Governor

Dru Buntin
Director

February 2, 2023

Michael Meinkoth
Historic Preservation Manager
Missouri Department of Transportation
P.O. Box 270
Jefferson City, Missouri 65102

Re: **SHPO Project Number: 003-JA-22** – Phase I Cultural Resources Survey of the I-70 Corridor Improvements Project, MoDOT Job No. J4I1486D, Kansas City, Jackson County, Missouri (FHWA/MoDOT)

Dear Michael Meinkoth:

Thank you for submitting information to the State Historic Preservation Office (SHPO) regarding the above-referenced project for review pursuant to Section 106 of the National Historic Preservation Act, P.L. 89-665, as amended (NHPA), and the Advisory Council on Historic Preservation's regulation 36 CFR Part 800, which require identification and evaluation of historic properties.

We have reviewed the information regarding the above-referenced project and have included our comments on the following page(s). Please retain this documentation as evidence of consultation with the Missouri SHPO under Section 106 of the NHPA. SHPO concurrence does not complete the Section 106 process as federal agencies will need to conduct consultation with all interested parties. **Please be advised that, if the current project area or scope of work changes, such as a borrow area being added, or cultural materials are encountered during construction, appropriate information must be provided to this office for further review and comment.**

If you have questions please contact the SHPO at (573)751-7858 or call/email Jeffrey Alvey, (573) 751-7862, jeffrey.alvey@dnr.mo.gov. If additional information is required please submit the information via email to MOSection106@dnr.mo.gov.

Sincerely,

STATE HISTORIC PRESERVATION OFFICE

Toni M. Prawl, PhD
Director and Deputy
State Historic Preservation Officer

c: Michael Meyer, MoDOT
Taylor Peters, FHWA

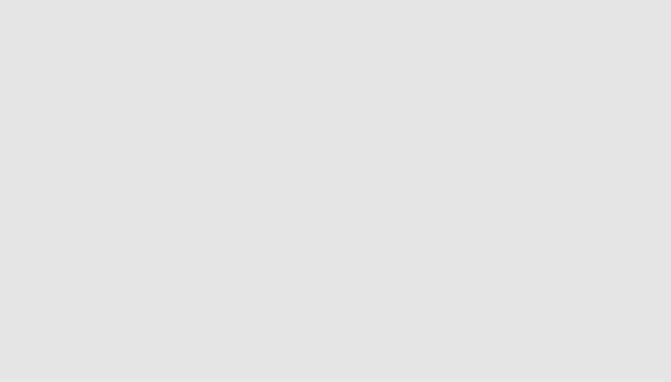


SHPO Project Number: 003-JA-22 – Phase I Cultural Resources Survey of the I-70 Corridor Improvements Project, MoDOT Job No. J411486D, Kansas City, Jackson County, Missouri (FHWA/MoDOT)

COMMENTS:

We have reviewed the cultural resources survey report entitled *Cultural Resources Survey for the J411486D I-70 Corridor Improvements, Jackson County, Missouri* by Laura Short et al. of HDR, Inc. Based on this review it is evident that an adequate survey has been conducted of the project area. We concur that the St. Stephen Baptist Church is **eligible** and that this historic property, and the Kansas City Parks and Boulevards Historic District, will not be adversely affected by the proposed undertaking.

We also concur that the seven archaeological sites (23JA1860-23JA1866) within the area of potential effect (APE) should be treated as unevaluated and therefore potentially eligible for inclusion in the NRHP. We look forward to consulting on the development of a Programmatic Agreement that will address additional archaeological testing and, if necessary, mitigation measures.



Appendix G
Hazardous Waste
Information

Table 1: MDNR E-Start Database resources within the Study Limits.

Site / Facility Name	Address	Facility Type	Status	Clean Up Summary
Brooklyn Mart LLC	2200 E Truman Rd.	All Operating Underground Storage Tank Facilities	Facility Closed Prior to Implementation of 2004 Tanks RBCA	2
US Fuels LLC	1301 Prospect	All Operating Underground Storage Tank Facilities	No Further Action Letter issued with Restriction	1
KCMO Police Dept. Service Station	1245 Prospect	All Operating Underground Storage Tank Facilities	Facility Closed Prior to Implementation of 2004 Tanks RBCA	2
Express Stop 5	2901 Van Brunt	All Operating Underground Storage Tank Facilities	Operating UST Facilities with No Known Release	No value
Air Group LLC DBA Van Brunt BP	3027 Van Brunt Blvd.	All Operating Underground Storage Tank Facilities	No Further Action Letter issued with Restriction	1
Plaza Ford Ideal Laundry	1305 Virginia Ave.	Former Underground Storage Tank Facilities	No Further Action Letter issued with Restriction Environmental notice	No value
Richardson Printing Company	1600 Truman Rd.	Former Underground Storage Tank Facilities	Facility Closed Prior to Implementation of 2004 Tanks RBCA	2
Commercial Lithographing Company	1226 Chestnut	Former Underground Storage Tank Facilities	No Further Action Letter issued with Restriction	1
Amoco Oil Company	1421 Prospect Ave.	Former Underground Storage Tank Facilities	Facility Closed Prior to Implementation of 2004 Tanks RBCA	2
Probilt Transmission co.	2716 Truman Rd.	Former Underground Storage Tank Facilities	Facility Closed Prior to Implementation of 2004 Tanks RBCA	2
Total #4405	3500 E Truman Rd.	Former Underground Storage Tank Facilities	No Further Action Letter issued with Restriction	1

Sears Logistics Services inc.	3625 Truman Rd.	Former Underground Storage Tank Facilities	Facility Closed Prior to Implementation of 2004 Tanks RBCA	2
George J Shaw Construction co.	1601 Walrond Ave.	Former Underground Storage Tank Facilities	Facility Closed Prior to Implementation of 2004 Tanks RBCA	2
Albert Tamm Lumber co.	3232 E 18 th St.	Former Underground Storage Tank Facilities	Facility Closed Prior to Implementation of 2004 Tanks RBCA	2
Kansas City Maintenance Lot	18 th and Indiana	Former Underground Storage Tank Facilities	Facility Closed Prior to Implementation of 2004 Tanks RBCA	2
Phillips 66 SS #21484	3011 Van Brunt Blvd.	Former Underground Storage Tank Facilities	Facility Closed Prior to Implementation of 2004 Tanks RBCA	2
Precise Forms inc.	3130 Wheeling	Former Underground Storage Tank Facilities	Facility Closed Prior to Implementation of 2004 Tanks RBCA	2
Kansas Avenue Manufacturing Facility	1400-1420 Kansas Ave.	Site/Facility	Long-Term Stewardship Activity & Use Limits: <ul style="list-style-type: none"> • Construction Worker Advisory • Engineered controls for soil • No disturbance of soil • Non-residential use • Soil management plan 	3
Missouri Gas Energy Natural Gas Storage Facility	20 th and Indiana	Site/Facility	Completed	4
Kansas City FMGP #3	20 th and Indiana	Site/Facility	Completed	No value

1 - A petroleum or hazardous substance storage tank closure or regulated release was addressed under the Missouri Risk-Based Corrective Action Guidance for Petroleum Storage Tanks. Evaluation of environmental media found that concentrations of any remaining contaminants, if present, do not pose an unacceptable risk to human health or the environment provided that Activity & Use Limitations applied to this property remain in place. Please review the Department of Natural Resources site file for more information

2 - A petroleum or hazardous substance storage tank closure or regulated release was addressed prior to the adoption of the 2004 Missouri Risk- Based Corrective Action Guidance for Petroleum Storage Tanks. An

evaluation found that no further action was warranted based on the tank closure or correction action process in use at the time. Please review the Department of Natural Resources site file for more information.

3 - The lead contamination found in the surficial soil during the original Phase II site investigation was delineated to the residential Risk-Based Target Level. It is isolated to a small area where a former brass foundry was located. A covenant restricting the land to non-residential use, requiring proper handling of soils excavated from the impacted area, requiring the maintenance of the asphalt cap over the contaminated area, and notifying constructions workers of the presence of the lead contamination, has been placed in the property chain-of-title.

4 - The Site Assessment revealed the existence of total petroleum hydrocarbon (TPH) contamination in the shallow groundwater at the site and levels of six polynuclear aromatic hydrocarbon (PAH) compounds in the soil in the vicinity of the former gas storage tank. The levels of all of these constituents were well below Cleanup Levels for Missouri (CALM) Guidance (1998) criteria for the unrestricted land use scenario. The Missouri Department of Natural Resources determined that the sampling adequately showed all contaminants on the property were below the cleanup standards, thus, no remediation was deemed necessary. A Certification of Completion was issued for the site in June 2001.

Table 2: EPA RCRA Facilities within the Study Limits.

Name	Address - Street	Status	RCRA - NAICS Code Description
US Plating & Surface Finishing	1341 Montgall Ave	Active	Electroplating, Plating, Polishing, Anodizing, And Coloring
National Coatings & Supplies	1908 E Truman Rd	Active	Paint, Varnish, And Supplies Merchant Wholesalers
Kansas City Bartle Hall Dock A City Of	310 W 14th St	Active	Remediation Services
Ged Inc	6400 E Hwy 40	Active	All Other Specialty Trade Contractors
Service Oil	1301 Prospect Ave	Active	Other Gasoline Stations
MPP Group Of Companies Inc Missouri Plant	2800 E Truman Rd	Active	Electroplating, Plating, Polishing, Anodizing, And Coloring
SLCC LLC	1420 Wabash Ave	Active	Ethyl Alcohol Manufacturing, Cyclic Crude, Intermediate, And Gum And Wood Chemical Manufacturing, All Other Basic Organic Chemical Manufacturing
Phoenix Litho Inc	1400 Kansas Ave	Inactive	Remediation Services
Ross Miller Cleaners	5300 E Linwood Blvd	Inactive	Drycleaning And Laundry Services
N Glantz & Son	1409 Illinois Ave	Inactive	Electrical Apparatus And Equipment
Sherwin Williams Auto Div	2501 E Truman Rd	Inactive	Paint And Coating Manufacturing
AJ Mfg Co Inc	3601 E 18th St	Inactive	Iron And Steel Pipe And Tube
Sears Logistics Services	3625 E Truman Rd	Inactive	Department Stores
Fultons Body Shop	1918 E Truman Rd	Inactive	Automotive Body, Paint, And Interior Repair And Maintenance
Auto Credit Inc	2712 E Truman Rd	Inactive	Limousine Service
Auto Valet Inc	1520 E Truman Rd	Inactive	Remediation Services
Armitage Electric Co	2118 Indiana Ave	Inactive	General Automotive Repair
KC PCU Redevelopment Corp	2800 E 14th St	Inactive	Remediation Services
Parnelli Jones Tires #K22	1411 E Truman Rd	Inactive	Tire Dealers
Walker Towel & Uniform	2601 E Truman Rd	Inactive	Linen Supply
Kansas City Screw Prod Inc	2908 E Truman Rd	Inactive	Precision Turned Product Manufacturing
Albert Tamm Lumber Co	3232 E 18th St	Inactive	Other Building Material Dealers

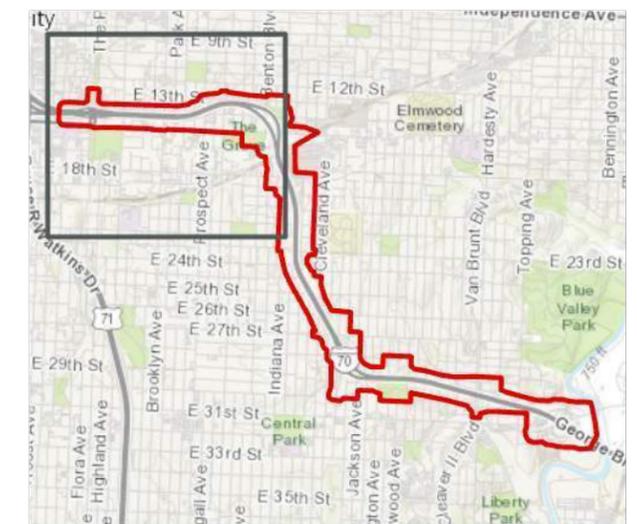
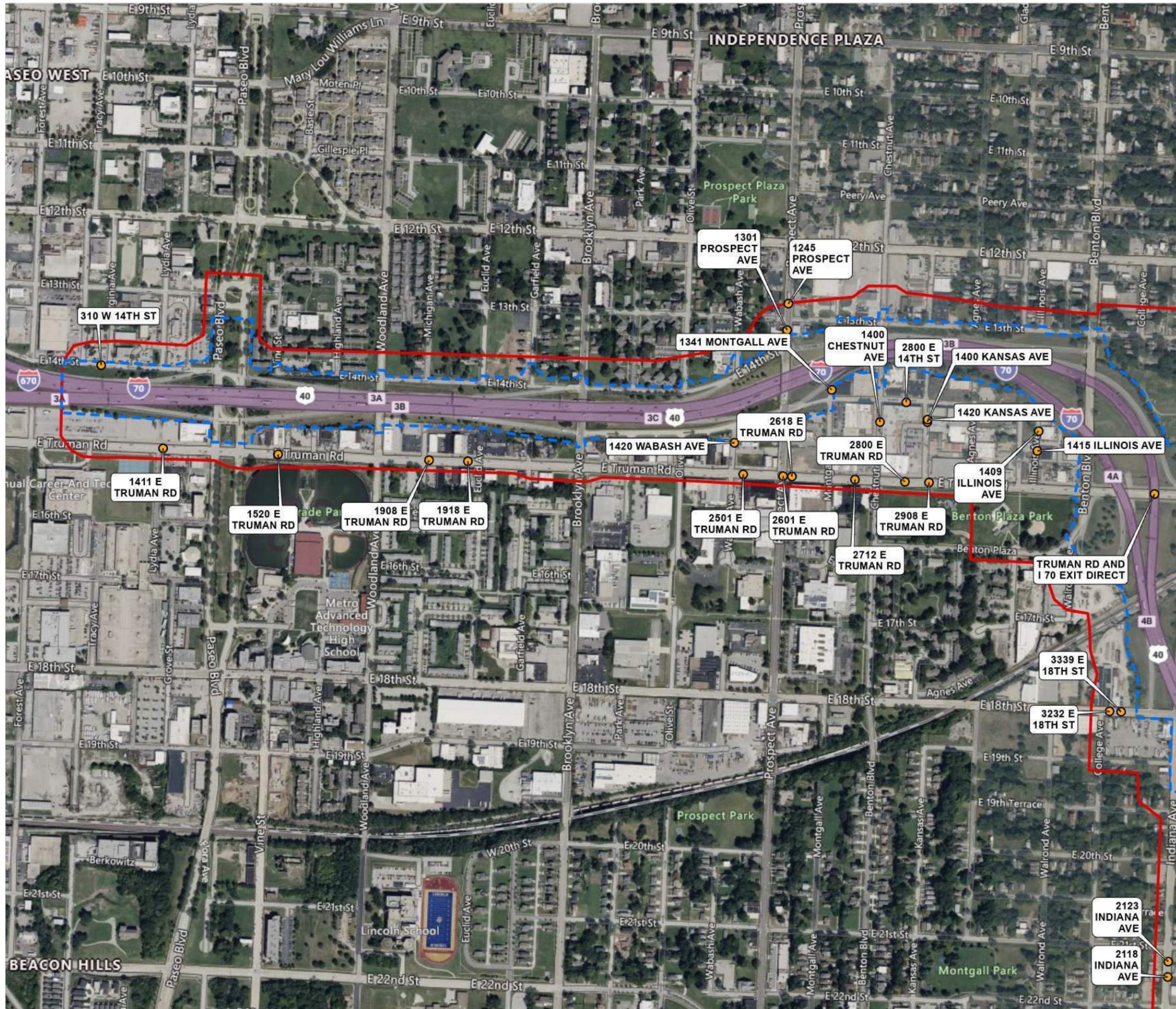
Eligius Bronze	3401 E Truman Rd	Inactive	Steel Foundries, Aluminum Die-Casting Foundries, Bronze Die-Castings, Unfinished, Manufacturing, Aluminum Foundries
Amoco Oil Ss #2163 Hoeshell	3027 Van Brunt Blvd	Inactive	Other Gasoline Stations
Limpus Manufacturing Co Inc	3339 E 18th St	Inactive	Remediation Services
Reliable Cycles	2618 E Truman Rd	Inactive	Motorcycle, ATV, And All Other Motor Vehicle Dealers
Bill Gross & Virginia Solas	2123 Indiana Ave	Inactive	Remediation Services
ESP Residential Drug Bust	2928 Brighton Ave	Inactive	Fire Protection
Allied Materials & Equipment Co Inc	1420 Kansas Ave	Inactive	All Other Miscellaneous Textile Product Mills, All Other Miscellaneous Manufacturing
Brown Industries Inc	2300 Indiana Ave	Inactive	All Other Miscellaneous Manufacturing
Integrated Industrial Services	1415 Illinois Ave	Inactive	Remediation Services
Brown Industries Inc	2307 Indiana Ave	Inactive	All Other Miscellaneous Manufacturing
Certified Safety Mfg Inc	1400 Chestnut Ave	Inactive	Surgical Appliance And Supplies Manufacturing
Groendyke Transport Inc Spill	Truman Rd And I 70 Exit Direct	Inactive	Remediation Services
Kansas City Mo Police Dept	1245 Prospect Ave	Inactive	Police Protection

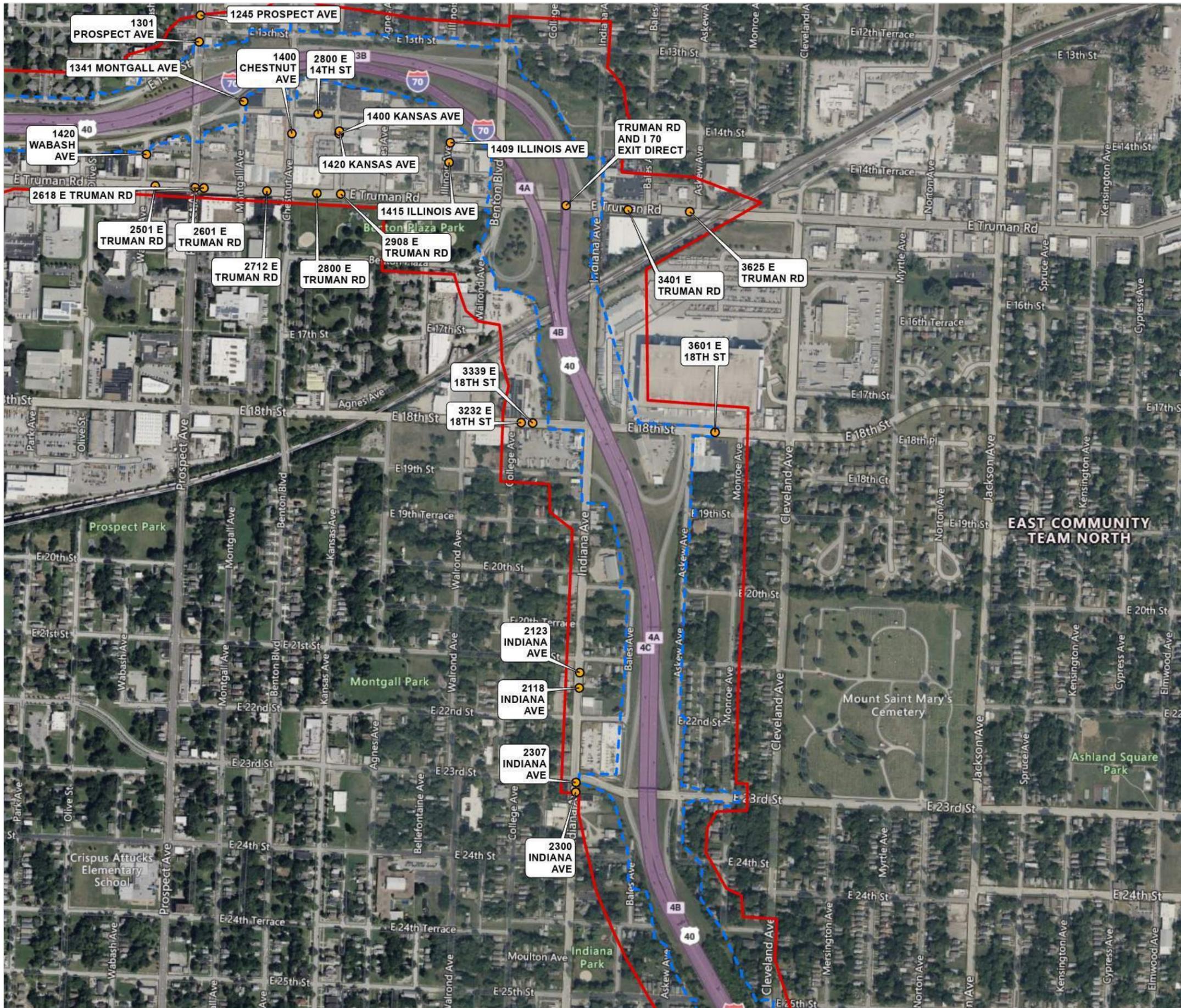
Table 3: Hazardous waste sites directly impacted by the project or within construction limits.

Site	Address	Type	Impact Type	Impact Risk	Previously Evaluated
KC PCU Redevelopment Corp	2800 E 14th St	RCRA	Within Construction Limits – Not Likely Impacted	None	No
Groendyke Transport Inc Spill	Truman Rd And I 70 Exit Direct	RCRA	Within Construction Limits – Not Likely Impacted	None	No
Kansas City Maintenance Lot	18 th and Indiana	UST	Within Construction Limits- Not Likely Impacted	Low	No
US Fuels LLC	1301 Prospect	UST	Within Construction Limits – Not Likely Impacted	Low	Yes

Hazardous Waste Sites
J411486C: I-70 Jackson County

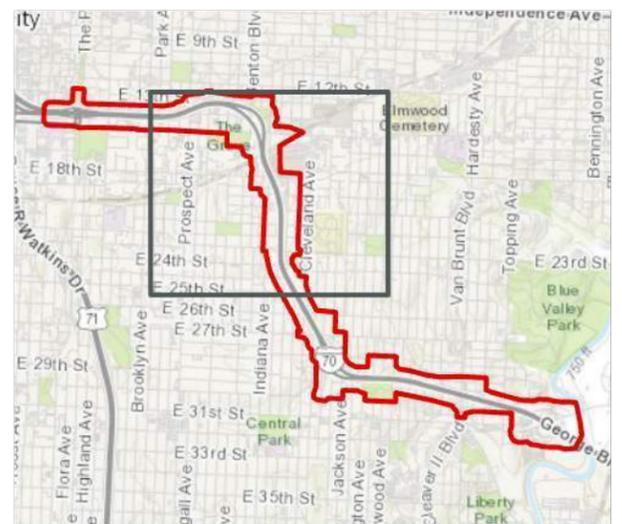
- Study Area
- Construction limits
- RCRA Facilities





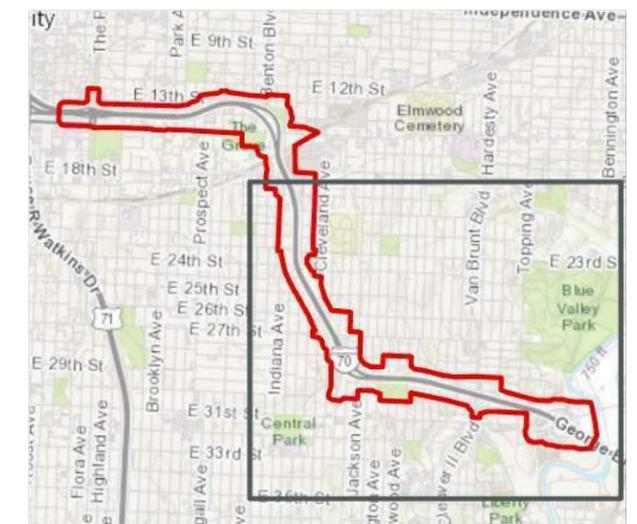
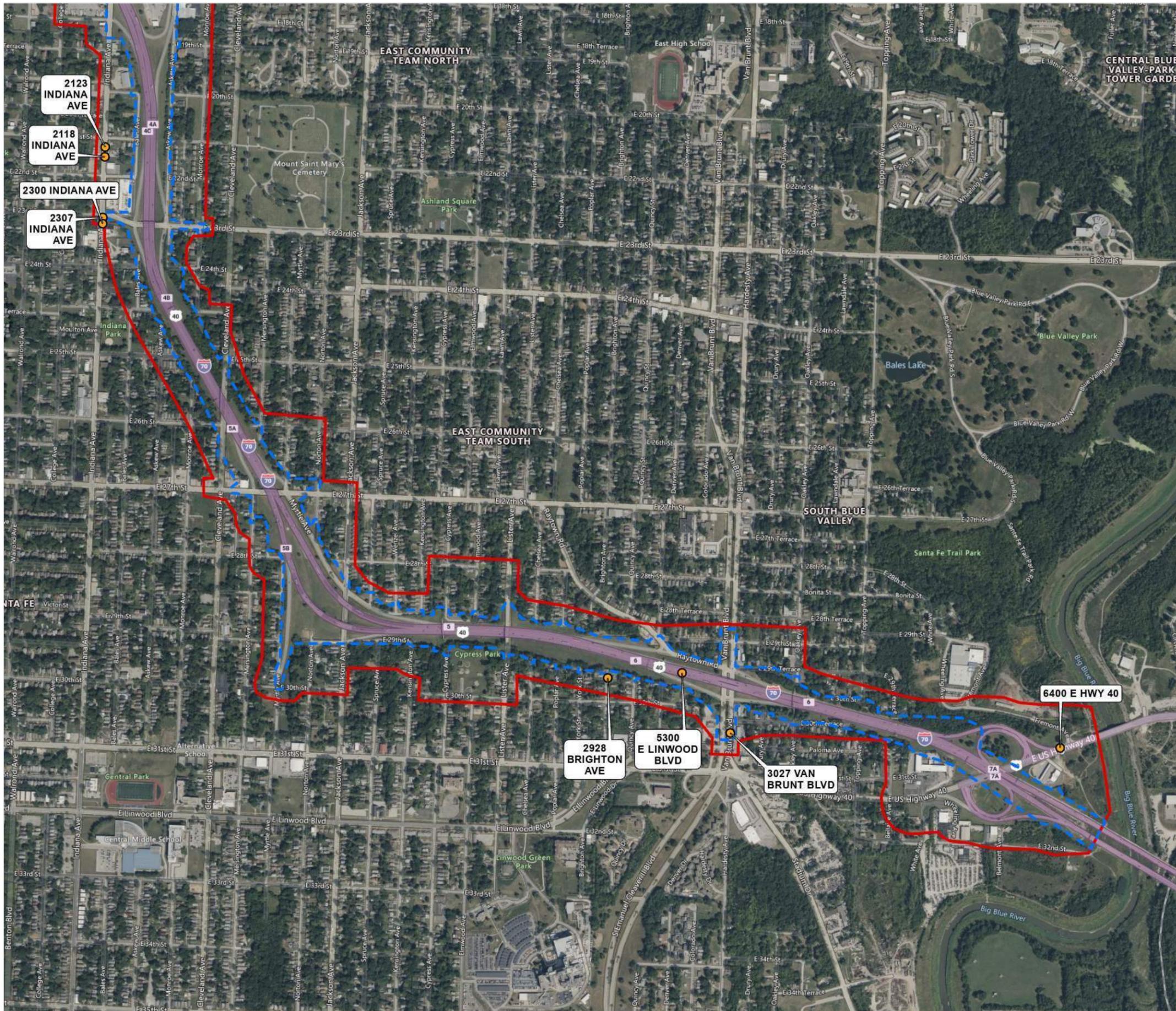
Hazardous Waste Sites J411486C: I-70 Jackson County

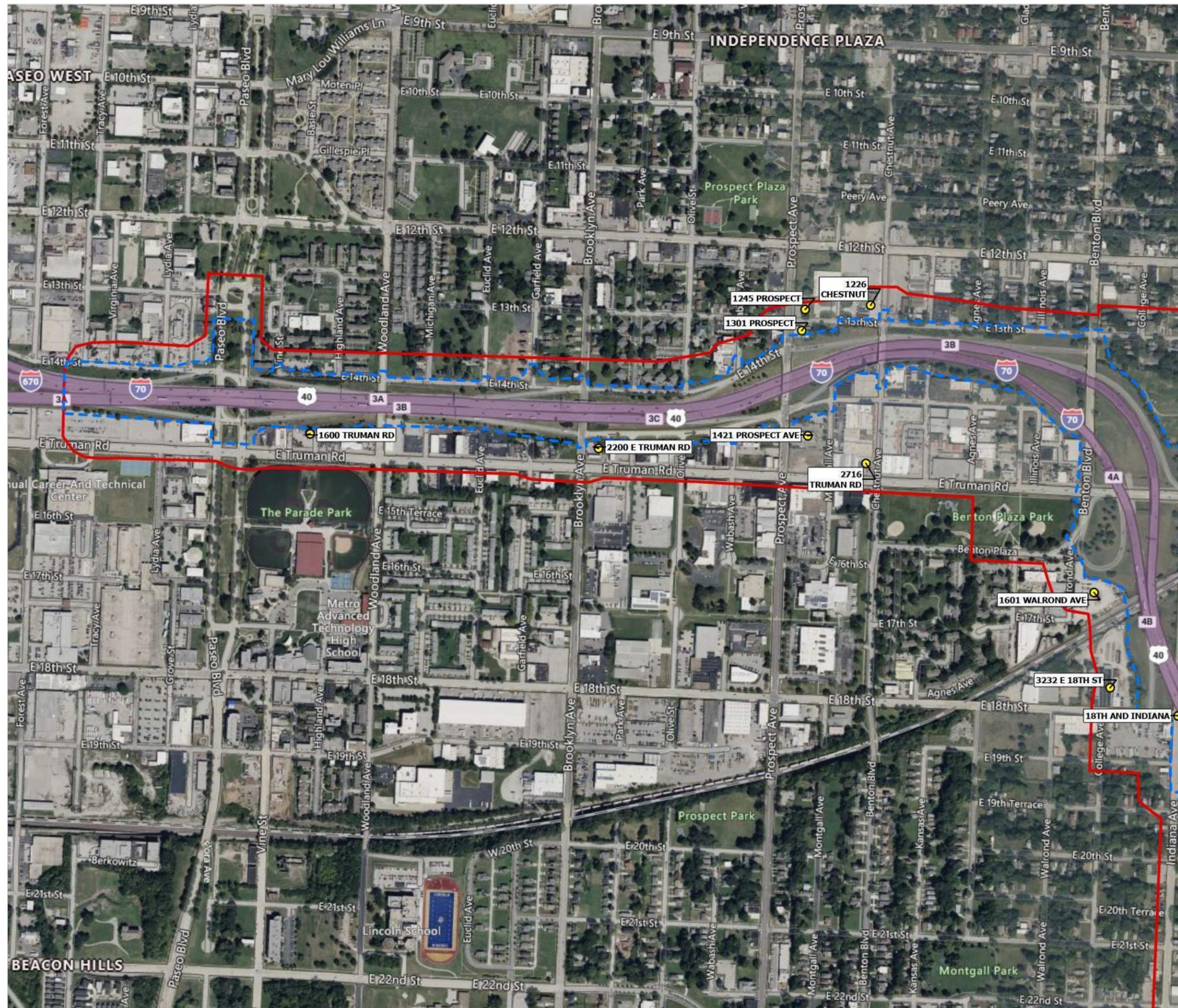
- Study Area
- Construction limits
- RCRA Facilities



Hazardous Waste Sites J411486C: I-70 Jackson County

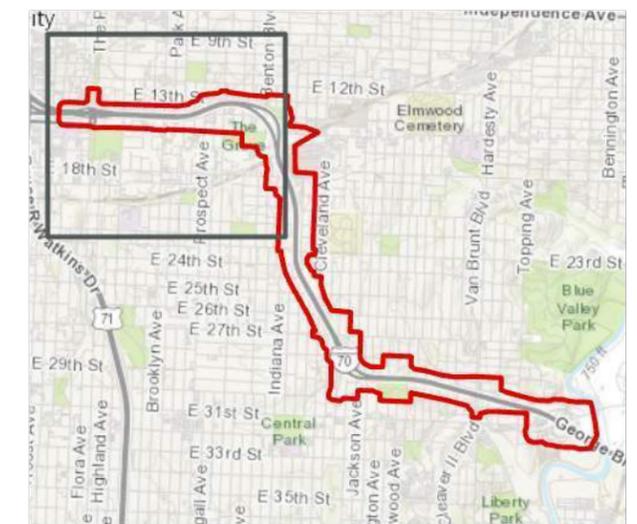
- Study Area
- Construction limits
- RCRA Facilities

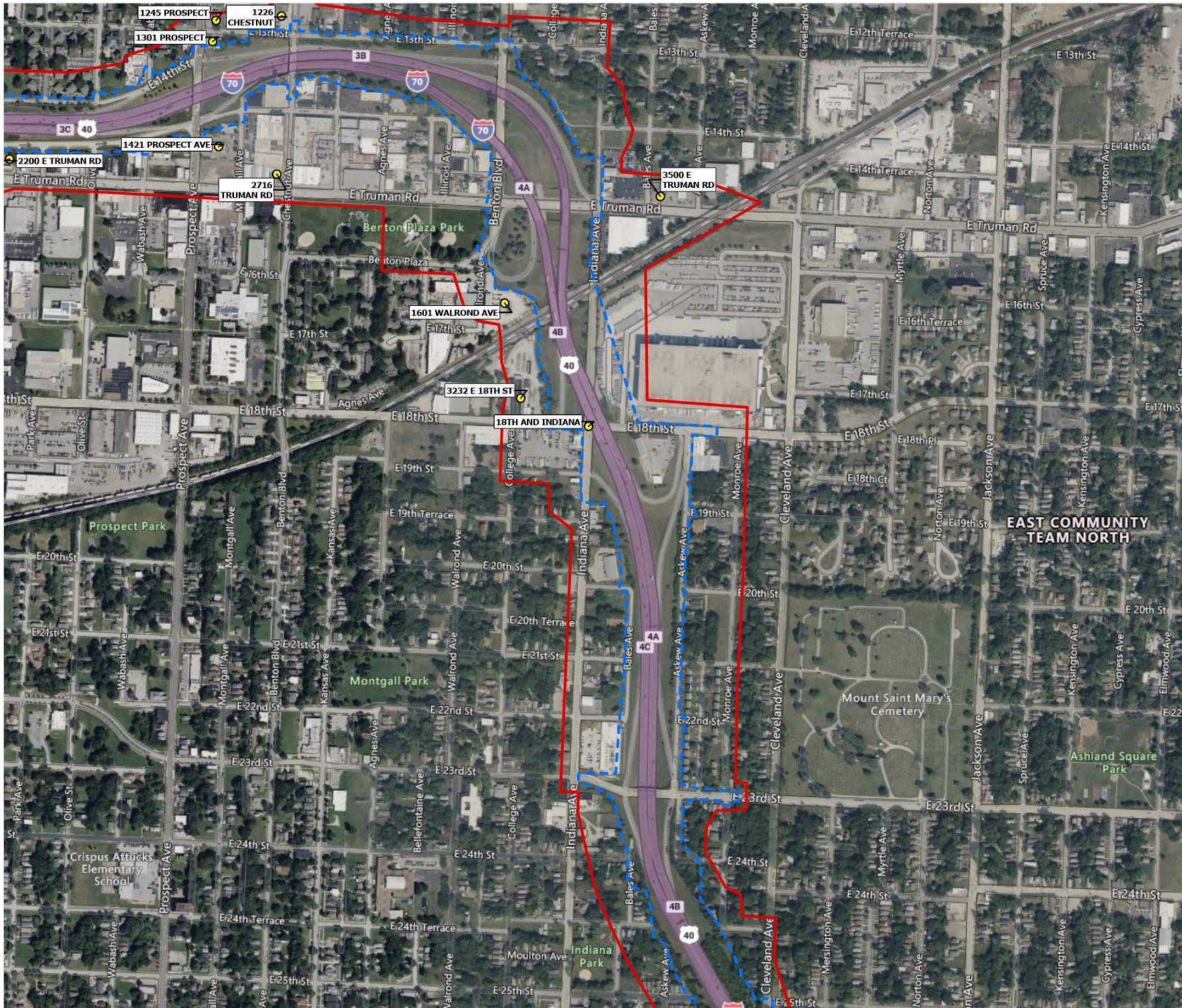




Hazardous Waste Sites J411486C: I-70 Jackson County

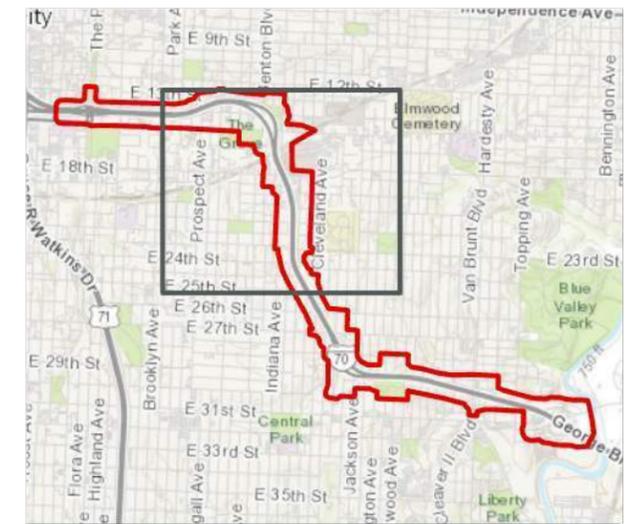
- Study Area
- Construction limits
- Underground Storage Tanks





Hazardous Waste Sites
J411486C: I-70 Jackson County

- Study Area
- Construction limits
- Underground Storage Tanks



Hazardous Waste Sites J411486C: I-70 Jackson County

- Study Area
- Construction limits
- Underground Storage Tanks

