

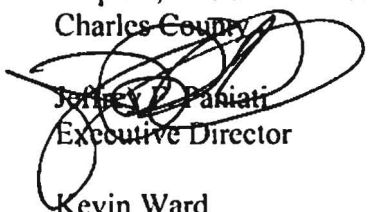


U.S. Department
of Transportation
**Federal Highway
Administration**

Memorandum

Subject: **ACTION:** Missouri, Access Justification
Request, I-70 at David Hoekel Parkway, St.
Charles County

Date: April 2, 2014

From: 
Jeffrey P. Paniati
Executive Director

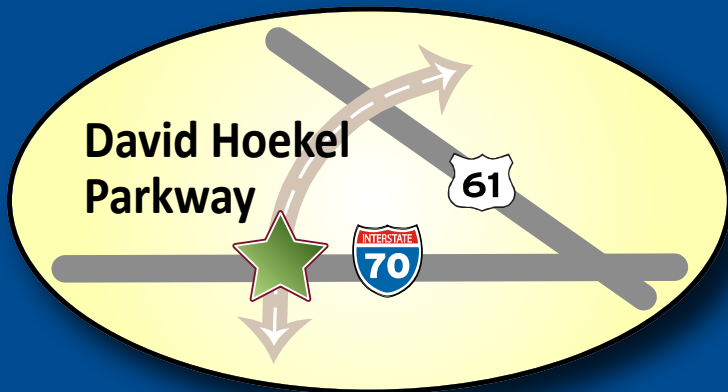
In Reply Refer To:
HHPA-20

To: Kevin Ward
Division Administrator
Jefferson City, Missouri

We have reviewed the Access Justification Report (AJR) submitted on March 13 to construct a new freeway-to-freeway interchange on I-70 at the proposed David Hoekel Parkway (DHP) in the city of Wentzville. The construction of the interchange and the DHP will improve the safety and flow of regional traffic in the St. Louis Metropolitan area.

Based on our review, the proposed interchange is acceptable. An Environmental Assessment for this project is underway with a Finding of No Significant Impact expected in spring 2014. Final approval may be given provided that the scope and design of this proposed project is consistent with the design that is included in the March 13 AJR and the approved environmental document. This approval is subject to reevaluation if significant changes occur in the final design or if the construction is delayed (as specified in 23 CFR 771.129).

Should you have any questions, please contact Michael Matzke at (202) 366-4658.



I-70 and David Hoekel Parkway City of Wentzville St. Charles County

Access Justification Request

February, 2014

Prepared for

Federal Highway Administration

Missouri Department of
Transportation

Submitted by

City of Wentzville, Missouri



U. S. Department of Transportation
Federal Highway Administration



I-70 and David Hoekel Parkway Interchange

Access Justification Request

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Summary

The City of Wentzville requests approval from the Federal Highway Administration (FHWA) and the Missouri Department of Transportation (MoDOT) to construct a new interchange access point with I-70 at the planned David Hoekel Parkway in Wentzville, Missouri. The proposed interchange (proposed Exit 206), is located approximately 2.3 miles from the Route W/T interchange to the west and 2.3 miles from the Wentzville Parkway interchange to the east. The David Hoekel Parkway will be a new 6.3-mile roadway connection between I-70 and U.S. 61 in northwestern Wentzville within St. Charles County.

An Environmental Assessment (EA) for the David Hoekel Parkway and its connecting interchanges with I-70 and U.S. 61 has been prepared under a separate cover by the City of Wentzville, in coordination with the FHWA and MoDOT. At this time, the NEPA process for the proposed project is nearly complete and final approval of the Environmental Assessment with a Finding of No Significant Impact (FONSI) will be granted once the I-70/David Hoekel Parkway Access Justification Request (AJR) is reviewed and approved for the proposed project.

The purpose of the David Hoekel Parkway project is to provide the local community and the region with a safe and efficient roadway that will:

- Improve access and connectivity to the local and regional transportation network,
- Reduce congestion on I-70 at adjacent interchanges and on the local roadway system,
- Improve traffic safety,
- Support local and regional growth,
- Support sustainable development, and
- Promote a multimodal transportation system.

Constructing a new interchange at I-70 is a key component for addressing the needs of the parkway project. The need being addressed by this request cannot be adequately satisfied by the existing I-70 interchanges at the Wentzville Parkway and Route W/T. In addition, the local roads and streets in the study area can neither provide the desired access, nor can they be reasonably improved to satisfactorily accommodate the 2040 design-year traffic demands. In addition, the proposed need to provide the community with a new safe and efficient roadway connection cannot be adequately satisfied by reasonable transportation system management, geometric design, and alternative improvements to the interstate without a new interchange along I-70 and the proposed connecting David Hoekel Parkway.

This AJR documents that the proposed new access point to I-70 satisfies the requirements outlined in the Federal Register and FHWA's Missouri Division guidance on justifying and approving new interstate access. An operational and safety analysis concluded that the proposed change in access does not have an adverse impact on the safety and operations of I-70 or on the local street network, based on the planned future 2040 traffic projections. The proposed I-70 interchange connects to the planned four-lane access controlled David Hoekel Parkway and will be designed to meet or exceed current federal and state design, safety and operational standards.

The proposal is consistent with the City of Wentzville and St. Charles County land use and comprehensive transportation plans, dating back more than 12 years. This project has also been coordinated with the FHWA, East-West Gateway Council of Governments (EWGCOG) and MoDOT's transportation planning processes and air quality conformity determinations, as well as with the general public and transportation stakeholders.

1.0 Introduction

The City of Wentzville, Missouri, in coordination with the Missouri Department of Transportation (MoDOT) and the Federal Highway Administration (FHWA), proposes to construct a new roadway connecting I-70 and U.S. 61 in St. Charles County. Known as the David Hoekel Parkway (DHP), the roadway would function as a four-lane divided arterial roadway with controlled access. As a part of the project, new interchanges are proposed at the parkway's connection with I-70 and U.S. 61.

The purpose of this report is to request a new break in access on the I-70 corridor to serve this new roadway. The Access Justification Request (AJR) complies with Federal policy on new access to the interstate system. An Environmental Assessment is being completed under a separate cover concurrently and complies with the National Environmental Policy Act (NEPA).

1.1 Project Background

The David Hoekel Parkway and its new interchange connections were first conceived within several previous plans and studies conducted by the City of Wentzville. Each of these studies included public involvement activities to solicit public input on the project. The City first identified the need for a new roadway and interchanges in the City's adopted Comprehensive Plan of 1999 (A Community's Vision).

In 2001 the City studied this potential new corridor further by conducting the I-70/U.S. 61 Beltway Corridor Preservation Study. The study area for the Corridor Preservation Study primarily focused on connections between I-70 and U.S. 61 within the western portion of the City of Wentzville. The study included recommendations for a new roadway corridor and defined the footprint for the corridor and its interchanges, allowing the City to coordinate with proposed and planned development to preserve right-of-way for a future roadway.

Following the recommendations of the Corridor Preservation Study, the City prepared the I-70 Break-in-Access (BIA) Study for the project's access justification request with I-70. This study analyzed the effect of adding a new interchange to the I-70 corridor within Wentzville. The City completed the BIA (AJR) study in November 2004 with a recommendation to construct a new interchange connection at the proposed location. In 2006, based on feedback received from MoDOT, the City developed a VISSIM traffic supplement to the original 2004 BIA/AJR to provide more detailed traffic simulation analysis for the project, and specifically for the weigh station located within the study limits. In 2006, MoDOT reviewed the BIA/AJR and traffic supplement and provided a letter of conditional approval of the new I-70 interchange access to the City of Wentzville. This letter is included in the **Appendix A** for reference. At that time, the FHWA reviewed the BIA/AJR and its traffic supplement, but a decision was made that no approvals of the BIA/AJR could be granted prior to completion of the NEPA process. Subsequent to this decision, the City of Wentzville, in coordination with MoDOT and FHWA, initiated the NEPA process for the project in 2007 by developing the David Hoekel Parkway Environmental Assessment. The Environmental Assessment document evaluated the need for, location, and a range of feasible and reasonable roadway and interchange configurations to determine the least environmentally damaging alternative and whether it was appropriate for federal funding.

The Draft Environmental Assessment was approved by FHWA and MoDOT in October 2009, but final approval of the Environmental Assessment with a Finding of No Significant Impact (FONSI) for the project will be granted once the previous BIA/AJR is updated and approved by FHWA and MoDOT. The

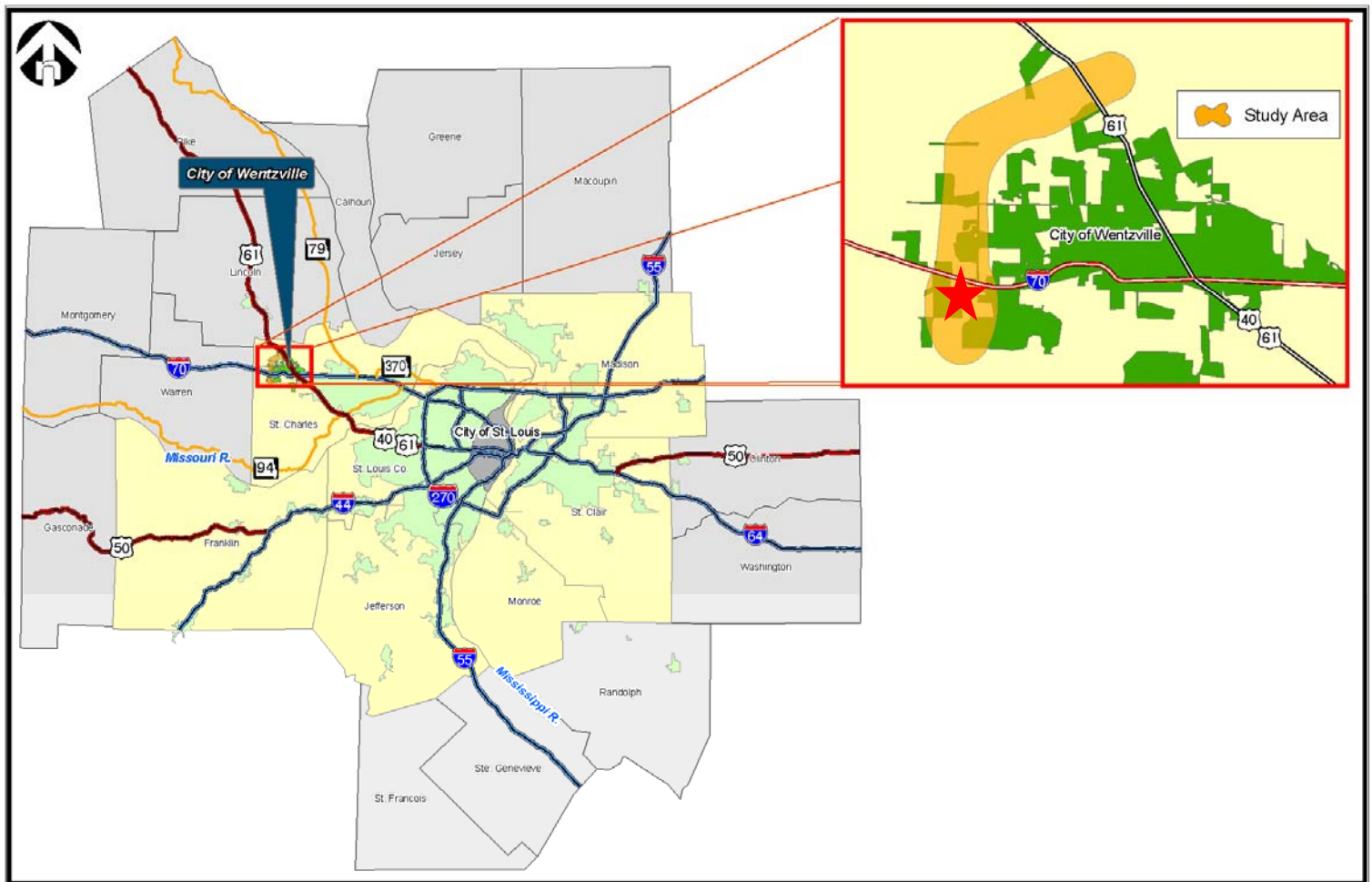
I-70 and David Hoekel Parkway Interchange Access Justification Request

Selected Alternative for the Environmental Assessment is consistent with the recommended I-70/David Hoekel Parkway interchange alternative and configuration analyzed in this AJR.

1.2 Project Description and Location

The study area for the David Hoekel Parkway is located within St. Charles County on the northwestern corner of the greater St. Louis metropolitan area, as shown in **Figure 1-1**. The David Hoekel Parkway is approximately 6.3 miles in length. The proposed I-70/David Hoekel Parkway interchange access is shown by the red star on the figure.

**Figure 1-1
Project Location Map**

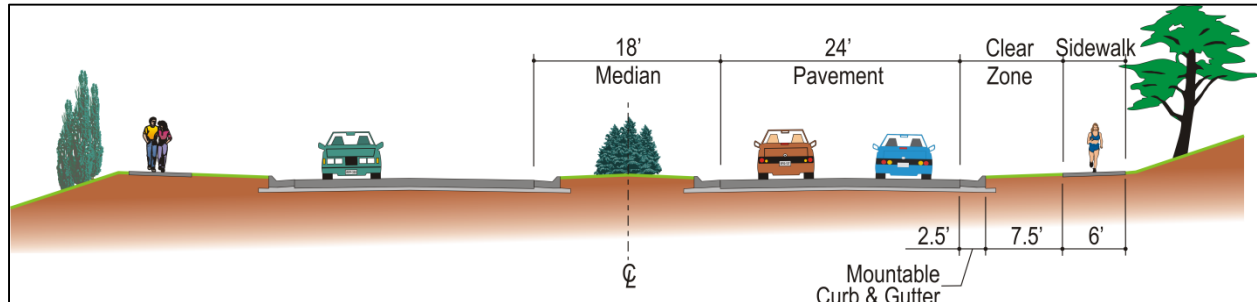


Source: David Hoekel Parkway Environmental Assessment

The proposed David Hoekel Parkway project would provide a new four-lane divided roadway with controlled access on the western half of the City of Wentzville between I-70 and U.S. 61. With an anticipated posted speed of 45 mph and 2040 ADTs in the range of 16,000 – 25,000 vehicles per day, the project would be designed to move higher volumes of traffic through the city, as well as to provide connectivity to the local roadway network. At the same time, its design would include aesthetic considerations such as landscaping to fit with the character of the study area and sidewalks on each side

of the roadway for pedestrians. The proposed typical section for the parkway is shown in **Figure 1-2** and the project limits are shown on the Environmental Assessment study area map in **Figure 1-3**.

Figure 1-2
Proposed Typical Section



The logical termini for the project encompasses the intersection south of I-70 at Jackson Road/S. Point Prairie Road and the proposed tie-in east of U.S. 61 at Route P, in order to provide local access and connectivity within Wentzville and Flint Hill.

As part of the project, a new interchange connection would be located at I-70 and the proposed David Hoekel Parkway. This new interchange would be located halfway between the Route W/T interchange and the Wentzville Parkway interchange, maintaining over two miles spacing between each interchange. The AJR study area limits and the new interchange connection of the David Hoekel Parkway and I-70 are shown on **Exhibit 1-1**.

1.3 Purpose and Need

The David Hoekel Parkway project has the support of the local communities of Wentzville and Flint Hill, as well as the City of Foristell and St. Charles County. The purpose of the David Hoekel Parkway is to provide the community with a safe and efficient roadway that is both cost-effective and environmentally sound. The new connection will:

- **Improve access and connectivity** between I-70 and U.S. 61 in western Wentzville and the St. Louis region within St. Charles County,
- **Reduce congestion and improve the travel capacity** in the study area to meet future travel demands,
- **Improve traffic safety** to help address high crash locations within the study area.
- **Support local and regional growth** while addressing anticipated increases in local and regional travel demand and travel times that will accompany population and housing growth,
- **Support sustainable development** by providing and coordinating transportation connections with planned and proposed development, and
- **Promote a multimodal transportation system** by ensuring the project accommodates the needs of other transportation modes.

I-70 and David Hoekel Parkway Interchange Access Justification Request

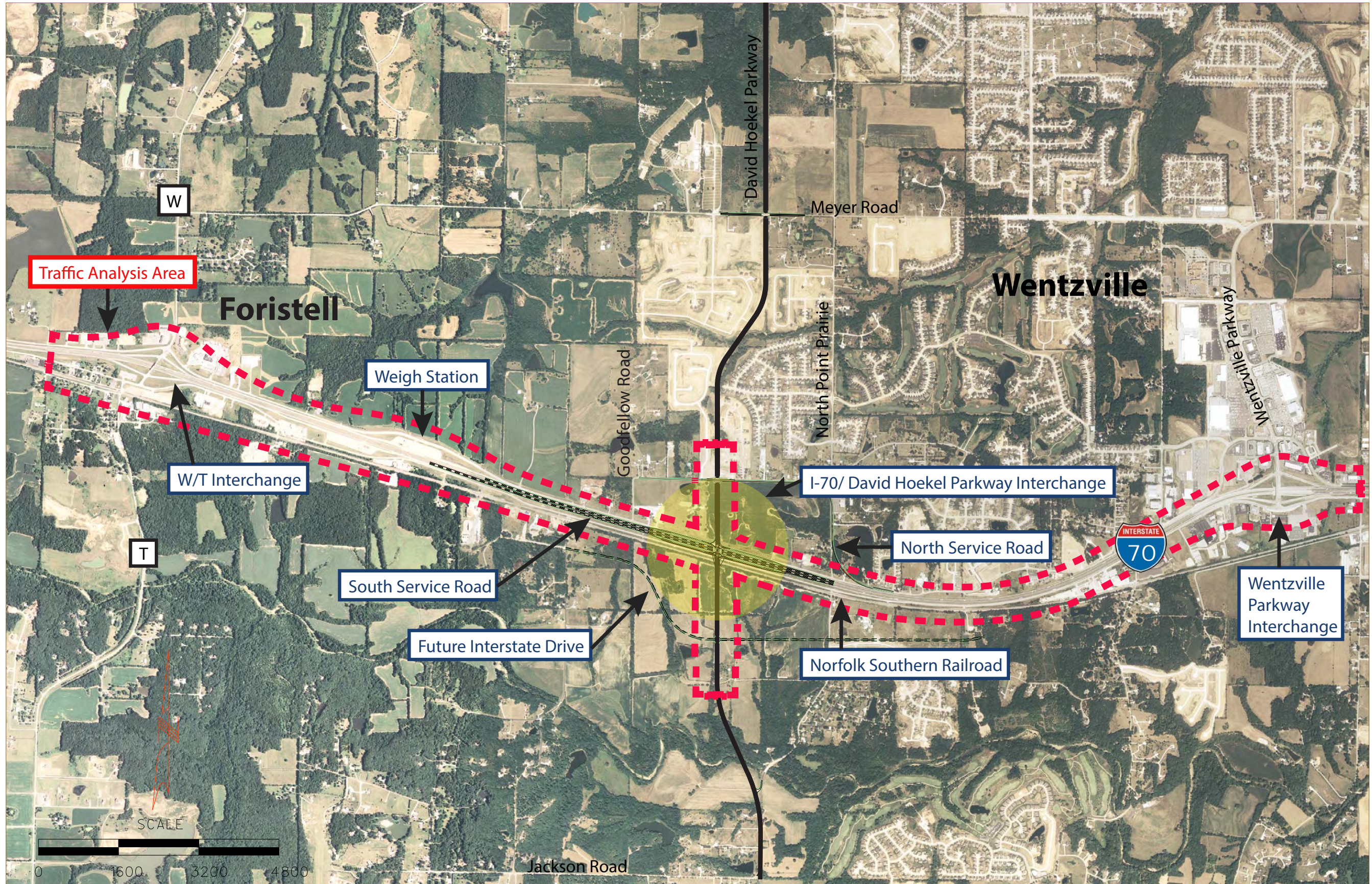
The goals identified for the project are consistent with the focus areas and the goals for the St. Louis region outlined within the East-West Gateway Council of Government's (EWGCOG) Regional Transportation Plan, 2040.

Constructing a new interchange at I-70 is a key component for addressing the needs of the parkway project. The need being addressed by this request cannot be adequately satisfied by the existing I-70 interchanges at the Wentzville Parkway and Route W/T. In addition, the local roads and streets in the study area can neither provide the desired access, nor can they be reasonably improved to satisfactorily accommodate the 2040 design-year traffic demands. In addition, the proposed need to provide the community with a new safe and efficient roadway connection cannot be adequately satisfied by reasonable transportation system management, geometric design, and alternative improvements to the interstate without a new interchange along I-70 and the proposed connecting David Hoekel Parkway.

**Figure 1-3
Environmental Assessment David Hoekel Parkway Study Area Map**



Source: David Hoekel Parkway Environmental Assessment



*I-70/61
Beltway*

EXHIBIT 1-1

**I-70/ David Hoekel Parkway
AJR
Study Area Map**



1.4 Proposed Action

The City of Wentzville requests approval from the FHWA and MoDOT to construct a new service interchange access point with I-70 at the planned David Hoekel Parkway in Wentzville, Missouri. Graphics showing the proposed interchange layout for the I-70/David Hoekel Parkway interchange are shown in **Appendix B**.

The subsequent sections of this AJR document the methodology, analysis and findings to justify this new interchange access along I-70 satisfies the requirements outlined in the Federal Register and Missouri's FHWA Division AJR guidance.

2.0 Access Justification Request

The following section addresses the requirements for an AJR identified in the Federal Register dated August 27, 2009 and Federal Highway Administration's Policy and Procedures for New or Revised Interstate Access Approval in Missouri (August 2010). Eight requirements are addressed in the following section. These requirements include:

- 2.1 Improving Existing Facilities
- 2.2 Transportation System Management and Alternatives Analysis
- 2.3 Operational Analysis
- 2.4 Access Connections and Design
- 2.5 Consistency with Transportation Plans
- 2.6 Consistency with Future Access Plans
- 2.7 Coordination with Future Development
- 2.8 Status of NEPA

Organization of AJR Policy Points

At the beginning of each of the eight policy point sections, the intent of the Federal guidelines is described in italics. Then, the FHWA – Missouri Division's prompt-list for reviewing interstate access justification requests is addressed in each policy point section. Each of the prompt-list questions is presented and answered in a reader-friendly format to assure FHWA that the AJR meets all the necessary engineering and operational acceptability requirements. Each policy point is addressed with information from the following resources:

- The *Interstate 70/U.S. 61 Wentzville Beltway Break-in-Access Request*, 2004 and 2006 Supplement were used as a baseline. The previous BIA received conditional approval by MoDOT in 2006 and has been previously reviewed by FHWA.
- New Existing 2012 and Future 2040 No-Build and Build conditions analysis, based on updated traffic and safety data from MoDOT for existing conditions, and updated 2040 traffic projections based on MoDOT's I-70 Supplemental EIS and 4-State Dedicated Truck Lanes Study; the City of Wentzville and St. Charles County's future land use plans; and East-West Gateway Council of Governments travel demand model projections.

2.1 Improving Existing Facilities

FHWA Policy Point One: *Current design does not meet existing and future purpose and need.*

The need being addressed by the request cannot be adequately satisfied by existing interchanges to the Interstate, and/or local roads and streets in the corridor can neither provide the desired access, nor can they be reasonably improved (such as access control along surface streets, improving traffic control, modifying ramp terminals and intersections, adding turn bays or lengthening storage) to satisfactorily accommodate the design-year traffic demands (23 CFR 625.2(a)).

The purpose and need to provide the community with a safe and efficient roadway and new interchange access that is both cost-effective and environmentally sound cannot be adequately satisfied by the adjacent existing interchanges to I-70 and the available local roadway system. Existing access in the corridor can neither provide the desired access, nor be reasonably improved to satisfactorily accommodate the 2040 design-year traffic.

The most critical congestion issue within the project study area is the Wentzville Parkway interchange located to the east of the proposed I-70/David Hoekel Parkway interchange. The existing Wentzville Parkway interchange has been upgraded numerous times over the last 15 years. The interchange was originally built with a two-lane bridge and single-lane ramps. The westbound ramp terminal had a two-lane approach. Below is a summary provided by MoDOT of the local improvements implemented over time to this interchange:

- In 2001, the two-lane bridge over I-70 was replaced with a 6-lane bridge. Wentzville Parkway was widened from two to four through lanes with turn lanes. The eastbound ramp terminal approach was widened to two lanes and a raised median was added to Wentzville Parkway to the north.
- In 2007, an additional westbound right turn lane was added to the off-ramp, a right turn lane was added on northbound Wentzville Parkway, and the raised median was extended south on Wentzville Parkway.
- In 2008, the bridge was restriped from six to seven lanes (dual SB left turn lane added) and the eastbound on-ramp was widened to accept two lanes.
- In 2012, dual left turn lanes were added on all approaches at Wentzville Parkway and W. Pearce Boulevard north of the I-70 interchange.
- The 2013-2016 East-West Gateway Council of Governments' Transportation Improvement Program (TIP) shows further improvements to the Wentzville Parkway to make it a five-lane section with a center turn lane and signal interconnection from William Dierberg Drive to Schroeder Creek Blvd. This future improvement was incorporated into the No-Build condition for the study.

Even with these past and future planned upgrades, the interchange is still expected to operate at a poor level of service under the future 2040 No-Build condition. The following section will show the inadequacy of the existing and future No-Build transportation system to meet the purpose and need of the project. The section will also provide recommendations for improving the local roadway network and adjacent interchanges within the No-Build condition to demonstrate the future congestion issues cannot be addressed fully by the existing roadway network.

2.1.1 Existing and Future No-Build Roadway Networks

Existing Conditions

Existing I-70 near the proposed interchange is shown in **Figure 2-1** and on **Exhibit 1-1**. As shown in the figure, today I-70 is a four lane interstate highway (two twelve-foot lanes in each direction) with a four-foot paved inside shoulder and a ten-foot paved outside shoulder. There is a two-lane frontage road on each side of the interstate and a Norfolk Southern railroad line located on the south side parallel to I-70. Approximately two miles to the east of the proposed access is an interchange at Wentzville Parkway. Two miles to the west is the W/T interchange, located in Foristell. A truck weigh station is also located approximately one-mile west of the proposed interchange. The posted speed limit is 70 mph to the west of the proposed interchange, but drops to 65 mph approaching Wentzville Parkway to the east.

Figure 2-1
Existing Westbound I-70 near Proposed Interchange
(West of North Point Prairie Road)



Source: Google Maps

Future No-Build Conditions

The following specific list of projects have been committed or planned in and around the AJR study area and are shown on **Figure 2-2**.

Committed and Funded Projects:

2014-2018 MoDOT STIP Design and Construction Projects and Scoping and Design Projects

- I-70 scoping for grading, paving, bridge, outer road, signals and signing for relocation of I-70 from 0.3 mile east of Pearce Blvd. to Route Z.
- I-70 Pavement improvements from Warren County Line to Wentzville Parkway
- U.S. 61 pavement improvements, I-70 to Lincoln County Line
- U.S. 61 scoping for corridor improvements from Route KK South junction in Lincoln County south to Route A in St. Charles County
- Route Z pavement and shoulder improvements, I-70 to Route D
- Route Z scoping for intersection improvements at I-70 westbound ramps and North Outer Road
- Route N pavement, shoulder and curve improvements, Route Z to Sommers Road
- Route N shoulder and curve improvements, Route T to Route Z

2013-2016 East-West Gateway Council of Governments TIP

- Wentzville Parkway, center turn lane and signal interconnection, William Dierberg Drive to Schroeder Creek Blvd.

Access Justification Request

- Asphalt overlays for portions of Piene Road, S. Pointe Prairie Road, Mexico Road
- Ultra-thin bonded wearing course 2 for portions of Mexico Road and N. Pointe Prairie Road

2040 Regional Transportation Plan (Projects funded within the region's financial constraint)

- I-70, add lanes Forstell (Route W/T) to Wentzville Parkway
- I-70, upgrade Wentzville Parkway to MO-Z

Planned and Unfunded Projects:**2040 Regional Transportation Plan (Illustrative Projects that do not fit within the region's financial constraint)**

- Route T road and safety improvements, I-70 to MO-TT
- Route P road and safety improvements, U.S. 61 to MO M
- Route Z reconstruct to 3-lane, I-70 to MO D
- Route N reconstruct to 3-lane, MO T to West of Sommers

Other Planned State, City and County Projects which Influence the Proposed Project

- Truck weigh station facility and ramps removed and relocated 25 miles west (Unfunded: MoDOT I-70 Second Tier and Supplemental EIS)
- Interstate Drive extensions (I-70 south outer roadway), MO T to Duello Road at I-64 (Funded: South Point Prairie Road to Hepperman Road, and east of Route Z to Quail Ridge Parkway; St. Charles County)

Projects shown in the list or on the figure as “committed” projects are included as part of the No-Build and Build analyses for the AJR and are a part of the state’s or region’s fiscally constrained transportation program. Projects shown as “planned” are not included in the state’s or region’s STIP/TIP, but would have a direct impact to the proposed interchange and the study area if funding is committed prior to 2040. These projects were incorporated into certain Build alternatives for the project, but were not included as part of the No-Build analysis.

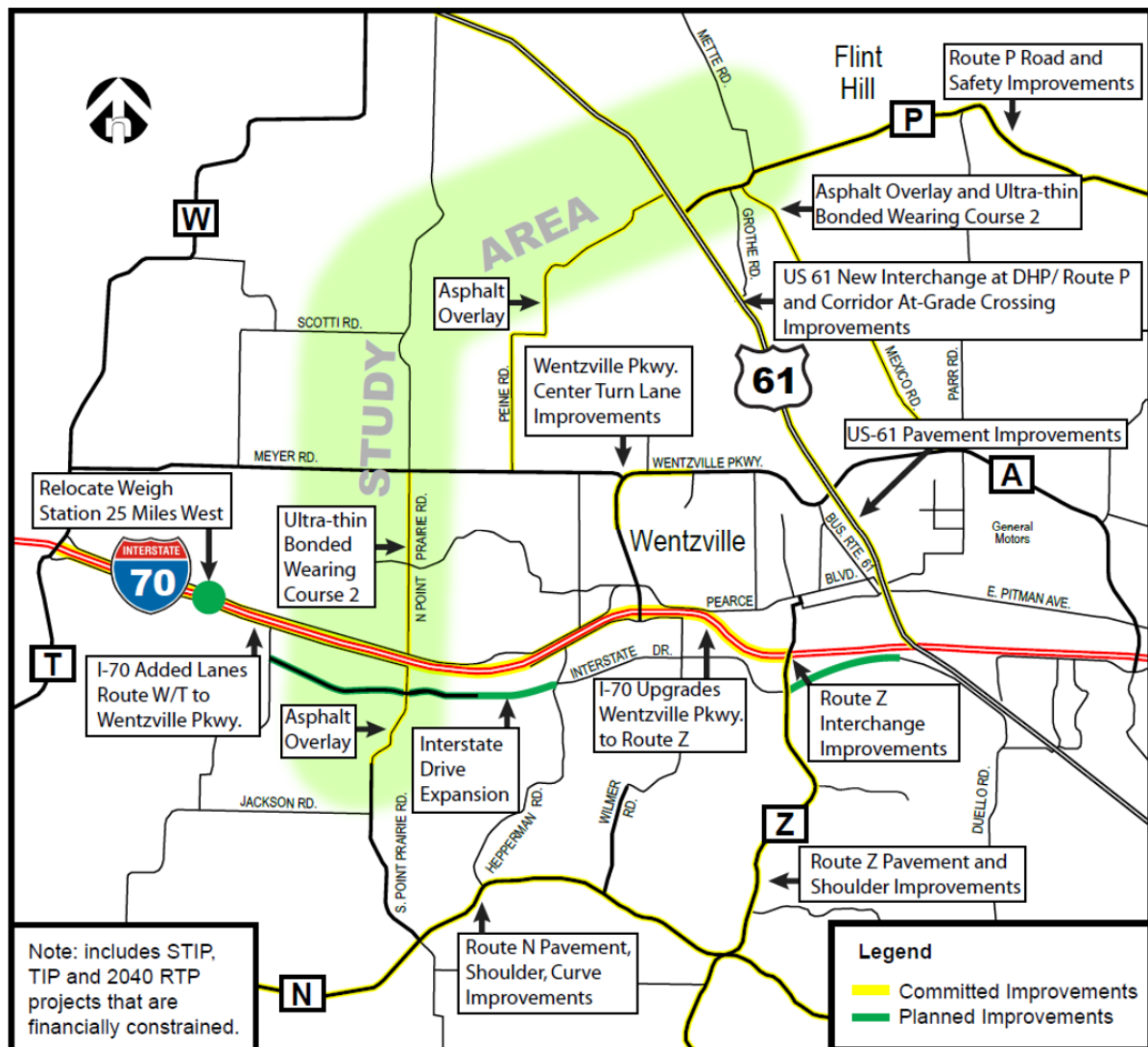
The weigh station relocation or removal from I-70 prior to 2040 could positively impact the operations of the I-70 corridor, the existing Route W/T interchange, and the proposed I-70/David Hoekel Parkway interchange. As a result, the Build analysis looked at alternatives both with and without the weigh station in place on I-70 per agreements with MoDOT and FHWA at the beginning of the study. In addition, the operations of the proposed interchange are also impacted by the expansion of Interstate Drive to the south of I-70. This project is currently being planned and funded by the St. Charles County to be open to traffic prior to the opening of the proposed interchange. At the current time, the section from Hepperman Road to Route Z is constructed; the section from South Point Prairie Road to Hepperman Road, and east of Route Z to Quail Ridge Parkway is funded and in the process of right-of-way acquisition; and the section west of South Point Prairie Road to the David Hoekel Parkway is being planned and would be funded and constructed prior to the construction of the I-70/David Hoekel Parkway interchange.

Although not currently planned or funded, some local roadway improvements at the adjacent interchanges of W/T and Wentzville Parkway were considered and included in the No-Build analysis to demonstrate that improvements to these existing interchanges as standalone projects could not address the operational improvements needed within the study area through 2040 and meet the purpose and

need of the project. The proposed improvements to these interchanges are described further in Section 2.1.3.

There have also been a number of planning studies that have analyzed improvements to I-70 as well as other regional improvements that would have an impact on the study area (e.g., MoDOT I-70 First and Second Tier and Supplemental EIS between Kansas City and St. Louis). These studies are described in Section 2.5 later in this AJR.

**Figure 2-2
Committed and Planned Projects in the Study Area**



2.1.2 Existing and Future No-Build Traffic Demand

Existing 2012 traffic volumes for the I-70 mainline and adjacent interchanges were provided by MoDOT. Future No-Build traffic volumes were based on MoDOT's I-70 Supplemental tiered EIS across the state, which included a 2030 future forecast developed from the East-West Gateway Council of Governments

(EWGCOG) regional travel demand model that was then refined and calibrated for the I-70 study corridor as a part of the EIS. This 2030 forecast was grown to the 2040 design year using an annual growth rate of 3.0% per year for cars and 1.9% per year for trucks. These growth rates were compared and are consistent with the I-70 4-State (Missouri, Illinois, Indiana and Ohio) Dedicated Truck Lanes Study led by the Indiana Department of Transportation, the Illinois Department of Transportation, the Ohio Department of Transportation and MoDOT, which also evaluated a design year of 2040. The east-facing ramps and arterial street volumes were grown from the 2012 counts by 1.6% per year for all traffic based upon EWGCOG forecasted growth. The west facing ramps were grown at the higher rate of 3.0% per year to account for anticipated new development to the west of the interchange (as opposed to the more matured land use to the east), consistent with future land use planning in St. Charles County and the City of Wentzville.

For truck demand along the I-70 corridor, the study team assumed 15% trucks during the peak periods of the day for existing and future No-Build and Build analysis. Although the weigh station east of Route W/T is rarely operational during peak hours, the analysis assumed that the weigh station was always open to simulate the worst case for truck weaving. Even when the weigh station is open, some trucks are permitted to bypass the weigh station with the use of Pre-pass. For the existing analysis, a 30% truck Pre-pass usage (bypass percentage) was assumed based on data from the MoDOT 2010 I-70 St. Louis Origin-Destination Study. As a result, the study team assumed Pre-pass usage was assumed to grow to 40% in order to assume reasonable growth in Pre-pass usage by 2040.

The existing 2012 two-way average daily traffic (ADT) volumes and forecasted 2040 No-Build volumes within the study area are shown in **Table 2-1**.

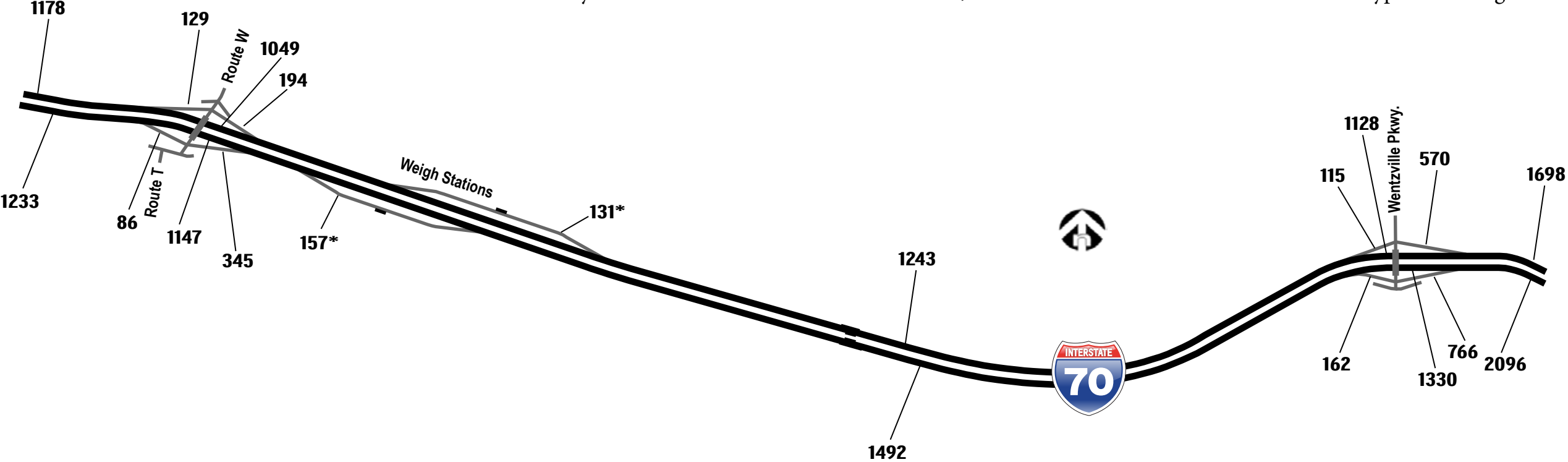
Table 2-1
Existing (2012) and Forecasted (2040) Daily Two-Way Traffic Demand

Location	2012 ADT	Projected 2040 No-Build ADT
I-70 Corridor		
I-70 west of Route W/T	46,757	82,778
I-70 between Route W/T and Wentzville Parkway	51,588	84,666
I-70 between Wentzville Parkway and Route Z	72,154	100,829

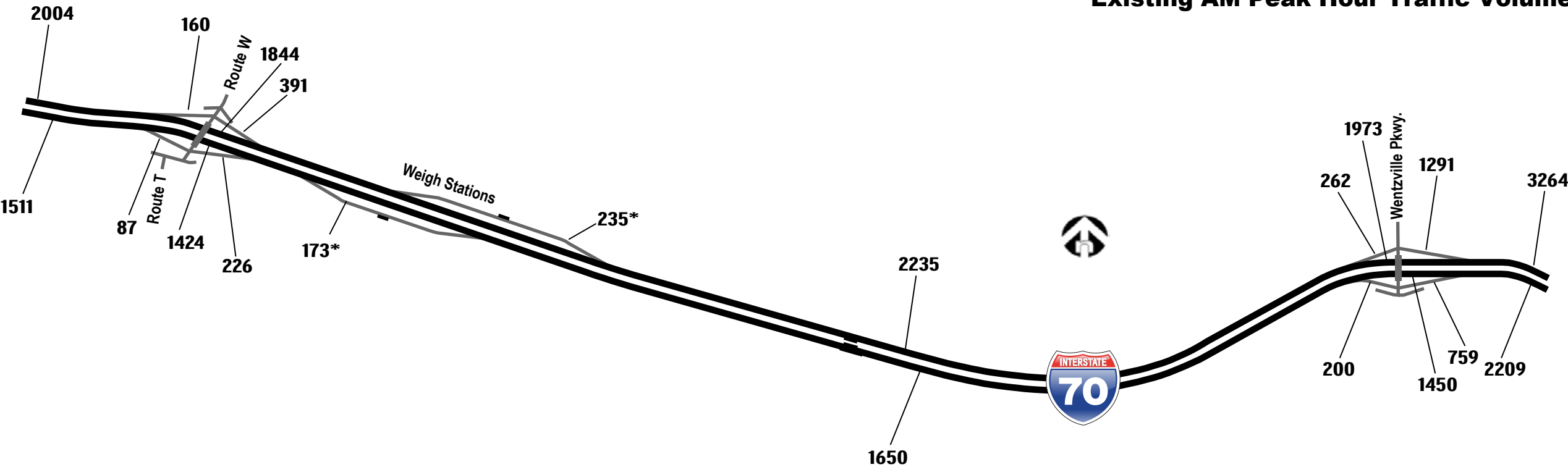
Source: Existing 2012 ADT calculated from 2012 MoDOT counts and 2040 No-Build ADT calculated from 2040 peak hour projections using a 0.1 K-Factor.

It can be seen in **Table 2-1** that the daily traffic on I-70 is anticipated to grow by 40% - 80% through design year 2040. Areas on the east side of the study area that are already more developed today grow at a lower rate than the west-side areas with greater development potential. These traffic projections were developed in coordination with forecasts from the original 2004 and 2006 I-70 BIA Study, MoDOT's I-70 Supplemental tiered EIS, the I-70 4-State Dedicated Truck Lane Study and the EWGCOG's model projections. Existing and Future No-Build peak hour traffic demand are shown in **Exhibit 2-1** and **Exhibit 2-2**.

* Weigh station volumes only represent truck traffic and are included in the other volumes reported throughout the study area. This scenario assumes 15% Trucks, 30% of which use Pre-Pass and are able to bypass the weigh station.



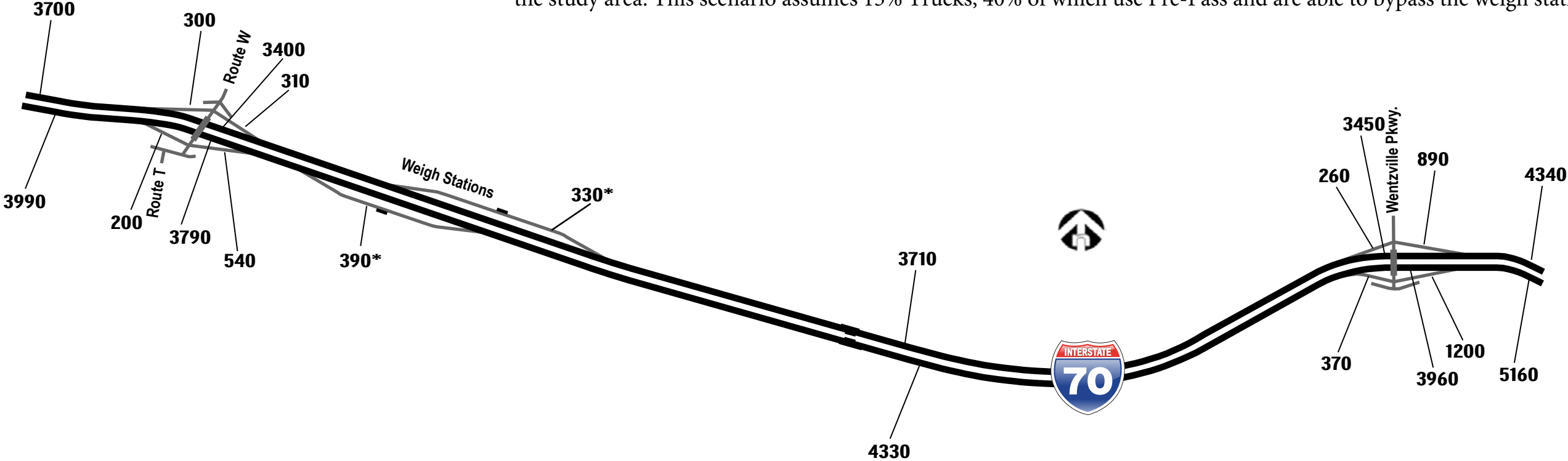
Existing AM Peak Hour Traffic Volumes



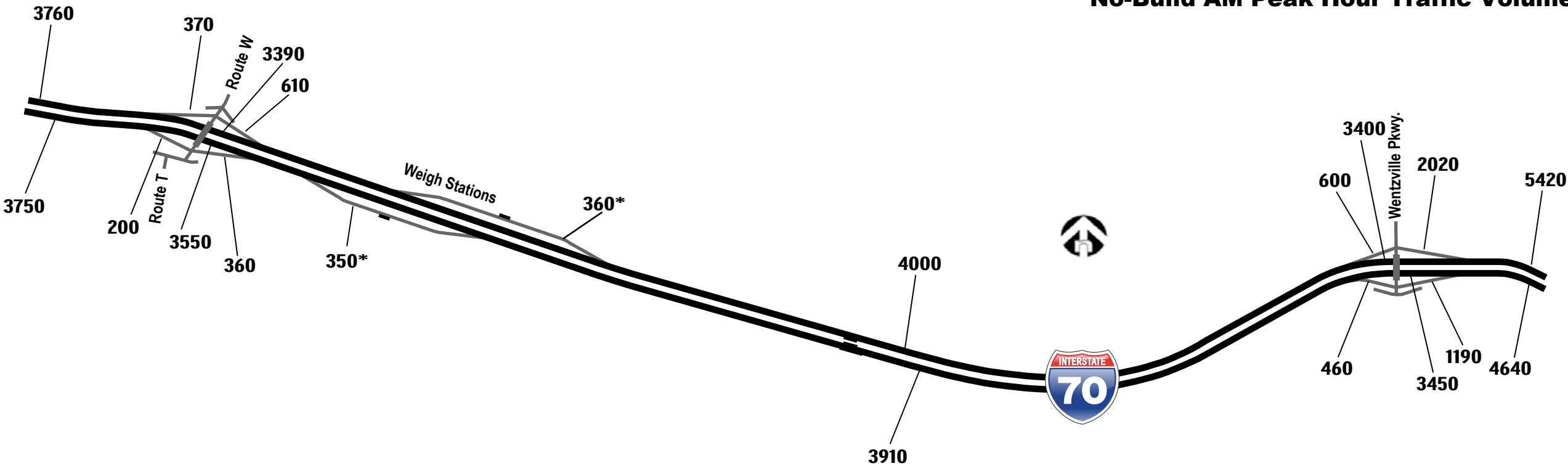
Existing PM Peak Hour Traffic Volumes

2012 Existing Peak Hour Traffic
Volumes (4-Lane I-70)

* Weigh station volumes only represent truck traffic and are included in the other volumes reported throughout the study area. This scenario assumes 15% Trucks, 40% of which use Pre-Pass and are able to bypass the weigh station.



No-Build AM Peak Hour Traffic Volumes



No-Build PM Peak Hour Traffic Volumes

2040 No-Build Peak Hour Traffic
Volumes (6-Lane I-70)

2.1.3 Existing and Future No-Build Traffic Operations

Today, there are a limited number of transportation corridors that provide traveler mobility through Wentzville, especially connecting the northwestern portions of Wentzville. Based on historical and future anticipated growth, the expectation is that some existing corridors and connecting interchanges along I-70 will be at or over capacity by the 2040 design year. The mainline and interchanges along I-70 within St. Charles County experience heavy traffic usage today. Even with committed STIP/TIP improvements and some recommended, currently non-committed improvements, the I-70/Wentzville Parkway interchange is projected to be congested by the year 2040.

The study team completed a Level of Service (LOS) analysis of roadway capacity and operations along the I-70 corridor and at interchange ramps to assess existing and future projected levels of congestion. Traffic planners and engineers use LOS as a qualitative measure to characterize operational conditions and traveler perception of ease of travel. Traffic conditions are graded on a scale of LOS A through F. LOS A is the most favorable driving condition. MoDOT considers LOS E acceptable during peak travel times in urban settings and LOS F represents a failure of traffic operations.

The existing weigh station located east of the Route W/T interchange was of particular interest, such that a 2006 supplement to the 2004 AJR, which included VISSIM simulation analysis, was developed to analyze the effects of the weigh station. In order to model the weigh station operations, additional field checks were performed to locate signage and Pre-pass sensors. Missouri Pre-pass, the Missouri Highway Patrol, and MoDOT's 2010 I-70 Corridor St. Louis Truck Origin-Destination (O-D) Study were consulted to collect data related to pre-pass usage, weigh station operations and truck movements along the corridor. Although the weigh station is rarely operational during peak hours, the analysis assumed that the weigh station was always open to simulate the worst case for truck weaving. Even when the weigh station is open, some trucks are permitted to bypass the weigh station with the use of Pre-pass. For the existing analysis, a 30% truck Pre-pass usage (bypass percentage) was assumed based on data from the 2010 O-D Study.

Table 2-2 as well as **Exhibits 2-3** and **2-4** show the I-70 mainline and interchange ramp locations and their associated LOS in the existing year 2012 and the forecasted year 2040. The analysis reflects what is considered a No-Build condition for the study area, meaning it looks at what future traffic operational conditions are projected to be in the study area if the proposed project was not built. The future 2040 No-Build analysis assumes I-70 is widened to six lanes between Route W/T and the Wentzville Parkway, which is a committed (fiscally constrained) project in the EWGCOG's 2040 Regional Transportation Plan. Because relocating the weigh station is a planned, but unfunded project, the I-70 truck weigh station is assumed to remain open between Foristell and Wentzville for the 2040 No-Build analysis. No other major widening or expansion projects are committed by 2040 within the AJR study area, but the following local improvements to the adjacent I-70 interchanges were assumed to test whether these could meet the operational needs of the area without adding a new access point:

- Signals were added at the eastbound I-70/Route W/T interchange ramp terminal and the adjacent intersection with the south outer road.
- Dual left turn lanes and receiving lanes were added at the westbound I-70/Route W/T off-ramp, the two receiving lanes were carried through to the south outer road.
- Dual left turn lanes and triple right turn lanes were added to the I-70/Wentzville Parkway interchange westbound off-ramp. It was then assumed that the farthest outside right turn lane



was only for vehicles turning right who wished to enter the development in the Northeast quadrant of the interchange.

- The westbound I-70/Wentzville Parkway interchange ramp was modified to a two-lane exit with a decision lane for the outside through lane.

Table 2-2
I-70 Mainline Level of Service
(Existing 2012 and Future 2040 No-Build)

I-70 Location	Existing (2012)	No-Build (2040) 6-Lane I-70
	AM/PM	AM/PM
Eastbound		
EB W/T off-ramp	A / B	C / C
EB W/T off-ramp to W/T on-ramp	A / B	C / C
EB W/T on-ramp to weigh station off-ramp	A / A	B / B
EB Weigh station off-ramp to weigh station on-ramp	A / A	C / C
EB Weigh station on-ramp	A / A	B / B
EB Weigh station on-ramp to Wentzville Parkway off-ramp	B / B	C / C
EB Wentzville Pkwy off-ramp	A / B	C / B
EB Wentzville Pkwy off-ramp to Wentzville Pkwy on-ramp	A / A	C / B
EB Wentzville Pkwy on-ramp	B / B	E / D
Westbound		
WB Wentzville Pkwy off-ramp	B / D	C / F
WB Wentzville Pkwy off-ramp to Wentzville Pkwy on-ramp	A / B	B / C
WB Wentzville Pkwy on-ramp	A / B	B / B
WB Wentzville Pkwy on-ramp to Weigh Station off-ramp	A / B	C / C
WB Weigh station off-ramp	A / B	B / C
WB Weigh station off-ramp to weigh station on-ramp	A / B	B / B
WB Weigh station on-ramp	A / A	B / B
WB Weigh station on-ramp to W/T off-ramp	A / B	B / B
WB W/T off-ramp	A / B	B / B
WB W/T off-ramp to W/T on-ramp	A / B	C / B
WB W/T on-ramp	A / B	B / B

Source: HNTB VISSIM Model version 5.4

-  Indicates failing during the peak time of the day.
 Indicates at capacity during the peak time of the day.

It can be seen in **Table 2-2** and **Exhibit 2-3** that the I-70 corridor through the study area operates at an acceptable level of service today during the peak periods. However, in **Exhibit 2-4** the analysis shows that if no action is taken other than widening the I-70 corridor to six lanes between Route W/T and the

Wentzville Parkway, and making the above recommended local interchange improvements by the year 2040 (No-Build Alternative), the Wentzville Parkway interchange will experience poor operating conditions and congestion during the peak travel periods of the day. Improvements such as additional turn lanes were considered at the Wentzville Parkway and Route W/T interchanges. While the congestion at Route W/T may be mitigated with the additional local improvements, the congestion at the Wentzville Parkway cannot be reasonably reduced to meet the purpose and need and improve area operational conditions during the peak hours. The westbound ramp and ramp terminal at the I-70/Wentzville Parkway interchange are unable to accommodate the traffic demand, resulting in congestion on I-70. Even with three right turn lanes, two left turn lanes, and a two-lane exit, the off-ramp still backs up onto the I-70 mainline in the PM peak and results in queues for more than one mile (approximately 5,800 feet). It is anticipated that this congestion would persist for approximately three hours during the daily PM peak period.

Table 2-3 shows the I-70 interchange ramp terminal levels of service in the existing year 2012 and the forecasted year 2040.

Table 2-3
I-70 Interchange Ramp Terminal Level of Service
(Existing 2012 and Future 2040 No-Build)

I-70 Location	Existing (2012)	No-Build (2040) 6-Lane I-70
	AM/PM	AM/PM
Route W/T Interchange		
North Ramp Terminal (Westbound)	A / B	C / C
South Ramp Terminal (Eastbound)	B / C	C / D
Wentzville Parkway Interchange		
North Ramp Terminal (Westbound)	B / C	B / D
South Ramp Terminal (Eastbound)	B / B	B / B

Source: HNTB VISSIM Model version 5.4

Note: Assumes optimized signal timings at interchanges using Synchro software

- Indicates failing during the peak time of the day.
- Indicates at capacity during the peak time of the day.

The I-70/Wentzville Parkway interchange is heavily used today by travelers due to its central location in the City of Wentzville and due to the adjacent commercial and retail development. The study team expects conditions at the freeway, ramps, and intersections at this interchange to worsen by year 2040, as evidenced by the deteriorating LOS results in **Tables 2-2** and **2-3** and shown in **Exhibits 2-3** and **2-4**. The No-Build alternative includes reasonable improvements made to the Route W/T and Wentzville Parkway interchanges to be sure that improvements at the interchanges do not fix the congestion issues without adding a new access point to the Interstate.

The north ramp terminal (Westbound) at the Wentzville Parkway operates at LOS D in the PM peak period, but the analysis shows that it only operates that satisfactorily because traffic is congested at the westbound off-ramp from I-70. This causes a metering effect, which prevents the full demand of vehicles from reaching the ramp terminal during the peak period; instead they are slowed on mainline I-70 waiting to exit to Wentzville Parkway. A sensitivity analysis was performed which showed that if the

off-ramp were not a constraint and the full demand of vehicles could reach the ramp terminal, it would fail as well. Existing and Future No-Build peak hour level of service are shown in **Exhibits 2-3** and **2-4**.

2.1.4 Existing and Future No-Build Traffic Safety

Crash statistics for I-70 within the study area were reviewed over the latest available five-year period from 2007 to 2011. Crash information for this analysis was obtained through MoDOT's traffic management database and reports. **Table 2-4** and **Exhibit 2-5** show the number of crashes on the I-70 corridor by crash severity. MoDOT categorizes their crash information by property damage only, injury and fatal crash types. Nine fatal crashes occurred in the study area along I-70 over the five-year study period. The greatest number of crashes occurred on I-70 between the Route W/T and Wentzville Parkway interchanges, which is the section under analysis within this AJR. According to MoDOT's crash statistics, out of control, rear end, and passing were the most frequent types of crashes on I-70. **Exhibit 2-5** shows concentrations of crashes around the existing interchanges of Wentzville Parkway and Route W/T. These "clusters" of crashes around the existing interchanges are likely due to congestion as a contributing factor. Rear end crashes, especially, are often an indication of congestion. If the proposed interchange can, in fact, reduce congestion at the existing interchanges, it follows that crashes at these locations may also be reduced.

Table 2-4
Existing Total Number of Crashes
(Years 2007-2011)

Mainline Section	Property Damage			Injury			Fatal			Total		
	EB	\	WB	EB	\	WB	EB	\	WB	EB	\	WB
I-70 Corridor												
I-70 Between Route W/T and Wentzville Parkway	136	\	172	32	\	28	2	\	3	170	\	203
I-70 Between Wentzville Parkway and Route Z	54	\	69	18	\	11	0	\	1	72	\	81
I-70 Between Route Z and U.S. 61	73	\	34	15	\	14	2	\	1	90	\	49

Source: MoDOT crash data for 2007 to 2011

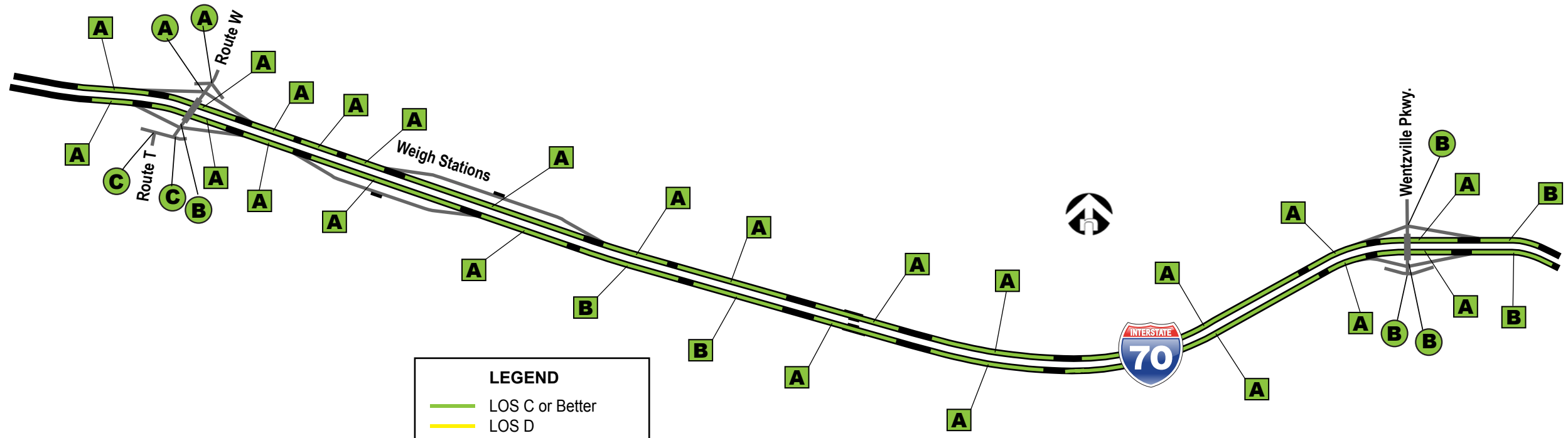
A review of historical crash information from the 2004 I-70 BIA study was also conducted to see what the trend in crashes has been for the study area along I-70. **Table 2-5** shows that the total number of crashes, including fatalities, increased from the 1999 – 2003 time period to the 2003 – 2007 time period. The data shows a significant decrease in crashes has occurred from the 2003 – 2007 time period to the 2007 – 2011 time period, but the number of fatalities has continued to rise.

Table 2-5
Historical Crashes on I-70
(Years 1999-2011)

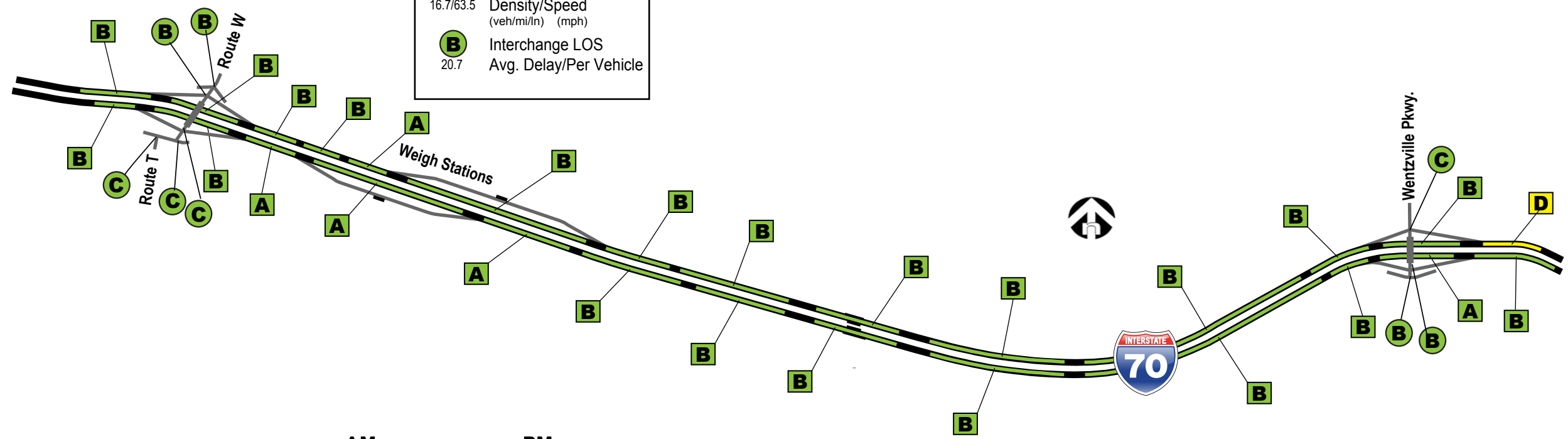
Years	Property Damage	Injury	Fatal	Total
1999-2003	642	172	1	815
2003-2007	707	151	3	861
2007-2011	538	118	9	665

Source: MoDOT crash data for 1999 to 2011

2012 Existing LOS (4-Lane I-70)



Existing AM Level of Service



Existing PM Level of Service

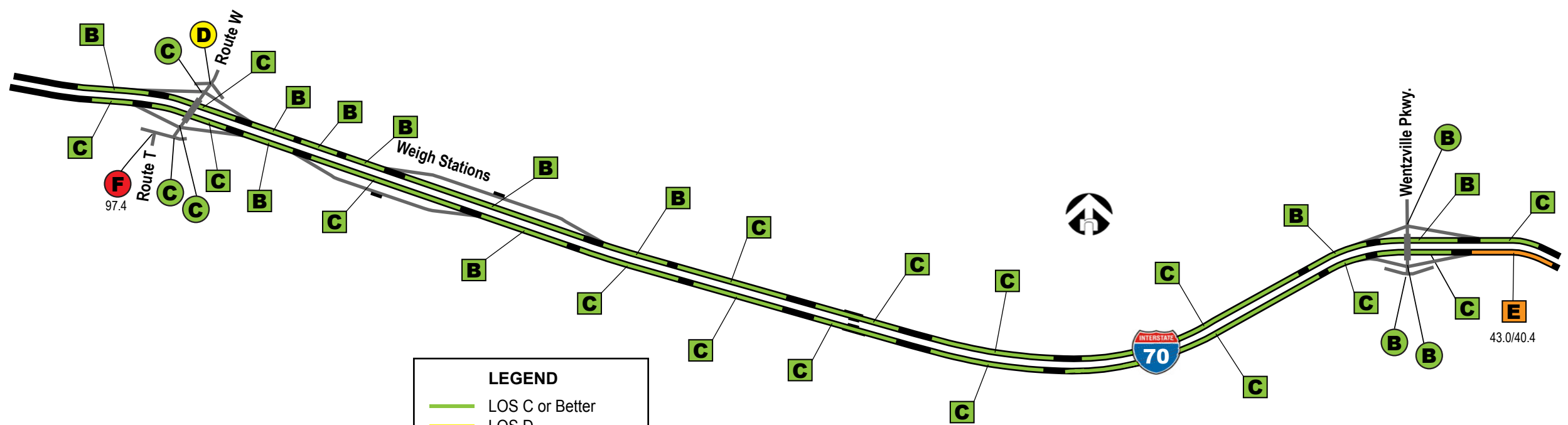
	AM	PM
Total Network Delay	33.8 hours	80.4 hours
Average Delay per Vehicle	21.2 seconds	36.0 seconds

LEGEND

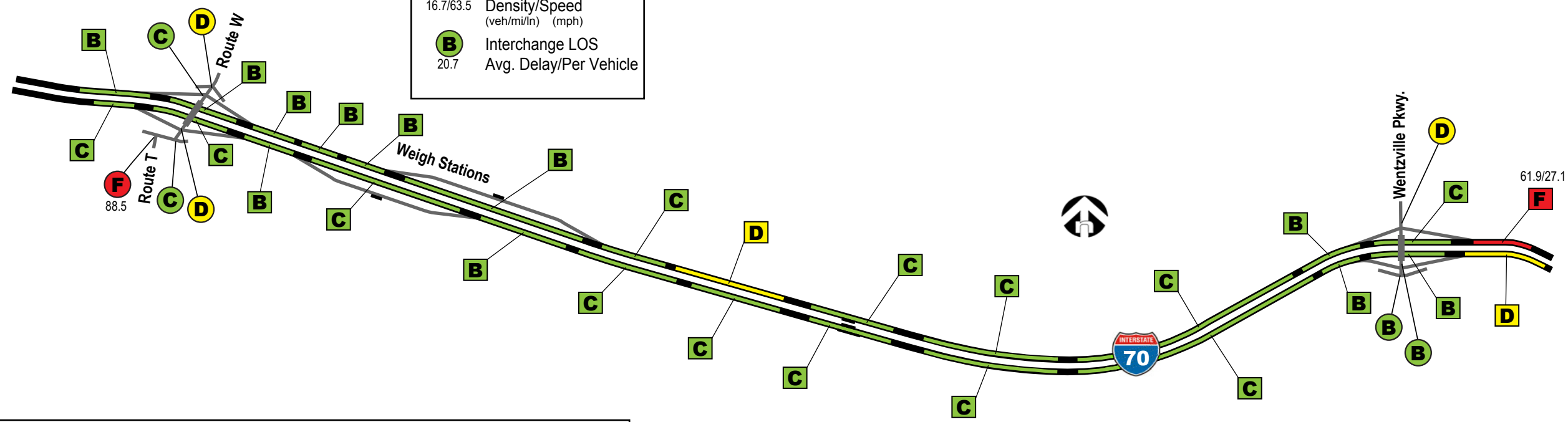
- LOS C or Better
- LOS D
- LOS E
- LOS F
- Mainline LOS
16.7/63.5
Density/Speed
(veh/mi/ln) (mph)
- Interchange LOS
20.7
Avg. Delay/Per Vehicle



2040 No-Build LOS (6-Lane I-70)

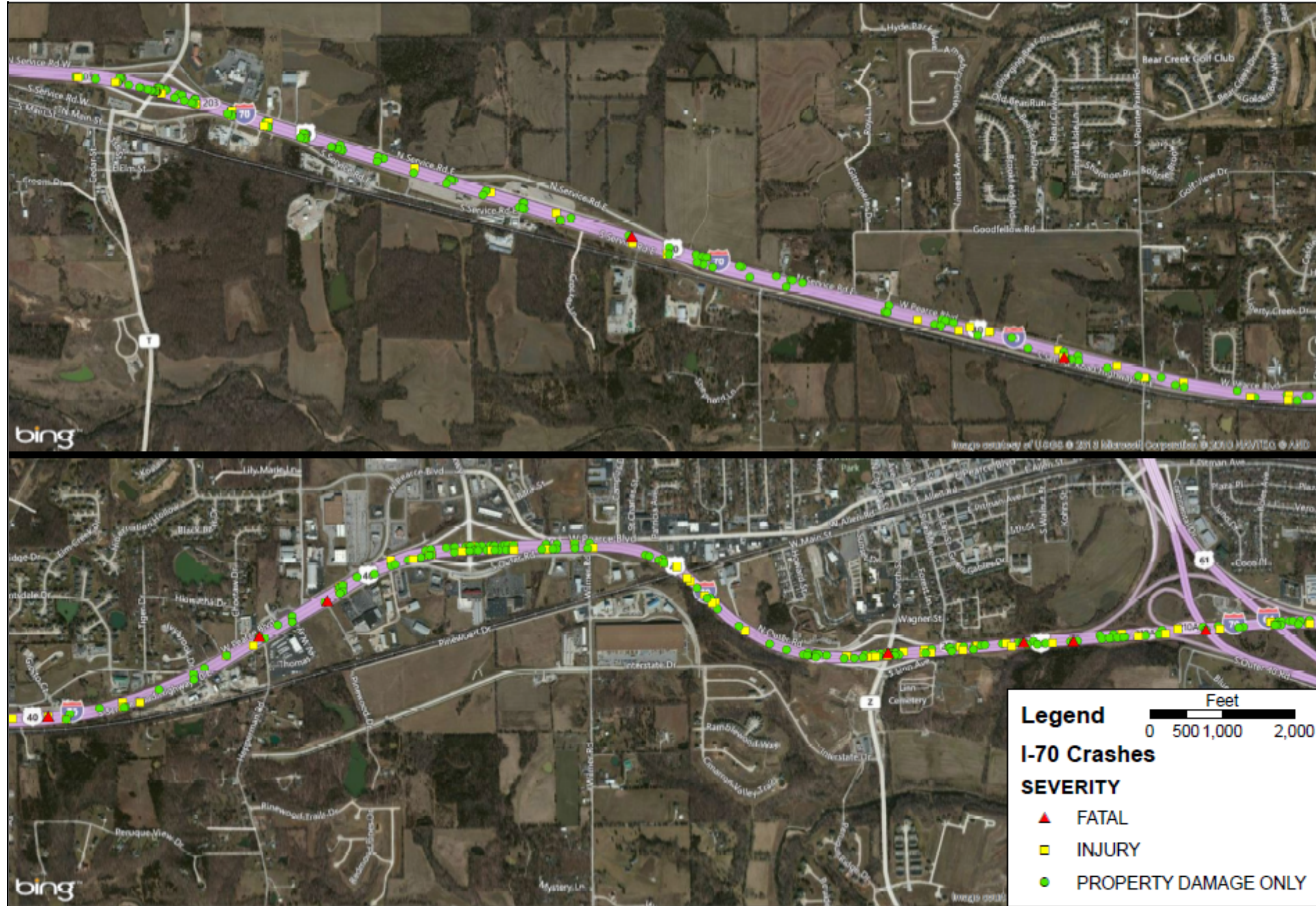


No-Build AM Level of Service



No-Build PM Level of Service

	AM	PM
Total Network Delay	173.3 hours	338.1 hours
Average Delay per Vehicle	45.6 seconds	82.6 seconds



*I-70/61
Beltway*

EXHIBIT 2-5

I-70 Crashes 2007-2011 I-70 Crash History

Wentzville
Missouri, USA
The Crossroads Of The Nation

HNTB

Based on the crash data presented in **Table 2-4** above, crash rates, as shown in **Table 2-6**, were calculated by dividing the number of crashes over a five-year period by the total vehicle miles traveled (VMT) during that same time period. This explains how the section with the highest frequency of crashes, Route W/T to Wentzville Parkway, can also have the lowest crash rate. This is because the length of the section and therefore the VMT for that section, are higher than those for the other sections. The five-year statewide average crash rate on similar urbanized interstate facilities is currently 121.87 (Source: MoDOT 2012). Crash rates are above the five-year statewide average rate for the section of I-70 east of Wentzville Parkway, where congestion is shown to grow between now and 2040.

Table 2-6
Crash Rates for I-70 Mainline
(Years 2007–2011)

Mainline Section	Crash Rate (HMVMT)		Ratio Compared to Statewide Average Rate	
	EB	WB	EB	WB
I-70 Corridor				
I-70 Between Route W/T and Wentzville Parkway	94	112	0.8	0.9
I-70 Between Wentzville Parkway and Route Z	160	175	1.3	1.4
I-70 Between Route Z and U.S. 61	204	114	1.7	0.9
Average I-70	123	123	1.0	1.0

Missouri statewide average equals 121.87 for urbanized interstates. Number of crashes per hundred million vehicle miles traveled (HMVMT). Source: MoDOT, 2012.

Section 2.3.3 provides safety analysis for the 2040 Future No-Build and Build alternatives for the project using Highway Safety Manual (HSM) methodology. The 2040 Future No-Build safety analysis is compared against the Future Six Lanes Build alternative since the No-Build for the project assumes widening the I-70 corridor to six lanes by 2040. This widening significantly alters the corridor's characteristics over existing conditions, affecting the ability to compare future No-Build safety conditions back to existing conditions. In addition, at this time HSM safety factors are not specifically calibrated to Missouri conditions, making a comparison back with existing safety conditions beyond the scope of analysis available from the state for this study. Despite these limitations, the HSM methodology is still an effective way to compare future No-Build and Build alternatives and assess the potential crash risk associated with each alternative.

The following section specifically addresses the FHWA Missouri Division's Prompt-List for Reviewing Interstate Access Requests.

a) Does the access request clearly describe the need and purpose of the proposal and identify project goals and objectives that are specific and measurable?

The need and purpose of the proposed David Hoekel Parkway and I-70 interchange is to provide the Wentzville community with a safe and efficient roadway that is both cost-effective and environmentally sound. The new I-70 interchange and David Hoekel Parkway connection will:

- **Improve access and connectivity** between I-70 and U.S. 61 in western Wentzville and the St. Louis region within St. Charles County.
- **Reduce congestion and improve the travel capacity** in the study area to meet future travel demands. While the mainline volumes may increase, individual ramp volumes decrease under

the Build condition, which improves the operations of the merge and diverge areas. Analysis shows that congestion at the Wentzville Parkway interchange in the No-Build is mitigated by the addition of the proposed I-70/David Hoekel Parkway interchange in the Build condition.

- **Improve traffic safety** by reducing congestion-related crashes within the study area.
- **Support local and regional growth** while addressing anticipated increases in local and regional travel demand and travel times that would accompany population and housing growth; support sustainable development by providing and coordinating transportation connections with planned and proposed development.
- **Promote a multimodal transportation system** by ensuring the project accommodates the needs of other transportation modes.

The project goals identified for the project are consistent with those for the St. Louis region as outlined in the EWGCOG's 2040 Regional Transportation Plan, which is specific and measurable.

b) Is the proposal in the best interest of the traveling public, or does it merely serve a narrow interest?

The new interchange and parkway is in the best interest of the traveling public because it provides new access and connectivity in the northwestern portion of Wentzville and the St. Louis region. It also provides congestion relief at the adjacent interchanges of Route W/T and the Wentzville Parkway, as well as the I-70/U.S. 61/ I-64 interchange, making it easier to travel along I-70 during the peak periods of the day and providing alternative access to Wentzville area attractions and northern destinations within the state along U.S. 61. The new interchange has been a part of the local and regional planning studies since the late 1990s. Numerous public information meetings have occurred since the late 1990s within previous and ongoing planning studies (e.g., corridor preservation study, 2004 and 2206 BIA/AJR, and Environmental Assessment) gathering input from the public. The project has support from the public and from local elected officials and other transportation planning partners (See attached letters of support in the **Appendix A**).

c) Is the proposal serving a regional transportation need, or is it merely compensating for deficiencies in the local network of arterials and collectors?

The new interchange and parkway are serving a regional transportation need in St. Charles County on the western edge of the St. Louis metropolitan area for improved mobility and safety. The proposed interchange will provide access to a new four-lane controlled access parkway that will connect I-70 with U.S. 61 (David Hoekel Parkway). In addition, the future No-Build analysis above demonstrates that the existing I-70/Wentzville Parkway interchange cannot effectively serve future traffic levels even with additional capacity/intersection improvements. An additional interchange is needed to relieve area congestion and provide improved safety, access and mobility.

d) In lieu of granting new access, is there any reasonable alternative consisting of improvements to the existing roadway(s) or adjacent access points that could serve the need and purpose?

The Environmental Assessment found that there were no reasonable alternatives such as improvements to the existing roadway network, adjacent access points or transportation system management alternatives that could serve the purpose and need of the project. Several local improvements were included in the future No-Build analysis to attempt to mitigate congestion at the Route W/T and Wentzville Parkway interchanges, but none fully resolved the operational issues experienced at the Wentzville Parkway interchange by 2040.

e) Has the evaluation of existing interchanges and the local road network taken into account all proposed improvements currently identified in the State and/or Regional Long Range Plan?

Traffic analysis of the existing interchanges along I-70 within the study limits from the Route W/T interchange to the Wentzville Parkway interchange has taken into account all the committed and funded improvements currently identified in the MoDOT STIP and the East/West Gateway TIP and 2040 RTP. Committed (funded) and other planned (unfunded) improvements that influence the proposed project within the study limits are listed within Section 2.1.1 above.

f) Will the proposed change in access result in needed upgrades or improvements to the crossroad for a significant distance away from the interchange?

The David Hoekel Parkway will be constructed as a four-lane controlled access parkway from Interstate Drive south of I-70 to Meyer Road north of I-70 before the requested I-70/David Hoekel Parkway interchange is built in order to realize significant benefits from the new interchange by providing needed connections to the local roadway network. This portion of the David Hoekel Parkway between Interstate Drive and Meyer Road provide access and connectivity to the eastern and western adjacent I-70 interchanges in order to provide needed congestion relief and alternative routes. The full David Hoekel Parkway from Jackson Road south of I-70 to U.S. 61/Route P will not be built all at once, but rather will be developed in phases. A phasing and funding plan for the David Hoekel Parkway crossroad with the I-70/David Hoekel Parkway interchange is provided in Section 2.5 below, subsection g. This plan lays out the process being conducted by the City of Wentzville and St. Charles County for constructing the full David Hoekel Parkway corridor.

When the new interchange is built, in addition to a portion of the David Hoekel Parkway being built, the existing frontage roads, adjacent to I-70 will be realigned so there is adequate spacing between the interchange and the first full access intersection to meet MoDOT's Access Management guidelines. In addition, the Interstate Drive corridor south of I-70 (See **Exhibit 1-1**) will be in place prior to the construction of the interchange in order to provide good access and connectivity between the I-70/David Hoekel Parkway and the adjacent interchanges along I-70.

Conclusion

The stated problems identified within the study area cannot be adequately satisfied by the existing I-70 access and/or local street system. In addition, there are no reasonable alternatives such as improvements to the existing roadway network, adjacent access points or transportation system management alternatives that could serve the purpose and need of the project for future 2040 No-Build conditions. Improvements have been made over the years within the study area to relieve congestion, but the necessary additional capacity cannot reasonably be added to the I-70/Wentzville Parkway interchange to relieve the anticipated future congestion levels.

2.2 Transportation System Management and Alternatives Analysis

FHWA Policy Point Two: *Current need is not met by alternative transportation solutions. Alternative solutions are presented.*

The need being addressed by the request cannot be adequately satisfied by reasonable transportation system management (such as ramp metering, mass transit, and HOV facilities),

geometric design, and alternative improvements to the Interstate without the proposed change(s) in access (23 CFR 625.2(a)).

The proposed need to provide the community with a safe and efficient roadway and I-70 interchange connection that is both cost-effective and environmentally sound was evaluated with the ongoing David Hoekel Parkway Environmental Assessment and the evaluation determined that the needs of the study area cannot be adequately satisfied by reasonable transportation system management (TSM) (such as ramp metering, mass transit, and HOV facilities), local area geometric design improvements, and alternative improvements to the Interstate (e.g., at Route W/T and the Wentzville Parkway interchanges) without a new interchange along I-70 and the David Hoekel Parkway. Alternative transportation solutions such as transportation system management, geometric design and alternative improvements were first evaluated in the 2001 I-70/U.S. 61 Beltway Corridor Preservation Study, and later in the I-70 Break-in-Access Study (2004) and Environmental Assessment (2007-2013).

TSM improvements are low cost system enhancements that improve the transportation system efficiency. TSM includes the use of a wide range of strategies aimed at making more efficient use of existing transportation facilities. Listed below are possible TSM improvements that were considered:

- ITS field devices along I-70 consistent with the plan for deploying ITS under the Gateway Guide program in the region. Such devices include: traffic sensors, closed-circuit television surveillance cameras, dynamic message signs, highway advisory radio and a communication backbone to support these devices. Other regional ITS tools would also assist in managing traffic along the I-70 corridor. These include ramp meters, motorist assist patrols, communication links with public safety agencies, the Gateway Guide Web site, and the traffic hotline and media tie-ins. Most of these ITS elements have already been deployed by MoDOT for the I-70 corridor in St. Charles County which includes the City of Wentzville.
- Travel demand management measures that can be implemented along I-70 that would help reduce congestion. It would involve encouraging commuters and local employers to vary travel modes other than single occupant vehicles, vary the time and location of trips, support ride sharing, carpooling and increased transit use.

The David Hoekel Parkway Environmental Assessment analyzed and determined that TSM/TDM improvements alone do not address the rapid growth and unique travel patterns characteristic of Wentzville residents. TSM and ITS projects would make operations of a facility more efficient by squeezing additional capacity out of transportation facilities. However, these improvements would only address the short term problems along I-70 and would not address the growing need for improvements to the local transportation network.

The following section specifically addresses the FHWA Missouri Division's Prompt-List for Reviewing Interstate Access Requests.

a) Was FHWA actively involved in preliminary studies and decisions? If not, then more detailed information may be required in support of proposed action.

FHWA – Missouri Division has been an active participant of the study team dating back to the 2004 Interstate 70/U.S. 61 Wentzville Beltway Break-in-Access Request and 2006 Supplement to the AJR. Coordination with FHWA on this project has been ongoing through the 2007-2013 David Hoekel Parkway Environmental Assessment. FHWA representatives have served on the Resource Management Group for

the Environmental Assessment and participated in public information meetings. FHWA staff has also attended all coordination meetings related to this AJR.

b) Did the study area cover sufficient area to allow for an evaluation of all reasonable alternatives?

This study focused on I-70 between the Route W/T interchange and Wentzville Parkway interchange, for a distance of 4.6 miles, including the operations of the interchanges and cross-streets to the next signalized or major intersection to the north (Goodfellow Road, relocated northern outer road) and south (Interstate Drive) from the interchange. The AJR study area is shown on **Exhibit 1-1**. This study boundary was sufficient to allow for an evaluation of all reasonable alternatives. Local improvements at the Wentzville Parkway interchange considered in the No-Build Alternative, such as a two-lane off-ramp, triple right turns, dual left turns, and improved signal timing, were unable to alleviate the congestion and meet the purpose and need.

c) Was a No-Build Alternative evaluated?

A 2040 No-Build Alternative was evaluated. The No-Build Alternative is represented by not taking action to construct the proposed I-70/David Hoekel Parkway interchange. Under the No-Build Alternative, the community would continue to rely on the existing roadway system that is currently serving the community in and around the project corridor. Routine operation and maintenance activities to the existing local road system would continue as scheduled. The No-Build Alternative also includes committed (funded) regional projects, including widening I-70 to six lanes between Route W/T and the Wentzville Parkway interchanges (EWGCOG's 2040 RTP, fiscally constrained project list). However, the 2040 Future No-Build results in congestion at the I-70/Wentzville Parkway interchange that cannot be sufficiently mitigated by recommended, local improvements.

d) Considering the context of the proposal, is this the best location for the proposed new interchange?

The proposed I-70/David Hoekel Parkway interchange is located exactly mid-way between the existing Route W/T interchange and Wentzville Parkway interchange in order to maximize the safety and efficiency between each interchange. This location would provide an interchange spacing distance of 2.3 miles between each interchange sufficient to meet MoDOT's preferred access management standards per the EPG for 2-mile interchange spacing in urban areas. There is an existing weigh station located east of the Route W/T interchange, which has been recommended to be moved 25 miles to the west in the future, and is generally not operational during the peak periods of the day. Even if it remains in place and operational during the peak hours, the analysis shows that with the engineering concepts developed as the Preferred Alternative for the project, operations (See Section 2.3 below) are maintained at an acceptable level with the proposed interchange.

The location also best serves the existing and planned commercial development in the study area that is shown surrounding the proposed interchange on the City of Wentzville's future land use plan and residential development north along the David Hoekel Parkway corridor. Due to the nature of the City of Wentzville's growth and expansion trends over the past decade, the growth patterns are indicating that a new interchange to the west of the existing Wentzville Parkway interchange would be the best location to provide existing interchange congestion relief, as well as new access and improved mobility in the northwestern portion of Wentzville.

e) Were different interchange configurations (Tight diamond, SPDI, Parclo) considered?

Different interchange configurations were tested in the original 2004 and 2006 Break-in-Access study and Supplement, respectively, and in the David Hoekel Parkway Environmental Assessment. A range of interchange types were initially considered which included a tight diamond, standard diamond, single-point diamond interchange (SPDI) and combinations of modified and folded diamond interchanges. A Parclo and other concepts involving roundabouts (e.g., Dog bone interchange) were not evaluated due to right of way constraints with maintaining the existing south outer road and the Norfolk Southern Railroad.

Within these past studies, the study team screened the interchange alternatives and analyzed a tight diamond, modified diamond and SPDI in detail. Based on the analysis, a SPDI was recommended. This alternative has been vetted with the public through the Environmental Assessment public involvement process, environmentally cleared within the Environmental Assessment process, and has been used to coordinate with developers interested in property development adjacent to the proposed interchange. The following sections describe the key reasons why the SPDI was selected as the Preferred Alternative for the proposed I-70/David Hoekel Parkway interchange.

Generally, a SPDI is used in areas of high traffic congestion due to its ability to increase traffic flow and ease congestion in areas of limited right-of-way. Due to the City's anticipated land use plan and future development plans at the interchange, the study team felt that utilizing a "tighter" interchange configuration will benefit the City for future development of the surrounding area. A major benefit of a SPDI is the reduction in land area required over that of other interchange configurations. Retaining walls will be required along both sides of the southern ramps and along the south side of the northern ramps. The southern retaining walls are needed to keep the south outer road in service. In addition to the retaining walls, concrete barrier would be required near the eastern and western north outer road connections to maintain adequate separation between the northern ramps and outer road traffic.

The study team conceptually investigated the use of a tight diamond interchange (TDI) configuration as an alternative to the SPDI. The major difference between the TDI and the SPDI is that the ramp termini operate as two separate intersections whereas the SPDI operates as one central intersection. The TDI configuration would reduce the anticipated I-70 structure width, thereby reducing anticipated construction costs by approximately 25%. However, under the assumption of keeping the south outer road in service, the study team discarded the TDI configuration due to geometric constraints. North of I-70, a TDI would slightly increase right-of-way needs as well.

A standard diamond interchange configuration was initially evaluated as one of the interchange configurations. However, upon further investigation of geometric needs, the study team determined that the standard diamond not be pursued and that a modification of that configuration be examined. A standard diamond would require four additional bridges with severe skews to allow the ramps to span the south outer road and railroad. The cost of these structures and the additional right of way requirements would be significantly greater than other interchange configurations. As a result, a modified diamond interchange configuration was examined.

The modified diamond interchange required more land to construct than the SPDI, which impacts the City's long term plans for zoning in the area surrounding the potential interchange location. The idea behind the modified diamond interchange configuration is based on a standard diamond interchange, but without symmetrically balancing the alignments off the mainline intersection. As identified in the

SPDI discussion, the area south of I-70 to the Norfolk Southern Railroad creates many geometric constraints. By offsetting the northern ramp termini from the southern ramp termini by 700 feet, the study team was able to develop a suitable interchange configuration for the given constraints. As with the SPDI, a major cost associated with this configuration is in the retaining walls needed to keep the south outer road in service. Barrier separation is needed between the north outer road and northern ramps at the east and west ends of the project limits.

After evaluation of the above interchange types, the study team selected the SPDI for the following key reasons:

- Best maintains the I-70 south outer road and crossing of the Norfolk Southern Railway.
- Provides for greater potential of land development north of the interchange.
- Fewer impacted parcel owners than the modified diamond configuration.
- Increases efficiency of anticipated traffic flow.
- No anticipated impacts to Crossroads Baptist Church.

f) Were pedestrians and bicyclists considered in the alternative evaluation?

An evaluation of pedestrians and bicyclists needs was included in the ongoing 2007-2013 David Hoekel Parkway Environmental Assessment. The design criteria included in the Environmental Assessment shows a sidewalk on each side of the parkway and crossing each of the bridges along the corridor as part of the overall design and typical section. **Figure 1-2** in Section 1.2 above shows the typical section that was environmental cleared within the Environmental Assessment and will be carried through the proposed interchange. Since the David Hoekel Parkway connects residential subdivisions with commercial development at the interchanges with I-70 and U.S. 61, and is planned to have a posted speed limit of 45 mph, bicyclists would be allowed to share the roadway.

g) Was there an evaluation of different intersection configurations (stop control, signal, roundabout, free right turns, etc?)

A VISSIM simulation model was used to analyze the optimal intersection configuration of the proposed single-point diamond interchange. Based on the design year traffic demand, the preliminary preferred intersection configuration and storage needs in feet are shown in **Figure 2-3**. Storage needs were developed by looking at 95% queue lengths from the operations analysis and adding a deceleration distance per the MoDOT Engineering Policy Guide (EPG).

h) Have Transportation Systems Management (i.e. HOV, ITS, Ramp Metering, Transit etc.) options been evaluated as an alternative to a new or modification to an existing interchange?

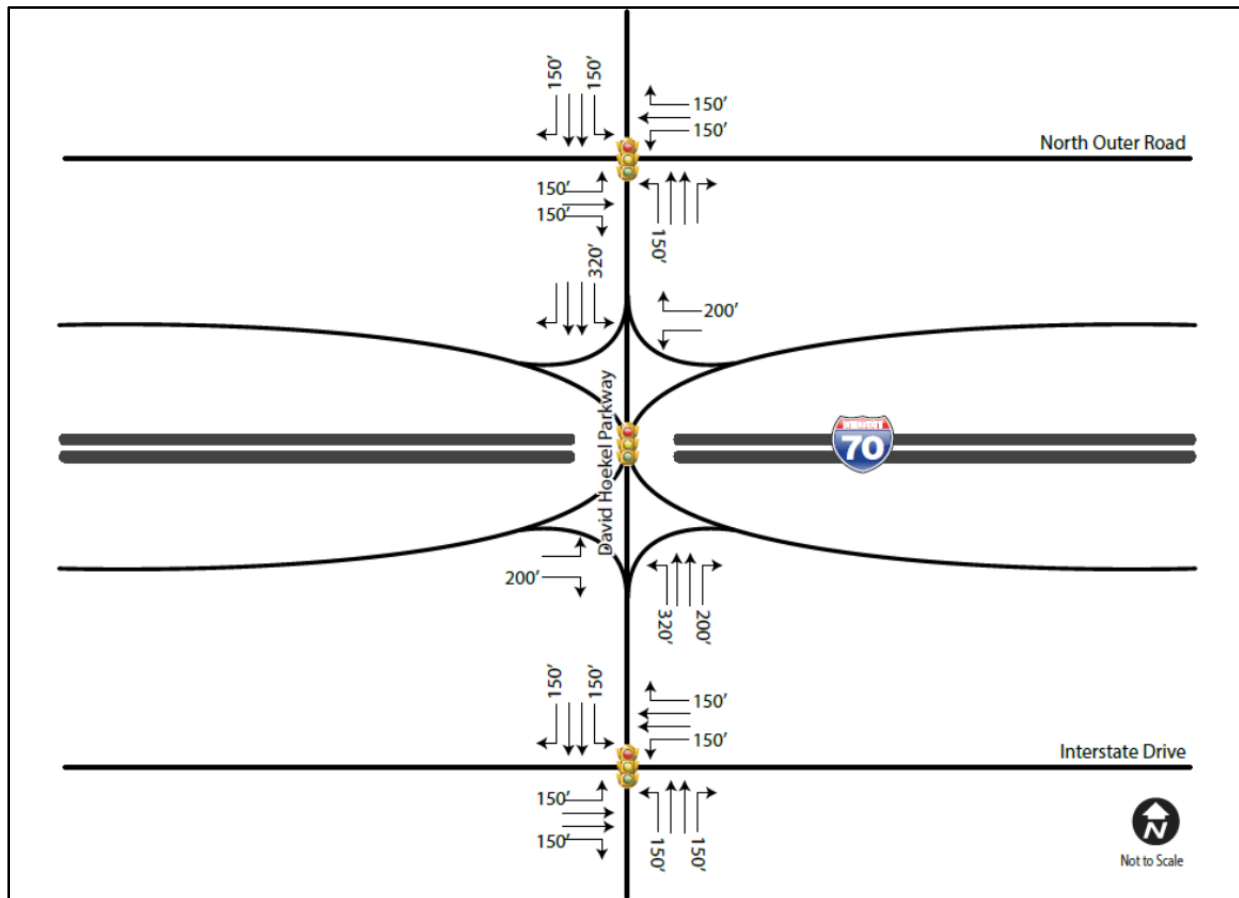
Both the 2004 *Interstate 70/U.S. 61 Wentzville Beltway Break-in-Access Request* and the *David Hoekel Parkway Environmental Assessment* evaluated whether transportation system management options as an alternative to a new interchange would be a viable solution. Both concluded that transportation system management options did not meet the purpose and need of the project. More detail on these findings is described in Section 2.2 above.

i) Did the report discuss how TSM alternatives were evaluated and eliminated from consideration?

The ongoing 2007-2013 David Hoekel Parkway Environmental Assessment did evaluate whether transportation system management options as an alternative to a new interchange would be a viable

solution. The Environmental Assessment concluded that the TSM/TDM improvements alone do not address the rapid growth and unique travel patterns characteristic of Wentzville residents. TSM and ITS projects would make operations of a facility more efficient by squeezing additional capacity out of transportation facilities. However, these improvements would only address the short-term problems along I-70 and not address the growing need for improvements due to anticipated population and employment growth throughout the City of Wentzville.

Figure 2-3
Preliminary Interchange Configuration



j) Does the proposal consider any future planned TSM strategies and is the design consistent with the ability to implement the future TSM strategies?

The proposed I-70 and David Hoekel Parkway does not preclude the City, County or MoDOT from implementing TSM strategies in the future. Low-cost system enhancements can be added to the interchange to improve its efficiency. The proposed interchange would be designed to be integrated into MoDOT's future plans for I-70, whether they are for traditional widening, dedicated truck lanes or a different improvement alternative.

Conclusion

The stated problems identified within the study area cannot be adequately satisfied by reasonable transportation system management improvements (such as ramp metering, mass transit, and HOV

facilities), geometric design, and alternative improvements to adjacent interchanges. The analysis performed in this AJR found that the proposed single point interchange at the I-70/David Hoekel Parkway interchange will address the purpose and need of this study, specifically by improving access and connectivity within the region and northwestern portion of the City of Wentzville, and reducing congestion at the adjacent interchanges.

2.3 Operational Analysis

FHWA Policy Point Three: *Operational and safety analysis of the proposed alternatives*

An operational and safety analysis has concluded that the proposed change in access does not have a significant adverse impact on the safety and operation of the Interstate facility (which includes mainline lanes, existing, new, or modified ramps, ramp intersections with crossroad) or on the local street network based on both the current and the planned future traffic projections. The analysis shall, particularly in urbanized areas, include at least the first adjacent existing or proposed interchange on either side of the proposed change in access (23 CFR 625.2(a), 655.603(d) and 771.111(f)). The crossroads and the local street network, to at least the first major intersection on either side of the proposed change in access, shall be included in this analysis to the extent necessary to fully evaluate the safety and operational impacts that the proposed change in access and other transportation improvements may have on the local street network (23 CFR 625.2(a) and 655.603(d)). Requests for a proposed change in access must include a description and assessment of the impacts and ability of the proposed changes to safely and efficiently collect, distribute and accommodate traffic on the Interstate facility, ramps, intersection of ramps with crossroad, and local street network (23 CFR 625.2(a) and 655.603(d)). Each request must also include a conceptual plan of the type and location of the signs proposed to support each design alternative (23 U.S.C. 109(d) and 23 CFR 655.603(d)).

The Preferred Alternative for the AJR includes construction of a new I-70 interchange with the David Hoekel Parkway. This is consistent with the Preferred Alternative from the David Hoekel Parkway Environmental Assessment, which includes the construction of a four-lane, access controlled parkway (David Hoekel Parkway) and new access with I-70.

Because the nature of the specific improvements to I-70 in the study area are still being planned by MoDOT, two Build alternatives were developed for the AJR, as shown in **Table 2-7**. The EWGCOG's 2040 RTP includes an I-70 widening project to add lanes between Route W/T and the Wentzville Parkway, but does not specify a typical section for the widening improvements. For purposes of this AJR, it is assumed that the I-70 corridor will be widened to six lanes between Route W/T and the Wentzville Parkway as the Preferred Build Alternative, consistent with the EWGCOG's 2040 Regional Transportation Plan, and the most recent discussions with MoDOT.

Table 2-7
I-70 Access Justification Request Build Alternatives

No.	Alternatives	2040 Build
1	I-70 Future Six-Lane (Includes Weigh Station)	AM & PM
2	I-70 Future Dedicated Truck Lanes (No Weigh Station)	AM & PM

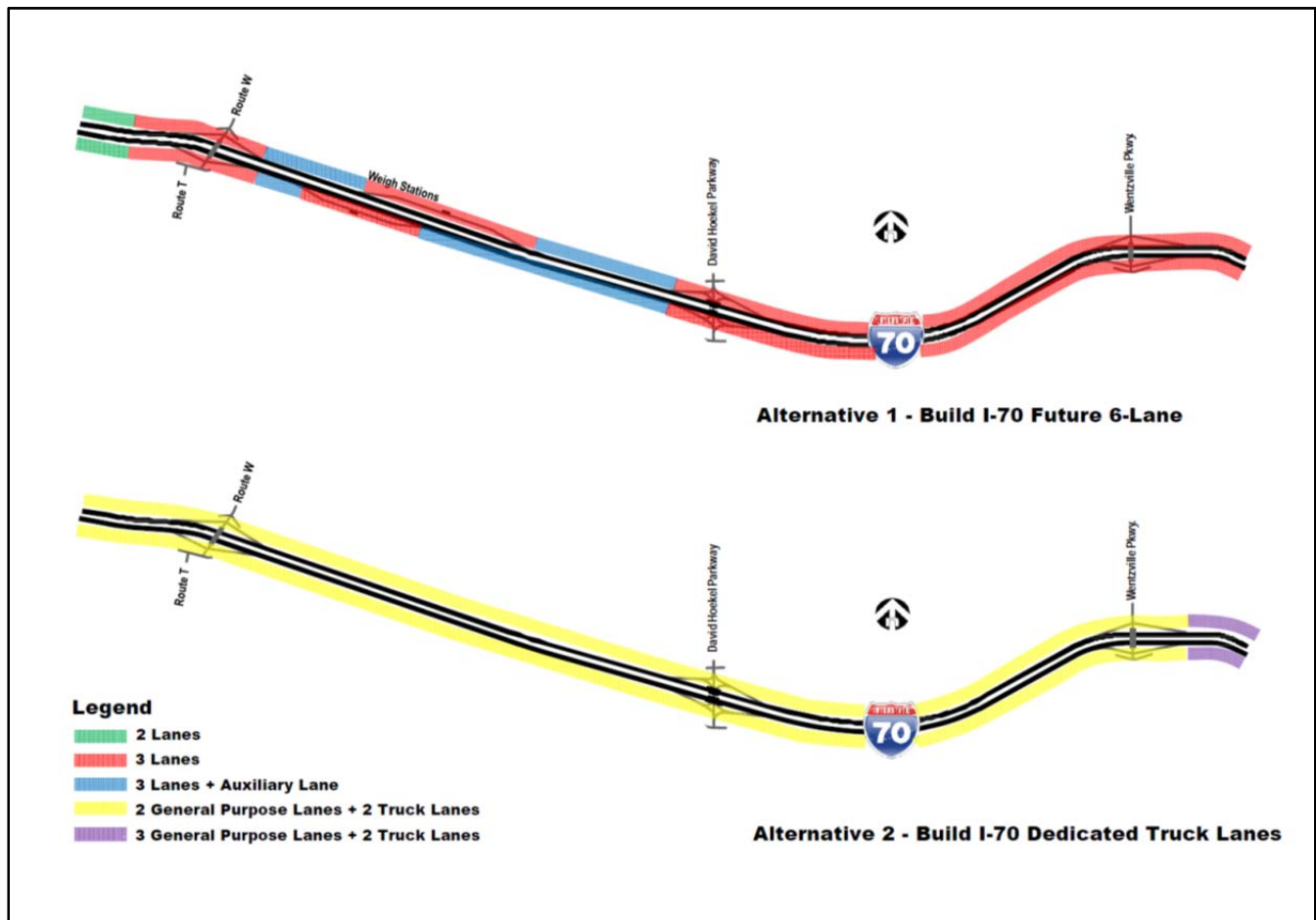
I-70 and David Hoekel Parkway Interchange

Access Justification Request

Each Build alternative was analyzed during the AM and PM peak hours in the 2040 design year. The I-70/David Hoekel Parkway interchange is analyzed as a single point diamond interchange in each alternative because this is the interchange type that was selected and environmentally cleared within the 2007-2013 David Hoekel Parkway Environmental Assessment.

Figure 2-4 shows the lane configurations for both build alternatives.

Figure 2-4
Build Alternative Lane Configurations



Alternative 1 - The I-70 Future Six-Lane alternative assumes six through lanes on I-70 east of the Route W/T interchange and four through lanes west of Route W/T, per the EWGCOG's Regional Transportation Plan. The 2006 supplement to the AJR recommended auxiliary lanes between the weigh station and the new ramps accessing the David Hoekel Parkway; therefore, these have been included in the I-70 Future Six-Lane alternative. This results in a total of eight lanes (six plus auxiliary lane) between David Hoekel Parkway and the weigh station as well as eight lanes between the weigh station and Route W/T because of the existing auxiliary lanes in that location.

Alternative 2 - The I-70 Future Dedicated Truck Lanes alternative assumes two lanes in each direction for trucks only with no local access within the study area, and two lanes in each direction for all vehicles with access at the local interchanges. Consistent with MoDOT's I-70 Statewide Supplemental EIS, three

lanes in each direction for general-purpose traffic are proposed east of the study area terminating in an add/drop lane at the Wentzville Parkway interchange. This alternative also assumes the removal and relocation of the weigh station approximately 25 miles west of the study area.

The following section analyzes these two Build alternatives by reviewing the future Build traffic demand, operations and safety.

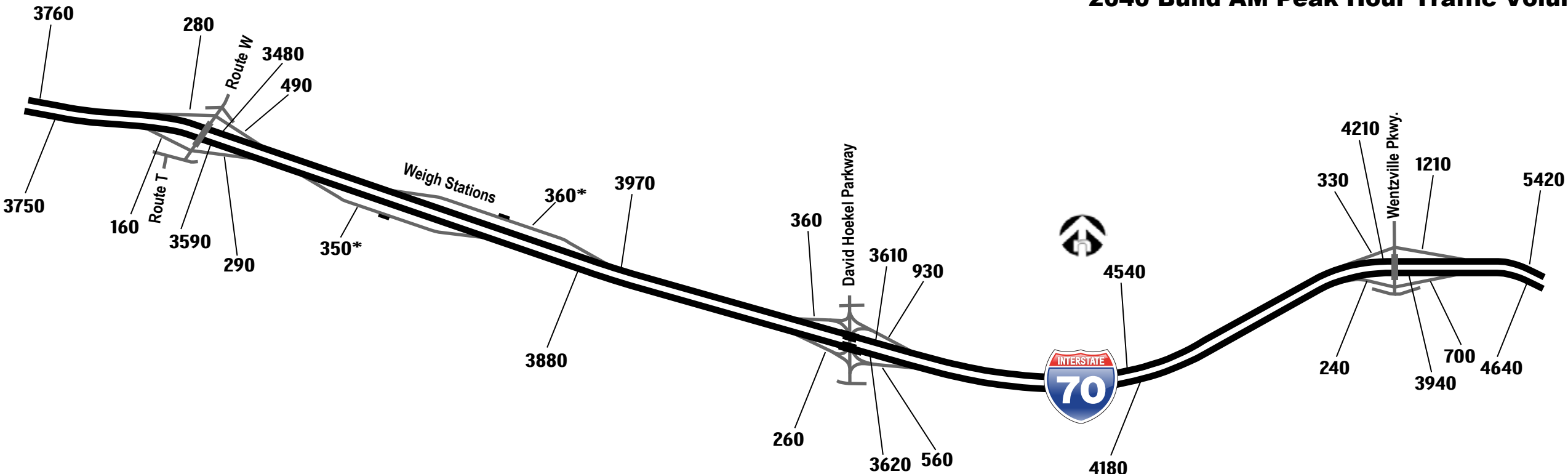
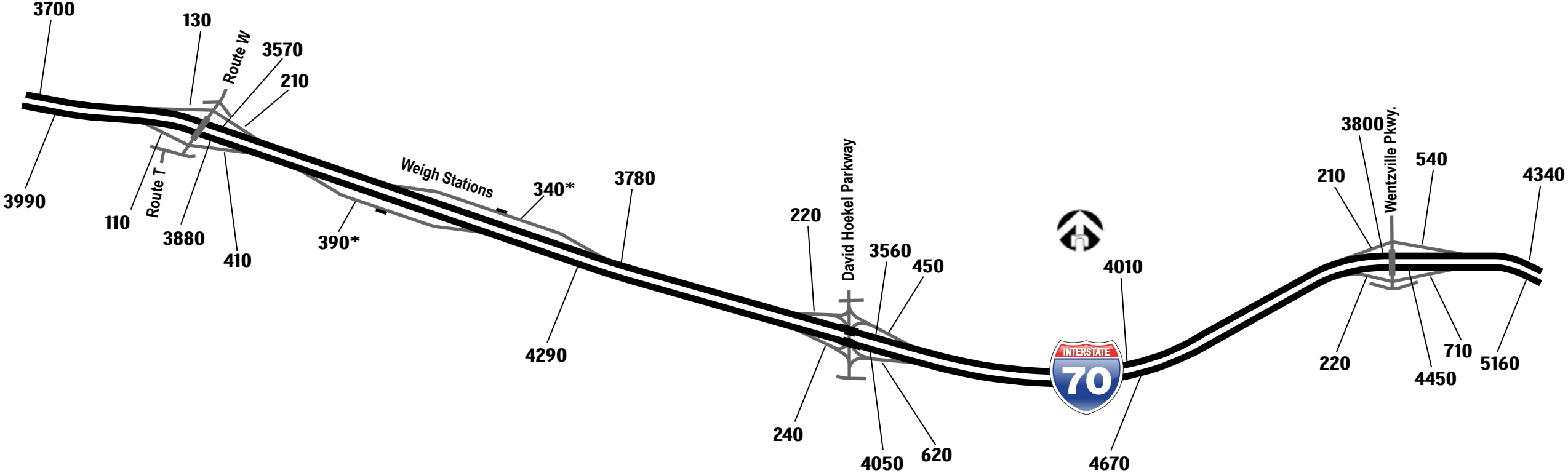
2.3.1 Future Build Traffic Demand

Future 2040 Build traffic forecasts were developed similarly to the No-Build as shown in Section 2.1.2, but some traffic from the interchanges at the Wentzville Parkway and Route W/T were shifted to the new I-70/David Hoekel Parkway interchange. The amount of traffic to shift was determined by consulting the EWGCOG's travel demand model and the expected land uses as shown in the City's and County's future land use plan. For the I-70 Future Dedicated Truck Lanes alternative, the percentage of trucks utilizing the truck lanes was calculated based upon the number of through trucks in the study area (approximately 90% in the AM and 60% in the PM).

For truck demand along the I-70 corridor, the study team assumed 15% trucks during the peak periods of the day for the Build analysis. Although the weigh station east of Route W/T is rarely operational during peak hours, the analysis assumed that the weigh station was always open to simulate the worst case for truck weaving for the Future Six Lane Build alternative. The Future Dedicated Truck Lanes alternative assumed the weigh station would be relocated 25 miles to the west or incorporated into the dedicated truck lanes using future technology advances. The study team assumed Pre-pass usage was assumed to be 40% for the Future Six Lane Build alternative.

Exhibits 2-6 through **2-7** show the Future Build AM and PM peak hour traffic assumed for the operational analysis.

*15% Trucks, 40% of which use Pre-Pass



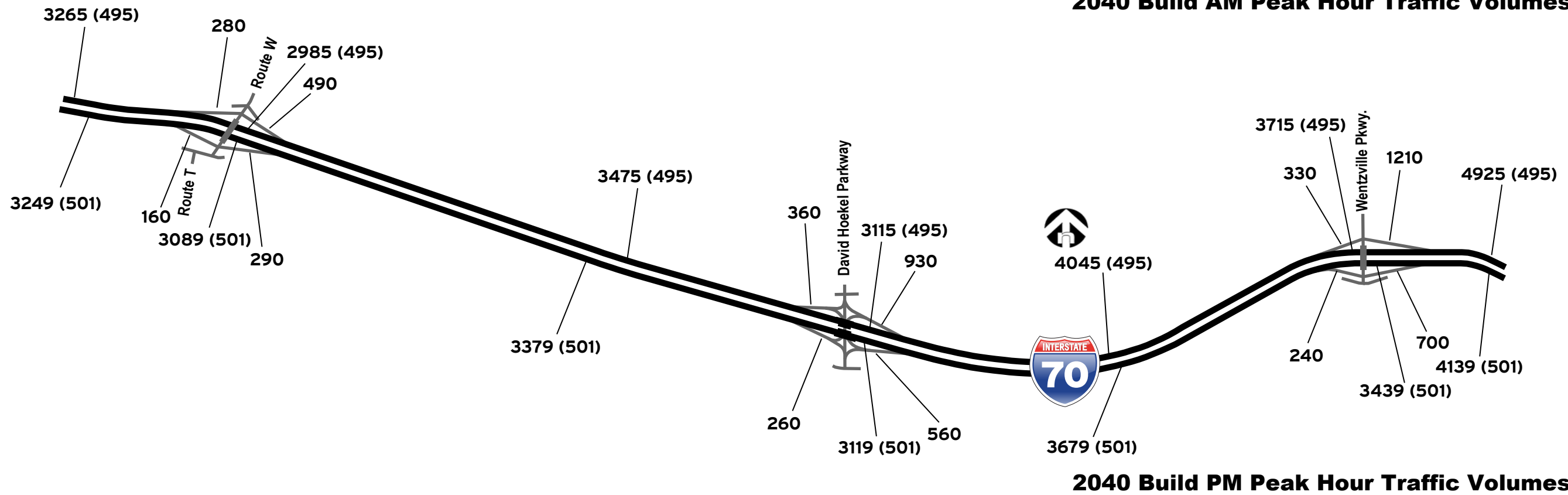
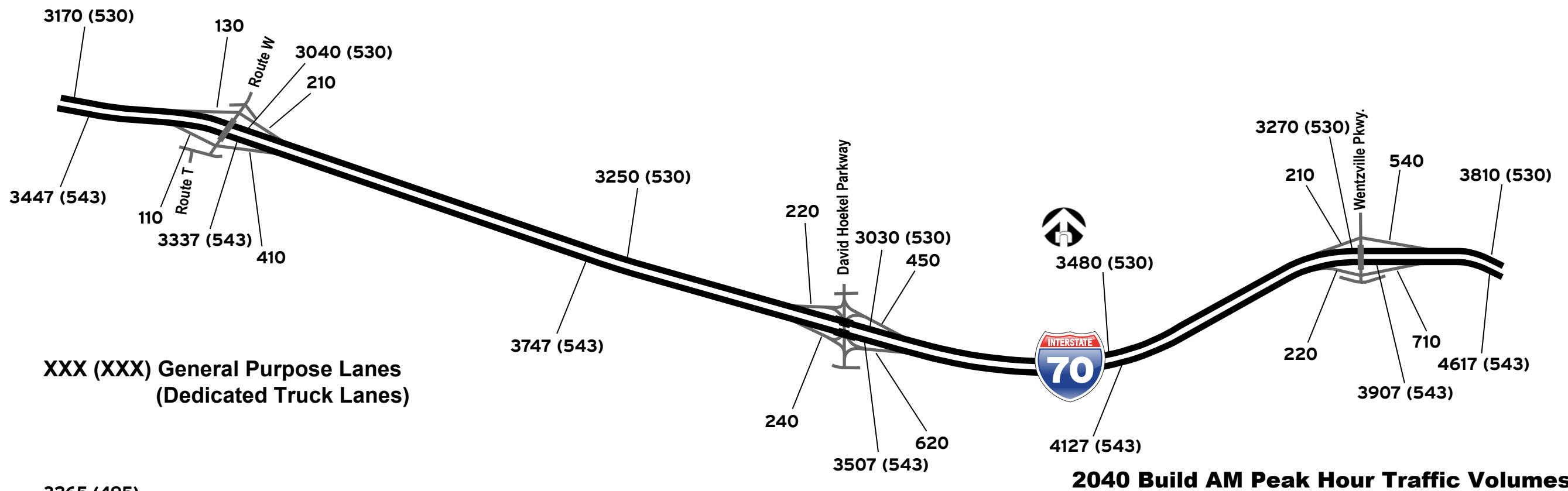
*I-70/61
Beltway*

EXHIBIT 2-6

2040 Build Peak Hour Traffic Volumes (6-Lane I-70)



2040 Build Peak Hour Traffic Volumes
(Dedicated Truck Lanes)



2.3.2 Future Build Traffic Operations

The traffic operational analysis for the 2040 Build Alternatives used VISSIM version 5.40 by PTV to analyze the basic freeway segments, weaving, ramp segments, ramp junctions and crossroad intersections within the study area, including the proposed I-70/David Hoekel Parkway interchange and the two adjacent interchanges at Route W/T and the Wentzville Parkway. The operational analysis used Highway Capacity Manual 2010 methodology to analyze the traffic operations. Synchro was used to optimize the traffic signals.

Table 2-8 shows the I-70 mainline and associated freeway sections levels of service in the future Build alternatives in the 2040 design year compared to the No-Build. Future Build traffic operations for mainline and interchange conditions are also shown on **Exhibits 2-8** through **2-9**.



Table 2-8
I-70 Mainline Level of Service
(2040 Build Alternatives compared to No-Build)

I-70 Location	No-Build	1	2
	No-Build 6-Lane I-70	Build 6-Lane	Build Dedicated Truck Lanes
	AM/PM	AM/PM	AM/PM
Eastbound			
EB W/T off-ramp	C / C	C / B	C / C
EB W/T off-ramp to W/T on-ramp	C / C	C / C	D / C
EB W/T on-ramp to weigh station off-ramp	B / B	B / B	C / B
EB Weigh station off-ramp to weigh station on-ramp	C / C	C / C	D / D
EB Weigh station on-ramp	B / B	B / B	D / D
EB Weigh station on-ramp to David Hoekel Pkwy off-ramp	C / C	B / B	D / C
EB David Hoekel Pkwy off-ramp	C / C	B / B	C / C
EB David Hoekel Pkwy off-ramp to David Hoekel Pkwy on-ramp	C / C	C / B	C / C
EB David Hoekel Pkwy on-ramp	C / C	C / C	D / C
EB David Hoekel Pkwy on-ramp to Wentzville Pkwy off-ramp	C / C	C / C	D / D
EB Wentzville Pkwy off-ramp	C / B	C / B	C / C
EB Wentzville Pkwy off-ramp to Wentzville Pkwy on-ramp	C / B	C / C	D / C
EB Wentzville Pkwy on-ramp	E / D	D / C	C / B
Westbound			
WB Wentzville Pkwy off-ramp	C / F	C / D	B / C
WB Wentzville Pkwy off-ramp to	B / C	C / C	C / D

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Wentzville Pkwy on-ramp			
WB Wentzville Pkwy on-ramp	B / B	B / C	C / D
WB Wentzville Pkwy on-ramp to David Hoekel Pkwy off-ramp	C / C	C / C	D / D
WB David Hoekel Pkwy off-ramp	C / C	B / C	C / C
WB David Hoekel Pkwy off-ramp to David Hoekel Pkwy on-ramp	C / C	C / C	C / C
WB David Hoekel Pkwy on-ramp	C / C	B / B	C / C
WB David Hoekel Pkwy on-ramp to Weigh station off-ramp	C / D	B / B	C / D
WB Weigh station off-ramp	B / C	B / B	C / D
WB Weigh station off-ramp to weigh station on-ramp	B / B	B / B	C / C
WB Weigh station on-ramp to W/T off-ramp	B / B	B / B	C / D
WB W/T off-ramp to W/T on-ramp	C / B	B / B	C / C
WB W/T on-ramp	B / B	B / B	C / C

Source: HNTB VISSIM Model version 5.4

-  Indicates failing during the peak time of the day.
 Indicates at capacity during the peak time of the day.

As shown in the No-Build analysis, the eastbound on-ramp at Wentzville Parkway operates at capacity during the peak period and the westbound off-ramp fails for approximately three hours during the PM peak period, resulting in queues more than one mile in length. As shown in **Table 2-8**, both Build alternatives alleviate the AM and PM peak congestion at the Wentzville Parkway interchange that was caused by high ramp volumes. Enough traffic shifts from the Wentzville Parkway interchange to the new David Hoekel Parkway interchange to provide acceptable levels of service.

The 2006 supplement to the 2004 AJR recommended auxiliary lanes on I-70 between the existing weigh station and the proposed David Hoekel Parkway interchange. The analysis shows that with the auxiliary lanes, and more than a half-mile gore-to-gore distance in the westbound direction and closer to a mile in the eastbound direction, acceptable levels of service are maintained through the weigh station.

The I-70 corridor through the study area operates at acceptable LOS in both Build alternatives in both directions of travel. In the No-Build, high on- and off-ramp volumes at Wentzville Parkway cause congestion, but in the Build alternatives, those ramp volumes are reduced and redistributed to the proposed I-70/David Hoekel Parkway interchange, which alleviates the congestion.

Table 2-9 shows the I-70 interchange ramp terminal levels of service in the Future Build alternatives in the 2040 design year compared to No-Build. The Wentzville Parkway interchange and Route W/T interchange will continue to be heavily used in the future due to anticipated growth in the area. The study team expects conditions at the interchanges to worsen by year 2040, as shown in the No-Build analysis. The Build alternatives improve operations at these interchanges by shifting traffic to the proposed David Hoekel Parkway interchange and away from the nearby interchanges. The only exception is the south ramp terminal at the Wentzville Parkway interchange where the LOS drops to a D, which is still acceptable during the peak periods of the day. The degradation is due to the southbound

I-70 and David Hoekel Parkway Interchange
Access Justification Request

left turn movement, which has its traffic metered in the No-Build alternative by the north ramp terminal. In the No-Build, the north ramp terminal gives extra green time to the off-ramp to try to keep it clear, meaning that the southbound through movement receives less green time than it does in the Build alternative, thus holding back the traffic that is otherwise delayed at the south ramp terminal in the Build alternatives.

The adjacent cross-street intersections along David Hoekel Parkway at Goodfellow to the north of the proposed interchange and Interstate Drive to the south were also analyzed and found to operate at acceptable LOS B in both Build alternatives.

Table 2-9
I-70 Interchange Level of Service
(2040 Build Alternatives compared to No-Build)

I-70 Location	No-Build	1	2
	No-Build 6-Lane I-70	Build 6-Lane	Build Dedicated Truck Lanes
	AM/PM	AM/PM	AM/PM
Route W/T Interchange			
North Ramp Terminal (Westbound)	C / C	B / C	B / C
South Ramp Terminal (Eastbound)	C / D	B / C	B / C
David Hoekel Parkway Interchange			
Ramp Terminal (SPDI)	--	B / B	B / B
Wentzville Parkway Interchange			
North Ramp Terminal (Westbound)	B / D	A / B	A / B
South Ramp Terminal (Eastbound)	B / B	C / D	D / C

Source: HNTB VISSIM Model version 5.4



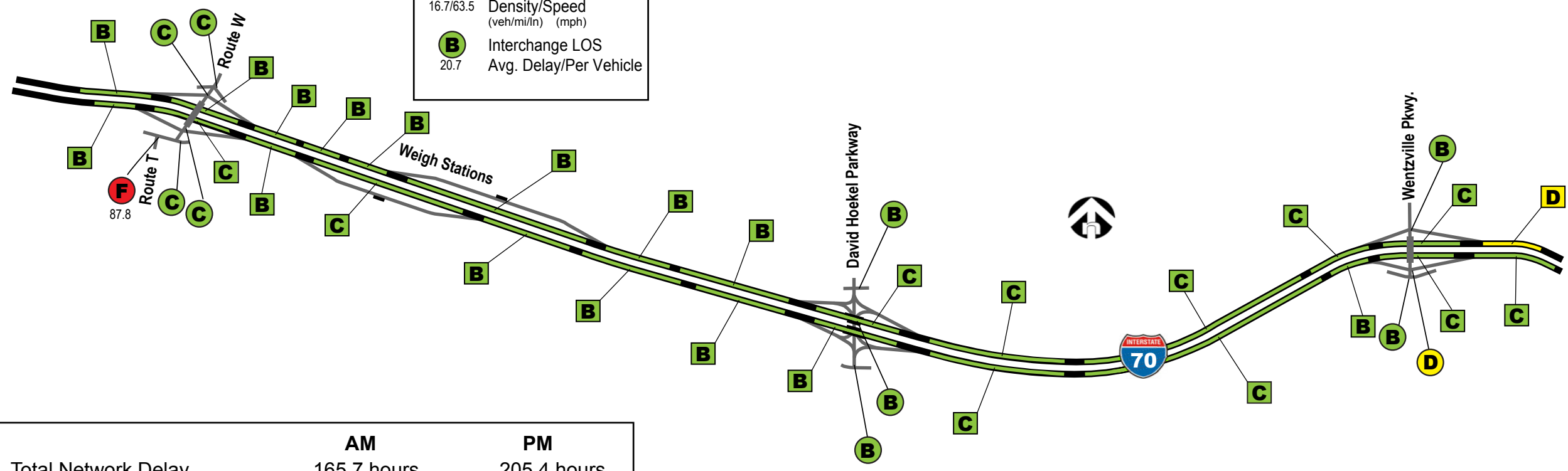
Indicates failing during the peak time of the day.

Indicates at capacity during the peak time of the day.

2040 Build LOS (6-Lane I-70)



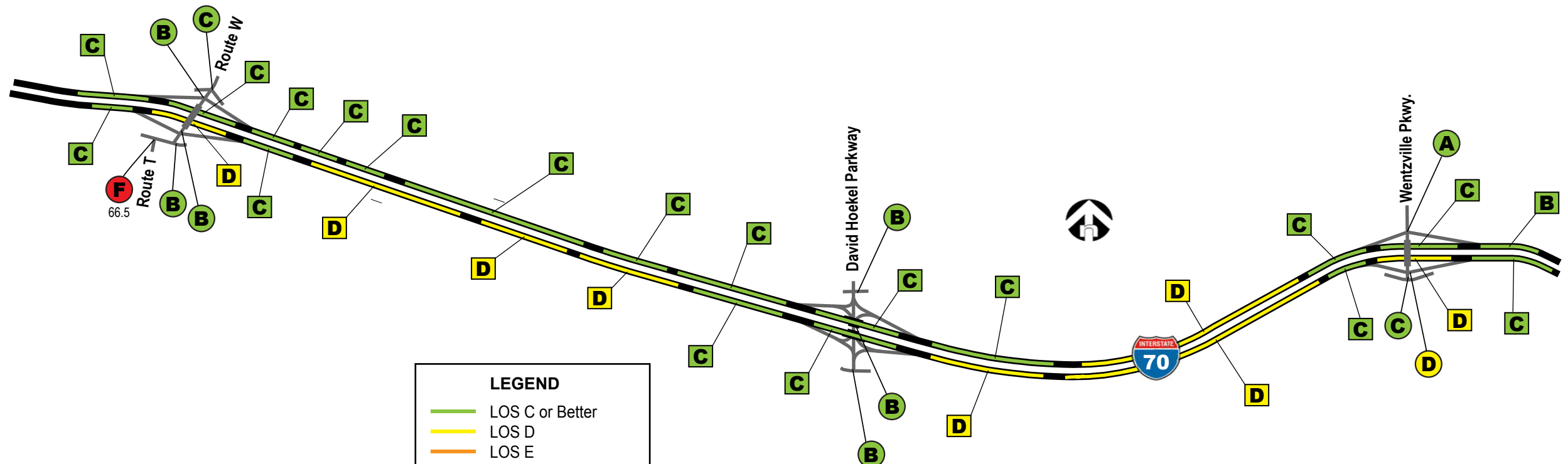
Future AM Level of Service



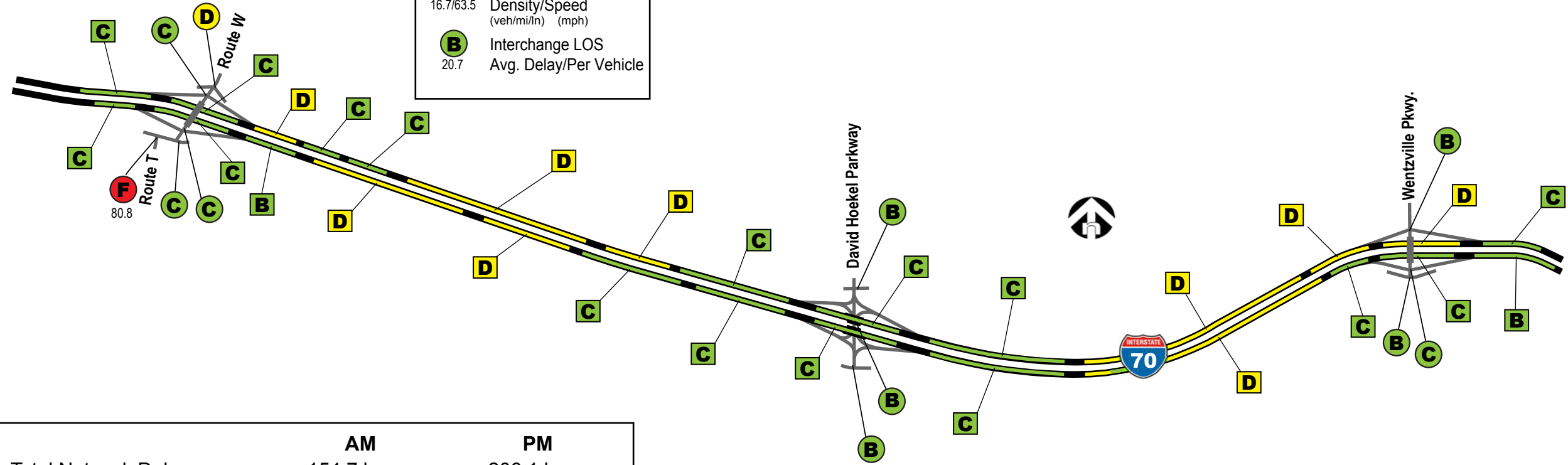
Future PM Level of Service

	AM	PM
Total Network Delay	165.7 hours	205.4 hours
Average Delay per Vehicle	35.7 seconds	41.7 seconds

2040 Build LOS
(Dedicated Truck Lanes)



Future AM Level of Service



Future PM Level of Service

	AM	PM
Total Network Delay	154.7 hours	206.1 hours
Average Delay per Vehicle	33.3 seconds	41.9 seconds

Note: Weigh station assumed to be removed
Assumes 2 dedicated truck lanes and 2 general purpose lanes in each direction
LOS results are for general purpose lanes only

2.3.3 Future Build Traffic Safety

In order to better understand the future impacts of the 2040 Future Build alternative on safety, the study team requested permission from MoDOT and FHWA to utilize the draft freeway chapter of the Highway Safety Manual (HSM) to compare the 2040 Future No-Build Alternative with the 2040 Future Build Alternative. The HSM reports the predicted number of crashes annually for a modeled area; however the new HSM Model for freeways has not yet been calibrated to Missouri crash information. Due to this restriction, the HSM output is useful for comparing between the two alternatives, but the number of expected crashes reported may not accurately represent the number of crashes seen in the historical crash data in Section 2.1.4 above. In addition, the future 2040 No-Build condition for the I-70 corridor includes a widening the six lanes between Route W/T and the Wentzville Parkway interchange, which is a significant change over existing 2012 conditions.

The HSM was used to compare the predicted number of crashes in the study area for the 2040 Future Build and No-Build Alternatives' freeway, ramps and ramp terminals. It was assumed within the analysis that the full David Hoekel Parkway is constructed by 2040. As can be seen in **Table 2-10** below, the number of mainline crashes predicted does go up slightly on an annual basis, due to the addition of a new freeway access point. However the number of crashes predicted is reduced for both of the adjacent interchanges (Route W/T and Wentzville Parkway).

Table 2-10
HSM Predicted Crashes by Location

	Annual Predicted Crashes		Percent Change
Freeway Mainline	No-Build	Build	
I-70 West of W/T	9.5	9.5	0.1%
Between W/T Ramps	6.0	6.2	4.2%
W/T to EB Weigh Station	6.9	7.0	1.3%
Between EB & WB Weigh Station West Ramps	7.2	7.3	0.7%
Between Weigh Station Ramps	2.6	2.7	0.6%
Between EB & WB Weigh Station East Ramps	7.8	8.0	3.2%
Weigh Station to David Hoekel Parkway	57.7	10.4	5.5%
Between David Hoekel Parkway Ramps		9.3	
David Hoekel Parkway to Wentzville Parkway		41.3	
Between Wentzville Parkway Ramps	5.7	6.7	17.5%
East of Wentzville Parkway	6.1	6.1	-0.8%
East of Wentzville Parkway Narrow Median	3.0	3.0	0.0%
Mainline Total	112.6	117.4	4.3%
Ramps	No-Build	Build	
W/T	0.7	0.6	-17.0%
Weigh Station	1.4	1.4	1.1%
David Hoekel Parkway		1.6	
Wentzville Parkway	2.3	1.5	-35.6%
Ramps Total	4.4	5.1	15.7%

Ramp Terminal	No-Build	Build	
W/T North	2.8	1.8	-34.6%
W/T South	2.7	2.2	-18.5%
David Hoekel Parkway Single Point		11.0	
Wentzville Parkway North	31.2	16.7	-46.4%
Wentzville Parkway South	3.3	2.2	-34.0%
Ramp Terminal Total	40.0	33.9	-15.2%
Study Area Total	157.0	156.4	-0.4%

As shown in **Table 2-10** above, the 2040 Future Build Alternative creates slightly more freeway and ramp crashes each year due to the additional access point and redistribution of freeway volumes associated with the 2040 Future Build Alternative. The mainline freeway is predicted to have approximately 4.3% more crashes under the 2040 Future Build Scenario than the 2040 Future No-Build. The interchange ramps are predicted to have a 15.7% increase in annual crashes in 2040 although this probably represents a small number of crashes. However, these increases are offset by the significant reduction in crashes at the existing ramp terminal intersections (Route W/T and Wentzville Parkway interchanges). The ramp terminals collectively for the study area are predicted to have a 15.2% decrease in annual crashes. As suggested within the existing crash analysis discussion in Section 2.1.4, this reduction is the result of lower traffic volumes and congestion at the different ramp terminal intersections; this is especially true for the northern ramp terminal at the Wentzville Parkway interchange. At this ramp terminal the high volumes in the 2040 Future No-Build Alternative create a safety issue.

In the 2040 Future Build Alternative this safety problem is mitigated by traffic choosing to use the David Hoekel Parkway interchange to access parts of Wentzville instead of this traffic funneling through the Wentzville Parkway interchange. This reduction is significant enough to offset the increase in crashes caused by the additional access point and redistribution of volumes along I-70. Although crashes will be increased or reduced at specific locations, the net effect for the study area is that the number of crashes predicted overall for the 2040 Future Build and No-Build Alternatives is virtually the same.

The HSM predictive method predicts crashes in five types: K - Fatal, A - Disabling Injury, B - Injury, C - Minor Injury and Property Damage Only (PDO). The increase in crashes when the No-Build and Build Alternatives are compared is largely seen in the Minor Injury and PDO crash categories. Based upon the HSM analysis performed, it is not expected that there will be a notable change between No-Build and Build in the number of Fatal, Disabling Injury and Minor Injury crashes seen in the study area. Partially, this could be due to both the No-Build and Build assuming a widening of I-70 to six lanes by 2040. While the number of crashes with the Build are not notably different for FataIs and Disabling Injury, the analysis did find that the Build does not adversely affect the severity of crashes, and is not predicted to cause a greater number of Fatal or Disabling Injury crashes to occur.

The following section specifically addresses the FHWA Missouri Division's Prompt-List for Reviewing Interstate Access Requests.

- a) **Does the report demonstrate that a proper traffic operational analysis was conducted? The analysis should include the applicable basic freeway segments, freeway weaving segments, freeway ramp segments, ramp junctions and crossroad intersections related to the proposed access point and at least the two adjacent interchanges.**

The traffic operational analysis used VISSIM to analyze the basic freeway segments, weaving, ramp segments, ramp junctions and crossroad intersections within the study area, including the two adjacent interchanges at Route W/T and the Wentzville Parkway. The operational analysis used Highway Capacity Manual 2010 methodology to analyze the traffic operations.

b) Does the report include a safety analysis of the mainline, ramps and intersections of the proposed access point and the nearest adjacent interchange (provided they are near enough that it is reasonable to assume there may be impacts)?

A safety analysis utilizing the draft Freeways and Interchanges chapter of the Highway Safety Manual (HSM) was performed. The use of this methodology was approved by MoDOT and FHWA prior to performing the safety analysis. The relative number of crashes, as calculated in the HSM, is not anticipated to be worse in the Build than in the No-Build, and is predicted to reduce crashes at the adjacent interchanges along I-70. As a result, the Build alternative does not result in an adverse impact to safety.

c) Has the design traffic volume been validated?

Design year traffic methodology and volumes were first validated by FHWA and MoDOT during the development of the 2004 I-70 Wentzville Beltway Break-in-Access Study for the design year 2030. In 2013, the future volumes were updated to a 2040 design year. The study team participants, including the City of Wentzville, MoDOT, and FHWA, have reviewed and approved the updated design year volumes in advance of performing the traffic analysis for the AJR. Additionally, the volumes have been compared to the East-West Gateway regional travel demand model results. There was some concern by the study team that the regional model would underestimate the traffic for this area, so it was agreed that this study's design volumes should be more aggressive with growth assumptions than the EWGCOG's model volumes in order to assess a worst case scenario for the study area.

d) Has a conceptual signing plan been provided?

A conceptual signing plan has been developed and is located in **Appendix C**. The standards for a diamond interchange found in the Manual on Uniform Traffic Control Devices (MUTCD) and the Missouri Department of Transportation Engineering Policy Guide (EPG) were used as the basis to develop the conceptual signing plan exhibit. Also taken into consideration is the current signage used at other single point diamond interchanges in the region and throughout the state to ensure the interchange meets driver expectation.

e) Is guidance signing (i.e., way-finding or trail blazing signs) clear and simple?

The proposed interchange at I-70 and David Hoekel Parkway is overall consistent with other interchanges found along this corridor and will not require any special signage along the interstate to meet drivers' expectations. The only unique characteristic of this interchange is that it is a single point diamond interchange and some drivers may not be familiar with its operation. To stay consistent with other single point diamond interchanges found in the St. Louis region, an overhead sign was placed on the David Hoekel Parkway, in advance of the left hand turn lane to guide drivers who may be unfamiliar with how the interchange operates. Besides the addition of the overhead guide signs, all other signs and spacing generally adhere to the standards found in the MUTCD and the MoDOT EPG. The conceptual signing plan is shown in **Appendix C** for reference.

f) Do the results of the operational analysis result in a significant adverse impact to existing or future conditions?

The findings of the operational analysis do not result in a significant adverse impact to existing or future conditions on the I-70 corridor, or to the local roadway network. The operational analysis shows that today I-70 operates at a desirable level of service, but the area in close proximity to the Wentzville Parkway interchange continues to worsen over time during the peak periods of the day. With no new interchange added to I-70 at the David Hoekel Parkway, the study corridor is expected to experience high congestion by 2040 due to the large increase in traffic demand. In particular, the adjacent interchange at Wentzville Parkway is projected to experience poor level of service at the eastbound on-ramp PM (LOS E) and the westbound off-ramp PM (LOS F).

When the proposed interchange is added to I-70, the freeway and interchanges throughout the entire study area operate at acceptable levels of service. The congestion that is observed in the No-Build is alleviated by the new interchange in both Build alternatives.

g) Will the proposed change in access result in needed upgrades or improvements to the crossroad for a significant distance away from the interchange? If so, have impacts to the local network been disclosed and fully evaluated?"

The proposed new access at I-70/David Hoekel Parkway will require that the David Hoekel Parkway be built to Meyer Road to the north of I-70 and Interstate Drive to the south of I-70. The Parkway will serve development as it occurs over time. The entire David Hoekel Parkway from I-70 to U.S. 61 will not be built all at once, but rather will be developed in phases. When the new interchange is built, in addition to a portion of the David Hoekel Parkway being built, the existing frontage roads, adjacent to I-70 will be realigned so there is adequate spacing between the interchange and the first full access interchange to meet MoDOT's Access Management guidelines. In addition, the Interstate Drive corridor south of I-70 (See **Exhibit 1-1**) will be in place prior to the construction of the interchange in order to provide good access and connectivity between the I-70/David Hoekel Parkway and the adjacent interchanges along I-70.

h) Are the crossroads or adjacent surface level roads and intersections affected by the proposed access point analyzed to the extent (length) where impacts caused or affecting the new proposed access point are disclosed to the appropriate managing jurisdiction?

The David Hoekel Parkway was analyzed to the first full access crossroad, which would be the North Outer Road (Goodfellow Road) to the north and Interstate Drive to the south. This distance is approximately ¼ mile from the interchange. The City of Wentzville is the managing jurisdiction north and south of the proposed interchange and is aware of the results of the analysis that each intersection operates at LOS B in the design year in both the AM and PM peak periods.

i) Are pedestrian and/or bicycle facilities included (as appropriate) and do these facilities provide for reasonable accommodation?

With an anticipated posted speed of 45 mph and 2040 ADTs in the range of 16,000 – 25,000 vehicles per day, the David Hoekel Parkway would be designed to move higher volumes of traffic through the city, as well as to provide connectivity to the local roadway network. At the same time, its design would include aesthetic considerations such as landscaping to fit with the residential character of the David Hoekel Parkway corridor and sidewalks on each side of the roadway for pedestrians. Since the David Hoekel

Parkway is a parkway with a speed limit of 45 mph, bicyclists would be allowed to share the roadway. The proposed typical section for the parkway is shown in **Figure 1-2** in **Section 1.2**.

j) Does the proposed access secure sufficient Limits of Access adjacent to the Interchange ramps?

The City of Wentzville is currently in the process of acquiring right of way for the interchange and the David Hoekel Parkway. The City has secured approximately 30 percent of the needed right of way to date (approximately 28 acres). The City plans to secure adequate limits of access to the interchange ramps to maintain adequate access management. The proposed distance between the interchange and the first cross-street in either direction meets or exceeds MoDOT's access management guidelines.

k) Does the proximity of the nearest crossroad intersections to the ramps contribute to safety or operational problems? Can they be mitigated?

Because the new interchange is being built in a mostly undeveloped area, the northern frontage road will be realigned to MoDOT's access management guidelines from the interchange ramps, thus maximizing the safety and operations of the interchange functional area. To the south, the existing frontage road will be maintained and the new interchange will bridge over the south frontage road and the Norfolk Southern Railway line. The first intersection to the south with direct access to the David Hoekel Parkway would be Interstate Drive, which has adequate spacing from the interchange ramp terminals. In addition, the existing south frontage road can be accessed from the David Hoekel Parkway by using Interstate Drive.

l) In addition to HCS, what analysis tools were employed and were they appropriate?

VISSIM version 5.40 by PTV was used to analyze I-70 and the interchanges at Wentzville Parkway, W/T, and the proposed David Hoekel Parkway using Highway Capacity Manual 2010 methodology. Synchro was used to optimize the traffic signals.

m) Has the proposal distinguished between nominal safety (i.e. adherence to design policies and standards) and substantive safety (actual and expected safety performance)?

The concept design of the interchange was designed to MoDOT and FHWA design policies and standards to maximize the safety of the area. In addition, a quantitative safety assessment using the Highway Safety Manual was performed to indicate the safety performance of the proposed design, and is provided in Section 2.3.3.

n) Will any individual elements within the recommended alternative be degraded operationally as a result of this action? If yes, are reasons provided to accept them?

No individual elements will be degraded to unacceptable levels of service E or F as a result of the recommended Six-Lane Build Alternative (i.e., the Preferred Alternative). There are three locations on I-70 near the Wentzville Parkway interchange that are projected to change from LOS B in the No-Build Alternative to LOS C in the Build Alternative, and one location at the South Ramp Terminal of the Wentzville Parkway interchange that changes from LOS B to LOS D in the Build Alternative because upstream traffic is no longer constrained by a bottleneck. The analysis shows that either Build Alternative will provide for mainline and interchange operations at acceptable levels of service (LOS D or better), including improved overall operations at the adjacent interchanges (Route W/T and the Wentzville Parkway). In addition, the weigh station analyzed within the Future Six Lane Build Alternative operates at acceptable levels of service and is not degraded by the Build alternative.

o) In evaluating whether the proposal has a "significant adverse impact" on safety, has the State Strategic Highway Safety Plan been used as a benchmark?

The 2013 State Highway Safety Plan set the following benchmarks:

- Reduce 2013 fatalities to 813 or lower
- Reduce 2012 fatality rate per 100M VMT to 1.2 or lower
- Reduce 2013 serious (disabling) injuries to 5,758 or lower

There is no "significant adverse impact" on safety, as outlined in the analysis completed using the Freeways and Interchanges chapter of the Highway Safety Manual (See Section 2.3.3 for further information on the analysis).

p) Are the proposed interchange design configurations able to satisfactorily accommodate the design year traffic volumes?

As shown in **Table 2-9**, the proposed single point diamond interchange is able to perform at a desirable level of service for both Build alternatives analyzed during the design year 2040.

q) If the project is to be built in stages, has the traffic operational and safety analyses considered the interim stages of the proposal?

The proposed new access at I-70/David Hoekel Parkway will require that the David Hoekel Parkway be built to Meyer Road to the north of I-70 and Interstate Drive to the south of I-70 either before or simultaneously with the proposed I-70/David Hoekel Parkway interchange to provide access and connectivity benefits prior to the full parkway being constructed between U.S. 61 and Jackson Road. The entire David Hoekel Parkway from I-70 to U.S. 61 will not be built all at once, but rather will be developed in phases, as described in detail within the funding and phasing plan shown in Section 2.5, subsection g, and on **Exhibit 2-10**. In the funding and phasing plan for the project, the City and St. Charles County demonstrate their plan for completing this portion of the Parkway as Phase 2.

The interchange would serve traffic volumes to the future parkway, adjacent land uses and relieve congestion at the two adjacent interchanges. In addition, the proposed parkway could provide congestion relief to the I-70/I-64/U.S. 61 interchange, since the parkway would provide a new connecting outer roadway between I-70 and U.S. 61 within the western portion of St. Charles County. Once the full facility is open to traffic, it would serve the local traffic accessing the northwest land uses of Wentzville, but it would also carry a regional significance by providing major arterial access and system redundancy for incident management between I-70 and U.S. 61. In this manner, regional traffic has more access options throughout the region, and the existing directional I-70/I-64/U.S. 61 interchange is expected to receive some traffic relief by this connectivity. However, the anticipated amount of traffic that would shift to the future parkway is difficult to quantify because it relates in part to individual driver preferences for a parkway (proposed 45 mph posted speed and some traffic signals) versus a freeway. The traffic analysis conducted within this AJR was only performed within the designated project study area, which included one interchange to the east (Wentzville Parkway) and west (Route W/T) of the proposed interchange. However, the proposed project would not have an adverse impact on the I-70/I-64/U.S. 61 interchange, and any shift in traffic to the proposed project would provide supplementary benefits to this interchange.

In relation to the traffic and safety analyses in the AJR, any interim stage is expected to have lower traffic demand than what was analyzed for the 2040 design year. Therefore, the 2040 design year was viewed to be a worst case alternative for the traffic and safety analyses. Once the interchange and surrounding infrastructure is built, the interchange will be able to handle any lower traffic demand at a desirable level of service through the design year 2040.

Conclusion

The proposed Build Alternatives have the ability to safely and efficiently accommodate traffic and provide a safe facility for motorists on I-70 and the David Hoekel Parkway, as well as at the adjacent I-70 interchanges with Route W/T and the Wentzville Parkway. This is evidenced by the operational results included in this section and the fact that the system performs at an equivalent or improved level of service for the Build compared to the No-Build alternative in the 2040 design year.

The operational and safety analysis has concluded that the proposed interchange project does not have an adverse impact on the safety and operation of the I-70 interstate facility compared to the No-Build alternative, and is predicted to reduce the number of crashes at the adjacent corridor interchanges.

2.4 Access Connections and Design

FHWA Policy Point Four: *Proposed access connects to a public road only and will provide for all traffic movements*

The proposed access connects to a public road only and will provide for all traffic movements. Less than "full interchanges" may be considered on a case-by-case basis for applications requiring special access for managed lanes (e.g., transit, HOVs, HOT lanes) or park and ride lots. The proposed access will be designed to meet or exceed current standards (23 CFR 625.2(a), 625.4(a)(2), and 655.603(d)).

The proposed I-70 and David Hoekel Parkway Single-Point Diamond Interchange (SPDI) will be designed with full access to all connecting freeways and local service interchanges. The interchange will connect to a new four-lane access controlled City-owned and maintained parkway (David Hoekel Parkway). The proposed new access at I-70/David Hoekel Parkway will require that the David Hoekel Parkway be built to Meyer Road to the north of I-70 and Interstate Drive to the south of I-70 either before or simultaneously with the proposed I-70/David Hoekel Parkway interchange to provide access and connectivity benefits prior to the full parkway being constructed between U.S. 61 and Jackson Road. The entire David Hoekel Parkway from I-70 to U.S. 61 will not be built all at once, but rather will be developed in phases, as described in detail within the funding and phasing plan shown in Section 2.5, subsection g, and on **Exhibit 2-10**. In the funding and phasing plan for the project, the City and St. Charles County demonstrate their plan for completing this portion of the Parkway as Phase 2. The interchange would serve traffic volumes to the future parkway, adjacent land uses and relieve congestion at the two adjacent interchanges. Detailed plan plates of the interchange configuration for the Preferred Build alternative are shown in the **Appendix B**.

The typical section of the roadway will include a mountable curb and gutter, along with sidewalks on both sides of the facility which will be separated from the traffic lanes by an 8'-6" tree lawn space. A grass median is anticipated to be provided over a majority of the corridor, with the exception of left turn bays at intersecting roadways and on bridge crossings. As a result of the MoDOT I-70 Second Tier and Supplemental EIS, the existing north outer road would be relocated to existing Goodfellow Road to

maintain the access management standards of the cross state study (see the interchange plan plates in the **Appendix B**). The south outer road would be spanned by the same bridge that crosses I-70 and the existing Norfolk Southern railroad tracks on the south. Access to and from the south outer road would be provided via existing Point Prairie Road and the proposed Interstate Drive extensions.

The new David Hoekel Parkway is in an optimal location along I-70. It would be halfway between the existing Route W/T interchange and Wentzville Parkway interchange, 2.3 miles from each. To the west, the existing truck weigh station ramps would be located between the David Hoekel Parkway and Route W/T interchange; however the Second Tier I-70 EIS recommended (but did not commit funding) the weigh station be relocated 25 miles further west on I-70. Even if the weigh station is not relocated, the design configurations (including an auxiliary lane between the proposed interchange and the weigh station) and the traffic and safety operational analyses show that operations remain acceptable and the safety is not compromised.

The proposed interchange will be designed to meet or exceed current federal and state design, operational and safety standards, and no design exceptions are anticipated for the proposed interchange. The proposed single-point diamond interchange (SPDI) at I-70 and David Hoekel Parkway meets or exceeds the design guidance provided by current versions of the MoDOT Engineering Policy Guide, AASHTO's A Policy on Geometric Design of Highways and Streets (Green Book) and AASHTO's A Policy on Design Standards Interstate System. These design manuals were used to establish the design criteria for this proposed interchange and address the following points shown in **Table 2-11** below.

The following section specifically addresses the FHWA Missouri Division's Prompt-List for Reviewing Interstate Access Requests.

a) Does the proposed access connect to a public road?

The proposed I-70/David Hoekel Parkway interchange will be connected to the planned four-lane access controlled David Hoekel Parkway which extends north and south of I-70, and connects to U.S. 61. This would be a part of the City of Wentzville's public road network and is a part of their Thoroughfare Plan.

b) Are all traffic movements for full interchange access provided?

The proposed I-70 interchange provides full access to I-70 both eastbound and westbound through a Single Point Diamond Interchange configuration.

c) If a partial interchange is proposed, is there sufficient justification for providing only a partial interchange?

A partial interchange is not proposed.

d) If a partial interchange is proposed; was a full interchange evaluated as an alternative and is there sufficient justification to eliminate or discard it?

A partial interchange is not proposed.

e) Is sufficient ROW available (or being acquired) to provide a full interchange at a future date (staged construction)?

The proposed I-70 and David Hoekel Parkway ultimate interchange is expected to be built all at once and sufficient ROW is available. The section of the Parkway from Interstate Drive to the south of I-70, to

Meyer Road to the north of I-70 would be built in conjunction with the proposed interchange to provide good access and connectivity to the surrounding roadway network. The City of Wentzville is actively acquiring ROW for the David Hoekel Parkway (28 acres have currently been acquired along the Parkway) and is actively working with developers as they look at development opportunities near the proposed interchange. The area where the interchange would be located is largely undeveloped today, but the Parkway corridor to the north has significant residential development underway.

f) Are you comfortable with how the missing movements will be accommodated on the surface streets and adjacent interchanges?

A partial interchange is not proposed. There will not be any missing movements at the interchange.

g) If not, is the proposed access for special purposes such as transit vehicles, HOV's, and/or a park and ride lot?

A partial interchange is not proposed. There will not be any missing movements at the interchange.

h) Does FHWA support the selection of design controls/criteria and desired operational goals?

The design control/criteria and operational goals are consistent with FHWA and MoDOT's standards in an urban area. These have been discussed in study team meetings with FHWA and MoDOT. The David Hoekel Parkway Environmental Assessment provides general design criteria that will be used for the interchange as well as the David Hoekel Parkway. **Table 2-11** provides the general design criteria for the proposed project.

Table 2-11
I-70 and David Hoekel Parkway Interchange Design Criteria

Design Criteria	How does the design address the issue?
Sight distance at ramp terminals (Don't overlook signal heads obscured by structures.)	Sight distance at ramp terminals has been accounted for by providing an intersection platform along with signal control of the SPDI. Sight distance considerations along the major roadway alignment and within the ramp and major road junctions at a SPDI are similar to those at other interchange types and, as a result their design follows the guidelines set forth in the Green Book.
Sufficient storage on ramp to prevent queues from spilling on to the Interstate (based on current and/or future projected traffic demand)	Based on traffic modeling of current and future traffic projections the proposed ramp lengths provide sufficient storage.
Vertical clearance	The vertical profile of the Parkway over I-70 has been designed to provide a minimum of 16.5' of clearance from the lowest girder elevation over the entire roadway width, including usable width of shoulders. Utilizing a 16.5' vertical clearance allows for consideration of future surfacing of I-70.

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Pedestrian access through the interchange	A continuous six foot wide sidewalk on each side of the Parkway has been provided through the interchange over I-70. The sidewalk is separated from the travel lanes on the parkway throughout the interchange. Sidewalk profile grade meets or exceeds American with Disabilities Act requirements. Pedestrian signal heads are provided at each ramp terminal to allow for safe pedestrian movement through the interchange.
Length of acceleration/deceleration lanes	Ramps meet or exceed the middle range (70%) for design speed in relation to the freeway design speed according to Exhibit 10-56 of the Green Book. Acceleration and deceleration lane lengths meet the criteria presented in the Green Book for parallel ramps.
Length of tapers	Exit and entrance taper lengths meet or exceed the lengths shown in the Green Book for parallel ramps. A minimum of 250 foot taper provided prior to deceleration lanes for exits. A minimum of 300 foot taper provided at the end of acceleration lanes for entrances.
Spacing between ramps	Spacing between successive exit and entrance ramp terminals exceed 1,500 feet.
Lane continuity	Lane continuity is provided through the interchange and is unchanged from pre-project conditions.
Lane balance	Lane balance guidelines are met conforming to Green Book Exhibit 10-49.
Uniformity in interchange design and operational patterns (i.e. right-side ramps, exit design consistent w/adjacent interchanges)	Interchange meets uniformity considerations. While the SPDI differs from the traditional diamond interchanges along I-70, the fundamental traffic movements are similar to diamond interchanges including right hand ramps and exit design.

i) Does the proposed access meet or exceed current design standards for the Interstate System?

The proposed access meets or exceeds FHWA and MoDOT's current design standards for the Interstate System.

j) If not, have anticipated design exceptions been identified and reviewed (at least conceptually)?

There are no design exceptions anticipated with the proposed interchange.

k) If expected design exceptions could have significant operational impacts on the Interstate and/or Crossroad system, are mitigation measures described?

There are no design exceptions anticipated with the proposed interchange.

l) If expected design exceptions could have significant safety impacts on the Interstate and/or Crossroad system, are mitigation measures described?

There are no design exceptions anticipated with the proposed interchange.

m) Will the length of access control along the crossroad provide for acceptable operations and safety? (100-300' is a minimum. Additional access control is strongly encouraged when needed for safety and operational enhancement)

Access control for the David Hoekel Parkway relative to the interchange will be maximized using MoDOT's access management criteria of 1,320 feet to the first full access break north and south of I-70. The proposed distance from the ramp terminal to the first full access break is 1,400 feet to the north and 1,800 feet to the south.

n) Does FHWA support selection of opening and design years?

The design year used in the 2004 *Interstate I-70/U.S. 61 Wentzville Beltway Break-in-Access* study was 2030. During more recent study team coordination meetings with MoDOT and FHWA, the study team decided that the updated Access Justification Request would incorporate an opening year of 2016 for Phase 1 of the project (U.S. 61/David Hoekel Parkway interchange), 2020 for Phase 2 (I-70/David Hoekel Parkway interchange and connecting parkway between Interstate Drive and Meyer Road), and a design year of 2040. This is consistent with the ongoing David Hoekel Parkway Environmental Assessment design year and the phasing and funding plan proposed for the project in Section 2.5, subsection g. The first phase of the David Hoekel Parkway project has funding for construction committed through a cost share agreement between MoDOT, St. Charles County and the City of Wentzville for 2016.

o) Have all design criteria (including but not limited to the following) been adequately addressed?

The proposed single-point diamond interchange (SPDI) at I-70 and David Hoekel Parkway meets or exceeds the design guidance provided by current versions of the MoDOT Engineering Policy Guide, AASHTO's A Policy on Geometric Design of Highways and Streets (Green Book) and AASHTO's A Policy on Design Standards Interstate System. Proposed interchange concepts are located in the **Appendix B**. These design manuals were used to establish the design criteria for this proposed interchange and address the following points shown in **Table 2-11** above.

The AASHTO deceleration length "L" was checked versus the queue storage lengths for the ramps to insure there is an adequate deceleration length to avoid traffic backing down the off ramps and onto I-70. The AASHTO Green Book 2011 lists a deceleration length of 615'. This is based upon a 70 mph design speed and a stop condition at the top of the ramp. The Build Alternative has the following ramp lengths:

- I-70/David Hoekel Parkway westbound off-ramp - 1500' ramp, plus a 700' deceleration lane. The queue lengths are anticipated to be 231' in the AM peak and 489' in the PM peak.
- I-70/ David Hoekel Parkway eastbound off-ramp is 1500', plus an auxiliary lane to the weigh station. The queue lengths are anticipated to be 170' in the AM peak and 197' in the PM peak.

p) Has each movement of the proposal been "tested" for ease of operation?

Each movement of the proposed interchange has been tested in the operational analysis using a VISSIM micro-simulation model (See Section 2.3.), as well as in auto-turn.

Conclusion

The proposed I-70 and David Hoekel Parkway interchange connects to the planned four-lane access controlled David Hoekel Parkway and will provide for all traffic movements. The proposed interchange will be designed to meet or exceed current federal and state design, operational and safety standards, and no design exceptions are anticipated for the proposed interchange.

2.5 Consistency with Transportation Plans

FHWA Policy Point Five: *Consistent with local and regional land use and transportation plans*

The proposal considers and is consistent with local and regional land use and transportation plans. Prior to receiving final approval, all requests for new or revised access must be included in an adopted Metropolitan Transportation Plan, in the adopted Statewide or Metropolitan Transportation Improvement Program (STIP or TIP), and the Congestion Management Process within transportation management areas, as appropriate, and as specified in 23 CFR part 450, and the transportation conformity requirements of 40 CFR parts 51 and 93.

The new I-70/David Hoekel Parkway interchange will be consistent with local and regional planning efforts and land use plans for the City of Wentzville, St. Charles County and the St. Louis region. In the past decade, several local, regional, transportation and land use plans have been completed within the study area which include the proposed project. These studies are listed and a brief description is provided in the following sections.

2.5.1 Wentzville Comprehensive Plan

The City of Wentzville completed the Wentzville Comprehensive Plan, *A Community's Vision*, in 1999. The plan was developed as a twenty-year plan, designed to be updated bi-annually to keep information current, for the future development of Wentzville. Its primary focus included making decisions on future land uses, determining the transportation networks needed to access future land uses, and providing essential utility systems/infrastructure to service land use activities. Within the plan, the City developed a Thoroughfare Plan and Transportation Master Plan that included the conceptual plan for the David Hoekel Parkway and its interchanges with I-70 and U.S. 61. Additionally, the City's land use plan showed primarily low to medium density residential use along the parkway with some higher density residential and commercial development at the I-70 and U.S. 61 interchanges and the intersection with Meyer Road.

The 1999 Plan guided the development of Wentzville through October of 2001. In 2001, the plan was updated by an "Amendatory Supplement" and then again in 2006 and 2010. The latest plan update is ongoing in 2012 and is a 10-year Plan to guide the future development and redevelopment of Wentzville. The proposed David Hoekel Parkway project is reinforced in this plan update and the City considers the proposed project to be the most vital element of its Thoroughfare Plan.

The new I-70/David Hoekel Parkway interchange will be consistent with local planning efforts identified in the City's Comprehensive Plan. (<http://www.wentzvillemo.org/comprehensive-plan-update.aspx>).

2.5.2 Envision 2020 St. Charles County Master Plan and Thoroughfare Plan

St. Charles County has coordinated with the City of Wentzville regarding the city's transportation and land use needs. Its 2020 master plan contains the proposed project and acknowledges the population boom and land use changes Wentzville has experienced in the past decade. The proposed project is also included in St. Charles County's Thoroughfare Plan. The goal of the county-wide Thoroughfare Plan is to identify strategic road corridors vital for efficient traffic flow and for orderly development. The Thoroughfare Plan is a long-range conceptual road plan that outlines the right-of-way needed for future road improvements necessary to accommodate additional residential, commercial and retail development.

(http://cd.sccmo.org/CommunityDevelopment/index.php?option=com_content&view=article&id=83&Itemid=100188)

2.5.3 I-70/U.S. 61 Beltway Corridor Preservation Study

In 2001, the City of Wentzville completed a Corridor Preservation Study for a proposed beltway between I-70 and U.S. 61. In the past, the City had experienced difficulties associated with the implementation of new transportation facilities in areas with recent or planned residential and commercial development. For this reason, the City decided to use a corridor preservation process to coordinate plans for a future roadway corridor with development plans for the area. The City coordinated plans for the corridor identified within the I-70/U.S. 61 Beltway Corridor Preservation Study with land use planning by prohibiting and/or minimizing development in the anticipated corridor footprint.

The goals of the I-70/U.S. 61 Beltway Corridor Preservation Study included:

- Identifying and developing technically sound solutions to the City's future transportation needs,
- Defining the corridor necessary for the future construction and operation of the identified solution(s),
- Preserving said corridor prior to future development, and
- Engaging citizens of Wentzville as project stakeholders throughout the study process.

The City conducted the Corridor Preservation Study in two phases. Phase 1 included the corridor from the southern terminus near I-70 to Meyer Road. Phase 2 included the corridor from Meyer Road to the northern terminus near U.S. 61. The City considered several potential alignment alternatives within each corridor phase. Based on comparative analyses and public input, the City chose a preferred corridor and interchange type at I-70. The City of Wentzville Board of Alderman passed a formal resolution supporting the project, including a resolution in 2006 naming the roadway to memorialize a deceased Alderman.

The Corridor Preservation Study is used as a tool to coordinate with developers and potential homeowners to ensure adequate right of way is being preserved for the future David Hoekel Parkway and its interchanges with I-70 and U.S. 61.

(http://www.wentzvillemo.org/maps%20pdf/Corridor_Preservation_Map.pdf)

2.5.4 I-70 Break-in-Access Study

The City of Wentzville, Missouri conducted an I-70 Break-in-Access (BIA) Study in 2004 to receive the approval of MoDOT and the FHWA for a new point of access on I-70. The study looked at constructing

this new interchange at I-70 just west of Point Prairie Road, between the I-70/Route W/T interchange and the I-70/Wentzville Parkway interchange. The City pursued the I-70 BIA Study to plan for a connection between the I-70 corridor and the proposed I-70/U.S. 61 Beltway identified in the Wentzville Comprehensive Plan and the Corridor Preservation Study. The City considered the proposed I-70 and Beltway interchange necessary for the following reasons:

- Enhanced safety and congestion relief at the existing I-70/Wentzville Parkway interchange and I-70/Missouri Route W/T interchange,
- Access to existing and future community facilities, and
- Economic development.

The I-70 BIA study considered two interchange configurations for the new I-70 access point. The two alternatives examined were a single point diamond interchange and a modified diamond. After detailed evaluation of each configuration, the study recommended that the City pursue the single point diamond interchange. The 2004 BIA request was made for concept approval of engineering and operational acceptability. Concept approval would allow the City of Wentzville to continue good planning prior to the construction of a new interchange. In 2004 it was determined that MoDOT needed additional VISSIM traffic analysis prior to granting their approval of the interchange BIA. Subsequently, a VISSIM traffic supplement was developed in 2005-2006 to provide additional traffic analysis for the proposed project. At that time, MoDOT then provided a letter of conditional approval for the proposed I-70 interchange BIA, pending the successful completion of the NEPA process and additional alternatives analysis within NEPA (See MoDOT conditional approval letter in **Appendix A**). At this time, the FHWA reviewed the 2004 and 2006 BIA and participated in coordination meetings, but did not grant conditional approval and a decision was made to study the project further with the NEPA phase. In this instance, the NEPA process for this project is the David Hoekel Parkway Environmental Assessment. The final approval of the BIA by the FHWA was at that time determined to be provided concurrent with the completion of the NEPA process and was contingent on the findings of the Environmental Assessment document and the granting of a Finding of No Significant Impact (FONSI).

2.5.5 David Hoekel Parkway Environmental Assessment

An Environmental Assessment (EA) is currently being completed for the project under a separate cover by the City of Wentzville, in coordination with MoDOT and FHWA. The Environmental Assessment has been ongoing since 2007. Within the Environmental Assessment, a range of initial and reasonable alternatives were evaluated for the David Hoekel Parkway and its interchange connections with I-70 and U.S. 61, using the 2004 and 2006 BIAs as a foundation for the alternatives development and analysis. The proposed improvements identified and analyzed in this AJR for the new I-70/David Hoekel Parkway interchange were fully evaluated and environmentally cleared as the Preferred Alternative for the project in Environmental Assessment. The Environmental Assessment evaluated the proposed action and determined that there were no fatal flaws or significant social and environmental impacts for the proposed project that could not be minimized, avoided or mitigated prior to design and construction.

At this time the NEPA process for the proposed project is nearly complete with a preliminary Final Environmental Assessment and FONSI prepared. MoDOT and FHWA signed the Draft Environmental Assessment in October 2009; the project has been modeled by EWGCOG within the region's air quality conformity determination in 2011; and all comments received by resource agencies and project stakeholder during the public comment period have been addressed. Final approval of the Environmental Assessment with a FONSI will be granted once the I-70/David Hoekel Parkway AJR is

reviewed and approved for the proposed project. A copy of the approved Draft Environmental Assessment and preliminary Final Environmental Assessment and FONSI are located on the City of Wentzville's website for further review at: <http://www.wentzvillemo.org/preservation-projects.aspx>.

2.5.6 East-West Gateway Council of Governments Regional Transportation Plan 2040 and Air Quality Conformity Determination

The study area for the proposed David Hoekel Parkway is located within the metropolitan planning boundary for the region within St. Charles County (**Figure 1-1**). Regional Transportation Plan 2040 is the East-West Gateway Council of Government's (EWGCOG) long-range transportation plan for the St. Louis metropolitan region. The plan is a long-range vision for how the region's surface transportation system will develop through 2040.

The focus areas from the region's plan were used to provide a framework for developing the purpose and need for the proposed David Hoekel Parkway project. Every transportation project in the region financed with federal funds must ultimately be included in the region's transportation improvement plan, and be consistent with the principles of the plan. This is because the EWGCOG, as the regional metropolitan planning organization (MPO), administers federal funds for projects to the local jurisdictions within the St. Louis metropolitan planning boundary.

In order to meet the requirements of the region's planning process, the David Hoekel Parkway and its interchanges with I-70 and U.S. 61 were modeled as a part of the region's air quality conformity determination. Within the ongoing Environmental Assessment, it was determined by FHWA, MoDOT and East-West Gateway Council of Governments (EWGCOG) that the TIP/STIP and LRTP requirements for the region were met by including the project within the region's air quality conformity determination. The proposed project submitted and included in the air quality conformity determination is consistent with that included in the Environmental Assessment and AJR.

Under the provisions of the Clean Air Act Amendments (CAAA) of 1990, the EWGCOG, as the Metropolitan Planning Organization (MPO) for the region, is the agency responsible for making sure a transportation project conforms to the air quality goals stipulated in the Transportation Implementation Plan (TIP). If the projected motor vehicle emissions from the planned transportation project do not exceed the motor vehicle emissions budget established in the TIP, EWGCOG places the project in the TIP and the Missouri Highways and Transportation Commission (MHTC) incorporates the entire TIP by reference in the Statewide Transportation Improvement Program (STIP). This is done by EWGCOG issuing a "Determination of Conformity" ensuring that the predicted future mobile emissions resulting from the Selected Alternative fall below the 2007 and 2014 emission budget levels set out in the maintenance plans for the ozone producing volatile organic compounds (VOCs) and oxides of nitrogen (NOx). The 1997 ozone SIP submittal and/or the MDNR's Ozone Clean Data finding for the St. Louis area will establish the conformity budget to be used for the David Hoekel Parkway project.

The Selected Alternative for the David Hoekel Parkway project was evaluated within EWGCOG's Air Quality Conformity Determination modeling for the region, approved by the FHWA on September 2, 2011. Based on the conformity analysis conducted as part of the long-range plan development, the projects and programs included in the *Regional Transportation Plan 2040* and the *Federal Fiscal Year 2012-2015 Transportation Improvement Program* (FY 2012-2015 TIP) are found to be in conformity with the requirements of the Clean Air Act Amendments of 1990, the relevant sections of the Final Conformity Rule 40 CFR Part 93, and the Missouri State Conformity Regulations 10 CSR 10-5.480. The

finding is documented in the *Air Quality Conformity Determination and Documentation (8-Hour Ozone & PM_{2.5}) for the Regional Transportation Plan 2040 and 2012-2015 Transportation Improvement Program*.

The David Hoekel Parkway project is listed as a project of regional significance within the region's projects considered as part of the regional travel demand model: The David Hoekel Parkway project is listed as a project of regional significance within the region's projects considered as part of the regional travel demand model:

(<http://www.ewgateway.org/pdffiles/library/ag/aqconformitydoc/aqconformitydoc-FY2012.pdf> (David Hoekel Parkway project listed on page A-38)).

2.5.7 I-70 First, Second Tier, and Supplemental Environmental Studies

Sponsored by MoDOT, the I-70 First and Second Tier Environmental Studies assessed the need for improving and widening the 200-mile I-70 corridor between metropolitan St. Louis and Kansas City, Missouri. The portion of I-70 included in the David Hoekel Parkway Environmental Assessment was a part of the Second Tier Environmental Impact Statement (EIS) for Section of Independent Utility (SIU) 7 from Route 19 to Lake St. Louis Boulevard.

Traffic projections for the Year 2030 from the I-70 Second Tier EIS indicated that this portion of I-70 would need six lanes from Route 19 to two miles west of Route 47, and eight lanes through the eastern end of the section at Lake St. Louis Boulevard.

The conclusions from the I-70 First and Second Tier Environmental Studies have been reevaluated within the I-70 Supplemental EIS (SEIS). This I-70 SEIS was conducted to consider the potential of constructing truck-only lanes on I-70 between Kansas City and St. Louis to separate trucks from passenger vehicle traffic. This could result in the existing I-70 Corridor through Wentzville being widened in the future to four lanes each direction – two lanes for trucks and two lanes for passenger vehicles each direction. The David Hoekel Parkway Environmental Assessment coordinated with the I-70 SEIS to make sure that the proposed project and its proposed new interchange with I-70 is consistent with the plans for I-70 within the I-70 SEIS.

At the present time, MoDOT is evaluating what type of widening is most appropriate for the I-70 corridor based on available funding, corridor traffic needs, and the timing of construction. For purposes of this AJR, it is assumed that the I-70 corridor will be widened to six lanes between Route W/T and the Wentzville Parkway as the Preferred Alternative, consistent with the EWGCOG's 2040 Regional Transportation Plan, and the most recent discussions with MoDOT.

2.5.8 Interstate Drive Corridor Preservation Study

Similar to the I-70/U.S. 61 Beltway Corridor Preservation Study, the Interstate Drive Corridor Preservation Study was conducted to preserve right of way for a future southern frontage road along the I-70 corridor from Schaper Road (just west of the proposed David Hoekel Parkway connection to I-70) to Duello Road. This new south outer roadway would provide connectivity between I-70 interchanges within the limits of Wentzville and surrounding St. Charles County. The City of Wentzville and St. Charles County continue to plan and construct sections of this future connection in phases as funding becomes available. It is a critical link on the south side of I-70 to link the future David Hoekel Parkway with the Wentzville Parkway interchange to the east. The City of Wentzville has committed to funding and constructing the Interstate Drive corridor connecting to the David Hoekel Parkway prior to constructing the I-70/David Hoekel Parkway interchange.

(http://www.wentzvillemo.org/maps%20pdf/Corridor_Preservation_Map.pdf)

The following section specifically addresses the FHWA Missouri Division's Prompt-List for Reviewing Interstate Access Requests.

a) Does the IJR discuss or include (as appropriate) other project(s), studies or planned actions that may have an effect on the report analysis results?

Studies, plans and projects that may have an effect on the proposed I-70 and David Hoekel Parkway interchange project are discussed and summarized in the section immediately above. These studies and projects include:

- Wentzville Comprehensive Plan
- Envision 2020 St. Charles County Master Plan and Thoroughfare Plan
- I-70/U.S. 61 Beltway Corridor Preservation Study
- I-70 Break-in-Access Study
- David Hoekel Parkway Environmental Assessment
- I-70 First, Second Tier and Supplemental Environmental Studies
- East-West Gateway Council of Governments Regional Transportation Plan 2040 and Air Quality Conformity Determination
- Interstate Drive Corridor Preservation Study

These studies have been considered and incorporated into the analysis conducted within this IJR.

b) Does the project conform to the local planning, MPO or other related plans?

The new I-70/David Hoekel Parkway interchange will be consistent with local and regional planning efforts and land use plans for the City of Wentzville, St. Charles County and the St. Louis region. In the past decade, several local, regional, transportation and land use plans have been completed within the study area that have included the proposed project. These studies are described in Section 2.5 above and it is noted how the proposed project relates and is consistent with each plan.

c) Is the access request located within a Transportation Management Areas? (TMA's are metropolitan areas of 200,000 or more in population)

The proposed interchange is located in the St. Louis Transportation Management Area (TMA).

d) Is the access request located within a non-attainment area for air quality? (requests for access in a non-attainment or maintenance areas for air quality must be a part of a conforming transportation plan)

The proposed project is located within the Metropolitan St. Louis Interstate Air Quality Control Region (Missouri – Illinois) (AQCR #70). The St. Louis Metropolitan Area is currently designated as a non-attainment area for particulates (annual PM_{2.5}) and ozone (O₃), and classified in attainment for all other criteria pollutants. The O₃ nonattainment is Subpart 2/Moderate. In addition, the area is designated as a maintenance area for carbon monoxide under the National Ambient Air Quality Standards. The conformity determinations for both air pollutants have been conducted by the East-West Gateway Council of Governments (EWGCOG) using the latest Missouri State Implementation Plan (SIP) submittals.

Under the provisions of the Clean Air Act Amendments (CAAA) of 1990, the EWGCOG, as the Metropolitan Planning Organization (MPO) for the region, is the agency responsible for making sure a transportation project conforms to the air quality goals stipulated in the Transportation Implementation Plan (TIP). If the projected motor vehicle emissions from the planned transportation project do not exceed the motor vehicle emissions budget established in the TIP, EWGCOG places the project in the TIP and the Missouri Highways and Transportation Commission (MHTC) incorporates the entire TIP by reference in the Statewide Transportation Improvement Program (STIP). This is done by EWGCOG issuing a "Determination of Conformity" ensuring that the predicted future mobile emissions resulting from the Selected Alternative fall below the 2007 and 2014 emission budget levels set out in the maintenance plans for the ozone producing volatile organic compounds (VOCs) and oxides of nitrogen (NOx). The 1997 ozone SIP submittal and/or the MDNR's Ozone Clean Data finding for the St. Louis area will establish the conformity budget to be used for the David Hoekel Parkway project.

The David Hoekel Parkway and its interchanges with I-70 and U.S. 61 were evaluated within EWGCOG's Air Quality Conformity Determination modeling for the region, approved by the Federal Highway Administration on September 2, 2011. The Conformity Determination was made for the entire 1997 eight-hour ozone non-attainment area and PM2.5 non-attainment area. Ozone non-attainment counties include: Franklin, Jefferson, St. Charles and St. Louis Counties and the City of St. Louis in Missouri; and Madison, Monroe, St. Clair and Jersey Counties in Illinois. The annual PM2.5 non-attainment area consists of: Franklin, Jefferson, St. Charles and St. Louis Counties and the City of St. Louis in Missouri; and Madison, Monroe and St. Clair Counties and Baldwin Township in Randolph County, in Illinois.

Based on the conformity analysis conducted as part of the long-range plan development, the projects and programs included in the *Regional Transportation Plan 2040* and the *Federal Fiscal Year 2012-2015 Transportation Improvement Program* (FY 2012-2015 TIP) are found to be in conformity with the requirements of the Clean Air Act Amendments of 1990, the relevant sections of the Final Conformity Rule 40 CFR Part 93, and the Missouri State Conformity Regulations 10 CSR 10-5.480. The finding is documented in the *Air Quality Conformity Determination and Documentation (8-Hour Ozone & PM2.5) for the Regional Transportation Plan 2040 and 2012-2015 Transportation Improvement Program*. The David Hoekel Parkway project is listed as a project of regional significance within the region's projects considered as part of the regional travel demand model: (<http://www.ewgateway.org/pdf/files/library/ag/aqconformitydoc/aqconformitydoc-FY2012.pdf> (David Hoekel Parkway project listed on page A-38)).

e) Is the project included in the TIP/STIP and LRTP?

The City of Wentzville has coordinated with the EWGCOG, MoDOT and FHWA throughout the study process for the David Hoekel Parkway to ensure the project has addressed the region's transportation planning requirements. Within the Environmental Assessment, it was determined by FHWA, MoDOT and EWGCOG that the TIP/STIP and LRTP requirements for the region were met by including the project within the region's air quality conformity determination. The proposed project submitted and included in the air quality conformity determination is consistent with that included in the Environmental Assessment and AJR. The David Hoekel Parkway project is listed as a project of regional significance within the region's projects considered as part of the regional travel demand model: (<http://www.ewgateway.org/pdf/files/library/ag/aqconformitydoc/aqconformitydoc-FY2012.pdf> (David Hoekel Parkway project listed on page A-38)).

The entire David Hoekel Parkway from I-70 to U.S. 61 will not be built all at once, but rather will be developed in phases. Phase 1 of the project includes the U.S. 61/David Hoekel Parkway from Peine Road to Route P, as well as other complementary at-grade highway safety crossing improvements on U.S. 61. In recent years, there has been a growing, significant safety need at the proposed U.S. 61/David Hoekel Parkway interchange location, which has elevated this section of the overall corridor to first priority, as part of a 2013 City of Wentzville/St. Charles County/MoDOT cost share agreement. The cost share agreement was approved in March 2013 and the agencies have executed their interagency agreement. This cost share agreement secures committed funding for Phase 1 of the overall project and will be included in MoDOT's amended FY 2014-2018 STIP, and, as a result incorporated into the St. Louis region's TIP and 2040 Regional Transportation Plan (RTP), with funding for construction in 2016.

The City of Wentzville and St. Charles County have coordinated together to develop a fiscally constrained plan for the full David Hoekel Parkway project (shown in **Table 2-12** below) and are currently coordinating with the EWGCOG to get the full corridor included within the 2040 RTP, and then additional phases of the project included in the TIP/STIP as they roll into the 5-year construction horizon of those programs. The EWGCOG has provided a letter of regional support for the project highlighting the project's consistency with the Council's long-range transportation plan and indicating the first phase of the project will be incorporated into the region's TIP and 2040 RTP since funding has been committed (See **Appendix A**).

f) Is the access point covered as a part of an Interstate corridor study or plan? (especially important for areas where the potential exists for construction of future adjacent interchanges)

The proposed interchange is not part of an interstate corridor study or plan, but has been evaluated as part of the David Hoekel Parkway Environmental Assessment and the MoDOT I-70 Second Tier and Supplemental EIS. Within those environmental studies (See SIU #7, I-70 Second Tier EIS for reference), the northern outer road (Goodfellow Road) is shown to be relocated to the north to meet MoDOT access management guidelines and leave ROW cleared for the future proposed I-70/David Hoekel Parkway interchange. In addition, the David Hoekel Parkway Environmental Assessment environmentally cleared a footprint large enough to accommodate the future widening of the I-70 corridor by MoDOT within the influence area for the proposed I-70/David Hoekel Parkway interchange.

The City of Wentzville coordinates regularly with MoDOT, St. Charles County, EWGCOG and the adjacent city of Foristell and there are no other proposed or planned new interchanges along I-70 within the influence area for the proposed interchange.

g) If the project is to be built in stages, are follow-on stages included in the STIP? (may demonstrate a commitment on the part of the requestor)

The entire David Hoekel Parkway from I-70 to U.S. 61 will not be built all at once, but rather will be developed in phases, as described in the funding and phasing plan shown on **Exhibit 2-10** and in **Table 2-12**. Phase 1 of the project includes the U.S. 61/David Hoekel Parkway from Peine Road to Route P, as well as other complementary at-grade highway safety crossing improvements on U.S. 61. In recent years, there has been a growing, significant safety need at the proposed U.S. 61/David Hoekel Parkway interchange location, which has elevated this section of the overall corridor to first priority, as part of a 2013 City of Wentzville/St. Charles County/MoDOT cost share agreement. The cost share agreement was approved in March 2013 and the agencies have executed their interagency agreement. This cost share agreement secures committed funding for Phase 1 of the overall project and will be included in

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MoDOT's amended FY 2014-2018 STIP, and, as a result incorporated into the St. Louis region's TIP and 2040 Regional Transportation Plan (RTP), with funding for construction in 2016.

Table 2-12
David Hoekel Parkway Phasing and Funding Plan

Phase	Description	Length (Miles)	Funding Sources	Construction Year	Cost Estimate (Const. Year Dollars)
1	Peine Road to Route P (includes U.S. 61/DHP Interchange)	0.34	Wentzville \$1.3M (2013) Wentzville \$1.2M (2015) St. Charles County \$3.5M (2013) MoDOT Cost Share \$6.0M (2016) MoDOT Safety Funds \$1.0M (2016)	2016	\$ 11,900,000
2	Interstate Drive to Meyer Road (includes I-70/DHP Interchange)	1.91	Interchange: St. Charles County (60%) \$12.0M * Wentzville (40%) \$8.0M * Roadway: St. Charles County (80%) \$17.4M ** Wentzville (20%) \$6.4M **	2017-2022	\$ 41,800,000
3	Point Prairie Road to Peine Road	1.80	St. Charles County (80%) \$11.8M ** Wentzville (20%) \$2.9M **	2023-2027	\$ 14,700,000
4	Meyer Road to Point Prairie Road	1.44	St. Charles County (80%) \$9.6M **/** Wentzville (20%) \$2.4M **/**	2028-2032	\$ 12,000,000
5	Jackson Road to Interstate Drive	0.78	St. Charles County (80%) \$10.2M **/** Wentzville (20%) \$2.6M **/**	2033-2037	\$ 12,800,000
Total		6.27			\$ 93,200,000

* Footnote: Anticipate seeking Federal and State Funds to off-set local costs shown above, as opportunities become available in the future as supplemental funding.

** Footnote: Anticipate seeking Federal Funds to off-set local costs shown above, as opportunities become available in the future as supplemental funding.

*** Footnote: Subject to reauthorization of Wentzville City and St. Charles County 1/2 Cent Transportation Sales Tax.

The proposed new access at I-70/David Hoekel Parkway is included as Phase 2 of the overall project and includes the David Hoekel Parkway from Meyer Road to the north of I-70 and Interstate Drive to the south of I-70, including the proposed I-70/David Hoekel Parkway interchange included in this AJR. In the funding and phasing plan in **Table 2-12** for the project, the City and St. Charles County demonstrate their fiscally constrained plan for completing this portion of the Parkway as Phase 2. The interchange would serve traffic volumes to the future parkway, adjacent land uses and relieve congestion at the two adjacent interchanges.

The City of Wentzville is committed to constructing the entire parkway and proposed interchange. The City plans to fund the project with local, city funding sources and through partnerships with St. Charles County. They have designated the project for future funding within their City Improvement Plan. Additionally, approximately 28 acres of right of way have been dedicated to the future parkway by adjacent developers or purchased by the City of Wentzville as part of the Corridor Preservation Study efforts. This represents 30% of the overall right of way required for the overall corridor project.

The City of Wentzville and St. Charles County have coordinated together to develop a fiscally constrained plan for the project and are currently coordinating with the EWGCOG to get the full corridor included within the 2040 RTP. The EWGCOG has provided a letter of regional support for the project highlighting the project's consistency with the Council's long-range transportation plan and indicating

the first phase of the project will be incorporated into the region's TIP and 2040 RTP since funding has been committed (See **Appendix A**).

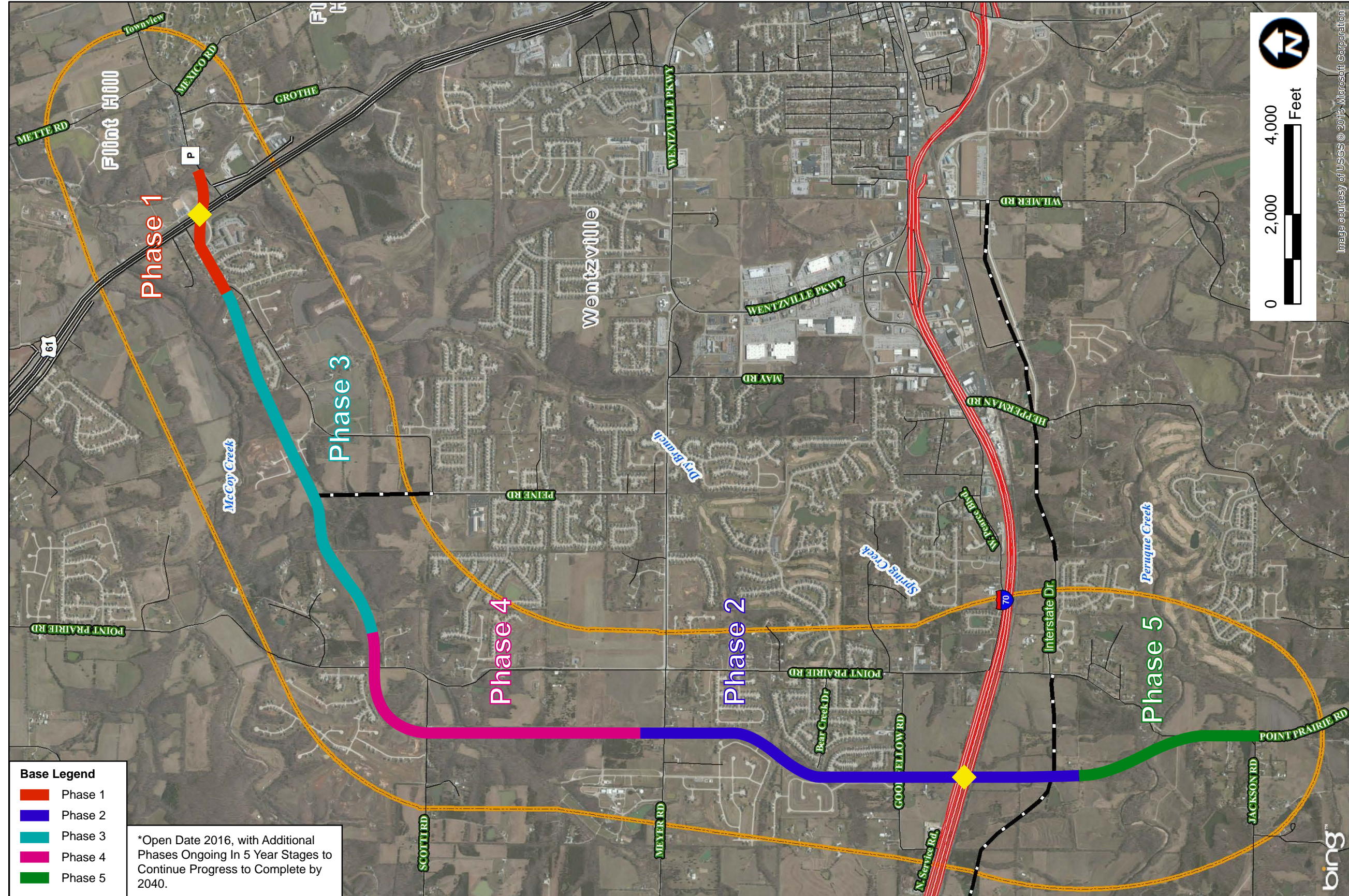
h) If the project is to be built in stages, are the funding commitments consistent with state and local government transportation plans?

The City of Wentzville is committed to constructing the entire parkway and proposed interchange. The City plans to fund the project with local, city funding sources and through partnerships with St. Charles County. They have designated the project for future funding within their City Improvement Plan and the County through the St. Charles County transportation fund. The details of the project funding plan are described further within Section 2.5, subsection g. above within **Table 2-12**.

The City and County developed this plan to demonstrate their commitment to fully fund and construct the proposed interchange and the David Hoekel Parkway solely using City and County funding sources. However, since an Environmental Assessment is being completed for the project, the project will be eligible for federal funding once it is approved. There is also the potential that developers surrounding the interchange could dedicate additional right of way for the project to help offset project right of way costs. While the City and County have developed a plan to fully fund the proposed project, the two planning entities would continue to evaluate future funding opportunities through MoDOT's cost share programs, transportation development districts, and state and federal grant program, if they become available to help fund the project at a later time.

Conclusion

The new I-70/David Hoekel Parkway interchange will be planned and constructed consistent with local and regional planning efforts and land use plans for the City of Wentzville, St. Charles County and the St. Louis region. In the past decade, several local, regional, and statewide transportation, environmental and land use plans have been completed within the study area that have included the proposed project. The City of Wentzville has coordinated with the EWGCOG, MoDOT and FHWA throughout the study process for the David Hoekel Parkway to ensure the project has addressed the region's transportation planning requirements. The David Hoekel Parkway project is listed as a project of regional significance within the region's projects considered as part of the regional travel demand model and its 2011 air quality conformity determination. In addition, the first phase of the David Hoekel Parkway project (U.S. 61 interchange and corridor improvements) will be included in MoDOT's amended FY 2014-2018 STIP, and, as a result incorporated into the St. Louis region's TIP and 2040 Regional Transportation Plan (RTP), with funding through a cost share agreement between MoDOT, St. Charles County and the City of Wentzville for construction in 2016. The City of Wentzville and St. Charles County have also developed a funding and phasing plan (See Section 2.5, subsection g. above) demonstrating the full completion of the project.



*I-70/61
Beltway*

EXHIBIT 2-10

David Hoekel Parkway Phasing Plan



2.6 Consistency with Future Access Plans

FHWA Policy Point Six: *The Concept Study considered regional impacts*

In corridors where the potential exists for future multiple interchange additions, a comprehensive corridor or network study must accompany all requests for new or revised access with recommendations that address all of the proposed and desired access changes within the context of a longer-range system or network plan (23 U.S.C. 109(d), 23 CFR 625.2(a), 655.603(d), and 771.111).

There are no local, county or regional plans to add any other new interchanges to I-70 between Route W/T interchange and the Wentzville Parkway interchange. The City of Wentzville coordinates regularly with MoDOT, St. Charles County, East-West Gateway and the adjacent city of Foristell and there are no other proposed or planned new interchanges along I-70 within the influence area for the proposed interchange.

As a general guideline, the *Geometric Design of Highway and Streets* by the American Association of State Highway and Transportation Officials recommends that interchanges be spaced no closer than one mile apart in urban areas and two miles apart in rural areas. When closer than one mile, weaving areas between the interchanges become more difficult for traffic operations. The new David Hoekel Parkway is halfway between the existing Route W/T and Wentzville Parkway interchanges, 2.3 miles from each. To the west, the existing truck weigh station ramps would be located between the proposed parkway and Route W/T interchange, but the Second Tier I-70 EIS and Supplemental EIS recommends the weigh station to be relocated 25 miles further west out of the study area. However, this is not a committed and funded project at this time so alternatives have been analyzed both with and without the weigh station to test its operations. The traffic and safety analysis determined that even with the weigh station, traffic operations are acceptable (See Section 2.3).

The following section specifically addresses the FHWA Missouri Division's Prompt-List for Reviewing Interstate Access Requests.

- a) Is it possible that new interchange(s) not addressed in the IJR could be added within an area of influence to the proposed access point? (If so, could the proposal preclude or otherwise be affected by any future access points?)**

There are no local, county or regional plans to add any other new interchanges to I-70 between Route W/T interchange and the Wentzville Parkway interchange. The City of Wentzville coordinates regularly with MoDOT, St. Charles County, East-West Gateway and the adjacent city of Foristell and there are no other proposed or planned new interchanges along I-70 within the influence area for the proposed interchange.

- b) Does the IJR report include the traffic volumes generated by any future additional interchanges within a vicinity of influence that are proposed?**

There are no other new interchanges proposed in the influence area.

- c) Does the IJR report fail to include any other proposed interstate access points within a vicinity of influence that are being proposed or are in the current long range construction program?**

There are no local, county or regional plans to add any other new interchanges to I-70 between Route W/T interchange and the Wentzville Parkway interchange. The City of Wentzville coordinates regularly with MoDOT, St. Charles County, East-West Gateway and the adjacent city of Foristell and there are no other proposed or planned new interchanges along I-70 within the influence area for the proposed interchange.

Conclusion

There are no local, county or regional plans to add any other new interchanges to I-70 between Route W/T interchange and the Wentzville Parkway interchange. The City of Wentzville coordinates regularly with MoDOT, St. Charles County, East-West Gateway and the adjacent city of Foristell and there are no other proposed or planned new interchanges along I-70 within the influence area for the proposed interchange.

2.7 Coordination with Future Development

FHWA Policy Point Seven: *The Proposed Concept is to serve regional transportation needs.*

When a new or revised access point is due to a new, expanded, or substantial change in current or planned future development or land use, requests must demonstrate appropriate coordination has occurred between the development and any proposed transportation system improvements (23 CFR 625.2(a) and 655.603(d)). The request must describe the commitments agreed upon to assure adequate collection and dispersion of the traffic resulting from the development with the adjoining local street network and Interstate access point (23 CFR 625.2(a) and 655.603(d)).

The new I-70/David Hoekel Parkway interchange will be consistent with local planning efforts identified in the City's Comprehensive Plan. (<http://www.wentzvillemo.org/comprehensive-plan-update.aspx>). Within the Comprehensive Plan, Wentzville has developed a very complete thoroughfare plan which identifies their ultimate roadway network. The parkway is considered its most vital element. The parkway will serve the city and provide connectivity between I-70 and U.S. 61 for the region. The new I-70 and David Hoekel Parkway access point will serve planned future development in Wentzville; however, it is not being constructed to serve a specific private development. Appropriate coordination has occurred between any existing and planned development and the proposed transportation system improvements. Full build-out of the David Hoekel Parkway corridor, including the planned development mentioned here, has been accounted for in the 2040 traffic projections.

St. Charles County has coordinated with the City of Wentzville regarding the city's transportation and land use needs. Its master plan contains the proposed project and acknowledges the population boom and land use changes Wentzville has experienced in the past decade. The proposed project is also included in St. Charles County's Thoroughfare Plan. The goal of the county-wide Thoroughfare Plan is to identify strategic road corridors vital for efficient traffic flow and for orderly development. The Thoroughfare Plan is a long-range conceptual road plan that outlines the right-of-way needed for future road improvements necessary to accommodate additional residential, commercial and retail development.

(http://transportation.sccmo.org/transportation/index.php?option=com_content&task=view&id=20&Itemid=34)

Existing land uses within the study area for the proposed interchange are primarily agricultural/open space with some pockets of single-family residential development. The City plans commercial and

industrial uses on the north and south sides of the I-70 near the parkway and dense residential areas in the northwest region of the city. These plans transform the predominately agricultural landscape. These new land uses require more capable transportation access. The City has recognized the proposed road will fulfill those access needs in a smart, all-encompassing manner. (Future land use map: http://www.wentzvillemo.org/maps%20pdf/Future_Land_Use.pdf)

Land developers, especially new residential subdivisions, have already accommodated for the David Hoekel Parkway and its interchanges by dedicating right-of-way to the City to preserve a corridor for the future roadway. Nearly 28 acres of right-of-way has been dedicated at no cost to the City through March 2003. This figure represents roughly 30 percent of the total right-of-way required for the project and a significant land acquisition saving to the City. In addition, the large land parcels south of I-70 which would be split by the new parkway are already owned by a land developer. The developer is aware of the project and is waiting to redevelop as soon as design plans are finalized. The City has informational materials developed that show the planned right of way footprint for the David Hoekel Parkway and interchanges for use in coordinating with potential developers. (David Hoekel Parkway Corridor preservation map: http://www.wentzvillemo.org/maps%20pdf/Corridor_Preservation_Map.pdf)

The following section specifically addresses the FHWA Missouri Division's Prompt-List for Reviewing Interstate Access Requests.

a) Does the access request adequately demonstrate that an appropriate effort of coordination has been made with appropriate proposed developments?

The City has developed a range of materials and maps to assist with coordination with proposed developers and potential homeowners along the future David Hoekel Parkway corridor and its interchanges.

- The City has developed a David Hoekel Parkway corridor preservation map for use in coordination with developers to show where right of way is preserved for the future corridor. (http://www.wentzvillemo.org/maps%20pdf/Corridor_Preservation_Map.pdf)
- The City has a public disclosure brochure that explains any plans for the future David Hoekel Parkway corridor so that new developers and potential homeowners have the proper information on the planned improvements. (<http://www.wentzvillemo.org/PublicDisclosureBrochureSeptember2011.pdf>)
- The City has a site plan review and approval process brochure for coordination with potential developers. <http://www.wentzvillemo.org/Site%20Plan%20Brochure%202013.pdf>

Land developers, especially new residential subdivisions, have already accommodated for the David Hoekel Parkway and its interchanges by dedicating right-of-way to the City to preserve a corridor for the future transportation corridor. Nearly 28 acres of right-of-way has been dedicated at no cost to the City through March 2003. This figure represents roughly 30 percent of the total right-of-way required for the project and a significant land acquisition saving to the City. In addition, the large land parcels south of I-70 which would be split by the new parkway are already owned by a land developer. The developer is aware of the project and is waiting to redevelop as soon as design plans are finalized. The City has informational materials developed that show the planned right of way footprint for the David Hoekel Parkway and interchanges for use in coordinating with potential developers.

b) Are the proposed improvements compatible with the existing street network or are other improvements needed?

The proposed I-70/David Hoekel Parkway interchange would serve the David Hoekel Parkway between I-70 and U.S. 61, as well as provide access via the northern and southern frontage roads between the Route W/T interchange to the west and the Wentzville Parkway interchange to the east. The David Hoekel Parkway is planned to be constructed in phases. However, the David Hoekel Parkway and supporting roadway network needs to be constructed from Meyer Road on the north and Interstate Drive on the south either before or simultaneously with the proposed I-70/David Hoekel Parkway interchange to provide access and connectivity benefits prior to the full parkway being constructed between U.S. 61 and Jackson Road. In the funding and phasing plan for the project included in Section 2.5, g. above, the City and St. Charles County demonstrate their plan for completing this portion of the Parkway as Phase 2. The interchange would serve traffic volumes to the future parkway, adjacent land uses and relieve congestion at the two adjacent interchanges.

Interstate Drive would need to be constructed to the south of I-70 in order to provide connectivity between the proposed interchange and the two adjacent interchanges. Interstate Drive is a planned improvement within the City's Comprehensive Plan and Thoroughfare Plan and the City and County are actively working on funding and constructing portions of Interstate Drive. The portion of Interstate Drive connecting to the proposed interchange would be constructed by the City and County prior to the construction and opening of the I-70/David Hoekel Parkway interchange.

There are no other existing street network improvements that need to be completed in advance or in parallel with the proposed project.

c) Are there any pre-condition contingencies required in regards to the timing of other improvements?

There are no pre-condition contingencies required in regards to the timing of other improvements.

d) If pre-condition contingencies are required, are pertinent parties in agreement with these contingencies and is this documented?

There are no pre-condition contingencies required in regards to the timing of other improvements.

e) If the proposed improvements are founded on the need for providing access to new development, are appropriate commitments in place to ensure that the development will likely occur as planned?

In many locations along the David Hoekel Parkway developers have already initiated new residential subdivisions throughout the last decade. Many of these subdivisions are already significantly occupied, or underway today with connecting street systems and utilities in place. These residential developments have coordinated with the City of Wentzville to preserve right of way for the future David Hoekel Parkway to serve their subdivisions. The road and interchange will provide new access to these existing and planned developments.

In addition to serving existing and new residential development, there is also commercial development planned at the I-70/David Hoekel Parkway interchange. The large land parcels south of I-70 which would

be split by the new parkway are already owned by a land developer. The developer is aware of the project and is waiting to redevelop as soon as design plans are finalized.

Although the existing and planned residential and commercial development in this northwestern area of Wentzville is a critical reason for constructing the proposed interchange, there are other key needs besides this development why the interchange is needed for the community. The interchange is not being constructed to serve one specific developer. The interchange is needed to relieve congested traffic conditions at the adjacent Wentzville Parkway and Route W/T interchanges. It will also provide alternative regional connectivity between I-70 and U.S. 61 to the north and west of Wentzville. This helps relieve some traffic congestion and provides an alternate route for the existing I-70/U.S. 61 interchange.

f) If project is privately funded, are appropriate measures in place to ensure improvements will be completed if the developer is unable to meet financial obligations?

The proposed project is not privately funded. Some private developers have dedicated right of way for the future roadway, but it is not anticipated developers will fund the interchange project. The interchange will be funded through public funding sources.

g) If the purpose and need is to accommodate new development/traffic demands that aren't fully known, is a worst case scenario used for future traffic?

Yes, a worst case traffic forecast was developed in order to fully evaluate the sensitivity of the proposed interchange. At the start of the 2012 study, MoDOT and FHWA agreed to develop 2040 traffic forecasts by growing the 2030 forecasts from the I-70 Supplemental EIS at a fixed growth rate. A growth rate of 3% for cars and 1.9% for trucks was selected based on the MoDOT I-70 Supplemental EIS. This represents aggressive growth and a worst case scenario for the project. Additionally, the volumes have been compared to the East-West Gateway regional travel demand model results. There was some concern by the study team that the regional model would underestimate the traffic for this area, so it was agreed that this study's design volumes should be more aggressive with growth assumptions than the EWGCOG's model volumes in order to assess a worst case scenario for the study area.

h) Does the project require financial or infrastructure commitments from other agencies, organizations or private entities?

A project funding and phasing plan was developed by the City of Wentzville and St. Charles County and is included in Section 2.5 g. above. The City and County developed this plan to demonstrate their commitment to fully fund and construct the proposed interchange and the David Hoekel Parkway solely using City and County funding sources. However, since an Environmental Assessment is being completed for the project, the project will be eligible for federal funding once it is approved. There is also the potential that developers surrounding the interchange could dedicate additional right of way for the project to help offset project right of way costs. While the City and County have developed a plan to fully fund the proposed project, the two planning entities would continue to evaluate future funding opportunities through MoDOT's cost share programs, transportation development districts, and state and federal grant program, if they become available to help fund the project at a later time.

Conclusion

The new I-70/David Hoekel Parkway interchange will be consistent with local planning efforts identified in the City's Comprehensive Plan and St. Charles County's Thoroughfare Plan. The Parkway will serve the City and provide connectivity between I-70 and U.S. 61 for the region. The new I-70/David Hoekel Parkway access point will serve planned future development in Wentzville; however, it is not being constructed to serve a specific private development. Appropriate coordination has occurred between any existing and planned development and the proposed transportation system improvements. Although the existing and planned residential and commercial development in this northwestern area of Wentzville is a critical reason for constructing the proposed interchange, there are other key reasons besides this development why the interchange is needed for the community. The interchange is needed to relieve congested traffic conditions at the adjacent Wentzville Parkway and Route W/T interchanges. It will also provide alternative regional connectivity between I-70 and U.S. 61 to the north and west of Wentzville.

2.8 Status of NEPA

FHWA Policy Point Eight: *The Preferred Concept will be evaluated using NEPA guidelines.*

The proposal can be expected to be included as an alternative in the required environmental evaluation, review and processing. The proposal should include supporting information and current status of the environmental processing (23 CFR 771.111).

The proposal has been included and fully evaluated within the required NEPA evaluation, review and processing. An Environmental Assessment is currently being completed for the project under a separate cover by the City of Wentzville, in coordination with MoDOT and FHWA. Within the Environmental Assessment, a range of initial and reasonable alternatives were evaluated for the David Hoekel Parkway and its interchange connections with I-70 and U.S. 61. The proposed improvements identified and analyzed in this AJR for the new I-70/David Hoekel Parkway interchange were fully evaluated and environmentally cleared as the Preferred Alternative for the project in the Environmental Assessment.

Social and Environmental Screening

A summary of the social and environmental impacts from the Environmental Assessment for the I-70/David Hoekel Parkway location is included in **Table 2-13**. As a result of this environmental analysis, it has been determined that no significant social or environmental impacts exist that cannot be avoided or mitigated at the interchange location.

The I-70/David Hoekel Parkway interchange area is predominantly agricultural land uses today with areas of prime farmland and farmland of statewide importance. The proposed interchange will impact 12.3 acres of farmland (3.1 acres prime farmland; 9.2 acres farmland of statewide importance). The farmland impacts were determined in the Environmental Assessment not to require additional farmland protection measures by the Natural Resources Conservation Service (NRCS).

Future land uses at the interchange are planned to be primarily commercial uses with single family residential development located to the north along the proposed David Hoekel Parkway. This is consistent with the City of Wentzville's and St. Charles County's comprehensive plans and future land use plans.

I-70 and David Hoekel Parkway Interchange
Access Justification Request

There is one single family residential displacement within the interchange area. The residence is located at the corner of N. Point Prairie Road and W. Pearce Boulevard, which is the north service road for the interchange. The relocation required for this displacement will be coordinated with the regulations of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 to ensure adequate considerations and compensation for the persons whose property is acquired for the project.

There is also one railroad, owned by the Norfolk Southern Railroad, which runs parallel to I-70 at the interchange crossing. It will be bridged over at the interchange crossing of I-70.

A Section 404 permit from the U.S. Army Corps of Engineers and stream mitigation will be required for the minor stream impacts at the proposed interchange area for an unnamed tributary of Peruque Creek. There are no other impacts to water resources or floodplains for the proposed interchange. Some minor wooded remnants of forested areas are impacted by the proposed interchange (2.1 acres), but no high quality natural community impacts or threatened and endangered species are impacted. The forested areas could potentially contain habitat for the Indiana Bat; however, there are no known locations or recorded occurrences within the study area and the project is not likely to have an adverse impact on the Indiana Bat.

The Missouri State Historic Preservation Office (SHPO) has also concurred that there are no National Register of Historic Places (NRHP) listed or eligible archaeological or architectural resources or sites present in the interchange area that are adversely affected by the proposed project.

Table 2-13
I-70 and David Hoekel Parkway Interchange Environmental Screening

Evaluation Factors	Units	I-70/David Hoekel Parkway Proposed Interchange
Environmental Issues		
Prime Farmland Impacts	Acres	3.1
Farmland of Statewide Importance	Acres	9.2
Stream Impacts	Linear Feet	244
Stream Crossings	No.	1
NWI Wetland Impacts	Acres	0
Pond Impacts (jurisdictional only)	Acres	0
Floodplain Impacts	Acres	0
Forest Impacts (wooded remnants)	Acres	2.1

High Quality Natural Community Impacts	Acres	0
Threatened & Endangered Species Habitat Impacts	No. Species	0
Cultural Resources (Adverse Effect)		
NRHP Listed Architectural Resources	No.	0
NRHP Listed Archeological Sites	No.	0
NRHP Eligible Architectural Resources	No.	0
NRHP Eligible Archeological Sites	No.	0
Hazardous Material Sites (Med. or High Contamination)	No.	0
Social and Economic Issues		
Total Acquisitions		
Single-Family Residential Impacts	No.	1
Multi-Family Residential Impacts (Apartments)	No. Units	0
Business Impacts	No.	0
Public/Semi-Public Impacts ***	No.	0
Railroad Crossings (Norfolk Southern Railway Co.)	No.	1
Parkland Impacts - Section 4(f)/6(f)	Acres	0
Minority or Low-Income Community Impacts	No.	0
Impacts to Neighborhoods	No.	0
Consistency with Community/Land Use Plans	Yes/No	Yes

*** Includes churches, cemeteries, schools and other public/semi-public properties. Excludes parkland impacts.

Status of NEPA Process

The Environmental Assessment has been ongoing since 2007 and the Draft Environmental Assessment was approved in October 2009. Since that time, a preliminary Final Environmental Assessment and Finding of No Significant Impact (FONSI) have been prepared and reviewed by MoDOT and FHWA. There have also been no significant changes to the study area for the proposed interchange since that time. Final approval of the FONSI is waiting on the approval of the revised AJR to complete the NEPA process for the project. A copy of the approved Draft Environmental Assessment and preliminary Final

Environmental Assessment and FONSI are located on the City of Wentzville's website for further review at: <http://www.wentzvillemo.org/preservation-projects.aspx>.

The following section specifically addresses the FHWA Missouri Division's Prompt-List for Reviewing Interstate Access Requests.

a) Are there any known social or environmental issues that could affect the proposal?

An Environmental Assessment is currently being completed for the project under a separate cover by the City of Wentzville, in coordination with MoDOT and FHWA. A summary of the social and environmental impacts from the ongoing Environmental Assessment for the I-70/David Hoekel Parkway location is included in **Table 2-13** above. Within the Environmental Assessment, all potential social and environmental impacts that could affect the proposed action were evaluated. As a result of this environmental analysis, it has been determined that no significant social or environmental impacts exist that cannot be avoided or mitigated at the interchange location. A copy of the approved Draft Environmental Assessment and preliminary Final Environmental Assessment and FONSI are located on the City of Wentzville's website for further review at: <http://www.wentzvillemo.org/preservation-projects.aspx>.

The key social and environmental constraints within the interchange area included the following:

- The I-70/David Hoekel Parkway interchange area is predominantly agricultural land uses today with areas of prime farmland and farmland of statewide importance. The proposed interchange will impact 12.3 acres of farmland (3.1 acres prime farmland; 9.2 acres farmland of statewide importance). The farmland impacts were determined in the Environmental Assessment not to require additional farmland protection measures by the Natural Resources Conservation Service (NRCS).
- Future land uses at the interchange are planned to be primarily commercial uses with single family residential development located to the north along the proposed David Hoekel Parkway. This is consistent with the City of Wentzville's and St. Charles County's comprehensive plans and future land use plans.
- There is one single family residential displacement within the interchange area. The residence is located at the corner of N. Point Prairie Road and W. Pearce Boulevard, which is the north service road for the interchange. The relocation required for this displacement will be coordinated with the regulations of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 to ensure adequate considerations and compensation for the persons whose property is acquired for the project.
- There is also one railroad, owned by the Norfolk Southern Railroad, which runs parallel to I-70 at the interchange crossing. It will be bridged over at the interchange crossing of I-70.
- A Section 404 permit from the U.S. Army Corps of Engineers and stream mitigation will be required for the minor stream impacts at the proposed interchange area for an unnamed tributary of Peruque Creek. There are no other impacts to water resources or floodplains for the proposed interchange.
- Some minor wooded remnants of forested areas are impacted by the proposed interchange (2.1 acres), but no high quality natural community impacts or threatened and endangered species are impacted. The forested areas could potentially contain habitat for the Indiana Bat; however, there

are no known locations or recorded occurrences within the study area and the project is not likely to have an adverse impact on the Indiana Bat.

- The Missouri State Historic Preservation Office (SHPO) has also concurred that there are no National Register of Historic Places (NRHP) listed or eligible archaeological or architectural resources or sites present in the interchange area that are adversely affected by the proposed project.

b) Is the project consistent with the current TIP/STIP and LRTP and/or proposed amendments to the plan?

The City of Wentzville has coordinated with the EWGCOG, MoDOT and FHWA throughout the study process for the David Hoekel Parkway to ensure the project has addressed the region's transportation planning requirements. Within the Environmental Assessment, it was determined by FHWA, MoDOT and EWGCOG that the TIP/STIP and LRTP requirements for the region were met by including the project within the region's air quality conformity determination. The proposed project submitted and included in the air quality conformity determination is consistent with that included in the Environmental Assessment and AJR. The David Hoekel Parkway project is listed as a project of regional significance within the region's projects considered as part of the regional travel demand model:

(<http://www.ewgateway.org/pdf/files/library/ag/aqconformitydoc/aqconformitydoc-FY2012.pdf> (David Hoekel Parkway project listed on page A-38)).

The entire David Hoekel Parkway from I-70 to U.S. 61 will not be built all at once, but rather will be developed in phases. Phase 1 of the project includes the U.S. 61/David Hoekel Parkway from Peine Road to Route P, as well as other complementary at-grade highway safety crossing improvements on U.S. 61. In recent years, there has been a growing, significant safety need at the proposed U.S. 61/David Hoekel Parkway interchange location, which has elevated this section of the overall corridor to first priority, as part of a 2013 City of Wentzville/St. Charles County/MoDOT cost share agreement. The cost share agreement was approved in March 2013 and the agencies have executed their interagency agreement. This cost share agreement secures committed funding for Phase 1 of the overall project and will be included in MoDOT's amended FY 2014-2018 STIP, and, as a result incorporated into the St. Louis region's TIP and 2040 Regional Transportation Plan (RTP), with funding for construction in 2016.

The City of Wentzville and St. Charles County have coordinated together to develop a fiscally constrained plan for the full David Hoekel Parkway project (shown in **Table 2-12**) and are currently coordinating with the EWGCOG to get the full corridor included within the 2040 RTP, and then additional phases of the project included in the TIP/STIP as they roll into the 5-year construction horizon of those programs. The EWGCOG has provided a letter of regional support for the project highlighting the project's consistency with the Council's long-range transportation plan and indicating the first phase of the project will be incorporated into the region's TIP and 2040 RTP since funding has been committed (See **Appendix A**).

c) Although NEPA is a separate action, is an environmental overview for the proposed improvements included?

A thorough review of the environmental impact analysis resulting from the proposed interchange is included in the ongoing Environmental Assessment being prepared under a separate cover. Within the Environmental Assessment, a range of initial and reasonable alternatives were evaluated and the proposed improvements for the new I-70/David Hoekel Parkway interchange analyzed within this AJR was selected as the preferred interchange alternative for the project. The traffic and safety analysis

provided in the AJR is also summarized within the Environmental Assessment for consistency. At this time the preliminary Final Environmental Assessment with a Finding of No Significant Impact (FONSI) has been prepared to grant environmental clearance of the proposed action.

As a result of this environmental analysis conducted within the Environmental Assessment, it has been determined that no significant social or environmental impacts exist that cannot be avoided or mitigated at the proposed interchange location. A summary of the social and environmental impacts from the Environmental Assessment for the I-70/David Hoekel Parkway location is included in **Table 2-13** above.

d) Is it appropriate to emphasize to the project stakeholders that the access approval will be handled as a two-step process? (i.e. Step 1: Engineering and Operational Acceptability and Step 2: Environmental Approvals)

Stakeholder engagement with both the general public and the Resource Management Group (RMG), formed specifically for the project, has occurred regularly throughout the project development process. Stakeholder engagement for the proposed project began with the development of the City of Wentzville's Comprehensive Plan, *A Community's Vision*, in 1999 and continued through the subsequent studies for the project, including the 2001 I-70/U.S. 61 Beltway Corridor Preservation Study, the 2004 and 2006 I-70 Break-in-Access Studies, and the ongoing David Hoekel Parkway Environmental Assessment.

For this project, since preliminary BIAs/AJRs were developed in 2004 and 2006 prior to the initiation of the Environmental Assessment in 2007, the stakeholder engagement messaging on the two-step approval process has altered and been comingled throughout the life of the project. Public involvement meetings and stakeholder engagement with resource and other planning partners have been held throughout both the NEPA process and the BIA/AJR process.

The public involvement program for the Environmental Assessment was structured to: 1) maximize effectiveness in communicating with the public, 2) make record of and respond to the key issues and concerns of the various members of the public and stakeholders involved, and 3) achieve awareness of and informed consent on the Preferred Alternative recommended for the project. A wide range of public engagement tools were used for the project including public meetings held at key milestones throughout the project, newsletters/project fact sheets describing the project and its process and project materials posted on the City's web site at <http://www.wentzvillemo.org/preservation-projects.aspx>. In addition, a project mailing address and phone hotline were also used for stakeholder engagement. Chapter IV of the Environmental Assessment also provides a detailed summary of all public and stakeholder engagement conducted during the NEPA process.

Conclusion

At this time the NEPA process for the proposed project is nearly complete with a preliminary Final Environmental Assessment and FONSI prepared. MoDOT and FHWA previously signed the Draft Environmental Assessment in October 2009; the project has been modeled by EWGCOG within the region's air quality conformity determination in 2011; and all comments received by resource agencies and project stakeholder during the public comment period have been addressed. The Environmental Assessment evaluated the proposed action and determined that there were no fatal flaws or significant social and environmental impacts for the proposed project that could not be minimized, avoided or mitigated prior to design and construction. There have also been no significant changes to the study area since that time. Final approval of the Environmental Assessment with a FONSI will be granted once

the I-70/David Hoekel Parkway AJR is reviewed and approved for the proposed project. A copy of the approved Draft Environmental Assessment and preliminary Final Environmental Assessment and FONSI are located on the City of Wentzville's website for further review at:

<http://www.wentzvillemo.org/preservation-projects.aspx>.

2.9 Access Justification Request Conclusion

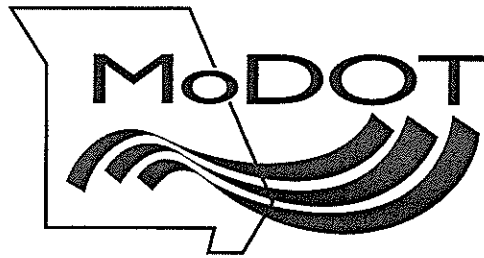
The City of Wentzville and MoDOT request approval from the Federal Highway Administration to construct a new interchange access point with I-70 at the planned David Hoekel Parkway in Wentzville, Missouri. The proposed interchange (proposed Exit 206), is located approximately 2.3 miles from the Route W/T interchange to the west and 2.3 miles from Wentzville Parkway interchange to the east. The David Hoekel Parkway will be a new 6.3-mile roadway connection between I-70 and U.S. 61 in the northwestern portion of Wentzville within St. Charles County. This Parkway and the proposed I-70/David Hoekel Parkway interchange will help relieve congestion at the adjacent interchanges along I-70 and provide new access and connectivity to the northwestern part of Wentzville and the St. Louis region.

An Environmental Assessment for the David Hoekel Parkway and its connecting interchange with I-70 has been prepared and is within its final stages of approval with a Finding of No Significant Impact (FONSI). Final approval is pending upon the approval of the I-70/David Hoekel Parkway interchange AJR. In addition, Phase 1 of the David Hoekel Parkway has funding committed in the MoDOT STIP and is planned for construction in 2016. Once these NEPA and AJR approvals are granted by FHWA and MoDOT, the City of Wentzville is ready to move this high priority project forward into the design and construction phase.

This request has documented that the proposed new access point to I-70 satisfies the requirements outlined in the Federal Register and FHWA's Missouri Division guidance for justifying new Interstate access.

Appendix A:
Correspondence

*Missouri
Department
of Transportation*



Ed Hassinger, District Engineer

*St. Louis Metro District
1590 Woodlake Drive
Chesterfield, MO 63017-5712
(314) 340-4100
Fax (314) 340-4119
www.modot.org
Toll free 1-888 ASK MoDOT*

August 17, 2006

Mr. Bill Bensing
City of Wentzville
310 West Pearce Blvd.
Wentzville, MO 63385-1422

Dear Mr. Bensing:

We have completed our review of your request for a break in access along I-70 in St. Charles County for the proposed Wentzville Beltway.

By looking at individual lanes, we found that along I-70 in the EB direction at the new beltway onramp there is an LOS of E. We believe that this LOS can be improved. We have decided to conceptually approve this break on the condition that this issue is resolved. We understand this will be addressed in the NEPA phase of this study.

We are in the process of setting up a meeting with FHWA to discuss the details of this approval and ensure them that the weave issues on the mainline have been addressed. This was a concern expressed by them at an earlier meeting.

If you have any questions, please contact me at 314-340-4550.

Sincerely,

Sent via e-mail attachment

Jeanne Olubogun
Transportation Planning Coordinator

Copies:
Luis Porrello-HNTB
Jim Gremaud-d6ae
Scotty Ward-d6tr
Ray Shank-cotr



EAST-WEST GATEWAY
Council of Governments

Creating Solutions Across Jurisdictional Boundaries

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County Executive
St. Louis County

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Steve Ehlmann
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St. Charles County

John Griesheimer
Presiding Commissioner
Franklin County

Ken Waller
County Executive
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Delbert Wittenauer
Chairman, Board of Commissioners
Monroe County

Members

Mark Eckert
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Southwestern Illinois
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John Hamm III
President, Southwestern Illinois
Metropolitan & Regional
Planning Commission

Ted Hoskins
St. Louis County

Mike Livengood
Franklin County

John Miller
President, Southwestern Illinois
Council of Mayors

Jack Minner
Madison County

Roy Mosley
St. Clair County

Alvin L. Parks, Jr.
Mayor, City of East St. Louis

Lewis Reed
President, Board of Aldermen
City of St. Louis

Thomas P. Schneider
St. Louis County Municipal League

John White
St. Charles County

Regional Citizens

Richard Kellett

John A. Laker

Brandon Perry

James A. Pulley

Dave Stoecklin

Non-voting Members

Charles Ingersoll
Illinois Department of
Transportation

Edie Koch
Illinois Department of Commerce
and Economic Opportunity

John Nations
Metro

Doug Nelson
Missouri Office of Administration

Dave Nichols
Missouri Department of
Transportation

Executive Director

Ed Hillhouse

Assistant Executive Director

James M. Wild

February 13, 2014

Mr. Douglas Forbeck
Community Development Director
City of Wentzville
310 West Pearce Boulevard
Wentzville, MO 63385

Dear Mr. Forbeck:

The David Hoekel Parkway is consistent with the Council's long-range transportation plan principle to support neighborhoods and communities throughout the metropolitan area. We understand that in the upcoming months the Missouri Department of Transportation intends to amend the project's first phase – the US 61/MO P interchange – into the region's Transportation Improvement Program (TIP), based on a cost-sharing agreement between the Department, the City of Wentzville, and St. Charles County. As a result of being included in the TIP, the first phase project will be amended into the region's long-range plan. As financial commitments and agreements are completed for subsequent phases of the Parkway, the Council will also advance those projects to the long-range plan's fiscally-constrained priority list.

Sincerely,

Jerry Blair

Director of Transportation Planning

Gateway Tower
One Memorial Drive, Suite 1600
St. Louis, MO 63102-2451

314-421-4220
618-274-2750
Fax 314-231-6120

webmaster@ewgateway.org
www.ewgateway.org



St. Charles County Government

Director of Transportation
John Greifzu, R.G., P.E.

April 15, 2013

Mr. Doug Forbeck
City of Wentzville
5 West Pearce Boulevard
Wentzville, MO 63385

Dear Mr. Forbeck,

Please accept this letter of support for the David Hoekel Parkway project including a new I-70 interchange. This project is an important project for the region and will result in a better distribution of traffic and avoid unacceptable conditions at the Wentzville Parkway interchange.

The purpose of this letter is to outline the County's support of this project.

Sincerely,

John Greifzu, R.G., P.E.
Director of Transportation
St. Charles County

CITY OF FORISTELL



CITY OF FORISTELL
121 MULBERRY STREET
FORISTELL, MISSOURI 63348

PHONE: (636) 463-2123
FAX: (636) 673-2701
WWW.CITYOFFORISTELL.ORG

March 25, 2013

Ray LaHood
Secretary of Transportation
U.S. Department of Transportation
1200 New Jersey Avenue, SE
Washington, D.C. 20590

**Re: David Hoekel Parkway Roadway Project
Wentzville, Missouri**

Dear Secretary LaHood:

Consider this correspondence as the City of Foristell's commitment and support of the David Hoekel Parkway Roadway Project. St. Charles County Missouri is one of the fastest growing counties in the United States, in part due to our very aggressive dedication to insuring transportation throughout the region not only meets our current needs, but also to insure our commitment to the motoring public to allow for future growth and sustainability.

The City of Wentzville has seen unprecedented growth, a trend that continues to move westward in St. Charles County. To keep ahead of not only the transportation needs in the City of Wentzville but to also allow for continued growth throughout the area, the City of Wentzville has committed to a project that will meet our needs today and well into the future. Establishing connectivity between Interstate 70 and US 61 in Wentzville will greatly reduce congestion and improve the flow of traffic throughout the area.

The Mayor and Board of Aldermen of the City of Foristell fully support the City of Wentzville's Plans for the David Hoekel Parkway Project.

Sincerely,

A handwritten signature in cursive script, appearing to read "Sandra L. Stokes".

Sandra L. Stokes
City Administrator

cc: Jim Smith, Missouri Department of Transportation
Gregory Budd, Federal Highway Administration
Doug Forbeck, City of Wentzville ✓

**CITY OF FLINT HILL
P.O. BOX 196
FLINT HILL, MO 63346
636-327-4441
cityofflinthill@centurytel.net**

April 9, 2013

Ray LaHood
Secretary of Transportation
U.S. Department of Transportation
1200 New Jersey, SF
Washington, D.C. 20590

**RE: David Hoekel Parkway Project
City of Wentzville, MO - St. Charles County, MO**

Dear Secretary LaHood:

Please consider this correspondence as the City of Flint Hill's commitment and support for the proposed David Hoekel Parkway Project. Our community lies in St. Charles County, MO and is one of the fastest growing counties in the United States. Our State of Missouri, Department of Transportation, in cooperation with local City governments; has committed and dedicated its support to insuring that the growth of St. Charles County has been supported by the necessary transportation infrastructure to meet current and future needs.

The Mayor and Board of Aldermen of the City of Flint Hill fully support the City of Wentzville's David Hoekel Parkway Project. This projects' goal of establishing transportation connectivity, and improving future traffic flow between Hwy 61 and Interstate 70 in western St. Charles County, will meet the transportation needs of this growing area of Missouri.

Sincerely,

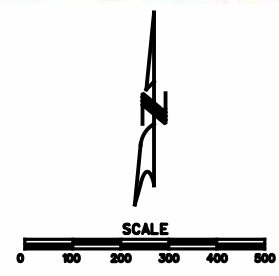
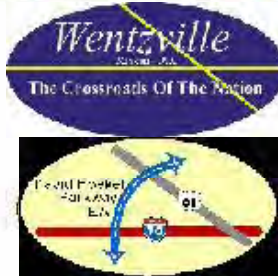
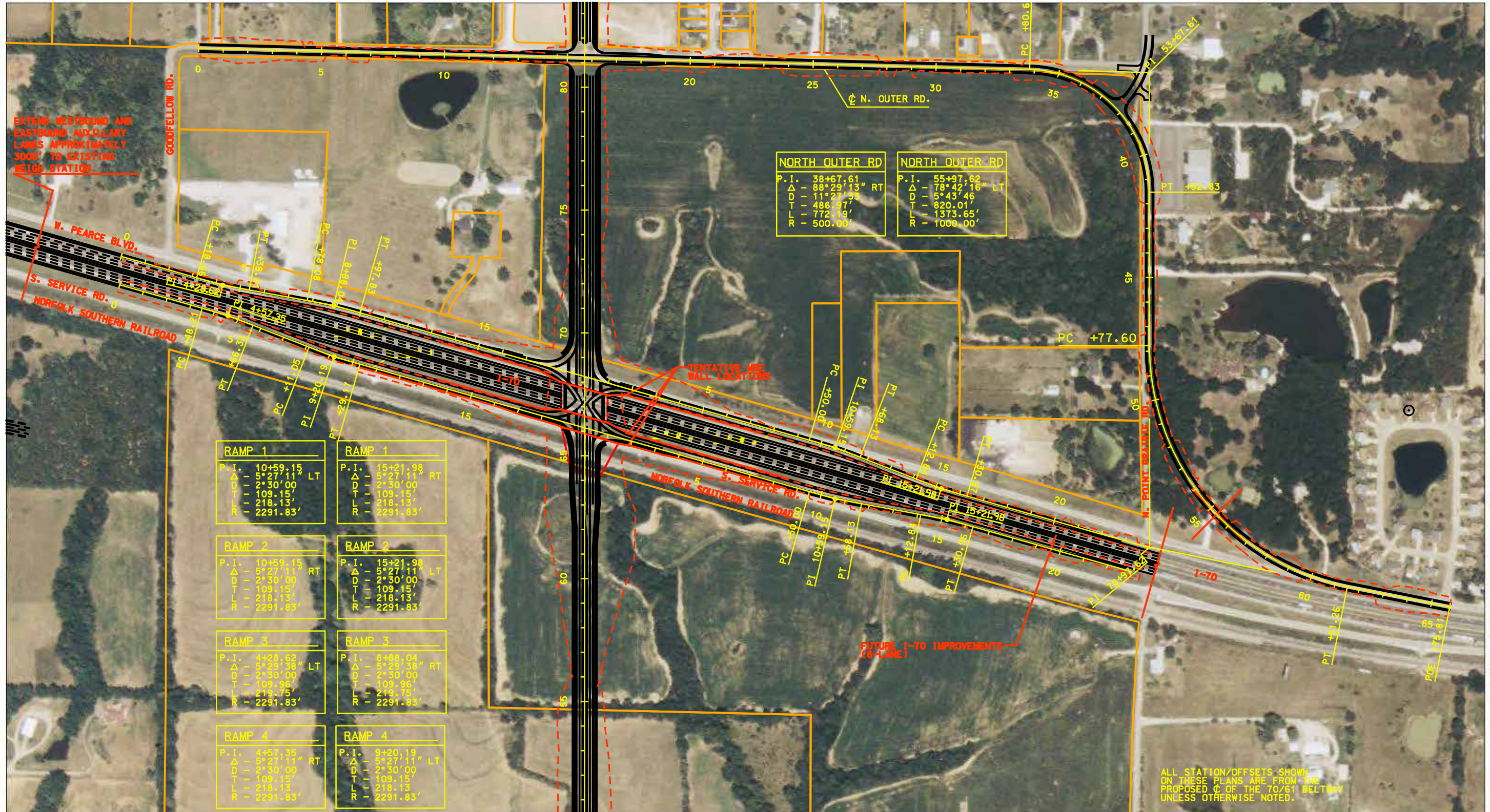
A handwritten signature in black ink, appearing to read "Douglas Wynn", written over the word "Sincerely,".

Mayor Douglas Wynn
City of Flint Hill, MO

Appendix B:

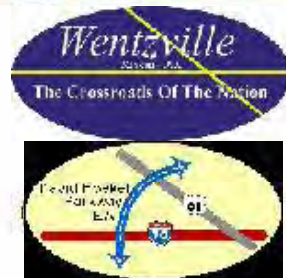
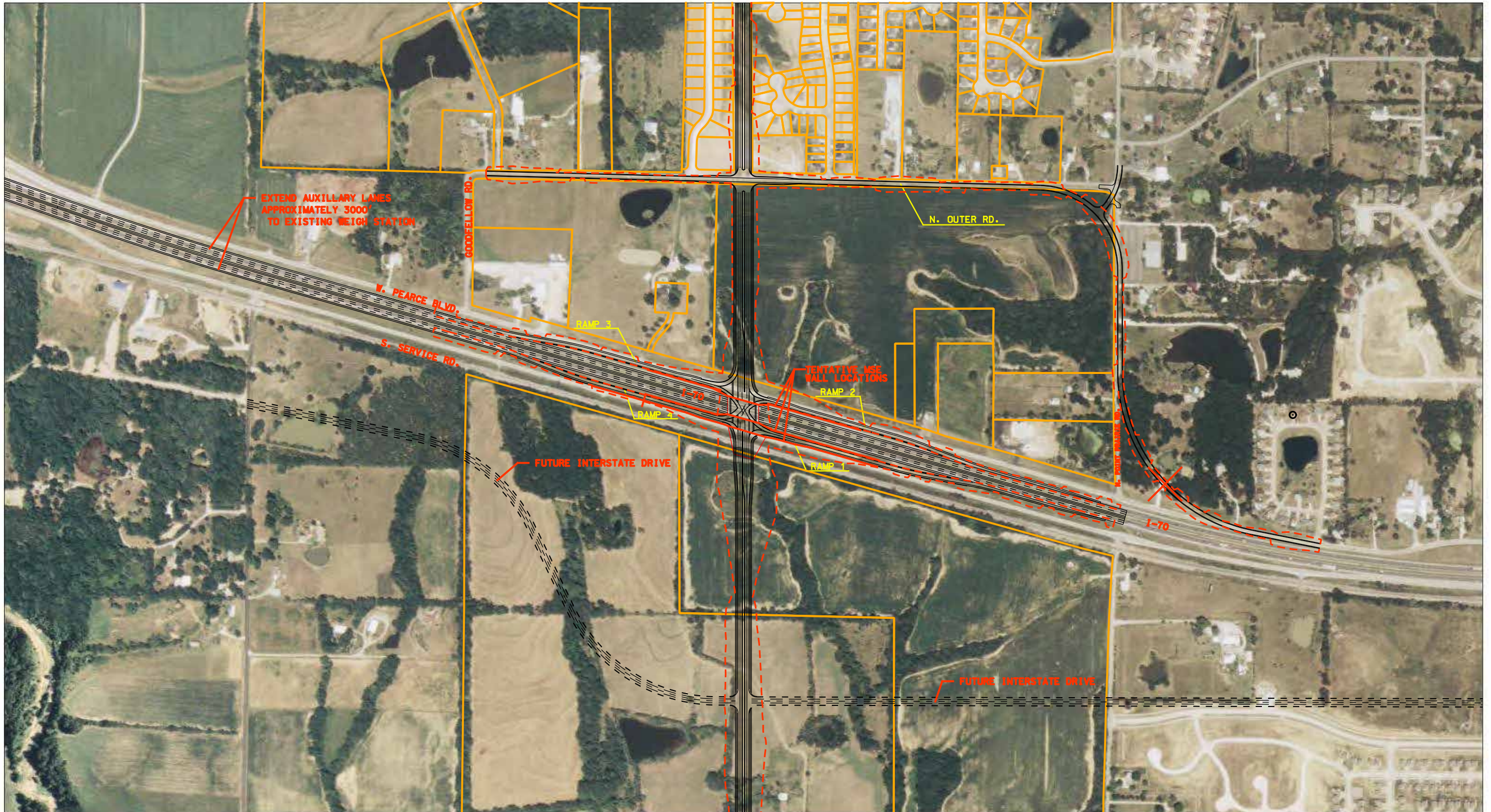
Preferred Alternative Conceptual Plan Plates

SUBNAME \$ SCALE: \$ SCALES \$ DESIGN \$ DESIGNS \$



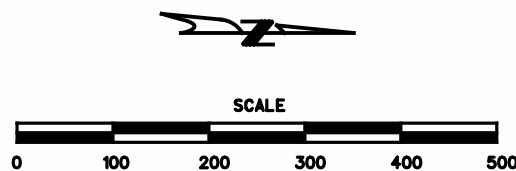
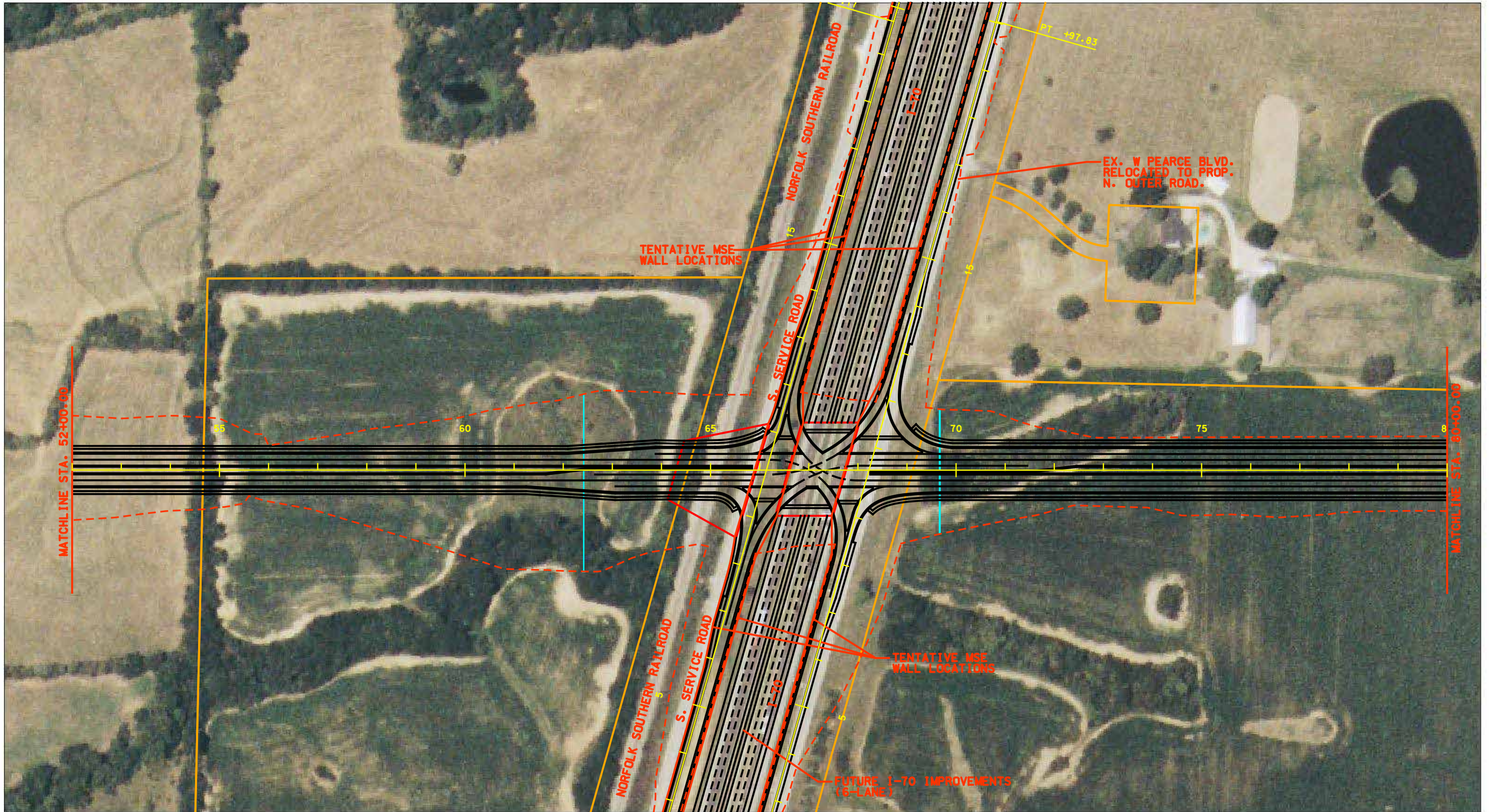
- LEGEND:**
- SLOPE LIMIT
 - PROPERTY LINE
 - PROPOSED PAVEMENT
 - PROPOSED BRIDGE
 - PROPOSED CULVERT
 - 100 YEAR FLOODPLAIN
 - FLOODWAY
 - STREAM
 - NWI VEGETATED WETLAND
 - PARK BOUNDARY
 - DISPLACEMENT
 - SCHOOL
 - CHURCH
 - CEMETERY
 - FIRE STATION
 - HAZMAT SITE
 - LIFT STATION

Appendix B: Conceptual Design Plan



LEGEND:			
	SLOPE LIMIT		STREAM
	PROPERTY LINE		NWI VEGETATED WETLAND
	PROPOSED PAVEMENT		PARK BOUNDARY
	PROPOSED BRIDGE		DISPLACEMENT
	PROPOSED CULVERT		SCHOOL
	100 YEAR FLOODPLAIN		CHURCH
	FLOODWAY		CEMETERY
			FIRE STATION
			HAZMAT SITE
			LIFT STATION

Appendix B: Outer Road Connections



LEGEND:

- SLOPE LIMIT
- PROPERTY LINE
- PROPOSED PAVEMENT
- PROPOSED BRIDGE
- PROPOSED CULVERT
- 100 YEAR FLOODPLAIN
- FLOODWAY

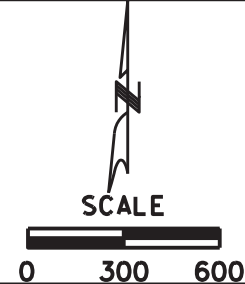
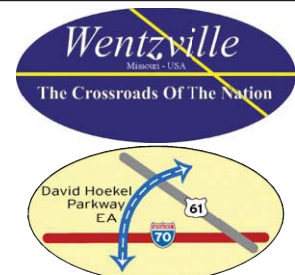
- STREAM
- NWI VEGETATED WETLAND
- PARK BOUNDARY
- DISPLACEMENT
- SCHOOL

- CHURCH
- CEMETERY
- FIRE STATION
- HAZMAT SITE
- LIFT STATION

Appendix B: Interchange Design Plan

Appendix C:

Conceptual Signing Plan



Appendix C: Conceptual Signing Plan