

November 16, 2006

Allen Masuda Federal Highway Administration 3220 West Edgewood Jefferson City, MO 65109

RE: The New I-64 Environmental Re-evaluation Routes I-64 and I-170, St. Louis County and St. Louis City, Missouri EIS Number: FHWA-MO-EIS-02-02-F MoDOT Job Numbers: J6I0978 and J6I1248

Dear Allen,

A Final Environmental Impact Statement (FEIS) for The New I-64 project was approved on March 29, 2005 and a Record of Decision (ROD) was received on July 28, 2005. The ROD states "MoDOT is committed to examining ways to further minimize property impacts throughout the corridor, without compromising the safety of the proposed facility, during subsequent design phases." MoDOT has refined the design to minimize the property impacts.

MoDOT has also embraced the philosophy of practical design and, for the first time, is using the designbuild procurement method for a transportation project. These changes have necessitated a re-evaluation of the FEIS.

MoDOT's considers the changes discussed do not impose significant impacts and will not require a supplemental Environmental Impact Statement.

Please find attached the FEIS re-evaluation for you review and concurrence. If you have any questions, please call me at (314) 340-4392.

Sincerely, Lesley Solinger Hoffarth I-64 Project Director

Attachments



The New I-64 Design-Build Project

EIS RE-EVALUATION

EXAMINED AND APPROVED_11-16-06 DATE Federal Highway Administration

Project Number J6I0978 Missouri Department of Transportation 1590 Woodlake Drive Chesterfield, MO 63017





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1 PURPOSE AND NEED

The purpose of the project is to reconstruct the mainline and reconstruct interchanges consistent with current design standards. The proposed action is to address several goals: 1) replace the deteriorating facility, including bridges and substandard interchanges; 2) increase roadway capacity between Spoede Road and I-170; 3) improve safety; 4) improve traffic operation and decrease congestion; and 5) promote community redevelopment.

A Final Environmental Impact Statement (FEIS) for The New I-64 project was approved on March 29, 2005 and a Record of Decision (ROD) was received on July 28, 2005. The ROD states "MoDOT is committed to examining ways to further minimize property impacts throughout the corridor, without compromising the safety of the proposed facility, during subsequent design phases." MoDOT has refined the design to minimize the property impacts.

This re-evaluation (summarized in Exhibit A) addresses changes to the Selected Alternative presented in the FEIS. The remaining portions of the Selected Alternative from the FEIS not included in this re-evaluation remain unchanged.

1.1 Practical Design

In January 2006, MoDOT implemented practical design. Practical design is a culture change that challenges traditional standards to develop efficient solutions to solve today's needs. MoDOT's goal of practical design is to build "good" projects, not "great" projects, to achieve a "great" system. Innovation and creativity are mission critical organizational skills necessary for us to accomplish practical design.

The new practical design policies will guide the project decisions MoDOT must make. MoDOT must build the most efficient solution to the transportation needs that have been identified so we can spread our money to more projects across the state.

The practical design method, practiced by all areas of MoDOT, will allow us to deliver safer roadways, of great value, in a faster manner.

The principals of practical design differ from the philosophy of MoDOT at the time of the FEIS. The New I-64 project will be delivered using the practical design method.

1.2 Design Criteria

Based on the principals of practical design, MoDOT has obtained design exceptions to allow the following criteria:

 Vertical clearance of 15'-6" under all bridges over I-64 (This is an exception to MoDOT traditional practices but still is in conformance with national American Association of State Highway Transportation Officials (AASHTO) guidelines. This exception will not conflict with the national STRAHNET route system. Interstate 270 is the region's available STRAHNET route. Interstate



270 has 16'-0" minimum bridge clearances.)

- Inside shoulders of 2' in the area of Spoede Road and Lindbergh Boulevard (This exception is necessary to transition the proposed improvements into existing shoulder conditions located west of the project limits.)
- Inside shoulders of 7' for the remainder of the project
- Outside shoulders of 10' (Also a MoDOT design exception but still in conformance with national AASHTO guidelines.)

1.3 Design-Build

Design-build is a project delivery method that combines both the design and construction phases into one contract. This one contract team completes the design and construction in parallel instead of in succession, which saves time and resources. On October 14, 2005 the Missouri Highways and Transportation Commission approved The New I-64 as the first design-build project for MoDOT.

The Record of Decision (ROD) estimated a total project cost of \$787.3 million and the construction was anticipated to take 16 years. This estimated cost assumes 3% inflation per year. The estimated project cost exceeded available funds of \$535 million, and the prolonged construction duration was thought to cause impacts to the entire region. MoDOT is using the design-build method to speed up the project, thus saving costs.

Additionally, MoDOT is using a flexible procurement method to obtain the maximum value from the teams proposing on this project. In a traditional procurement model, the DOT defines the exact scope of work to be constructed and receives proposals from teams to design and build this defined scope. For The New I-64, MoDOT is using a process that allows proposers the maximum flexibility to achieve or exceed the project goals. This approach allows the proposers to determine the scope of the work to be built and the associated method for handling traffic during construction, while staying within the program budget of \$535 million. The \$535 million program budget represents all the funding provided for the project regardless of inflation.

Using the goals developed in the EIS, the following more specific goals were developed for The New I-64 design-build project:

- 1. Deliver the project within the program budget of \$535 million
- 2. Complete the Project no later than October 1, 2010
- 3. Maximize the mobility and capacity improvements in the corridor when construction is complete.
- 4. Minimize and mitigate construction impacts to customers through construction staging and communication efforts
- 5. Provide a quality product that produces a long lasting transportation facility
- 6. Demonstrate a quality construction and communication effort that creates a new model for doing a design-build project



2 ALTERNATIVES

2.1 No-Build

Maintaining the existing conditions with minor maintenance activities as needed.

2.2 Selected Alternative per the ROD

The selected alternative as described in the FEIS and ROD includes full reconstruction of all interchanges west of Spoede Road to Sarah Street (see Exhibit B). The mainline alignment is adjusted vertically and horizontally to reduce environmental impacts. The overpasses would be rebuilt similar to existing conditions, but allowing for a vertical clearance over I-64 of 16'-6". This design includes 12' lanes and 12' inside and outside shoulders.

2.3 Design-Build Alternative

Using the flexible procurement process described above, the selected design-build contractor has determined the scope of work for the project. This alternative (shown in Exhibit C) is similar to the Selected Alternative per the ROD, with the following exceptions:

- Some interchange types vary when compared to the Selected Alternative, but the highway access and the requirements to satisfy the Purpose and Need for the project is upheld.
- The project will end at Kingshighway Boulevard interchange, making the section from east of Kingshighway to Sarah Street the same as the No-Build Alternative.
- Some limited vertical and horizontal shifts occur at specific areas to aid reconstruction or reduce environmental impact.
- The design criteria includes a vertical clearance over I-64 of 15'-6", 12' lanes, 2' to 7' inside shoulders, and 10' outside shoulders.
- The project footprint is reduced when compared to the Selected Alternative and has reduced impacts.

2.4 Comparison of Alternatives

Table 1 shows the interchanges types for each alternative; differences between the Selected Alternative and the Design-Build Alternative are highlighted:



TABLE 1 INTERCHANGE TYPES						
Location	No Build	Selected Alternative per the ROD	Design-Build Alternative			
I-64/Spoede	Folded diamond	Round	abouts			
I-64/Lindbergh	Full cloverleaf	Single	point			
I-64/Clayton/Warson	Half diamond	Reconstructed imp	roved half diamond			
I-64/McKnight	Compact full diamond	Reconstructed imp diam	roved compact full nond			
I-64/Brentwood	Folded diamond	Single point	Compact full diamond			
I-64/I-170	³ ⁄ ₄ directional access	Full direction	onal access			
I-64/Hanley	Partial cloverleaf	Single point	Compact full diamond			
I-64/Laclede Station	Hybrid half diamond/cloverleaf	f Remove interchange				
I-64/Big Bend	Hybrid diamond/cloverleaf	Single point	Compact full diamond			
I-64/Bellevue	Half diamond	Half diamond w/ braided ramps	Half diamond w/ C-D ramps EB and combined ramps WB			
I-64/McCausland	Hybrid full diamond/cloverleaf	Compact fu	ull diamond			
I-64/Oakland	Half diamond	Remove in	iterchange			
I-64/Clayton/Skinker	Atypical half diamond	Atypical ha	If diamond			
I-64/Hampton	Full cloverleaf	Single point				
I-64/Kingshighway	Full cloverleaf	Single point				
I-64/Tower Grove	No interchange	Split diamond w/ Boyle	No-Build			
I-64/Boyle	Half diamond	Split diamond w/ Tower Grove No-Build				
I-170/Galleria Pkwy	¾ diamond	Half diamond				
I-170/Eager	Atypical half diamond	Reconstructed atypical half diamond				

 <u>I-64/Brentwood</u>. The selected I-64/Brentwood interchange concept as described in the FEIS and ROD is a Single Point Urban Interchange (SPUI) that is part of a Brentwood/I-170/Hanley CD system between west of Brentwood and Hanley. The Design-Build Alternative is a compact full



diamond at the I-64/Brentwood interchange that is part of a proposed splitdiamond interchange concept between Brentwood Boulevard and Hanley Road that work sufficiently at acceptable levels of service. This interchange design allows the Design-Build Alternative to accommodate the through collector-distributor (CD) road movements without expensive flyovers.

- <u>I-64/Hanley</u>. The selected I-64/Hanley interchange concept as described in the FEIS and ROD is a SPUI that is part of a Brentwood/I-170/Hanley CD system between west of Brentwood and Hanley. The Design-Build Alternative is a compact full diamond at the I-64/Hanley interchange that is part of a proposed split-diamond interchange concept between Brentwood Boulevard and Hanley Road that works sufficiently at acceptable levels of service. This interchange design allows the Design-Build Alternative to accommodate the through CD road movements without expensive flyovers.
- <u>I-64/Big Bend</u>. The selected I-64/Big Bend interchange design as described in the FEIS and ROD is a SPUI. The Design-Build Alternative is a full diamond with a CD road to Bellevue eastbound. The westbound off ramp combines with the Bellevue's off ramp similar to a CD road to access Big Bend.
- <u>I-64/Bellevue</u>. The selected I-64/Bellevue interchange design as described in the FEIS and ROD is a half-diamond with braided ramps. The Design-Build Alternative is a half-diamond with a combined ramp connection to the Big Bend interchange westbound and a CD ramp to Belleview eastbound. So, a direct connection is provided to Bellevue eastbound similar to the FEIS and ROD, but westbound on ramp access to I-64 combines with the Big Bend ramps.
- <u>I-64/Tower Grove</u>. The selected I-64/Tower Grove interchange design as described in the FEIS and ROD is a new split-diamond interchange with Boyle. The Design-Build Alternative is a no-build alternative with no interchange.
- <u>I-64/Boyle</u>. The selected I-64/Boyle interchange design as described in the FEIS and ROD is a split-diamond with Tower Grove. The Design-Build Alternative is a no-build alternative that maintains the current half-diamond configuration.

3 EVALUATION OF ALTERNATIVES

3.1 Factors with No Change in Impacts

The evaluation factors included in the FEIS are shown in Exhibit A – Summary of Impacts. These evaluation factors have also been evaluated for the new Design-Build Alternative. The following evaluation factors have little difference in impacts between the Selected Alternative per the ROD and the Design-Build Alternative:



- <u>Constructability Issues</u>. The FEIS and ROD evaluation of the Selected Alternative described moderate/high impact ratings for timing/staging, difficulty in construction, and impacts to adjacent properties. The Design-Build Alternative should have no change in impacts as analyzed in the FEIS and ROD for the Selected Alternative.
- <u>System Measures</u>. The FEIS and ROD forecasted (for year 2020) the Selected Alternative change in vehicles miles traveled (VMT) from the No-Build Alternative was 166,050 and change in vehicle hours traveled (VHT) was -9,370. The forecasted numbers were used to evaluate the three traditional system performance effects (change in travel time, vehicle operating costs, and level of safety) of the Build Alternative and FEIS and ROD concluded that for a 20 year period (in 2002 dollars): reduction in travel time resulted in approximately \$850 million dollar in savings; increased capacity results in vehicle operating cost of approximately \$460 million and: a \$155.9 million savings from using a safer roadway. The Design-Build Alternative should result in the same system measures as analyzed in the FEIS and ROD, because this criteria measures the benefits of an improved I-64 regardless of the delivery method. It calculates the system measures after the proposed action is complete whether or not it was delivered using design-build or MoDOT's traditional delivery methods.
- <u>Safety</u>. The overall roadway design in the Selected Alternative presented in the FEIS and ROD were selected to promote free and safe flow of traffic and consequently improve safety. Improved safety was quantified by forecasting (to year 2020) the number of annual crashes: 506 property damage only, 197 with injuries, and 2 fatalities which are all lower than the No-Build Alternative. The Design-Build Alternative incorporates improved design features in the overall proposal to achieve almost the same level of improvement in safety. It addresses all high accident locations to promote and improve safety.
- <u>Neighborhood/Community Cohesion</u>. The FEIS and ROD describes that the Selected Alternative does impact some properties located adjacent to the freeway corridor but do not result in new severances to existing neighborhoods. Consequently, the Selected Alternative was evaluated to have low impact in the Greenway and Parkway subcorridors and low/moderate impact in the Thruway subcorridor. The Design-Build Alternative should not have any change in neighborhood/community cohesion impacts as analyzed in the FEIS and ROD.
- <u>Highway User Benefits</u>. The FEIS and ROD describes beneficial impacts of the Selected Alternative, such as lower transportation and logistical costs through improved safety, decreased fuel and vehicle operating costs, and improved awareness of the ability to travel, as well as revised logistics patterns. Economic user benefits experienced by the motoring public from a Build Alternative was estimated to be a present value benefit of \$546 million over a 20-year period. The Design-Build Alternative is expected to realize the same level of economic user benefit.



- <u>Air Quality</u>. The analysis of air quality impacts performed for the build alternatives was described in the FEIS and ROD as having no impact on air quality. Consequently, Design-Build Alternative proposes an overall project design that will have no effect on the air quality conformity finding. MoDOT and the East-West Gateway Council of Governments (EWGCOG) will continue to monitor and adhere to any impacts of conformity requirements.
- Impacted Noise Receptors. The FEIS and the ROD evaluated that the Selected Alternative would elevate the level of L_{eq} values and number of receptors along the corridor consequently requiring noise abatement. The Design-Build Alternative should have the same amount of receptors impacted as analyzed in the FEIS and ROD throughout the corridor. These impacted receptors would require the same level of noise abatement as discussed in the FEIS and ROD which will be presented and discussed at a design public meeting.
- <u>Water Resources</u>. The FEIS and the ROD evaluated that the Selected Alternative had minimal impacts on waters of the United States. The Design-Build Alternative shall have relatively the same impact as assessed in the FEIS and ROD.
- Floodplains. The analysis presented in the FEIS and the ROD indicated that the risk of flooding to the users of the roadway, and the potential for property loss and hazard to life is minimal. Additionally, impacts on natural and beneficial floodplain values are minimal. Moreover, the FEIS and ROD determined that it is unlikely that incompatible development would be encouraged by the construction of the project design. The FEIS states that the project construction will incorporate those features necessary to meet NFIP standards, FEMA, SEMA and St. Louis County Floodplain guidelines to minimize floodplain impacts and preserve natural and beneficial floodplain values. The Design-Build Alternative will have the same impacts as stated in the FEIS and ROD by documenting and meeting the requirements of all federal and state floodway and floodplains regulations. The Design-Build Contractor shall obtain a "No Rise" certificate for construction within a regulatory floodway.
- <u>Natural Communities</u>. The FEIS and the ROD stated that a search of MDC's Natural Heritage Database was conducted and found no high-quality natural communities impacted in the study corridor. The Design-Build Alternative shall have the same impact as assessed in the FEIS and ROD.
- <u>Threatened and Endangered Species</u>. The FEIS and ROD indicated that the federal endangered Indiana bat (*Myotis sodalist*) could be impacted but that the project is not likely to have any impact on the Indiana bat. The Design-Build Alternative does not change the impact described in the FEIS and ROD.
- <u>Hazardous Waste Sites</u>. The FEIS and ROD indicated that the Selected Alternative would have no impact on the potential hazardous waste sites identified during the hazardous material screening. The Design-Build Alternative does not change the impact described in the FEIS and ROD.
- <u>Visual Quality</u>. The FEIS and ROD evaluation of the visual quality impacts of



the Selected Alternative had an impact rating of moderate for views from I-64 and moderate/high for views toward I-64. The Design-Build Alternative does not change the impact described in the FEIS and ROD

<u>Bike/Pedestrian Considerations</u>. The FEIS and ROD evaluation of the bike/pedestrian considerations reviewed the pedestrian and bicycle interstate crossings as stand alone structures and crossings shared with vehicular crossings. Four pedestrian crossing locations were proposed in the Build Alternative at: the Galleria Parkway interchange over I-170; Forest Park Community College east of Hampton Ave; the Science Center; and east of Kingshighway Boulevard. Additionally, all new bridges or underpasses included design standards complying with ADA design recommendations with Bellevue Avenue and Tower Grove Avenue having dedicated bicycle lanes. The Design-Build Alternative does not change the bike/pedestrian considerations described in the FEIS and ROD.

3.2 Factors with Change in Impacts

The following evaluation factors have a difference in impacts between the Selected Alternative and the Design-Build Alternative:

- <u>Project Cost</u>. The overall project budget is \$535 million. The details of this budget are described in the project Financial Plan, which has been approved by FHWA.
- Level of Service. Discussed in Section 3.3.
- <u>Property Impacts</u>. Discussed in Section 3.4.
- <u>Parkland</u>. Discussed in Section 3.5.5.
- <u>Cultural Resources</u>. Discussed in Section 3.5.2, 3.5.3, and 3.5.4.

3.3 Level of Service

Since the geometric changes between the Selected Alternative and the Design-Build Alternative are minimal, there are also only minor changes to the traffic impacts.

Table 2 below describes the traffic level of service for the Alternatives. The Selected Alternative and the Design-Build Alternative both fulfill the Purpose and Need to improve operations and reduce congestion.

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TABLE 2 (ALL UPDATED) YEAR 2020 FREEWAY SEGMENT LEVEL OF SERVICE								
	No Build		Selected Alternative per the ROD		Design-Build Alternative			
Location	AM Peak Hour EB/WB LOS	PM Peak Hour EB/WB LOS	AM Peak Hour EB/WB LOS	PM Peak Hour EB/WB LOS	AM Peak Hour EB/WB LOS	PM Peak Hour EB/WB LOS	Different versus ROD	Improved versus No-Build
Mainline	E/E	F/F	C/C	D/D	D/D	D/D	~	~
	T	1	ſ	Ī	Ì	Ì	Ì	T
Ballas to Spoede	E/C	D/D	E/C	D/D	E / C	D/D		
Spoede to Lindbergh	F/E	F/F	D/C	C/C	D/C	D/C	✓	~
Lindbergh to Clayton/Warson	F/E	F/F	D/C	D/D	D/C	D/D		~
Clayton/Warson to McKnight	F/F	F/F	D/D	D/D	D/C	C / D	~	~
McKnight to Brentwood/I-170	E/D	D/E	D/C	C/C	D/C	D/D	~	~
Brentwood/I-170 to Hanley	E/E	E/E	D/D	C / D	C / C	C / D	~	~
Hanley to Laclede Station	F/F	F/F	C/C	C/C	D/E	D/E	~	~
Laclede Station to Big Bend	F/F	F/F	C/C	C/C	D/E	D/E	~	~
Big Bend to Bellevue	F/F	F/F	D/C	C / D	E / D	D/E	~	\checkmark
Bellevue to McCausland	F/E	E/F	D/C	C / D	E / D	D/E	~	~
McCausland to Oakland/Clayton	D/D	E/E	C/C	C / D	C / D	C/E	~	~
Oakland/Clayton to Hampton	D/D	D/E	C / D	C / D	D/E	D/E	~	
Hampton to Kingshighway	E/D	D/E	D/D	C / D	D/C	C/E	~	~
Kingshighway to Sarah	D/D	D/E	C/C	C/C	C / C	C / D	~	~
I-170 (I-64 to Galleria)	D (NB) B (SB)	C (NB) C (SB)	D (NB) C (SB)	D (NB) D (SB)	D (NB) C (SB)	D (NB) D (SB)		
I-170 (Galleria to Brentwood)	D (NB) D (SB)	D (NB) D (SB)	D (NB) C (SB)	D (NB) D (SB)	D (NB)* D (SB)*	D (NB)* D (SB)*	✓	

* The Design-Build Alternative does not modify I-170 north of Galleria Parkway.

The check marks in the above table note the differences in level of service between the Selected Alternative and the Design-Build Alternative. MoDOT's Practical



Design Manual (2006) states the desired minimum level of service for urban major routes is LOS E. The Selected Alternative and the Design-Build Alternative meet or exceed this guideline. Both alternatives also outperform the No-Build Alternative. The check marks also special note where the Design Build Alternative improves level of service compared to the No Build Alternative. The changes to level of service between the Build Alternatives are discussed below.

- <u>Spoede to Brentwood</u>. The weaving lengths between Spoede and Lindbergh are similar between Build Alternatives but differ enough to slightly affect level of service. The Design-Build Alternative improves level of service by including an auxiliary lane from Clayton/Warson to McKnight.
- <u>Brentwood to McCausland</u>. The ramp configurations between Brentwood and Hanley differ enough in the Design-Build Alternative to affect level of service. The interchange type and ramp configurations at Big Bend and Bellevue differ enough to affect level of service surrounding that area. However, improvements are made to the interchange types and ramps lengths to meet or exceed LOS E.
- <u>McCausland to Kingshighway</u>. The Design-Build Alternative rebuilds the existing eight-lane facility from McCausland to east of Kingshighway but keeps ramp gore points similar to the No-Build Alternative resulting in similar levels of service. However, improvements are made to the interchange types and ramps lengths to meet or exceed LOS E.

3.4 **Property Impacts**

The FEIS and ROD analyzed the residential and commercial impacts of the Selected Alternative based on the number of full and partial acquisitions. The Design-Build Alternative introduces a narrow roadway footprint requiring less ROW than described in the FEIS and ROD. The narrower footprint has decreased the number of total and partial acquisitions for the corridor. The decrease in the number of expected total and partial acquisitions results in a Right of way and Relocation cost estimate of \$44.8 million for the Design-Build Alternative, which is less than the estimate of \$116.9 million as stated in the FEIS and ROD.



TABLE 3 SUMMARY OF PROPERTY IMPACTS						
	EVALUATION FACTORS	UNITS	Selected Alternative per the ROD	Design- Build Alternative	Difference	
PRC	PERTY IMPACTS – TOTAL ACQUIS	SITIONS				
	Single-Family Residential	Dwelling Units	117	61	56 fewer	
	Multi-Family Residential	Dwelling Units	112	54	58 fewer	
	Business	Establishments	42	0	42 fewer	
	Public/Semi-Public Facilities	Buildings	0	0	_	
PRC	PERTY IMPACTS – PARTIAL ACQU	JISITIONS				
	Single-Family Residential	Dwelling Units	114	29	85 fewer	
	Multi-Family Residential	Dwelling Units	2	0	2 fewer	
	Business	Number	28	8	20 fewer	
	Public/Semi-Public Facilities	Number	12	4	8 fewer	

Additionally, the Design-Build Alternative proposes to reduce impacts directly related to the project's environmental mitigation requirements (see 3.5.5):

- <u>AB Green Athletic Field:</u> By shifting the mainline alignment to the north to avoid impacts to this property and associated mitigation.
- <u>Forest Park:</u> By maximizing the net amount of property to be reverted to Forest Park, potentially netting 1.88 acres of property for use by Forest Park.

3.5 Section 4(f) Re-Evaluation

3.5.1 Introduction

On March 29, 2005, the I-64 Final Section 4(f) Evaluation described the potential impacts of the Selected Alternative for improvements to I-64, from west of Spoede Road in the city of Frontenac to west of Sarah Street in the city of St. Louis. The improvements to I-64 include potential impacts to properties eligible for the National Register of Historic Places (NRHP), and park areas. The properties include four historic bridges (Spoede Road, Lindbergh Boulevard, McKnight Road and McCutcheon Road), one historic district (four residences within Lavinia Gardens Historic District) and, five historic residences (Property #195, #178, #179, #172 and #156). The Selected Alternative would also impact two parks: A.B. Green Athletic Complex (city of Richmond Heights) and Forest Park (city of St. Louis). Leading up



to the March 2005 evaluation, there was extensive coordination with the Keeper of the National Register for property eligibility resolution and coordination with the Advisory Council on Historic Preservation for the 106 Process.

In contrast, the Design-Build Alternative reduces the potential impacts to properties eligible for the National Register and park areas. The properties potentially impacted include four historic bridges (Spoede Road, Lindbergh Boulevard, McKnight Road and McCutcheon Road), one historic district (four residences plus 8531 Antler within Lavinia Gardens Historic District) and only one historic residence (Property #195). Plus, the Design-Build Alternative would only impact Forest Park (city of St. Louis). The A.B. Green Athletic Complex (city of Richmond Heights) would be avoided. Table 4 below quantifies and compares the potential impacts.

TABLE 4 SECTION 4(f) POTENTIAL IMPACT SUMMARY						
NRHP Eligible Resource	No Build	Selected Alternative per the ROD	Design-Build Alternative			
Bridges	None	4 bi	4 bridges			
Districts	None	1 district (4 residences)	1 district (5 residences)			
Individual Architectural Resources	None	5 properties	1 property			
Parkland	No Build	Selected Alternative per the ROD	Design-Build Alternative			
A.B. Green Athletic Complex	No impact	Potentially impacted	No impact			
Forest Park	No impact Potentially impacted*					

* Impacts to Forest Park are different depending on the Build Alternative.

3.5.2 Bridges

Similar to the evaluation on March 25, 2005, there are no prudent and feasible alternatives to the removal of the four historic bridges under the Design-Build Alternative. Mitigation of impacts to historic bridges will include photographic documentation, architectural or engineering drawings, site plans and contextual information. The procedures to determine the level of documentation and mitigation for each resource are set forth in the executed Programmatic Agreement. There has been extensive coordination with the State Historic Preservation Officer for property eligibility resolution and coordination with the Advisory Council on Historic Preservation for the 106 Process. The same avoidance alternatives that were discussed in the March 2005 Evaluation still apply. The avoidance alternatives were considered and still determined to not be prudent and feasible.



3.5.3 Historic Districts

The improvements to I-64 include improvements to I-170 north of I-64. Both the Design-Build Alternative and the Selected Alternative would impact the Lavinia Gardens Historic District. The Selected Alternative acquires four residences from the district. They are located at 8522 Antler Drive, 1208 McMorrow Avenue, 1212 McMorrow Avenue and 1216 McMorrow Avenue. The Design-Build Alternative would acquire the same four plus one more residence within the district at 8531 Antler Drive (see Exhibit D). After the ROD when MoDOT began right-of-way plans, the relocation impacts of McMorrow Avenue changed to better accommodate I-170 improvements. As a result, impacts to 8531 Anter Drive became apparent. Then, right-of-way negotiations with the owner of 8531 Antler Drive resulted in a full purchase of the property. These acquisitions would have an adverse effect on the integrity of the Lavinia Gardens Historic District. None of the residences acquired are individually eligible for listing on the National Historic Register, but the residences are contributory elements of the district.

The March 2005 Section 4(f) Evaluation described an avoidance alternative that would shift the entire I-64/I-170 interchange westward so the westbound I-64 to northbound I-170 ramps would be located west of the Lavinia Gardens Historic District (see Exhibit E). This Avoidance Alternative would avoid impacts to the Lavinia Gardens Historic District but would cost approximately 2.8 million dollars more than the Selective Alternative per the ROD at the I-170 interchange. In addition to cost, the Avoidance Alternative would necessitate the acquisition of many more residences and businesses, some in a neighborhood targeted for redevelopment and the others in a neighborhood that the City Plans show as low density residential. As such, the FEIS and the ROD found no feasible and prudent alternative to the Selected Alternative.

Mitigation of impacts will include photographic documentation, architectural or engineering drawings, site plans and contextual information. The procedures to determine the level of documentation and mitigation for each resource are set forth in the executed Programmatic Agreement. There has been extensive coordination with the Keeper of the National Register, the State Historic Preservation Officer for property eligibility resolution and coordination with the Advisory Council on Historic Preservation for the 106 Process.

Based on the above considerations, there is no feasible and prudent alternative to the use of the Lavinia Gardens Historic District, and the Design-Build Alternative includes all possible planning to minimize ROW acquisition from the district resulting from such use.

3.5.4 Individual Architectural Resources

Properties #195, 178, 179, 172, and 156

The properties #195, 178, 179, 172, and 156 are grouped for discussion because the Selected Alternative acquires all five properties as adverse effects. In contrast, the Design-Build Alternative avoids properties # 178, 179, 172, and 156. Also, the



Design-Build Alternative only partially impact property #195 with minimal land acquisition instead of fully acquiring the property. All five properties are eligible for the NRHP under criterion C as discussed in the March 2005 Section 4(f) Evaluation.

Property #195 is the Alma Noetemann residence at 7464 Warner Avenue. The residence was constructed in 1919 of the Craftsman style, one of the later styles of the modern Eclectic movement. The Selected Alternative would acquire all 7,841 square feet of property #195 to be used as right of way. In contrast, the Design-Build Alternative only acquires 1,440 square feet as right of way and 660 square feet as permanent easement (see Exhibit F). The Design-Build Alternative's smaller footprint reduces impacts to property #195.

As discussed in the March 2005 Section 4(f) Evaluation, the Avoidance Alternative is more costly than the Selected Alternative by a magnitude of three to four times (see Exhibits G and H). The FEIS and the ROD evaluated the Selected Alternative to have no feasible and prudent alternative to impacting property #195.

Based upon the above considerations, there is no feasible and prudent alternative to the partial use of property #195, and the Design-Build Alternative includes all possible planning to reduce ROW acquisition on this property resulting from such use. Additionally, the Design-Build Alternative only partially impacts one individually eligible resource while the Selected Alternative would impact five as total acquisitions.

3.5.5 Parkland

A.B. Green Athletic Complex, City of Richmond Heights

The A.B. Green Athletic Complex is a 4.28-acre recreational park and facility owned by the city of Richmond Heights since January 1997. The Selected Alternative impacts 0.43 acres or 10% of the property. The triangular impact area was needed for new right of way and new easement for retaining walls. As mitigation the March 2005 Section 4(f) Evaluation proposed to reconstruct impacted facilities and offered a total of 1.7 replacement acres. The park was also eligible for noise mitigation, and a noise wall was proposed.

The Design-Build Alternative shifts the alignment of I-64 north slightly and completely avoids the park and its facilities. Additionally, with a narrower right of way footprint, no right of way or easements will be acquired. The Design-Build Alternative also does not change impacts north of I-64 in this area. It avoids the 4(f) eligible West Moor Park #2 Subdivision District and 4(f) eligible property # 278 located directly across I-64 from the park. The park is still eligible for noise mitigation under the Design-Build Alternative.

Forest Park, City of Saint Louis

Forest Park is located both north and south of existing I-64 right of way for over two miles on the eastern end of the project. The Selected Alternative potentially impacted 12.34 acres of Forest Park with right of way acquisition, permanent



easements, and conversion of open space to roads. Project activities and mitigation efforts estimated a 14.38-acre gain of park open space could be provided by the improvements. This 14.38-acre gain of park open space would offset the 12.34 acres of permanent impacts for an overall net gain of 2.04 acres of park open space. Project impacts and mitigation efforts would also result in 10.07 acres of temporary impacts and the potential removal of 604 trees.

In contrast, the Design-Build Alternative impacts Forest Park, but the total amount of permanent impacts will be 5.52 acres, or 55% less. While the Selected Alternative planned to widen the interstate shoulders and the right of way footprint of I-64, the Design-Build Alternative plans to rebuild I-64 mainline lanes and shoulder widths without widening. Widening is not required because the existing I-64 roadway in Forest Park meets current AASHTO and FHWA criteria for interstates. The single point urban interchanges that are proposed at Hampton Avenue and Kingshighway Boulevard are similar to the Selected Alternative and will maximize the gains of park open space given back to Forest Park. These gains total 7.40 acres and will offset the 5.52 acres of permanent impacts providing an overall net gain of 1.88 acres. This gain is an 8% decrease of park open space when compared to the 2.04 acres in the Selected Alternative. The number of impacted trees reduces from 604 to 372. Plus, the Design-Build Alternative includes 11.87 acres of temporary impacts.

To mitigate impacts to Forest Park, the Design-Build Contractor shall comply with the following requirements or shall obtain approval from the City of St. Louis and MoDOT to change the following requirements, subject to FHWA approval. These requirements are based upon the mitigation plan and meetings with the city of Saint Louis and their Department of Parks, Recreation and Forestry from the March 2005 Section 4(f) Evaluation.

- The Contractor shall replace grass landscaping in Forest Park disturbed areas after construction is complete.
- The Contractor shall provide sidewalks along Tamm Avenue, Hampton Avenue, and Kingshighway Boulevard that are at least six feet wide.
- Any disturbed or reconstructed sections of the Forest Park multi-use path shall be replaced to match the width and pavement type of the existing path.
- In Forest Park south of I-64, from east of Tamm Avenue to Hampton Avenue, between I-64 and the existing paved walking path, the Contractor shall re-grade disturbed open space to provide less steep slopes.
- The Contractor shall expand and re-stripe the east end of the existing zoo parking lot, if disturbed, to result in no net loss of parking spaces.
- The Contractor shall construct a roundabout to replace the existing Hampton Avenue/Wells Drive intersection.
- Across Hampton, south of Wells Drive, the Contractor shall install a grade-separated crossing for the Forest Park recreational path. The Contractor shall install paved path connections from the relocated path



across Hampton to the sidewalks along the east and west side of Hampton.

- Noise mitigation shall be provided along the Forest Park athletic field.
- The Contractor shall provide the following pedestrian connections, separate from other vehicular and pedestrian connections:
 - Across I-64, between the eastern limit of Aviation Field and the western limit of St. Louis University High School, from the sidewalk along Oakland Avenue on the south side of I-64 to the Forest Park trail on the north side of I-64, located east of Aviation Field that travels along the south side of Police stables and Science Center Planetarium. The Contractor shall provide a tunnel for horse-mounted users. The horizontal and vertical dimensions of the tunnel must be at least as wide and tall as the existing tunnel. If the Contractor uses the existing tunnel in place, the Contractor shall provide lines of sight so the tunnel entrance and its approaches can be seen from the Oakland Avenue sidewalk and the Forest Park trail. The tunnel and its connections shall meet ADA requirements. If the existing tunnel is not used in place, it shall be removed or the Contractor shall propose an alternative method of disposition to MoDOT for Approval.
 - Across I-64, east of the Hampton Boulevard interchange, from the sidewalk on the south side of I-64 at the intersection of Oakland Avenue and Highlander Drive to the Forest Park sidewalk located on the north side of I-64 between Wilken Place and Aviation Field. The Contractor shall provide at least a seven-foot wide connection.

3.5.6 Conclusion

Based on the above analysis, the Design-Build Alternative does not require usage of Section 4(f) properties that were not addressed in the FEIS, nor does it require a substantial increase in the amount of Section 4(f) property used. The Design-Build Alternative does not require a substantial increase in the adverse impacts to Section 4(f) properties, nor does it require a substantial reduction in mitigation measures for impacted properties. The findings in the FEIS Section 4(f) Evaluation remain valid and no new Section 4(f) Evaluation is necessary.

4 TRAFFIC IMPACTS DURING CONSTRUCTION

The following section discusses and compares the maintenance of traffic plans for the Selected Alternative per the ROD and the Design-Build Alternative. Both plans would cause similar construction impacts but with different approaches.

4.1 Selected Alternative per the ROD

At the time, the FEIS and ROD assumed the I-64 corridor would be constructed over



a six to sixteen year timeframe because project-funding sources were unknown and Missouri law did not allow for alternative project delivery methods such as designbuild procurement. The Selected Alternative per the ROD proposed that during a six to sixteen year construction, the existing I-64 facility would stay in operation, with two mainline lanes open in each direction during most of the construction period; however, the traffic capacity on I-64 and traffic access between I-64 and the local roadway system would be reduced. Traffic on local roadway and local access to I-64 would generally be maintained.

The traffic strategy to minimize traffic impacts while reconstructing I-64 included these three guidelines:

- A minimum of two through lanes on the I-64 mainline would service traffic each way, eastbound and westbound, during any given time.
- To some degree, efforts would be made to maintain traffic service across I-64 along major arterial roadways during any given construction period.
- Wherever practical, any two adjacent major arterial interchanges along I-64 would not have I-64 access closed at the same time during any given year. This guideline would aid maintenance of traffic by allowing adjacent interchanges not under construction to service traffic, deliberately avoiding areas under construction. Some closely spaced, adjacent interchange areas are identified as being an exception to this guideline because the roadways are so closely spaced that I-64 cannot be constructed in an efficient manner without addressing the whole area.

It was assumed that the I-64/I-170 interchange area would require the longest time and resources during reconstruction to maintain traffic on I-64. Its schedule would be the critical path for the entire six to sixteen year project. The connection between I-64 and I-170 would be removed or detoured to local roads during much of the construction phase.

Local access to individual parcels in the area adjacent to the construction would be maintained through the use of newly constructed pavement, temporary connections, temporary widening of existing, and/or new pavement and the use of nearby alternative routes.

The public and stakeholders were notified of general traffic plans, impacts, project funding scenarios, and tentative construction schedules during the EIS process. At that time, some discussions occurred related to the use of other strategies to potentially reduce the duration of construction and possibly the construction-related impacts. These discussions happened through consultation with adjacent city representatives and input from stakeholders and subcorridor committees.

The FEIS also discussed that construction impacts, such as traffic and noise impacts, are directly affected by the duration of construction. If construction occurs over a shorter period of time, the impacts will be more intense but briefer than if construction occurs over a longer period of time. Construction strategies exist that could reduce the duration of construction, but these strategies usually result in



greater loss of traffic access with the roadway. Such strategies to reduce the total time of construction include:

- 24-hour a day construction.
- Complete interstate closures to traffic service, either all day long, nighttime closures, only during non-rush hours, or all weekend long.
- Directional interstate closures; meaning, traffic either eastbound or westbound would be completely closed in one direction to traffic during long construction periods.
- Ramp access closures to aid bridge and pavement repair or interchange construction. Traffic on the mainline would remain open, but access to and from the interstate would be removed through several interchanges so that the new ramps would be built quickly.
- The use of a public information campaign just prior to construction to encourage the use of alternate routes and rescheduling trips through the corridor.

4.2 Design-Build Alternative

The Design-Build Alternative includes the above strategies to minimize construction duration and complete the project in less than four years. This alternative builds the project in three large stages that utilize strategic closures of discrete sections of I-64 to reduce construction duration, increase safety, and maximize the efficiency of the work. I-64 and I-170 will remain open to traffic near full capacity during two years of the four year schedule. Plus, while portions of I-64 are closed, the other large continuous sections of I-64 within the project will remain open to traffic. The staging plan uses three primary construction stages balanced around work in the I-170 interchange. During freeway closures, the plan maximizes regional mobility into and out of the corridor in areas within the project not impacted by construction to provide continuity and connectivity to the alternate routes for motorists bypassing the freeway closures.

Stage 1 will last one year and will begin construction around the I-170 and I-64 interchange. During this stage many construction items will occur as preparation prior to the initial partial freeway closure. During this year, I-170 capacity and speeds would be reduced, but motorist access would remain open on I-170 and I-64. Temporary work zones would occasionally impact I-64, but I-64 would remain open to motorists to maintain regional mobility. Night closures of I-64 for bridge demolition and traffic shifts would occur; however, no day-long lane reductions or other impacts are planned for I-64 during this year. Work would also occur on other bridges in the corridor to help maintain traffic flows through key interstate connections and across north/south cross streets during the remaining construction stages.

In Stage 2, I-64 from west of Spoede Road to I-170, including the interchange at Brentwood, will be closed. West of the I-64 closure, eastbound I-64 will be closed at I-270, except that traffic will be allowed to and from Ballas Road interchange to maintain local access, particularly to the hospitals at the interchange. During Stage



2, the entire I-64 mainline and all cross street and interchange improvements will be completed from west of Spoede Road through Brentwood Boulevard. In addition, work will be completed on the improved west half of I-170. Stage 2 would last one year.

To maximize traffic flow at the I-64 closure point during Stage 2, the freeway-tofreeway ramps between I-170 and I-64 to the east will be open to traffic with two lanes each way to maximize traffic flow at the closure point. At the end of Stage 2, the I-170 interchange will be substantially complete on the west side so that the direct connection freeway-to-freeway ramps to the west will be open during Stage 3.

Stage 3 will close the east end of I-64 from I-170 to east of Kingshighway Boulevard. During Stage 3, the freeway-to-freeway ramps between I-170 and I-64 to the west will be open with two lanes each way to maximize traffic flow at the closure point. Stage 3 will construct the east end of the project and cover almost all of the remaining construction work. The Kingshighway interchange will be complete prior to the start of Stage 3 to facilitate the traffic flow into and out of the project area on the east end and maximize the access to area hospitals and local attractions, such as the St. Louis Zoo, Forest Park, and the Science Center. Stage 3 will last one year. After Stage 3 is complete, I-64 will open to traffic with its full and increased built capacity. The connection between I-64 and I-170 will also completely open with one lane, direct connections between the two interstates. Any uncompleted construction items from the first three years, such as landscaping, will be completed during the fourth year with minimal disruption to traffic.

To prevent construction impacts from spreading out over the entire length of the project for the entire duration, the Design-Build Alternative will keep open or complete and re-open large portions of the project within two years of the start of construction. This provides improved travel in these areas before project completion. Despite the partial freeway closures, drivers will be able to use large parts of I-64 that are open in combination with key north/south connections to maximize mobility during construction. The largest north/south connection, I-170, will remain open during construction to access the open sections of I-64 to lessen construction impacts. These approaches would further minimize the duration of impacts to motorists.

Possible impacts of 24-hour a day construction will include noise, light and vibration especially during night hours. The Design-Build Alternative will mitigate construction noise and vibration impacts to meet all laws and regulations applicable to MoDOT. This does not include local ordinances. Permanent noise barriers will be built early in the construction sequence, if feasible, and vibrations and effects to adjacent facilities due to construction activities will be monitored.

Complete roadway closures and ramp access closures will have mobility impacts, but the benefits of a shorter construction time will reduce and mitigate these impacts. The benefits of a shorter construction timeframe include:

• Increase in safety benefits for motorists and construction workers by allowing work zones to occur away from lanes open to traffic to reduce



work zone crashes;

- Lower construction cost because less effort will be applied toward maintenance of traffic;
- Better quality of construction because sections will be constructed together rather than subdivided; and
- Reduction of construction related impacts because construction will not last as long as under other strategies.

To further increase regional mobility and reduce construction impacts, the Design-Build Alternative will detour interstate traffic during closures to other regional interstates rather than local roads. These interstates include I-44, I-70, I-270, and I-170. In addition, mitigation measures on other interstates and major arterials will occur to reduce traffic congestion on alternative routes such as:

- MoDOT will use its existing Intelligent Transportation Systems (ITS) along I-70, I-170, I-270, I-44, and I-64 to inform motorists regionally with guide sign messages specific to day-to-day operations and incident management.
- Additional Dynamic Message Signs (DMS) systems will be placed on routes to provide detour routes and display traffic information.
- MoDOT has installed closed looped traffic signal systems on major state routes near the project such as Manchester (SR 100), Lindbergh (SR 61/67), Page (SR 364) and Olive (SR 340). These improvements allow for signals to be retimed for changing traffic patterns from MoDOT's Transportation Management Center (TMC). MoDOT will also investigate and retime signals as needed on other state routes to reduce congestion.
- Temporarily restripe key regional interstates that act as alternative parallel routes to I-64 to reduce congestion by improving capacity. Interstate 70 from I-270 to I-170 will be restriped to provide eight lanes instead of six lanes. Interstate 44 from I-270 to Grand Avenue will be restriped to provide ten lanes instead of eight lanes. The restriping projects would be a temporary measure lasting approximately two to three years; then, the interstates would be restriped back to their original state. The restriping projects would reduce I-64 construction impacts by reducing congestion on alternative routes. No additional impact is expected during the restriping effort or after the striping is in place.
- Some arterial corridors, such as along Page Avenue or Olive Boulevard from I-270 to I-170, will be improved by low cost projects to allow for more capacity at intersections along alternative routes.
- Emergency access plans will be developed for hospitals and other emergency service providers impacted by I-64 access closures.
- MoDOT will maintain its incident management services on interstates and the open portions of I-64 throughout the project to maintain mobility and increase traveler safety.



• MoDOT will implement a public information campaign to encourage the use of alternate routes and rescheduling trips through the corridor to reduce travel demand along the corridor.

Similar to the Selected Alternative, local access to individual parcels in the area adjacent to the construction will be maintained through the use of newly constructed pavement, temporary connections, temporary widening of existing and/or new pavement and the use of nearby alternative routes.

As required by law, the Design-Build Alternative maintenance of traffic plan was not provided to the public and stakeholders during the Design-Build procurement process to protect the confidentiality and competition between the proposers. Traffic plan information, construction impacts and mitigation measures will be provided publicly once the contract is awarded. At that time, the contractor will conduct a public meeting to share this information. The meeting will be advertised and made available to all the public, and the public will have an opportunity to comment.

4.3 Comparison of Construction Impacts

Both the Design-Build Alternative and the Selected Alternative still impact regional mobility during construction but in different ways. The Design-Build Alternative involves closing sections of I-64 over a short time, while the Selected Alternative keeps access open at a reduced capacity over a longer time period. Construction impacts for the Selected Alternative would keep impacting the region each year for at least six years increasing the cumulative impact over time. If major construction impacts are limited to the shorter two-year timeframe in the Design-Build Alternative, the impacts would be more intense but briefer thereby reducing the cumulative impact to the region.

The TransEval St. Louis regional travel demand forecasting model maintained by EWGCOG was used to analyze impacts to regional mobility. EWGCOG houses and maintains the TransEval baseline model and is responsible for its validation. This model was used to develop construction impact data. An analysis of the travel demand model indicated that the numbers as shown below are valid, and the Design-Build Alternative will not create a greater impact than the Selected Alternative.

The Design-Build Alternative's plan to reconstruct I-64 with discrete closures is feasible and does not impact traffic significantly more than the Selected Alternative. The Selected Alternative would be impacting I-64 traffic for 6 years, and its estimated total increase delay to the region is 1,440,000 hours. This is a 0.3% increase to the region's total vehicle hours traveled during the 6-year period. Similarly, the estimated total increase in delay to the region in the Design-Build Alternative is 1,510,000 hours for the 4-year construction period. This is a 0.4% increase to the region's total vehicle hours traveled during the same period. These values capture how the Design-Build Alternative's shorter, more aggressive construction schedule impacts the region in a similar way as the longer construction schedule in the



Selected Alternative.

The total amount of I-64 lane-miles closed during construction was also estimated for the alternatives. Regional mobility is impacted by the amount of lane miles closed each day for a given duration. In the Selected Alternative, the total estimated I-64 lane-mile-days closed is 57,200 for its 6-year construction schedule. In the Design-Build Alternative, the total estimated lane-mile-days closed is 24,300 for its 4-year construction schedule. This is a 58% reduction in total I-64 lane-miles closed compared to the Selected Alternative.

5 RE-EVALUATION CONCLUSION

Based on the above analysis, the Design-Build Alternative will primarily reduce the impacts evaluated in the FEIS and will not result in significant changes that were not fully addressed in the FEIS. The FEIS remains valid and a supplemental EIS is not necessary.

6 PUBLIC INVOLVEMENT

Through the Design-Build procurement process, October 2005 through 2006, public involvement has and will continue with the project. The procurement process was confidential, but as much information as allowed was shared with the public.

 <u>Meetings</u>. Project Director Lesley Hoffarth and Community Relations Manager Linda Wilson spoke to more than 100 community groups during the time of the procurement process. Presentations included information on the process, the schedule, property acquisition, and suggested commuter options regardless of the selected contractor's specific maintenance of traffic plan. These groups ranged from neighborhood associations to realtor offices, chambers of commerce to city councils, and countless professional associations.

In June 2006, MoDOT formed the I-64 Connections Committee to assist in the communication flow with the core cities and key regional leaders on community issues with the upcoming I-64 project. I-64 Connections Committee members included the following: city managers from Brentwood, Clayton, Frontenac, Ladue, and Richmond Heights, representative from the Mayor of St. Louis office, St. Louis County Highway Director, and representatives from Barnes-Jewish hospital, Regional Chamber and Growth Association, Regional Business Council, St. Louis Cardinals and Commerce Bank.

The I-64 Connections Committee met regularly to discuss issues of concern regarding the project, including coordination with the cities, maintenance of traffic and scope of work. It is anticipated the Connections Committee will continue to meet through the duration of the I-64 project.



- <u>Media</u>. The I-64 project continues to garner a lot of media attention. MoDOT conducted hundreds of media interviews. Of most significance, the St. Louis PBS affiliate produced an eight minute special on the history of I-64 and purpose of the reconstruction project that continues to air at various times.
- <u>Website</u>. MoDOT continues to maintain its project website, <u>www.thenewi64.org</u>. The site was used to provide updates on the procurement process including the posting of the Request for Proposal.

The Design-Build Contractor is required to have a full-time on-site public information manager to provide the daily communication to the public regarding construction of the I-64 project. The contractor's public information manager will work directly with MoDOT's Community Relations Manager to coordinate the information flow to the public and ensure good communication continues through construction.

It is expected that the Design-Build contractor and MoDOT will employ the following methods of communication through the duration of the I-64 project.

- <u>Public Meeting</u>. Once the construction schedule is known, the contractor will conduct a public meeting to share information on any closures. The meeting will be advertised and made available to all the public.
- <u>Website</u>. The I-64 project website will be overhauled to focus on the construction schedule. It will include information on daily, weekly and long-term construction schedules. It will also offer frequently asked questions and answers and a place for the public to email MoDOT with questions.
- <u>Hotline</u>. The contractor will have a hotline for the public to call during construction. MoDOT will also continue to offer its Customer Service hotline for the public to contact MoDOT regarding the project.
- <u>Public Outreach</u>. MoDOT and the contractor will continue to meet regularly with public groups throughout St. Louis regarding the project. The Connections committee will continue to meet on a regular basis. MoDOT is also forming an emergency response/incident management group to work together throughout the length of construction on coordination and communication issues.



Summary of Impacts

Exhibit A



EXHIBIT A SUMMARY OF IMPACTS

	EVALUATION FACTORS	UNITS	No Build	Selected Alternative per the ROD	Design- Build Alternative
ENG	INEERING & TRAFFIC CONSIDER	ATIONS			
PRO	JECT COST				
	Construction Cost Estimate	\$ (Million)	79.3	670.4	420.0
	Other Program Costs	\$ (Million)	NA	NA	70.2
	Right of way and Relocation Cost	\$ (Million)	0.0	116.9	44.8
	TOTAL PROJECT COST	\$ (Million)	79.3	787.3	535.0
CON	ISTRUCTABILITY ISSUES	Impact Rating	low	modera	te / high
LEVI	EL OF SERVICE (2020)				
	Mainline	Peak Hour LOS (AM/PM)	E/F	D	/D
SYS	TEM MEASURES				
	Daily Vehicle Miles Traveled (2020)	(miles/day) <> No-Build	NA	166	.050
	Daily Vehicle Hours Traveled (2020)	(hours/day) <> No-Build	NA	-9,370	
SAFETY					
	Crashes 2020 – PDO	Number	947	50)6
	Crashes 2020 – Injury	Number	391	19)7
	Crashes 2020 – Fatal	Number	1	2	2
SOC	IAL CONSIDERATIONS				
PRO	PERTY IMPACTS – TOTAL ACQUIS	SITIONS			
	Single-Family Residential	Dwelling Units	0	117	61
	Multi-Family Residential	Dwelling Units	0	112	54
	Business	Establishments	0	42	0
	Public/Semi-Public Facilities	Buildings	0	()
PROPERTY IMPACTS – PARTIAL ACQUISITIONS					
	Single-Family Residential	Dwelling Units	0	114	29
	Multi-Family Residential	Dwelling Units	0	2	0
	Business	Number	0	28	8
	Public/Semi-Public Facilities	Number	0	12	4

EXHIBIT A SUMMARY OF IMPACTS

	EVALUATION FACTORS	UNITS	No Build	Selected Alternative per the ROD	Design- Build Alternative
	GHBORHOOD/COMMUNITY	Impact Rating	low	lo	w
ECO	NOMIC CONSIDERATIONS				
HIGH	WAY USER BENEFITS	\$ (Million) <> No Build	NA	546	5.13
ENV	IRONMENTAL CONSIDERATIONS				
PAR	KLAND – Section 4(f)/6(f)	Number	0	2	1
	Gross Area of Park Open Space Gained	Acres	0	14.38	7.40
	Total Permanent Impacts	Acres	0	12.34	5.52
	Total Temporary Impacts	Acres	0	10.07	11.87
AIR	QUALITY	CO Exceedences	0	()
IMPA	ACTED NOISE RECEPTORS	Dwelling Units	0	315	
WAT	ER RESOURCES				
	Streams	Number	0	10	
	oreans	Linear Feet	0	3,800	3,700
	Wetlands	Acreage	0	()
	Ponds	Acreage	0	0.	01
		Linear Feet	0	1,555	
FLU	ODFLAINS	Acreage	0	1.3	
NAT	URAL COMMUNITIES				
	Upland Forests	Acreage	0	19	0.2
	Riparian Forests	Acreage	0	2	.0
THR SPE	EATENED & ENDANGERED CIES	Number	0	0	
CUL	TURAL RESOURCES				
	NRHP Eligible Architectural Resources • No Adverse Effect	Number	0	(3
	NRHP Eligible Architectural Resources • Adverse Effect – 4(f)	Number	0	5	1
 NRHP Eligible Bridges Adverse Effect – 4(f) 		Number	0	4	

EXHIBIT A SUMMARY OF IMPACTS

	EVALUATION FACTORS	UNITS	No Build	Selected Alternative per the ROD	Design- Build Alternative	
	NRHP Eligible NR Historic Districts • Adverse Effect – 4(f)	Number	0	1 district (4 residences)	1 district (5 residences)	
HAZARDOUS WASTE SITES		Number	0	0		
VISU	VISUAL QUALITY					
	Views From I-64	Impact Rating	low	moderate		
Views Toward I-64		Impact Rating	low	moderate /high		



Plan View of selected Alternative per the ROD

Exhibit B





Plan View of Design Build Alternative

Exhibit C





Exhibits D-H




























21_Roadway Proposal Plan.dgn 3:48:30 PM

10/17/200



























12_Roadway Proposal Plan.dgn 3:47:30 PM 10/17/2006











ROUTE	state MO	DISTRICT	sheet nd. RD07		
JOB NO.					
CONTRAC					
PROJECT					
COUNTY	COUNTY				







ROUTE	state MO	DISTRICT	sheet nd. RD08	
JOB NO.				
CONTRACT ID.				
PROJECT	NO.			
COUNTY				DATE









ROUTE	state MO	DISTRICT	sheet no. RD09	
JOB NO.				
CONTRACT ID.				
PROJECT	NO.			
COUNTY				DATE



ROUTE	state MO	DISTRICT	sheet no. RD10	
JOB NO.				
CONTRACT ID.				
PROJECT	NO.			
COUNTY		DATE		



ROUTE	state MO	DISTRICT	sheet nd. RD02	
JOB NO.				
CONTRAC	T ID.			
PROJECT	NO.			
COUNTY		DATE		



LOW VOLUME RAMPS

MAINLINE & RAMP -TYPE A2 SHOULDER

I-64 VARIABLE OVERLAY

I-64 RECONSTRUCT WEST OF I-170

ROUTE	state MO	DISTRICT	sheet no. RD03
JOB NO.			
CONTRAC	T ID.		
PROJECT	NO.		
COUNTY			





INDEX OF SHEETS

ROADWAY DRAWINGS					
SHEET	NUMBER	DESCRIPTION			
TO1	1	TITLE SHEET			
I O 1	2	INDEX PLAN			
TS01-TS07 & TS09-TS10	3-11	TYPICAL SECTIONS			
RD01-RD25	12-36	ROADWAY PLAN SHEETS			

<u>legend</u>

	FILL SLOPE LIMIT
	CUT SLOPE LIMIT
	NON-FLARED CRASHWORTHY END TERMINAL
	IMPACT ATTENUATOR
•••••	BARRIER/GUARDRAIL
	RETAINING WALL
	SOUND WALL
+	PROPOSED ROW
	EXISTING ROW
	PERMANENT EASEMENT



ROUTE	state MO	DISTRICT	sheet nd. I01	
JOB NO.				
CONTRACT ID.				
PROJECT	NO.			
COUNTY		DATE		



NOTES:

ROUTE	state MO	DISTRICT	sheet nd. TSO1	
JOB NO.				
CONTRAC	T ID.			
PROJECT	NO.			
COUNTY		DATE		

1. SEE SHEET TSO9 FOR PAVEMENT SECTION DETAILS 2. SEE SHEET TS10 FOR SIDE TREATMENT DETAILS





SINGLE LANE RAMP



MULTI LANE RAMP





ROUTE	state MO	DISTRICT	sheet nd. TSO2	
JOB NO.				
CONTRAC	T ID.			
PROJECT	NO.			
COUNTY		DATE		





STA 17+50 TO 22+50



FILL SECTION





ROUTE	state MO	DISTRICT	sheet nd. TSO3	
JOB NO.				
CONTRAC	T ID.			
PROJECT	NO.			
COUNTY		DATE		

NOTES: 1. SEE SHEET TSO9 FOR PAVEMENT SECTION DETAILS. 2. CURB AND GUTTER (C & G) WILL BE PLACED WHERE NECESSARY TO MATCH EXISING CONDITIONS.



ROUTE	state MO	DISTRICT	sheet nd. TS04	
JOB NO.				
CONTRACT ID.				
PROJECT NO.				
COUNTY				DATE






CUT SECTION

BIG BEND BLVD STA 42+12 TO 57+70



FILL SECTION

BOLAND PLACE STA 48+49 TO 51+51



STA 48+15 TO 52+83



CUT SECTION

HIGHLAND TERRACE STA 48+04 TO 51+83



CUT SECTION

BELLEVUE AVENUE STA 47+56 TO 52+19

NOTES: 1. SEE SHEET TSO9 FOR PAVEMENT SECTION DETAILS. 2. CURB AND GUTTER (C & G) WILL BE PLACE WHERE NECESSARY TO MATCH EXISTING CONDITIONS.





SEE ROADWAY PLANS AND PAVEMENT SECTIONS FOR DETAILS (TYPICAL ALL SECTIONS THIS SHEET) FILL SECTION

FILL SECTION

FILL SECTION



Roadway Proposal Typical Section 6.dgn 7:19:33 AM 10/18/200



HAMPTON AVE STA. 9+77 TO STA. 19+06



ROUTE	state MO	DISTRICT	sheet nd. TSO7	
JOB NO.				
CONTRAC	T ID.			
PROJECT	NO.			
COUNTY		DATE		





ROUTE	state MO	DISTRICT	sheet nd. TS09							
JOB NO.										
CONTRAC	T ID.									
PROJECT	N0.									
COUNTY		DATE								









I-64 Environmental Impact Statement PLAN AND PROFILE

Plate G1 - Alternative 1 Sta. 734+25 to Sta. 760+00



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Plate G2 - Alternative 1 Sta. 760+00 to Sta. 800+00



795+00	\ \ PVC 795+20.00 E lev 576.35	desus Christ	64	ROOK ED.
800+00	PV1 797+70.00 Elev 577.62 // 550 550 550 550 550 550 550 550 550	Allegiant ank Corp Grant Scale Scale Scale Scale		





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Plate G3 - Alternative 1 Sta. 800+00 to Sta. 840+00







PLAN AND PROFILE Plate G4 - Alternative 1 Lindbergh Boulevard

l-64 Environmental Impact Statement





Greenway Subcorridor





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Plate G5 - Alternative 1 Sta. 840+00 to Sta. 880+00



875+00				₽₩ ₽₩ 0.34%	T 873 ev 49	3 <u>+65.</u> 33.08	35 ¥					A A A A A A A A A A A A A A A A A A A	Exist
880+00	460	4 +00	480	490	500	510	520	530	540	550	560	SCALE 300	B BRO LOG-CABIN-LNT





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Plate G6 - Alternative 1 Sta. 880+00 to Sta. 920+00







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Plate G7 - Alternative 1 Sta. 920+00 to Sta. 950+91.63



950+00	-0.47%		ISUBOEX UR - H	950 950 950 950 950 964 950 960 1 950
	UBCORRIDOR			
490	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	SCALE 150-LE 300 ⁻ 580 580 560		



Plate T17- Alternative 3 Sta. 951+00 to Sta. 985+00

Thruway Subcorridor



Thruway Subcorridor



Thruway Subcorridor



Thruway Subcorridor



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Plate T20 - Alternative 3 Sta. 1025+00 to Sta. 1060+00





Thruway/ Parkway S	1090+00	490	500	510	520	K= 668	<u>Pvc</u> Elev 540	<u>1091+</u> 571.	- <u>00.00</u> 90	570		590	RPIDOR SUBCORPUS	
ŝubcorrido		MoDO	TEA	IZIE	THE			-1	-64	- Er	nvi	ror P	nmental Impact Statement LAN AND PROFILE	

Plate P1 - Alternative 2 Sta. 1060+00 to Sta. 1091+60

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Plate P2 - Alternative 2 Sta. 1091+60 to Sta. 1133+30







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Plate P3 - Alternative 2 Sta.1133+30 to Sta. 1170+00







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Plate P4 - Alternative 2 Sta. 1170+00 to Sta. 1207+00





Plate P5 - Alternative 2 Sta. 1207+00 to Sta. 1244+00







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Plate P7- Alternative 2 Sta. 1244+00 (I-64) to Sta. 22+81 (& EB I-64)

