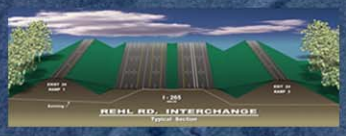
# Rehl Road / I-265 Interchange
## Jefferson County, Kentucky

**Final Report**
**October 2009**

# Interchange Feasibility Study





KENTUCKY TRANSPORTATION CABINET

**Prepared for:**

**KENTUCKY TRANSPORTATION CABINET**
**DIVISION OF PLANNING**

Kentucky TRANSPORTATION CABINET
UNBRIDLED SPIRIT

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# Rehl Road / I-265 Interchange Feasibility Study

Gene Snyder Freeway (I-265/KY 841), I-64, Taylorsville Road (KY 155) / Blankenbaker Parkway (KY 913) / Rehl Road

Jefferson County, Kentucky

Item No.: N/A

## Final Report

October 2009

*Prepared for:*

**Kentucky Transportation Cabinet**:
**Division of Planning and**
**District 5, Louisville, Kentucky**

*Prepared by:*

**Qk4**
**815 West Market Street**
**Louisville, KY 40202**

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## EXECUTIVE SUMMARY

This project is a planning study to evaluate the feasibility of constructing an interchange linking I-265 and Rehl Road in eastern Louisville Metro (see Figure ES-1). The area is west of I-265 and south of I-64 and has been identified for a future employment center in the *Jefferson County Comprehensive Plan: Cornerstone 2020*. It has been rezoned for industrial use, and utilities, including sewers, have been installed. This area for future development is just east of and adjacent to the Bluegrass Industrial Park which surrounds Blankenbaker Parkway (KY 913). The resulting traffic from this development is a top concern for Louisville Metro, the Kentucky Transportation Cabinet (KYTC), and the neighboring public.

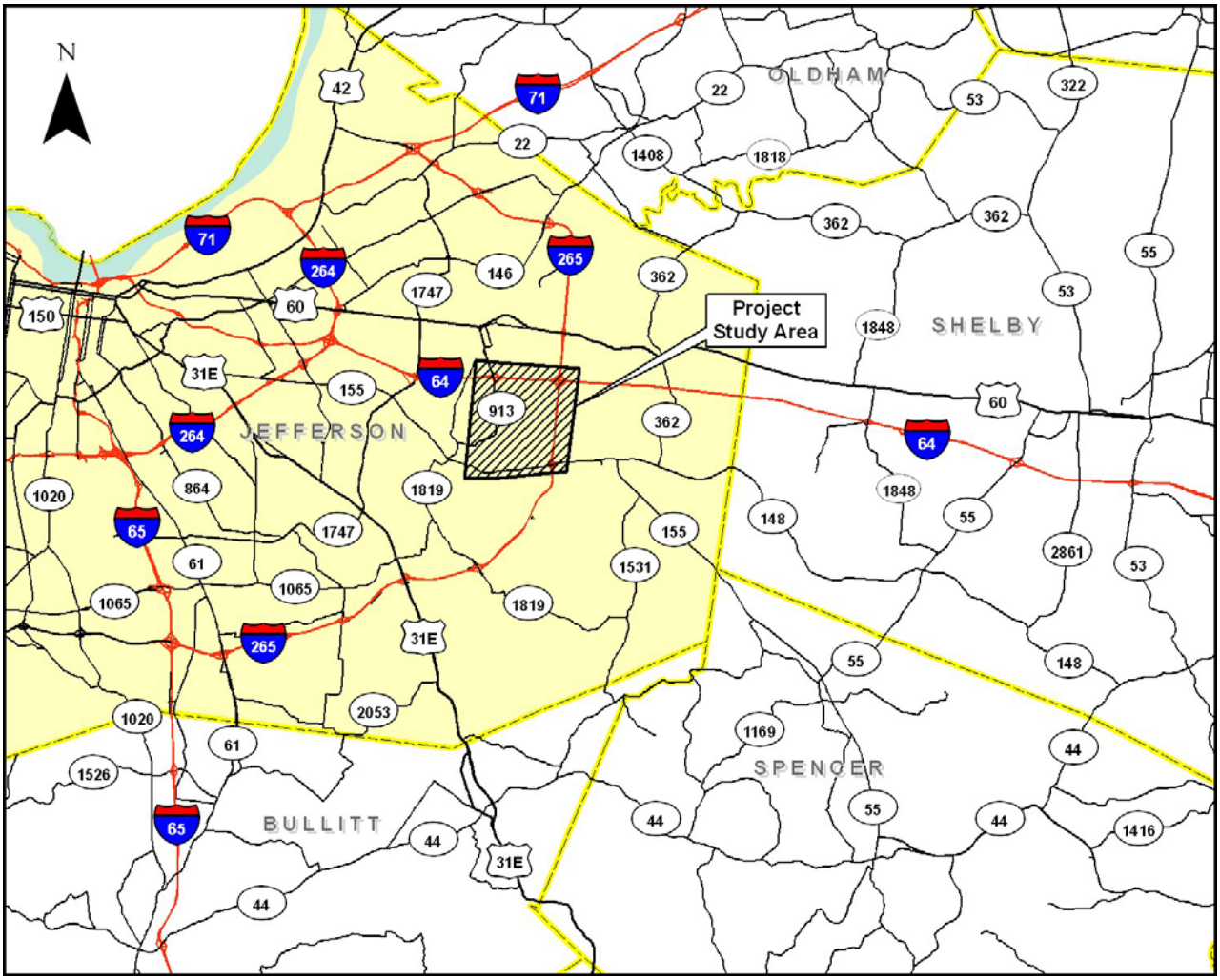



**Figure ES-1: Project Location Map**

The planning-level purpose and need for the project are to accommodate the safe and efficient movement of traffic to and from the future development and the interstate network. Louisville Metro has approved the rezoning for industrial land use, but with a condition that only specified percentages of the proposed developments can occur until the transportation network is improved.

Louisville Metro has identified the interchange as a top priority and outlined the anticipated economic benefit from the proposed improved access. The following is excerpted from the letter of support for the interchange:

> *This proposed development would have an annual net new impact of:*
>
> - *$1.9 million in Kentucky state property tax revenues*
> - *$74.9 million in Kentucky State individual income tax revenues*
> - *$64.1 million in Kentucky State sales tax revenues*
> - *$12.5 million in local occupational tax revenues*
> - *$3.4 million in local property tax revenues*
> - *an additional 49,000 jobs in our 25-county economic area*

Three interstate interchanges exist in the area—Blankenbaker Parkway at I-64, I-64 at I-265, and Taylorsville Road (KY 155) at I-265, and the traffic operates at or above capacity. Likewise, existing traffic volumes and congestion on the two interstates and the I-64/I-265 interchange are substantial. Therefore, the primary objective of this feasibility study is to identify a design concept that would address the traffic needs of the proposed developments without worsening traffic flow on the interstate network.

**Study Process**

A project study team approach was used, consisting of representatives from the KYTC Central Office, KYTC District 5, the Kentuckiana Regional Planning and Development Agency (KIPDA), Louisville Metro, and Qk4. (The FHWA elected to reserve involvement until the Cabinet begins to prepare a full IJS and NEPA document.)

Two alternatives were considered in this planning study: No-Build Alternative and a new I-265 interchange at Rehl Road and associated improvements to I-265

Traffic forecasts were provided by KIPDA, the Metropolitan Planning Organization (MPO), using the traffic model for the Metro Area. The traffic model incorporated the planned and programmed improvements to the network, including a rebuilt I-64/I-265 interchange and a widened I-265. The preliminary layout of the interchange concept is in concert with these proposed improvements. The traffic merge/diverge/weave analysis for the proposed interchange concept was conducted by Qk4. The future traffic was projected and analyzed for years 2020 and 2038 for both Build and No-Build scenarios. Year 2020 traffic assumed a limited number of the planned roadway improvements would be in place, while year 2038 traffic assumed all planned roadway improvements would be in place. Because the planning-level purpose and need is to accommodate future development, the 2038 No-Build scenario is based on a partial build out of the planned land uses, while the 2038 Build scenario is based on a full build-out of the proposed land uses.

After the traffic projections were developed, Qk4 developed the design concept with the merge/diverge/weave analysis to provide a design that would accommodate the various movements. The resulting design concept includes a compressed diamond interchange with collector/distributor (c/d) lanes. The c/d lanes begin in the south inside the KY 155/I-265 interchange, north of the southern ramps and south of the northern ramps, and extend north to connect with the c/d lanes associated with the proposed long-term redevelopment of the I-64/I-265 interchange. The anticipated

cost estimate of this design concept, in 2008 dollars, is as follows: Design, $4.0M; Right-of-Way, $2.0M; Utilities, $2.0M; Construction $47.0M[1]; Total, $55.0M.

### Conclusion

Based on the review of the existing conditions, the cost, the traffic forecasts and analyses, and the planning-level purpose and need for the project, the Project Team concurred that a new interchange with c/d lanes, as described above, would be feasible.

### Next Steps

The advancement of the interchange will require 1) inclusion of the project into the KIPDA TIP (Transportation Improvement Plan) and the KYTC Six-Year Highway Plan, 2) further detailed design, and 3) an Interchange Justification Study (IJS), and a National Environmental Policy Act (NEPA) analysis and document, both of which will need to be coordinated with and approved by FHWA.

The IJS will require the development of a detailed sub area traffic model for the study area. The traffic study for this feasibility report is based on the multi-county model developed by KIPDA and does not afford the detail to satisfy each element of an IJS. The IJS will require a comparison of two options—a new interchange versus rebuilding the existing roads—as a way to meet the project purpose and need. The sub area traffic analysis would be the basis for that analysis.

The NEPA analysis would include public involvement and some level of indirect and cumulative impact analysis for the induced growth. Because of the lack of known environmental impacts and public controversy, it is anticipated the level of documentation could be a CE-Level 3 or an EA/FONSI rather than an EIS.[2]

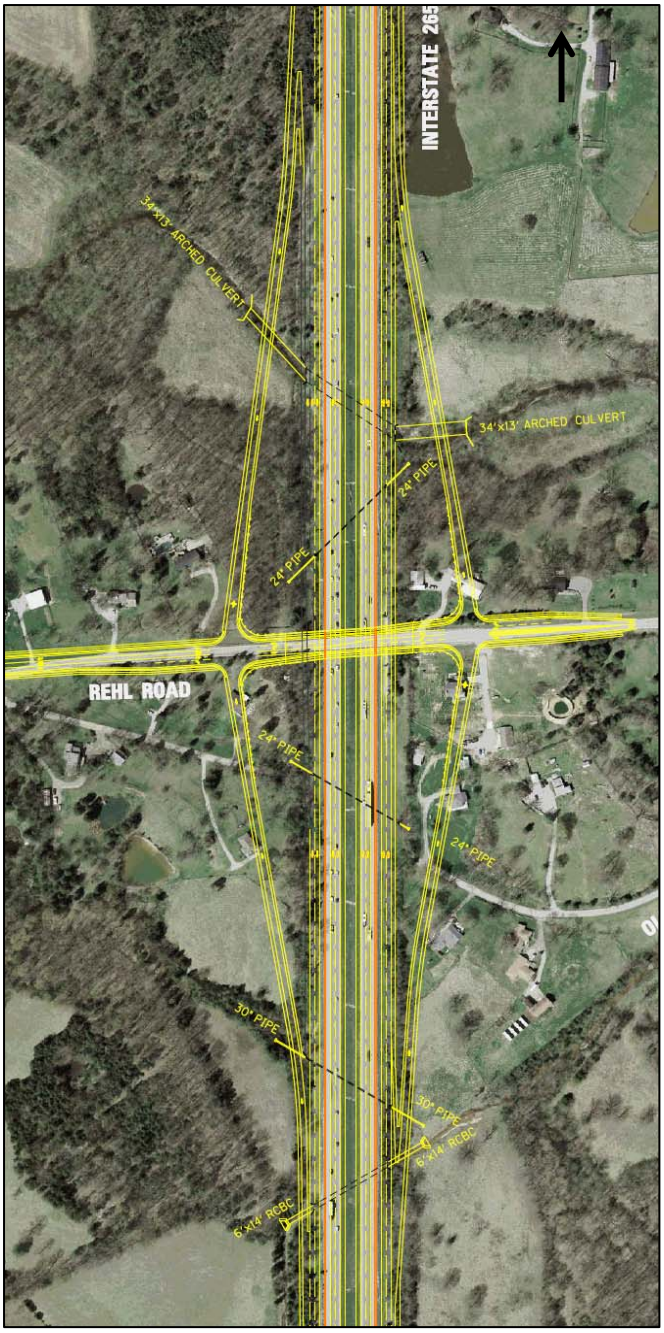



**Figure ES-2: Design Concept (See Exhibit 6)**

[1] The cost estimate is based on a c/d system the terminates inside the KY 155 interchange—between the northern and southern ramps. It was requested that cost estimates be generated for extending the c/d lanes south of the southern KY 155 interchange. The construction cost for such a design is estimated to be $60.5M, in total.

[2] CE = Categorical Exclusion (KYTC offers 3 levels, with a Level-3 being the most involved); EA/FONSI = Environmental Assessment/Finding Of No Significant Impact; EIS = Environmental Impact Assessment.

# 1.0 INTRODUCTION

## 1.1 Purpose of the Study

This project is a planning study to evaluate the feasibility of constructing an interchange linking I-265 and Rehl Road in eastern Louisville Metro (see Figure 1). The area is west of I-265 and south of I-64 and has been identified for a future employment center in the *Jefferson County Comprehensive Plan: Cornerstone 2020*. It has been rezoned for industrial use, and utilities, including sewers, have been installed. This area for future development is just east of and adjacent to the Bluegrass Industrial Park which surrounds Blankenbaker Parkway (KY 913). The resulting traffic from this development is a top concern for Louisville Metro, the Kentucky Transportation Cabinet (KYTC), and the neighboring public.

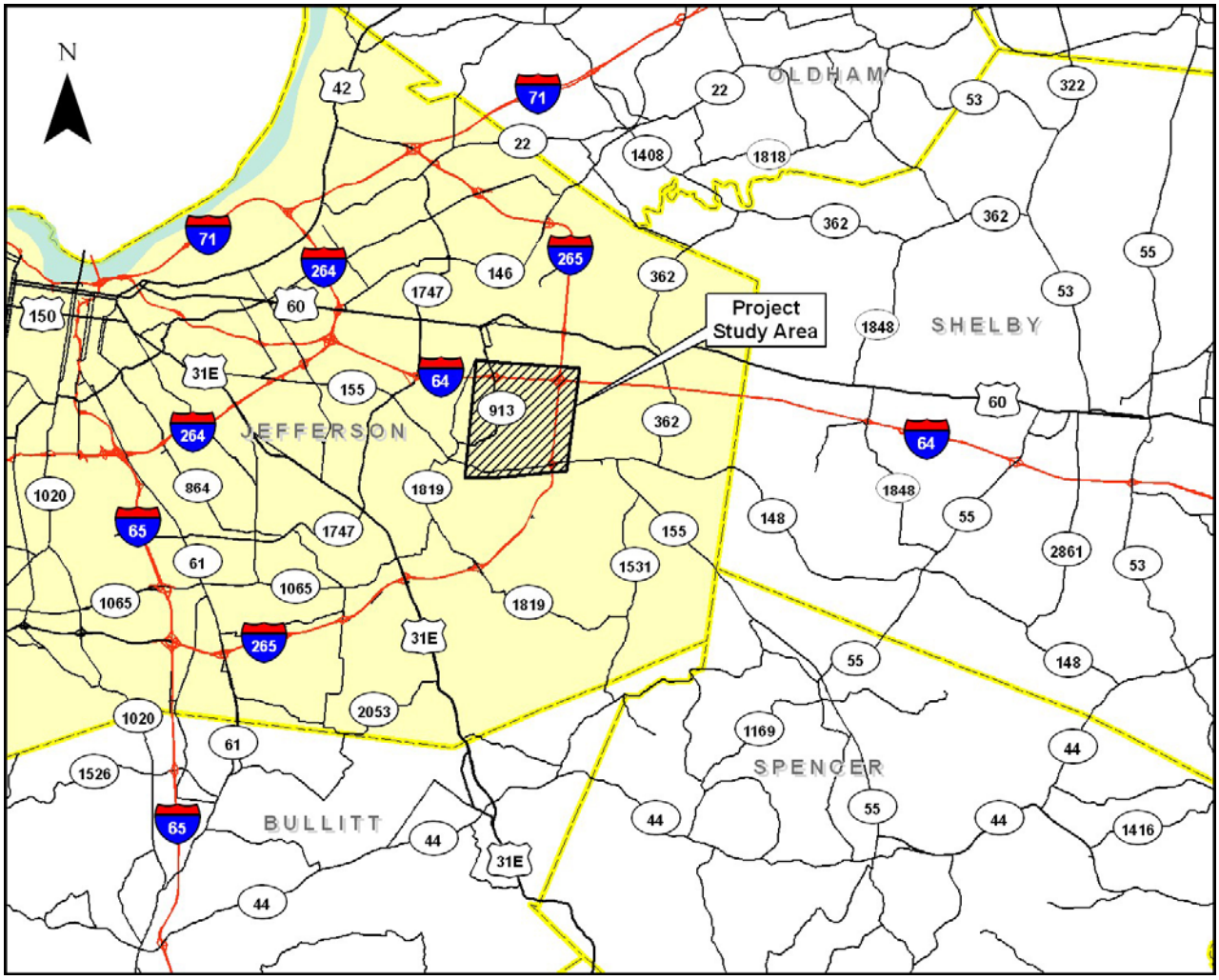



**Figure 1: Project Location Area**

## 1.2 Project Background

In 2000 the then-Louisville and Jefferson County (now Louisville Metro) Planning Commission adopted a comprehensive land use plan: *Cornerstone 2020*. One of the key elements of the plan is Form Districts. Form Districts provide general direction for future land use decisions. In the study area, the Form District is Suburban Workplace (SW), which is described as "large scale industrial and employment centers buffered from surrounding uses." In eastern Louisville Metro there are three SW Form Districts, the other two are to the north along I-265: the Ford Plant and surrounding land uses off Chamberlain Lane, and the Eastpoint Business center off KY 146.

Since that time, numerous development activities have occurred in the study area including the amassing of land into large (over 200-acre) tracts; the rezoning of these tracts from residential to more intensive industrial uses; and the installation of sanitary sewers. Although the rezoning has been approved, full build-out is conditioned upon improvements to the transportation network.

Louisville Metro has identified the need for new interchanges in Jefferson County in several planning documents, and has identified an interchange of Rehl Road and I-265 as the top new interchange priority.

The development activities, coupled with the identification of the need for new interchanges, have led to the advancement of this interchange feasibility study.

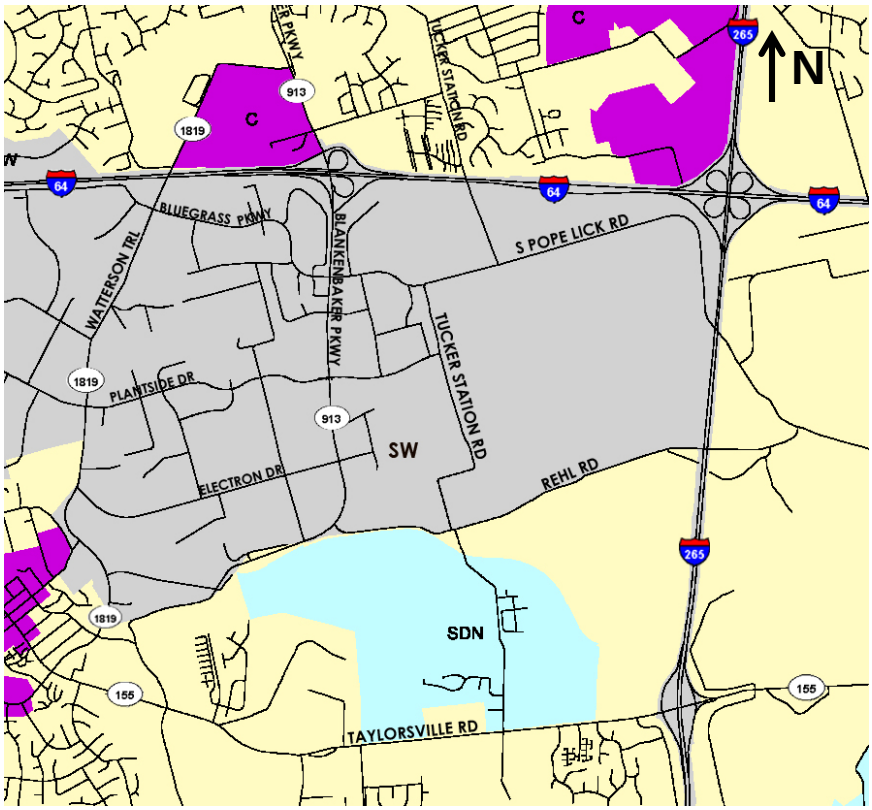



**Figure 2: Cornerstone 2020 Form District Map**
SW = Suburban Workforce Form District
SDN = Special District Neighborhood (i.e., Historic District)
C = Campus Form
Yellow is Neighborhood Form

## 1.3 Purpose and Need

The planning-level purpose and need for the project is to accommodate the safe and efficient movement of traffic to and from the future development and the interstate network. The project should accommodate traffic from the future development of the area and, thereby, mitigate traffic impacts on other roads in the study area to aid in the area's economic viability. Louisville Metro has approved the rezoning for industrial land use, but with a condition that only certain percentages of the proposed developments can be realized until improvements to the capacity of the road network are made to ensure adequate traffic movement. In Appendix B, there is a letter from Louisville

Metro Economic Development Authority identifying the anticipated economic benefit from the proposed improved access. The following is excerpted from the letter:

> *This proposed development would have an annual net new impact of:*
>
> - *$1.9 million in Kentucky state property tax revenues*
> - *$74.9 million in Kentucky State individual income tax revenues*
> - *$64.1 million in Kentucky State sales tax revenues*
> - *$12.5 million in local occupational tax revenues*
> - *$3.4 million in local property tax revenues*
> - *an additional 49,000 jobs in our 25-county economic area*

While Louisville Metro has long planned the Rehl Road interchange, it is not included in KIPDA's Transportation Improvement Plan (TIP) for future funding, nor is it in KYTC's current Highway Plan (Kentucky's 2008 Highway Plan As Approved by the 2009 General Assembly); however, it is included in KIPDA's Long-Range Transportation Plan, Horizon 2030.

# 2.0 EXISTING CONDITIONS

## 2.1 Roadway Characteristics

Data on the state-maintained streets in the study area is included in Appendix C, and a Photo Log of the study area is included as Appendix D. The number of lanes and functional classification of the roadways in the project area are illustrated on Exhibit 2; the key roads are summarized as follows:

- I-64: Urban Interstate—eight 12-foot-wide lanes, four in each direction, between Blankenbaker Parkway and I-265. The current ADT for this section of I-64 is 92,200.
- I-265: Urban Interstate—four lanes, two in each direction, between KY 155 and I-64. The current ADT for this section of I-265 is 64,700.
- Blankenbaker Parkway (KY 913): Urban Principal Arterial—between four and six lanes from Blankenbaker Access Road north to I-64. Blankenbaker Parkway is programmed to be extended south to KY 155 in 2009-10. The current ADT for Blankenbaker Parkway is 36,600.
- Taylorsville Road (KY 155): Urban Principal Arterial—four lanes at the I-265 interchange, and two lanes west to the future Blankenbaker Parkway extension. The current ADT for this section of KY 155 is 17,900.
- Plantside Drive, Bluegrass Parkway/S. Pope Lick Road, and Rehl Road: Each are 2-lane Metro Collector Roads that run east-west through the study area linking the future development area with Blankenbaker Parkway.
- Tucker Station Road: Local collector—two lane north south road that runs through the study area east of Blankenbaker Parkway. Tucker Station Road has narrow pavement, little to no shoulders, substandard geometrics (including four 90-degree curves, and one

off-set intersection) and an at-grade crossing of the Norfolk Southern railroad track. South of the Norfolk Southern railroad track, Tucker Station Road runs adjacent to the Black Acre State Nature Preserve and Historic Site and bisects the Tyler Settlement Historic District.

## 2.2 Crash Analysis

Crash report data in the project study area from the five-year period January 2001–December 2005 was examined to identify roadway sections with abnormally high crash rates. This analysis indicates four roadway sections in the project study area are experiencing high crash rates. A critical crash rate factor (CCRF) greater than 1.0 indicates that the high rate of crashes is statistically significant, i.e. this high crash rate is not occurring randomly. The CCRF for each state road in the study area is located in Appendix C. Table 1, *Crash Analysis Summary*, lists the high crash locations for the project area.

**Table 1: Crash Analysis Summary**

| Route | Begin Milepoint | End Milepoint | Location Description | CCRF |
|---|---|---|---|---|
| I-64 | 18.9 | 19.6 | From I-265 Underpass to 0.8 mile East | 1.36 |
| KY 913 | 2.1 | 2.3 | Commonwealth Drive to Bluegrass Parkway | 1.96 |

## 2.3 Existing and Future No-Build Traffic Characteristics

For the traffic modeling purposes the existing traffic volumes are for the year 2007, and were obtained from KIPDA. The forecasting model was used to develop year 2020 forecasts, and then the model was run to generate year 2030 forecasts. Because the model only predicts to 2030, the 2030 volumes were extended to the year 2038 based on average annual growth rates generated from the model. The traffic analyses and forecasts are included in Appendix E. The projections take into account planned highway projects in the Horizon 2030 Long-Range Transportation Plan. For the year 2020, it was assumed that the following roadway capacity improvements would be in place:

- A new flyover ramp from I-265 northbound to I-64 westbound with collector/distributor lanes on I-265 north and south of I-64
- The extension of Blankenbaker Parkway south to KY 155 as a four-lane road
- I-64 east of I-265 widened to six lanes

For the year 2038, each of the following KIPDA LRTP planned projects were assumed to be constructed:

- I-265 widened to six lanes
- A full flyover ramp system for the I-64/I-265 interchange
- The construction of Urton Lane—a new three-lane road from north of I-64 south to KY 155, west of and parallel to I-265
- KY 155 widened from I-265 north to Blankenbaker Parkway from two lanes to five lanes
- New I-64 interchange east of I-265 in the vicinity of Gilliland Road overpass.

Table 2 provides the years 2007, 2020, and 2038 average daily traffic (ADT) and Level of Service[3] (LOS) data for the existing conditions and the No-Build scenario.

**Table 2: 2007, 2020, and 2038 Traffic Conditions—Current and No-Build**

| Route Link | 2007 ADT | No-Build* | | 2007 LOS | No-Build |
|---|---|---|---|---|---|
| | | 2020 ADT | 2038 ADT | | 2038 LOS |
| **I-64** | | | | | |
| West of Blankenbaker Pkwy. | 107,000 | 125,800 | 155,300 | E | E |
| West of I-265 | 92,200 | 124,200 | 161,500 | D | E |
| East of I-265 | 53,800 | 91,600 | 116,600 | C | F |
| **Gene Snyder Freeway (I-265)** | | | | | |
| North of I-64 – Main | 64,700 | 59,200 | 65,600 | D | D |
| North of I-64 – C/D | n/a | 52,800 | 79,700 | D | F |
| From I-64 to KY 155 – Main | 64,700 | 98,900 | 120,200 | D | E |
| From I-64 to near Rehl Rd. – C/D | n/a | 39,800 | 55,300 | C | D |
| From KY 155 to KY 1819 – Main | 57,500 | 90,700 | 113,100 | D | E |
| **Taylorsville Road (KY 155)** | | | | | |
| North of Blankenbaker Pkwy. | 14,100 | 19,900 | 27,300 | D | D |
| South of Blankenbaker Pkwy. | 13,700 | 19,000 | 27,000 | D | D |
| North of Old Heady Rd. | 13,700 | 15,300 | 21,700 | D | C |
| South of Old Heady Rd. | 13,700 | 15,700 | 22,400 | D | C |
| South of Tucker Station Rd. | 18,300 | 21,300 | 24,300 | F | C |
| North of Stone Lakes Dr. | 18,300 | 22,000 | 24,100 | D | C |
| North of I-265 | 18,300 | 22,800 | 26,200 | C | D |
| **Blankenbaker Parkway (KY 913)** | | | | | |
| North of I-64 | 30,500 | 32,800 | 39,800 | D | F |
| South of I-64 | 36,400 | 37,000 | 50,800 | C | E |
| South of Bluegrass Pkwy | 25,100 | 33,500 | 44,300 | C | D |
| South of Plantside Dr. | 15,800 | 19,400 | 28,800 | C | D |
| South of Rehl Rd. | 11,000 | 16,800 | 26,300 | C | D |
| North of Blankenbaker Access | 11,000 | 18,800 | 29,100 | C | D |
| North of Chenoweth Run Rd. | N/A | 14,700 | 23,300 | N/A | C |
| North of KY 155 | N/A | 7,700 | 14,000 | N/A | C |

* *The No-Build scenario assumes less overall socioeconomic activity (i.e., jobs and residents) than the build alternatives; therefore, under these assumptions the No-Build scenario would result in less traffic on the study area roads.*

[3] Level of service" (LOS), as defined in the 2000 Highway Capacity Manual published by the Transportation Research Board, is a qualitative measure of operational conditions, and the motorists' perception of those conditions. The conditions are usually defined in terms such as speed, travel time, maneuverability, delay, and comfort and convenience. The letters "A" through "F" designate the six levels of service. LOS A represents the best operating conditions (i.e., free flow conditions), while LOS F defines the worst (i.e., severe congestion). According to the national standards, the lower levels of service (i.e., D, E, and F) are unacceptable for safe and efficient operation since they generally reflect unstable traffic flows, and drivers have little freedom to maneuver.

## 3.0 PROJECT TEAM MEETINGS

The full project team met twice during this study, with one additional meeting with select members to review and discuss traffic assumptions. These meetings were documented with meeting minutes (see Appendix F). A brief summary of the major topics discussed at each meeting follows:

- May 15, 2007, Louisville Metro. This pre-scoping meeting was to identify key issues with Louisville Metro and the project scope and schedule.

- July 12, 2007, KIPDA. The purpose of this meeting was to identify traffic issues associated with the proposed interchange study.

- May 5, 2008, KYTC District-5, Project Team Meeting #1. The team's kick-off meeting at which members were introduced, the type of study was discussed, and the study's scope and schedule were reviewed. Major topics of discussion included: the existing conditions, issues and potential problems, and the project purpose and need. Issues associated with the proposed interchanges that were discussed include the merge/diverge/weave analysis in the south, and the close spacing of the existing interchanges.

- July 18, 2008, KYTC District 5. This was a follow-up meeting to re-address traffic concerns and design issues. At this meeting it was decided that different socioeconomic variables would be required for the build as compared to the No-Build alternative, whereas the build analysis would have approximately 10,000 more jobs, and therefore more traffic, than the No-Build option.

- July 8, 2009, KYTC District 5, Project Team Meeting #2. Team members reviewed updated designs, cost estimates, and additional traffic analysis for the preliminary design concept. The team concluded that while a significant amount of work and analysis remains, based on the planning level effort an interchange at Rehl Road and I-265 appears feasible from both a constructability and federal IJS criteria perspective.

## 4.0 STUDY ALTERNATIVES CONSIDERED

Two alternative concepts were considered in this planning study:

- No-Build Alternative
- Install a new I-265 interchange at Rehl Road and associated improvements to I-265

### 4.1 No-Build Alternative

The No-Build Alternative involves improvements that are already planned and illustrated in the MPO Long-Range Plan, except for the Rehl Road/I-265 interchange. (The project description for the KIPDA Long-Range Plan projects in the study area included in Appendix G.) The No-Build option will be referred to as appropriate for baseline comparisons throughout the future decision-making process.

The No-Build Alternative for this study, it has been assumed, will result in approximately 10,000 fewer jobs in the study area than either the Build option, or an alternative to rebuild the existing road network to manage and distribute growth-included traffic as effectively as the Build Alternative. This significant difference illustrates that No-Build alternative would not meet the planning-level purpose and need for the project and would not be in concert with the long-planned and long-term economic development plans for Louisville Metro. From a traffic perspective, the No-Build alternative would result in less traffic to and from the study area, including several segments of the adjacent interstates.

## 4.2 New I-265 Interchange at Rehl Road

This alternative would involve the construction of an interchange with I-265 in the vicinity of the current Rehl Road overpass. Because the programmed construction of a flyover ramp from I-265 northbound to I-64 westbound will include two-lane collector/distributor lanes on both sides of I-265, this alternative will require the extension of the collector/distributor lanes south into the I-265/KY 155 interchange. Because of the proximity of the southern ramps of the proposed Rehl Road interchange and the northern ramps of the KY 155 interchange, it is proposed to extend the ramp termini as auxiliary lanes on the outsides of both the northbound and southbound two-lane collector/distributor lanes. This will result in a three-lane section for the collector/distributor lanes between KY 155 and Rehl Road entrance/exit ramps. This concept is illustrated on Exhibit 6. A detailed signage plan will need to be created to guide travelers into the appropriate mainline, c/d and auxiliary lanes.

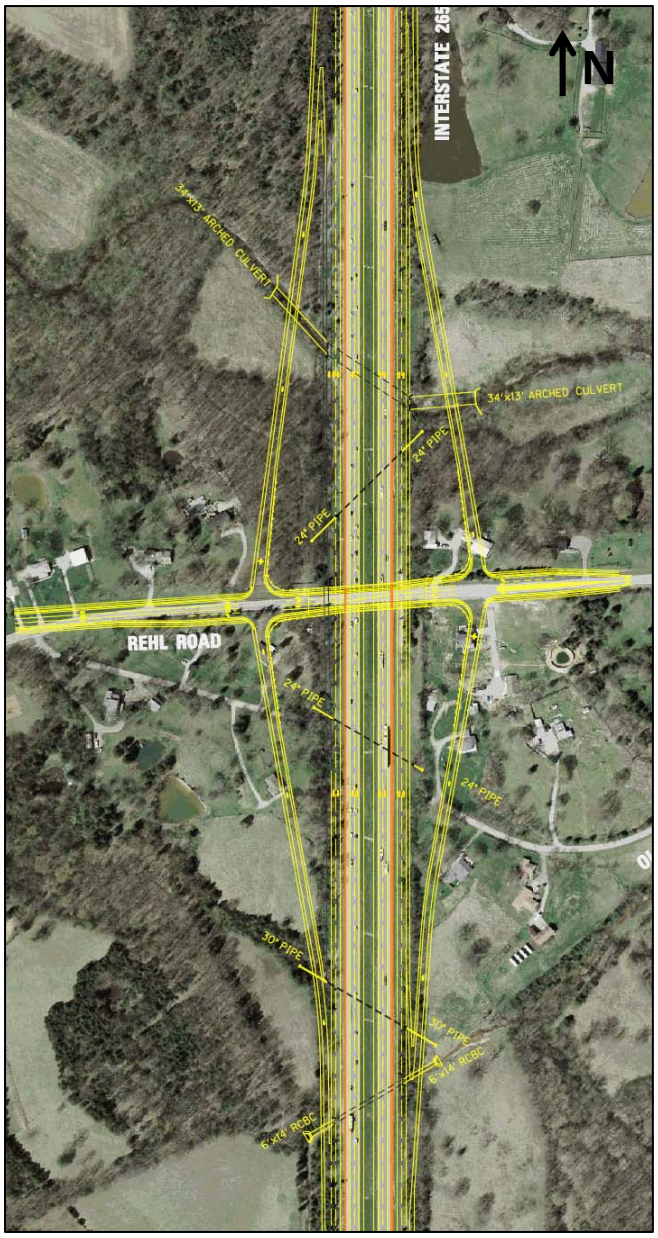



**Figure 3: Design Concept (See Exhibit 6)**

At the beginning of this study several conceptual design options were considered, such as a flop diamond interchange and a clover leaf design, but because of the need for the c/d lanes, the topography, and the objective to minimize right-of-way acquisition and construction costs, a compressed diamond was identified as the most prudent preliminary design concept.

The traffic volumes and forecast for this alternative are illustrated on Exhibit 4, Appendix A. The peak hour levels of service for the merge/diverge/weave analysis are illustrated on Exhibit 5, Appendix A. Table 3 compares ADT and LOS data for the future Build and No-Build Alternatives.

The anticipated cost estimate in 2008 dollars for this alternative is as follows:

| | |
|---|---|
| Design: | $4.0M |
| Right-of-Way: | $2.0M |
| Utilities: | $2.0M |
| Construction: | $47.0M[4] |
| Total: | $55.0M |

The cost estimate worksheets for the construction costs are included in Appendix H. The construction and utility costs were based on recently completed projects; the right-of-way costs were based on Property Valuation Administration (PVA) records available from Louisville and Jefferson County Information Consortium (LOJIC) mapping; and the design costs were estimated to be 10% of the construction costs.

While the purpose and need for this project includes economic development for the greater Louisville Metro area, it should be noted that the interchange would serve many existing and proposed land uses in this area of Jefferson County, rather than a single development. Such land uses included the future Floyds Fork Park system and several existing residential developments east of I-265. While much of the area east of I-265 is rural in nature, it is all currently zoned R-4, which allows for approximately 4 single family units per acre. Based on input from Louisville Metro for this planning study, minimal residential (rather than a build out for the R-4 zoned land) was assumed for the KIPDA traffic model for this area.

The traffic model for the Build Alternative is based on a full build-out of the study area, which includes 10,000 more jobs than the No-Build Alternative, as illustrated below.

**Rehl Road Interchange Study Area**
**Total Projected Employment**

| | 2020 No-Build | 2020 Build | 2030 No-Build | 2030 Build |
|---|---|---|---|---|
| KIPDA TAZ 421 | 6,309 | 12,970 | 7,474 | 17,474 |

District = Collection of several Traffic Analysis Zones from KIPDA Traffic Model, see Appendix E.

Consequently, the Build Alternative results in more overall traffic than the No-Build Alternative on the study area roadways. The higher volumes result in lower LOS in some places. The data in Table 3 shows two areas where the 2038 LOS is expected to be worse for the Build than for the No-Build Alternative: I-265 North of I-64 on the main line only (even though the difference in traffic is only 1,200 ADT, or 2%), and on Blankenbaker Parkway south of I-64, where the traffic is anticipated to be 5,200 to 6,800 ADT (or 9 to 13%) higher for the Build Alternative. These values are to expected since the traffic model anticipates that much of the new employment would travel to/from the west, from Louisville proper, to the new jobs in the east, and therefore exit at Blankenbaker rather than travel via I-265 to Rehl Road. The Project Team noted that this assumption may or may not prove

[4] The cost estimate is based on a c/d system the terminates inside the KY 155 interchange—between the northern and southern ramps. It was requested that cost estimates be generated for extending the c/d lanes south of the southern KY 155 interchange. The construction cost for such a design is estimated to be $60.5M, in total.

correct, depending on the development patterns to the east of I-265. Should the eastern area develop as zoned, the trips to/from the east of the study area would be expected to increase, and those using the Blankenbaker Parkway/I-64 interchange decrease. For this reason, and others, it is recommended that a small area traffic model be developed for this project as it advances into future stages. In the section below, the interchange concept is analyzed in comparison to FHWA eight policy points for an IJS.

**Table 3: 2020, 2038 Traffic Conditions—No-Build Scenario and New Interchange**

| Route Link | Build | | No-Build | No-Build | Build |
|---|---|---|---|---|---|
| | 2020 ADT | 2038 ADT | 2038 ADT | 2038 LOS | 2038 LOS |
| **I-64** | | | | | |
| West of Blankenbaker Pkwy. | 128,400 | 160,700 | 155,300 | E | E |
| West of I-265 | 118,500 | 155,200 | 161,500 | E | E |
| East of I-265 | 91,400 | 117,600 | 116,600 | F | F |
| **Gene Snyder Freeway (I-265)** | | | | | |
| North of I-64 – Main | 58,500 | 67,000 | 65,600 | D | E |
| North of I-64 – C/D | 56,400 | 78,200 | 79,900 | F | F |
| From I-64 to Rehl Rd. – Main | 58,500 | 67,000 | 65,600 | D | D |
| From I-64 to Rehl Rd. – C/D | 46,400 | 59,600 | 55,300 | D | D |
| From Rehl Rd. to KY 155 – Main | 114,100 | 93,400 | 74,800 | D | D |
| From Rehl Rd. to KY 155 – C/D | n/a | 50,500 | n/a | n/a | D |
| South of KY 155 South | 94,300 | 113,100 | 117,700 | E | F |
| **Taylorsville Road (KY 155)** | | | | | |
| North of Blankenbaker Pkwy. | 19,900 | 29,200 | 27,300 | D | D |
| South of Blankenbaker Pkwy. | 19,900 | 27,700 | 27,000 | D | D |
| North of Old Heady Rd. | 16,800 | 23,800 | 21,700 | C | C |
| South of Old Heady Rd. | 17,300 | 24,900 | 22,400 | C | C |
| South of Tucker Station Rd. | 17,600 | 21,700 | 24,300 | C | C |
| North of Stone Lakes Dr. | 19,000 | 22,600 | 24,100 | C | C |
| North of I-265 | 20,000 | 28,900 | 26,200 | D | D |
| **Blankenbaker Parkway (KY 913)** | | | | | |
| North of I-64 | 32,700 | 39,700 | 39,800 | F | F |
| South of I-64 | 40,600 | 56,000 | 50,800 | E | F |
| South of Bluegrass Pkwy | 37,700 | 51,100 | 44,300 | D | E |
| South of Plantside Dr. | 21,100 | 30,600 | 28,800 | D | D |
| South of Rehl Rd. | 17,100 | 27,000 | 26,300 | D | D |
| North of Blankenbaker Access | 19,000 | 29,700 | 29,100 | D | D |
| North of Chenoweth Run Rd. | 14,500 | 24,600 | 23,300 | C | C |
| North of KY 155 | 8,500 | 14,400 | 14,000 | C | C |

# 5.0 INTERCHANGE JUSTIFICATION STUDY ANALYSIS

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) contains requirements for planning a proposed interchange to the existing Interstate Highway System. These requirements are implemented in FHWA policy and through Federal regulation located in 23 CFR part 450. The policy for *Additional Interchanges to the Interstate System* contains eight points that must be taken into consideration. This section discusses each policy point as it relates to the proposed Rehl Road/I-265 interchange.

**Policy Statement No. 1: Existing Facilities Capability**

*"It is demonstrated that the existing interchanges and/or local roads and streets in the corridor can neither provide the necessary access, nor be improved to satisfactorily accommodate the design-year traffic demands while at the same time providing the access intended by the proposal. "*

The existing roads and interchanges cannot provide the adequate access intended by the proposal. This statement is validated by the fact that Louisville Metro has, based on the traffic impact study prepared for the proposed developments, limited development in the area until the transportation network is improved. There are two general concepts considered for such improvements: rebuilding the existing roads and interchanges or adding a new interchange. Although it is likely that rebuilding the existing roads to accommodate traffic to serve the study area would have significant right-of-way and construction impacts, and prove much more costly, this alternative has not been examined in detail in this planning study. This alternative concept would likely include rebuilding the following 4 roadway elements: 1) The two-lane east-west collector roads leading into the development area: Rehl Road, Plantside Drive, and Bluegrass Parkway/S. Pope Lick Road, each of which would be expected to have major right-of-way impacts. 2) The north-south Tucker Station Road from Bluegrass Parkway south to Taylorsville Road, which would have involvement with the Norfolk Southern railroad crossing and impact both the Blackacre State Nature Preserve and Historic Site, and the Taylor Rural Settlement Historic District. 3) The two roads leading to the interstates: Blankenbaker Parkway to I-64 and Taylorsville Road to I-265, would need additional capacity. 4) The Blankenbaker Parkway/I-64 interchange and the Taylorsville Road/I-265 interchange would need added capacity.

The exact roads and the type of improvements to each would be determined during a future detailed traffic analysis generated to study the traffic impacts on each of the streets in the study area for the Build and No-Build scenario. This detailed analysis will be necessary task for the required full IJS.

It should be noted that, because the traffic forecasts prepared for this study indicate that traffic volumes on the existing roads for the build alternative are in many locations higher than the No-Build volumes. Consequently, it is likely that improvements to the existing road network will not be unnecessary even with the proposed interchange.

**Policy Statement No. 2: Transportation System Management**

*"All reasonable alternatives for design options, location and transportation system management type improvements (such as ramp metering, mass transit, and HOV facilities) have been assessed and provided for, if currently justified, or provisions are included for accommodating such facilities if a future need is identified."*

Transportation System Management (TSM) and Spot Improvements alternatives involve relatively low-cost options. TSM options generally refer to such activities/features as signing, striping, traffic lights, and simple roadway improvements such as removing vegetation to improve visibility or improving the radius of a street corner. Spot Improvements include concepts such as reconstructing relatively short substandard curves, hills, intersections, etc., to address a safety concern, and then reconnecting with the existing roadway. Transit options could include higher cost activities/features ranging from the addition of High Occupancy Vehicle (HOV) lanes and park-and-ride lots to the construction of light rail/commuter train facilities.

Although such alternative concepts could be implemented on study area roadways, none would significantly address the issues of mitigating congestion, connectivity of the road and interstate network, and safety. Therefore, the low-cost TSM and Spot Improvement options were not studied in detail as part of this planning effort.

Bus transit is provided for in the western portion of the study area, but not on I-265 or in the vicinity of the interchange under study. Neither meter ramps nor HOV lanes are provided in any Louisville area interstates.

**Policy Statement No. 3: Operational Analysis**

*"The proposed access point does not have a significant adverse impact on the safety and operation of the Interstate facility based on an analysis of current and future traffic. The operational analysis for existing conditions shall, particularly in urbanized areas, include an analysis of sections of Interstate to and including at least the first interchange on either side. Crossroads and other roads and streets shall be included in the analysis to the extent necessary to assure their ability to collect and distribute traffic to and from the interchange with new or revised access point."*

On I-265 the spacing of the center of the interchanges with KY 155 and I-64 is 2.0 miles, which leaves 1.0 mile in either direction of the proposed interchange. The spacing on I-265 between the northern termini of KY 155 ramps and the southern termini of the I-64 ramps is 9,961 feet on the west side and 10,015 feet on the east side. The traffic operational analysis has been performed for the proposed interchange, and it included the interchanges to the north (I-64), to the south (KY 155), and the I-64 / Blankenbaker interchange to the west and the surface streets within the study area. The operational analysis illustrates that the proposed interchange would not have an adverse effect on the safety and operation of the interstate weaving movement for future traffic as compared to the No-Build Alternative. This conclusion was reached after adjustments to the alternative were made; specifically, the collector/distributor lanes were extended south into the I-265/KY 155 interchange, auxiliary lanes were added between Rehl Road and KY 155, and for northbound traffic entering the c/d system, two lanes were provided instead of the initially estimated one lane. Without these

elements added to the c/d lanes the traffic merging and diverging would have resulted in a substandard LOS E or F for those movements. The merge, diverge, and weave analysis is illustrated on Exhibit 5 in Appendix A. As illustrated in Table 3, two sections of the mainline of I-265—south of KY 155 and north of I-64—are anticipated to experience worsened LOS, from E to F, and from D to E, respectively.

**Policy Statement No. 4: Access Connections and Design**

*"The proposed access connects to a public road only and will provide for all traffic movements. Less than "full interchanges" for special purposes access for transit vehicles, for HOVs or into park and ride lots may be considered on a case-by-case basis. The proposed access will be designed to meet or exceed standards for Federal-aid projects on the Interstate system."*

The proposed interchange will connect to a public road, Rehl Road, and provide for all directional movements, designed to meet or exceed current standards for Federal-aid projects.

West of I-265, Rehl Road is proposed to be upgraded in the KIPDA Long-Range Plan as a rebuilt two-lane road, and it is proposed to be widened and redesigned as part of the proposed developments. East of I-265, the design of the interchange will need to provide an acceptable connection to the current Louisville Metro maintained Rehl Road. At present, neither Louisville Metro or KIPDA have identified the reconstruction of Rehl Road east of I-265 as a project, and no proposed extensions further east onto new alignment to the proposed I-64 interchange near Gilliland Road have been proposed.

**Policy Statement No. 5: Transportation and Land Use Plans**

*"The proposal considers and is consistent with local and regional land use and transportation plans."*

The proposed interchange is included in the KIPDA Long-Range Plan, the Louisville Metro Comprehensive Plan, Cornerstone 2020, and is a top priority for Louisville Metro. In the recent past land use rezoning and other infrastructure improvement, including sanitary sewer lines and expanded capacity at the treatment plant, have been advanced in this area, each with the understanding that an interchange is planned and desired by the local government.

**Policy Statement No. 6: Comprehensive Interstate Network Study**

*"In areas where the potential exists for future multiple interchange additions, all request for new or revised access are supported by a comprehensive Interstate network study with recommendations that address all proposed and desired access within the context of a long-term plan."*

There are several planned new interchanges in Jefferson County, but none other than Rehl Road are proposed on I-265. The only one in proximity to the study area is a proposed interchange on I-64 approximately 2 miles east of I-265 in the vicinity of Gilliland Road. Although a planning study

was completed by KYTC in 2008 for this interchange, this project is illustrative, only, and has not been advanced by KYTC to the preliminary engineering and environmental documentation phase. It should be noted that each project has independent utility. However, should either of these new interchanges be advanced, the future sub-area traffic studies for each project should take the other proposed interchange into consideration. Both interchanges are included in KIPDA's Long-Range Transportation Plan, and therefore both are included in the regional traffic model that was used for this Rehl Road/I-265 interchange feasibility study.

**Policy Statement No. 7: Coordination with Transportation System Improvements**

*"The request for a new or revised access generated by new or expanded development demonstrates appropriate coordination between the development and related or otherwise required transportation system improvements."*

As stated throughout the planning study, and in Policy Statement No. 5, the interchange has been taken into consideration by the local and regional planning agencies and is supported by the planned land use developments within the study area. The interchange is viewed by the Louisville Metro planners as an asset to the development goals for the area that are supported by the comprehensive land use plan. Other transportation system improvements in the Long-Range plan and considered by Louisville Metro have been coordinated with the proposed Rehl Road/I-265 interchange.

**Policy Statement No. 8: Status of Planning and NEPA**

*"The request for new or revised access contains information relative to the planning requirements and the status of the environmental processing of the proposal."*

The planning process and planning objectives, herein, were implemented to provide a basis for scoping and advancing the subsequent decision-making stages for approving or rejecting a new interstate interchange. Therefore, much of the process and information considered and documented herein for this interchanges is in concert with the process and information required by the National Environmental Policy Act (NEPA) and Interchange Justification Study (IJS) requirements. Regarding the NEPA process, based on the preliminary literature research and the Environmental Overview map, Exhibit 3 in Appendix A, no significant impacts or public controversy are anticipated with the proposed interchange; therefore, it is anticipated the project could be advanced as an EA/FONSI or CE-Level 3 rather than an EIS. Regarding the IJS, a sub-area traffic model will need to be developed to further analyze design details and operational issues.

## 6.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the planning analysis herein, the Project Team anticipates the interchange with c/d lanes, as described above, would 1) be feasible in regards to constructability and federal IJS and NEPA policy requirements, 2) be beneficial to Louisville Metro by meeting the planning-level purpose and need, 3) although it is recognized the further work is required, it appears the based on the work conducted herein, the interchange can be designed to not be harmful to the interstate network, and 4) cost approximately $55.0M in 2008 dollars: Design, $4.0M; Right-of-Way, $2.0M; Utilities, $2.0M;

Construction $47.0M. this fee estimate is based on the assumption that the c/d lanes will taper to the mainline between the north and south ramps to/from KY 155. Should the c/d lanes be extended south past the southern ramps to/from KY 155, the construction cost alone is estimated to increase to $60.5M.

The Project Team also notes that a significant amount of work and analysis remains prior to final approval, as described throughout this report and below.

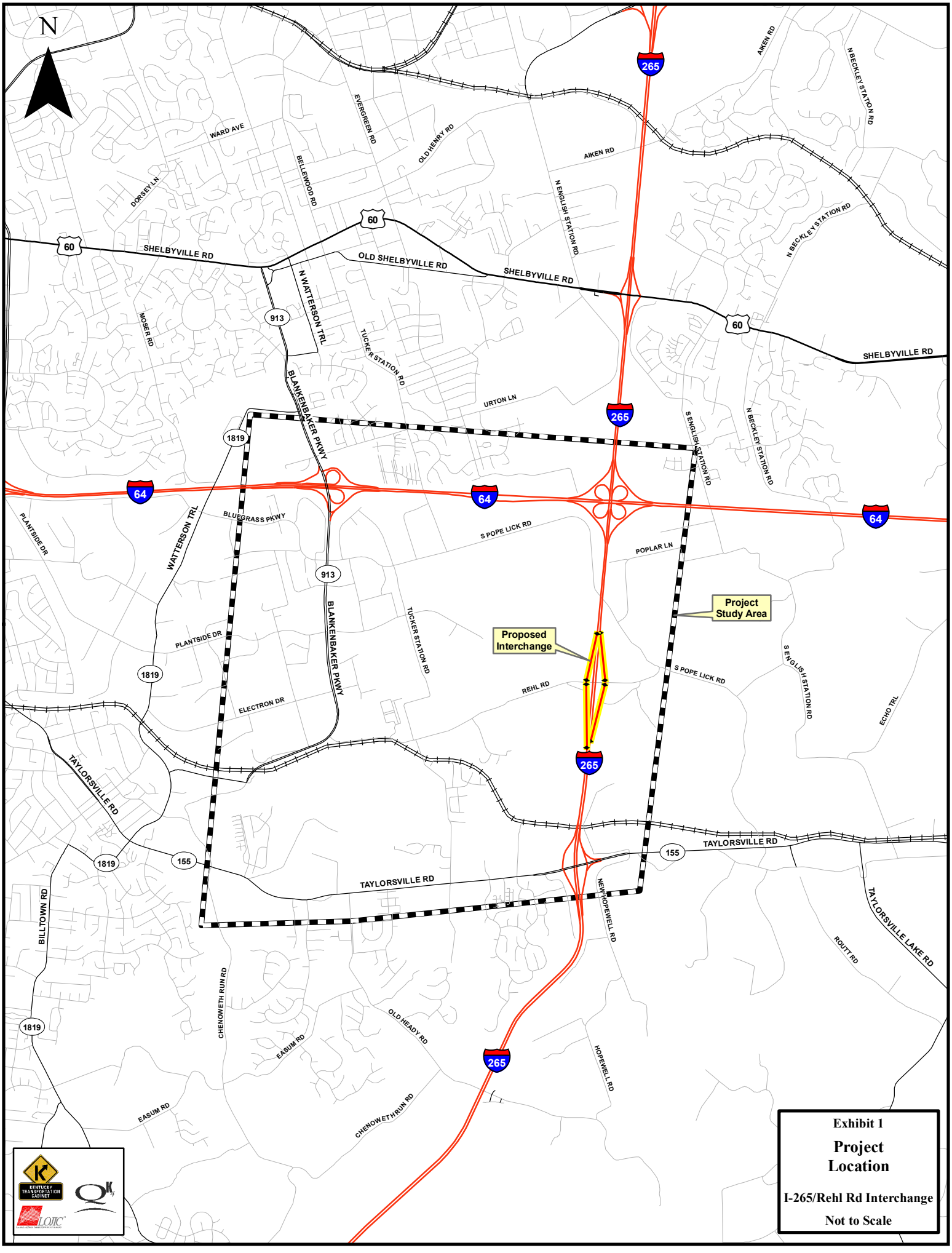
**Next Steps**

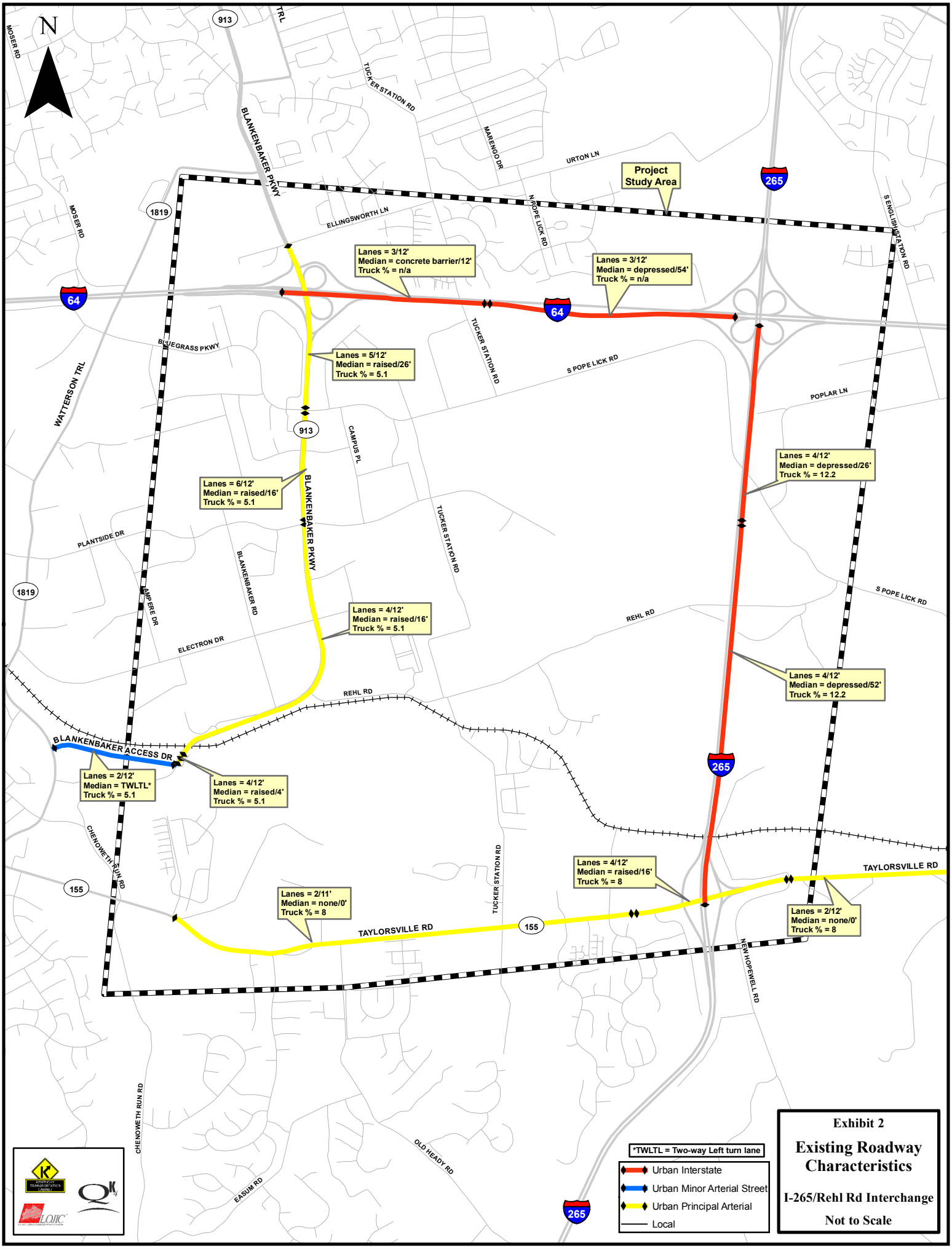
The advancement of the interchange will require 1) inclusion of the project into the KIPDA TIP (Transportation Improvement Plan) and the KYTC Six-Year Highway Plan, 2) further detailed design, including continued coordination with the redesign of the I-265/I-64 interchange and a detailed signage plan, and 3) an IJS and a NEPA analysis and document, both of which will need to be coordinated with and approved by FHWA.

- The IJS will require the development of a detailed sub area traffic model for the study area, based on specific developments in the future Suburban Workplace Form District. (The traffic study for this feasibility report is based on currently anticipated future conditions the multi-county model developed by KIPDA and does not afford the detail to satisfy each element of an IJS.) The IJS will require a comparison of two options—a new interchange verses rebuilding the existing roads—as a way to meet the project purpose and need. The more detailed sub area traffic analysis would be the basis for that analysis.

- The NEPA analysis would include public involvement and disclosure of some level of indirect and cumulative impact analysis for the induced growth. Because of the lack of known environmental impacts and public controversy, it is anticipated the level of documentation could be a CE-Level 3 or an EA/FONSI rather than an EIS.

# APPENDIX A
# EXHIBITS


N
265
AIKEN RD
N BECKLEY STATION RD
WARD AVE
EVERGREEN RD
OLD HENRY RD
AIKEN RD
DORSEY LN
BELLEWOOD RD
N ENGLISH STATION RD
60
SHELBYVILLE RD
OLD SHELBYVILLE RD
SHELBYVILLE RD
N BECKLEY STATION RD
60
60
SHELBYVILLE RD
MOSER RD
913
N WATTERSON TRL
TUCKER STATION RD
BLANKENBAKER PKWY
URTON LN
265
1819
S ENGLISH STATION RD
N BECKLEY STATION RD
64
64
64
PLANTSIDE DR
WATTERSON TRL
BLUEGRASS PKWY
S POPE LICK RD
POPLAR LN
913
BLANKENBAKER PKWY
TUCKER STATION RD
Project Study Area
Proposed Interchange
PLANTSIDE DR
1819
REHL RD
S POPE LICK RD
S ENGLISH STATION RD
ELECTRON DR
ECHO TRL
265
TAYLORSVILLE RD
TAYLORSVILLE RD
1819
155
155
TAYLORSVILLE RD
BILLTOWN RD
NEW HOPEWELL RD
TAYLORSVILLE LAKE RD
ROUTT RD
CHENOWETH RUN RD
1819
OLD HEADY RD
EASUM RD
265
HOPEWELL RD
EASUM RD
CHENOWETH RUN RD
KENTUCKY TRANSPORTATION CABINET
Exhibit 1
Project Location
I-265/Rehl Rd Interchange
Not to Scale


N
Project Study Area
Lanes = 3/12'
Median = concrete barrier/12'
Truck % = n/a
Lanes = 3/12'
Median = depressed/54'
Truck % = n/a
Lanes = 5/12'
Median = raised/26'
Truck % = 5.1
Lanes = 6/12'
Median = raised/16'
Truck % = 5.1
Lanes = 4/12'
Median = raised/16'
Truck % = 5.1
Lanes = 4/12'
Median = depressed/26'
Truck % = 12.2
Lanes = 4/12'
Median = depressed/52'
Truck % = 12.2
Lanes = 2/12'
Median = TWLTL*
Truck % = 5.1
Lanes = 4/12'
Median = raised/4'
Truck % = 5.1
Lanes = 2/11'
Median = none/0'
Truck % = 8
Lanes = 4/12'
Median = raised/16'
Truck % = 8
Lanes = 2/12'
Median = none/0'
Truck % = 8
BLANKENBAKER PKWY
BLANKENBAKER ACCESS DR
TAYLORSVILLE RD
REHL RD
S POPE LICK RD
TUCKER STATION RD
CHENOWETH RUN RD
NEW HOPEWELL RD
OLD HEADY RD
EASUM RD
WATTERSON TRL
BLUEGRASS PKWY
PLANTSIDE DR
ELECTRON DR
AMPERE DR
CAMPUS PL
POPLAR LN
ELLINGSWORTH LN
URTON LN
MARENGO DR
N POPE LICK RD
S ENGLISH STATION RD
MOSER RD
913
1819
64
265
155
*TWLTL = Two-way Left turn lane
Urban Interstate
Urban Minor Arterial Street
Urban Principal Arterial
Local
Exhibit 2
Existing Roadway Characteristics
I-265/Rehl Rd Interchange
Not to Scale

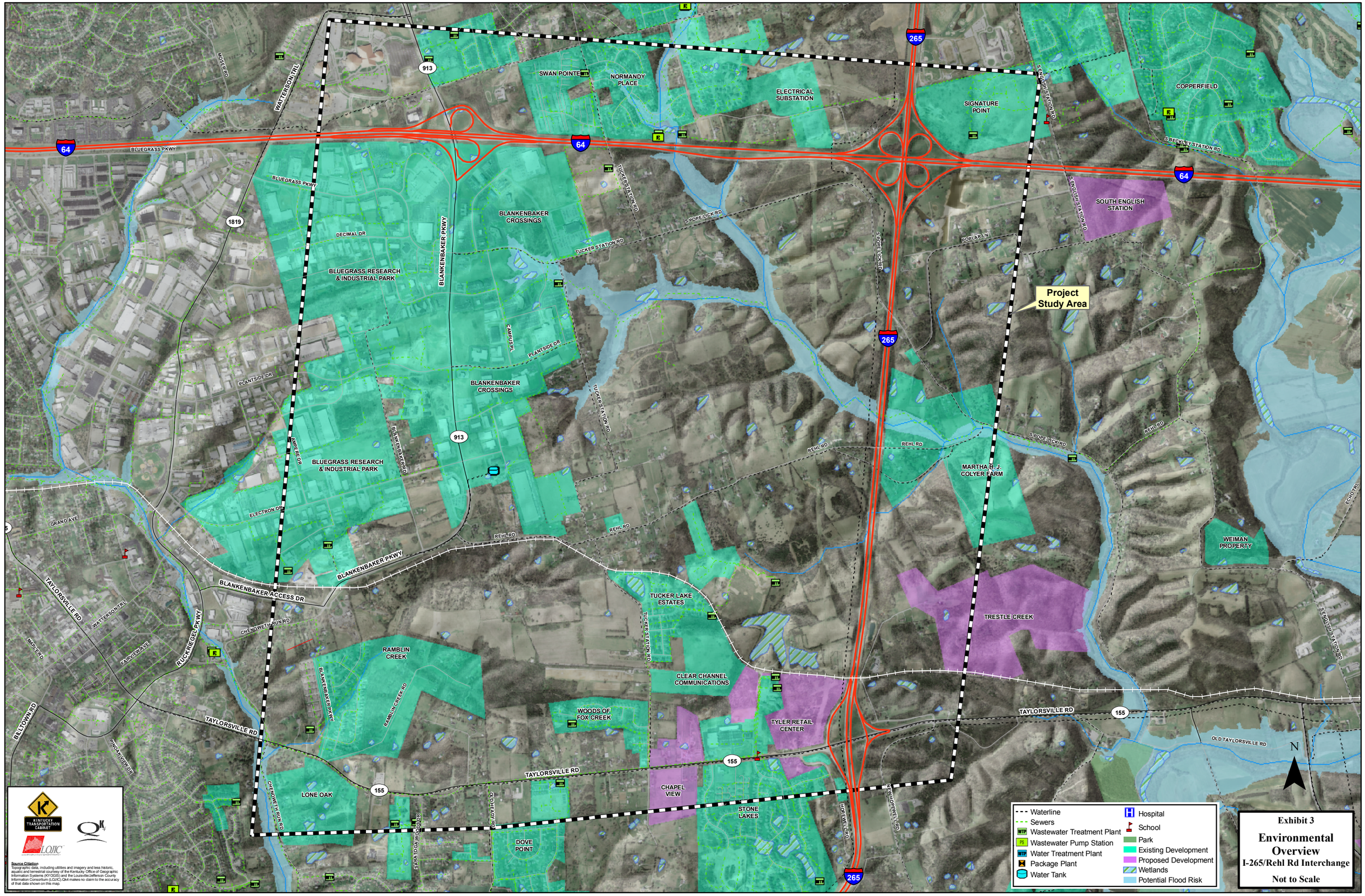



**Exhibit 3**

# Environmental Overview

**I-265/Rehl Rd Interchange**

**Not to Scale**

See Detail A

| | *ADT | *LOS |
|---|---|---|
| 2007 Existing = | 107,000 | E |
| 2020 No-Build = | 125,800 | D |
| 2020 Build = | 128,400 | C |
| 2038 No-Build = | 155,300 | E |
| 2038 Build = | 160,700 | E |

| | *ADT | *LOS |
|---|---|---|
| 2007 Existing = | 30,500 | D |
| 2020 No-Build = | 32,800 | E |
| 2020 Build = | 32,700 | E |
| 2038 No-Build = | 39,800 | F |
| 2038 Build = | 39,700 | F |

| | *ADT | *LOS |
|---|---|---|
| 2007 Existing = | 92,200 | D |
| 2020 No-Build = | 124,200 | D |
| 2020 Build = | 118,500 | D |
| 2038 No-Build = | 161,500 | E |
| 2038 Build = | 155,200 | E |

| | *ADT | *LOS |
|---|---|---|
| 2007 Existing = | 36,400 | C |
| 2020 No-Build = | 37,000 | C |
| 2020 Build = | 40,600 | D |
| 2038 No-Build = | 50,800 | E |
| 2038 Build = | 56,000 | F |

| | *ADT | *LOS |
|---|---|---|
| 2007 Existing = | 25,100 | C |
| 2020 No-Build = | 33,500 | C |
| 2020 Build = | 37,700 | C |
| 2038 No-Build = | 44,300 | D |
| 2038 Build = | 51,100 | E |

| | *ADT | *LOS |
|---|---|---|
| 2007 Existing = | 15,800 | C |
| 2020 No-Build = | 19,400 | C |
| 2020 Build = | 21,100 | C |
| 2038 No-Build = | 28,800 | D |
| 2038 Build = | 30,600 | D |

| | *ADT | *LOS |
|---|---|---|
| 2007 Existing = | 11,000 | C |
| 2020 No-Build = | 18,800 | C |
| 2020 Build = | 19,000 | C |
| 2038 No-Build = | 29,100 | D |
| 2038 Build = | 29,700 | D |

| | *ADT | *LOS |
|---|---|---|
| 2007 Existing = | 11,000 | C |
| 2020 No-Build = | 16,800 | C |
| 2020 Build = | 17,100 | C |
| 2038 No-Build = | 26,300 | D |
| 2038 Build = | 27,000 | D |

| | *ADT | *LOS |
|---|---|---|
| 2007 Existing = | N/A | N/A |
| 2020 No-Build = | 14,700 | C |
| 2020 Build = | 14,500 | C |
| 2038 No-Build = | 23,300 | C |
| 2038 Build = | 24,600 | C |

| | *ADT | *LOS |
|---|---|---|
| 2007 Existing = | N/A | N/A |
| 2020 No-Build = | 7,700 | C |
| 2020 Build = | 8,500 | C |
| 2038 No-Build = | 14,000 | C |
| 2038 Build = | 14,400 | C |

| | *ADT | *LOS |
|---|---|---|
| 2007 Existing = | 14,100 | D |
| 2020 No-Build = | 17,900 | C |
| 2020 Build = | 19,900 | C |
| 2038 No-Build = | 27,300 | D |
| 2038 Build = | 29,200 | D |

| | *ADT | *LOS |
|---|---|---|
| 2007 Existing = | 13,700 | D |
| 2020 No-Build = | 19,000 | C |
| 2020 Build = | 19,900 | C |
| 2038 No-Build = | 27,000 | D |
| 2038 Build = | 27,700 | D |

| | *ADT | *LOS |
|---|---|---|
| 2007 Existing = | 13,700 | D |
| 2020 No-Build = | 15,300 | C |
| 2020 Build = | 16,800 | C |
| 2038 No-Build = | 21,700 | C |
| 2038 Build = | 23,800 | C |

| | *ADT | *LOS |
|---|---|---|
| 2007 Existing = | 13,700 | D |
| 2020 No-Build = | 15,700 | C |
| 2020 Build = | 17,300 | C |
| 2038 No-Build = | 22,400 | C |
| 2038 Build = | 24,900 | C |

| | *ADT | *LOS |
|---|---|---|
| 2007 Existing = | 18,300 | D |
| 2020 No-Build = | 22,000 | C |
| 2020 Build = | 19,000 | C |
| 2038 No-Build = | 24,100 | C |
| 2038 Build = | 22,600 | C |

| | *ADT | *LOS |
|---|---|---|
| 2007 Existing = | 18,300 | F |
| 2020 No-Build = | 21,300 | C |
| 2020 Build = | 17,600 | C |
| 2038 No-Build = | 24,300 | C |
| 2038 Build = | 21,700 | C |

| | *ADT | *LOS |
|---|---|---|
| 2007 Existing = | 18,300 | C |
| 2020 No-Build = | 22,800 | C |
| 2020 Build = | 20,000 | C |
| 2038 No-Build = | 26,200 | D |
| 2038 Build = | 28,900 | D |

| | *ADT | *LOS |
|---|---|---|
| 2007 Existing = | 17,100 | E |
| 2020 No-Build = | 28,100 | F |
| 2020 Build = | 26,900 | F |
| 2038 No-Build = | 28,100 | F |
| 2038 Build = | 26,600 | F |

| | *ADT | *LOS |
|---|---|---|
| 2007 Existing = | 57,500 | D |
| 2020 No-Build = | 90,700 | D |
| 2020 Build = | 94,300 | D |
| 2038 No-Build = | 113,100 | E |
| 2038 Build = | 117,700 | F |

See Detail B

MAINLINE

| | *ADT | *LOS |
|---|---|---|
| 2007 Existing = | 64,700 | D |
| 2020 No-Build = | 59,200 | D |
| 2020 Build = | 58,500 | D |
| 2038 No-Build = | 65,600 | D |
| 2038 Build = | 67,000 | E |

CD

| | *ADT | *LOS |
|---|---|---|
| 2020 No-Build = | 52,800 | D |
| 2020 Build = | 56,400 | D |
| 2038 No-Build = | 79,900 | F |
| 2038 Build = | 78,200 | F |

| | *ADT | *LOS |
|---|---|---|
| 2007 Existing = | 53,800 | C |
| 2020 No-Build = | 91,600 | D |
| 2020 Build = | 91,400 | D |
| 2038 No-Build = | 116,600 | F |
| 2038 Build = | 117,600 | F |

MAINLINE

| | *ADT | *LOS |
|---|---|---|
| 2007 Existing = | 64,700 | D |
| 2020 No-Build = | 59,200 | D |
| 2020 Build = | 58,500 | D |
| 2038 No-Build = | 65,600 | D |
| 2038 Build = | 67,000 | D |

CD

| | *ADT | *LOS |
|---|---|---|
| 2020 No-Build = | 39,800 | C |
| 2020 Build = | 46,400 | C |
| 2038 No-Build = | 55,300 | D |
| 2038 Build = | 59,600 | D |

MAINLINE

| | *ADT | *LOS |
|---|---|---|
| 2007 Existing = | 64,700 | D |
| 2020 No-Build = | 58,500 | D |
| 2020 Build = | 114,100 | D |
| 2038 No-Build = | 74,800 | D |
| 2038 Build = | 93,400 | D |

CD

| | *ADT | *LOS |
|---|---|---|
| 2020 No-Build = | N/A | N/A |
| 2020 Build = | N/A | N/A |
| 2038 No-Build = | N/A | N/A |
| 2038 Build = | 50,500 | D |

See Detail C

See Detail D

DETAIL A

| | *ADT |
|---|---|
| 2020 No-Build = | 8,600 |
| 2020 Build = | 8,000 |
| 2038 No-Build = | 9,900 |
| 2038 Build = | 9,300 |

| | *ADT |
|---|---|
| 2020 No-Build = | 11,500 |
| 2020 Build = | 10,100 |
| 2038 No-Build = | 13,100 |
| 2038 Build = | 12,100 |

| | *ADT |
|---|---|
| 2020 No-Build = | 6,900 |
| 2020 Build = | 9,200 |
| 2038 No-Build = | 7,900 |
| 2038 Build = | 11,300 |

| | *ADT |
|---|---|
| 2020 No-Build = | 8,900 |
| 2020 Build = | 11,800 |
| 2038 No-Build = | 10,400 |
| 2038 Build = | 14,500 |

| | *ADT |
|---|---|
| 2020 No-Build = | 9,800 |
| 2020 Build = | 9,000 |
| 2038 No-Build = | 16,200 |
| 2038 Build = | 14,600 |

| | *ADT |
|---|---|
| 2020 No-Build = | 7,300 |
| 2020 Build = | 7,100 |
| 2038 No-Build = | 8,600 |
| 2038 Build = | 8,400 |

DETAIL B

| | *ADT |
|---|---|
| 2020 No-Build = | 13,900 |
| 2020 Build = | 12,800 |
| 2038 No-Build = | 16,600 |
| 2038 Build = | 14,600 |

| | *ADT |
|---|---|
| 2020 No-Build = | 6,600 |
| 2020 Build = | 6,300 |
| 2038 No-Build = | 7,500 |
| 2038 Build = | 7,400 |

| | *ADT |
|---|---|
| 2020 No-Build = | 6,900 |
| 2020 Build = | 7,400 |
| 2038 No-Build = | 9,900 |
| 2038 Build = | 10,900 |

| | *ADT |
|---|---|
| 2020 No-Build = | 6,800 |
| 2020 Build = | 5,500 |
| 2038 No-Build = | 7,300 |
| 2038 Build = | 7,400 |

| | *ADT |
|---|---|
| 2020 No-Build = | 5,700 |
| 2020 Build = | 5,700 |
| 2038 No-Build = | 8,000 |
| 2038 Build = | 8,100 |

| | *ADT |
|---|---|
| 2020 No-Build = | 12,900 |
| 2020 Build = | 11,800 |
| 2038 No-Build = | 23,400 |
| 2038 Build = | 20,800 |

| | *ADT |
|---|---|
| 2020 No-Build = | 5,900 |
| 2020 Build = | 5,200 |
| 2038 No-Build = | 5,300 |
| 2038 Build = | 5,300 |

| | *ADT |
|---|---|
| 2020 No-Build = | 7,400 |
| 2020 Build = | 8,400 |
| 2038 No-Build = | 9,300 |
| 2038 Build = | 10,100 |

DETAIL C

| | *ADT |
|---|---|
| 2020 Build = | 5,600 |
| 2038 Build = | 6,500 |

| | *ADT |
|---|---|
| 2020 Build = | 5,300 |
| 2038 Build = | 5,700 |

| | *ADT |
|---|---|
| 2020 Build = | 5,200 |
| 2038 Build = | 5,000 |

| | *ADT |
|---|---|
| 2020 Build = | 4,700 |
| 2038 Build = | 4,600 |

DETAIL D

| | *ADT |
|---|---|
| 2020 No-Build = | 9,000 |
| 2020 Build = | 8,300 |
| 2038 No-Build = | 7,700 |
| 2038 Build = | 7,300 |

| | *ADT |
|---|---|
| 2020 No-Build = | 8,400 |
| 2020 Build = | 7,600 |
| 2038 No-Build = | 8,400 |
| 2038 Build = | 7,800 |

| | *ADT |
|---|---|
| 2020 No-Build = | 5,000 |
| 2020 Build = | 3,400 |
| 2038 No-Build = | 4,300 |
| 2038 Build = | 3,800 |

| | *ADT |
|---|---|
| 2020 No-Build = | 4,200 |
| 2020 Build = | 2,400 |
| 2038 No-Build = | 4,300 |
| 2038 Build = | 4,100 |

Future Plantside Dr.

Future Union Lane

Future Union Lane

Future Blankenbaker Pkwy

Proposed Rehl Rd Interchange

BLUEGRASS PKWY

WATTERSON TRL

MOSER RD

DECIMAL DR

TUCKER STATION RD

S POPE LICK RD

POPLAR LN

S ENGLISH STATION RD

S BECKLEY STATION RD

BLANKENBAKER PKWY

CAMPUS PL

PLANTSIDE DR

REHL RD

E REHL CT

AIRPERE DR

ELECTRON DR

BLANKENBAKER RD

BLANKENBAKER ACCESS DR

CHENOWETH RUN RD

RUCKRIEGEL PKWY

TAYLORSVILLE RD

OLD TAYLORSVILLE RD

RAMBLIN CREEK RD

DOMINION WAY

OLD HEADY RD

OLD HEADY SCHOOL RD

HOPEWELL RD

NEW HOPEWELL RD

TAYLORSVILLE RD

ECHO TRL

MAPLE RD

BILLTOWN RD

PINOAK VIEW DR

CHENOWETH RUN RD

913

1819

64

265

155

N

Source Citation
Topographic data, including utilities and imagery and less historic, aquatic and terrestrial courtesy of the Kentucky Office of Geographic Information Systems (KYOGIS) and the Louisville/Jefferson County Information Consortium (LOJIC).Qk4 makes no claim to the accuracy of that data shown on this map.

*ADT = Average Daily Traffic
*LOS = Level of Service
All traffic forecasts provided by KIPDA

Exhibit 4

Existing and Future Build and No-Build Traffic

I-265/Rehl Rd Interchange

Not to Scale

# 2038 BUILD DETAILED ANALYSIS

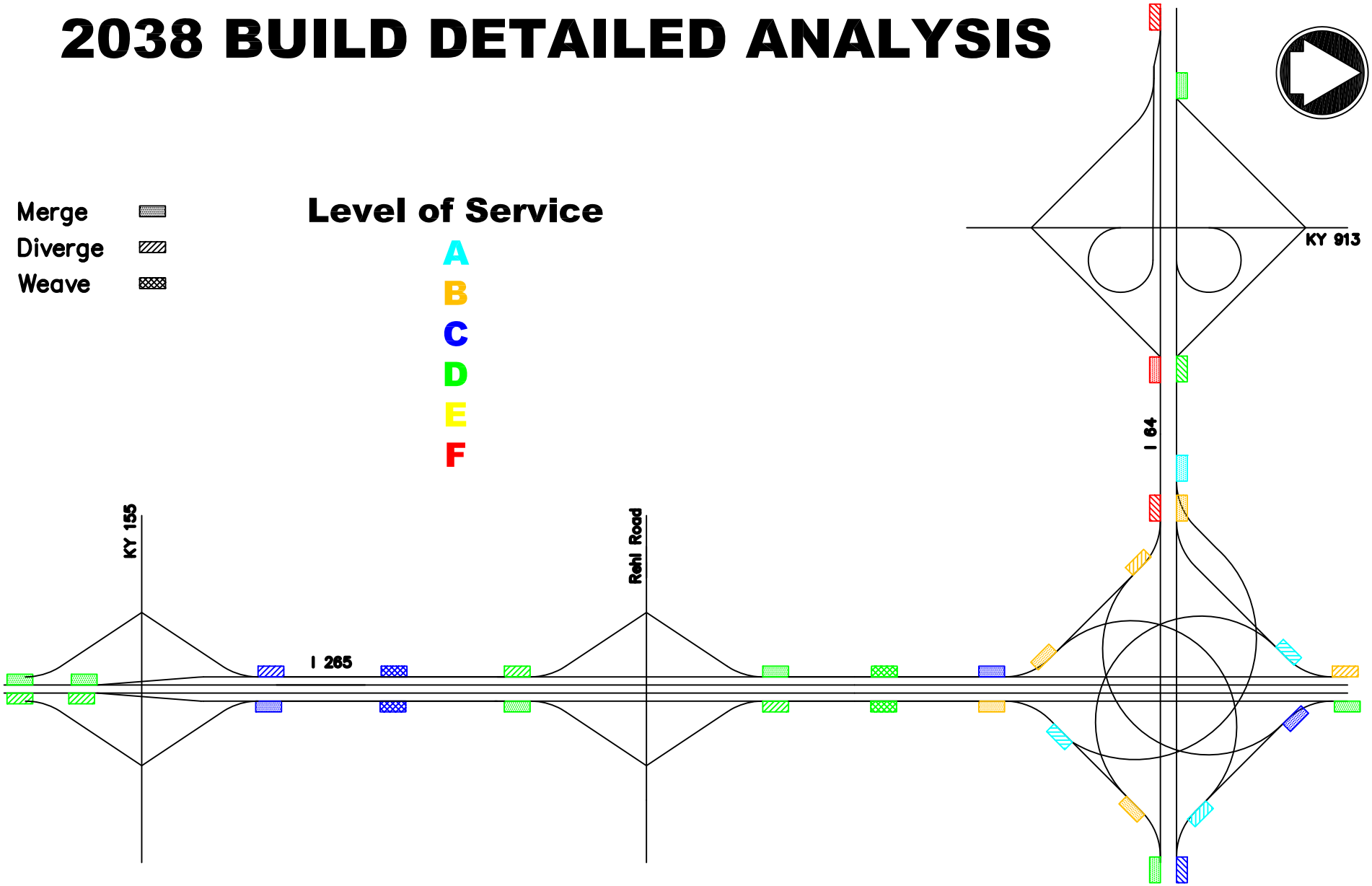
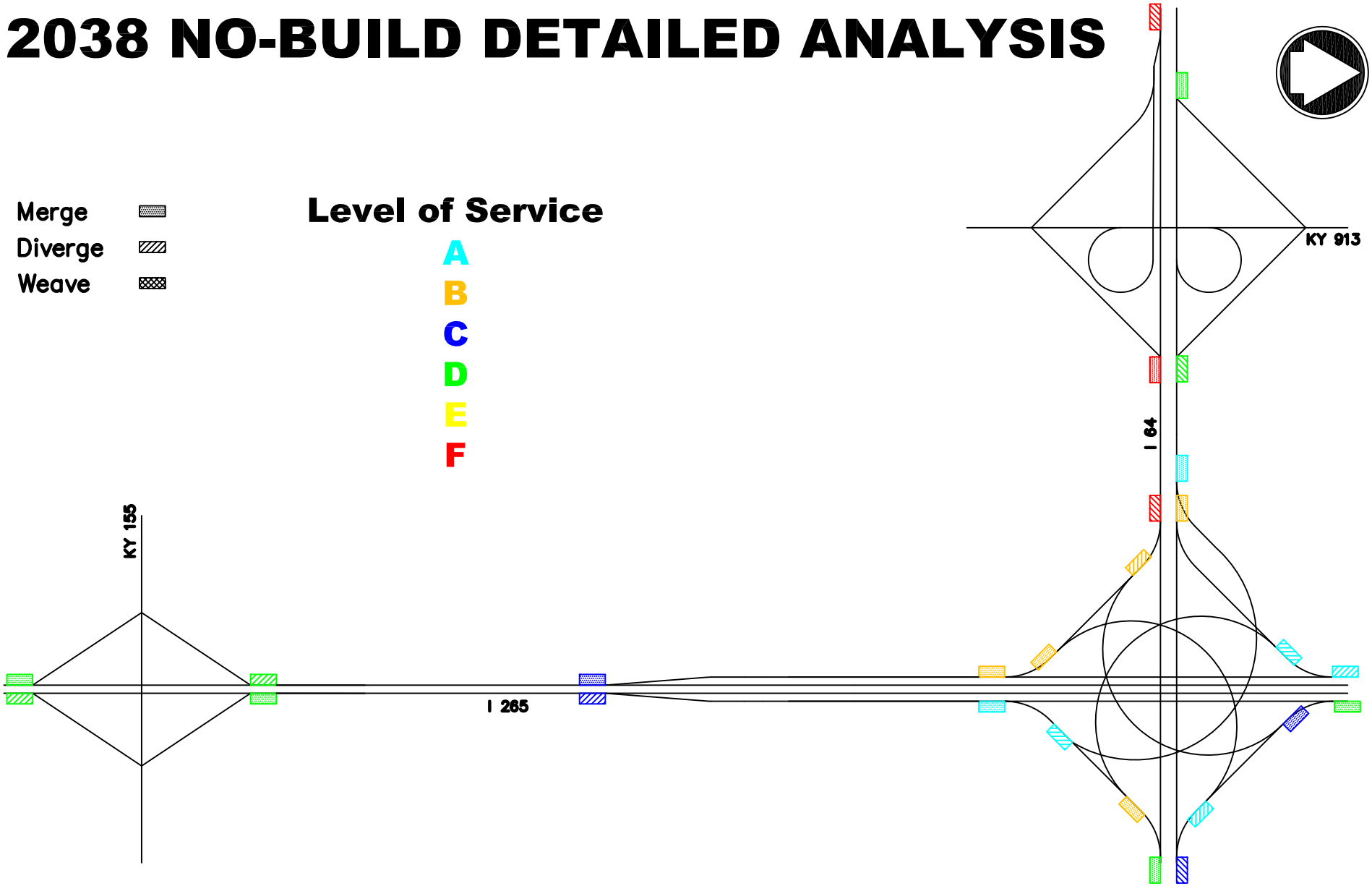



Exhibit 5
Peak-Hour Operational (Merge/Diverge/Weave) Analysis
Sheet 1 of 3

# 2038 NO-BUILD DETAILED ANALYSIS




NOT TO SCALE

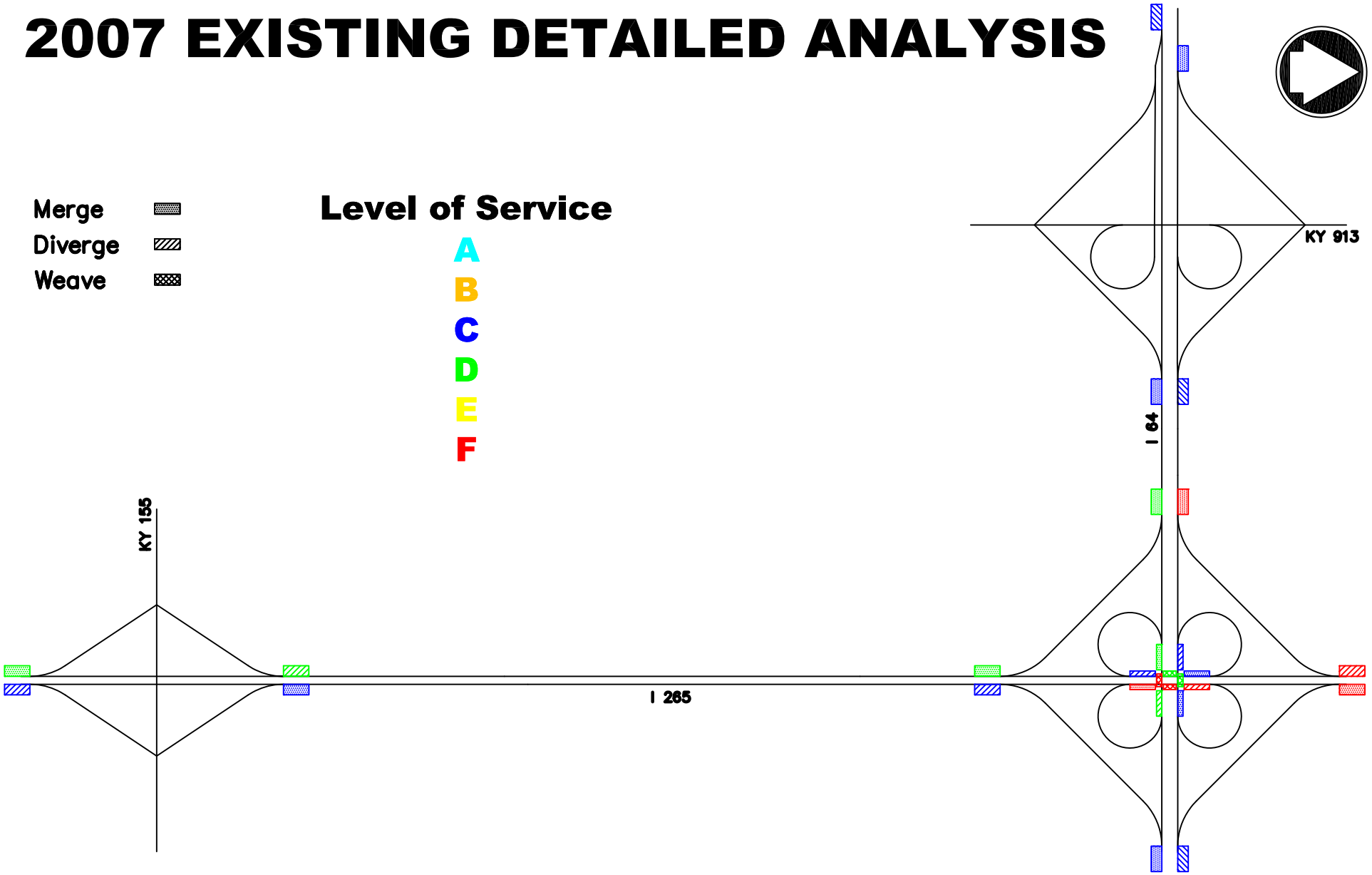
**Exhibit 5**
**Peak-Hour Operational (Merge/Diverge/Weave) Analysis**
**Sheet 2 of 3**

# 2007 EXISTING DETAILED ANALYSIS

Merge
Diverge
Weave

**Level of Service**

A
B
C
D
E
F




NOT TO SCALE

**Exhibit 5**
**Peak-Hour Operational (Merge/Diverge/Weave) Analysis**
**Sheet 3 of 3**

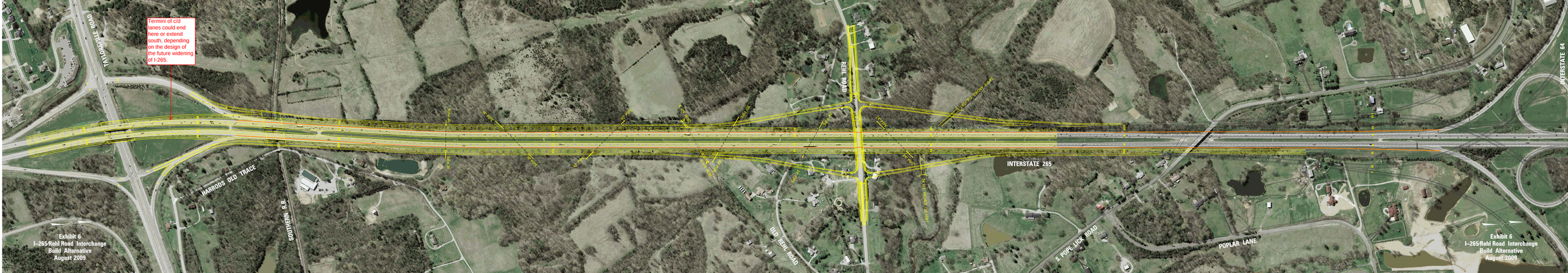


Exhibit 6
I–265/Rehl Road Interchange
Build Alternative
August 2009

# APPENDIX B
# LOUISVILLE METRO
# LETTER OF SUPPORT

ECONOMIC DEVELOPMENT DEPARTMENT

LOUISVILLE, KENTUCKY

JERRY E. ABRAMSON
MAYOR

C. BRUCE TRAUGHBER, DIRECTOR

August 4, 2008

Mr. Rick Storm
City Engineer
Public Works and Assets
444 S. 5th Street
Louisville, KY 40202

Dear Rick:

The current inability to develop our community's last major industrial/commercial park adjacent to Interstate 265, between I-64 and Taylorsville Road, should be addressed as quickly as possible. We're seeing strong investment in this area, but only the Blankenbaker interchange on I-64 serves this immediate area. At present this interchange cannot handle the amount of traffic that results from the large numbers of employees (approximately 10,000) who are currently working in the two business parks. The business community is aware of this problem and therefore a new interchange at Rehl Road and I-265 must be a top road priority for our community.

As one major employer has already informed us, the infrastructure is not sufficient to withstand more development, however, they stand ready to build a second building (which means an additional 2,000 employees) if a commitment for another interstate connection is made. Without another interchange this company does not intend to add these jobs to our community. The decision represents the industries' attitude toward this area. Traffic is already congested at the Blankenbaker-I-64 interchange, and it will get only worse with time, and as residential and other development occurs in this part of Jefferson County.

Blankenbaker Station and Blankenbaker Crossings together currently represent more than 600 acres of development, and $675 million in investment. With their proposed expansions of up to 600 more acres, Louisville and Kentucky could be looking at a doubling of the number of jobs, increasing employment to 20,000, with additional real estate investment of approximately $2 billion.

This proposed development would have an **annual net new impact of:**

- **$1.9 million in Kentucky state property tax revenues**
- **$74.9 million in Kentucky State individual income tax revenues**
- **$64.1 million in Kentucky State sales tax revenues**
- **$12.5 million in local occupational tax revenues**
- **$3.4 million in local property tax revenues**
- **an additional 49,000 jobs in our 25-county economic area**

This new investment cannot happen without a new interstate interchange. This area has been long identified for industrial economic development in our Comprehensive Planning documents, it is flat, it has no environmental constraints, most of it has been rezoned for industrial land use, and it has adequate sewers; even so, *companies are making decisions to bypass this area because of lack of interstate access, making Louisville and Kentucky miss out on real economic development opportunities*. With the small amount of developable land left in our county, this area is in dire need for a new interchange.

The proposed Rehl Road interchange on I-265 would provide an option for employees to access this area. This interchange should be made a top priority. **THE LOSS TO THE COMMONWEALTH IS $141 MILLION ANNUALLY IF WE DO NOT ACT TO BUILD THIS INTERCHANGE.**

Sincerely,

Bruce

C. Bruce Traughber
Director

# APPENDIX C
# EXISTING STATE HIGHWAY DATA

Rehl Road Feasibility Study
Existing (May 2009) Roadway Conditions

| Route | Beginning MP | Beginning Feature | Ending MP | Ending Feature | Length | Functional Class | State System | NHS ? | NTN ? | Truck Weight Class | # of Lanes | Lane Width | Shoulder Type | Shoulder Width | % Passing Sight Distance |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| I-64 | 17.074 | KY 913 (BLANKENBAKER ROAD) | 18.888 | I 265 UNDERPASS | 1.814 | Urban Interstate | State Primary | Y | Y | AAA | 6 | 12 | Paved | 10 | 100 |
| | 18.889 | I 265 UNDERPASS | 19.600 | SPEED LIMIT CHANGE | 0.711 | Rural Interstate | State Primary | Y | Y | AAA | 4 | 12 | Paved | 10 | 100 |
| | 19.600 | SPEED LIMIT CHANGE | 20.765 | FLOYDS FORK BRIDGE | 1.165 | Rural Interstate | State Primary | Y | Y | AAA | 4 | 12 | Paved | 10 | 100 |
| | | | | | | | | | | | | | | | |
| I-265 | 22.101 | MP 22.101 (One Mile South of Taylosville Road Overpass) | 23.101 | KY 155 (TAYLORSVILLE ROAD) | 1.000 | Urban Interstate | State Primary | Y | Y | AAA | 4 | 12 | Paved | 10 | 100 |
| | 23.102 | KY 155 (TAYLORSVILLE ROAD) | 24.334 | REHL ROAD BRIDGE | 1.232 | Urban Interstate | State Primary | Y | Y | AAA | 4 | 12 | Paved | 10 | 100 |
| | 24.335 | REHL ROAD BRIDGE | 25.454 | I 64 OVERPASS | 1.119 | Urban Interstate | State Primary | Y | Y | AAA | 4 | 12 | Paved | 10 | 100 |
| | 25.455 | I 64 OVERPASS | 26.795 | US 60 OVERPASS | 1.340 | Urban Interstate | State Primary | Y | Y | AAA | 4 | 12 | Paved | 10 | 100 |
| | | | | | | | | | | | | | | | |
| KY 155 | 5.149 | OLD TAYLORSVILLE RD | 5.711 | NEW HOPEWELL RD | 0.562 | Urban Principal Arterial | State Secondary | N | Y | AAA | 2 | 11 | Combination | 4 | 8 |
| | 5.712 | NEW HOPEWELL RD | 5.727 | BEGINNING OF DIVIDED HIGHWAY | 0.015 | Urban Principal Arterial | State Secondary | N | Y | AAA | 2 | 11 | Combination | 4 | 8 |
| | 5.727 | BEGINNING OF DIVIDED HIGHWAY | 5.737 | | 0.010 | Urban Principal Arterial | State Secondary | N | Y | AAA | 2 | 11 | Combination | | 8 |
| | 5.738 | | 5.781 | | 0.043 | Urban Principal Arterial | State Secondary | N | Y | AAA | 4 | 11 | Combination | 12 | 8 |
| | 5.782 | | 5.990 | I 265 EASTBOUND ONRAMP/I 265 EASTBOUND OFFRAMP | 0.208 | Urban Principal Arterial | State Secondary | N | Y | AAA | 4 | 12 | Combination | 12 | NPZ** |
| | 5.991 | I 265 EASTBOUND ONRAMP/I 265 EASTBOUND OFFRAMP | 6.058 | I 265 UNDERPASS (SOUTH END OF EASTBOUND BRIDGE) | 0.067 | Urban Principal Arterial | State Primary | N | Y | AAA | 4 | 12 | Combination | 12 | NPZ |
| | 6.059 | I 265 UNDERPASS (SOUTH END OF EASTBOUND BRIDGE) | 6.150 | I 265 WESTBOUND OFFRAMP/I 265 WESTBOUND ONRAMP | 0.091 | Urban Principal Arterial | State Primary | N | Y | AAA | 4 | 12 | Combination | 12 | NPZ |
| | 6.151 | I 265 WESTBOUND OFFRAMP/I 265 WESTBOUND ONRAMP | 6.279 | HOPEWELL ROAD | 0.128 | Urban Principal Arterial | State Primary | N | N | AAA | 4 | 12 | Combination | 12 | NPZ |
| | 6.280 | HOPEWELL ROAD | 6.407 | | 0.127 | Urban Principal Arterial | State Primary | N | N | AAA | 3 | 11 | Combination | 12 | NPZ |
| | 6.408 | | 6.450 | | 0.042 | Urban Principal Arterial | State Primary | N | N | AAA | 2 | 11 | Combination | 12 | NPZ |
| | 6.451 | | 6.889 | TUCKER STATION RD/SWEENEY LN | 0.438 | Urban Principal Arterial | State Primary | N | N | AAA | 2 | 11 | Combination | 4 | NPZ |
| | | | | | | | | | | | | | | | |
| KY 913 | 2.108 | COMMONWEALTH DR | 2.187 | RESOURCE WAY | 0.079 | Urban Principal Arterial | State Primary | N | N | AAA | 6 | 12 | Curbed | N/A | 75 |
| | 2.188 | RESOURCE WAY | 2.263 | BLUEGRASS PKY | 0.075 | Urban Principal Arterial | State Primary | N | N | AAA | 5 | 12 | Curbed | N/A | 75 |
| | 2.264 | BLUEGRASS PKY | 2.708 | I 64 BRIDGE | 0.444 | Urban Principal Arterial | State Primary | N | N | AAA | 4 | 12 | Paved | 10 | 75 |
| | 2.709 | I 64 BRIDGE | 2.845 | I-64 WESTBOUND OFF RAMP | 0.136 | Urban Principal Arterial | State Primary | N | N | AAA | 4 | 12 | Paved | 10 | 75 |
| | 2.846 | I-64 WESTBOUND OFF RAMP | 2.951 | ELLINGSWORTH LN | 0.105 | Urban Principal Arterial | State Primary | N | N | AAA | 4 | 12 | Paved | 10 | 75 |
| | 2.951 | ELLINGSWORTH LN | 3.260 | KY 1819 | 0.309 | Urban Principal Arterial | State Primary | N | N | AAA | 4 | 12 | Curbed | N/A | 100 |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |

* Critical Crash Rate Factor

** No Passing Zone

*** Estimated Weighted Average from Multiple Sections

Rehl Road Feasibility Study
Existing (May 2009) Roadway Conditions

| Route | Beginning MP | Beginning Feature | Ending MP | Ending Feature | Speed Limit | Roadway Type | Terrain Class | Pavement Type | Pavement Roughness Index | Avg R/W Width | ADT | Updated CCRF* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| I-64 | 17.074 | KY 913 (BLANKENBAKER ROAD) | 18.888 | I 265 UNDERPASS | 65 | Divided Highway w/ Median | ROLLING | High Type Flexible | 85 | 200 | 92,200 | 0.568 |
| | 18.889 | I 265 UNDERPASS | 19.600 | SPEED LIMIT CHANGE | 65 | Divided Highway w/ Median | | High Type Flexible | 89 | 200 | 53,800 | 1.361 |
| | 19.600 | SPEED LIMIT CHANGE | 20.765 | FLOYDS FORK BRIDGE | 70 | Divided Highway w/ Median | | High Type Flexible | 89 | 200 | 53,800 | 0.473 |
| | | | | | | | | | | | | |
| I-265 | 22.101 | MP 22.101 (One Mile South of Taylosville Road Overpass) | 23.101 | KY 155 (TAYLORSVILLE ROAD) | 65 | Divided Highway w/ Median | | High Type Rigid | 96*** | 306 | 59,800 | 0.409 |
| | 23.102 | KY 155 (TAYLORSVILLE ROAD) | 24.334 | REHL ROAD BRIDGE | 65 | Divided Highway w/ Median | | High Type Flexible | 93*** | 300-306 | 64,700 | 0.415 |
| | 24.335 | REHL ROAD BRIDGE | 25.454 | I 64 OVERPASS | 65 | Divided Highway w/ Median | | High Type Flexible | 91*** | 300 | 64,700 | 0.809 |
| | 25.455 | I 64 OVERPASS | 26.795 | US 60 OVERPASS | 65 | Divided Highway w/ Median | | High Type Flexible | 107*** | 300 | 79,000 | 0.572 |
| | | | | | | | | | | | | |
| KY 155 | 5.149 | OLD TAYLORSVILLE RD | 5.711 | NEW HOPEWELL RD | 55 | Undivided Highway | | High Type Flexible | 133 | 85 | 17,900 | 0.102 |
| | 5.712 | NEW HOPEWELL RD | 5.727 | BEGINNING OF DIVIDED HIGHWAY | 55 | Undivided Highway | | High Type Flexible | 119*** | 85 | 17,900 | |
| | 5.727 | BEGINNING OF DIVIDED HIGHWAY | 5.737 | | 55 | Divided Highway w/ Median | | High Type Flexible | 114 | 85 | 17,900 | |
| | 5.738 | | 5.781 | | 55 | Divided Highway w/ Median | | High Type Flexible | 114 | 85 | 17,900 | 0.081 |
| | 5.782 | | 5.990 | I 265 EASTBOUND ONRAMP/I 265 EASTBOUND OFFRAMP | 55 | Divided Highway w/ Median | | High Type Flexible | 109 | 120 | 17,900 | |
| | 5.991 | I 265 EASTBOUND ONRAMP/I 265 EASTBOUND OFFRAMP | 6.058 | I 265 UNDERPASS (SOUTH END OF EASTBOUND BRIDGE) | 55 | Divided Highway w/ Median | | High Type Flexible | 109 | 120 | 17,900 | 0.496 |
| | 6.059 | I 265 UNDERPASS (SOUTH END OF EASTBOUND BRIDGE) | 6.150 | I 265 WESTBOUND OFFRAMP/I 265 WESTBOUND ONRAMP | 55 | Divided Highway w/ Median | | High Type Flexible | 115** | 120 | 17,200 | |
| | 6.151 | I 265 WESTBOUND OFFRAMP/I 265 WESTBOUND ONRAMP | 6.279 | HOPEWELL ROAD | 55 | Divided Highway w/ Median | | High Type Flexible | 123 | 120 | 17,200 | 0.102 |
| | 6.280 | HOPEWELL ROAD | 6.407 | | 55 | Divided Highway w/ Median | | High Type Flexible | 114** | 80-120 | 17,200 | 0.100 |
| | 6.408 | | 6.450 | | 55 | Undivided Highway | | High Type Flexible | 113 | 80 | 17,200 | 0.228 |
| | 6.451 | | 6.889 | TUCKER STATION RD/SWEENEY LN | 55 | Undivided Highway | | High Type Flexible | 123** | 80 | 17,200 | |
| | | | | | | | | | | | | |
| KY 913 | 2.108 | COMMONWEALTH DR | 2.187 | RESOURCE WAY | 45 | Divided Highway w/ Median | | High Type Rigid | 115 | 150 | 35,900 | 1.961 |
| | 2.188 | RESOURCE WAY | 2.263 | BLUEGRASS PKY | 45 | Divided Highway w/ Median | | High Type Rigid | 115 | 150 | 35,900 | |
| | 2.264 | BLUEGRASS PKY | 2.708 | I 64 BRIDGE | 45 | Divided Highway w/ Median | | High Type Rigid | 115 | 150 | 35,900 | 0.364 |
| | 2.709 | I 64 BRIDGE | 2.845 | I-64 WESTBOUND OFF RAMP | 45 | Divided Highway w/ Median | | High Type Rigid | 115 | 150 | 36,600 | 0.482 |
| | 2.846 | I-64 WESTBOUND OFF RAMP | 2.951 | ELLINGSWORTH LN | 45 | Divided Highway w/ Median | | High Type Rigid | 115 | 150 | 36,600 | 0.214 |
| | 2.951 | ELLINGSWORTH LN | 3.260 | KY 1819 | 45 | Divided Highway w/ Median | | High Type Flexible | 116 | 100 | 36,600 | 0.045 |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

* Critical Crash Rate Factor

** No Passing Zone

*** E

# APPENDIX D
# PHOTOGRAPH LOG

# Appendix D
# Rehl Road Photo Log

**Photo 1**
I-265

**Photo 2**
I-265

**Photo 3**
I-265

**Photo 4**
I-265

**Photo 5**
I-265

**Photo 6**
I-265 over KY 155

**Photo 7**
Rehl Road

**Photo 8**
Rehl Road

**Photo 9**
I-265 South from Rehl Road

**Photo 10**
I-265 North from Rehl Road

**Photo 11**
Rehl Road


**Photo 12**
I-64 Eastbound to KY 913 Southbound

**Photo 13**
KY 913

**Photo 14**
KY 913

**Photo 15**
KY 913


**Photo 16**
KY 913


**Photo 17**
I-64 Eastbound to I-265 Southbound

**Photo 18**
I-265 at I-64


**Photo 19**
I-265 at KY 155


**Photo 20**
I-265 Southbound ext at KY 155

**Photo 21**
KY 155

**Photo 22**
KY 155


**Photo 23**
I-265 over KY 155


**Photo 24**
KY 155 intersection with I-265


**Photo 25**
KY 155 intersection with I-265


**Photo 26**
I-265 at I-64


**Photo 27**
I-265 at I-64

**Photo 28**
Rehl Road bridge over I-265

# APPENDIX E
# 2007 AND 2030 TRAFFIC MODEL ANALYSIS

KIPDA
Kentuckiana Regional Planning and Development Agency

**Kentucky Member Counties**

Bullitt

Henry

Jefferson

Oldham

Shelby

Spencer

Trimble

**Indiana Member Counties**

Clark

Floyd

**To:** Tom Springer and Jeremy Lukat

**From:** Andy Rush

**Date:** June 11, 2008

**Subject:** Updated Rehl Road Interchange Vicinity Traffic Forecasts

I have included 2020, 2030, and 2038 traffic forecasts in the vicinity of the proposed Interstate 265 Interchange at Rehl Road. The study area for this project extends from Interstate 64 to KY 155 (Taylorsville Road), and from KY 913 (Blankenbaker Parkway) to Interstate 265. These forecasts are meant to supersede the prior forecasts as they incorporate new, considerably different socioeconomic projections (provided by Louisville Metro Planning & Design Services) as well as significantly revised network assumptions. Similar to the first transmittal of traffic forecasts, I have included level-of-service maps for each scenario, aerial photos of each of the four interchanges in the study area with the forecasted ramp volumes, along with the same data in tabular form. These forecasts incorporate the following assumptions:

- There were four additional model runs performed. These included 2020 Build, 2020 No-Build, 2030 Build, and 2030 No-Build model runs.
- These forecasts come from the KIPDA travel demand model, which includes all projects planned to be open to traffic by the year of the model run, as well as all other assumptions in the *Horizon 2030* long-range transportation plan (unless otherwise noted below).
- The proposed Urton Lane was removed from the network in both No-Build scenarios, from the existing Urton Lane to KY 155.
- A collector/distributor (C/D) system on I-265 was included in the network in all model runs. For the Build scenarios, it was assumed to extend from north of the US 60 interchange to south of the Rehl Road interchange. In the No-Build scenarios, it was assumed to extend from north of the US 60 interchange to south of the I-64 interchange.



11520 Commonwealth Drive
Louisville, KY 40299
502-266-6084
Fax: 502-266-5047
KY TDD 1-800-648-6056
www.kipda.org

- No intermediate access points were assumed to/from the C/D system.

- For the Year 2020 scenarios, the ramp from northbound I-265 to westbound I-64 was assumed to be a 2-lane “flyover” ramp.

- For the Year 2030 scenarios, the I-265/I-64 interchange was assumed to be completely re-constructed as a fully directional interchange with four “flyover” ramps, each with 2 lanes.

- For the Year 2030 scenarios, the I-265/US 60 interchange was assumed to be re-constructed as a single-point urban interchange (SPUI).

- Due to the lack of a Year 2038 model scenario in the KIPDA model, an alternative methodology was used to provide forecasts for the year 2038. A yearly (compound) growth rate was calculated, based on 2020 and 2030 forecasts. This growth rate was used to expand the 2030 volumes to 2038 volumes.

- This growth rate was limited to between 0.0% and 3.0% per year.

- The Year 2030 socioeconomic projections assumed a 75% build-out of the study area. Based on Louisville Metro’s request, the Year 2020 scenarios incorporated a 50% build-out of the study area.

If you have any questions, please let me know.


| District | Trips | % of Total |
|---|---|---|
| J1 | 743 | 2.1% |
| J2 | 430 | 1.2% |
| J4 | 241 | 0.7% |
| J6 | 219 | 0.6% |
| J7 | 288 | 0.8% |
| J8 | 316 | 0.9% |
| J10 | 299 | 0.8% |



# 2030 Rehl No-Build

**Total Trips to Study Area / % of Total**

KIPDA
Kentuckiana Regional Planning and Development Agency


| District | Trips | % of Total |
|---|---|---|
| J1 | 733 | 2.0% |
| J2 | 422 | 1.2% |
| J4 | 236 | 0.7% |
| J6 | 215 | 0.6% |
| J7 | 284 | 0.8% |
| J8 | 308 | 0.9% |
| J10 | 292 | 0.8% |

Created by KIPDA July 2008 (AHR)



# 2030 Rehl Build

**Total Trips to Study Area / % of Total**

KIPDA
Kentuckiana Regional Planning and Development Agency

| RehlNew | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Ramp Description** | **Count** | **Count Type** | **Count Year** | **2020 Build Model** | **2020 NoBuild Model** | **2030 Build Model** | **2030 NoBuild Model** | **2020-2030 Build Growth** | **2020-2030 No Build Growth** | **2020-2030 Avg Growth** | **2038 Build Model** | **2038 NoBuild Model** |
| | | | | | | | | | | | | |
| I-64 EB to I-265 SB | 7,400 | ADT | 2001 | 5,200 | 5,900 | 5,300 | 5,300 | 0.19% | *0.00%* | 0.10% | 5,300 | 5,300 |
| I-265 NB to I-64 WB | 6,950 | ADT | 2001 | 5,500 | 5,800 | 6,600 | 6,500 | 1.84% | 1.15% | 1.49% | 7,400 | 7,300 |
| I-64 WB to I-265 NB | 3,000 | ADT | 2001 | 6,300 | 6,600 | 7,100 | 7,000 | 1.20% | 0.59% | 0.90% | 7,600 | 7,500 |
| I-265 SB to I-64 EB | 3,600 | ADT | 2001 | 5,700 | 5,700 | 6,900 | 6,900 | 1.93% | 1.93% | 1.93% | 8,000 | 8,000 |
| I-265 NB to I-64 EB | 4,250 | ADT | 2001 | 8,400 | 7,400 | 9,200 | 8,500 | 0.91% | 1.40% | 1.15% | 10,100 | 9,300 |
| I-64 WB to I-265 SB | 3,700 | ADT | 2001 | 7,400 | 6,900 | 9,200 | 8,400 | 2.20% | 1.99% | 2.09% | 10,900 | 9,900 |
| I-265 SB to I-64 WB | 15,700 | ADT | 2001 | 12,800 | 13,900 | 13,600 | 15,500 | 0.61% | 1.10% | 0.85% | 14,600 | 16,600 |
| I-64 EB to I-265 NB | 15,400 | ADT | 2001 | 11,800 | 12,900 | 16,400 | 18,500 | *3.00%* | *3.00%* | 3.00% | 20,800 | 23,400 |
| | | | | | | | | | | | | |
| I-265 SB off-ramp @ Rehl Rd | | | | 5,600 | | 6,100 | | 0.86% | | 0.86% | 6,500 | |
| I-265 NB on-ramp @ Rehl Rd | | | | 5,300 | | 5,500 | | 0.37% | | 0.37% | 5,700 | |
| I-265 NB off-ramp @ Rehl Rd | | | | 4,700 | | 4,600 | | *0.00%* | | 0.00% | 4,600 | |
| I-265 SB on-ramp @ Rehl Rd | | | | 5,200 | | 5,000 | | *0.00%* | | 0.00% | 5,000 | |
| | | | | | | | | | | | | |
| I-265 SB off-ramp @ KY 155 | 914 | Peak-Hour | 2004 | 7,100 | 8,400 | 7,600 | 8,200 | 0.68% | *0.00%* | 0.34% | 7,800 | 8,400 |
| I-265 NB on-ramp @ KY 155 | 826 | Peak-Hour | 2004 | 8,300 | 9,000 | 7,300 | 7,700 | *0.00%* | *0.00%* | 0.00% | 7,300 | 7,700 |
| I-265 NB off-ramp @KY 155 | 555 | Peak-Hour | 2004 | 3,400 | 5,000 | 3,700 | 4,200 | 0.85% | *0.00%* | 0.42% | 3,800 | 4,300 |
| I-265 SB on-ramp @ KY 155 | 489 | Peak-Hour | 2004 | 2,400 | 4,200 | 3,800 | 3,600 | *3.00%* | *0.00%* | 1.50% | 4,300 | 4,100 |
| | | | | | | | | | | | | |
| I-64 EB to Blankenbaker NB | 916 | Peak-Hour | 2004 | 7,100 | 7,300 | 7,800 | 8,000 | 0.94% | 0.92% | 0.93% | 8,400 | 8,600 |
| I-64 EB to Blankenbaker SB | 1,341 | Peak-Hour | 2004 | 11,800 | 8,900 | 13,400 | 9,600 | 1.28% | 0.76% | 1.02% | 14,500 | 10,400 |
| I-64 WB to Blankenbaker NB | 517 | Peak-Hour | 2004 | 4,500 | 4,800 | 5,300 | 5,100 | 1.65% | 0.61% | 1.13% | 5,800 | 5,600 |
| I-64 WB to Blankenbaker SB | 965 | Peak-Hour | 2004 | 5,600 | 6,700 | 6,000 | 7,100 | 0.69% | 0.58% | 0.64% | 6,300 | 7,500 |
| Blankenbaker NB to I-64 EB | 1,363 | Peak-Hour | 2004 | 5,400 | 6,300 | 8,500 | 9,900 | *3.00%* | *3.00%* | 3.00% | 10,800 | 12,500 |
| Blankenbaker SB to I-64 EB | 291 | Peak-Hour | 2004 | 3,600 | 3,500 | 3,700 | 3,600 | 0.27% | 0.28% | 0.28% | 3,800 | 3,700 |
| Blankenbaker NB to I-64 WB | 1,031 | Peak-Hour | 2004 | 9,200 | 6,900 | 10,500 | 7,300 | 1.33% | 0.57% | 0.95% | 11,300 | 7,900 |
| Blankenbaker SB to I-64 WB | 817 | Peak-Hour | 2004 | 8,000 | 8,600 | 8,700 | 9,300 | 0.84% | 0.79% | 0.81% | 9,300 | 9,900 |

**RehlNew**

| Link Description | 2020 Build | 2020 NoBuild | 2030 Build | 2030 NoBuild | 2038 Build | 2038 NoBuild | 2020-2030 Build Growth | 2020-2030 NoBuild Growth | 2020-2030 Average Growth |
|---|---|---|---|---|---|---|---|---|---|
| I-64 west of Blankenbaker | 128,400 | 125,800 | 145,900 | 141,000 | 160,700 | 155,300 | 1.29% | 1.15% | 1.22% |
| I-64 west of I-265 | 118,500 | 124,200 | 137,900 | 143,500 | 155,200 | 161,500 | 1.53% | 1.45% | 1.49% |
| I-64 east of I-265 | 91,400 | 91,600 | 105,400 | 104,500 | 117,600 | 116,600 | 1.44% | 1.33% | 1.38% |
| I-265 (Main) north of I-64 | 58,500 | 59,200 | 63,600 | 62,100 | 67,000 | 65,500 | 0.84% | 0.48% | 0.66% |
| I-265 (Main) between I-64 and Rehl | 58,500 | 59,200 | 63,600 | 62,100 | 67,000 | 65,500 | 0.84% | 0.48% | 0.66% |
| I-265 (Main) between Rehl and KY 155 | 103,900 | 98,900 | 114,100 | 110,700 | 123,900 | 120,200 | 0.94% | 1.13% | 1.04% |
| I-265 between KY 155 and KY 1819 | 94,300 | 90,700 | 106,700 | 102,500 | 117,700 | 113,100 | 1.24% | 1.23% | 1.24% |
| I-265 (C/D) north of I-64 | 56,400 | 52,800 | 66,300 | 67,800 | 78,200 | 79,900 | 1.63% | 2.53% | 2.08% |
| I-265 (C/D) between I-64 and Rehl | 46,400 | 39,800 | 52,400 | 48,600 | 59,600 | 55,300 | 1.22% | 2.02% | 1.62% |
| I-265 (C/D) between Rehl and KY 155 | 45,400 | N/A | 50,500 | N/A | 55,000 | N/A | 1.07% | N/A | 1.07% |
| KY 155 north of Blankenbaker | 19,900 | 17,900 | 24,400 | 22,800 | 29,200 | 27,300 | 2.06% | 2.45% | 2.25% |
| KY 155 south of Blankenbaker | 19,900 | 19,000 | 23,800 | 23,200 | 27,700 | 27,000 | 1.81% | 2.02% | 1.91% |
| KY 155 north of Old Heady | 16,800 | 15,300 | 20,400 | 18,600 | 23,800 | 21,700 | 1.96% | 1.97% | 1.97% |
| KY 155 south of Old Heady | 17,300 | 15,700 | 21,200 | 19,100 | 24,900 | 22,400 | 2.05% | 1.98% | 2.02% |
| KY 155 south of Tucker Station | 17,600 | 21,300 | 20,100 | 22,500 | 21,700 | 24,300 | 1.34% | 0.55% | 0.94% |
| KY 155 north of Urton (North) | 19,000 | 22,000 | 21,300 | 22,700 | 22,600 | 24,100 | 1.15% | 0.31% | 0.73% |
| KY 155 north of I-265 interchange | 20,000 | 22,800 | 25,800 | 23,400 | 28,900 | 26,200 | 2.58% | 0.26% | 1.42% |
| KY 155 south of I-265 interchange | 26,900 | 28,100 | 26,600 | 28,100 | 26,600 | 28,100 | *0.00%* | 0.00% | 0.00% |
| Blankenbaker north of I-64 | 32,700 | 32,800 | 36,400 | 36,500 | 39,700 | 39,800 | 1.08% | 1.07% | 1.08% |
| Blankenbaker south of I-64 | 40,600 | 37,000 | 48,600 | 44,100 | 56,000 | 50,800 | 1.81% | 1.77% | 1.79% |
| Blankenbaker south of Bluegrass | 37,700 | 33,500 | 44,900 | 38,900 | 51,100 | 44,300 | 1.76% | 1.51% | 1.63% |
| Blankenbaker south of Plantside | 21,100 | 19,400 | 25,800 | 24,300 | 30,600 | 28,800 | 2.03% | 2.28% | 2.15% |
| Blankenbaker south of Rehl | 17,100 | 16,800 | 22,100 | 21,500 | 27,000 | 26,300 | 2.60% | 2.50% | 2.55% |
| Blankenbaker north of Blankenbaker Access | 19,000 | 18,800 | 24,400 | 23,900 | 29,700 | 29,100 | 2.53% | 2.43% | 2.48% |
| Blankenbaker north of Chenoweth Run | 14,500 | 14,700 | 19,800 | 18,800 | 24,600 | 23,300 | *3.00%* | 2.49% | 2.75% |
| Blankenbaker north of KY 155 | 8,500 | 7,700 | 11,400 | 11,100 | 14,400 | 14,000 | 2.98% | *3.00%* | 2.99% |

# APPENDIX F
# PROJECT TEAM MEETING MINUTES

Architecture
Engineering
Construction

# MEETING MINUTES

| | |
|---|---|
| Project: | Rehl Road / I-265 Interchange Feasibility Study, Jefferson County<br>Item No.: No Item Number |
| Purpose: | Scoping Meeting |
| Place: | Louisville Metro Public Works<br>444 South 5th Street<br>Louisville, Kentucky |
| Meeting Date: | May 15, 2007 |
| Prepared By: | Tom H. Springer |
| In Attendance: | |

| | |
|---|---|
| Rick Storm | Louisville Metro Public Works |
| Charles Cash | Louisville Metro Planning and Design Service |
| Bruce Traughber | Louisville Metro Economic Development |
| Jim Wilson | KYTC, CO, Planning |
| Paul Davis | KYTC, D5, Pre-Construction & Design |
| John Callahan | KYTC, D5, Pre-Construction Branch Manager |
| David Smith | Qk4, Inc. |
| Kirk Reinke | Qk4, Inc. |
| Jeremy Lukat | Qk4, Inc. |
| Tom Springer | Qk4, Inc. |

The project is an Engineering Study to see if an interchange at Rehl Road at I-265 is feasible, from an engineering and operational standpoint.

Project Management:

- John Callihan will be the Project Manager
- The project will be coordinated with Division of Planning

Objective of Study:

The objective of the study is to ascertain if an interchange is feasible at Rehl Road. Louisville Metro has long planned as a top priority the proposed interchange. Before it is advanced through preliminary engineering and the NEPA process, both of which will include public involvement, a planning level feasibility is proposed to determine if the road will pass federal interchange justification standards.

Project Objectives:

The three main elements of the plan will be:

- Preliminary design concepts, which will include a stand alone interchange and if necessary one with collector/distributor lanes
- Cost estimates will include design, construction, right-of-way, and utility costs
- Operational analyses will include the proposed interchange at Rehl Road, the interchange at Taylorsville Road, and the interchange at I-64. It may also include US 60/I-265 and I-64/Blakenbaker Parkway, depending on coordination with FHWA.

Traffic:

- Qk4 and KYTC will coordinate with KIPDA to perform the traffic forecasts, including the directional splits.
- Qk4 will perform the operational analysis.
- Qk4 will obtain crash data and perform a crash analysis.

**NOTE**: On May 16, 2007, District-5 and Qk4 staff met with Bill Hanson with FHWA to discuss the proposed approach to this study. Specifically, KYTC has a number of near-term and ultimate improvements programmed and planned for the interchanges in the area, including I-265/I-64 and I-265/US 60. After discussing the area and these programmed improvements, it was decided to conduct the following traffic analyses:

- Current Conditions
- 2017 Build With Near-Term Improvements included in the model
- 2037 Build With Ultimate Improvements included in the model.
- 2037 No Build

Project Issues:

- I-265 in the study area has become an urban interstate.
- The spacing between I-64 to the north and KY 155 to the south is almost exactly 2 miles.
- Louisville has approved a 300+/- acres rezoning for a Planned Economic Center (PEC) known as the Hollenbeck-Oakley property just west of the proposed interchange. The development will generate a significant number of trips. Louisville Metro will supply the traffic report prepared for the rezoning.
- The near-term and ultimate redesign of the I-64/I-265 interchange and the US 60/I-265 interchange will be taken into account.
- Qk4 and KTYC will coordinate with FHWA regarding which interchanges to include in the analysis. Obviously the I-265 interchange with I-64 and KY 155 will be included, but the US 60/I-265 and the Blakenbaker Parkway/I-64 interchange may also be included.

  **NOTE**: At the May 16, 2007 meeting with FHWA it was decided to include four existing interchanges (I-265/KY 155, I-265/I-64, I-265/US 60, and I-64/Blakenbaker Parkway) plus the proposed Rehl Road interchange for the future Build and No-Build scenarios.
- Both a stand-alone interchange and one with collector/distributor lanes will be considered if necessary.

- Termini to the east and west will include the nearest and most appropriate road. Rehl Road and the proposed extension of Plantside Drive (which was included in the rezoning for the Hollenbeck Oakley property) to the west, will be considered. To the east Rehl Road and South Pope Lick Road will be considered.
- It is desired by Louisville Metro to complete the analysis in time to be considered for inclusion in the Six-year Highway plan, which will be revised in the fall of 2007.

Other Tasks:

- The only element of an environmental overview that will be conducted is for historic resources by KYTC, Division of Environmental Analysis and District -5.
- No resource agency coordination, public involvement, or geotechnical analysis will be preformed.

**End of Minutes**

cc: attendants

Architecture
Engineering
Construction

# MEETING MINUTES

| | |
|---|---|
| Project: | Rehl Road / I-265 Interchange Feasibility Study, Jefferson County<br>Item No.: No Item Number |
| Purpose: | Traffic Forecasting |
| | KIPDA<br>11520 Commonwealth Drive<br>Louisville, Kentucky 40299 |
| Meeting Date: | July 12, 2007 |
| Prepared By: | Tom H. Springer |
| In Attendance: | |

| | |
|---|---|
| Harold Tull | KIPDA |
| Randy Simon | KIPDA |
| Andy Rush | KIPDA |
| John Callahan | KYTC, D5 |
| Bruce Siria | Qk4, Inc. |
| Jeremy Lukat | Qk4, Inc. |
| Tom Springer | Qk4, Inc. |

Overview

The project is an Engineering Study to see if an interchange at Rehl Road at I-265 is feasible, from an engineering and operational standpoint. The purpose of the meeting was to discuss specifics for the required traffic forecasts.

On May 15, 2007 the initial scooping meeting was held at Metro Public Works. On May 16 a meeting was held with KYTC and FHWA to discuss the traffic forecasts necessary. Minutes from those meetings were circulated to the above-listed individuals to initiate the traffic request from KIDPA. After a review of the minutes, KIPDA hosted this meeting to discuss the project and further define the tasks needed to complete the traffic forecasts.

**NOTE**: Since this July 12 meeting correspondence has been made with FHWA to answer some questions, as noted herein.

Project Schedule

It was noted that in order to include the project into the revised Six-Year Highway Plan, information on the feasibility and costs estimates were needed by mid-September, and at the latest early-October.

Traffic Counts

It was agreed that existing and available traffic data would be used in lieu of conducting traffic counts. Because of the current changes in traffic patterns caused by the Restore 64 project in downtown Louisville, traffic counts conducted within the next few weeks would be skewed, and with the short schedule for this project, we would not have time to conduct reliable counts. However, if time permits and if necessary, counts could be conducted on surface streets.

Interchanges to be Studied

At the May 16, 2007 meeting with FHWA it was decided to include four existing interchanges (I-265/KY 155, I-265/I-64, I-265/US 60, and I-64/Blakenbaker Parkway) plus the proposed Rehl Road interchange for the future Build and No-Build scenarios. During the July 12 meeting it was questioned if the US60/I-265 interchange should be included. **NOTE**: Since the meeting John Callihan contacted FHWA and it has been agreed to remove the I-265/US 60 interchange from the Rehl Road Interchange traffic analysis.

Time Horizons

During the May 15 Scoping meeting and the May 16 meeting with FHWA it was decided to use the year 2017 as the near-term horizon. However, based on discussions with KIPDA during the July 12 meeting, it was agreed that year 2020 would be more practical since that is one of the horizon year used in their traffic model. The socioeconomic data has been forecasted for both 2012 and 2020, but not 2017. 2020 was selected because it was closer to 2017 and anticipating that the interchange would be open to traffic in 13 years rather than 10 years was not unreasonable. **NOTE**: S**ince the meeting John Callihan coordinated this change with FHWA who has concurred with switching they interim year to 2020.**

The long-term horizon year will remain 2037 and KIPDA will use the average annual growth rate for each forecasted road section to project to this time horizon.

Assumptions

There are several planned transportation projects in the study area. For the Rehl Road traffic forecasts, the following assumptions will be made:

- For 2020:
    - At I-265/I-64 interchange, it will be assumed the flyover from I-265 northbound to I-64 westbound will be constructed. This design also includes the following improvements at the Blakenbaker exit from westbound I-64: two travel lanes on the ramp dual-lefts and dual-rights at Blakenbaker. The plan sheet for that design was provided to KIPDA.
    - All other improvements in the MPO Long-Range Plan that are expected to be completed by 2020 will also be included in the 2020 traffic forecasts. Such improvements within proximity to the Rehl Road Interchange project include:
        - Widening I-265 to six lanes

- Widening I-64 east of I-265 to six lanes
- Construction of the Urton Lane Extension between US 60 in the north and Chenoweth Run in the south
- Construction of the Plantside Drive extension through the Hollenback-Oakley property
- Construction of the I-64 interchange near Gilliland Road and the connector north to US 60 and south to KY 155/KY 148

- Socioeconomic Data:
  - Because of the Floyds Fork Greenway Transportation Plan, Metro Planning recently produced forecasts of households, population, and employment based on alternative land use scenarios for the Floyds Fork area. Should these update be incorporated into the model, they will be coordinated with the Rehl Road study so that KIPDA uses the same socioeconomic assumptions for each of these studies.
  - The Hollenback-Oakley property is 300+/- acres for a Planned Economic Center (PEC) just west of the proposed interchange. KIPDA will research whether or not Metro considered this in their recent socioeconomic updates. If KIPDA believes the development is not included, there will need to be a request to Metro Planning and Design Services to provide an alternate forecast for this TAZ. Qk4 will provide KIPDA with a copy of the traffic report prepared for the rezoning.

- For 2037:
  - At I-265/I-64 it will be assumed four flyovers will be provided. Qk4 will provide the full design to KIDPA.

Rehl Road Interchange Design:

- Qk4 will provide KIPDA with interchange design concepts as soon as possible. Such concepts could include a stand-alone interchange or one with collector/distributor lanes. Without detailed traffic data, Qk4 will base this on available forecasts for the mainline of I-265 and weaving considerations.

**End of Minutes**

cc: attendants
Jim Wilson, KYTC, Planning
Aman Razavi, District-5

Architecture
Engineering
Construction

# MEETING NOTES

| | | |
|---|---|---|
| **Project:** | Rehl Road / I-265 Interchange Feasibility Study | |
| **Item Number** | N/A | |
| **Purpose:** | Project Team Meeting #1, | |
| **Place:** | Kentucky Transportation Cabinet (KYTC) District 5 Conference Room, Louisville, Kentucky | |
| **Meeting Date:** | May 5, 2008 9:30 am EST | |
| **Prepared By:** | Doug Heberle | |
| **In Attendance:** | John Callihan | KYTC – D5 |
| | Jeff Schaefer | KYTC – D5 |
| | Aman Razavi | KYTC – D5 |
| | Robert Farley | KYTC – CO Design |
| | Rick Storm | Metro Public Works |
| | Dirk Gowin | Metro Public Works |
| | Harold Tull | KIPDA |
| | Andy Rush | KIPDA |
| | Tom Springer | Qk4 |
| | Darryl Renfrow | Qk4 |
| | Jeremy Lukat | Qk4 |
| | Doug Heberle | Qk4 |

**INTRODUCTIONS:** Aman Razavi and John Callihan opened the Project Team Meeting by providing a brief background of the project and asking the attendees to introduce themselves. The proposed project is an interchange feasibility study which focuses on an interchange on I-265 with Rehl Road in eastern Jefferson County. An agenda and a folder containing other handouts were given to all the attendees.

**STATUS OF STUDY:** The presentation consists of a review of existing conditions, planned land uses, interchange design options, and projected traffic volumes. It is noted that the impetus for a new interchange is due largely in part to the Louisville Metro-planned Suburban Workplace Form District expansion east, from Blankenbaker Parkway to I-265, including the Hollenbeck-Oakley property which is a very significant proposed employment center. Tom Springer provided descriptions of the project study area and scope of work. The study will evaluate the build and no build alternatives to address both current and future (2020 and 2038) transportation needs. It was noted that the proposed interchange has been a priority project of Louisville Metro for many years.

**EXISTING CONDITIONS:** Tom Springer reviewed the handouts describing the existing conditions of the area consisting of project location, Highway Information System (HIS) data, environmental overview, crash data (2004-2006), network traffic and LOS. Tom also presented some photos of the study area, which illustrated the primary interchanges in the area that are of concern to the study: I-64 and Blankenbaker, I-265 and I-64, I-265 and Taylorsville Road, and I-265 and Rehl Road (proposed).

## TRAFFIC STUDY ASSUMPTIONS:

For Year 2020:

- Flyover for northbound I-265 to westbound I-64 will be constructed
- Hollenbeck-Oakley Property will be 75% built out in both the Build and No-Build scenarios.
- Construction of a new interchange at I-64 and Gilliland Road

For Year 2038:

- The yearly growth rates of 0.0-3.0% were applied to the 2030 ADT projections. These were not applied to either the household or employment inputs to the KIPDA travel demand model.
- The socioeconomic projections used as input to the KIPDA model are only projected out to 2030, necessitating this alternative approach. Similarly, the latest model year network is 2030; therefore these 2038 projections were based on a 2030 network (i.e. a network that includes no new projects built between 2030 and 2038).
- Hollenbeck-Oakley property is to be 100% built out for the build scenario.
- Socioeconomic projections provided to KIPDA from Louisville Metro Planning & Design included two scenarios of adding 500 and 1500 employees respectively, to year 2030 total employment projections to the two Traffic Analysis Zones (TAZ's) that comprise the study area. Considerable residential growth is expected east of I-265.

## DISCUSSION POINTS:

- The build option features a compressed diamond interchange with collector/distributor (C/D) lanes. The C/D lanes are to be tied into the C/D lanes for the planned I-64/I-265 interchange rebuild. To the south, the C/D lanes would end north of KY 155 interchange. The modeled networks assumed three lanes in each direction for all scenarios.
- The traffic forecasts for the build and no build scenarios in the study areas for 2020 and 2038 did not exhibit significant differences. The modeled highway network is projected to be severely congested in the 2030 model, and therefore the Build alternative may not show as much relief to the system as may have been expected. Further, the primarily residential development included in the 2030 model in the area east of I-265 may be conservative based on recent information made available since the last model update
- One area noted to experience a reduction in traffic volumes with the 2038 Build option, as compared to the Build Alternatives, is Blankenbaker Parkway south of I-64. This area is also a high-crash area.
- This project is included in the Jefferson County Thoroughfare Plan, the KIPDA long range plan, *Horizon 2030,* but it is not included in KIPDA's current Transportation Improvement Program (TIP) or the KYTC Six-Year Highway Plan.

- Concern was raised regarding the spacing between the I-64/I-265, I-265/Rehl Road, and the I-265/Taylorsville Road interchanges. Also, the ability to install effective signage was mentioned. The existing spacing is just over 2 miles.

- The preliminary construction cost estimates were approximately $20,000,000 in 2008 dollars.

- The only area of concern for the merger/diverge LOS analysis for the Build Alternative was the southbound entrance weaving movement from Rehl Road. This was projected to be a LOS E. It was requested that the design and planning level cost estimate be provided.

- It was noted that the Purpose and Need for the proposed interchange was primarily economic development, congestion, and safety.

- Before the project will be able to be approved, the 8 FHWA policy points will need to be met. The first of which is a demonstration that the existing interchanges and roadway network cannot be improved to meet the purpose and need of the project.

**NEXT STEPS:**

- A review of the other recent traffic studies that have been conducted in this study area is to be conducted to ensure the traffic assumptions are consistent.

- A meeting is to be held with Louisville Metro Economic Development to update them on the results of the study and the issues associated with getting approval for the new interchange.

- FHWA will be consulted to obtain federal guidance and recommendations.

**END OF MEETING NOTES**

File Id: 07403.000 \ Rehl Road
File Name: PTM #1 5-05-08

Architecture
Engineering
Construction

# MEETING NOTES

| | | |
|---|---|---|
| **Project:** | Rehl Road / I-265 Interchange Feasibility Study | |
| **Item Number** | N/A | |
| **Purpose:** | Traffic Forecast Meeting | |
| **Place:** | Kentucky Transportation Cabinet (KYTC) District 5 Conference Room, Louisville, Kentucky | |
| **Meeting Date:** | July 18, 2008 1:00 am EST | |
| **Prepared By:** | Doug Heberle | |
| **In Attendance:** | Aman Razavi | KYTC – D5 |
| | Rick Storm | Metro Public Works |
| | Dirk Gowin | Metro Public Works |
| | Pat Johnson | Metro Public Works |
| | Harold Tull | KIPDA |
| | Andy Rush | KIPDA |
| | Tom Springer | Qk4 |
| | Doug Heberle | Qk4 |

**INTRODUCTIONS:** Tom Springer opened the Traffic Forecast Review Meeting with introductions. The purpose of this meeting was to clarify the assumptions made by the Project Team that were utilized as inputs to the traffic forecast produced by KIPDA.

**TRAFFIC STUDY ASSUMPTIONS:** Current traffic assumptions were reviewed and the following remarks/recommendations were made:

- The internal streets will be removed as an input factor from the traffic model.
- The ramp analysis will be revised to prevent through traffic from circumventing mainline I-265 at the interchange by utilizing the Rehl Road ramps.
- It was noted that the transportation network of the study area is not a closed system; it is in fact part of the larger regional network. Some traffic volumes may appear unexpected due to the fact that traffic from the larger network traverses this study area.
- The weave movements south of the projected Rehl Road interchange appear questionable. The possibility of relocating the interchange to the north to possibly improve the weave movements was discussed.

- The current requirement of the 2038 traffic horizon year will be revisited.
- Metro Public Works will request the letter of need from Metro Economic Development.

**END OF MEETING NOTES**

Architecture
Engineering
Planning

# MEETING NOTES

| | | |
|---|---|---|
| **Project:** | Rehl Road / I-265 Interchange Feasibility Study | |
| **Item Number** | N/A | |
| **Purpose:** | Project Team Meeting #2 | |
| **Place:** | Kentucky Transportation Cabinet (KYTC) District 5 Conference Room, Louisville, Kentucky | |
| **Meeting Date:** | July 8, 2009 9:00 am EDT | |
| **Prepared By:** | Doug Heberle | |
| **In Attendance:** | Matt Bullock | KYTC – D5 |
| | Brian Meade | KYTC – D5 |
| | Jeff Schaefer | KYTC – D5 |
| | Tala Quino | KYTC – D5 |
| | Keith Downs | KYTC – D5 |
| | Robert Farley | KYTC – CO Design |
| | J. R. Ham | KYTC – CO Planning |
| | Rick Storm | Metro Public Works |
| | Dirk Gowin | Metro Public Works |
| | Pat Johnson | Metro Public Works |
| | Larry Chaney | KIPDA |
| | Andy Rush | KIPDA |
| | Tom Springer | Qk4 |
| | David Smith | Qk4 |
| | Doug Heberle | Qk4 |

**INTRODUCTIONS:** Brian Meade opened the second Project Team Meeting by providing a brief background of the project and asking the attendees to introduce themselves. The proposed project is an interchange feasibility study which focuses on an interchange with Rehl Road on I-265 in eastern Jefferson County, between the existing I-265/I-64 and I-265/Taylorsville Road interchanges. An agenda and other handouts were provided to all the attendees.

**STATUS OF STUDY:** Tom Springer outlined the meeting agenda which began with a review of the first project team meeting on May 8, 2008. At that meeting, existing conditions and the proposed compressed diamond interchange configuration were reviewed, as well as the initial set of traffic forecasts, and the existing conditions.

At a follow up meeting in July 2008 revised traffic was provided by KIPDA. At this meeting it was decided that since a key element of the purpose and need is economic development, Louisville Metro would need to provide KIPDA with difference socioeconomic data (i.e., jobs and households) for the area for a Build and a No Build scenario.

**DISCUSSION POINTS:**

- NEPA requirements will most likely not be significant due to the lack of environmental issues or public controversy.

- This project is one of Louisville Metro's highest priorities as evidenced by a supportive letter from the Metro Economic Development Department. This letter was included in the meeting handouts.

- In Cornerstone 2020, Louisville Metro identified the area as a Suburban Workforce. In the recent past sewer lines have been installed and the area has been rezoned for high intense development.

- The socioeconomic differences between build and no build scenarios from the traffic model were approximately 10,000 jobs.

- The question of rebuilding the existing area roadway system in lieu of constructing an interchange at Rehl Road was raised. The consensus is that the scope of such a project would depend on a sub-area traffic model to generate forecasts based on more exact land uses and the conditions of the local and collector roads in the area. This type of analysis is beyond the KIPDA Long-Range traffic model and the scope of this feasibility study. It was generally agreed that the already-identified projects in the study area would not be adequate to address the traffic needs at an acceptable level in lieu of an interchange. It was also discussed that an alternative to rebuild the existing roads and interchanges would have impacts and issues with historic sites (specifically at Blackacre State Nature Preserve and the Rural Tyler Settlement), and right-of-way, cost and community impacts.

- According to the KIPDA model, the majority of traffic is originating to the west (from downtown Louisville). This is due to the fact that the model is showing minimal residential areas east of I-265.

- The rebuilding of Rehl Road to the west of I-265 is the responsibility of the developer.

- Concern was raised regarding the spacing between the I-64/I-265, I-265/Rehl Road, and the I-265/Taylorsville Road interchanges. The existing spacing is just over 2 miles from the centers of the interchange (not from the ramp termini).

- Discussion was had regarding the planned I-265/I-64 interchange reconstruction, and what affect it would have on preliminary layout of the Rehl Road interchange. The schedule for construction of the I-265/I-64 interchange is unclear. The preliminary design concept of the Rehl Road interchange is made to be consistent with a full reconstruction of the I-265/I-64 interchange. Should the Rehl Road interchange be advanced before I-265 and the I-64 reconstruction, it is felt by the project engineers that the Rehl Road interchange could be redesigned to accommodate either a partial rebuild or no rebuild of the I-64/I-265 interchange.

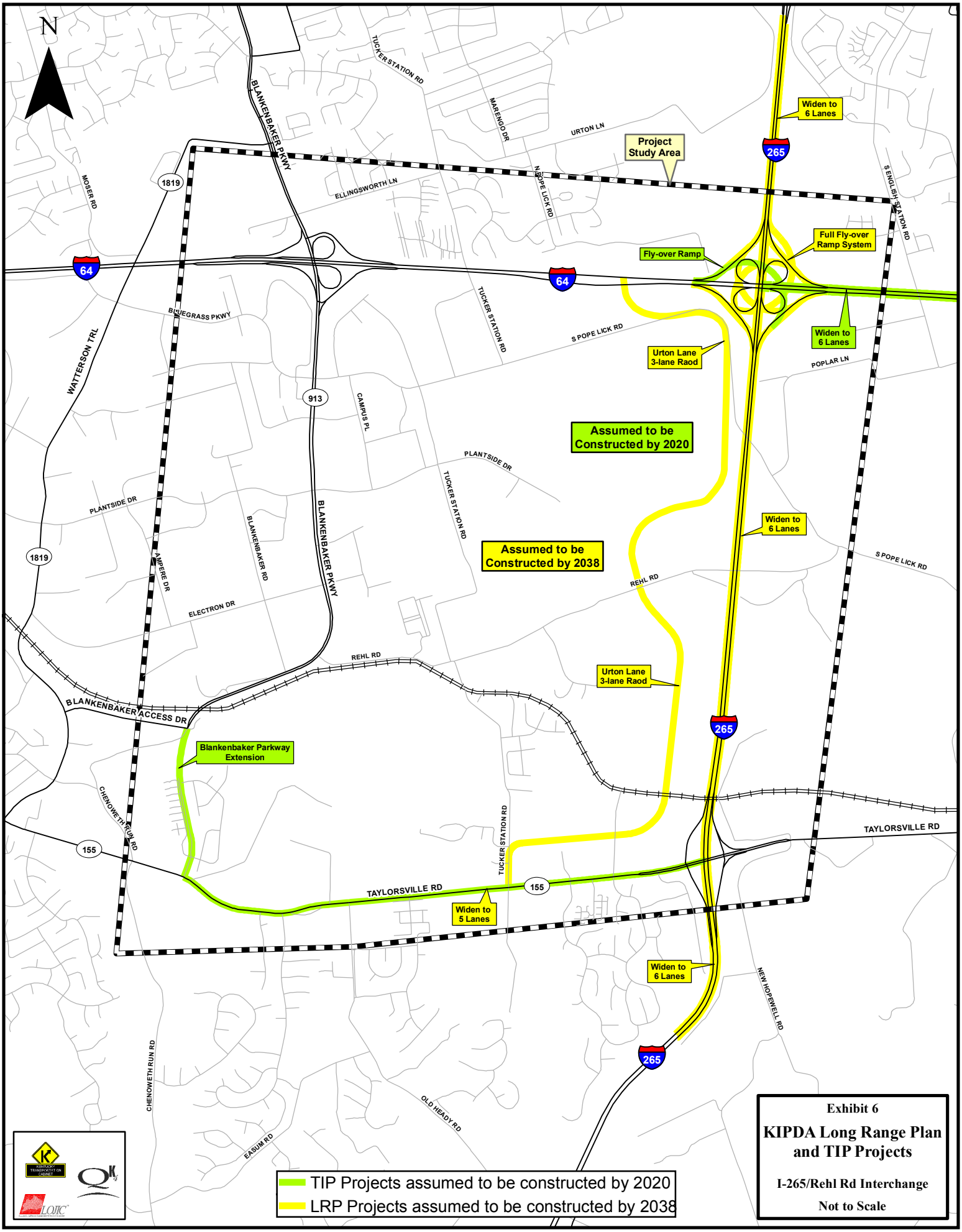
- It was decided that this report on the feasibility of a Rehl Road/I-265 interchange be finalized with the identification of the issues that would be required to be addressed for this project if it is advanced further.

**NEXT STEPS:**

- A draft report will be submitted by Qk4 to KYTC that reflects the decisions make at this project team meeting.

**END OF MEETING NOTES**

# APPENDIX G
# KIPDA LONG-RANGE PLAN PROJECT STATUS SHEETS


N
Project Study Area
Widen to 6 Lanes
Full Fly-over Ramp System
Fly-over Ramp
Widen to 6 Lanes
Urton Lane 3-lane Raod
Assumed to be Constructed by 2020
Assumed to be Constructed by 2038
Widen to 6 Lanes
Urton Lane 3-lane Raod
Blankenbaker Parkway Extension
Widen to 5 Lanes
Widen to 6 Lanes
BLANKENBAKER PKWY
TUCKER STATION RD
MARENGO DR
URTON LN
ELLINGSWORTH LN
N POPE LICK RD
S ENGLISH STATION RD
MOSER RD
BLUEGRASS PKWY
WATTERSON TRL
S POPE LICK RD
POPLAR LN
CAMPUS PL
PLANTSIDE DR
BLANKENBAKER RD
AMPERE DR
ELECTRON DR
REHL RD
BLANKENBAKER ACCESS DR
CHENOWETH RUN RD
TAYLORSVILLE RD
NEW HOPEWELL RD
OLD HEADY RD
EASUM RD
1819
913
64
265
155
TIP Projects assumed to be constructed by 2020
LRP Projects assumed to be constructed by 2038
Exhibit 6
KIPDA Long Range Plan and TIP Projects
I-265/Rehl Rd Interchange
Not to Scale

# I-265 KIPDA 1514

Construct a new interchange on I-265 at Rehl Road.

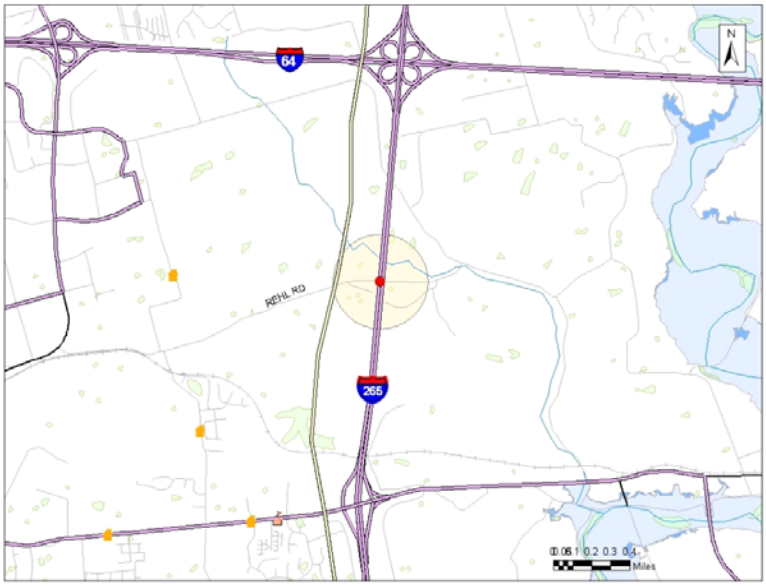
**Project Purpose:**

Project will improve access to the rapidly developing area between I-64 and Billtown Road. The interchange will provide interstate access and relieve demand at the Taylorsville Road/I-265 interchange.

**Contact Agency:** Lou. Metro PW
**County :** Jefferson
**Project Cost:** $31,586,181
**Estimated Open to Public Year:** 2012

**State ID #:** 0
**Regional Priority** ☐
**Included in AQ Analysis / Regionally Significant** ☑
**Bicycle Accomodations** ☐
**Pedestrian Accomodations** ☐

AMENDMENT




**Description of Amendments**

4 2007 Add project to the Plan.

## I-265 KIPDA ID # 179

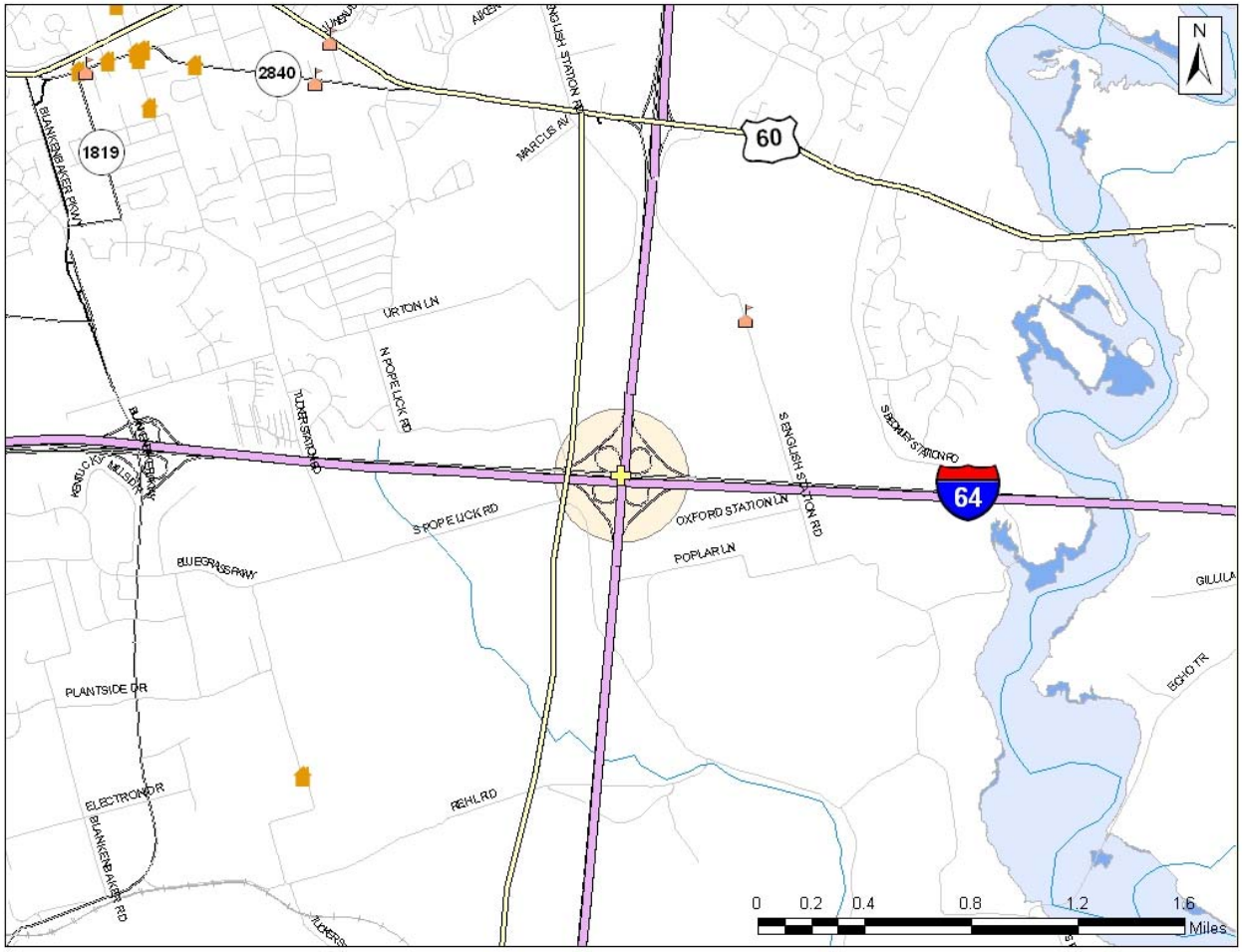
**Project Type:** OPERATIONS

**Description:** Reconstruct I-265 (Gene Snyder Freeway) interchange at I-64.

**Purpose:** The purpose of this project is to eliminate the clover-leaf interchange, increase capacity, and reduce congestion.

**Primary Contact Agency:** Kentucky Transportation Cabinet
**County:** Jefferson **State ID #:** 21
**Project Cost:** $85,500,000
**Estimated Open to Public Year:** 2012

**Regional Priority:** NO
**Included in AQ Analysis/Regionally Significant:** YES
**Subject to CMS Review:** YES
**Within 1/4 Mile or on a Freight Corridor:** YES
**Within 1/4 Mile or on a Bicycle & Pedestrian Priority Corridor:** YES
**Includes Bicycle Facilities:** NO **Includes Pedestrian Facilities:** NO



## KIPDA ID # 197 I-265

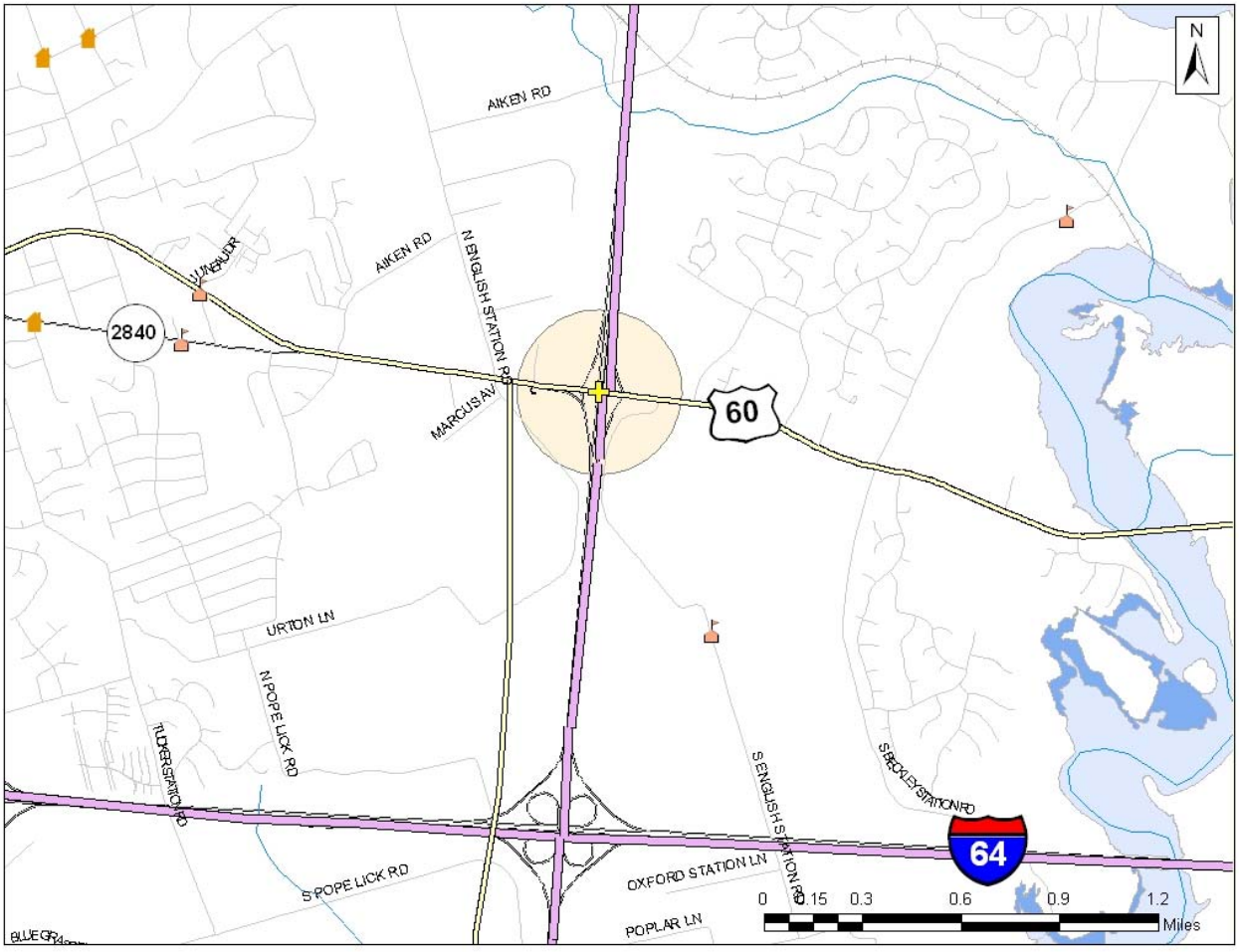
**Project Type:** OPERATIONS

**Description:** Reconstruct I-265 (Gene Snyder Freeway) interchange at US 60 (Shelbyville Road).

**Purpose:** This project will reduce traffic congestion and improve safety.

**Primary Contact Agency:** Kentucky Transportation Cabinet
**County:** Jefferson **State ID #:** 41
**Project Cost:** $63,000,000
**Estimated Open to Public Year:** 2010

**Regional Priority:** NO
**Included in AQ Analysis/Regionally Significant:** YES
**Subject to CMS Review:** NO
**Within 1/4 Mile or on a Freight Corridor:** YES
**Within 1/4 Mile or on a Bicycle & Pedestrian Priority Corridor:** YES
**Includes Bicycle Facilities:** NO **Includes Pedestrian Facilities:** NO



## KIPDA ID # 959 I-265

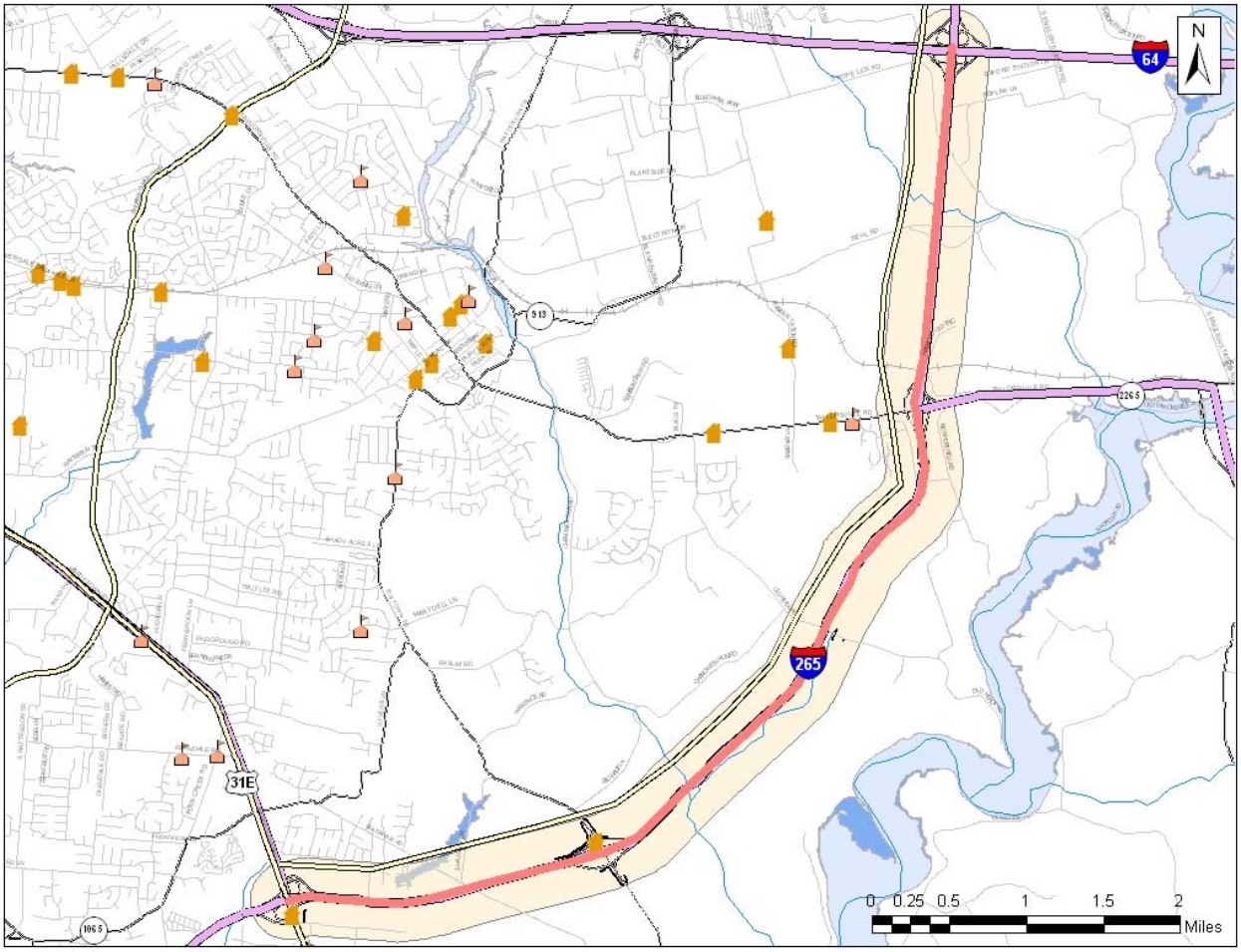
**Project Type:** ROADWAY CAPACITY

**Description:** Widen I-265 from 4 to 6 lanes from US 31E (Bardstown Road) to I-64. Approximately 8.0 miles.

**Purpose:** Increase capacity.

**Primary Contact Agency:** Kentucky Transportation Cabinet
**County:** Jefferson **State ID #:**
**Project Cost:** $65,000,000
**Estimated Open to Public Year:** 2020

**Regional Priority:** YES
**Included in AQ Analysis/Regionally Significant:** YES
**Subject to CMS Review:** YES
**Within 1/4 Mile or on a Freight Corridor:** YES
**Within 1/4 Mile or on a Bicycle & Pedestrian Priority Corridor:** YES
**Includes Bicycle Facilities:** NO **Includes Pedestrian Facilities:** NO



## KIPDA ID # 458 — Plantside Drive

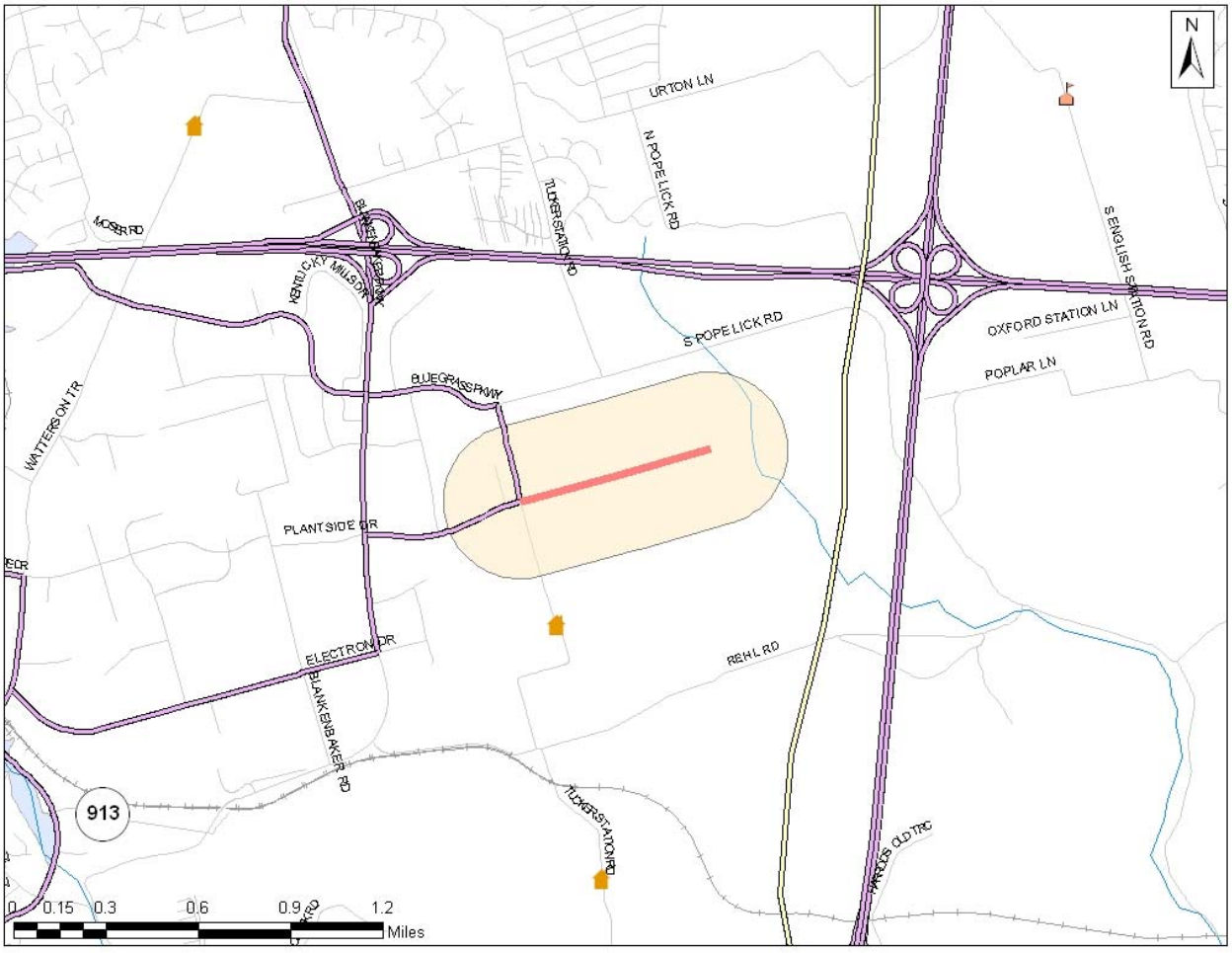
**Project Type:** ROADWAY CAPACITY

**Description:** Extend Plantside Drive as a 3 lane collector road (3rd lane will be a center turn lane) from Tucker Station Road to Rehl Road.

**Purpose:** Extend Plantside Drive on new 3 lane alignment from Tucker Station Road to Rehl Road to address future travel needs.

**Primary Contact Agency:** Louisville Metro Public Works
**County:** Jefferson **State ID #:**
**Project Cost:** $7,000,000
**Estimated Open to Public Year:** 2010

**Regional Priority:** YES
**Included in AQ Analysis/Regionally Significant:** YES
**Subject to CMS Review:** YES
**Within 1/4 Mile or on a Freight Corridor:** NO
**Within 1/4 Mile or on a Bicycle & Pedestrian Priority Corridor:** NO
**Includes Bicycle Facilities:** YES **Includes Pedestrian Facilities:** YES



## Rehl Road KIPDA ID # 462

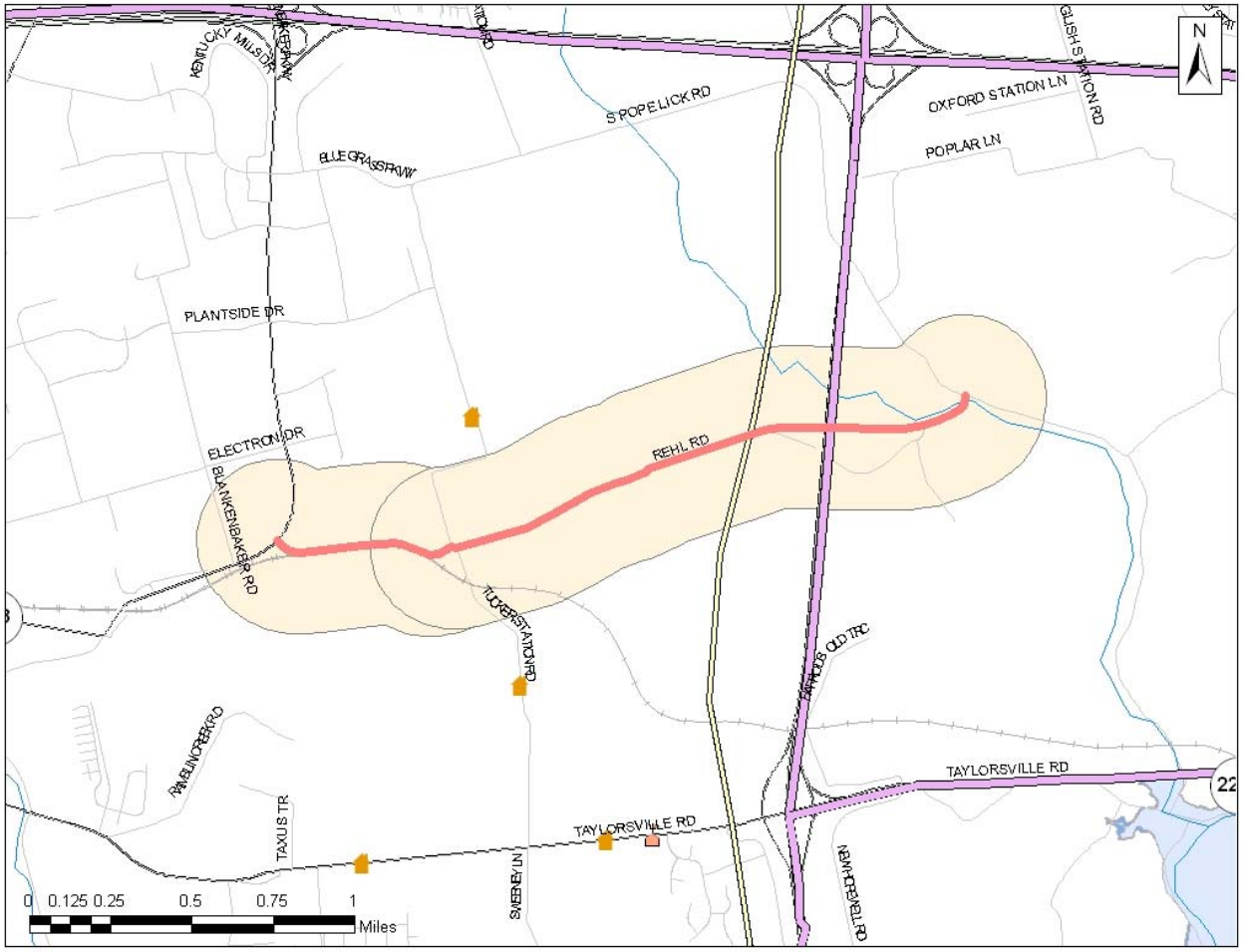
**Project Type:** OPERATIONS

**Description:** Reconstruct Rehl Road as a 2 lane road (no additional lanes) from KY 913 (Blankenbaker Parkway) to S. Pope Lick Road.

**Purpose:** Rehl Road is an east-west corridor that intersects with Blankenbaker Lane on the west and South Pope Lick Road and English Station Road on the east. At its junction with I-265, a new interchange is being proposed. Traffic volumes are expected to increase on Rehl Road nearly 500% from 2009 to 2020.

**Primary Contact Agency:** Louisville Metro Public Works
**County:** Jefferson **State ID #:**
**Project Cost:** $9,000,000
**Estimated Open to Public Year:** 2015

**Regional Priority:** YES
**Included in AQ Analysis/Regionally Significant:** NO
**Subject to CMS Review:** NO
**Within 1/4 Mile or on a Freight Corridor:** YES
**Within 1/4 Mile or on a Bicycle & Pedestrian Priority Corridor:** YES
**Includes Bicycle Facilities:** NO **Includes Pedestrian Facilities:** NO



## Tucker Station Road KIPDA ID # 472

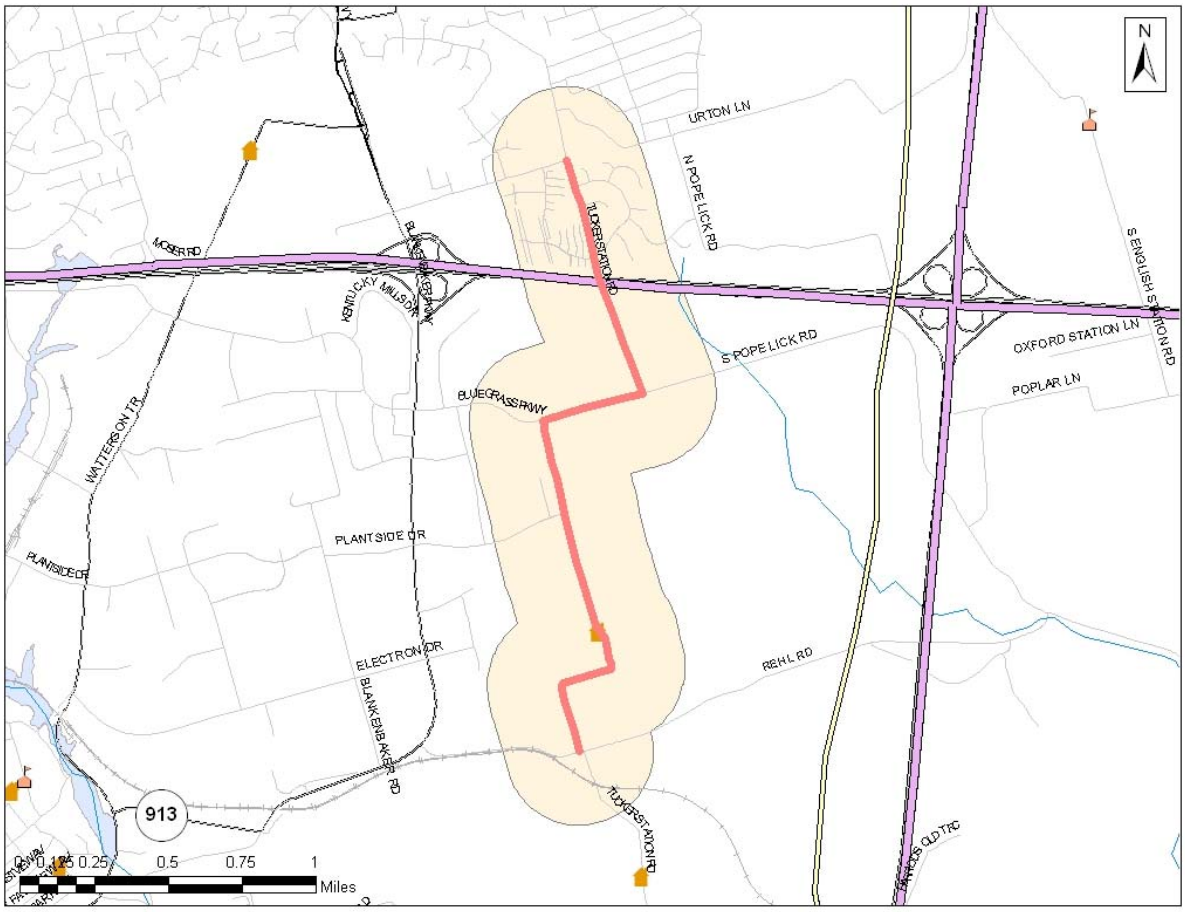
**Project Type:** OPERATIONS

**Description:** Reconstruct Tucker Station Road as a 2 lane road (no additional lanes) from Rehl Road to Ellingsworth Lane & improve intersections (S. Pope Lick, Rehl Road & Ellingsworth Lane).

**Purpose:** Tucker Station Road is a narrow 2 lane collector extending from U. S. 60 to KY 155 (Taylorsville Road). It is the only non-interstate route which crosses I-64 between Blankenbaker and English Station roads. With planned development in the Urton Lane corridor, it should be able to relieve some traffic demand if an Urton Lane-Tucker Station Road-Ellingsworth Road connection is made. It would serve increased development south of I-64 near Rehl Road as well.

**Primary Contact Agency:** Louisville Metro Public Works
**County:** Jefferson **State ID #:**
**Project Cost:** $9,000,000
**Estimated Open to Public Year:** 2020

**Regional Priority:** YES
**Included in AQ Analysis/Regionally Significant:** NO
**Subject to CMS Review:** NO
**Within 1/4 Mile or on a Freight Corridor:** YES
**Within 1/4 Mile or on a Bicycle & Pedestrian Priority Corridor:** NO
**Inc**



## Urton Lane Corridor Study KIPDA ID # 473

**Project Type:** STUDY

**Description:** Urton Lane Corridor Study from US 60 (Shelbyville Road) to north or south of I-64 or further south to KY 1065 (Seatonville Road). Implement recommendations for corridor study beginning with protective ROW purchase.

**Purpose:** Urton Lane begins on the north at the US 60 - English Station Road intersection in Middletown, north of I-64. Several developments are currently planned between US 60 and I-64 along the route. Currently Urton Lane is a narrow 2 lane facility with poor geometrics. By extending Urton Lane south of I-64, traffic from the proposed developments could access Blankenbaker Road/I-64 via Rehl Road and I-265 via KY 155 (Taylorsville Road). An Urton Lane extension to Seatonville Road would open hundreds of acres to development and provide a parallel route to I-265 which could be used to divert incident related traffic.

**Primary Contact Agency:** Louisville Metro Public Works
**County:** Jefferson **State ID #:**
**Project Cost:** $850,000
**Estimated Open to Public Year:** 2020

**Regional Priority:** NO
**Included in AQ Analysis/Regionally Significant:** NO
**Subject to CMS Review:** NO
**Within 1/4 Mile or on a Freight Corridor:** YES
**Within 1/4 Mile or on a Bicycle & Pedestrian Priority Corridor:** YES
**Includes Bicycle Facilities:** N/A **Includes Pedestrian Facilities:** N/A

## KIPDA ID # 474 — Urton Lane

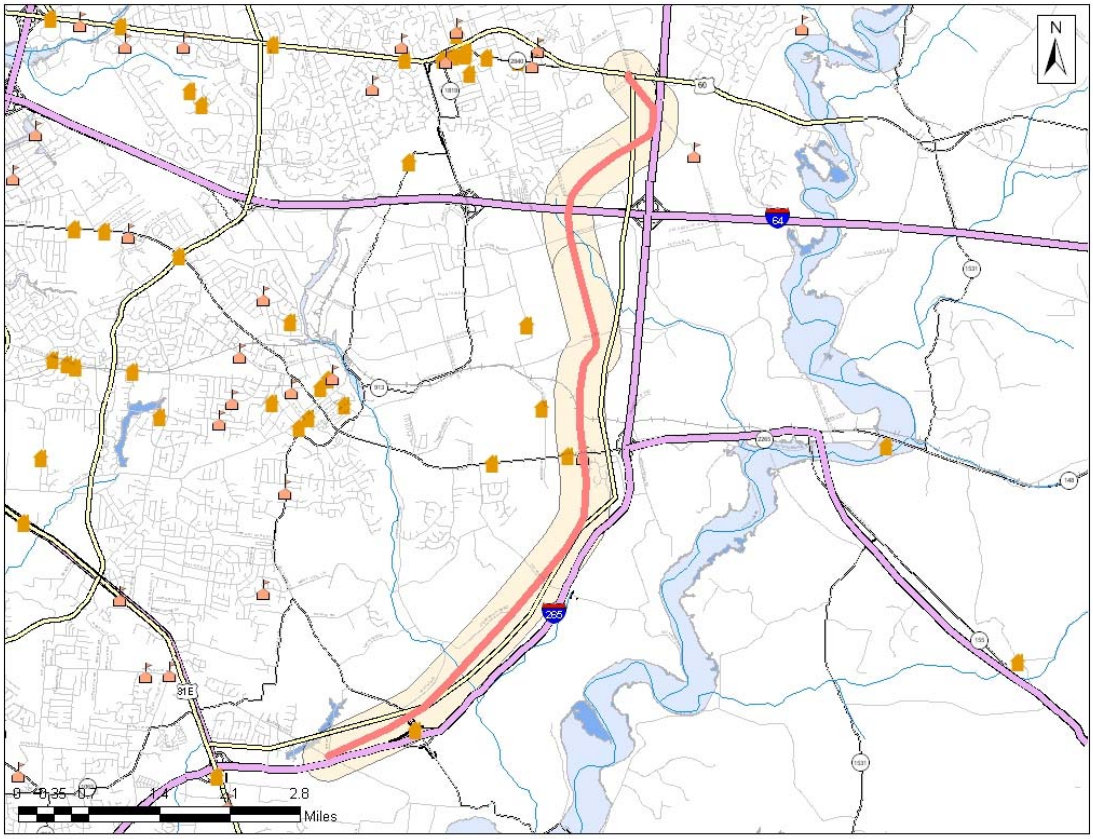
**Project Type:** ROADWAY CAPACITY

**Description:** Extend & widen Urton Lane from 2 to 3 lanes (3rd lane will be a center turn lane) from north of I-64 to Seatonville Road.

**Purpose:** Urton Lane begins on the north at the US 60 - English Station Road intersection in Middletown, north of I-64. Several developments are planned between US 60 and I-64 along the route. Currently Urton Lane is a narrow 2 lane facility with poor geometrics. By extending Urton Lane south of I-64, traffic from the proposed developments could access Blankenbaker Road/I-64 via Rehl Road and I-265 via KY 155 (Taylorsville Road). An Urton Lane extension from north of I-64 to Seatonville Road would open hundreds of acres to development and provide a parallel route to I-265 which could be used to divert incident related traffic.

**Primary Contact Agency:** Louisville Metro Public Works
**County:** Jefferson **State ID #:**
**Project Cost:** $31,500,000
**Estimated Open to Public Year:** 2020

**Regional Priority:** YES
**Included in AQ Analysis/Regionally Significant:** YES
**Subject to CMS Review:** YES
**Within 1/4 Mile or on a Freight Corridor:** YES
**Within 1/4 Mile or on a Bicycle & Pedestrian Priority Corridor:** YES
**Includes Bicycle Facilities:** NO **Includes Pedestrian Facilities:** NO



## KY 913 (Blankenbaker Parkway) KIPDA ID # 220

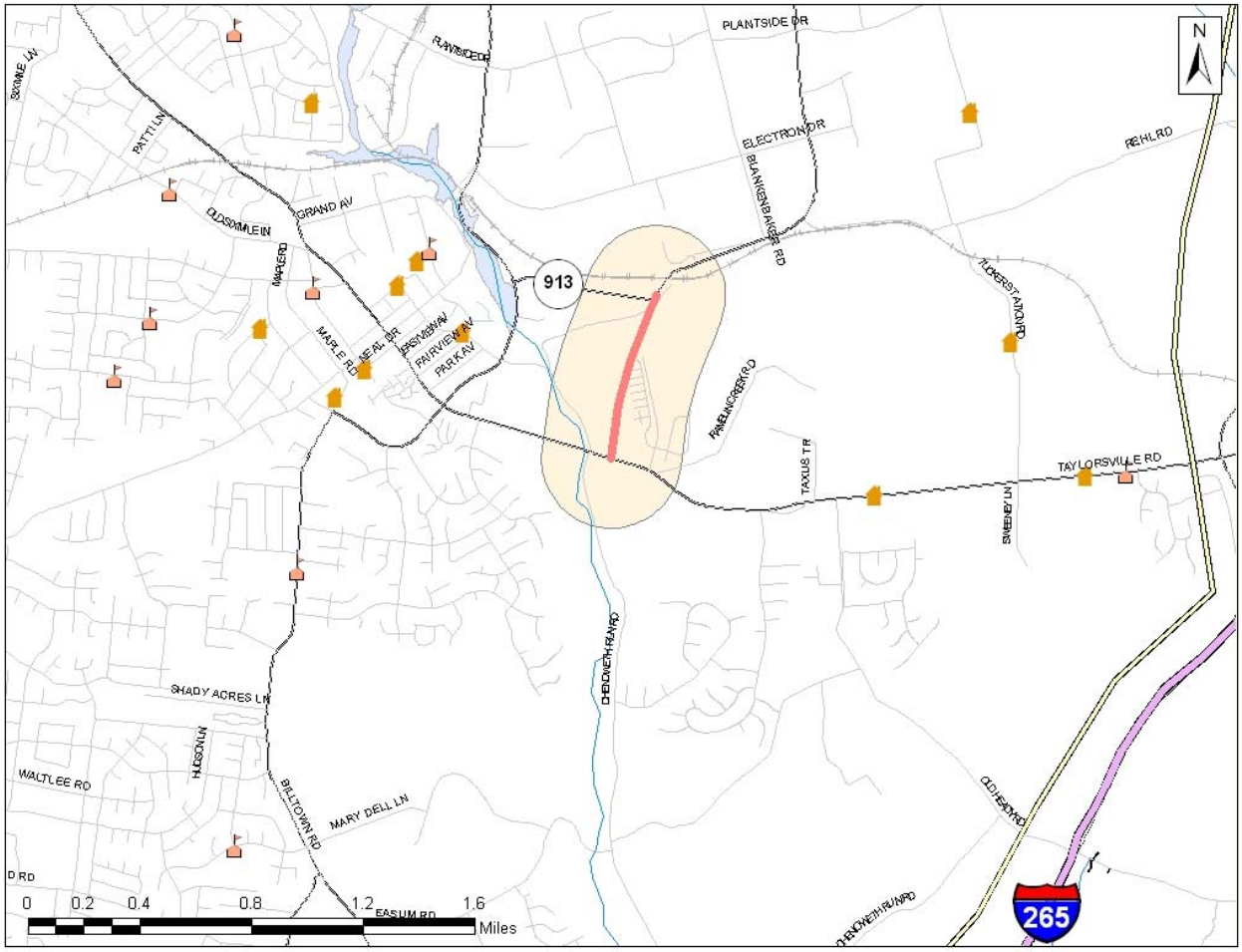
**Project Type:** ROADWAY CAPACITY

**Description:** Extend KY 913 (Blankenbaker Parkway) as 5 lane road from Blankenbaker Access Road to KY 155 (Taylorsville Road).

**Purpose:** Extend Blankenbaker to provide access to KY 155 (Taylorsville Road).

**Primary Contact Agency:** Kentucky Transportation Cabinet
**County:** Jefferson **State ID #:** 401
**Project Cost:** $5,446,000
**Estimated Open to Public Year:** 2010

**Regional Priority:** NO
**Included in AQ Analysis/Regionally Significant:** YES
**Subject to CMS Review:** NO
**Within 1/4 Mile or on a Freight Corridor:** NO
**Within 1/4 Mile or on a Bicycle & Pedestrian Priority Corridor:** NO
**Includes Bicycle Facilities:** NO **Includes Pedestrian Facilities:** YES



## KIPDA ID # 390 I-64

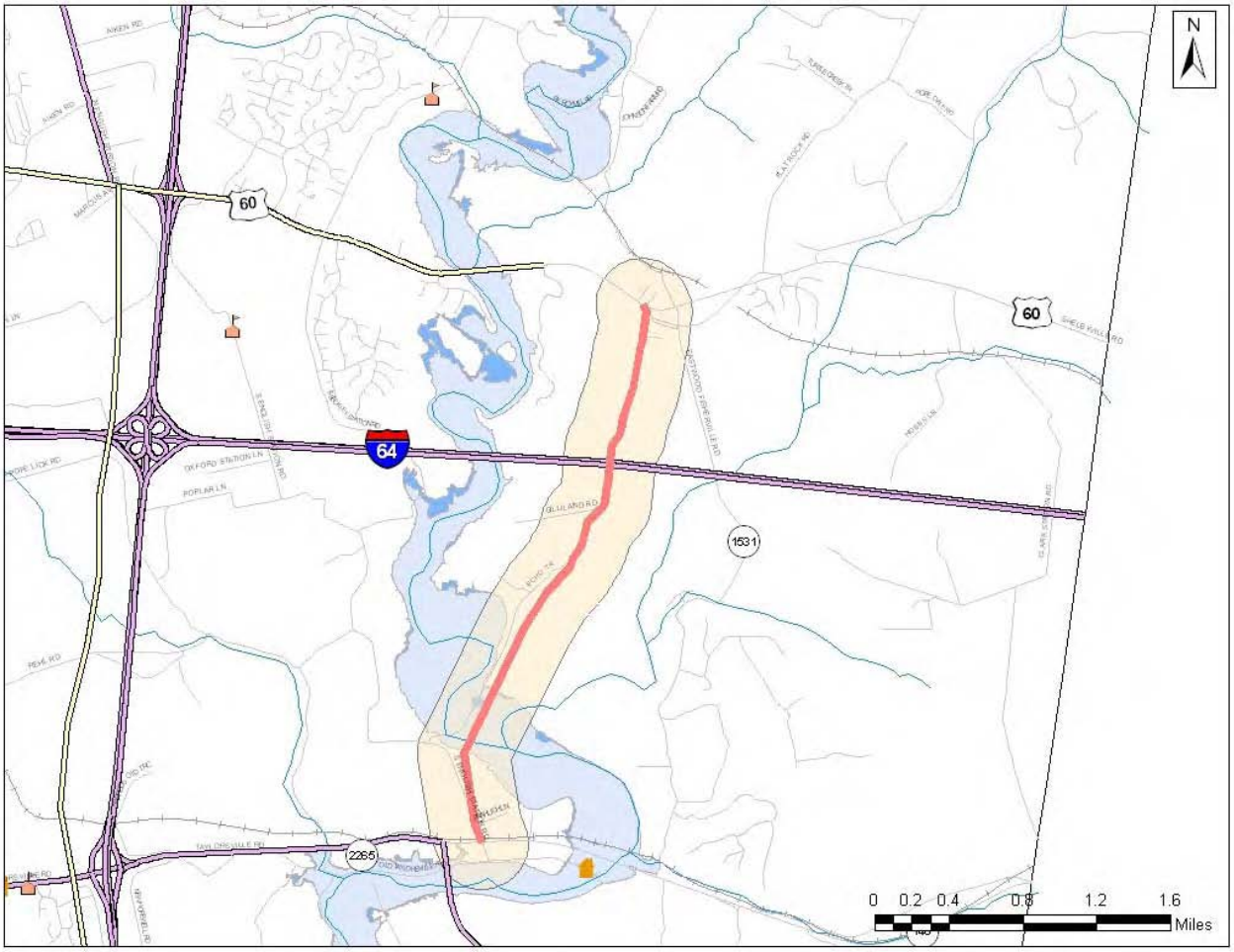
**Project Type:** ROADWAY CAPACITY

**Description:** New interchange & connector road from KY 148 to US 60 (Shelbyville Road) with interchange on I-64. Corridor would be in vicinity of Gilliland Road.

**Purpose:** Provide access to I-64 and KY 1848 in Shelby County.

**Primary Contact Agency:** Kentucky Transportation Cabinet
**County:** Jefferson **State ID #:**
**Project Cost:** $25,000,000
**Estimated Open to Public Year:** 2015

**Regional Priority:** NO
**Included in AQ Analysis/Regionally Significant:** YES
**Subject to CMS Review:** YES
**Within 1/4 Mile or on a Freight Corridor:** YES
**Within 1/4 Mile or on a Bicycle & Pedestrian Priority Corridor:** NO
**Includes Bicycle Facilities:** NO **Includes Pedestrian Facilities:** NO



# APPENDIX H
# COST ESTIMATES

# Estimate 5-41.00

Estimated Cost: $38,518,392.47

Contingency: 20.00%

**Estimated Total: $46,222,070.96**

*REHL ROAD INTERCHANGE*

Letting Date: 09/04/09

Spec Year: 04

Unit System: E

Work Type: GRADE & DRAIN WITH BRIDGE

Highway Type: INTERSTATE

Urban/Rural Type: URBAN

Season: FALL

County: JEFFERSON

*Prepared by RJC on 07/08/08*
*Checked by DBR on 07/08/08*

| Line # | Item Number / Description / *Supplemental Description* | Quantity | Units | Unit Price | Extension |
|---|---|---|---|---|---|

## Group 0001: PAVING

| | | | | | |
|---|---|---|---|---|---|
| 0006 | 00219<br>CL4 ASPH BASE 1.00D PG76-22 | 40,491.00 | TON | $54.00 | $2,186,514.00 |
| 0009 | 00335<br>CL4 ASPH SURF 0.50A PG76-22 | 20,245.00 | TON | $62.00 | $1,255,190.00 |
| 0010 | 00217<br>CL4 ASPH BASE 1.00D PG64-22 | 69,501.00 | TON | $51.00 | $3,544,551.00 |
| 0012 | 00018<br>DRAINAGE BLANKET-TYPE II-ASPH | 78,732.00 | TON | $46.00 | $3,621,672.00 |
| 0013 | 00001<br>DGA BASE | 72,433.00 | TON | $16.50 | $1,195,144.50 |
| 0014 | 00358<br>ASPHALT CURING SEAL | 126.00 | TON | $640.00 | $80,640.00 |
| 0016 | 00337<br>CL4 ASPH SURF 0.38B PG76-22 | 16,871.00 | TON | $63.00 | $1,062,873.00 |
| 0019 | 01810<br>STANDARD CURB AND GUTTER | 2,710.00 | LF | $19.98 | $54,145.80 |
| | Regression price 01810 | | Active: Y | | Unit Price: $19.98 |
| 0179 | 02720<br>SIDEWALK-4 INCH CONCRETE | 1,360.00 | SQYD | $52.65 | $71,604.00 |
| | Regression price 02720 | | Active: Y | | Unit Price: $52.65 |
| 0180 | 03287<br>SIDEWALK RAMP TYPE 1 | 8.00 | EACH | $1,633.80 | $13,070.40 |
| | Average price 03287 | | Active: Y | | Unit Price: $1,633.80 |

Total for Group 0001: $13,085,404.70

## Group 0002: ROADWAY

| | | | | | |
|---|---|---|---|---|---|
| 0058 | 01000<br>PERFORATED PIPE-4 INCH | 38,100.00 | LF | $7.90 | $300,990.00 |
| | Regression price 01000 | | Active: Y | | Unit Price: $7.90 |
| 0060 | 01010<br>NON-PERFORATED PIPE-4 INCH | 1,020.00 | LF | $12.19 | $12,433.80 |
| | Regression price 01010 | | Active: Y | | Unit Price: $12.19 |
| 0063 | 01020<br>PERF PIPE HEADWALL TY 1-4 INCH | 32.00 | EACH | $379.91 | $12,157.12 |
| 0066 | 01032<br>PERF PIPE HEADWALL TY 4-4 INCH | 30.00 | EACH | $429.24 | $12,877.20 |
| | Regression price 01032 | | Active: Y | | Unit Price: $429.24 |
| 0068 | 01310<br>REMOVE PIPE | 48.00 | LF | $11.84 | $568.32 |
| | Regression price 01310 | | Active: Y | | Unit Price: $11.84 |
| 0069 | 01740<br>CORED HOLE DRAINAGE BOX CON-4 INCH | 50.00 | EACH | $113.48 | $5,674.00 |
| | Regression price 01740 | | Active: Y | | Unit Price: $113.48 |

| Line # | Item Number / Description / *Supplemental Description* | Quantity | Units | Unit Price | Extension |
|---|---|---|---|---|---|
| 0078 | 02200<br>ROADWAY EXCAVATION | 301,000.00 | CUYD | $12.97 | $3,903,970.00 |
| | Regression price 02200 | | Active: Y | | Unit Price: $12.97 |
| 0085 | 02351<br>GUARDRAIL-STEEL W BEAM-S FACE | 12,500.00 | LF | $19.85 | $248,125.00 |
| | Regression price 02351 | | Active: Y | | Unit Price: $19.85 |
| 0090 | 02367<br>GUARDRAIL END TREATMENT TYPE 1 | 16.00 | EACH | $2,700.00 | $43,200.00 |
| 0092 | 02369<br>GUARDRAIL END TREATMENT TYPE 2A | 12.00 | EACH | $525.45 | $6,305.40 |
| | Regression price 02369 | | Active: Y | | Unit Price: $525.45 |
| 0093 | 02381<br>REMOVE GUARDRAIL | 2,100.00 | LF | $1.66 | $3,486.00 |
| | Regression price 02381 | | Active: Y | | Unit Price: $1.66 |
| 0095 | 02363<br>GUARDRAIL CONNECTOR TO BRIDGE END TY A | 6.00 | EACH | $2,116.29 | $12,697.74 |
| | Average price 02363 | | Active: Y | | Unit Price: $2,116.29 |
| 0096 | 02387<br>GUARDRAIL CONNECTOR TO BRIDGE END TY A-1 | 6.00 | EACH | $344.88 | $2,069.28 |
| 0101 | 02484<br>CHANNEL LINING CLASS III | 2,450.00 | TON | $27.20 | $66,640.00 |
| | Regression price 02484 | | Active: Y | | Unit Price: $27.20 |
| 0102 | 02545<br>CLEARING AND GRUBBING | 1.00 | LS | $280,000.00 | $280,000.00 |
| 0104 | 02562<br>SIGNS | 1.00 | LS | $610,000.00 | $610,000.00 |
| 0107 | 02596<br>FABRIC-GEOTEXTILE TYPE I | 2,200.00 | SQYD | $1.70 | $3,740.00 |
| | Regression price 02596 | | Active: Y | | Unit Price: $1.70 |
| 0108 | 02599<br>FABRIC-GEOTEXTILE TYPE IV | 3,100.00 | SQYD | $2.60 | $8,060.00 |
| | Regression price 02599 | | Active: Y | | Unit Price: $2.60 |
| 0109 | 02650<br>MAINTAIN & CONTROL TRAFFIC | 1.00 | LS | $550,000.00 | $550,000.00 |
| 0110 | 02653<br>LANE CLOSURE | 20.00 | EACH | $2,583.54 | $51,670.80 |
| 0111 | 02671<br>VAR MESSAGE SIGN-PORT 3 LINE | 4.00 | EACH | $6,179.41 | $24,717.64 |
| 0114 | 02701<br>TEMPORARY SILT FENCE | 12,000.00 | LF | $2.21 | $26,520.00 |
| | Regression price 02701 | | Active: Y | | Unit Price: $2.21 |
| 0115 | 02703<br>SILT TRAP TYPE A | 216.00 | EACH | $105.07 | $22,695.12 |

| Line # | Item Number / Description / *Supplemental Description* | Quantity | Units | Unit Price | Extension |
|---|---|---|---|---|---|
| | Regression price 02703 | | Active: Y | | Unit Price: $105.07 |
| 0116 | 02704<br>SILT TRAP TYPE B | 216.00 | EACH | $258.22 | $55,775.52 |
| | Regression price 02704 | | Active: Y | | Unit Price: $258.22 |
| 0117 | 02706<br>CLEAN SILT TRAP TYPE A | 1,296.00 | EACH | $55.77 | $72,277.92 |
| 0119 | 02707<br>CLEAN SILT TRAP TYPE B | 1,296.00 | EACH | $35.99 | $46,643.04 |
| 0120 | 20496NS843<br>SILT TRAP TYPE C | 73.00 | EACH | $18.00 | $1,314.00 |
| 0121 | 20497NS843<br>CLEAN SILT TRAP TYPE C | 292.00 | EACH | $108.00 | $31,536.00 |
| 0122 | 02625<br>REMOVE HEADWALL | 12.00 | EACH | $336.97 | $4,043.64 |
| | Regression price 02625 | | Active: Y | | Unit Price: $336.97 |
| 0123 | 02709<br>CLEAN TEMPORARY SILT FENCE | 72,000.00 | LF | $0.24 | $17,280.00 |
| | Regression price 02709 | | Active: Y | | Unit Price: $0.24 |
| 0124 | 02726<br>STAKING | 1.00 | LS | $400,000.00 | $400,000.00 |
| 0126 | 02731<br>REMOVE STRUCTURE A | 1.00 | LS | $120,000.00 | $120,000.00 |
| 0128 | 02775<br>FLASHING ARROW | 4.00 | EACH | $2,224.34 | $8,897.36 |
| | Average price 02775 | | Active: Y | | Unit Price: $2,224.34 |
| 0133 | 05950<br>EROSION CONTROL BLANKET | 15,000.00 | SQYD | $1.76 | $26,400.00 |
| | Regression price 05950 | | Active: Y | | Unit Price: $1.76 |
| 0134 | 05952<br>TEMPORARY MULCH | 315,000.00 | SQYD | $0.15 | $47,250.00 |
| | Regression price 05952 | | Active: Y | | Unit Price: $0.15 |
| 0135 | 05953<br>TEMP SEEDING AND PROTECTION | 232,500.00 | SQYD | $0.16 | $37,200.00 |
| | Regression price 05953 | | Active: Y | | Unit Price: $0.16 |
| 0136 | 05966<br>TOPDRESSING FERTILIZER | 12.00 | TON | $609.49 | $7,313.88 |
| | Regression price 05966 | | Active: Y | | Unit Price: $609.49 |
| 0137 | 05985<br>SEEDING AND PROTECTION | 232,500.00 | SQYD | $0.31 | $72,075.00 |
| | Regression price 05985 | | Active: Y | | Unit Price: $0.31 |
| 0138 | 05989<br>SPECIAL SEEDING CROWN VETCH | 45,000.00 | SQYD | $0.20 | $9,000.00 |

| Line # | Item Number / Description / *Supplemental Description* | Quantity | Units | Unit Price | Extension |
|---|---|---|---|---|---|
| | Regression price 05989 | | Active: Y | | Unit Price: $0.20 |
| 0145 | 06510<br>PAVE STRIPING-TEMP PAINT-4 IN | 4,500.00 | LF | $0.71 | $3,195.00 |
| | Regression price 06510 | | Active: Y | | Unit Price: $0.71 |
| 0146 | <br>PAVE STRIPING-PERM PAINT-6-IN-W-Y | 86,800.00 | LF | $24.03 | $2,085,804.00 |
| 0147 | 06546<br>PAVE STRIPING-THERMO-12 INCH W | 3,600.00 | LF | $2.08 | $7,488.00 |
| | Regression price 06546 | | Active: Y | | Unit Price: $2.08 |
| 0148 | 06591<br>PAVEMENT MARKER TYPE V-BY | 38.00 | EACH | $24.03 | $913.14 |
| 0150 | 06589<br>PAVEMENT MARKER TYPE V-MW | 860.00 | EACH | $20.82 | $17,905.20 |
| 0151 | 06592<br>PAVEMENT MARKER TYPE V-B W/R | 80.00 | EACH | $20.82 | $1,665.60 |
| | Regression price 06592 | | Active: Y | | Unit Price: $20.82 |
| 0152 | 06593<br>PAVEMENT MARKER TYPE V-B Y/R | 725.00 | EACH | $19.68 | $14,268.00 |
| | Regression price 06593 | | Active: Y | | Unit Price: $19.68 |
| 0155 | 08100<br>CONCRETE-CLASS A | 7.00 | CUYD | $1,142.86 | $8,000.02 |
| | Regression price 08100 | | Active: Y | | Unit Price: $1,142.86 |
| 0183 | 21383ES507<br>CONC MEDIAN BARRIER TY 14C2(50) | 14,500.00 | LF | $275.00 | $3,987,500.00 |
| 0184 | 02585<br>EDGE KEY | 210.00 | LF | $75.68 | $15,892.80 |
| | Regression price 02585 | | Active: Y | | Unit Price: $75.68 |

Total for Group 0002: $13,308,235.54

## Group 0003: DRAINAGE

| | | | | | |
|---|---|---|---|---|---|
| 0021 | 00462<br>CULVERT PIPE-18 INCH | 3,270.00 | LF | $48.69 | $159,216.30 |
| | Regression price 00462 | | Active: Y | | Unit Price: $48.69 |
| 0022 | 00464<br>CULVERT PIPE-24 INCH | 440.00 | LF | $73.61 | $32,388.40 |
| | Regression price 00464 | | Active: Y | | Unit Price: $73.61 |
| 0027 | 00441<br>ENTRANCE PIPE-18 INCH | 120.00 | LF | $57.74 | $6,928.80 |
| | Regression price 00441 | | Active: Y | | Unit Price: $57.74 |
| 0030 | 00522<br>18 INCH STORM SEWER | 7,600.00 | L.F. | $46.50 | $353,400.00 |

| Line # | Item Number / Description / *Supplemental Description* | Quantity | Units | Unit Price | Extension |
|---|---|---|---|---|---|
| 0031 | 00524<br>24 INCH STORM SEWER | 4,200.00 | L.F. | $62.00 | $260,400.00 |
| 0032 | 01371<br>METAL END SECTION TY 1-18 INCH | 8.00 | EACH | $1,264.45 | $10,115.60 |
| | Average price 01371 | Active: Y | | Unit Price: $1,264.45 | |
| 0033 | 00466<br>CULVERT PIPE-30 INCH | 450.00 | LF | $61.20 | $27,540.00 |
| | Regression price 00466 | Active: Y | | Unit Price: $61.20 | |
| 0034 | 00469<br>CULVERT PIPE-42 INCH | 240.00 | LF | $138.81 | $33,314.40 |
| | Regression price 00469 | Active: Y | | Unit Price: $138.81 | |
| 0035 | 01391<br>METAL END SECTION TY 3-18 INCH | 10.00 | EACH | $743.60 | $7,436.00 |
| | Average price 01391 | Active: Y | | Unit Price: $743.60 | |
| 0036 | 01456<br>CURB BOX INLET TYPE A | 10.00 | EACH | $3,586.90 | $35,869.00 |
| | Average price 01456 | Active: Y | | Unit Price: $3,586.90 | |
| 0037 | 01394<br>METAL END SECTION TY 3-30 INCH | 4.00 | EACH | $2,198.76 | $8,795.04 |
| | Average price 01394 | Active: Y | | Unit Price: $2,198.76 | |
| 0038 | 01490<br>DROP BOX INLET TYPE 1 | 5.00 | EACH | $2,572.92 | $12,864.60 |
| | Regression price 01490 | Active: Y | | Unit Price: $2,572.92 | |
| 0039 | 01614<br>CONC MED BARR BOX INLET TY 14A2 | 10.00 | EACH | $7,100.00 | $71,000.00 |
| 0040 | 01480<br>CURB BOX INLET TYPE B | 8.00 | EACH | $3,109.44 | $24,875.52 |
| 0042 | 01642<br>JUNCTION BOX-18 INCH | 3.00 | EACH | $1,665.74 | $4,997.22 |
| | Average price 01642 | Active: Y | | Unit Price: $1,665.74 | |
| 0043 | 01644<br>JUNCTION BOX-30 INCH | 2.00 | EACH | $2,450.00 | $4,900.00 |
| 0044 | 02159<br>TEMPORARY DITCH | 12,000.00 | LF | $0.50 | $6,000.00 |
| | Regression price 02159 | Active: Y | | Unit Price: $0.50 | |
| 0045 | <br>CLEAN TEMPORARY DITCH | 72,000.00 | EACH | $0.01 | $720.00 |
| 0046 | 21261ED<br>TURF REINFORCEMENT MAT | 18,000.00 | SQYD | $6.10 | $109,800.00 |
| 0049 | 01646<br>JUNCTION BOX-42 INCH | 1.00 | EACH | $2,304.59 | $2,304.59 |
| | Regression price 01646 | Active: Y | | Unit Price: $2,304.59 | |
| 0050 | 01615 | 40.00 | EACH | $7,300.00 | $292,000.00 |

| Line # | Item Number / Description / *Supplemental Description* | Quantity | Units | Unit Price | Extension |
|---|---|---|---|---|---|
| | CONC MED BARR BOX INLET TY 14B2 | | | | |
| 0056 | 08150<br>STEEL REINFORCEMENT | 250.00 | LB | $2.00 | $500.00 |

Total for Group 0003: $1,465,365.47

## Group 0004: BRIDGE

| | | | | | |
|---|---|---|---|---|---|
| 0156 | 14 x 6 x 250 RCBC | 1.00 | LS | $525,700.00 | $525,700.00 |
| 0157 | 34 X 13 X 400 CONC ARCH | 1.00 | LS | $1,850,000.00 | $1,850,000.00 |
| 0177 | BRIDGE OVER I-265 | 1.00 | LS | $2,353,000.00 | $2,353,000.00 |
| 0190 | BRIDGE OVER RAILROAD | 1.00 | L.S. | $2,574,000.00 | $2,574,000.00 |
| 0191 | BRIDGE OVER TAYLORSVILLE ROAD | 1.00 | L.S. | $1,698,000.00 | $1,698,000.00 |

Total for Group 0004: $9,000,700.00

## Group 0019: DEMOBILIZATION &/OR MOBILIZATION

| | | | | | |
|---|---|---|---|---|---|
| 0181 | 02568<br>MOBILIZATION | 1.00 | LS | $1,105,791.17 | $1,105,791.17 |
| | Reference Price — Active: Y — Unit Price: $1,105,791.17 | | | | |
| 0182 | 02569<br>DEMOBILIZATION | 1.00 | LS | $552,895.59 | $552,895.59 |
| | Reference Price — Active: Y — Unit Price: $552,895.59 | | | | |

Total for Group 0019: $1,658,686.76