Comments on the Link 101 Draft Purpose and Needs Statement and Proposed Alternatives

A review of the Draft Purpose and Need Statement shows the data and information doesn't support or justify the need for the link from the Markland Dam Bridge to US 50. The proposed alternatives offer limited real improvements for access and connectivity at an extremely high cost.

1. The need for the link.

The need for the link from the Markland Dam Bridge to US 50 is not supported by the data reported in the Draft P&N Statement. The Searchlight traffic pattern data (Section 2.4.2; Figure 2.4-1) shows an average weekday volume of 2,450 vehicles crossing the Markland Dam Bridge into Indiana. These vehicles travel west to Vevay on SR 56, north on Markland Pike, east and north on Turtle Creek Rd, and east on SR 129. If the traffic volume continuing west and north from Vevay (90 vehicles+ 140 vehicles) is added to the traffic leaving the area on Markland Pike (380 vehicles), Turtle Creek (130 vehicles), and IN 129 (80 vehicles) it can be seen that only 820 vehicles (32%) go beyond the local area. In addition, only 440 (18%) vehicles travel as far as IN 250 and only 260 (11%) of the 2,450 vehicles travel as far as US 50. Furthermore, only 20 vehicles (5%) link with US 50 near the shortest alternatives northern end-points, with smaller percentages of traffic traveling beyond these areas. Even if the traffic volume from the dam to US 50 doubled, it would still be a very small volume. The Draft P&N Statement acknowledges the bridge traffic primarily serves only local traffic: "nearly nine out of ten vehicles crossing the Markland Dam Bridge are local to the project

area..." (page 2-13).

The statement in the 2nd bullet item on page 2-15 that "the low overall percentage of through traffic (i.e. 11 percent) in the project area indicate that the circuitous conditions (Section 2.1) and geometric deficiencies (Section 2.2) associated with the roadways in the project area impedes and discourages through traffic" is (as discussed above) not supported by any evidence at all. In fact, the data supports the opposite conclusion that there is little need for a new traffic alternative to connect the bridge with US 50 based on the large percentage of local traffic combined with the spread of traffic and diminishing volume throughout the project area as vehicles move away from the bridge. This lack of need is further supported by the fact that the project area is largely a residential and farming community and the Belterra Casino is a local destination point near the Markland Dam Bridge. On top of all that, based on the level of service (LOS) data "traffic congestion is not considered a project need" (Section 2.4.1) and, as such, doesn't support a need for the link.

2. Access and connectivity limitations.

The Draft P&N Statement project purpose (page 3-1) conclusion that a new alternative will "reduce travel time within the project area by improving connectivity" would only be applicable to north – south traffic that traverse the middle of the project area (i.e. alternatives B, C, D, H, I, J). There is no improved connectivity for traffic heading east-west or for north-south traffic moving along the edges of the project area. For example, traffic from Vevay to Versailles will realize very little benefit (time savings) from these routes. In addition, the time and distance savings for these shorter alternatives are, at

best, modest. The shortest proposed alternative will likely save a maximum of 10 – 12 minutes (based on an average speed of 45 – 50 mph) only for the traffic on the above-listed alternatives with destinations near their connection with US 50, which, according to the Searchlight traffic data is a very small volume.

3. Safety of existing roads.

The Draft P&N Statement states that "there is no route that provides reliable, safe, and efficient connectivity through the project area" (page 2-5). The Index of Crash Frequency (ICF) and Index of Crash Cost (ICC) data cited in the Draft P&N Statement does not show that existing routes are unsafe. The ICF & ICC are statistical measures of the number of crashes and costs compared to an expected crash frequency or cost generated using the RoadHAT software. As stated in the Draft P&N Statement "the ICF is a measure of the number of crashes while the ICC is measure of the severity of the crashes based on the cost of crashes." Various factors such as road types (e.g. urban multilane, rural two lane), road segment lengths, crash history (e.g. number of years of data, number of crashes, fatalities) are input into RoadHAT which calculates an expected crash frequency and cost and the ICF and ICC. It is important to note that an ICF or ICC greater than 0 only means that there has been statistically more crashes or costs than expected for a road segment or intersection – it does not necessarily mean a road is inherently unsafe. Use of the ICF/ICC results requires some judgment and context to state that any result greater than 0 indicates an unsafe road. A quick Google search identified a guidance document for RoadHAT states that an ICF of greater or equal to 2 should be considered as a high crash area; another document cited an ICC threshold of 1.5 to indicate a need for road improvements. In addition, the calculated crash rates and

costs will be higher when accidents not related to road conditions such as deer collisions, backing crashes, and alcohol related accidents are included in the analysis such as they were in the data reported in the Draft P&N Statement.

It is informative to look at the RoadHAT ICF/ICC results along with the actual crash data reported in the Draft P&N Statement. A quick review of the actual crash data shows that the roads in the project area overall and on the existing fastest and shortest route in particular are relatively safe. For the existing fastest and shortest route (page 2-10) there were a total of 158 crashes reported over a time period of over 5 years. Only 28 involved injury and none were fatal. This means that there were less than 3 crashes per month during the 5+ years and less than one crash every 2 months resulting in injury. Reviewing the ICF (page 2-7) and the ICC (page 2-8) in the context of the actual crash data reveals that there may be short segments on the fastest and shortest route that requires improvements but it is difficult to conclude from this data that the existing fastest and shortest route is unsafe and requires complete replacement.

A review of Figures 2.3-1 and 2.3-2 illustrate that there are several existing routes that are safe. Figure 2.3-1 shows several routes (e.g. IN 56 – IN 250- IN 219, and IN 56 – IN 219) with only very short segments of slightly elevated ICF rates and multiple routes with an ICF below 2. Figure 2.3-2 shows numerous routes without elevated ICC rates.

It can also be seen from Figure 2.3-1 that construction of any of the proposed alternatives will not improve any of the roads that are the reported to have the highest crash frequency areas shown in Figure 2.3-1(with one possible exception of a short segment of IN 262). Construction of any of the alternatives will not improve the safety

of any roads not part of that route; no east – west roads will see safety improvements, including US 50 which will be the terminus for the new link.

Furthermore, any increased traffic volume resulting from a new link will likely result in an increase in crash rates. The Draft P&N Statement does not include any information or data on increased traffic or crash rates other than the LOS data. However, it is likely that a new corridor from the dam to US 50 will bring potentially significant increases in traffic volume, speed, and a corresponding increase in accidents. Numerous studies have documented the increase in accidents as traffic volumes increase. The "US 50 Southeastern Indiana Gateway Study" issued in January 2007 by the OKI Regional Council of Governments cites a transportation study that showed that "crash rates increased as access density increased regardless of roadway conditions." This report also concludes that "as development expands and traffic increases along the US 50 Corridor, these accident trends can be expected to increase as well." This conclusion would apply to expected traffic increases along the proposed alternative routes.

4. Environmental and social concerns, and costs.

With the exception of the cities and towns (Aurora, Rising Sun, Vevay, Versailles, Dillsboro) along the periphery of the project area the community is residential and farmland. Development of the proposed alternatives will have negative impacts on the environment including increased vehicle exhaust, noise, and habitat loss. These routes will also result in loss of farmland and residential property and the loss of the rural character of the community. Six of the proposed alternatives (C, D, A, B, H, F) will require from 14 to 21 miles of newly constructed roads. These routes would have the

greatest negative impact on habitat and significant property takings.

Other than the statement that Governor Holcomb has set aside $200M for this project, there is no discussion of the cost or any cost/benefit analysis. Nonetheless, it can readily be seen that the cost for the purported improvements is incredibly high. Using the $200M figure and the information in the Draft P&N Statement (page 2-1), it can be seen that the shortest direct route would save 5.5 miles and 15 minutes in travel time at the staggering cost of $36.4M per mile or $11M per minute saved. These costs go up when applied to the proposed alternatives: the shortest proposed route will save 4.5 miles of travel distance at a cost of $44.5M per mile saved.

5. Conclusions.

1) The traffic data in the Draft P&N Statement shows no need for a link from the Markland Dam Bridge to US 50.

2) The proposed alternatives would provide very limited access and connectivity improvements to only a small segment of the project area. In addition, the very small benefits cannot justify the extreme costs.

3) Reasonably safe alternatives currently exist and the proposed alternatives do not address road hazards or safety concerns for the roads with the higher crash frequencies.

4) Construction of any of the proposed alternatives will not improve the roads

with the highest crash frequency areas. In lieu of developing a new traffic link where only a small amount of the existing roads with be improved, the money for this project would be much better spent on existing roads in need of improvements.

5) A new link will have extensive environmental and property impacts.

6. Additional Comments and Considerations

- Future reports must include a No-Action alternative as a viable option (not just for comparison as noted on the Link 101 website).
- The next screening report must include a discussion of the methodology and criteria for selection and be issued in draft form for public comment.
- The RoadHAT program and data inputs were not provided to the public on the Link 101 web page. This information and data needs to be available to the public.
- If any alternative is selected other than the preferred No-Action alternative, it must have the smallest amount of new road construction to minimize environmental and property impacts: i.e. has the smallest increases in noise and pollution, results in the least amount of property takings and loss of farmland, and maintains the rural character of the community and preserves the natural features such as woodlands, wetlands, streams and topography. Alternative G has the least amount of new road alignment and should have the smallest negative impacts on the environment and properties.
- Alternative A is the least desirable and most problematic of the proposed new routes. The connection with US 50 in Aurora is currently a high traffic congestion

area (LOS of E/F per the OKI study) and a high crash area (see the US 50 Southeastern Indiana Gateway Study) and has railroad crossings. IN 56 leading into Aurora is flood prone. There is no good alternate route if IN 56 leading in to Aurora is shut down due to flooding or vehicle accidents. Alternative A also requires significant new road alignment which would have significant negative impacts on the environment and property. Furthermore, increased access to the eastern portion of US 50 would be better served (i.e. better traffic access and substantially less expensive) by implementing the recommendations of the Gateway Study.

- There are likely to be more trucks and hazardous material transport and an increased burden on local EMS resources do to higher traffic volumes.