

Poplar Street Bridge Interchange Project

presentation
to the

East West Gateway
Board of Directors



What is the problem?



There are 3 problems with the PSB:

- 1) Traffic Congestion,
- 2) Traffic Safety,
- 3) Bridge Ramp Condition.

These problems have been an issue for a long time and the reason MoDOT and IDOT embarked on a study in 1991 was to determine how to address these problems.

Congestion Problems

- 3 Interstates cross PSB
- 100,000 vehicles per day
- 150,000 projected by 2030
- 40 year old substandard design
- Severe congestion due to PSB choke point



Traffic congestion on the PSB is severe as anyone in the region already knows. The reason is because the PSB is one of only 2 bridges in the nation that carry 3 interstates across a river. Projections indicate that congestion will double, lasting for 3 hours by 2020 if nothing is done. There is over 100,000 vehicles a day that cross the bridge, and the 40 year old design was never intended to handle that much traffic.

Safety Problems

- 3 x's the crash rate than average
- Ramps have substandard curves
- Too many decisions in such a short distance
- Short weave distance's
- Substandard Clearances
- Tapered merges



The PSB has an accident rate over 3 times higher than either Missouri or Illinois statewide average. The proposed project, along with the MRB improvements, is estimated to eliminate more than 165 crashes in the year 2020, including one fatality and 49 injury accidents. These avoided traffic crashes are anticipated to yield more than \$4.6 million in accident savings in the design year 2020.

The PSB ramps are narrow, and require vehicles to travel 25 mph to remain safe. Often, tractor trailers and other vehicles roll off the ramps, causing further traffic congestion and backups. The Mississippi River Bridge will help some, but ultimately, improvements need to be made to the Poplar Street bridge to improve traffic flow, and safety.

The 40 year old design is now substandard. Too many decisions points are placed in too close proximity at both approaches to the bridge so that motorist do not have adequate distance to weave or merge and diverge out of the traffic flow.

Condition of Ramps

- I-55 NB to PSB- Structurally Deficient; Overall Bridge Rating of 3
- I-70 EB to PSB- Structurally Deficient; Overall Bridge Rating of 3
- PSB to I-70 WB- Structurally Deficient; Overall Bridge Rating of 3
- PSB to I-55 SB- Structurally Deficient; Overall Bridge Rating of 4

****Bridge ratings of 2 require closure of the facility for safety**



3 of the 4 ramps at the PSB complex are currently rated a 3. MoDOT maintenance crews are constantly interrupting traffic to perform repairs just to keep the ramps open. This causes more traffic back ups and it will only get worse. When the ramps get to a rating of 2, MoDOT will close them to traffic. We will not allow traffic to run on a bridge that is unsafe. There is some concern today that we will not be able to keep these ramps open until the new River Bridge is complete.





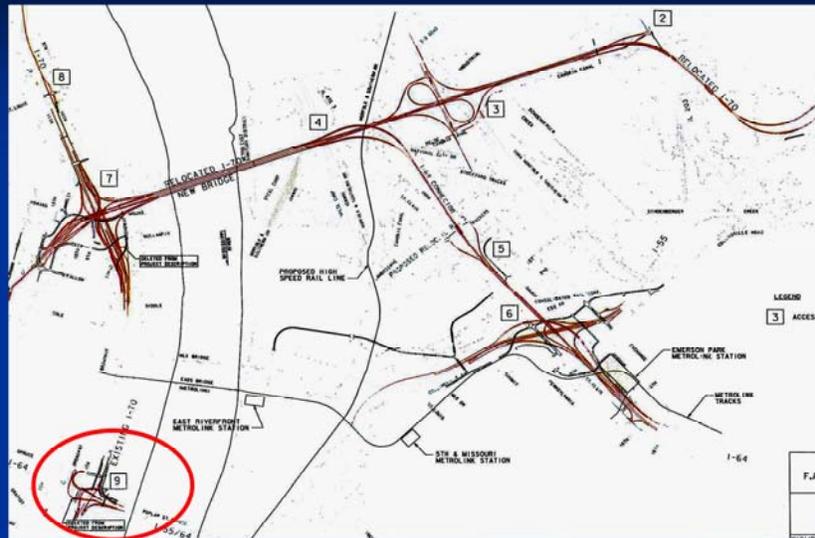
This isn't a new problem

- 1990 - Discussions began
- 1991 - EIS started
- 1997 - Location selected
- 2001 - Record Of Decision issued
- 2008 – Re-evaluation of ROD



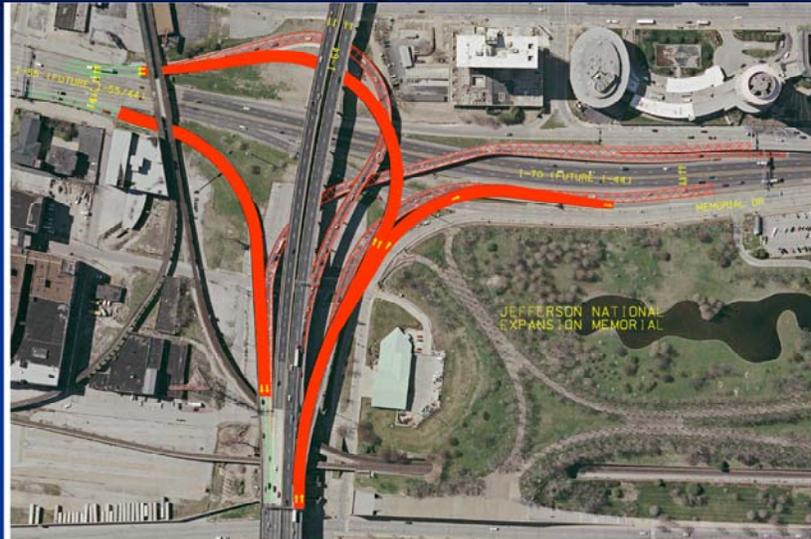
The problems we are facing with the PSB are not new. The discussion began in the 1990's about what to do with the traffic congestion and safety issues in downtown at the PSB. This prompted MoDOT and IDOT to start the EIS, which was lead by IDOT in 1991. The study identified that the solution to the problems that we are talking about, is to build a new MRB, relocate I-70 off the PSB, then remove the I-70 ramps and build dual I-55 ramps at the PSB. This is, and has always been the plan. After years of discussion, it was approved by E/W Gateway and authorized by the Federal Government in 2001 when the Record of Decision was signed. It was re-affirmed in 2008 at the re-evaluation of the ROD. We are following through with the commitment which will eliminate almost all of the congestions downtown.

MRB Approved ROD, 2001



Here is a copy of the Approved ROD for the MRB and the consequential approval of the AJR in 2003. You will note that the entire plan was based on the fact that the New River Bridge would carry I-70 traffic across the River and to the North. After the new bridge was built, the PSB was to be re-configured to carry I-64 traffic to the west, and I-55 traffic to the South. To do this requires the removal of the I-70 ramps from the PSB and the addition of dual ramps from the PSB to I-55.

PSB Concept, May 2011



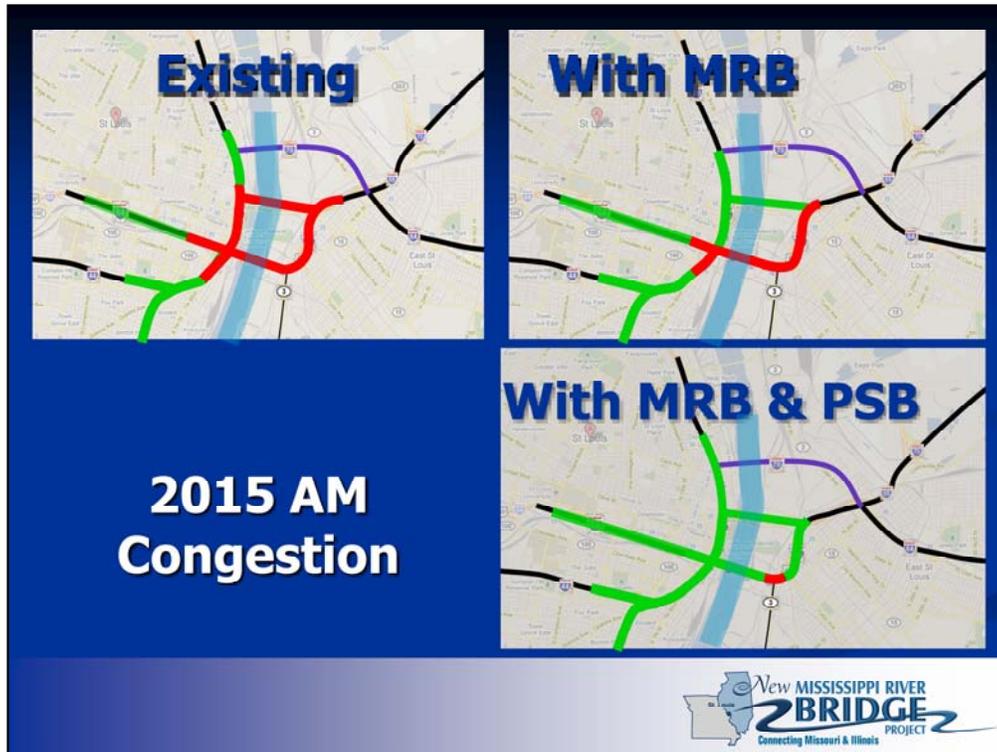
This is what the project looked like when MoDOT added it to the TIP last year. It was pulled from the TIP the day the TIP was approved at E/W Gateway because of concerns with removing the I-70 ramps to and from the PSB. MoDOT was then asked by IDOT to see if it was possible to build the dual I-55 ramps and keep the I-70 ramps. MoDOT worked with IDOT on several options.

2011 Proposed PSB Interchange Improvements, July 2011

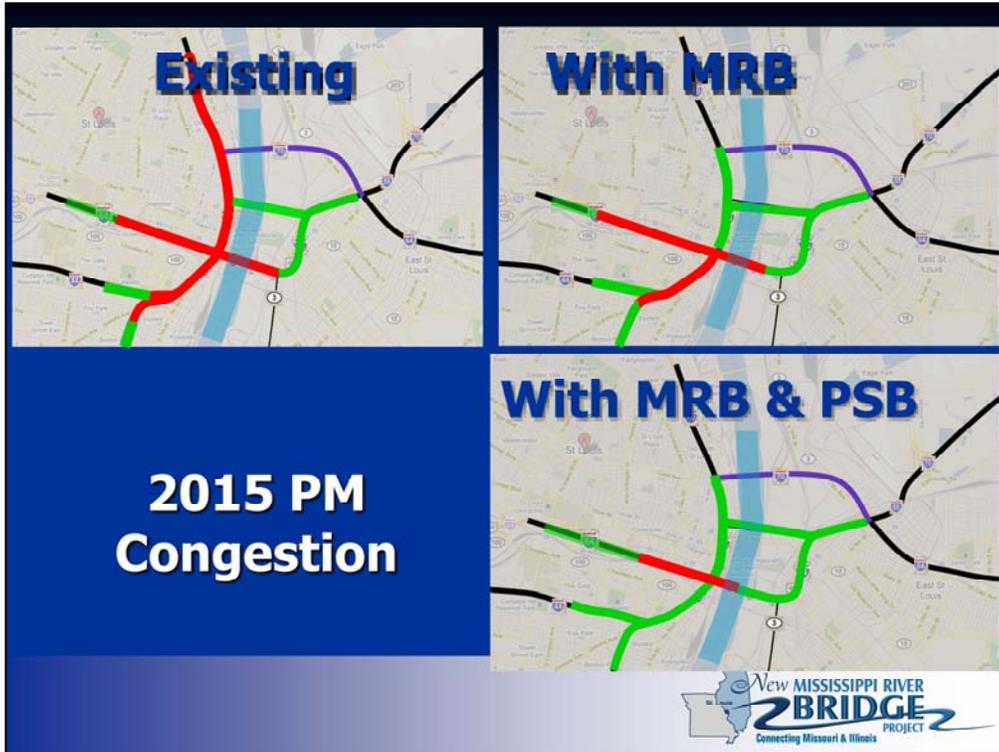


- MoDOT did find a way to provide the PSB WB ramp to the depressed lanes. This is possible because of the planned reversal of the ramp on I-70 at Washington Ave. as per the City Arch River project. Even though the PSB WB ramp will cost an additional \$5 million, and will slightly lower the level of service for traffic (from a C to a D) during rush hour on EB I-44, a ramp can be built that gives a safe interstate to interstate connection.

However, the ramp from the depressed lanes to the PSB cannot be built. MoDOT worked with IDOT to develop the options, then spent several months in design. We have determined that none of those options are feasible.



Here is the picture that tells the story. The red indicates traffic congestion during am rush. As you can see, we can eliminate some of the congestion with the opening of the new MRB. But we really see the benefit when after we open the MRB we are allowed to make our planned changes to the PSB. If we don't make the changes to the PSB, the condition will remain as shown in the top right picture, and traffic on the PSB will stay at a crawl.



Here is PM Congestion.

Project Funding

- Proposed Plan - \$55 Million
 - Money available now
 - Relieves traffic congestion, enhances safety
 - \$30 M Missouri interstate fund
 - \$25 M Regional funds



So here is MoDOT's proposal. We have \$55 million available now to fix the congestion problems in the St. Louis region. If we do not do it now, \$30 million of Mo. State interstate funds will leave the region and go to the next highest statewide priority, and it will not return for this project.

Do Nothing is not an Option

- Close Ramps when Conditions Warrant
- Rebuild Ramps As They Are - \$42 Million
 - Traffic Congestion for next 40 years
 - Lose \$30 million in state interstate funds
 - **DEFICIT \$17 Million**
- Rehab Ramps As They Are - \$32 Million
 - Traffic Congestion for next 20 years
 - Must Close I-70 for 2 months during rehab
 - Lose \$30 million in state interstate funds
 - **DEFICIT \$7 Million**



Here is another issue that cannot be ignored. Doing nothing is not a good option for anyone. Doing nothing will force MoDOT to keep the ramps open as long as they are safe, but they will be closed as soon as they fall to bridge condition of 2. The cost to replace the bridges as they are today will be \$42 million, and we will live with the traffic congestion for the next 40 years. The cost to re-hab in place will be \$32 million, will last 20 years and will require a total interstate shutdown for 2 months during re-hab. The last 2 options will have to be funded solely by the region and MoDOT will not advocate those options.

Inadequate Options

- Option 1 – Rebuild Ramp B & re-grade mainline 70/44
- Option 2 – Shift mainline east and west
- Option 3 – Ramp B over I-64 and widen PSB
- Option 4 – Ramp B under I-64
- Option 5 – Texas U-turn ramp at 7th Street



As mentioned MoDOT worked with IDOT to develop a variety of concepts to re-build the ramp from the depressed lanes of EB I-70 to the PSB. None of the options is feasible.

Inadequate Options

- All create traffic congestion on Interstates
- All re-introduce traffic safety issues
- All cost over \$20 million additional



Congestion: It's simple. The PSB is 4 lanes EB- guardrail to median wall. 2 lanes are needed for I-64. The other 2 lanes are needed for I-55 to eliminate the congestion. Where do you add the I-70 lane? Something has to give if you put the 70 lane back in. The New MRB will take two I-70 lanes across the river and feed to Rte. 3, I-70 and I-64 in IL.

Safety: One of the reasons for moving I-70 off of the PSB to the New MRB is to make the PSB safer. This can be done by rebuilding the I-55 ramps so the grades are not so steep and the curves are not so sharp. We can also make the merges much better and give travelers more time to make decisions on what lanes they need to be in. Every one of the options reviewed introduces elements into the interchange that make it not much safer than it is today, and in some cases worse. MoDOT will not endorse any of these options.

Cost: The project MoDOT has planned cost \$55 million. Adding the I-70 ramp into the interchange would not only cause congestion and safety issues, it would cost an addition \$20 to \$40 million, bringing the total cost anywhere from \$75 to \$95 million. MoDOT does not have that kind of money and the cost/benefit ratio is not there to support the additional lane.

Concerns About I-70 Ramp Removal to PSB

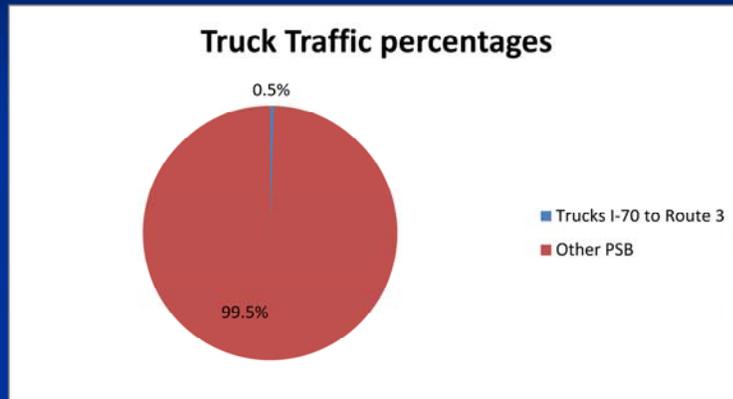
- EB I-70 Trucks getting to IL Rte. 3
- Commuters getting to IL Rte. 3



Any DOT has to make decisions every time we build a project. There are always going to be those who do not want any particular project. Sometimes we have to take someone's house, and although we try to be fair, sometimes they are upset. Sometimes we have to bypass someone's business and they get upset. The bottom line is that the only reason we are forced to do this is because it benefits the majority and it is for a greater good.

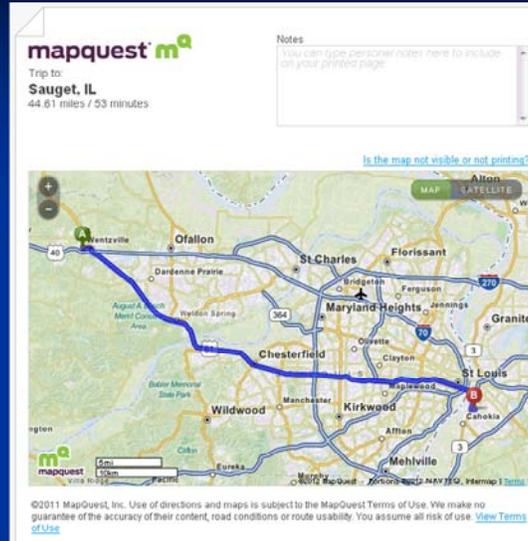
Now, lets talk about the reasons we here that not adding the I-70 ramp to the plan, and why some feel it is so detrimental. We have been informed that by not having the I-70 connection to the PSB, we will destroy the businesses in Sauget because it relies heavily on trucking going and coming from the west.

Trucks



Lets talk about the Trucks. We counted trucks that use the EB I-70 ramp to IL. Rte. 3 South. We counted about 400 per day. That is only 1/2 % of the traffic that uses the PSB daily. That is a very small percent and there are lot's of options that get you from I-70 to Rte. 3.

Truck Travel to Sauget



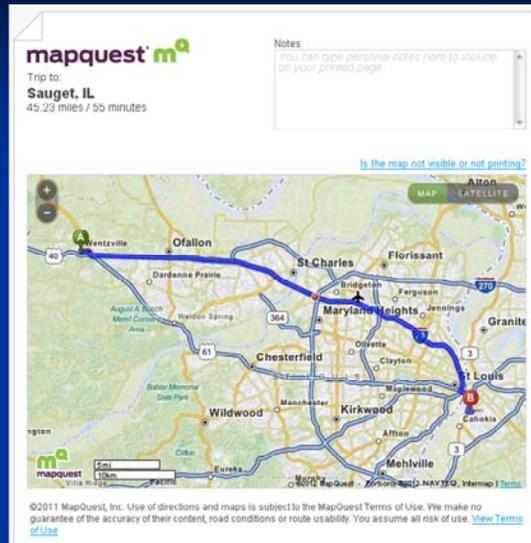
Those trucks coming from the west have the following options.

If they are coming from KC, Columbia, or anywhere west of Wentzville, which is only 45 miles away, MAP Quest would tell them to take I-64 to Sauget because it is actually about 1 mile less than I-70 and 2 minute quicker.

Any trucks coming from between Wentzville and St. Louis County Line could take I-70 to I-270 to I-64. Yes, that is about 3 miles longer and takes an additional 4 minutes.

Trucks coming from the airport they would take I-70 to I-170 to I-64. Yes, that is an additional mile and now takes 5 minutes longer.

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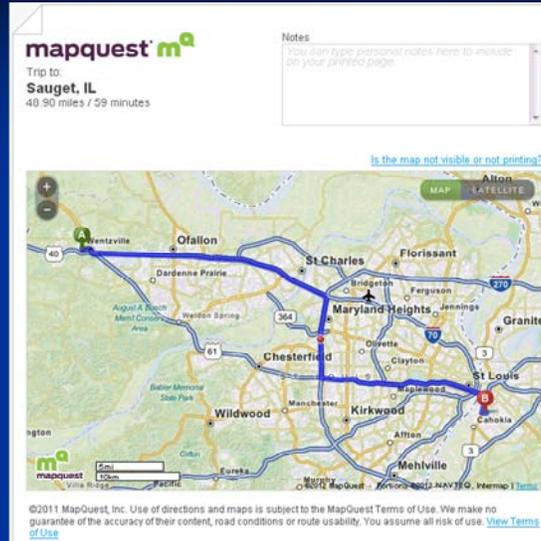
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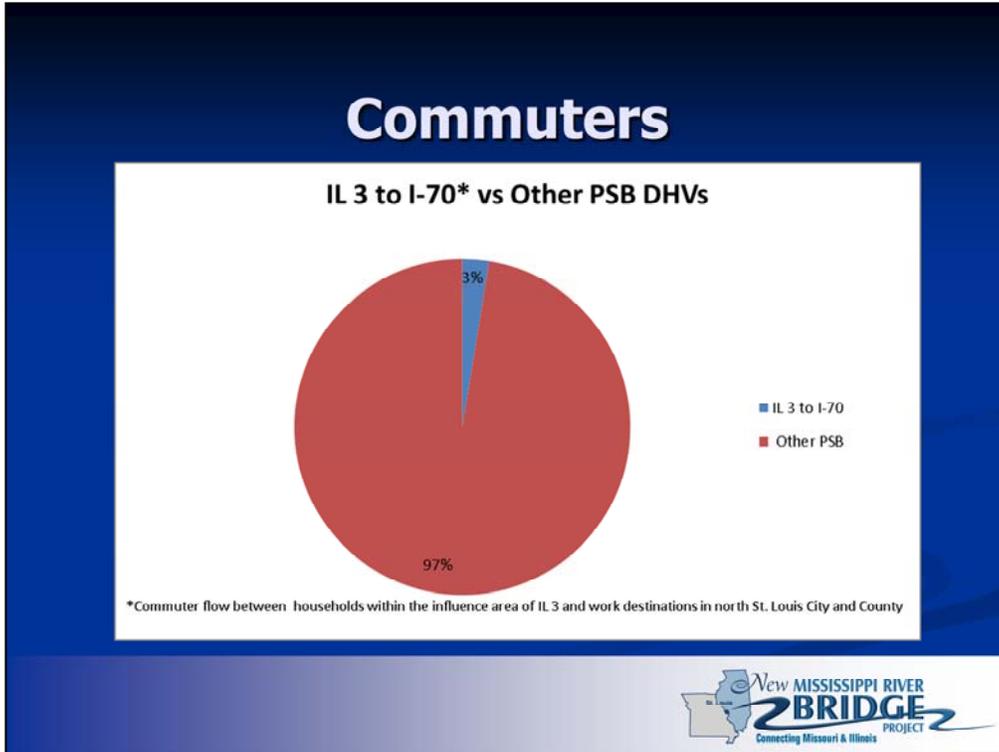
Trucks that are delivering closer in from North County will be able to stay on I-70 across the New MRB and exit on Rte. 3.

IL State Rte. 3 is also signed St. Clair Ave. for about 0.6 miles, then it is signed back on the interstate to the same Rte. 3 ramp coming from the PSB.

Yes, that is about 2 miles longer than how they would travel today, however trucks would bypass the depressed lanes and avoid the congestion on the PSB. This alone may very well make up any difference in time loss.

And of course, in the city you still have the MLK and Eads bridges to get into ESL.

The question is, is it wise to allow congestion and delay for over 100,000 commuters every day for possibly delaying a few trucks no more than 5 minutes a day? That doesn't make much sense. Again, we are looking at keeping these trucks on the interstate the entire way except for the few that would take the New MRB to IL State Rte. 3 for about ½ mile.



Truthfully, only 3 % of the commuters that use the PSB flow from households in the area of influence. That is a very small percent and there are lot's of options that get you from the City to the PSB.



The new 6th street ramp was designed to take the traffic from Memorial when closed. Also, the Marion and Gravois ramps to I-55 will be much more inviting when the traffic congestion on I-55 to the PSB is eliminated. Tucker BLVD will draw people to the NMRB which will get the majority of travelers to the places they need to go in IL.



Investments in downtown

The Bottom Line

- All Ramps NEED to be replaced
- We can fix congestion to and from the PSB
- We can address the safety issues
- We have the funding to do it now



We have the Solution!



OR

.... By October 2015



The E/W Gateway Board is made up of elected officials that should represent the people. I would hope that the Board would listen to the majority of the people in this region, from both MO and IL., who realize that replacing the I-70 ramps to and from the PSB with dual I-55 ramps is the best solution to the traffic and safety issues in the region.