

EXECUTIVE COMMITTEE

Steve Singer, President
Kyle Murphy
Susan Rollins
Rodney Crim
Charles Avery

January 26, 2016

Andrew Gates, Community Relations
Missouri Department of Transportation
1590 Woodlake Drive
Chesterfield, MO 63107-5712

DIRECTORS

Annie Castellano
Justin Gifford
Kenneth Goldman
Robert Herleth
Julian Hess
Michael Hickey
Clare Higgins
Christine Jacobs, M.D.
Brandon J. Janosky
Nate Johnson
Dennis Koscielski
Mary Ann Lazarus
Emily Luten Maltby
Mike Myers
Katrina Pon
Michael Schwartz
Phil Valko

Re: Gravois Avenue Striping and Signals Project

Dear Andrew,

We want to thank MoDOT for acting on the desires of Trailnet and others to think beyond the original scope of the Gravois Improvement Project. Trailnet and the community saw the opportunity to redesign Gravois to be more than a road that allows people speed through the city. We saw the opportunity to transform Gravois into a *street* for people—a place where cars are slowed to a safe speed but can still move efficiently; where people have the option to safely and comfortably walk, bike, and take transit; where people want to be for shopping, accessing services, and meeting up with friends.

After the community's response against the original proposal, MoDOT came to the table with Greater Gravois, Aldermen, Trailnet, and others to hear our concerns and ideas. MoDOT embraced Greater Gravois' resident-led community engagement process. We commend MoDOT for this level of collaboration and we believe the relationships of all involved have been strengthened, which bodes very well for future projects.

Ralph Pfremmer
Executive Director

The current proposal has several positives. There are intersections that originally had no crosswalks, or just standard crosswalks, that will now have high-visibility crosswalks. It also includes some curb extensions that will shorten crossing distances and slow traffic. From Christy Blvd. to Chippewa St. the proposal includes a three-lane road diet, which will transform this section of Gravois into a space that approaches the community's vision for a calmed street that is safe and comfortable for all users. The proposal also adds standard bike lanes in some sections, where none are currently present.

LEADERSHIP COUNCIL

Amy Berg
S.M. Wilson & Co.
Rodney Crim
St. Louis Economic
Development Partnership
Lee Fetter
St. Louis Children's Hospital
Scott Harris
DHR International
Jay Indovino
Pedal the Cause
Nancy Lieberman
GO! St. Louis
Ryan Haarbrink
Wells Fargo Advisors
Andrew Rothschild
Lewis Rice, LCC
Dan Scher
Ascension Health
Lynn Schenck
Jones Lang LaSalle
Michael Staenberg

Unfortunately, these positives do not make a substantial contribution toward Gravois becoming a prosperous street and district with multi-modal transportation options. Implementing the proposed MoDOT plan is a missed opportunity to advance the community's vision as articulated in the engagement process. We ask MoDOT to consider a three-lane road diet for the entire study area. Below are our detailed comments about why we believe the current proposal misses the mark.

Overall, a bad trade was made

When we choose how to design and redesign our streets, it should always be about achieving an ultimate vision and making prudent trade-offs to achieve that vision. The city has a goal to be one of the most sustainable, most prosperous cities in the country with a multi-modal transportation system that connects people to its distinct

neighborhoods and culture. The community that lives around and owns businesses along Gravois indicated through the community engagement process that they want traffic to move slower, safety to be enhanced, local commerce to develop, and tax revenues to increase. In order to serve and retain its current residents and attract new ones, the city simply must have one of the best multi-modal transportation systems in the country. Such a transportation system is foundational. Effectively connecting people to ideas, goods, and services is the very reason cities exist.

To achieve the vision, those who plan our transportation system must consider designs in relation to the community and destinations surrounding them. It's time to pay just as much attention to what people are connecting to and the type of development our transportation system supports.

The type of development people want on Gravois—a mix of housing, jobs, and shops all in one place—also happens to be the development pattern with the highest return on investment, which can generate the highest revenue to sustain the neighborhood and maintain the street¹. Surveys tell us that walking and biking are two transportation options people want more of, and they are two transportation options that are critical to the success of a mixed-use Gravois². These facts beg the question—why isn't MoDOT proposing the highest quality, most effective walking and biking options for Gravois?

We believe MoDOT has traded the community's vision for allowing drivers to arrive at their destinations seconds faster, while never potentially sitting through two signal cycles during rush hour. The next comments will explain this more.

The wrong tool has been used to measure Gravois' performance

The only tool MoDOT has used to tell us whether or not the proposal will help achieve anyone's vision for Gravois is Level of Service (LOS). The problem is that LOS only tells us one thing - vehicle delay at intersections—and therefore only rewards the movement of motor vehicles. Across the country, communities are beginning to ditch the outdated use of LOS for their streets.³ For example, in 2014 the state of California changed from using LOS to Vehicle Miles Traveled as a more appropriate measure for achieving their environmental, multi-modal transportation, and land use goals.

We know that as a policy MoDOT will not allow an intersection to decrease more than two grades with street changes, but this policy exists in a silo with no ability to adapt to the larger visions of the communities MoDOT serves. We encourage MoDOT to change its use of this 20th century tool to match our 21st century reality.

A three-lane road diet for the whole study area was not considered

Given the community vision for Gravois, a three-lane road diet should be considered for the entire study area. Three-lane road diets allow traffic to flow freely at safe speeds while reducing pedestrian crossing distances and improving building height to street width ratios, creating a greater sense of enclosure, and hence, sense of place to encourage walking, biking, and staying—all of which greatly supports the community's vision for developing Gravois into a thriving business district.

A three-lane road diet will create space for protected bike lanes from Grand Blvd. to Tucker Blvd. We know that protected bike lanes have a higher chance of increasing biking because people find them more

¹ Joseph Minicozzi. *The Smart-math of Mixed Use Development*. <http://www.planetizen.com/node/53922>

² National Association of Realtors 2013 Community Preference Survey.

³ Angie Schmitt. *The Beginning of the End for Level of Service?* <http://usa.streetsblog.org/2013/10/03/the-beginning-of-the-end-for-level-of-service/>

comfortable. Adding a bike lane to a four-lane commercial urban street increases the number of American adults who say they'd be "very comfortable" biking on it from 9 percent to 12 percent. Making that bike lane protected increases the number from 12 percent to 29 percent.⁴

Through a Sunshine Request, Trailnet was able to obtain the MoDOT study conducted to justify the travel lane configurations proposed for the project, *MoDOT St Louis City Area Team Review and Recommendations for Route 30/Gravois Ave Proposed Road Diets*. MoDOT did not consider a three-lane road diet for the entire study area because they chose to too strictly adhere to the FHWA Informational Guide. The guidance is as follows: "The FHWA advises that roadways with ADT [Average Daily Traffic] of 20,000 vpd or less may be good candidates for a Road Diet and should be evaluated for feasibility."⁵ Across the country, road diets are implemented when ADT exceeds this threshold and the FHWA itself references these possibilities. For example, the same guide references a 2011 Kentucky study that shows road diets can work up to an ADT of 23,000 vehicles per day.⁶ In 2013, the report *Road Diet Conversions: A Synthesis of Safety Research* was published for the FHWA and includes case studies where road diets work when ADT is up to 24,000 vehicles per day, or up to around 1,500 – 1,750 vehicles per peak hour. Given that there was only *one* segment in the study area that exceeded 20,000 ADT (and only by 300 cars) and that the hourly volumes were very close to their threshold (locations with hourly volumes more than 1000 ranged from 1003 to 1194), analysis of a three-lane road diet for the entire study area is appropriate.⁷ FHWA recommendations are guidelines, not laws. Other communities have embraced this flexibility to achieve their community's goals. Trailnet encourages MoDOT to embrace this flexibility, for both study and implementation stages.

Average Daily Traffic Segments

Segment	ADT
Hampton Ave. to Kingshighway Blvd.	17,125
Kingshighway Blvd. to Morgan Ford Rd.	10,695
Morgan Ford Rd. to MO 366/Chippewa St.	12,325
MO 366/Chippewa St. to Gustine Ave.	16,695
Gustine Ave. to Grand Blvd.	18,820
Grand Blvd. to Jefferson Ave.	17,020
Jefferson Ave. to Russell Blvd.	16,975
Russell Blvd. to Tucker Blvd.	20,300

⁴ National Association of Realtors and Portland State University. *Community & Transportation Preferences Survey, U.S. Metro Areas, 2015*.

⁵ FHWA. *Road Diet Informational Guide*. http://safety.fhwa.dot.gov/road_diets/info_guide/ch3.cfm#s331.

⁶ University of Kentucky College of Engineering. *Guidelines for Road Diet Conversions*. 2011.

http://nacto.org/docs/usdg/guidelines_for_road_diet_conversion_stamatiadis.pdf

⁷ We should note that MoDOT's counts do not include a margin of error. We can safely assume that these are not the exact number of cars that are on these segments each day. A variation of at least 1.5% is reasonable, meaning that the number of cars could be slightly lower, putting them in range for allowing the segments to be studied for a three-lane road diet.

What's proposed won't encourage biking

Safety isn't greatly enhanced

Posted speeds along the segment are currently 30 mph and 35 mph and MoDOT will not be changing them. On average, people are currently driving nearly 9.75 mph over the speed limits, according to MoDOT's speed study. In the sections that will continue to have the same configuration, and in the five-lane-section, we expect people to continue driving about 10 mph over the speed limit. This is problematic because it is bad enough that when motor vehicles hit people at 30 mph, people have a 55 percent chance of survival, but people hit at 40 mph only have a 15 percent chance of survival.⁸ People who bike can sense this danger and are currently not biking on Gravois in high numbers.

Shared lane markings from the city limits to Christy Blvd. are inadequate

Shared lane markings are present from the city limits in the west to Christy Blvd. With the expected speeds of cars, this will do very little to encourage biking. Best practice shows that shared lane markings are most effective as wayfinding and helping with lane positioning, rather than a facility to provide comfort to those biking. A three-lane road diet can provide space for bike lanes in this section. Though the ADT is well within the threshold for consideration in this section of Gravois, it seems MoDOT simply decided not to do the analysis because there were four locations with peak hourly traffic volumes just over 1,000—they were 1003, 1028, 1079, 1136.

Traditional six-foot bike lanes are not adequate

From Alemania St. to Chippewa St., the proposal includes six-foot bike lanes. We know that adding bike lanes increases the number of people who would feel comfortable biking there. But given that the majority of Gravois will remain at four to five lanes, we believe people driving will continue to go 10 mph over the speed limit. We predict these high speeds will cancel out the added comfort of the standard bike lanes and the number of people biking will remain low.

The gap in bike lanes goes against the community's vision and will discourage biking

It is best practice to create bikeways with no gaps. Gravois could be a wonderful connection for those biking from the city limits to the west all the way to downtown. The proposal does not include bike lanes from Chippewa St. to Grand Blvd. But if a three-lane road diet were done, there would be space for six-foot standard bike lanes. MoDOT let us know that a three-lane road-diet study for this section was not conducted because they anecdotally knew that it would degrade LOS at nearby intersections. We believe a more in-depth study of a possible three-lane road diet and potential impacts and solutions should be conducted.

Design is inadequate at freeway on/off ramps

There are three instances where bicyclists will have to cross freeway on/off ramps: at the I-55 on and off ramps and the I-44 on and off ramps. In all instances the only indication to people driving that bicyclists are crossing is dotted lines across the ramps; we do not feel this is adequate. The current proposal presents a scenario in which people will likely be driving over the speed limit, and few people will be biking on Gravois, making it likely that people driving will not be anticipating the presence of people on bikes. To make sure there is heightened awareness for all users at these dangerous conflict points, MoDOT should use colored pavement and elephant's feet to heighten visibility according to the National Association of City Transportation Officials' guidance.

⁸ http://safety.fhwa.dot.gov/speedmgt/ref_mats/fhwasa10001/

Missing pedestrian crossings are problematic

Resources should be secured to enhance all four crosswalks

There are several places where there are just three high visibility crosswalks added to the street. From our understanding, this is because funding for updating the signal associated with the fourth crossing was not included in this project. This is very problematic because people walking will still choose to cross where there is no crossing. We encourage MoDOT to create a policy for updating all signals and crosswalks at the same time.

People will still cross mid-block, though no crossings are provided

There are a high number of un-signalized intersections along with a high number of pedestrian destinations along the entire corridor, making it certain that there will be people crossing Gravois without crossings. A three-lane road diet creates space for pedestrian islands, which would allow people to cross mid-block much more safely and easily.

Examine the option for a three-lane road diet for the entire study area

In conclusion, we ask MoDOT to study a three-lane road diet for the entire corridor. The traffic volumes are on the cusp of what MoDOT deems acceptable for study. Because the safety and comfort benefits provided to people walking, biking, and taking transit would be greatly enhanced, and because the reduced street width would do more to support corridor development, a three-lane road diet is not only worth consideration, but it gets much closer to the community's vision.

The Gravois Avenue Striping and Signals project is an opportunity for MODOT to lead our region into a new era of transportation that serves community development and defines how residents live in their neighborhoods. MoDOT's collaboration on this project demonstrates an increased understanding of the impacts transportation planning has on the success of adjacent development and community goals. We strongly encourage MODOT to discard old tools that cannot adequately measure a street's performance. The new standards are an accepted practice and enable MoDOT to respond to the community's vision. We need your leadership or community development will continue to languish if MoDOT's transportation planning tools are outdated.

Thank you for considering Trailnet's comments as you revise the proposal. Attached are a couple more technical questions and suggestions.

Sincerely,

Ralph Pfremmer
Executive Director

**Addendum:
Technical Questions and Suggestions**

Signage if there's a bike lane gap

If the bicycle lane gap remains between Chippewa and Grand, it is imperative that there be signage alerting people that the bike lane is ending, as well as signage directing them to the alternative routes that should be provided. We would be happy to discuss potential alternative routes in more detail.

Beginning of bike lane, just west of at Christy Blvd.

When the bike lanes begin just west of Christy Blvd., the solid line that was previously used to only separate the travel lane from parking becomes the separation between the beginning of a bike lane. People biking east on Gravois will have just been in a travel lane with a shared lane marking. It seems that there should be a dotted line and/or shared lane marking to direct them to merge over into the new bike lane.

I-44 off ramp is a hazard for south-bound bicyclists

The proposed design shifts the bike lane position to the far right just as the I-44 off ramp merges with Gravois. As currently proposed, this creates a very dangerous conflict as cars coming off of the off ramp will be traveling at high speeds and it is very unlikely that drivers will be looking for people on bikes. It is recommended that this shift of bike lane position happen further south and further away from where the off ramp merges with Gravois. A better way of slowing freeway traffic as it merges with bikes seems necessary.