

LOOP 360 AT COURTYARD DRIVE/RM 2222 PROJECT



FACT SHEET

Why Improvements Are Needed

Loop 360 is a major north/south transportation corridor for the capital area region, acting as a thoroughfare and commuter route for residents in west Austin as well as those passing through. The 14-mile corridor runs from US 183 on the north end to US 290/SH 71 on the south end.

Increased traffic congestion at Courtyard Drive, RM 2222 and elsewhere along Loop 360 has resulted in a lack of mobility and increased safety concerns. Unless something is done, traffic conditions will worsen as our population grows.

Project Overview

The purpose of the project is to improve mobility and safety at the Loop 360 intersections of Courtyard Drive and RM 2222.

Proposed solutions for the intersections include:



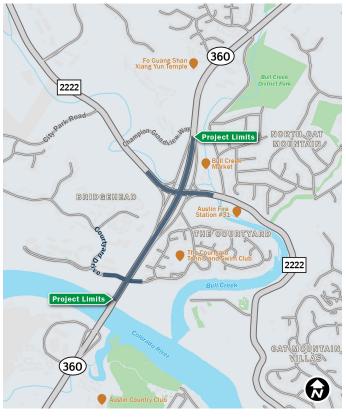
Removal of the traffic signal from the Loop 360 mainlanes at Courtyard Drive and construction of an underpass.



Construction of a diverging diamond intersection (DDI) at RM 2222. For more information about DDIs, visit Loop360Project.com and check out the FAQs page.



Addition of a shared-use path and sidewalks within the project limits to improve bicycle and pedestrian accommodations.



Details and Timeline

Environmental work began in summer 2018 and will incorporate input collected at upcoming public meetings. The environmental, preliminary and final engineering stages are anticipated to be complete in mid 2023.

PROJECT PROCESS | The Loop 360 at Courtyard Drive/RM 2222 project will be conducted using a multi-step process that engages stakeholders on an ongoing basis.



STAKEHOLDER OUTREACH









DIVERGING DIAMOND INTERSECTION FACT SHEET

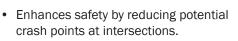
Diverging diamond intersections (DDIs) are proposed for intersections with a high volume of left-turning traffic. DDIs allow vehicles to travel more quickly through an intersection by temporarily shifting traffic to the left side of the road. This allows through-traffic and left-turning traffic to proceed through the intersection simultaneously, eliminating the need for a left-turn arrow.

To help drivers navigate, DDIs are designed with overhead signs, pavement marking and traffic signals.

How It Works

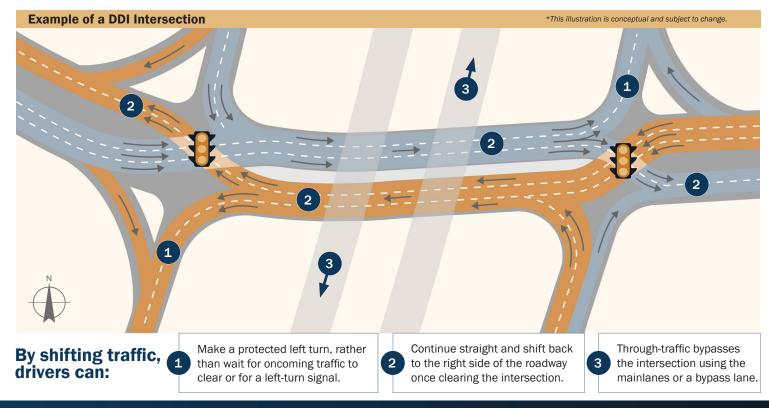
- Traffic signals are installed at crossover points. After a driver has crossed over they can:
 - Make a protected left turn, rather than wait for oncoming traffic to clear or for a left-turn signal.
 - Continue straight and shift back to the right side of the roadway once clearing the intersection.
- North and south-bound traffic can:
 - 3 Bypass the intersection by staying on the Loop 360 mainlanes or using a bypass lane if available.

Benefits of a Diverging Diamond Intersection





- Increases mobility by allowing more cars to move through an intersection.
- Accommodates more vehicles turning left without adding more lanes.
- Better sight distance at turns.











FACT SHEET

About Loop 360

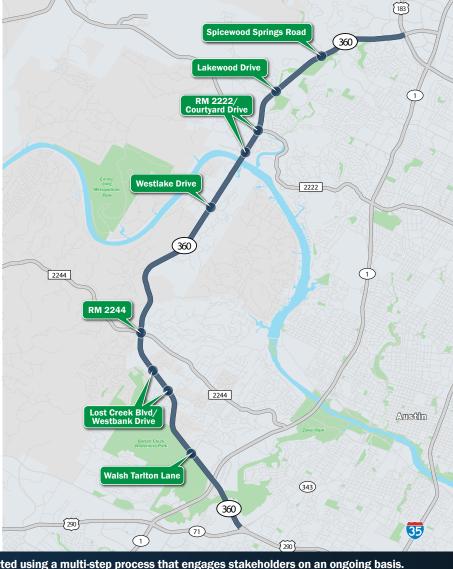
Loop 360 is a major north/south transportation corridor for the capital area region, acting as a thoroughfare and commuter route for residents in west Austin as well as those passing through. The 14-mile corridor runs from US 183 on the north end to US 290/SH 71 on the south end.

The natural beauty and unique Hill Country environmental features along Loop 360 draw regional, national and even international visitors to the area. The Pennybacker Bridge, located at the roadway's crossing of the Colorado River, serves as an iconic symbol of central Texas.

Loop 360 has severe traffic congestion, causing both mobility and safety concerns. We can expect traffic congestion to worsen as our population grows. More than two million people live in the Austin area today, and that number is expected to double by 2040.

Program Details

The Loop 360 program will upgrade multiple intersections along the roadway. Projects include: Spicewood Springs Road, Lakewood Drive, RM 2222/Courtyard Drive, Westlake Drive, RM 2244, Lost Creek Boulevard/Westbank Drive and Walsh Tarlton Lane.



PROGRAM PROCESS | The Loop 360 program will be conducted using a multi-step process that engages stakeholders on an ongoing basis.







Identify the problem we are trying to solve



Thoroughly analyze alternatives for potential impacts

Alternatives





Draft Documentation Review/Public Involvement

The draft environmental document is presented for agency and public review



Documentation Review

The final environmental document is completed



Final Design (1-2 years)



(2-3 years, depending on project)

Environmental Decision

Either the preferred build alternative or the no build alternative

STAKEHOLDER OUTREACH







FREQUENTLY ASKED QUESTIONS - LOOP 360 AT COURTYARD DRIVE/RM 2222

1. What types of improvements will be considered in the project?

The proposed improvements include removing the traffic signal on the Loop 360 mainlanes at Courtyard Drive and adding an underpass (where the Loop 360 mainlanes cross under Courtyard Drive). The project also proposes reconfiguring Loop 360 at RM 2222 to a diverging diamond intersection (DDI). Additionally, the project includes a shared-use-path and sidewalks within the project limits to improve bicycle and pedestrian accommodations.

TxDOT is currently considering two options, which offer different access points for drivers headed from southbound Loop 360 to Courtyard Drive. In Option 1, drivers will take the southbound braided exit ramp located just south of RM 2222. The exit ramp will lead to a connector road that will allow a right or left turn directly onto Courtyard Drive. In Option 2, drivers will take the southbound exit ramp located north of RM 2222. Drivers will use the proposed intersection bypass lane to access the connector road that will allow a right or left turn directly onto Courtyard Drive.

2. How will you decide what changes to the concept will be made?

At the beginning of any environmental study, the community is invited to help define the problem we are trying to solve. Concept(s) are developed to help solve that problem, and the community is invited to provide additional input on the development and evaluation of all proposed improvements. A "no build," or "do nothing," alternative will be carried through the process and used as a baseline for comparison.

Public feedback is then combined with engineering feasibility, social, economic and environmental analyses to identify the best concept, ultimately leading to the identification of a preferred alternative. As the environmental study nears completion, a preferred alternative will be presented to the public.

3. What is the project timeline?

The Loop 360 at Courtyard Drive/RM 2222 project will include an environmental phase lasting approximately 1-2 years. During the environmental phase, TxDOT will: identify the purpose and need, perform environmental analysis of the concept, review draft documentation and hold a public hearing if needed, finalize documentation and come to an environmental decision. The project will then enter the final design phase, typically lasting one year, and then will proceed to construction. Construction is projected to take 2-3 years.

4. What is a diverging diamond intersection (DDI)?

Diverging diamond intersections (DDIs) are proposed for intersections with a high volume of left-turning traffic. DDIs allow vehicles to travel more quickly through an intersection by temporarily shifting traffic to the left side of the road. This allows through-traffic and left-turning traffic to proceed through the intersection simultaneously, eliminating the need for a left-turn arrow. To help drivers navigate, DDIs are designed with overhead signs, pavement markings and traffic signals. Learn more about DDIs by visiting Loop360Project.com and checking out our FAQs page.

5. What are braided ramps?

Braided ramps are where one entrance/exit ramp bridges over the other. Braided ramps are designed to eliminate weaving by separating traffic entering and exiting the Loop 360 mainlanes, making the highway safer and increasing mobility.

6. Why can't we maintain existing access at Loop 360 and Courtyard Drive? From eastbound Courtyard Drive to southbound Loop 360:

RM 2222 and the Pennybacker Bridge are very close in proximity to the Loop 360 at Courtyard Drive intersection. Maintaining existing access from eastbound Courtyard to southbound Loop 360 would require drivers to come to a full stop as they approach the intersection. Drivers would have to turn onto the Loop 360 mainlanes with no auxiliary lane and limited sight distance, while also merging with traffic already entering Loop 360 from the proposed entrance ramp just north of Courtyard Drive. This would create lengthy wait times and cause traffic to back up along Courtyard Drive.

From northbound Loop 360 to eastbound Courtyard Drive:

Due to the proximity of the Pennybacker Bridge and a steep incline along Courtyard Drive, maintaining existing access would require drivers to make a sharp turn with barriers on either side. In addition, maintaining existing access would require TxDOT to acquire properties near Courtyard Drive at Loop 360, and would cause right-of-way impacts to additional properties. Due to these constraints, a northbound braided entrance ramp has been added to allow safe access to eastbound Courtyard Drive via the north neighborhood entrance.

7. How do you plan to address noise?

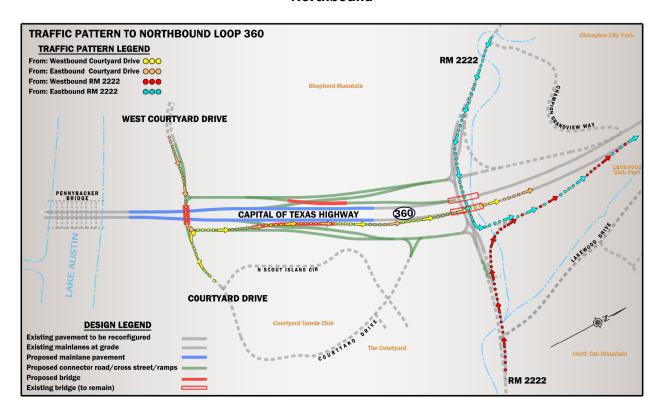
A noise analysis is currently underway as part of the environmental study. The analysis considers the current level of noise at many locations throughout the study area, calculates existing and projected future traffic noise levels and considers noise reduction measures if the predicted future noise levels exceed acceptable noise levels for properties that surround the project. The results of that analysis will be made available at future public meetings and will be included as part of the environmental study.

The most common noise reduction measure is the construction of noise barriers or sound walls. If the noise analysis shows that noise levels exceed acceptable standards in a particular area, the project will provide sound walls if they are determined to be feasible, reasonable and acceptable to the adjacent property owners. Feasibility considers whether a substantial noise reduction can be achieved and whether the noise barrier will cause a reduction in safety. Reasonableness considers, among other factors, cost effectiveness, expected noise levels and land use. Acceptability considers the opinions of the residents that live adjacent to the proposed wall.

8. Does TxDOT require additional right of way for the Courtyard Drive/RM 2222 project? At this time, the proposed improvements for the Courtyard Drive/RM 2222 project would not require additional right of way.

9. When the improvements are complete, how will I travel around the area?

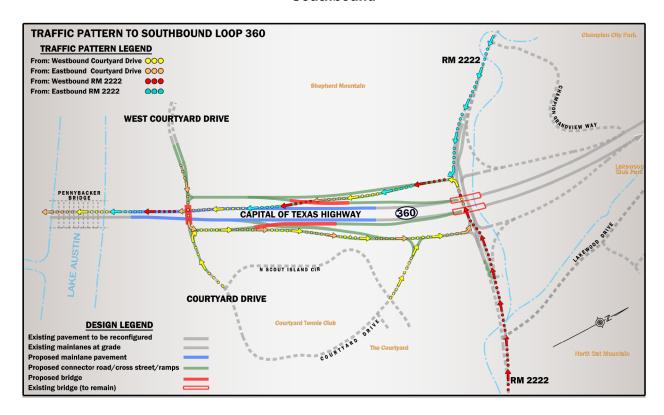
Northbound



To Northbound Loop 360:

- **From Westbound Courtyard Drive:** Drivers will exit the Courtyard neighborhood at the southern intersection of Loop 360 at Courtyard Drive and turn right onto the northbound Loop 360 connector road. They will then proceed to the braided entrance ramp located north of Courtyard Drive to enter the northbound Loop 360 mainlanes.
- From Eastbound Courtyard Drive: Drivers will proceed across the Loop 360 mainlanes using the Courtyard Drive bridge and turn left onto the northbound Loop 360 connector road. They will then proceed to the braided entrance ramp located north of Courtyard Drive to enter the northbound Loop 360 mainlanes.
- From Westbound RM 2222: Drivers will use the right lane to access the northbound Loop 360 entrance ramp located north of RM 2222.
- From Eastbound RM 2222: Drivers will use the DDI to turn left onto the northbound Loop 360 entrance ramp. They will then be able to enter the northbound Loop 360 mainlanes.

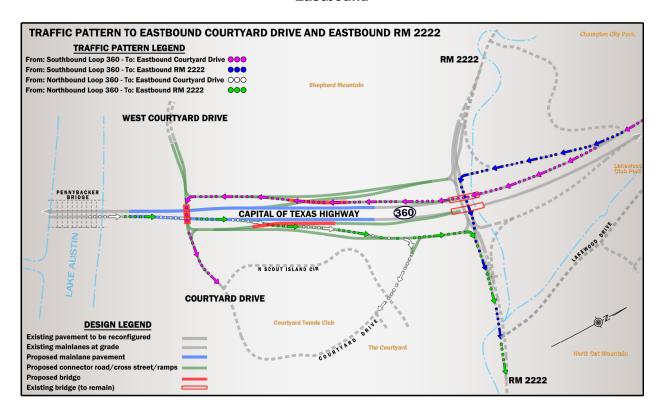
Southbound



To Southbound Loop 360:

- From Westbound Courtyard Drive: Drivers will exit the Courtyard neighborhood at either the southern or northern Courtyard Drive exits. They will turn right onto the northbound Loop 360 connector road and use the DDI to U-turn, entering southbound Loop 360 using the braided entrance ramp south of RM 2222.
- From Eastbound Courtyard Drive: Drivers will proceed across the Loop 360 mainlanes using the Courtyard Drive bridge and turn left onto the northbound Loop 360 connector road to proceed to the DDI at RM 2222. They will use the DDI to Uturn, entering southbound Loop 360 using the braided entrance ramp south of RM 2222.
- From Westbound RM 2222: Drivers will use the DDI to turn left onto the southbound Loop 360 connector road. They will then proceed to the braided entrance ramp located south of RM 2222 to enter the southbound Loop 360 mainlanes.
- From Eastbound RM 2222: Drivers will turn right onto the southbound Loop 360 connector road. They will then proceed to the braided entrance ramp located south of RM 2222 to enter the southbound Loop 360 mainlanes.

Eastbound



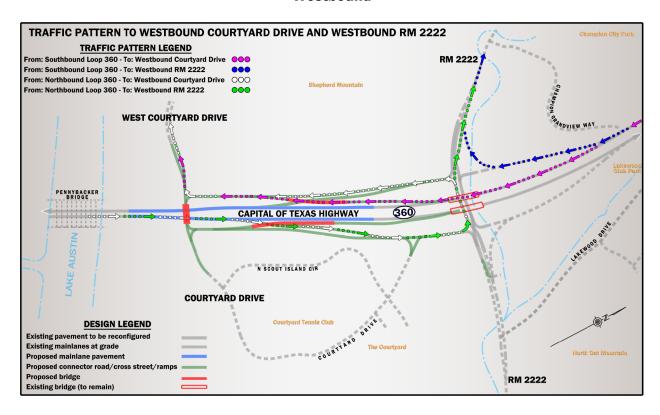
To Eastbound Courtyard Drive:

- From Southbound Loop 360:
 - Option 1: Drivers will take the braided southbound exit ramp located just south of RM 2222. The exit ramp will lead to a connector road that will allow a left turn directly onto Courtyard Drive.
 - Option 2: Drivers will take the southbound exit ramp located just north of RM 2222. Drivers will use the proposed intersection bypass lane to access the connector road that will allow a left turn directly onto Courtyard Drive. *Note, the above drawing shows Option 1. Option 2 includes an intersection bypass lane that makes possible the movement described above. Visit Loop360Project.com to view the drawing for Option 2.
- From Northbound Loop 360: Drivers will take the braided northbound exit ramp located north of Courtyard Drive. They will then use the connector road to reach the northern Courtyard Drive entrance.

To Eastbound RM 2222:

- From Southbound Loop 360: Drivers will take the southbound exit ramp located just north of RM 2222 and travel eastbound on RM 2222 through the DDI.
- From Northbound Loop 360: Drivers will take the braided northbound exit ramp located north of Courtyard Drive and will use the right lane to turn onto eastbound RM 2222.

Westbound



To Westbound Courtyard Drive:

- From Southbound Loop 360:
 - Option 1: Drivers will take the braided southbound exit ramp located just south of RM 2222. The exit ramp will lead to a connector road that will allow a right turn directly onto Courtyard Drive.
 - Option 2: Drivers will take the southbound exit ramp located just north of RM 2222. Drivers will use the proposed intersection bypass lane to access the connector road that will allow a right turn directly onto Courtyard Drive. *Note, the above drawing shows Option 1. Option 2 includes an intersection bypass lane that makes possible the movement described above. Visit
 - Loop360Project.com to view the drawing for Option 2.
- From Northbound Loop 360: Drivers will take the braided northbound exit ramp located north of Courtyard Drive and will use the DDI to U-turn. They will stay on the connector road to reach westbound Courtyard Drive.

To Westbound RM 2222:

- **From Southbound Loop 360:** Drivers will take the southbound exit ramp located just north of RM 2222, using the right-turn lane to turn onto westbound RM 2222.
- From Northbound Loop 360: Drivers will take the braided northbound exit ramp located north of Courtyard Drive and will move through the DDI to travel westbound on RM 2222.





FREQUENTLY ASKED QUESTIONS - OVERALL PROGRAM

1. What is the purpose of the Loop 360 program?

Loop 360 is a major transportation corridor for the capital area region, serving as a north/south route and functioning as a connector between US 183 and US 290/SH 71. The 14-mile corridor acts as a commuter route and a local thoroughfare for residents and businesses. Loop 360 also provides access for other citizens, including bicyclists, photographers, geologists, hikers, and visitors to Lake Austin. The purpose of the Loop 360 program is to upgrade multiple intersections along the corridor. The program team will involve stakeholders throughout the community in selecting the best option for each intersection to improve safety and mobility along the Loop 360 corridor.

2. Why are improvements needed?

Increased traffic congestion along Loop 360 has resulted in a lack of mobility and increased safety concerns. Three sections of the corridor are listed on the state's Most Congested Roadways list. Unless something is done, traffic conditions along Loop 360 will worsen as our population grows. More than two million people live in the Austin area today, and that number is expected to double by 2040.

3. Who will benefit from the projects?

Ultimately, we hope that all residents, pedestrians, bicyclists, businesses, commuters, and others who use and rely on Loop 360 will benefit. The goal of the program is to work with stakeholders to identify solutions that optimize safety and mobility, while balancing local accessibility and corridor-wide mobility, bike/pedestrian/transit use, environmental impacts, and other important issues for all Loop 360 users. Specific benefits for each user group will depend on the solutions that are recommended for further development.

4. Will the projects consider pedestrian, bicycle and transit needs?

Yes. The projects will consider a wide range of transportation modes. The degree to which alternative modes are incorporated into proposed solutions will depend largely on the initial needs identified through stakeholder input and technical analysis. TxDOT is coordinating with representatives from the bicycling community, Capital Metro and local neighborhoods to identify these needs and opportunities for alternative transportation improvements within the corridor.

5. What is the program timeline?

The Loop 360 program began in summer 2018 and is comprised of separate projects, each with their own timeline. Each project will include an environmental, design, and construction phase estimated to take seven to ten years to complete.

6. What is CAMPO and how does it impact the planning process?

The Capital Area Metropolitan Planning Organization (CAMPO) is the Metropolitan Planning Organization (MPO) for Bastrop, Burnet, Caldwell, Hays, Travis and Williamson counties. MPOs are federally required throughout the country in areas with a population of 50,000 or more and are required to produce a 20+ year transportation plan, called a

Regional Transportation Plan (RTP), and a four-year planning document called the Transportation Improvement Program (TIP).

A 20-member Transportation Policy Board made up of 18 elected officials and representatives from TxDOT and Capital Metro governs CAMPO.

For a project to move forward in to the environmental phase, CAMPO includes the project in the RTP and TIP, and the agency sponsor, in this case TxDOT, chooses to move forward into environmental phase.

7. What types of improvements will be considered in the projects?

Improvements will vary by intersection. Overpasses (where the Loop 360 mainlanes go over the cross streets) or underpasses (where the Loop 360 mainlanes go under the cross streets) will likely be constructed at seven of the intersections along the corridor. Diverging diamond intersections will likely be built at RM 2222 and RM 2244 where overpasses already exist.

8. How did you decide in what order intersections were being improved?

Based on the results of the Loop 360 feasibility study, the first projects to move forward will be Westlake Drive, Spicewood Springs Road, RM 2222/Courtyard Drive and Lakewood Drive. The city of Austin decided to include these intersections in their 2016 Mobility Bond because they were the most congested. Whereas the other projects in the program (RM 2244, Lost Creek Blvd/Westbank Drive and Walsh Tarlton Lane) are also funded, improvements for those intersections are still under development. TxDOT continues to study the remaining intersections along the Loop 360 corridor.

9. Why aren't we adding lanes or widening Loop 360 or the Pennybacker Bridge?

TxDOT looked at options for additional lanes as part of our Loop 360 feasibility study, which ended in 2016. The study found that adding lanes would be beneficial, but would significantly increase the cost of the project. More benefit would be gained if signals on the mainlanes were first removed and replaced by overpasses (where the Loop 360 mainlanes go over the cross street) or underpasses (where the Loop 360 mainlanes go under the cross street). Once these improvements are complete, future projects may include adding an additional pair of lanes to Loop 360, which could be connected directly via flyovers to US 183 and south MoPac.

10. Will the projects impact the Pennybacker Bridge?

No. The bridge will remain intact as built. The bridge can accommodate six continuous lanes, but the current projects do not include these improvements. In summer 2019, TxDOT has plans for routine maintenance work on the bridge.

11. How will selected improvements be financed?

The improvements in the Loop 360 program are funded by TxDOT. The city of Austin will contribute \$46 million in funds from the 2016 Mobility Bond.

12. What intersection improvements are funded by the 2016 Mobility Bond?

The 2016 Mobility Bond includes \$46 million to improve four Loop 360 corridor intersections. Those intersections are Westlake Drive, Spicewood Springs Road,

Courtyard Drive and Lakewood Drive. TxDOT is also investing \$204 million to improve these intersections and five other intersections along Loop 360.

13. How will TxDOT ensure that the beauty of Loop 360 is maintained?

We have heard a clear message that the community wants to maintain the beauty and character of Loop 360, regardless of which improvements are ultimately identified for the corridor. The project team will consider this important factor in its analysis of all proposed improvements. We will share any potential visual impacts associated with each scenario as part of this project. Aesthetics will continue to be an important factor as Loop 360 improvements move through the project development process.

14. What is a diverging diamond intersection?

Diverging diamond intersections (DDIs) are proposed for intersections with a high volume of left-turning traffic. DDIs allow vehicles to travel more quickly through an intersection by temporarily shifting traffic to the left side of the road. This allows throughtraffic and left-turning traffic to proceed through the intersection simultaneously, eliminating the need for a left-turn arrow. To help drivers navigate, DDIs are designed with overhead signs, pavement markings and traffic signals. Learn more about DDIs by visiting Loop360Project.com and checking out our FAQs page.

15. How is stakeholder input being incorporated into the program, and how can I get involved?

Stakeholder involvement not only helps identify the issues experienced by Loop 360 users, but helps shape the solutions and potential visual, economic, environmental and community impacts. Input received to date has helped the program team evaluate and refine the originally proposed scenarios, identify new scenarios to be studied, and refine the criteria by which all scenarios will be evaluated. Ongoing stakeholder involvement is necessary to support and promote solutions for the corridor. Throughout the process there will continue to be opportunities to provide feedback, concerns and ideas. Comments are welcome at any time, and may be submitted through the online comment form at www.Loop360Project.com. TxDOT will also meet with stakeholder groups along the corridor, in addition to other interested stakeholders throughout the greater Austin area, to discuss both local and corridor-wide issues.

16. Why can't we just synchronize the traffic lights along the corridor?

Improving traffic signal synchronization will help, but not solve, the congestion issue on Loop 360. Currently, the corridor's traffic signals are manually configured and do not "talk" to each other. Therefore, any timing tweaks must be made on-site to each individual signal, and any tweaks to one signal do not affect any other signals along the corridor. The program team is currently working to identify potential signal upgrades and timing improvements that would provide some relief in light to moderate traffic conditions. However, such improvements would have little to no effect during peak traffic times unless they are accompanied by more significant design and/or capacity improvements – there are simply too many cars trying to move through each intersection to avoid sitting through multiple signals. All proposed improvements, including intersection and additional capacity improvements, will assume that traffic signals will be upgraded and synchronized to the greatest extent possible.





COURTYARD DRIVE/RM 2222 PUBLIC WORKSHOP COMMENT FORM March 7, 2019, 4 to 6:30 p.m., Riverbend Church, Austin, TX

Name (Please Print):	
Address:	
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Comment:	
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(Texas Transportation Code, §201.811(a)(5)): Check each of the following boxes that apply to you: ☐ I am employed by TxDOT ☐ I do business with TxDOT	Official written comments will also be received and accepted by the program team via email at cwotip-c@txdot.gov or by mail at: Crystal Wotipka TxDOT Austin District Office Attn: Loop 360 Program
☐ I could benefit monetarily from the project	7901 N L35 Austin TX 78753

Comments must be received by Friday, March 22, 2019 to be included in the official record of this public workshop.

or other item about which I am commenting



YOU CAN ALSO VISIT US ONLINE AT OUR VIRTUAL WORKSHOP

www.Loop360Project.com from March 7 to March 22, 2019

Download and review meeting materials

Provide your comments or ask questions

Give feedback on our corridor-wide Context Sensitive Solutions process

Sign up for email updates

WE HOPE TO SEE YOU ONLINE!