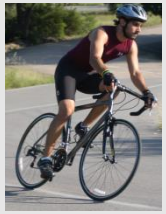
TEXAS DEPARTMENT OF TRANSPORTATION



LOOP 360 IMPROVEMENT STUDY

Overview and Preliminary Analysis

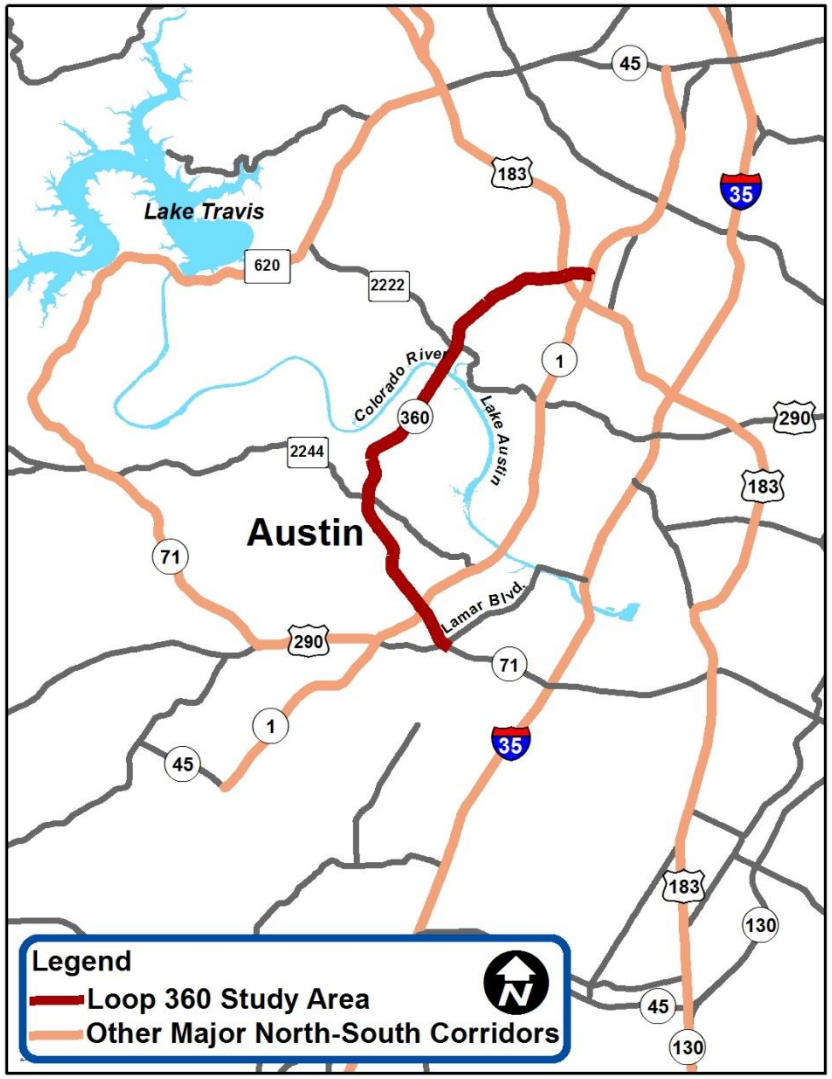
August 2015

STUDY PROCESS

Study Background

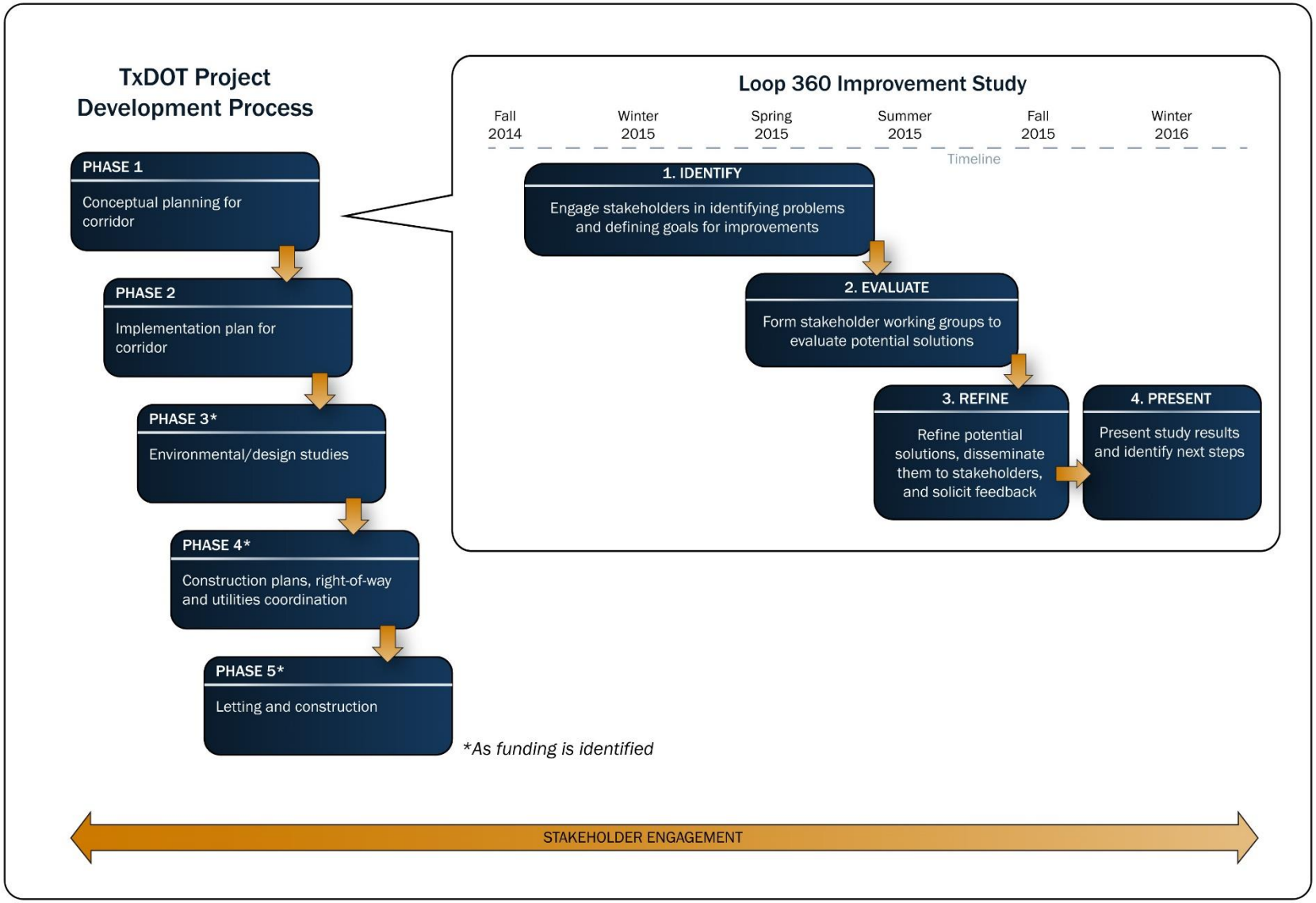
- Loop 360 serves a wide range of users, including residents, businesses, bicyclists, and commuters
- In 2014, Loop 360 was listed as the 98th most congested roadway in Texas
- Previous major proposals for Loop 360, including a 2004 proposal to add tolled grade-separated lanes and a 2011 proposal to implement innovative intersections, were generally not well-received by the community, and did not result in significant changes
- Minor improvements were made since 2011, but more short term fixes are needed and we lack a future vision for the corridor
- The current Loop 360 study will actively engage the community throughout the process

Loop 360 in the Region



- Loop 360 is part of a network of critical roadways in the Austin region
- Other major north/south roadways (MoPac, I-35) serving the central and western portions of the region are highly congested, and are currently undergoing significant upgrades
- Loop 360 is the next north/south roadway requiring improvements to help manage congestion in the region

Loop 360 Improvement Study Process



Stakeholder Engagement

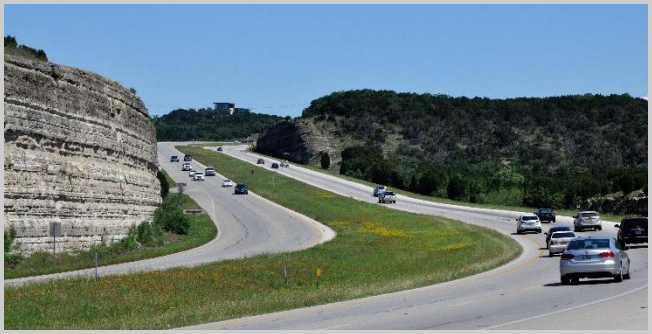
- Who are the Loop 360 stakeholders?
  - Nearby residents, businesses, homeowners associations, commuters, bicyclists, pedestrians, environmentalists, and others
- How are stakeholders invited to participate?
  - Online survey
  - Submitting comments
  - Requesting meetings with the study team
  - Section working groups
  - Other (kiosks in public places, at public meetings for other transportation projects, etc.)

NEED FOR IMPROVEMENTS

Existing Traffic Conditions

The Loop 360 project team is reviewing:

- Traffic volumes
- Levels of Service (LOS) for intersections along the corridor
- Travel times
- Travel speeds

Levels of Service (LOS)	Example
A/B Light traffic, minimal delay	
C/D Moderate congestion, moderate delay	
E/F Heavy congestion, considerable delay	

Existing Travel Times and Speeds: Overall Corridor

	Peak Time Frame	Travel Time (hr/min)	Speed (miles per hour)
Northbound	AM Peak: Average (6:15-9:15 AM)	27	33.2
	AM Peak: Worst (8:15 AM)	31	27.8
	PM Peak: Average (4-7 PM)	44	20.4
	PM Peak: Worst (4:30 PM)	53	16.4
Southbound	AM Peak: Average (6:30-8:45 AM)	31	31.7
	AM Peak: Worst (7:35 AM)	41	21.3
	PM Peak: Average (3:30-6:30 PM)	47	19.9
	PM Peak: Worst (4:45 PM)	1:08	12.8

Existing LOS: North MoPac to Courtyard Drive

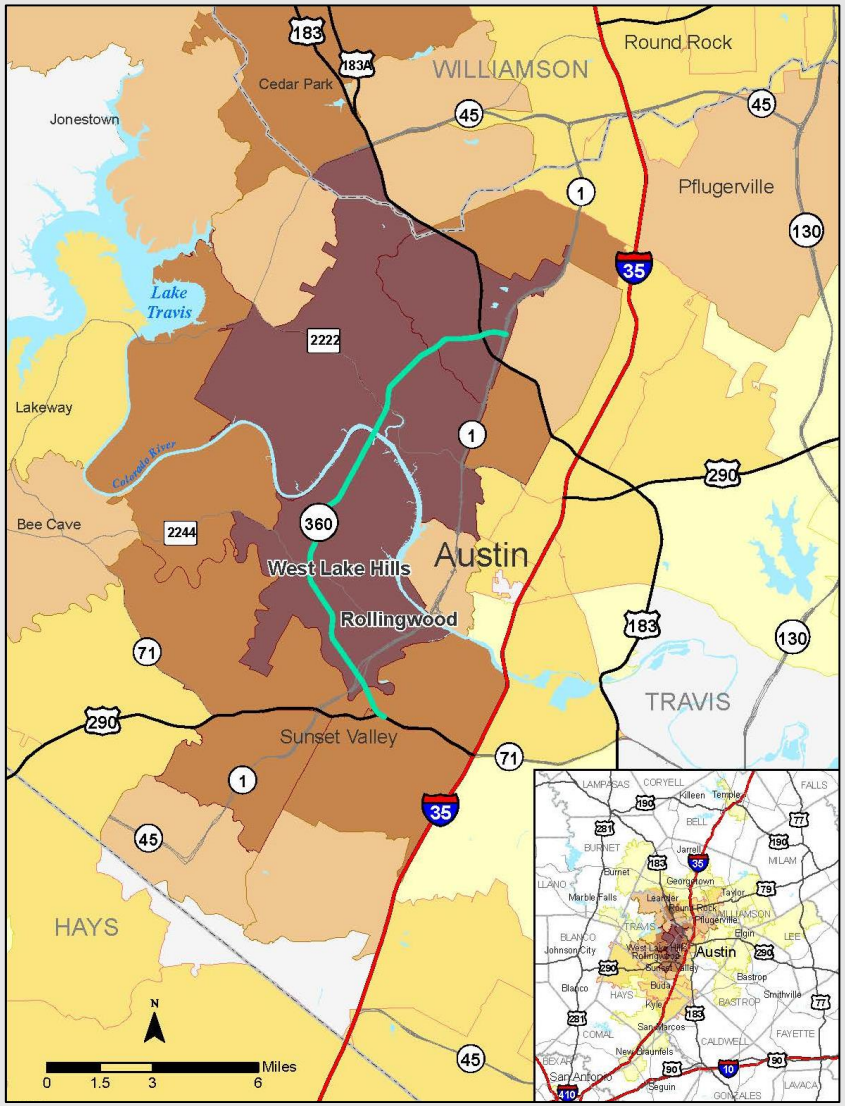
Intersection	AM Peak	PM Peak
Loop 360 / North MoPac NB	B	D
Loop 360 / North MoPac SB	C	F
Loop 360 / Stonelake Blvd	C	D
Loop 360/ Gateway Shopping Plaza	B	C
Loop 360/ Research Boulevard NB	D	F
Loop 360/Research Boulevard SB	D	E
Loop 360 / Great Hills Drive	F	E
Loop 360 / Spicewood Springs	F	F
Loop 360 / Old Spicewood Springs	D	E
Loop 360 / Lakewood Drive	E	F
Loop 360 NB / RM 2222	E	F
Loop 360 SB / RM 2222	C	C
Loop 360/ Courtyard Drive	D	F

Existing LOS: Cedar Street to Barton Creek Plaza

Intersection	AM Peak	PM Peak
Loop 360 / Cedar Street	A	B
Loop 360 / West Lake Drive	E	F
Loop 360 / Pascal Lane	B	B
Loop 360 NB / RM 2244	E	F
Loop 360 SB / RM 2244	F	F
Loop 360 / Las Cimas Parkway	D	D
Loop 360/ Lost Creek Blvd	E	D
Loop 360/ Westbank Drive	D	E
Loop 360 / Walsh Tarlton Lane	C	C
Loop 360 / Barton Creek Mall	A	C
Loop 360 / South MoPac SB	D	D
Loop 360/ South MoPac NB	F	D
Loop 360/ Barton Creek Plaza	B	B

Input Received from Loop 360 Public Survey

- The Loop 360 online survey has been active since March 2015
- A total of 3,027 survey responses have been received as of August 04
- Survey responses came from 84 unique zip codes, while approximately 55 percent of responses came from the five zip codes directly surrounding the project area



Loop 360 Survey Response Density Map

Number of Responses by Zip Code

- 1 - 5
- 6 - 25
- 26 - 50
- 51 - 100
- 101 +

How are Problems Perceived Along Loop 360?

Most Significant Problem 1

Rank the order of each of the problems listed below.	Average Score*	Percentage Who Ranked this #1
1 - Overall traffic congestion along the corridor	2.1	43%
2 - Traffic backups at specific Loop 360 intersections	2.1	36%
3 - Difficulty turning/merging onto Loop 360 mainlanes	4.1	3%
4 - Difficulty/delay turning onto cross streets from Loop 360	4.6	2%
5 - Overall safety along the corridor	5.1	5%
6 - Difficulty crossing Loop 360	5.3	3%
7 - Conflicts between auto and bicycle/pedestrian traffic	5.6	6%
8 - Difficulty accessing businesses or residences from Loop 360	5.8	1%

* Average score determined by multiplying the score value by the number of people who selected that score, and dividing by total responses

Least Significant Problem 8

Perceived Problems and Solutions along Loop 360

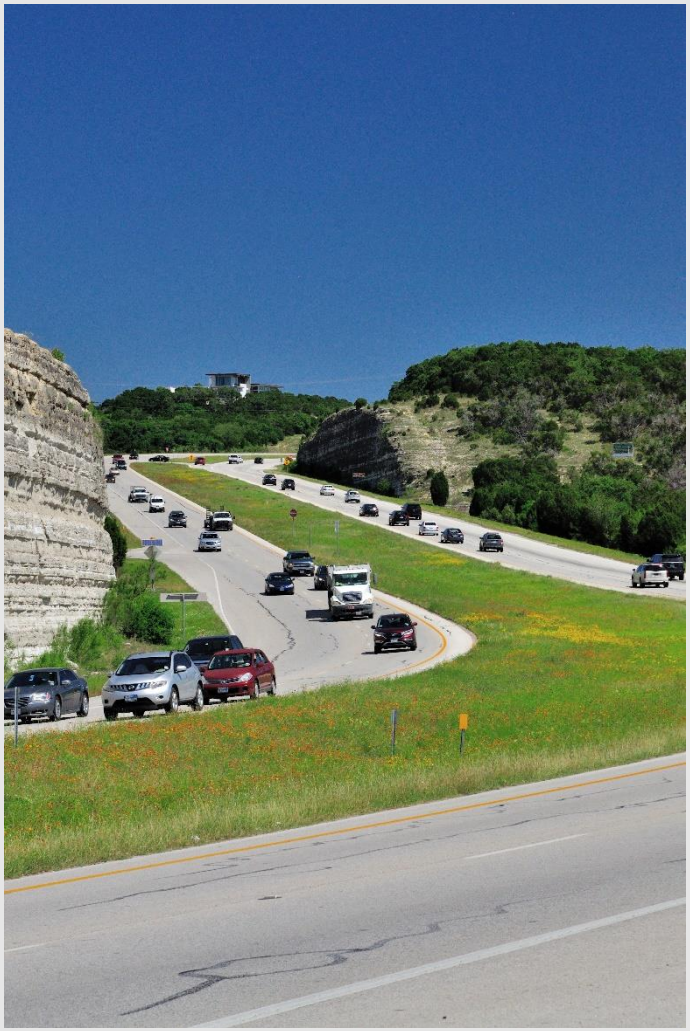
- Long travel times on Loop 360 affect over 90 percent of respondents who live along the corridor, while less than 3 percent say traffic does not impact their neighborhood.
- Almost 50 percent of respondents who live along the corridor cite neighborhood cut-through traffic as an issue, and over 30 percent note increased traffic violations and safety issues due to congestion.
- Almost 70 percent of respondents state that providing faster, more reliable travel times on Loop 360 should be the top priority for corridor improvements.
- Of possible options to improve mobility, a majority of respondents feel that eliminating traffic signals and building over/underpasses at intersections would be the most effective solution. Intersection improvements that reduce travel time along Loop 360 and adding more lanes to Loop 360 are the next two most popular options.
- Many respondents also note a desire to maintain the visual character of the corridor, improve the traffic signal timing, and separate the bicycle and pedestrian facilities from the main vehicle lanes.

To participate in the public survey, click here. More detail on public survey responses to date can be found here.

SCENARIO DEVELOPMENT AND ANALYSIS

Scenario Development

- What is a scenario?
  - A scenario assesses what the possible outcomes would be if a certain set of improvements, such as intersection improvements, additional lanes, and/or removing traffic signals, are implemented
- How are the scenarios being developed?
  - Data analysis of projected traffic volumes, LOS, travel times
  - Stakeholder input
  - Best practices from across the state and nation



Initial Scenarios to be Considered

1

No Build (Do Nothing)

- No improvements other than those in regional transportation plan (out to 2035) and traffic signal optimization
- Included as a baseline against which all scenarios are compared

2

Intersection Improvements

- Signal timing, turn lanes, intersection design changes, etc.

3

Two Additional Lanes with Traffic Signals

- Maintain existing signalized intersections and add one lane in each direction
- Intersection improvements evaluated in Scenario 2 would be included

4

Traffic Signals Removed on Mainlanes

- Exchange existing signalized intersections for grade-separated over/underpasses
- Additional lanes would be included if necessary to meet traffic demand

5

Two or Four Additional Tolled/HOV/Transit Lanes

- Maintain four existing non-tolled lanes with signalized intersections
- Add two-four additional unsignalized tolled/HOV/transit lanes with over/underpasses

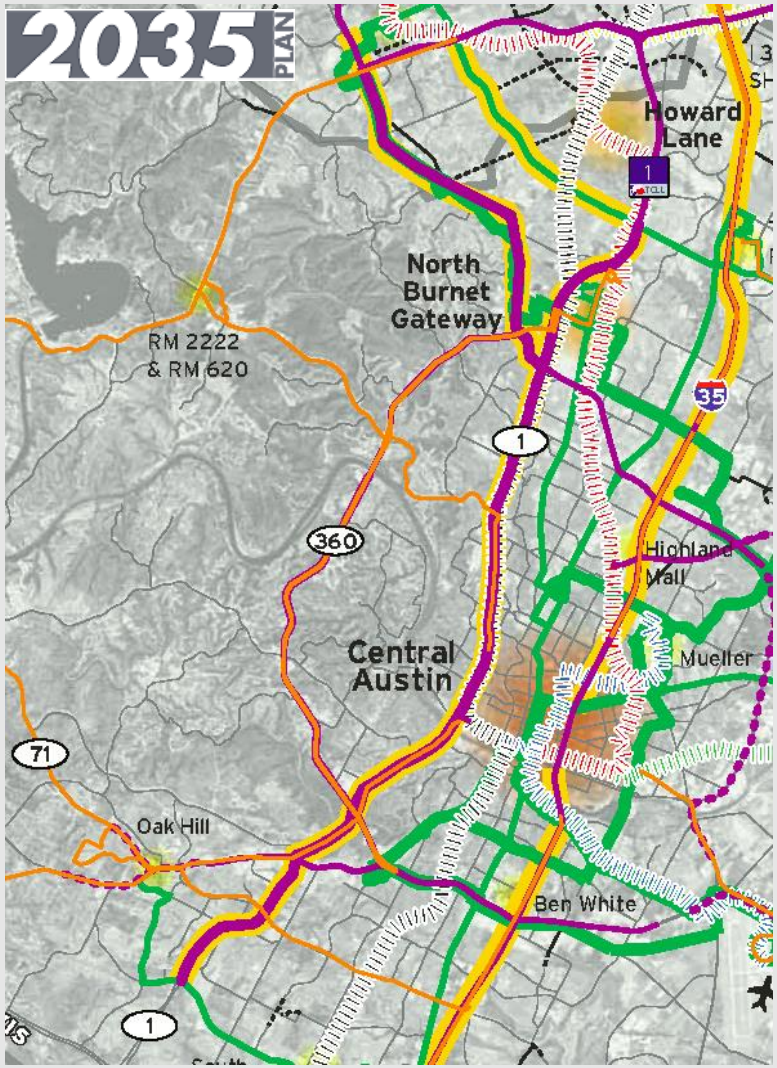
How Will the Scenarios be Evaluated?

- **Mobility:** How well does each potential scenario address congestion?
- **Safety:** How will each scenario address safety issues for cars, bicycles and pedestrians? Are some scenarios safer than others?
- **Cost:** How much funding will be required to implement each scenario?
- **Feasibility:** How easily can each scenario be implemented, and how long will they take to complete?
- **Aesthetics/Visual and Other Impacts:** How will each scenario impact the surrounding area in terms of aesthetics, right-of-way, environmental, etc.?
- **Longevity:** How far into the future will each scenario effectively handle mobility needs along the corridor?

SCENARIO 1:
NO BUILD (DO NOTHING)

No Build Scenario Analysis

- The project team developed overall projected traffic volumes for 2035 based on traffic counts collected in late 2014/early 2015
- The projected traffic volumes were input into the Capital Area Metropolitan Planning Organization's (CAMPO's) traffic model, which also includes forecasted population/employment growth to show predicted 2035 traffic patterns
- No significant improvements to Loop 360 were included in the model since none are currently planned or included in CAMPO's Regional Transportation Plan
- The No Build scenario shows possible outcomes by 2035 if recent growth patterns continue and no significant Loop 360 improvements are implemented



Existing vs. 2035 No Build LOS: North MoPac to Courtyard Drive

Intersection	Existing		2035	
	AM Peak	PM Peak	AM Peak	PM Peak
Loop 360 / North MoPac NB	B	D	C	F
Loop 360 / North MoPac SB	C	F	D	F
Loop 360 / Stonelake Blvd	C	D	C	E
Loop 360/ Gateway Shopping Plaza	B	C	A	C
Loop 360/ Research Boulevard NB	D	F	D	F
Loop 360/Research Boulevard SB	D	E	F	F
Loop 360 / Great Hills Drive	F	E	F	F
Loop 360 / Spicewood Springs	F	F	F	F
Loop 360 / Old Spicewood Springs	D	E	F	F
Loop 360 / Lakewood Drive	E	F	F	F
Loop 360 NB / RM 2222	E	F	F	F
Loop 360 SB / RM 2222	C	C	D	D
Loop 360/ Courtyard Drive	D	F	F	F

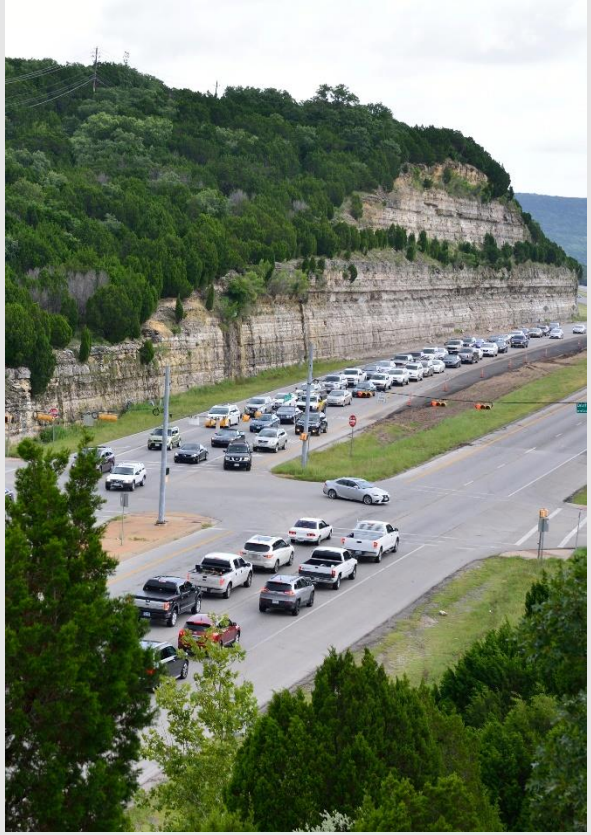
Existing vs. 2035 No Build LOS: Cedar Street to Barton Creek Plaza

Intersection	Existing		2035	
	AM Peak	PM Peak	AM Peak	PM Peak
Loop 360 / Cedar Street	A	B	D	D
Loop 360 / West Lake Drive	E	F	F	F
Loop 360 / Pascal Lane	B	B	C	E
Loop 360 NB / RM 2244	E	F	F	F
Loop 360 SB / RM 2244	F	F	F	F
Loop 360 / Las Cimas Parkway	D	D	E	F
Loop 360/ Lost Creek Blvd	E	D	F	F
Loop 360/ Westbank Drive	D	E	F	F
Loop 360 / Walsh Tarlton Lane	C	C	E	D
Loop 360 / Barton Creek Mall	A	C	C	E
Loop 360 / South MoPac SB	D	D	E	F
Loop 360/ South MoPac NB	F	D	F	F
Loop 360/ Barton Creek Plaza	B	B	D	E

NEXT STEPS

Next Steps

- Analysis of Scenarios 2-5
- Ongoing public involvement through stakeholder meetings, survey, and comments
- Scenario refinement and development of draft report outlining short and long-term improvement options



For More Information

More information on the Loop 360 Improvement Study is available at www.Loop360Study.com. You may also click on the links below to go directly to a specific item:

- Take the online public survey
- View the latest public survey response summary
- View the study fact sheet
- View frequently asked questions (FAQs) about the study
- Submit a comment or request a presentation for your organization
- View project details and schematic on upcoming improvements to Loop 360 between Walsh Tarlton Lane and Barton Creek Plaza