City Council Member Martin Shares Analysis of Crash and Congestion Data Supports Northpark Drive Mobility Improvement Project

HOUSTON, TX - Today, Houston City Council Member Dave Martin reports that extensive research and analysis of crash and congestion data on Northpark Drive in the Kingwood area supports the need for constructing improvements to Northpark Drive from U.S. 59 to Woodland Hills Drive. Known as the Northpark Drive Mobility Improvement Project, this potential project is led by the Lake Houston Redevelopment Authority (LHRA), also known as TIRZ 10.

The crash and congestion analysis looked at years 2011 - 2015 using data gathered from TxDOT and the Houston-Galveston Area Council (H-GAC). The study also looked at congestion data for Northpark Drive, Kingwood Drive and two other thoroughfares. The study information will be used by LHRA as the organization seeks local and federal funding for proposed improvements.

In May 2015, the Kingwood Area Mobility Study also indicated that crash rates for major corridors in the Kingwood area are much higher than the statewide average rate.

"The crash data supports the need for the Northpark Drive Improvement Project, which will greatly reduce the number of vehicle crashes within the expansion boundaries, including at State Highway 494 near the Union Pacific Railroad," says Council Member Martin. "Kingwood area drivers will be safer with the proposed improvements to Northpark Drive, and the monetized safety benefits are substantial."

Accident Information

The crash rate for Northpark Drive in the study area is 211.2 crashes per 100 million vehicle miles traveled (VMT), which is significantly higher (68.9 percent) than the statewide average rate of 125.01 crashes per 100 million VMT for a four-lane facility.

The study reports the following proposed Northpark Drive improvements would result in significant benefits.

1. The addition of one through lane each way can reduce by 28 percent the number of crashes that share similar vehicle movement and manner of collision attributes (side by side, rear end).

2. The addition of an overpass and grade separation at State Highway 494 and Northpark Drive will reduce the number of crashes at conflict points along Northpark Drive, including numerous commercial driveways.

3. Financial benefits can be factored in for the reduction in the number of motor vehicle crashes. Using TxDOT metrics that establish the monetized value of crash types (based on severity) and the estimated reduction in crashes based on the proposed improvements, it is estimated that the 20-year safety benefit of the proposed improvement would be nearly \$15 million in 2016 dollars.

Congestion Information

Using baseline congestion data from H-GAC with existing conditions for a "no build scenario." The study demonstrates that Northpark Drive is currently operating over capacity with nearly 40,000 trips per day. The Volume to Capacity (V/C) ratio was 1.47 in 2015, rising to 1.80 in 2030 with a "no-build scenario".

Based on the results of the H-GAC Travel Demand Model, the Northpark Drive Mobility Improvement Project will significantly reduce congestion and travel times and result in a substantial economic benefit.

1. The volume to capacity (V/C) ratios along Northpark Drive are reduced from 1.47 to 0.84 in 2020 and 1.75 to 0.89 in 2030, which are significant.

2. Daily vehicle hours traveled (VHT) savings are projected to be 284.3 in 2020 and 191.6 in 2030 for Northpark Drive. Kingwood Drive would also see dramatic savings of 267.9 VHT in 2020 and 272.2 in 2030.

3. The peak hour travel time reduction data shows that the "built scenario" would reduce travel times in excess of one minute per trip along Northpark Drive during both the morning and afternoon peak periods. If an individual utilized Northpark Drive twice a day in peak hours, annual travel time would be reduced by approximately 14.5 hours per year in 2020 and 14 hours per year in 2030. Travel times will also be reduced for Kingwood Drive (3.6 hours in 2020 and 4.0 hours in 2030).

4. Travel time savings can be monetized using an H-GAC metric that the average value of travel time in the region is \$16.10 per hour. When projected from 2020 to 2040, the monetized value for Northpark Drive is nearly \$39.7 million in 2016 dollars, and the monetized value for Kingwood Drive is nearly \$35.3 million. Total benefits for Northpark Drive, Kingwood Drive and Ford Road are \$78.9 million in 2016 dollars.

"This data shows that the Northpark Drive Mobility Improvement Project will be a game changer with regard to congestion for those residing in the Kingwood area," says Stan Sarman, Chairman of the Lake Houston Redevelopment Authority/TIRZ 10. "The 'built scenario' also supports research in the Kingwood Area Mobility Study about both congestion and vehicular crashes. It's a huge quality of life issue."

In May 2015, the Lake Houston Redevelopment Authority, in conjunction with the City of Houston Public Works and Engineering Department, commissioned the Kingwood Area Mobility Study to analyze the area's transportation needs and deficiencies and assess potential solutions. Based on data analysis, future traffic projections, and public input, a list of recommended improvements was created, which included the expansion of Northpark Drive.

To view the Northpark Drive Mobility Improvement Project Fact Sheet please visit our website. For more information on these projects, please contact the District E office at (832) 393-3008 or via email at districte@houstontx.gov.