

herein, do not necessarily reflect those of the U. S. Department of Transportation or the Texas Department of Transportation. U.S. Department of Transportation, and Texas Department of Transportation. The views and opinions of the authors, expressed This document was funded, in part, through grants from the Federal Highway Administration, Federal Transit Administration,

provides a forum for the discussion of area-wide concerns, promoting regional cooperation through comprehensive planning Bend, Calveston, Harris, Liberty, Matagorda, Montgomery, Walker, Waller, and Wharton counties. Organized in 1966, H-GAC 13-county Gulf Coast Planning Region. The Gulf Coast Planning Region consists of Austin, Brazoria, Chambers, Colorado, Fort The Houston-Galveston Area Council (H-GAC) is a voluntary association of local governments and local elected officials in the



Houston-Galveston Area Council Transportation Director

*2102 ni səinujni suoinəs 287,81 9L0Z u! %/ **SEKIONS INTOKIES**

20,025

Source: TxDOT 2016 *2102 ni 8**24**↑

Number of Crashes PEDESTRIAN/VEHICLE CRASHES

> *2.9 ni noillid 9.2\$ 9102 ni <mark>%8</mark>↑ **COST OF CRASHES**

Alan C. Clark 8B7 W

these life saving activities. pedestrian and cycling related crashes. We welcome your ideas and participation in the bicycling community, TxDOT and many others to coordinate efforts to mitigate with local law enforcement agencies, schools, regional health leaders, transit providers, is more than twice the national averages. H-GAC 's Regional Safety Council is working Reflecting in part the increased popularity of active travel, our increase in these crashes Nationally, vehicle crashes involving pedestrians and cyclists have increased alarmingly.

vehicle crashes with bicyclists and pedestrians The number and rate of vehicle crashes increased significantly, especially

Transit passenger boardings and total airport passengers experienced solid

Transportation Plan's \$ 17 billion cost Investment from local governments represent almost a third of the Ten-Year

A few quick highlights from the 2016 Mobility Report:

reductions in on-road motor vehicle emissions. development opportunities; potential impact on the environment and required crashes; improved asset management and operations; support for regional economic goals in the 2040 RTP. These goals include the reduction of congestion and vehicle

As in previous years, performance statistics have been shown for each of the stated that reflect the goals of our region's 2040 Regional Transportation Legislature's HB 20 requirements and includes project priorities 2026). This ten-year plan is consistent with the 84th Texas introduces H-GAC's new Ten-Year Transportation Plan (2017transportation investments. This 2016 Mobility Report

transportation network requires performance driven evelopment of an efficient, safe, reliable, mulitmodal



PERMIT 1855 **GIA9** First Class

Congestion

Mitigation

80th Percentile

(Late one day a week)

PLANNING TIME INDEX

→ NO NEW DATA in 2016

Return Service Requested

TTT2-T22TT XT ,notsuoH P.O. Box 22777 Houston-Galveston Area Council

the REGION

The 2016 Mobility Report summarizes key economic and transportation performance measures that reflect our progress toward achieving a safe, reliable, multimodal transportation network. As in previous years, performance statistics have been shown for each of the stated goals in the 2040 Regional Transportation Plan. These goals include the reduction of congestion and vehicle crashes, asset management and operations, support for regional economic development opportunities, potential impact on the environment (and required reductions in on-road motor vehicle emissions), and a determination that projects did not disproportionately and adversely impact minority or low-income communities.

IMPROVING SAFETY

Safety remains a critical issue. In 2016, the region experienced a 14% increase in the vehicle crash rate and a 16% increase in the number of vehicle crashes. The number of bicycle crashes with vehicles increased 34% and the number of pedestrian crashes increased 46%. The bus accident rate increased 15%, while railroad crossing accidents increased 5%.

H-GAC continues to work with local governments to improve safety through law enforcement, public outreach and crash clearance initiatives.

ASSET MANAGEMENT AND OPERATIONS

The Texas Department of Transportation (TxDOT) continues to make improvements to its roadway system. The overall condition of the region's

6,517,739 in 2015*

Improving Safety

VEHICLE CRASHES Crash Rate

(Per 100 million annual VMT)

14% in 2016 (166,830 crashes) 220.2 in 2015* (144,068 crashes)

BICYCLE/VEHICLE CRASHES Number of Crashes (Per year)

650 crashes in 2015*

BUS ACCIDENTS Crash Rate

(Per 100,000 vehicle miles)

15% in 2016 (607 accidents) 0.75 in 2015 (516 accidents)
Source: METRO 2016

RAILROAD CROSSING ACCIDENTS Number of Accidents (Per year)

15% in 2016 44 accidents in 2015*

infrastructure has remained stable over the past few years. The percentage of TxDOT roadways rated "good or better" increased to 84% in 2016 and bridges remained at 83% (bridge conditions are reported biannually).

Incident response time needed to clear a major incident increased from



3,015,400 in 2015* Source: Texas Workforce Commission 2016

Asset Management

PAVEMENT CONDITION

and Operations

Percent of Lane Miles

(Rated Good or Better)

BRIDGE CONDITION

♦ NO CHANGE in 2016

INCIDENT RESPONSE

Time to Clear a Traffic Incident

(In minutes, excluding heavy trucks)

BUS VEHICLE RELIABILITY

mechanical failures in miles)

9,568 miles in 2015

to 9,608 miles.

All Buses (Mean distance between

31.9 minutes to 32.5 minutes, as

Bus vehicle reliability, which

reported by Houston TranStar.

measures the average distance

downs, improved slightly in 2016

between mechanical break-

Percent of Bridges

(Rated Good or Better)

12% in 2016

82% in 2015

83% in 2015

12% in 2016

31.9 minutes in 2015

EACH DAY 2% in 2016

179 million in 2015* Source: H-GAC 2016 (model estimate)

PASSENGER BOARDINGS

5% in 2016 86 million in 2015* Source: Regional Transit Agencies 2016

OF PORT CARGO **→ NO CHANGE** in 2015

315 million in 2014 Source: U.S. Army Corps of Engineers 2015

Economic Competitiveness

TRUCK CONGESTION Annual Cost

(In \$billions)

← → NO NEW DATA in 2016

Baseline year in 2014 **BUS ON-TIME PERFORMANCE**

METRO Local Bus/Park & Ride Bus (Percent of bus trips)

71.3% in 2015

CONGESTION MITIGATION

Travel on the roadway system increased 2% to an estimated 183 million miles per week day. This corresponds with growth in the region's population of more than 141,000 people and 16,000 jobs in 2016.

The Planning Time Index (PTI) measures system reliability by estimating how much extra time travelers need to make a normal trip as a result of traffic congestion. The most recent PTI for the region is 1.58, which means a trip that normally takes 30 minutes may take up to 47 minutes.

Transit ridership in the region grew 5% with 90 million passenger boardings in 2016, due to system reimagining and the opening of new light rail lines. Bus on-time performance increased to almost 75%.

ECONOMIC COMPETITIVENESS

The 2040 RTP identifies truck congestion levels and commute

Baseline year in 2014
Source: Texas A&M Transportation

COMMUTE CHOICE **Use of Alternative Transportation** (Percent of regional commuters)

→ NO CHANGE in 2015 20.1% in 2014

alternative usage as two indicators of economic competitiveness. Truck congestion measures the annual cost of fuel and travel delay for moving goods within the region. The most recent cost of truck congestion is \$1.12 billion per year.

Nearly 20% of the region's commuters use alternative modes of transportation to work at least once a week. This includes using transit, vanpool, carpool, biking, walking and teleworking.

NATURAL AND CULTURAL RESOURCES

hicle emissions through the funding and promotion of alternative commute options and the accelerated vehicles with newer, cleaner models. In 2016, these programs combined the Clean Vehicles Program.

PASSENGERS 13% in 2016 54 million in 2015

Natural and Cultural Resources

AIR QUALITY NOx Emission Reductions (In tons per year)

20% in 2016 332.3 tons in 2015*

AIR QUALITY Ozone Level (In parts per billion)

► NO CHANGE in 2016 80 ppb in 2015 Source: Texas Council on Env

LEGEND

GREEN - Positive Effect **RED** - Negative Effect **GRAY** - No Discernible Effect

Net Increase

Net Decrease

←⇒ No or Slight Net Change

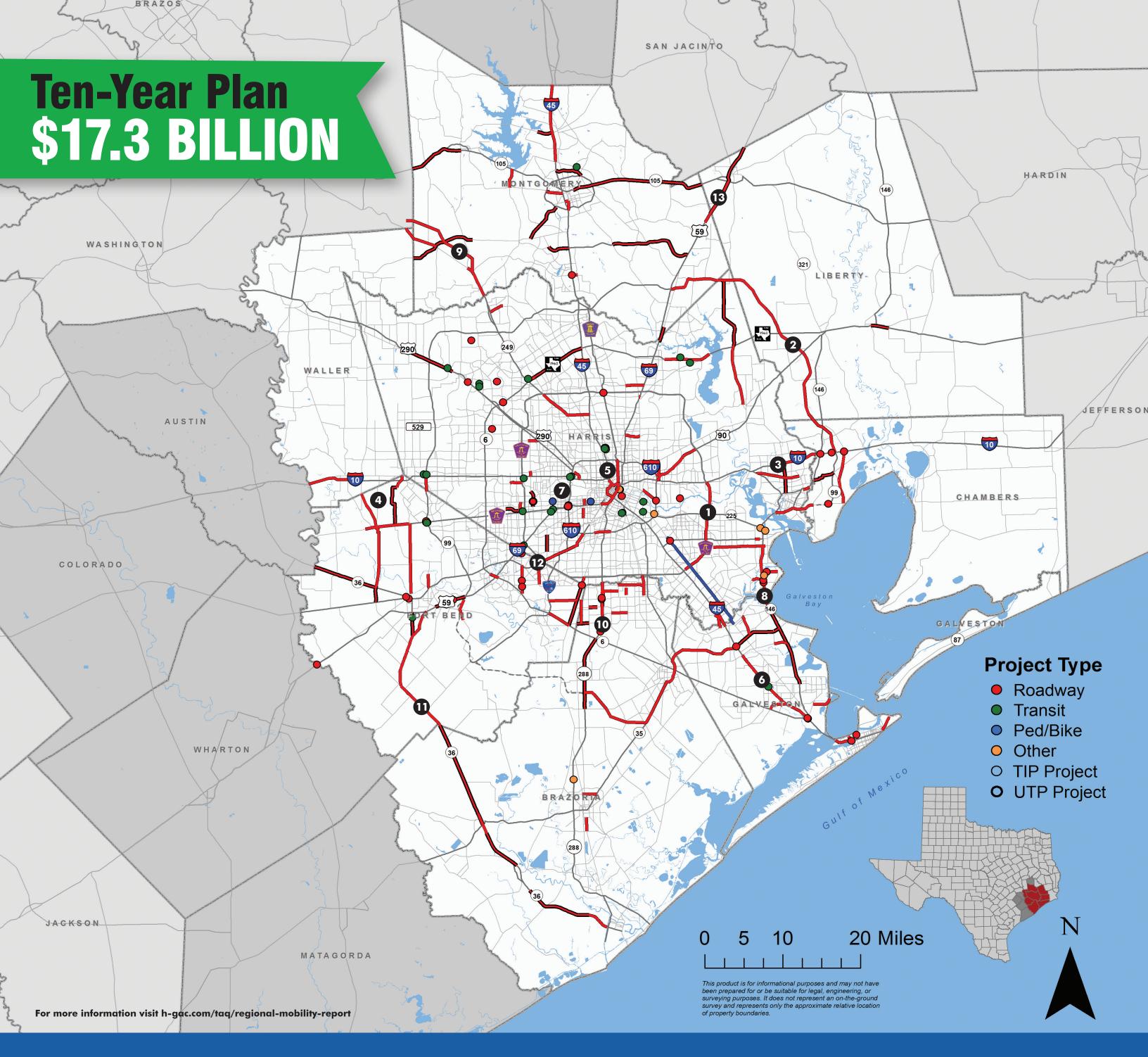
The region's three-year average of the ozone level has declined slightly to 79 parts per billion (ppb) which is still above the current national ambient air quality standard of 75 ppb.

SUMMARY

The Houston-Galveston region depends on a safe, efficient and reliable transportation system to maintain its economic success and overall quality of life. This report provides only a snapshot of the performance information available. For additional transportation performance measures, visit www.h-gac.com/taq/ regional-mobility-report.

H-GAC supports the reduction of vereplacement of older diesel-powered reduced 267.2 tons of NOx. Although transit boardings have increased, this

figure is 20% lower than in 2015 due to a decrease in new participation in



H-GAC Ten-Year Transportation Plan – FY 2017-2026

CORRIDOR/INITIATIVE	SUMMARY OF MAJOR INVESTMENTS	TOTAL
1 BW 8	Widen from four to eight lanes from IH 45 to IH 10 including Houston ship channel bridge.	\$1,023
2 SH 99	Construct Segments B, H, I-1 and I-2: four lane tollway with interchanges and noncontinuous two lane frontage roads.	\$2,349
3 IH 10E	Widen existing freeway from four lanes to six lanes from SH 73 to Jefferson County Line.	\$37
4 IH 10W	Construct corridor improvements along FM 1093, FM 359, construct one additional main lane in each direction on IH 10W from the Brazos River to FM 359.	\$346
5 IH 45 North of IH 10	Construct four lane toll road to complete Hardy Toll Road from IH 610/SP 548 to IH 69. Reconstruct interchange between IH 45, IH 69 and IH 10.	\$1,538
6 IH 45S	Widen main lanes and frontage roads from NASA 1 to FM 518, and FM 518 to the causeway, reconstruct IH 45/SH 146/SH 6 interchange, construct two direct connectors to LP 197.	\$1,498
7 IH 610	Reconstruct IH 610/IH 69 interchange with HOV access to Uptown Transit Center. Reconstruct main lanes and frontage road, and construct overpasses between Cambridge St. and Scott St.	\$478
8 SH 146	Widen existing roadway and construct grade separations at major intersections from Fairmont Parkway to FM 1764.	\$637
9 SH 249	Construct six lane tollway from Brown Rd. to Grimes County Line with grade separations at Brown, Baker, Zion, Stagecoach Road, and Woodlands Parkway.	\$601
10 SH 288	Construct toll lanes in Brazoria County from CR 58 to the Harris County Line, reconstruct intersection at FM 518, construct grade separation at FM 2234, and widen FM 521.	\$384
11 SH 36	Widen to four lane divided roadway in Brazoria and Fort Bend counties. Construction of grade separations in Brazoria County.	\$643
12 Southwest Corridor	Railroad underpass replacement on SH 36/US 90A, widen and realign SP 529, and US 90A rail corridor planning. Reconstruct and widen freeway from SP 527 to IH 10, widen US 59 bridge at Fort Bend/Wharton County Line.	\$1,813
13 US 59N	Reconstruct and widen US 59N from Montgomery County Line to Cleveland bypass, reconstruct and widen LP 494 from Sorters-McClellan Rd. to Kingwood Dr.	\$177
 Air Quality Related 	Fund activities for regional programs including Commute Solutions, Clean Vehicles, Clean Cities, Rideshare, and METROStar Vanpool.	\$70
– Freight	Implement regional freight initiatives including roadway improvements and railroad grade separations at key locations.	\$426
– ITS/Safety	Further implementation of regional Intelligent Transportation System (ITS) equipment and infrastructure, Motorist Assistance Program, and regional freeway towing program.	\$301
 Local High Capacity Transit 	Construct busway on Post Oak Blvd. and Uptown Transit Center, regional park and ride expansion, construct access to US 290 HOT/HOV lanes.	\$379
 Other Major Roadway 	Implement roadway construction, reconstruction, and widening projects on principal arterial roadways outside of the 13 major travel corridors.	\$1,585
Pedestrian/Bicycle	Expansion of Houston Bcycle bikeshare program, construction and enhancement of bicycle and pedestrian facilities throughout the region.	\$237
 Thoroughfare Development 	Implement roadway construction, reconstruction and widening projects on smaller state, county, and city roadways.	\$1,674
– Transit Capital	Capital expenditures for public transportation, including terminal facilities, transit centers, park and ride modifications, maintenance, and replacement buses.	\$1,026
– Transit Other	Operating and planning expenditures for smaller transit agencies and METRO ADA paratransit services.	\$78
		\$17,300