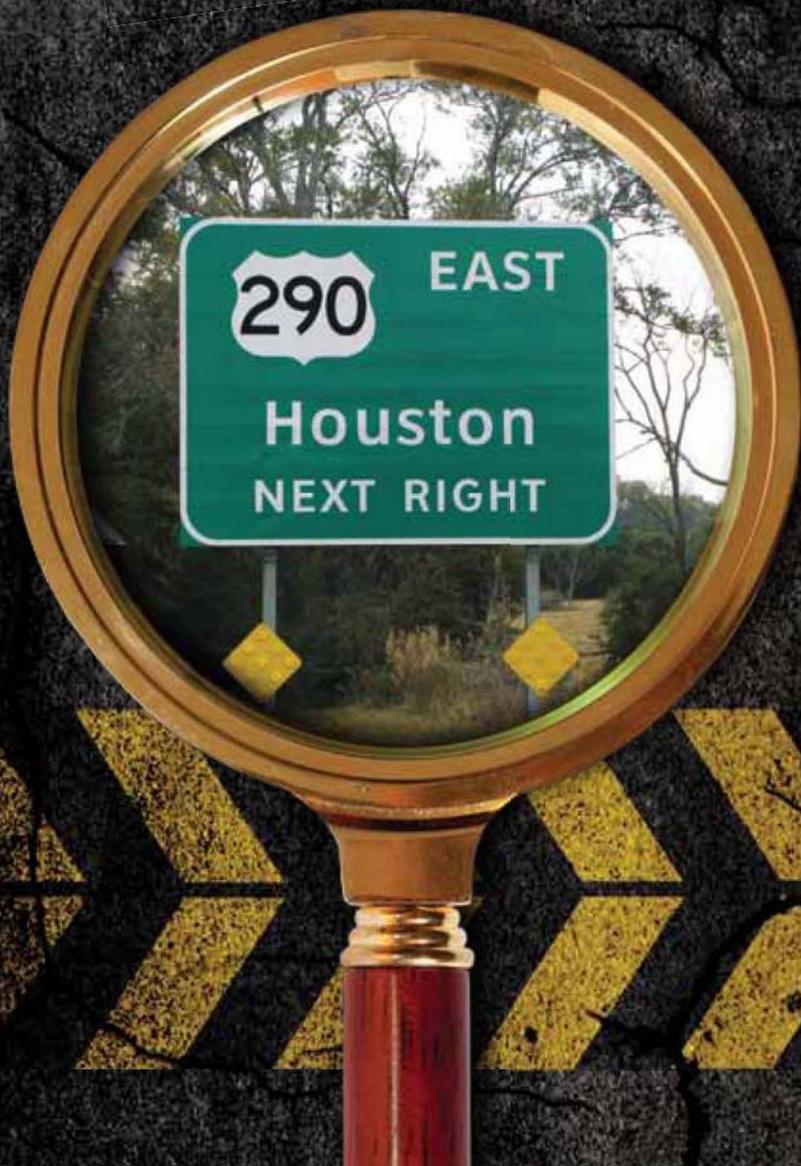


By Greg Varhaug

FOR WHOM THE ROAD TOLLS

The Curious Case of US-290



For Houston drivers, 2008 marked a banner year in road improvement, with the opening of the I 10 Katy Freeway and the new NASA 1 Bypass, and the dedication of the I 45 Galveston Causeway. Between 2003 and 2008, more than 10 major road projects were completed in and around Harris County.

But what of the long awaited project to widen US 290 and construct a new Hempstead Tollway? It continues to drift in bureaucratic limbo. The Harris County Toll Road Authority (HCTRA) and TxDOT each have plans for the project, but can't seem to reconcile their priorities. And now state budget shortfalls,



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compounded with recent cost increases in highway construction, threaten to keep the project on hold for the foreseeable future.

The success of this project arguably has implications statewide, if not for the entire nation. Correspondingly, problems with the

US-290 project point to problems that threaten highway construction projects across the country.

The US-290 expansion, among the last of Houston's major freeway expansions, will bring welcome relief to a perpetual traffic snarl. In its current condition, travel on US-290 is slow,

which worsens congestion on the 610 West Loop and its nearby interchange to the I-10 Katy Freeway.

The plan calls for expanding US-290 to five lanes each way, from the 610 interchange out to Highway 6, where it would narrow to four lanes until reaching the SH 99 Grand Parkway, then further narrowing to three lanes from there to the Harris County line.

The plan also calls for direct access lanes from the I-10 Katy Freeway to US-290 without first exiting to the West 610 Loop, as drivers now must do. The traffic pressure where these three freeways intersect makes for one of the most harrowing and dangerous stretches of road in Houston.

TxDOT's plans for US-290 include widening freeway lanes and access roads, replacing entrance and exit ramps, and modifying the medians. Most importantly, the plan also calls for the creation of a Hempstead Tollway – a set of managed toll lanes running down the center of the freeway. This has already been done with the I-10 Katy Freeway, marking the first time in the U.S. that toll lanes were added to an existing freeway.

Who's Building What

At present, however, given recent revised estimated construction costs versus anticipated toll revenues, the project's tollway component is in question. HCTRA is authorized to build the managed lanes for the Hempstead Tollway. TxDOT's plans to build the US-290 general purpose lanes hinge on HCTRA's first constructing the managed lanes. But in its latest capital plan, HCTRA has not funded construction

of the managed lanes.

HCTRA has historically been at odds with both TxDOT and the Texas Turnpike Authority (TTA) before it. In 1982, the TTA backed out of plans to build the north section of Beltway 8, which had been planned since the 1950s. So Harris County voters took matters into their own hands. With some prompting, the Texas Legislature voted to allow Harris County to create its own toll road authority. HCTRA was created in 1983 when voters approved a \$900 million bond program to build the Sam Houston Tollway (Beltway 8) and later, the Hardy Toll Road.

In 1997, TxDOT took over from the TTA as authority for toll roads not already governed by a separate toll road authority. But as recently as 2007 there were disagreements between the two agencies regarding authority to implement the US-290 project. It has since been decided that HCTRA has sole authority to build the Hempstead managed lanes.

A Matter of Statewide Interest

Demographers predict that the Texas population could double within 30 years. And some believe that the US-290 corridor is poised to experience the fastest population growth of any region in the state, or for that matter, in the country.

Senator Joe Williams, who sits on the Texas State Senate Finance Committee, argues that expanding US-290 is a matter of interest to the state at large. He cites the high volumes of freight from the Houston Ship Channel which regularly travel over US-290. More importantly, he sees a national strategic concern in the fact that much of America's gasoline and diesel gets processed at refineries near Beaumont, and pass through Houston.

While most of the discussion around the US-290 project centers on the costs of moving it forward, there are also costs for doing nothing. Today's traffic congestion is costly. In its 2025 Regional Transportation Plan (RTP), published in 2005, the Houston-Galveston Area Council estimates that traffic congestion will cost the Houston-Galveston region over \$11 billion, unless measures are taken to alleviate it. Congestion costs could be reduced by over \$95

billion by 2025, the Council urges, if steps are taken soon.

The 2008 Construction Funding Collapse

Plans to widen US-290 got caught in a collapse of available highway funding. In the 1990s through 2001, TxDOT allotted about \$600 million to its Houston district every year, which during the boom years of 2003 through

2007, grew to average about \$1 billion annually. Then in 2008, the Houston district was allotted only \$340 million.

The reasons behind this are complicated. In 2007, TxDOT created something of a scandal over its procedural and accounting errors. An "internal miscalculation" forced TxDOT to revise its projected 2008 budget downward by about \$1 billion. A state auditor's investigation followed, with stern recommendations for correcting systemic



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problems within TxDOT that had led to its budget forecasting errors.

This episode coincided with dramatic cost increases in highway construction, already increasing steadily for years, as confirmed by data from the Federal Highway Administration and state highway departments. The cause? – rising oil prices, plus higher costs for materials: cement, concrete, asphalt, steel. There is also debt service on bonds, on top of additional routine maintenance costs for new roads.

And a new culprit has emerged – blame the sudden funding collapse on the improved fuel efficiency of newer cars. While drivers may rejoice at the pump, better mileage has a downside when it comes to funding state road projects. Fuel tax revenues don't rise, while demands on the system are increasing steadily.

David Ellis is with the Texas Transportation Institute, which, as part of Texas A&M University, is the world's largest transportation research institute. At Cy-Fair Houston Chamber's 3rd Annual Mobility Forum, Ellis laid out the state's current funding problems.

Ellis stated, "If you look at what has happened in Texas over the course of the last 30 some-odd years, our population has increased by greater than 2 percent per year. The number of registered vehicles has gone up by greater than 2.5 percent per year. The number of miles we travel has gone up about 3-1/2 percent per year. But the number

of state-maintained lane miles that we have added to the system during that period of time has gone up about a half a percent per year.”

This is where better mileage plays into it. Between 1991, and 2005, fleet-wide fuel efficiency rates were generally stable, but since 2006 have been increasing noticeably. So even though the number of miles driven keeps going up, fuel consumption is down, compared to how much fuel it would have taken to travel the same distance in previous years, with less efficient vehicles.

Under our existing fuel tax scheme, fuel taxes in Texas have nearly peaked. Fuel efficiency, on the other hand, hasn't peaked at all, and is expected to surge dramatically in the coming years, as more and more people purchase hybrids.

Fuel taxes are different from other taxes. Sales taxes, for example, are based on a percentage of the total purchase price. But fuel tax is assessed by how much fuel is purchased, regardless of the price. When fuel prices rise, demand typically drops. But fuel taxes don't rise along with the price of fuel. Ironically, higher fuel prices can lead to lower fuel tax revenues. A similar formula is mirrored in federal fuel tax revenue.

When fuel taxes were first being formulated, no one foresaw how suddenly and dramatically fuel efficiency would increase. The original intent was to have a tax that rose or fell according to how much you drove. And taxing gasoline and diesel by volume worked reasonably well, as long as fuel efficiency rates remained stable. But that has now changed, and our current taxation scheme cannot sustain – within 20 years, Texas drivers are expected to drive 33 percent more, with fuel tax revenue projected at 23 percent less.

Ellis calls the state fuel tax “the disappearing tax” because it gets eroded as fuel efficiency rises, and as construction costs rise. He warns us about continuing with business as usual. Projected revenues and expenses are on a collision course.

Options for Funding

Legislators have suggested a number of specific ways to fund the US-290 project. State Senator Dan



State Senator Dan Patrick believes raising the state gas tax will help grow the private economy and decrease the size of government.

Patrick has stated publicly that he supports raising the state gas tax. He reasons that growing the private economy helps to ultimately decrease the size of government, that roads are key to growing the private economy, and that a healthy transportation sector is vital to a healthy economy.

Funding for Texas's state roadway system comes from state and federal fuel taxes, state vehicle registration fees, and bond proceeds with money going to TxDOT. There



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are also joint funding agreements with cities, counties, and toll authorities partnering with the state to supply funding.

The state is likely to re-examine how it allocates its highway funds. Some have suggested reducing the size of TxDOT. One way is to outsource some of the design and engineering work.

The total cost for improving US-290 is estimated at \$18 billion, coincidentally the same amount as Texas's projected budget gap through 2013. At least one state legislator has recommended using the state's entire \$9 billion Rainy Day Fund, although this idea may be a tough sell for representatives from other districts; and accessing the Rainy Day Fund requires a 2/3 majority in the Legislature.

The Problem of Continued Sprawl

Houston is perhaps the largest unzoned city in America. Houston has chosen to make use of private covenants like neighborhood associations rather than citywide zoning. On Houston's outskirts you'll find a number of master planned communities, arterially connected to the heart of the city.

City life that clusters along these arteries is little more than a service corridor for motorists. Those concerned with the problems of sprawl along US-290 have a chance to see whether some limited zoning can stave off some of the worst effects of continued sprawl in the area. Limited zoning measures are being discussed.

The classic symptoms of urban sprawl are low-density land use, single-use developments, communities that depend upon cars and extensive

roadways. A basic measure of sprawl is population density. Houston is often held up as the poster child for urban sprawl in Texas. This reputation may not be completely deserved.

Houston's first freeway, the Gulf Freeway, opened its first section to traffic in September 1948. That same year, Houston voters rejected zoning for the first time, even though the City Planning Commission had recommended it since 1929. As recently as 1991, the Houston City Council proposed zoning again, but voters rejected it in 1993.

Dallas, on the other hand, has had comprehensive zoning since the 1930s. Dallas has a regional transit authority, as Houston does. Dallas also substantially overhauled its freeway system beginning in the 1990s. As a result, Dallas's mass transit system is generally considered to be well ahead of Houston's. But, because of zoning, Dallas's traffic situation is no better: Dallasites and Houstonians spend

about the same number of hours each year stuck in traffic.

And in Houston and Dallas, with both cities nearing the end of nearly 15 years of major freeway expansions and improvements, people are starting to wonder when it will all end.

Possible Use of Existing Rail Line

Another open question is how to implement the rail component of the US-290 expansion. Houston's Metro Solutions Phase 2, approved by voters in 2003, includes plans for building 28 miles of commuter rail transit along US-290. However, more recently there has been discussion of using existing rail lines for passenger rail, an idea which wasn't on the table when Phase 2 was passed.

The Union Pacific rail line runs along US-290, and carries relatively little freight traffic. Union Pacific has indicated some willingness to either sell the line, or agree to a dual use of it. One suggestion has been to restrict freight traffic to late evening hours.

The feasibility of such a project is being studied, weighing such factors as projected ridership, and the physical condition of the existing track. This proposal would require approval from TxDOT, the Harris County Toll Road Authority, and the Gulf Coast Rail District.

The Final Outcome

What are the chances for the Hempstead Tollway? TxDOT's plans for using the Tollway's managed lanes to minimize the disruptions from construction on 290 are now in doubt, since HCTRA hasn't budgeted for the Hempstead project in its latest capital plan.

HCTRA has budgeted \$125 million to build a new segment of the Grand Parkway. Proponents of this move call it a needed corridor from West I-10 to US-290. Opponents consider it a subsidy to future developers, noting that comparatively few people currently live in the area that this expansion would serve.

This isn't to say that 290 expansion is at a standstill. Current construction is authorized, under existing TxDOT Transportation

System Management (TSM) Improvement Projects. In fact, at least four separate areas on 290 have been expanded, mostly outbound approaches to major intersections, as well as expansions of outbound frontage roads.

County Judge Ed Emmet characterized the current state of the project bluntly, pointing out that the funding has not been approved, and that the planning is not yet complete. Nevertheless, he and a number

of state legislators have expressed optimism that the project will ultimately go forward. **N**

Greg Varhaug has written software instruction manuals and procedural manuals for many Houston energy and manufacturing companies, and has designed websites for smaller companies. A professional musician for over 25 years, he has produced music for numerous commercials and independent films. Greg is an instructor at Houston's ABC School of Music, and he operates HoustonGuitar.com, a commercial music-instruction website.
