

COMMERCIAL REAL ESTATE MARKET GUIDE 2006

I-45 Parkway/Tunnel alternative may offer multiple advantages

Houston's economic growth has been defined by a dramatic increase in highway traffic and the demand for more highway lanes. This has led to the construction of new "mega highways" such as Interstate 10 with 18 lanes. Unfortunately traffic demand outgrows highway capacity, making it necessary to augment highway capacity every 20 years.

Interstate 45 was first opened in the early 1960s, expanded in the 1980s and it is now undergoing plans for new expansion totaling 16 lanes.

Considering that I-45, I-10, and U.S. Highway 59 transverse Houston's urban core, the purchase of more right-of-way to expand these highways has proven to be prohibitively expensive.

The purchase of right-of-way for the expansion of I-10 outside Loop 610 has cost more than \$317 million. The expansion of highways removes properties from the tax rolls, thus reducing tax revenues for the City of Houston, Harris County and Houston Independent School District. Loss of tax revenues, reduction of business activity due to construction, closure of businesses and years of traffic delay represent some of the negative impacts typically not quantified properly when highway expansion is planned.

Modern cities concerned with quality of life and quality of business, such as Santiago (Chile), Dallas, Boston and Madrid are proactively addressing the need for urban mobility and finding alternatives to widening urban highways.

The highway Costanera Norte through downtown Santiago includes over four miles of underground highway and added

108 acres of green space. Calle 30 (M30) in Madrid will place over 30 miles of highway underground, free-up 28 miles for outdoor amenities and include the development of an arts center.

Dallas has added the equivalent of two highway lanes along Central Expressway by incorporating high capacity transit into the highway corridor.

And Boston's Big Dig, although perceived to be the most expensive highway tunnel project, included only 1.6 miles of roadway tunnels but created 300 acres of green space in downtown Boston.

Toll-only projects like Santiago's Costanera Norte are paid for by private investment through concessions allowing public entities with limited funding sources to construct much needed transportation infrastructure at low cost.

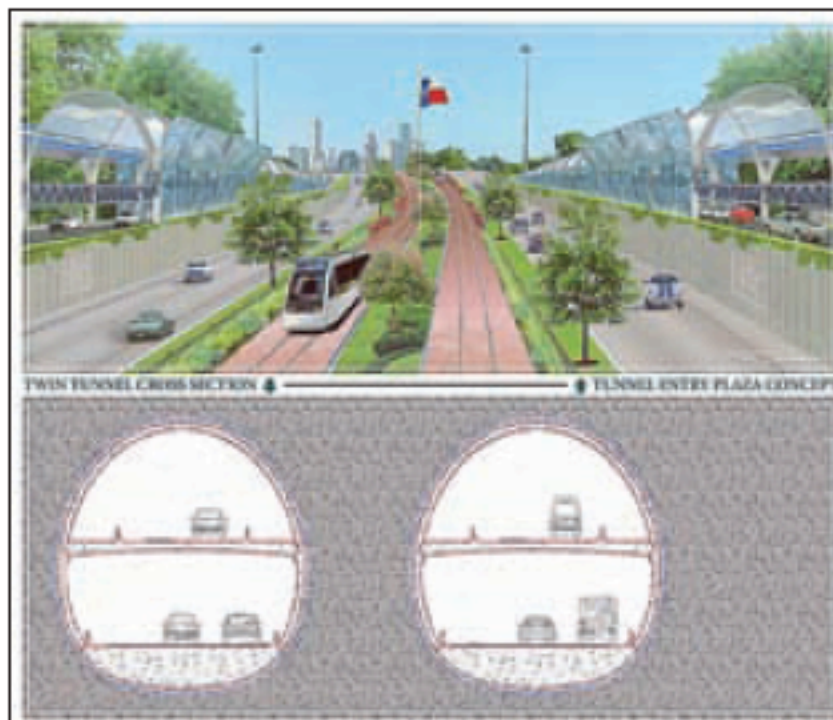
The Texas Department of Transportation has conducted preliminary analysis for expanding 30 miles of I-45 (from I-10 to The Woodlands) resulting in the selection of Alternative No. 2 which includes four service road lanes, eight all-purpose lanes and four managed lanes — 16 lanes with a total width of about 280 feet.

An innovative alternative — the I-45 Parkway/Tunnel — would reconstruct I-45 into two 50-foot diameter roadway tunnels extending from Beltway 8 to U.S.-59 south of downtown. The I-45 Parkway/Tunnel proposal has prompted TxDOT to consider further alternative analysis.



I-45 PARKWAY/ TUNNEL

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tunnel engineering and construction and local transportation and geology.

Tunnel experts categorically indicate that roadway tunnels can be constructed in Houston. It should be noted that tunnels are designed not to flood, as demonstrated by the Washburn Tunnel under the Ship Channel.

The I-45 Parkway/Tunnel alternative is a long-term alternative to address local and regional mobility. Relocating HOV traffic into the tunnels would allow the HOV lanes to eventually be used for high-capacity transit connecting The Woodlands, Greenspoint, Bush Intercontinental Airport, downtown, University of Houston/Texas Southern University and Hobby Airport. Ultimately, I-45 can be reconstructed into a boulevard like Allen Parkway, creating a multi-modal transportation corridor with added green spaces.

As with Santiago's Costanera Norte, European construction companies familiar with tunneling and financing this type of project have indicated their interest in designing, building and financing the I-45 Parkway/Tunnel project.

While TxDOT must consider and evaluate the tunnel alternative, Mayor White and members of City Council have yet to show support for the I-45 Parkway/Tunnel alternative. On the positive side, dozens of Houston organizations, including the Houston Property Rights Association, have viewed the I-45 Parkway/Tunnel alternative and have expressed support.

If a proper alternative analysis is conducted, TxDOT will find that the I-45 Parkway/Tunnel proposal is the best alternative for reconstructing I-45. The I-45 Parkway/Tunnel is the only alternative with a vision appropriate for Houston's future and quality of life. ■

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The I-45 Parkway/Tunnel alternative offers many benefits over the traditional "pancake" (flat and wide) highway:

- No additional right-of-way is required.
- New tunnel-boring technology allows for construction of tunnels under existing roadways with little disruption to existing traffic.
- Roadway tunnels require only one-third the construction time, increase safety and traffic flow efficiency by limiting traffic access.
- A toll-only facility permits private financing (concessions).
- Tunnels will decrease traffic demand on the existing I-45.
- Toxic suspended particulates can be purified before release from the tunnels.
- Tunnels will provide a more efficient infrastructure for emergency evacuation.
- They could provide emergency shelter for over 250,000 people.

These benefits have been identified during nearly two years of investigation and consultation with international experts in