TO: Mayor & Council

FROM: Greg Canally, Deputy Chief Financial Officer gdc
Rob Spillar, Austin Transpiration Department, Director RS

DATE: May 27th, 2014

SUBJECT: Response to Council Resolution on I-35 Capping Study

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Please find attached the final I-35 Capping economic analysis report from Texas Perspectives (TXP), as requested by Council Resolution 062013-058.

Background

For nearly three years, TxDOT has engaged with the Central Texas community to explore short-term and mid-term mobility improvements to I-35, and as a result has crafted an I-35 Capital Area Improvement Program. More info on this TxDOT effort can be found at http://mobility35.org/

One result of this community dialogue was the idea to improve east-west connectivity along I-35 through downtown Austin by depressing the existing lanes, and constructing a "cap" over those lanes. The TXP study analyzed this concept by looking at the economic benefit of constructing such a cap. The report's findings are based on similar projects around the country. The most applicable to Austin is the Klyde Warren Park in Dallas, essentially cap built on top of a section of the Woodall Rodgers Freeway (which was originally constructed as depressed lanes), resulting in a 5.2 acre park. The cost of this effort, completed in 2012, was $110 million.

Findings

Translating this to Austin, TXP looked at the impact of a cap from River Street to MLK Boulevard on land values on either side of the highway, with the assumption that due to increased connectivity, over time land values east would look more like land values west. The study area was eighth and a quarter mile of each side of I-35 along that stretch. By comparing the one-eighth mile and quarter mile areas on either side, TXP has provided three revenue uplift scenarios, ranging from $0.5 million annually to $4.7 million annually (all in 2013 $), which could result if a cap was constructed.

However, TXP indicates that these findings "create parameters" of impacts for future studies, and that the findings themselves have substantial caveats. Generally, increases in land value in the area will be the result of many factors, not just caps. Specifically, the study assumes a full cap all at once, but may not be feasible due to technical and financial reasons. Also, market conditions will be a major force on land values, regardless of any infrastructure investment. Lastly, the mobility improvements in themselves – independent of any capping – would positively impact connectivity and thus, land values.

Looking Ahead

As part of its overall I-35 planning, TxDOT will be taking the downtown segment into the environmental phase with two alternatives: depressed lanes, with and without caps; and modified existing main lanes, continued as an elevated structure. Under the depressed alternative *with* caps, TxDOT has identified three potential areas for future caps: between 11th and 12th Streets; between 6th and 8th Streets; and between Driskill and 4th.

The financial projections in TXP study assumed a cap along the entire downtown stretch of highway. However, given TxDOT's downtown alternative includes three potential capping opportunities, TXPs projections would necessarily be factored down accordingly.

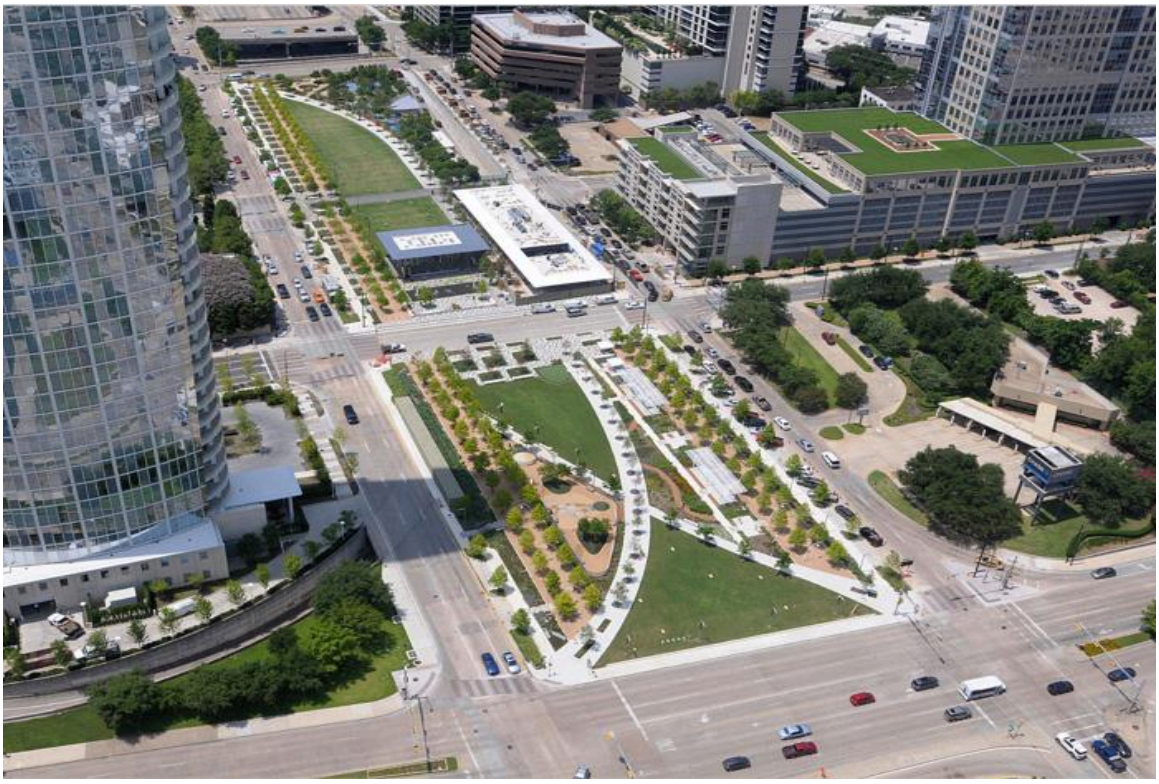
The City of Austin stands ready to pursue increased east-west connectivity through our downtown. As TxDOT moves through the I-35 planning process, we will continue to engage with them and stakeholders to include enhanced connectivity as part of any future project.

xc: Marc A. Ott, City Manager
Robert Goode, Assistant City Manager
Elaine Hart, Chief Financial Officer

Attachment: *Texas Perspectives (TXP) I-35 Capping Economic Analysis Report*

Potential Property Value Implications of Transportation & Land Use Improvements Related to I-35 Capping

Spring 2014



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Overview

Interest began to build last summer in the idea of incorporating an analysis of recessing all or parts of the downtown section of I-35 as the Texas Department of Transportation (TxDOT) considered improvements to the Central Texas I-35 corridor. City Council Resolution # 20130620 responded to community stakeholders that "have brought forward a scenario known as the IH-35 Cut & Cap or Reconnect Austin, which entails recessing a portion or all of the highway and constructing a cap over sections to connect East and West Austin through the edges of downtown from approximately River Street to Martin Luther King, Jr. Boulevard." The resolution goes on to articulate that depressing the highway could "offer social, connectivity, urban design and economic benefits, in addition to transportation and mobility benefits," and references Klyde Warren Park in Dallas, a similar effort over the Woodall Rogers freeway. The City Manager was directed "to engage a professional services firm to perform an economic analysis," a task for which TXP was selected. This report represents the results of that effort. A discussion of the general role of transportation in the economy is included for overall context, followed by a review of the process by which the estimates were generated, a discussion of the results, and the report's overall conclusions.

Transportation Improvements and the Economy

In addition to mobility and public safety considerations, decisions on transportation infrastructure and related facilities have an impact on local economic development and the growth of a regional economy. This is nothing new, as much of the modern economy can be traced to the implementation of networks – highways, rail, telecommunications, and energy. The ability to efficiently move goods, people, capital, energy, and ideas continues to underpin the way humans live, work, and play.

Throughout history, transportation was the first network system to be comprehensively deployed, with improvements in the movement of goods and people preceding every stage of industrial development. As outlined by Dr. John Kasarda of University of North Carolina, transportation was a critical ingredient in the four major waves of industrialization that have occurred to date:

- The first great cities developed around seaports and along trade routes.
- The second wave of development — and the beginning of the Industrial Revolution — occurred when factories used canals and rivers for power and shipping.
- The third wave of industrial development started with the railroad system, which opened up landlocked resources.

- The fourth wave of development began with massive investments in highway infrastructure that increased traffic, expanded personal mobility, and accelerated metropolitan growth.

According to FHWA, the current (fifth) wave of industrialization is based on innovations in logistics and manufacturing. Increasingly, components are manufactured offshore, and then they are assembled into finished products near the point of their final consumption or use. This business model depends strongly on a fast and reliable transportation network that minimizes the cost of production. Just as highway infrastructure made the fourth wave possible in the United States, the country's current performance depends heavily on a seamless transportation system.

There are a number of specific economic implications of enhanced transportation capacity. First, congestion mitigation has significant economic consequences. For example, the Texas A&M Transportation Institute (TTI) estimates that congestion has cost the average commuter in Austin an average of $1,155 annually from 2001-2011. Similarly, the Office of Freight Management of the Federal Highway Administration (OFM-FHA) states "congestion results in enormous costs to shippers, carriers, and the economy. The 2,110 freight bottlenecks on highways throughout the United States cause more than 243 million hours of delay to truckers annually. These bottlenecks cost truckers about $6.5 billion per year." Beyond these figures, failure to invest in transportation capacity can undermine quality of life, a key element of Austin's economic development asset portfolio.

In addition to the impact of the transportation facility itself, the nature and scope of associated land uses and their interaction with the built environment also can have economic development implications, which typically manifest themselves in property values. For example, greater integration of the grid in urban environments increases mobility, increasing the value of affected properties. By the same token, there is a demonstrable amenity value associated with parks and open space. As articulated by Dr. John Crompton at Texas A&M, this "proximate principle" creates approximately a 20% increase in the value of properties abutting a passive park area, 80% of which is derived from properties within 500 feet of the park. These findings were derived from analysis of a number of communities (including Austin), and reflect changes over time, which accommodates the influence of market cycles at any given point.

A real-world example of this proximate principle is found in Boston. In 1991, after almost a decade of planning, construction began on the Central Artery/Tunnel Project, more widely known as the "Big Dig". The project, recognized as one of the largest, most complex, and technologically challenging in the history of the United States, would remove the elevated highway and create a tunnel system below the city. With the elevated highway to be

relocated underground, community and political leaders seized the opportunity to enhance the city by creating the Greenway, a linear series of parks and gardens that would re-connect some of Boston's oldest, most diverse, and vibrant neighborhoods. Today, the Greenway encompasses gardens, plazas, and tree-lined promenades and is a key feature of the modern reinvention of Boston, the Harbor and the Waterfront. The following table illustrates some of the impact of the Rose Kennedy Greenway in Boston, as manifested in property values.

Table 1: Rose Kennedy Greenway: Comparative Property Values

Assessed Value/Sq. Foot	**2005**	**2009**
Greenway - Commercial	$101	$290
Greenway - Residential	$162	$553
CBD – Commercial	$84	$245
CBD – Residential	$152	$493

Source: HRA Advisors

Building on the idea of projects such as the Greenway in Boston, an organization called *Reconnect Austin* has proposed evaluating the possibility of similar infrastructure in Austin. According to their website, "Reconnect Austin is a group of volunteers, dedicated to encouraging the Texas Department of Transportation (TxDOT) to consider the needs of Austin as they rebuild the urban core of I-35 (Holly St. to 12th). "

Any a priori effort to estimate the potential impacts of the types of transportation infrastructure modifications such as the Greenway in Boston or those suggested by Reconnect Austin (referred to as "I-35 Capping") will necessarily rely on some combination of case studies and local analogs, as the details regarding program of work and external market environment will only become clear at some point in the future. To that end, the project team visited facilities in Boston, New York, Seattle and Dallas that at least have some element of what is locally contemplated. An important lesson the emerged from conversations in Boston and New York was that, while development in theory can occur directly over a capped facility, cost considerations will prompt vacant land and under-utilized properties to develop/redevelop first. In other words, building directly over a cap should only follow once this capacity is fully utilized, a situation unlikely to occur in Austin for some time.

Seattle and Dallas, by virtue of the relative age of the facilities, structure of the local economy, and character of the central city built environment, were considered to be the most comparable communities to Austin. As mentioned before, Klyde Warren Park (the

Park) in Dallas in particular is a useful case study. Officially opened in the fall of 2012, the Park is approximately 5 acres of deck built over the Woodall Rogers freeway in the heart of the city. According to the Park's website:

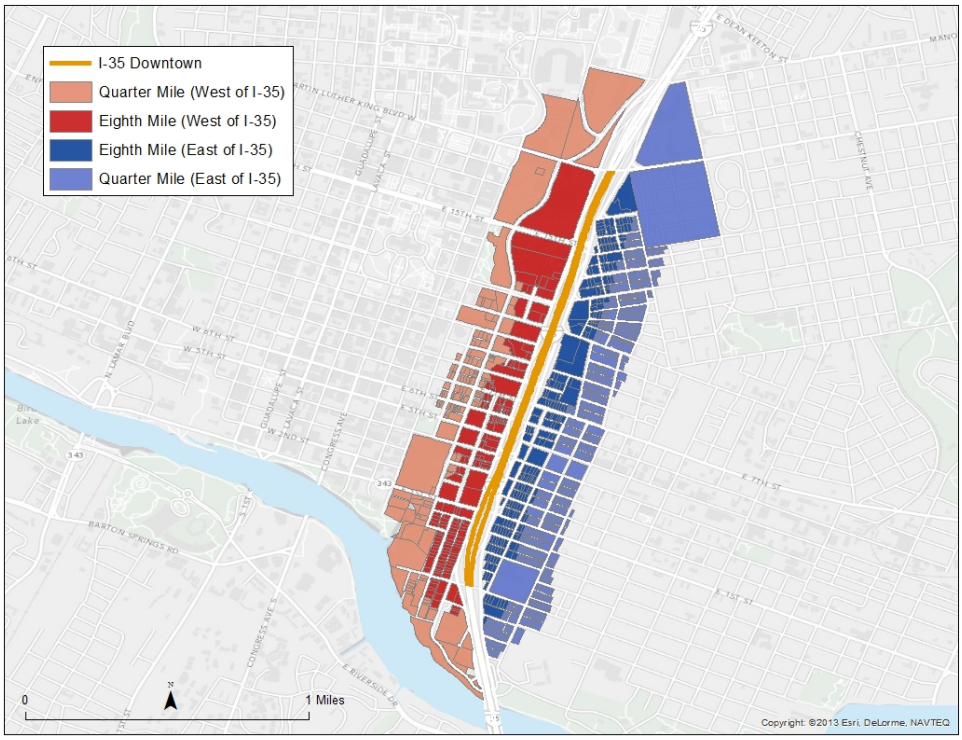
> The increased pedestrian connectivity and natural landscape heals the urban fabric of the city. The park is envisioned as a catalyst for the ongoing transformation of downtown Dallas by bringing quality of life, foot traffic to the area and increasing demand for surrounding properties. Leaders envision a place where people can build new traditions, share experiences and have fun in the center of Dallas. Public parks strengthen our communities and benefit our health, environment, quality of life, and economy. These are benefits that Dallas will enjoy for generations to come.

The $110 million project was funded through a range of sources, including $20 million in bond funds from the City of Dallas, $20 million in highway funds from the state and $16.7 million in stimulus funds. The balance of funding is through individual donors. The Park is owned by the City of Dallas and privately operated and managed by the private Woodall Rodgers Park Foundation

Estimating the Impact

While the timing of the Park's opening means that the impact has yet to fully ripple through to changes in taxable property value, interviews with local stakeholders, including developers, suggest that the value of the Park will be substantial, and encompasses both the implications of removing disconnection ("healing the urban fabric") and a park amenity ("catalyst for ongoing transformation of downtown Dallas"). In Austin, the translation appears to be that property values east of I-35 in the area of influence could begin to look more like values to the west of I-35. The following builds on this concept to generate order-of-magnitude estimates of the impact of I-35 Capping.

Figure 1: Study Area



Source: Travis County Appraisal District, TXP

While only certain sections of the highway that runs adjacent to the Central Business District would be viable for "caps" as proposed by Reconnect Austin, for analytical purposes, the Study Area is defined as all parcels within a quarter-mile of I-35 between MLK and Holly Street, with the information also stratified at an eighth of a mile. In this type of analysis, the convention is that if any portion of a given parcel is within the buffer, then the entire parcel is included, meaning that parcel and acreage counts are not exactly the same on either side of I-35 in the Study Area. In the table below, "Developed" refers to properties that have structures that are privately owned, "Public/Exempt" are government and/or religious institutions, and "Vacant" are parcels without structures.

Table 2: Land Use/Values by Acre: 2013 Data

Eighth of a Mile	East	West
Acres	62.4	90.2
Developed	46.6	72.1
Public/Exempt	7.9	11.8
Vacant	8.0	6.2
Share Vacant	12.8%	6.9%

Quarter of a Mile	East	West
Acres	210.4	235.0
Developed	137.5	129.0
Public/Exempt	56.6	96.2
Vacant	16.3	9.8
Share Vacant	7.7%	4.2%

Per Acre Taxable Value	Eighth of a Mile	Quarter of a Mile
East of I-35	A. $3,228,166	C. $1,926,834
West of I-35	B. $5,270,624	D. $7,969,631

	Per Acre	54.6 acres (1/8)	153.8 acres (1/4)
Value Differential: B/A	$2,042,458	1. $111,380,944	5. $314,030,047
Value Differential: B/C	$3,343,790	2. $182,346,215	6. $514,111,198
Value Differential: D/A	$4,741,465	3. $258,565,339	7. $729,005,187
Value Differential: D/C	$6,042,797	4. $329,530,610	8. $929,086,338

Source: Travis County Appraisal District, TXP

Per acre analysis reveals the differences in existing values, and shows the general drop in value moving from west to east. According to 2013 Travis County Appraisal District data, the average value per acre east of I-35 of taxable properties within an eighth of a mile that were not public or exempt was $3.2 million, declining to an average of just under $2.0 million when extended to a quarter of a mile to the east. By contrast, taxable properties to the west of I-35 within an eighth of a mile had an average per acre value of $5.3 million, a figure that rises to almost $8 million when extended to a quarter of a mile to the west. Using this information, several scenarios can be created that put some parameters around the

potential property value impact of I-35 Capping. It should be noted that all figures are expressed in $2013, and therefore do not include the impact of inflation over time.

By combining the acreage that is Developed and Vacant, a total of 54.6 acres are available for development/redevelopment within an eighth of a mile of I-35 in the Study Area, a figure that rise to 153.8 acres when the area of influence is expanded to a quarter of a mile. A conservative development scenario would see taxable values to the east of I-35 within an eighth of a mile rise to same level as those within an eighth of a mile to the west (from just under $3.2 million to $5.3 million), creating gain in taxable value $111.4 million (Number 1 in the table above). If the influence extends further to the east such that properties within a quarter of a mile now rise on average from just under $2.0 million/acre to $5.3 million/acre, the tax base gain would total $514.1 million (Number 6 in the table above). Finally, if properties to the east within a quarter mile ($2.0 million/acre) ultimately rise to level of properties to the west within a quarter mile ($8.0 million/acre), then the tax base gain would total $929.1 million (Number 8 in the table above). The current City of Austin property tax rate is $0.5027/$100 of assessed valuation; at that rate, $111.4 million in tax base translates into approximately $560,000 annually, $514.1 million equals $2.6 million, and $929.1 million yields $4.7 million per year.

Discussion

The exercise above creates parameters that can used to further identify the potential impact of I-35 Capping, but there are substantial caveats. First, timing is a crucial issue, both in terms of when the facility and associated improvements are actually implemented, and the nature and scope of the impacts. In general, the sooner the facility is implemented, the sooner the impact would be felt, and the impacts would tend to increase over time. The analysis above implicitly assumes that the entire study area is capped at the same time, but the reality of funding capacity may dictate a piecemeal, or phased, approach. If that were the case, the gains would largely be reduced proportionately, thought there may be some positive "spill-over" effects to properties that are not directly influenced.

A second issue is external market forces. Austin has experienced a range of boom and bust cycles in the recent past; while there is no reason to think the overall trend will be anything but positive over the longer-term, the timing of impacts can be significantly influenced by the overall development cycle. By the same token, development has, at least to some degree, already jumped I-35, as property values east of the highway are rising rapidly.
Third, the ultimate design of the improvements (independent of capping) can influence adjacent values, as a depressed roadway creates a number of connectivity options. Finally, a question has arisen as to the volume and value of new land for development that could be made available from existing right-of-way under a capping approach. Although it is beyond

the scope and expertise of this study to estimate how much, if any, additional acreage for development would result, it is reasonable to assume that any new acreage would yield values consistent with the findings here, although the baseline would be zero, rather than an existing value. However, as noted above, development cost considerations regarding newly created land would prompt existing vacant land and under-utilized properties to develop/redevelop first.

Conclusions

Aside from safety, mobility, and quality of life considerations, the possibility of reworking I-35 through downtown Austin to include park amenities and increased connectivity offers substantial additional potential benefits to the community. These gains will manifest themselves, at least in part, in a rise in taxable property values, blurring the sharp distinction between per acre value to the east and west of the existing facility. This distinction highlights the implications of the current configuration of the highway facility. The financial projections should be seen as highly illustrative, as both the market environment and details as to the nature, timing, and scope of the actual facility improvements inevitably will substantially alter the ultimate impacts. By the same token, those same factors will have a significant impact on financing capacity and structure.

Overall project cost is also an issue. Separate work by Parsons Brinckerhoff related to this effort states that:

> "CAMPO currently estimates that the entire 6-county region will have roughly $32 billion to invest in transportation infrastructure over the next 27-years . . . . several agencies are relying on that aggregate funding level for a variety of projects, and some of those dollars have been set aside for projects such as expansion of the regional rail infrastructure, completion of the regional highway network, county and city roadway projects that improve local mobility, and pedestrian and bicycle access throughout the region. The current $1.3-1.9 billion cost for the entire I-35 program of projects would require a significant portion of all of the estimated FHWA/TxDOT/CTRMA funding planned for the region over that time-period."

While the costs of the overall project are sobering, the possibility of increasing connectivity and adding park amenities to the safety and mobility benefits associated with re-doing I-35 is well worth continued study and exploration.