

trip2000

Travel Rate Improvement Program for the Houston Area

Preserving Mobility in the 21st Century



Travel Rate Improvement Program Organization

The 2000 Travel Rate Improvement Program (TRIP 2000) was the product of several committees working under the auspices of the Greater Houston Partnership, Chamber of Commerce Division.

The Executive Committee's purpose was to direct the creation of the report, from its beginning in March 2000, to the final product. It is through the Executive Committee that consensus was reached on the content and format of the report. Ultimately, the Executive Committee will help guide the advocacy and education of our elected officials to encourage additional transportation investment in the eight-county Houston region.

The Steering Committee was charged with fine-tuning the "Toolbox of Ideas," and providing input into how to communicate and implement certain strategies. This group would take the output of the report and communicate it back to their members. Furthermore, this group would form the basis for the region-wide advocacy group that will bring transportation issues to the forefront in the region.

The Technical Committee provided technical background for the report, including historical data, current activities, future projections, and data analysis.



Executive Committee

James R. Royer	Turner Collie & Braden Inc.
Lee P. Brown	Mayor, City of Houston
Robert Eckels	County Judge, Harris County
C. Richard Everett	Century Development
Robert D. Miller	Metropolitan Transit Authority
Jim C. Kollaer	Greater Houston Partnership
Robert Lanier	Landar Corporation
Michael Stevens	Michael Stevens Interests, Inc
Priscilla Slade	Texas Southern University
James T. Edmonds	Port of Houston Authority
Graciela E. Martinez	El Paso Corp.

Bold indicates Greater Houston Partnership Board of Directors

Steering Committee

Greater Houston Partnership	Houston Citizens Chamber of Commerce
Metro National Corporation	Houston Northwest Chamber of Commerce
Asian Chamber of Commerce	Houston-Galveston Area Council
Brazoria County Partnership	Metropolitan Transit Authority
Central Houston, Inc.	North Houston Association
City of Houston	South East Harris County Economic Development
City of Stafford	South Montgomery County Woodlands Chamber of Commerce
Dayton Community Development Corporation	Texas Medical Center
East End Chamber of Commerce	The Woodlands Operating System, LLP
Galleria Chamber of Commerce	Union Pacific Railroad Company
Greater Fort Bend Economic Development Council	Uptown Houston District
Greater Greenspoint Management District	West Chambers Economic Development
Hempstead Economic Development Corporation	West Houston Association
	Westchase District

Technical Committee

Alan Clark	Houston-Galveston Area Council
David Finklea	Greater Houston Partnership
Wesley Friese	Harris County Toll Road Authority
Carol Lewis	Texas Southern University
Tom Kornegay	Port of Houston Authority
Tom Rolan	City of Houston Public Works and Engineering Department
John Sedlak	Metropolitan Transit Authority
Art Storey	Harris County
Gary Trietsch	Texas Department of Transportation
Rick Vacar	City of Houston Aviation Department

The Big Picture – The Problem

Each day a total of 16.1 million person trips occur in the Houston region. In the last decade alone, the number of daily person trips grew by 3.75 million. New infrastructure capacity is only meeting 40 percent of this growth in travel demand, resulting in a drop in peak period speeds of as much as 50 percent on some sections of the region's freeways and toll roads. The amount of travel continues to grow each year, causing the situation to worsen (1).

The Houston region spent approximately \$1.6 billion in 2000 on transportation improvements. A similar rate of expenditure in the future will mean that after operation, maintenance and rehabilitation of the transportation infrastructure and construction of non-regional facilities, approximately \$300 million will be available annually to fund all of the Houston region's added capacity projects (1). This funding level will not keep pace with current travel growth. Further, it does not address the problem of declining state highway funding, decreasing federal transit funding, and an increasing maintenance load for an aging system. In addition, construction on new or wider rights-of-way, as well as new grade separations and transit facilities is becoming increasingly difficult because of physical and environmental constraints.



What Is The Answer?

The Houston-Galveston Area Council's VISION 2022 Metropolitan Transportation Plan is an essential starting point. It contains a range of strategies to improve mobility. TRIP 2000 adds other options to the set of choices, systems and programs, but the goals are the same – decrease the time to make a trip and improve the predictability of travel. There is no single answer, but there is potentially great progress to be made by:

- 1. Expanding all elements of the transportation system**
- 2. Changing the way travelers use the transportation system**
- 3. Increasing the utilization of our existing capacity**
- 4. Providing a broad range of “urban scheme” options – the way that jobs, shops, and homes are arranged**

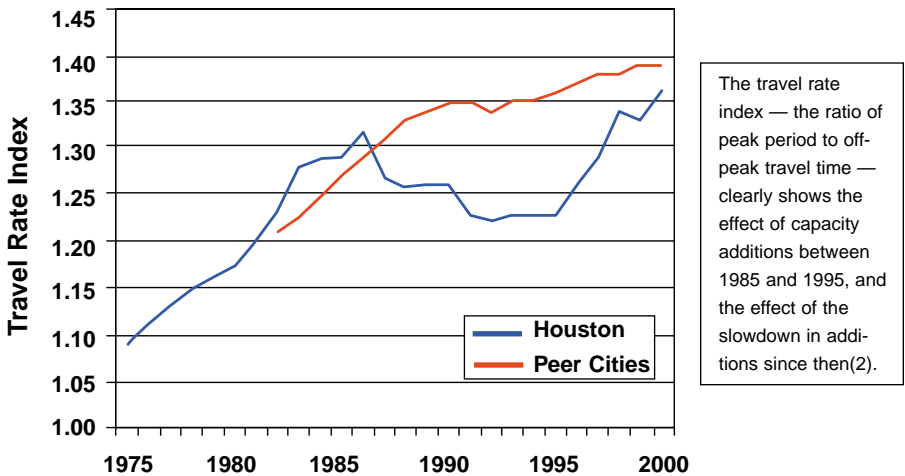
The solution set must be viewed in a comprehensive fashion. It is unlikely that any single proposal taken alone would have a significant impact. All of the proposals, however, provide incremental solutions. Together, they could have a significant impact on improving mobility in Houston for years to come. The central message of this report is that the Houston region cannot meet our growth by simply adding new capacity alone, as perhaps has been our practice in the past. The region must add capacity, but must also take additional action.

The solution is no longer a function of simply *more*. The solution must also be *better* and *smarter*. That is the message of TRIP 2000.

History

The Regional Mobility Plans (RMP) of 1982 and 1989 were responses to Houston's traffic congestion problem in the early 80s. The RMPs were joint efforts between transportation agencies and the business community. The Greater Houston Partnership and its predecessor, the Houston Chamber of Commerce, acted as a catalyst and created a "call to action" for membership – to address mobility concerns. As a result, between 1985 and 1995, Houston tackled a daunting task – **the region built its way out of a severe congestion problem.**

Since 1995, however, the pace of growth has picked up, funding for improvements has lagged and few construction projects or service expansions have been started to replace those completed during the 80s and 90s. There is a "lag-time" between funding increases and congestion benefits.



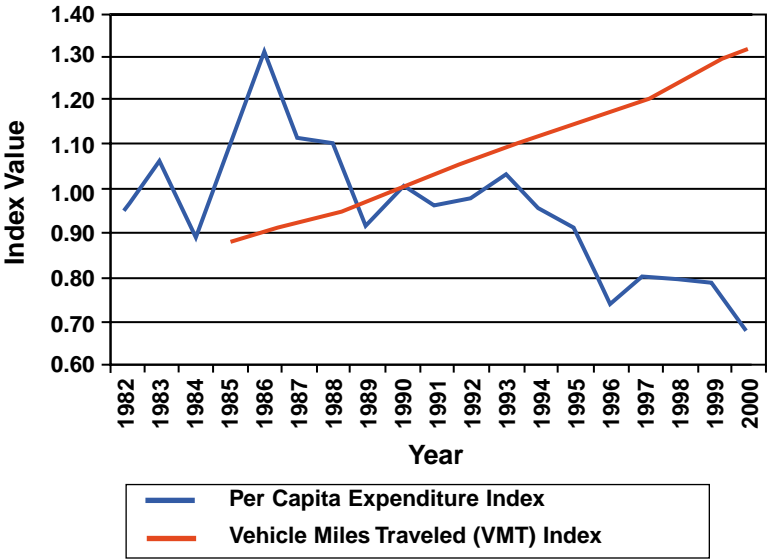
Source: Texas Transportation Institute, 2001 *Urban Mobility Report* (2)
Peer cities include Boston, Chicago, Detroit, Los Angeles, New York City, Philadelphia, San Francisco, Washington, D.C.

Exhibit 1. Congestion Levels in Houston and Other Major Cities

In the past, a Super Group composed of the Houston mayor, the Harris County judge, the Metropolitan Transit Authority of Harris County (METRO), The Greater Houston Partnership, Texas Department of Transportation (TxDOT), and Harris County Toll Road Authority (HCTRA) formed the leadership nucleus for mobility issues. In the future, a diverse team (both in terms of geographic representation and expertise) must be assembled in order to lead the public and private sectors to implement effective solutions to a much wider range of issues critical to mobility improvement. These issues not only include recognition that the metropolitan area has grown significantly in a geographic sense, but also that other issues including air quality, economic development, and quality of life, must be considered as key elements of any mobility discussion.

So, while the region's population has grown by 20 percent during the past 10 years, governmental entities responsible for transportation have decreased annual investment in the transportation system by more than 15 percent (1,3). Since 1986, per capita investment in transportation has declined by almost 50 percent. The resulting impact of the slowdown in new project openings began to be felt in the mid-1990s. The travel rate index – a measure of the amount of extra time spent traveling – has increased. Any benefits of current decisions to fund new projects will not be seen for many years.

Mobility carries a significant price, but the status quo costs even more.



(Base Year 1990 = 1.00 for Expenditures and VMT)

Source: Houston-Galveston Area Council (5); Texas Transportation Institute 2001 Urban Mobility Report (2).
 Example: An index value of 1.10 would indicate a 10 percent increase.

Exhibit 2. Houston’s Transportation System — Spending and Travel

Other Challenges

The challenges we face in addressing our mobility problems extend beyond the issue of transportation alone. Just as transportation issues do not exist in a vacuum, neither do the solutions. In designing a workable and implementable solution set, we must also consider:

Demographic and Land Use Changes: Over the next 25 years, the Houston-Galveston region is expected to grow by almost 2 million persons and more than 1 million jobs. Current regional forecasts predict that the region will continue to decentralize as it grows. In 1990, three out of four residents in the eight-county region resided in Harris County. By 2025, only two out of three persons in the same area will live in Harris County (4,5).

Travel Increases: While vehicle travel is forecast to grow slower than in the last 10 years, it will grow faster than either population or employment growth. And the current estimates may be too low – they are based on expectations of slower economic expansion. Even at this lessened growth rate, regional VMT is forecast to grow nearly 55 percent between 2000 and 2025 (1,2).

Improving Air Quality: The eight-county Houston-Galveston metropolitan area currently exceeds the federal standard for ground-level ozone, an irritant to the respiratory system that can create health problems. Over the next few years, the Houston-Galveston area will achieve clean air standards through significant reductions in air pollutants from all sources, including vehicles traveling the region's highways.

Protecting Other Key Environmental Resources: Clean air is not the only environmental issue affected by transportation. Water quality, drainage patterns, noise levels, aesthetics and the natural environment can be adversely impacted by transportation facilities. Environmental mitigation constitutes a significant cost component of many mobility projects.

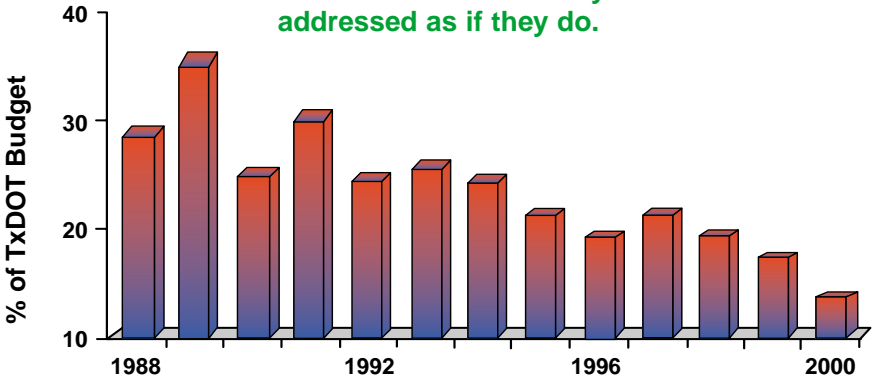
Public Support: The level of public concern over traffic congestion and transportation improvements remains high and is growing, as evidenced by recent community surveys. However, support for additional public funding for mobility improvements is, at best, mixed if dependent on expanded tax revenues. Where the linkage to mobility improvements is clear, such as local bond elections dedicated to transportation infrastructure development and toll road financing of new highways, public support remains strong.

Initial Steps

Houston area residents have long demonstrated their willingness to pay their fair share of the significant costs associated with building, maintaining and managing a transportation system. However, the region now contributes more funds for transportation improvements in other areas of the state than it receives in return. In order to address the mobility issues raised in this report, the Houston area must once again receive a fair return on the taxes and user fees its residents pay.

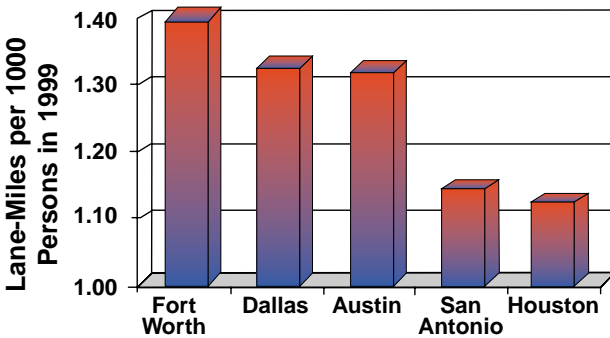
Once that is accomplished however, it still won't be enough. We must also continue to find ways to generate more local funds and use a variety of transportation improvements for our area. As illustrated in this report....

....mobility issues in the Houston area do not exist in a vacuum and cannot be effectively addressed as if they do.



Source: Texas Department of Transportation (3) and Greater Houston Partnership (1)

Exhibit 3. Funding for Houston's Transportation System from TxDOT



The amount of freeway equivalent lane-miles per person — roadway density — is an indication of the amount of road capacity provided. Even after the completion of significant freeway and street projects, Houston trails all other major Texas urban areas in this measure. This does not point to another round of freeway widening in every corridor, but it does indicate that Houston is not “road rich.”

Source: Texas Transportation Institute, 2001 Urban Mobility Report (2)

Exhibit 4. Do We Have Enough Roadway?

The first three steps toward recovering Houston's mobility are already included in the VISION 2022 MTP, but recent actions indicate they may not be the "certain future." If the following recommendations are not implemented, Houston's congestion problem will be worse than currently predicted.

•Recommendation 1: Houston must receive its fair share of funding from the Texas Department of Transportation.

The Houston region has more than 22 percent of the state's population and registered vehicles and contributes approximately 29 percent to the state's Gross Domestic Product (6). While in return, in 2000, the Texas Department of Transportation invested only 16 percent of its construction expenditures in the Houston District (3). This trend must be reversed quickly and substantially if Houston is to address its mobility needs.

Toward that end we must:

- 1.Begin to receive our fair share of state transportation funding (see Exhibit 3).
- 2.Secure additional funding to allow the area to begin to "catch up" on past transportation needs (see Exhibit 4). With more than 70% of the federal transportation dollars filtered through the state, our support for these additional transportation dollars is coupled with the requirements of an equitable return of those additional revenues (see Exhibit 5).
- 3.Marshall the efforts of Houston's elected officials—at the national, state and local levels—and the business community to address these issues with the appropriate elected and appointed officials.

•Recommendation 2: Houston must receive a reasonable level of federal funding.

Federal Transit Administration funding is included in the VISION 2022 revenue plans, but not all of the funding is assured. Federal Highway Administration funding levels to Texas have not met the standards set out in the current funding legislation. There are a variety of reasons for these shortfalls, but these must be remedied soon for project design and implementation to proceed. We will require the assistance of the entire Houston congressional delegation in order to affect this level of funding.

•Recommendation 3: Cities and counties in the Houston area must continue to fund transportation programs.

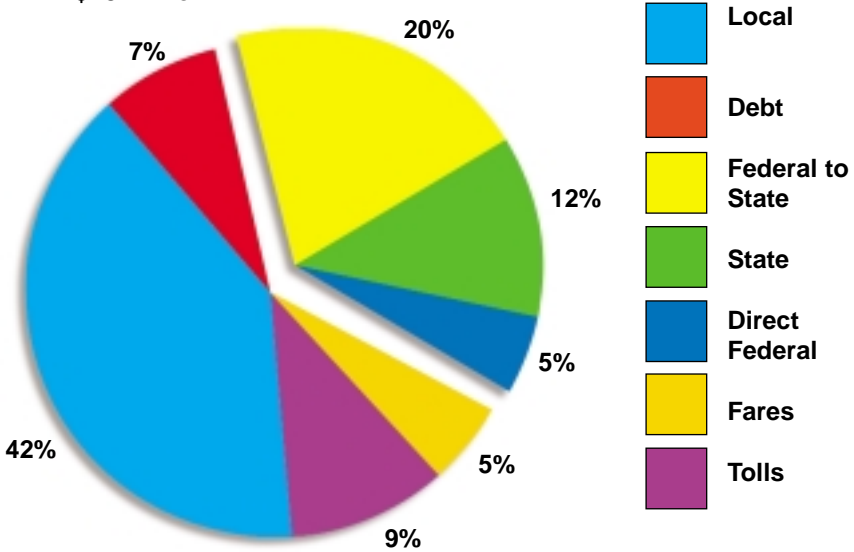
The local commitment to transportation has been significant and relatively constant. Creation of the Metropolitan Transit Authority and the Harris County Toll Road Authority in the 80s demonstrated the willingness of local citizens to fund transportation improvements. Bond programs and other funding allocations must be continually renewed if Houston is to have the funding necessary to address the mobility problem.

The Funding Component

If we accomplish Recommendations 1, 2 and 3 outlined previously, the Houston-Galveston area will have approximately \$43 billion for transportation funding from 2000 to 2022. An estimated 63 percent of the \$43 billion included in HGAC’s VISION 2022 Metropolitan Transportation Plan will come from local governments, a relatively constant share since 1985 (5).

The type of projects funded from these revenues will change over the next 20 years, but new roads, transit elements and operating improvements will be needed – Houston will not accommodate 2 million new residents by greater efficiency alone. There are many projects and programs that can help the Houston area address the gap between demand growth and mobility needs. These broader needs are identified in TRIP 2000. All government levels – local, state and federal – the private sector, and the public have important roles to play.

Total Estimated Revenue:
\$43 Billion



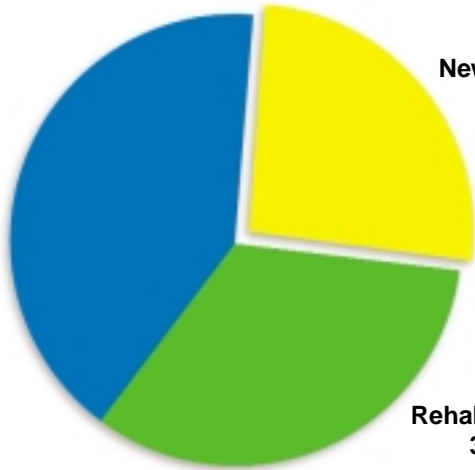
Source: HGAC, Vision 2022 MTP (5)

Exhibit 5. Estimated Revenue by funding source, 2000 to 2022

Our investment needs have changed. In the 80s, basic maintenance, operation and rehabilitation of transportation facilities accounted for “only” 50 percent of expenditures. New capacity represented the other half. Between 2000 and 2022, the basic sectors are estimated to make up 75 percent of the budget. If revenue grows to the levels in VISION 2022 MTP, new capacity of all forms and modes will comprise only 25 percent. This is only an estimate of how to spend the expected revenue, not an estimate of need.

**Total Cost:
\$43 Billion**

**Operations
&
Maintenance
40%**



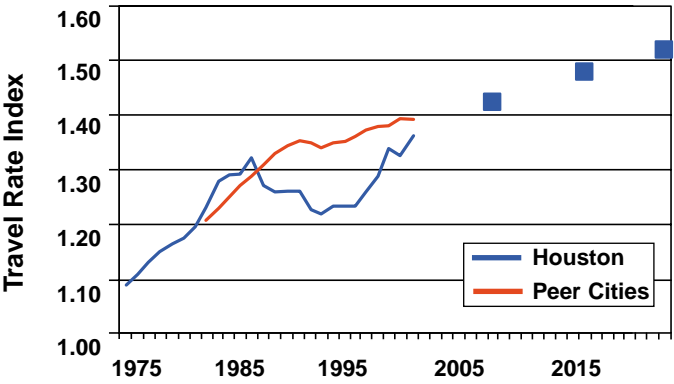
**New Capacity
25%**

**Rehabilitation
35%**

Source: HGAC, *Vision 2022 MTP* (5)

Exhibit 6. Estimated Transportation Cost, 2000 to 2022

The slower growth period of the mid 80s and early 90s allowed the capacity and service benefits to be converted into improved operations. Traffic volumes and population have grown faster in recent years, and congestion has returned to levels close to other large cities. VISION 2022 includes many of the projects currently being discussed – such as the redevelopment of the Katy Freeway, overhauling the West Loop, the Main Street Light Rail line, expansion of the high occupancy vehicle (HOV) and bus systems. But even if all those and many other projects are accomplished, Houston’s congestion in 2022 will be at levels similar to those currently seen in Los Angeles. And the cost of delay and wasted fuel – the so-called “congestion tax” – will climb from a 1999 value of \$850 per year per person to more than \$1,200 per person (1999 dollars) (2).



The travel rate index of the early and mid-1990s represents the type of condition that TRIP 2000 uses as a target. Projected congestion levels approach those currently seen in Los Angeles.

Source: Texas Transportation Institute, *2001 Urban Mobility Report* (2)

Exhibit 7. Projected Houston Congestion Levels

Implementing TRIP 2000: A Tool Box of Improvement Options

Houston's mobility problem is significant. That doesn't mean it has to be a burden on citizens and businesses. Congestion can be managed in ways that make it acceptable, and mobility options can be provided so that important trips can be made more reliably and the system can be made to operate as efficiently as possible.

The problems and processes are more diverse now than in the early 1980s. The geography is more diverse, with 10 to 12 major activity centers in Houston, as office and commercial development has followed homes into the suburbs.

It is clear that the project mix must change. There are fewer opportunities for new or widened roadways in some parts of the Houston region. While these have been the backbone of the progress made over the last 20 years, they cannot be the driving forces of progress over the next 20 years.

The Travel Rate Improvement Program promotes a cost-effective, integrated network that utilizes four primary improvement types. For maximum effectiveness, the improvements in the TRIP form a unified, integrated and coordinated transportation system for Houston. Additionally, all of the current systems must be expanded to accommodate growth. But, we must also find other creative ways to make system meet our needs.

The Toolbox Elements

The "toolbox" of improvements proposed in TRIP 2000 is divided into four major categories:

- **Build More Capacity**
- **Manage Demand**
- **Increase System Efficiency**
- **Change the Urban Scheme**

The applicability of various improvements to Houston's near-term and long-term future is characterized in the accompanying tables. TRIP 2000 also provides guidance on the target market for each option. It does not prescribe solutions for individual areas or corridors. Specific implementation decisions should be governed by factors such as community goals, cost effectiveness, environmental impact, social concerns and public support.

1. Build More Capacity

Most of the options in this category are well known and have been used in Houston for years. New or widened roads and transit capacity increases have been a substantial part of the “Houston approach” for the last several decades. More recently, high-occupancy vehicle lanes and toll roads and bridges have been used to provide premium service to some users. This approach provides more flexibility for personal choice in travel than an “all free road” system, and some elements may generate sufficient revenue to pay for their construction, operation and maintenance.

An extensive passenger rail transit system has not been shown to be financially feasible and may depend on debt financing requiring public approval. The Main Street Light Rail Project (see “Change the Urban Scheme”) will act as a test of the concept in a redeveloping area. New road design standards and approaches for handling freight rail and truck traffic will become an important part of Houston’s system over the next two decades.

Toolbox Element	Short-Term Applicability	Long-Term Applicability
New Lanes	Where Applicable	Where Applicable
New Streets or Highways	Where Applicable	Where Applicable
Expanded Bus Service	Where Applicable	Where Applicable
Improve Street Continuity	Where Possible	Where Possible
New Toll Roads	Self-Sufficient	Limited Locations
Grade Separation	Where Possible	Where Possible
Geometric Design	Retrofit	Standard Element
HOV Lanes	Where Possible	Limited Locations
Additional Rail Transit	Not Currently Funded	Requires Financing and Voter Approval
Managed Lanes	Where Possible	Limited Locations
Truck Lanes	Limited Locations	Limited Locations
Freight Rail Improvements	Financial Feasibility Unknown	Absolutely Necessary

See the *Toolbox of Improvement Strategies* for more information.

Exhibit 8. Toolbox Elements — Build More Capacity

As with any complex problem, relying on any single tool is not the most efficient solution. For the last several decades, Houston has relied heavily on increasing road capacity as the primary method of transportation improvement. Those techniques are still part of the mix, but we need to do more in other areas than we have in the past to maximize the benefits of the road system already in place. Three techniques will act on the demand and efficiency of transportation services in some ways that are familiar and in others that have not been tried before.



2. Manage Demand

A range of programs, policies and projects can result in fewer vehicles needed to transport people and goods. Most of these ideas are well known but not widely used. Houston's future mobility will depend on these techniques to a much greater extent. While some of the improvements will be applicable to certain situations, many will become standard elements of the transportation system.

Toolbox Element	Short-Term Applicability	Long-Term Applicability
Variable Pricing	Limited Applicability	To Be Determined
Alternative Work Hours	Needs to be Promoted	Standard Element
Telecommuting	Needs to be Promoted	Standard Element
Ridesharing	Needs to be Promoted	Standard Element
Vanpools	Needs to be Promoted	Standard Element
Local Bus Service	Where Applicable	Standard Element
Express and Park and Ride Bus Service	High-Demand Corridors	Where Applicable
Activity Center Circulator Buses	Where Applicable	Where Applicable
Neighborhood Circulator Buses	Where Applicable	Where Applicable
Demand-Response and Hybrid Bus Service	As Needed	As Needed
Fare Strategies	Where Appropriate	Where Appropriate

See the *Toolbox of Improvement Strategies* for more information.

Exhibit 9. Toolbox Elements — Manage Demand

3. Increase System Efficiency

These techniques can provide a relatively high benefit for their low cost but cannot solve mobility problems by themselves. Many of these programs have been tested and initially deployed in recent years, but a much more aggressive use can improve reliability and mobility. TranStar, the region’s transportation management center, has a significant role in operating and coordinating many of these strategies.

Toolbox Element	Short-Term Applicability	Long-Term Applicability
TranStar Elements		
Flow Signals	Ongoing	Standard Element
Traffic Signal Improvements	Ongoing	Standard Element
Incident Management	Ongoing	Standard Element
Event Management	Ongoing	Standard Element
Changeable Lane Assignments	Ongoing	Standard Element
Technology-Based Transit Improvements	Ongoing	Standard Element
Electronic Toll Collection Systems	Where Possible	Standard Element
Intersection Improvements	Where Possible	Standard Element
One-Way Streets	Where Possible	Standard Element

See the *Toolbox of Improvement Strategies* for more information.

Exhibit 10. Toolbox Elements — Increase System Efficiency



Many of the preceding three improvement types are reasonably well accepted and have been part of the urban system. Some are perceived to impact personal travel choices and, therefore, have been implemented less frequently. As our region matures and our transportation problems become more complex, however, the free market is demonstrating a desire for a broader set of living and working arrangements. Some neighborhoods and activity centers are being redeveloped with these elements. Future developments may include more of these features.



4. Change the Urban Scheme

Changing the urban scheme is a significant part of the long-term solution. This growing trend is one of the fundamental forces allowing a variety of lifestyle choices in the Houston area and other metropolitan regions across the nation. These treatments are part of a new way of locating and designing work places, shops and homes. The Houston region’s multiple activity centers are integral to this process. The home/work pattern is an important part of changing the urban scheme that will facilitate economic growth without the historic growth in traffic. This provides options that improve the quality of life by developing better and more diverse neighborhood/work patterns. As this trend grows, residents will demand them in new developments or as retrofit features to existing areas.

The Main Street Light Rail Project will provide a way to assess light rail’s impact on the urban scheme. If the public embraces this concept, it may be implemented in other areas.

Continued investment in neighborhoods, schools and parks by local governments will enhance the quality of life and promote the trend of changing the urban scheme. Access management techniques, bicycle and pedestrian treatments and parking strategies can make significant improvements when used in the right type of development. Analyzing a specific development’s transportation impact and adopting and promoting design strategies that reduce negative impacts and encourage efficient use of the transportation system are critical elements of urban scheme changes.

The overriding consideration relating to changing the urban scheme is that all aspects of the community should adopt a “mobility first” mentality.

Toolbox Element	Short Term Applicability	Long Term Applicability
Home/Work Patterns		
Neighborhoods to Standard	Ongoing	Standard Element
Schools to Standard	Ongoing	Standard Element
Parks to Standard	Ongoing	Standard Element
Bicycle and Pedestrian Designs	Ongoing	Standard Element
Assessing the Transportation Impacts	Needs to be Promoted	Standard Element
Light Rail	Under Development	Expandable with Voter Approval
Arterial Street Access Management	Needs to be Promoted	Standard Element
Parking Strategies	Needs to be Promoted	Standard Element
“Mobility First” Mentality	Needs to be Promoted	Standard Element

See the *Toolbox of Improvement Strategies* for more information.

Recommendations

The array of tools provides a multifaceted approach to improving mobility in the Houston area. Some of these require significant capital spending. Others require policy changes or long lead times to implement. The three recommendations discussed previously are oriented toward providing the funding necessary to accomplish the large projects and programs.

These first steps must be accomplished if Houston is to meet the current mobility projections as identified in VISION 2022, the current long-range plan for Houston.

- **Recommendation 1: Houston must receive its fair share of funding from the Texas Department of Transportation.**
- **Recommendation 2: Houston must receive a reasonable level of federal funding.**
- **Recommendation 3: The cities and counties in the Houston area must continue to fund transportation programs.**

Other steps can be taken, however, to improve transportation in the short term as well as the long term. These may be deployed with relatively little cost or policy change. They are good practices that take advantage of the system and practices Houston already has in place. These steps are necessary to make progress on mobility issues in the next two decades.

- **Recommendation 4: Raise Funding Levels – Do More**
- **Recommendation 5: Incident Management – Do It Better**
- **Recommendation 6: Create a Fully-Functional TranStar – Be Smarter**
- **Recommendation 7: Adopt a “Mobility-First” Mentality**
- **Recommendation 8: Strengthen Regional Mobility Partnerships and Leadership**

4. Higher Funding Levels — Do More

Houston has been doing its part to generate funding locally. Sixty-three percent of the Houston region's transportation improvements are funded from local sources (1,3). But more funding is needed, both in terms of federal and state aid and in terms of locally generated funds. These efforts should include more of the following:

- **Bond elections** — city and county voters must continue to approve funding decisions — elected officials and agencies must make reasoned and wise decisions
- **Agency plans** — transportation agencies must develop plans that have public support and use funding wisely
- **Texas DOT** — Reverse the recent trend and provide funding levels closer to Houston's "fair share"
- **Federal transportation funds** — Texas must receive its "fair share" of transit and highway funding

Funding process changes require time and leadership. It is important that cities, counties, METRO, HCTRA, and others immediately provide aggressive and united leadership in order for their efforts to be effective. Months of delay in assembling an effective coalition can translate into years of delay in achieving the desired result.



5. Incident Management — Do it Better

Incident delay – because of crashes and vehicle breakdowns — is a significant problem, but one that can be addressed. Several elements of the current system can be combined with new methods and policies to improve the reliability of transportation services. As an example, the following changes could be made:

- Tow trucks should be encouraged to move disabled vehicles as quickly as possible to a location away from the freeway.
- Tow trucks could be contracted to staff key locations to remove disabled vehicles.
- On-the-scene law enforcement officers and incident response teams could expedite the removal and clean up of disabled vehicles.
- Expand motorist education programs targeted to the need to remove disabled vehicles from the traffic stream.
- Encourage motorists to avoid “rubbernecking” behavior that slows traffic and causes additional accidents. This may be a combination of legislative or regulatory action, as well as roadway design changes.



6. Create a Fully-Functional TranStar — Be Smarter

The TranStar management center can anticipate and react to transportation conditions rapidly and efficiently. Elements of TranStar improvements might include:

- Help commuters find the best mode, route and time to travel
- Show freight companies the best time and route for shipments
- Identify and coordinate removal of disabled vehicles
- Coordinate tow truck response for assistance
- Aggressively use traffic signal timing plans to smooth freeway and street traffic flow
- Pursue strategies so that special events (e.g., sporting events) are not remembered for traffic headaches
- Operate the road and transit systems in ways that minimize delay



7. Adopt a “Mobility First” Mentality

The “mobility first” approach has several aspects. Agencies, the public and businesses all have a role in creating a system that is flexible enough to handle the demands of a dynamic economy and provide the quality of life for which Houston’s neighborhoods and job centers are known. The agencies can perform construction and maintenance tasks more intelligently and with less delay – this doesn’t mean it will be less expensive to public sector agencies.

- The concept of lowest total cost might involve designs that are based on **longer life** so that maintenance needs are reduced.
- Construction and maintenance plans that consider the **congestion effects** of activities are a key element of this approach.
- For the long-term, strategies should minimize **person and freight delay** in all travel modes, rather than focusing just on vehicle flow.

Individuals can make more informed choices about locating their homes, jobs, shops and schools. Our mobile society has many good aspects, but route, location and other decisions should be examined for ways to make them more “mobility friendly.” That may mean:

- trying transit or carpooling once every month
- teleworking or telecommuting on some days, or for two or three hours in the morning while traffic conditions are congested
- improving driver education and public information programs to emphasize the appropriate responses to vehicle crashes, breakdowns or other unusual circumstances
- creating bicycling and walking opportunities, particularly as part of new neighborhood, road or bridge construction, or major rehabilitation of existing facilities
- designing public and private buildings to facilitate access by transit patrons and pedestrians
- creating a system of incentives and options for employees. This has transportation benefits, and has also been shown to have productivity and worker retention benefits as well
- assessing transportation impacts of new office and housing developments as part of the permitting process
- making office and housing development permitting process as efficient as possible

These ideas don’t require the imposition of any new governmental layers or significant regulatory changes. But they do require a level of commitment beyond what currently exists.

8. Strengthen Regional Mobility Partnerships and Leadership

The mobility challenges of this dynamic region have never been greater nor has the need for regional leadership in transportation planning, implementation and operations. A decision-making environment is needed which converts the sometimes conflicting goals of stakeholders into a regional consensus that enables implementing agencies to focus on the actions to be taken. A review of successful regional planning and decision making models should be undertaken cooperatively with the Houston-Galveston Area Council, the business community and other transportation stakeholders. This review should address the following issues:

- How can regional planning identify the best use or combination of uses of the mobility strategies contained in the Transportation Toolbox?
- How can the regional planning process develop stronger consensus and maintain regional focus on transportation needs and the actions needed to address them?
- How can both new and existing funding resources be increased for the most effective mobility strategies?
- How can public investment from within the region be better “leveraged” with state, federal and private sector resources?
- How can transportation stakeholders cooperatively educate both government and community leaders on our mobility needs and advocate the priority mobility strategies contained in the region’s mobility plan?



The Key to Success

The success of TRIP 2000 depends on implementing the Toolbox — not just studying the issues. The set of changes should include transportation planning and operations, funding levels, the commitment of local officials and the public to these policies and initiatives, and changes in development designs and patterns. In order to make a measurable, quantifiable, and substantial difference in the quality of life of residents, we must stay focused on issues that effect mobility. We must also take an intelligent, strategic, and innovative approach to designing a **set of solutions** that are comprehensive in nature. Addressing just one or two of these findings will not produce an acceptable solution.

**There is no “silver bullet” project.
The solution is no longer a function of just *more* – it must also be *better and smarter*.**

Does it Matter?

“...what I found in practice was that the tool that made the most difference in my community was transportation. Nothing else had as great an impact on our economic development, on the pattern of growth, or on the quality of life.”

**Norman Y. Mineta, former Mayor of San Jose, CA
Current Secretary of Transportation**

TRIP 2000 References

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3. Texas Department of Transportation, *District and County Statistics Fiscal Year 2000*. Austin, Texas. December 2000.
4. Texas State Data Center, *Population Projections and Estimates Program*, Texas A&M University.
5. Houston-Galveston Area Council, *VISION 2022 Metropolitan Transportation Plan*, Houston, Texas, February 25, 2000. www.hgac.cog.tx.us/transportation
6. The Perryman Group, *Forecasts for the Eight County CMSA in 2001*. Provided to the Greater Houston Partnership.

More detail about the TRIP 2000 report, including detailed Appendices, and a complete list and description of all the “Toolbox” ideas are available on Compact Disc. Please contact the Greater Houston Partnership at 713.844.3656 or TRIP2000@houston.org.



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