Houston 2035

3,538,000 more people will be here.
We have choices, and decisions must be made.
3,538,000 MORE PEOPLE
What will our enormous growth mean for quality of life, and what is there to think about?

WHERE WE LIVE
In the next three decades, forecasts say we’ll use up vast amounts of the remaining greenspace.

WHERE WE WORK
Jobs determine a lot about where we live and about travel.

WHO WE ARE - AND WILL BE
Houston has become enormously diverse - and that change will be ongoing.

THE BIG PICTURE
What’s the scale of our development and our place in the global system?

BASIC TERRAIN
It’s a big, wet region with spreading development and a broad variety of governance structures

TRANSPORTATION INFRASTRUCTURE
Nothing impacts land use like transportation infrastructure.

WHAT WE WANT
People are pretty clear about they want for the future.

OUR VISION
In hundreds of meetings, we’ve expressed our values. What is it we care about for the future?

THE URBAN ZONE
Houston needs a significant urban zone.

THE GREEN ZONE
A network of bayous and parks could connect to the regional countryside

THE GARDEN CITY
Could this be a future description of Houston?

A POINT OF LEVERAGE
The Regional Transportation Plan is a key place to pursue quality of life goals.
The latest forecast for Houston’s future says that between now and 2035 we will add 3,538,000 people. The year after that, Houston will be 200 years old. The region should then contain 9,000,000 people.

Adding 3,538,000 people and all their cars, homes, jobs, schools, police and firefighter stations, stores, and other needs will require the construction of more than 5 billion square feet of new buildings. The forecasts for where all that growth will occur if current trends and policies continue show us that nearly all of the greenspace in Harris County and massive amounts in Fort Bend, Montgomery, Galveston, and Brazoria Counties will be gone by Houston’s 200th birthday in 2036.

The Houston-Galveston Area Council has initiated a process called Envision Houston Region, that will lead to the creation of the 2035 Regional Transportation Plan, which is the key document for describing to the Federal government what we plan to do with the billions of dollars we will receive over the next decades for mobility purposes.

Envision Houston Region began with a series of workshops in the fall of 2005, and it is very clear from those citizen workshops, as well as from the recent history of other citizen vision exercises in the region, that citizens want above all things to conserve and improve our natural greenspace and rural areas.

That means using less land for development, and to do that we have to grapple with the Big Picture truism that nothing impacts land use like transportation infrastructure.

The region is moving toward better and better planning at a large scale, largely thanks to H-GAC and a broad coalition of hopeful citizen activists and organizations who are demanding better information and more thoughtful examination of choices.

This planning movement is identifying broad connections that need to be made. The transportation network is expanding in a pattern that can’t - or won’t - be sustained, because it is now diminishing neighborhoods and gobbling up tax base.

If we are to preserve the things that are important to us and our children, we need to think about the pattern of future growth. We must find ways to conserve community assets, both the natural ones and the ones we have created. We have to understand patterns and think through the consequences of our decisions.

The purpose of this magazine is to provide an array of complex information and analysis, as well as a few possible scenarios to inform the public discussion about what, where, and how to build next.
These maps were made from data and forecasts by the Houston-Galveston Area Council. The forecasts will be used to study traffic modeling for the new Regional Transportation Plan, which will set a direction for the next few decades. The most obvious observation that can be made is that enormous quantities of greenspace will disappear from the region in the next 30 years. All large green areas now remaining in Harris County will be replaced by development, as will most of the forest in Montgomery County.

These forecasts are essentially based on recent trends and policies, so they do not reflect choices...
that can still be made about public policies, particularly about transportation infrastructure policy. As Metrostudy President Mike Inselmann has said “The city grows where developers buy land and they buy land where new transportation corridors get developed.”

An example of this dynamic is evident in the maps: they project significant new development happening along the proposed Grand Parkway, which is shown on H-GAC’s maps as a new transportation corridor - although most of it doesn’t exist.

Another observation is that only one-third of new development will take place in the region’s incorporated towns and cities, with the bulk of it occurring in the counties outside these areas. Public policy is hard to bring to bear in these areas with so few tools granted by the State for planning and regulating the built environment and its impact on quality of life.

**Note:** The colors and number ranges used here divide land uses into four categories: urban, suburban, rural, and frontier, or relatively natural areas. The categories are based on population per square mile. Green denotes frontier and rural densities, yellows are suburban, and reds are urban, with dark red the most dense. This system provides an easy way to see how each area is expected to change. Because regional greenspace is closely tied to air, water, and food, it is a leading indicator of quality of life and place. If we say we want to conserve and improve greenspace, we need to understand where we still have some.

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### 2035 population by 1-mile grid

New households needed:

**1,400,000**

plus job sites, stores, schools, fire and police facilities, roads, parking, and everything else we need or want.

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**TOWNS & CITIES VS. COUNTIES**

About 2/3 of growth would occur outside incorporated areas.
Jobs are mostly clustered in 20 or 30 percent of the general center of the region. They are more densely arranged along several major roadways. At many intersections, centers of varying sizes have developed. The top 20 of these job centers are shown in the map at the top right. Several of these trade centers have more jobs than downtown San Diego or Miami or San Antonio. Each is a “city” in its own right. These places not only have large numbers of jobs in an increasingly urban environment, but also have a growing number of services and residents. They are moving toward self-sufficiency. In the forecast for 2035, this effect intensifies, but

Number of jobs in the region today: 2,542,000
In 2035 4,069,000
there is also extensive low-density development of jobs and services that will convert a great deal of agricultural and natural areas into sub-urban use.

Downtown Houston grows jobs, and so do the top five satellite cities of Uptown/Galleria, Texas Medical Center, Greenway Plaza, and Westchase. Many small centers grow as well.

2035 jobs by 1-mile grid

Square feet of new job space needed by 2035: 1.1 billion

JOB CENTERS
Many jobs are clustered in “activity” or “trade” centers such as Uptown/Galleria. The top five are fairly close together.

1. Central Business District
2. Uptown/Galleria
3. Greenway Plaza
4. Texas Medical Center
5. Westchase
6. West Houston I
7. US 290/NW
8. Sharpstown
9. Greenspoint
10. Northwest Mall
11. NASA I
12. Universities
13. West Houston II
14. Energy Corridor I
15. Brookhollow
16. Southwest I
17. Bush Int’l
18. FM 1960 I
19. FM 1960 II
20. Hobby Airport

JOB GROWTH
Job density continues to build along major transportation corridors, with some low-density job creation continuing to spread slightly.
Who we are - and will be

We’re getting older, we’re getting more diverse

We speak more than 100 languages in our region. Hispanics are expected to become the majority in the City of Houston and eventually in Harris County and the State. Anglo population in the region is expected to decline. We are getting older, particularly in the Anglo community. Our level of education is widely understood as not-superb. As Rice Sociologist Dr. Stephen Klineberg notes, “The vigorous blue-collar ‘resource economy’ has receded into history. In its place, an increasingly high technology, knowledge-based, fully global economic system has been taking shape. Gone are the days when a high school graduate could go to work in the oil fields or in manufacturing... and expect to be able to make a middle-class wage. Advanced education is now the most important determinant of a person’s ability to earn enough to support a family. From now on, as the saying goes, ‘What you earn depends on what you’ve learned.’”

All of Houston’s - and Harris County’s - growth in recent times has been foreign immigrants. There has been net loss of domestic population.

Map: Gulf Coast Institute
Data: US Census
Note: This map shows the predominant race/ethnicity in each census tract in the 8-county region. This map uses the US Census Bureau classifications of race, meaning a person declaring themselves White and Hispanic would be listed as Hispanic. In the areas listed as Mixed Race/ethnicity, each race/ethnicity listed composes more than 30% but less than 50% of the population of that area.

PER CAPITA INCOME: Low income residents are mostly clustered inside the Beltway.

CHILDREN AND ELDERLY IN POVERTY: Comparing this map to the one below, there is a pattern.

EDUCATIONAL ATTAINMENT BY PLACE: There’s a strong correlation between education and income.
**Educational Attainment in Five Houston Communities (1994-2005)**

- **Less than H.S.**
- **H.S. Diploma**
- **Some College**
- **College Degree**
- **Post-graduate**

**Percent of Respondents**

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<th>Community</th>
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<th>H.S. Diploma</th>
<th>Some College</th>
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**Educational Attainment by Ethnicity**

Generally, Asian immigrants come here highly educated, while Latino immigrants do not.
The Big Picture

All over the world, people are flocking to urban regions, and the US is no different. Looking

The emerging concept of mega-regions proposes that clusters of metropolitan areas are the competitors in the global market, and that they work together to realize benefits in the development of large-scale infrastructure, environmental or ecosystem systems, and economic performance, including equity, efficiency, and competition. Houston is unique in the US in being in two megaregions, the Texas Triangle and the Gulf Coast.

“Mega,” or Big, is a concept well known in Texas and Houston. We are expected to have nearly 9 million residents in a land area dozens of times larger than New York City, which already has 8 million residents. Manhattan and the City of Houston both have two million residents, but Manhattan will fit inside Loop 610 four times. We have 7.5 miles of rail transit. Manhattan has 75 miles of rail transit. Yet New York City has more parks per capita than any other city in America, and has massive public greenspaces that can be seen from space. Eighty-two percent of Manhattanites walk, bike or take transit to work. Seven percent of Houstonians do that.

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The Big Picture

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A MATTER OF SCALE New York City has 8 million people - on a fraction of the land that the Houston region will occupy when it has 8 million people.

DIFFERENT APPROACHES Manhattan and the City of Houston each have about 2 million residents. Houston uses 25 times more land.
Basic Terrain

It’s a big, wet region with many ecosystems, from marshes and bays to prairies and forests, and lots of flat land.

Water flows down across Texas through rivers and streams, and in the Houston area there is a riot of drainage routes and watersheds until it empties into the bays and estuaries and then into the Gulf of Mexico to circulate around the world. Wet begets wet, and water also pours from the sky regularly to flood and cleanse the land. We, of course, need to use great quantities of it, and so on the whole we are lucky to have so much.

A lot of these watersheds now contain buildings and roads and parking lots, which tend not to allow the water to seep in to find drainage channels, and so the water occasionally overpowers us in our homes and workplaces and often in our vehicles.

Only a small portion of our land is occupied by cities and towns, incorporated under state law and empowered to regulate our community affairs. The rest of the land is in our counties, not empowered by the state to do much of that, but empowered to drive us into the future through their power to build roads.

Many ecosystems come together in the large area around downtown Houston, including rivers, bayous, forests, thickets, bottomlands, prairies, savannas, marshes, estuaries, bays, beaches,
The most intrusive land use is set to grow by 60 percent.

The purpose of villages, towns, and cities is to provide human beings with access to each other for a variety of types of exchange. The strategy for access has always been to reduce travel distance, but as we began to gain the means to go faster another strategy was to reduce travel time. That strategy is expensive and requires a lot of machines and infrastructure.

Transportation infrastructure (and cheap energy) has enabled the suburbs to expand to cheaper land and in older areas has divided many neighborhoods and communities.

The paved ground it occupies is just the beginning. As soon as transportation infrastructure is contemplated, development grows up around it and claims much more land.

If the type of infrastructure chosen supports primarily cars and trucks, it requires massive amounts of pavement, including for parking, a need that is repetitive and tends to produce about six parking spaces for every individual.

Overwhelmingly, that is the kind of infrastructure we have in the Houston region. To accommodate our growth, our current transportation plan is to build 11,000 miles of new roadway, which will directly pave at least 30 square miles of additional land.

The region’s current plan is to spend about a fourth of our money on transit. Transit requires less land use, but more importantly it produces a different kind of development that uses less land. Roads tend to produce land-consuming development, and transit tends to produce land-conserving development.

About 40 percent of our residents don’t drive, for a variety of reasons from disability to age to financial inability to the simple fact of not being old enough (and needing constant chauffering).

The issue is complex, and the scale of spend-
16,000 MILES OF MAJOR ROADS
The network is mostly based on the Interstate Highways that radiate out from the center, and in one case (Loop 610) go in a circle. More circles follow to draw growth outward. Two more are planned: the Grand Parkway and beyond it the Prairie Parkway.

ing is stupendous. As a result, the opportunity for innovation and creativity is rich in the search for a transportation infrastructure that occupies and impacts the smallest amount of land possible, and that provides us with the greatest access to each other for all our purposes of exchange.

Roads/Transit Balance in Houston, Dallas, & Atlanta

A TALE OF 3 REGIONS
Dallas, Houston, and Atlanta have different approaches to the future in terms of the balance of spending for transit and roads.

DENSITY CUTS DRIVING
As density of housing increases, vehicle miles traveled per household tends to decrease.

HOUSTON GROWTH HISTORY
Using our situation in 1982 as a base for comparison, this chart shows how population has changed along with the size of our transportation infrastructure and the time we spend in our cars.
People in the Houston region repeatedly express a desire for a kind of built environment that is rarely accomplished. High on the list of desires, for example, is the ability to walk from place to place. We want better planning and more controls on development. We want to restrict development in the floodplains. We want more transit. We want more neighborhood planning.

Private developers often establish communities where the restrictions on development are tough and exacting - and people flock to live in these places, such as The Woodlands and Cinco Ranch.

Houstonians don’t appear to be different from other Americans in surveys. We want to conserve the good things we have and fix the things we don’t like.

We appear to be ready to give our elected officials encouragement to change the rules a little in favor of the whole community. We definitely want a lot of change and are getting eager for it.

**What we want**

People are pretty clear about what they want for Houston’s future.

**TRAFFIC SOLUTIONS** Harris residents want better transit, better roads, jobs closer to home.

**FUTURE DEVELOPMENT** Houston voters want development in already developed areas.

**BEETTER PLANNING** Harris County residents favor better planning development.

**URBAN PREFERENCE** City residents want more urban places and choices.

**CITIZENS AND PUBLIC POLICY** A 2003 Blueprint Houston survey of Houston voters found strong support for a wide variety of quality of life issues from transportation to green space.
Our 21st-century community reaches for the future without compromising the ability of future generations to meet their needs and desires.” — Vision for the Houston Region, Foresight Project

In hundreds of meetings, we’ve expressed our values.

In 2000, the Gulf Coast Institute published a report called “Connecting the Visions” that found common values and visions in dozens of community planning efforts. Houstonians appear to share these values:

**Diversity** Diversity is seen as a backbone of regional success. Diversity of cultures, of housing, of transportation choices, of places to play and learn and work.

**Neighborhoods** Neighborhoods are seen as the central planning units of development. People don’t want to lose the characteristics that drew them to their neighborhoods, but they do want to change the characteristics that annoy or distress them.

**Diverse mobility choices** People want more roads, but they also want more sidewalks and paths, and more transportation choices. There is a clear bias against car-centered design.

**Protect existing places** People want cultural and historical features to be preserved and maintained.

**More open space and parks** People want greenspace in their neighborhoods. Pocket parks are as welcome as regional parks. Several visions describe our bayou system as our greatest natural asset and call for a network of linear parks along them.

**Protect the environment** Protect the environment, enhance the environment.

**The Big Picture** Plans are expected to be understood in larger contexts.

**Urban villages** “Activity centers” and “urban villages” are favored, places that are convenient to homes and jobs where many of the amenities of daily life are readily accessible, if possible without transportation other than feet or bikes. There is conflict in the interface between such centers and the residential neighborhoods that adjoin or surround them.

**Trees** Trees are strongly guarded at the neighborhood level. In recent years, trees are desired in most of the visions.

Blueprint Houston

On May 31, 2003, more than 1,000 of Houston’s citizens met in Congress to determine a Citizens’ Agenda for Houston’s Future. Hosted by Blueprint Houston, the Citizens’ Congress established a group of goals, including these ten, in order, as the most urgent priorities:

**Public Transportation** Houston develops a public transit system that reduces traffic congestion, improves air quality, and provides increased density and mobility options throughout the region; and that is clean, fast, efficient, high frequency, comfortable, accessible and well routed.

**Air Quality** Houston improves the quality of its air and in turn improves the quality of life and health of its citizens.

**Government and Leadership** Houston restructures and reforms City government to make it more accountable, to give citizens an active voice in policy decision making, to reduce taxes, and to better coordinate and coordinate activities with other governmental entities.

**Infrastructure** Houston maintains and improves its infrastructure — including streets, roads, sidewalks, traffic management devices, and public facilities — in an efficient and fiscally responsible manner.

**Economic Development** Houston becomes a sophisticated, vibrant, information technology-driven city with a highly skilled workforce, a diversified business community attractive to international interests, and small businesses thriving in local neighborhoods.

**Roads and Congestion** Houston supports a coordinated and accessible network of streets, roads, and expressways that are well built, well maintained, and integrated with other modes of transportation; that reduce congestion through traffic management, road construction, and parking; and that are aesthetically pleasing.

**Health Care** Houston encourages healthy living and affordable quality care for all economic and age groups with adequate trauma centers and clinics.

**Flood Management** Houston adopts a flood management plan that encourages cooperation among City, County, and developers in flood management.

**Water resources** Houston becomes a steward of water resources, develops new and safe water supplies, and cleans up waterways to eliminate water pollution.

**A clean city** Houston becomes a clean and unpolluted city that supports technologically advanced clean alternative fuels and energy efficient green buildings in sustainable developments.
Houston has five “cities” that already have more jobs and businesses than downtown Seattle, Miami, or San Diego. They’re Downtown, the Texas Medical Center, Greenway Plaza, Uptown/Galleria, and Westchase. Each of these “cities” is growing toward self-sufficiency in terms of jobs, services, goods, schools, and entertainment, and several are growing in residential capacity.

Downtown has always been a true urban place and is becoming more so in recent times. Uptown and Westchase, either have or are working on master plans to become much more urban. The Medical Center has an urban core and Greenway is semi-urban now.

All of our centers are nodes in a regional mobility network that is largely about cars and trucks. The most important infrastructure we can provide ourselves is a transit backbone to connect these five centers.

Urbanity produces the most efficient “green” development by focusing damage to the natural environment in small places. If the Houston region is to preserve any significant amount of natural services and agricultural land, it can do so by focusing investment and public decisions on the creation of a clear urban zone.

A transit backbone through the five big centers would create Houston’s Urban Zone. Travelers getting off a transit vehicle at any of these stops would find themselves in urban places, at useful destinations. It is critical that the transit stops be in the hearts of each of them, not in parking lots at the edge.

Eventually, the system should connect the next activity centers on the list, which includes Greenspoint, the Energy Corridor, Sugar Land, The Woodlands, and Galveston.

The growth and quality of our urban zone will say a lot to visitors and our children, not to mention to each of us as citizens of a great and growing city.
The desire for more greenspace produces a huge dilemma, because the existing natural and rural land belongs to people who hope to make a living or create wealth from it. We either have to make some sort of deal to conserve land and make it available for public use, or we have to use our wealth to buy it.

For more than a century, Houstonians have had the dream of a vast network of linear parks along the edges of our bayous. These parks would be in nearly every neighborhood and would provide those green fingers to the countryside that make great cities so livable. In Houston, they could also provide another transportation framework for people to walk and ride bikes all over the region without mixing with street traffic. Some of the visions even contained water taxis in the bigger bayous.

This dream is beginning to be realized to some extent. Harris County Flood Control has major reconstruction projects that will slowly produce a lot of parkland, habitat, and bike trails.

The question is, how fast can we move and how expensive will it be, and more important: will there be any countryside out there when the fingers reach beyond the urban fringe?
The idea of the garden city could help accommodate the millions of people who are coming—and give Houston a new persona as “The Garden City,” in spite of our national reputation as a sprawling web of concrete and ugliness. It is easy to grow things here, and the variety is staggering. Many Houstonians have great interest and pride in our natural abundance.

But another kind of garden city is the one idea proposed by Ebenezer Howard more than 100 years ago. Basically, the idea is to build wonderful cities that have an edge and are surrounded by greenspace. You see that pattern all over Europe and especially in England. Hundreds of these garden cities at all sizes could accommodate the 3,538,000 people we will gain—and maybe a lot of us who are already here. This kind of garden city is one in which people want to live because it is more interesting, more convenient, and more green.
If transportation infrastructure impacts land use, the 2035 Regional Transportation Plan needs a point of leverage. 

Envision Houston Region 2035 is a process initiated by the Houston-Galveston Area Council and its partners to engage residents in a discussion of the region’s future growth and development. The process focuses on land use and transportation alternatives. It poses the question of “how and where residents will live and work in the future.” The outcomes will be used to inform the creation of the 2035 Regional Transportation Plan.

The first step in the process was a series of workshops held during Fall 2005 to develop alternate land use “visions.” The second step is a round of public meetings or forums scheduled for May 2006. The purpose of the forums is three-fold: 1) discuss results from previous workshops; 2) explore the ramifications of alternative development patterns; and 3) engage the public in the discussion. Citizen input from the first round of workshops was used to develop growth scenarios representing two different types of development patterns.

Scenario A (Base Case) denotes the current development forecast for the Houston Region. It is characterized by low density housing development in the currently undeveloped portions of the region with mixed-use development along major arterials. Jobs are concentrated in the central business district and several other employment centers scattered throughout the region.

Scenario B indicates the participants’ ideal growth pattern, adjusted to the regional forecast. This scenario is characterized by greater mixed-use development along major roadways and cluster development around town centers throughout the region.

Scenario C (Modified Scenario) signifies the participants’ ideal growth pattern, adjusted to the forecast by county. This scenario clusters mixed-use development in satellite cities and along major roadways in a radial pattern. Jobs are dispersed throughout the region.

TWO SCENARIOS Scenario A, left, is the base forecast seen on page 4. Scenario B, right, is one of two produced from the growth values of participants in last fall’s workshops. Scenario C and B (not shown) preserve more greenspace than A and provide other benefits.