Prepared for: Greater East End District

Report

October 2012

Council Transportation, Technology
Presenation to the City of Houston

MOBILITY STUDY

East End

NAVIGATION/JENES

1000
opportunities needing continued support.

**Significant Investments in Implementation already underway with additional**

Projected growth in the study area through the year 2035.

**Study defined major transportation improvement opportunities to support the**

P

H-GAC - Project Sponsor

Greater East End Management District - Project Sponsor

Steering Committee

Community stakeholders.

Plan was developed with significant input from the Steering Committee and

economic development, and transportation scenario for the study area.

Comprehensive, multi-modal mobility study looking at long-term land use,

East End Mobility Study Overview
Study Area

Bounded by:
- East - Lockwood Drive
- South - IH-45
- West - US 59
- North - IH-10

- Greater Eastwood
- Downtown (Eado)
- Second Ward / Greater East End
- Greater Fifth Ward
- Super Neighborhoods

Includes sections of four historic
1. Address short and long term capacity constraints and opportunities by assessing the traffic impacts of growth and development and developing recommendations.
2. Address barriers to mobility and increase connectivity between neighborhoods.
3. Enhance multimodal trip alternatives (e.g., walking, biking, and transit).
4. Prioritize transportation infrastructure investments that support the development objectives identified through previous neighborhood and regional plans.
5. Reduce safety concerns within study area for all travel modes.
Population decline coincided with development of the Interstate Highway system and shift channel growth.

- Rail and Buffalo Bayou supported industrial activity
- Through Industrial uses are declining
- City of Houston: 2.5%
- Inside Loop 610: -0.4%
- Study Area: -1.9%
- 1950 - 1990 Annual Growth Rates in 1950's stabilized in 1990s
- Experienced significant population decline since peak

Study Area Population - Census

Histroy
Designated Roadways on the MTP include:

- South corridors to access freeway system
- Traffic volumes on east-west streets decerning
- Carrying over 10,000 ADT
- Overall traffic volumes in the study area

Existing Roadway Networks
Limited multi-family, open space and office.

Second Ward and Fifth Ward.

Single-family residential neighborhoods in Eastwood.

Significant potential redevelopment opportunities.

1/2 of the study area, Industrial (32%) and undeveloped (24.8%) make up.

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Total</th>
<th>2011 Road</th>
<th>2011 Road</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undeveloped</td>
<td>26.8%</td>
<td></td>
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<tr>
<td>Park/Open Space</td>
<td>2.1%</td>
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<tr>
<td>Transportation/Utilities</td>
<td>2.2%</td>
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<tr>
<td>Civic (Gov'T,Med/Ed)</td>
<td>6.4%</td>
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</tr>
<tr>
<td>Industrial</td>
<td>3.4%</td>
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<td></td>
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<tr>
<td>Office</td>
<td>0.7%</td>
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<td></td>
</tr>
<tr>
<td>Commercial</td>
<td>11.6%</td>
<td></td>
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<tr>
<td>Multi-Family Residential</td>
<td>3.4%</td>
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</tr>
<tr>
<td>Single-Family Residential</td>
<td>3.1%</td>
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<td></td>
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<tr>
<td>$60,000+</td>
<td>20.3%</td>
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</table>
Link node ratio by super neighborhood

Neighborhoods challenging Buffalo Bayou make movement between barriers from the railroads, freeways and high degree of connectivity, significant.

While individual neighborhoods show a

<table>
<thead>
<tr>
<th>Region</th>
<th>Area 65.2</th>
<th>1.65</th>
<th>1.79</th>
<th>1.61</th>
<th>0.61</th>
<th>155.2</th>
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<tbody>
<tr>
<td>Eastwood</td>
<td>72.0</td>
<td>1.61</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Greater</td>
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<tr>
<td>Greater, Northeast</td>
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<tr>
<td>Greater, South</td>
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<tr>
<td>Ward</td>
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<td></td>
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<tr>
<td>Ward, Southeast</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Ward, East</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Ward, Fifth</td>
<td>109.3</td>
<td>51.6</td>
<td></td>
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</tr>
</tbody>
</table>

Study Area Connectivity Metrics

East End Study Area Connectivity Metrics

Region

Intersection Density

Node Link Ratio

Node Link Density
Population Density Scenario 2: Master Plan / TOD

2035 Population: 31,500

Scenario 1: Base + Trend Information

Building permits and repeat known development from trend information and included

Scenario 1: Base +

2031 Population: 20,550

Two Development Scenarios For the East End

Plans identified in district master added other development

TOD: Built off Scenario 1 and
2035 Scenario 2: Master Plan / TOD - Travel Demand Model

Roadway Volume and Capacity (Scenario 2: Master Plan / TOD - 2035)

2035 Scenario 2 represents the peak estimated roadway volumes projected in the study area for the design year.
Overall Transit Coverage will improve with LRT opening.

East End Alternatives Analysis will look
at Urban Circulator for Greater East End.

10 METRO bus lines provide service to the
area when built (University Line) that will connect to study (East End and Southeast) with a third two light rail lines under construction.

North of the East End Line
1.3

Conceptual Plan for Navigation Boulevard at Jensen / Runnels Street

- Control and northbound approach geometry (see Improvement R5) - Improved traffic
- Charlettes/1-10 on-ramp at Runnels Street
- I-45 Frontage/Pease Street at Dowling
- Simplified signal design
- Potential roundabout or improved signal design
- I-45 Frontage/Pease Street at Dowling
- Enhanced operations; potential roundabout or improved signal design
- Navigation Boulevard at San Antonio
- East End Gateway
- Navigation Boulevard at Runnels / Jensen

R1: Improve Key Intersection Operations
Potential Improvements

- Improve connectivity for all modes between the Second Ward and Fifth Ward
- Develop a continuous north/south corridor
- Support West Belt Grade Separation at IH-10 to IH-45
- Reduce Navigation Boulevard

Intersection

- Franklin Street
- Navagation and Commerce
- Congress Street
- St. Emanuel and Dowling

Existing Southbound Approach to St. Emanuel Sheet

Extend Franklin Street east to St. Emanuel Sheet

Eliminate two-way portion of Franklin

From IH-10 to IH-45
Potential Improvements

- Support increased economic development
- Support multimodal mobility and connectivity
- Vehicle capacity
- Maintain acceptable or better pedestrian/bicycle facilities
- Redeesign roadways to optimize right of way with a cross section to: assess multi-modal mobility impacts of East End Master Plan recommendations

On Navigation Boulevard and adjacent roadway network

San Jose Civic Center

San Jose, CA

Commerce Street:
- Two or three-lane roadway with parallel on-

- Pedestrian

- Travel

- Bike

- Median

- Roadway

- Parking (optional)

- Pedestrian

- Parking

- Lane

- Parking

- Lane

Navagation Boulevard (120′ ROW): four-lane boulevard section with

- Pedestrian

- Median

- Roadway

- Parking

- Pedestrian

- Parking

- Lane

- Parking

- Lane

Downtown to the Harrisburg Shipyard use trail.

Both sides of the road have bicycle facilities, direct connection from both sides of the road.

 navigation Boulevard (65′ ROW): two-lane roadway with bicycle lanes on
Development potential:

- Acquisition on blocks with Transit-Oriented Development or infrastructure costs and R.O.W.
- Limits impact of grade separation both in terms of infrastructure costs and R.O.W.
- Support two-way traffic.
- Improve signal operations at key locations.
- Revise roadway striping to support multimodal transportation choices and on-street parking.

Potential Improvements:

- Benefits and challenges of conversion to two-way operations.
- Assess multimodal operations Sampson/York one-way pair including potential.

R4:

Short Term

- Street parking.

Long Term

- Convert Sampson Street and York Street to two-way operations with York Street.
- Revise Sampson/York one-way pair including potential.
- Benefits and challenges of conversion to two-way operations.
- Assess multimodal transportation choices and on-street parking.
East End
as Gateway to Downtown, Eado and the
Complete redesign of Chartres Street

Long Term
Roundabout
Street at Runnels Street (e.g.,
Improved traffic control at Chartres
Targeted improvements to key pedestrian
directions (one-way vs. two-way)
for major destinations and roadways
Improved wayfinding and signage

Short Term
Potential Improvements

R5: Improve Chartres Street as both a gateway to the East End and
Potential Improvements

1. Build on current success
2. Sidewalk Standards (CoH Transit Corridors)
3. Signal Improvements and Crossings
4. Lightrail (Underpasses & Transit Stops)
5. Major Barrier Crossings (Rail, Freeway, Bayou)

Encourage increase in walking trips

Develop Pedestrian Improvements to Support Transit Address Barriers and