

# PLANNING COMMISSION ACTION

**2013-20 to 2013-29**

## **METRO – University Corridor Light Rail Transit**

**APPLICANT:** Metropolitan Transit Authority of Harris County

**KEY MAP:** 491 W, X, Y ,Z; 492 W, X, Y, Z;  
493 W, X,Y ,Z; 494 W; 530 D; 531 A; 533 D  
**LAMBERT:** 5056, 5156, 5256, 5356

**JURISDICTION:** City of Houston  
**DISTRICT/PRECINCT:** City Council: C, D,  
G, J; Harris County Pct.: 1, 3, 4

### **PROPOSAL:**

The Metropolitan Transit Authority of Harris County (METRO) is requesting to designate certain streets along the proposed University Corridor Light Rail alignment as Transit Corridor Streets. University Corridor includes the following street segments:

- |                    |                                       |
|--------------------|---------------------------------------|
| 1. Westpark Drive  | Hillcroft Avenue to South Rice Avenue |
| 2. Westpark Drive  | Newcastle Street to Cummins Street    |
| 3. Cummins Street  | Westpark Drive to Richmond Avenue     |
| 4. Richmond Avenue | Cummins Street to Main Street         |
| 5. Wheeler Street  | Main Street to Hutchins Street        |
| 6. Hutchins Street | Wheeler Street to Cleburne Street     |
| 7. Cleburne Street | Hutchins Street to Dowling Street     |
| 8. Dowling Street  | Cleburne Street to Alabama Street     |
| 9. Alabama Street  | Dowling Street to Scott Street        |
| 10. Elgin Street   | Scott Street to IH 45                 |
| 11. Lockwood Drive | IH 45 to Diez Street                  |

### **APPLICANTS JUSTIFICATION & HISTORY:**

METRO proposes to implement transit improvements within this proposed University Corridor which will extend from the Hillcroft Transit Center to the Eastwood Transit Center within the City of Houston. High capacity transit improvements in this corridor have been included in both the Houston-Galveston Area Council (H-GAC) 2035 Regional Transportation Plan and METRO Solutions (METRO 2003) as a priority for transit investments. The METRO Board of Directors selected a Locally Preferred Alternative alignment and technology for this corridor in 2007. Further, this corridor has been environmentally cleared by Federal Transit Authority and received a Record of Decision on July 26, 2010.

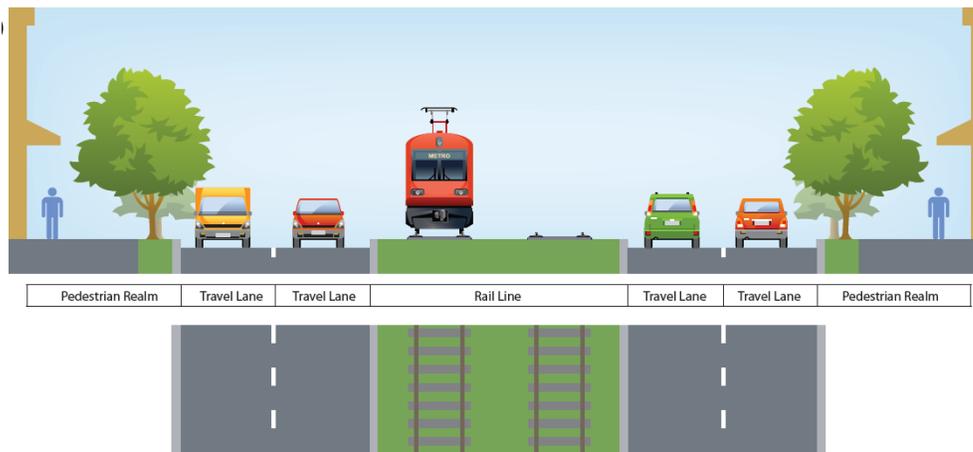
The City of Houston Public Works and Engineering Department (PWE), along with the Planning and Development Department, have examined this corridor for mobility and pedestrian realm improvements with the Urban Corridor Planning study (2006-2007) and the recently completed Inner West Loop (IWL) Mobility Study (2012-2013). In 2009 the City adopted the Transit Corridor Ordinance (TCO) allowing for the development of high quality urban environments in areas along METRO's light rail corridors. In 2008 and 2009, the

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Houston Planning Commission and City Council designated streets along the North, East End, Southeast, Uptown and existing Main Street Corridors as Transit Corridor Streets. Portions of street segments along University Corridor, i.e. Westpark Drive between South Rice Avenue and Newcastle Street, and Scott Street between Elgin Street and Alabama Street, were designated as Transit Corridor Streets in 2009 along with the Uptown Corridor and Southeast Corridor, respectively.

The Transit Corridor Street designation would encourage a safe and continuous pedestrian area supported by a mix of uses and greater development density typically associated with investments in fixed guideway high capacity transit projects. It will allow redevelopment along the corridors to benefit from building setback and parking reductions associated with the opt-in rules found in the TCO. The proposed amendment directly augments the ability of METRO to provide a reasonable, equitable, least-impactful, and efficient mass transit system that benefits the citizens and visitors of the City and the region.

METRO's Major Thoroughfare and Freeway Plan (MTFP) amendment request is consistent with the recommendation from the Urban Corridor Planning study and the IWL Mobility Study. The IWL Mobility Study recommends the multi-modal classification of Richmond Avenue as a Transit Boulevard.



Page 43 - Inner West Loop Mobility Study – Richmond Avenue



Page 25 - Inner West Loop Mobility Study – Multi-Modal Classification

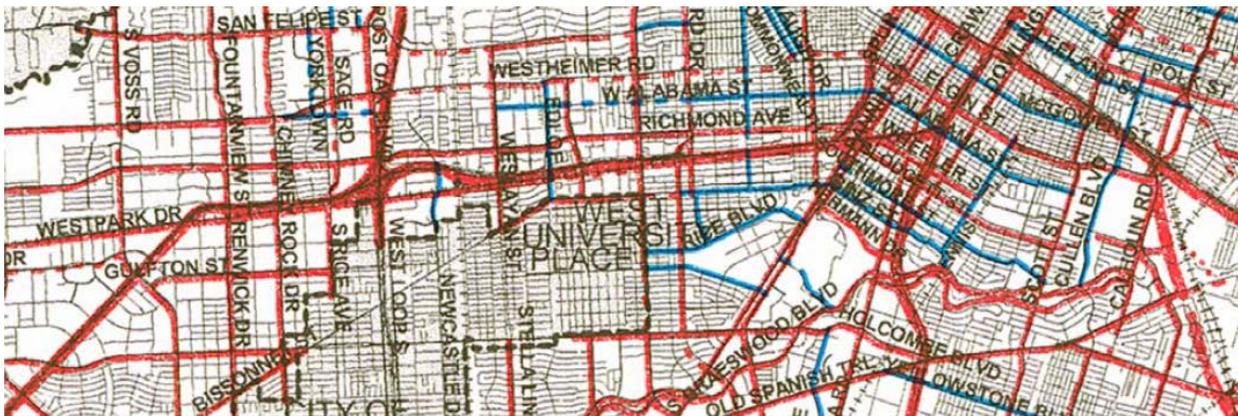
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Westpark Drive, Richmond Avenue, Wheeler Street, Dowling Street, and Elgin Street are currently classified as Major Thoroughfares, while Lockwood Drive is classified as a Principal Thoroughfare on the MTFP. Alabama Street is classified as a Major Collector, while Cummins Street, Hutchins Street and Cleburne Street are not currently classified on the MTFP and are considered local streets.

Richmond Avenue, Wheeler Street, Elgin Street, Dowling Street, Alabama Street and portion of Westpark Drive have been identified as Major Thoroughfares on the MTFP since 1942 when the first MTFP map was published. Lockwood Drive was added to the MTFP in 1957 and Westpark Drive, east of Chimney Rock was designated as a Major Thoroughfare in 1983. Alabama Street was reclassified as a Major Collector in 1997.



1942 MTFP



1998 MTFP

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## **STAFF RECOMMENDATIONS:**

1. Reclassify Westpark Drive from Hillcroft Avenue to South Rice Avenue from a Major Thoroughfare to a Transit Corridor Street.
2. Reclassify Westpark Drive from Newcastle Drive to the extension of Cummins Street from a Major Thoroughfare to a Transit Corridor Street.
3. Add Cummins Street from Westpark Drive to Richmond Avenue from a Major Thoroughfare to a Transit Corridor Street (TCS-2-80)
4. Reclassify Richmond Avenue from Cummins Street to Kirby Drive from a Major Thoroughfare to a Transit Corridor Street.
5. Reclassify Richmond Avenue from Kirby Drive to Shepherd Drive from a Major Thoroughfare to a Transit Corridor Street and proposed ROW width of 100 feet from existing 70 feet.
6. Reclassify Richmond Avenue from Shepherd Drive to Main Street as a Transit Corridor Street and proposed ROW width of 100 feet from existing 80 feet.
7. Reclassify Wheeler Street from Main Street to Hutchins Street from a Major Thoroughfare to a Transit Corridor Street
8. Add Hutchins Street from Wheeler Street to Cleburne Street as a Transit Corridor Street (TCS-2-80)
9. Add Cleburne Street from Hutchins Street to Dowling Street as a Transit Corridor Street (TCS-2-80)
10. Reclassify Dowling Street from Cleburne Street to Alabama Street from a Major Thoroughfare to a Transit Corridor Street
11. Reclassify Alabama Street from Dowling Street to Scott Street from a Major Collector to a Transit Corridor Street
12. Reclassify Elgin Street from Scott Street to IH 45 South from a Major Thoroughfare to a Transit Corridor Street
13. Reclassify Lockwood Drive from IH 45 to Diez Street from a Principal Thoroughfare to a Transit Corridor Street

### **Justification:**

The proposed Transit Corridor Street designation for streets along the University Corridor is consistent with the recommendation Urban Corridor Planning Study that identified a vision for these streets and redevelopment opportunities along the corridor. The proposed designation would allow properties redeveloping along the corridor to opt-in to the TCO performance standards in Chapter 42. Additionally eligible developments that choose to opt-in to the TCO could provide reduced parking along this corridor if they comply with the reduced parking space requirements in Chapter 26.

The City of Houston recently published the IWL Mobility Study. The primary purpose was to identify near and long range projects intended to promote better mobility, and to consider and develop a multi modal classification for streets within the study area. Richmond Avenue is located within the study area. The study recommends classifying Richmond as an Urban Transit Boulevard consistent with the proposed recommendation.

Travel Demand Model analysis conducted as a part of the study identified that currently Richmond is at capacity with a Level of Service (LOS) D (approaching unstable flow of traffic) and E (unstable flow and is operating at capacity) along portions of the corridor. Richmond Avenue east and west of Kirby is classified and exists as a 4-lane and 6-lane roadway,

## PLANNING COMMISSION ACTION

respectively. The Travel Demand Model projections for 2035 indicate that Richmond between Spur 527 and Edloe will have LOS F (forced or breakdown flow). The ILW Mobility Study determined that the existing ROW along Richmond Avenue, Kirby Drive and Spur 527 is not adequate for a Major Thoroughfare projected to carry significant volumes of traffic, and also meet the multi-modal needs of the street network.

### **PLANNING COMMISSION ACTION:**

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2. Reclassify Westpark Drive from Newcastle Drive to the extension of Cummins Street from a Major Thoroughfare to a Transit Corridor Street.
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### **Population & Employment Projections:**

According to 2010 Census, Texas grew by 20% in ten years, to over 25 million people, recording about a quarter of the nation's overall growth. The rate of growth in Texas was twice the national average. Harris County is the most populous county (4 million) in Texas. Today, 2.1 million people live within the City of Houston and another 2 million live in the City's extraterritorial jurisdiction (ETJ). Since 2000, the City of Houston added 146,000 people (8 %) to its population. Houston's ETJ however grew 35 % during the same time period.

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Houston and its ETJ's rich employment sector are home to more than 1.8 million jobs, making it the state's most populous and robust economic center. More than one million jobs are located within the City limits and are saturated within the City's eight major activity centers.

One of the greatest challenges to Houston's mobility is that by 2035 significant numbers of residents are projected to live outside the City limits in the ETJ; while the major employment growth is expected to occur within the City limits. These expanding imbalances increase distances between the population and employment centers and will result in more travel, greater travel time, and longer travel delays.

In addition to anticipated growth within the ETJ, an additional 550,000 new residents are expected within the current city limits. The most notable population growth is projected to occur inside Loop 610. It reflects efforts to create a dense urban core through mixed-use development strategies.

Year	Population (Persons/Acre)	% Change	Households (Households/Acre)	% Change	Jobs (Jobs/Acre)	% Change
2010	10.8		5.0		17.3	
2015	14.1	30.3%	6.0	20.1%	19.0	9.8%
2020	15.6	10.6%	6.6	9.3%	19.5	2.4%
2025	16.8	7.9%	7.1	7.5%	20.2	3.3%
2030	18.2	8.0%	7.5	5.4%	20.3	0.6%
2035	19.3	6.0%	8.0	6.8%	20.2	-0.2%
Change (2010 to 2035)	8.4	77.9%	2.9	58.7%	2.9	16.7%
City of Houston Change (2010 to 2035)	1.6	30.4%	0.6	32.4%	1.3	32.9%
City of Houston ETJ Change (2010 to 2035)	1.3	53.4%	0.6	73.7%	0.6	85.6%

Source: H-GAC's 2035 Regional Growth Forecast

\* Data represents population, jobs, and households in 42 Traffic Analysis Zones (TAZ) encompassing approximately 6,192 acres around the proposed amendment. Population projections do not include projections for group housing.

To compare the result between 2000 and 2010 Census, the subject area's population grew by - 7.7 % from 65,880 to 70,975 which demonstrates a percent change slightly higher than that of the City of Houston's growth (7%).

H-GAC projects that over the next 25 years (2010 – 2035), the population within the study area\* will increase from 67,006 to 119,211 (52,205 person) or 80%. The number of persons per acre is projected to increase approximately from 10.8 to 19.3. During the same period, H-GAC estimates that the total jobs in the subject area will increase from 107,390 to 125,286 (17,896 jobs), or 17%. The number of jobs per acre is projected to increase approximately from 17.3 to 20.2.

Expressed in percentages, the subject area's population growth is expected to be more than the City of Houston's (78% vs. 30%), and the area's job growth is less than the City of Houston's (17% vs. 33%).

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## Right-Of-Way (ROW) Status:

All of the existing Major Thoroughfares and Major Collector Streets along the University Corridor have been identified as sufficient width roadways. Cummins, Hutchins and Cleburne are currently not classified and are considered local streets. The existing ROW width along Richmond Avenue varies from 70' to 100'. The IWL Mobility Study identifies the corridor as a constrained ROW. Wheeler Street, between Main Street and Alameda Road, also has a constrained 60' ROW with a proposed 4 lanes.

Street	From	To	Classification	Status	Direction
Westpark	Hillcroft	South Rice	T-4-100	Sufficient Width	E-W
Westpark	South Rice	Newcastle	*TCS	Sufficient Width	E-W
Westpark	Newcastle	Cummins	T-4-80	Sufficient Width	E-W
Cummins	Westpark	Richmond	Local	Varies (60'-75')	E-W
Richmond	Cummins	Buffalo Speedway	T-6-110	Sufficient Width	E-W
Richmond	Buffalo Speedway	Kirby	T-6-100	Sufficient Width	E-W
Richmond	Kirby	Shepherd	T-4-70	Sufficient Width	E-W
Richmond	Shepherd	Main	T-4-80	Sufficient Width	E-W
Wheeler	Main	Hutchins	T-4-60	Sufficient Width	NW-SE
Hutchins	Wheeler	Cleburne	Local	80'	NE-SW
Cleburne	Hutchins	Dowling	Local	80'	NW-SE
Dowling	Cleburne	Alabama	T-4-80	Sufficient Width	NE-SW
Alabama	Dowling	Scott	C-4-80	Sufficient Width	NW-SE
Scott	Alabama	Elgin	*TCS-4-varies (80'-85')	Sufficient Width	N-S
Elgin	Scott	IH 45	T-4-100	Sufficient Width	E-W
Lockwood	IH 45	Diez	P-3-66	Sufficient Width	SE-SW

\* TCS = Transit Corridor Street

## Spacing:

Along the University Corridor there is an existing dense street and thoroughfare grid. There are a number of freeways that prohibit the local street network to extend across the freeway system. North-south Major Thoroughfare and Major Collector streets along Westpark Drive and Richmond Avenue are spaced approximately 0.5 miles apart. The spacing along Wheeler Street, Alabama Street and Elgin Street is approximately 0.3 miles except near the Texas Southern University and University of Houston campuses.

Street	From	To	Classification	Direction	Spacing
Westpark	Hillcroft	US 59	T-4-100	E-W	0.6 mile
Westpark	US 59	Fondren/Renwick	T-4-100	E-W	0.4 mile
Westpark	Fondren/Renwick	Chimney Rock	T-4-100	E-W	0.5 mile
Westpark	Chimney Rock	S. Rice	T-4-100	E-W	0.5 mile
Westpark	S. Rice	IH 610	*TCS	E-W	0.5 mile
Westpark	IH 610	Newcastle	*TCS	E-W	0.5 mile
Westpark	Newcastle	Weslayan	T-4-80	E-W	0.6 mile

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Street	From	To	Classification	Direction	Spacing
Westpark	Weslayan	Edloe	T-4-80	E-W	0.5 mile
Richmond	Edloe	Buffalo Speedway	T-6-110	E-W	0.25 mile
Richmond	Buffalo Speedway	Kirby	T-6-100	E-W	0.5 mile
Richmond	Kirby	Shepherd	T-4-70	E-W	0.5 mile
Richmond	Shepherd	Dunlavy	T-4-80	E-W	0.5 mile
Richmond	Dunlavy	Montrose	T-4-80	E-W	0.65 mile
Richmond	Montrose	Spur 527	T-4-80	E-W	0.35 mile
Richmond	Spur 527	Main	T-4-80	NW-SE	0.15 mile
Wheeler	Main	San Jacinto	T-4-60	NW-SE	0.12 mile
Wheeler	San Jacinto	Almeda	T-4-60	NW-SE	0.36 mile
Wheeler	Almeda	SH 288	T-4-80	NW-SE	0.2 mile
Wheeler	SH 288	Dowling	T-4-80	NW-SE	0.16 mile
Hutchins	Wheeler	Alabama	80'	NE-SW	0.32 mile
Dowling	Wheeler	Alabama	T-4-80	NE-SW	0.32 mile
Alabama	Dowling	Ennis	C-4-80	E-W	0.38 mile
Alabama	Ennis	Scott	C-4-80	E-W	0.77 mile
Scott	Wheeler	Alabama	TCS-4-varies	NE-SW	0.3 mile
Scott	Alabama	Elgin	TCS-4-varies	NE-SW	0.3 mile
Elgin	Scott	Cullen	T-4-100	E-W	0.36 mile
Elgin	Cullen	IH 45	T-4-100	E-W	0.5 mile
Lockwood	IH 45	Leeland/Telephone	T-3-66	NE-SW	0.55 mile

## **Mobility:**

The table below indicates the Average Daily Traffic (ADT) and Level of Service (LOS) based on the Volume-Capacity Ratio. The 2035 projections were generated using the Travel Demand Model provided by H-GAC during the IWL Study to develop mobility solutions within the study area. Richmond east and west of Kirby is classified as a 4-lane and 6-lane roadway, respectively. The 2010 ADT indicates that Richmond is at capacity with a LOS D and E for much of the corridor.

While LOS C indicates stable flow of traffic, LOS D indicates that roadway is approaching unstable flow of traffic where speeds slightly decrease as traffic volumes slightly increase. Freedom to maneuver within the traffic stream is much more limited and driver comfort levels decrease. LOS E implies that the roadway has unstable flow and is operating at capacity. As a result flow becomes irregular and speeds vary rapidly because there are virtually no usable gaps to maneuver in the traffic stream and speeds rarely reach the posted limit. Lastly LOS F means forced or breakdown flow where every vehicle moves in lockstep with the vehicle in front of it, with frequent slowing required. Travel time cannot be predicted, with generally having more demand than capacity.

As identified on the table below all of Richmond between Spur 527 and Edloe become LOS F by 2035. The IWL Mobility Study determined the existing ROW along Richmond Avenue, Kirby Drive and Spur 527 is not adequate for a Major Thoroughfare projected to carry a significant volume of traffic and also meet the multi-modal needs of the roadway.

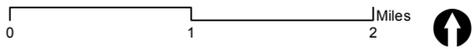
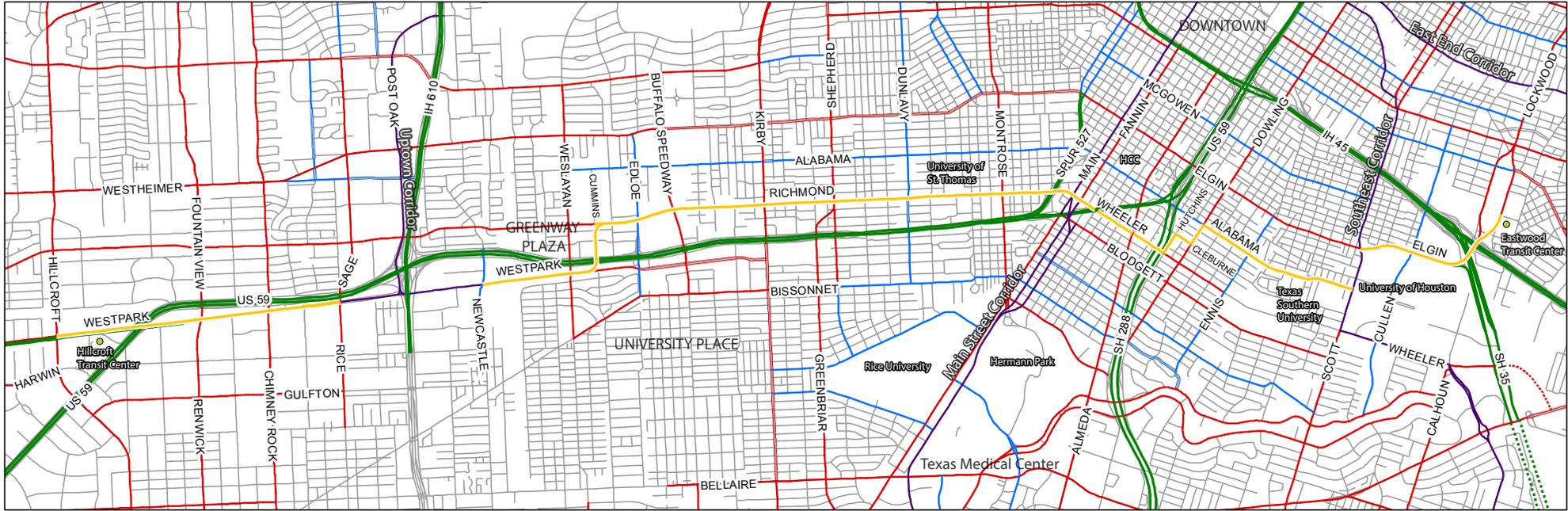
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From	To	2010 ADT	2011 LOS (V/C)	2035 ADT	2035 LOS (V/C)
SPUR 527	Montrose	23,858	D (0.76)	42,473	F (1.34)
Montrose	Dunlavy	24,125	D (0.77)	42,056	F (1.34)
Dunlavy	Shepherd	27,890	E (0.89)	46,848	F (1.49)
Shepherd	Kirby	21,499	C (0.68)	43,590	F (1.38)
Kirby	Buffalo Speedway	35,651	D (0.78)	70,574	F (1.54)
Buffalo Speedway	Edloe	40,655	E (0.89)	57,970	F (1.26)
Edloe	Timmons	29,255	C (0.68)	33,898	C (0.74)

Source: Inner West Loop Mobility Study, 2013

# UNIVERSITY CORRIDOR

2013 MTFPA REQUESTS



**LEGEND**

**Staff Recommendation**

- Yellow line: Reclassify Transit Corridor Street

**2012 MTFP**

- Green dashed line: Proposed Freeway
- Green solid line: TBW Freeway
- Green solid line: Freeway
- Red solid line: Major Thoroughfare
- Red solid line: TBW Major Thoroughfare
- Red dashed line: Proposed Major Thoroughfare
- Blue solid line: Major Collector
- Blue solid line: TBW Major Collector
- Blue dashed line: Proposed Major Collector
- Purple solid line: Transit Corridor Street
- Green dashed line: Proposed Grand Parkway



PLANNING & DEVELOPMENT DEPARTMENT