

Main Street



DRAFT November 2007 - Work in Progress

Corridor-specific Report D

Phase II and III
City of Houston

November, 2007

The **Planning** Partnership

in collaboration with:

Asakura Robinson Company



Gunda Corporation



Cushman & Wakefield LePage



Working Partner





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Introduction

The Main Street Corridor is distinct from the other Corridors in that it already has LRT service available and the existing streetscapes are highly developed in a manner unique to the area. It is the most urban of all of the Corridors and, although new development related to transit has not occurred everywhere, some important new development is occurring along the line, mainly in the downtown area. The Corridor-specific recommendations for the Main Street Corridor are aimed at providing the context to assist more development in a manner that results in a pedestrian environment supportive of the existing community and the new transit facilities. The report suggests some built form objectives for the pedestrian realm that can be implemented within the context of current conditions. At the same time, the report suggests some benefits that can be accrued as portions of the Corridor redevelop over time. Finally, an important component of all of the Corridors is strengthening connections to the Transit Street from the surrounding community.

The Main Street Corridor passes through some areas with very different characteristics and each will relate to the Transit Street in a slightly different manner. The true downtown area of the plan between the University of Houston Downtown campus and Highwa is the traditional downtown of the City and it is characterized by high-rise commercial buildings, some with retail at the street level, that create a very distinctive street wall. There are some empty lots and a number of parking lots at grade in this area.

Moving south, the LRT passes through what has been traditionally called Midtown. The proximity of this area to

downtown on the north and the museum and medical districts on the south provide a development context that should be very bright. Presently, there are many empty lots and parking lots adjacent to the Transit Street. However, some good examples of Transit Oriented Development can be found not far on either side of the Corridor. As the line passes through the medical district it is traversing an area that attracts workers from all of the urban corridors and is the center of one of the most concentrated groups of medical facilities in the world. This area has the potential to see Transit Oriented Development along the Transit Streets, as well as on sites within easy walking distance at its edges. Finally, the Main Street Corridor connects to the Fannin South Station and its park and ride facilities. Reliant Park and the Smith Lands are major locations for new development to occur.

The Corridor-specific Report presents a strategy for encouraging the forms of development that will be supportive of transit, as well as creating pedestrian scaled streets that lead from the surrounding neighborhoods to the transit street. The report also suggests that most development will occur within a five-minute walk of the stations. With the exception of some areas of Midtown and the Museum District, most of the area within a five-minute walk of the stations is of a scale and density that will be compatible with traditional forms of Transit Oriented Development. An approach to development, and the attendant ordinance controls and urban design guidelines, advances the concept that different forms of development should compliment and reinforce, in areas such as the downtown and the medical center, other buildings in the area.

1 Context/Background Analysis

This Chapter provides the context and background for the Main Street Corridor.

D1.1

Main Street Urban Corridor Study Area

The Main Street Urban Corridor begins in the downtown at the University of Houston, extending south along Main Street. Continuing south, the Main Street Corridor runs through the Museum District, Hermann Park and the Texas Medical Center, terminating just beyond Reliant Park.

The Main Street Corridor is approximately 8 miles long. The eastern and western boundaries of the North Urban Corridor Study Area – measured at a 1/2 mile on either side of the proposed transit line – are shown on the adjacent map.



Restaurant patios near Preston Station



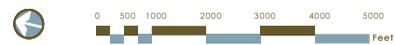
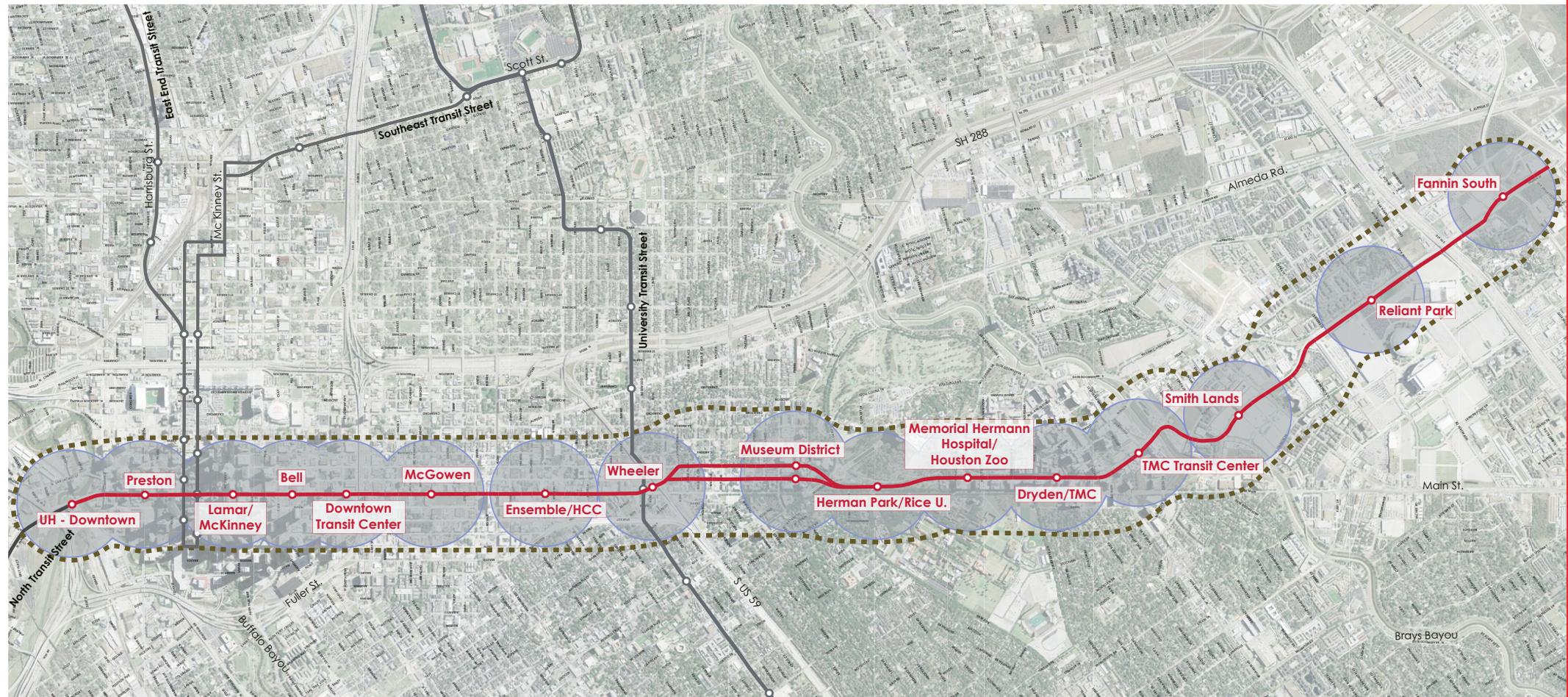
Public Art at Hermann Park



Hermann Hospital/Houston Zoo Campus looking north along Fannin

Urban Corridor Study Area Main Street

- Main Street Transit Street
- Connecting Transit Street
- Corridor Study Area
- 5 Minute Walking Distance to Station





Mid-rise commercial buildings at north end of the Main Street Corridor



New residential development on S. Braeswood Blvd.



Hermann Park - Example of open space land use

D1.2

Context of Main Street

D1.2.1 Land Use

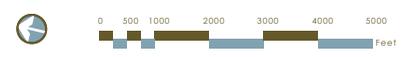
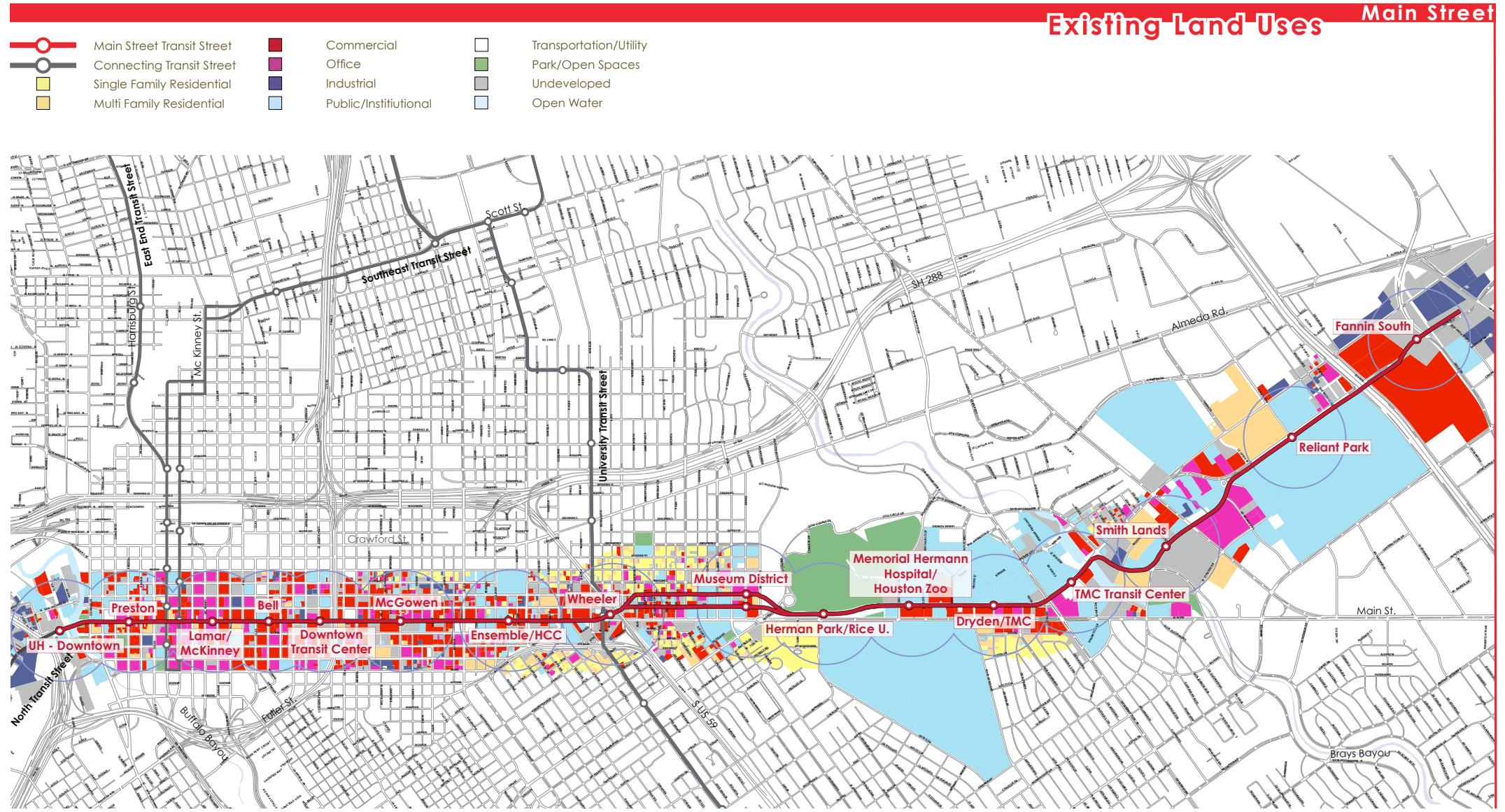
Part of this Urban Corridor Planning study is to understand the common and unique characters of each Urban Corridor. Two elements that define the area are the land uses as well as the size and scale of buildings in the study area.

The map on the opposite page illustrates the range of existing land uses along the Main Street Urban Corridor. The area is composed of high density office uses, retail and service commercial uses and significant institutional uses, including museums, other public and cultural institutions, a university campus and the Texas Medical Center. The

Main Street Corridor also includes a range of single and multi-family residential uses, parks and open space and Reliant Park, a major entertainment use at the southern terminus of the Corridor.



Ensemble / HCC Station





Main Street between Texas and Capitol



Mid-rise rental apartments at San Jacinto and Calumet



Medical building at 7900 Fannin

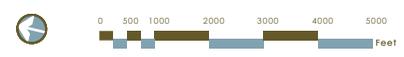
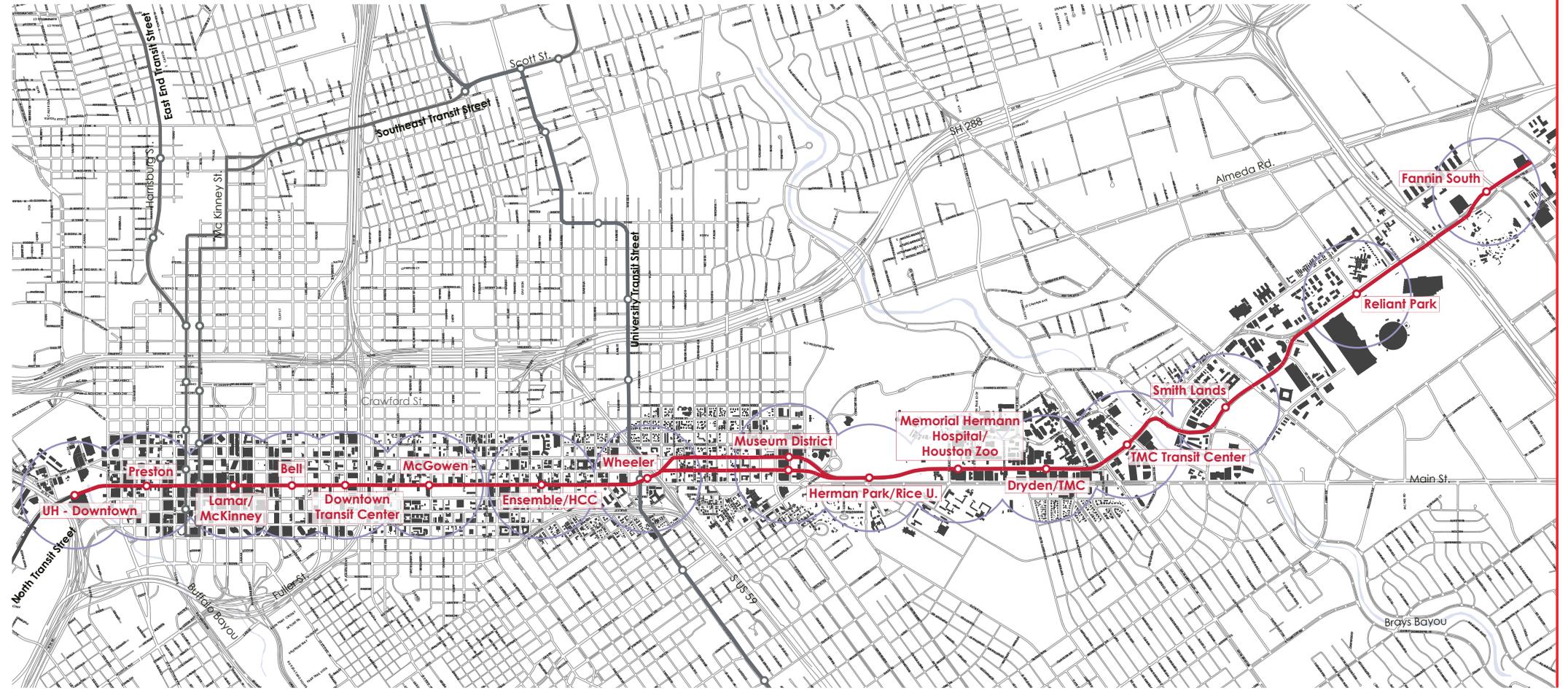
D1.2.2 Building Footprint

The map on the facing page illustrates the size and scale of buildings found in the Main Street Corridor. All existing buildings have been shaded to help create a picture of the pattern created by different buildings, streets and open space - or the area's urban fabric.

The typical small downtown block dimensions of 250 by 250 feet extend to the northern most edge of the Main Street corridor and continue south to Herman Park. At this point, the block dimensions significantly increases, reflecting the large scale uses (i.e. Herman Park, Rice University, Reliant Park, medium density residential development, the Texas Medical Center and related employment uses) that characterize the southern half of the Main Street Corridor. The building footprints in the downtown generally reveal full block and half block developments, with building sizes and block coverage gradually decreasing as one moves south along the Corridor between Clay Street and Herman Park. The building sizes within the large block developments in the southern half of the Corridor vary with according to use. The Texas Medical Center is configured with a number of tightly organized large buildings, whereas the large block developments further south along the Corridor are typified by larger building footprints though with significantly greater building separation, reflective of the nature of the land uses and the large expanses of surface parking. The smallest building footprints show the prominence of single detached homes in adjacent residential neighborhoods.

Existing Building Footprints Main Street

- Main Street Transit Street
- Connecting Transit Street
- Building Footprint
- 5 Minute Walking Distance to Station



Park	Acquired	Acres	Park Class
Market Square Park	1964	1.43	Plaza/Square
Sesquicentennial Park	1988	4	Plaza/Square
Jones Plaza	1964	1.43	Plaza/Square
Tranquility Park	1979	4.3	Plaza/Square
Hermann Square	1913	1.43	Plaza/Square
Root Memorial Square Park	1925	1.43	Plaza/Square
Goyen, Johnny Park	1987	1.66	Plaza/Square
Antioch Park	1981	0.65	Plaza/Square
Smith R. E. "Bob" Park	1969	0.08	Plaza/Square
Peggy's Point Plaza Park	1964	0.44	Plaza/Square
Bell Park	1968	1.5	Plaza/Square
Baldwin Park	1910	4.88	Neighborhood
Peggy Park (Lease)	1925	9.22	Neighborhood
Schweppe Park	1982	2.79	Neighborhood
Emancipation Park	1918	10	Community
Robinson, J. Sr. Park	1954	4.79	Community
MacGregor Way Park	1925	82.79	Regional
Hermann Park	1914	445	Metro
Sam Houston Park	1899	19.7	Cultural/Historical
Allen's Landing	1966	1.76	Cultural/Historical
Confederate Ship Area		0.3	Cultural/Historical
Cullen Sculpture Garden	1973	1	Cultural/Historical
Buffalo Bayou/Tinsley Park	1981	124.05	Linear
MacGregor Parkway	1930	100	Linear
Cravens Parkway	1914	11.49	Linear
Braeswood Parkway	1950	400	Linear
Old City Hall Clock Plaza	1995	0.01	CBD Non-Park Sites
Wortham Center-Fish Plaza	1987	0.01	CBD Non-Park Sites
Jones Hall Public Plaza	1966	0.01	CBD Non-Park Sites
City Hall Annex Plaza	1960	0.01	CBD Non-Park Sites
City Hall Plaza	1939	0.01	CBD Non-Park Sites
Minute Maid Park	1999	28.97	CBD Non-Park Sites
Albert Thomas Plaza		0	CBD Non-Park Sites
Coliseum Music Hall Plaza	1958	6.97	CBD Non-Park Sites
Reliant Park		350	CBD Non-Park Sites
MacGregor Spaceway		0.5	CST's/Spaceways
Smith-Congress Triangle		0.02	CST's/Spaceways
Sweeney Clock Triangle		0.01	CST's/Spaceways
Pierce Elevated Plaza	1971	0.1	CST's/Spaceways
Fannin-Greenbriar Triangle		1	CST's/Spaceways

Target Acquisition Area/Parks

Midtown Pocket Parks (multiple sites)
 Pocket Park Montrose/Spur 527/ Westheimer/Richmond
 Pocket Park Montrose/Bagby/Gray/Westheimer
 Regional Linear Park Brays Bayou Parkway/Trails-Under Construction
 Regional Linear Park (lower) Buffalo Bayou

Other Park Projects of Note

Mecom Fountain, Main at Montrose
 Shamrock Fountain, Main at Holcombe
 Main Street Square and fountains
 Midtown Park
 Discovery Green Park-Under Construction, 11.78 Acres
 Proposed West Webster Park
 Potential Sports and Convention/Entertainment District
 Potential soccer stadium
 Potential open space enhancements at I-45 and US-59

D1.2.3 Pedestrian Realm/Mobility Inventory

Parks

The table on the left lists the Main Street Corridor Parks and the Land Acquisition Target Areas described in the 2001 Parks and Recreation Master Plan. Other park projects are also listed in the third table.

Many City of Houston Community Center Parks offer After School Enrichment Programs, Summer Enrichment Programs, Summer Food Service Programs, Teen Recreation Programs, Summer Teen Camps, Adult Recreation Programs and Senior Recreation Programs.

Publicly Accessible Open Space

Numerous civic, cultural and institutional campuses located along the Main Street Corridor greatly enhance park-like and plaza open spaces. These campuses include: The Theatre District, Minute Maid Park, UofH Downtown, The Museum District, Rice University, Texas Medical Center and Reliant Park.

Other privately held open spaces with park-like qualities include Resthaven Memorial Gardens and Founders Memorial Cemetery.

Sidewalks

In general, the pedestrian realm is exceptionally developed within the Downtown CBD area. Other areas along the Main Street Corridor, especially undeveloped areas

within the Midtown District, the Museum District and south of the Texas Medical Center are in need of pedestrian realm improvements. Sidewalks constructed along the undeveloped sections of the Main Street Line by METRO in 2004 generally meet City of Houston minimum width standards of 4'. This width is not sufficient to accommodate targeted development densities along the length of the corridor.

Community Facilities

Schools - Schools are dependant on pedestrian and bicycle mobility in order for students to safely and efficiently arrive and depart Main Street Corridor schools. Public schools within the Main Street Corridor are administered by the Houston Independent School District (HISD).

The SPARK School Park Program is a non-profit organization which increases park space by developing public school grounds into neighborhood parks. SPARK Parks within the Main Street Corridor Area are located at Dodson Elementary, Douglass Elementary, Ryan Middle School, J. Will Jones Elementary and Roberts Elementary.

Other facilities accessed by pedestrians -

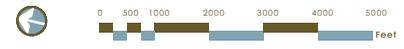
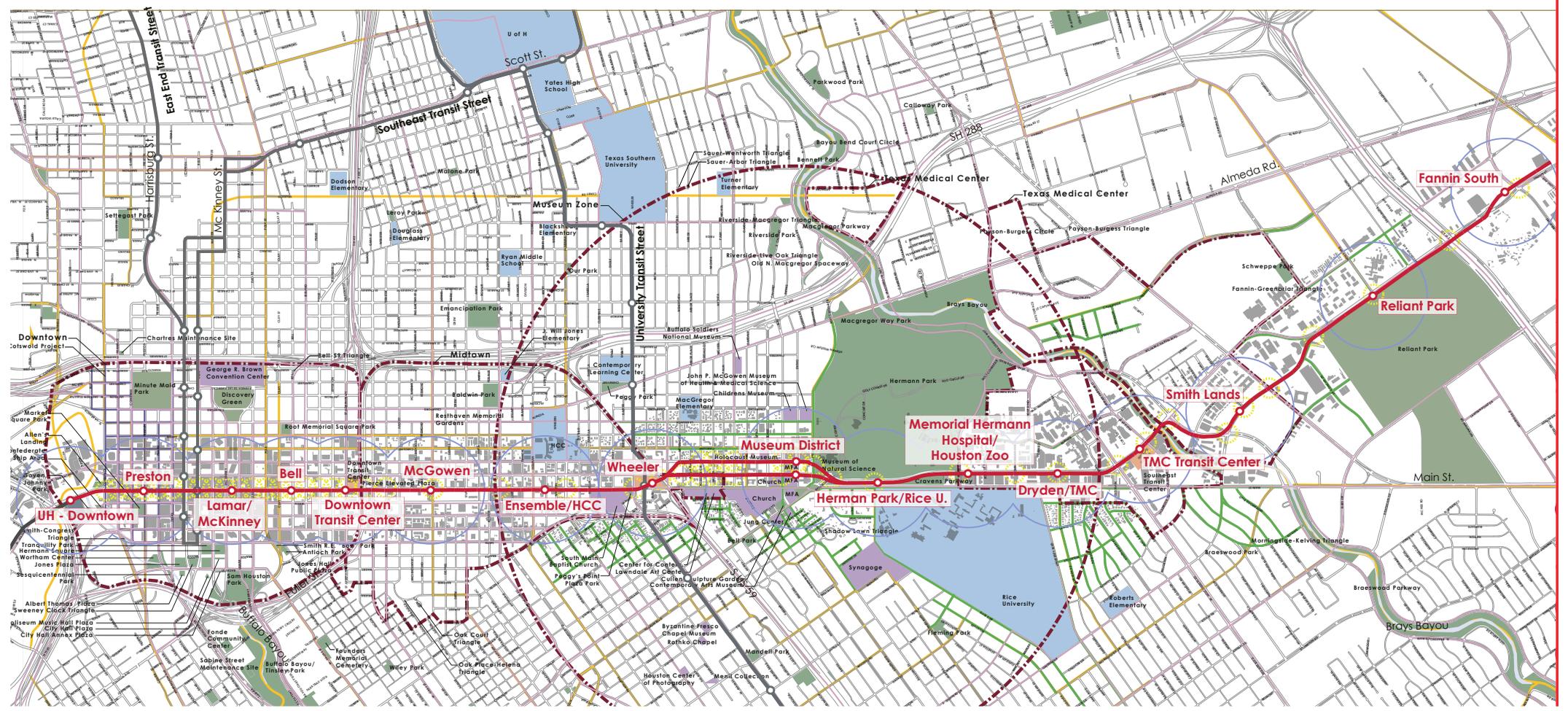
Several significant public, civic and cultural facilities rely on safe and continuous sidewalks for optimum access.

These facilities include:

- Numerous CBD City, County, State and Federal buildings
- The US Customs House and Federal Detention Center
- Houston Post Office on Franklin
- "Justice Square" Harris County Court Bldgs.

Existing Pedestrian Realm/Mobility Main Street

- | | | | | | | |
|---|--|--|--|---|--|--|
| Bayou | Cemetery | Trail/Bikeway | Pedestrian Signalized Crossing | Building Footprint | Main Street Transit Street | 5 Minute Walking Distance to Station |
| Schools | Institutional Buildings | Tree Lined Streets | MT Major Thoroughfare per COH Major Thoroughfare Plan 2006 | Building Footprint | Connecting Transit Street | Districts |
| Open Space | Metro Transit Center | Bus Routes | | | | |





Herman Park Reflecting Pond



Pocket Park on Main St.



Main St. streetscape north of Wheeler Station

- St. Joseph's Medical Center
- Numerous churches and synagogues
- Houston Public Library-Downtown
- Clayton Library Center for Genealogical Research
- Downtown YMCA
- The Midtown Civic Club

Many area schools and other significant public facilities are not adequately served by safe and ample sidewalks with the exception of those located within the recently redeveloped CBD.

Streetscape

Street trees - The Downtown CBD, The Cotswold Project, The Museum District, Rice University, Southgate Neighborhood, Cambridge Green Neighborhood, Reliant Park entries and Hermann Park area streets benefit from mature street tree plantings. Street tree species primarily consist of Live Oaks whose shallow root systems exacerbate concrete sidewalk maintenance needs in the Corridor.

The Cotswold Project completed in 2004 focused on pedestrian enhancements, streetscapes, and street improvements in a 90-block area in the northeast sector of downtown. Featured amenities include fountains, public art, wider sidewalks and street trees at \$68 million.

The same year, Main Street Square, a pedestrian plaza in the heart of downtown Houston was constructed. This area includes a 250-foot reflecting pool with water jets, trees, public art, banners and upgraded sidewalks at \$8.9 million.

Also in 2004, the Main Street Corridor METRO Rail Line was developed and constructed by the Metropolitan Transit Authority. Enhancements along this 7 1/2- mile at-grade light rail line include upgraded sidewalks and bulb outs, brick pavers, special streetlights, drinking fountains, additional landscaping, and a street clock at \$10 million.

In the southeast sector of downtown, pedestrian walkways have been upgraded and include new street pavement, improved drainage, sidewalks, trees and landscaping, removal of overhead utilities, and traffic signal upgrades at \$8 million.

METRO Bus Shelters exist at major intersections along existing Bus Routes.

Pedestrian oriented lighting provides a safer and more attractive environment for night-time use of Pedestrian Realm areas. Pedestrian level lighting is recommended to be augmented throughout the Main Street Corridor area, especially in undeveloped areas.

Public Art

Public art adds an element of pride and interest to the pedestrian realm. In 1999, the City of Houston established an ordinance mandating that 1.75% of qualified Capital Improvement Project monies be set aside for civic art. Civic art works located within the Main Street Corridor include:

- Louis and Annie Friedman Clock Tower
- "The Market" mural by Suzanne Sellers
- "Planters and Stems" sculpture at Market Street Square by Floyd Nessum

- George H.W. Bush statue in Sesquicentennial Park
- Two Medallions, Texas Avenue at Fannin and San Jacinto
- "Movement" located downtown on Prairie @ Travis.
- Carruth Plaza, sculpture garden at Reliant Park
- Museum of Cultural Arts, Houston (MODAH)
- Depelchin Children's Center Mural
- MOCAH ChevronTexaco Global Aviation Mural
- Cotswold Fountains (Main @ Congress and Preston)
- 9 sculptures at Sam Houston Park
- Christopher Columbus Bell Park, Montrose
- Charlotte Allen Fountain, Baldwin Park
- Water Screen, Main Street Square
- Heritage Lanterns, Root Square Memorial Park
- Gazebo Roof, Root Square Memorial Park
- 17 sculptures at Hermann Park, Houston Garden Center including
- Sam Houston Monument by Cerracchio, Enrico Filiberto
- "Cancer, There is Hope" by Victor Salmones, 1990, Bronze Sculpture
- The Lillie and Hugh Roy Cullen Sculpture Garden by Isamu Noguchi, 1986
- Metro Downtown Light Rail System-Stations at UH-Downtown, Preston, Lamar/McKinney, Bell, Downtown Transit Center, McGowen, Ensemble/HCC, Wheeler, Museum District, Herman Park/Rice Univ., memorial Hermann Hospital/Houston Zoo, Dryden/TMC, TMC Transit Center, Smith Lands, Reliant Park and Fannin South.

Mobility

Crosswalks - Demarcation of crosswalks at key intersections provide safe and visible pedestrian crossings of public rights-of-way. Crosswalks exist at many signaled intersections along the Main Street Corridor Transit Street.

Bikeways/Trails - The Houston Bikeway Program provides a 345-mile bikeway network for urban cycling that spans across a 500 square-mile area of the city. This bikeway network is integrated into the overall transportation system. Several City of Houston bike lanes are located along Main Street, Caroline, Austin, West Dallas, Hawthorne, Alabama, Yoakum, Barkdull, Sunset, MacGregor Parkway, and Holly Hall. These bike lanes are often narrow and do not meet current AASHTO standards for recommended bike lane widths and demarcation.

METRO allows cyclists to bring their bikes onto the Main Street Light Rail System. The fleet is being equipped with bike racks and bikes can be stowed on high-floor buses in the designated baggage compartment.

The Harrisburg-Sunset Trail serves the Main Street Corridor as a designated regional bikeway. This hike/bikeway is a Rails-to-Trails project consisting of over 5 miles of trail and on-street bikeways just east of downtown Houston. This 10-foot asphalt trail is lit and runs from Drennan to Hidalgo Park. The on-street portion of the trail runs from Commerce and McKee to Avenue H and West Hendrick. A future designated connection at S. 70th Street will connect the Harrisburg-Sunset Trail to Brays Bayou.

Transit Options - Transit options within the Main Street Corridor include:

- METRO Bus-Local and Commuter Lines
- METRO Texas Medical Center- Campus Trolley
- METRO Park and Ride at S. Fannin
- METRO HOV lane access from Franklin St. under IH-45 overpass, Smith St. South of Holman via Spur 527,

- Milam St. South of W. Alabama
- Greyhound Bus Service
- Amtrak Train Service

Current METRO bus lines include commuter and local lines running between the Downtown Transit Center, Wheeler Station, Eastwood, TMC, Magnolia, Gulfgate and Southeast Transit Centers. The downtown Greyhound Bus Station is open 24 hours a day, 7 days a week and is located on Main St. at Gray. The Amtrak Train Station is located downtown near Washington and Bagby.

Transit Centers - The downtown transit centers are:

- Downtown Transit Center
- Wheeler Station
- TMC Transit Center
- Fannin South Park-and-Ride



METRORail line running along Fannin through Hermann Park



Street trees and street furniture in front of the Texas Children's Hospital



Service poles along Fannin St. at Blodgett

D1.2.4 Engineering/Infrastructure Inventory

Existing Road

The Main Street Corridor traverses through Main Street, Fannin Street, San Jacinto Street, S. Braeswood Boulevard, and Greenbriar Drive.

Existing Watermains

The typical life of a water transmission main is 40-50 years. For the Main Street Corridor, research indicates that 8 out of existing 21 watermains along the existing alignment of the Main Street Corridor are at the end of their life span and will require replacement in the near future.

Existing Sanitary Sewer Lines

The typical life of a sewer line is typically 30 to 40 years, unless the lines are rehabilitated. Based on the City's GIM database, there are several sewer lines along the Main Street Corridor that are older than 40 years. Given that data is unavailable with respect to the rehabilitation of these lines, it is recommended that the condition assessment of sewer lines be done for all sewers that are more than 30 years.

Existing Storm Sewer Lines

Current City regulations require storm water detention for all new development. Hence, any new developments that are proposed will be required to design for storm water detention.

Existing Lighting

Along the existing Main Street Corridor, the entire corridor has an existing continuous lighting system. The existing poles range from 20 to 25 feet in height and are mounted on breakaway bases that are founded on drilled shafts. The existing street lights along Main Street between Commerce and Pierce are decorative light poles spaced between 80 to 110 feet on both sides of the roadway. Poles are mounted behind the roadway curb at varying distances depending on site conditions. The remaining corridor has existing lights along both sides of the roadway, except along San Jacinto, where the existing lighting is primarily along the east side of the roadway. It is assumed that existing lighting meets current City of Houston standards.

Summary

As in other Corridors, it is clear that redevelopment will occur over a long period of time. This allows time to replace older water mains and other services. The Transit Street itself is characterized with a combination of office, commercial, institutional and residential uses, which would normally have the capacities needed for redevelopment. However, despite infrastructure upgrades associated with the construction of the Main Street Transit Street, the condition of water mains and sewer lines appears to be quite old along the and replacement of these services should be contemplated as redevelopment occurs. It is recommended that the condition assessment of sewer lines be done for sewers that are more than 30 years by closed circuit television inspection. Storm water provision should be considered early in the redevelopment process to insure that the proper capacity exists

Socio-Economic Profile - Main Street Corridor		
		% Share
Total Population	101,006	
Total Households	39,526	
Population Age Profile:		
Age 0 - 4	6,167	6.1%
Age 5 - 9	5,955	5.9%
Age 10 - 14	5,394	5.3%
Age 15 - 17	2,956	2.9%
Age 18 - 20	4,893	4.8%
Age 21 - 24	6,608	6.5%
Age 25 - 34	21,570	21.4%
Age 35 - 44	17,482	17.3%
Age 45 - 49	7,207	7.1%
Age 50 - 54	6,164	6.1%
Age 55 - 59	5,029	5.0%
Age 60 - 64	3,508	3.5%
Age 65 - 74	4,426	4.4%
Age 75 - 84	2,744	2.7%
Age 85+	902	0.9%
Median Age	33.6	
Average Age	35.1	
Household Size Profile:		
1 Person	17,438	44.1%
2 Person	11,094	28.1%
3 Person	4,528	11.5%
4 Person	3,031	7.7%
5 Person	1,674	4.2%
6 Person	896	2.3%
7+ Person	865	2.2%
Average Household Size	2.18	
Period of Housing Construction:		
Built 1999 to March 2005	6,842	15.4%
Built 1995 to 1998	2,397	5.4%
Built 1990 to 1994	767	1.7%
Built 1980 to 1989	4,146	9.3%
Built 1970 to 1979	5,694	12.8%
Built 1960 to 1969	6,488	14.6%
Built 1950 to 1959	7,411	16.6%
Built 1940 to 1949	3,600	8.1%
Built 1939 or Earlier	7,180	16.1%
Median Year Built	1966	
Owner Occupied Households	13,310	33.7%
Renter Occupied Households	26,217	66.3%
Household Income Range:		
< \$25,000	12,064	30.5%
\$25,000 - \$49,999	10,572	26.7%
\$50,000 - \$74,999	6,180	15.6%
\$75,000 - \$99,999	3,325	8.4%
\$100,000+	7,387	18.7%
Median Household Income	\$42,933	
Median Value of Owner-Occupied Dwellings	\$143,433	

Source: Claritas

D 1.3

Main Street Corridor Demographic Market Overview

Demographic Overview

The Main Street Corridor area has a population of just over 101,000 persons. In terms of background, Caucasians and Hispanics constitute a similar share of the population (35% and 32%, respectively), followed by African Americans, at 23%. The median age level is 33.6 years old, which is among the oldest among the five Corridors being examined, which range from 27.7 to 34.9 years of age. Persons under the age of 25 account for a 32% share of the local population in the Main Street Corridor, while persons aged 25 to 54 (prime income-earning years) account for a more sizable 52% share of the total.

The average household size in the Main Street Corridor is 2.18 persons, which places it lowest among the five Corridors being examined, which range from 3.57 down to 2.18 persons per household. Households with 1 or 2 persons account for a 72% share of the total, while households of 5 or more persons account for just a 9% share. In comparison to other Corridors examined, this is the least family-oriented.

The Main Street Corridor has among the newest housing stock of the five Corridors being examined. Homes

built since 1990 account for close to one-quarter of the total, while homes built pre-1970 represent a 55% share. This compares to an average of 14% and 56% share, respectively, for the total sample of housing across the five corridors. Just one-third of homes are owner-occupied, with two-thirds being renter-occupied, which is the highest prevalence of rental tenure housing among the five Corridors being examined – not surprising given the greater concentration of apartments in this area.

In assessing household income levels, the Main Street Corridor ranks second highest (after Uptown Corridor) among the five corridors being studied. With a median household income level of just less than \$43,000, some 43% of households have an income level of over \$50,000, and nearly 19% earn in excess of \$100,000.

The median value of housing in the Main Street Corridor is in the range of \$143,000, which is well above all the other Corridors being studied, with the next highest (Uptown Corridor) being \$113,000. Just 18% of area households are valued at less than \$60,000, and around 40% are valued at less than \$100,000. Impressively, some 37% are valued at over \$200,000, and almost 9% are valued at over \$500,000 – by far the highest among the study corridors.

Neighborhood Description

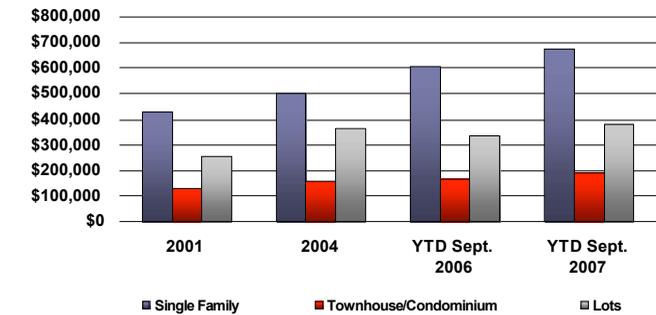
The Main Street Corridor is part of Study Area 10 (although portions extend into other Study Areas, the majority is centered within Study Area 10). It has been analyzed as part of a Land Use and Demographic Profile prepared by the City's Planning and Development Department in 2003. The Main Street Corridor itself principally comprises five neighborhoods (from north to south): Binz, University Place, Medical Center, Astrodome, and South Main. The following is a brief area description.

- Binz neighborhood, north of Hermann Park, is home to the majority of the City's museums. It is nestled between the Downtown and the Medical Center. The construction of Highway 288 in the 1970s effectively separated it from the Riverside area. Binz is characterized as a district of large homes, small apartment buildings and scattered commercial buildings. While many of the pre-World War II buildings have been renovated and some new residential construction has occurred, substantial redevelopment in the area has not taken hold.
- University Place is a group of neighborhoods surrounding Rice University. Some of the area's better neighborhoods are deed-restricted and expensive, and include some of the city's finest homes, especially along the live oak esplanades of Sunset, North and South Boulevards. Proximity to the Texas Medical Center has led to intense redevelopment along Holcombe and Main, and on the site of the old Shamrock Hilton hotel. The Village shopping district and the blocks adjacent to Montrose Boulevard have a mix of uses with considerable redevelopment underway.
- Medical Center Area includes the original campus of the Texas Medical Center, Hermann Park, and a fringe of private development. The Texas Medical Center has expanded its campus far beyond the original site (north of Holcombe and east of Fannin), and has replaced the early restaurants and shopping centers on Main Street with high-rise hotels, out-patient clinics and professional buildings. Hermann Park contains the city's zoo, amphitheater, and the Museum of Natural History, furthermore, it is bordered on the north by several high rise condominiums, a private hospital and a medical museum.
- The Astrodome Area includes the commercial and residential developments which have located in what was a virtually empty part of south Houston before the opening of the Astrodome in 1965. The area lies south of South Braeswood Boulevard, extending to Loop 610 further to the south. Plaza Del Oro, a mixed use development by Shell Oil Company, comprises a few technical and medical office buildings and many apartments and condominiums. The majority of residential units in the area are multifamily or single-family attached.
- South Main Area is along South Main Street on both sides of Loop 610 including the Astroworld, south of the Loop. Most of the residential development in the area consists of large multi-family complexes, some of which deteriorated in the 1980s. Currently, the South Main Center Association, a major institutional coalition, is an active participant in the Main Street Corridor Project, a public/private partnership to turn Main Street into Houston's signature boulevard.

The following land use characteristics are identified for Study Area 10:

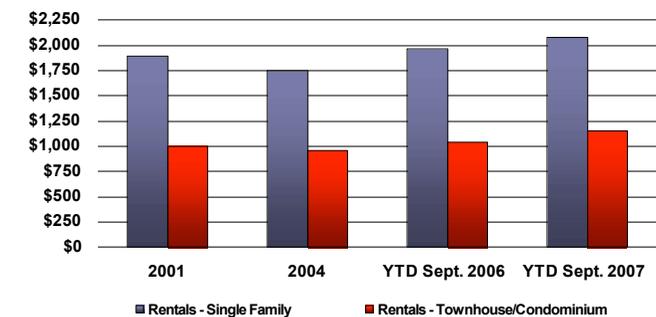
- Study Area 10 is located inside Loop 610 south of Buffalo Bayou, extending south just beyond the southern portion of Loop 610. It encompasses 13,376 acres of land, of which more than 30% are residential uses. Concentrations of public and institutional growth are located here including: Texas Medical Center, Hermann Park, Museum District, Rice University, Rice Village and Saint Thomas University.
- Single-family residential constitutes about 21% of this area. The overwhelming majority of these parcels are located north of Brays Bayou. Single-family uses grew in the area by 6.4%, from 2,694 acres in 1990 to 2,864 acres in 2000. Between 1990 and 2000 new housing construction has tended to concentrate north of US 59 and west of Downtown.
- Multi-family residential uses are about 9% of acreage in this Study Area, up by more than 30% from 889 acres in 1990 to 1,164 acres in 2000. Multi-family residential uses are located in the Reliant Park area, around Old Spanish Road, and toward the south. In the northern part of the Study Area, multi-family residential uses tend to concentrate in the northeast corner between Buffalo Bayou and Westheimer Road, and south of Westheimer between Wesleyan and Buffalo Speedway. Between 1990 and 2000 apartment construction grew considerably – almost 8,600 units were built in the decade, which was the second highest figure recorded among Study Areas across the city. Apartment buildings and condominiums were built mainly north of the Brays Bayou, and in even greater numbers, north of US 59.

Houston Association Of Realtors MLS Statistics
Average Price by Property Type
Main Street Corridor- MLS District 17 (Southwest)



Source: Real Estate Centre at Texas A&M University, Houston Association of Realtors
Note: Data shown is annual, other than for the current year (year-to-date March, 2007)

Houston Association Of Realtors MLS Statistics
Average Price (Lease Rate) by Property Type
Main Street Corridor- MLS District 17 (Southwest)



Source: Real Estate Centre at Texas A&M University, Houston Association of Realtors
Note: Data shown is annual, other than for the current year (year-to-date March, 2007)

- Commercial and Office land uses cover slightly more than 12% of the land. Commercial land accounted for 7.7% in 2000, with sizable concentrations of development located along Kirby Drive, US 59, Richmond Ave., Westheimer Road, and Bissonet St., in the northern portion of the Study Area. Also, concentrations are along South Main St., Bellaire Blvd, Old Spanish Trail and south of Loop 610 in the southern portion. Office uses cluster in Greenway Plaza and the Medical Center and also on Allen Parkway in the vicinity of Montrose, and north of Reliant Park. Commercial land uses expanded from 661 acres in 1990 to 1,030 acres in 2000, while office land uses increased from 446 to 583 acres in the same period. Some industrial and residential parcels have been converted into commercial uses, especially along Montrose and South Main in Midtown. New commercial and office development are also increasing along the major thoroughfares and in the already established areas.
- Industrial uses have expanded slowly, from 644 acres in 1990 to 677 acres in 2000. In 2000, industrial uses covered 5% of the land, located primarily in the southern portion of the Study Area, more specifically south of Old Spanish Trail between SH 288 and Alameda Rd., and south of Loop 610. Part of the growth in the last decade is due to use of vacant land, and part is due to data reclassification. New warehouse development is increasing south of Old Spanish Road.
- Transportation and utilities make up 11% of the land in the Study Area. The largest concentration of this land is located in the vicinity of the intersection of US 59 and Loop 610.
- Parks and open space occupy 2.7% of the land in the study area including Hermann Park and linear parks along the Brays and Buffalo Bayous. Most of the increase from 1990 to 2000 is the result of reclassification of land along Buffalo and Brays Bayous.
- Public and institutional uses account for 13.6% of the total land, about 1,800 acres, the largest amount of any Study Area. Public and institutional land is concentrated along South Main and includes the Texas Medical Center, Rice University, Museum District and Reliant Park. To the north of US 59 and to the west of Montrose is Saint Thomas University. Between 1990 and 2000 several major institutional projects have been completed or are in construction, for example: the Texas Medical Center added two new hospitals and parking garage; two new museums were built, including the MFA expansion; The University of Saint Thomas added a new science building and a chapel; and Rice University added a new student residence.
- Vacant land accounts for about 13% of the land in the Study Area. Vacant land decreased from 2,141 acres in 1990 to 1,757 acres in 2000. Vacant parcels are mainly located south of the Texas Medical Center, between South Main Street and Holmes Road. Vacant land has decreased mostly because of growth in institutional uses and park space.
- Roads cover 21.3% of the area, higher than the citywide figure of 15%. Major roads crossing the Study Area include US 59 in the north, Loop 610 in the south and SH 288 on the eastern boundary. Other important roads are South Main and Fannin Streets, which will include a light rail line running from the Downtown to Reliant Park.

Office Market

The Main Street Corridor incorporates the Central Business District office node. The CBD has an inventory of some 36 million sf of space, with a current (2007 Q3) overall vacancy rate of just under 12%. There is presently 207,000 sf of office space under construction. The average asking gross rental rate for Class A space is approximately \$32.50 psf.

Overall vacancy has dropped significantly throughout 2007 – a dramatic decrease from the over 22% level at the end of first quarter of 2006. Since year-end 2006, the vacancy rate for Class A space in the CBD has decreased from 9.0% to just 7.6%. Few large blocks of space remain vacant. During this period, rental rates have been escalating rapidly, as landlords capitalize on vastly improved market demand conditions, with the overall Class A average asking gross rental rate up from \$25.00 at 2006 Q4 to \$32.00 psf at 2007 Q3. Some 85% of all leasing activity that has occurred so far this year has been in the Class A space market.

Housing Market

The average single family house price was approximately \$674,000 through the first nine months of 2007, based upon Multiple Listing Service (MLS) data compiled by the Houston Association of Realtors. There have been a total of 927 sales year-to-date (January to September), compared to 1,003 during the same period one year ago, representing a decline of nearly 8%. The average townhouse/condominium sale price was considerably less costly, at close to \$191,500 through September 2007, compared to roughly \$169,000 at this time last year. These values have increased sharply, in the range of 20%-35% since 2004.

In the rental market, the single-family home rental rate was approximately \$2,100 per month in September

D1.4

Summary of Initiatives

The Initiatives Plan compiles and map initiatives, projects, and plans that have been prepared for lands in the study area. In addition, initiatives identified by participants in the workshop have been added.

A comprehensive picture emerges of the immense planning and development efforts undertaken in the Corridor to date, as well as the geographical relationship between the initiatives and the Transit Street and Stations. From a strategic stance, the Initiatives Plan provides a clearer sense of the location of priority areas within the Corridor and how future Transit Oriented Development objectives might be focused and positioned to build on existing initiatives and planning efforts.

Opportunity Areas

These locations identify sites that could be considered for redevelopment. Sites located along the Transit Street are suitable for intensification with transit supportive uses. These locations were identified in studies and by workshop participants.

Opportunity Districts:

Houston Downtown Development Framework

1 Sport and Convention District

The downtown vision for 2025 includes a thriving Sport and Convention District - primary attractions include the George R. Brown Convention Center, the Minute Maid Center, Toyota Center and Discovery Green (a new civic park).

2. Recreational District

The Buffalo Bayou Greenbelt project will transform the water's edge into a linear cultural park, connecting downtown adjacent areas in the City.

3. Retail and Entertainment District

Street-level commercial and entertainment is to be focused in this area, creating a critical mass of retail and destinations for downtown residents and visitors.

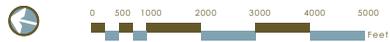
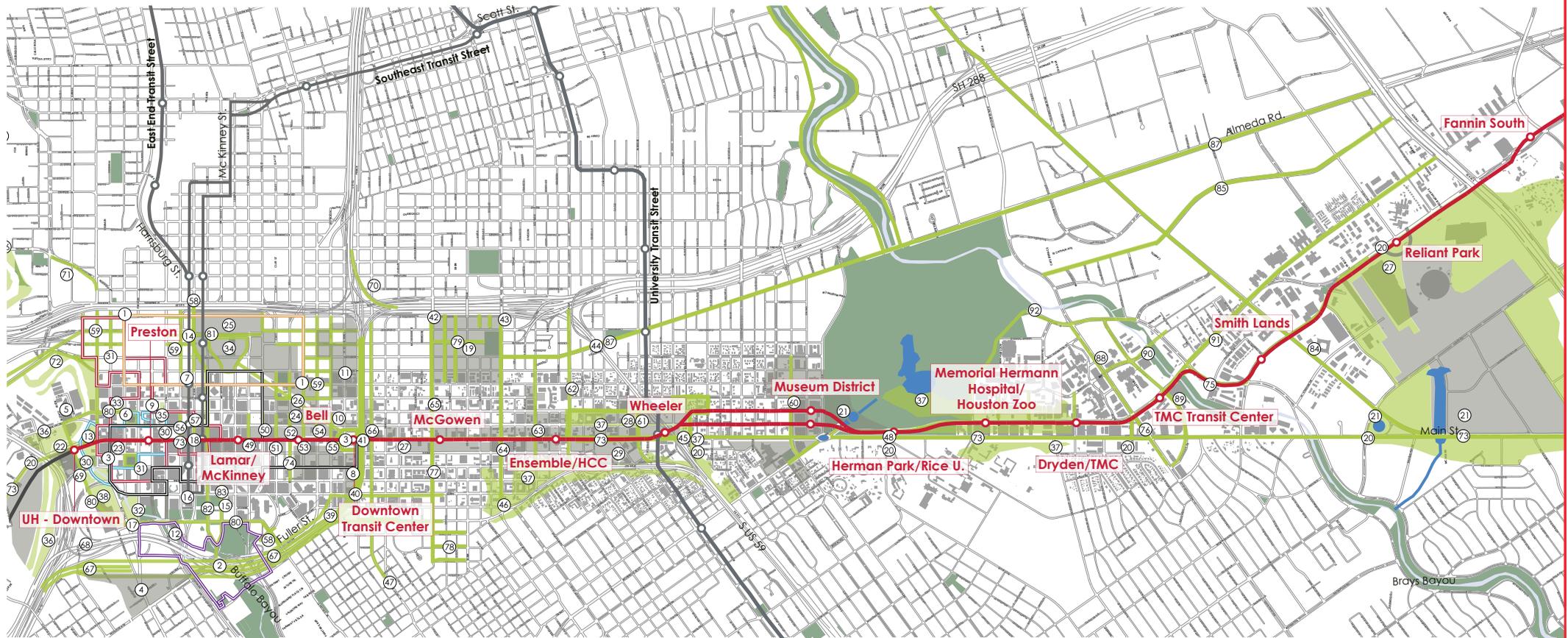
Government Campuses:

4. Public Safety Campus

A new public safety campus for the Houston Police Department is planned west of I-45. Maintaining a police presence in the downtown will help establish a sense of safety.

Initiatives Main Street

- Main Street Transit Street
- Connecting Transit Street
- Opportunity Area
- Stable Area
- Proposed Pedestrian Realm
- Districts
- Existing Open Space



5. **Joint Booking Facility**
The City plans to implement a joint jail and booking facility with Harris County.
6. **Restored Courthouse**
The restoration of the Civil Courthouse Building began in 2006 and is expected to be complete by 2010.
7. **New Federal Campus**
A downtown Houston Federal Campus will include a new federal courthouse and post office centered on the historic Customs House.
8. **Fire Station #1**
The Houston Station 1 located at 410 Bagby is currently closed and being renovated.
9. **Christ Church Cathedral Campus**
The expansion responds to issues of accessibility, a parking garage, a new diocesan center, the Latham and Hines buildings, a new three-story building for the youth program and some Cathedral offices and a generous green space on Texas Avenue.
10. **Sacred Heart Co-Cathedral**
The Catholic Church is building a Romanesque style cathedral with a 12-story bell tower on a full city block. "Cathedral Square" is currently characterized by office buildings with blank facades, underutilized properties serving as surface parking lots and vacant buildings. This new cathedral and the METRO Headquarters are applying the design principles set forth in the Main Street Corridor Master Plan.
11. **Christus St. Joseph Extension**
In 1998, a new garage and ambulatory care facility were built.

Private Development:

12. **Bayou Place Phase II**
Offices with parking at grade are being built on Texas Avenue at Bagby.
13. **Allen's Landing**
The City of Houston and Buffalo Bayou Partnership are continuing the renovation of the waterfront at the confluence of Buffalo and White Oak Bayous. The project includes the addition of a promenade, terraced lawn, public art, benches and bike racks.
14. **Regional Visitor Center**
A new regional visitor center along Avenida de las Americas will connect visitors to Downtown attractions.
15. **Library**
There are plans for a new central library be built in the Downtown area.
16. **New Arts Facility**
A new arts facility is proposed at Rusk and Smith Streets.
17. **New Theater**
The Downtown Aquarium area would benefit from a complementary use, such as a family-oriented theater.
18. **Main Place**
A new 46 storey LEED silver-certified office tower is being built at 811 Main Street. Construction is estimated to be completed by 2011, bringing approximately one million rentable square feet to the area.

Development Opportunities: Main Street Corridor Master Plan

19. Elizabeth Baldwin Park

The City acquired Elizabeth Baldwin Park in 1905. It is 4.88 acres and is the neighborhood focus for houses and businesses.

20. Signature Gateways

At the north, an intermodal station is planned at the northern end of Main Street, connecting to the North Corridor Transit Street. Toward the south, the underutilized lands around Reliant Park are suitable for a "New Town in Town". These hubs could have significant public art that corresponds to the cultural identity of each place.

21. Water elements

Creative water detention solutions to deal with Houston's flooding issues are recommended at Hermann Park and Reliant Park.

22. Amphitheater

The Buffalo Bayou Master Plan includes an amphitheater at junction of the Gable Street Landing, Festival Place and Symphony Island.

23. Market Square

Flanking the Main Street transit line, Market Square was originally a thriving public market. There are plans to restore the square and reintroduce the market.

24. New Civic Building

The southeast downtown quadrant is underdeveloped and would benefit from a new civic building that could act as the front door to the downtown segment of the Main Street Corridor.

25. Convention Center Expansion

The George R. Brown Convention Center Expansion was completed in 2003 - 400,000 square-feet of exhibit space and meeting rooms were added, which can accommodate large conventions.

26. Boulevard to Convention Center

This boulevard leading to the George R. Brown Convention Center widens and creates a bottle-shaped 11-acre space currently being transformed into a destination park. The openspace components will include: a lawn, walkways, gardens, lake and landforms.

27. New Firefighters Museum

28. Relocated Flower Market

29. High School for Performing & Visual Arts

A new High School is proposed on Main Street between Truxillo and Cleburne, fronting the front lawn of the South Main Baptist Church.

Stable Areas

It is important to protect and enhance residential neighbourhoods . Neighborhoods will need to assess the opportunities that result from change, especially at their edges that abut the Transit Line or stations.

30. Historic District

The Main Street Corridor Master Plan suggests a Historic District be established between Market and Courtyard Squares.

31. Historic Area

Pedestrian Realm

The North Corridor has several neighborhood, community, and city scale parks and open spaces. Workshop participants identified several initiatives for open space, streetscape and corridor enhancements.

Parks:

The protection and enhancement of existing parks is crucial to the pedestrian realm. Enhancements could include landscape upgrading, improved pedestrian and cycling access and upgraded facilities.

(Houston Downtown Development Framework)

- 32. Cultural Park
- 33. Harris County Plaza
- 34. Discovery Green
- 35. Christ Church Park
- 36. Buffalo Bayou Greenbelt
- 37. Main St. Corridor Master Plan
- 38. Restored Sam Houston Park
- 39. Green Connection to Midtown

Gateways:

Significant entry points to strengthen the community identity have been identified. Gateways could include signage, landscape treatment or special buildings.

- 40. I45 & Frontage Rd. extension
- 41. Main St. & I45
- 42. McGowan & SH 288
- 43. Elgin St. & SH 288
- 44. Crawford & US H59
- 45. Main St. & US H59
- 46. Elgin St. & Spur 527
- 47. Gray & Webster
- 38. Main St. & Rice Blvd.

Infrastructure Upgrading:

Drainage:

- 49. Dallas Street
- 50. Polk Street
- 51. Clay Street
- 52. Bell Street
- 53. Leeland Street
- 54. Pease Street
- 55. Jefferson Street
- 56. Rusk Street
- 57. Capitol Street
- 58. Midtown - Potential Relief Storm Sewer

Utilities:

- 59. Overhead Utility Lines to be relocated

Streetscapes:

Streets are to be designed to create a pleasant environment for pedestrians and cyclists. Improvements could include street planting, safe and connected sidewalks, pedestrian scale lighting and amenities such as benches, trash receptacles and transit shelters.

Pedestrian Walks:

- 60. Museum Art Walk on Binz
- 61. Wheeler - Spur 527 to LaBranch
- 62. Alabama - Milam to Chenevert
- 63. Holman
- 64. Elgin St. - Smith to Main St.
- 65. McGowen - Smith to Main St.
- 66. Gray - Smith to Main St.

New Roads:

- 67. I45 Realignment
- 68. Washington St. Extension
- 69. Bagby Extension to San Jacinta
- 70. Redesigned SH 288 - I445 Ramps
- 71. Navigation Blvd.
- 72. Hardy Toll Rd. Extension

Streetscape Improvements:

- 73. Main St. - Downtown to 610 Loop
- 74. Bell St.
- 75. Greenbriar
- 76. Holcombe Square Design Project

Civic Corridor Improvements:**(Midtown Project Corridors)**

- 77. McGowen Corridor
- 78. Oak Sq. District: Baldwin, Helena, Albany and Bagby
- 79. Baldwin Park: Crawford, Dennis & Drew

Proposed Corridors:**(Houston Downtown Development Framework)**

- 80. Bagby to I45 to San Jacinto to Preston
- 81. Avenida de las Americas
- 82. Walker from I45 to Louisiana
- 83. McKinney from I45 to Louisiana

Texas Medical Center corridors to demarcate identity**beyond its boundaries:**

- 84. Old Spanish Trail
- 85. Cambridge
- 86. McGregor
- 87. Crawford/Alameda
- 88. Holcombe
- 89. Herman Pressler
- 90. Bertner Ave.
- 91. Knight Rd.
- 92. N. Braeswood Blvd.

D 1.5

Main Street Corridor Workshop

A two day workshop was held in April 2007 to engage area stakeholders and residents in Urban Corridor Planning.

The purpose of the first day of the workshop was to establish a common understanding of existing conditions and opportunities in the Corridor. During the day, the consulting team met with representatives of City staff, and major landowners, to review the understanding of the context of the Corridor. During the evening session with the public, following a presentation on our understanding of the context, participants were asked to identify projects or initiatives that would enhance the area, as well as to help identify areas that could change and those that should be protected. As background, the Current Initiatives plan was presented at the workshop. It was a compilation of projects identified in previous strategies, plans and reports (see Chapter D1.2)

Each one of the table groups identified many opportunities in the Main Street Corridor that have been included in the Initiatives Plan (see Chapter D1.3). A summary of comments made by participants follows:

Public Realm

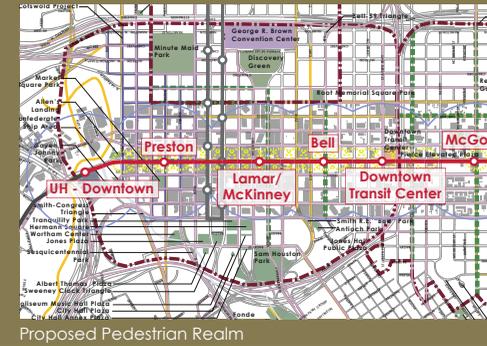
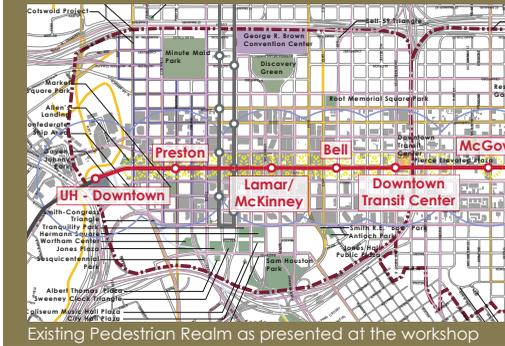
- create great public spaces
- concerned about pedestrian interaction
- Wheeler Station - two elevated roads limit access and attractiveness for pedestrians
- need to include trees
- better lighting is required under freeway
- pedestrian gateways: South bound Main, East bound Richmond Wheeler, West bound Blodgett, North bound Main
- green parking lots
- green collector to and from rail line
- shady access to and from rail line
- urban corridor to and from rail
- hike and bike trail along bayou being expanded
- Closing off Fannin or Main and making it just for pedestrians

Redevelopment Opportunities

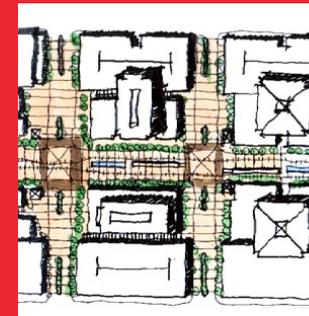
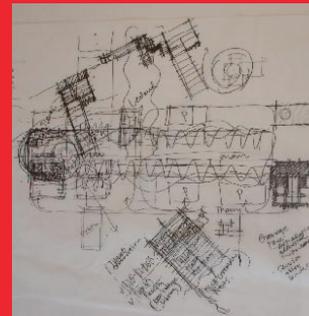
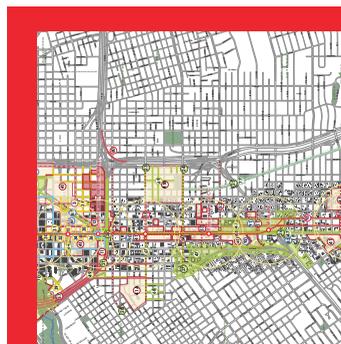
- need additional residential in the downtown
- mixed use – office and residential
- encourage alternative forms of commercial development
- density should be greater
- maximum parking ratios should be applied
- want: Whole Foods, Target, Market Place, a movie theater and affordable housing
- use parking structures for something more than a garage
- TIRZ should reward quality developments

Evolution from workshop suggestions to report Main Street

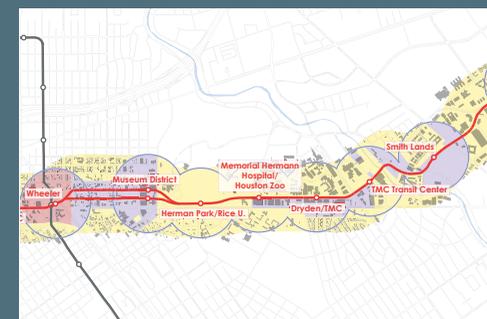
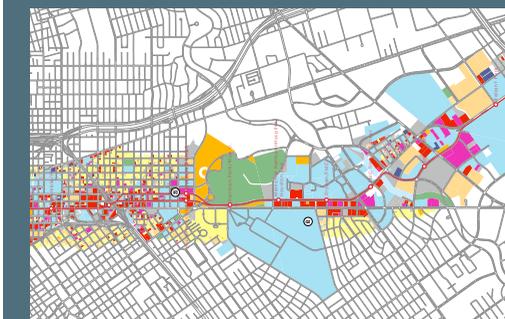
Pedestrian Realm

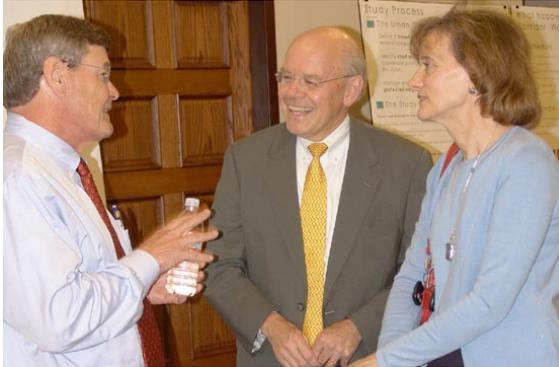


Initiatives



Land Development





Main Street Corridor Workshop



Main Street Corridor Workshop???



Main Street Corridor Workshop???

Participants were also asked to write a headline for the front page of the Houston Chronicle in 2012. The headline was to reflect the character of the Main Street Corridor once the Transit Network is been up an running. The facing page summarizes some of the headlines collected during this exercise. These statements clearly represent a positive future for the Main Street Corridor and the benefits of transit for the area.

Based on the input provided during the first workshop day, the preliminary Pedestrian Realm, Land Development Concept Plans and 2 Demonstration Plans were developed and presented for discussion the next day.

The drawings on the previous page illustrate the input received at the workshop and the evolution to the report's Pedestrian Realm, Current Initiatives and Land Development Concept Plans (see Chapter D2 for proposed Plans).



Harvard Square, Cambridge, MA



Chester Square, London, England



Savannah, GA

Main Street Corridor
Houston's Signature Boulevard
Tree-Lined rail RE-LEAVES stress

Target opens the first urban store
IMC Continues to thrive

Fannin traffic problems cured
Pedestrians Swarm Plaza -
Grand Opening Target/Whole Foods

Sears unveils original Art Deco Sears Strips!

Wheeler Street Farmers' Market Anniversary

These headlines were taken during the Main Street Corridor Workshop

2

Main Street Planning Strategy

This chapter introduces the Planning Strategy and describes the Pedestrian Realm/Mobility Plan, the Land Development Concept Plan and Infrastructure Plan.

D2.1

The Combined Pedestrian Realm/Mobility/Land Development Concept Plan

The diagram on the facing page illustrates the combination of the Pedestrian Realm/Mobility Plan and the Development Concept Plan, which are described in detail in the sections that follow. The Urban Design Plan for the North Corridor illustrates broader elements of the Corridor that will eventually result in Transit Oriented Development and connections to the surrounding community.

Main Street is the location of the first seven miles of the Houston LRT system and the Plan illustrates this quite clearly. The corridor passes through a number of different neighborhoods of different scales and character. The impact of the Transit Street on adjacent neighborhoods is minimized because it runs through areas that are already urbanized and, in some cases, are single use areas such as the office areas downtown and the medical centre area. Large, open parking lots and underdeveloped parcels of land characterize those areas that are not urbanized. As a result, the development-potential areas are relatively continuous throughout the Corridor. An important area of high development potential is the Midtown area. It has already seen some new pedestrian-friendly mixed use

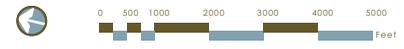
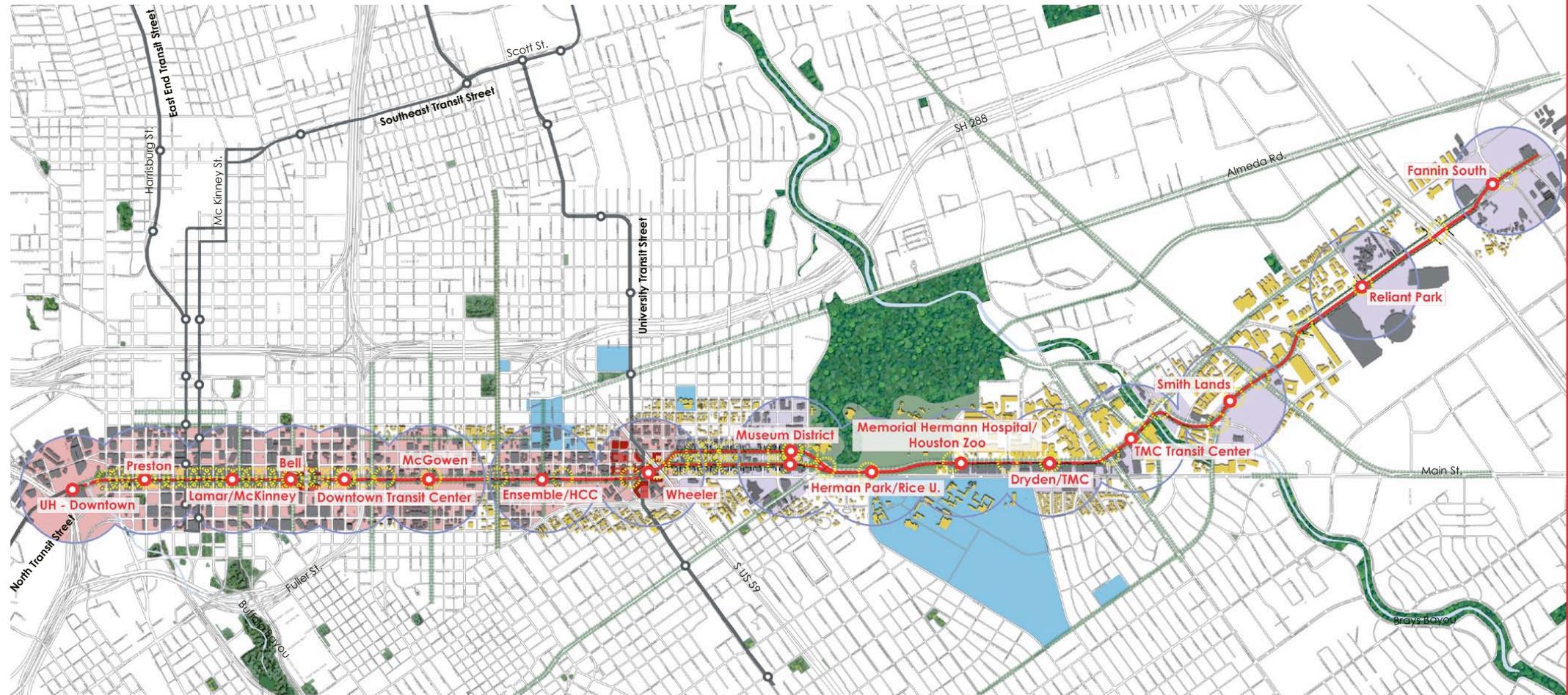
development occur. The areas of Midtown next to transit are still not fully developed, and the plan suggests that the pedestrian scaled streetscape elements be provided as soon as possible to enhance the development activity in the area, and to set the standard for the pedestrian realm. The objective of the plan for this Corridor is to establish an urban pedestrian-friendly condition that attracts riders to the transit line and allows for easy connections to the stations from a five-minute walking distance.

The Main Street Corridor encompasses a number of buildings of historic value. These should be seen as opportunities for development using these structures to establish a link to Houston's past. A good example is the Sears Store at Wheeler Station, which could be used as the framework for redeveloping the entire block while preserving this important historic link.

The Plan indicates a number of connections from the adjacent areas to the Transit Stations. These Corridors have been identified as primary streets and walkways for upgraded landscape where it doesn't exist and for increased sidewalks and cycling amenities.

Pedestrian Realm/Mobility/Development Concept Plan Main Street

- | | |
|--|--|
| Stable Area | Link Streets |
| Opportunity Area 1 - Downtown | Demonstration Plans |
| Opportunity Area 2 - Corridor | Built Form Edge |
| Park | Stations |
| School | Proposed Pedestrian Crossing |
| Existing Pedestrian Crossings | |



D2.2

Pedestrian Realm/ Mobility Plan

The Pedestrian Realm/Mobility Plan illustrates recommendations to improve and enhance the pedestrian realm and mobility conditions within the Main Street Corridor. The goal of these recommendations is to provide a safe, vibrant, attractive and highly functional pedestrian experience along the Main Street Corridor Transit Line (Main Street, Fannin, San Jacinto) adjacent to proposed Transit Stations/Transit Centers and along key connecting streets.

Beautiful, tree lined, pedestrian focused streets are the framework of the Pedestrian Realm/Mobility Plan. Collector streets comprise a large percentage of public space and as such must be enhanced and treated as important public places. When streets function well, they are lively places where cafes, corner flower shops, public art and gardens create vibrant outdoor rooms. They are the place where the eyes of the community view the activities of the street and serve as frontage for developments.

Foremost, the undeveloped areas of the Main Street Transit Line Streets are recommended for substantial pedestrian realm enhancements: Main, Fannin and San Jacinto.

Segments of key intersection streets connecting the Main Street transit line to area pedestrian destinations described above, recommended for pedestrian realm enhancements are detailed on the Plan.

Streetscape enhancements should include street tree plantings with the ambition to create a continuous pedestrian canopy. Street trees will clearly identify the important circulation streets and will provide shade to clear, wide, continuous sidewalks extending from back of curb to building fronts along the Transit Line and connecting streets. In addition, pedestrian level lighting and street furnishings are appropriate on these streets.

Lighting along the Southeast Corridor Rail Line is recommended to be consolidated, as possible onto the catenary poles to be installed for the electrical service to the light rail cars. Both street lighting and pedestrian lighting can be attached to these catenary poles effectively. Consolidating lighting on these poles will avoid the visual clutter and expense of multiple poles.

Special-needs enhancements to existing crosswalks should include audible and flashing LED systems throughout this heavily traveled corridor.

The intent of the pedestrian oriented street hierarchy is to provide an integrated, multi-modal transportation network for all residents and businesses that is safe, convenient and efficient.

Current bike lanes serving the Main Street Corridor area should be connected to Transit Stations. These existing bike lanes are also recommended to be widened to AASHTO standards to improve their functionality and safety for bikers.

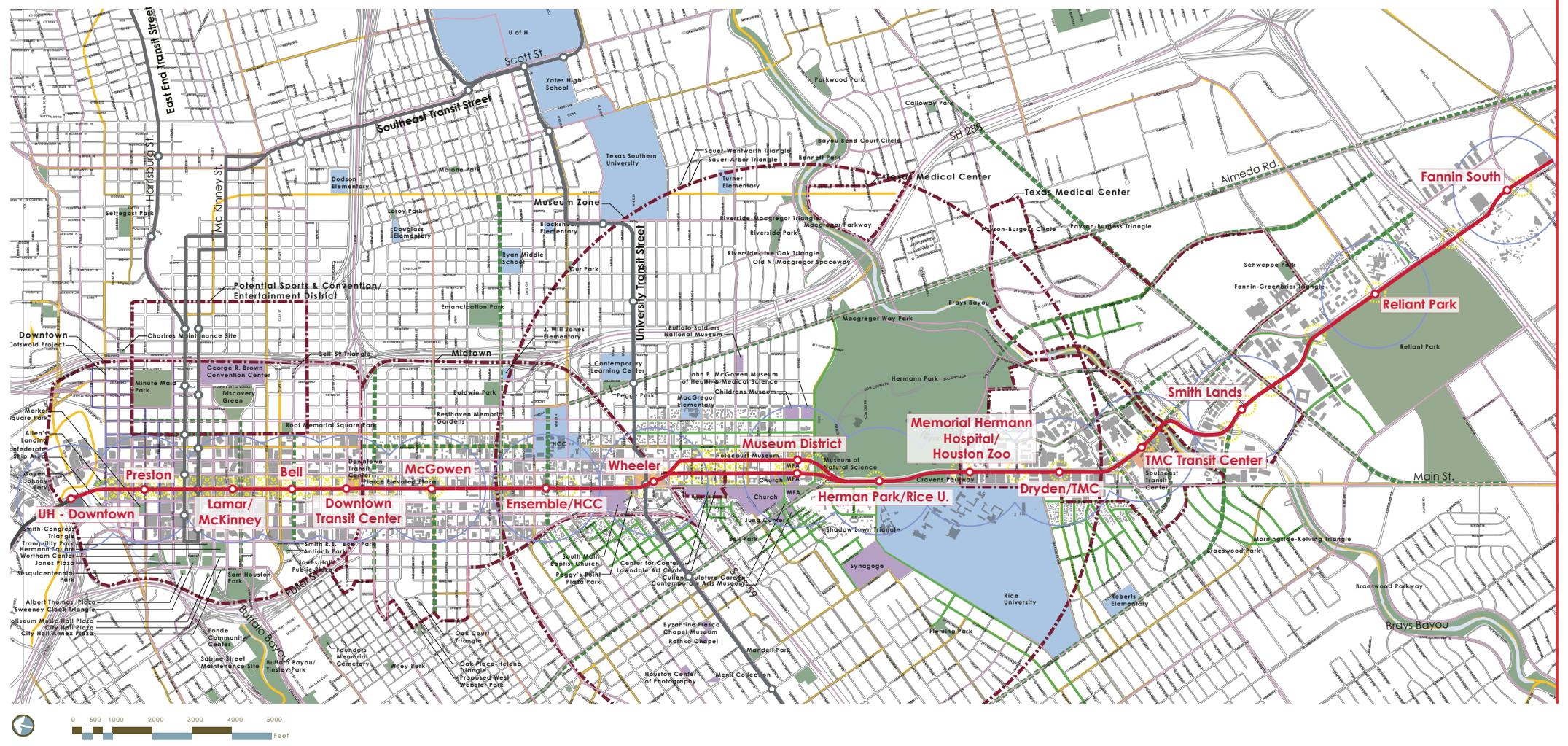
Bus lines should be connected to the proposed Transit Stations and Transit Centers with appropriate Bus Shelters provided.

Discovery Green and Hermann Park are ideally located on the Transit Corridor and provide key focal points and existing public spaces. These regional parks will continue to provide amenities for adjacent Transit Oriented Development.

Urban Squares are smaller scale publicly accessible open spaces that should be located in association with Transit Oriented Development. These small plazas are more urban in nature and do not include active/sports facilities. Urban Squares are generally accessible to public use, often privately owned and may be gated or well lit for night security. These squares are primarily paved with planting areas, shade trees, planters, public art, fountains and seating for passive, outdoor enjoyment.

Pedestrian Realm/Mobility Plan Main Street

- | | | | | |
|--|---|---|---|---|
| Bayou | Trail/Bikeway | 5 Minute Walking Distance to Station | Proposed Trail/Bikeway | District |
| Schools | Tree Lined Streets | Building Footprint | Streetscape Enhancement (Pedestrian Connector Street) | Main Street Transit Street |
| Open Space | Bus Routes | Proposed Pedestrian (Unsignalized) Crossing | Connecting Transit Street | |
| Cemetery | Existing Pedestrian (Signalized) Crossing | Proposed Open Space | | |
| Institutional Buildings | Major Thoroughfare per COH Major Thoroughfare Plan 2006 | | | |
| Metro Transit Center | MT | | | |



D 2.3

Land Development Concept Plan

The Land Development Concept Plan divides the Main Street Corridor into three categories based on their development potential:

Development Opportunity Area 1 - Downtown

– The Downtown is likely to experience large-scale redevelopment activity as a result of the planned transit facilities and proximity to the City center. It includes existing employment, office and commercial uses – uses that are typically subject to more frequent redevelopment. The Downtown also includes vacant and underdeveloped lands within the 1/4 mile station radius where Transit Oriented Development is most probable.

Development Opportunity Area 2 - Corridor

The Downtown is likely to experience large-scale redevelopment activity as a result of the planned transit facilities and proximity to the City center. It includes existing employment, office and commercial uses – uses that are typically subject to more frequent redevelopment. The Downtown also includes vacant and underdeveloped lands within the 1/4 mile station radius where Transit Oriented Development is most probable.

Stable Areas Stable Areas are comprised of the predominately residential neighborhoods, parks and the

major university campuses within the Southeast Corridor Study Area. Stable Areas are those areas that are not likely to experience large-scale redevelopment activity as a result of the planned Urban Corridor. Areas designated as Stable include existing stable residential neighborhoods, existing parks and open space as well as significant institutional uses both within and outside of the 1/4 mile stations radius.

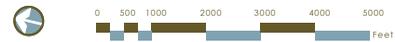
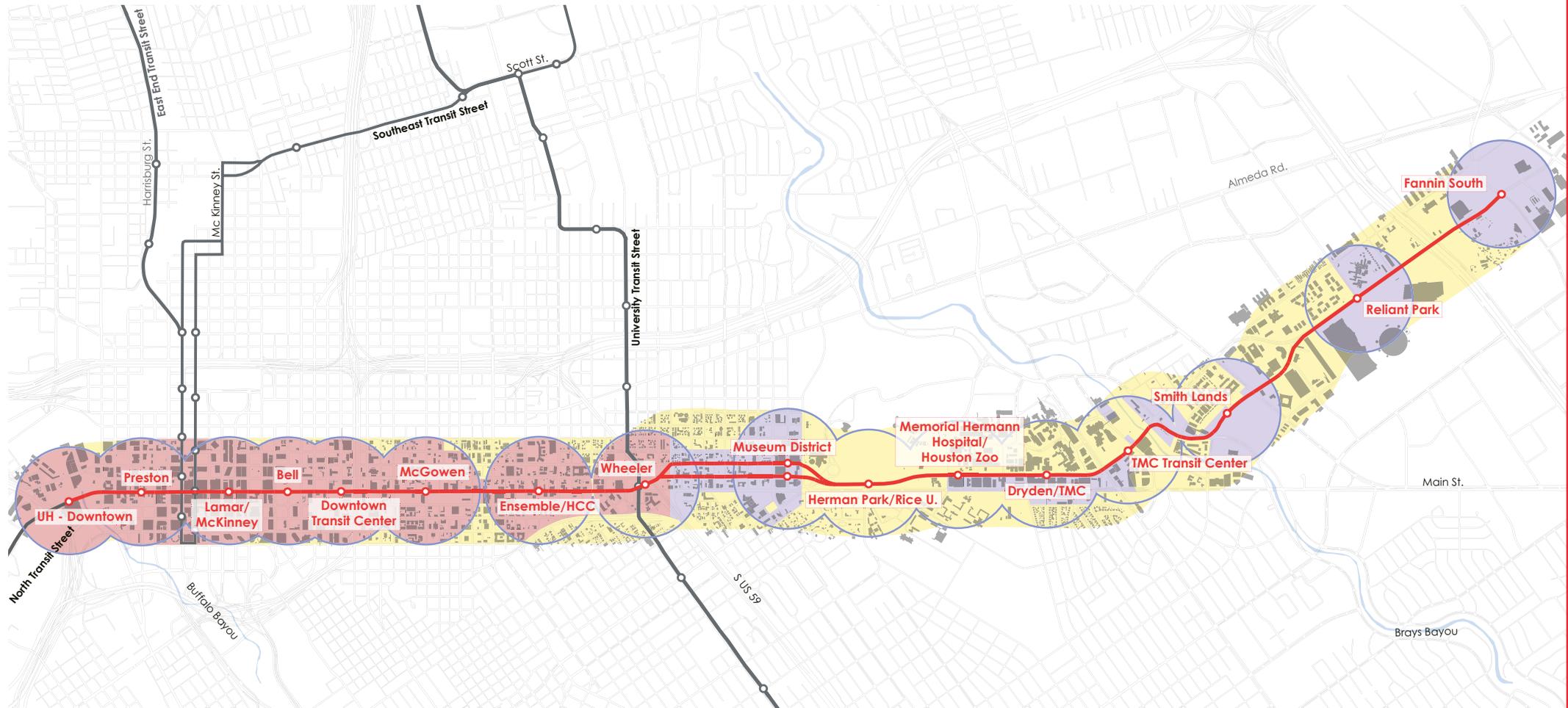
D2.3.1 Demonstration Plans

Three Demonstration Plans for prototypical sites were prepared to demonstrate conceptually how Transit Oriented Development could manifest itself given the context and condition of the Main Street Corridor.

The following diagrams provide a collection of images including a site plan, photographs of development precedents and photo simulations of large lot redevelopment, a large lot with minimum frontage on the Transit Line and a large through lot.

Land Development Concept/Infrastructure Plan Main Street

- Main Street Transit Street
- Connecting Transit Street
- 5 Minute Walking Distance to Station
- Development Opportunity Area 1 - Downtown
- Development Opportunity Area 2 - Corridor
- Stable Areas



1

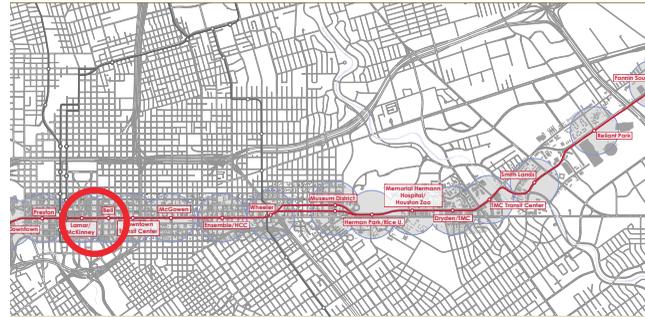
Large Through-Lot

Main Street from Clay Street to Pease Street including the Bell Street Station.

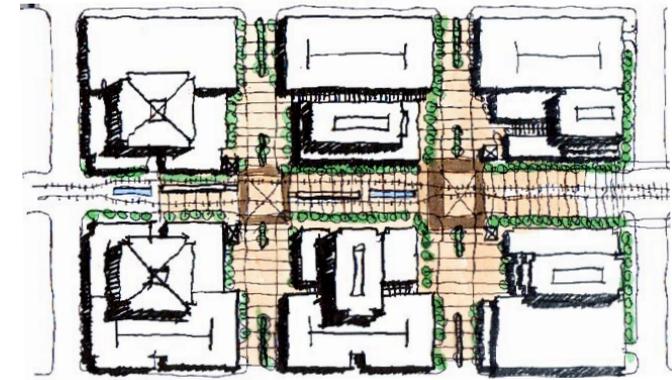
This site is located on the east side of Travis Street and is an example of large through-lot development.



Existing Site Conditions



Location of site in corridor



Demonstration Plan created during the workshop

Site Characteristic

- The site comprises approximately 526,464 sf of area (12 acres);
- The site has 886 linear feet on Main Street; and,
- The area surrounding the site is a mix of high rise, multi-level, mixed-use buildings, with surface parking.

The Program

- The program for the site is a development with six towers including residential, office and hotel uses over retail and rear structured parking.

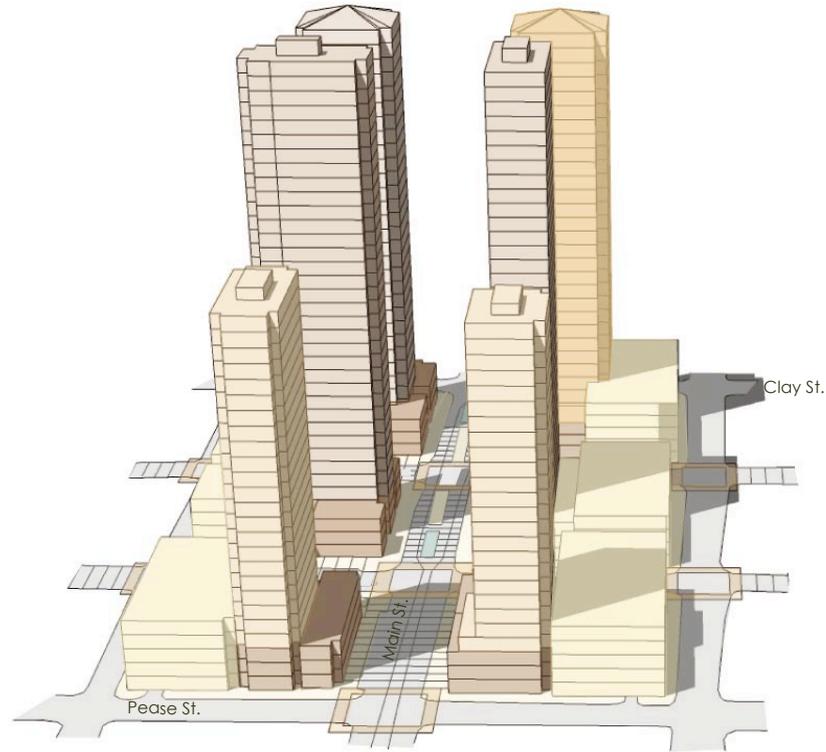
The Design Solution

- A range of 25-35 storey buildings along Main Street; and,
- Accommodate parking to the rear of the site with 5 storey structured parking buildings, and,
- Retail facing "Transit Street" establishes a pedestrian friendly condition.

The Results

- 886 linear feet of frontage on the Transit Corridor;
- 112,500 hotel;
- 885,844 office;
- 329,427 sf of retail;
- 569 apartments; and,
- Parking structures at 667,755 sf.

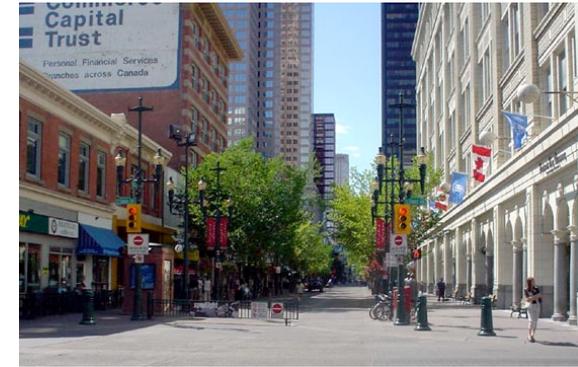
Demonstration Plan **Main Street**



3D model of demonstration plan



Photomontage illustrating the potential enhanced streetscape and built form at Pease Street



Precedent - Residential, office and hotel uses over retail



Precedent - Link to open space at rear of building from main street



Precedent - 3-storey residential units with retail at grade

2 Large Through-Lot

Main St at Wheeler St

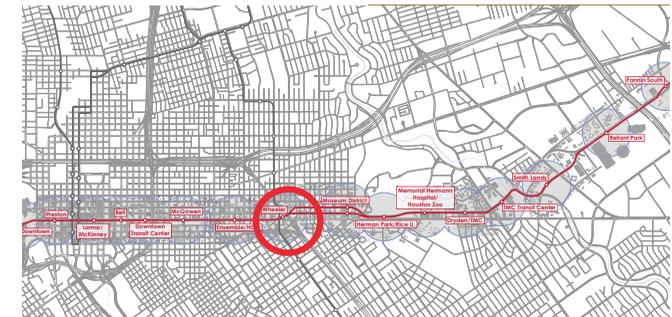
Located by S US 59 Freeway, this site is an example of large through-lot development.



Existing Site Conditions



Demonstration Plan created during the workshop



Location of site in corridor

Site Characteristic

- The site comprises approximately 1,122,716 sf of area (25.76 acres);
- The site has 1,600 linear feet on Main Street and 1,445 linear feet on Wheeler Street;
- The area surrounding the site is primary residential, vacant land with some retail; The site is also the location of the historic Sears and a inter-modal transit station; and,
- The existing Wheeler station is on the site and it is here where the University line will cross.

The Program

- A program for the site contains a mix of transit supportive office and multi-family residential over retail and structured parking. The objective for the site is to create a major node of development at this important site.

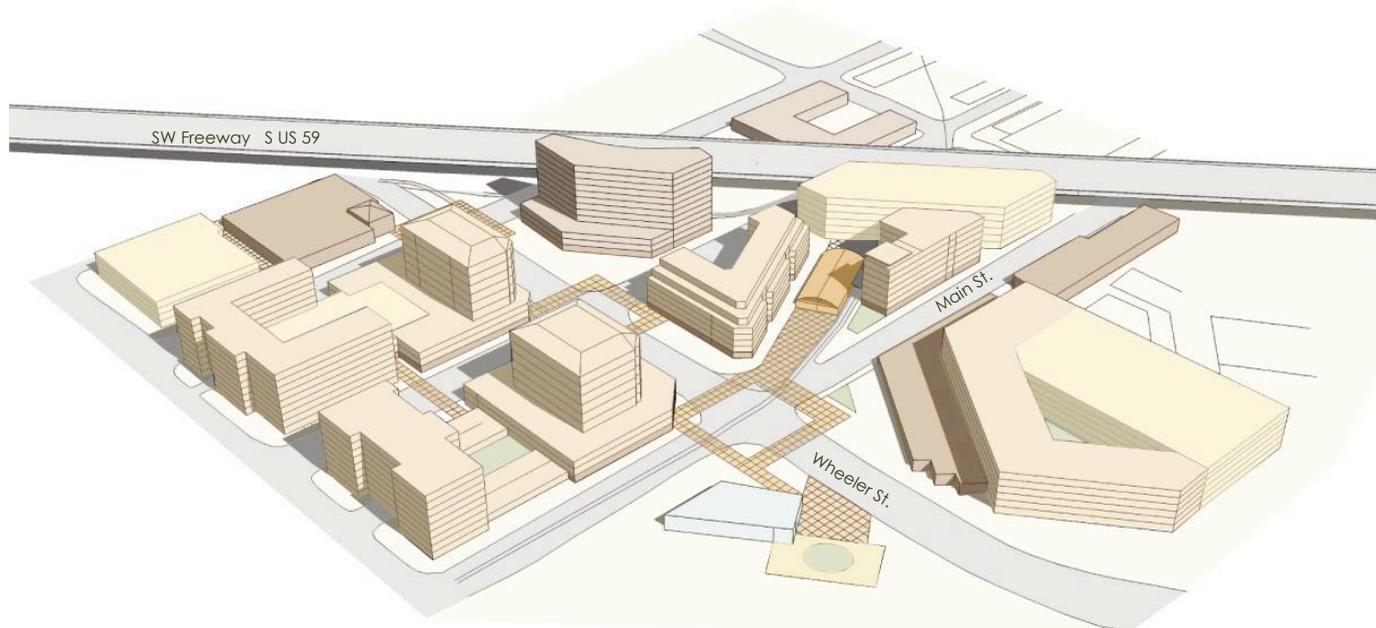
The Design Solution

- A site plan including 4 mixed-use multifamily blocks and 1 office block serving the inter-modal transit station. The station will be an important transit focus for the city.

The Results

- 1,600 linear feet of frontage on the Transit Corridor;
- 222,609 office;
- 215,959 sf of retail;
- 1,202 apartments; and,
- parking structures at 212,124.

Demonstration Plan Main Street



3D model of demonstration plan



Photomontage illustrating the potential enhanced streetscape and built form at Main Street and Wheeler



Precedent - Transit station surrounded by range of uses



Precedent - Mid-rise residential structures



Precedent - Retail facing street creates a pedestrian friendly condition

D2.3.2 Development Analysis

The following analysis is intended to test underlying development economics in the Main Street Corridor market context. A development proforma is generic in nature and not intended to represent specific site feasibilities. The form and scale of development, (a high rise residential condominium) is indicative of the type of residential transit-oriented development one would expect could expand over time in this area, particularly with the proposed transit enhancements. As well, office demand could be expected to grow with the provision of improved transit services.

Development Scenario 1 High Rise Residential Condominium Project

Description of Development

A generic development proforma was prepared for a 200-unit, 20-storey (excluding structured parking) condominium apartment project. There is an equal mix of 1-bedroom units (average 900 sf) and 2-bedroom or 2-bedroom+ units (average 1,500 sf), for an overall unit size average of 1,200 sf. The assumed site measures 1 acre (5.5 times site coverage), with a ratio of 1.25 parking stalls per unit. The total development time horizon is 36 months from land acquisition to full occupancy. The proforma details are summarized on the following page.

Comparable Properties and Market Parameters

Two existing high rise apartment projects with units for resale were identified near the proposed Hermann Park and Dryden transit stops in the Main Corridor area; one at 1400 Hermann Drive, the other, known as The Spire, at 2001 Holcombe Boulevard.

The Hermann Drive building had a 1,728 sf unit had an asking price of \$299,900 (2 bedrooms), while a 1,310 sf unit at The Spire had an asking price of \$279,900 (2 bedrooms). These prices equate to roughly \$174 psf and \$214 psf, respectively.

In addition to resale product, there are several new mid and high-rise projects currently being constructed throughout the Medical District and in proximity to the Main Corridor. By early 2008 over 900 condominium/apartment units (which have already begun construction and are listed for sale) will have completed construction. Each of these projects are within a 1.5 mile radius of Hermann Park and no farther than 3/4 of a mile from Main Street. Notably, Mosaic at Hermann Park is a high-rise condominium building with two towers totaling 788 units. Mosaic is located at on the eastern side of Hermann Park, at 5925 Ameda Road. Other projects of note include: 5001 Fannin, The Collective at Baldwin Park, and Serento, with Serento's units (high-end) being listed at prices of around \$265 psf. Overall, new condominium pricing appears to range from \$200 to \$300 psf across the market, depending upon location and building quality/finish.

As outlined in the corridor overview above, based upon MLS data from the Houston Association of Realtors, the average resale townhouse/condominium price in the MLS District 17 corresponding most closely with the Main Street Corridor was in the range of \$191,500 through September 2007. Notably, the average resale single family house price is approaching \$675,000 through the first nine months of this year – up sharply from around \$610,000 at the same time one year ago. This pricing structure indicates the rationale for continued condominium construction as a means to supply new housing for this local market.

Proforma Results

Understandably, the economic price required to justify new construction of condominium apartments in this area is within the range of current pricing at comparable projects, and at a premium to resale product of similar character. The development proforma presented below suggests a required sale price of around \$279,000, or \$232 psf. There is, of course, the possibility of upgrading or downgrading the quality of building finish to appeal to a certain target market, depending upon the depth of demand.

Some observations regarding the proforma for this type of project include the following:

- Hard construction costs (including parking) represent just over 70% of total project costs. The cost of parking accounts for roughly 6% of the total end unit price.
- Total land costs represent roughly 16% of the end unit price – this assumes land values of roughly \$6.5 million per acre (\$27 per square foot buildable) plus

Development Scenario 2 High Rise Office Project

Description of Development

A generic development proforma was prepared for a 25-storey, 500,000 sf office building with ground floor retail space. The land area of the site measures 2 acres, and there is a parking ratio of 2.5 stalls per 1,000 sf. The envisioned development time horizon is 45 months from land acquisition to full occupancy, including 30 months of construction. The proforma details are summarized on the following page.

Comparable Properties

There is presently one office building under construction in the Central Business District known as Pavilions Tower, a nine storey building measuring 207,000 sf. The reported asking net rent for space in this building is \$25.00 psf. There are also three buildings proposed ranging in size from 580,000 sf to 1 million sf, with reported asking rental rates of roughly \$30.00 to \$34.00 psf (no pre-leasing is reported in these three projects as at 2007 Q3).

In the CBD, the average asking Class-A gross rental rate is approximately \$32.50 psf (\$21.50 net psf plus \$11.00 psf additional rent), indicating roughly, a \$3.50 psf spread up to the \$25.00 psf being sought at Pavilions Tower and up to a \$13.00 psf spread to the buildings proposed. Of course, new buildings would command a market rate at the top of the rental rate spectrum given their age, quality of building finishes, and other factors.

Rising construction costs have obviously impacted the viability of new office construction in the CBD, despite improving market conditions and rising rental rates. This is evident in the rental rate spread between Pavilions Tower, which is under construction, and the required rental rates for the three proposed buildings.

Proforma Results

The development proforma suggests a required net rental rate in the range of \$28.00 psf to economically support new construction. This is slightly above the asking rate for Pavilions Tower (which likely has lower contractually secured construction cost guarantees), but remains less than rates quoted for the other proposed projects. Notably, the three proposed projects slightly or considerably larger than the proforma office building, which totals 500,000 sf, and the building character and appearance of these proposed buildings have not been taken into account.

Some observations regarding the proforma for this type of project include the following:

- Hard construction costs (including structured parking) represent 66% of total project costs. These costs are projected, and would vary depending on the ultimate class/caliber of the building design and architectural features.
- As specified in the proforma, land costs represent roughly 12% of total project cost. Again, land costs may vary widely depending on location within the Main Street Corridor, but have a relatively limited impact on project costs compared to hard construction costs.
- Understandably, a developer needs to profit from any development at a rate consistent with the risk. The proforma takes into account total project costs of approximately \$140 million (\$280 psf) and assumes a 10% profit margin on the total project (higher when leveraged equity is considered).

Economic Rent Calculation - High Rise Offices **Main Street**

Assumptions

Timing Assumptions		
Land Acquisition		01-Jan-08
Planning Period		6 months
Construction Commencement		03-Jul-08
Construction Period		30 months
Substantial Completion		31-Dec-10
Cost of Vacancy Period		9 months
Full Lease-Up		30-Sep-11
Total Development Period		45 months
Interest Rate		
Interim Financing	6.00%	
Building Areas		
Number of Buildings		1
Number of Storeys		25
Floor Plate	20,000 sq.ft.	
Gross Building Area	500,000 sq.ft.	
Site Coverage	5.74 times	
Land Area	2.00 acres	
	<u>G.B.A.</u>	<u>G.F.A.</u>
Office	96%	480,000
Retail	4%	20,000
Other	0%	0
TOTAL	100%	500,000 sq. ft.
		465,000 sq.ft.
Parking Ratio		
2.5 stalls per	1,000 sq. ft. of G.F.A.	1,250 stalls

Project Costs

	<u>\$ 000's</u>	<u>PSF</u>
Land		
Purchase Price	\$13,068	\$26.14
Additional Land Costs	\$653	\$1.31
Land Carrying Costs	\$2,470	\$4.94
TOTAL	\$16,191	\$32.38
Construction & Fringe		
Hard Construction Costs	\$76,718	\$153.44
Parking	\$16,250	\$32.50
Architect. & Engineer.	\$5,113	\$10.23
Site Improvements	\$261	\$0.52
Const. Contingency	\$4,648	\$9.30
Municipal Fees	\$130	\$0.26
Development Interest	\$6,187	\$12.37
TOTAL	\$109,309	\$218.62
Cost of Vacancy		
	\$1,031	\$2.06
Deferred		
Tenant Allowances	\$10,000	\$20.00
Leasing Costs	\$2,000	\$4.00
Financing Costs	\$1,485	\$2.97
TOTAL	\$13,485	\$26.97
TOTAL PROJECT COSTS	\$140,016	\$280.03

Required Price/Rent Calculations

Required Return on Investment	10%
Required Face Rent	\$28.00 PSF
Required Net Effective Rent (1)	\$25.92 PSF

Conclusions Regarding Development Analysis

The above proforma analysis demonstrates the required sales price for a new high density condominium development. When assessing this development proforma, it is important to note it reflects new building costs which generally exceed market affordability for many area residents, although it would certainly be expected that such a development would draw upon a broad population base of Houston residents that would consider relocating to a more downtown environment.

The average resale condominium price in the Main Street Corridor area was approximately \$191,500 based upon year-to-date sales activity data provided by the Houston Association of Realtors, while the proforma above generates a required sale price of around \$278,400 (for 1,200 sf at \$232 psf). With a median household income of roughly \$42,900 across the Main Street Corridor, the affordable house price, at the median, is roughly \$167,000, and the affordable monthly housing rent is \$1,145 – vastly below the types of prices or rents required to justify new construction. A household income of over \$71,500 is required to afford the condominium unit described in the proforma, and nearly 30% of area households meet this threshold. The affordability model incorporates a 6% interest rate, 30 year amortization, 20% down payment, and a calculation of monthly principal, interest and taxes, with the assumption that 32% of gross monthly income can be dedicated to housing costs.

In order to facilitate more rapid development of higher density development along this corridor, considerable “assistance” might have to be considered – perhaps in the form of financial subsidies for development in the form of reduced building permit fees for certain development density thresholds. As well, the recently introduced Parks and Open Space Ordinance that levies a fee of \$700 per residential unit to fund parks, could be reduced in the case of higher density forms of development in order to stimulate this form of building.

Lastly, although it is not explicitly examined in the proforma here, the availability of quality public schooling is clearly an important criterion within the City for attracting families to higher density forms of housing in established central areas.

D2.4

Infrastructure Overview

Based on the research of the existing Main Street Corridor Infrastructure it appears that a number of water mains along the Corridor are at the end of their lifespan. Additionally, the dates of construction of the sanitary sewer lines suggests that there are segments along the Corridor that have also likely reached the end of their life span.

Given that the Corridor is a mix of higher density office, commercial, institutional and residential uses, continued monitoring and assessment of infrastructure capacity is recommended as redevelopment along the Corridor proceeds.

It is hoped that a standard for lighting the streets and the pedestrian realm will be implemented throughout all of the Corridors as the lines are being built.

D2.5

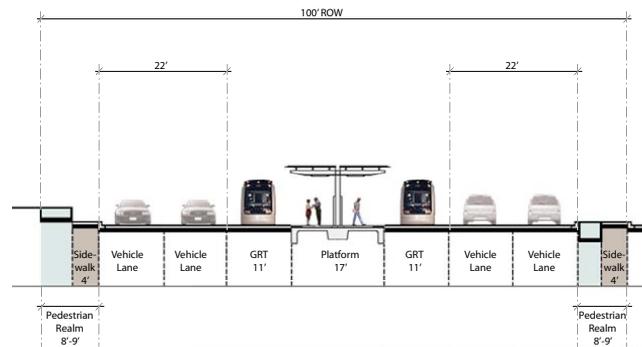
Pedestrian Oriented Guidelines

To better understand the urban design impact of the new transit on the existing streetscapes, sections have been developed through various locations along the Main Street Corridor, illustrating the existing condition of the street from the face of buildings on each side. A section showing the new streetscape has been constructed as a comparison.

The sections have been selected to indicate typical conditions on the Transit Street to show the impact of the LRT. Additional sections have been developed to illustrate the connecting streets and indicate both existing conditions and proposed improvements with a high level of attention to the pedestrian realm. The importance of these streets as primary pedestrian ways cannot be overstated. These streets are envisioned as the principle links between the Transit Street and the surrounding neighborhoods, as well as the location of bus routes.

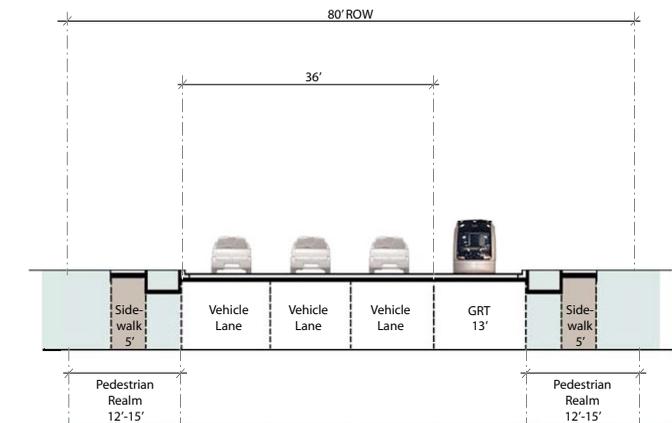
D2.5.1 Pedestrian Character Transit Street

The sections that illustrate the Transit Street conditions have been taken at Greenbriar and Smithland as well as at Fannin Streets where it meets Southmore Street. The existing conditions for the Main Street Corridor are different in that transit already exists. These two conditions illustrate the street condition where transit is at the center of the street as in Greenbriar/Smithland or at the outside



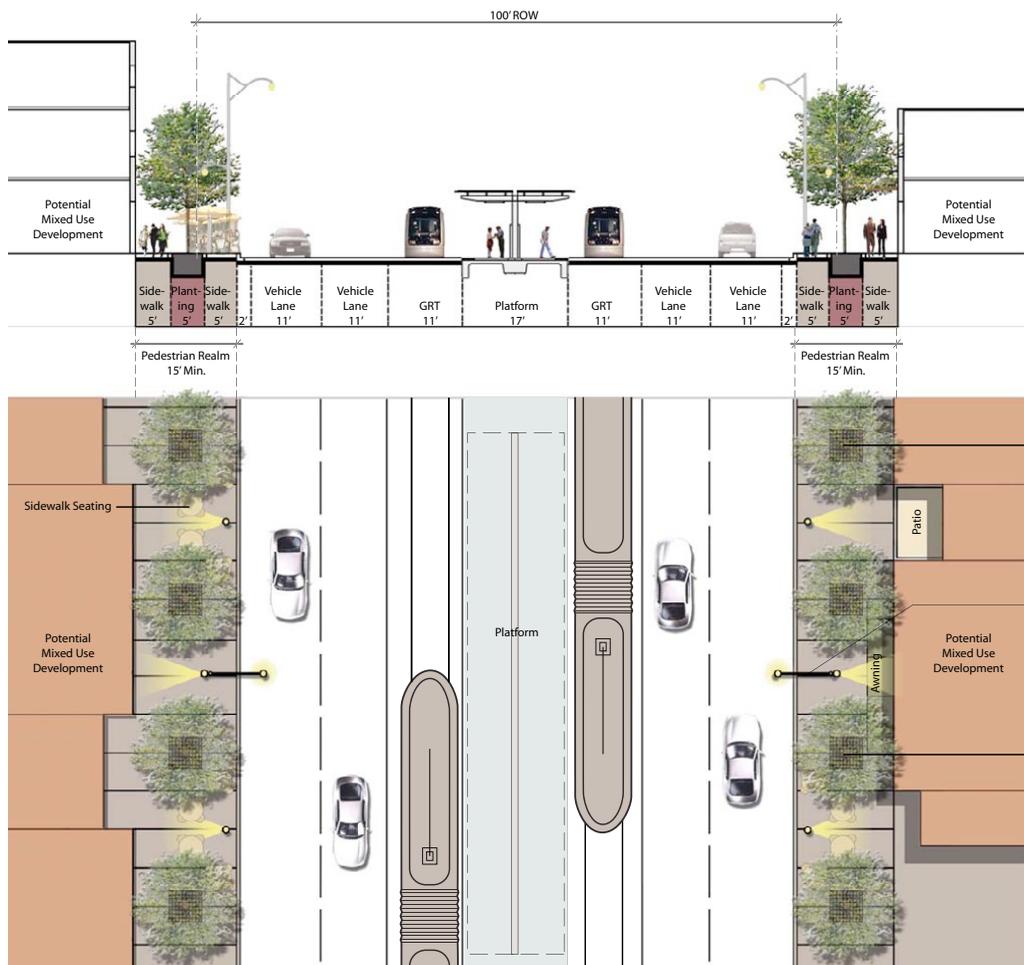
Main St. Corridor Existing Conditions w/ Transit Platform- Greenbriar at Smithland

edge in a one-way condition as on Fanin. The sections illustrate the impact of the proposed pedestrian realm in this corridor. They show the importance of a consistent pedestrian realm, with buildings at its edge, to generate a healthy pedestrian environment. The sections indicate a 15' pedestrian realm. However there are locations in the corridor where that has been expanded with a wider sidewalk. Guidelines suggest a build-within line that allows for more setback from the curb.

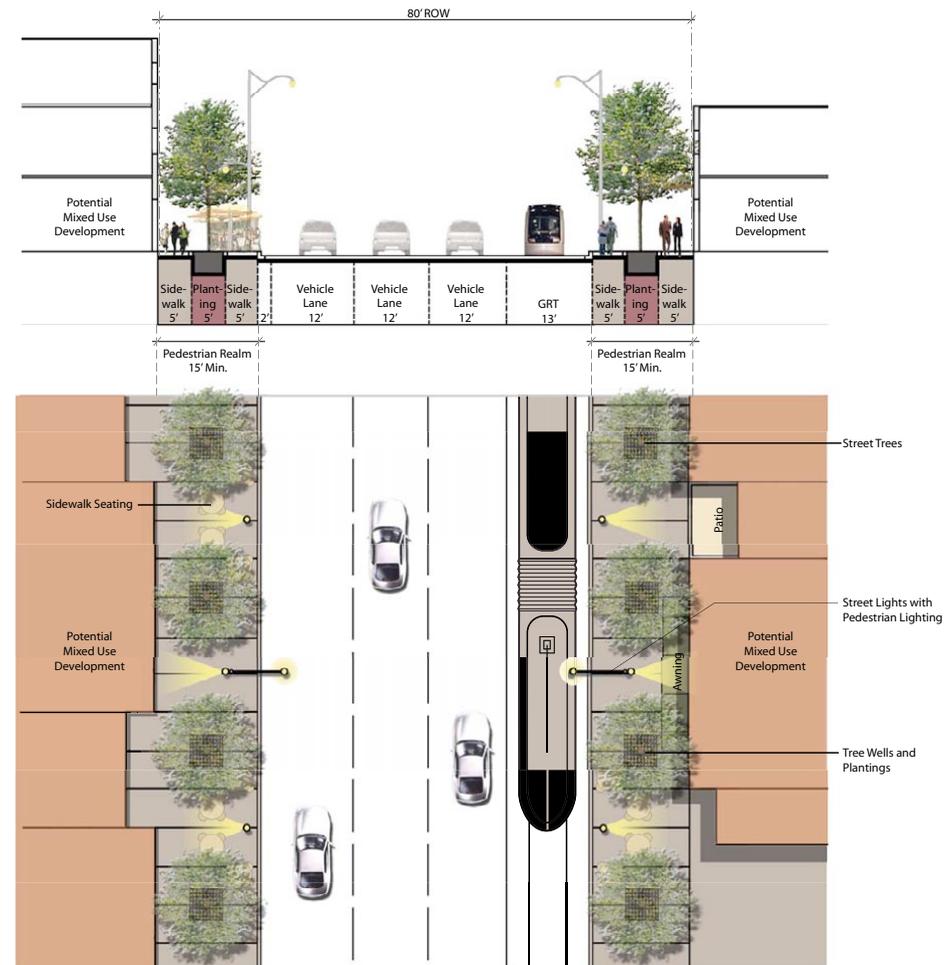


Main St. Existing Conditions- Fannin St. at Southmore St.

Pedestrian Character-Transit Street, Offset Station Platforms **Main Street**



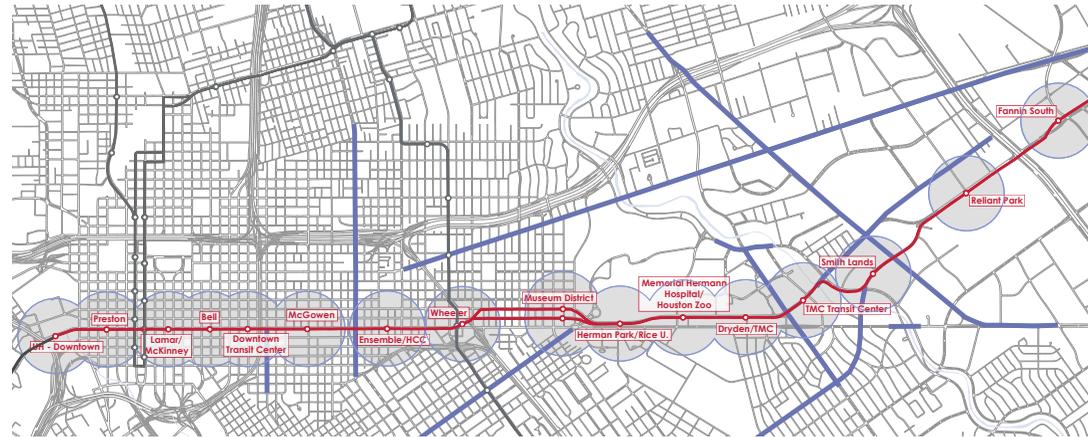
Main St. Corridor Proposed Section with Transit Platform- Greenbriar St. at Smithland Station



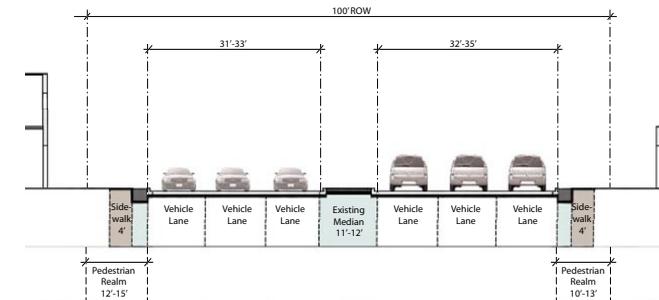
Main St. Corridor Proposed Section- Fannin St. at Southmore St.

D2.5.2 Pedestrian Character Major Thoroughfare

Major Thoroughfare right-of-ways are typically 80 to 100 feet, and include 48 feet of pavement divided by a median of 14 to 32 feet. Rarely has a connected sidewalk system been provided. Mayor Thoroughfares that intersect with the Transit Street have been identified as Pedestrian Character Major Thoroughfares because they have the potential to provide a crucial connection from area focal points neighborhoods and schools to transit stations. A continuous and connected sidewalk system been provided. A prototype street cross section indicates the following:



Pedestrian Character Major Thoroughfares

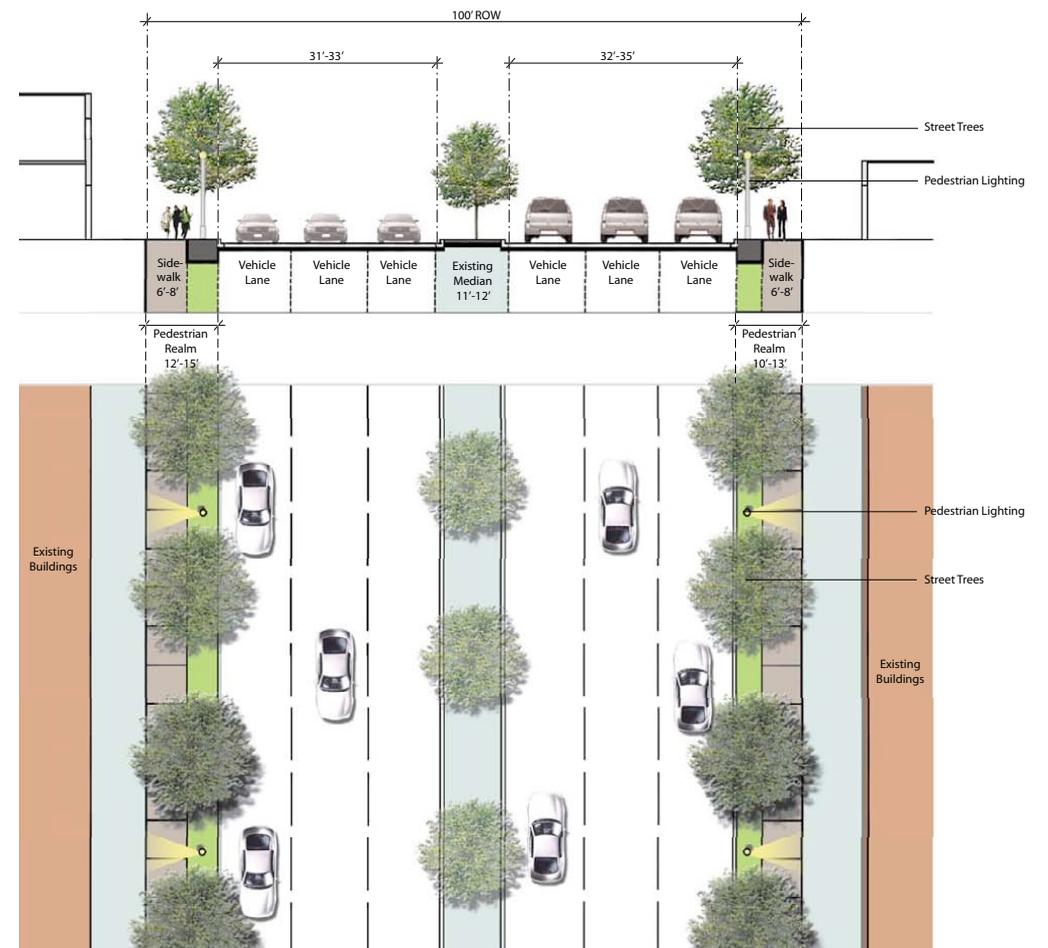


Main St. Corridor Existing Conditions- Old Spanish Trail

Pedestrian Character Major Thoroughfare, Commercial Main Street



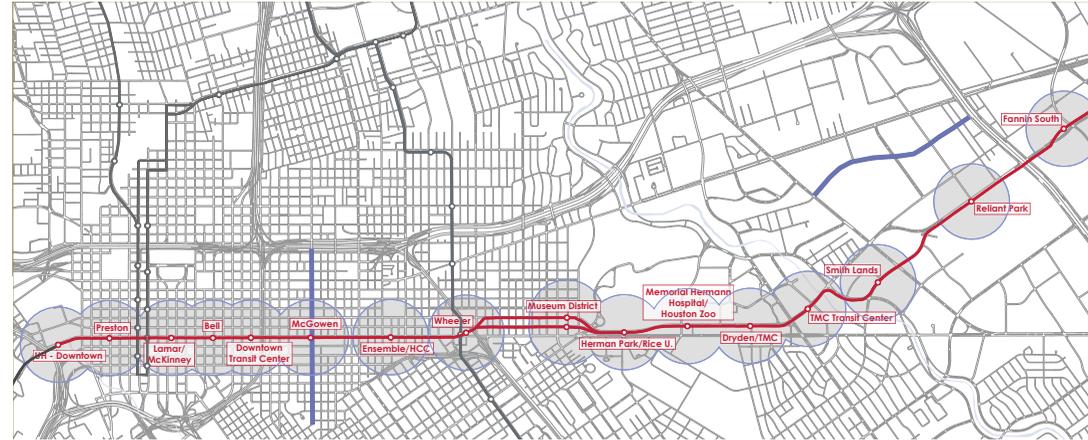
Main St. Corridor Proposed Section- Old Spanish Trail (Only in designated redevelopment areas)



Main St. Corridor Proposed Section- Old Spanish Trail

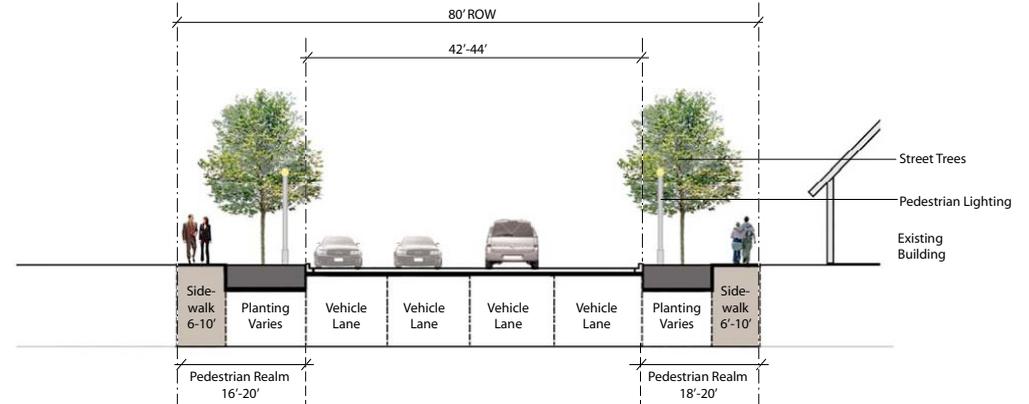
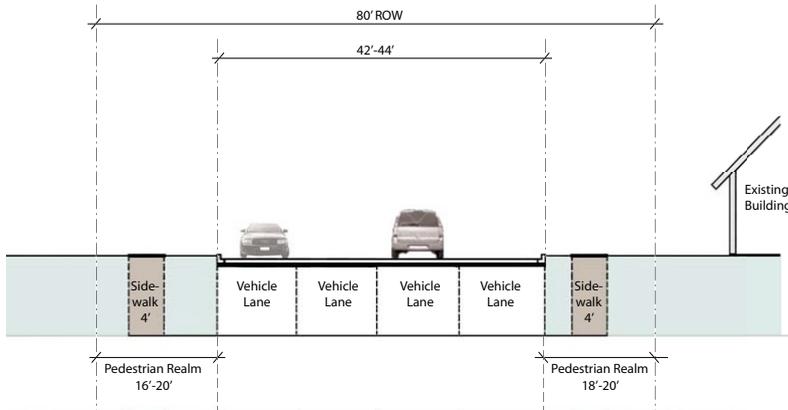
D2.5.3 Pedestrian Character Major Collector

Major Collectors range from 60 - 80 feet, and include 44 feet of pavement, and ditches on both sides. Rarely is a continuous and connected sidewalk system provided. McGowen has been identified as a Pedestrian Character Major Collector because it is an important parallel street to the Transit Street and edge to neighborhoods. A prototype street cross section indicates the condition:

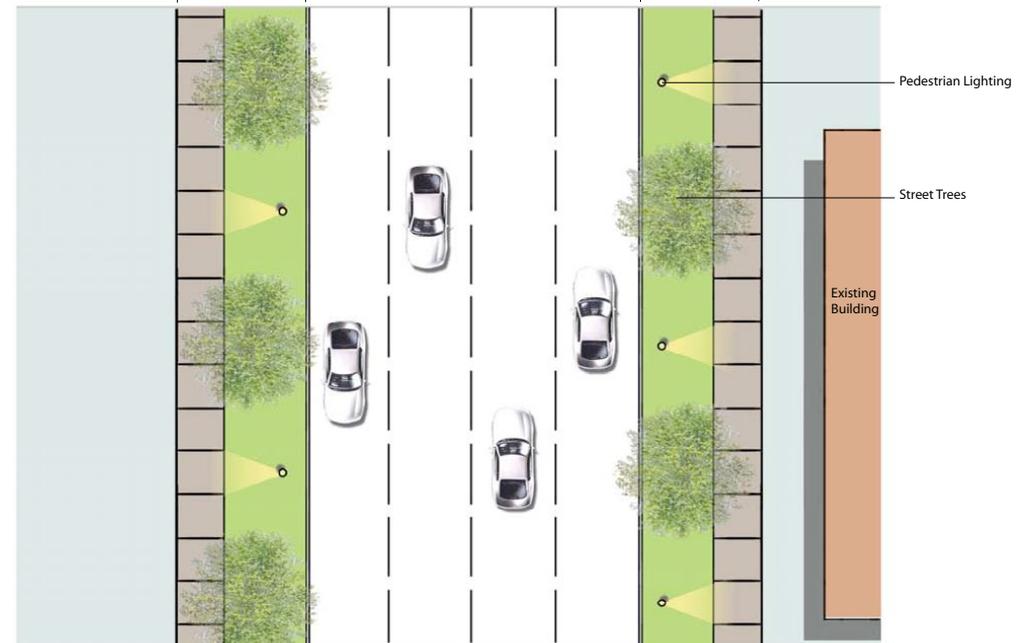


Pedestrian Character Major Collector

Pedestrian Character Major Collector Main Street



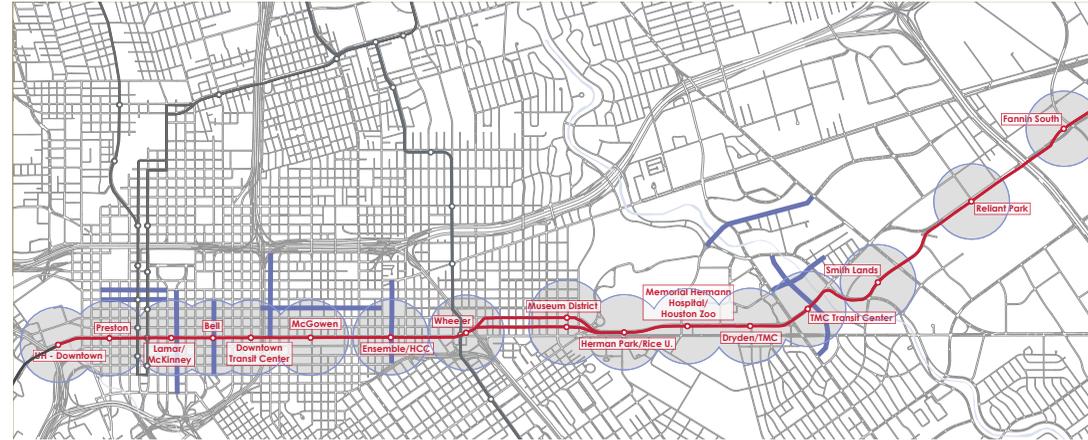
Main St. Corridor Existing Conditions- McGowen St.



Main St. Corridor Proposed Section- McGowen St.

D2.5.4 Pedestrian Character Local Street

Local street right-of-ways are typically 60 feet, and include 22 feet of pavement. Some local streets have ditches on both sides. Rarely are sidewalks provided. Some local streets that intersect with the Transit Lines have been identified as Pedestrian Character Local Streets because they have the potential to provide a crucial connection between the transit stations and a local pedestrian traffic generator, such as a school, recreation centre, public park or place of worship. A prototype street cross section for a Pedestrian Character Local Street is shown here:



Pedestrian Character Local Street

Appendix

Main Street Implementation Matrix

21	There shall be no specific height limit.
22	Buildings of up to 3 storeys may be built with zero setbacks to interior side parcel lines. Exterior side yards shall conform to the described build-within zones.
23	Buildings above 3 storeys may include a zero interior side yard setback for the base building of 3 storeys, but building side walls must be set back a minimum of 10 feet from the interior side yards for that component of the building above 3 storeys.
24	In all cases, the minimum rear yard setback shall be 14 feet to facilitate a potential lane access and/or a utilities easement.
Encroachments	
25	Temporary encroachments (i.e. awnings), may be permitted to encroach into the pedestrian realm subject to approval of a Temporary Encroachment Permit from the City.
26	Outdoor cafes and seating for restaurants may be permitted to encroach into the pedestrian realm subject to approval of a Temporary Encroachment Permit from the City.
27	Semi-permanent structures over the sidewalk, including entry features, arcades and perpendicular signage attached to the building may be permitted to encroach into the pedestrian realm subject to approval of an Encroachment Permit from the City.
28	Permanent structural components of the building (structured parking lots, colonnades and balconies) are not permitted to encroach into the defined pedestrian realm.
29	The amount of any permitted encroachment shall be established by the City on a site-by-site basis, and in consideration of the following criteria:
	the encroachment enhances pedestrian comfort by providing shade and/or protection from the rain; and,
	the encroachment does not impede pedestrian movement, and maintains an unobstructed sidewalk area of a minimum width of 5 feet.

Design Guidelines for Development Opportunity Area 1 - Downtown (non-mandatory)	
Pedestrian Realm	
30	Buildings shall connect to the street - by proximity, by the location of windows and entranceways and the level of architectural detail.
31	Buildings shall be sited and organized to create a street space scaled to the pedestrian, and organized to present an appropriate façade to all adjacent streets to provide interest and comfort at ground level for pedestrians.
32	Main building entrances shall, wherever possible, be oriented toward adjacent streets to provide convenient access to pedestrians and public transit; buildings, and their main public entrances, shall be located close to the front and exterior side property lines, on-street parking, and the public sidewalk.
33	Buildings are to be generally sited parallel to the public street and along the edges of parks and open spaces. The public faces of these buildings are to align with neighboring buildings in a manner that defines these spaces with a consistent building face lining the street.
34	Non-residential buildings shall, to the greatest extent possible, front onto adjacent streets, be flush with grade and provide an active use at grade in order to promote pedestrian activity.
35	Buildings shall provide active façades that include windows and entry features and, where appropriate, outdoor cafés and restaurants, community services, retail stores and display windows.
36	Street tree planting should form a continuous canopy along the street. Tree species should be selected by the applicable TIRZ/MMD to reinforce the role of the various street hierarchies within the Urban Corridors and to visually and thematically distinguish the Urban Corridors from one another. In instances where no TIRZ/MMD exists, the City will select the trees that they will plant.
37	Street trees should have a minimum size of 45 gal. and be planted 30 feet on-centre. Trees should be located in open planting pits where space permits and with wells sized at a minimum of 5'x10'. The planting pits should be filled with shrubs, perennials and annual plants. Planting pits should be edged with a low wall and/or fence.
38	Where space is limited, trees should be planted in continuous trenches. The rootball should be protected with a tree grate, ground cover or material such as gravel.
39	Where there is no room for street trees, consider a vertical shade element planted with vines so add special landscape treatment to the street.
40	Coordination of utilities, especially overhead power lines will be required during the design phase of street tree planting.
41	Consider a palette of the street furnishings, newspaper boxes, notice boards, bicycles racks, flower pots, luminaires and poles that will visually and thematically distinguish the each particular Urban Corridor from the others.
42	Concentrate mailboxes, vending machines, trash cans, and recycling bins in single locations to create active public space and minimize visual clutter.
Urban Squares	
43	Urban squares shall be designed to reinforce a high quality formalized relationship with its adjacent building use and streetscape.
44	Hard and soft landscape elements and features within the urban square shall be designed to define and articulate activity areas, circulation, entry points, seating and gathering areas.
45	Urban squares shall provide sitting, shade, trash receptacles and bicycle racks.
Public Parks	
46	Provide public amenities such as washrooms and field house where appropriate.
47	Provide programmed activities for a range of ages and demographics with emphasis on children and youth.
48	Provide a balance of passive and active park space and provide for the maximum program flexibility in the design of the parks.
49	Incorporate a greening strategy that includes tree planting and seasonal horticultural displays.
50	Incorporate sustainability practices both in terms of capital projects and operations.
51	Provide wayfinding and program information displays as well as heritage interpretation and public art.
Gateways	
52	Gateways shall be either architectural, stand-alone features, or landscape treatments that define the main entrances to the Urban Corridors.
53	Features shall be lit to enhance their legibility at night.
54	The scale of the gateway shall be large enough to be visible from a car at a distance of at least 300 feet.
55	Gateways shall enhance and not compete with surrounding existing architectural and natural features.
Buildings	
56	Corner building designs shall articulate, define and enhance the intersection at which it is located by enhancing the building's presence at each corner.
57	Buildings should 'turn' the corner, i.e. they should have primary, articulated façades towards both streets and should be visually different from adjacent development.
58	Large areas and continuous rows of monotonous and repetitive façades shall be avoided. A more textured architectural quality can be achieved by introducing variation in certain elements of the façade treatment.
59	Variation in three-dimensional elements, such as balconies, bay windows and porches, cornices, window trim, entrances and the articulation of the building mass, shall be used to create a dynamic façade.
60	Variation and articulation in the building mass including horizontal and vertical setbacks, such as step backs at the upper storeys, shall be established.
61	A pedestrian weather protection system including awnings, canopies, colonnades, or front porches along the sidewalk edges and adjacent to the urban squares/plazas and at entrances to buildings shall be considered. The City will promote Temporary or Permanent Encroachment Permits for both signage and awnings.
Signage	
62	Signage will address the amount and type of illumination, size, materials, typography and design.
63	Signage should be an integral part of the architecture of a building.
64	Signs should be designed to complement the building and enhance the visual appeal of the street.
65	Signs should be designed in consideration of nearby residential uses, in terms of size, materials, and location.
66	The ratio of sign band to building mass should be restricted such that the signage does not dominate the façade.
67	Mobile box signage is not allowed.
68	Neon lights are allowed when they do not dominate the signage and have no negative impacts on nearby residences.
69	Exterior lighting shall be designed to promote pedestrian comfort, safety and provide a high quality ambiance. In addition, accent lighting is required to emphasize built form and landscape elements. Pedestrian scale lighting shall be provided adjacent to streets, walkways, urban squares, pedestrian routes and in parks, urban squares and courtyards.
70	Internally lit canopies are strongly discouraged.
71	Commercial façades should be appropriately lit.
72	Pedestrian realm signage and lighting should be coordinated. Pole mounted pedestrian light fixtures with a light source at 12 to 15 feet high and a spacing of 30 to 50 feet is recommended.
Mid-Block Pedestrian Connections	

73	Mid-block pedestrian connections shall be provided within larger development parcels. These are intended to be designed as pedestrian landscaped lanes and should be lit, landscaped and maintained for public
74	Mid-block pedestrian connections shall provide a fine grain of pedestrian circulation and an important connection between two streets.
75	Mid-block pedestrian connections shall lead to public destinations such as schools, parks and public transit stations.
76	Mid-block pedestrian connections shall provide an address to individual residential or business frontages along their lengths.
Parking	
77	The City shall provide public parking lots (surface lots and/or structured parking facilities) within the Urban Corridors to augment the supply of parking.
78	On-street parking shall be promoted within all of the Urban Corridors.
79	The City shall pursue opportunities for the establishment of on-street parking in partnership with adjacent landowners where the spaces are provided on a combination of public land and private property, with public access to the parking spaces secured through agreements with the City.
80	Surface parking, loading areas, drive-through lanes and servicing facilities shall not be permitted in front of Transit Oriented Development buildings. Surface parking, drive-through lanes and/or servicing facilities may be permitted in an interior side yards, and are permitted within the rear yard.
81	Surface parking, loading areas, drive-through lanes and servicing facilities, where permitted, shall be appropriately screened from view from the street. Surface parking lots shall respect the build-within zones. Where surface parking must be provided, the visual impact of large surface lots shall be mitigated by a combination of setbacks, and significant landscaping including: pavement treatments, low walls or decorative fencing, landscape, trees and lighting throughout parking lots and along the edges.
82	Parking is encouraged to be provided in structures, either above, or where possible, below grade. Where a parking structure is above grade, it shall include a façade with active uses at grade and appropriate architectural articulation. Entrances to below grade or structured parking and service areas should occur within the building.
83	Access to parking and servicing areas should occur off side streets or service lanes and to the side or rear of buildings, where possible.
84	It is an objective of the City to limit access driveways to individual sites adjacent to the Transit Street. The City shall encourage shared access driveways and, preferably, shared rear lane access for all Transit Oriented Development. Where new development is proposed, the City shall require a minimum of 100 feet between access driveways onto the Transit Streets.
Pedestrian Character Major Thoroughfare	
85	The hard surface of the sidewalk (the pedestrian realm) shall be a minimum of 15 feet wide, measured from the back-of-curb to the main front wall and/or exterior side wall of any adjacent building. This requirement may include components of the public right-of-way and/or private lands, as described in the discussion of the build-within zone.
86	The design of the 15 foot pedestrian realm shall include a "furnishing zone" for utilities, street furniture and street lighting adjacent to the curb, and a minimum 7 foot, six inch unimpeded pedestrian sidewalk.
87	At all street intersections there shall be provisions for pedestrian crossings of the transit facility, regardless of whether or not the intersection is signalized. In addition, provisions for mid-block pedestrian crossings must be considered at intervals of approximately 300 feet. There shall never be a condition where distances between pedestrian crossings of the Facility exceed 600 feet. Countdown pedestrian head signals shall be provided for at all signalized crossings.
88	It is understood that the development of the required 15 foot pedestrian realm will occur over a long period of time, in conjunction with private sector redevelopment projects. In the interim, the City should build a connected sidewalk on the public component of the right-of-way concurrent with the development of the transit facilities. The maximum width of the pedestrian realm in this interim condition shall be 15 feet, to be measured from the back-of-curb to the edge of the right-of-way.
Pedestrian Character Major Collector	
89	The pedestrian realm shall be a minimum of 8 feet wide, measured from the back-of-curb to edge of the right-of-way.
90	The pedestrian realm shall include a minimum 6 foot wide sidewalk measured from the edge of the right-of-way. The sidewalk shall be continuous and extend across driveways.
91	The pedestrian realm shall include a planted boulevard with street trees next to the curb.
92	The planted boulevard should also be the location for utility poles, placed on the same alignment as the street trees.
Pedestrian Character Local Street	
93	The pedestrian realm shall be a minimum of 19 feet wide, measured from the back-of-curb or the edge of the outside vehicle lane to the edge of the right-of-way.
94	The pedestrian realm shall include a minimum 6 foot wide sidewalk. The sidewalk shall be continuous and extend across driveways.
95	On Pedestrian Character Local Streets with curbs, the pedestrian realm shall include a planted boulevard with street trees next to the curb.
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97	The planted boulevard shall also be the location for utility poles, placed on the same alignment as the street trees.
98	On Pedestrian Character Local Streets with road side ditches, the tree shall be planted on the outside edge of the ditch adjacent to the sidewalk.
99	On Pedestrian Character Local Streets with road side ditches, utility poles shall be placed adjacent to the edge of the right-of-way.
Engineering/Infrastructure	
100	The width of travel lanes along streets with transit should generally be 10-11' in width,
101	Alleys should be designed to provide an 12'-0" paved surface,
102	No access should be allowed from the street for new developments fronting onto the street with transit,
103	All new development fronting on to streets with transit should indicated space for the provision of alleys or access to the site from side streets,
104	A plan for access to sites fronting onto the Transit Street should be developed by the proponent before construction of the Transit Line showing the following: The preferred location for access into site along the line, A phasing plan for combined access over time, A phasing plan for the implementation of alleys or service lanes.
105	Provision for cross walks between stations should an integral part of the design of the streets with transit. The maximum distance between a station and a crosswalk shall be 1/4 of a mile.
106	The radius of corner conditions should be determined with the pedestrian in mind. Tighter radii corners slow traffic speeds and protect pedestrians. Along the streets with transit corner radii for through streets should be no more than a 25'-0" radius. For non through streets intersecting the transit street corner radii should be reduced to 20'-0"
107	Bicycle lanes should be explored as part of the design, access and phasing plans for the corridor streets. Where there is not enough room for bike lanes on transit streets, they should be part of the design of the connector streets that access stations.
108	Infrastructure services need to be developed with future intensification of the corridors in mind,

109	Infrastructure should be implemented as transit is being built,
110	The implementation and design of infrastructure should be carried out comprehensively including all departments of the City as well as utility providers,
111	All utilities should be buried along the corridors,
112	Consideration should be given to burying utilities under alleys,
113	Where it is impossible to bury utilities, the location of above ground components must be coordinated with the design of the pedestrian realm following the following guidelines:
	utility poles and transformers shall be located where they do not impact on the movement of pedestrians,
	utility poles and transformers shall be located according to an overall plan for the entire corridor,
	the form and design of above grade components to be approved by the City and Metro.
	Where possible, utilities should be located in alleys,
114	Accessibility should be designed into all sidewalk conditions along the corridors.

Additional Implementation Terms:

Abutting – two or more parcels sharing a common boundary of at least 1 point.

Block – all land fronting on one side of a street between the nearest streets, intersecting, meeting or crossing the aforesaid street.

Easement – a negotiated interest in the land of another which allows the easement holder specified uses or rights without actual ownership of the land.

Encroachment – a physical structure or partial structure that advances beyond established property boundaries into abutting properties.

Exterior side wall – the exterior side wall of a building or structure abutting a right-of-way or open space.

Facade – the exterior wall of a building exposed to public view or that wall viewed by persons not within the building.

Frontage – the minimum straight line distance between the intersection of the side lot lines and the front lot line.

Grade – the average elevation of the finished surface of the ground adjacent to the exterior walls of the building or structure.

Gross Floor Area – the number of square feet of total floor area bounded by the exterior faces.

Net Developable Site Area – the portion of a parcel or site that is remaining after requirements for minimum setbacks, yards, urban squares, easements and right-of-ways.

Parcel/Lot line, front, exterior, rear – the legal boundary of a parcel or lot of land.

Pedestrian Realm – the pedestrian realm is the area from the back-of-curb to the face of the adjacent building.

Main front wall – the main front exterior wall of a building or structure.

Setback – the horizontal distance measured at right angles to the boundary of the parcel, lot or block of land, between the main wall of the building and the main boundary.

Transit Street – A transit street is a street along which the transit line currently exists or is planned to be located.

IMPLEMENTATION - DEVELOPMENT OPPORTUNITY AREA 2 - CORRIDOR

Statement of Application - applies on sites that about the Transit Street and are within 1/4 mile of a Transit Station

Key Implementation Terms:

Redevelopment – The removal of buildings or structures from land and the construction or erection of other buildings or structures therein or when the existing gross floor area on a parcel is increased by 25% or more through the construction of additions to existing buildings.

Grandfathering - Application of the Ordinance Requirements shall begin on the date that the Implementing Ordinance comes into effect. It applies to New Development (see definition of New Development). It does not apply to minor additions or improvements that are not defined as New Development.

New Development - New Development refers to both the Redevelopment of existing properties or the construction of new buildings or structures on previously undevelopment properties.

Variations - Variations to the Implementing Ordinance are subject to the current approvals process for variations of the City of Houston. Variations shall be approved by the City that meet the following three tests to the satisfaction of the City:

1. The variance is considered minor in nature.
2. The variance does not result in the achievement of a performance benefit, without achieving the basic density and urban design requirements of the Implementing Ordinance.
3. The variance assists in achieving new development that is appropriate for its context and does not create any undue adverse impact on adjacent development.

Mandatory Requirements – Mandatory requirements are those provisions that must be applied consistently on all new development in order to achieve the fundamental

Performance Based Standards – Performance Based Standards are incentive-based discretionary standards designed to encourage development that meets established development objectives. Achievement of performance based standards results in the reduction or dispensation of otherwise mandatory requirements.

Design Guidelines – Design Guidelines are discretionary standards to guide land development to achieve a desired level of quality for the physical environment.

Mandatory Requirements within Development Opportunity Area 2 - Corridor	
Pedestrian Realm	
1	A connected sidewalk system shall be provided on both sides of streets that have been identified as Pedestrian Character to facilitate access by pedestrians to the transit stations, adjacent businesses and local pedestrian traffic generators.
2	The City shall not accept cash-in-lieu of required street trees, unless a substantiated technical reason is provided that precludes street tree planting. Where cash-in-lieu of street trees is accepted, the monies received shall be utilized to enhance tree cover in a local public park, or along the Transit Street within 1/4 of a mile of the development site from which the cash-in-lieu of street trees was accepted.
3	All buildings, with the exception of street facing townhouse units, shall be developed with a substantial portion of their front and exterior side facades between 15 and 25 feet of the back-of-curb. It is understood that where a parcel has three sides abutting a public street, the build-within concept may not be achieved on the third side.
4	In all Transit Street Configurations, 15 feet from the back of curb is required for the Pedestrian Realm.
5	Where the rear yard or interior side yard of a Transit Oriented Development site abuts a single detached house, an angular plane shall be implemented to control the height of the building. The angular plane shall be established as follows:
6	a line from the abutting rear parcel line and/or the abutting interior side parcel line to be drawn to a point 10 feet above grade; then,
7	a 45 degree angle from the previous point into the development site shall establish the maximum height of buildings within the development site.
8	Within the identified Development Opportunity Area 2 - Corridor, street facing townhouses with no street facing garage shall ensure that the main front wall of the unit be built within 15 and 30 feet of the back-of-curb.
9	Where front garages are proposed, the main front wall of the building shall be built within 20 and 40 feet of the back of the curb.
10	In all cases within the identified Development Opportunity Area 2 - Corridor, the exterior side build-within zone for street townhouses shall be between 15 and 30 feet of the back edge of the curb.
11	In locations where the public street right-of-way is equal to, or greater than the required 15 feet, the build-within zone shall be established from the edge of the street right-of-way and shall be between 0 and 10 feet.
12	On corner parcels within the identified Development Opportunity Area 2 - Corridor, the exterior side yard shall also include a build-within zone located between 15 and 25 feet from the back edge of the curb, and the main exterior side wall shall occupy a minimum of 60 percent of the depth of the parcel, within the build-within zone.
13	All residential buildings with direct access to dwelling units from the street, shall be elevated a minimum of 2 feet 6 inches to provide privacy and a sense of entry to the unit. The maximum elevation from grade to the entrance landing shall be 5 feet.
14	On all lands fronting onto a public street, a Major Thoroughfare and/or a Major Collector, the minimum built frontage requirement shall be 75 percent of the parcel frontage and shall be occupied by the main front wall of a building within the build-within zone.
15	Notwithstanding the requirements for a minimum built frontage, where an urban square is provided abutting a front and/or exterior side parcel line, the frontage occupied by the urban square shall be counted toward the minimum built frontage requirement.

Encroachments	
41	Temporary encroachments (i.e. awnings), may be permitted to encroach into the pedestrian realm subject to approval of a Temporary Encroachment Permit from the City.
42	Outdoor cafes and seating for restaurants may be permitted to encroach into the pedestrian realm subject to approval of a Temporary Encroachment Permit from the City.
43	Semi-permanent structures over the sidewalk, including entry features, arcades and perpendicular signage attached to the building may be permitted to encroach into the pedestrian realm subject to approval of an Encroachment Permit from the City.
44	Permanent structural components of the building (structured parking lots, colonnades and balconies) are not permitted to encroach into the defined pedestrian realm.
45	The amount of any permitted encroachment shall be established by the City on a site-by-site basis, and in consideration of the following criteria: the encroachment enhances pedestrian comfort by providing shade and/or protection from the rain; and, the encroachment does not impede pedestrian movement, and maintains an unobstructed sidewalk area of a minimum width of 5 feet.
Parking	
46	The City shall provide public parking lots (surface lots and/or structured parking facilities) within the Urban Corridors to augment the supply of parking.
47	On-street parking shall be promoted within all of the Urban Corridors.
48	The City shall pursue opportunities for the establishment of on-street parking in partnership with adjacent landowners where the spaces are provided on a combination of public land and private property, with public access to the parking spaces secured through agreements with the City.
49	Surface parking, loading areas, drive-through lanes and servicing facilities shall not be permitted in front of Transit Oriented Development buildings. Surface parking, drive-through lanes and/or servicing facilities may be permitted in an interior side yards, and are permitted within the rear yard.
50	Surface parking, loading areas, drive-through lanes and servicing facilities, where permitted, shall be appropriately screened from view from the street. Surface parking lots shall respect the build-within zones. Where surface parking must be provided, the visual impact of large surface lots shall be mitigated by a combination of setbacks, and significant landscaping including: pavement treatments, low walls or decorative fencing, landscape, trees and lighting throughout parking lots and along the edges.
51	Parking is encouraged to be provided in structures, either above, or where possible, below grade. Where a parking structure is above grade, it shall include a facade with active uses at grade and appropriate architectural articulation. Entrances to below grade or structured parking and service areas should occur within the building.
52	Access to parking and servicing areas should occur off side streets or service lanes and to the side or rear of buildings.
53	It is an objective of the City to limit access driveways to individual sites adjacent to the Transit Street. The City shall encourage shared access driveways and, preferably, shared rear lane access for all Transit Oriented Development. Where new development is proposed, the City shall require a minimum of 100 feet between access driveways onto the Transit Streets.
54	Within the identified Development Opportunity Area 2 - Corridor, where on-street parking is provided, the number of spaces may be deducted from the parking requirements of the abutting Transit Oriented Development.
Design Guidelines for Development Opportunity Area 2 - Corridor (non-mandatory)	
Pedestrian Realm	
55	Buildings shall be sited and organized to create a street space scaled to the pedestrian, and organized to present an appropriate façade to all adjacent streets to provide interest and comfort at ground level for pedestrians.
56	Main building entrances shall, wherever possible, be oriented toward adjacent streets to provide convenient access to pedestrians and public transit; buildings, and their main public entrances, shall be located close to the front and exterior side property lines, on-street parking, and the public sidewalk.
57	Buildings are to be generally sited parallel to the public street and along the edges of parks and open spaces. The public faces of these buildings are to align with neighboring buildings in a manner that defines these spaces with a consistent building face lining the street.
58	Non-residential buildings shall, to the greatest extent possible, front onto adjacent streets, be flush with grade and provide an active use at grade in order to promote pedestrian activity.
59	Buildings shall provide active façades that include windows and entry features and, where appropriate, outdoor cafés and restaurants, community services, retail stores and display windows.
60	Buildings shall connect to the street - by proximity, by the location of windows and entranceways and the level of architectural detail.
61	Street tree planting should form a continuous canopy along the street. Tree species should be selected by the applicable TIRZ/MMD to reinforce the role of the various street hierarchies within the Urban Corridors and to visually and thematically distinguish the Urban Corridors from one another. In instances where no TIRZ/MMD exists, the City will select the trees that they will plant.
62	Street trees should have a minimum size of 45 gal. and be planted 30 feet on-centre. Trees should be located in open planting pits where space permits and with wells sized at a minimum of 5'x10'. The planting pits should be filled with shrubs, perennials and annual plants. Planting pits should be edged with a low wall and/or fence.
63	Where space is limited, trees should be planted in continuous trenches. The rootball should be protected with a tree grate, ground cover or material such as gravel.
64	Where there is no room for street trees, consider a vertical shade element planted with vines so add special landscape treatment to the street.
65	Coordination of utilities, especially overhead power lines will be required during the design phase of street tree planting.
66	Consider a palette of the street furnishings, newspaper boxes, notice boards, bicycles racks, flower pots, luminaires and poles that will visually and thematically distinguish the each particular Urban Corridor from the others.
67	Concentrate mailboxes, vending machines, trash cans, and recycling bins in single locations to create active public space and minimize visual clutter.
Urban Squares	
68	An urban square shall have a minimum frontage on the abutting sidewalk of 15 feet, and a depth of at least 15 feet.
69	Large sites may include a single, large scale Urban Square/Plaza and/or a series of smaller Urban Squares/Plazas.
70	Urban squares shall be designed to reinforce a high quality formalized relationship with its adjacent building use and streetscape.

71	Hard and soft landscape elements and features within the urban square shall be designed to define and articulate activity areas, circulation, entry points, seating and gathering areas.
72	Urban squares shall provide sitting, shade, trash receptacles and bicycle racks.
Public Parks	
73	Provide public amenities such as washrooms and field house where appropriate.
74	Provide programmed activities for a range of ages and demographics with emphasis on children and youth.
75	Provide a balance of passive and active park space and provide for the maximum program flexibility in the design of the parks.
76	Incorporate a greening strategy that includes tree planting and seasonal horticultural displays.
77	Incorporate sustainability practices both in terms of capital projects and operations.
78	Provide wayfinding and program information displays as well as heritage interpretation and public art.
Gateways	
79	Gateways shall be either architectural, stand-alone features, or landscape treatments that define the main entrances to the Urban Corridors.
80	Features shall be lit to enhance their legibility at night.
81	The scale of the gateway shall be large enough to be visible from a car at a distance of at least 300 feet.
82	Gateways shall enhance and not compete with surrounding existing architectural and natural features.
Buildings	
83	Corner building designs shall articulate, define and enhance the intersection at which it is located by enhancing the building's presence at each corner.
84	Buildings should 'turn' the corner, i.e. they should have primary, articulated facades towards both streets and should be visually different from adjacent development.
85	Large areas and continuous rows of monotonous and repetitive façades shall be avoided. A more textured architectural quality can be achieved by introducing variation in certain elements of the façade treatment.
86	Variation in three-dimensional elements, such as balconies, bay windows and porches, cornices, window trim, entrances and the articulation of the building mass, shall be used to create a dynamic façade.
87	Variation and articulation in the building mass including horizontal and vertical setbacks, such as step backs at the upper storeys, shall be established.
88	A pedestrian weather protection system including awnings, canopies, colonnades, or front porches along the sidewalk edges and adjacent to the urban squares/plazas and at entrances to buildings shall be considered. The City will promote Temporary or Permanent Encroachment Permits for both signage and awnings.
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89	Signage will address the amount and type of illumination, size, materials, typography and design.
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Pedestrian Character Major Thoroughfare	
104	The hard surface of the sidewalk (the pedestrian realm) shall be a minimum of 15 feet wide, measured from the back-of-curb to the main front wall and/or exterior side wall of any adjacent building. This requirement may include components of the public right-of-way and/or private lands, as described in the discussion of the build-within zone.
105	The design of the 15 foot pedestrian realm shall include a "furnishing zone" for utilities, street furniture and street lighting adjacent to the curb, and a minimum 7 foot, six inch unimpeded pedestrian sidewalk.
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131	Consideration should be given to burying utilities under alleys.
132	Where it is impossible to bury utilities, the location of above ground components must be coordinated with the design of the pedestrian realm following the following guidelines: utility poles and transformers shall be located where they do not impact on the movement of pedestrians, utility poles and transformers shall be located according to an overall plan for the entire corridor, the form and design of above grade components to be approved by the City and Metro. Where possible, utilities should be located in alleys.
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Transit Street – A transit street is a street along which the transit line currently exists or is planned to be located.