

2

Uptown Planning Strategy

This chapter introduces the Planning Strategy and design guidelines for the Corridor.

E2.1

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 Uptown Corridor and illustrates broader elements of the Corridor that will eventually result in Transit Oriented Development and connections to the surrounding community.

The distinguishing characteristics of the Uptown area are the level of development that already exists compared to other Corridors and the mix of uses that is prevalent. This Corridor is one that is already highly urbanized and the objectives of the plan are not to provide opportunities where none exist, but to manage new development in such a way that is supports transit.

The Land Development Concept plan for the Uptown Corridor was produced during the workshops and indicates that there is a concentration of development potential areas adjacent to the station locations. As a result of the alignment within the right-of-way of the highway, there is a long segment of land that will remain stable because

there will be very little impact from the proposed transit line. With exception of lands at the Northwest Transit Center and at the other end of the Corridor, where the Uptown and University Corridors intersect, all of the high development potential is located on Post Oak ,between Richmond Street, and south of the Buffalo Bayou.

The potential to link to adjacent neighborhoods is important because the residential densities are high and offer the opportunity for many residents to be in proximity to the Transit Street. In the Uptown Core these connections are along both public streets, as well as defined walkways. The obvious links occur along major streets such as Westhiemer and San Felipe, but the fine grid of east/west streets offers a number of opportunities to strengthen connections to transit from nearby neighborhoods.



E2.2

Pedestrian Realm/ Mobility Plan

The Pedestrian Realm/Mobility Plan illustrates recommendations to improve and enhance the pedestrian realm and mobility conditions within the Uptown Corridor. The goal of these recommendations is to provide a safe, vibrant, attractive and highly functional pedestrian experience along the Uptown Corridor Transit Line 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. 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 are view activities of the street and serve as the frontage for developments.

The Uptown Transit Line Streets that are recommended for pedestrian realm enhancements include: Post Oak Boulevard and 610 West Loop.

Streets intersecting the proposed Uptown Corridor transit line will provide access to and from the surrounding facilities, businesses and communities to the Transit Stations.

These pedestrian connections are also recommended for pedestrian realm enhancements.

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

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.

Ample pedestrian crosswalks are crucial to the perception of accessibility to both sides of the Uptown Corridor Transit Line. Great care to provide safe, well-marked and unimpeded crossing opportunities especially within retail zones is critical. Bulb-outs reduce crossing distances and should be designed where on-street parking is proposed.

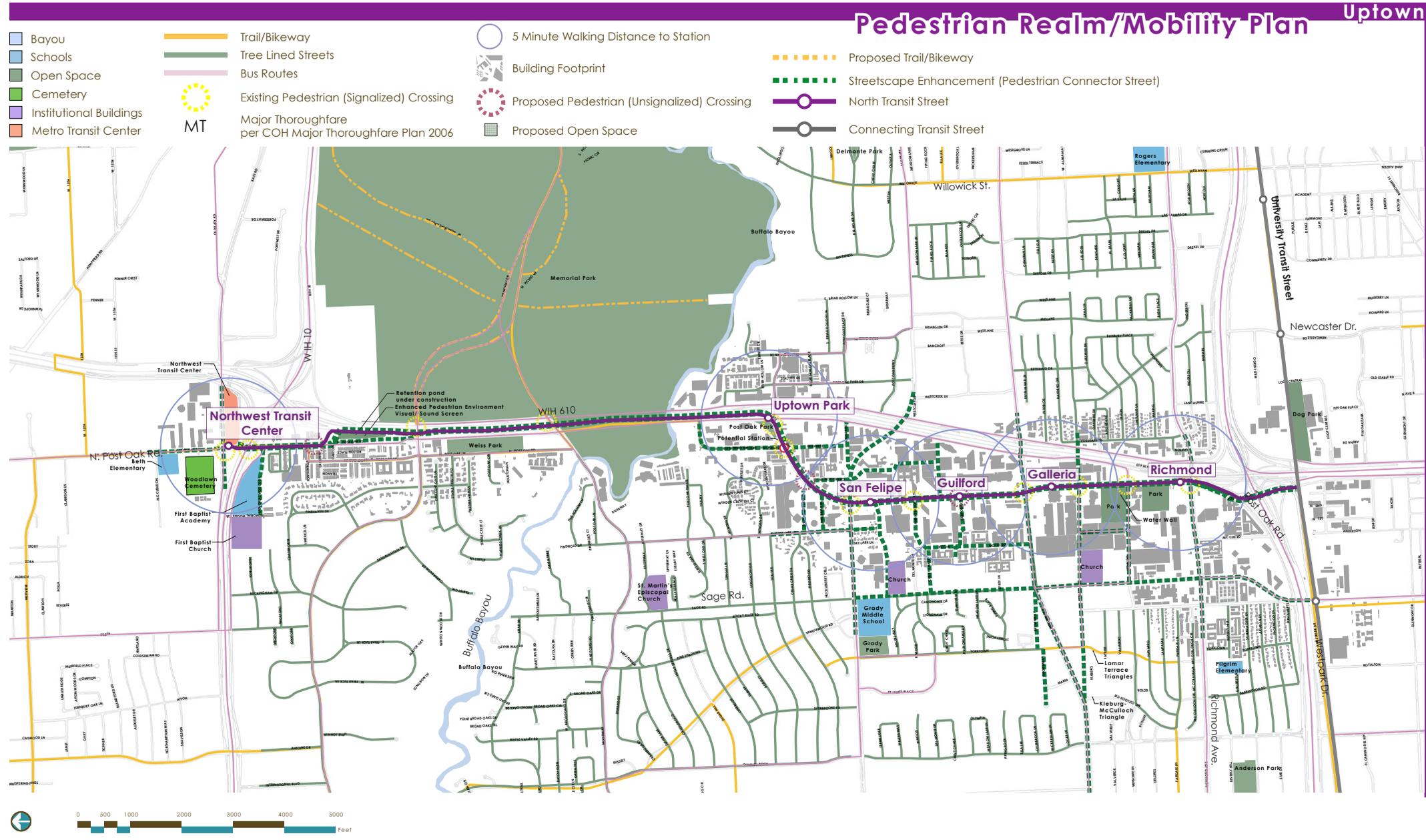
Existing bike lanes should be connected to the proposed Transit Stations. Additional hike/bike lanes and bikeways and recommended to improve multi-modal accessibility to key Corridor amenities and public facilities. These recommended trails include Memorial Dr. through Memorial Park, Memorial Loop Drive- East and West, N. Picnic Lane and Union Pacific Railroad easement through Memorial Park.

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

Memorial Park and the Williams Tower Water Wall are ideally located on the Transit Corridor to provide key focal points and existing public spaces. These parks will continue to provide invaluable amenities for adjacent Transit Oriented Development.

The Uptown Corridor enjoys linkage to Buffalo Bayou linear open space system. This urban bayou provides canoeing, fishing, hiking and biking within densely vegetated areas.

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.



E2.3

Land Development Concept Plan

The Land Development Concept Plan divides the Uptown Corridor into two categories based on their development potential:

Development Opportunity Area 3 – Uptown Core

The Uptown Core is likely to experience ongoing redevelopment activity as a result of the planned transit facilities. Given its current development pattern that includes a mix of higher density office, residential, retail and hotel uses together with lower density plaza-type retail commercial uses (accompanied by large surface parking areas fronting directly onto the Transit Street), there is significant potential for future Transit Oriented Development along the Corridor and within proximity to the planned Transit Stations.

Development Opportunity Area 4 – Uptown Corridor

Development Opportunity Area 4 – Uptown Corridor includes the area along the Uptown Corridor north of Buffalo Bayou. With the planned establishment of Transit Stations at the northern end of the Uptown Corridor, there is a future potential for higher density Transit Oriented

Development in this area as well as significant pedestrian realm improvements along Post Oak Road.

Stable Areas

Stable Areas are comprised of the predominately residential neighborhoods and open space within the Uptown Corridor. 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.

E2.3.1 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 Uptown Corridor.

The following diagrams provide a collection of images including a site plan, photographs of development precedents and photo simulations of a large through lot.

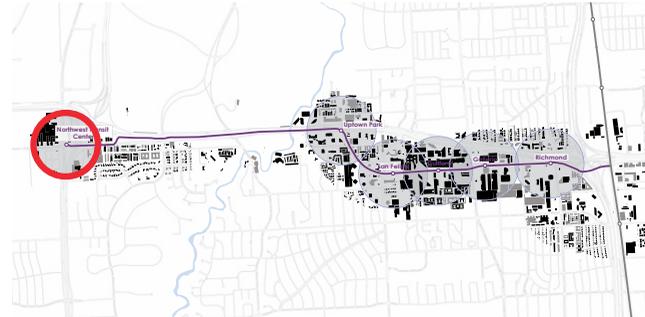
1 Large Through Lot

North Post Oak Rd from Awty School Lane to Old Katy Rd

This site is located near Katy Freeway Service Drive and West Loop North 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 2,164,005 sf of area (49.65 acres)
- The site has 1,278 linear feet on Old Katy Road and 1,701 linear feet on North Post Oak Road
- The area surrounding the site is a mix of residential with some commercial and industrial uses to the north and some office developments to the south. Across Katy Freeway Service Drive and West Loop North is Memorial Park; and,
- The site is located across Old Katy Road from the inter-modal transit facility.

The Program

- The program for the site provides live/work units and town houses, medium density apartment buildings and retail.

The Design Solution

- The program for the site consists of a development with live/work units, town houses, and medium density apartment buildings with rear parking. A commercial plaza is located between the transit station and the residential area to facilitate community activity. A link to the transit station is shown as part of the development.

The Results

- 2,443 linear feet of frontage on the Transit Corridor;
- 171 live/work units;
- 255 Town Houses;
- 139,842 sf of retail;
- 900 apartments; and,
- parking structures at 667,198.

E2.3.2 Development Analysis

The following analysis is intended to test underlying development economics in the Uptown 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

Description of Development

A generic development proforma was prepared for a 150-unit, 15-story (excluding structured parking) condominium apartment project. There is an equal mix of one-bedroom units (average 900 sf) and two-bedroom or two-bedroom+ units (average 1,500 sf), for an overall unit size average of 1,200 sf. The assumed site measures 1 acre (4.1 times site coverage), with a ratio of 1.25 parking stalls per unit. The total development time horizon is 32 months from land acquisition to full occupancy. The proforma details are summarized on the following page.

Comparable Properties and Market Parameters

The Mark, located in the Galleria district, has 304 units (spread over 30 floors) ranging in size from around 790 sf to 2,800 sf (mostly in the 1,300 sf to 1,500 sf range). The prices are in the range of \$250 to \$300 psf.

The Cosmopolitan is an 84-unit, 21-story project with average unit prices above \$300 psf, and large suites ranging from 1,200 sf up to 9,300 sf.

Lofts on Post Oak was completed in 2004 and is a good reflection of pricing in newer, high quality luxury developments. In reviewing units for sale, it appears that pricing is in the range of \$300 psf.

The Uptown Corridor straddles two MLS districts. Based upon MLS data from the Houston Association of Realtors, the average resale townhouse/condominium price in the MLS Districts 16 (Central) and 22 (Central West) was approximately \$224,500 in 2007. Notably, the average resale single family house price is nearly \$638,000 – up sharply from around \$500,000 one year earlier. This pricing dichotomy 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 suggests a required sale price of around \$306,000, or \$255 psf, based upon an average 1,200 sf unit. 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) account for some 70% of total project costs, with structured parking representing nearly 6% of total costs.
- Total land costs represent roughly 25% of the end unit price – this assumes land values of roughly \$8.7 million per acre (\$48 per sf buildable, or \$200 per sf of land area) plus some carrying costs. Notably, this development is denser than many currently on the market, and has smaller unit sizes (particularly in comparison to some resale units in older, established buildings) in order to test the viability/benefit of such a scenario.
- 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 \$41.8 million and assuming a 10% profit margin on the total project (higher when leveraged equity is considered).

A key consideration regarding the market feasibility for this type of development project is the potential demand generated by proximity to the enhanced transit Corridor. There are clearly a number of cost-competitive housing options in this area, including significant condominium supply at varying price points, both new and resale. The ability to reduce car ownership may also assist with affordability if efficient public transit can be utilized.

Development Scenario 2 High Rise Office Project

Description of Development

A generic development proforma was prepared for a 10-story, 200,000 sf office building. 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 35 months from land acquisition to full occupancy, including 20 months of construction. The proforma details are summarized on the following page.

Comparable Properties

There are presently no office buildings under construction in the West Loop/Galleria office node, according to Cushman & Wakefield's 2007 Q4 market report. There are preliminary details regarding four proposed buildings (only speculative at this stage), with sizes ranging from 77,000 to 400,000 sf. There is no known asking rent for these buildings, with no known pre-leasing activity.

For the West Loop/Galleria Class A office market, the average asking gross rental rate is approximately \$30.00 psf (\$19.00 net psf plus \$11.00 psf additional rent). 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.

Proforma Results

The development proforma suggests a required net rental rate in the range of \$27.00 psf to economically support new construction. This is approximately \$8.00 psf above present net rents for existing Class A office space, without taking into account additional rent (taxes and operating costs).

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

- Hard construction costs (including structured parking) represent 65% 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 14% of total project cost. Again, land costs may vary depending on location (prime sites) within the Uptown 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 \$54 million (\$269 psf) and assumes a 10% profit margin on the total project (higher when leveraged equity is considered).

Economic Rent Calculation - High Rise Offices Uptown

Assumptions

Timing Assumptions			
Land Acquisition	01-Jan-08		
Planning Period	6 months		
Construction Commencement	03-Jul-08		
Construction Period	20 months		
Substantial Completion	01-Mar-10		
Cost of Vacancy Period	9 months		
Full Lease-Up	30-Nov-10		
Total Development Period	35 months		
Interest Rate			
Interim Financing	6.00%		
Building Areas			
Number of Buildings	1		
Number of Storeys	10		
Floor Plate	20,000 sq.ft.		
Gross Building Area	200,000 sq.ft.		
Site Coverage	2.30 times		
Land Area	2.00 acres		
	<u>G.B.A.</u>	<u>G.F.A.</u>	<u>G.L.A.</u>
Office	100%	200,000	186,000
Retail	0%	0	0
Other	0%	0	0
TOTAL	100%	200,000 sq. ft.	186,000 sq.ft.
Parking Ratio			
2.5 stalls per	1,000 sq. ft. of G.F.A.		500 stalls

Project Costs

	<u>\$ 000's</u>	<u>PSF</u>
Land		
Purchase Price	\$6,098	\$30.49
Additional Land Costs	\$305	\$1.52
Land Carrying Costs	\$832	\$4.16
TOTAL	\$7,236	\$36.18
Construction & Fringe		
Hard Construction Costs	\$28,614	\$143.07
Parking	\$6,500	\$32.50
Architect. & Engineer.	\$1,931	\$9.66
Site Improvements	\$261	\$1.31
Const. Contingency	\$1,756	\$8.78
Municipal Fees	\$69	\$0.35
Development Interest	\$1,565	\$7.83
TOTAL	\$40,696	\$203.48
Cost of Vacancy		
	\$413	\$2.06
Deferred		
Tenant Allowances	\$4,000	\$20.00
Leasing Costs	\$800	\$4.00
Financing Costs	\$631	\$3.16
TOTAL	\$5,431	\$27.16
	<u>\$53,776</u>	<u>\$268.88</u>
TOTAL PROJECT COSTS		

Required Sale Price Calculation

Required Return on Investment	10%
Required Face Rent	\$26.89 PSF
Required Net Effective Rent (1)	\$24.74 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 urban environment.

The average resale condominium price in the Uptown Corridor area was approximately \$224,500 based upon sales activity data generated by the Houston Association of Realtors, while the proforma above generates a required sale price of around \$306,000 (for 1,200 sf at \$255 psf). With a median household income of roughly \$72,100 across the Uptown Corridor, the affordable house price, at the median, is roughly \$281,000. An annual household income of approximately \$78,500 is required to afford the condominium unit described in the proforma, and just less than half 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.

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.

In examining Development Scenario 2: High Rise Office Project, it is clear that market dynamics such as changing leasing demand, vacancy rates, rental rates and the availability and suitability of large blocks of office space for major users are all elements that much be taken into consideration in weighing the merits of new development. The West Loop/Galleria submarket in which the Uptown Core is situated is a proven office location – the second largest concentration of office space in the city. Commercial office developments differ from residential projects in that generally a substantial portion of space must be committed to by a tenant or tenants before a project can commence; one or two large tenants can drive new office development, while numerous prospective condominium owners need to sign purchase agreements to kick-start a residential development.

The analytics presented herein describe generic development proformas. These models neither specifically reflect existing land parcels, nor the timing of an anticipated project. Additionally, they do not attempt to portray the

transit-supportive design standards discussed in earlier sections of this report. Rather, the proformas are intended to illustrate the feasibility of new construction given existing market conditions.

Cost of factors such as wider sidewalk allowances, an increased urban/civic space requirement, specific building design standards and other considerations are generally more than offset by the saving achieved through the required provision of fewer parking spaces. In conclusion, transit-oriented development policies themselves are not a financial obstacle to new construction.

E2.4

Infrastructure Overview

Based on the research of the existing Uptown Corridor infrastructure it appears that virtually many of the water mains are at the end of their lifespan for the length of the Corridor. The condition of the sanitary sewer lines suggests that there are a few segments along the Corridor that have reached the end of their life span.

The nature of the Uptown Area as a highly sophisticated mixed use area leads one to believe that more intense development will occur here over the short term. As a result, it is important to ensure that the capacity for this new development is provided for. The existing lines appear to be well sized for future development but the age of some is questionable.

Given that the Uptown Core will develop in the near future as an intense area of mixed use buildings, it is important to ensure that infrastructure needs be assessed in the immediate future. It is reasonable to expect that new water mains and some of the sanitary sewer lines will be renewed as transit is built.

Uptown has its own lighting plan that will continue to be implemented as transit is built and new development occurs.

Capital Improvements Plan

The capital improvements projects scheduled for the Uptown Corridor until 2011 include:

- San Felipe Phase II reconstruction
- San Felipe Phase III - Post Oak Blvd to 610
- Sage Rd at Rice Phase II
- South Post Oak Lane reconstructions - Guilford to San Felipe Street
- Ambassador Way construction
- Guilford Court reconstruction - McCue to Post Oak Boulevard
- West Alabama Phase II reconstruction - Rice to Post Oak Boulevard
- Hallmark, Garretson, Lynn reconstruction
- Westheimer pedestrian improvements
- Uptown area traffic signals
- Uptown area right of way acquisition
- Uptown area intersection and signalization improvements

Uptown

E2.5

Design Guidelines for TOD

Introduction

The successful realization of the Urban Corridor Plan requires that the guidelines for new development outlined in this chapter form the basis of the City's new planning regime for Transit Oriented Development. The guidelines clarify the City's expectations and provide the framework for the coordinated and consistent review and evaluation of applications for Transit Oriented Development within the Uptown Corridor.

The guidelines correspond with the Development Opportunity Areas as delineated by the Land Development Concept Plan and provide a series of mandatory requirements and optional guidelines for the design of pedestrian realm; buildings; parking, access and service facilities; and, engineering/infrastructure standards.

The following describes the overarching principles and objectives that form the basis of the guidelines in each of the Development Opportunity Areas:

Streetscapes/Pedestrian Realm

The guidelines for streetscapes are complex and include provisions for the pedestrian realm, which may include public and private lands, and is comprised of sidewalks, publicly accessible and visible open space, as well as the paved component of the street (the area between the curbs), including the portion that accommodates the transit facility, and other streets that are important to feed the transit system. In addition, public parks in proximity to the transit facilities require additional attention as key components of the pedestrian realm.

Buildings

The guidelines for buildings include all forms of development on lands considered to comprise the "private realm". The guidelines include provisions for the transition between development within the identified Development Opportunity Areas and the Stable Areas.

Parking, Access and Service Facilities

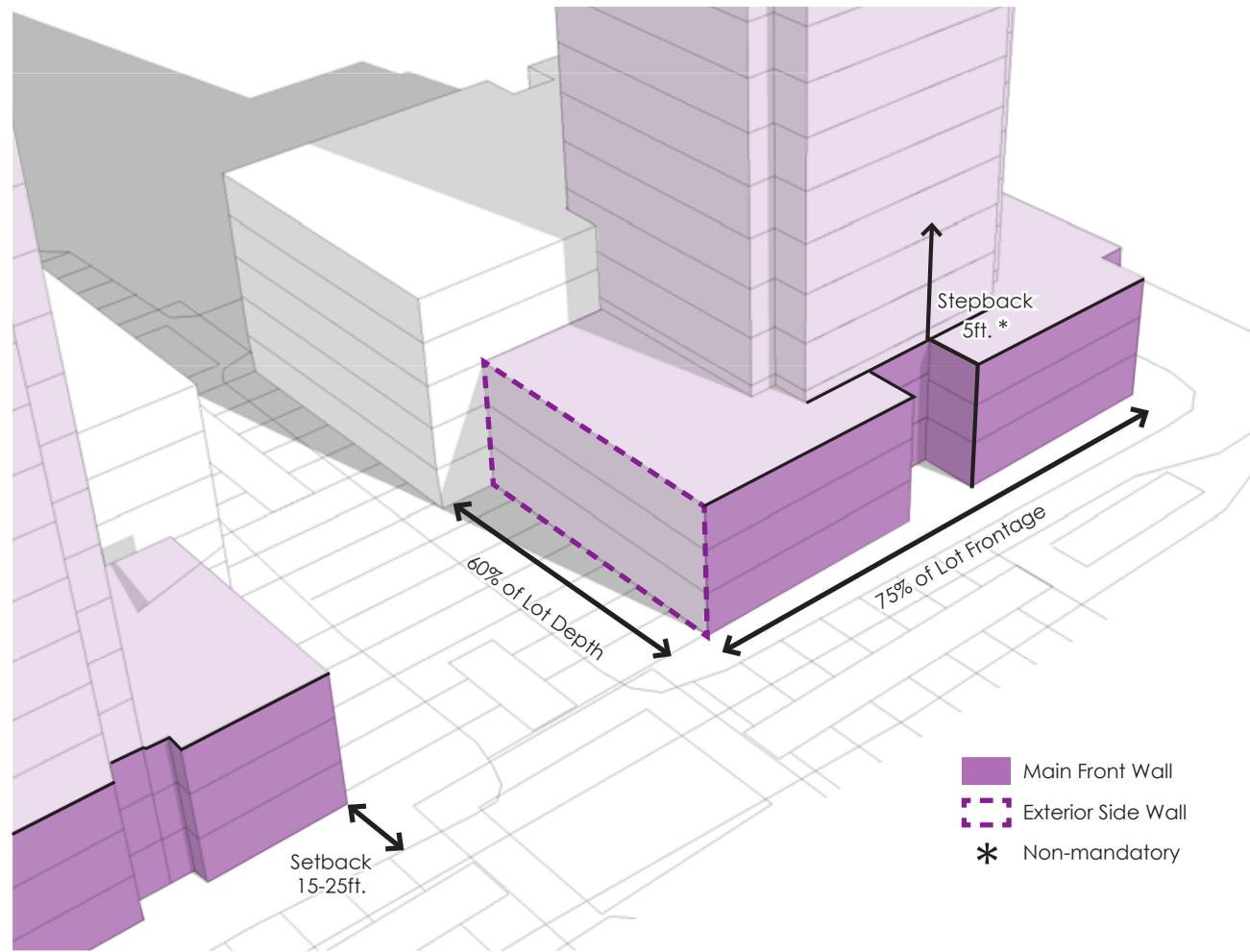
Parking, access and service facilities have been identified as a vital issue in establishing an urban environment and visually pleasing streetscapes in

conjunction with Transit Oriented Development. In addition, parking is a crucial element in influencing the cost of Transit Oriented Development. Urban development typically requires less parking than suburban forms of development, and also provides opportunities for shared parking. Higher density built form demands parking in structure.

Engineering

One of the primary objectives of the Urban Corridor Plan is to develop a comprehensive approach to development. An important component of that process is to standardize the implementation of engineering design standards.

Mandatory DOA 3- Uptown Core



12. 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 in coordination with the Parks and Recreation Master Plan 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.

Non-Mandatory

Non-Mandatory Development Requirements within the defined Development Opportunity Area 3.

Performance Standards

Statement of Application: Optional Performance Standards apply on sites within ¼ mile of a Transit Station. Developments that achieve all of Performance Standards will be eligible to utilize Performance Benefits as defined.

Development Blocks

- 13. For all large scale Transit Oriented Development projects (defined as projects on development blocks or parcels that are greater than 5 acres in size), the maximum development block or parcel size shall be approximately 5 acres in area. In all cases, there shall be no minimum development block or parcel area.
- 14. No development block or parcel frontage on a street shall exceed 600'. In all cases, the minimum development block or parcel frontage shall be 25'.
- 15. Large scale Transit Oriented Development projects shall provide public streets, or publicly accessible private streets, to subdivide any development block or parcel greater than 5 acres in size into smaller development blocks or parcels in accordance with this policy.

Buildings

- 16. The minimum density for any Transit Oriented Development project shall be a Floor Area Ratio of 1.00.

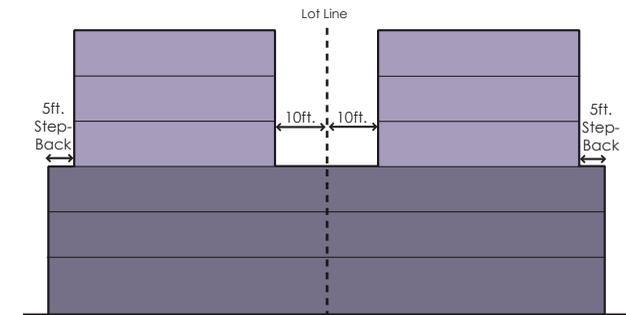
- 17. There shall be no specified maximum density.
- 18. The minimum height for any Transit Oriented Development building shall be two stories, or 18', whichever is greater. Buildings on corner sites shall be a minimum of three stories, or 27', whichever is greater.
- 19. There shall be no specific height limit.
- 20. Where any Transit Oriented Development building abuts a street, the building height shall be established as follows:
 - the main front wall and/or exterior side wall shall be permitted up to three stories (or 27', whichever is greater) within the corresponding build-within zone; and,
 - for any main front wall and/or exterior side wall above three stories (or 27', whichever is greater), the building shall be stepped back from the main front wall and/or the exterior side wall of the base building by a minimum of 5'.
- 21. Buildings of up to three stories may be built with zero setbacks to interior side parcel lines. Exterior side yards shall conform to the described build-within zones.
- 22. Buildings above three stories may include a zero interior side yard setback for the base building of three stories, but building side walls must be set back a minimum of 10' from the interior side yards for that component of the building above three stories.
- 23. The City will encourage a transitional rear alley or easement process, coupled with access management from pedestrian and transit streets, on a block-by-block basis, where possible and appropriate.



Street Wall Building, Toronto, Canada



Streetscape/pedestrian realm, Bethesda, MD



Space between Buildings

Non-Mandatory DOA 3 - Performance Benefits



Colonnade, Balcony, Awnings – temporary and permanent encroachments, West Palm Beach, FL



Colonnade, South Lake, TX



Landscape treatment in a parking lot

Encroachments

- 24. Permanent encroachments shall be considered for permitting on a site-by-site basis, subject to design performance standards (to be developed) that consider such features as shade / weather protection, pedestrian clear zone width, space for street tree canopy, right-of-way proportions, utility clearances, etc.
- 25. 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'.

Parking

- 26. General public parking (surface lots and / or structured parking facilities) to serve TOD areas will be provided to augment the supply of parking.
- 27. On-street parking shall be promoted within all of the Urban Corridors.
- 28. 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.
- 29. 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.
- 30. 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.

- 31. 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.
- 32. Access to parking and servicing areas should occur off side streets or service lanes and to the side or rear of buildings, where possible.
- 33. 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' between access driveways onto the Transit Streets.

Performance Benefits

Statement of Application: Performance Benefits are available to developments within 1/4 mile of a Transit Station that achieve all of the Performance Standards and generate no undue adverse impacts on the stability of adjacent Stable Areas.

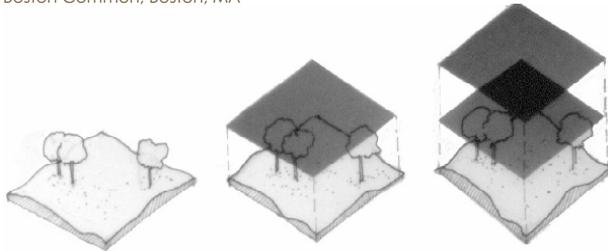
Parking

- 34. For all retail and service commercial uses, including restaurants - a minimum of 2.0 and a maximum of

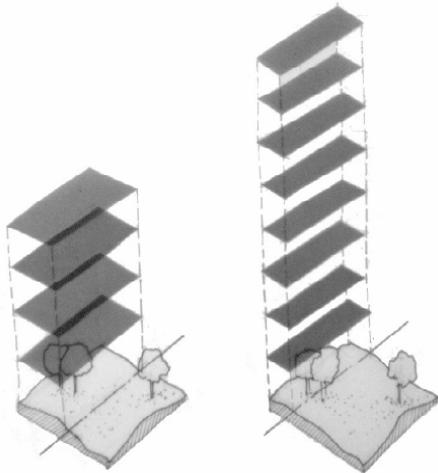
Non-Mandatory DOA 3 - Performance Benefits



Boston Common, Boston, MA



Site, FAR of 1.0 means that the total floor area of a building is one times the gross area of the lot. FAR of 2.0 means the floor area is two times the gross area of the lot



Cover 50% of the lot, at FAR of 2.0 and the building is 4 stories. Cover 25% of the lot at 2.0 and the building is 8 stories.

In instances where no TIRZ/MMD exists, the City will select the trees that they will plant.

48. Street trees should have a minimum size of 45 gal. and be planted 30' on-center. 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.
49. 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.
50. Where there is no room for street trees, consider a vertical shade element planted with vines to add special landscape treatment to the street.
51. Coordination of utilities, especially overhead power lines will be required during the design phase of street tree planting.
52. 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.
53. Concentrate mailboxes, vending machines, trash cans, and recycling bins in single locations to create active public space and minimize visual clutter.

Public Parks

54. Provide public amenities such as washrooms and field house where appropriate.
55. Provide programmed activities for a range of ages and demographics with emphasis on children and youth.
56. Provide a balance of passive and active park space and provide for the maximum program flexibility in the design of the parks.

57. Incorporate a greening strategy that includes tree planting and seasonal horticultural displays.
58. Incorporate sustainability practices both in terms of capital projects and operations.
59. Provide wayfinding and program information displays as well as heritage interpretation and public art.

Gateways

60. Gateways shall be either architectural, stand-alone features, or landscape treatments that define the main entrances to the Urban Corridors.
61. Features shall be lit to enhance their legibility at night.
62. The scale of the gateway shall be large enough to be visible from a car at a distance of at least 300'.
63. Gateways shall enhance and not compete with surrounding existing architectural and natural features.

Buildings

64. Corner building designs shall articulate, define and enhance the intersection at which it is located by enhancing the building's presence at each corner.
65. Buildings should 'turn' the corner, i.e. they should have primary, articulated façades towards both streets and should be visually different from adjacent development.
66. 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.
67. 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.

DOA 3 - Design Guidelines Non-Mandatory

- 68. Variation and articulation in the building mass including horizontal and vertical setbacks, such as step backs at the upper stories, shall be established.
- 69. 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

- 70. Signage will address the amount and type of illumination, size, materials, typography and design.
- 71. Signage should be an integral part of the architecture of a building.
- 72. Signs should be designed to complement the building and enhance the visual appeal of the street.
- 73. Signs should be designed in consideration of nearby residential uses, in terms of size, materials, and location.
- 74. The ratio of sign band to building mass should be restricted such that the signage does not dominate the façade.
- 75. Mobile box signage is not allowed.
- 76. Neon lights are allowed when they do not dominate the signage and have no negative impacts on nearby residences.
- 77. 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, pedestrian routes

and in parks and courtyards.

- 78. Internally lit canopies are strongly discouraged.
- 79. Commercial façades should be appropriately lit.
- 80. Pedestrian realm signage and lighting should be coordinated. Pole mounted pedestrian light fixtures with a light source at 12 to 15' high and a spacing of 30 to 50' is recommended.

Mid-Block Pedestrian Connections

- 81. 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.
- 82. Mid-block pedestrian connections shall provide a fine grain of pedestrian circulation and an important connection between two streets.
- 83. Mid-block pedestrian connections shall lead to public destinations such as schools, parks and public transit stations.
- 84. Mid-block pedestrian connections shall provide an address to individual residential or business frontages along their lengths.



Active uses at grade, Bethesda, MD



Lighting, South Lake, TX



Mid-block pedestrian connection, Toronto, Canada

Non-Mandatory DOA 3 - Design Guidelines

E2.5.1.a Pedestrian Character Transit Street

To better understand the urban design impact of the new transit on the existing streetscapes, sections have been developed through various locations along the Uptown 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.

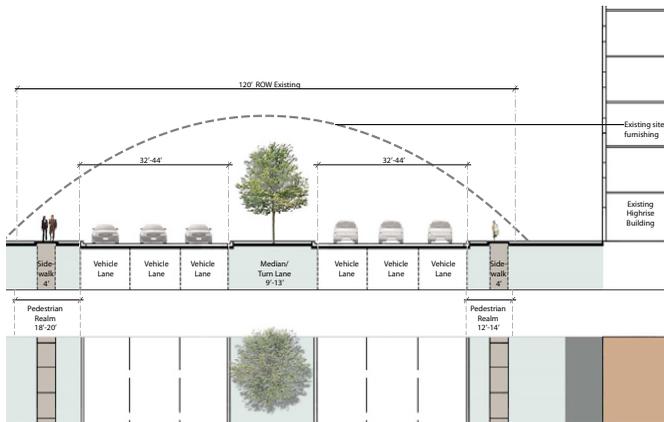
The sections have been selected to indicate typical conditions on the Transit Street to show the impact of the LRT. Additional sections have been developed to illustrate the connecting streets and indicate both existing conditions and proposed improvements with a high level of attention to the pedestrian 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.

The proposed cross sections increase the width of the rights-of-way to 134' and 133'. The new street will continue to provide space for three lanes of traffic in each direction with the transit line at the center. The transit line has a median of 11' on each side of the line. In the Uptown Core the key elements of the pedestrian realm are the planted boulevard adjacent to the curb and the sidewalks. The cross sections indicate that in many cases, the buildings will continue to be located back from the edge of the pedestrian realm. However, the cross sections and the photo montage indicate the impact of buildings adjacent to the sidewalk, which may occur over time in some locations.

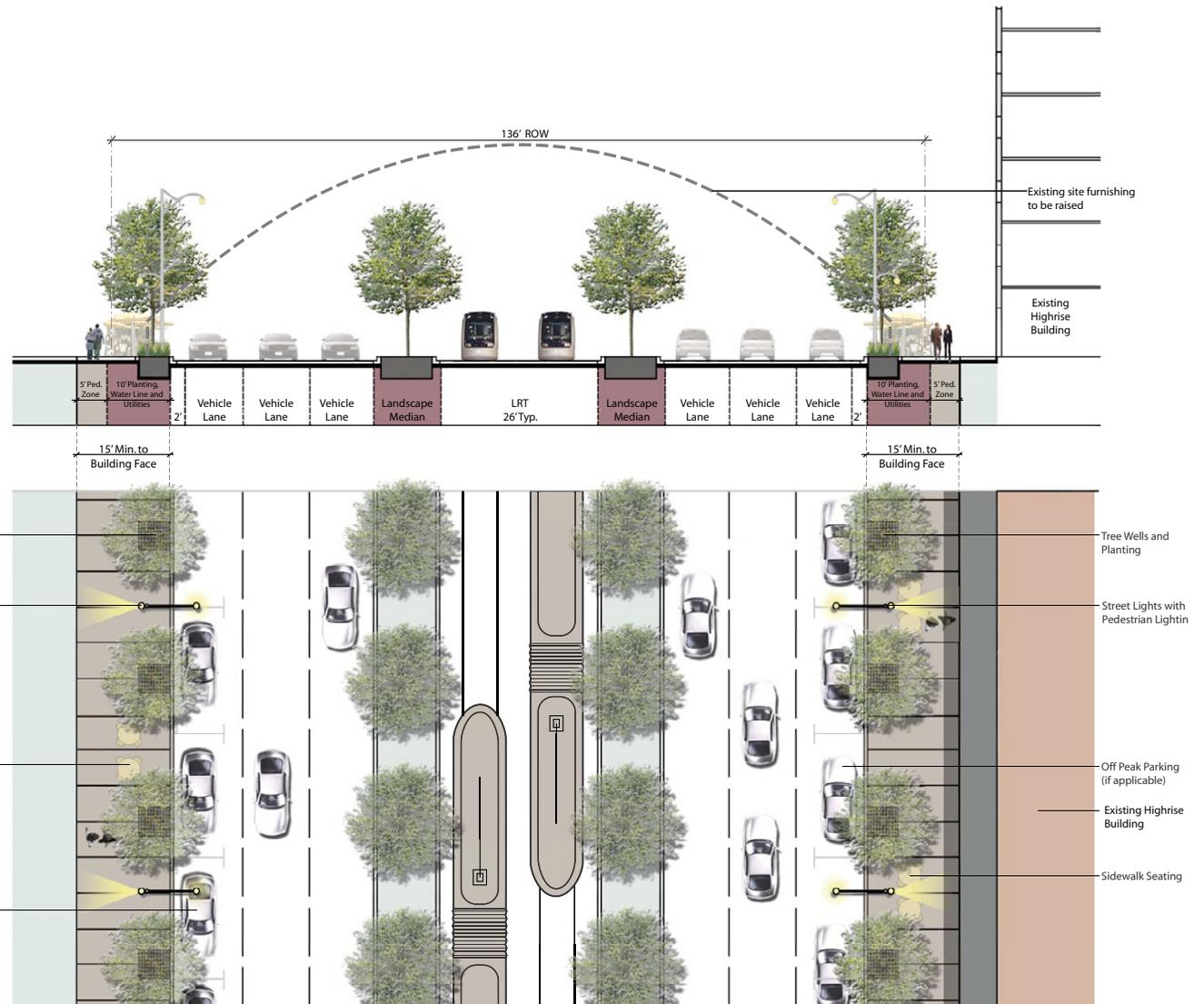


Evolution of pedestrian realm on Post Oak Blvd - photomontage

DOA 3 - Pedestrian Character Transit Street, Offset Station Platforms Uptown



Uptown Corridor existing conditions- North Post Oak at Ambassador Way



Uptown Corridor proposed section- North Post Oak at Ambassador Way

Non-Mandatory DOA 3 - Design Guidelines

E2.5.1.b Pedestrian Character Major Thoroughfare

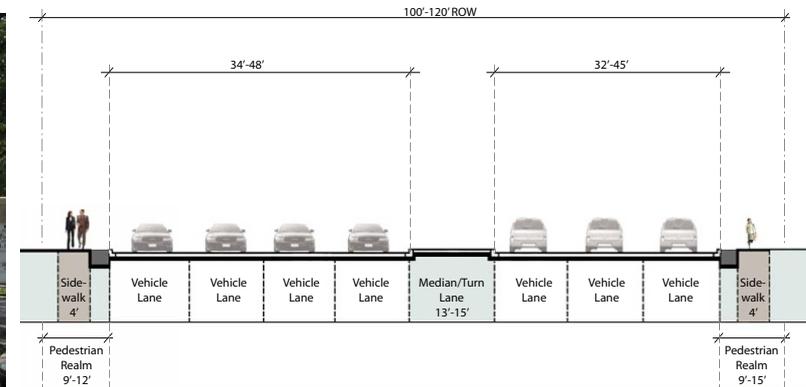
- 85. The hard surface of the sidewalk (the pedestrian realm) shall be a minimum of 15' wide, measured from the back-of-curb to the main front wall and/or exterior side wall of any adjacent building. This requirement may include components of the public right-of-way and/or private lands, as described in the discussion of the build-within zone.
- 86. The design of the 15' pedestrian realm shall include a "furnishing zone" for utilities, street furniture and street lighting adjacent to the curb, and a minimum 7', 6 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'. There shall never be a condition where distances between pedestrian crossings of the facility exceed 600'. Countdown pedestrian head signals shall be provided for at all signalized crossings.
- 88. It is understood that the development of the required 15' 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', to be measured from the back-of-curb to the edge of the right-of-way.



Pedestrian Character Major Thoroughfares



Uptown Corridor existing conditions- Westheimer St.

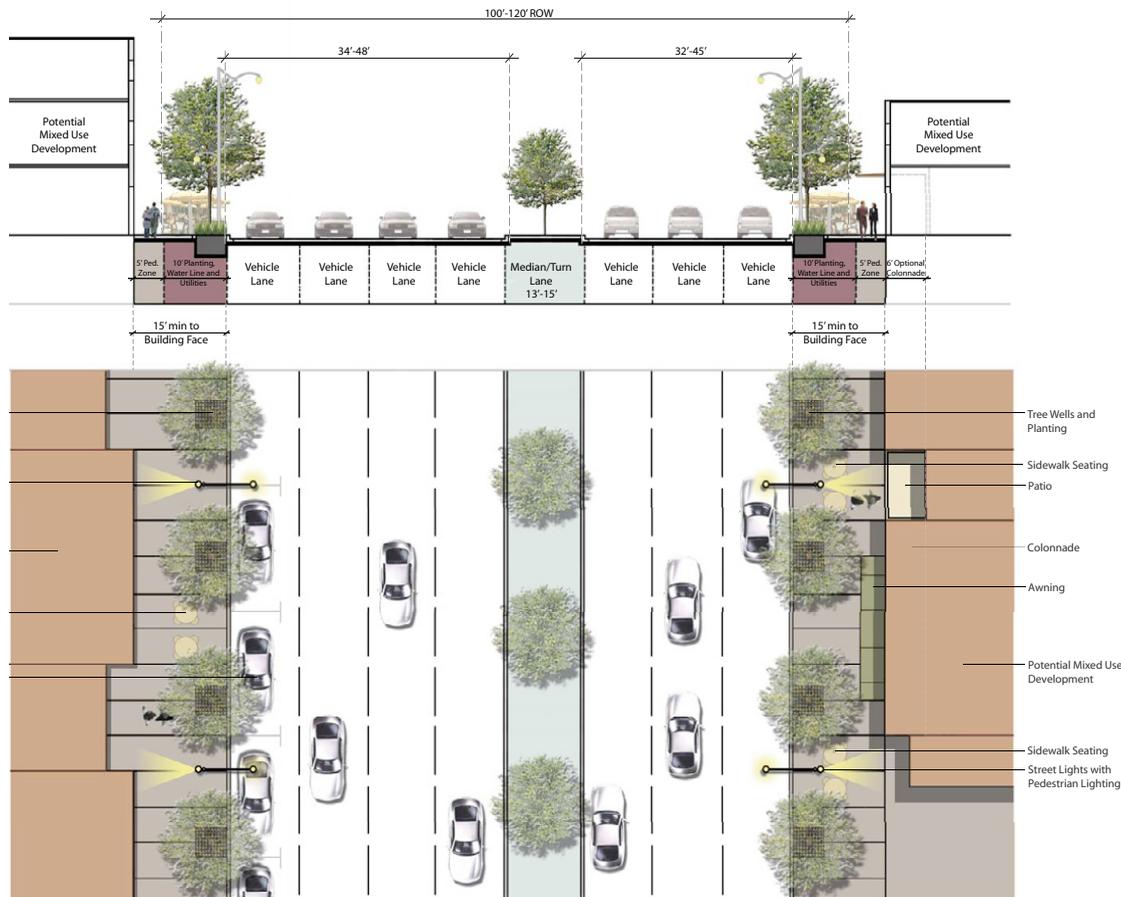


Uptown Corridor existing section- Westheimer St.

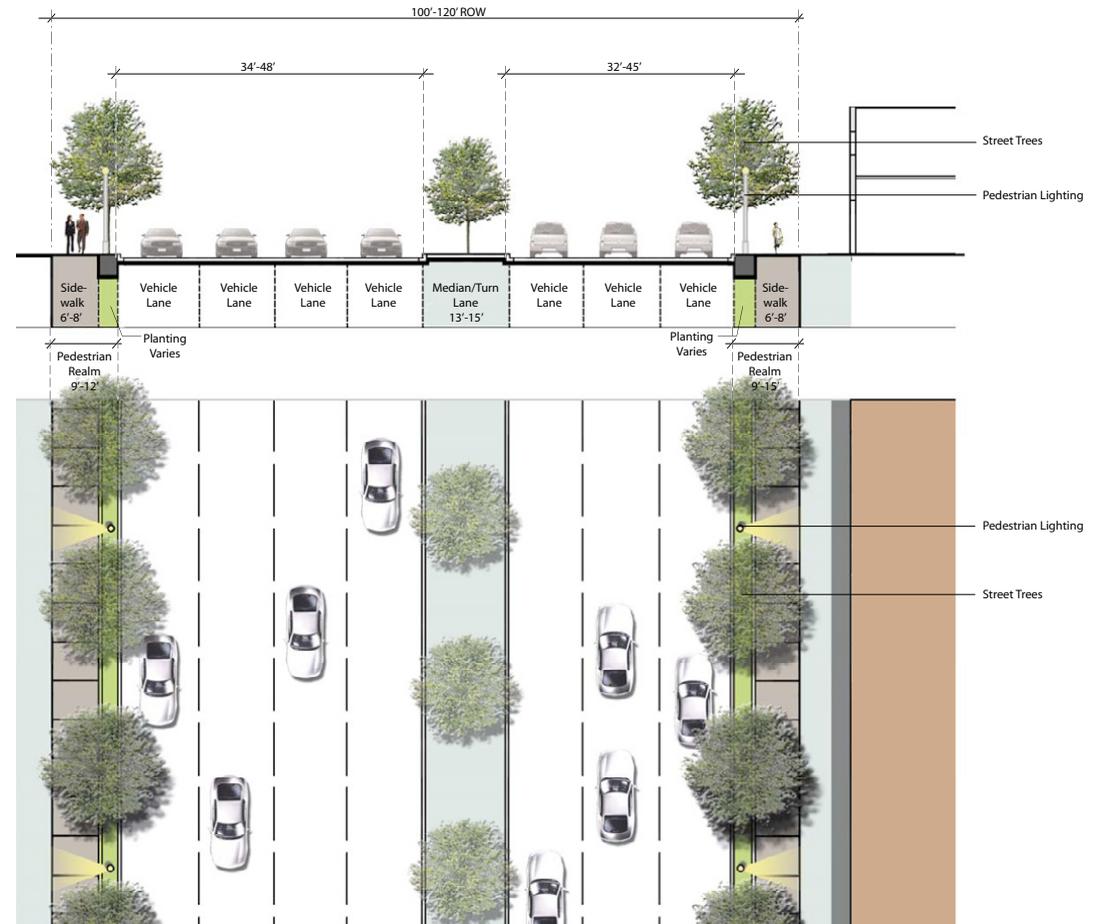
Major Thoroughfare rights-of-way are typically 80 to 100', and include 48' of pavement divided by a median of 14 to 32'. Rarely has a connected sidewalk system been provided. Major Thoroughfares that intersect with the Uptown Transit Line have been identified as Pedestrian Character Major Thoroughfares because they have the

potential to provide a crucial connection from area focal points, such as neighborhoods and schools, to transit stations. A continuous and connected sidewalk system been provided. A prototype street cross section indicates the following:

DOA 3 - Pedestrian Character Major Thoroughfare, Commercial and Residential Areas Uptown



Uptown Corridor proposed section- Westheimer St. (Only in designated redevelopment areas)



Uptown Corridor proposed section- Westheimer St.

Non-Mandatory DOA 3 - Design Guidelines

**E2.5.1.c
Pedestrian Character Major Collector**

- 89.** The pedestrian realm shall be a minimum of 8' wide, measured from the back-of-curb to edge of the right-of-way.
- 90.** The pedestrian realm shall include a minimum 6' 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.

Major Collectors range from 60 - 80', and include 44' of pavement, and ditches on both sides. Rarely is a continuous and connected sidewalk system provided. West Alabama 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

Non-Mandatory DOA 3 - Design Guidelines

**E2.5.1.d
Pedestrian Character Local Street**

- 93.** The pedestrian realm shall be a minimum of 19' 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' 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.
- 96.** The planted boulevard shall also be the location for utility poles, placed on the same alignment as the street trees.
- 97.** 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.
- 98.** On Pedestrian Character Local Streets with road side ditches, utility poles shall be placed adjacent to the edge of the right-of-way.

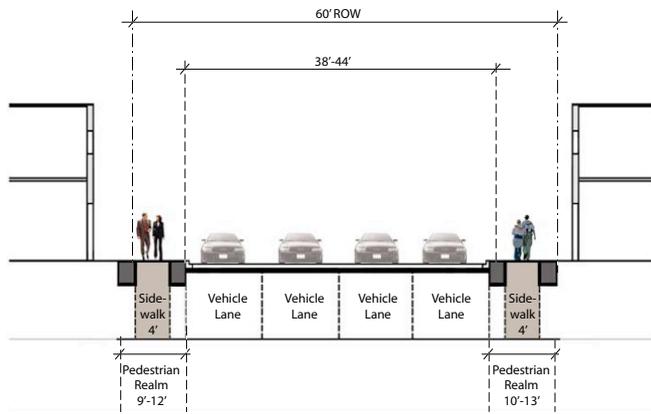


Pedestrian Character Local Street

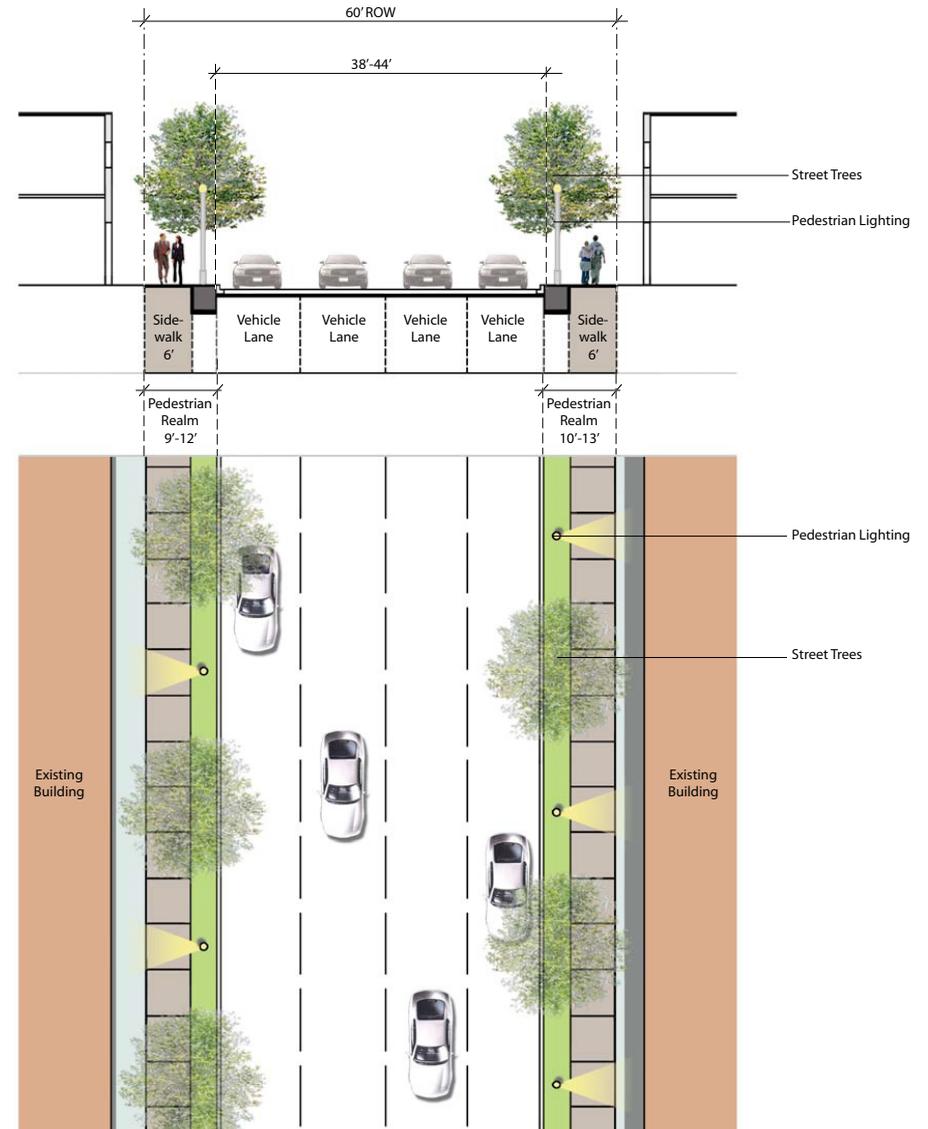
Local street rights-of-way are typically 60', and include 22' of pavement. Some local streets have ditches on both sides. Rarely are sidewalks provided. Some local streets that intersect with the Transit Street have been identified as Pedestrian Character Local Streets because they have

the potential to provide a crucial connection between the transit stations and a local pedestrian traffic generator, such as a school, recreation center, public park or place of worship. A prototype street cross section for a Pedestrian Character Local Street indicates the following:

DOA 3 - Pedestrian Character Local Street Cross-Section/Plan Uptown



Uptown Corridor existing conditions- Hidalgo St.



Uptown Corridor proposed section- Hidalgo St.

Non-Mandatory DOA 3 - Design Guidelines

Engineering / Infrastructure

- 99.** The width of travel lanes along streets with transit should generally be 10-11' in width,
- 100.** Alleys should be designed to provide an 12'-0" paved surface,
- 101.** No access should be allowed from the street for new developments fronting onto the street with transit,
- 102.** 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.
- 103.** 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.
- 104.** Provision for crosswalks 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.
- 105.** 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".
- 106.** 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.
- 107.** Infrastructure services need to be developed with future intensification of the corridors in mind,
- 108.** Infrastructure should be implemented as transit is being built.
- 109.** The implementation and design of infrastructure should be carried out comprehensively by including all departments of the City, as well as utility providers.
- 110.** All utilities should be buried along the corridors.
- 111.** Consideration should be given to burying utilities under alleys.
- 112.** 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.
- 113.** Accessibility should be designed into all sidewalk conditions along the corridors.

Development Opportunity Area 4- Uptown Corridor Non-Mandatory

**E2.5.2
Development Opportunity Area 4
Uptown Corridor**

Guidelines for the Development Opportunity Area 4–Uptown Core includes a series of optional design guides and do not include any mandatory development requirements.

Non-Mandatory
Non-Mandatory Development Guidelines within the defined Development Opportunity Area 4.

Statement of Application: Applies on sites that abut the Transit Street and are within 1/4 mile of a Transit Station.

Pedestrian Realm

1. Buildings shall be connected to the street - by proximity, by the location of windows and entranceways, and the level of architectural detail.
2. 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.
3. 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.
4. 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

5. 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.
6. 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.
7. 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.
8. Street trees should have a minimum size of 45 gal. and be planted 30' on-center. 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.
9. 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.
10. Where there is no room for street trees, consider a vertical shade element planted with vines to add special landscape treatment to the street.
11. Coordination of utilities, especially overhead power lines will be required during the design phase of street tree planting.
12. 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.

13. Concentrate mailboxes, vending machines, trash cans, and recycling bins in single locations to create active public space and minimize visual clutter.

Public Parks

14. Provide public amenities such as washrooms and field house where appropriate.
15. Provide programmed activities for a range of ages and demographics with emphasis on children and youth.
16. Provide a balance of passive and active park space and provide for the maximum program flexibility in the design of the parks.
17. Incorporate a greening strategy that includes tree planting and seasonal horticultural displays.
18. Incorporate sustainability practices both in terms of capital projects and operations.
19. Provide wayfinding and program information displays as well as heritage interpretation and public art.

Gateways

20. Gateways shall be either architectural, stand-alone features, or landscape treatments that define the main entrances to the Urban Corridors.
21. Features shall be lit to enhance their legibility at night.
22. The scale of the gateway shall be large enough to be visible from a car at a distance of at least 300'.
23. Gateways shall enhance and not compete with surrounding existing architectural and natural features.

Non-Mandatory DOA 4- Uptown Corridor

Buildings

- 24. Corner building designs shall articulate, define and enhance the intersection at which it is located by enhancing the building's presence at each corner.
- 25. Buildings should 'turn' the corner, i.e. they should have primary, articulated façades towards both streets and should be visually different from adjacent development.
- 26. 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.
- 27. 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.
- 28. Variation and articulation in the building mass including horizontal and vertical setbacks, such as step backs at the upper stories, shall be established.
- 29. 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

- 30. Signage will address the amount and type of illumination, size, materials, typography and design.
- 31. Signage should be an integral part of the architecture of a building.

- 32. Signs should be designed to complement the building and enhance the visual appeal of the street.
- 33. Signs should be designed in consideration of nearby residential uses, in terms of size, materials, and location.
- 34. The ratio of sign band to building mass should be restricted such that the signage does not dominate the façade.
- 35. Mobile box signage is not allowed.
- 36. Neon lights are allowed when they do not dominate the signage and have no negative impacts on nearby residences.
- 37. 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, pedestrian routes and in parks and courtyards.
- 38. Internally lit canopies are strongly discouraged.
- 39. Commercial façades should be appropriately lit.
- 40. Pedestrian realm signage and lighting should be coordinated. Pole mounted pedestrian light fixtures with a light source at 12 to 15' high and a spacing of 30 to 50' is recommended.

Mid-Block Pedestrian Connections

- 41. 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.
- 42. Mid-block pedestrian connections shall provide a fine grain of pedestrian circulation and an important connection between two streets.

- 43. Mid-block pedestrian connections shall lead to public destinations such as schools, parks and public transit stations.
- 44. Mid-block pedestrian connections shall provide an address to individual residential or business frontages along their lengths.

Pedestrian Character Major Thoroughfare

- 45. The hard surface of the sidewalk (the pedestrian realm) shall be a minimum of 15' 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.
- 46. The design of the 15' pedestrian realm shall include a "furnishing zone" for utilities, street furniture and street lighting adjacent to the curb, and a minimum 7', 6 inch unimpeded pedestrian sidewalk.
- 47. 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'. There shall never be a condition where distances between pedestrian crossings of the facility exceed 600'. Countdown pedestrian head signals shall be provided for at all signalized crossings.
- 48. It is understood that the development of the required 15' 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', to be measured from the back-of-curb to the edge of the right-of-way.

DOA 4- Uptown Corridor Non-Mandatory

Pedestrian Character Local Street

- 49.** The pedestrian realm shall be a minimum of 19' wide, measured from the back-of-curb or the edge of the outside vehicle lane to the edge of the right-of-way.
- 50.** The pedestrian realm shall include a minimum 6' wide sidewalk. The sidewalk shall be continuous and extend across driveways.
- 51.** On Pedestrian Character Local Streets with curbs, the pedestrian realm shall include a planted boulevard with street trees next to the curb.
- 52.** The planted boulevard shall also be the location for utility poles, placed on the same alignment as the street trees.
- 53.** 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.
- 54.** 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

- 55.** The width of travel lanes along streets with transit should generally be 10-11' in width,
- 56.** Alleys should be designed to provide an 12'-0" paved surface,
- 57.** No access should be allowed from the street for new developments fronting onto the street with transit,
- 58.** 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.
- 59.** 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.
- 60.** Provision for crosswalks between stations should be 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.
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 - ▣ The form and design of above grade components to be approved by the City and Metro.
- 69.** Accessibility should be designed into all sidewalk conditions along the corridors.