

ABSTRACT

Title of Document: TRINITY CREEK: A MIXED-USE DEVELOPMENT
IN A TRANSIT ORIENTED NEIGHBORHOOD
in Dallas, Texas

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Directed By: Professor, Ralph Bennett, AIA, School of
Architecture, Planning, and Preservation

Texas is known for its size. However, land is a limited resource. Open land continues to decrease as metropolitan areas continue to spread ever outward. Many of the metropolitan areas of Texas that had once been individual towns have grown together. Dallas is no exception. In contrast, Laura Miller, Mayor of Dallas, is energizing revitalization of downtown. Office buildings, vacant since the recession of the mid 1980's, are being renovated into lofts. The addition of the light rail has brought mass transit to the area. The Trinity River Corridor Project (TRCP), an ongoing study to reclaim valuable river front land and establish additional city parks, is underway. An additional part of this TRCP initiative is to study 23 blighted areas that have been selected as targets for redevelopment.

This thesis takes one of these 23 blighted areas to study the possibility of employing the ideas of Transit Oriented Neighborhood in a mixed-use building. The site bisected by the Corinth Viaduct was selected for this thesis for its proximity to downtown, adjacency to the Trinity River, and access to the DART Light Rail. This thesis considers recent trends of the Transit-Oriented Neighborhood Development type as well as the functional and aesthetic elements necessary to create a thriving part of downtown Dallas. Such elements must draw residents, businesses, and the visitors needed on a daily basis. It seeks to create an entertainment zone that establishes a River Walk destination for Dallas.

TRINITY CREEK: A MIXED-USE DEVELOPMENT IN A
TRANSIT ORIENTED NEIGHBORHOOD
in Dallas, Texas

By

John Mark Guest

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University of Maryland, College Park, in partial fulfillment
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I would like to thank my wife Eva for her unwavering support and courage through the distance of space and time. Also, a special thank you to Roger Lewis, Ralph Bennett, and the rest of my thesis committee for their patience and advice.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	ii
TABLE OF CONTENTS	iii
LIST OF FIGURES	iv
CHAPTER 1: INTRODUCTION	1
CHAPTER 2: THE TRINITY RIVER CORRIDOR PROJECT	5
CHAPTER 3: THE SITE	
History	9
Location	11
Tax-Increment Finance Zone	12
Context	13
Zoning	19
Access	21
Climate	24
Physical Conditions	25
CHAPTER 4: PROGRAM	
Detailed Program Description	27
CHAPTER 5: PRECEDENT ANALYSIS	
Mockingbird Station, Dallas, Texas	32
Paseo del Rio, San Antonio, Texas (A River Walk Mixed-use Master plan)	40
The Highlands of Lombard, Lombard, Illinois	47
The Cedars West Prototype Plan	51
CHAPTER 6: DESIGN APPROACH	
Design Intent	56
Design Goals	59
The Master Plan	60
Parti I	63
Parti II	67
Parti III	71
CHAPTER 7: DESIGN CONCLUSIONS	75
ENDNOTES	92
BIBLIOGRAPHY	93

List of Figures

All photographs are by John Mark Photography unless otherwise noted.

1. Images of the bridges designed by Santiago Calatrava.	6
2. Aerial photograph of site.	6
3. Aerial photographs of the Trinity River – Present and proposed.	8
4. A map showing the location of The Cedars Station	10
5. Regional Map of Dallas locating Thesis Site	11
6. A map showing the size and location of The Cedars	12
7. A map of the Cedars TIF District	13
8. Land Use Opportunity Study Areas	14
9. Context Photo - Gilley's Dance Hall, Photo	15
10. Context Photo - South Side On Lamar, Exterior Photo	15
11. Context Photo - South Side On Lamar, Historical Landmark Placard, Photo	15
12. Context Photo - South Side on Lamar, Exterior Photo	15
13. Context Photo - Jack Evans Police Headquarters, Exterior	15
14. A map of the Proposed Trinity Creek Station	16
15. Context Photo – Auto Mechanics	17
16. Context Photo – Scrap Metal Yard	17
17. Context Photo – Liquor Store	17
18. Context Photo – Liquor Store	17
19. Context Photo – Liquor Store	17
20. Context Photo – Railway Underpass	18
21. Context Photo – View from the Corinth Viaduct	18

22. Context Photo – View Looking East to the DART Rail Bridge	18
23. Context Photo – View Looking Northwest on South Industrial Boulevard	18
24. Context Photo – View Looking Northwest on South Industrial Boulevard	19
25. A map showing Photograph Locations	19
26. Previous Dallas Zoning Map	20
27. Land Use Opportunity Plan Area 12 - The Cedars West	20
28. Context Photo – The Petunia Streetcar	21
29. DART System Map – Dallas and the Metroplex	22
30. DART System Map – Downtown Service	22
31. DART System Map – Legend	22
32. Map of 5 minute walks from each of the DART Rail Stations	23
33. Map of 5 min. and 10 min. walks from the Corinth and Industrial intersection	23
34. The Cedars West Vehicular Access Points	24
35. Thesis Site Section	25
36. Topography and Section Locations	26
37. Context Photo – Mockingbird Station – A view of the parking between buildings.	32
38. Diagram of Green Space Provided – Mockingbird Station	33
39. Diagram of Existing Paving – Mockingbird Station	33
40. Diagram of Retail Frontages and Access to Parking – Mockingbird Station	34
41. Context Photo – Mockingbird Station – Aerial view looking north.	34
42. Context Photo – Mockingbird Station – Aerial view looking west.	34
43. Context Photo – Mockingbird Station – Aerial view looking north	35
44. Context Photo – Mockingbird Station – View from theater looking south.	35

45. Context Photo – Mockingbird Station – View from the Park & Ride walkway.	35
46. Context Photo – Mockingbird Station – View from the crosswalk to the theater.	35
47. Context Photo – Mockingbird Station – View from the boarding platform	35
48. Context Photo – Mockingbird Station – View of DART past the Angelika.	36
49. Context Photo – Mockingbird Station – View of Angelika Theater from DART.	36
50. Context Photo – Mockingbird Station – View down steps from the Angelika.	36
51. Context Photo – Mockingbird Station – View from vehicular access of Hwy 75.	36
52. Context Photo – Mockingbird Station – View towards steps to the Angelika.	36
53. Plan of location of photos of Mockingbird Station	37
54. Plan of Uses at Mockingbird Station	38
55. Section of Mockingbird Station	39
56. Map of Paseo del Rio, San Antonio, Texas	41
57. Context Photo – Harold Bartholomew’s natural river edge.	42
58. Section – Comparison of San Antonio River Walk with the River Seine, Paris	43
59. Context Photo – San Antonio River Walk	43
60. Context Photo – San Antonio River Walk	43
61. Context Photo – San Antonio River Walk	43
62. Context Photo – San Antonio River Walk	44
63. Context Photo – San Antonio River Walk	44
64. Context Photo – San Antonio River Walk	44
65. Context Photo – San Antonio River Walk	45
66. Context Photo – San Antonio River Walk	45
67. Context Photo – San Antonio River Walk	45

68. Context Photo – San Antonio River Walk	45
69. San Antonio River Walk	45
70. Context Photo – San Antonio River Walk	46
71. Context Photo – San Antonio River Walk	46
72. The Highlands – Site Plan of with Section Locations	47
73. The Highlands – Elevation Study	48
74. The Highlands – Sections	48
75. The Highlands – Stacking Diagram	49
76. Context Photo – The Highlands	50
77. Context Photo – The Highlands	50
78. The Cedars West Prototype Plan	52
79. The Cedars West Prototype Plan – Retail Plan Detail	54
80. The Cedars West Prototype Plan – Parking Garage Plan Detail	54
81. The Cedars West Prototype Plan – Pedestrian Bridge Detail	54
82. The Cedars West Prototype Plan – Levee and Parkway Section	54
83. The Cedars West Prototype Plan – Site Section	55
84. Proposed Street Section – Primary Avenue	58
85. Proposed Street Section – Secondary Street	58
86. Proposed Schematic Master Plan	61
87. Axonometric of Schematic Master Plan	61
88. Axonometric of Schematic Master Plan	62
89. Figure-Ground of Existing Plan	62
90. Figure-Ground of Schematic Master Plan	62

91. Parti One – Plan of River Level Retail	63
92. Parti One – Plan of First Floor	64
93. Parti One – Plan of Second Floor	64
94. Parti One – Plan of Third and Fourth Floors	65
95. Parti One – Aerial Perspective Looking North	65
96. Parti One – Aerial Perspective Looking South	66
97. Parti Two – Plan of River Level Retail	68
98. Parti Two – Plan of First Floor	68
99. Parti Two – Plan of Second, Third and Fourth Floors	69
100. Parti Two – Aerial Perspective Looking North	69
101. Parti Two – Aerial Perspective Looking South	70
102. Parti Three – Plan of River Level Retail	72
103. Parti Three – Plan of First Floor	72
104. Parti Three – Plan of Second Floor	73
105. Parti Three – Plan of Third and Fourth Floors	73
106. Parti Three – Aerial Perspective Looking North	74
107. Parti Three – Aerial Perspective Looking South	74
108. Site selection within the proposed master plan.	75
109. View looking East across the master plan toward the proposed transit station.	75
110. View looking West across the master plan.	76
111. The Corinth Street Elevation shows the retail at the street level.	77
112. Riverwalk Level Restaurant and Retail Entry Plan	78
113. First Floor Office Entry Diagram.	78

114.	Second and Third Floor Office Entry Diagram.	78
115.	The Fourth Floor Office Entry Diagram.	78
116.	A Perspective of the Fountain Stair.	79
117.	A Perspective of the Retail Court Stair	79
118.	A Perspective from the northeast corner.	80
119.	A Perspective of the Residential Street from the northwest corner.	80
120.	A Perspective of Industrial Boulevard from the northeast corner	81
121.	A Perspective of Interior Pool Courtyard	81
122.	A typical One Bedroom/One Bath Unit with a corridor entry.	82
123.	A typical One Bedroom/One Bath with a direct access 1st Floor entry.	82
124.	A typical Two Bedroom/Two Bath Unit with a corridor entry.	82
125.	A typical Two Bedroom/Two Bath with a direct access 1st Floor entry.	83
126.	A typical Two Bedroom/Two Bath with 1st Floor entry and bay window.	83
127.	A typical Three Bedroom/Two Bath Corner Unit.	84
128.	The Riverwalk Level Plan.	84
129.	The First Floor Plan.	85
130.	The Second Floor Plan.	85
131.	The Third Floor Plan.	86
132.	The Fourth Floor Plan.	86
133.	The Fifth-Seventh Floors in Plan.	87
134.	West Elevation and Courtyard Section.	88
135.	East, North, and South Elevations.	89
136.	Partial Elevation and Typical Wall Sections.	90

Chapter I

Introduction:

Early transit was developed by land owners wanting to add value to their land by bringing transportation to those whom they intended to lease or sell property. This would allow people to live outside of the city and be a short commute to work via train. Transit gave the employee an opportunity to own his own home and live in a quiet neighborhood. However, this de-centralized the city center and created a division between a city of work and a city of homes. With the adoption of the automobile, the focus of development changed and mass transportation ceased to be a priority. Over time the population growth and percentage of vehicle owners created a dependence on the automobile that has divided our neighborhoods, in addition to causing traffic congestion and large amounts of land dedicated to highways, byways and parking lots. People are looking again to mass transit to solve these problems and create vibrant communities where people can live, work, and play without dependency on the automobile.

Changing demographics are pointing the way toward transit-oriented developments. Rises in immigration have brought people from a culture that is not dependent upon the automobile, from a highly pedestrian-oriented society. These residents prefer living in urban neighborhoods near city centers and, due to their substantially lower income levels, they tend to own fewer vehicles and drive even less. As their income rises, they tend to remain pedestrian-oriented as well as users of the transit system.

In contrast, Empty Nesters are looking to simplify. No longer in need of the single family house to raise children in, they are looking to be near the heart of things. Empty Nesters desire smaller homes with little to no maintenance and want to be at a walkable distance to amenities, such as shopping, restaurants and entertainment venues.

Additionally, highly skilled young professionals, Echo Boomers¹, the genetic offspring and demographic echo of their parents, the baby boomers, tend to be single or two person households without children, and they desire to be near “the action”. According to *Architectural Record*, “the fastest growing ‘family’ type today is the single person living alone; a population that now amounts to a quarter of all households”.² Looking to be trendier, they migrate to designs that are edgy such as loft apartments and places that have night life. They prefer smaller homes and walkability to stores, restaurants, and clubs.³

This broad range of residents in the urban neighborhood creates a need for a wide variety of housing types. This includes condominiums, market rate apartments and affordable units.

Even though many cities have begun to implement Transit-Oriented Developments (T.O.D.s), they tend to fall short of their intended goal. One such pitfall is using the standard ratios for parking counts. In cities such as San Francisco and Washington, D.C., the transit systems have become important role players, however, their planning was based on the assumption that people would “Park & Ride”, and therefore large parking areas surround the transit station eliminating walkability from neighborhood, local retail, or office locations. These stations should be more sensitive to their surroundings as well as integrated into the community to allow patrons to walk,

bike, or take a bus to the transit station. Also, the availability of parking ensures that visitors continue to use their car. Conversely, less parking and high parking rates entice patrons to ride the rail instead of driving.

Another shortfall is the mix of uses. The variety of shops, restaurants, and entertainment venues should be sufficient to provide residents enough choices to sustain a living community as well as attract the visitor. High priced, trendy stores are not enough. The local inhabitant must have access to food suppliers, dry cleaners, child care, health clubs, pharmacies, banks, restaurants, and bookstores. Business related retail such as office supplies, copy and print shops, and overnight delivery should be included in addition to public amenities like parks and plazas.⁴

Also, in most cases the design of housing chases the market demand instead of providing for mixed-income levels. High income renters usually prefer to use their own vehicles to travel to and from work; compounding the problem. Low income renters tend to be ambulatory and tend to shop in their own neighborhood. Designing for a larger mix of income levels ensures the use of transit in addition to an increased level of shopping at local stores if the variety allows them the opportunity.

Though Dallas has always been an automobile-oriented city, DART is beginning to help change that. In 1983, voters approved a Dallas Area Rapid Transit service plan. Construction later began on a light rail system, which opened in 1996. The system has been successful, and DART continues to expand. The task for future developers is to rebuild communities that are supportive of the DART rail system as a viable alternative to the automobile. It takes more than just stations. It takes a commitment to providing neighborhoods that work as pedestrian environments. This thesis suggests a master plan

for the Cedars West that demonstrates transit neighborhood solutions, and then propose a design for a mixed-use building that incorporates the ideas behind the transit neighborhood.

Chapter II

The Trinity River Corridor Project

In 1998 the citizens of the city of Dallas approved a capital bond program to improve a long neglected resource near downtown, the Trinity River. The program, known as the Trinity River Corridor Project, is primarily an initiative to improve the river's levees and provide additional protection from flooding and gives Dallas the opportunity to create a large park system. If successful, it becomes the kind of distinctive landmark that makes cities memorable in the minds of residents and visitors alike. In addition, the new amenity can spawn a series of growth opportunities throughout the city that can take decades to come to full fruition. "This project is a life-changing event for the City of Dallas," says Dallas City Councilman Ed Oakley, who chairs the Council's Trinity River Committee. "We're taking what is a drainage ditch that moves our storm water, our sanitary sewer, our electric, our gas, and making it into an amenity that improves our safety and connects us back to Oak Cliff and West Dallas. If you do it right, 20 years from today people will look back and say, 'Gosh, this really did change Dallas.'"⁵

Flooding will be controlled through an initiative by the U.S. Army Corps of engineers, the Dallas Floodway Extension Project (DFE), which includes a chain of wetlands to improve floodwater conveyance, environmental mitigation lands and wildlife refuge, as well as new levees for the Cadillac Heights and Lamar areas. Also, two off-channel lakes (fig. 3) would be located near the East Levee, between the Continental

Street Viaduct and the Corinth Street Viaduct, with the river channel relocated towards the West Levee.

Once completed, the entire project provides a hike and bike trail, hard and soft surface trails, gateway parks, four boat launches, access points to the Great Trinity Forest, a Trinity Interpretive Center, two equestrian centers, quality tree plantings along the river, potential whitewater boating, three signature bridges designed by internationally renowned engineer-architect Santiago Calatrava, and the Trinity Parkway toll road.⁶

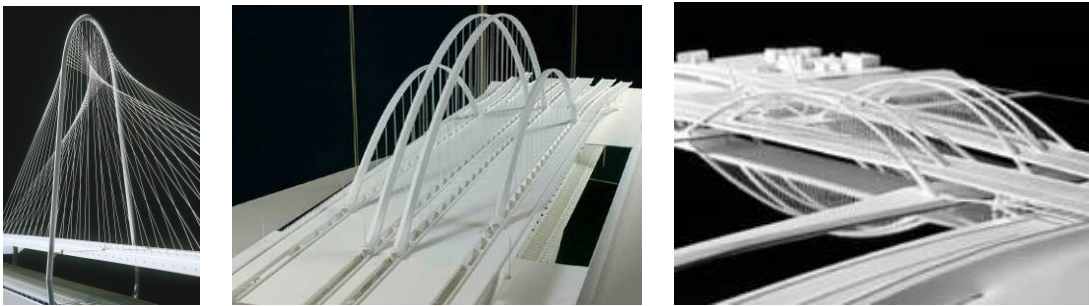


Figure 1:
Images of the Bridges Designed by Santiago Calatrava: Margaret Hunt Hill Bridge, IH-30 Signature Bridge, IH-35E Signature Bridge (left to right). (City of Dallas)

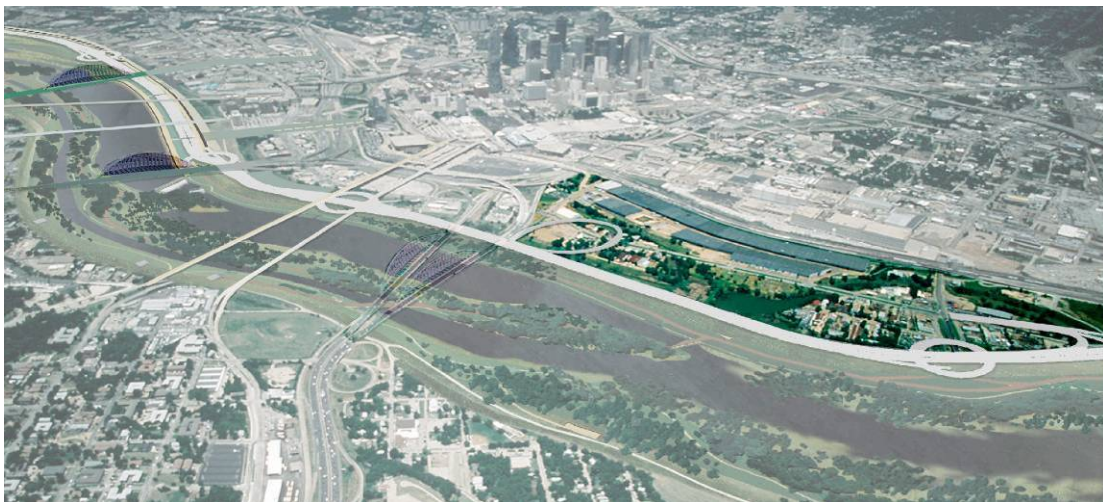


Figure 2:
This aerial photograph shows the location of the Cedars West site with the Trinity Parkway in the foreground and the positioning of the three Calatrava Bridges. (City of Dallas)

Additionally, the urban lake discharge point to the Trinity River comprises a 17-foot elevation change that gives the opportunity to create a significant white-water boating facility that would be viewed from the Continental Street Viaduct, which is converted to a pedestrian-only bridge. These amenities lie at the very edge of the city's central business core. The voters of the City of Dallas approved a \$246 million bond program for the improvements in May 1998. State, federal and other agencies are providing additional funds totaling approximately \$1.2 billion.⁷

“A decade from now, people driving into Dallas will see the city’s river not as an obstacle to be overcome, but as a destination to discover. Our changing relationship to the water, I predict, will enliven every aspect of urban life in our city,” says Mayor Laura Miller.⁸

The Trinity River Corridor Project provides a new edge for the city that entices development south of downtown. After the improvements, old industrial districts inside the levees that long ago turned their back on the Trinity’s wasteland develop into park-front lands and highly desirable land for development. The new park system is an amenity that allows property values to rise as new developments begin to take advantage of lands that border both sides of the river. The Signature bridges by Calatrava as well as the existing bridges become a scenic gateway to downtown Dallas and The Cedars from South Dallas.

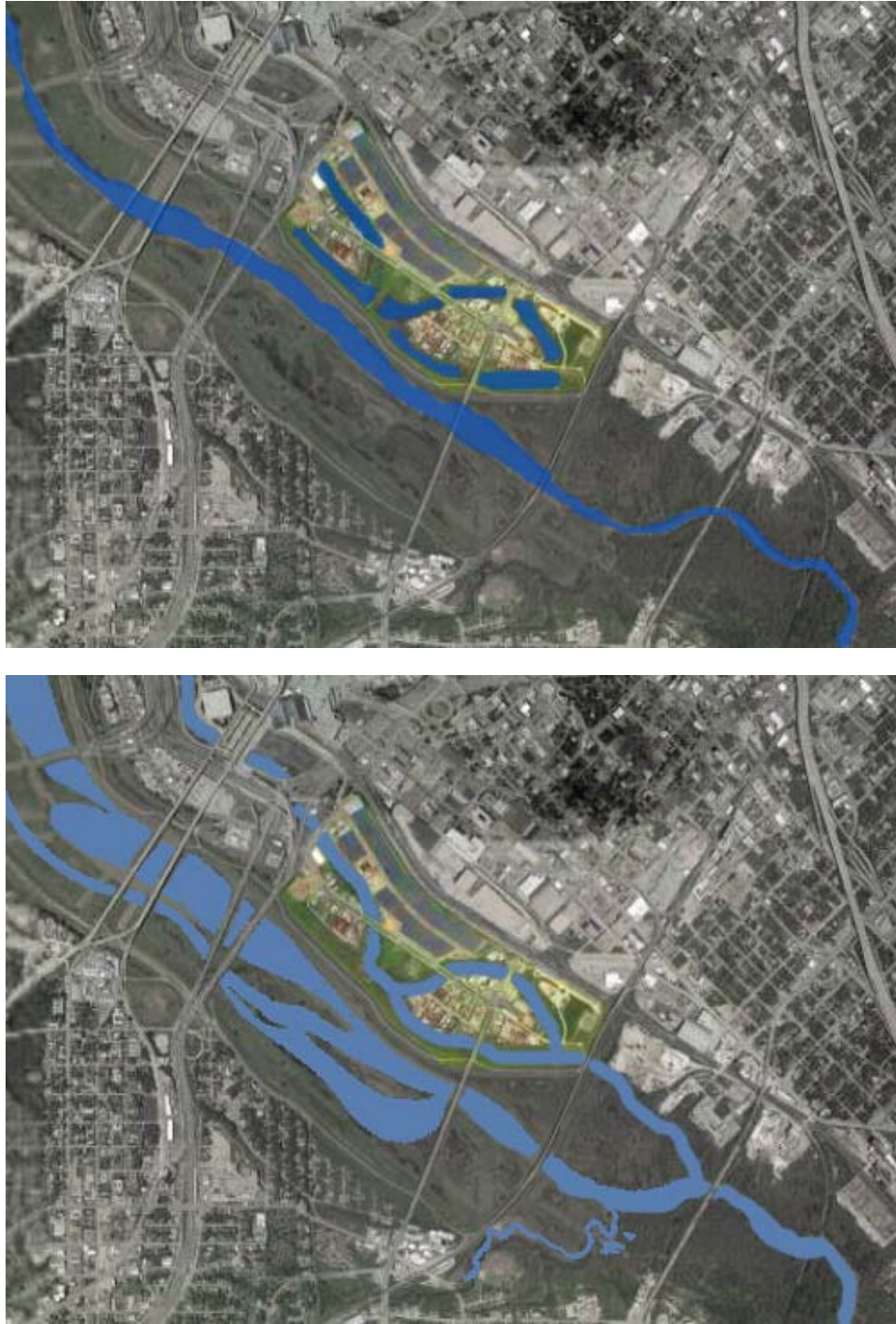


Figure 3:
These two aerial photographs show the Trinity River as it is today (above) and the projected pattern with the town lakes after the Trinity River Corridor project is completed (below). (Google Earth, enhanced)

Chapter IV:

The Site:

History

Dallas was founded in November 1841 by John Neely Bryan as 640 acres overlooking the “three forks” area of the Trinity River with the intention of creating a trading post for those attempting to cross the river, thus establishing the relationship between city and river. The city was named after James K. Polk’s Vice President George Mifflen Dallas by Texas Legislature in 1846. By 1888, the city was the most populous in the state boasting 40,000 residents and housing its first skyscraper.⁹

Dallas’ growth was largely due to the convergence of the Houston & Texas Central and the Texas & Pacific Railways.¹⁰ It became the center for shipping goods south and east as well as the last place to purchase supplies before heading west. Dallas was the main shipping point for most of the areas raw materials including grain and cotton.

John Neely Bryant had originally hoped to use the Trinity River to transport goods to and from the coast, however the venture was tried without success since the river was unpredictable and prone to flooding. The worst of which, in 1908, saw the river reach “52.6 feet deep and a mile and a half wide. Five people died, four thousand people were homeless, and property damages were estimated at \$2.5 million.”¹¹

In 1930, a three and a half year project proposed by city planner George Kessler began. The action moved the Trinity between one-half to three miles west of its original

path through the use of levees. Twenty one million cubic yards of dirt were moved to complete the project.

The Cedars neighborhood began development in the 1870's complete with Victorian Gothic mansions, a streetcar line and City Park. The area was home for much of Dallas' Jewish population. Alex and Philip Sanger of the Sanger Brothers department store chain, now known as Foley's, resided there. However, by 1890, the area was becoming increasingly more industrial and most of the residents moved out.¹²

Today The Cedars has no identity and lacks an overall plan that would bring the whole region together as a neighborhood. It is a segmented area that contains a varied mix of residential, commercial, and light-industrial uses which are scattered throughout the area as well as a large amount of vacant land.

The existing Cedars DART Station (fig. 4) sits in the shadows of the IBM Office next to an under-developed and under-used park where no pedestrian oriented businesses surround the park; therefore it remains desolate.

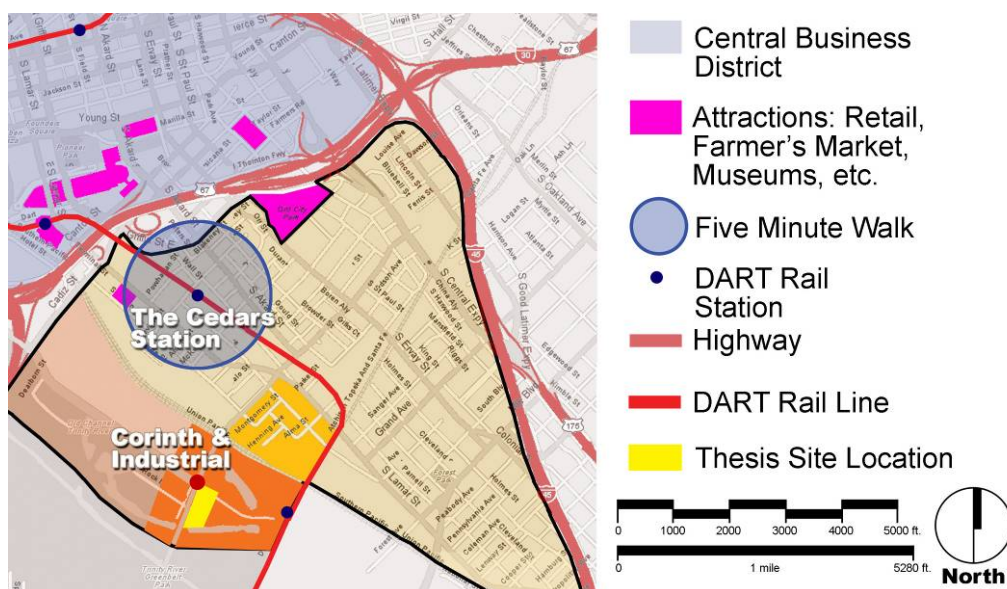


Figure 4:
A map showing the location of the existing DART Cedars Light Rail Station and its proximity to the Corinth St. and Industrial Blvd. intersection.

Location

The location of the 181-acre parcel of land near the Trinity River Corridor is surrounded by Interstate 30, Interstate 35E, the Dallas Area Rapid Transit (DART) rail and the Trinity River Levee (fig. 7). These high access boundaries make the site a prime area for a transit-oriented neighborhood that contains retail, restaurant, entertainment, residential, and office. The city of Dallas has recognized its value and has targeted the area as a primary location for re-development (fig. 8). The site, Cedars West, is adjacent to a larger neighborhood across the railroad tracks that stretch east to Interstate 45, known as the Cedars (fig. 6).

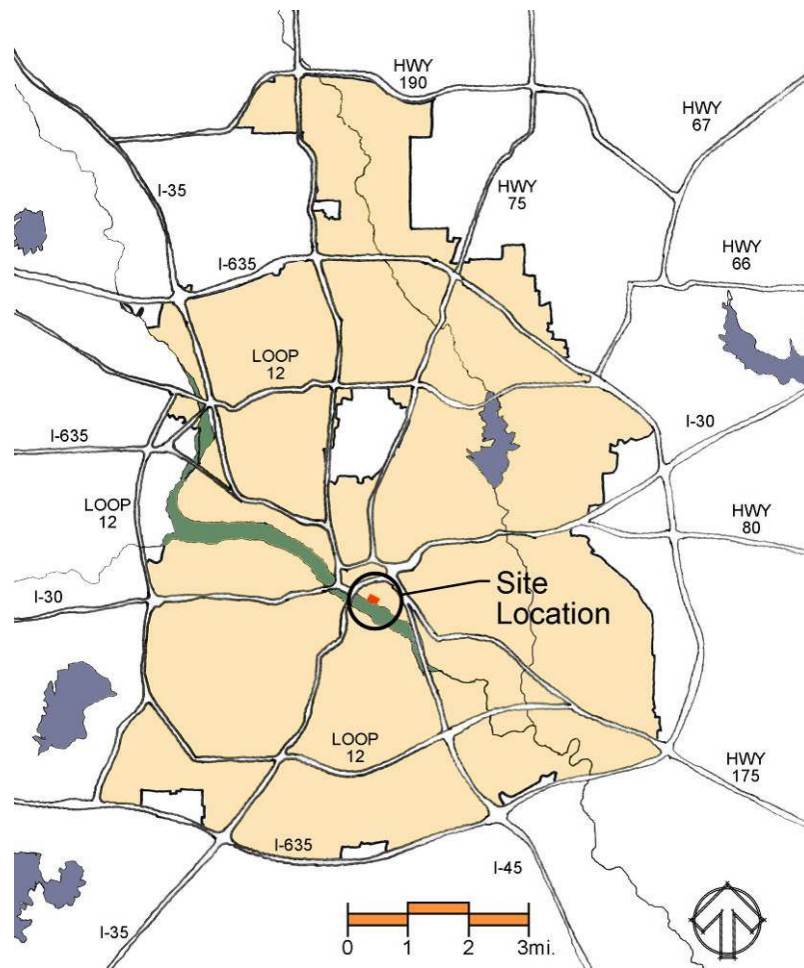


Figure 5:
A map of the city of Dallas, Texas showing the location of the thesis site.

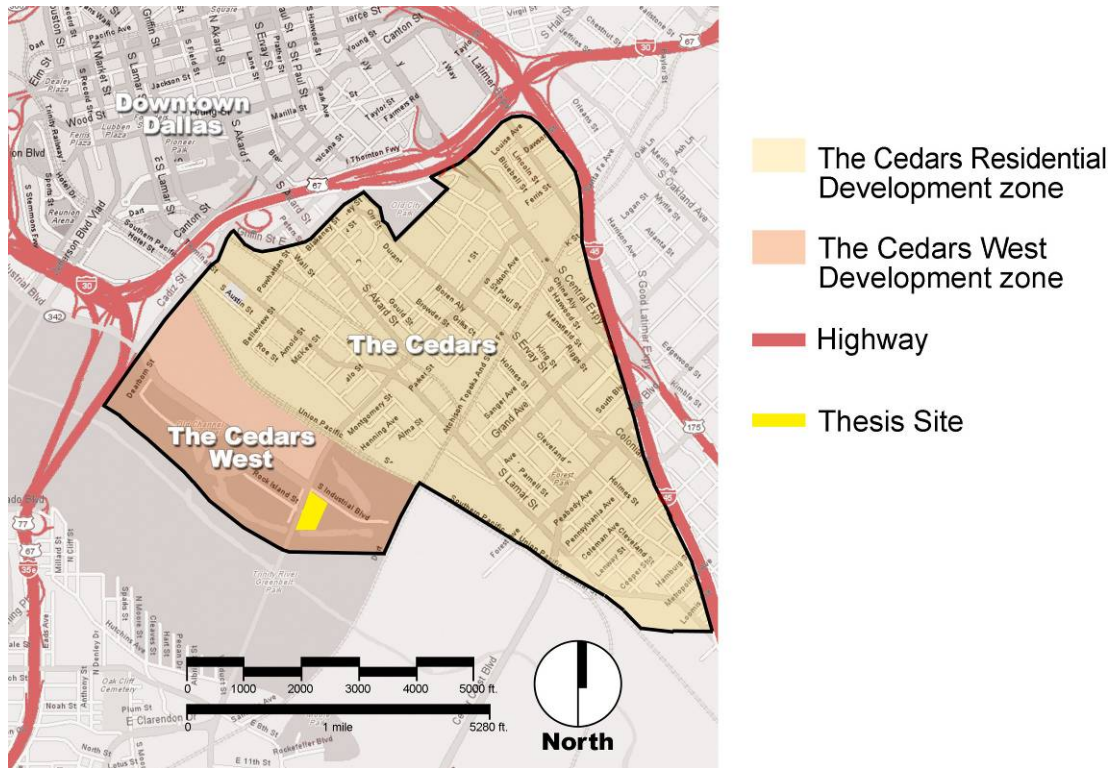


Figure 6:
A map showing the size and location of The Cedars, an industrial area south of downtown Dallas that is being slowly re-developed and has the potential to become the new “hot” residential district for Dallas. The Cedars West is shown mediating between The Cedars and the Trinity River Corridor.

This thesis suggests a master plan for the 53 acre section south of Corinth Street that gives a general idea of intent for the area and focuses on a single development adjacent the new Riverwalk. The 4.33 acre thesis site is bordered by Corinth Street, the Industrial Boulevard extension, a new residential street, and the riverwalk (fig. 6).

Tax Increment Financing Zone

The city of Dallas has declared The Cedars a Tax Increment Finance (TIF) District (fig. 7).¹³ TIF Districts are used to finance public improvements in designated areas. The improvements are used to stimulate private growth and increase property values. The resulting increases in tax revenues are funneled back into the area to finance

roads, utilities, lighting and streetscapes. The funds can also be dispersed for demolition, environment abatements, and public parking. However, the district does not extend to the Cedars West area. A proposal must be given to the City Council to enlarge the TIF district to include The Cedars West. Extension of the district to the Trinity River levee would spur additional growth for the entire Cedars region south of downtown creating a neighborhood, not just pockets of new development. Some of The Cedars is already under development with more projects to begin construction.

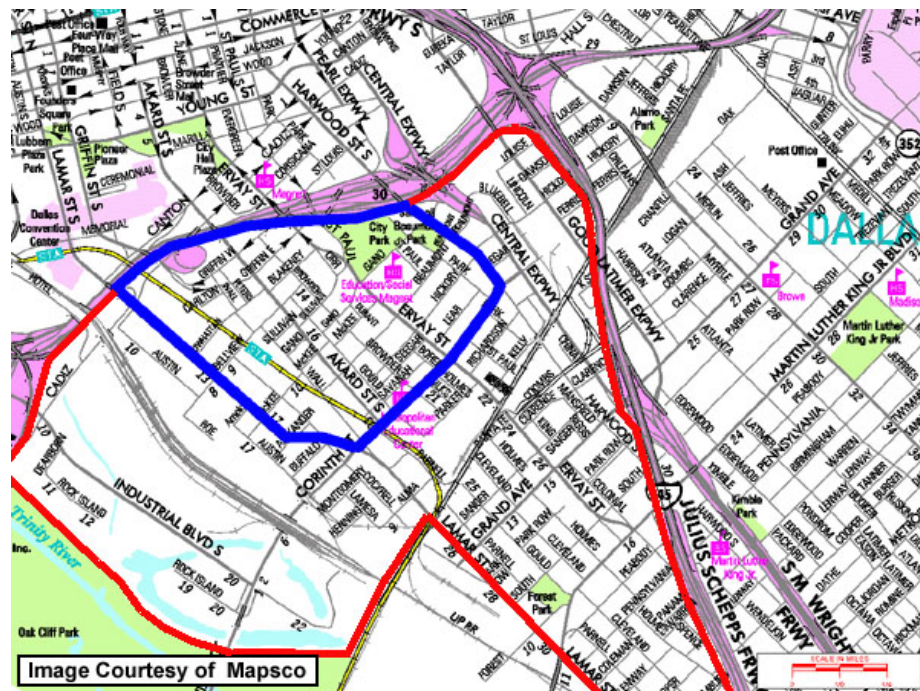


Figure 7:
A map showing the existing and a proposed Tax Increment Finance (TIF) district.

Context

The South Side Lofts inhabit the renovated Sears, Roebuck, & Co. (fig. 10-12) warehouse and distribution center which marked the beginning of revitalization in the area. The Jack Evans Police Headquarters resides in another Sears building, the former

automotive parts center, which had been in operation until 1989 (fig. 13). Both of these buildings are excellent examples of the adaptive re-use possible of the few historic buildings in The Cedars area.

The Cedars neighborhood is converted to residential with an entertainment strip located farther north on South Lamar Street which already contains Gilley's Dance Hall (fig. 9) and Poor David's Pub Bar & Grill. More restaurants and clubs are planned to provide variety and increase the impact of the area's nightlife.

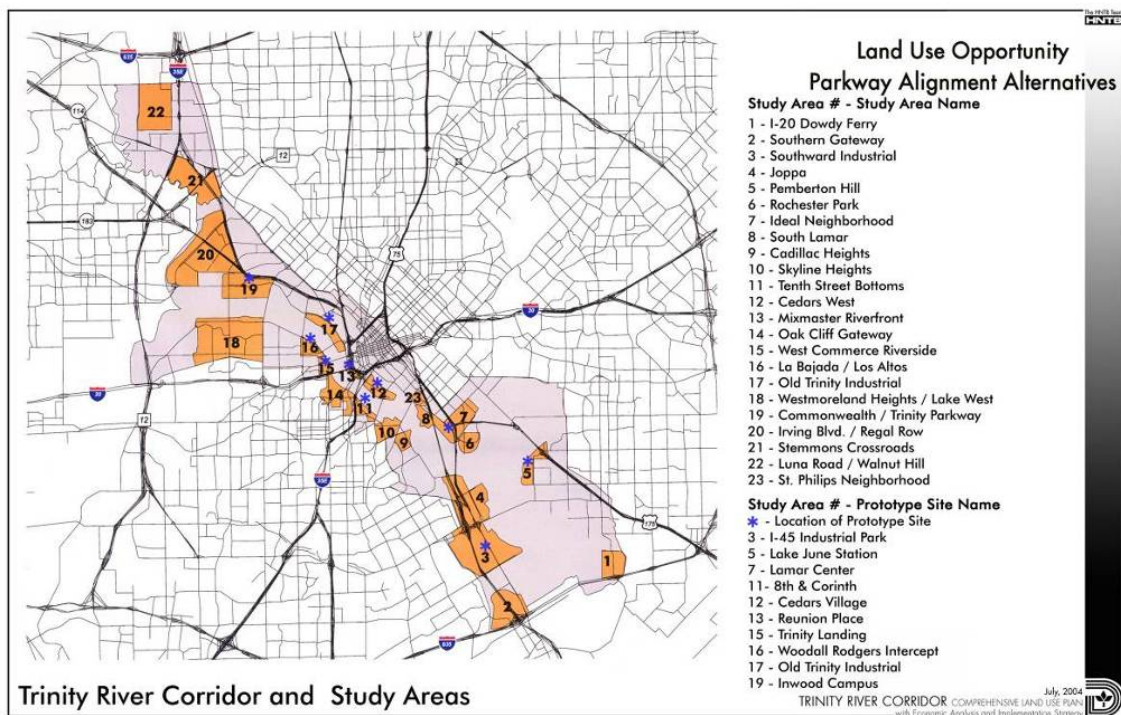


Figure 8:
Land Use Opportunity Study Areas as determined by the City of Dallas for the areas impacted by the Trinity River Corridor Project. The Cedars West Area is marked as 12 on the map and legend.
(HNTB)



Figure 9:
Gilley's dance hall as seen from South Lamar Street heading south.



Figure 10:
South Side On Lamar Lofts as seen from South Lamar Street heading south.



Figure 11:
The Old Sears Dining Hall is now vacant, but there are plans of re-opening it as a new restaurant.



Figure 12:
The Historical Sears, Roebuck, & Co. Warehouse was renovated and became loft apartments known as South Side on Lamar.



Figure 13:
The Jack Evans Dallas Police Headquarters resides in another Sears building, the old automotive parts center that had been in operation until 1989.

This thesis proposes a new development on the south side of Corinth Street to provide restaurants and retail to produce activity along a new river walk that closely follows the original path of the Trinity River that still exists on the site.

The section of the new Cedars West development which this thesis addresses is located on a parcel of land that exhibits not only a connection to the river walk but the multiple street types within the neighborhood. This thesis assumes the creation of a new station by DART on the rail line which passes along the southeast of the site in order to

increase access to the area. The new station, Trinity Creek Station (fig. 14), becomes the gateway to the neighborhood and establish a new town center linking the station to the river walks' edge.

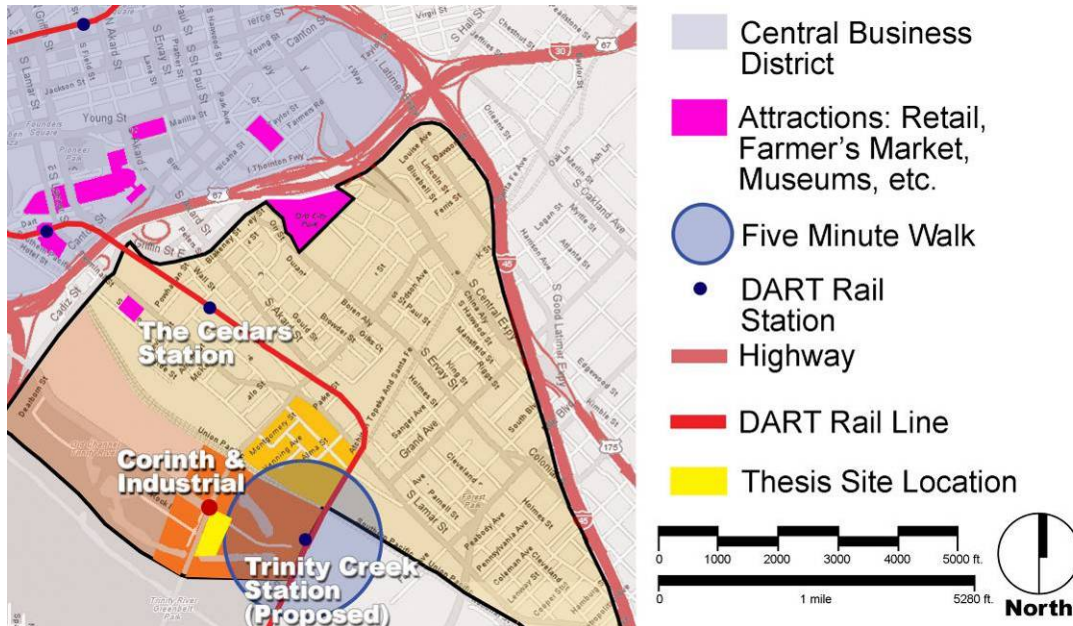


Figure 14:
This map shows the location of the proposed Trinity Creek Station. The distance to this thesis site is slightly more than the 5-min. walk distance.

The site as a whole exists today as a series of small structures scattered across the landscape and is a mix of metal scrap yards (fig.15 & 16) and liquor stores (fig. 17-19). None of the existing structures remain, creating a blank slate with which to start fresh.

This thesis discovers what is necessary to develop a thriving mixed-use development within this new neighborhood which exhibits the qualities necessary to draw both residents and visitors. It contributes to a neighborhood that becomes a major destination and a doorway to the Trinity River park system and creates a new link from the South Dallas neighborhood across the Trinity to The Cedars and Downtown Dallas.



Figure 15:
View of Mechanic's Shop on Industrial Boulevard. (Photo 1, Fig. 25)



Figure 16:
An image of metal scrap yard on Industrial Boulevard. (Photo 2, Fig. 25)



Figure 17:
A Liquor Store on Corinth Street with a scrap metal yards sign displayed above. (Photo 3, Fig. 25)



Figure 18:
An image of liquor stores on Industrial Boulevard. (Photo 4, Fig. 25)



Figure 19:
An image of some of the liquor stores on Corinth Street. (Photo 5, Fig. 25)



Figure 20:
The bridge where Corinth Street passes under the railway. After reconstruction the bridge continues to add character to the street. (Photo 6, Fig. 25)



Figure 21:
This photo was taken from the Corinth Street Viaduct. It shows the nature of the industrial neighborhood. The Dallas Central Business District can be seen in the distance. (Photo 7, Fig. 25)



Figure 22:
View of the DART Rail as it passes across the southern side of the site. The rail is raised on a bridge across the entire site as it passes across the Trinity River bed. (Photo 8, Fig. 25)



Figure 23:
View looking northwest along South Industrial Boulevard toward the intersection at Corinth Street with the levee on the left and Downtown in the distance on the right (Photo 9, Fig. 25)



Figure 24:
View looking northwest along South Industrial Boulevard toward the intersection at Corinth Street. (Photo 10, Fig. 25)



Figure 25:
This aerial photograph shows the location of each photograph above. The thesis site is shown in yellow. (Aerial from Google)

Zoning

The area Cedars West is being rezoned under the new City of Dallas Developmental Code as a MU-2 use. This designation has been created to “encourage a mixture of uses and promote innovative and energy conscious design, efficient circulation systems, the conservation of land, and the minimization of vehicular travel, density bonuses are awarded to developments that qualify as “mixed-use projects”¹⁴. The MU-2 zoning allows development of major business, employment, retail and residential centers of medium (75 units/acre with 2 use

categories) to high density (100 units/acre with 3 or more use categories) with one residential use and a minimum of one other use. The regulations call for a minimum 15 foot front yard which increases to 20 feet if the structure exceeds 45 feet. However, there is no requirement for a side or rear yard. The FAR of the site is determined by each use with a maximum of 2.25. The maximum building height is 180 ft with the maximum number of stories at 14 levels.¹⁵

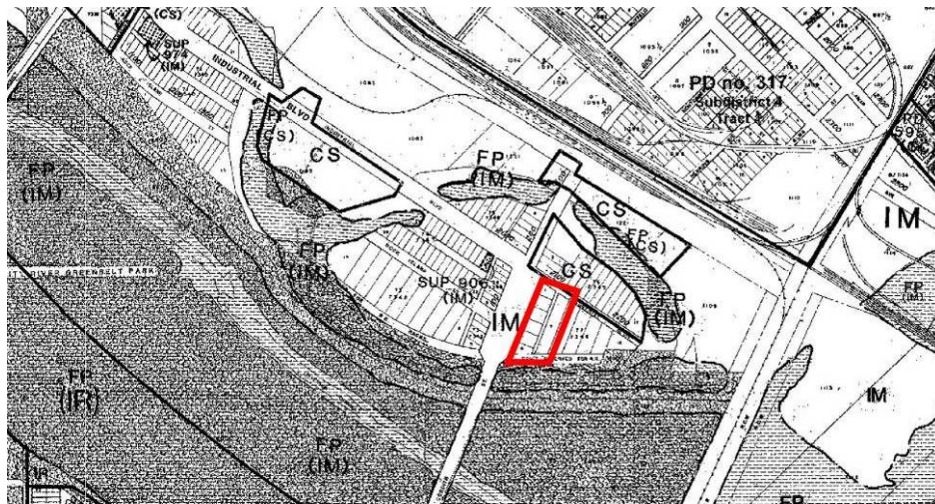


Figure 26:
Previous Zoning map reflecting the uses existing today before rezoning: IM-Industrial Manufacturing District, CS-Commercial service district, GS-General Service District. The thesis site is shown in red. (City of Dallas)

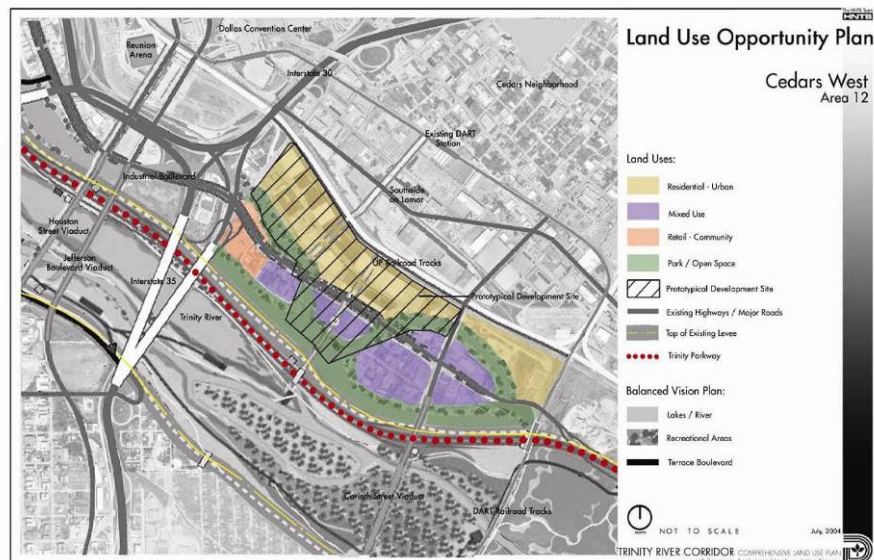


Figure 27:
The City of Dallas has targeted The Cedars West area for redevelopment and has changed the zoning to reflect that desire. (HNTB)

Access

There is lack of public transportation in the Cedars neighborhood. Only one existing DART rail stop is within a ten-minute walk of the Corinth-Industrial intersection. The Cedars station is one stop from Union Station, which links Dallas with Ft. Worth via the Trinity Railway Express (TRE). Five additional stops are scattered throughout downtown and the DART Rail continues to either Garland on the Blue Line or Richardson and Plano via the Red Line (fig. 29). Dallas Area Rapid Transit is planning two new routes; one of which connects downtown to both the Love Field and Dallas-Ft. Worth airports with the other connecting to Lewisville through Farmers Branch and Carrollton.

The new station this thesis suggests, Trinity Creek Station, adds a second station at a new retail center just more than a five-minute walk from the Corinth-Industrial intersection (fig. 32). In addition to this station, a streetcar is created similar to the line which serves the McKinney Avenue area (fig. 30 & 31). The Streetcar allows all of the residents of the Cedars district to connect to the new retail center and rail station as well as the entertainment district and the offices located in the northwestern section of the Cedars West.



Figure 28:
The Petunia. One of the many streetcars in operation on the M-line by the McKinney Avenue Transit Authority.



Figure 29:
DART Transit System Regional Map which shows the service, both existing and planned, to Dallas and its adjacent suburbs.

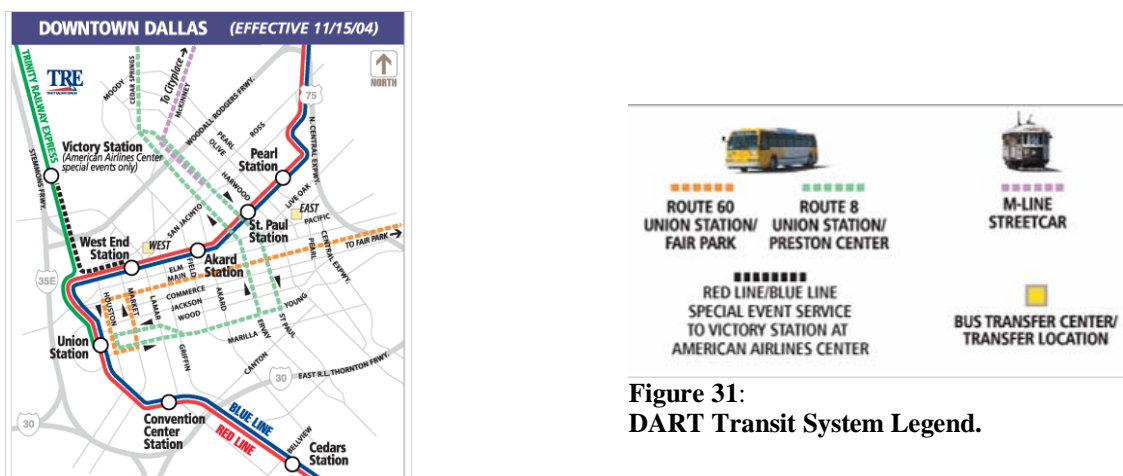


Figure 30:
DART Transit System Service Map for the
downtown area.

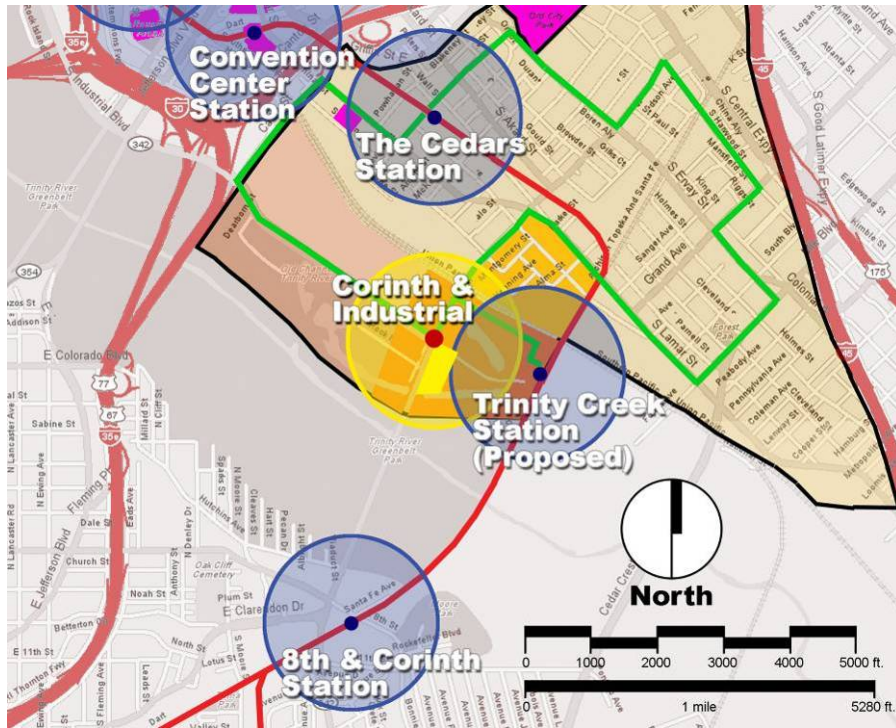


Figure 32
Map of 5 minute walks from each of the DART Rail Stations in the immediate area around the Corinth and Industrial intersection, including the new Trinity Creek Station. The new Cedars Streetcar route is shown in light green. The site considered by this thesis is in orange.

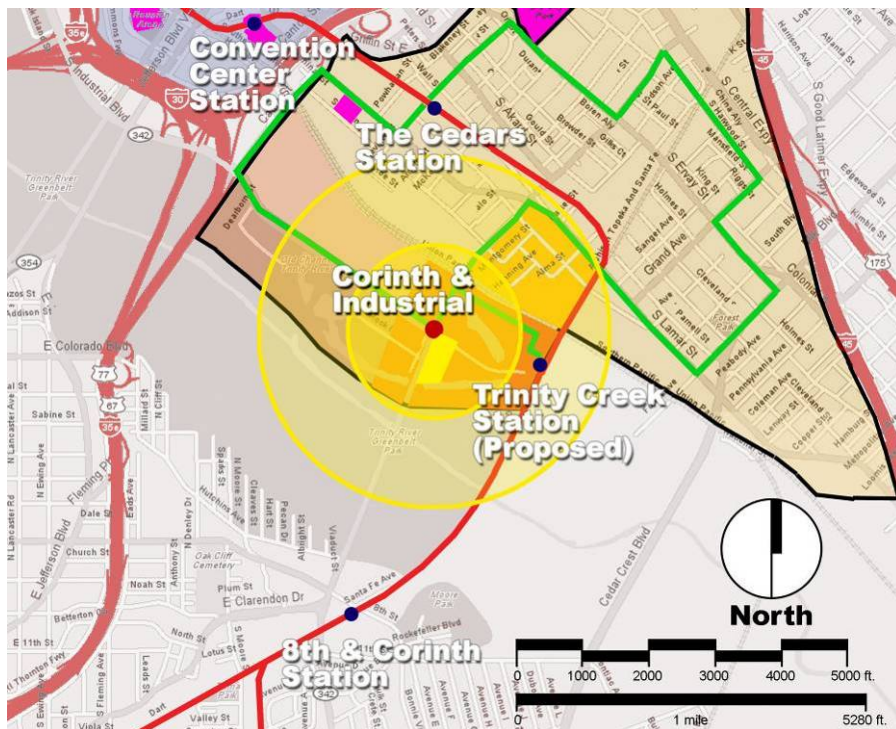


Figure 33:
Map of 5 min. and 10 min. walks from the Corinth and Industrial intersection. The new Trinity Creek DART Rail Station is shown. The new Cedars Streetcar route is shown in light green. The site considered by this thesis is in orange.

Vehicular traffic travels to the site via two routes. Local traffic arrives from downtown via Industrial Boulevard or Corinth Street by way of South Lamar. Interstate-30 and Interstate-35E gives extended access to Interstate-45 and State Hwy 75 which extends throughout the entire Metroplex and connecting visitors from around the state to downtown Dallas.

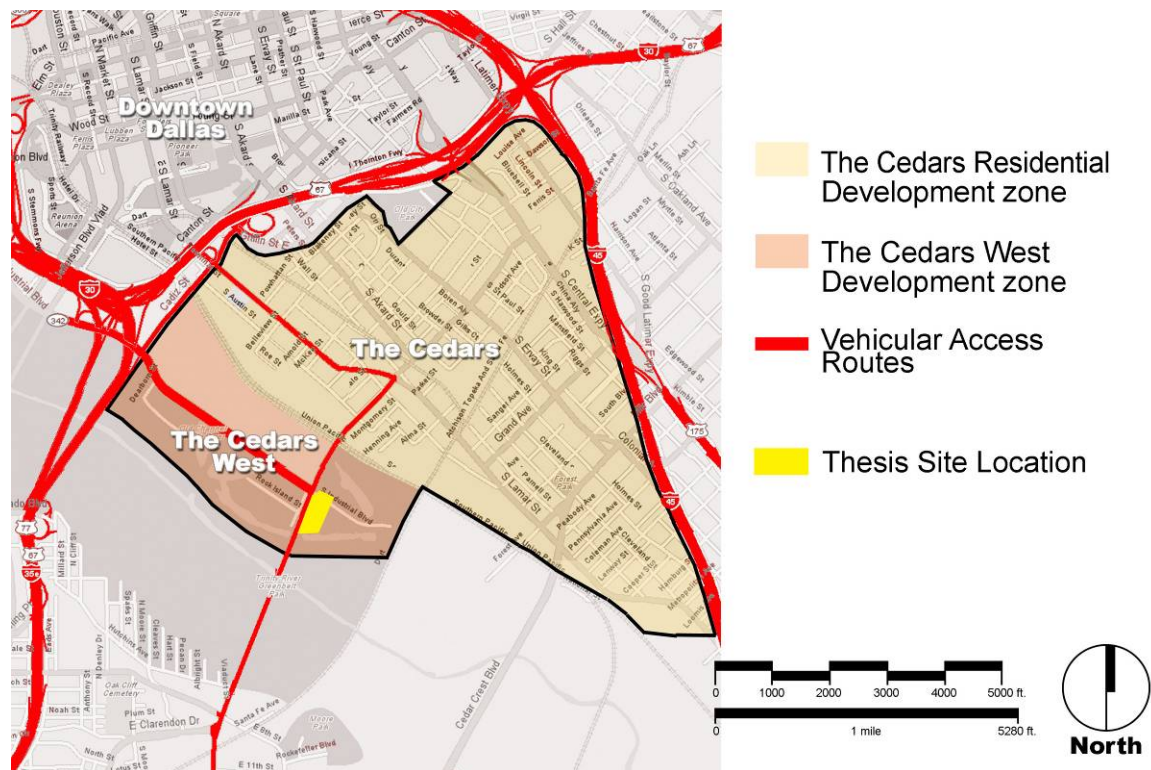


Figure 34
The Cedars West has only a few vehicular access points. However, from those few access points there is Quick access to the major freeways passing through downtown Dallas.

Climate

The Cedars West is located at 35.5 degrees latitude and 96.5 degrees longitude. The average winter temperature is 57.7 degrees, while the average summer temperature is 94.7 degrees. Annual precipitation averages 3.09 inches. Winds are range from the northwest in the winter and southeast in the summer, averaging 9.6 miles per hour. This

creates a climate for Dallas that begs its residents to be outdoors. Most days are pedestrian friendly and allow the river walk area to be inhabited all year long, with only the most drastic of cold days forcing Dallasites indoors. The extensive use of trees for shade as well as porticoes along the river helps to temper the harsh summer days which are milder than those of San Antonio to the south.

Physical Conditions

The thesis site is located within an area bordered by the Corinth Street bridge to the west, the Industrial Boulevard extension to the north, the old Trinity River Path to the south, and a new street that is set by the schematic master plan for this area and the proposed mixed-use plan. The site is 4.33 acres with a minimum elevation of 375 feet at the rivers edge to the south rising to 395 feet at the Industrial Boulevard extension on the northern edge of the property. The Corinth Street bridge rises from 395 to 430 feet and serves as the western edge of the property.

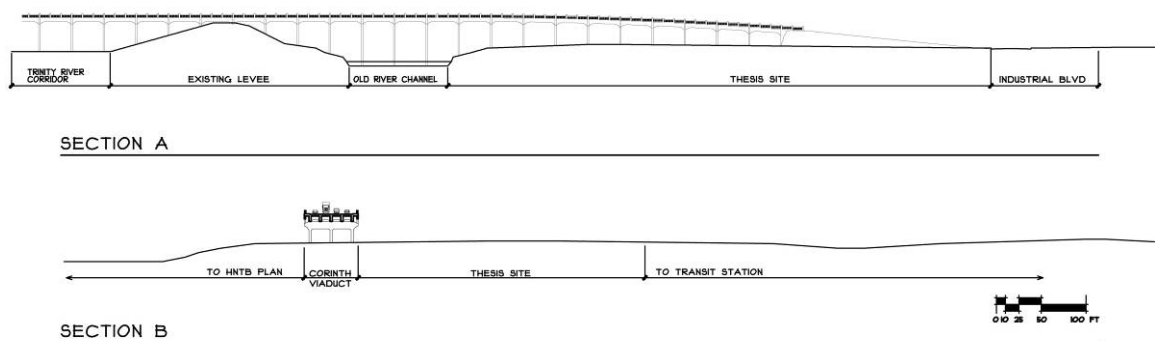


Figure 35:
These sections show the levee, the river basin, the Corinth Street bridge as well as the area of the site.
(See Figure 84 for section locations)

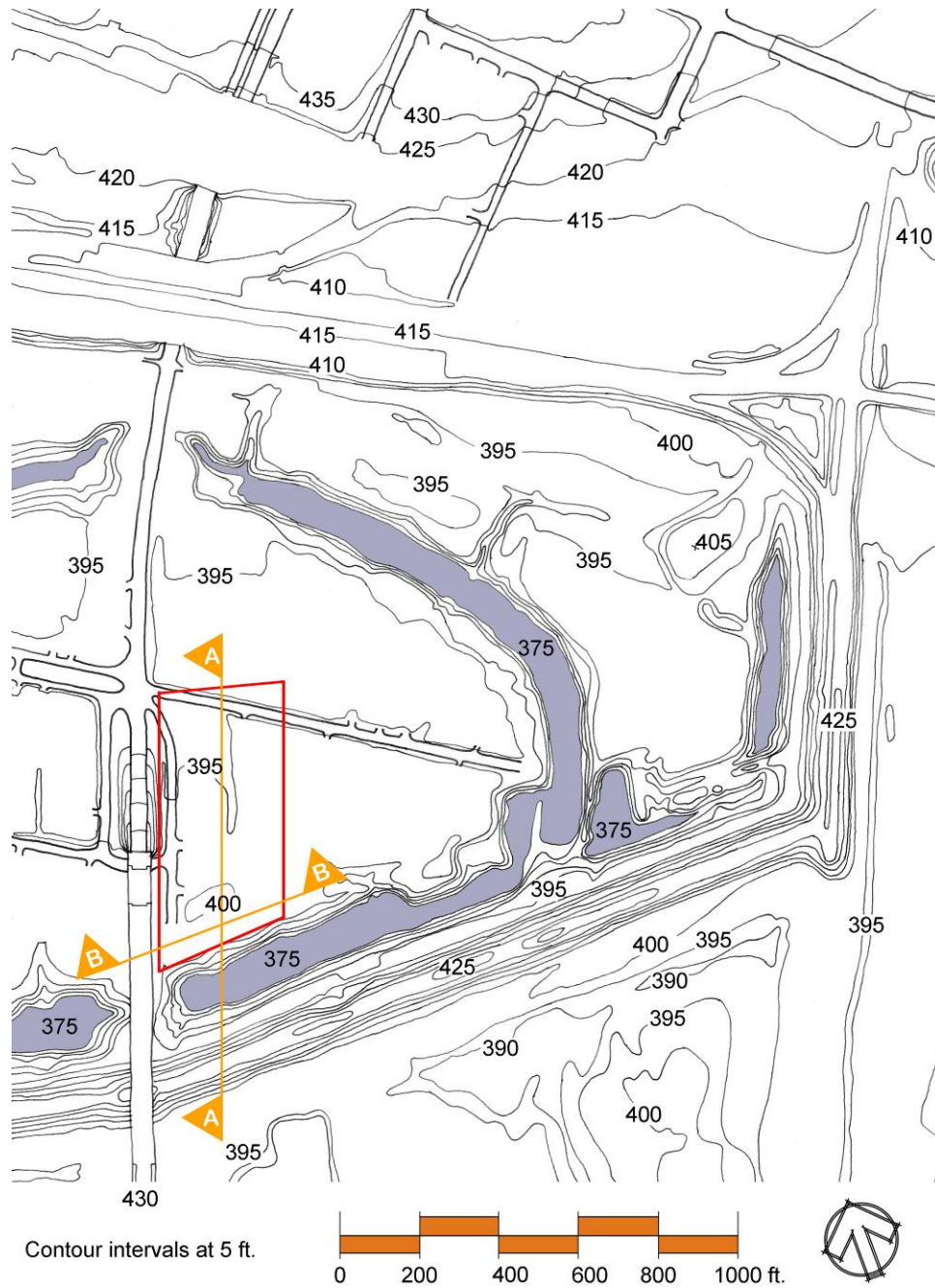


Figure 36:

The topography of the area show that though there is a great drop off around the standing water the rest of the site is essentially flat. The Corinth Street bridge, and the levee rise to approximately 425 ft.

CHAPTER IV

Detailed Program Description

The design of the building focuses on the characteristics and elements needed to provide a place that combines living, working, and spending leisure time while incorporating the ideas of a pedestrian friendly neighborhood, as well as having a connection to and creating an environment that develops the river walk into a thriving public gathering place. This thesis incorporates a percentage of affordable housing to creating a more diverse urban environment. This program tabulation determines the approximate square footages for the retail, housing and live/work portions of the complex.

Retail	50,200 s.f. approx.
--------	---------------------

Created for small independent establishments the retail provides both opportunities for local store ownership and employment for the residents of The Cedars West. The intent of the retail along the river walk is to provide space for trendy shops, restaurants, and clothing retailers, as well as other types of specialty stores that attract the casual visitor dining out or strolling along the river walk. This contributes to the activity level of the river walk and provides places to attract the tourist. These spaces range from 1,800 to 2,200 sf. Spaces for major restaurants range from 4,000 to 5,000 s.f. And, one professional office space at 5,000 sf.

Spaces along Corinth Street and the Industrial Extension are provided as live/work spaces and support services needed for both the residents and local businesses.

These spaces range in size from 1,800 to 2,000 s.f. They can contain a wide variety of businesses; from pharmacies to convenience stores, courier services, cleaners, and support business ranging from dental and personal care to lawyers, accountants, and other professional services.

Leasing Center and Offices 1,440 s.f.

There are offices in the main entrance to the rental portion of the development that manage the property and lease the apartments. This consists of a waiting area (500 sf), the manager's office (150 s.f.), two offices for supporting staff (120 s.f. each), a copy room and filing room (200 s.f.), UPS and USPS parcel storage (150 s.f.), and a Kitchen or Break Room (200 s.f.).

Residents' Center 3,140 s.f.

The residents' center is available for all residents for social gatherings among the entire complex, or may be reserved for private parties. The center includes a main room complete with a fireplace (1,800 s.f.), a kitchen and bar (240 s.f.), a business center with computer, printer and fax, as well as a media room, suitable for movie or game watching parties (400 s.f.). The restrooms (350 s.f.) are located in a way that they can be reached from both the residents' center and the fitness center.

Fitness Center 5,000 s.f.

The fitness center contains a room for exercise machines (2,500 s.f.) as well as a room for free weights (2,500 sf)

Residential

224 total units

The development provides a wide range of housing opportunities; the total number varies with each parti. Of the rental units, 20% are affordable and ranges in size from 650-1,200 s.f. Another 80% are market rate units averaging between 800-1,400 s.f. The apartment units range from one bedroom lofts to three bedroom units to provide adequate housing for a variety of family sizes.

The market for these rental units tends toward Empty Nesters and highly skilled young professionals, Echo Boomers, both of whom desire smaller one and two bedroom homes. The affordable units are designed for consumers with less income who wish to live close to work such as teachers and lower income families. The purpose of this is to increase the mix to provide a greater diversity within the development.

Open Space

1.03 acres

The courtyard open spaces give the residents a private gathering space. It provides a protected interior yard with a pool, spa, and picnic areas for both formal and informal functions as well as public space along the river walk.

Parking

450 Spaces

Traditional figures for parking are usually 1.1space per bedroom, 1 space per 100 Gross square feet of restaurant, and 1 space per 250 square feet of retail, and 4 spaces per 1,000 square feet of office space. Approximating the parking need gives us a total of 563 spaces. However, since this thesis proposes the neighborhood to be pedestrian and

alternative transit oriented, as well as shared spaces between office, residential and retail.

Therefore, this thesis proposes the figure should be reduced by 20% to 450 spaces.

Residential:

Apartments:

Market Rate:	No.	SF/Unit	SF/Unit Type	% of Total Units
1 Bedroom	100	820	82,000	44.60%
2 Bedroom	62	1,300	80,600	27.68%
3 Bedroom	<u>18</u>	1,450	<u>26,100</u>	<u>0.08%</u>
Sub-Total (Market Rate):	180		188,700	72.36%
Affordable:	No.	SF/Unit	SF/Unit Type	% of Total Units
1 Bedroom	16	600	9,600	7.14%
2 Bedroom	<u>28</u>	1,000	<u>11,500</u>	<u>12.5%</u>
Sub-Total (Affordable):	44		21,100	19.64%
Circulation and Mechanical	(@15% Gross SF)		<u>31,470</u>	
Total Apartments	224		241,270	

Amenities:

Fitness Center:

Weight Room	2,500 sf
Fitness Rooms	<u>2,500 sf</u>

Total Fitness Area

5,000 sf

Resident Center:

Reading/Socializing Room w/ Fireplace	1,800 sf
Kitchen/Bar	240 sf
Media Room	400 sf
Business Center	350 sf
Restrooms	<u>350 sf</u>

Total Resident Center Area

3,140 sf

Leasing Center:

Manager's Office	150 sf
Secondary Leasing	120 sf
Secondary Leasing	120 sf
Waiting Area	500 sf
Kitchen/Break Room	200 sf
Copy Center/Filing	200 sf
UPS/USPS Parcel Storage	<u>150 sf</u>

Total Leasing Center

1,440 sf

Retail/Restaurant:	
Retail	17,200_sf
Restaurant	<u>9,000 sf</u>
Total Retail Area	26,200 sf
Office:	5,000 sf
Live/Work Office:	19,000 sf
Parking:	
Residential (1.1 per bedroom)	385
Retail (1 per 250 sf)	68
Restaurant (1 per 100 sf)	90
Office (4 per 1000 sf)	<u>20</u>
Total Parking required:	563
Less 20%	<u>113</u>
Total Parking Proposed	450
Total Gross Building Area:	
Residential	241,270 sf
Amenities	9,580 sf
Retail/Restaurant	26,200 sf
Office	5,000 sf
Live/Work	<u>19,000 sf</u>
Total Gross Building Area	303,150 sf

Chapter V

Precedent Analysis

Mockingbird Station

Dallas, Texas

RTKL Associates, Inc.

1996

“Cocked a little to the left – a sanitized version of hip,”¹⁶ Mockingbird Station has set the bar for all future Dallas Transit Oriented Developments.

One of the development’s assets is also one of its drawbacks, too much parking even for the auto-oriented culture of Dallas. Though developer Ken Hughes argued for less parking due to the “Park & Ride” lot adjacent, there is still too much parking for the complex. The city of Dallas relieved some of the parking requirements by allowing a reduction in parking from 2,200 spaces required to 1,600 that have been provided; still not the 1,300 number for which Hughes had hoped. The development’s two main buildings are divided by parking for 150 cars (figs. 4,



Figure 37:
A view of the parking between the two main buildings. (See photo 1, Figure 20 for location)

8 & 21) which leaves little public gathering space and too little landscaping (fig. 37 & 41).

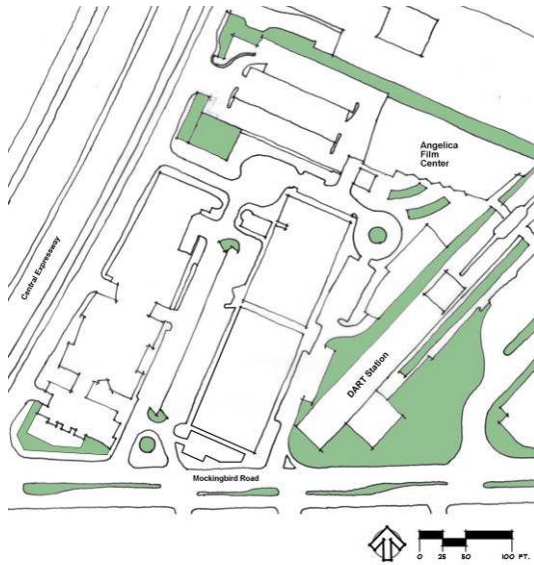


Figure 38:
This plan show the proportion of green space provided for the user of the space.

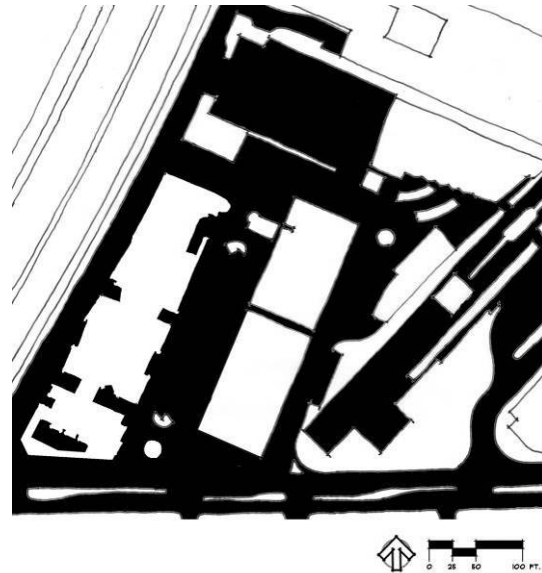


Figure 39:
This plan show the proportion of paving that surrounds the complex.

An underground parking garage relieves some of the topside parking with access just outside the theater or access at the other end of the neighboring building, however, both reside at the edges of the complex making parking areas inconvenient for stop and shop activities.

Another deficiency of Mockingbird Station is not addressing the neighborhood around it. The development is focused inward (fig. 40). True, it is bordered on one side by Central Expressway and therefore turns its back to the busy highway and it is buffered on the other by the DART Park & Ride Lot; however, there is no aesthetic value to the viewer from the outside. The complex attempts to address Mockingbird Lane to the south with an outdoor café and facades which present themselves to the street, making it the only inviting pedestrian access point. Even the access from the DART station gives the impression of entering from the back of the complex as the facades are focused toward the vehicular entry areas.

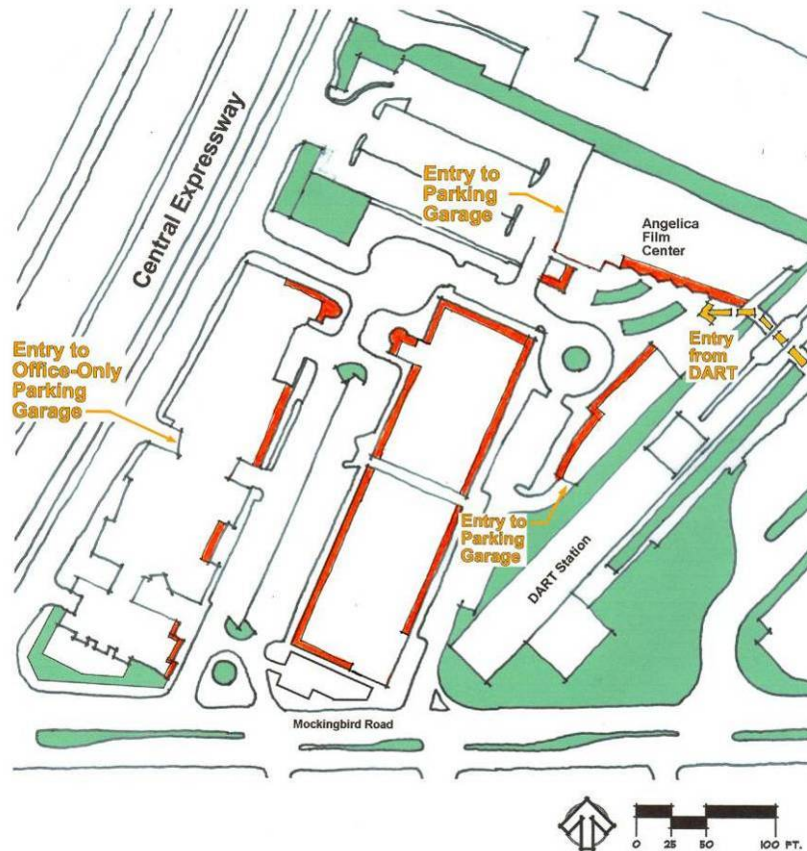


Figure 40:

This diagram shows the retail frontages that are focused toward the pedestrian. None are directed towards Central Expressway and little area is available to either Mockingbird Road or the escalator platform from the DART Station. Also shown, there are two entrances to the public parking garage beneath the Angelika Film Center as well as an entry to the parking garage for the office building which requires a traffic officer during rush hours.



Figure 41:

Aerial view of Mockingbird Lane façade facing south. The DART Station can be seen on the right.

(photo: Tim Street-Porter)



Figure 42:

An aerial view across the DART Park & Ride with Southern Methodist University in the background.

(photo: Tim Street-Porter)



Figure 43:
An aerial view looking north with the DART Station to the right. (photo: Tim Street-Porter)



Figure 44:
A view toward main Loft Building from the steps in front of the Angelika Theater. (See photo 2, figure 20 for location)



Figure 45:
An view of the approach to the DART Station from the Park & Ride parking lot walk. (See photo 3, Figure 20 for location)



Figure 46:
A view into the DART below grade boarding area. (See photo 4, Figure 20 for location)



Figure 47:
A view back toward the escalator and crosswalk from the boarding area. (See photo 5, Figure 20 for location)

Mockingbird Station can be either the beginning of your trip or your destination. DART's Park & Ride allows for the complex to be multi-modal. Patrons can park at the station, use the "Kiss and Ride" drop-off or arrive by bus and take the train to reach many other destinations in Dallas, including Downtown in only eight minutes time, or they can arrive at Mockingbird Station from many other points throughout the area including the

suburbs of Garland, Richardson and Plano with service expanding to Love Field Airport, Farmers Branch and Carrollton in 2010, as well as Irving and Las Colinas in 2011 and Dallas Ft. Worth Airport in 2013.¹⁷ (See fig. 29)



Figure 48:
A view of the Angelika Theater with the DART Station beyond. (See photo 6, figure 20 for location)



Figure 49:
The approach to the Angelika Theater from the DART Station to the east. (See photo 7, figure 20 for location)



Figure 50:
A view of the steps leading from the Angelika Theater down to the main retail area. (See photo 8, figure 20 for location)



Figure 51:
A view of the parking area between the western most building and the residential block from the vehicular access of Hwy-75. Virgin Records occupies the corner anchor location to the right. (See photo 9, figure 20 for location)

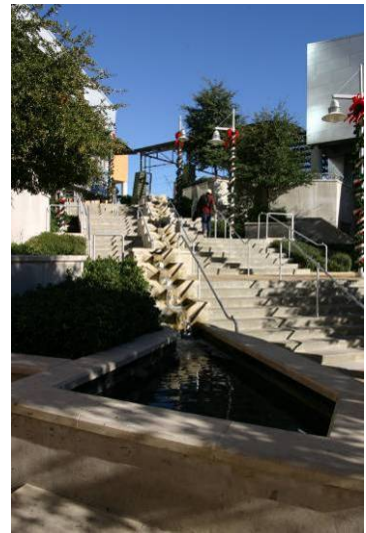


Figure 52:
A view of the steps leading to the Angelika Theater and the DART Station from the main retail area. (See photo 10, figure 20 for location)

Mockingbird Station combines 211 loft style apartments, 150,000 square feet of office, and 183,000 square feet of retail.¹⁸ The major draw is the Angelika Theater Complex (figs. 48 & 49) which can host 1,200 patrons on a weekend night, in addition to restaurants such as Café Express, Rockfish Grill, and Margarita Ranch, among others. Virgin Records (fig. 51), Ann Taylor Lofts, the Gap and the ever-present Starbuck's Coffeehouse round out the other attractions that total 90 retail shops and 8 dining establishments.



Figure 53:
A map of Mockingbird Station showing locations of the photographs above.

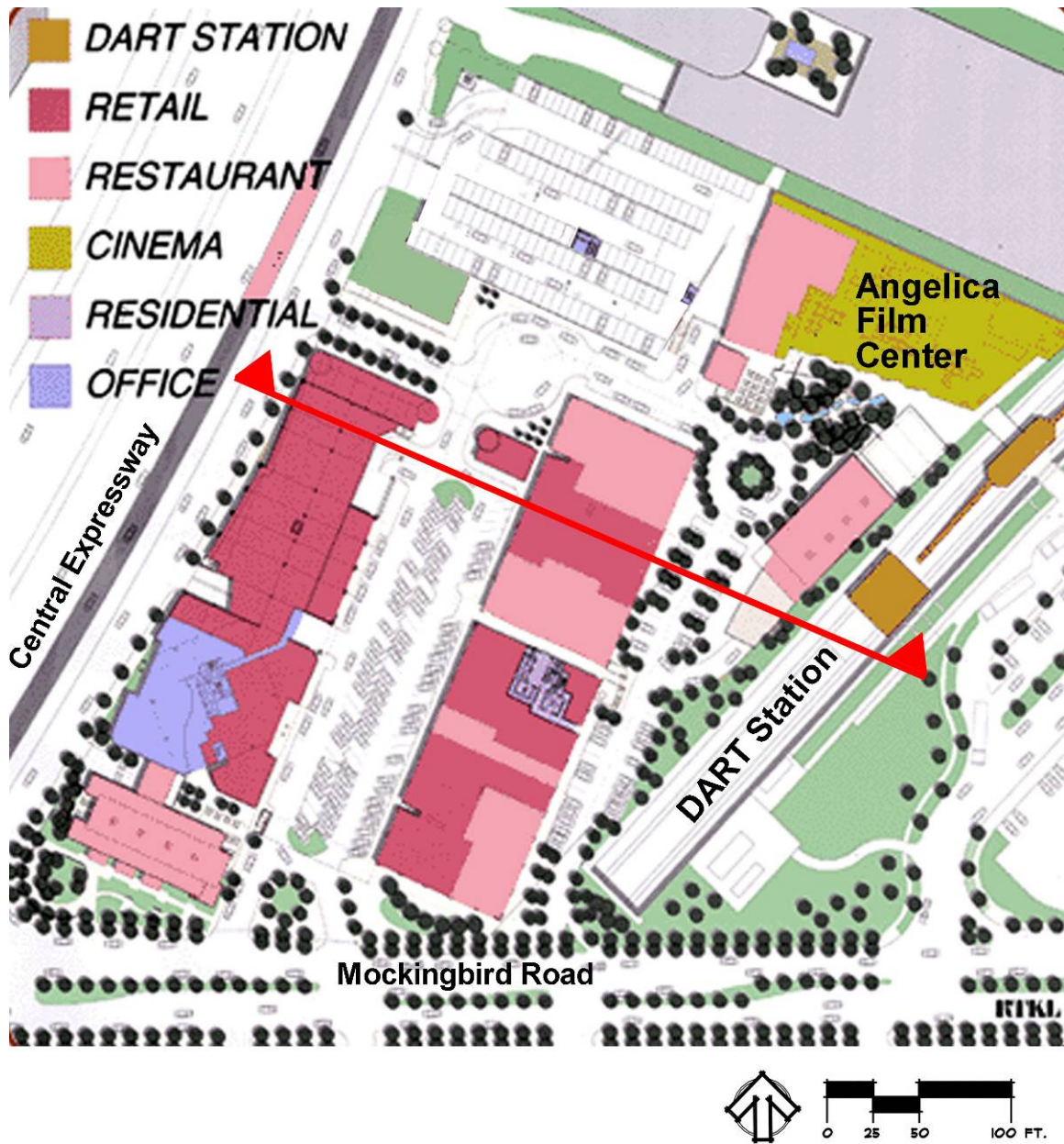


Figure 54:
Plan of Mockingbird Station and the mix of uses contained within the buildings. (See figure 22 for section.) (RTKL, Associates Inc)

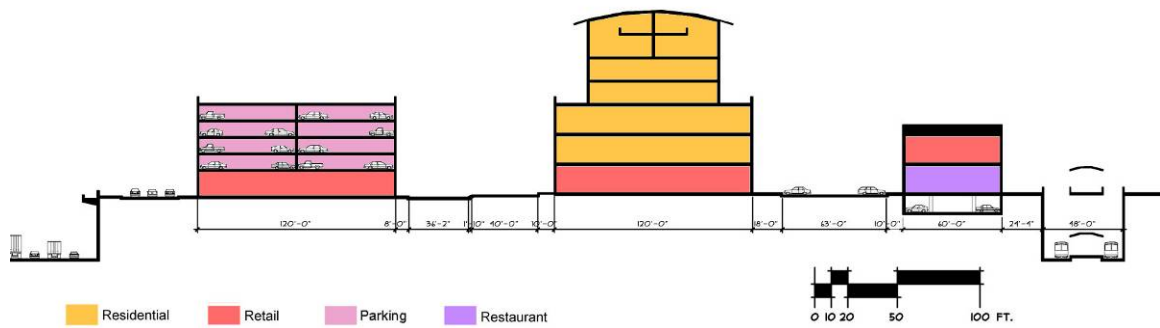


Figure 55:

This section through the complex shows the multi level parking garage above ground in the left side with an underground parking garage on the right side. Surface parking is sandwiched between the buildings leaving little room for public space. (See figure 21 for section location).

Nearby, the improvements to Mockingbird Lane allow less than five minute walks to Kroger and Tom Thumb Grocery Stores, a CVS Pharmacy, La Madeline, Campisi's Egyptian Restaurant, Southern Methodist University and numerous other stores and restaurants.

As a precedent for this thesis, the aspect that makes it viable is the high percentage of restaurant facilities and the cinema. The presence of Café Express, Rockfish Grille, Margarita Ranch, Starbucks and varies other small café's and pubs make up 58% of the retail space which maintains a high activity level to provide browsers for the smaller shops as well as the key players: Virgin Records, the Gap, and Urban Outfitters. Each of these anchor stores are geared to the local population, the students at Southern Methodist University, while the restaurants are more frequented by the thirty-something professionals creating a variety of patrons for the complex. Also, the lack of public gathering space and landscaping are addressed in the river walk area of the thesis proposal.

Paseo del Rio (The San Antonio River Walk)

San Antonio, Texas

Robert H. Hugman

1939-41

Deep in the heart of San Antonio there is a river that owes its importance not to commercial shipping or industrial might, but to an “ambience rarely found along metropolitan rivers, a linear paradise created by an intimate River Walk twenty feet below street level along a shaded, meandering stream which in other parts of the country might be considered a creek”.¹⁹ The San Antonio River Walk began its long history of improvements in 1887 as a river beautification project. As early as 1912, multiple bridge designs and a system of shops and restaurants were proposed as a master plan by a local architect. Multiple floods over the previous nine years prompted city planners to take action and a cutoff channel (fig. 56) was proposed to alleviate the problem. A plan to drain and pave the channel was rejected in the 1920’s. However, it was not until 1929 when Robert Hugman began a plan for a winding river with elaborate walkways and bustling restaurant and retail centers that the local conservation society began to take notice. However, the desire to create a comprehensive plan for the city drove the City Council toward a well known planner, Harland Bartholomew, who proposed paving over the flood control channel while leaving the river channel as a natural park area (fig. 56 & 57). The idea was tabled during the depression while Bartholomew’s firm produced a 400-page study admitting the need to keep the waterway but recommending the retail be kept at city level. However, after an outpouring of spectators at a river parade in 1936 convinced the city council that there was enough interest in a public use of the river. In 1938, Hugman’s plan was re-instituted and progressed even after his dismissal in 1940.²⁰

In 1969 the independent nonprofit corporation, the Paseo del Rio Association, was established to promote the area. Under their watch the river walk has continued to improve with many new shops and restaurants, and in the late 1980s, the Rivercenter Mall was built beside the convention complex.²¹

As Hugman envisioned, the river walk is a narrow pedestrian path below the level of the street creating a shopping and entertainment district without the existence of the automobile. It is the quintessential walkable neighborhood. This section of the river winds through downtown allowing for many access points from above. This allows for quick lunch time trips from downtown offices.

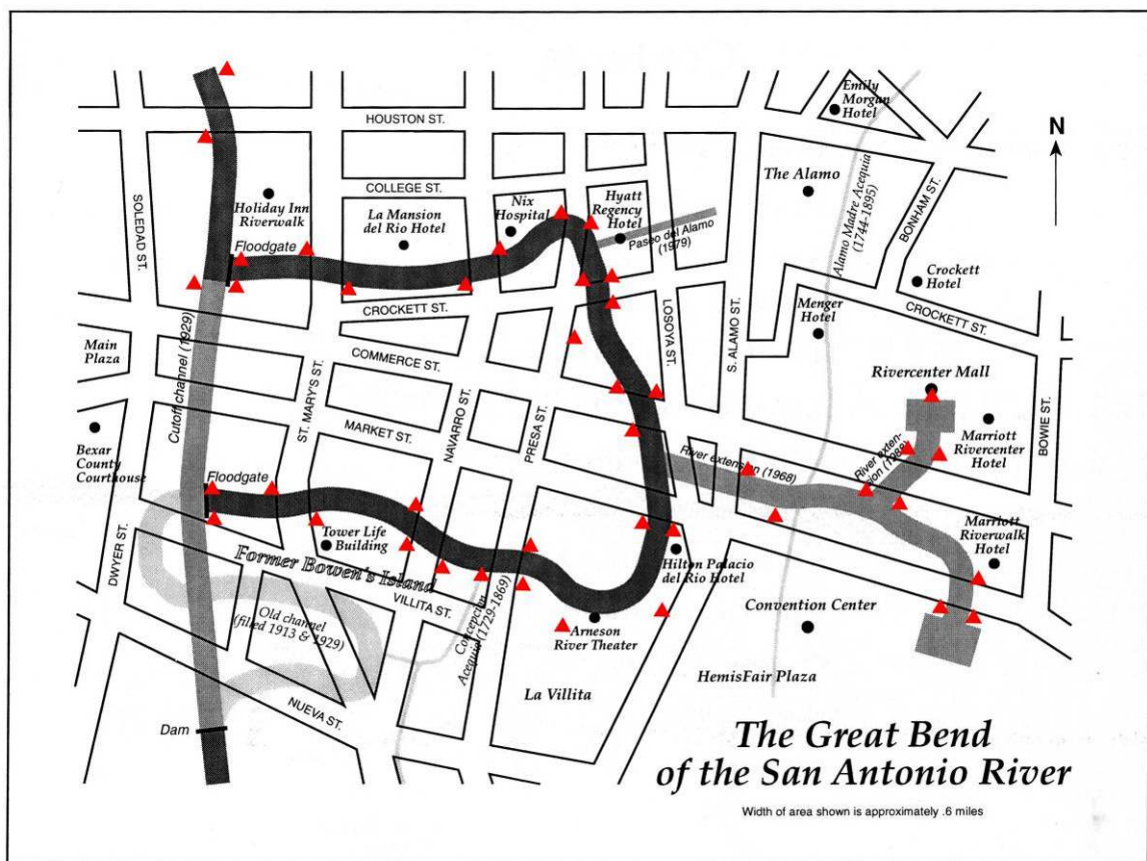


Figure 56:
Map of the Paseo del Rio (San Antonio River Walk) with river walk access points in red. This image shows the path of the Paseo del Rio today in the darkest gray. The Cutoff Channel (circa 1929) is shown in the medium gray, as well as the Marriott River Extension (1968 & 1988). The older channel that ran past where the river runs today, which was filled in 1913 and 1929, is shown in the lightest grey. (Lewis F. Fisher)

The twenty foot drop from street level allows the Riverwalk to be a secluded area away from the bustling urban life above, allowing for a reduction in the noise and increased safety from the vehicular oriented street life. Multiple access points (fig. 56) allow the patron ease of access at almost any point along the river or from the offices and hotels above. Surface and structured parking sprinkled throughout the downtown area provides ample parking for the patron as well.



Figure 57:
View from the Commerce Street bridge and looking north over the natural river edge created by Harold Bartholomew; A quiet contrast to the river walk of today.

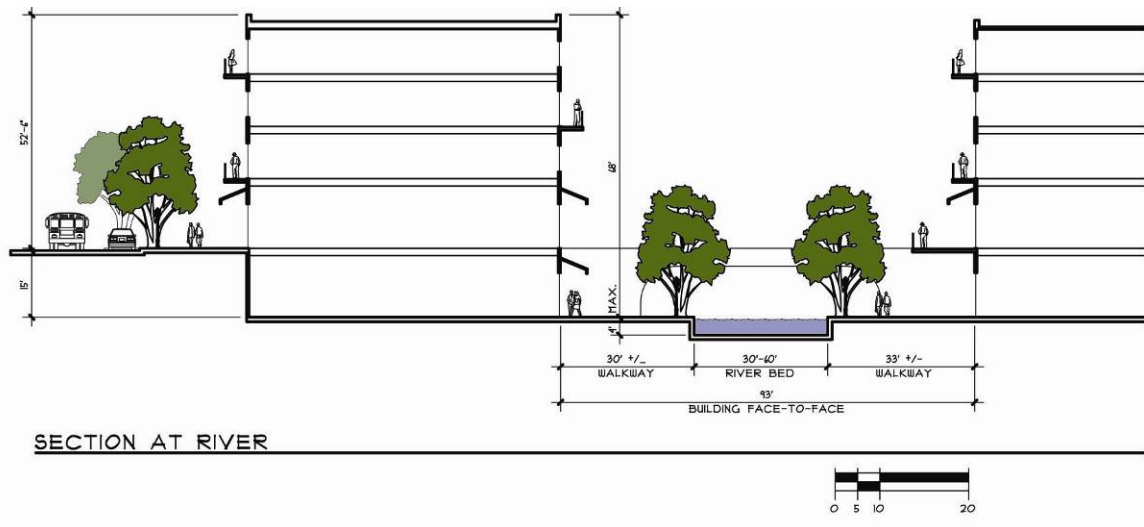


Figure 58:
A section of the Paseo del Rio (above) showing the intimacy of the width within the river walk.



Figure 59:
View of the River Walk with apartment building rising above.



Figure 60:
View of the River Walk pedestrian way. The wide restaurant frontage allows for seating on either side of the walk with a set of tables (one or two deep) lining the rivers edge.



Figure 61:
View of the River Walk with a set tables lining the rivers edge.



Figure 62:
An image of serenity below the fast paced Urban Downtown.



Figure 63:
Here a water taxi tour boards at the edge of the pedestrian walk.

The mix of uses and architectural styles provides visual interest. The cafes spilling across the walkway provide vitality (fig. 60 & 61). The buildings and tall oaks provide a sense of intimacy. The width of the river imparts a feeling that the vehicular main street of the same width does not, a visual delight with a sense of safety, and though sometimes the bridges are too widely spaced, the hindrance of not being able to cross the river is tempered by the ambience. Together these aspects create an atmosphere that continues to attract people to the area day and night.



Figure 64:
An image of a place of serenity below the fast paced Urban Downtown.

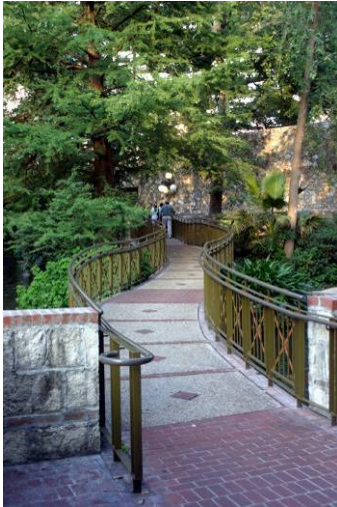


Figure 65:
A view of the design elements against heavy and varied landscaping.



Figure 66:
Pedestrian crossing between second floor retail spaces adding access as well as visual interest.



Figure 67:
The termination of a tributary at the River Center Mall shows the edge of a man-made island and viewing podium.



Figure 68:
An image of the San Antonio Convention Center that fronts the River Walk area.

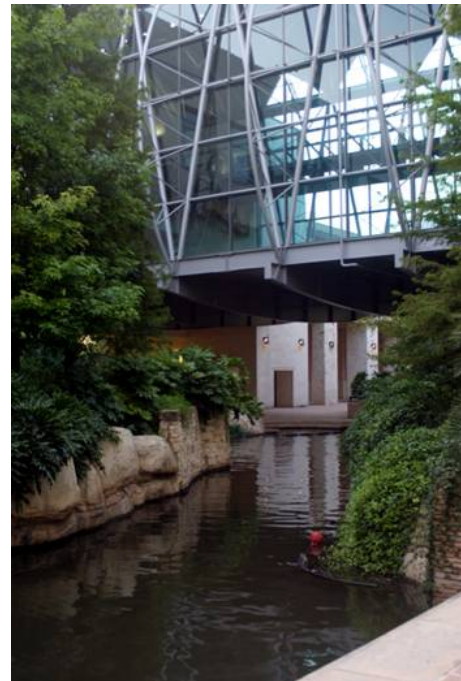


Figure 69:
An image of a place of serenity below the fast paced Urban Downtown with a pedestrian bridge crossing overhead.

The water level is maintained by a series of gates (fig. 70 & 71) that shut off the Paseo del Rio from the onslaught of floodwaters, which are regulated through the cutoff

channel (fig. 56) that prevents flooding in the river walk area, protecting the area from flood damage.

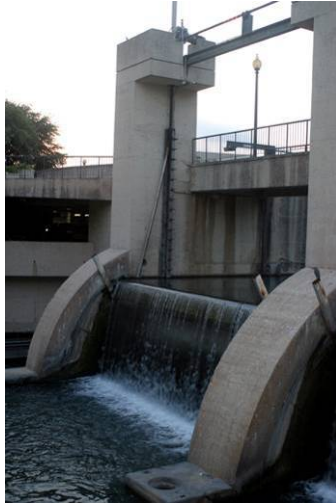


Figure 70:
Flood control gates that maintain the water level in the Paseo del Rio, minimizing flood damage to the retail and restaurant establishments at the waters edge.



Figure 71:
View of steel doors that shut during flood stage to protect the Paseo del Rio from flood damage.

The area is maintained by the city's parks and recreation department with an annual budget of nearly \$2.5 million. More than 600,000 pounds of trash is hauled off annually, and park workers replace around 80,000 plants each year. Nearly one million people ride the barges each year, and some \$800 million dollars in tourist revenue is generated annually.²² The historic mission style aesthetic of the architecture and detailing give the Riverwalk a charm that is unmatched anywhere in the United States. It gives the opportunity to float down the river taking in the scene with a charm that brings visitors from around the world.

The Highlands of Lombard

Lombard, Illinois
BGO Architects, Inc.
1998

The Highlands of Lombard, Illinois is a high density development in a suburb of Chicago. The project had the unique challenge of a 35 ft. change in elevation across the site. The plan uses a combination of terracing its levels (fig. 73) so that the building never reaches more than five stories but from top to bottom totals seven levels. The building surrounds a seven story parking garage (Figs. 72 & 74) that is completely enclosed in order that it is concealed from the exterior view. This allows direct access from the parking garage to all living levels (fig. 75).

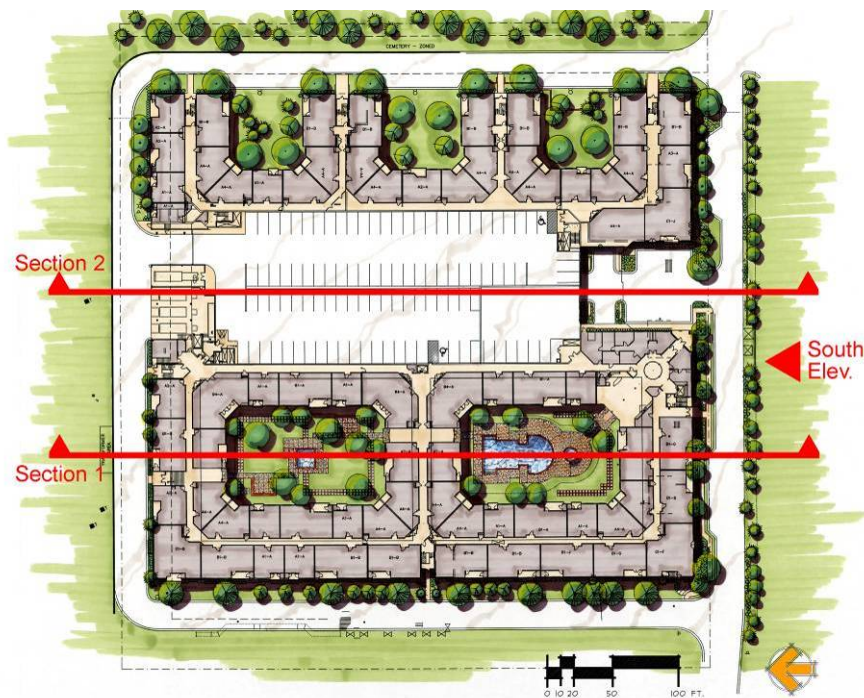


Figure 72:

The building plan shows the plan organization around the central parking structure. The highest point of the site is in the upper right corner with the lowest in the lower left. There are two inner courtyards that allow for two spaces of different character: one with a pool for outdoor recreation and the other a fountain for contemplation. See figure 41 for sections. (Author's diagram)

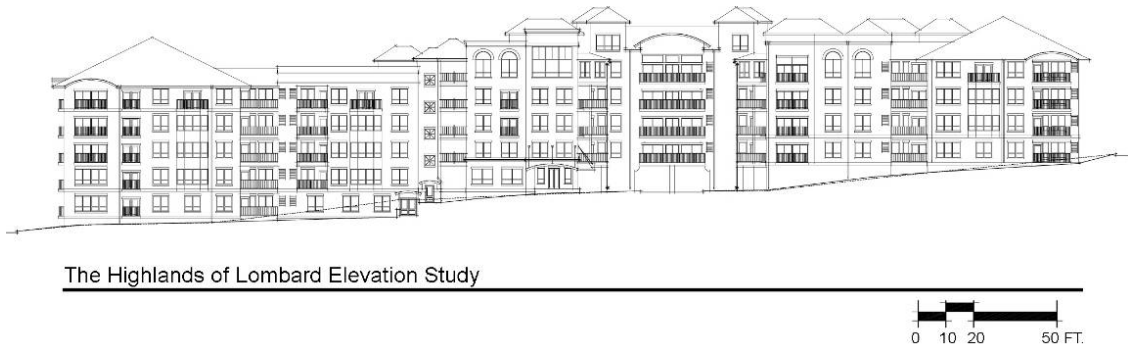


Figure 73:
The south elevation of The Highlands (see fig. 72). The façade was broken into varying segments in an attempt to mediate the impact on the neighborhood. (BGO Architects)

The size of the project, encompassing a full block, and its impact on the neighborhood was mediated by treatment of the façade (fig. 73) that breaks it visually into what appears to be multiple buildings. The density of the project reaches 81 units/acre with a total of 403 units on 4.98 acres. The average unit size is 1,241 square feet. The 175,000 square foot parking structure was built with pre-cast units that allowed a faster construction time than poured in place concrete.

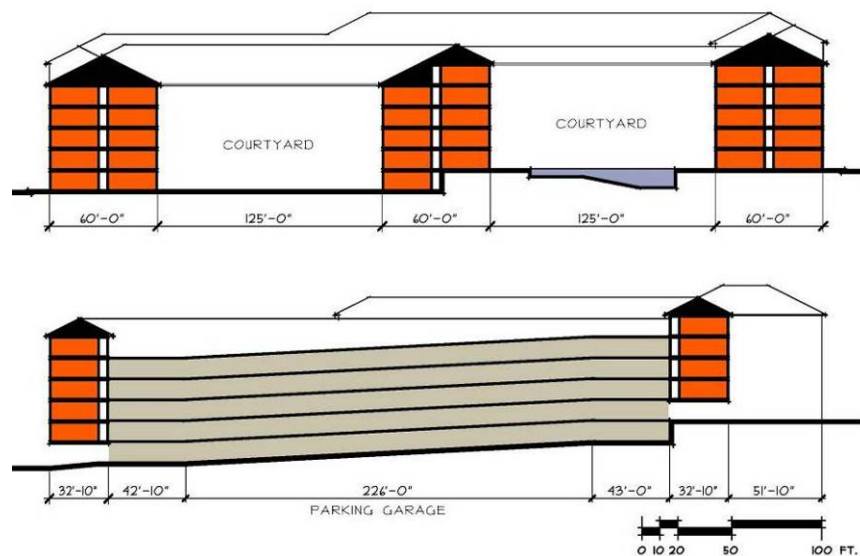


Figure 74:
These north-south sections through the building display the size of the interior courtyards as well as the concealed parking garage. See Figure 40 for section locations. (Author's diagram)

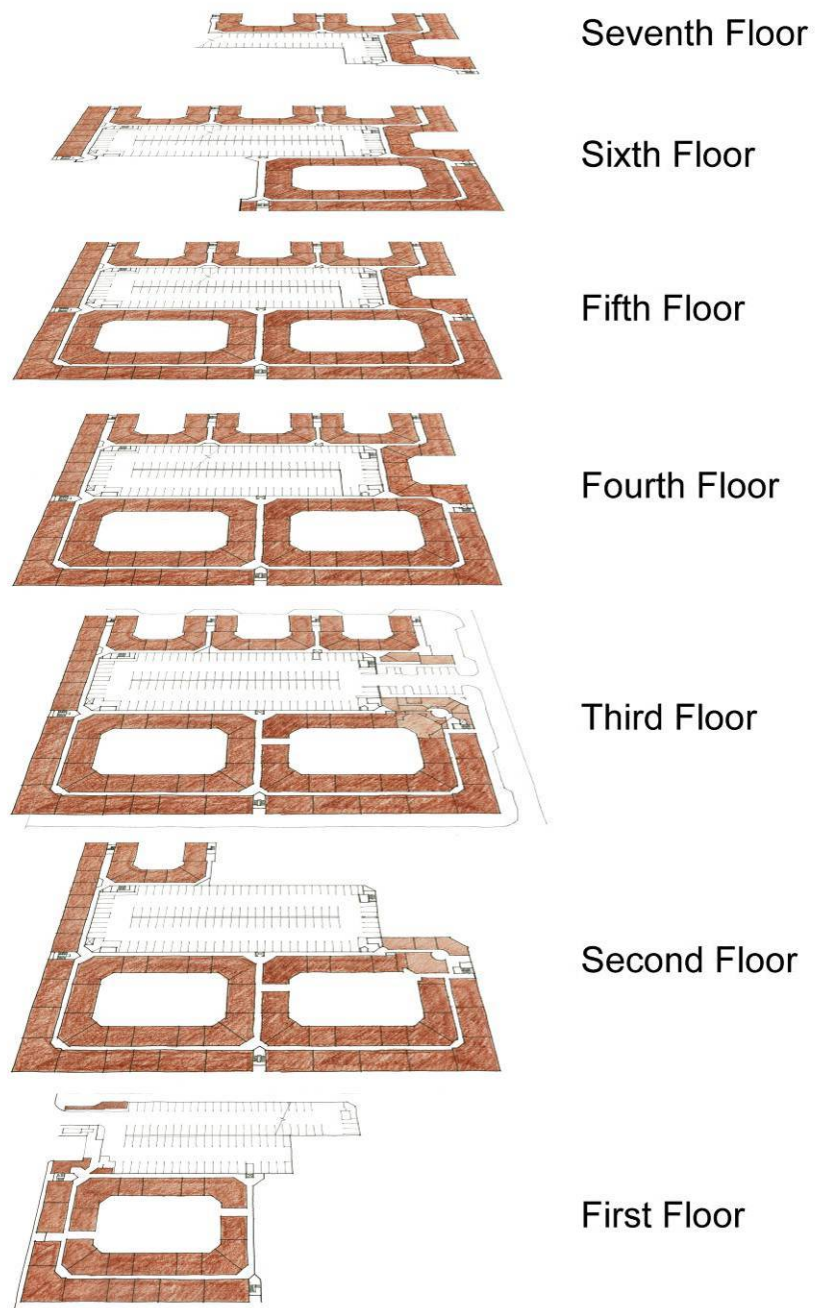


Figure 75:

This Diagram shows the stacking of the building layers. The first, second, third sixth and seventh floors are each partial floors. They step down with the change in grade to assure no more than five floors of residential are stacked upon each other. (Author's diagram)



Figure 76:
This image shows the attempt at breaking up the facades with varying colors and sections of balcony that appear to recede from the rest of the building.
(Scott Brennan/Heidrich Blessing)



Figure 77:
Here is a view of the interior pool court in order to get a sense of the scale of the space.
(Scott Brennan/Heidrich Blessing)

The Highlands of Lombard has many lessons to be learned. It reaches a very high density; though, the five stacked levels forces the construction out of the realm of conventional framing to pored in place concrete deck with steel stud framing. In addition, the viability of a complete enclosed garage allows an unbroken façade without the visibility of an unsightly garage. Also, the plan allows the building to maximize its density as it ingeniously steps down the site.

The Cedars West Prototype Plan

Dallas, Texas

HNTB Companies

2000

The HNTB Companies were contracted by the city of Dallas to design a prototype plan to foster ideas for each of the study areas. The plan (fig. 78) created for The Cedars West prescribes the creation of multiple uses throughout northern half of The Cedars West. It includes multifamily which flanks each side of an area of town homes at the northeast corner. The residential blocks are separated from the water by a retail complex. The retail area overlooks a park which surrounds the river (fig. 78). In addition, they have neglected to consider the possibilities that the light rail has to offer for access and use of the site. To connect to the existing Cedars Station, the HNTB plan allows for nothing more than a pedestrian bridge over the railroad tracks (fig. 81). This is where Bellevue Street should pass through connecting both sides of the tracks much like Corinth Street to the south which passes underneath the tracks (fig. 20) and creates the only access from The Cedars to The Cedars West. Access for both the pedestrian and the automobile is doubled for those residing in The Cedars West when this connection is made. This would not only provide more access to the site, but improve the walkability to the entertainment area on South Lamar as well as DART's Cedars station.



Figure 78: This Prototype plan for The Cedars West development northwest of the location of this thesis was developed by HNTB and the City of Dallas. The plan shows a dependence upon the automobile with a 4-lane divided boulevard that prohibits pedestrian movement, large parking lots, and a separation of uses that reduces the walkability of the neighborhood. See figure 50 for section. (HNTB Companies)

Also, the plan devised does not fully utilize the possibilities inherent with the river flowing through the site (fig. 78). Though there seems to be a secluded riverside path, very little of the river's edge is utilized for retail or entertainment purposes and much of the residential is turned away from the view of the river and focused inward toward the street facades. It seems that this treatment of the river is redundant to the Trinity Corridor parks on the other side of the levee. At one location a multifamily building sets its parking garage along the rivers edge (fig. 80) which should be the main amenity. A feeder road occupies the top of the levee to provide access from the Trinity Parkway toll road. This would be an ideal location to provide office and hotel uses that would front the park and provide views of the new lakes.

The HNTB plan also separates each of the uses into different districts: retail near the waters edge, apartments clustered on the southeast section, and town homes on the northeast, where the most noise from the tracks exists. This separates the uses while concentrating the housing along the noisiest section, the railroad. The Charter for the New Urbanism suggests that these uses should be combined in such a way that they create a seamless fabric.²³ Knitting these uses together creates a more vibrant town that reduces the need to make automobile trips by increasing the walkability of the site. Combining uses also produces a 24-hour atmosphere by providing inhabitants around the clock, employees during the day and residents at night which increases the safety of the area as a whole.

The overall plan exhibits an emphasis on vehicular traffic with no semblance of a main street or square where the community can gather, take an evening stroll, window shop or mingle with other residents. The vibrancy of the Paseo del Rio in San Antonio

exists in the activity of the retail and the closeness of one shore to the other which creates a pedestrian main street without the safety risk of the automobile. Therefore, the city of Dallas must be persuaded that The Cedars West has much more potential that HNTB has planned.

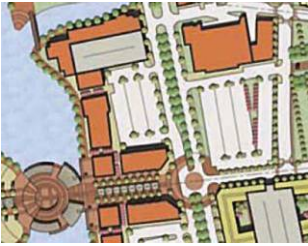


Figure 79:
The retail center at the water's edge.



Figure 80:
The parking garage at the river's edge.



Figure 81:
The pedestrian bridge across the railroad tracks

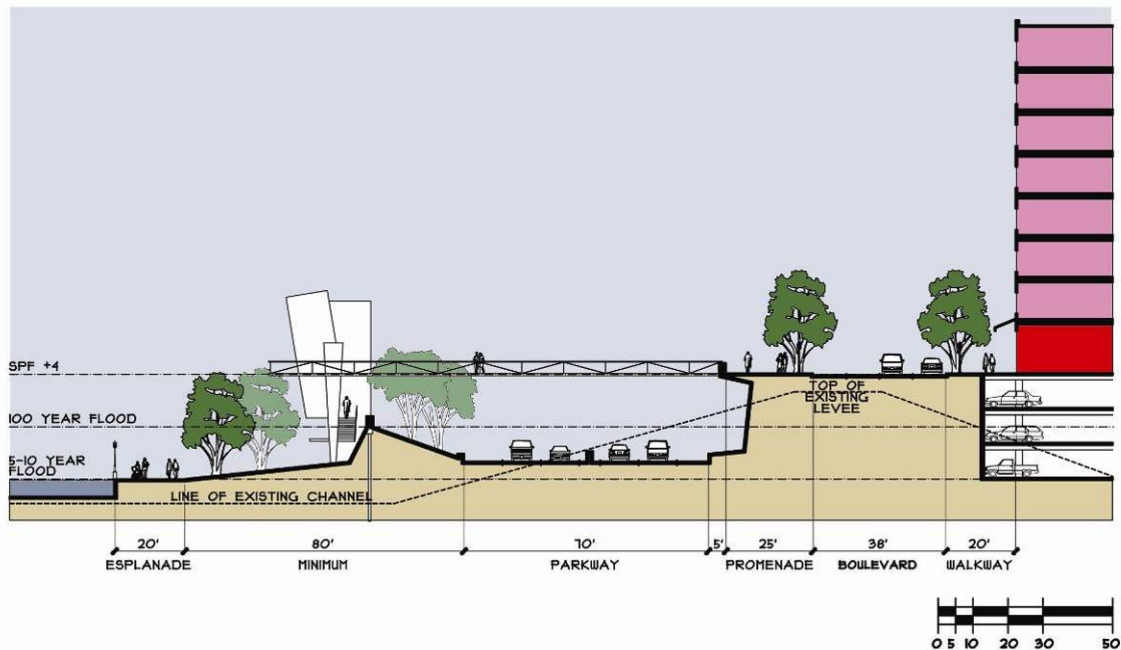


Figure 82:
This section shows the new construction planned for the downtown side of the Trinity Corridor. The dashed lines show the levee as it exists today. A boulevard with a pedestrian promenade tops the old levee and raise its height by approximately 6 ft. A high-speed toll road is inserted below the Promenade to be hidden from view. This is separated from the new town lakes by an eighty foot greenway finished off by a waterside promenade. (Re-drawn by author from HNTB Information)

CHAPTER VI

Design Approach

Design Intent:

This thesis takes into consideration a schematic master plan for the 53 acre portion of the Cedars West that is southeast of Corinth Street. The master plan suggests an overall scheme that locates the Trinity Creek DART Station as well as a town center and retail and residential areas. The thesis will then focus on one block of The Cedars West neighborhood and designs a mixed-use multi family housing development. The site selected is one that takes into consideration the widest variety of streets surrounding the block. Corinth Street is a through street that crosses over the Trinity River to connect The Cedars neighborhood to the Oak Cliff neighborhood to the south. The Industrial Boulevard extension is re-routed slightly from its original path to become the main street for The Cedars West. It is redirected to angle directly toward the new Trinity Creek Station this proposal suggests. This street is generally less busy than Corinth Street and is only two lanes in width, 36 feet compared to the 40 foot wide four lane traffic of Corinth Street, in order that vehicular traffic must reduce speed and be more attentive to pedestrian traffic (Figure 84). In addition, this street incorporates parallel parking and heavy landscaping to increase the drivers' sense that they should decelerate.

A new private street (Figure 85) with access to the river walk borders the site to the east and provides access for both residents and visitors and therefore has only minimal vehicular traffic and much higher detail for the eye of the pedestrian. The project creates a number of retail and restaurant spaces that front the river to create a lively atmosphere for residents and visitors alike.

The location of this site, being close to downtown and bordering a low income housing area, across the river corridor to the south, makes this a prime location for affordable housing and gives the opportunity to investigate ideas toward mixed-income, mixed-housing designs that integrate multiple levels of income and multiple sized families within the same complex.

Essential to the success of this type of project are the other supporting uses required to sustain a living environment for this type of development. This includes not only retail, but office functions as well

Running through the area is the original Trinity River bed, which is cleaned up and re-channeled to create a river walk atmosphere to provide a vibrant pedestrian area containing retail, restaurant, office, and housing. The intent is to create a place which entices the resident, office worker, and visitor down to the rivers edge to shop, stroll, and enjoy a place to sit either under a tree or at a café. And, the purpose is to enjoy the river walk at all times of the day or night, whether working on a laptop at the rivers edge, shopping, or dining with friends, family or co-workers.

With its proximity to Downtown, nearby entertainment venues, adjacency to the Trinity River Corridor Project parks and careful planning the Cedars West has the potential to become a highly desirable place to live, work and play for the new millennia and beyond.

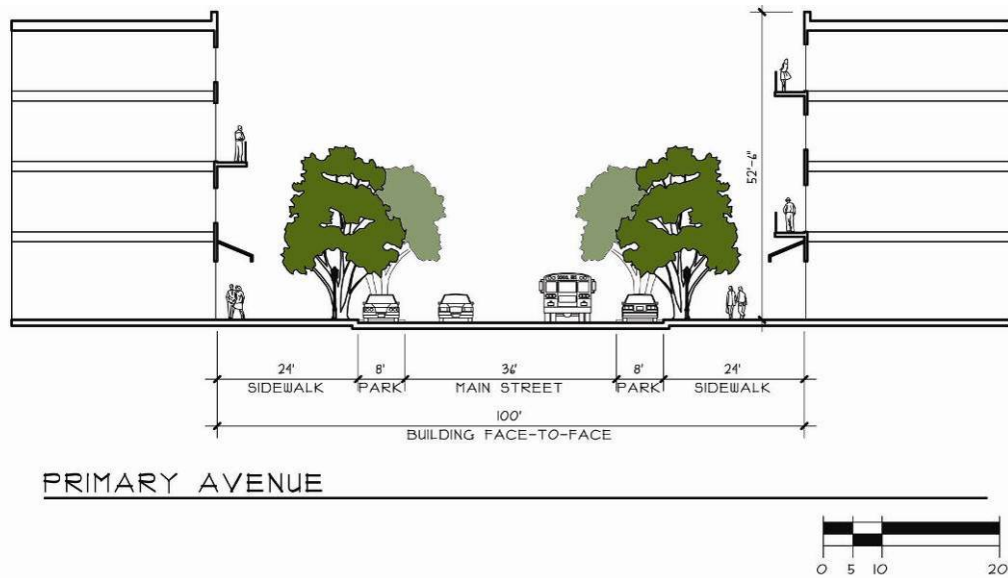


Figure 84:

This section shows the intent of the design for the main streets north of the site. A wide main street with parallel parking on either side with tree islands combined with wide sidewalks provide a sense of safety for the pedestrian while providing a human scale to the width of the space.

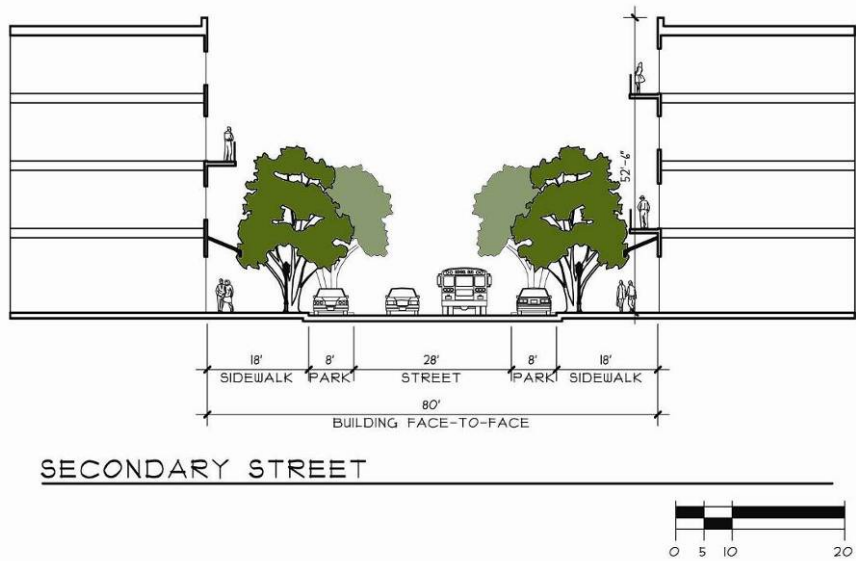


Figure 85:

This section shows the intent of the design for the secondary street to the east of the site. As a narrower street than the main street, it slows traffic and provide a greater sense of safety for the pedestrian as well as create a leisurely atmosphere.

Design Goals

- Create a dynamic mixed-use neighborhood in a previously blighted area
- Create a new Trinity Creek river bed with structured edges, widths, and depth
- Promote multiple transportation options including:
 - Pedestrian
 - Bicycle
 - Bus or Streetcar
 - Light rail
 - Vehicle
- Create a development on the human scale
- Provide a variety of housing options
 - Affordable and Market Rate
 - One to three bedroom apartments
- Provide multiple retail options for the consumer
 - Small independent stores
 - Community and business support services
 - Retail for the convenience of the residents
 - Destination shops to draw the visitor
 - Anchor stores at the town center
- Place Making for public interaction and social events
- Promote a 24-hour vitality with a variety of entertainment options
- Create a safe center of activity
- Promote a system of street right-of-ways that provide a sense of safety and walkability
- Provide multiple river walk access points for the easy access of pedestrians.
- Conceal structured parking from the pedestrian atmosphere.

- Provide parking for the resident as well as the visitor and office tenant
- Serve as a model for transit-oriented neighborhood design in a brownfield
- Promote growth and infill development throughout the Cedars district
- Suggest a block pattern and street system to compliment the river canal
- Produce a typical building as an example of how to build within the Cedars West neighborhood

The Master Plan

The master plan for this thesis is in schematic form. The purpose of this plan is to lay out the intent as to the location of districts within the Cedars West area. The residential blocks make up the center of the master plan and consist of mixed-use buildings that contain first floor retail on the primary streets and river walk frontage. The town center houses the main retail with anchor stores such as bookstores, major clothing stores, etc. and is located nearest the transit. Office and hotel uses line the new boulevard which tops the proposed levee construction (Fig. 87). Vehicular traffic enters the parking garages servicing these offices and hotel from the new levee-top boulevard. Additional surface parking is shown under the DART rail overpass on the right of the plan (Fig. 86).

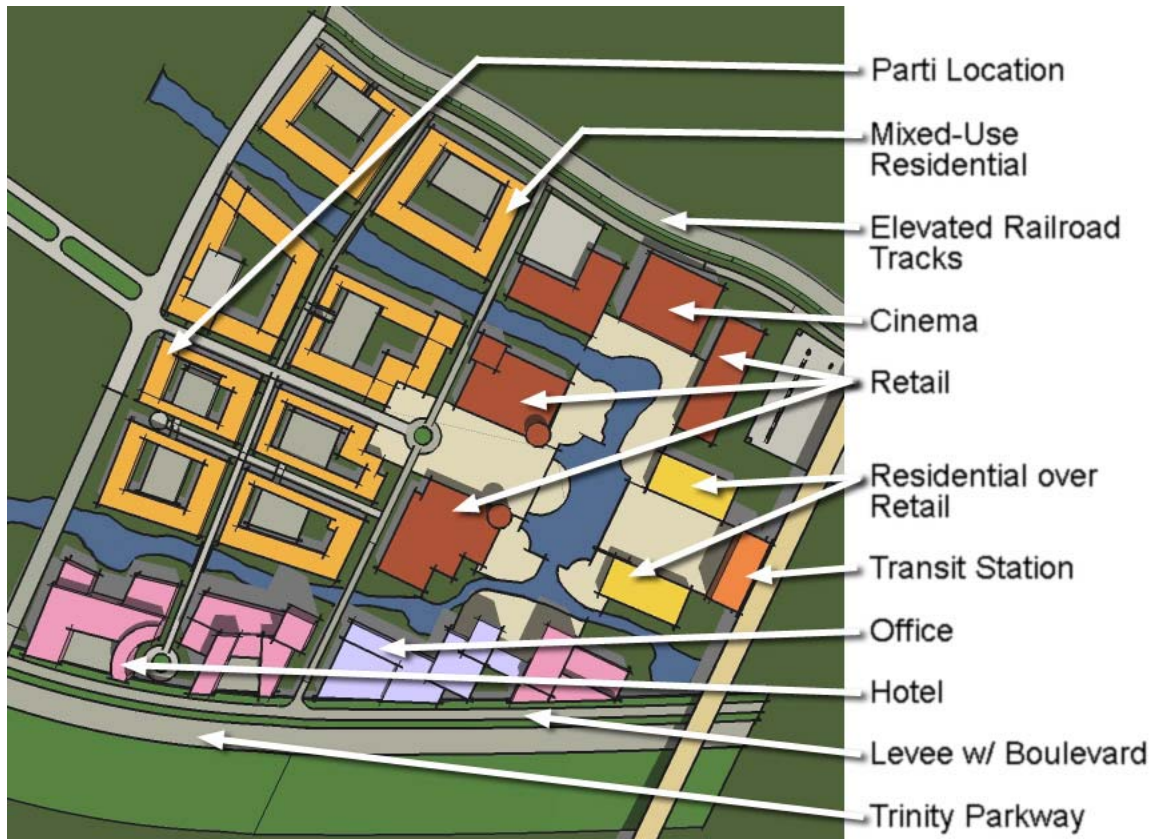


Figure 86:
A master plan showing the uses of the Cedars West area that is being considered by this thesis.

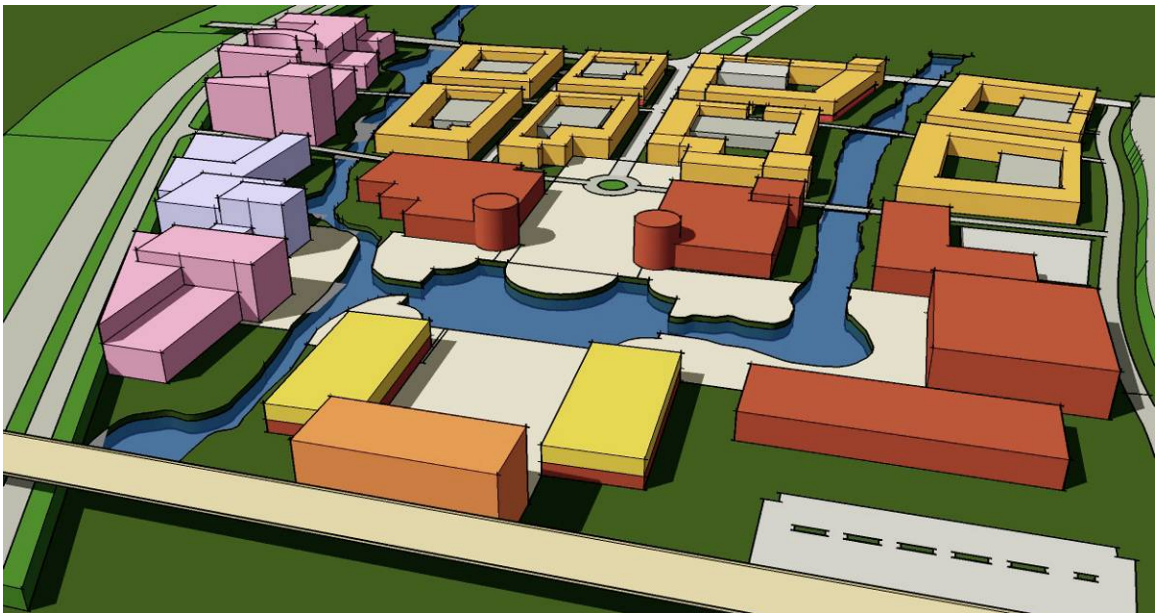


Figure 87:
This is an axonometric view of the master plan. The transit station is located at the lower edge of the image next to the DART rail. The public space is shown in the center, retail is in red, and residential is in yellow. Hotel and Office uses line the levee boulevard on the left of the image. The elevated DART rail passes through on the bottom of the view.



Figure 88:

This is an axonometric view of the master plan. The transit station is located at the upper edge of the image next to the DART rail. The public space is shown in the center, retail is in red, and residential is in yellow. Hotel and Office uses line the levee boulevard on the right of the image. Corinth Street passes through on the bottom of the view and rises to meet the levee boulevard and cross the Trinity River valley.

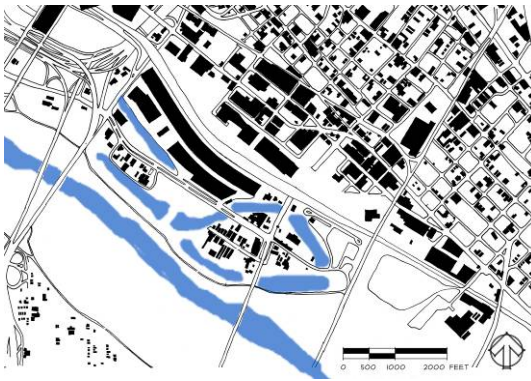


Figure 89: This figure ground shows the fabric existing before development in the Cedars West.

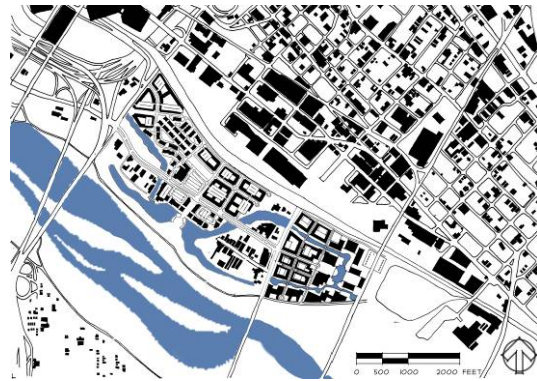


Figure 90
This figure ground shows the fabric existing after development in the Cedars West.

Parti One:

Four Story Multifamily with Ground Floor Live/Work Space

This parti incorporates two levels of restaurant and retail at the rivers edge as in the other schemes. Above the retail are four stories of housing. This approach assumes the river walk is the desired amenity and the noise levels of the public areas would not be detrimental to the leasing of dwelling units. This parti creates spectacular views and easy resident access both from the units and upon arrival along the river walk. Live/Work spaces are provided along Industrial Boulevard and Corinth Street to provide addition small business space and opportunities for local ownership. The Leasing Office on the Corinth-Industrial intersection serves as the image to the public.

Access for the Parking garage is located on Corinth Street to the west. The parking garage combines parking for office, visitor, and for those wishing to access the river walk, and secure parking for residents. The garage is set within the development and wrapped with single loaded apartments so that its bulk does not disrupt the aesthetic character of the block.

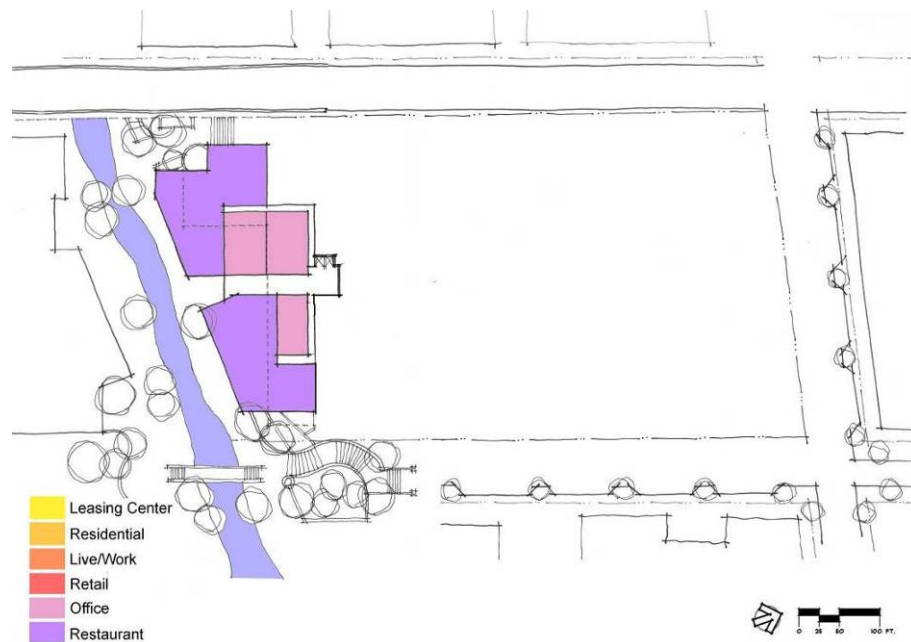


Figure 91:

This plan shows the river level of the retail area. This floor drops below grade to give access to the river walk level.

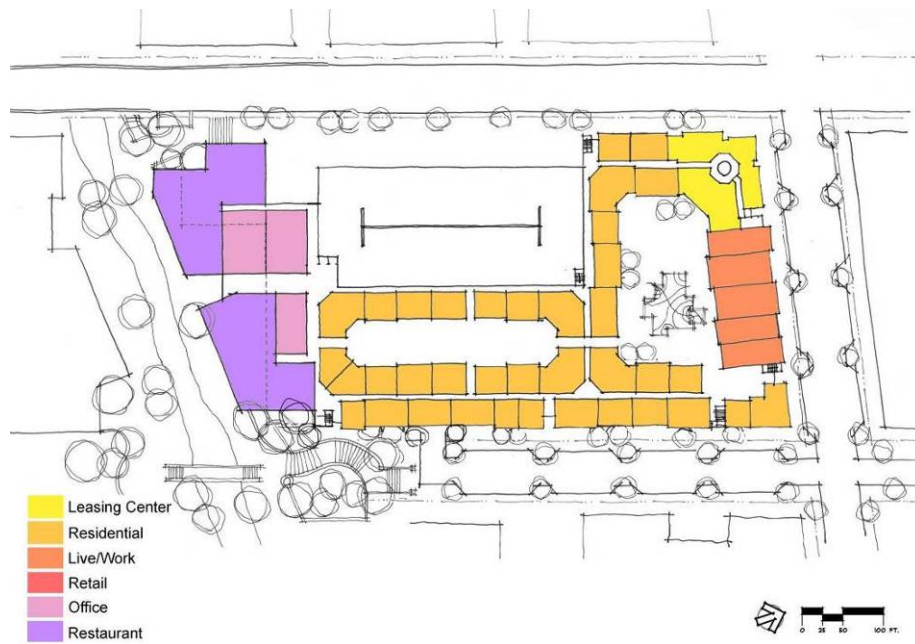


Figure 92:
This plan shows the ground floor of the residential and office portions of the building. The parking garage drops down from the second floor entry to this level which is at grade.

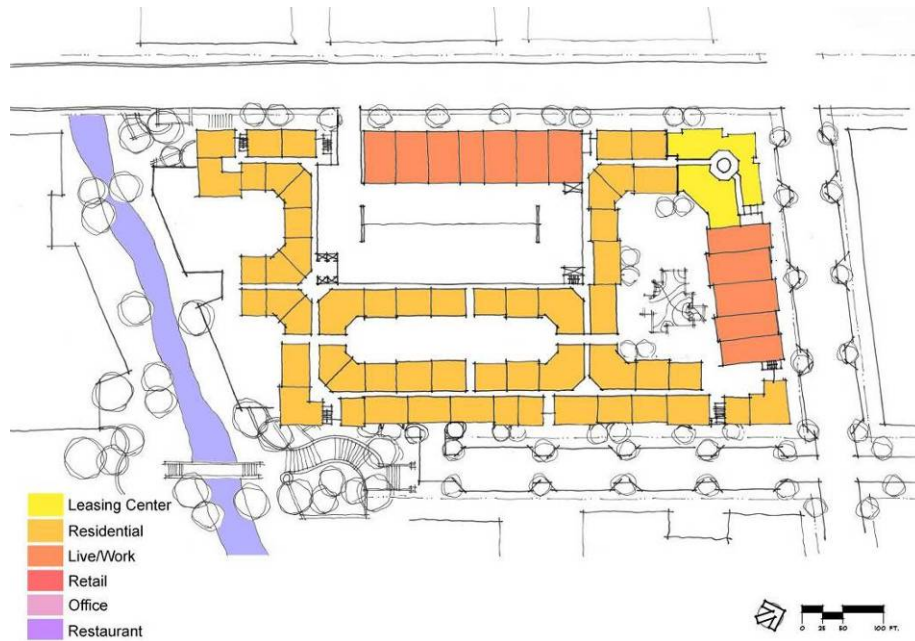


Figure 93:
This is the second floor of the residential and office portions of the building. The garage access from Corinth Street can be seen here.

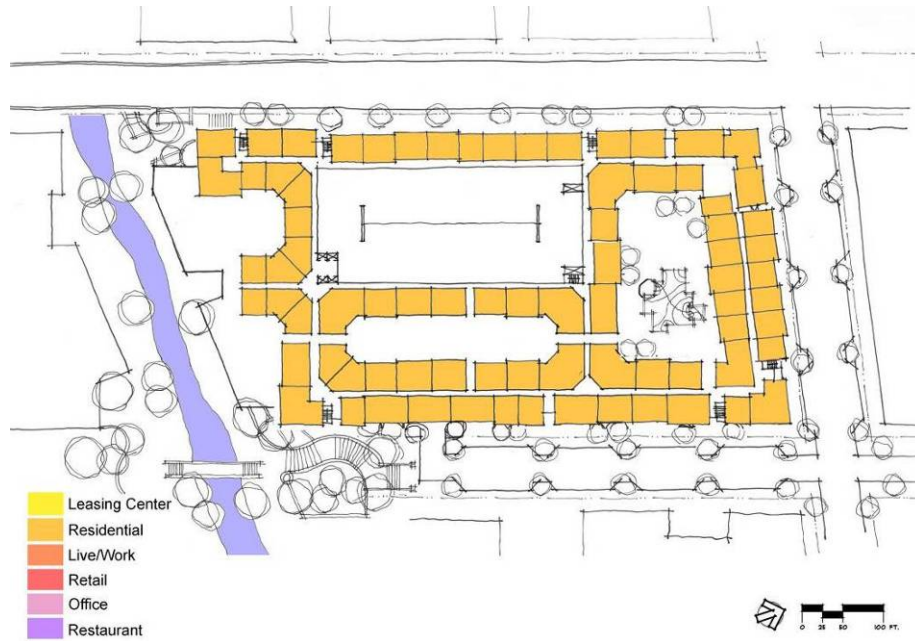


Figure 94:
This is the third and fourth floors of the residential and office portions of the building.

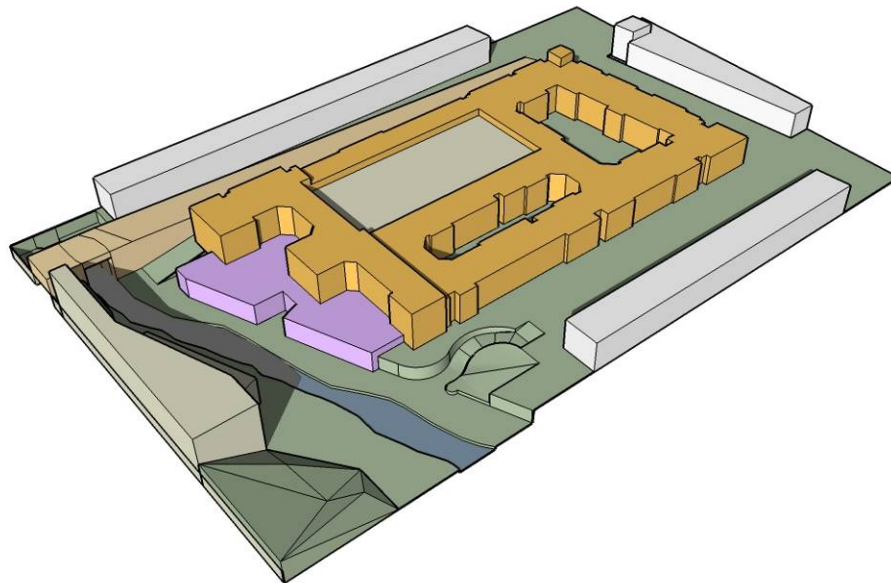


Figure 95:
This view north across the river walk shows an aerial perspective view of the building with the retail at the rivers edge with the residential above. The Corinth Street bridge (left corner, in brown) rises to cross the levee.

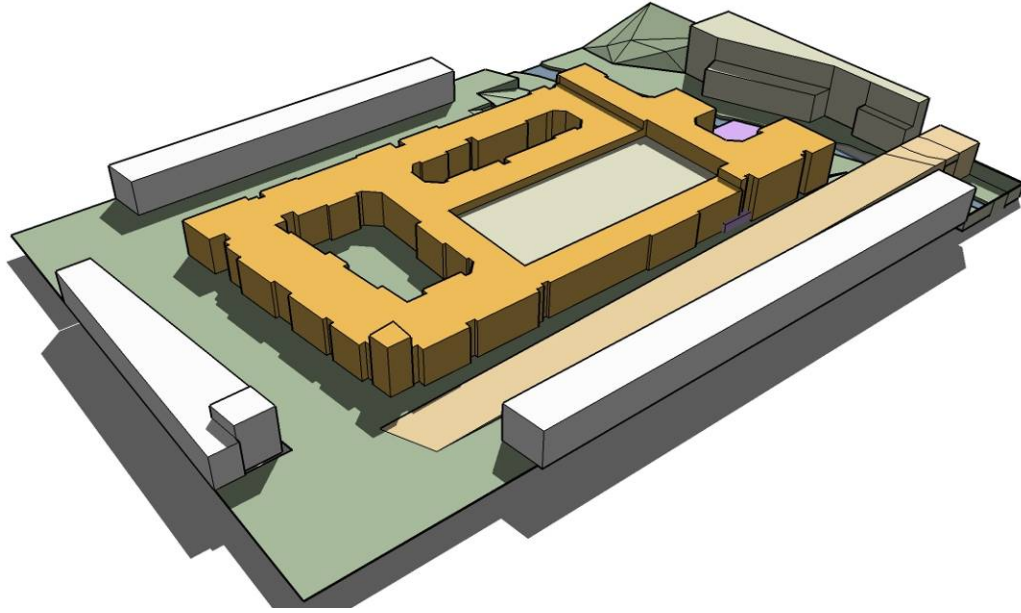


Figure 96:
This view south toward the river walk shows an aerial perspective view of the building with the retail at the rivers edge, the residential above, and the four story office on Industrial Boulevard. The Corinth Street bridge (right corner, in brown) rises to cross the levee.

Parti Two:

Four Story Multifamily w/ Office as Buffer.

The first parti incorporates two levels of restaurant and retail at the rivers edge. Above the retail, office space is provided in an attempt to offset the normal activity hours of the two uses. The restaurant and retail uses are in close proximity to the office space and would be well supported by their patronage. This approach assumes the noise levels of the public areas of the river walk would be detrimental to the leasing of dwelling units and therefore uses the office complex as a buffer to the busy river walk area.

The addition of the office complex creates 130,000 square feet of office space while reducing the residential in parti one by 25 percent.

The main lobby and leasing center is accessed from South Industrial Boulevard, the new main street for the development. The retail spaces incorporated into the complex are divided: one floor along Corinth Street and a second two story retail area on the river's edge.

Access for the Parking garage is located on Corinth Street to the west as well as the residential street to the east. The parking garage incorporates office parking, guest parking, parking for those wishing to access the river walk, and secure parking for residents. The garage is set within the development and wrapped with single loaded apartments so that its bulk does not disrupt the aesthetic character of the block. The downside to this parti is it separates the building with two separate entrances, one for the residential on the Corinth Industrial Intersection and one for the office complex.

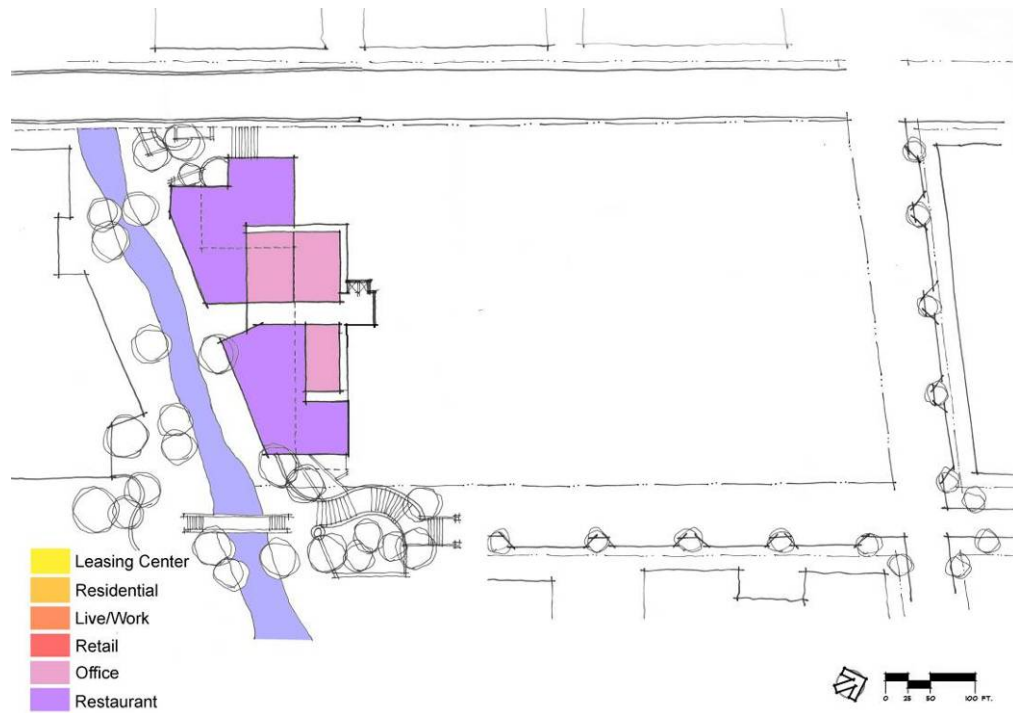


Figure 97:
This plan shows the river level of the retail area. This floor drops below grade to give access to the river walk level.

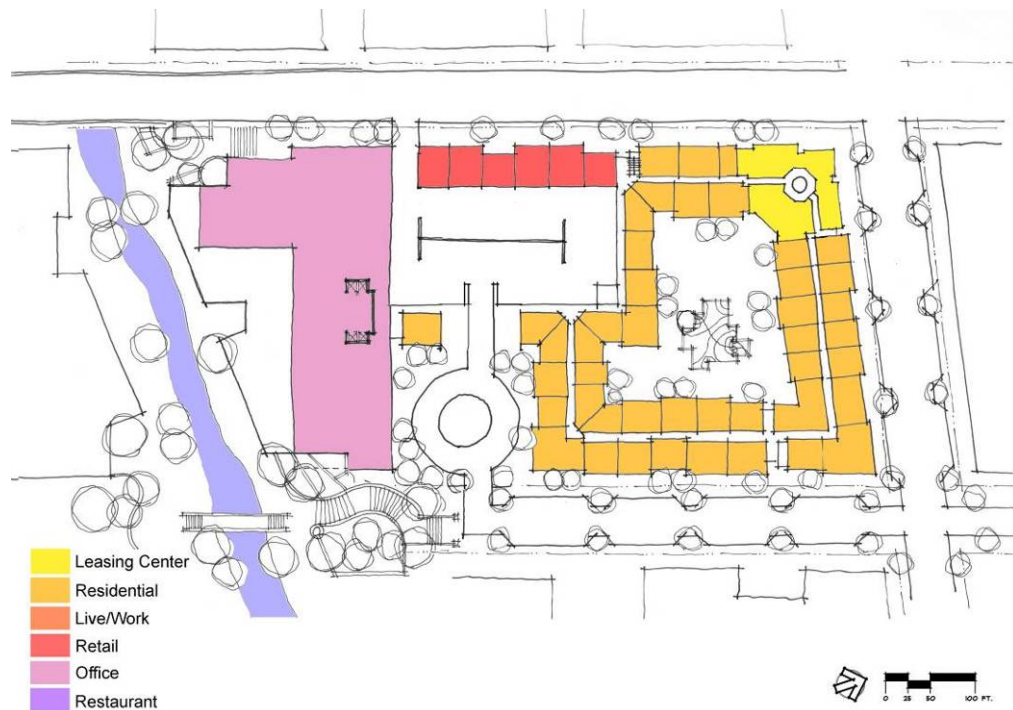


Figure 98:
This plan shows the ground floor of the residential and office portions of the building. The parking garage enters from both the Corinth Street bridge and the residential street one level down which is at grade.

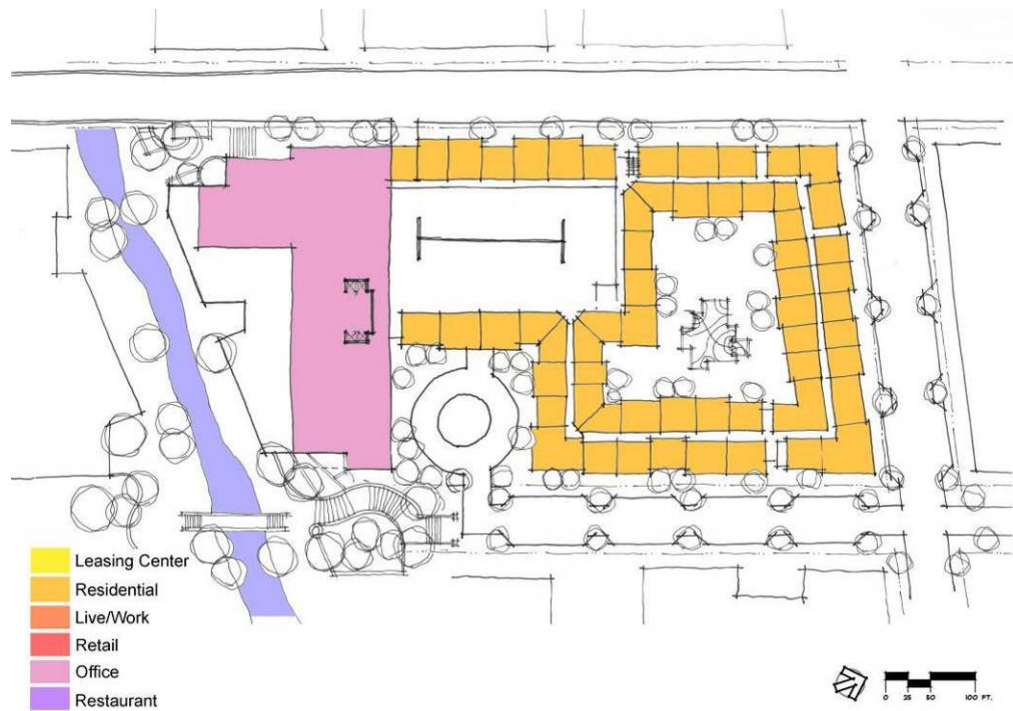


Figure 99:
This is the third and fourth floors of the residential and office portions of the building.

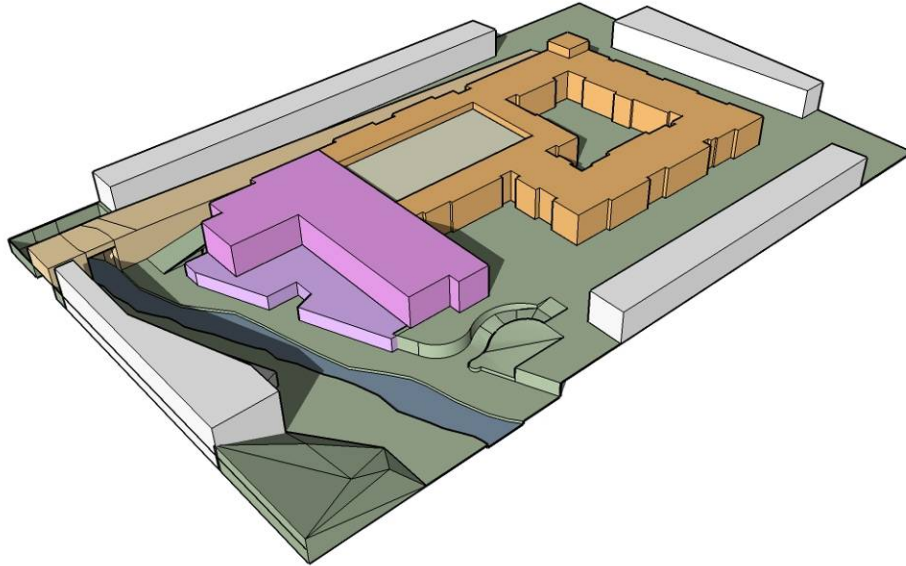


Figure 100:
This view north across the river walk shows an aerial perspective view of the building with the retail at the rivers edge with four levels of office spaces above and four stories of residential on Industrial Boulevard. The Corinth Street bridge (left corner, in brown) rises to cross the levee.

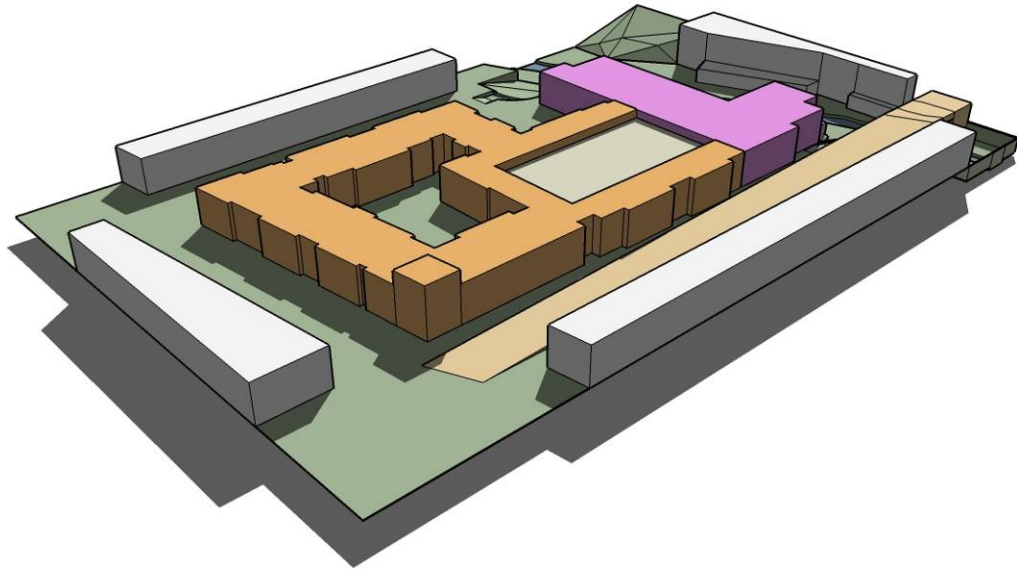


Figure 101:

This view south toward the river walk shows an aerial perspective view of the building with the retail at the rivers edge, the offices above, and the four stories of residential on Industrial Boulevard. The Corinth Street bridge (right corner, in brown) rises to cross the levee.

Parti Three:

Four Story Multifamily with Office on Industrial Boulevard.

The second parti incorporates two levels of restaurant and retail at the rivers edge. Above the retail are four stories of housing. This approach assumes the noise levels of the public areas of the river walk would not be detrimental to the leasing of dwelling units as the river walk is the main amenity to the development.

The main lobby and leasing center is accessed from South Industrial Boulevard, the new main street for the development through the office complex. The office complex would reduce the residential of parti one by 35percent while adding an additional 134,000 square feet of office space.

The retail spaces incorporated into the complex are divided: one floor in the first floor of the office complex and a second two story retail area on the river's edge.

Access for the Parking garage is located on Corinth Street to the west. The parking garage incorporates office parking, guest parking, parking for those wishing to access the river walk, and secure parking for residents. The garage is set within the development and wrapped with single loaded apartments so that its bulk does not disrupt the aesthetic character of the block. The downside to this parti is it separates the building with two separate entrances, one for the residential on the Corinth Industrial Intersection and one for the office complex.

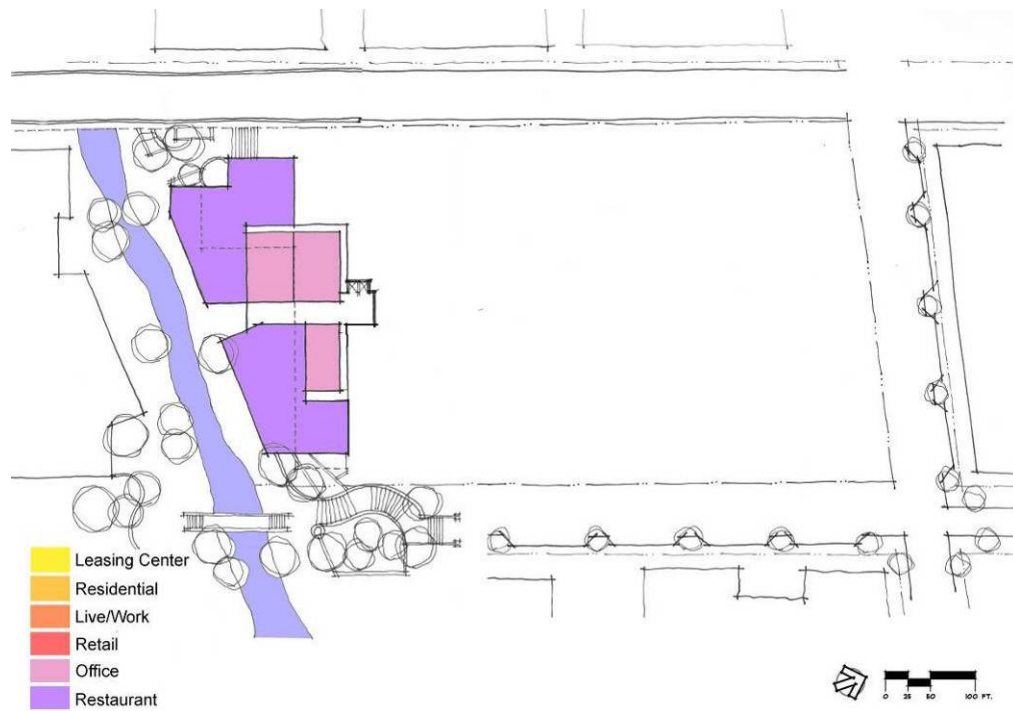


Figure 102:
 This plan shows the river level of the retail area. This floor drops below grade to give access to the river walk level.

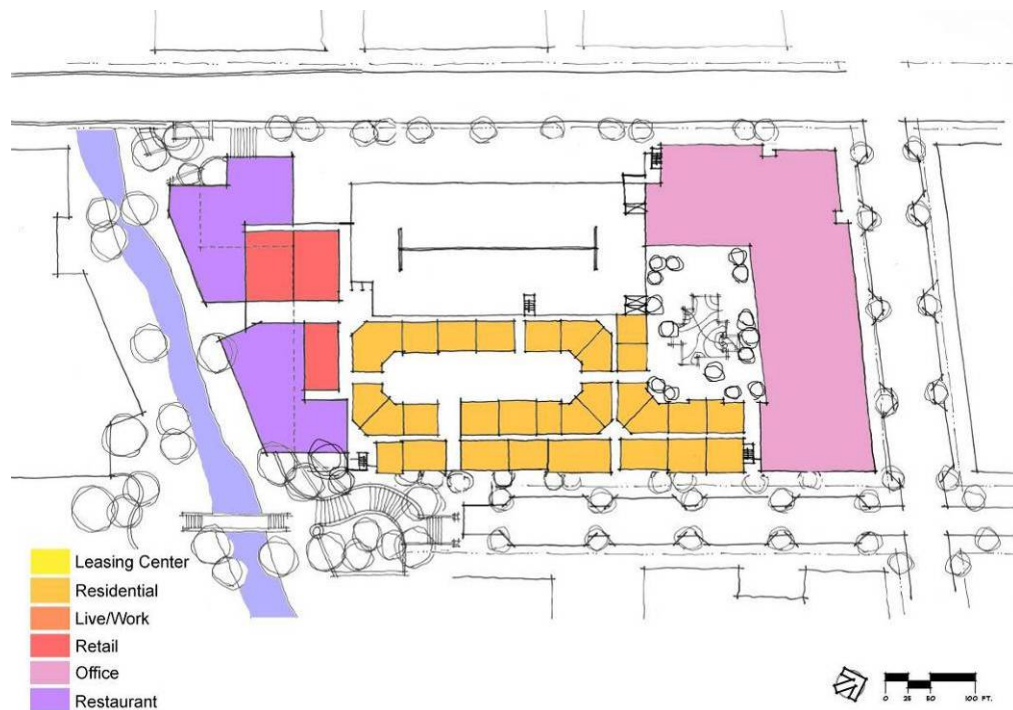


Figure 103:
 This plan shows the ground floor of the residential and office portions of the building. The parking garage drops down from the second floor entry to this level which is at grade.

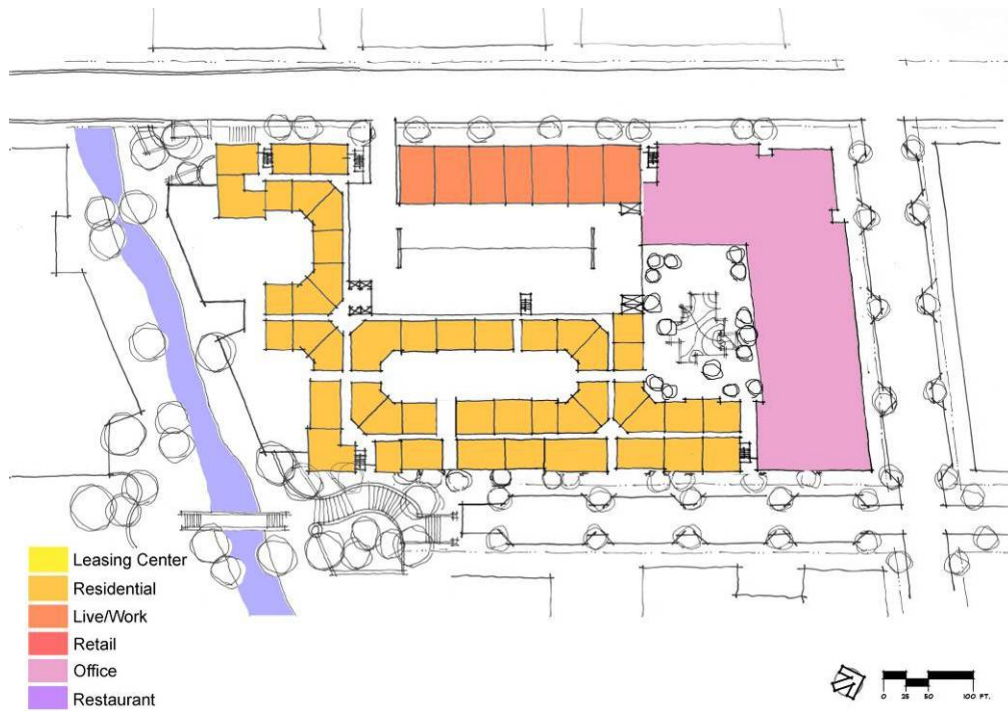


Figure 104

This is the second floor of the residential and office portions of the building. The garage access from Corinth Street can be seen here.

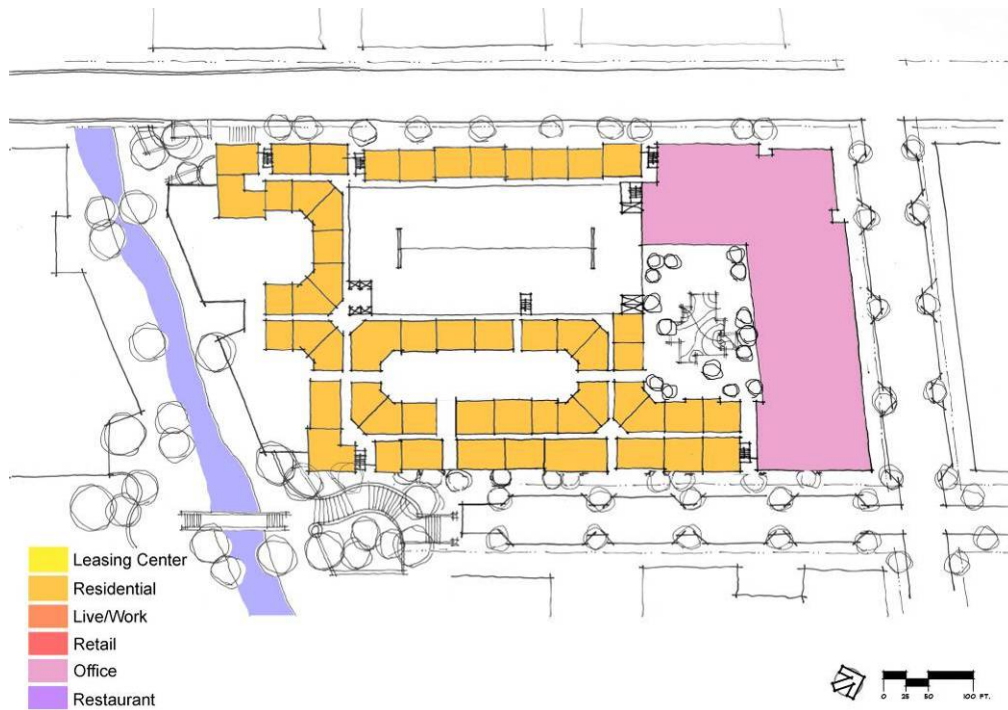


Figure 105

This is the third and fourth floors of the residential and office portions of the building.

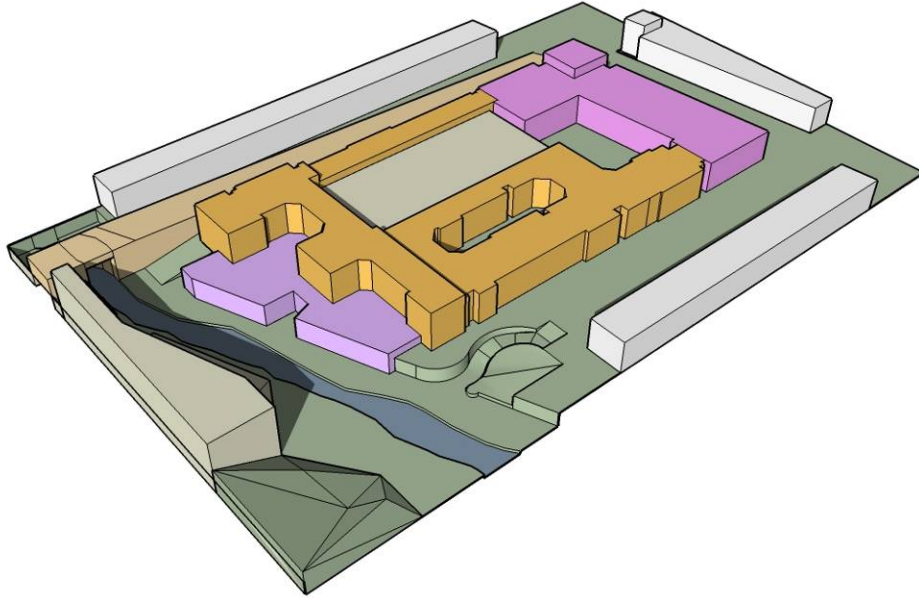


Figure 106:

This view north across the river walk shows an aerial perspective view of the building with the retail at the rivers edge, the residential above, and the four story office on Industrial Boulevard. The Corinth Street bridge (left corner, in brown) rises to cross the levee.

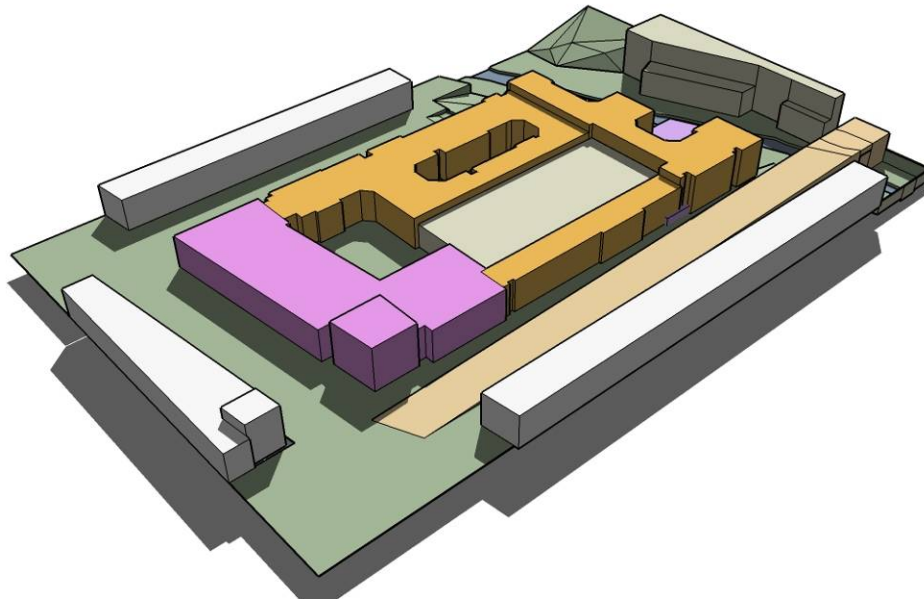


Figure 107:

This view south toward the river walk shows an aerial perspective view of the building with the retail at the rivers edge, the residential above, and the four story office on Industrial Boulevard. The Corinth Street Bridge (right corner, in brown) rises to cross the levee.

CHAPTER VII

Design Conclusions:

The selection of the site to be developed for this thesis was chosen on the merits of having an example of all the types of access within the master plan. The primary thoroughway, Corinth Street, the secondary Industrial Boulevard Extension, the new residential street and the Riverwalk are all acknowledged in this site selection.

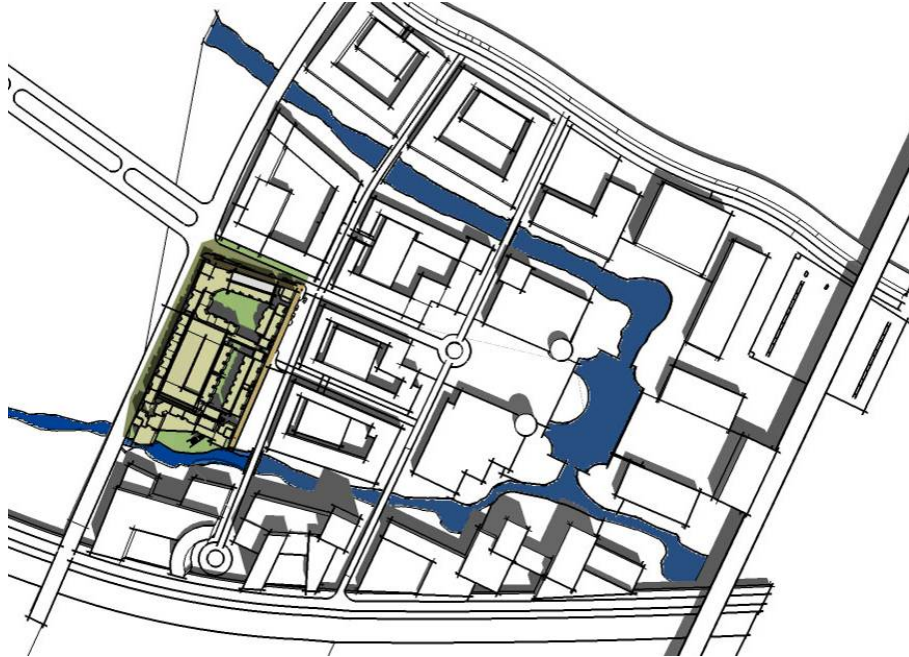


Figure 108:
Site selection within the proposed master plan. The thesis site has been introduced within the original schematic master plan.

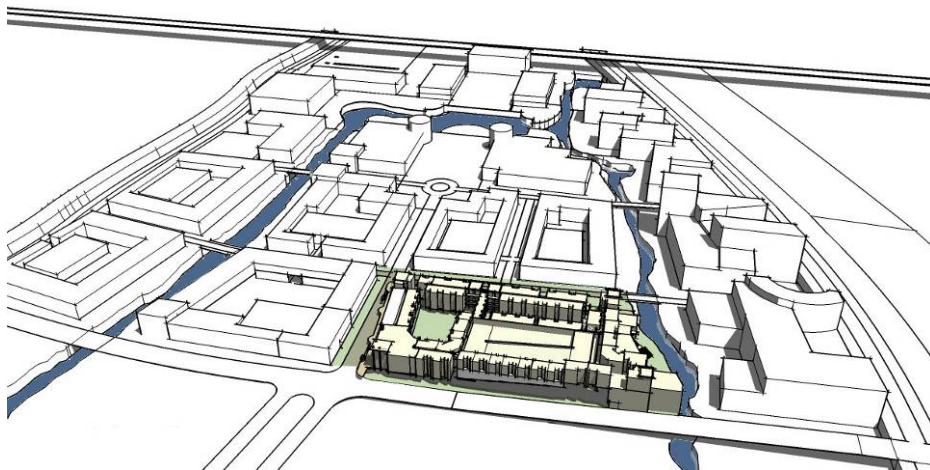


Figure 109:
View looking East across the master plan toward the proposed transit station. The thesis site has been introduced within the original schematic master plan.

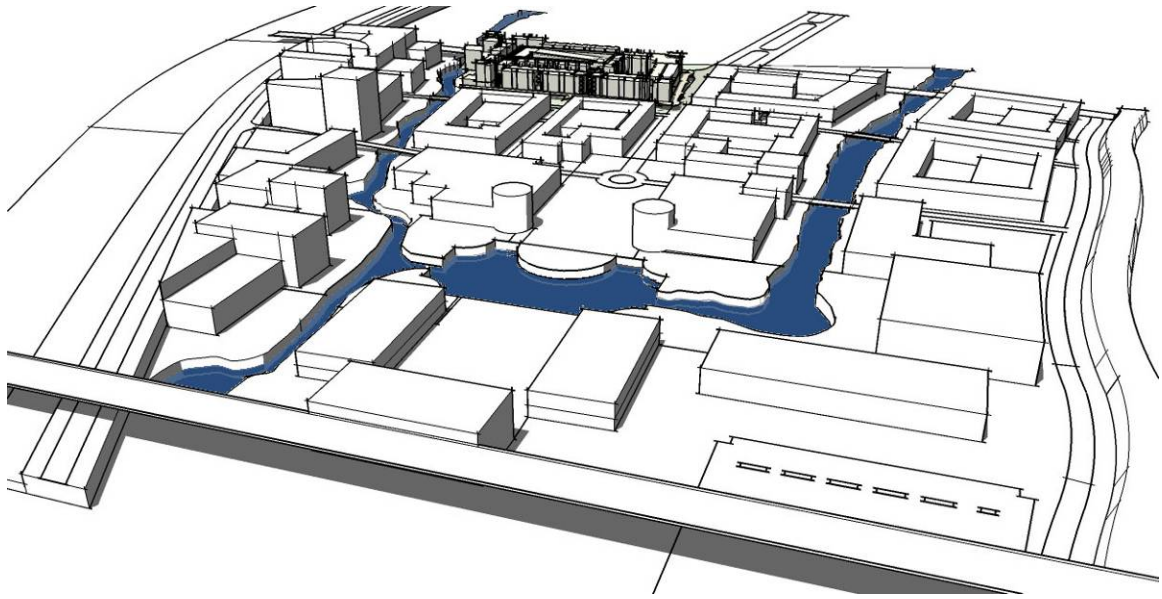


Figure 110:
View looking West across the master plan. The thesis site has been introduced within the original schematic master plan.

It was decided that a combination of parti's one and two would yield the most varied mix of uses and provided the density level that we were looking for. This would minimize the amount of residential on the street level, provide adequate street front retail space, as well as provide a large amount of office space.

Pedestrian access through the site was of the greatest concern. This issue had to be dealt with in three ways.

One, if this project was to be sensitive to the issues of the Transit Oriented Neighborhood, the approach from the transit station along the river was a primary concern. This issue was solved in two strategies. One such strategy is to provide an access to the pedestrian street with a highly articulated stairway rising amidst a fountain with terraced landscaping to soften the space (Figure 116). The second is a stairway in the retail court (Figure 117) that would climb to the first level of the residential building and would have access to the parking garage, the residential courtyards within the building and access through an open space to the pedestrian street.

Another approach to be dealt with was the approach from the street. This issue was dealt with by creating an approach along a quiet pedestrian street that brought the visitor along a series of front yards to each first floor unit (Figure 118). The front yards of each unit provide a defined walk along the building while allowing for interaction of the residents out in the front yards while providing a well landscaped path. As the street turns off to the left, a public open space unfolds before the visitor (Figure 129). This public space gives the visitor a preview of what is to come by the use of a fountain and reflecting pool leading the pedestrian toward the stairs descending through the waterfall and then to the river (Figure 116). The visitor might, however, choose to enter through the opening in the building face and proceed to an overlook in the retail courtyard.

The final access to be concerned with is the building resident as they would leave their dwelling and approach the river. This would be accomplished through a series of courtyards and finally opening onto the overlook and down the cascading stairs into the

retail-river courtyard. Access to and from the resident courtyard would be through a secure card access gate. An additional amenity was added to the first floor units through the addition of a front yard and direct access to either street or courtyard entry. Also, those units would have the benefit of additional square footage within the unit by eliminating the backside corridor.

The most difficult challenge of the site was the interaction with the Corinth Street Bridge. This posed two unique challenges: adjusting the height of the building to match the change in grade along Corinth Street as well as dealing with the drop from the bridge to the river level. To meet the first challenge, it was determined that street front retail along Corinth Street (Figure 111) would allow varying ceiling heights to mediate between the first floor of residential and the rising street level. This allowed the retail to have ceiling heights ranging from 13ft. to as little as 9ft. Additionally, the retail was used to disguise the parking garage and separate the living units from the street level.

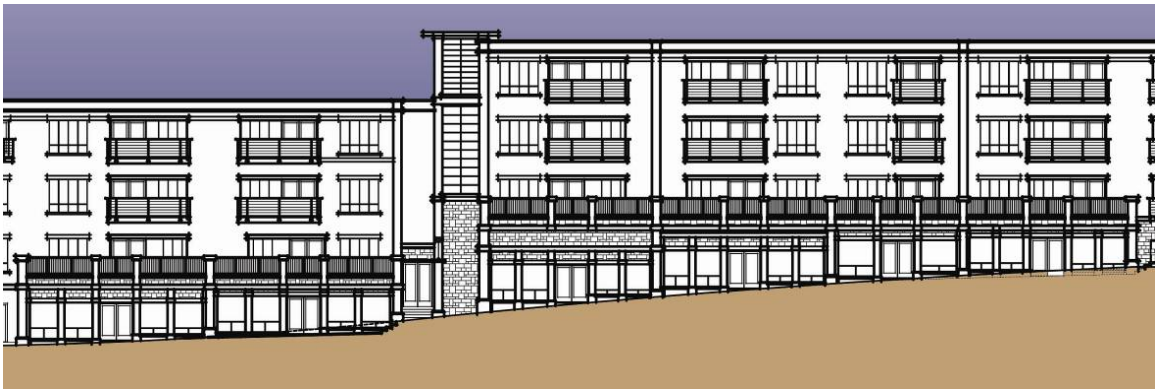


Figure 111:

The Corinth Street Elevation shows the retail at the street level. The retail was used to mediate the change in grade as the bridge rises to cross the levee and the Trinity River Floodway. The floor to ceiling heights of the retail can vary from 9 ft. to 13 ft. creating a variety of atmospheres to add interest to the interior spaces.

In order to solve the problem of the drop from the bridge to the Riverwalk level, a four story block of office and retail was used to bring the building up to the level of the street with an additional street level entrance that provides access to the building and the river level from Corinth Street. Each level of the Office has direct access to the parking garage and secure card access to the residential areas for those who both live and work in the building (Figure 112-Figure 115). The elevator provides access to the retail on either the first floor via a short corridor that brings one out to the colonnade the Riverwalk level, also along a corridor.

Residential was then added above the office areas to increase the density of the site to 222 units.

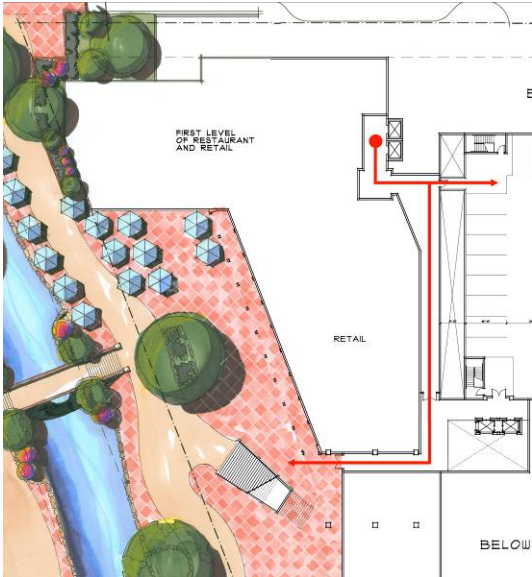


Figure 112:
Riverwalk Level Restaurant and Retail plan with access to the parking garage and the Riverwalk.

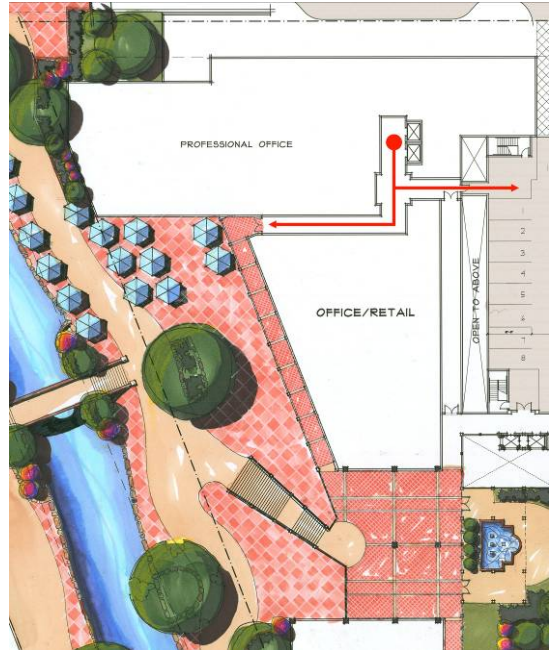


Figure 113:
First Floor Office and Retail plan with access to the Parking Garage and the walk in front of the Retail/Office block.

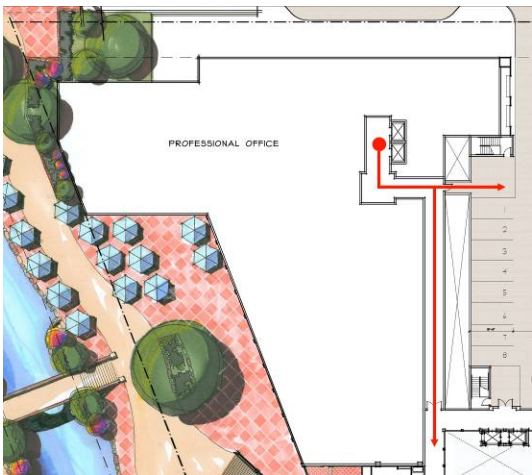


Figure 114:
Second and Third Floor provides access to the Parking Garage with security card entry to the Residential areas.

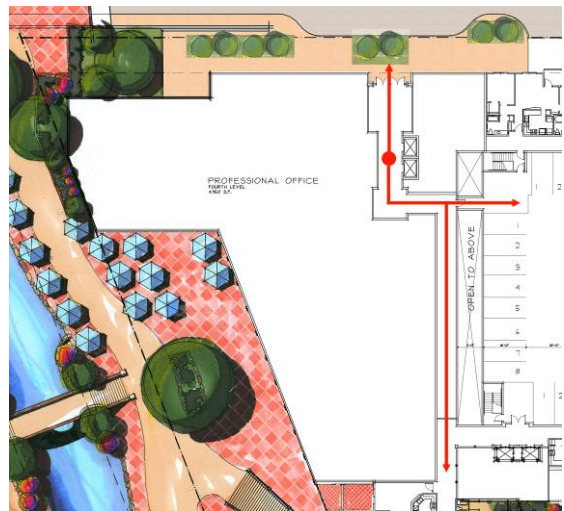


Figure 115:
The Fourth Floor establishes a presence on Corinth Street and main entrance as well as providing access to the Parking Garage with security card entry to the Residential areas. The elevator lobby gives access to all levels above, via secure card access, as well as the retail and office levels below.

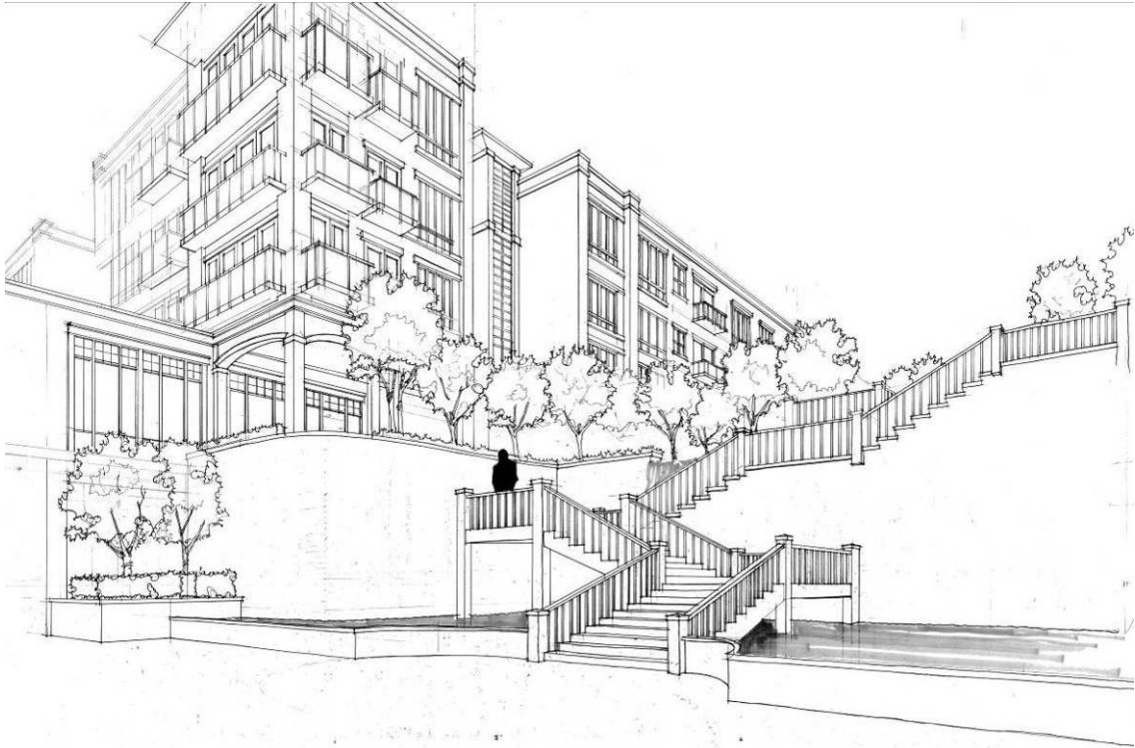


Figure 116:
 This perspective shows the intent for the connections from the Riverwalk to the street level. This stair rises through a waterfall feature that helps to deaden the sounds of the city at the Riverwalk level. The right side of this view shows the residential floors rising above the two floors of retail at this southeast corner of the development.



Figure 117:
 This is a perspective view of the approach from the transit station to the Trinity Creek Retail Court. This would be the view that one would experience as he walks along the river to the Trinity Creek Development. Here we get a sense of the space defined by the retail and office floors. Above these rise the upper three floors of the residential areas. The grand stair that takes you up to the main residential and office entry climbs out of view to the right.



Figure 118:
 From the northeast corner of the development we arrive at the head of the pedestrian street and look down toward the park that takes us down to river level. This view gives an idea of the intended character of the residential street with highly landscaped walks and parallel parking for access to the street level apartment entries.



Figure 119:
 Here is a view of the northwest corner of the development looking south toward the hotel across the Riverwalk. The Corinth Street Bridge rises toward the hotel in the distance to the right. The residential leasing and common areas are entered through this corner tower giving a presence to the busiest two of the three streets.



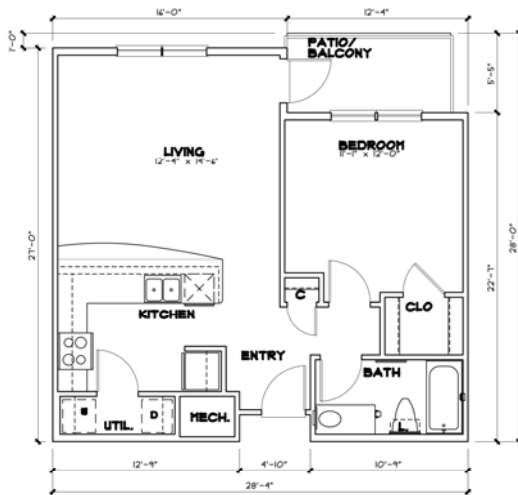
Figure 120:

This view from the northeast corner looks back toward the northwest along the north façade. The façade resides on the secondary Industrial Boulevard Extension. The tree lined street with parallel parking on both sides allows access to the street front retail of the residential apartments above and serves to create a more serene entry to the area.

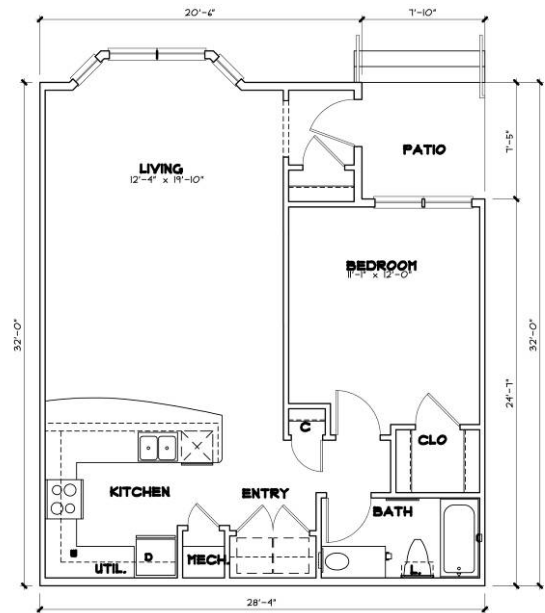


Figure 121:

A Perspective of the Interior Pool Courtyard.



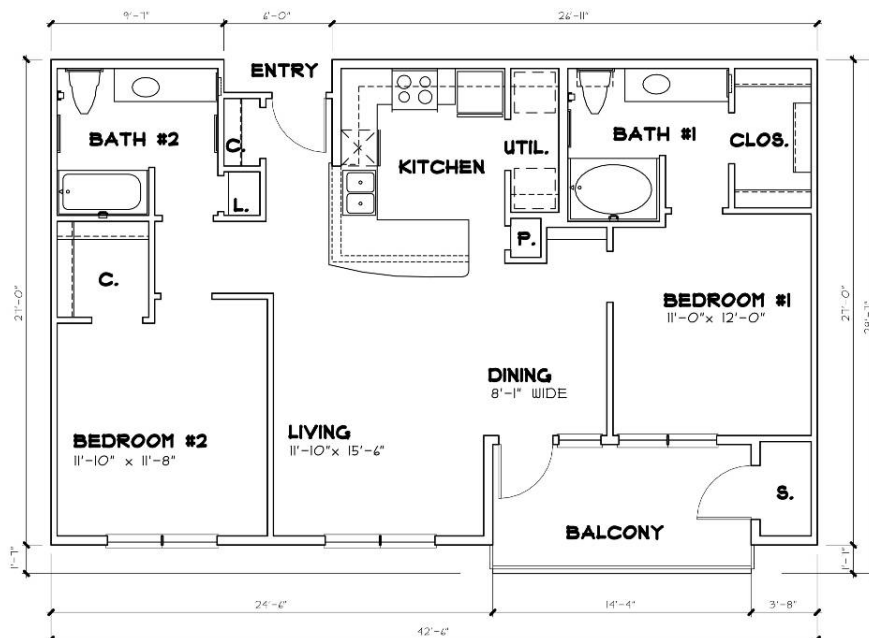
**ONE BEDROOM WITH
CORRIDOR ENTRY**
702 S.F.



**ONE BEDROOM WITH
COURTYARD ENTRY**
840 S.F.

Figure 122:
A typical One Bedroom/One Bath Unit with a
corridor entry.

Figure 123:
A typical One Bedroom/One Bath with a
direct access 1st Floor entry.



**TWO BEDROOM/TWO BATH
CORRIDOR ENTRY**
1,035 S.F.

Figure 124:
A typical Two Bedroom/Two Bath Unit with a corridor entry.

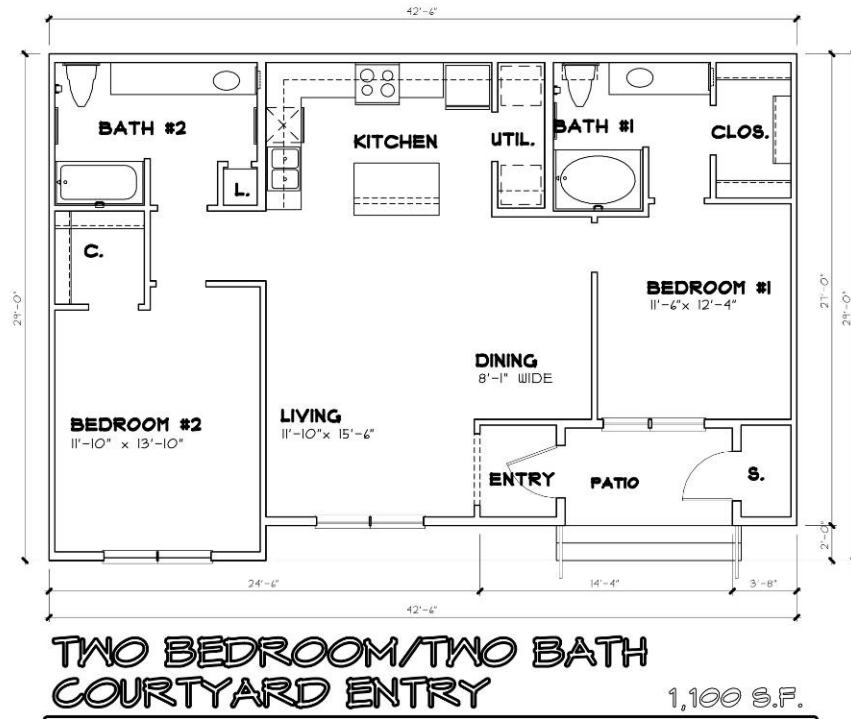


Figure 125:
A typical Two Bedroom/Two Bath with a direct access 1st Floor entry.

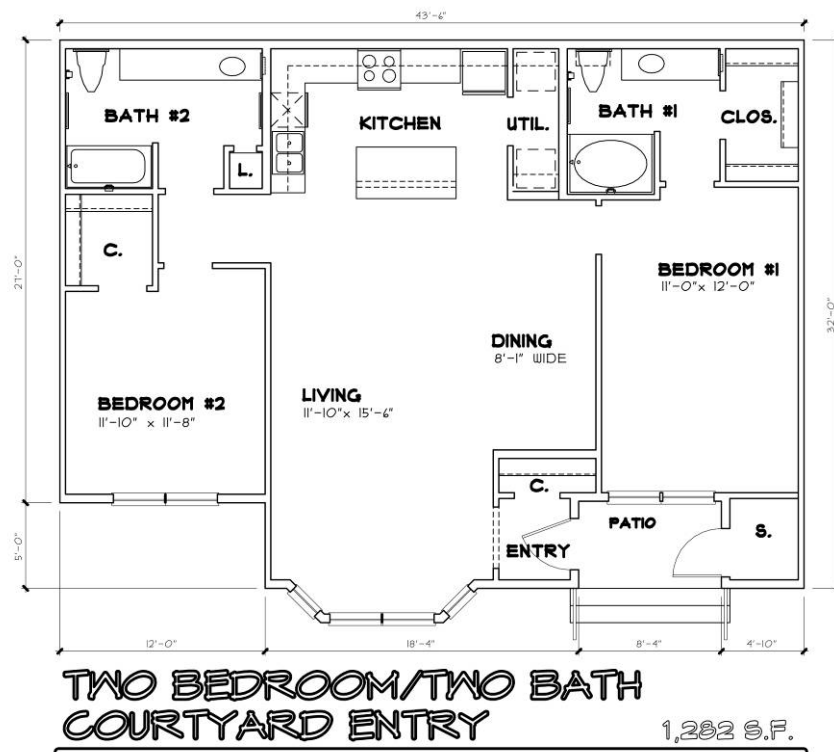


Figure 126:
A typical Two Bedroom/Two Bath with a direct access 1st Floor entry with an addition of a bay window.

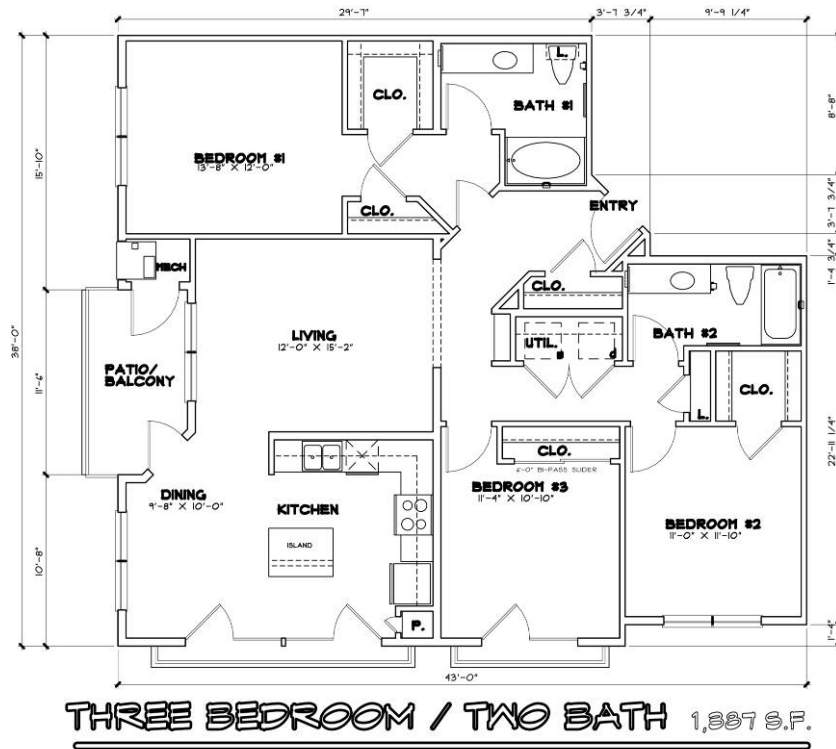


Figure 127:
A typical Three Bedroom/Two Bath Corner Unit.



Figure 128:
The Riverwalk level plan with restaurant and retail space and access to the parking garage. The grand stair to the street level is shown on both sides of the Riverwalk at the lower left.



Figure 129:
The First Floor Plan with delineated open space. Note the front yards of each first floor unit in the courtyard and on the pedestrian street creating private entries to those units.



Figure 130:
The Second Floor Plan.



Figure 131:
The Third Floor Plan.



Figure 132:
The Fourth Floor Plan with Main Office Entrance on Corinth Street.



Figure 133:
The Fifth-Seventh Floors in Plan.

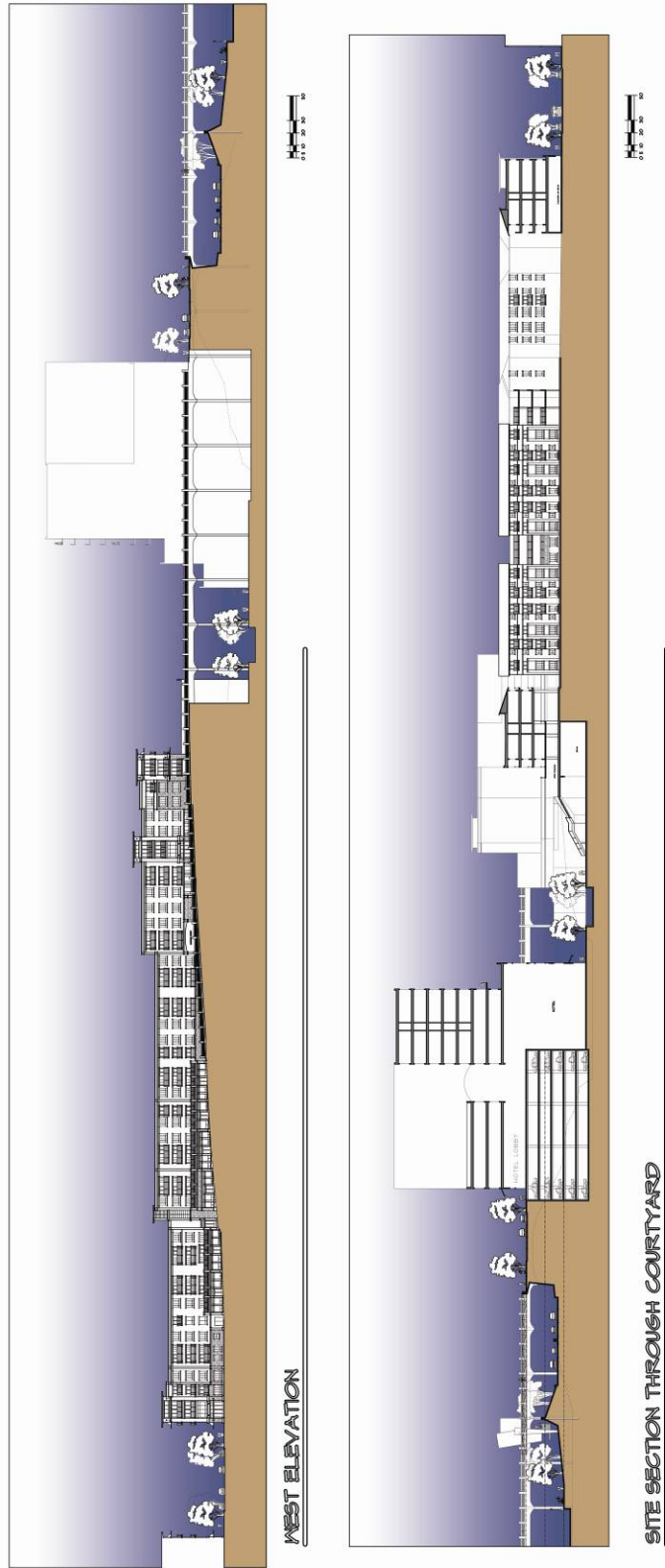


Figure 134:

The top elevation is that of the west façade. This elevation shows the entire elevation along Corinth Street and over the bridge past the hotel and connecting to the boulevard that will reside atop the former levee.

The lower drawing is the section through the Riverwalk and through the main courtyards of the building. It gives a sense of the character of the elevation and the heights of the building in relation to one another as well as an idea of the drop in grade from the residential level to the Riverwalk level.

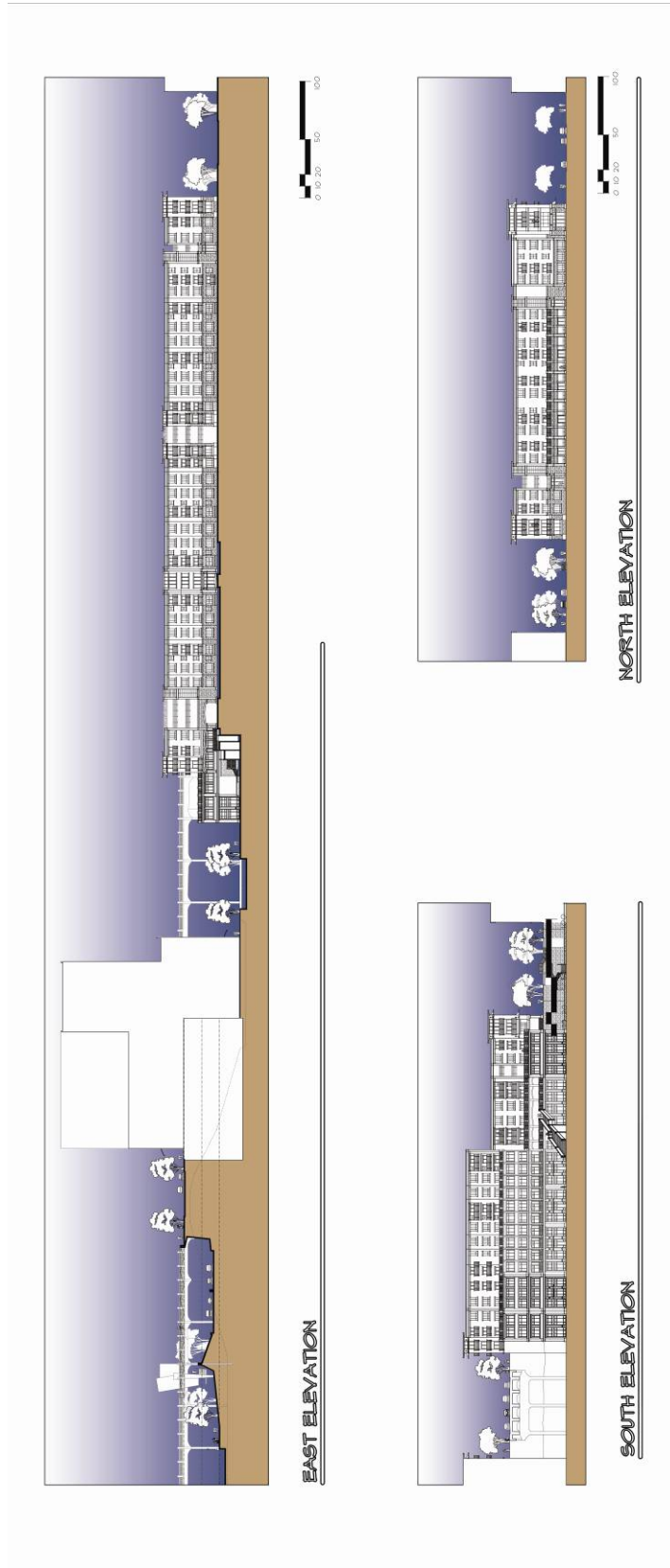


Figure 135:

The top drawing is the East elevation along the new pedestrian street. This elevation allows first floor unit access directly from the street. This elevation also shows the relationship to the Riverwalk level and a section through the grand stair access to that level.

The South elevation on the lower right pictures the retail elevation from the Riverwalk level. To the left of the building is a section through the bridge as it crosses the Riverwalk.

The North elevation is shown on the lower left. This is the Industrial Boulevard Extension elevation with first floor retail and the Residential Leasing Center entrance in the tower on the right side of the elevation.

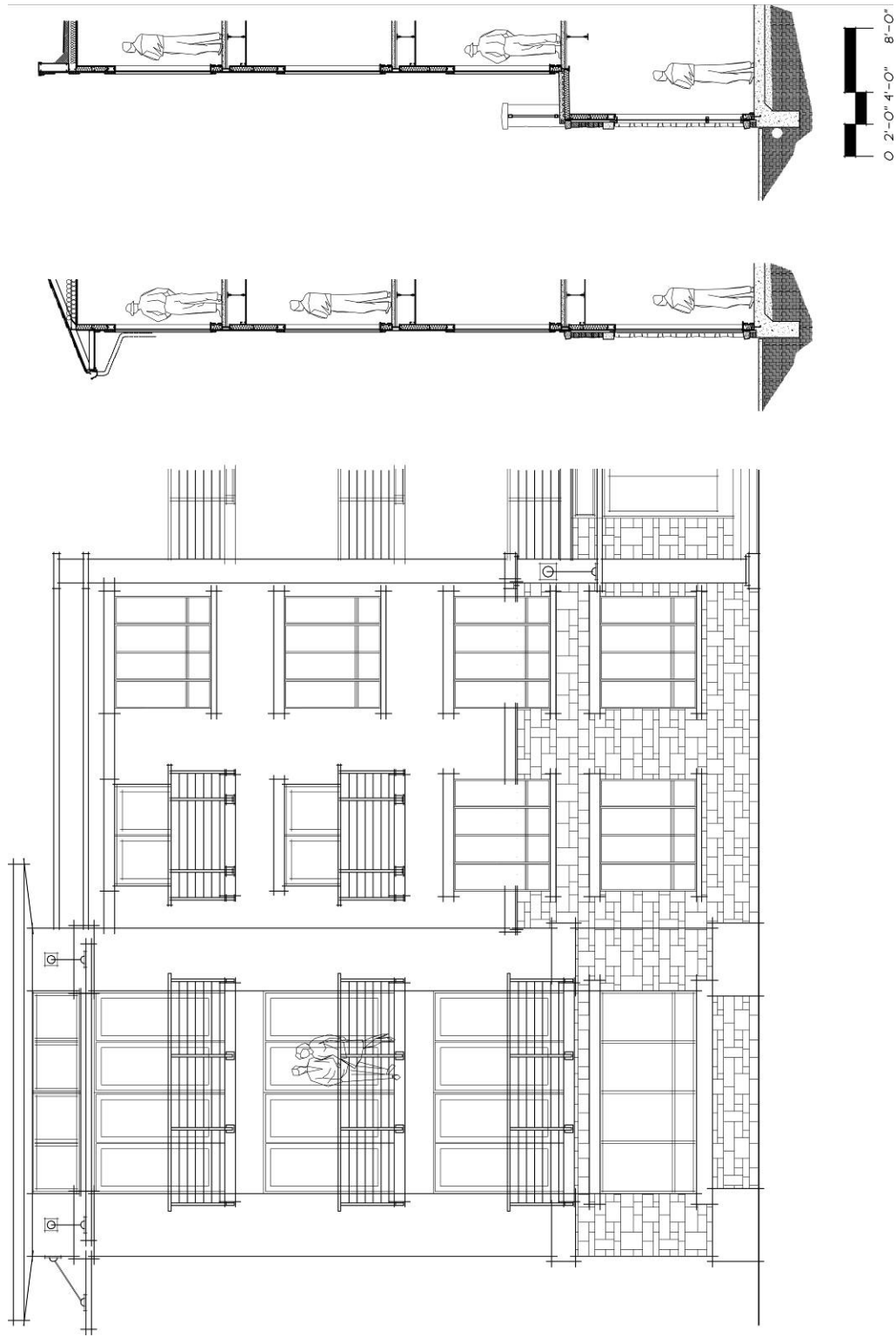


Figure 136:
 This Drawing depicts the typical elevation character with the accompanying wall sections at the same scale. The Materials are to be Texas stone with stucco and cast stone accents. The construction is to non-combustible with the office and retail of pour-in-place concrete with light gauge metal framing in all the residential construction areas.

Trinity Creek Development Site Statistics:

	Gross Floor Area	Office	Retail	Parking
Riverside	57,177		20,882	28,225
First Floor	112,005	11,670	22,738	28,225
Second Floor	119,483	19,802	10,404	27,848
Third Floor	117,600	19,194		27,848
Fourth Floor	117,600	19,194		27,848
Fifth Floor	41,986			27,848
Sixth Floor	27,187			
Seventh Floor	13,345			
Total:	606,383	59,257	54,024	
Site Area:	188,476.1 s.f. / 43,560 = 4.33 acres			
Total Units:	222 units			
Density:	51.27 units/acre			
Site Coverage:	(112,005/188,476.1) =		59.4 %	
Floor Area Ratio (FAR):	(188,476.1/578,158) =		1:3.24	
Parking Spaces:				
One Bedroom	148 x 0.75	=	111	
Two Bedrooms	48 x 1.25	=	60	
Three Bedrooms	14 x 2	=	28	
Retail/Restaurant	(54,024/1000) x 4	=	216	
Office	(59,257/1000) x 2.5	=	148	
Total Required:				563 spaces
Total Provided:	(593/20% reduction)			450 spaces

The intent of this thesis is the change the thinking of architects and developers' working in the city of Dallas, that urban sprawl is not the only way or the most desirable way to exhibit growth in the Dallas Metroplex. This thesis intends to give them another option that helps to stop the sprawl as well as reinvigorate the inner city. By creating pedestrian neighborhoods that take advantage of the growing Rapid Transit system, we create a better alternative to sprawl and build thriving neighborhoods in the city center.

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- ¹ “The Echo Boomers”, CBS News, Sept. 4, 2005. (<http://www.cbsnews.com>)
 - ² “Shattering Old Housing Myths”, *Architectural Record*. July 1992. p. 70.
 - ³ Dittmar, Hank and Gloria Ohland, editors. *The New Transit Town: Best Practices in Transit-Oriented Development*. Washington, DC: Island Press, 2004 p.10-11.
 - ⁴ Ibid, pp. 116-117.
 - ⁵ Guinto, Joseph. “The Big Picture”, *D Magazine*. January 1, 2005.
 - ⁶ “What is the Trinity River Corridor Project?”. (<http://www.trinityrivercorridor.org/html/faqs.html>).
 - ⁷ Ibid.
 - ⁸ “A Balanced Vision Plan for the Trinity River Corridor”. (<http://www.trinityrivercorridor.org>.)
 - ⁹ Organ, Jerry. “Dallas to Dealey”. (<http://mcadams.posc.mu.edu/organ5.htm>).
 - ¹⁰ Dallas historical Society. “Dallas History”. (http://www.dallashistory.org/history/dallas/dallas_history.htm)
 - ¹¹ Ibid.
 - ¹² Dallas Historical Society. “Dallas History Items: The Cedars”. (<http://www.dallashistory.org/history/dallas/cedars>)
 - ¹³ The Office of Economic Development, Dallas, Texas. (<http://www.dallas-edd.org/ardv.htm#cedars>).
 - ¹⁴ *Dallas Development Code, The*. American Legal Publishing Corporation. Cincinnati, Ohio:2005.
Section 51A-4.125.
([http://www.amlegal.com/nxt/gateway.dll/Texas/dallas/volumei/preface?f=templates\\$fn=default.htm\\$3.0\\$vid=amlegal:dallas_tx](http://www.amlegal.com/nxt/gateway.dll/Texas/dallas/volumei/preface?f=templates$fn=default.htm$3.0$vid=amlegal:dallas_tx))
 - ¹⁵ Ibid.
 - ¹⁶ Dillon, David. “This Year’s AIA Award Winners Share a Decidedly Fresh Approach to Design”. *Dallas Morning News*. October 20, 2001.
 - ¹⁷ <http://www.dart.org/DARTexpansionDates.pdf>
 - ¹⁸ Dittmar, Hank and Gloria Ohland, p. 160.
 - ¹⁹ Fisher, Lewis F. *Crown Jewel of Texas: The Story of San Antonio's River*. San Antonio, Texas. Maverick Publishing Company 1999. p. vii.
 - ²⁰ Ibid, pp. 57-60.
 - ²¹ Long, Christopher. *The Handbook of Texas Online*. The University of Texas. Austin, Texas.
(<http://www.tsha.utexas.edu/handbook/online/articles/PP/hpp1.html>)
 - ²² Ibid.
 - ²³ *Congress for the New Urbanism*. (<http://www.cnu.org/index.cfm>).

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