

Executive Summary
Carrollton's Transit Oriented Development
Transportation and Parking Study

Introduction

The City of Carrollton has developed a vision for transit-oriented development (TOD) around two of the proposed DART stations (**see Exhibit i**). That effort was summarized in a series of reports accepted by the city council beginning in the year 2002, known as the "Renaissance Initiative." Elements of that vision are being further refined through projects such as this report.

This study presents the technical analysis and conceptual designs to facilitate the implementation of the transportation and parking elements of the original vision within the Transit Center District. Furthermore, the study recommendations and conceptual designs were guided by certain objectives, or "themes" that reflect both the previous development visions, and the practical needs of the implementation process. Those themes include:

- Minimizing local impacts;
- Using the city's TOD growth development projections;
- Accounting for multi-modal environment;
- Developing alternative solutions; and
- Considering short-term and long-term needs.

With the results of this study, the city can prioritize projects; seek funding sources; and make use of right-of-way opportunities for the implementation phase. It is recognized that other, recent studies for infrastructure improvements - such as drainage and water utilities - have been developed by other consultants to the city. The implementation of infrastructure improvements will help encourage TOD development.

The areas surrounding the DART stations at Downtown and Trinity Mills, as well as the corridor linking the two, is in essence the study area (**see Exhibit i**).

Study Findings & Recommendations - Transportation

- Transit Center District will be a multi-modal transportation environment. Development and infrastructure should encourage – and not preclude – all modes of transportation.

- Carrollton's land-use plan forecasts higher development in the TOD areas, both in years 2010 and 2030, as compared to the NCTCOG assumptions.
- Based on a regional transportation model analysis, the entire transportation network was analyzed for multiple years and scenarios. It was determined that the existing roadway network will require additional capacity at select locations to accommodate the future (2030) traffic demand.
- Due to the multi-modal environment in downtown, only two additional lanes (north-south) are needed beyond the minimum circulation and access lanes. Therefore, by 2030, one of the three roadways should be built to a four-lane cross-section: Broadway; Main-Denton; or TOD Connector (**see Exhibit ii**).
- A new Old Denton-Dickerson Connector Road should be constructed to a two-lane minimum cross-section (near DART Trinity Mills Station, **see Exhibit iii**).
- Include the realignment of Capital Parkway at I-35E to connect to the TOD Connector as a long-term project.
- Include the extension of the relocated College Street to Belt Line Road at Hutton Street as a long-term project.
- Construct the extension of 4th Street to Upfield Drive depending on the type of development on the west of I-35E.
- Adopt key Transportation Plan amendments at strategic milestones.
- Consider right-of-way opportunities commensurate with resources and availability.
- Implement traffic calming strategies for select TOD streets.
- The ramp configurations in the current TxDOT I-35E full reconstruction schematics, as well as the Dickerson Parkway Extension project (four-lanes; near Trinity Mills station) provide appropriate access to the TOD areas in Carrollton.
- Operate shuttle buses to provide circulation between the developments on the west of I-35E and the TOD area.

- Recommend that the TIRZ pay for the above improvements to the extent possible.
- Other area capacity improvements are needed as identified in the Implementation Plan.

The implementation plan with escalated construction costs for the transportation projects in the Carrollton TOD area is summarized in **Table i**.

Table i
Transportation Improvements - Implementation Plan

Item	Roadway Projects for Carrollton TOD Area			
	Roadway	Limits		Remarks
		From	To	
2010				
1	Main Street	Downtown	Denton Drive	- Realign in front of station as shown by DART. -Re-stripe as a 3-lane cross-section in front of DART Station.
2	Dickerson Parkway Overpass	Mayes Road	I-35E Southbound Frontage Road	TxDOT to construct this facility with a 4-lane cross- section.
3	TOD Connector; Old Denton-Dickerson Connector; Capital Pkwy.	various	various	Consider Transportation Plan Amendments to incorporate priority street network improvements.
2015				
1	Denton Drive	Downtown	Whitlock Lane	Reconfigure to a 3-lane cross-section.
2	TOD Connector	Belt Line Road	Denton Drive	Acquire ROW for a 2-lane cross-section facility.
3	Denton-Dickerson Connector	Old Denton Road	Mayes Street	Acquire ROW for a 2-lane cross-section facility.

Table i
Transportation Improvements - Implementation Plan (cont'd)

2020				
1	TOD Connector	Belt Line Road	Denton Drive	Construct 2-lane cross-section, \$26M.
2	Denton-Dickerson Connector	Old Denton Road	Mayes Street	Construct 2-lane cross-section, \$6-\$7.5M.
3	4 th Street	I-35E Northbound Frontage Road	Upfield Drive	Include in the MTP, \$3.5M.
2030				
1	Dickerson Parkway Extension	I-35E Southbound Frontage Road	PGBT Northbound Frontage Road	TxDOT to construct this facility as shown on plans.
3	TOD Connector or Main-Denton	Belt Line North	Belt Line North	Provide 2 lanes of additional north-south capacity by widening Main/Denton or the TOD Connector.
4	College Street	I-35E Northbound Frontage Road	Belt Line Road	Extend the realigned College Street to Belt Line Road at Hutton Street.
5	Area-wide	-	-	Operate shuttle buses to provide circulation between the developments on the west of I-35E and the TOD area.
BEYOND 2030				
1	TOD Connector	I-35E Northbound Frontage Road	Capital Parkway	-Construct the TOD Connector Interchange with I-35E. - Extend the TOD Connector to Capital Parkway.

Study Findings & Recommendations – Parking

- “Public parking” in old downtown environments is often a portion of the “non-residential development parking” provided by the city.
- The number, or percent of development parking as public parking spaces provided is in part a policy decision by the City. The recommended public parking supply is 10% of non-residential, development parking.
- The location of the parking facilities versus the developments they serve, as well as the public perception regarding the available parking spaces affects the “efficiency” of the parking supply. Other qualitative factors should be considered in providing new parking facilities (as detailed in the report).
- The estimated Old Downtown Carrollton parking efficiency is 80-85%; the Trinity Mills Station Area parking efficiency is 85-90%.
- In the Old Downtown Carrollton core, the current public parking supply (without DART) is 356 spaces.
- Based on field counts at similar sites and other factors, the following additional public parking supply is recommended:

<u>Area</u>	<u>TOD Start</u>	<u>TOD End</u>
Trinity Mills Station Area	190	250
Old Downtown Carrollton	200	650

- Providing additional parking in Old Downtown Carrollton is a priority. Multiple factors and sites were considered. The final recommendations are as follows (also, see **Exhibits iv and v**):
 - Select surface parking lots that can become garages in the future, with an 80-space minimum footprint.
 - Provide a parking facility east of the DART rail line (e.g., F & G site).
 - Provide a parking facility west of the DART rail line (e.g., site #5)
 - Reserve space for other infrastructure and TOD development.
- Provide enhanced pedestrian walkways to parking facilities.

- Develop parking management plan to discourage transit patrons, and encourage retail patrons. Consider 4-hour time restriction, assigned parking for employees, dedicated police officer, etc.
- Consider parking property opportunities commensurate with resources and availability.
- Revisit the requirements of the Transit District Parking Code.

The implementation plan with escalated construction costs for the parking projects in the Carrollton TOD area is summarized in **Table ii**.

Table ii
Parking Improvements - Implementation Plan

Parking Projects for Downtown Carrollton TOD Area					
Additional Spaces Needed	Surface Spaces		Garage Spaces		Remarks
	Total Spaces	Cost	Total Spaces	Cost	
2010					
200	200	<u>Concrete</u> \$550K - \$700K <u>Asphalt</u> \$300K - \$450K	-	-	1. City to acquire site #5 for a surface parking lot (~78 spaces). 2. Estimated cost of land, buildings, and demolition for site #5 is \$2.0M. 3. Expand existing parking at Carroll/ Main lot by adding ~122 Spaces. 4. Construct an enhanced pedestrian-way.
2020					
250+45	125	<u>Concrete</u> \$550K - \$800K <u>Asphalt</u> \$300k - \$500K	245	\$6.0M - \$7.5M	1. Construct a 3-level parking garage on site #5. 2. Provide an extra 45 spaces to replace the removed parking at the Gazebo. 3. Expand existing parking at Carroll/ Main lot by adding ~125 Spaces.
2030					
200	-	-	445	\$16.2M - \$19.6M	1. Construct a parking garage in the vicinity of the Carroll/Main parking lot (F & G site).

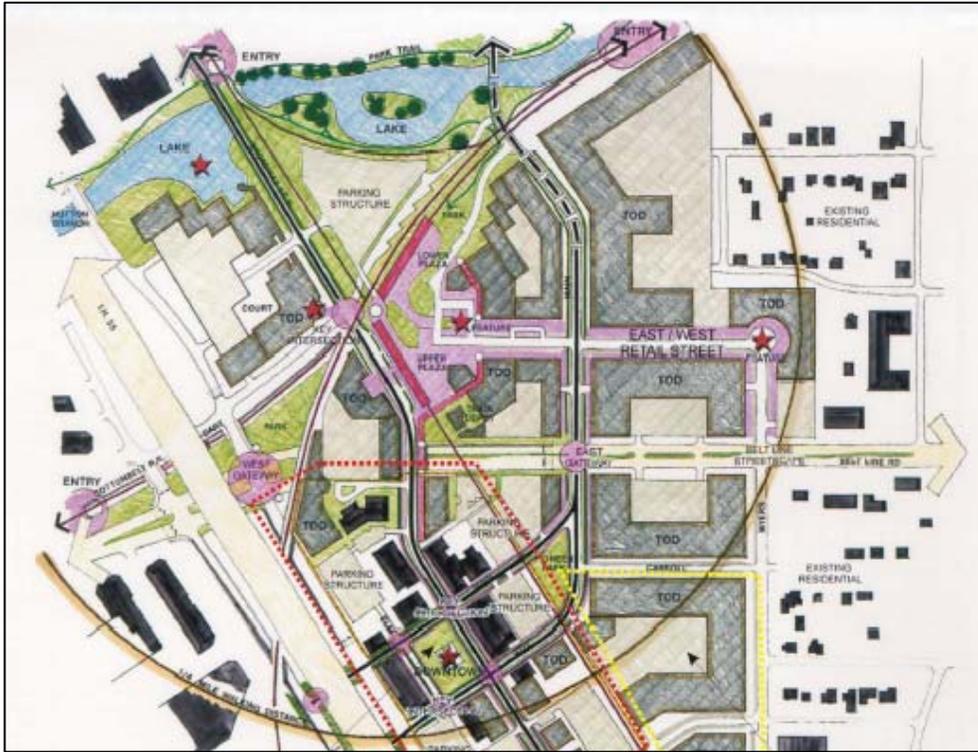


Exhibit i Downtown Carrollton (Top) and Trinity Mills (Bottom) Site Concept Plans, Renaissance Initiative Report.

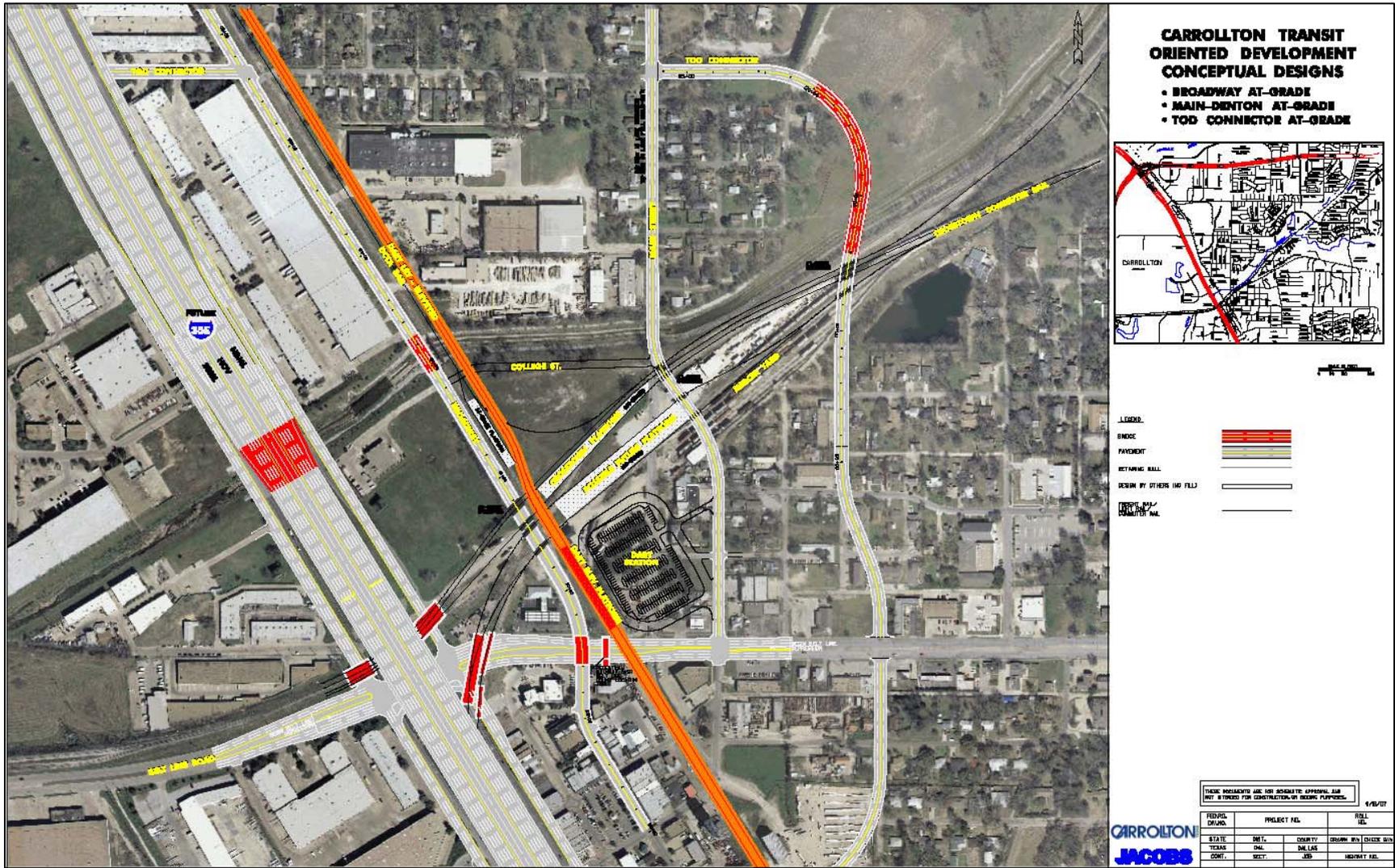


Exhibit ii Downtown Carrollton Recommended Roadway Options.

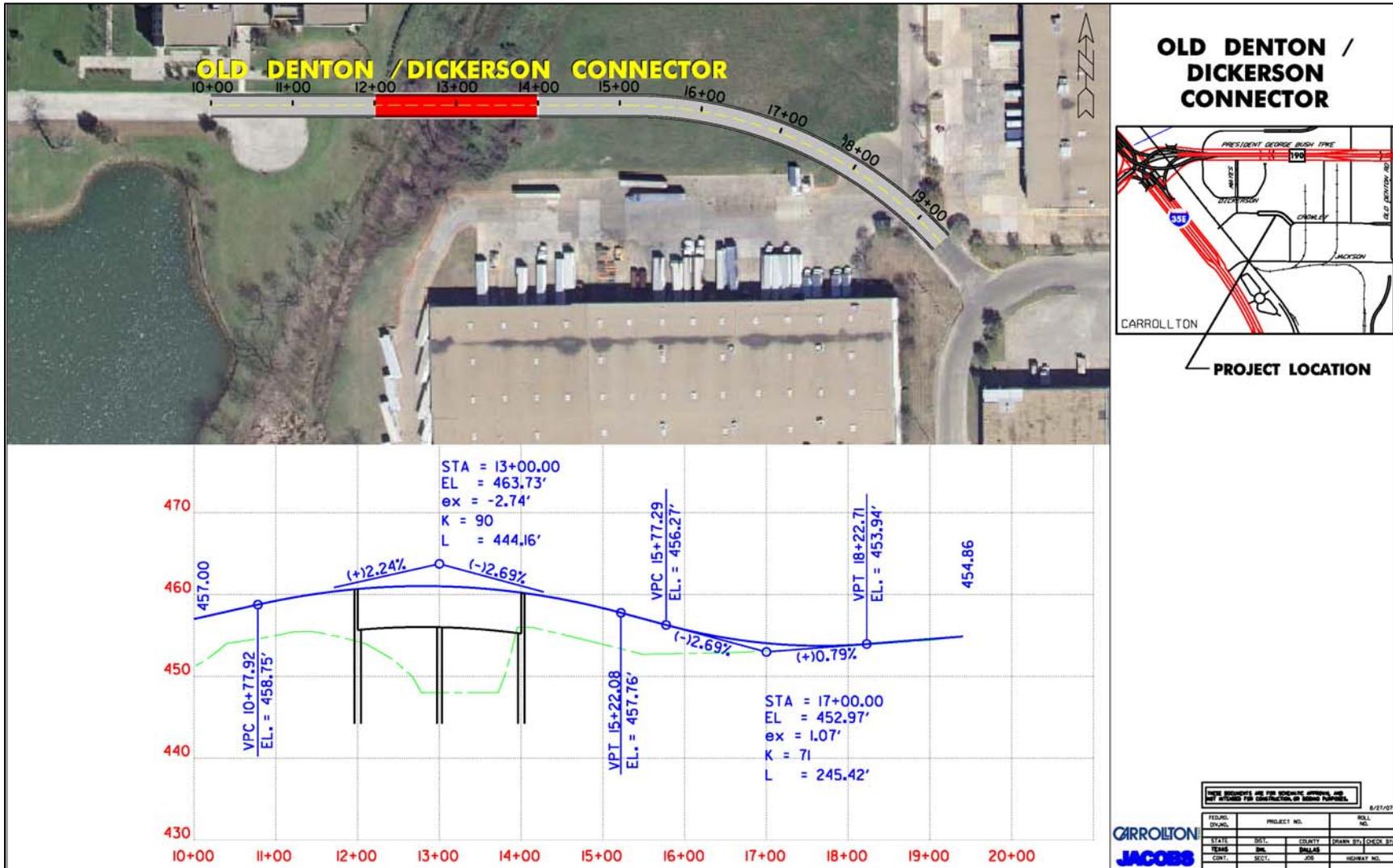


Exhibit iii Old Denton/Dickerson Connector Near Trinity Mills Station.

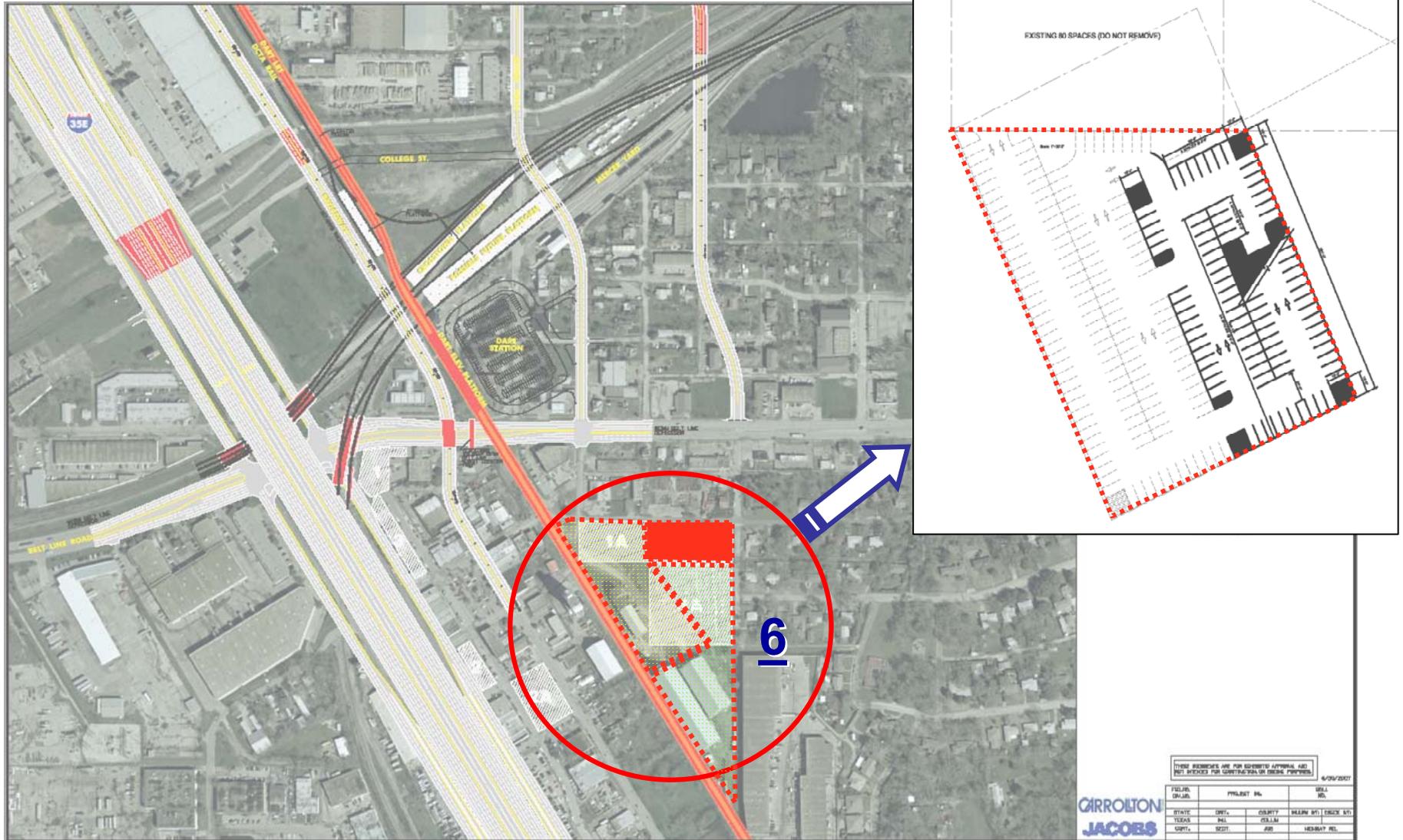


Exhibit iv Parking Facility Layout on the East Side of Dart Rail Tracks (e.g., Site #6 on F&G Site).

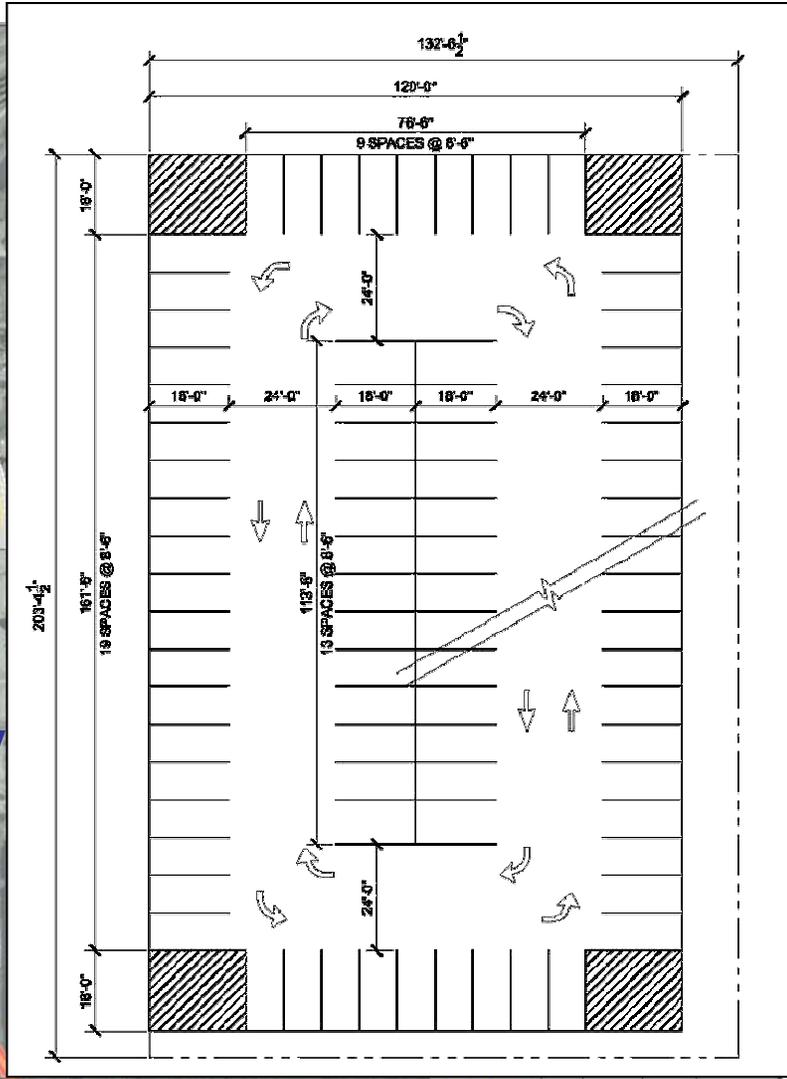


Exhibit v Parking Facility Layout on the West Side of Dart Rail Tracks (e.g., Site #5 Between Vandergriff And 5th Street).