

Memorandum



CITY OF DALLAS

DATE 22 August 2014

TO The Honorable Members of the Transportation and Trinity River Project Committee:
Vonciel Jones Hill (Chair), Lee Kleinman (Vice Chair), Deputy Mayor Pro Tem Monica Alonzo,
Mayor Pro Tem Tennell Atkins, Sandy Greyson, and Sheffie Kadane

SUBJECT Cotton Belt Corridor

On Monday, 25 August 2014, you will be briefed on the Cotton Belt Corridor. The briefing materials are attached for your review.

Please feel free to contact me if you need additional information.

A handwritten signature in black ink, appearing to read 'Jill Jordan'.

Jill A. Jordan, P.E.
Assistant City Manager

Attachment

c: A. C. Gonzalez, City Manager
Warren M.S. Ernst, City Attorney
Craig D. Kinton, City Auditor
Rosa A. Rios, City Secretary
Daniel F. Solis, Administrative Judge
Ryan S. Evans, First Assistant City Manager
Forest E. Turner, Assistant City Manager

Joey Zapata, Assistant City Manager
Charles M. Cato, (I) Assistant City Manager
Theresa O'Donnell, (I) Assistant City Manager
Jeanne Chipperfield, Chief Financial Officer
Sana Syed, Public Information Officer
Elsa Cantu, Assistant to the City Manager – Mayor & Council

Cotton Belt Corridor

Transportation and Trinity River Project Committee
25 August 2014



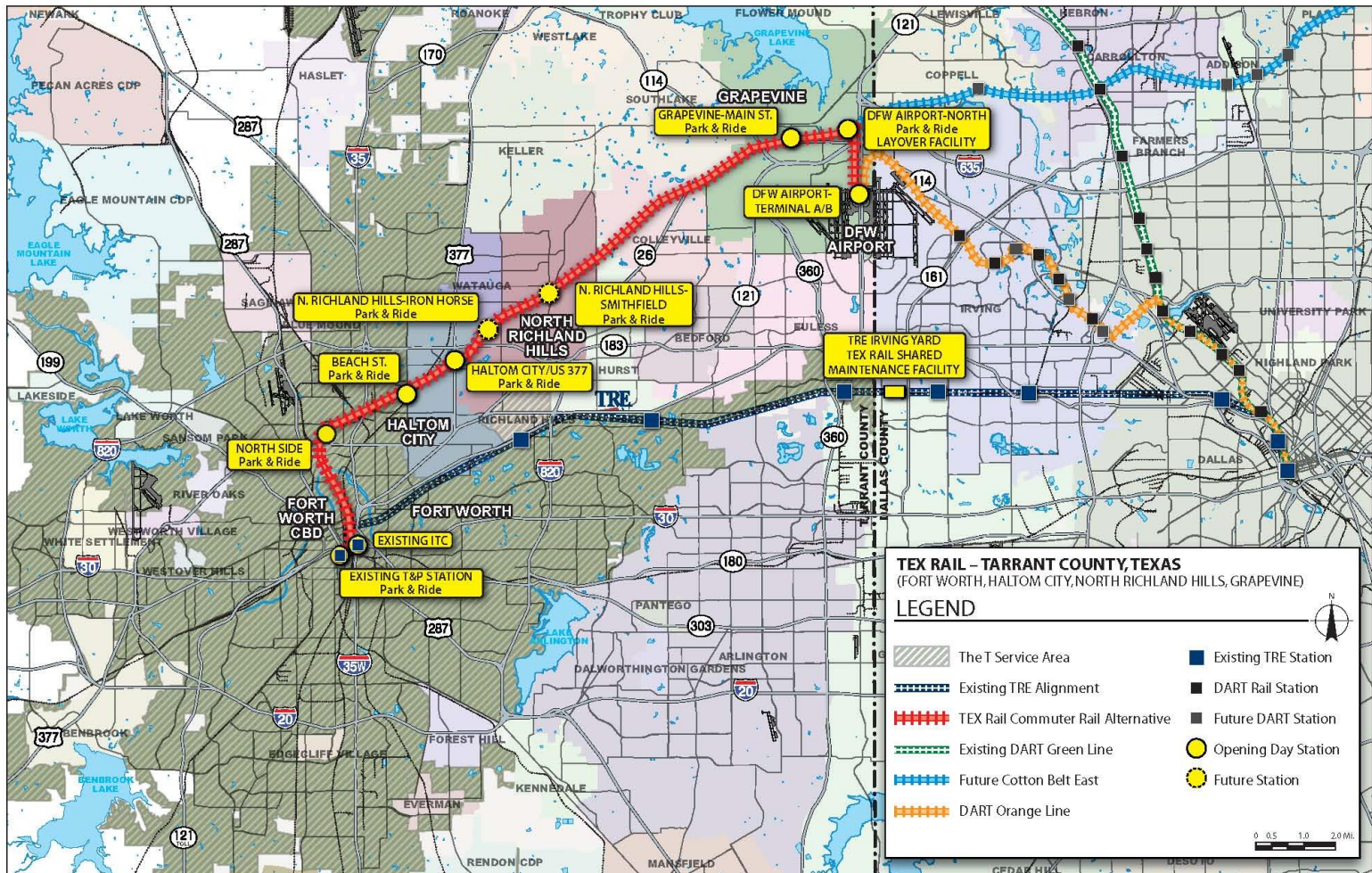
Presentation Outline

- ▶ **Overview**
 - ▶ Corridor Location
 - ▶ Ownership
 - ▶ TEX Rail Project
- ▶ **Project Development**
 - ▶ Anticipated Private Sector Proposal
 - ▶ DART Alternatives Development
- ▶ **Next Steps**

Overview

- ▶ **Two independent projects**
 - ▶ The Fort Worth Transportation Authority [“The T”]
 - ▶ Dallas Area Rapid Transit [“DART”]
- ▶ **Serves a large part of the region**
 - ▶ Located in Dallas, Collin and Tarrant counties
 - ▶ Thirteen (13) Cities
 - ▶ Two (2) Universities (University of Texas at Dallas and Texas A&M Research & Ext Center)
- ▶ **Important transit connections**
 - ▶ D/FW Airport and Orange Line Connection
 - ▶ DART Green Line and Red Line Connections
- ▶ **DART owns fifty-two (52) miles of Cotton Belt right-of-way**

TEX Rail Project

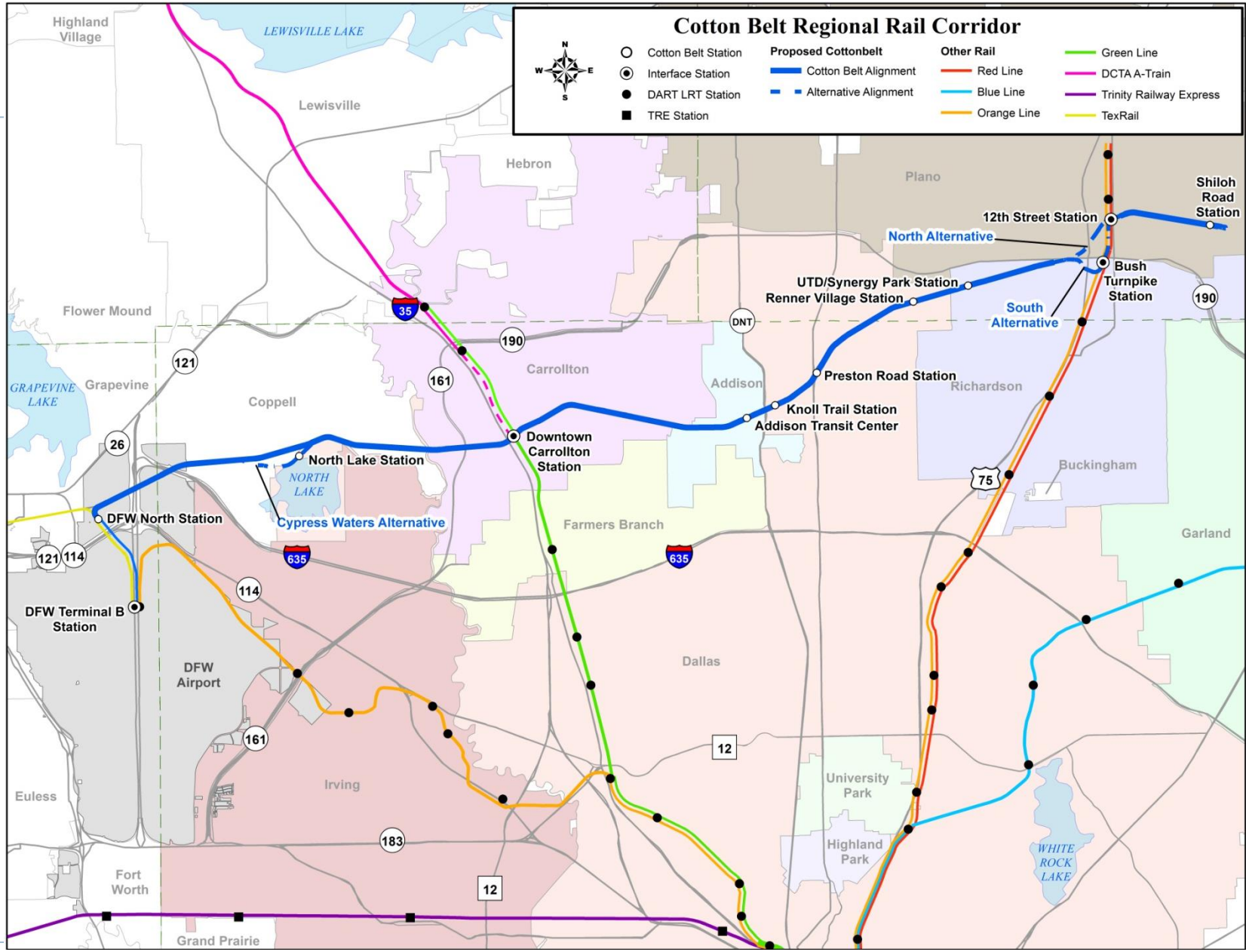


TEX Rail Status

- ▶ The T submitted New Starts application for TEX Rail in October 2011
 - ▶ Seeking \$405 million in federal funding
- ▶ In August 2013, The T Board redefined project as Minimum Operable Segment [“MOS”] from Downtown Fort Worth to the D/FW Airport station
 - ▶ Revised environmental document under review by Federal Transit Administration [“FTA”] and Federal Aviation Administration [“FAA”]
- ▶ Anticipated revenue service in 2018

Recent History

- ▶ DART Public Private Partnership [“PPP”] meeting
 - ▶ May 2009
- ▶ Cotton Belt Conceptual Engineering and Funding Study (NCTCOG)
 - ▶ Completed April 2010
- ▶ Cotton Belt Innovative Finance Initiative (NCTCOG)
 - ▶ Initiated July 2010 and Completed December 2011
- ▶ DART Board
 - ▶ Authorized the President/Executive Director in May 2010 to enter into an Memorandum of Understanding [“MOU”] with the Regional Transportation Commission [“RTC”] to receive proposals to advance Rail Service in the Corridor
 - ▶ No proposals were received; MOU no longer in effect



Potential Dallas Stations

- ▶ Cypress Waters-North Lake
- ▶ Knoll Trail-DNT area
 - ▶ Opportunity for significant redevelopment and economic benefit to city
- ▶ Preston Road
 - ▶ Neighborhood residents have voiced concerns
- ▶ Coit Area
 - ▶ Texas A&M area redevelopment
 - ▶ University of Texas at Dallas
 - ▶ Transit Oriented Development

Project Benefits

- ▶ Provide passenger rail connections and service between the DART, Denton County Transit Authority [“DCTA”], and The T service areas
- ▶ Provide for crosstown movement and connections to D/FW Airport
- ▶ Reduce congestion/travel delays along the northern tier of the region

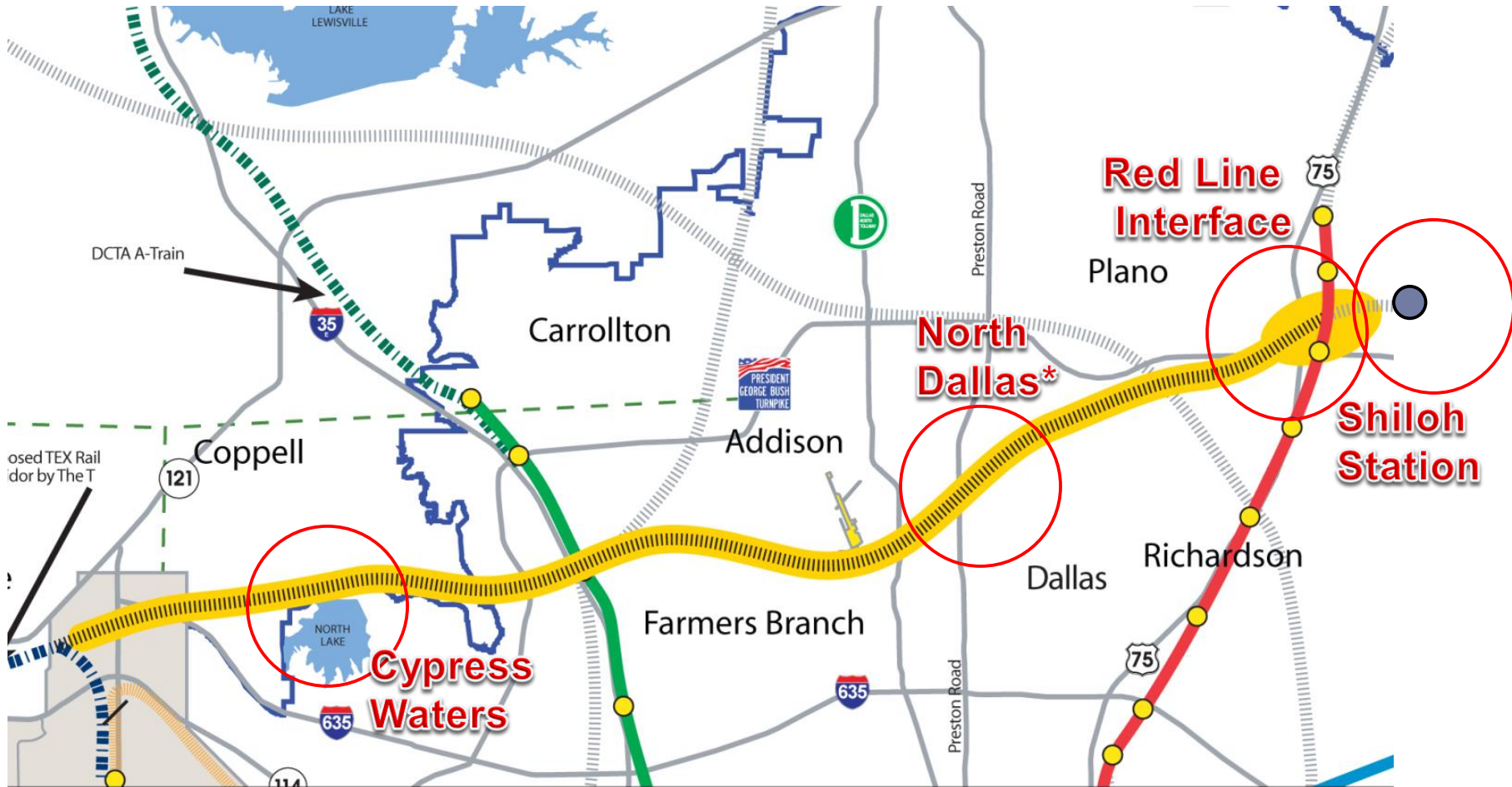
Project Benefits (continued)

- ▶ Provide reliable connections between existing and proposed transit system
- ▶ Promote development along the corridor through Transit Oriented Development [“TOD”] opportunities
- ▶ Opportunity to incorporate Cotton Belt Hike and Bike Trail within the Project

Project Development

- ▶ DART Initiated Preliminary Engineering Effort
 - ▶ Notice of Intent issued in July 2010
 - ▶ Advanced Engineering and Environmental Analysis
- ▶ Preliminary Engineering Effort to Support and Provide Starting Point for Private-Sector Proposal
 - ▶ No Proposal Received
- ▶ Completed Documentation of Environmental Conditions and 5% Engineering Report
 - ▶ April 2014
 - ▶ Spent Approximately \$8 million

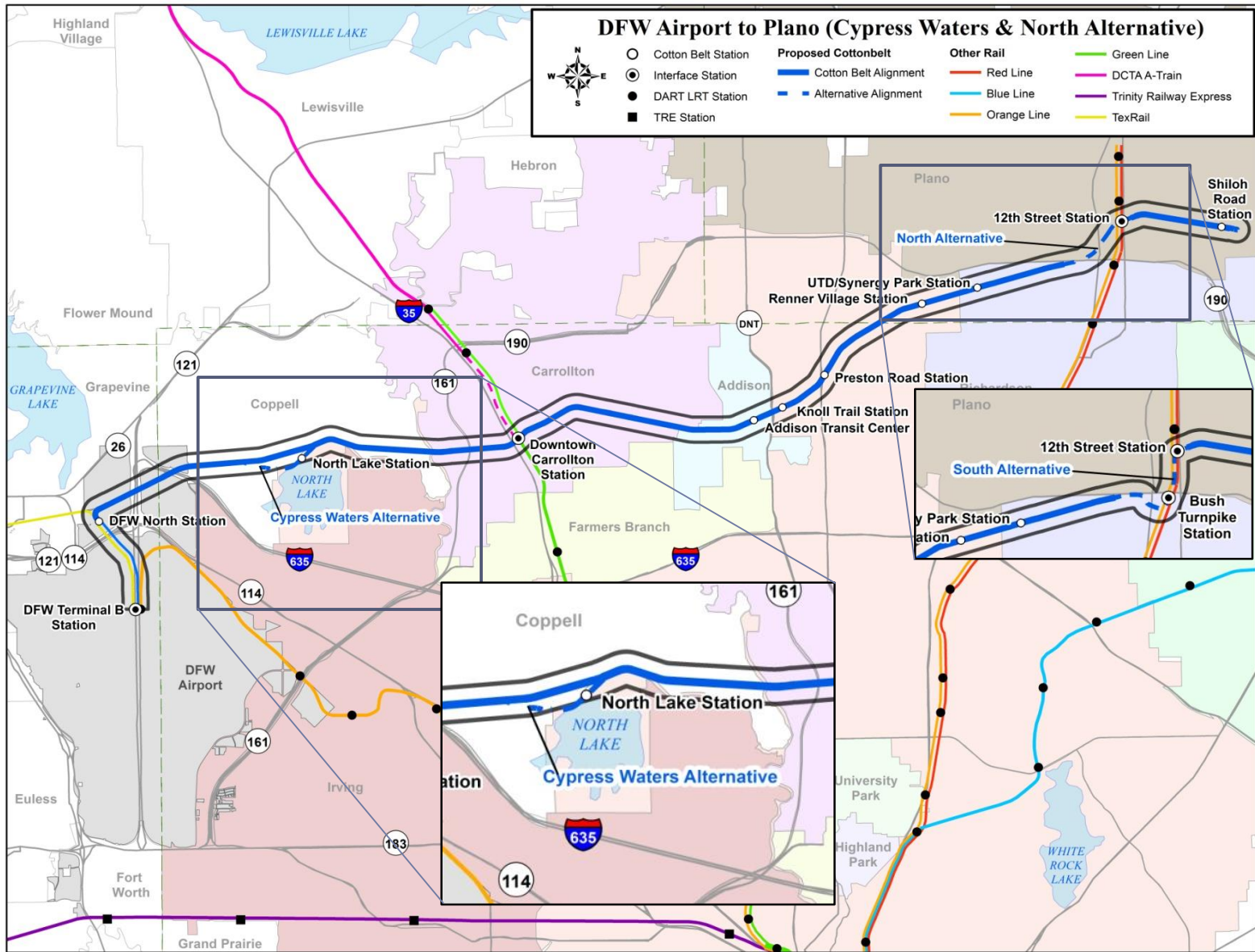
Design Alternatives



* At-Grade; Tunnel

Range of Alignment Options Evaluated

- ▶ **Base Line project options**
 - ▶ Double track rail
 - ▶ Lowest cost rail
 - ▶ Bus Rapid Transit [“BRT”]
- ▶ **Alignment alternatives**
 - ▶ Cypress Waters
 - ▶ Interface with Red Line east of Central Expressway
- ▶ **Profile options in North Dallas**
 - ▶ At-grade
 - ▶ Tunnel



Operable Segments

Scenario	Double-Track	Lowest Cost Rail	BRT
DFW-Plano	12	2	4
Carrollton-Plano	6	2	4
Carrollton-Addison	1	1	2
DFW-Carrollton	2	0	0
DFW-Addison	2	1	2

Regional Rail Vehicle



Major Assumptions – Double Track Rail

- ▶ 2020 revenue service start
- ▶ TEX Rail to D/FW Airport and the DCTA extension to Downtown Carrollton are completed before 2020
- ▶ Assumption of a federal grant for 20% of the capital cost, the remainder of the capital costs to be funded with debt
- ▶ DART will contribute no money to construction or operations until 2035 at the earliest

Major Assumptions – Double Track Rail

- ▶ New Diesel Multiple Unit [“DMU”] vehicles
- ▶ Full double-tracking along the whole corridor
- ▶ 20-minute peak headways, 60-minute off-peak and weekend service

Major Assumptions – Lowest Cost Rail

- ▶ 2020 revenue service start
- ▶ TEX Rail to D/FW Airport and the DCTA extension to Downtown Carrollton are completed before 2020
- ▶ Assumption of no federal grant / All capital costs to be funded with debt
- ▶ DART will contribute no money to construction or operations until 2035 at the earliest

Major Assumptions – Lowest Cost Rail

- ▶ New Diesel Multiple Unit [“DMU”] vehicles
- ▶ 30-minute peak headways, 60-minute off-peak and weekend service
- ▶ No extra work done at Downtown Carrollton to prepare for full double-tracking, no operating facility
- ▶ Rail service stops at D/FW North Station and TEX Rail and/or a bus shuttle takes passengers into D/FW Airport
- ▶ Single-track rail service, sidings where necessary

BRT Technology



Valley Rapid, San Jose, CA

BRT Examples



Sample BRT Video



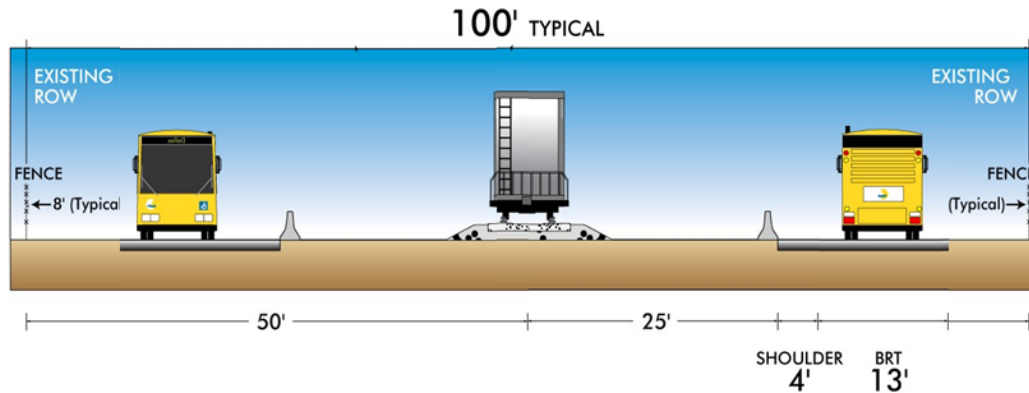
Major Assumptions - BRT

- ▶ 2020 revenue service start
- ▶ Assumption of no federal grant / All capital costs to be funded with debt
- ▶ DART will contribute no money to construction or operations until 2035 at the earliest

Major Assumptions - BRT

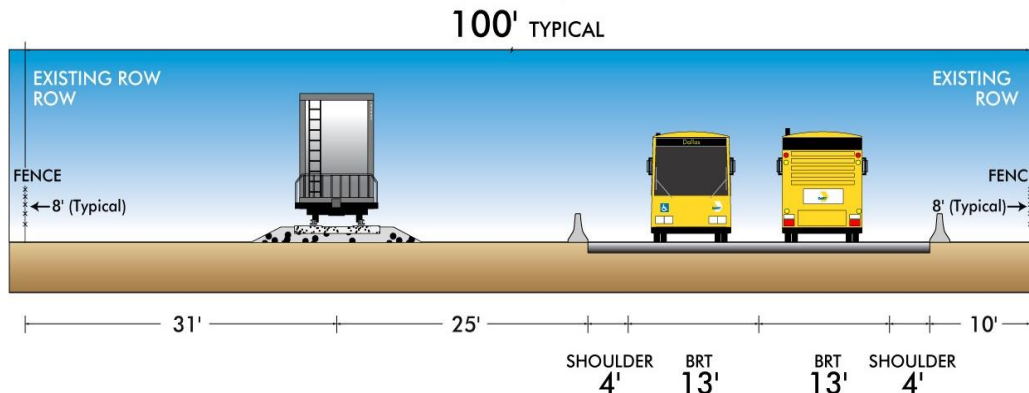
- ▶ TEX Rail to D/FW Airport and the DCTA extension to Downtown Carrollton are completed before 2020
- ▶ Service delivered with articulated buses
- ▶ 10-20 minutes peak headways, 30-minute off-peak and weekend service
- ▶ The BRT corridor ends at D/FW North Station but the bus continues into D/FW Airport

Cross Section



- ▶ BRT split by direction (railroad track does not need to be moved)
- ▶ Shown herein as BRT 1

BRT IN RAILROAD ROW



- ▶ BRT confined to one side (railroad track may need to be moved to make room for busway)
- ▶ Shown herein as BRT 2

Current Status

- ▶ Currently in DART Financial Plan for beyond 2035
- ▶ Strong region-wide support to develop early
- ▶ No other funding source is currently available
- ▶ DART has developed a range of options for consideration

Summary Table: Gross Capital Cost

Operable Segment	Double-Track	Lowest Cost Rail	BRT 1	BRT 2
	Gross Capital Cost	Gross Capital Cost	Gross Capital Cost	Gross Capital Cost
DFW-Plano North Route, At-Grade	\$1,470,526,797	\$611,591,517	\$360,107,663	\$798,707,663
DFW-Plano North Route, Trench	\$1,616,647,814			
DFW-Plano North Route, Tunnel	\$2,076,473,109			
DFW-Plano North Route, At-Grade, with Cypress Waters	\$1,540,898,971			
DFW-Plano North Route, Trench, with Cypress Waters	\$1,687,019,988			
DFW-Plano North Route, Tunnel, with Cypress Waters	\$2,146,845,284			
DFW-Plano South Route, At-Grade	\$1,528,589,806	\$689,545,350	\$393,027,889	\$831,627,889
DFW-Plano South Route, Trench	\$1,674,710,823			
DFW-Plano South Route, Tunnel	\$2,134,536,118			
DFW-Plano South Route, At-Grade, with Cypress Waters	\$1,598,961,981			
DFW-Plano South Route, Trench, with Cypress Waters	\$1,745,082,997			
DFW-Plano South Route, Tunnel, with Cypress Waters	\$2,204,908,293			
Carrollton-Plano North Route, At-Grade	\$1,095,877,380	\$408,964,151	\$209,611,663	\$459,511,663
Carrollton-Plano North Route, Trench	\$1,241,998,397			
Carrollton-Plano North Route, Tunnel	\$1,701,823,692			
Carrollton-Plano South Route, At-Grade	\$1,153,940,389	\$486,483,234	\$242,531,889	\$492,431,889
Carrollton-Plano South Route, Trench	\$1,300,061,406			
Carrollton-Plano South Route, Tunnel	\$1,759,886,702			
Carrollton - Addison	\$453,782,909	\$146,619,161	\$70,748,427	\$154,048,427
DFW-Carrollton	\$582,623,255			
DFW-Carrollton with Cypress Waters	\$652,995,430			
DFW-Addison	\$848,021,559	\$337,030,367	\$220,763,236	\$494,463,236
DFW-Addison with Cypress Waters	\$918,393,734			

Summary Table: Funding through 2034

Operable Segment	Double-Track	Lowest Cost Rail	BRT 1	BRT 2
	Funding Required Through 2034	Funding Required Through 2034	Funding Required Through 2034	Funding Required Through 2034
DFW-Plano North Route, At-Grade	\$1,332,581,123	\$771,885,954	\$362,483,129	\$751,646,332
DFW-Plano North Route, Trench	\$1,436,301,912			
DFW-Plano North Route, Tunnel	\$1,764,572,231			
DFW-Plano North Route, At-Grade, with Cypress Waters	\$1,390,395,821			
DFW-Plano North Route, Trench, with Cypress Waters	\$1,494,116,611			
DFW-Plano North Route, Tunnel, with Cypress Waters	\$1,822,386,930			
DFW-Plano South Route, At-Grade	\$1,378,855,503	\$844,031,935	\$391,692,752	\$780,855,955
DFW-Plano South Route, Trench	\$1,482,576,293			
DFW-Plano South Route, Tunnel	\$1,810,846,612			
DFW-Plano South Route, At-Grade, with Cypress Waters	\$1,435,922,175			
DFW-Plano South Route, Trench, with Cypress Waters	\$1,539,642,965			
DFW-Plano South Route, Tunnel, with Cypress Waters	\$1,867,913,284			
Carrollton-Plano North Route, At-Grade	\$1,053,746,830	\$642,665,763	\$218,556,321	\$440,288,843
Carrollton-Plano North Route, Trench	\$1,157,467,619			
Carrollton-Plano North Route, Tunnel	\$1,485,737,938			
Carrollton-Plano South Route, At-Grade	\$1,099,272,765	\$568,618,721	\$245,061,950	\$466,794,473
Carrollton-Plano South Route, Trench	\$1,202,993,555			
Carrollton-Plano South Route, Tunnel	\$1,531,263,874			
Carrollton - Addison	\$459,585,308	\$239,588,582	\$74,838,706	\$148,749,546
DFW-Carrollton	\$552,427,548			
DFW-Carrollton with Cypress Waters	\$608,176,655			
DFW-Addison	\$795,683,278	\$465,840,333	\$224,985,464	\$467,835,370
DFW-Addison with Cypress Waters	\$850,914,482			

Addressing the Funding Gap

#	Potential Funding Sources	CAPEX	OPEX
1	Contributions in aid of construction	X	
2	TIF Contributions (value capture)	X	
3	Public Improvement Districts		X
4	Contract fee service w/cities		X
5	Naming Rights		X
6	Grants	X	
7	New dedicated taxes / fees	X	X

Next Steps

- ▶ Which mode to pursue
- ▶ Project phasing
- ▶ Identifying funding sources
- ▶ Position the project for grant application
- ▶ Implementing alternative funding possibilities

Discussion
