

DCTA's PATH FORWARD

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- **FOCUS ON STAKEHOLDER VALUE AND A SHARED FUTURE VISION**
– **MOBILITY, AIR QUALITY, DEVELOPMENT, LIVABILITY**
- **ASSESSING EVERYTHING WE DO w/INNOVATIVE SERVICE STRATEGIES**
- **86TH STATE LEGISLATIVE AGENDA & CHAPTER 460 PROPOSED CHANGES**
- **MAXIMIZE TRANSIT ASSETS, BECOME MORE EFFICIENT AND EFFECTIVE, BUILD A GREAT EMPLOYEE CULTURE AND A QUALITY BRAND**



- **RESTRUCTURING THE AGENCY (Phase 1) COMPLETE**
- **NEW 3 YEAR AGREEMENT w/ AMALGAMATED TRANSIT UNION LOCAL 1338 COMPLETE**
- **START POSITIVE TRAIN CONTROL REVENUE SERVICE DEMONSTRATION – COMPLETE, 1ST in TEXAS**
- **EVALUATING EXISTING OPERATING AGREEMENT IN PROCESS – MAR, 2019**
- **OPERATING COST MODEL BY CITY + TTI SERVICE ANALYSIS IN PROCESS – MAY, 2019**
- **FINALIZE ELAP PROGRAM OR EQUIVALENT – MAY, 2019**
 - **FINANCIAL MODELING & STAKEHOLDER WORKSHOPS**



Investments made by the city as a percentage of funding from the three sales-tax providing cities



- Sales tax from DCTA's three member cities represents the largest source of revenue for DCTA at 64.13% for the Fiscal Year 2019 budget



- From FY2011 to FY2018, Lewisville's sales tax receipts have increased 66%. DCTA's sales tax receipts (from all three member cities) have increased 63% over the same period



- To date, Lewisville's sales tax collections from 2011 - 2018 = \$200M; DCTA's sales tax collections during the same period = \$89.6M



- A-train Station Area Development = ~\$400M and growing

IMPROVING EFFICIENCIES & MAXIMIZING CITY'S RETURN ON INVESTMENTS WITHIN LEWISVILLE



Sales Tax Breakout by City FY2011 - FY2018

Cities	Growth	Total
Denton	70%	\$ 227,449,413
Highland Village	29%	\$ 27,717,287
Lewisville	66%	\$ 252,060,421
Total		\$ 507,227,121
DCTA	63%	
Denton Estimated Portion		\$ 80,873,173
HV Estimated Portion		\$ 9,859,762
Lewisville Estimated Portion		\$ 89,635,795
Total		\$ 180,368,730



Local Assistance Program (LAP)



- Mike Levitan (DART's former Head of Financial Planning and Budget/CPA) is leading the project
- Update the DCTA financial plan to ensure necessary financial coverages and operating requirements are included. LAP options will also be included in the financial plan as it is developed



IMPROVING EFFICIENCIES & MAXIMIZING CITY'S RETURN ON INVESTMENTS WITHIN LEWISVILLE



Create an accurate allocation of administrative costs within DCTA service contracts – establishing a cost of service model so that DCTA cities do not cover overhead



costs

- Cost of service analysis as requested by letter from the member cities on November 1, 2018 – The Texas A&M Transportation Institute. This is not typical industry practice (this is different than the Benchmark Study):



- Cost of all Bus service for each of the member Cities
- Cost of Rail service (I-35E Corridor)
- Cost for each of “Innovative services”
- Cost of all contract for services (UNT, Frisco & McKinney Contracts)
- Establish a reserve policy to meet all current Bond requirements



- Conduct an efficiency review of DCTA’s direct, indirect and administrative overhead to include headcount and cost of service (timeline to follow based on input from member cities)



Moving to new modes of transportation services, Mobility as a Service (MaaS)

- Focus on best value service strategy & broker of services
- Transition significant portions of service to Micro Transit to improve mobility effectiveness and efficiency
- Transition to smaller fleet to lower cost and be more efficient
- MaaS RFP issued in January 2019, award by end of March 2019
 - Micro Transit Providers e.g. VIA
 - Bikes, Scooters, E-Car
 - Autonomous Vehicles
 - Uber, Lyft, Bubble, etc.
 - Software as a Service Platform Co. (Uber-like for transit)
 - Fare Payment Platform Co.





Redefining Lewisville service delivery strategy, better return on investment

- Focus on shorter trips with more frequency
- Hebron Station/Lakeway Zone launched January 2019
- Evaluate Route 21 & 22 for potential change to zone service, August 2019
- Develop On-Demand Service Plan for Old Town Area
- Explore Old Town Trolley with connection to A-train
- Develop Service Plan for Main Street / F.M. 1171 West of I-35E
- Options for Lewisville to Flower Mound Service for Elderly and Disabled
- Last mile options for trail connectivity– Importance of regulatory consistency between cities



DCTA TO PARTNER WITH CITY ON POTENTIAL TRANSPORTATION PROGRAMS



- Main Street / F.M. 1171 corridor plan – traffic signal timing coordination, signal priority to speed up commute from West Lewisville to A-train station
- Review Business 121 corridor planning options from SRT 121 to I-35E
- DCTA Rail O&M Land Use Plan
- Storm Management and Infrastructure Projects that support transit and mobility
- Explore opportunities for station area development
- Work with Member Cities regarding I-35E corridor economic development opportunities

EAST/WEST REGIONAL CONNECTIVITY – CONNECTING DENTON AND COLLIN COUNTIES



Benefits to Denton County/Lewisville for improving connection in Collin County



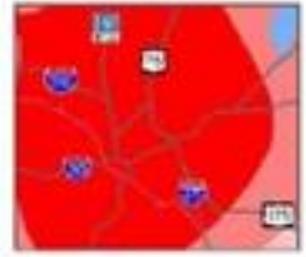
- Denton & Collin counties are the fastest growing in the DFW region, with Collin County in the lead
- It is critical that this region address the expected growth and start planning now
- Distribution of Federal funds to the North Texas Region and the importance of regional planning, distribution of funds to Urbanized Areas (UZA) via Metropolitan Planning Organizations (MPO) NCTCOG
- Important for Lewisville/Highland Village to lead advancing opportunities that benefit development along BUS-121 and SRT-121/I-35E
- High potential for growth within Old Town area with a well-defined plan



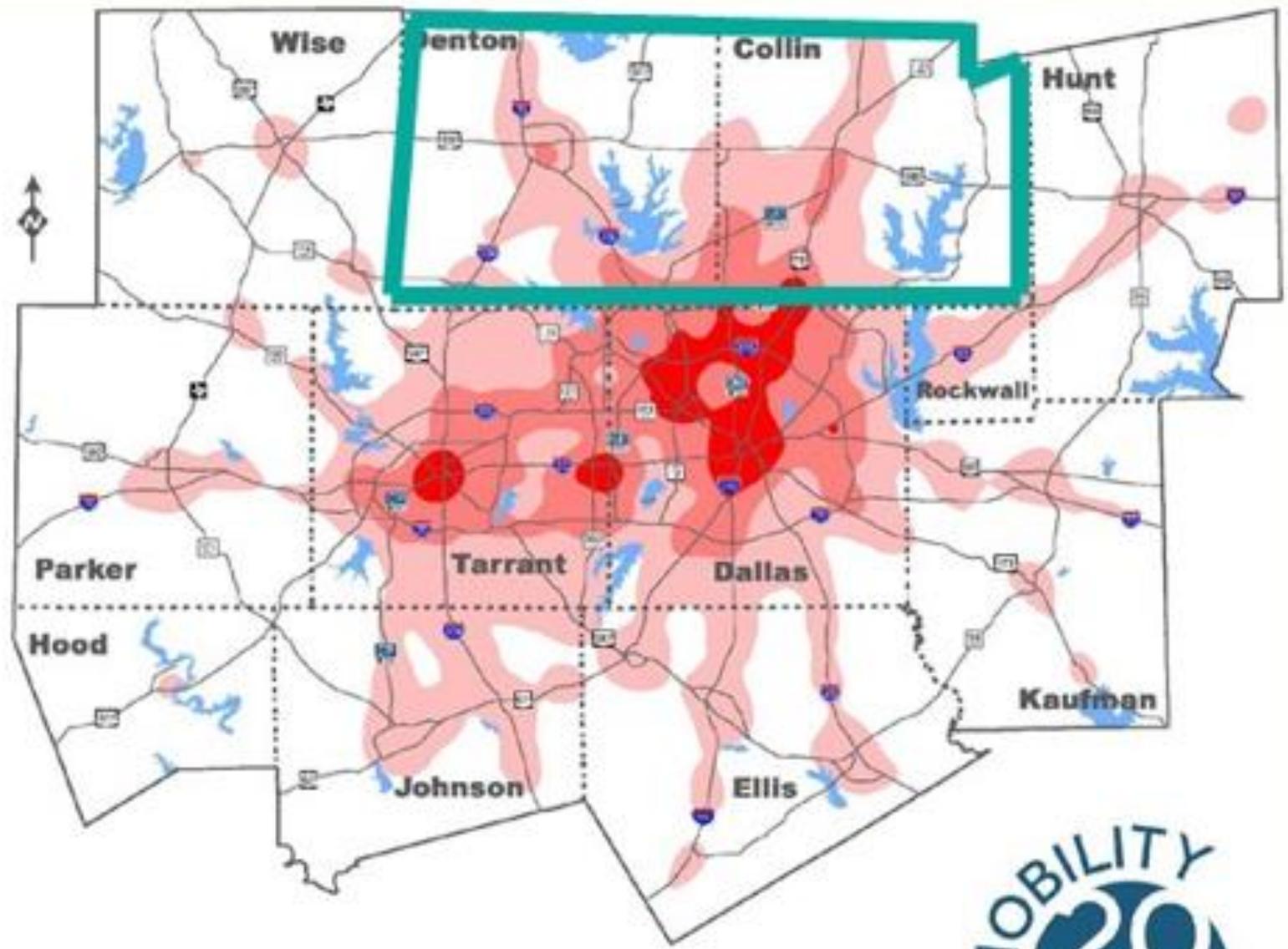
Congestion Index*

-  No Congestion
-  Light Congestion
-  Moderate Congestion
-  Severe Congestion
-  Major Roads

Dallas CBD



Fort Worth CBD



Cost of Congestion/Delay: \$10.7 billion

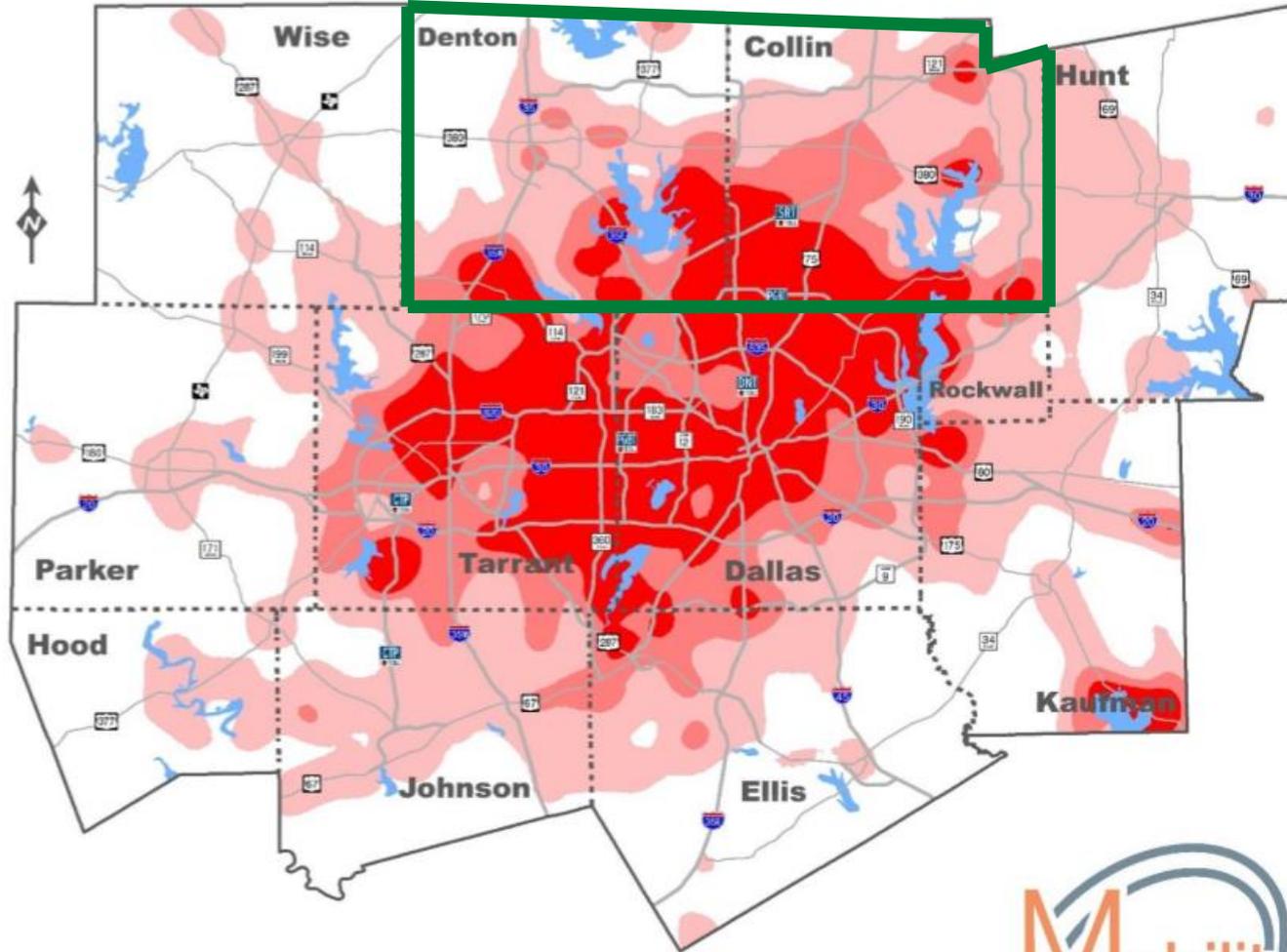
*Congestion Index is based on a percent increase in travel time.



2045 Levels of Congestion/Delay

2040 Network without TEXpress Lanes

- No Congestion
- Light Congestion
- Moderate Congestion
- Severe Congestion



Cost of Congestion/Delay: \$31.6 billion

Congestion Index is based on a percent increase in travel time.



EAST/WEST REGIONAL CONNECTIVITY – CONNECTING DENTON AND COLLIN COUNTIES



Commuter Bus linking Old Town Lewisville to McKinney along SRT-121

- Federal Grant Proposal submitted ~ \$6.4M for Vehicles, Infrastructure and First/Last Mile services
- Strong grant proposal; if not successful, the grant application will be submitted for future grant opportunities
- SRT-121 service is part of the 2045 Mobility Plan corridor of interest
- Timing of the Commuter Service will not impact Old Town Station Development Plan

SRT 121 DEVELOPMENTS: PROPOSED ROUTE 70

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70 Old Town to McK

Weekday

FROM	TO	EVERY	RUNTIME
05:00	21:00	40 min	131.7 min

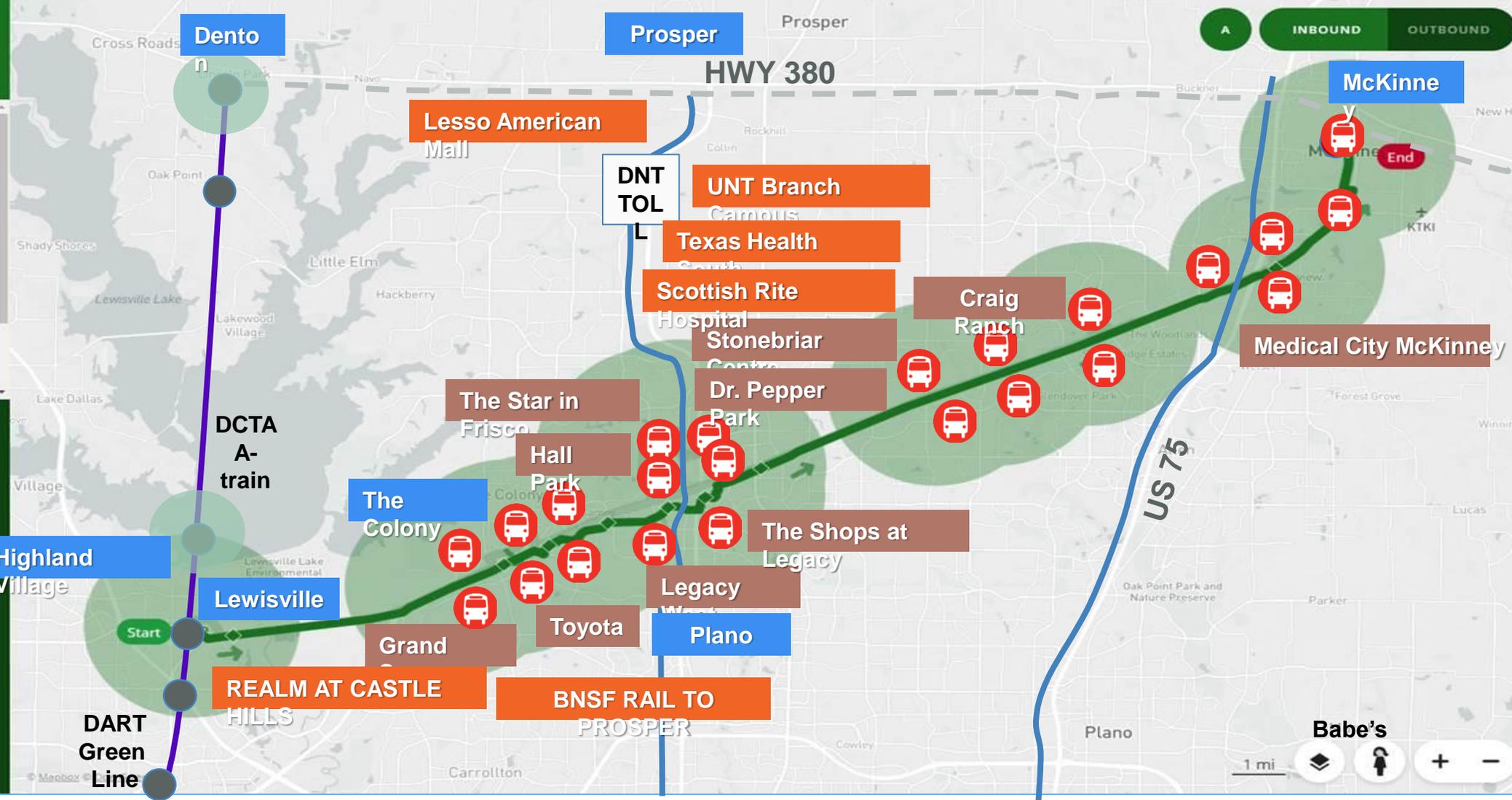
Saturday

FROM	TO	EVERY	RUNTIME
05:00	21:00	80 min	131.8 min

Sunday

58.40 miles
4 vehicles - Bus
\$1.89 million / year

👁 Within 2 mi of stops:
243,514 population
160,548 jobs
7.3% in poverty
44.2% minority
7.8% seniors (65+)
28.1% youth (18-)
5.6% limited English
6.2% with disabilities
2.8% with no vehicles



TEXRAIL
COTTONBELT

DCTA OLD TOWN DEVELOPMENT PLAN



DCTA OLD TOWN DEVELOPMENT PLAN





Collin County Initiatives, Autonomous Vehicles in Frisco

- DCTA involvement with the Transit Management Association (TMA)
- Drive.ai Pilot Program at Blue Star and Hall Development
- Pilot fully funded by Drive.ai; Member Cities of DCTA have no financial investment
- Drive.ai AV Program is one of the first in the Country supported by the NCTCOG; asked DCTA to lead the project. Program was highly competitive for site location in Texas
- DCTA strong partnership with NCTCOG provides opportunities for the AV 2.0 \$20M initiative as the next phase of AV programs in North Texas
- Potential AV Pilot project for Old Town area or other part of Lewisville

AV PUBLIC-PRIVATE PILOT PROGRAM



DCTA

drive.ai

HALL  PARK

 **FRISCOSTATION**


THE STAR
HOME OF THE DALLAS COWBOYS

AV COMMUNITY ACCEPTANCE



Rider Survey

98%

Felt **SAFE**

9 out of 10 riders

Never felt scared

Ride was **smooth**

Ride was what they
expected

Said they **would ride again**



Maintenance Facility

- Received FTA Bus and Bus Facilities grant April 2018, \$2.6M
- Plans include 2 maintenance bays, bus wash facility and driver's room
- Environmental documentation underway
- Expect the grant to be funded and begin engineering, Spring, 2019



Proposed Intersection & Road Improvement Grant Application

- US Dept of Transportation Build Grant Application (unsuccessful)
- \$5.1M to close and reroute Purnell; close Andes Metal crossing & surface street improvements including McKenzie Street, Redbud Lane, Purnell Street and install a new signalized intersection at HWY 121 & McKenzie
- We will re-apply for future grant opportunities



Rail O&M Land Use Planning and Solar Farm Investigation to offset utility cost

- Preliminary engineering underway



Connection between DCTA & DART

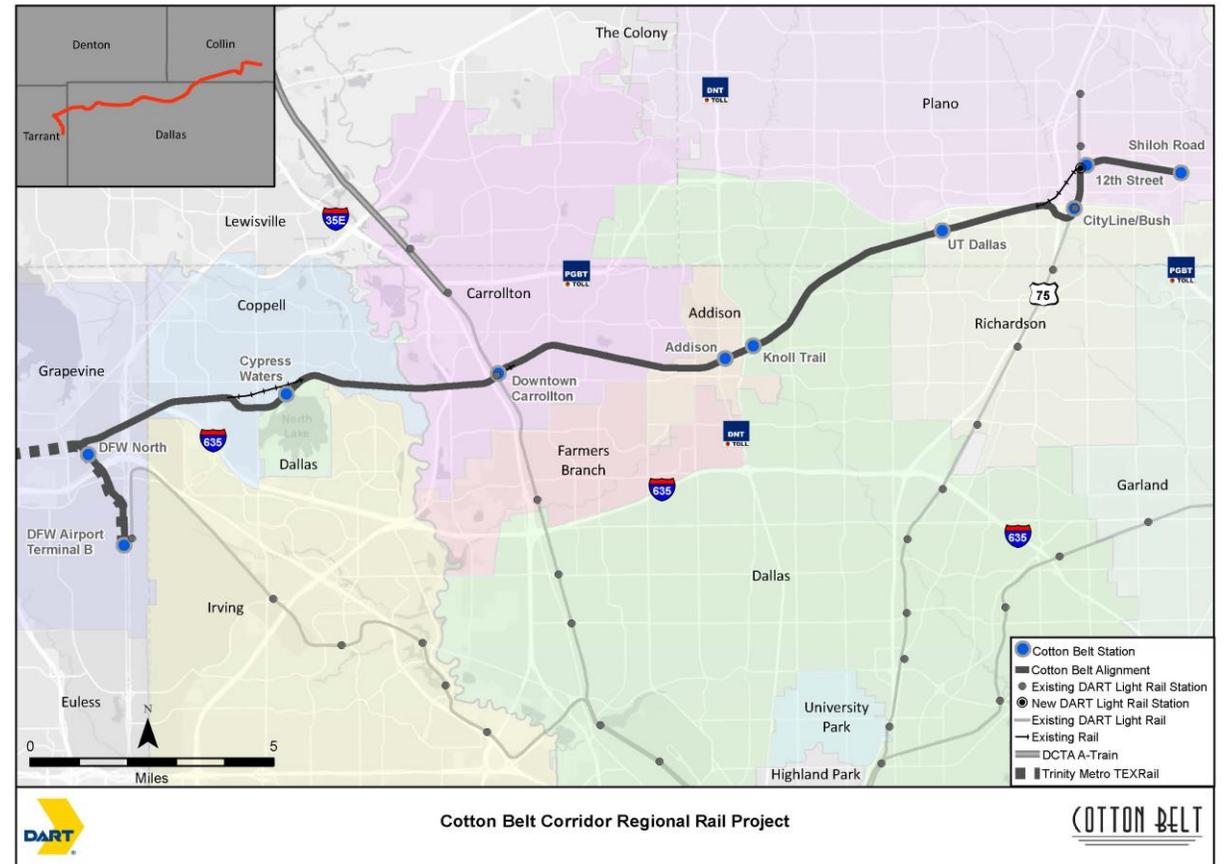
- History of why and how DART bought all the ROW it owns
- Terms of ROW lease with DART: 20 year, may renew for an additional 20 year term and pay fair market value as rent, current payment through end of existing term \$100k per year
- DART owns land & DCTA owns improvements
- Current interface with DART is the Green Line
- Options for extension South

FUTURE CONNECTIVITY TO COTTON BELT



Current Status:

- Design-Build Contract Awarded to Archer Western/Herzog at DART Board Meeting. NTP, January 2019
- \$782 million
- Contract Timeline 1/2019 – 12/2022
- Options for connecting with Cotton Belt



WHAT IS PTC:



- PTC (Positive Train Control) is an additional layer of technology on top of the existing signaling and dispatch system that complements DCTA signaling and dispatch systems
- It prevents human factor-induced errors in the operation of trains:
 - Passing stop signals
 - Train-to-train collisions
 - Derailments caused by excessive speed
 - Unauthorized train movement where maintenance activities are taking place
 - Movement of a train through a track switch left in the wrong position
 - Ensures train complies with temporary speed restrictions, crossing malfunction messages, etc.

CHOOSING E-ATC SYSTEM OVER I-ETMS (DART)



- E-ATC (Enhanced Automatic Train Control system) was approved as an alternative technology of PTC by the FRA
- Suggested strongly as a solution for DCTA, good for small rail lines
- E-ATC complements DCTA's current signal system
- I-ETMS (Interoperable Electronic Train Management System) requires acquiring spectrum, installation of radio antenna towers, wayside interface units, onboard computers, etc.
- E-ATC proved to be less costly to implement, shorter install period and results in less operating cost over the life of the technology

PTC OPTIONS FOR DCTA TO RUN ON THE COTTON BELT



- No modifications are required if DCTA terminates at new proposed Cotton Belt Station terminus
- Access on the Cotton Belt requires new vehicles equipped with EATC and I-ETMS
- Dual equipped, E-ATC turned off, and I-ETMS turned on
- DCTA will be utilizing the interoperable features (ability to run a train on a HOST railroad)
- I-ETMS technology can use the existing infrastructure (Radio towers, etc.) when running on DART corridors
- Dispatching on the Cotton Belt will be performed by DART
- To enable DART and TexRail vehicles to run on DCTA territory would require additional I-ETMS equipment to be installed along the DCTA corridor

QUESTIONS?



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