



High Capacity Corridor Screening Evaluation Report

2045 Transit System Plan

Draft

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1 Introduction

DART is in the process of updating the long-range Transit System Plan (TSP) with a horizon year of 2045. Although the TSP has more than 20-year horizon, the elements to be included in the plan vary from policy updates, short-term programs and enhanced services, to longer-term investments and service strategies. As part of the 2045 TSP development, DART identified a range of potential high capacity corridors that could be considered for inclusion in the TSP as a longer-term future transit investment. Some of these corridors may be better suited for alternative lower-cost modes or may not be affordable at this time for a major investment. Many may need additional transit-supportive land use planning to maximize ridership potential and competitiveness for grant funding.

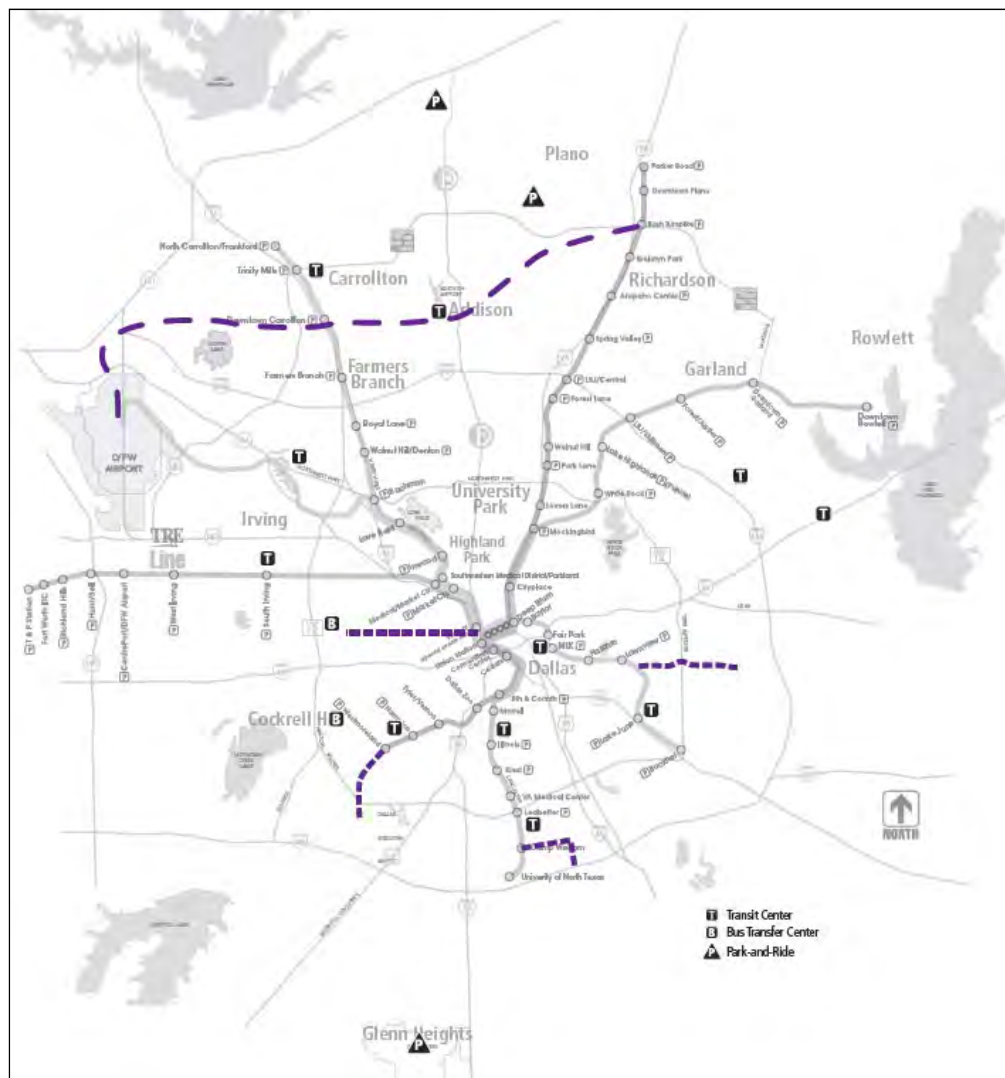
This report provides a description of the 2045 TSP corridor alternatives, screening evaluation process, methodology and results. The screening evaluation is intended to assist with developing a shortlist of potential high capacity options for more detailed evaluation or future studies. The 2045 TSP will combine service, program and project recommendations and assess them within the financial constraints of the FY21 Twenty-Year Financial Plan. Concurrent with this effort is the DARTzoom Bus Network Redesign and Streetcar Master Plan, both of which will be incorporated by reference into the 2045 TSP and may influence potential corridor investment strategies. The following sections document the corridor alternatives, the evaluation screening process and criteria, and screening results.

2 Definition of High Capacity Corridor Alternatives

Potential high capacity corridor alternatives were identified through a review of prior plans and public and stakeholder input. With the exception of the Cotton Belt Corridor (now referred to as the future Silver Line) from Plano/Richardson to DFW Airport, all prior 2030 Transit System Plan recommendations for future rail corridors remain deferred in the Financial Plan due to financial constraints and a desire to reassess them under updated criteria. Figure 1 shows the rail element of the 2030 TSP. The four remaining deferred corridors include the West Dallas, West Oak Cliff Red Line extension, Southport, and East/Scyene corridors.

In addition to these corridors, preliminary design and planning for the D2 Subway is advancing. D2 Subway is critical for adding capacity and operational flexibility to the light rail system to be able to accommodate potential future corridors or service enhancements.

Figure 2-1 2030 Transit System Plan Rail Element



Source: 2030 Transit System Plan (October 2006)

The 2030 TSP also included a Vision Element that consisted of potential future corridors that at the time of the 2030 TSP plan development were not affordable, did not have technical merit, or needed more land use coordination to make them viable options. These corridors are shown in Figure 2. For the purposes of the 2045 TSP, the LBJ corridor was modified to test an extension from the Blue Line to the South Garland Transit Center.

Figure 2-2 2030 Transit System Plan Vision Element



Source: 2030 Transit System Plan (October 2006)

Three new extensions, one of the Blue Line from downtown Rowlett to the future Bayside development, one in Plano from Parker Road towards the Spring Creek/Legacy area, and one from Westmoreland Station toward the Hensley Field redevelopment area in Dallas, were added at the request of those cities. A corridor following Dallas North Tollway was also tested based on public input and increasing congestion in that corridor. Table 1 summarizes the corridors that were subject to the screening evaluation. Figure 3 provides an overview of all the corridors.

Table 2-1 2045 TSP High Capacity Corridor Alternatives

Deferred 2030 Rail Corridors	2030 Vision Corridors	New Corridors
West Dallas	Irving-Legacy	Rowlett Sapphire Bay (formerly Bayside)
East/Scyene Extension	LBJ/Inwood (to Addison or Crosstown)	Tollway Corridor
West Oak Cliff Red Line Extension	Garland/Bush Turnpike	Hensley Field Corridor
Southport	Southeast Green Extension	Spring Creek Extension

Source: DART

Figure 2-3 Potential High Capacity Corridor Alternatives



Source: DART

Each of the 13 High Capacity Corridor Alternatives were compared to a baseline network that reflected a 2024 existing plus committed rail network. The demographics and resulting person trip tables were also based on 2024 population and employment estimates. Following is a brief description of each of the high capacity corridor alternatives. Corridor Fact Sheets in Appendix A provide more detailed information. Rail operating plans and related operating costs and capital costs for each alternative are documented in separate technical memoranda. All of these outputs and cost estimates were the basis for the screening evaluation.

Baseline Alternative: The Baseline Alternative included existing DART rail and bus with the addition of the following to reflect commitments to be operational by 2024:

- Modification to the Orange Line to operate between DFW Station and Parker Road Station (Peak period) and LBJ Central Off-Peak period/Weekends) via the D2 alignment.
- Modification to the Green Line to operate between the Frankford Station and the Buckner Station via the D2 alignment.

LBJ/Inwood/Addison to SGTC: The LBJ/Inwood corridor is a 12.9-mile light rail corridor from the South Garland Transit Center (SGTC) to Addison Transit Center via the LBJ corridor, adding five new stations. Service would operate at 15-minute peak and 20-minute off peak frequencies on weekdays and 20-minute frequencies on weekends.

LBJ/Inwood/Addison to Blue Line: The LBJ/Inwood corridor is a 9.2-mile light rail corridor from the Addison Transit Center to the Blue Line via the LBJ corridor. Service would operate at 15-minute peak and 20-minute off peak frequencies on weekdays and 20-minute frequencies on weekends. This follows the same service and alignment as the LBJ/Inwood/Addison to SGTC Alternative but truncates at the Blue Line rather than SGTC, resulting in the addition of four new stations.

West Dallas: The West Dallas Corridor is a 6-mile light rail corridor from the Victory Station to Bernal Drive, including four new stations. Service would operate at 15-minute peak and 20-minute off peak frequencies on weekdays and 20-minute frequencies on weekends.

Orange to Scyene Extension (Red Insert): The East/Scyene Extension is a 4.4-mile light rail line that would branch off the Green Line near Lawnview Station and continue east within Scyene Road, adding two stations. Service would operate at 15-minute peak and 20-minute off peak frequencies on weekdays and 20-minute frequencies on weekends. The operating plan assumes that the Orange Line would run between DFW and Scyene. The Red Line would operate the following three patterns: 1) Parker Road to Westmoreland at 15 minutes / 20 minutes (peak/off peak) on weekdays, 20 minutes on weekends, 2) Parker Road to Cedars at 15 minutes weekday peak only, and 3) LBJ Central to Cedars at 20 minutes weekday off-peak only and weekends.

West Oak Cliff Red Line Extension: The West Oak Cliff Red Line Extension is a 4.3-mile light rail corridor from the Westmoreland Station to Red Bird Lane, adding two new stations. Service would operate at 15-minute peak and 20-minute off peak frequencies on weekdays and 20-minute frequencies on weekends.

Hensley Field Red Line Extension: The Hensley Field Extension is a 7.1-mile light rail corridor from the Westmoreland Station to Hensley Field redevelopment area, adding three new stations. Service would operate at 15-minute peak and 20-minute off peak frequencies on weekdays and 20-minute frequencies on weekends.

Irving-Legacy: The Irving/Legacy corridor is a 20-mile regional rail corridor from the Downtown Irving Station (TRE) to Legacy West SRT, adding four new stations. Service would operate at 20-minute peak and 60-minute off peak frequencies on weekdays and 60-minute frequencies on weekends.

Rowlett Extension: The Rowlett extension is a 3.4-mile light rail corridor from the Blue Line Downtown Rowlett Station to a 262-acre mixed use development called Sapphire Bay (formerly known as Bayside), adding one station. Service would operate at 15-minute peak and 20-minute off peak frequencies on weekdays and 20-minute frequencies on weekends.

Garland/Bush Turnpike: The Garland/Bus Turnpike corridor is a 3-mile light rail extension from the Downtown Garland Station to Firewheel Parkway, adding two new stations. Service would operate at 15-minute peak and 20-minute off peak frequencies on weekdays and 20-minute frequencies on weekends. This alternative is the net difference between the following two alignments: 1) LBJ between Addison and LBJ Skillman, and 2) LBJ between Addison and Bush Turnpike (Firewheel). The result is the rail segment between the LBJ Skillman station and the Bush Turnpike (Firewheel) station.

Southeast Green Line Extension: The Southeast Green Line Extension is a 3.6-mile light rail corridor from the Green Line Buckner Station to IH-20, including the addition of two stations southeast of Buckner. Service would operate at 15-minute peak and 20-minute off peak frequencies on weekdays and 20-minute frequencies on weekends.

Red Line Extension to Spring Creek: The Red Line extension would extend one station north to Spring Creek to serve growing residential and employment areas in this part of the service area. Red Line service would continue as 15-minute peak and 20-minute off peak and weekends frequencies to Spring Creek, while the Orange Line would continue to operate as defined above in the Base Operating Plan.

LBJ Crosstown: The LBJ Crosstown corridor is a 15.8-mile east-west corridor from the South Garland Transit Center to the Royal Lane Green Line Station via the LBJ corridor, resulting in seven new stations. Service would operate at 15-minute peak and 20-minute off peak frequencies on weekdays and 20-minute frequencies on weekends.

Tollway: The Tollway Corridor is a 21.5-mile line that would operate from the Convention Center and future High-Speed Rail station area to the Plano Legacy area. Eleven stations are included in the alternative. Service would operate as 15-minute peak and 20-minute off peak frequencies consistent with the rest of the LRT system and offer an alternative to express bus service in the congested Tollway corridor.

These corridors were screened through a technical evaluation process, explained in Section 3, to determine the corridors with the best potential to meet the transportation needs of the region in a cost-effective manner in the 2045 (or beyond) timeframe and that could be considered for further evaluation.

2.1 Potential Infill Stations

Figure 3 also identifies two potential infill stations – one at Knox/Henderson along the North Central Corridor, and one near Main/Exposition near the new Baylor administrative building on the Southeast Corridor. These potential infill stations are evaluated in separate technical memoranda and are not included in this report.

3 Evaluation Process and Criteria

The following section provides a description of the evaluation criteria and the methodology for ratings. The evaluation and screening results are summarized in Section 4.0. The evaluation measures were developed based on DART Board input and Agency goals, and national best practices in evaluation for similar services. The criteria align with the Federal Transit Administration (FTA) capital investment grant (CIG) program criteria with two exceptions. First, the FTA environmental benefits measure is not included as it is not necessary at a system-level evaluation. Second, a new locally based “equity/job access” related measure is included. While this is a local measure it does use the FTA developed User Benefits tool to estimate hours of travel time saving benefits for users of a new investment.

Table 3-1 summarizes the proposed criteria, measures, and ratings. A description of each is provided below. Based on direction from the DART Planning Committee, the criteria are weighted to emphasize ridership and cost-effectiveness. Of the six criteria, ridership and cost-effectiveness receive 25% weight each, and the others 12.5% each. Where multiple measures are rated (such as in mobility improvements, land use and equity/job access), they are shown separately but averaged into one single rating for that criterion. For the ridership and user benefit measures, DART used a year 2024 network that accounts for some limited demographic growth rather than a more uncertain year 2045 forecast. Land use density is also based on approved year 2024 demographics.

3.1 Mobility Improvements

Two mobility improvement measures are included, one aligned with the FTA CIG program measure and one tied to local system performance. Both are intended to measure ridership potential of a corridor. Ridership information was developed using the NCTCOG regional travel demand model and a horizon year of 2024.

Corridor Ridership (FTA measure) - FTA evaluates mobility improvements as the total number of linked trips using a project, with a weight of two given to trips that would be made on the project by transit dependent persons. Linked trips include all trips made on the project whether the rider boards or alights on the project or elsewhere in the transit system. Transit dependent persons are defined in the NCTCOG travel demand model as persons living in households in the lowest income bracket.

Riders/Mile (Local measure) - The riders/mile measure allows for some differentiation based on the type of corridor and how ridership productivity compares to the existing system. For example, a short corridor extension may rate low for overall corridor ridership but may be more productive than other extensions DART has built and thus could rate high locally.

3.2 Cost Effectiveness

Annual Capital and O&M Costs/Annual Rider (FTA measure) - Cost-effectiveness is based on a cost per trip measure defined as the annual capital and operating and maintenance (O&M) cost per trip on the project. It does not include the additional low-income ridership allowed for in the Corridor Ridership measure.

Order of magnitude capital costs were developed based on comparable costs for similar projects and a high-level assessment of corridor constraints. Vehicle capital costs were developed based on incremental vehicles required plus a spare ratio for each alternative. Annualized capital costs were developed using an average annualization rate of 3%. The documentation of capital cost methodology and results are documented in the *Capital Cost Methodology and Results Technical Memorandum*.

Operating plans were developed for each alternative, detailing revenue miles and hours of service, peak and fleet vehicles and are documented in the *O&M Cost Methodology and Results Technical Memorandum*.

Table 3-1 High Capacity Corridor Evaluation Criteria

Rating	Low	L-M	Medium	M-H	High
PRIMARY					
Mobility Improvements					
Corridor Ridership ¹	Average daily ridership with 2 times weight to low-income, zero-car household trips				
	< 8,500	8,500-16,999	17,000-49,999	50,000-99,999	100,000
Riders/Mile ²	Riders/mile targets depending on type of corridor:				
New corridor w/ CBD access	750	1,125	1,500	1,875	2,250+
New corridor no CBD access	500	750	1,000	1,250	1,500+
Less than 5-mile extension	250	375	500	625	750+
Regional rail corridor	150	225	300	375	450+
Cost-Effectiveness					
Annual Capital and O&M Costs/Annual Rider ¹	> \$15	\$10-\$14.99	\$6-9.99	\$4-5.99	< \$4
Congestion Relief					
Added System Riders ¹	< 500	500-2,499	2,500-9,999	10,000-17,999	18,000+
Land Use					
Residential Density (Residents/Acre) ³	< 5	5-9	10-14	15-30	30+
Employment Density (Jobs/Acre) ³	< 5	5-9	10-14	15-30	30+
Equity/Job Access					
Total User Benefit Hours	Review and rating based on relative benefits of each corridor				
Low Income User Benefit Hours %					
Low Income HBW User Benefit Hours %					
Economic Development (Qualitative review of transit-supportive corridor plans and policies)					
Transit-supportive corridor plans and policies	Limited or no progress; not transit-supportive		Plans in development; moderately transit-supportive		Plans in place; strongly transit-supportive
OTHER CONSIDERATIONS					
Ridership Market	Analysis of projected originations and destinations, including out of Service Area markets and expansion opportunities.				
Public/Agency Support	Qualitative assessment of public and agency support through variety of outreach and engagement methods				

1 Based on August 2016 Final Interim Policy Guidance FTA Capital Investment Grant Program for New Starts projects

2 Based on existing DART light rail and Trinity Railway Express (TRE) performance

3 Based on review of industry best practices for transit density to support high capacity transit investments

3.3 Congestion Relief

Added System Riders (FTA measure) - Congestion relief is based on the number of new weekday linked transit trips resulting from implementation of a project. It is an indirect measure of roadway congestion relief serving as an indicator of potential cars taken off the road.

3.4 Land Use

Residents/Acre and Jobs/Acre (combined FTA and industry review measure) - The FTA land use measure includes an examination of existing corridor and station area development, character, pedestrian facilities, parking supply, affordable housing. For a system level analysis in which a corridor is not yet fully defined, the DART measures focus on corridor and station area development in terms of population and employment density. Breakpoints for ratings are based on a combination of FTA measures and industry research.

3.5 Economic Development

The measure of economic development effects is the extent to which a proposed project is likely to induce additional, transit-supportive development in the future based on a qualitative examination of the existing local plans and policies to support economic development. While the FTA measure looks at additional measures like zoning, implementation tools and performance, growth management, and affordable housing, the DART measure will focus on a review of plans and policies.

Transit Supportive Plans and Policies (FTA measure) - The ratings for this measure will range from high to low and be based on whether conceptual plans for a corridor and station areas have been developed by a city(s), and the extent to which those plans are transit-supportive (strongly, marginally, not supportive).

3.6 Equity/Job Access

Equity/Job Access is estimated using the FTA User Benefits model. User benefits was used by FTA in prior year New Starts guidance but is no longer a criterion for their ratings. However, user benefits and the associated maps can help to tell the story about who is benefitting from a potential new transit investment, both in terms of trip purpose and income strata. For the system plan, DART is reporting the following information:

Total User Benefit Hours – The estimated hours of travel time saving benefits in hours accruing to transit users with the new project in place.

Low Income User Benefit Hours % - The percentage of those travel time savings accruing to the low-income transit users for all trip purposes.

Low Income HBW User Benefit Hours % - A portion of the total user benefit hours are associated with work trips. This measure estimates the percentage of home-based work benefit hours accruing to low-income transit users.

3.7 Other Considerations

While the above six measures are the primary criteria, the analysis also considers information related to the ridership market to understand what communities and areas are primarily being served by the investment. Effects on end of line ridership is also examined. While this is captured somewhat by added system riders, an understanding of how an extension moves riders from one station to another can be part of the story and analysis of a potential corridor. Public and agency input is also considered.

4 Screening Evaluation Results

The screening evaluation uses quantitative and qualitative results for each evaluation measure and organizes the results using color-coded ratings associated with Low, Low-Medium, Medium, Medium-High, or High potential based on the methodology described in the previous section.

Table 4.1 provides a corridor overview highlighting corridor miles, capital cost estimate and annual O&M estimate. Detailed results and data are presented in Table 4.2 using an overlay of the color-coded ratings. As a reminder, capital and O&M costs are based on an assumption of a rail investment. As the DARTzoom Bus Network Design proceeds, key bus strategies (core frequent routes, bus rapid transit, express bus) may be more suitable alternatives to a rail investment. Bus service and bus corridor investments offer a more near-term, lower-cost option to serve existing and/or build up ridership markets.

A discussion of the corridors follows in Section 4.1.



Table 4-1 Corridor Overview Summary

Element	N Central Spring Creek Extension	West Oak Cliff Extension	LBJ Corridor to Addison TC	Hensley Field Extension	Tollway Corridor	LBJ Crosstown	West Dallas	East Dallas-Scyene	Irving-Legacy Regional Rail	Rowlett Bayside Extension	Southport Extension	Garland/Bush Turnpike	Southeast Extension
Miles	1.8	4.3	12.9	7.1	22.8	15.8	6.0	4.4	20.1	3.4	3.1	3.0	3.6
Capital Cost(millions)	\$160	\$370	\$1,820	\$630	\$5,310	\$2,860	\$620	\$400	\$900	\$290	\$290	\$265	\$300
O&M Cost (annual millions)	\$2.9	\$5.0	\$14.7	\$6.6	\$23.8	\$21	\$8.3	\$14.4	\$17.1	\$6.2	\$4.2	\$6.1	\$4.7

Source: DART

Table 4-2 Corridor Evaluation Summary

Criteria	N Central Spring Creek Extension	West Oak Cliff Extension	LBJ Corridor to Addison TC	Hensley Field Extension	Tollway Corridor	LBJ Crosstown	West Dallas	East Dallas-Scyene	Irving-Legacy Regional Rail	Rowlett Bayside Extension	Garland/Bush Turnpike	Southport Extension	Southeast Extension
Total Linked Trips (with 2x transit dependent)	4,900	9,200	16,700	8,500	28,000	11,700	6,600	4,200	4,400	2,600	1,800	4,500	3,600
Station Riders/Mile	1,350	850	1,200	830	800	550	720	400	200	360	300	200	390
Annual Cost/Annual Trip	\$5.50	\$8	\$20	\$14	\$37	\$48	\$22	\$28	\$41	\$21	\$31	\$21	\$17
Added System Riders	2,500	2,400	7,000	2,400	8,500	4,000	1,800	2,600	4,000	1,400	1,400	2,000	580
Residential Density	3.9	5.6	8.4	6.1	7.2	8.6	5.9	7.9	6.8	1.0	5.7	2.1	2.5
Employment Density	5.9	4.0	23.1	2.4	23.6	18.7	8.9	2.7	5.0	0.2	1.5	0.6	0.4
Total User Benefits (%outside Service Area)	1,600 (79%)	1,900 (72%)	5,200 (24%)	2,000 (60%)	5,600 (29%)	2,900 (12%)	1,400 (15%)	2,000 (24%)	1,500 (56%)	1,100 (73%)	1,100 (70%)	1,600 (24%)	470 (64%)
% Low Income Home Based Work (HBW) User Benefits	2%	26%	49%	40%	34%	48%	74%	49%	14%	5%	37%	62%	30%
% Low Income User Benefits	5%	36%	53%	51%	40%	54%	79%	66%	29%	12%	44%	73%	39%
Econ Dev/Land Use Plans	M-H	L-M	M-H	L-M	M	M	M-H	L-M	M	M	L-M	L	L
OVERALL	M	M	M	L-M	L-M	L-M	L-M	L-M	L-M	L	L	L	L

Source: DART



5 Corridor Observations and Draft Technical Recommendations

The results of the high capacity corridor screening evaluation are useful in identifying corridors where characteristics of current and future land use are most conducive to a high capacity transit investment, as well as corridors where land use is not likely to support high capacity transit now or within the 20-year planning horizon of this study under strategies are put in place to enhance potential. Results of this study are based on 2024 projections, a 5-year outlook to help alleviate the uncertainty of the 2045 forecasts and provide a framework for where land use coordination can positively affect future viability.

Overall, none of the potential corridors in this evaluation higher than a medium summary rating, and only three received an overall medium rating. It should be noted that if a corridor rated low or low-medium, it still may still warrant transit service, but a high capacity investment is likely not the most appropriate investment.

The corridor screening evaluation generally resulted in three tiers of corridors – Tier 1 rated medium, Tier 2 rated low-medium, and Tier 3 rated low. A summary of observations by Tier follows. Each set of observations is followed by a draft recommendation on how to reflect the corridor in the 2045 TSP. These observations and recommendations were reviewed with the DART Board Planning Committee in February 2020.

Tier 1 – Corridors Rating Medium

North Central Spring Creek Extension: This corridor was tested as a short extension of the Red Line. From a federal ridership criterion perspective, the corridor rated low – primarily due to its short length and inability to generate a sufficient number of riders. From a local perspective, the extension would rate high – indicating it would generate ridership comparable or better than other similar short extensions DART has constructed. Cost-effectiveness rates medium-high. The key measures that rate low or low-medium relate to added ridership to the overall system, residential and employment density, and the percent of travel time benefits that would accrue to low-income residents. Only 2-5% of travel time benefits accrue to low-income riders and while total user benefits rate medium, the majority of those benefits (79%) are for people outside of the DART Service Area. While the area is generally low density now, the Envision Oak Point plan includes a moderate level of transit-supportive development with recommendations for local and express bus, as well as rail or BRT to potentially serve the area.

Recommendation: *Given that benefits are primarily to residents outside of the Service Area, and some commuter ridership shifts from Parker Road to the north, this extension should only be considered as part of a larger rail expansion inclusive of cities north of Plano. DART would continue to monitor this potential as part of the Collin County Transit Study efforts and work with the City on bus and GoLink enhancements in this part of Plano to support the Envision Oak Point plan.*

West Oak Cliff Red Line Extension: This corridor was tested as a 4.3-mile light rail extension to Red Bird Lane, one of two extension options from the Westmoreland Station. Two new stations would be added. The extension rated medium primarily due its high ridership potential when compared to other comparable extensions (it was low-medium under the federal ridership criterion), medium cost-effectiveness, and medium level of total user benefits. As an extension, the corridor shifts some ridership from Westmoreland to new stations rather than adding new

riders. Of the 1,900 user benefit hours, 72% are for riders outside of the DART Service Area. Much of this study area is industrial given the railroad corridor and densities are low, but there is city desire for higher density, mixed land uses in the area.

Recommendation: *Given that the user benefits are primarily for residents outside of the Service Area, a rail extension should only be considered as part of a more regional plan. A short extension does not significantly benefit DART Service Area riders. While this extension was recommended in the 2030 TSP, further evaluation should be done relative to how it relates to continuing discussions of future service expansion in the Best Southwest Cities market (DeSoto, Lancaster, Cedar Hill, Duncanville). NCTCOG is conducting a Southern Dallas County Transit Study which may influence the vision and long-term recommendations for this area. DART will continue to monitor this area as part of NCTCOG study efforts.*

LBJ/Inwood to Addison Transit Center: This corridor was tested as crosstown line from the South Garland Transit Center to Addison Transit Center. The only low rating was in cost-effectiveness. Ridership potential and added system riders rated medium. This corridor rated high in user benefits with 76% of the travel time savings benefitting residents of the DART Service Area. About 50% of the user benefits accrue to low-income users including for work trips. While residential density is low-medium, the corridor has high employment density and rated medium-high for transit-supportive plans and economic development potential as Garland, Dallas and Addison all have TOD or transit-supportive plans along the corridor. This corridor provides opportunities to link key regional activity centers and a high-employment corridors while benefitting lower-income residents. Key challenges are engineering complexities (as much of the project would be on structure or in a tunnel) which adds to the potential cost of rail investment.

Recommendation: *With nearly 80% of the user benefits occurring to residents within the DART Service Area and the opportunity to enhance job access, this corridor has potential for a high capacity investment. Given the significant capital cost of rail, it is recommended that a future alternatives analysis examine options like BRT, express bus and rail. Alternative termini such as the Blue Line or Red Line can be examined as well to maximize cost-effectiveness, or even consider connections beyond Addison north toward Plano Legacy.*

Tier 2 – Corridors Rating Low-Medium

Hensley Field Red Line Extension: This corridor could serve as a Red Line extension from the Westmoreland Station toward Hensley Field. The City of Dallas is initiating a master plan effort for the area. From a federal ridership criterion perspective, the corridor rated low-medium, but would generate ridership comparable to other DART light rail extensions and rated high. Several criteria rate low-medium. The only low rating is for employment density. Future plans for a mixed-use master plan would improve employment and residential densities and improve the performance of the corridor. This corridor generates 2,000 user benefit hours with the majority of those benefits (60%) for people outside of the DART Service Area. However, 51% of these travel time benefits accrue to low-income riders and 40% are associated with work trips for low income residents.

Recommendation: *Given that the total user benefits of this corridor are primarily to residents outside of the Service Area (60%) and densities are low along the corridor, DART and the City of Dallas should focus on ensuring the master plan integrates transit and TOD. As that effort proceeds, a high capacity investment can be reassessed. As land use development occurs, transit service can be phased to match demand and support development. A first phase could be an extension of Jefferson Boulevard core frequent Route 11. This has an opportunity to be a Bus Rapid Transit (BRT) corridor in the future as well.*

Tollway Corridor: This corridor is the longest alternative evaluated, extending from the Convention Center area to Legacy in Plano. Due to its length and number of stations, it rates medium under the federal ridership criterion but rated low in terms of riders per mile compared to other similar DART corridors. Given that much of it would need to be tunnel, the cost is high and cost-effectiveness low. The corridor produced the highest number of user benefit hours for travel time savings, with only 29% accruing to non-DART Service Area residents. Over a third of those benefits would be for low-income work trips. This corridor includes several activity centers and is rated medium-high in employment density. Key challenges include an increasingly congested and right-of-way constrained corridor that is becoming difficult to serve with express buses.

Recommendation: *Due to the high cost of about \$5 billion and overall low-medium rating, it is recommended that express bus continue to be the primary transit mode. Opportunities for other express bus routes that can use managed lanes to enhance job access from southern Dallas county to jobs centers in the north can be advanced. These alternate routes can circumvent the congested tollway and may be faster to some locations. Portions of this corridor from Addison to Plano could be evaluated as a potential extension of the LBJ/Inwood to Addison alternatives analysis (see above).*

LBJ Crosstown: The LBJ Crosstown corridor results show low to low-medium ridership potential and low cost effectiveness. There is medium-high employment density along the corridor. Only 12% of user benefit hours that would accrue to non-DART Service area residents. Approximately half of the user benefits would be for low-income users. As a freeway corridor, transit-supportive economic development potential is limited except at certain locations such as Dallas Midtown.

Recommendation: *The LBJ Corridor has been rebuilt with managed express lanes between IH 35E and US 75, and there are plans to rebuild from US 75 to IH 30. As a major freeway serving significant travel patterns, express bus or BRT may be more cost-effective options, linking existing transit centers/stations and employment hubs. Furthermore, the east-west Silver Line can also serve east-west travel north of LBJ, while corridors such as Forest Lane and Spring Valley are strong east-west bus options.*

West Dallas: This corridor was tested as a 6-mile extension light rail corridor from the Victory Station to Bernal Drive, including four new stations. The corridor rates low for ridership and cost-effectiveness, and low-medium for added system riders and employment/population density. However, this corridor has equity benefits with 85% of travel time savings for DART residents, and about 75% of those benefits for low income users including work trips. The City of Dallas has done several land use and design plans for the Trinity Groves area and new higher density, mixed-use development is in place and spreading further west.

Recommendation: *While this corridor was recommended in the 2030 Transit System Plan, light rail to West Dallas may not be feasible given physical barriers including existing rail and freight lines, the Trinity River and the I-35E. West Dallas is emerging as a potential streetcar option and several bus service enhancements were put in place in August 2019 with opportunities for further improvements in the future. It is recommended that streetcar and bus be advanced as most appropriate options for West Dallas.*

East Dallas-Scyene: This corridor would branch off from the Green Line near Lawnview Station and would mostly serve a commuter market from areas of east Dallas toward Mesquite. Ridership, cost-effectiveness and employment density all rate low. The corridor rated medium for added riders indicating it doesn't draw a large amount of riders from the existing Green Line and increases service and ridership in the common segment from downtown to the Lawnview Station. This corridor has medium-high user benefit rating with over 75% of benefits serving

DART residents. Low income rider travel time savings rate medium at 49 to 66% of the total user benefit.

Recommendation: *While this corridor was recommended in the 2030 TSP to Masters Drive, it is recommended that DART continue to focus on bus service and monitor long-term opportunities. These opportunities relate to if Mesquite became part of the Service Area, or if more frequent service or new service patterns such as a rail line from North Central towards Baylor and Fair Park is advanced in the future.*

Irving-Legacy Regional Rail: This corridor would serve a commuter market from the south and north allowing transfers to the Silver Line and Green Line in Downtown Carrollton and the Orange Line at a new station in Irving/Las Colinas employment center. Overall, ridership and cost-effectiveness rated low. Medium ratings were for added system riders, user benefits, and land use/economic development given that there are opportunities for transit supportive land use at key station locations. While total user benefits rate medium, the majority of those benefits (56%) are for riders outside of the DART Service Area. Approximately 30% of travel time benefits accrue to low-income riders and only 14% for low income work trips. The corridor also potentially serves a reverse commute to the Legacy West employment center.

Recommendation: *For this evaluation, the corridor was tested in the DART Service Area only to north Plano/Legacy area near SH 121. DART also examined this corridor as a longer regional line into Frisco which greatly enhanced ridership potential north of Carrollton. In general, ridership dropped by 50% if the line terminates at SH 121. NCTCOG is conducting a Collin County Transit Study in 2020-2021 with a subcommittee focused on developing recommendations for this corridor. DART will continue to monitor this corridor as a longer regional rail line. It should also be noted that bus/shuttle last-mile connections would be needed at many locations given the distance of the existing rail to key locations such as Las Colinas and Legacy West.*

Tier 3 – Corridors Rating Low

Rowlett Sapphire Bay (formerly Bayside): This Blue Line extension was suggested by the City of Rowlett given their plans to develop a 262-acre mixed use development called Sapphire Bay. Until regional demographics are updated and development is in place, this corridor generally rates low or low-medium for all criteria except land use plans. Sapphire Bay is located south of IH 30 and would be ½ mile walk from rail. There an urban village location near the rail line with new moderate density apartments. The majority of travel time benefits (73%) are for riders outside of the DART Service Area, indicating this extension would largely serve the Rockwall area. Only 5% of travel time user benefits accrue to low-income riders.

Recommendation: *This area is currently being served by GoLink, which is recommended to continue. DART will continue to monitor the planned development and coordinate with the City on future TOD opportunities that could support higher levels of transit service.*

Garland/ Bush Turnpike: This corridor would branch off from the Downtown Garland Station to Firewheel Parkway, adding two new stations. Overall, this corridor has low or low-medium ratings in all criteria. Land use in the corridor is primarily residential and parkland with the Firewheel Town Center at the eastern terminus. About 70% of the user benefits would accrue to non-DART residents, with about 37% of benefits associated with low-income work trips.

Recommendation: *This area should continue to be served by bus service. While it could be considered as a terminus for a potential LBJ Crosstown rail line especially if capacity needs on the Blue Line indicate a need for additional service, physical connections to the Blue Line in downtown Garland area may not be feasible.*

Southport: This corridor was included in the 2030 Transit System Plan effort as an opportunity to provide a gateway to the growing Inland Port area of Dallas, and tested as a branch off from the Blue Line near the Camp Wisdom Station. Ridership, cost-effectiveness, and densities all rate low. Land use is generally industrial/warehouse and lower density and not supportive of high capacity transit. Travel time savings rates medium and largely benefit low-income user benefits (73%).

Recommendation: *The recommendation is to focus on bus, GoLink Zones and vanpools in cooperation with the Inland Port Transportation Management Association (IPTMA). The NCTCOG Mobility 2045 plan also includes a potential regional rail line south to Waxahachie which could provide rail service to the Inland Port area long term.*

Southeast Green Line Extension: This corridor was evaluated in the 2030 Transit System Plan effort as an extension of the existing Green Line and was not recommended at that time. The corridor rates low in most criteria. About 2/3 of the travel time saving user benefits accrue to riders outside of the Service Area, and about only a 30% accrue to low-income user users.

Recommendation: *The City of Dallas has a hike/bike trail planned for the corridor. Staff recommends that retain DART ownership of the corridor with a priority for trail use at this time under the DART hike and bike policy. Bus and GoLink zones continue to be the most appropriate service for the area.*

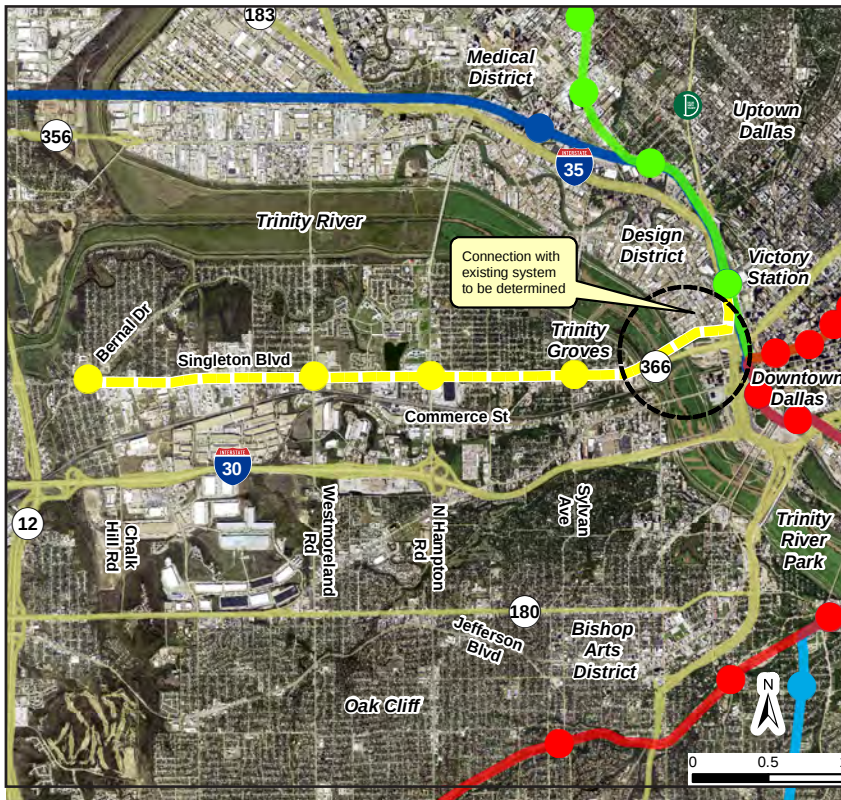
5.1 Next Steps

The draft recommendations for the corridor screening evaluation will be reviewed with the public and key stakeholders. Recommendations will be reflected in the 2045 Transit System Plan within the context of the FY21 20-Year Financial Plan and will help to inform how other transit services or investments in core frequent bus, express bus, or streetcar may better serve an area or be an interim step towards a possible future rail investment. Some corridors are recommended for further study so that alternatives analyses can be completed to better define and program transit services, while also outlining steps that cities can take to build transit supportive land use and densities. The DARTzoom Bus Service Plan recommendations will provide a solid base on which to layer in additional long-term transit recommendations.



Appendix A

HIGH CAPACITY CORRIDOR ALTERNATIVES WEST DALLAS CORRIDOR



CORRIDOR INFORMATION	
LIMITS	Victory Station to Bernal Dr.
LENGTH	6.0 Miles
CORRIDOR TYPE	Major Arterial Roadway/ New right-of-way TBD
HIGH CAPACITY MODE OPTION	LRT
Headways	15/20
Potential New Stations	4
OTHER MODE OPTIONS	Bus Rapid Transit, Streetcar

Note: Alignment and Proposed Stations are Conceptual and For Evaluation Purposes Only

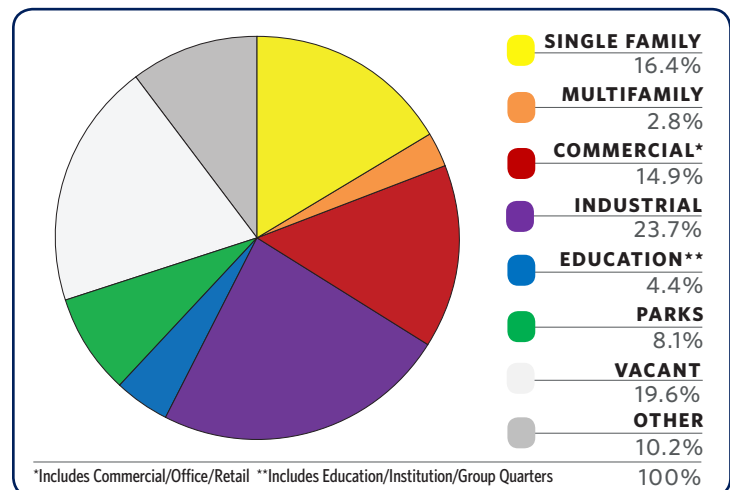
DESCRIPTION

The West Dallas Corridor was recommended in the 2030 Transit System Plan based on the opportunities associated with increasing land use density in the area, and changes associated with the Trinity Groves development, Ronald Kirk Pedestrian Bridge, Margaret Hunt Hill signature bridge, and Trinity River improvements. A transit corridor along Singleton Boulevard, Fort Worth/Commerce or the Union Pacific (UP) railroad corridor could be options. Given changed conditions in the area and physical constraints associated with the Trinity River, major freeways and freight, a variety of mode options are possible.

DEMOGRAPHIC INFORMATION WITHIN 1/2 MILE OF CORRIDOR

DEMOGRAPHIC PROFILE	2018	2045
EMPLOYMENT	23,503	43,063
POPULATION	25,398	60,921
HOUSEHOLDS	7,245	20,322
POPULATION BELOW POVERTY	38.8%	N/A
MINORITY POPULATION	98.5%	N/A
POPULATION OVER 65	27.4%	N/A
POPULATION 19 AND UNDER	39.1%	N/A

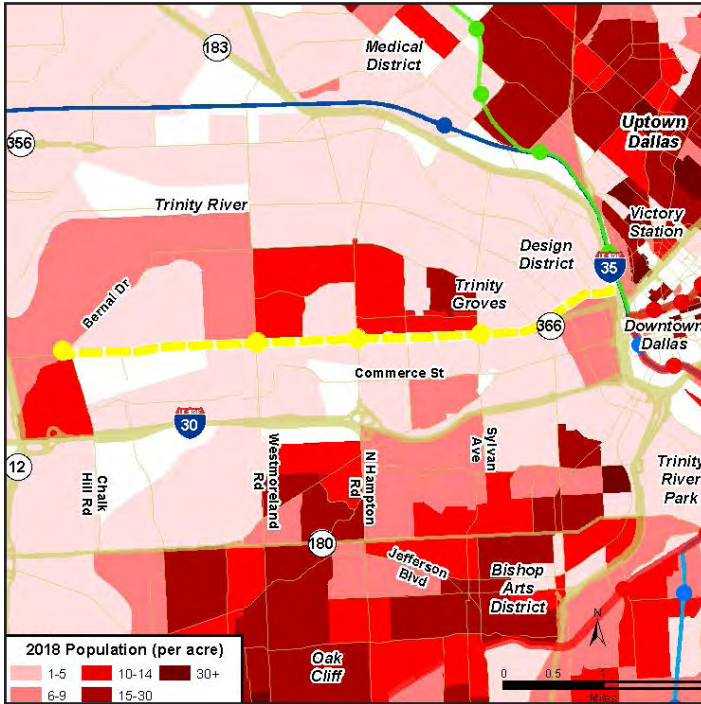
EXISTING LAND USE



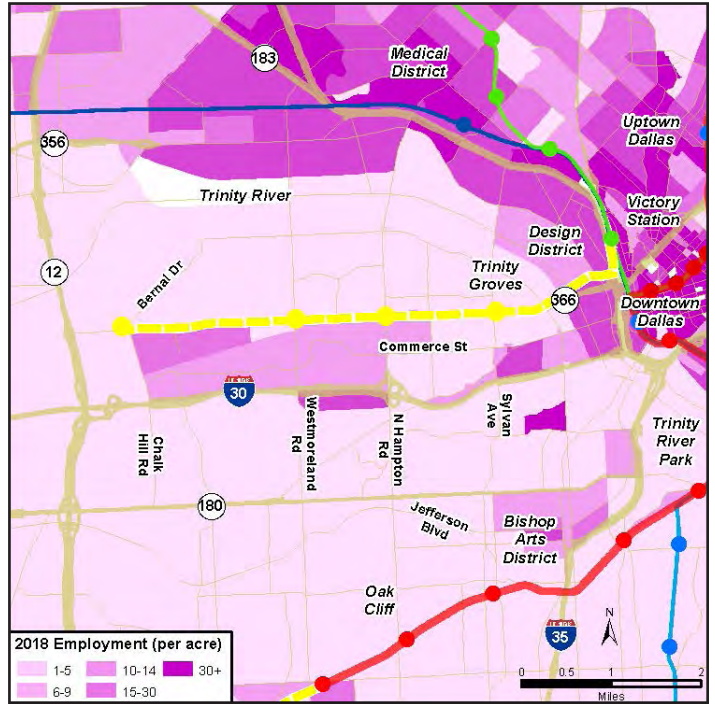
HIGH CAPACITY CORRIDOR ALTERNATIVES

WEST DALLAS CORRIDOR CONT.

POPULATION DENSITY | 2018



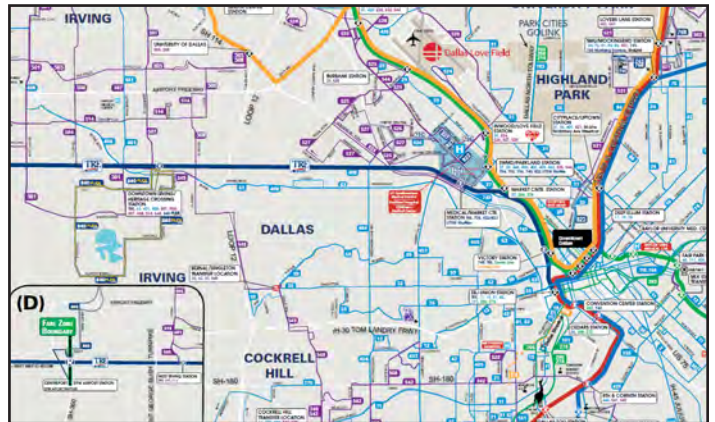
EMPLOYMENT DENSITY | 2018



TRANSIT PROPENSITY INDEX MAP

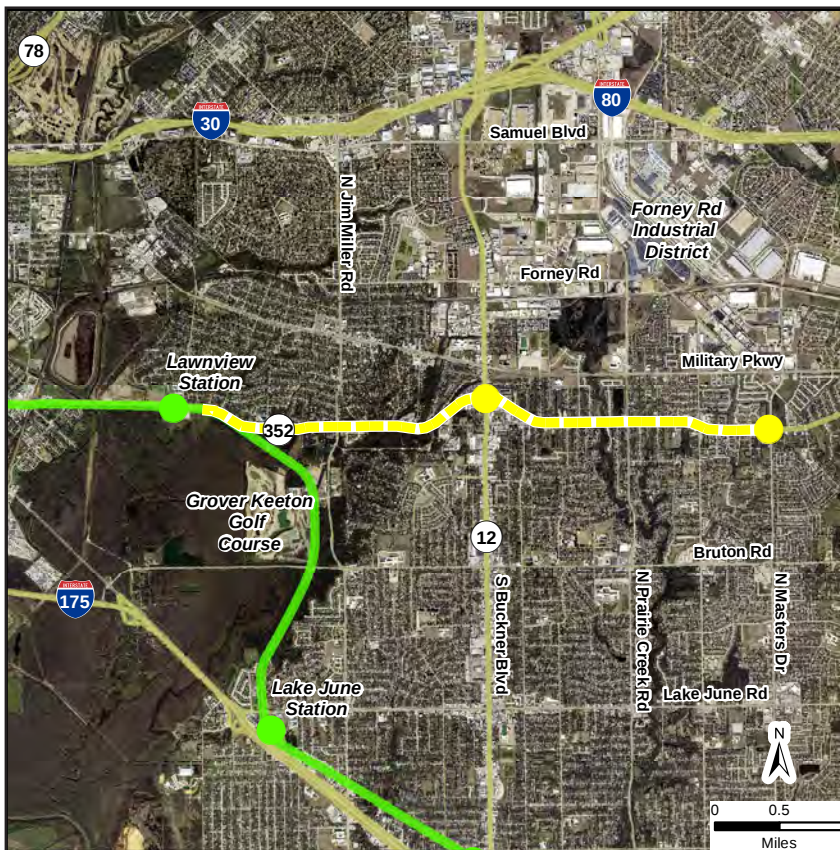


EXISTING SYSTEM MAP



Demographic & Land Use Data Source: North Central Texas Council of Governments, 2018

HIGH CAPACITY CORRIDOR ALTERNATIVES EAST/SCYENE EXTENSION



CORRIDOR INFORMATION	
LIMITS	Lawnview Station to N. Masters Dr.
LENGTH	4.2 Miles
CORRIDOR TYPE	Major Arterial Roadway
HIGH CAPACITY MODE OPTION	LRT
Headways	15/20
Potential New Stations	2
OTHER MODE OPTIONS	Bus, Bus Rapid Transit, Express Bus

Note: Alignment and Proposed Stations are Conceptual and For Evaluation Purposes Only

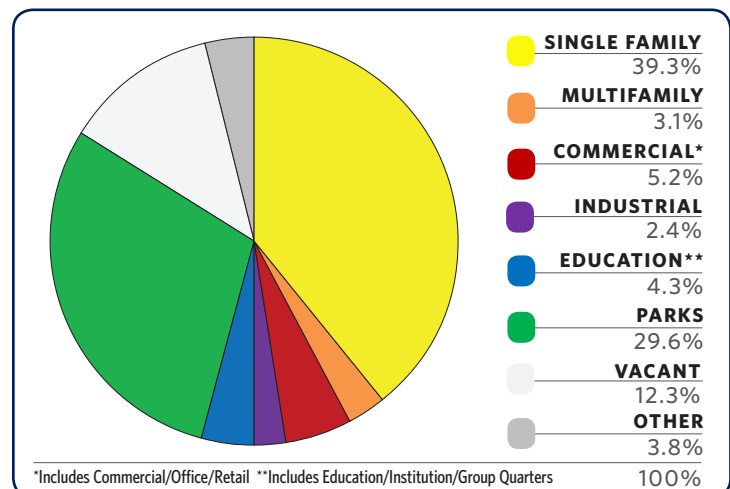
DESCRIPTION

The corridor would operate as an additional light rail line that would branch off from the Green Line near Lawnview Station and continue east within Scyene Road. Using portions of Military Parkway is also a possibility. This extension was discussed as part of the Southeast Corridor planning study in 2000 and was recommended in the 2030 Transit System Plan as a future light rail corridor. This corridor would largely serve east Dallas residential areas but could also provide an opportunity to link with Mesquite further east in the future.

DEMOGRAPHIC INFORMATION WITHIN 1/2 MILE OF CORRIDOR

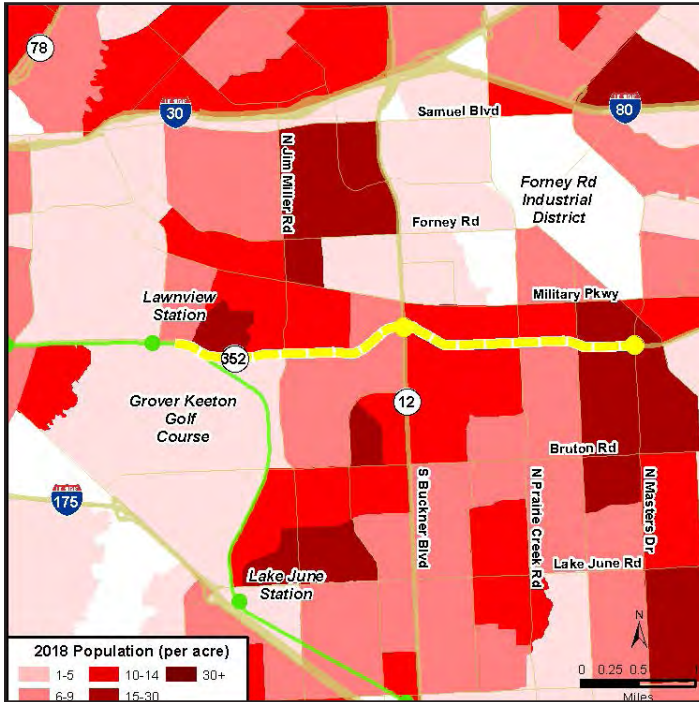
DEMOGRAPHIC PROFILE	2018	2045
EMPLOYMENT	11,694	16,062
POPULATION	46,950	51,208
HOUSEHOLDS	13,623	13,319
POPULATION BELOW POVERTY	5.7%	N/A
MINORITY POPULATION	88.8%	N/A
POPULATION OVER 65	22.5%	N/A
POPULATION 19 AND UNDER	38.2%	N/A

EXISTING LAND USE

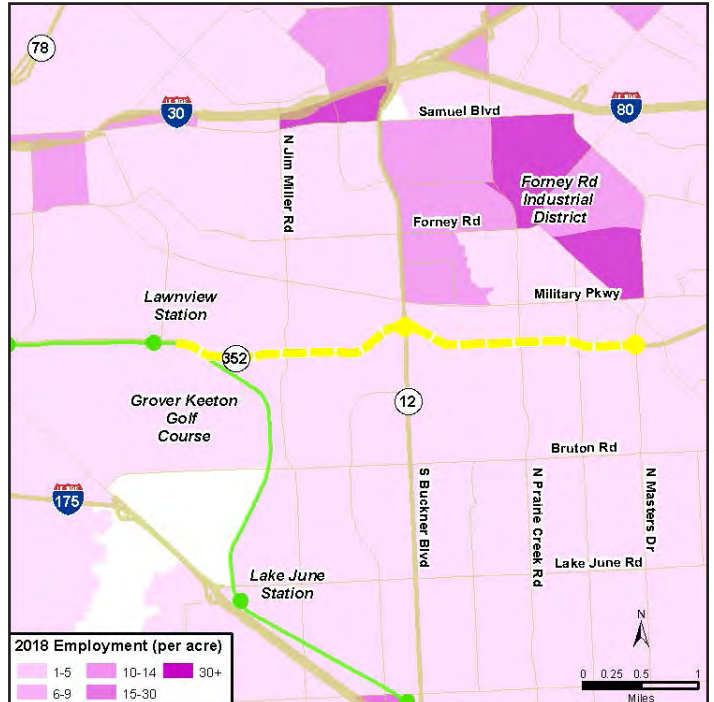


HIGH CAPACITY CORRIDOR ALTERNATIVES **EAST/SCYENE EXTENSION** CONT.

POPULATION DENSITY | 2018



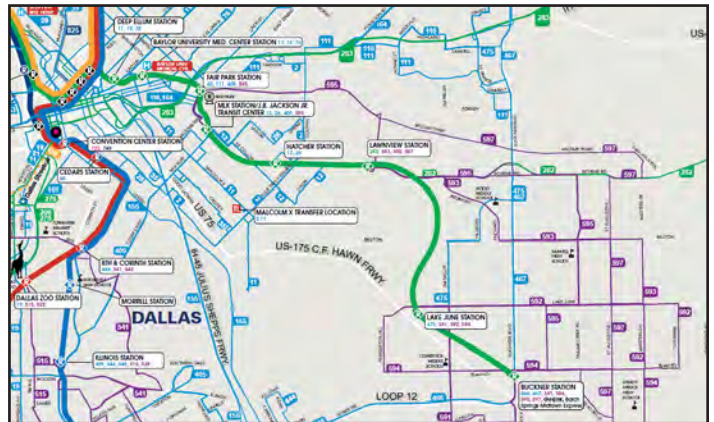
EMPLOYMENT DENSITY | 2018



TRANSIT PROPENSITY INDEX MAP

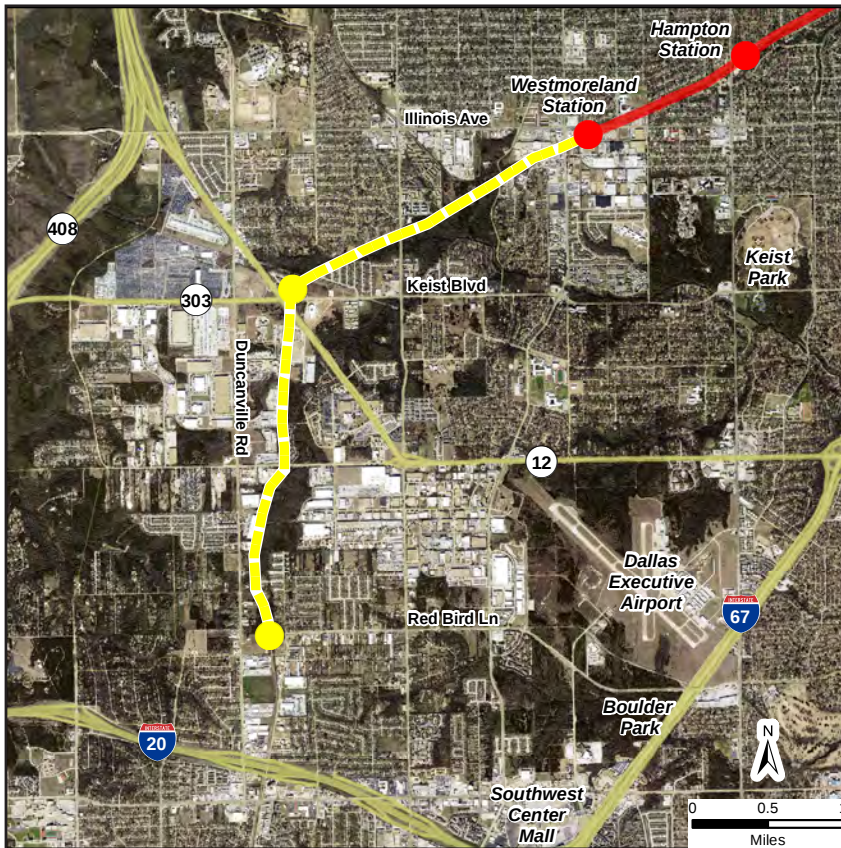


EXISTING SYSTEM MAP



Demographic & Land Use Data Source: North Central Texas Council of Governments, 2018

HIGH CAPACITY CORRIDOR ALTERNATIVES WEST OAK CLIFF RED LINE EXTENSION



CORRIDOR INFORMATION	
LIMITS	Westmoreland Station to Red Bird Lane
LENGTH	4.2 Miles
CORRIDOR TYPE	BNSF Railroad Corridor with DART Easement
HIGH CAPACITY MODE OPTION	LRT
Headways	15/20
Potential New Stations	2
OTHER MODE OPTIONS	Regional Rail to Cedar Hill/Midlothian

Note: Alignment and Proposed Stations are Conceptual and For Evaluation Purposes Only

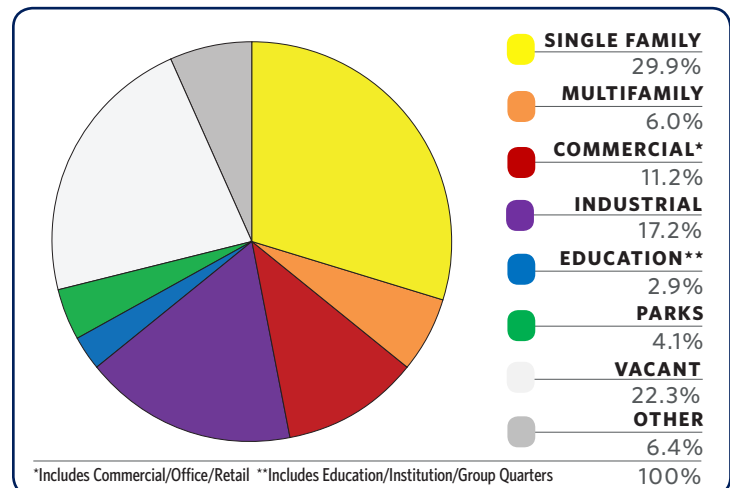
DESCRIPTION

This corridor would operate as an extension of the existing Red Line, and was recommended in prior Transit System Plans to serve growing residential and employments areas in this part of the Service Area. A regional rail connection to the south toward Cedar Hill and Midlothian is identified in the NCTCOG Metropolitan Transportation Plan (Mobility 2040) which could influence the terminus point.

DEMOGRAPHIC INFORMATION WITHIN 1/2 MILE OF CORRIDOR

DEMOGRAPHIC PROFILE	2018	2045
EMPLOYMENT	12,795	39,276
POPULATION	45,027	57,264
HOUSEHOLDS	19,492	16,089
POPULATION BELOW POVERTY	0.0%	N/A
MINORITY POPULATION	89.8%	N/A
POPULATION OVER 65	27.7%	N/A
POPULATION 19 AND UNDER	39.2%	N/A

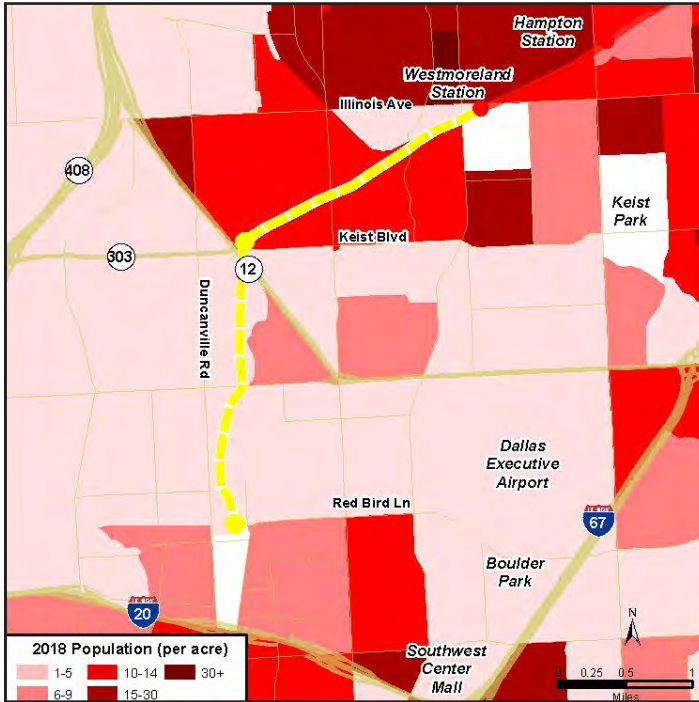
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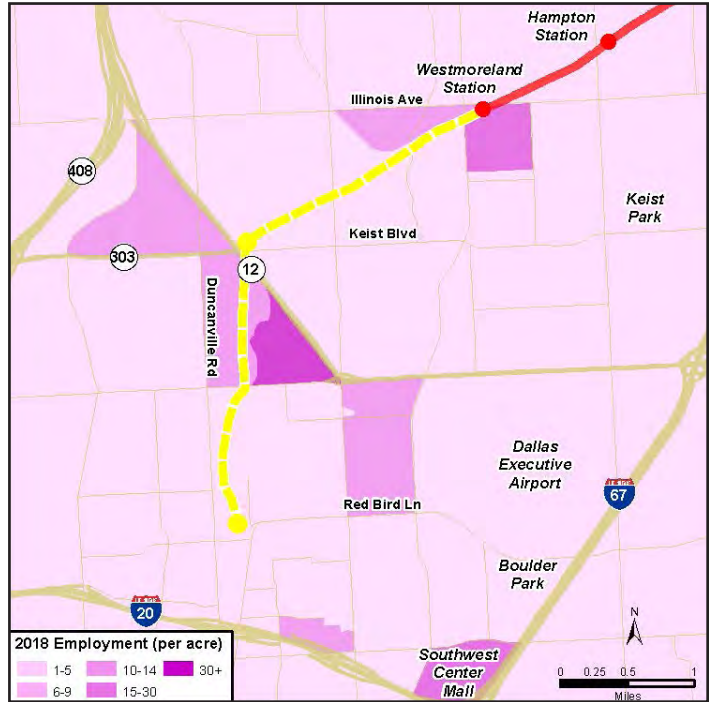
HIGH CAPACITY CORRIDOR ALTERNATIVES

WEST OAK CLIFF RED LINE EXTENSION CONT.

POPULATION DENSITY | 2018



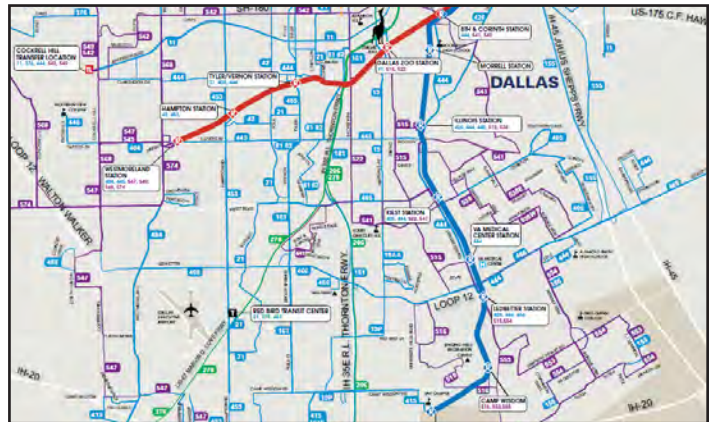
EMPLOYMENT DENSITY | 2018



TRANSIT PROPENSITY INDEX MAP



EXISTING SYSTEM MAP



Demographic & Land Use Data Source: North Central Texas Council of Governments, 2018

HIGH CAPACITY CORRIDOR ALTERNATIVES SOUTHPORT EXTENSION



CORRIDOR INFORMATION	
LIMITS	Blue Line/Camp Wisdom Rd. to IH-20/Bonnie View Rd.
LENGTH	2.9 Miles
CORRIDOR TYPE	Major Arterial Roadways
HIGH CAPACITY MODE OPTION	LRT
Headways	15/20
Potential New Stations	2
OTHER MODE OPTIONS	Bus, GoLink, Multi-Modal Inland Port

Note: Alignment and Proposed Stations are Conceptual and For Evaluation Purposes Only

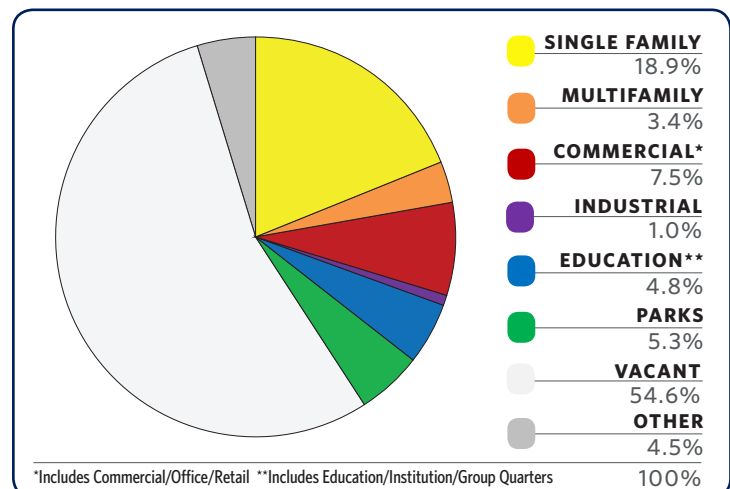
DESCRIPTION

This corridor was identified during the 2030 Transit System Plan effort as an opportunity to provide a gateway to the growing Inland Port area of Dallas. Prior plans recommended an additional light rail line that would branch off from the Blue Line near the Camp Wisdom Station. More recently the area has established a Transportation Management Association (TMA) to address transportation needs. Current service includes a new GoLink zone providing on-demand service from the UNT Dallas Station.

DEMOGRAPHIC INFORMATION WITHIN 1/2 MILE OF CORRIDOR

DEMOGRAPHIC PROFILE	2018	2045
EMPLOYMENT	2,770	8,603
POPULATION	18,587	19,765
HOUSEHOLDS	6,280	7,003
POPULATION BELOW POVERTY	20.4%	N/A
MINORITY POPULATION	95.9%	N/A
POPULATION OVER 65	45.9%	N/A
POPULATION 19 AND UNDER	32.9%	N/A

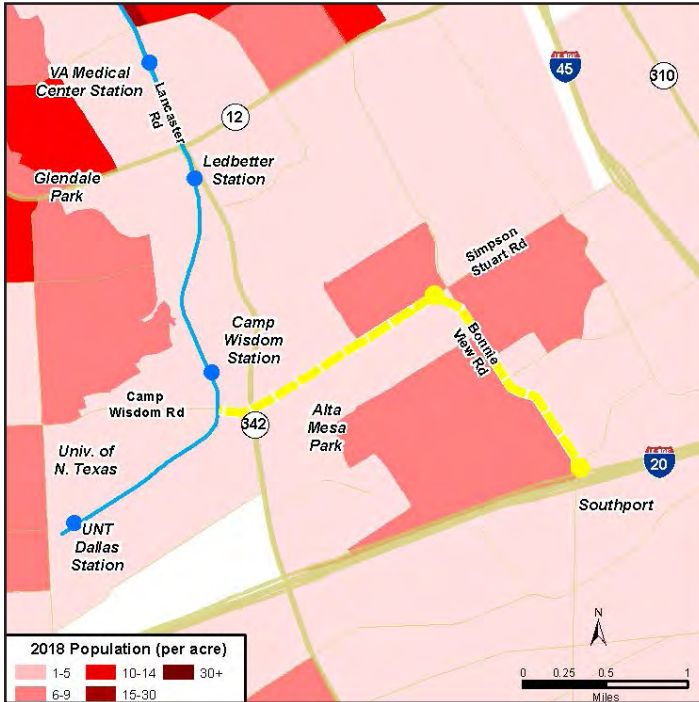
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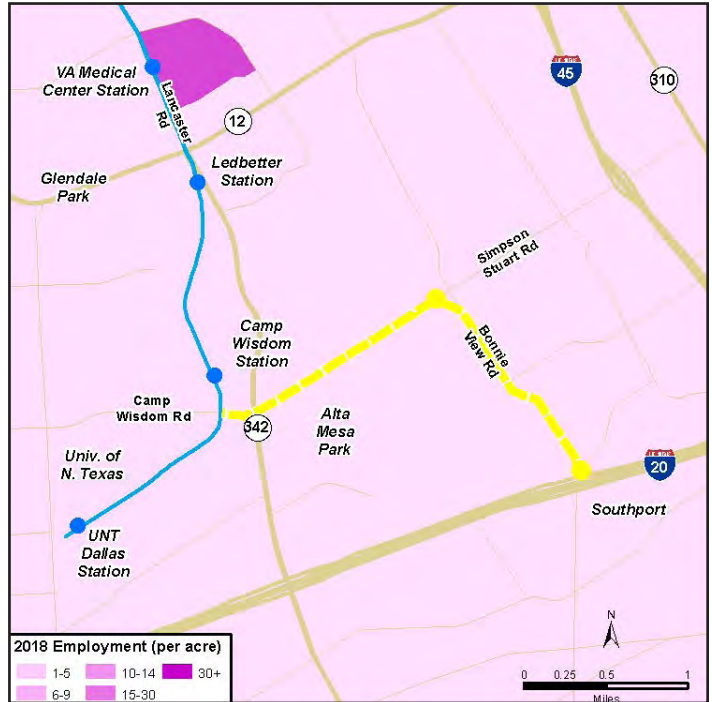
INITIAL ALTERNATIVES CORRIDOR EVALUATION

SOUTHPORT EXTENSION CONT.

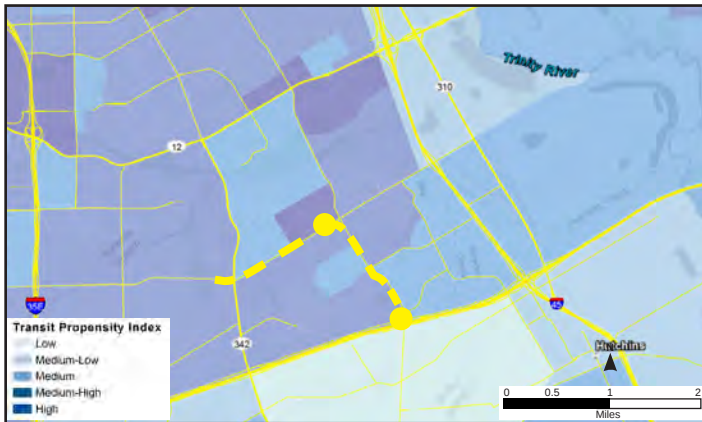
POPULATION DENSITY | 2018



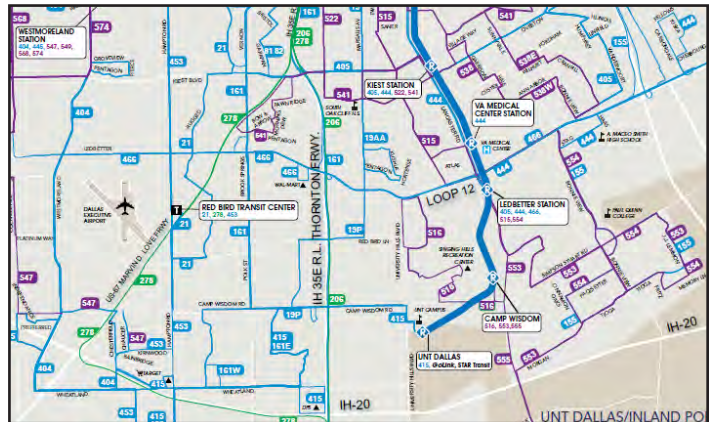
EMPLOYMENT DENSITY | 2018



TRANSIT PROPENSITY INDEX MAP

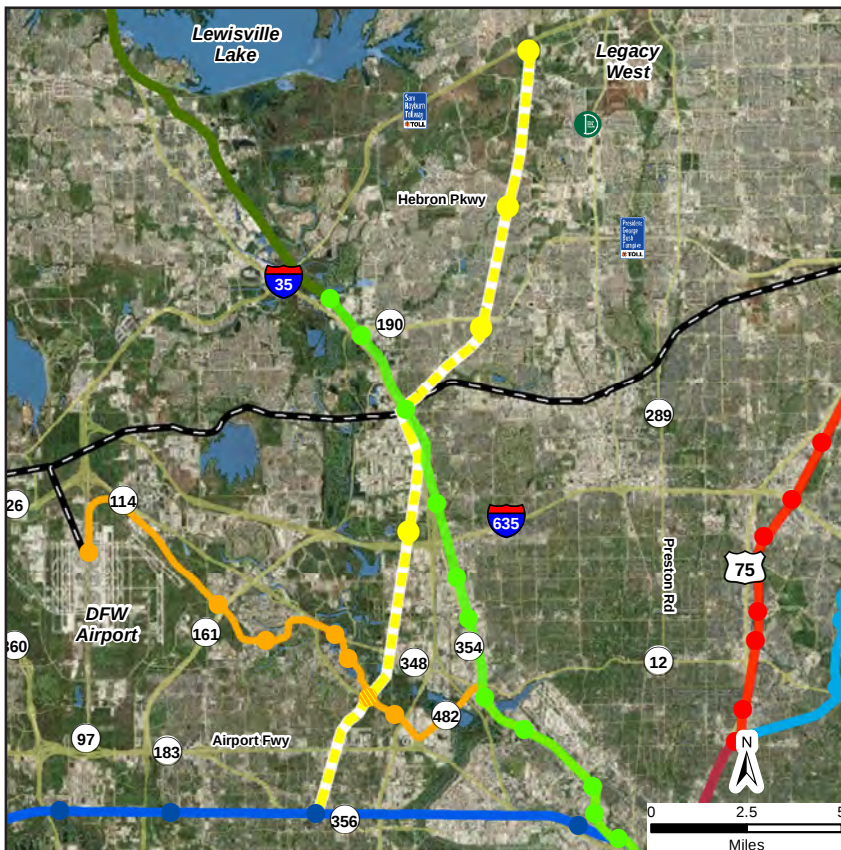


EXISTING SYSTEM MAP



Demographic & Land Use Data Source: North Central Texas Council of Governments, 2018

HIGH CAPACITY CORRIDOR ALTERNATIVES **IRVING-FRISCO CORRIDOR** (TO LEGACY WEST/SRT)



CORRIDOR INFORMATION	
LIMITS	Downtown Irving Station (TRE) to SRT
LENGTH	20 Miles
CORRIDOR TYPE	BNSF North of Downtown Carrollton, and DART/TRE South of Carrollton
HIGH CAPACITY MODE OPTION	Regional Rail
Headways	20/60
Potential New Stations	5
OTHER MODE OPTIONS	Freeway-Based Express Bus

Note: Alignment and Proposed Stations are Conceptual and For Evaluation Purposes Only

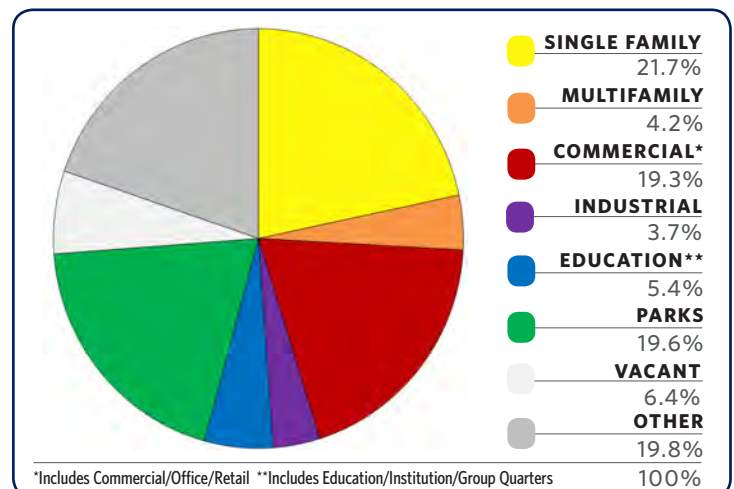
DESCRIPTION

The Irving/Frisco Corridor is included in the NCTCOG Metropolitan Transportation Plan (Mobility 2045) as a future regional rail corridor that would use the existing freight corridor. The portion of the corridor from the Trinity Railway Express (TRE) to south of SRT falls within the DART Service Area and was included as a 2030 Transit System Plan vision corridor. This corridor could link to the growing Legacy area in Plano to the Green Line and Cotton Belt in Downtown Carrollton, the Orange Line (at a deferred South Las Colinas station), and the TRE in South Irving.

DEMOGRAPHIC INFORMATION WITHIN 1/2 MILE OF CORRIDOR

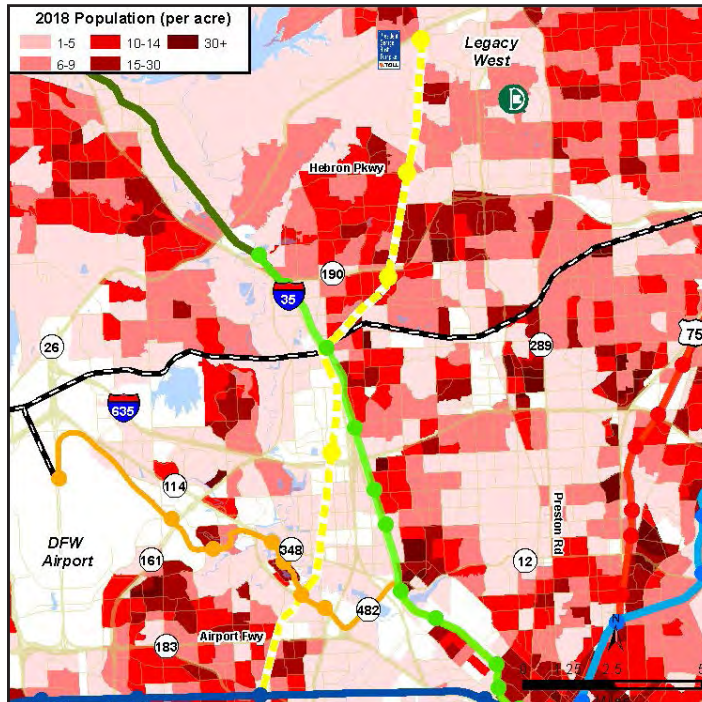
DEMOGRAPHIC PROFILE	2018	2045
EMPLOYMENT	165,533	210,220
POPULATION	152,779	202,522
HOUSEHOLDS	56,829	78,718
POPULATION BELOW POVERTY	0.8%	N/A
MINORITY POPULATION	56.9%	N/A
POPULATION OVER 65	30.2%	N/A
POPULATION 19 AND UNDER	30.1%	N/A

EXISTING LAND USE

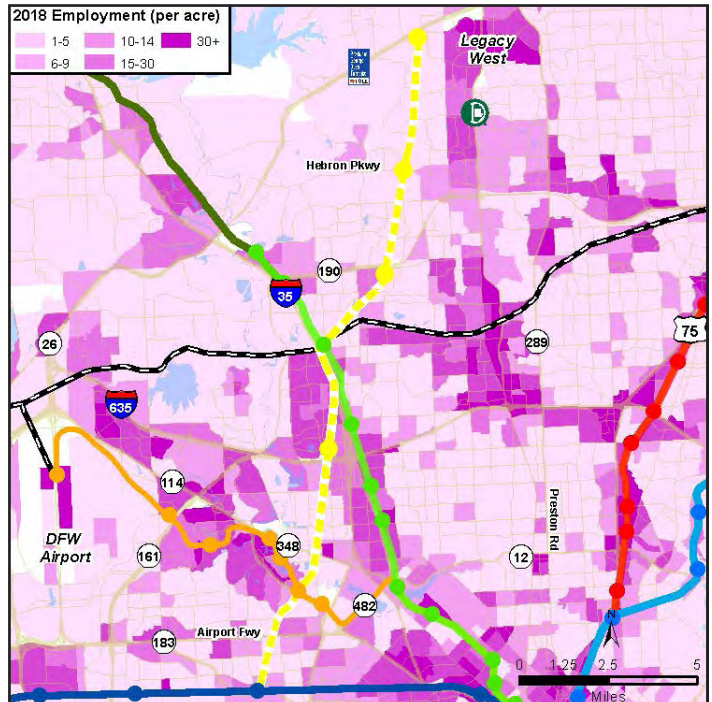


HIGH CAPACITY CORRIDOR ALTERNATIVES **IRVING-FRISCO CORRIDOR** (TO LEGACY WEST/SRT) CONT.

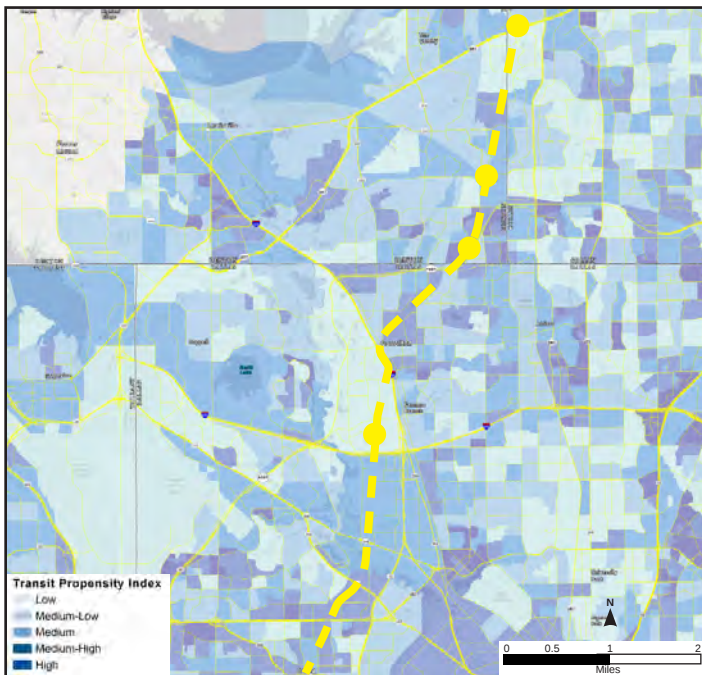
POPULATION DENSITY | 2018



EMPLOYMENT DENSITY | 2018

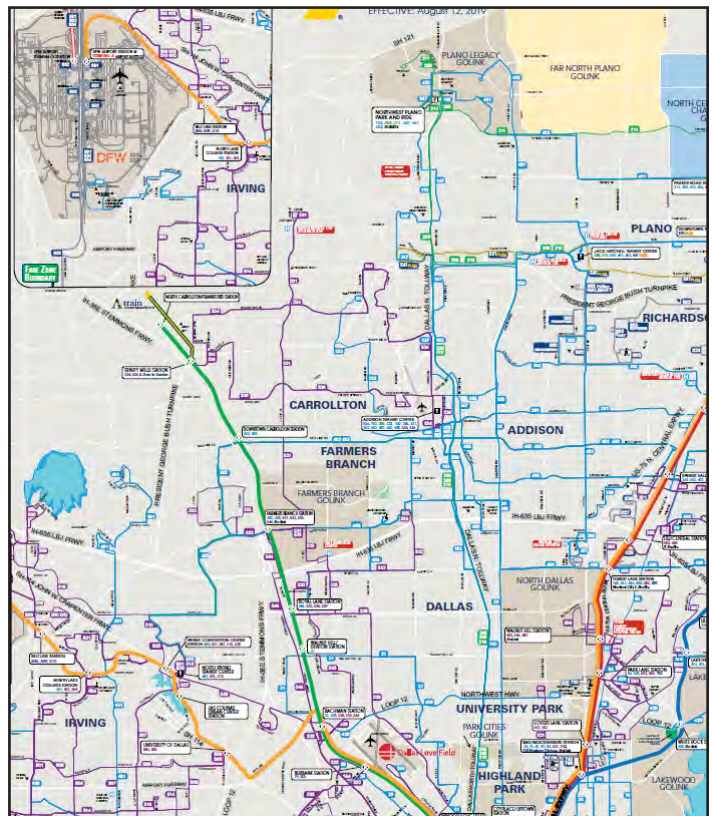


TRANSIT PROPENSITY INDEX MAP

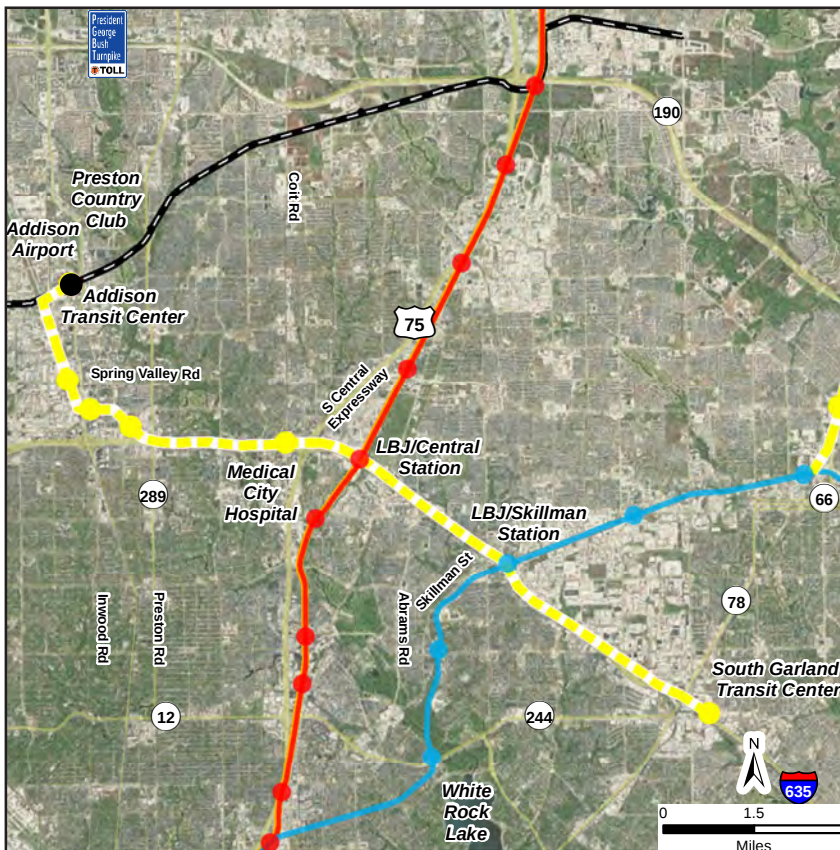


Demographic & Land Use Data Source: North Central Texas Council of Governments, 2018

EXISTING SYSTEM MAP



HIGH CAPACITY CORRIDOR ALTERNATIVES **LBJ/INWOOD CORRIDOR**



CORRIDOR INFORMATION	
LIMITS	South Garland Transit Center to Addison Transit Center
LENGTH	13.2 Miles
CORRIDOR TYPE	KCS RR, TxDOT, UP RR, Other Private
HIGH CAPACITY MODE OPTION	LRT
Headways	15/20
Potential New Stations	8
OTHER MODE OPTIONS	Bus Rapid Transit, Express Bus

Note: Alignment and Proposed Stations are Conceptual and For Evaluation Purposes Only

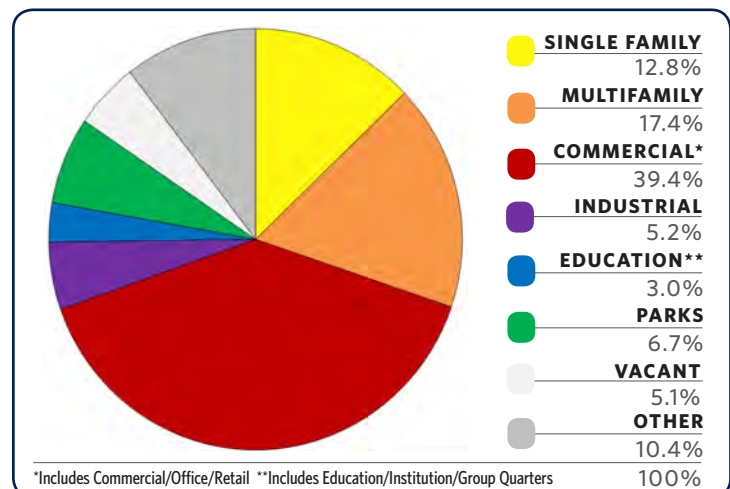
DESCRIPTION

The LBJ/Inwood Corridor was included in the 2030 Transit System Plan as a vision corridor. This corridor would serve the east-travel market from the South Garland Transit Center to Addison, providing connections to major bus transfer facilities, as well as the Silver Line, Blue, and Red/Orange lines. The implementation of this light rail line could be phased first to the existing Red line then further south to the Blue and/or to the South Garland Transit Center. The most likely modes would be light rail, express bus or rapid/frequent bus service. Given right-of-way constraints, significant portions of a light rail application would be below- and/or above-grade.

DEMOGRAPHIC INFORMATION WITHIN 1/2 MILE OF CORRIDOR

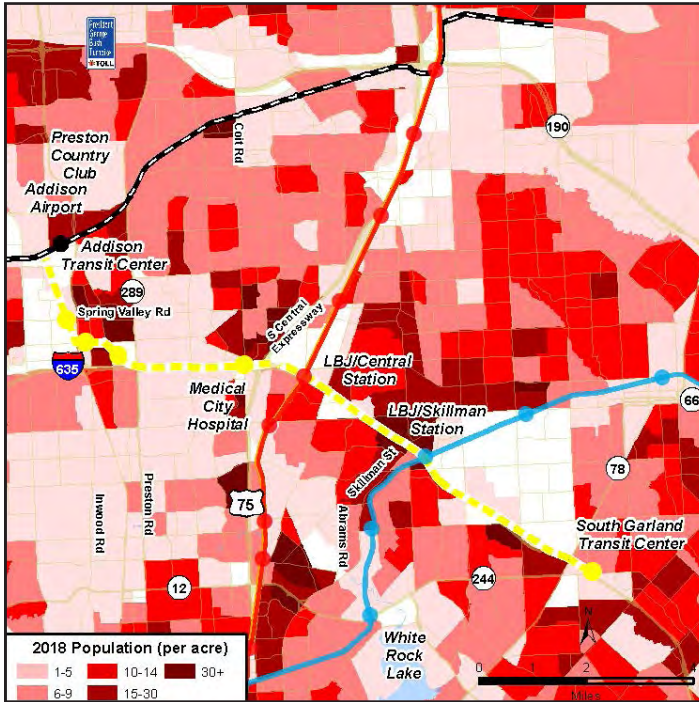
DEMOGRAPHIC PROFILE	2018	2045
EMPLOYMENT	302,391	417,694
POPULATION	145,037	174,349
HOUSEHOLDS	61,180	69,221
POPULATION BELOW POVERTY	0.9%	N/A
MINORITY POPULATION	63.3%	N/A
POPULATION OVER 65	0.32%	N/A
POPULATION 19 AND UNDER	0.31%	N/A

EXISTING LAND USE

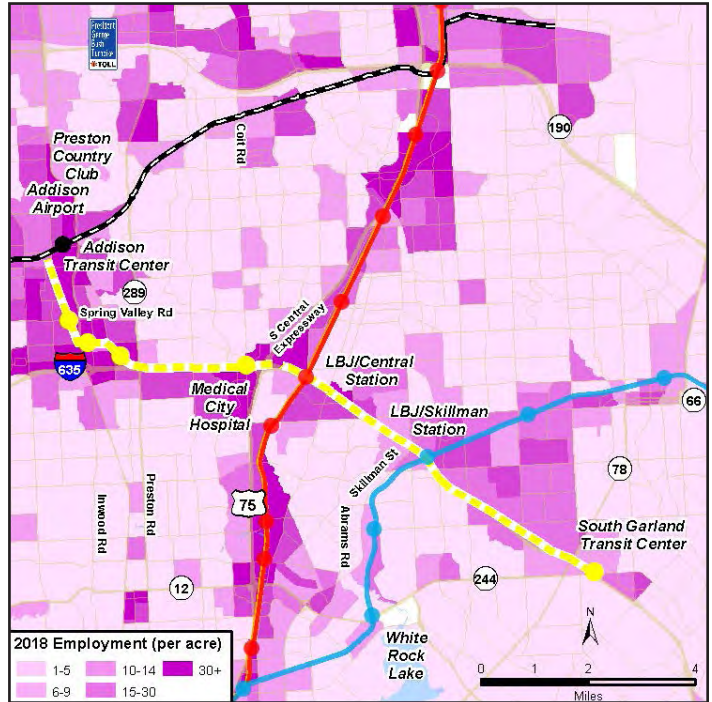


HIGH CAPACITY CORRIDOR ALTERNATIVES **LBJ/INWOOD CORRIDOR** CONT.

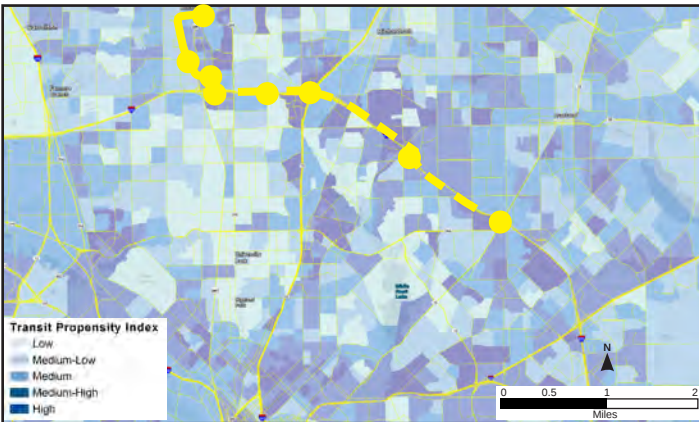
POPULATION DENSITY | 2018



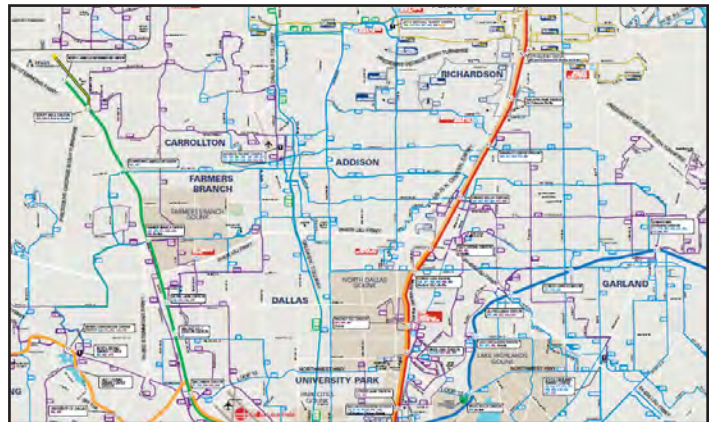
EMPLOYMENT DENSITY | 2018



TRANSIT PROPENSITY INDEX MAP

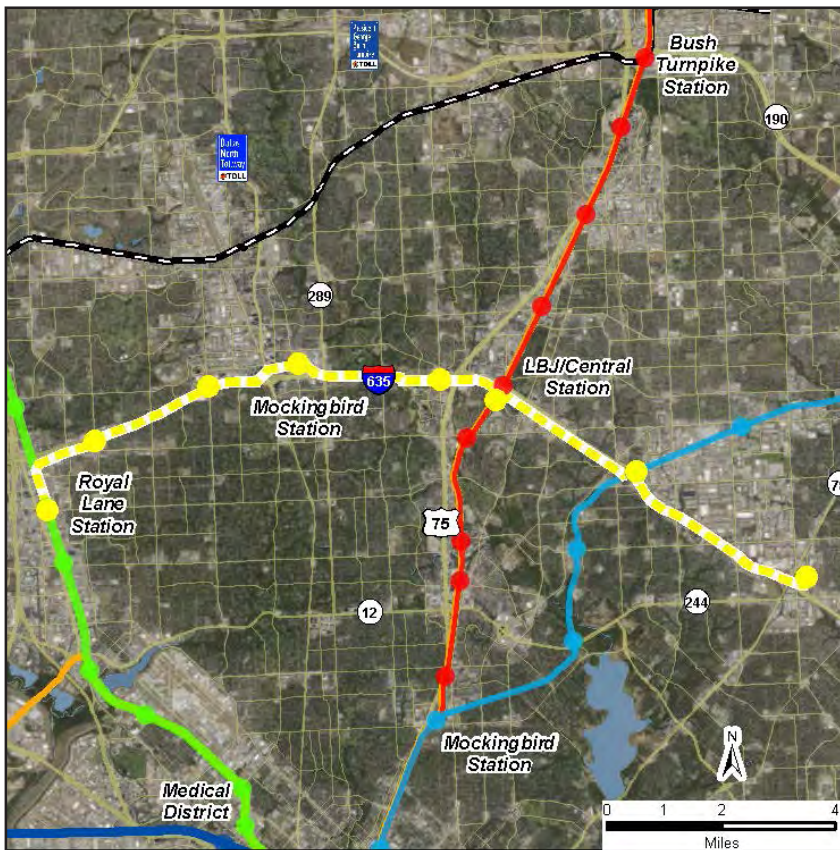


EXISTING SYSTEM MAP



Demographic & Land Use Data Source: North Central Texas Council of Governments, 2018

HIGH CAPACITY CORRIDOR ALTERNATIVES **LBJ CROSSTOWN CORRIDOR**



CORRIDOR INFORMATION	
LIMITS	South Garland Transit Center to Royal Lane Station and Addison Transit Center
LENGTH	19.6 Miles
CORRIDOR TYPE	TxDOT, KCS RR, UP RR, Other Private
HIGH CAPACITY MODE OPTION	LRT
Headways	15/20
Potential New Stations	8
OTHER MODE OPTIONS	Bus Rapid Transit, Express Bus

Note: Alignment and Proposed Stations are Conceptual and For Evaluation Purposes Only

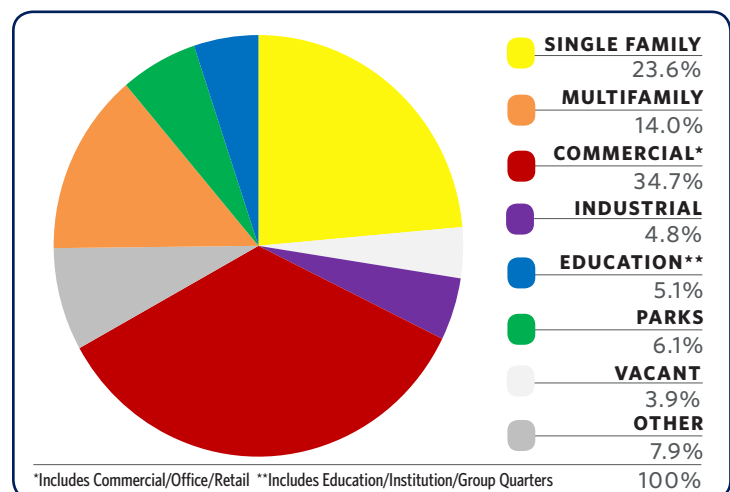
DESCRIPTION

An LBJ Crosstown corridor that would provide east-west service in this heavily travelled corridor was included in the 2030 Transit System Plan as a vision corridor. This corridor could provide an alternative for east-west connections to the Green Line, providing accessing to not only jobs along LBJ freeway but the Stemmons/IH 35E corridor. Since the 2030 Transit System Plan, the LBJ Corridor has been rebuilt with managed express lanes between IH 35E and US 75, and the east-west Cotton Belt Corridor is advancing with revenue service in 2022.

DEMOGRAPHIC INFORMATION WITHIN 1/2 MILE OF CORRIDOR

DEMOGRAPHIC PROFILE	2018	2045
EMPLOYMENT	368,616	510,399
POPULATION	180,322	214,422
HOUSEHOLDS	73,356	84,295
POPULATION BELOW POVERTY	1.6%	N/A
MINORITY POPULATION	32.3%	N/A
POPULATION OVER 65	28.5%	N/A
POPULATION 19 AND UNDER	65.3%	N/A

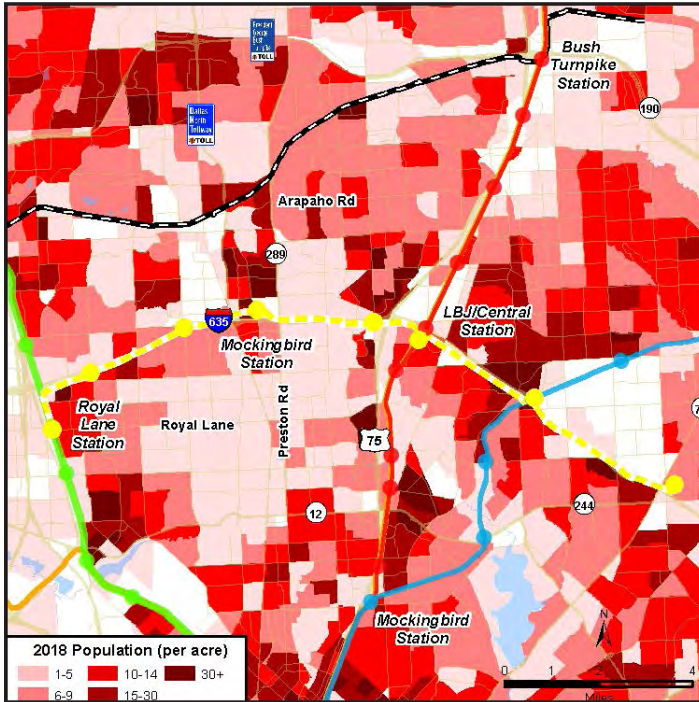
EXISTING LAND USE



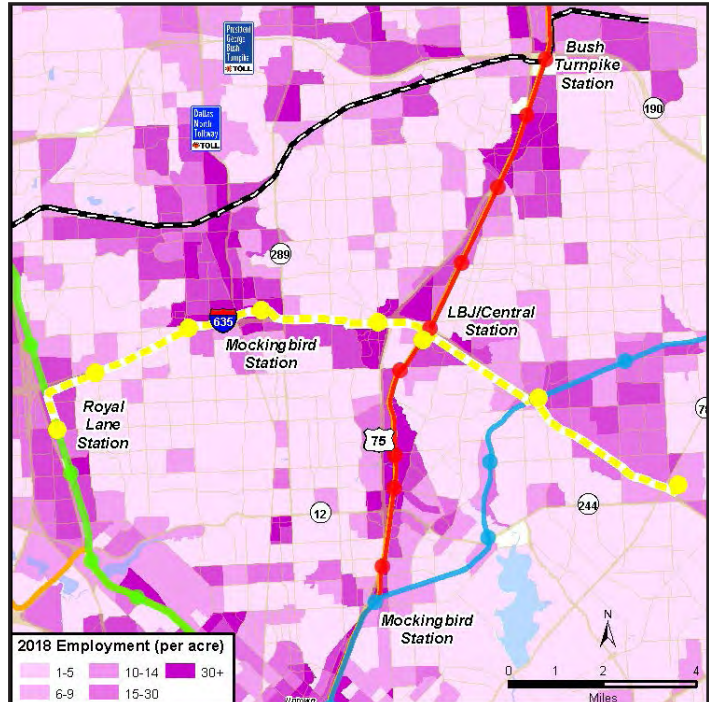
HIGH CAPACITY CORRIDOR ALTERNATIVES

LBJ CROSSTOWN CORRIDOR CONT.

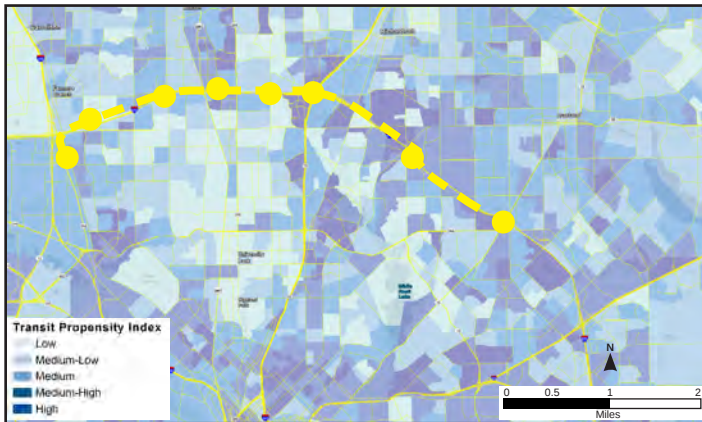
POPULATION DENSITY | 2018



EMPLOYMENT DENSITY | 2018



TRANSIT PROPENSITY INDEX MAP



EXISTING SYSTEM MAP



Demographic & Land Use Data Source: North Central Texas Council of Governments, 2018

HIGH CAPACITY CORRIDOR ALTERNATIVES

GARLAND/BUSH TURNPIKE CORRIDOR



CORRIDOR INFORMATION	
LIMITS	Downtown Garland Station to Firewheel Parkway
LENGTH	3.1 Miles
CORRIDOR TYPE	Kansas City Southern-Owned ROW
HIGH CAPACITY MODE OPTION	LRT
Headways	15/20
Potential New Stations	2
OTHER MODE OPTIONS	Bus, Shuttle, GoLink

Note: Alignment and Proposed Stations are Conceptual and For Evaluation Purposes Only

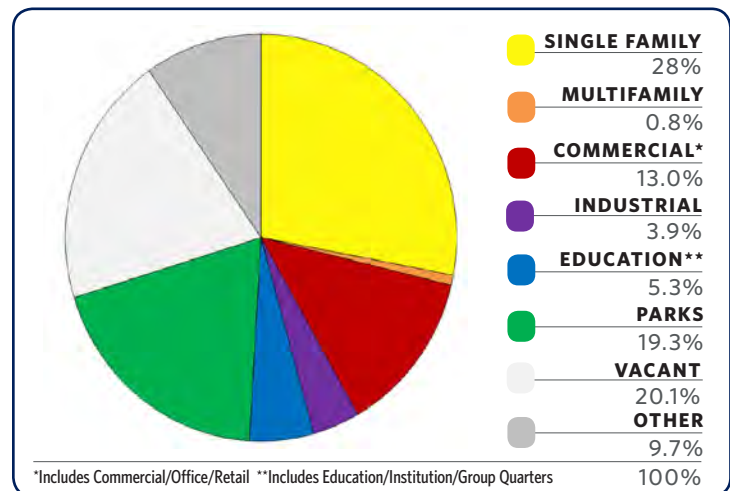
DESCRIPTION

This corridor was identified in a previous NCTCOG Metropolitan Transportation Plan (Mobility 2030) as a potential rail corridor from Garland to the Lake Lavon area. The 2030 Transit System Plan effort evaluated this corridor and found that a shorter segment to the Firewheel area of Garland should continue to be monitored, especially if additional capacity on the Blue Line is needed, or as part of part of a east-west corridor along LBJ. As a result, this corridor, as well as the LBJ/Inwood corridor were identified as 2030 vision corridors and are being reassessed as part of the 2040 effort. This corridor would provide additional service to this growing area of Garland and potentially serve regional users to the north and east.

DEMOGRAPHIC INFORMATION WITHIN 1/2 MILE OF CORRIDOR

DEMOGRAPHIC PROFILE	2018	2045
EMPLOYMENT	14,688	26,509
POPULATION	33,406	43,044
HOUSEHOLDS	10,916	13,829
POPULATION BELOW POVERTY	1.2%	N/A
MINORITY POPULATION	56.0%	N/A
POPULATION OVER 65	35.6%	N/A
POPULATION 19 AND UNDER	28.4%	N/A

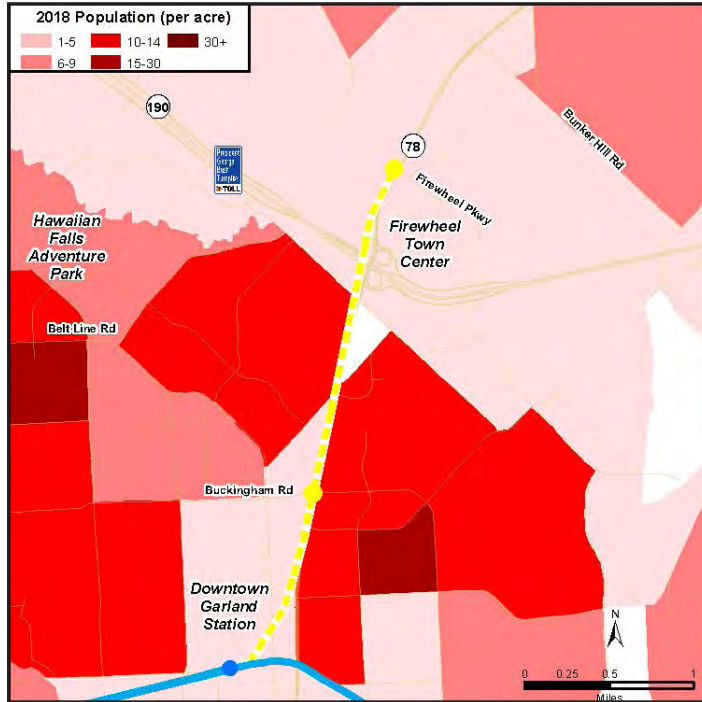
EXISTING LAND USE



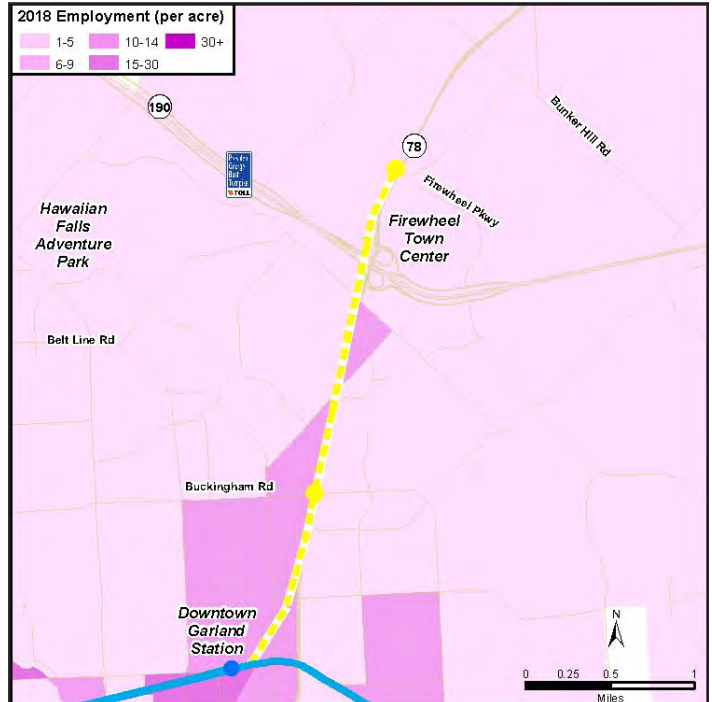
HIGH CAPACITY CORRIDOR ALTERNATIVES

GARLAND/BUSH TURNPIKE CORRIDOR CONT.

POPULATION DENSITY | 2018



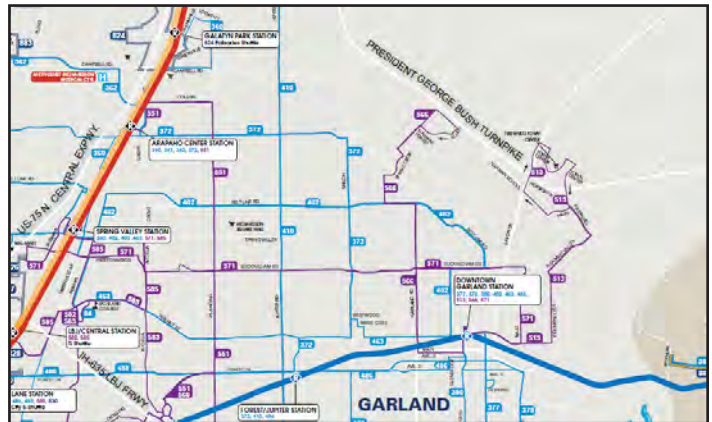
EMPLOYMENT DENSITY | 2018



TRANSIT PROPENSITY INDEX MAP



EXISTING SYSTEM MAP



Demographic & Land Use Data Source: North Central Texas Council of Governments, 2018

HIGH CAPACITY CORRIDOR ALTERNATIVES SOUTHEAST GREEN LINE EXTENSION (TO IH 20)



CORRIDOR INFORMATION	
LIMITS	Buckner Station to IH-20
LENGTH	3.5 Miles
CORRIDOR TYPE	DART-Owned ROW
HIGH CAPACITY MODE OPTION	LRT
Headways	15/20
Potential New Stations	2
OTHER MODE OPTIONS	Bus, GoLink

Note: Alignment and Proposed Stations are Conceptual and For Evaluation Purposes Only

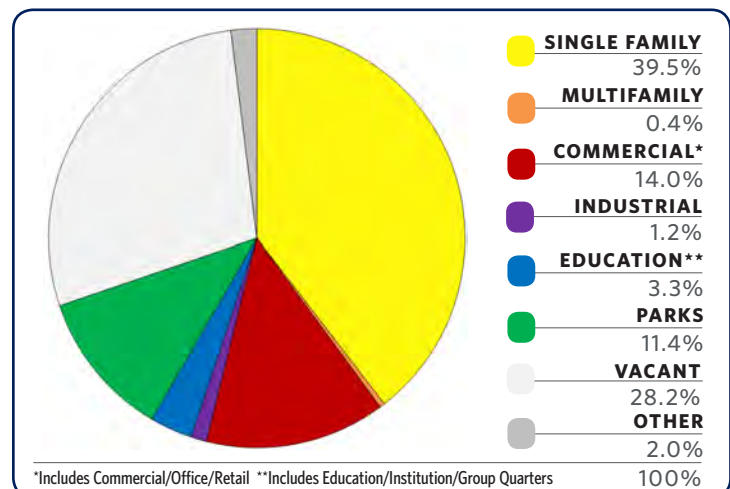
DESCRIPTION

This corridor was evaluated in the 2030 Transit System Plan effort as an extension of the existing Green Line. Given low existing densities in the area, the area is served by bus and a new GoLink zone. It was included as a 2030 vision corridor for future monitoring of growth and transit needs. The NCTCOG Metropolitan Transportation Plan (Mobility 2045) plan recommends an extension of this corridor further to the south to approximately Belt Line Road.

DEMOGRAPHIC INFORMATION WITHIN 1/2 MILE OF CORRIDOR

DEMOGRAPHIC PROFILE	2018	2045
EMPLOYMENT	4,414	11,774
POPULATION	30,592	37,187
HOUSEHOLDS	8,225	9,486
POPULATION BELOW POVERTY	11.7%	N/A
MINORITY POPULATION	92.4%	N/A
POPULATION OVER 65	28.6%	N/A
POPULATION 19 AND UNDER	39.4%	N/A

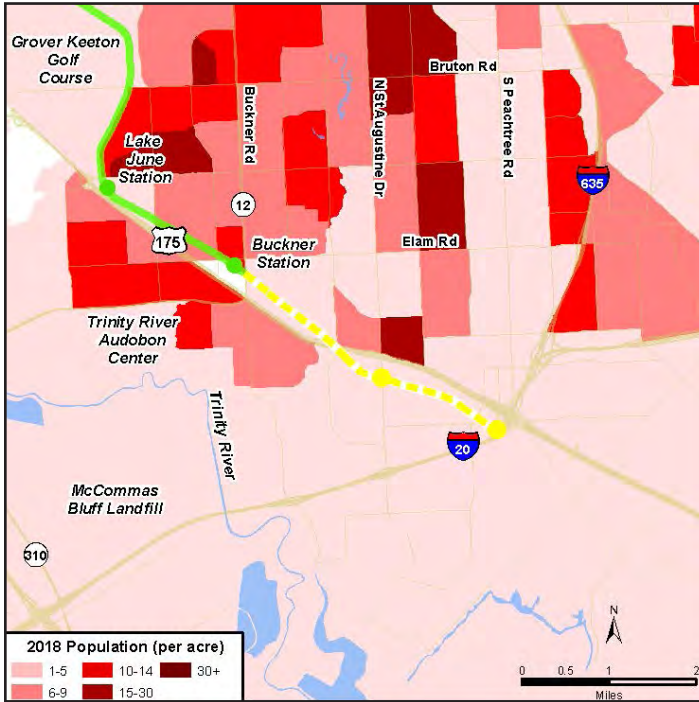
EXISTING LAND USE



HIGH CAPACITY CORRIDOR ALTERNATIVES

SOUTHEAST GREEN LINE EXTENSION (TO IH 20) CONT.

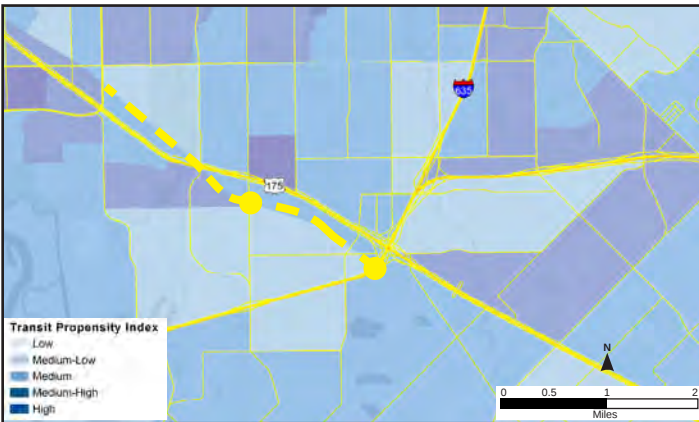
POPULATION DENSITY | 2018



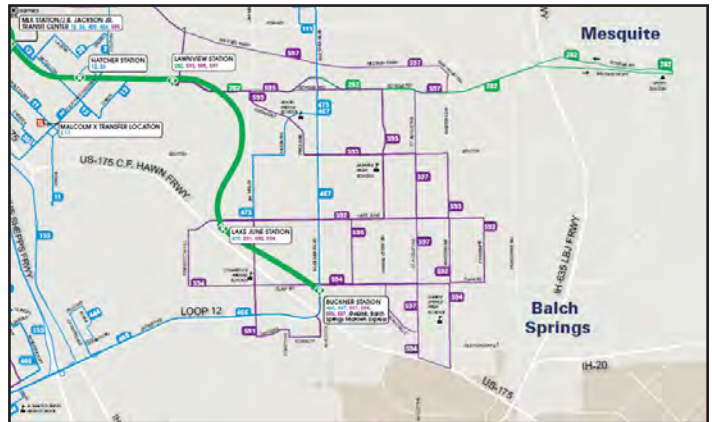
EMPLOYMENT DENSITY | 2018



TRANSIT PROPENSITY INDEX MAP



EXISTING SYSTEM MAP



Demographic & Land Use Data Source: North Central Texas Council of Governments, 2018

HIGH CAPACITY CORRIDOR ALTERNATIVES ROWLETT EXTENSION CORRIDOR



CORRIDOR INFORMATION	
LIMITS	Downtown Rowlett Station to Dalrock Road
LENGTH	3.4 Miles
CORRIDOR TYPE	DART-Owned ROW
HIGH CAPACITY MODE OPTION	LRT
Headways	15/20
Potential New Stations	1
OTHER MODE OPTIONS	Bus, Shuttle, GoLink

Note: Alignment and Proposed Stations are Conceptual and For Evaluation Purposes Only

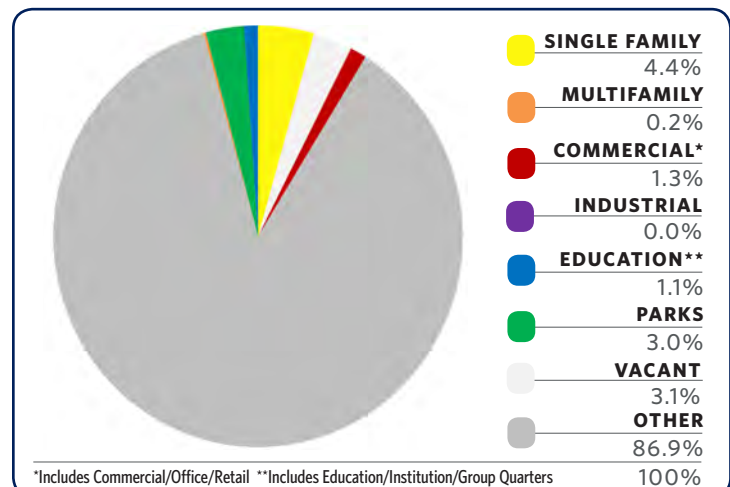
DESCRIPTION

This corridor could be a potential extension of the Blue Line and was suggested by the City of Rowlett given their plans to develop a 262-acre mixed use development called Sapphire Bay. The Sapphire Bay development will consist of residential, retail, commercial and office with resort and entertainment amenities. Several mode options are available to serve the area and link it to the Rowlett Station and the rest of the community.

DEMOGRAPHIC INFORMATION WITHIN 1/2 MILE OF CORRIDOR

DEMOGRAPHIC PROFILE	2018	2045
EMPLOYMENT	9,191	13,261
POPULATION	27,715	43,929
HOUSEHOLDS	9,558	16,550
POPULATION BELOW POVERTY	0.0%	N/A
MINORITY POPULATION	34.5%	N/A
POPULATION OVER 65	30.6%	N/A
POPULATION 19 AND UNDER	28.8%	N/A

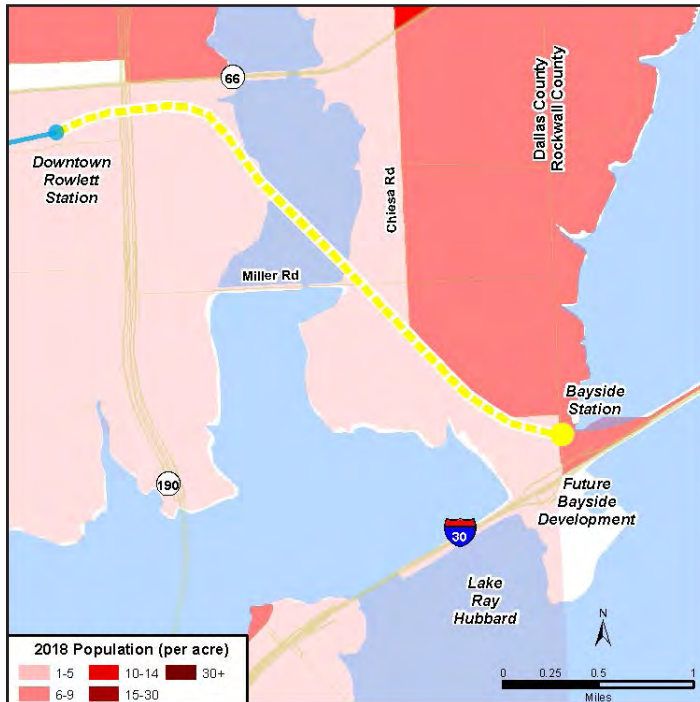
EXISTING LAND USE



HIGH CAPACITY CORRIDOR ALTERNATIVES

ROWLETT EXTENSION CORRIDOR CONT.

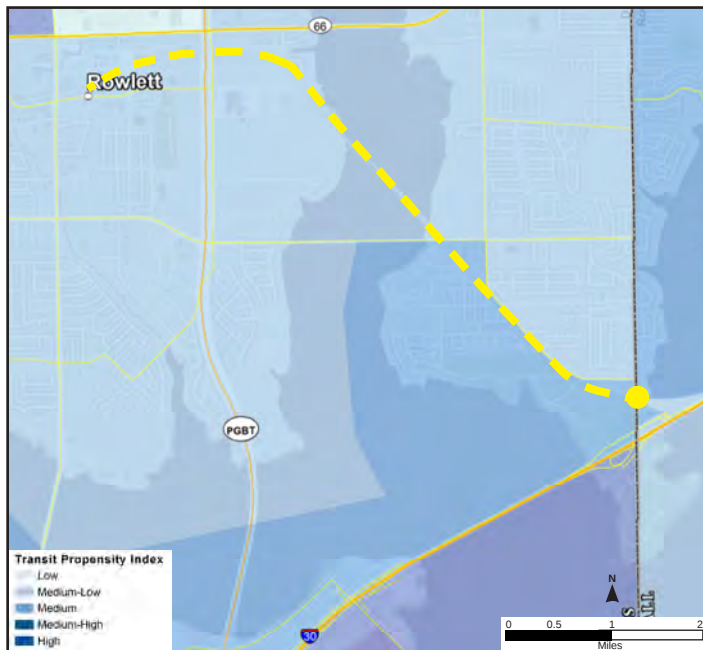
POPULATION DENSITY | 2018



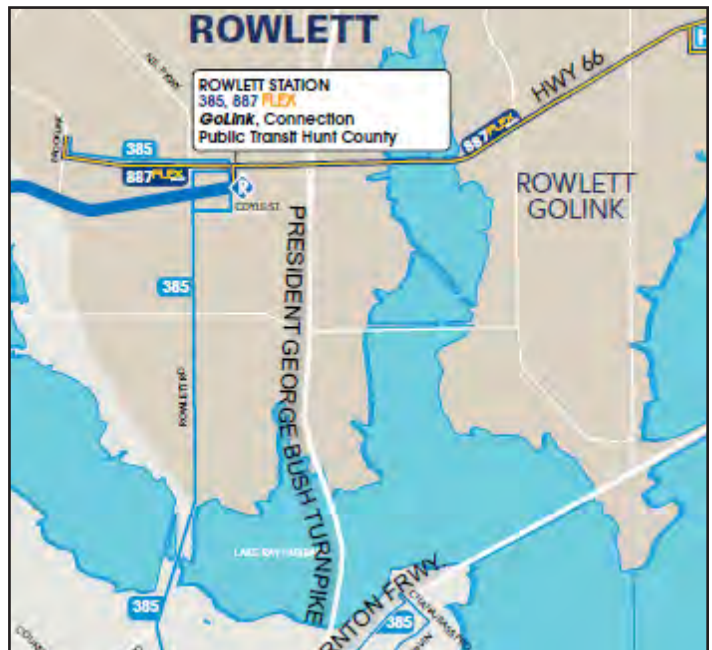
EMPLOYMENT DENSITY | 2018



TRANSIT PROPENSITY INDEX MAP



EXISTING SYSTEM MAP



Demographic & Land Use Data Source: North Central Texas Council of Governments, 2018

HIGH CAPACITY CORRIDOR ALTERNATIVES

TOLLWAY CORRIDOR



CORRIDOR INFORMATION	
LIMITS	Convention Center Station to Legacy
LENGTH	21.5 Miles
CORRIDOR TYPE	NTTA and Arterial Roadways
HIGH CAPACITY MODE OPTION	LRT
Headways	15/20
Potential New Stations	11
OTHER MODE OPTIONS	None

Note: Alignment and Proposed Stations are Conceptual and For Evaluation Purposes Only

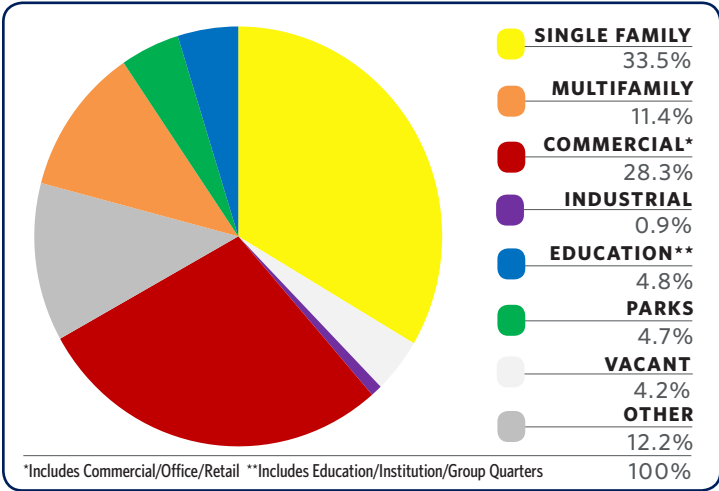
DESCRIPTION

This corridor would extend from downtown Dallas to serve downtown, uptown, activity centers along the Dallas North Tollway, and the growing Legacy area in Plano. The Tollway Corridor is an important job corridor for the region. This corridor would connect to the core light rail network in downtown Dallas to provide a strong north-south link from other parts of the system, especially the southern sector. The tollway corridor is an increasingly congested and right-of-way constrained corridor that becoming difficult to serve with express buses.

DEMOGRAPHIC INFORMATION WITHIN 1/2 MILE OF CORRIDOR

DEMOGRAPHIC PROFILE	2018	2045
EMPLOYMENT	562,107	621,612
POPULATION	172,693	215,508
HOUSEHOLDS	84,738	111,344
POPULATION BELOW POVERTY	0.4%	N/A
MINORITY POPULATION	XX%	N/A
POPULATION OVER 65	XX%	N/A
POPULATION 19 AND UNDER	XX%	N/A

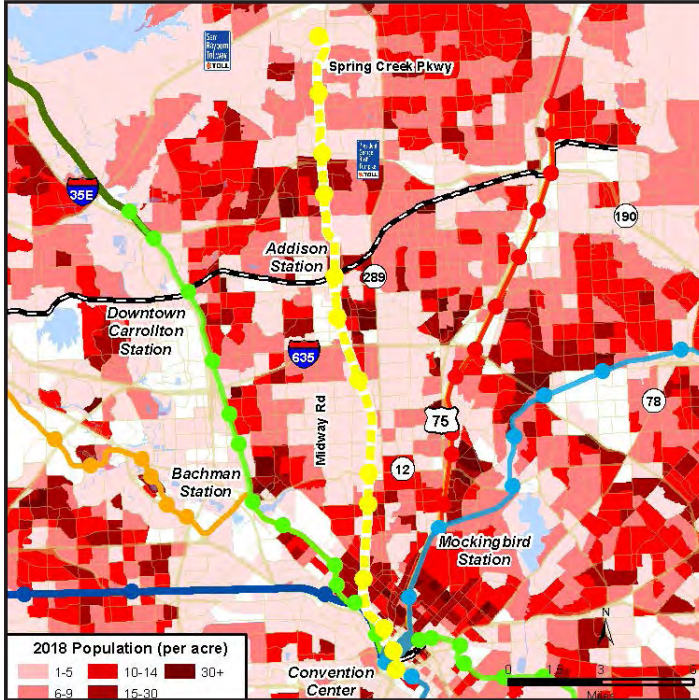
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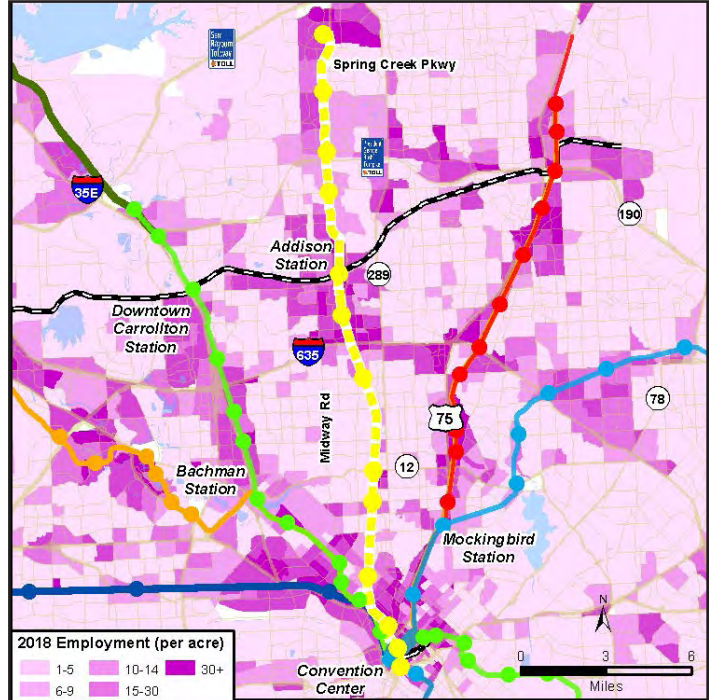
HIGH CAPACITY CORRIDOR ALTERNATIVES

TOLLWAY CORRIDOR CONT.

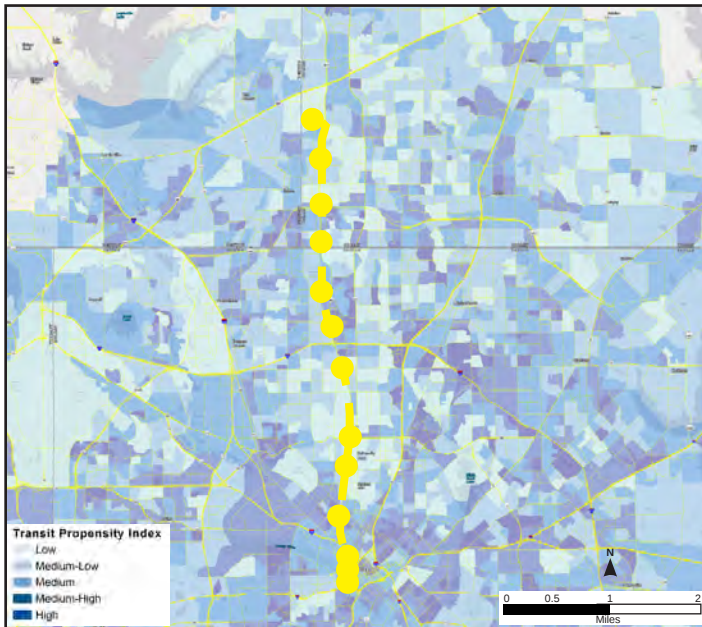
POPULATION DENSITY | 2018



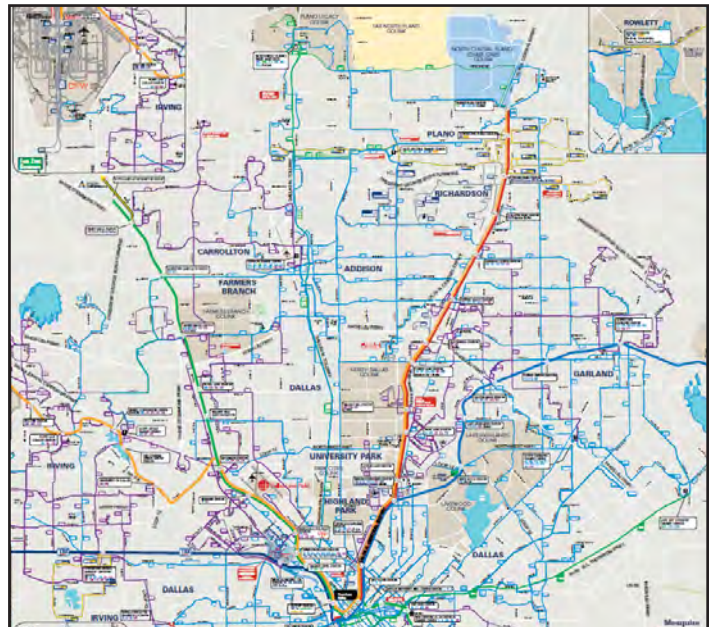
EMPLOYMENT DENSITY | 2018



TRANSIT PROPENSITY INDEX MAP



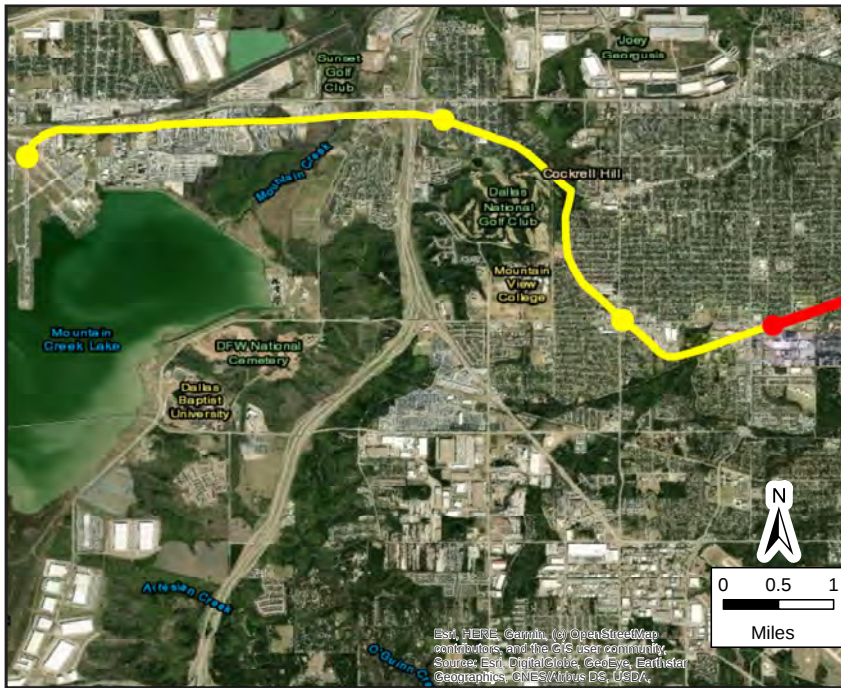
EXISTING SYSTEM MAP



Demographic & Land Use Data Source: North Central Texas Council of Governments, 2018

HIGH CAPACITY CORRIDOR ALTERNATIVES

HENSLEY FIELD RED LINE EXTENSION



CORRIDOR INFORMATION	
LIMITS	Westmoreland Station to Hensley Field
LENGTH	7.1 Miles
CORRIDOR TYPE	Former Rail Corridor, New Right-of-Way, Arterial Roadway
HIGH CAPACITY MODE OPTION	LRT
Headways	15/20
Potential New Stations	3
OTHER MODE OPTIONS	Core Frequent Bus, Express Bus

Note: Alignment and Proposed Stations are Conceptual and For Evaluation Purposes Only

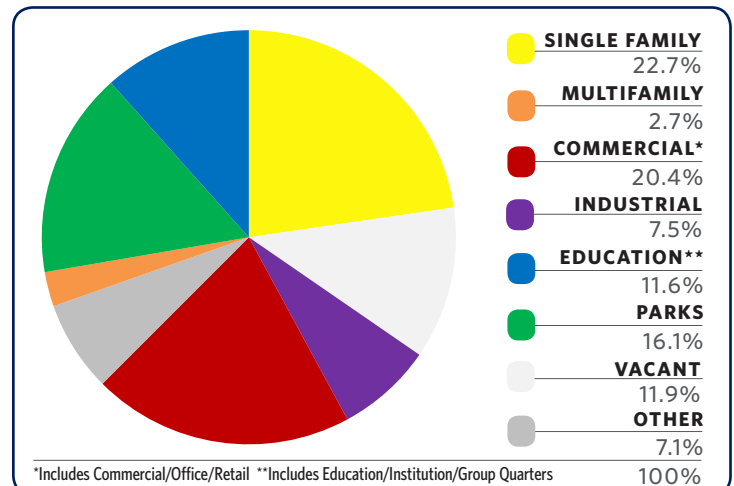
DESCRIPTION

This corridor would serve as an extension of the Red Line from the Westmoreland Station, and presents an alternative to the West Oak Cliff extension to the south. Hensley Field is a 738 acre redevelopment site in southwest Dallas. The former Dallas Naval Air Station was identified as a federal Opportunity Zone and the City of Dallas is initiating a master plan for the site that would incorporate high density mixed uses. As part of the master plan process, the potential for high capacity transit (bus or rail) in the future will be considered.

DEMOGRAPHIC INFORMATION WITHIN 1/2 MILE OF CORRIDOR

DEMOGRAPHIC PROFILE	2018	2045
EMPLOYMENT	13,291	32,450
POPULATION	51,547	62,829
HOUSEHOLDS	14,245	16,785
POPULATION BELOW POVERTY	16.0%	N/A
MINORITY POPULATION	93.3%	N/A
POPULATION OVER 65	7.72%	N/A
POPULATION 19 AND UNDER	35.8%	N/A

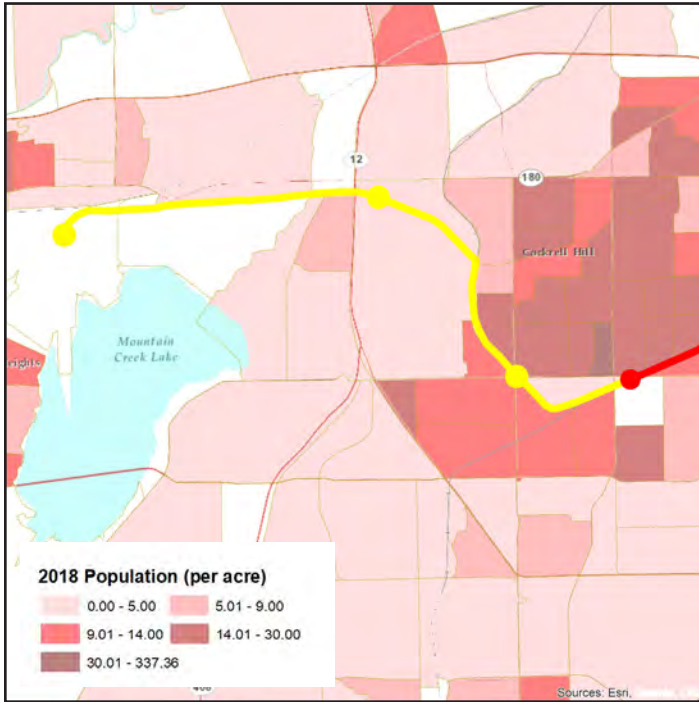
EXISTING LAND USE



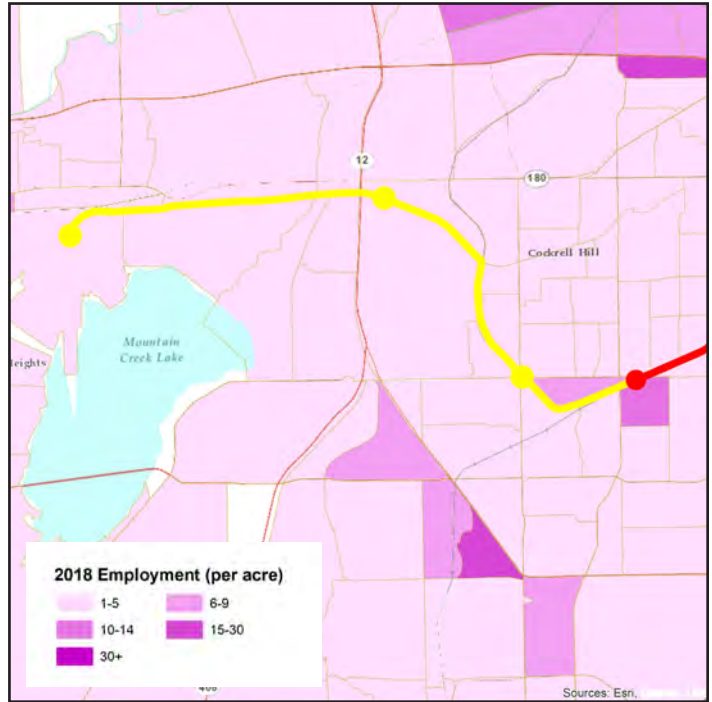
HIGH CAPACITY CORRIDOR ALTERNATIVES

HENSLEY FIELD RED LINE EXTENSION CONT.

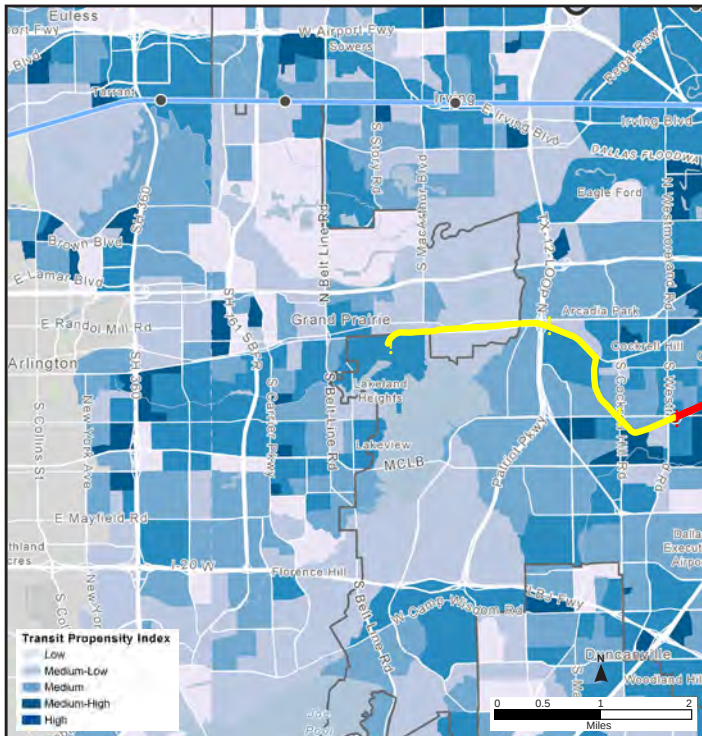
POPULATION DENSITY | 2018



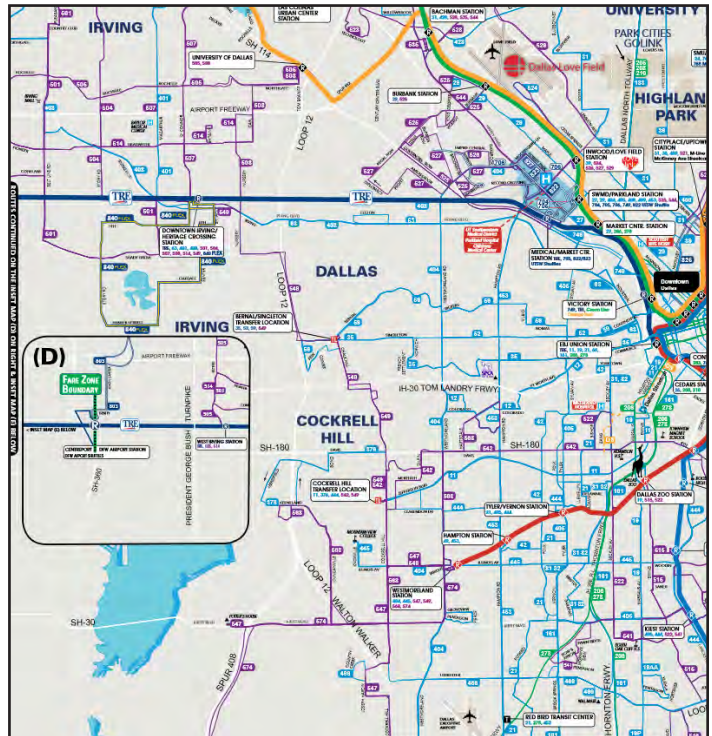
EMPLOYMENT DENSITY | 2018



TRANSIT PROPENSITY INDEX MAP



EXISTING SYSTEM MAP



Demographic & Land Use Data Source: North Central Texas Council of Governments, 2018

HIGH CAPACITY CORRIDOR ALTERNATIVES

RED LINE EXTENSION TO SPRING CREEK



CORRIDOR INFORMATION	
LIMITS	Parker Road Station to Spring Creek Parkway
LENGTH	1.8 Miles
CORRIDOR TYPE	DART-Owned ROW
HIGH CAPACITY MODE OPTION	LRT
Headways	15/20
Potential New Stations	1
OTHER MODE OPTIONS	Bus, Shuttle, GoLink

Note: Alignment and Proposed Stations are Conceptual and For Evaluation Purposes Only

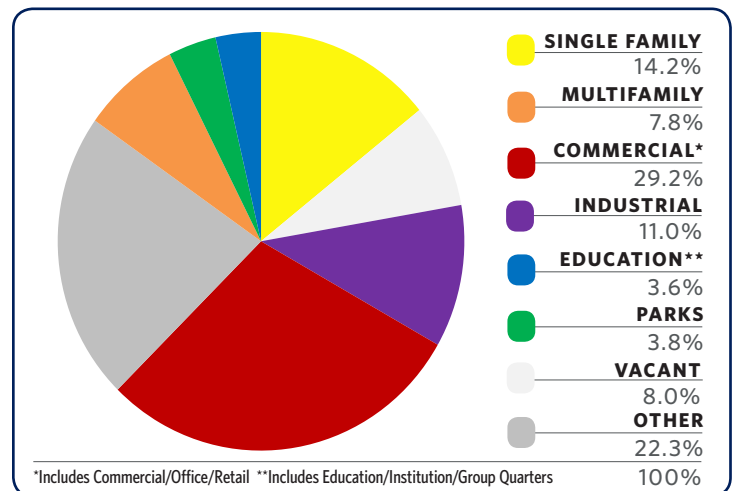
DESCRIPTION

This corridor could operate as an extension of the existing Red/Orange Lines to serve growing residential and employment areas in this part of the Service Area. The City of Plano recently adopted the Envision Oak Point Plan, which recommends transit-supportive land uses around potential rail or bus stops in this area. The area is currently served by the North Central Plano/Chase Oaks GoLink zone, and is connected to the Parker Road Station by bus. An east-west linkage to Plano Legacy is provided by express route 211. DART owns the railroad right-of-way north to Sherman which could allow further transit expansion to the north should other cities in Collin County pursue a high capacity transit line in the future.

DEMOGRAPHIC INFORMATION WITHIN 1/2 MILE OF CORRIDOR

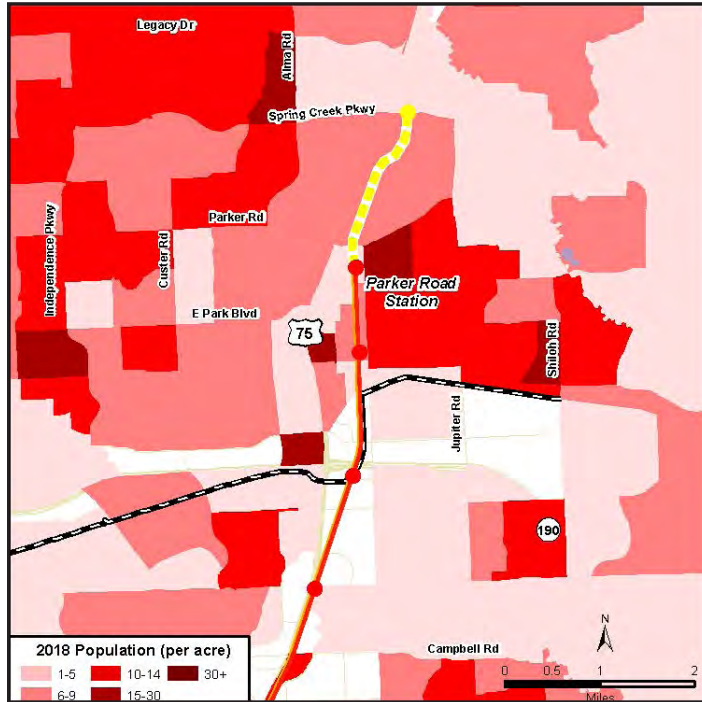
DEMOGRAPHIC PROFILE	2018	2045
EMPLOYMENT	25,552	38,010
POPULATION	20,277	27,577
HOUSEHOLDS	7,473	10,252
POPULATION BELOW POVERTY	0%	N/A
MINORITY POPULATION	28%	N/A
POPULATION OVER 65	28%	N/A
POPULATION 19 AND UNDER	45.8%	N/A

EXISTING LAND USE

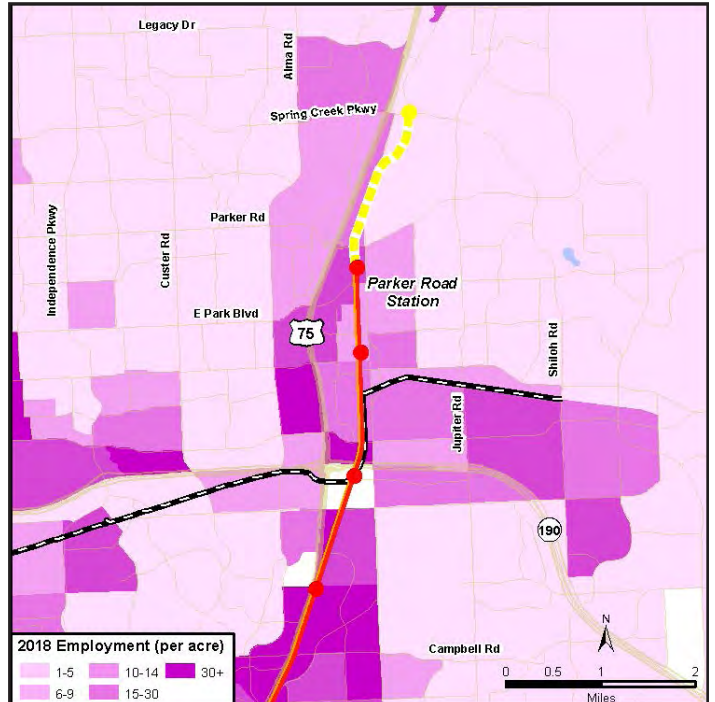


HIGH CAPACITY CORRIDOR ALTERNATIVES RED LINE EXTENSION TO SPRING CREEK CONT.

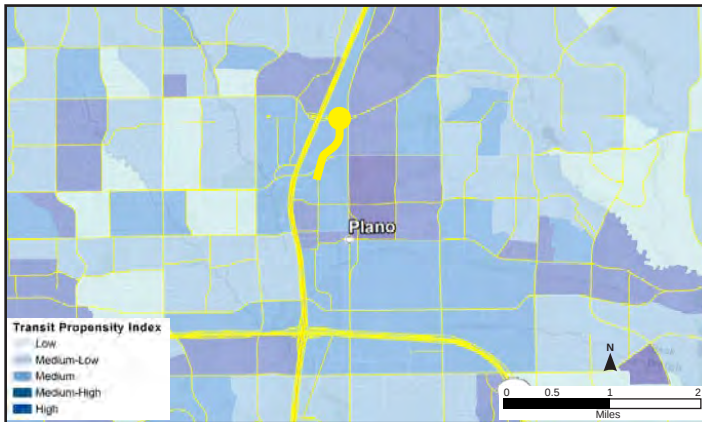
POPULATION DENSITY | 2018



EMPLOYMENT DENSITY | 2018



TRANSIT PROPENSITY INDEX MAP



EXISTING SYSTEM MAP



Demographic & Land Use Data Source: North Central Texas Council of Governments, 2018