

DARTzoom Bus Network Redesign Update

**Transportation and
Infrastructure Committee
November 16, 2020**

Purpose for the Bus Network Redesign

- Physical and demographic changes in the development of the region
- Requested by service area cities for a clean slate, 100% redesign
- DART Board goal to increase ridership potential for the network
- Use existing budget to accomplish ridership and coverage goals by changing the ridership-coverage ratio

Basis of Ridership Coverage Ratio Planning

- In every transit system's limited budget, a basic trade-off is made between:
 - Using budget to improve frequency on fewer routes with better ridership potential
 - Using budget to provide for services to important places but do not yield high ridership relative to their costs
- About 55% of the existing DART bus budget is spent pursuing high ridership, and 45% is spent covering important places where ridership is low

Goals of the Network Redesign

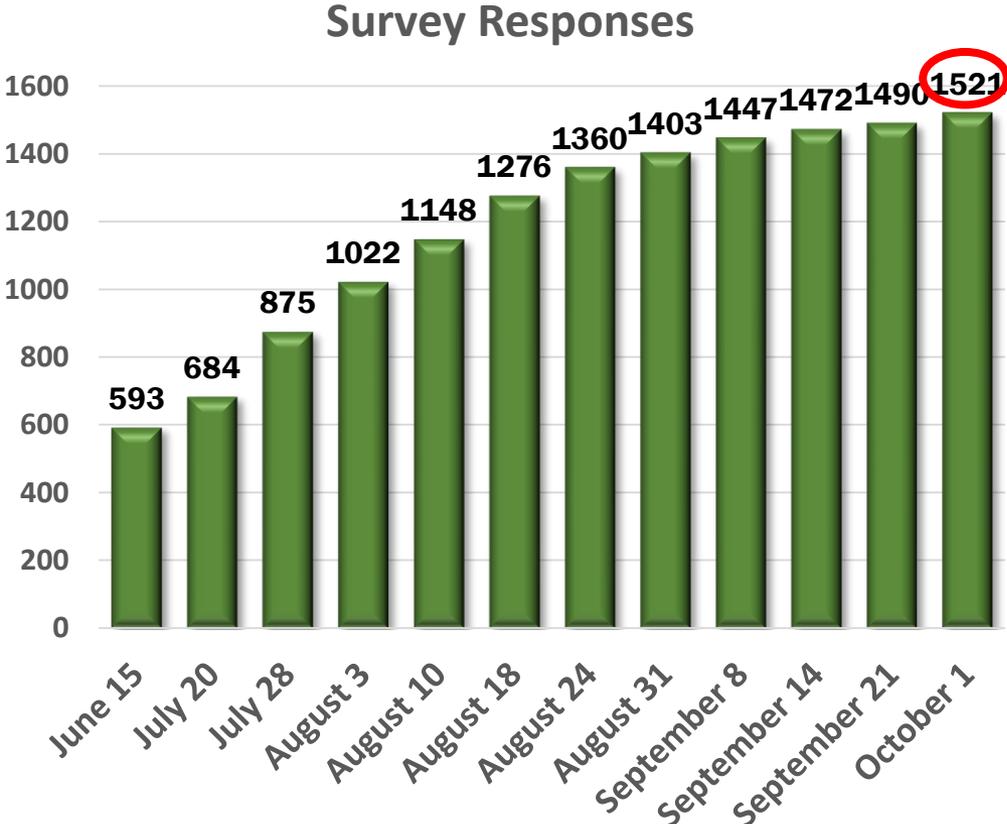
- Improve frequency of bus service on corridors with high ridership potential
- Increase ridership and speeding up travel time
- Increase job access for low-income and minority riders within a 45-minute travel time
- Minimize persons without access to transit while still providing some improved frequency
- Design the new network to reflect the values of service area cities, customers and stakeholders through substantial community outreach

A photograph of a city street with a yellow bus in the center. The bus has a banner on its side with several people's faces. In the background, there are tall buildings and a sign that says "#HungerActionMonth" with a leaf logo. The text "Community Outreach" is overlaid in a blue box with a yellow border.

Community Outreach

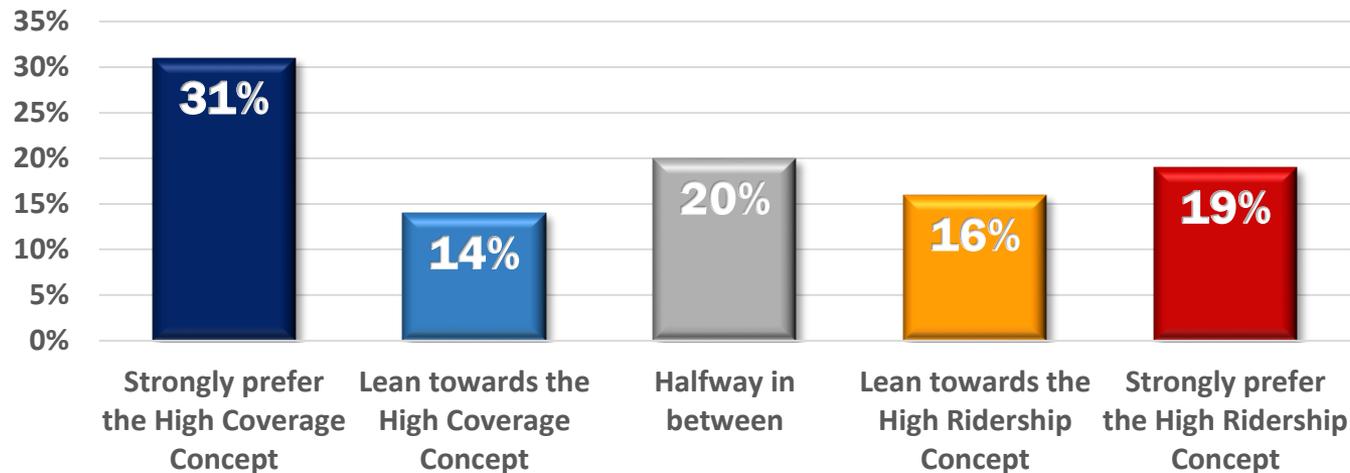
Bus Network Public Engagement Survey

- Survey was implemented in the absence of the face-to-face meetings
- Nearly 40 % of responses are from frequent transit riders
- Responses also included stakeholders and non-transit riders



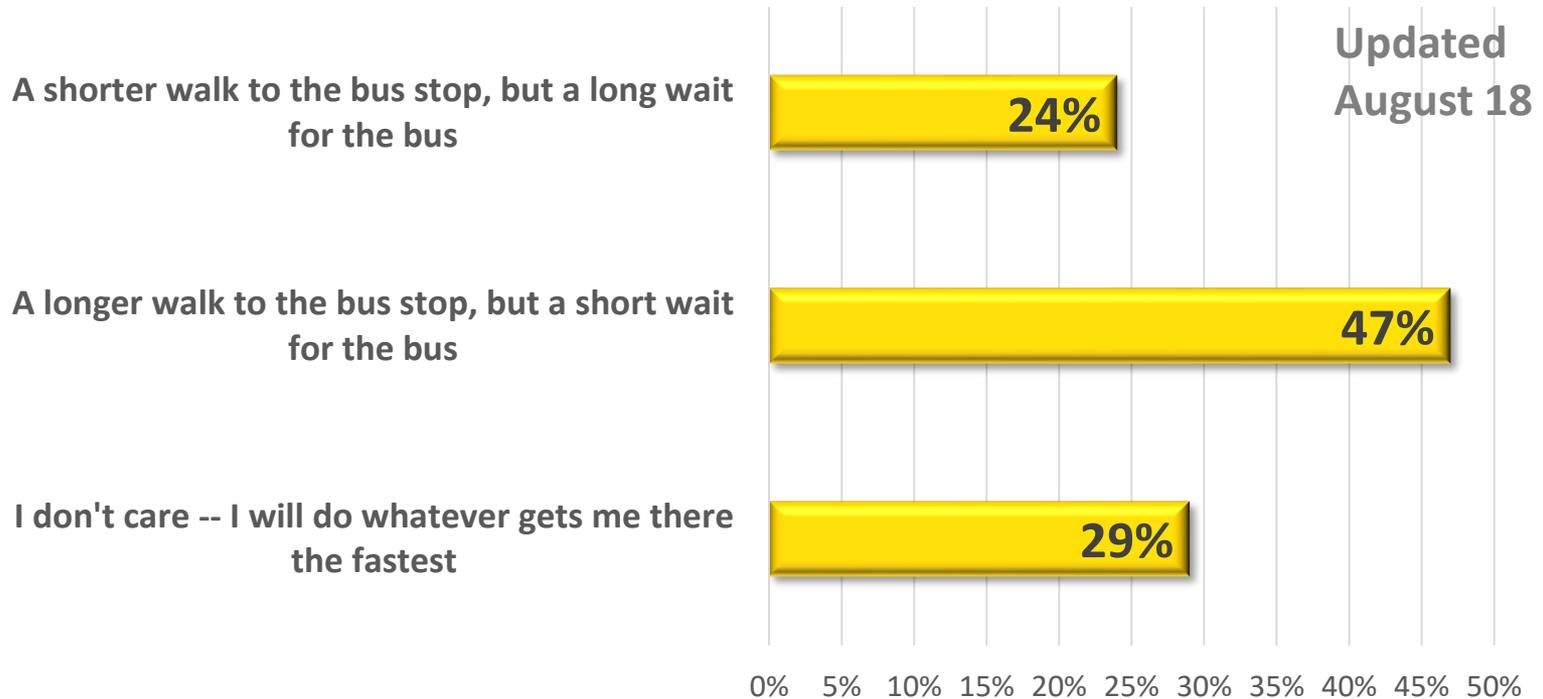
Network Concept Preference

Updated August 18



- The Overall distribution of preferences between the two Concepts is divided:
 - 45% have some preference for High Coverage (up)
 - 35% have some preference for High Ridership (down)
 - 20% are halfway between the two (up slightly)
 - 72% of Spanish-language respondents expressed some preference for High Coverage

Walk/Wait Preference



- Almost half of respondents prefer a longer walk to a bus stop with a shorter wait for the bus



Network Concepts

Network Coverage Splits

High Ridership Concept



85% towards ridership, 15% towards coverage

High Coverage Concept



60% towards ridership, 40% towards coverage



Existing DART Network: 55% – 45%

80/20

- ≈35% of routes operate 20 minutes or better
- ≈54% of residents within ½-mile of service
- Basic GoLink

75/25

- ≈30% of routes operate 20 minutes or better
- ≈59% of residents within ½-mile of service
- More GoLink?

70/30

- ≈25% of routes operate 20 minutes or better
- ≈63% of residents within ½-mile of service
- More GoLink?

65/35

- ≈18% of routes operate 20 minutes or better
- ≈68% of residents within ½-mile of service
- Expanded GoLink

Impact of Frequency Improvements Residents and Jobs

Residents Weekday Midday	85/15	80/20	75/25	70/30	65/35	60/40
15 or better	189,000	156,600	124,200	91,800	59,400	27,000
20 or better	270,000	216,000	162,000	108,000	54,000	0
30 or better	432,000	351,000	270,000	189,000	108,000	27,000
Any	-513,000	-383,400	-253,800	-124,200	5,400	135,000

Increase or Decrease in Persons Impacted Compared to Existing Network

Jobs Weekday Midday	85/15	80/20	75/25	70/30	65/35	60/40
15 or better	160,000	128,000	96,000	64,000	32,000	0
20 or better	200,000	164,000	128,000	92,000	56,000	20,000
30 or better	380,000	312,000	244,000	176,000	108,000	40,000
Any	-240,000	-176,000	-112,000	-48,000	16,000	80,000

Network Coverage Splits with Hybrid Approach

High Ridership Concept



85% towards ridership, 15% towards coverage

Hybrid 75-70/25-30

- ≈25-30% of routes operate 20 minutes or better
- ≈73% of residents within ½-mile of service
- Expanded GoLink

High Coverage Concept



60% towards ridership, 40% towards coverage

Existing DART Network: 55% – 45%

80/20

- ≈35% of routes operate 20 minutes or better
- ≈54% of residents within ½-mile of service
- Basic GoLink

75/25

- ≈29% of routes operate 20 minutes or better
- ≈59% of residents within ½-mile of service
- More GoLink

70/30

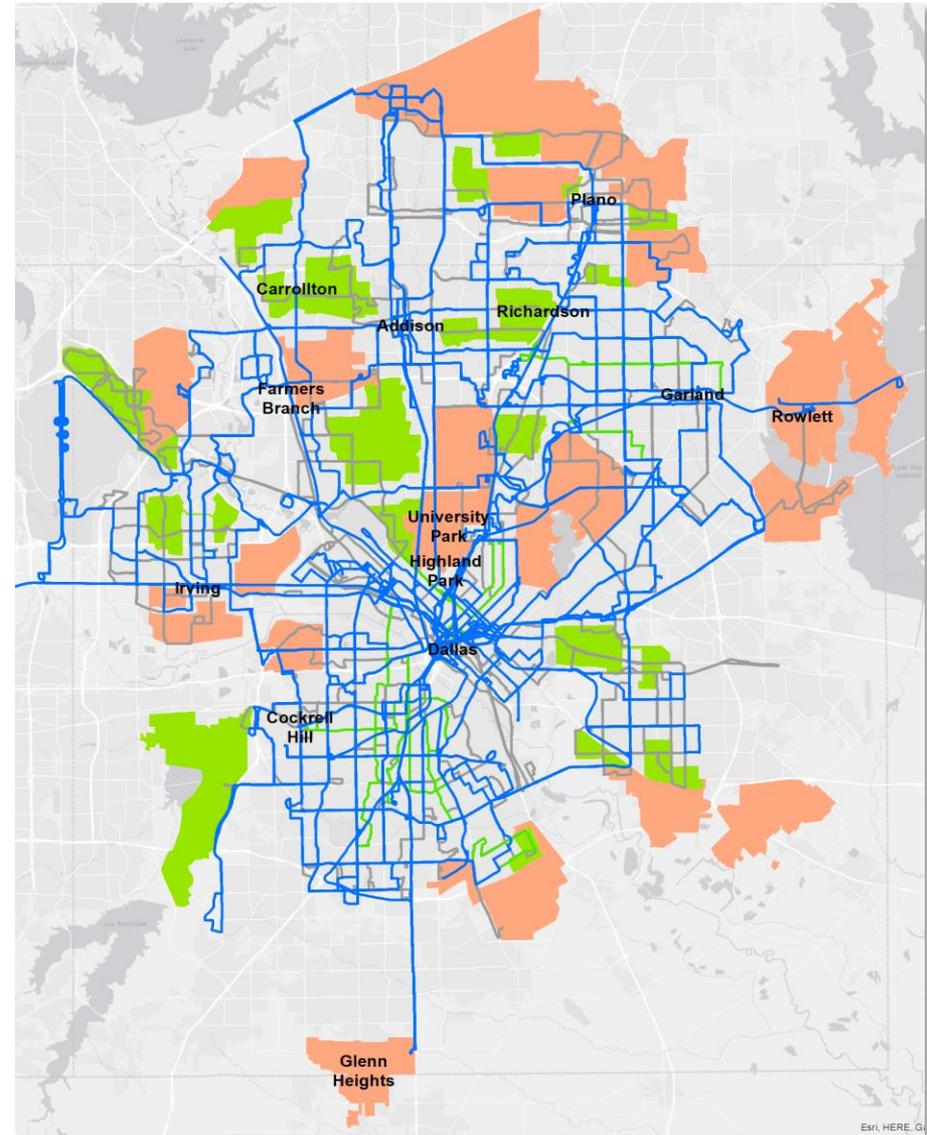
- ≈24% of routes operate 20 minutes or better
- ≈63% of residents within ½-mile of service
- More GoLink

65/35

- ≈18% of routes operate 20 minutes or better
- ≈68% of residents within ½-mile of service
- Expanded GoLink

Hybrid Approach

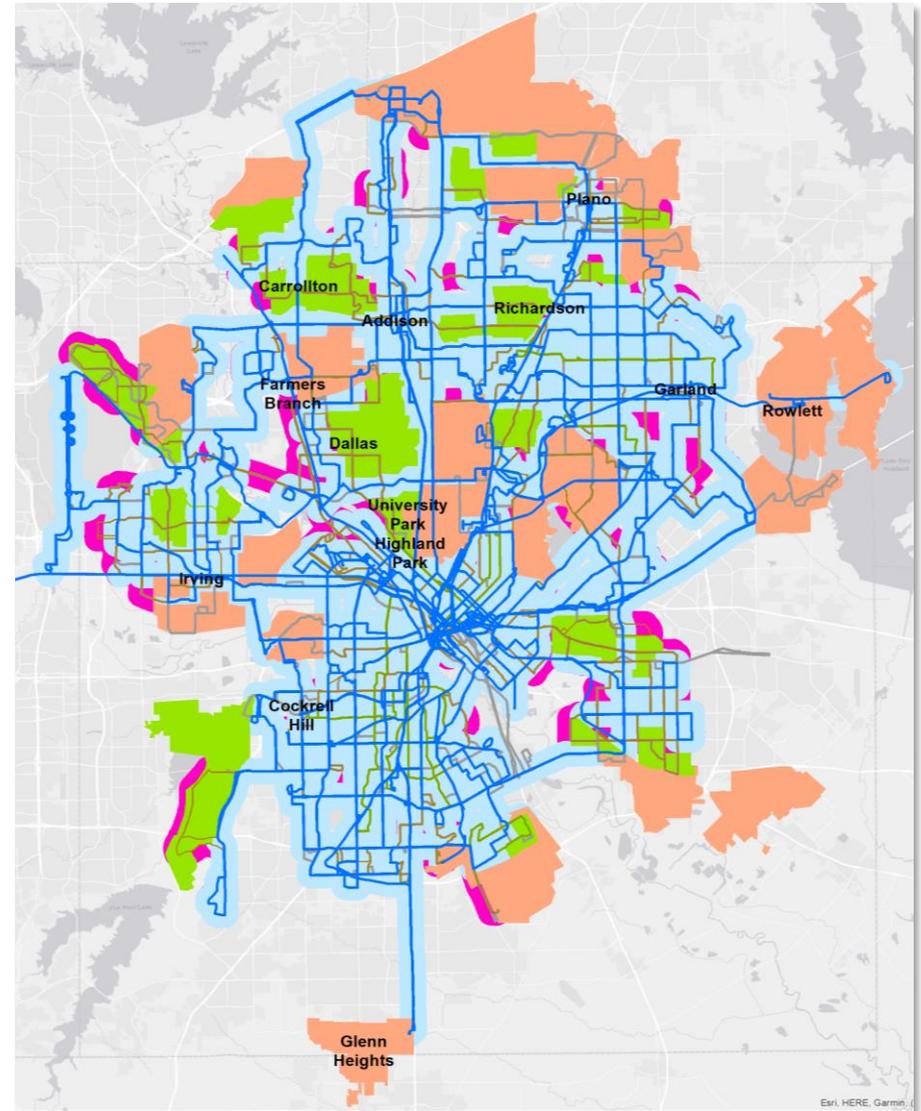
- 11 routes from the coverage concept would fill areas where GoLink would not be the preferred option, at an estimated cost of about \$12 million/year, or about 7% of system operating cost
- To fit within funding availability, there would be fewer frequency adjustments than in the ridership concept
- About 25-30% of routes would operate every 20 minutes or better midday, compared to 41% for the 85/15 ridership concept



Expanded fixed-route coverage in **GREEN**

Hybrid Approach

- This scenario offers nearly as much coverage as the coverage concept
- The map at the right highlights areas that would not have coverage in this scenario relative to the coverage concept
- Most of these areas are relatively undeveloped, or generate few riders in the current system
- We believe this is a viable 70/30 or 75/25 option with little negative overall coverage impact



*Areas with less coverage compared to coverage concept in **ROSE***

Impacts of Frequency Improvements

Hybrid Concept 7x/2x

Frequency Weekday Midday	Residents	Jobs	Low Income Residents	Persons of Color
15 or better	125,900	106,800	40,600	66,600
20 or better	183,600	132,500	71,700	136,400
30 or better	294,100	253,800	76,500	191,400
Any	141,200	49,400	10,000	51,700

Increase or Decrease in Persons Impacted Compared to Existing Network



Timeline Going Forward

Next Steps

- Nov. 10, 2020 – DART Board decision on ridership-coverage ratio
- Nov. 16- 20, 2020 -- Final Design Workshop to develop a draft final Bus Network in collaboration with Cities' staff
- February 2021 -- Board authorization to begin 2nd phase of public and stakeholder engagement on the draft final bus network
- Spring 2021 -- Public engagement and final public hearing
- Summer 2021 -- Final adjustments to the plan
- Summer 2021 -- Board approval to implement the new bus network
- January 2022 -- New bus network implementation

Questions



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