



City of Dallas

Bridging the Digital Divide

City of Dallas

Texas Interoperability Symposium
September 15, 2023

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Chief Information Officer
Information and Technology Services



All households in Dallas will have high-speed, reliable internet and access to devices in their homes.



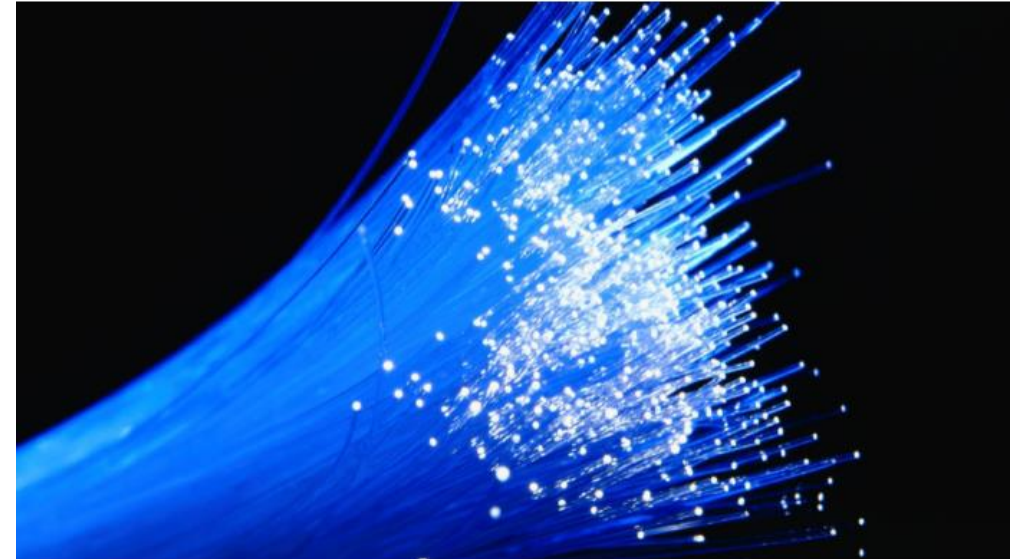
Digital Divide – Background (recommendations)



ctc technology & energy

engineering & business consulting

- In collaboration with the DISD, the City engaged CTC technology & energy in the development of a Broadband and Digital Equity Strategic Plan which was [presented to Council on August 4, 2021](#).
- Stated vision was to ensure all households in Dallas will have high-speed, reliable internet and access to devices in their homes.
- CTC recommended the City establish a fiber backbone that connects City buildings and is routed strategically to reach areas with low broadband investment.
- CTC's basis was that a City-controlled fiber infrastructure enables cost-effective, best-in-class networking which enables extended digital equity services to community anchor institutions and lower-income communities.



Broadband and Digital Equity Strategic Plan

Prepared for the City of Dallas and
Dallas Independent School District
August 2021

Columbia Telecommunications Corporation

10613 Concord Street • Kensington, MD 20895 • Tel: 301-933-1488 • Fax: 301-933-3340 • www.ctcnet.us

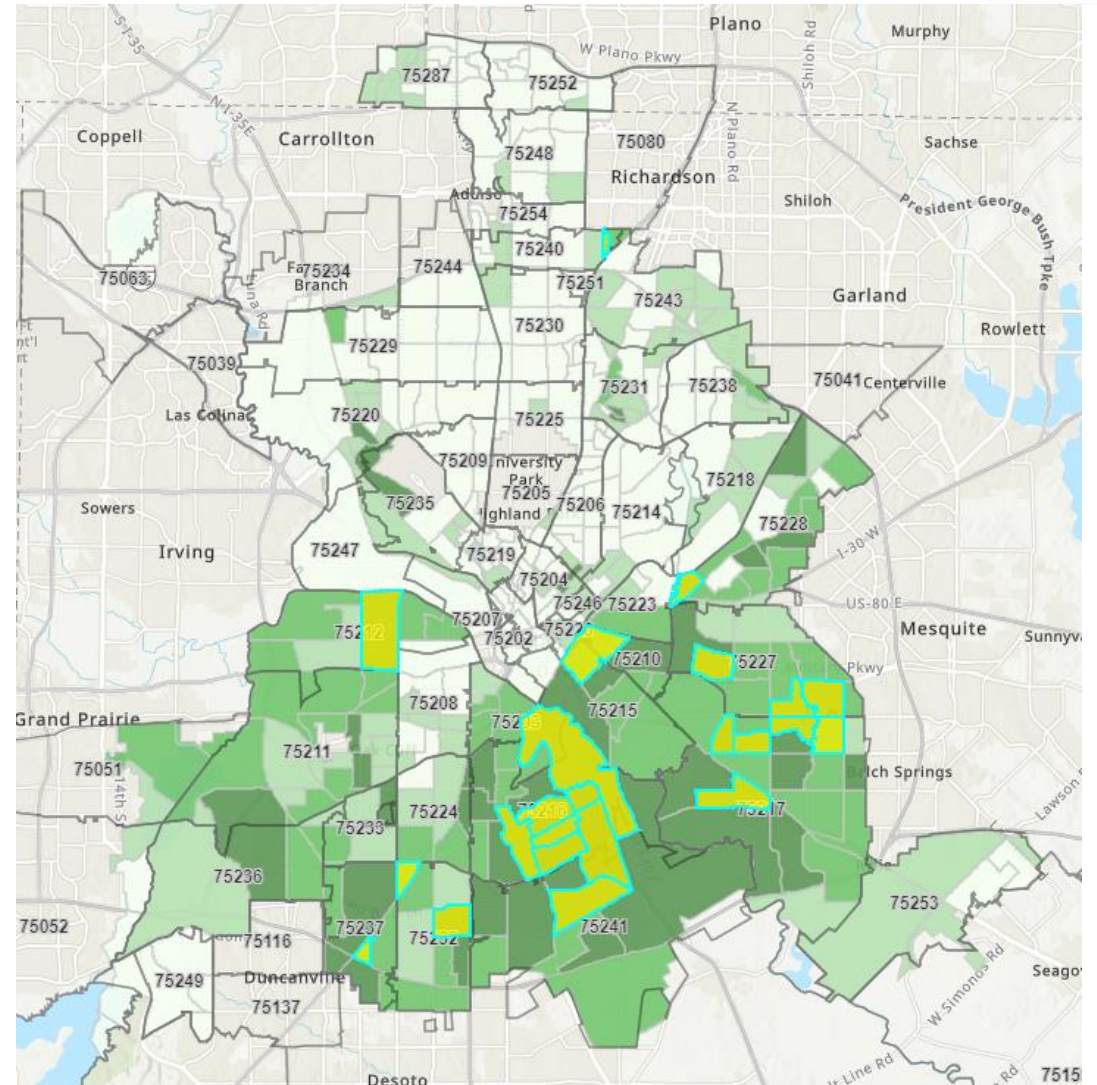


Digital Divide – Background (landscape)



Name	Zipcode	Total HH	Households with no internet	
			%	#
Census Tract 87.01	75216	2016	57.1	1152
Census Tract 88.02	75216	1762	56.1	989
Census Tract 87.04	75216	1691	53.9	912
Census Tract 91.03	75217	1033	52.6	543
Census Tract 86.04	75216	1160	50.8	589
Census Tract 57	75216	1958	47.1	923
Census Tract 91.05	75217	1050	45	473
Census Tract 92.04	75217	815	44.9	366
Census Tract 111.03	75232	1210	43.8	530
Census Tract 211	75216	1793	43.7	783
Census Tract 114.01	75241	1809	43.3	783
Census Tract 192.12	75240	1087	43.2	470
Census Tract 87.03	75216	1020	42.7	436
Census Tract 122.08	75228	1093	41.8	457
Census Tract 205	75212	2086	41.4	864
Census Tract 93.04	75217	2543	41	1042
Census Tract 84.01	75227	1673	40.9	684
Census Tract 90.02	75227	1388	40.6	563
Census Tract 120	75227	3147	40.5	1274
Census Tract 109.05	75237	1460	39.8	581

Source:
<https://dallasgis.maps.arcgis.com/apps/webappviewer/index.html?id=3076076c348e4617859b213687147dc7>



Addressing Barriers to Adoption: Digital Navigators



- On March 8, 2023, Dallas City Council approved an agreement with Dallas Innovation Alliance (DIA) to serve as a subrecipient of American Rescue Plan Act (ARPA) funds for the purpose of administering the Digital Navigators Program.
- The purpose of the Digital Navigators Program is to address four pillars of digital equity across the City of Dallas: Affordability, Access, Devices, and Digital Skills. The program engages targeted communities to help alleviate needs for internet connectivity.
- The City of Dallas and the Dallas Innovation Alliance are committed to bridging the digital divide through cross-sectoral engagement and collaboration to address the needs of the public and private sector to get connected. Which includes Affordable Connectivity Program (ACP) enrollment assistance, tech support, and community engagement.

A screenshot of the Connected Dallas website. The header includes the logo and navigation links: Who We Are, Events, News, Get Involved, Donate, Contact, and a RESOURCES button. The main content area is titled 'Connecting Dallas' and includes a sub-header: 'Need to learn how to get connected to the internet? Setup email? Pay bills online? Browse all of our resources.' Below this are ten icons representing different digital equity categories: Internet, Devices, Tech Support, Digital Skills, Seniors, Online Safety, Transportation, Employment, Healthcare, Shopping, Services, and Financials. Each icon is accompanied by a brief description of the resource it represents.

Note: ACP funding is scheduled to expire mid 2024



Adoption Barrier: Exclusive Apartment Agreements



Federal Communications Commission
FCC National Broadband Map

Home Location Summary Provider Detail Area Summary Data Download About

7249 GREAT TRINITY FOREST WAY DALLAS, TX 75217

Fixed Broadband Mobile Broadband

Selected Location

7249 GREAT TRINITY FOREST WAY DALLAS, TX 75217 Location

Status: **Not Served** | Residential | Unit Count: 13

Broadband

Type Residential
Technology Fiber
Speed 100/20 Mbps or greater
Data As Of Jun 30, 2022 (Last Updated: 11/17/22)

Residential | Business Availability

Provider	Technology	Down (Mbps)	Up (Mbps)
▶ Hughes Network Systems, LLC	GSO Satellite	25	3
▶ Space Exploration Holdings, LLC	NGSO Satellite	100	10

Broadband Speed Definitions



What is a good internet speed?

Internet speed	What you can do
0–5 Mbps	Send emails, search Google, stream in HD on a single device
5–40 Mbps	Stream in HD on a few devices, play online games, run 1–2 smart devices
40–100 Mbps	Stream in 4K on 2–4 devices, play online games with multiple players, download big files quickly (500 MB to 2 GB), run 3–5 smart devices
100–500 Mbps	Stream in 4K on 5+ devices, download very big files very quickly (2–30 GB), run 5+ smart devices
500–1,000+ Mbps	Stream in 4K on 10+ devices, download and upload gigabyte-plus-sized files at top speed, do basically anything on lots of devices with no slowdowns

July 25, 2023 – FCC Chairwoman releases Notice of Inquiry proposing to increase the national fixed broadband standard to 100 Mbps for downloads and 20 Mbps for uploads:

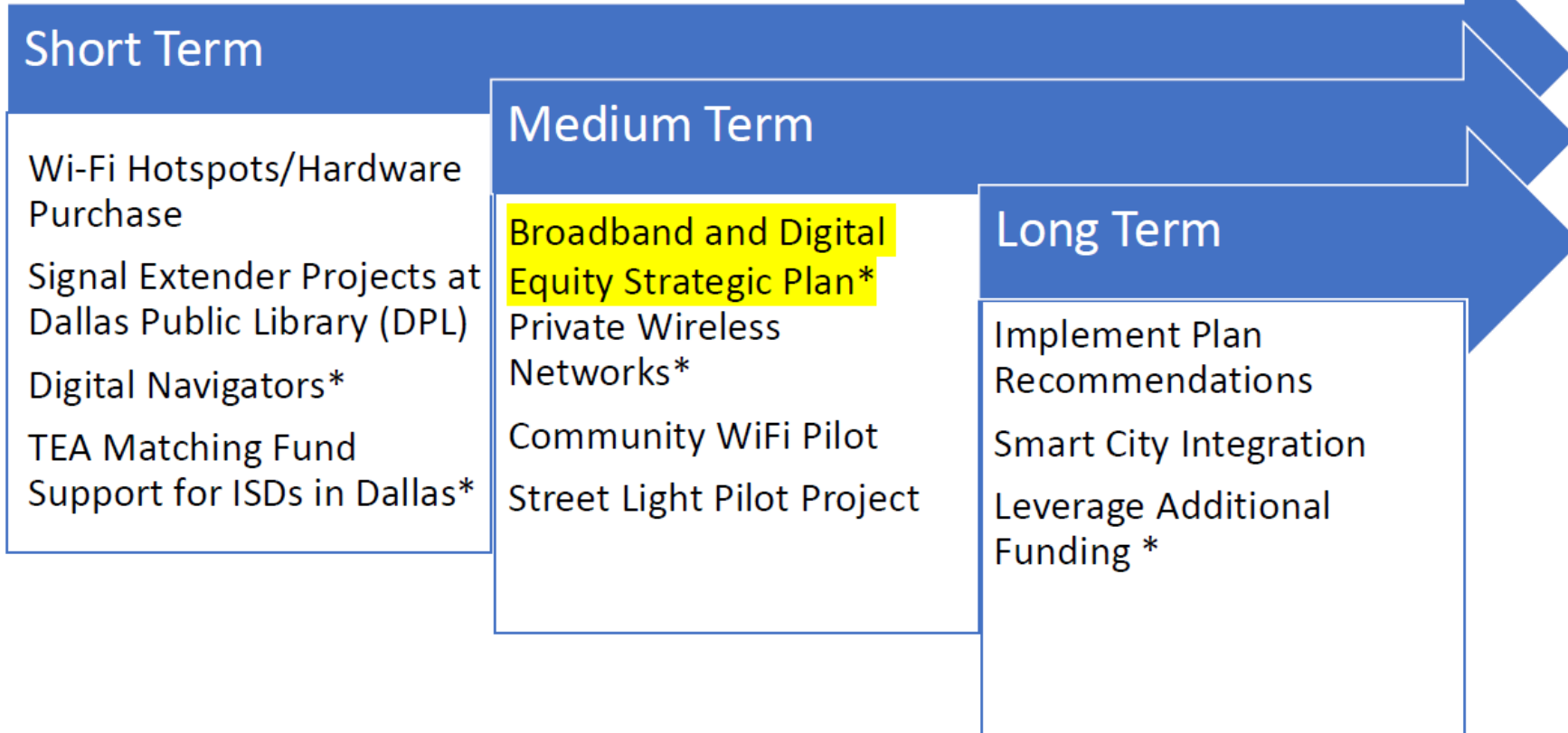
<https://docs.fcc.gov/public/attachments/DOC-395473A1.pdf>



City Actions to Bridge Digital Divide 1



- CARES Act Funding - \$8.8M



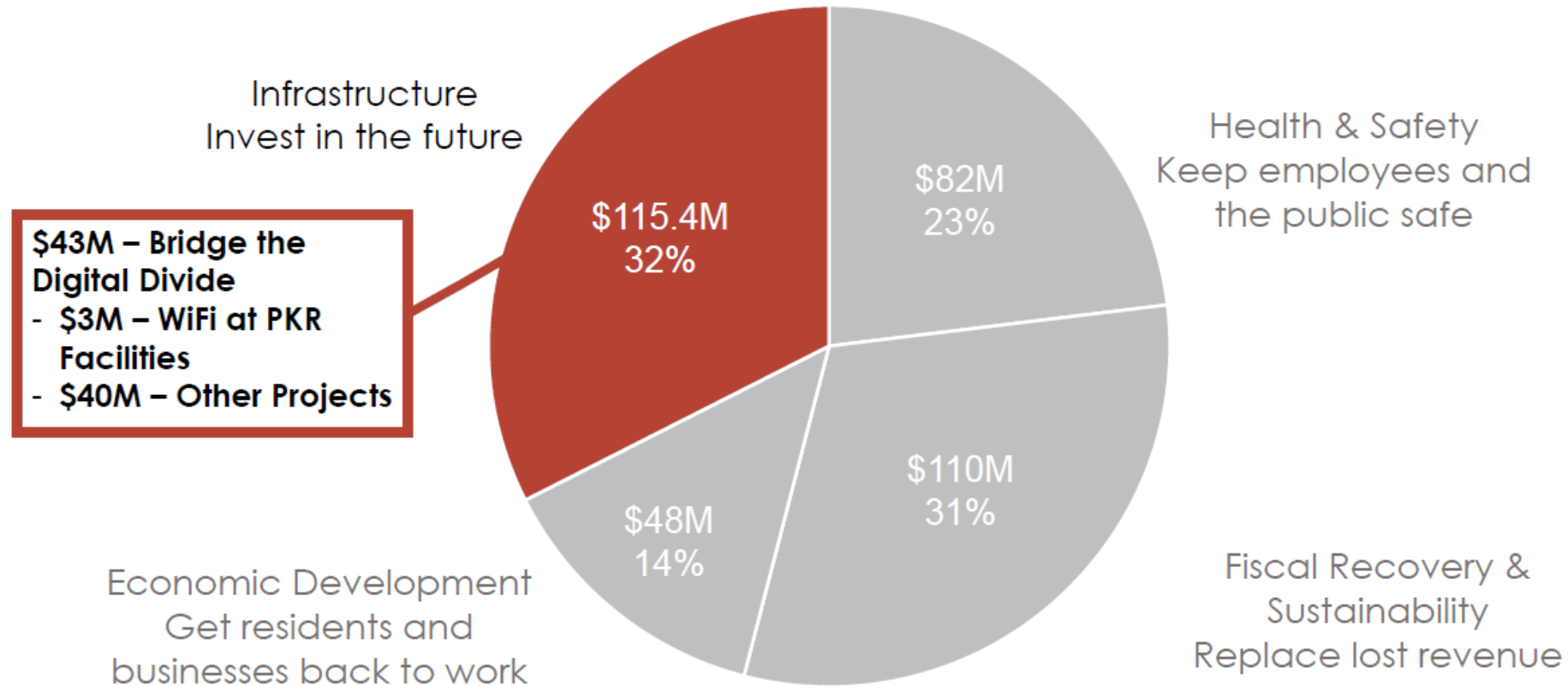
* City and DISD Collaborations



City Actions to Bridge Digital Divide 2



- ARPA Funding

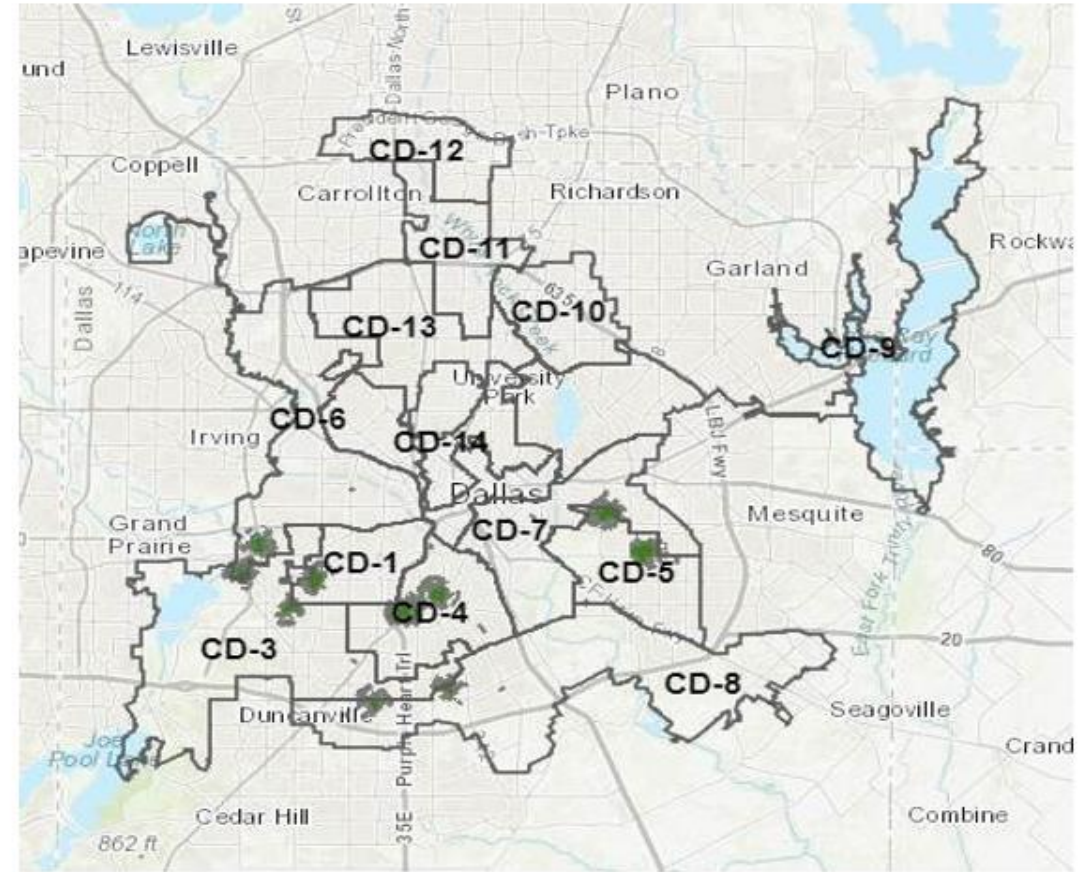


Does not include an additional \$22.4M for health and safety for residents experiencing homelessness

City Actions to Bridge Digital Divide 3



- 10 City of Dallas sites to which the City's network has been extended and provide free City Wi-Fi
- 10 additional sites initially provisioned by Neo Networks
- All new traffic signals have provisions for fiber optic connections
- Developed an interim standard for placement of fiber optic conduits within city ROW
- Interdepartmental coordination of fiber optic deployment

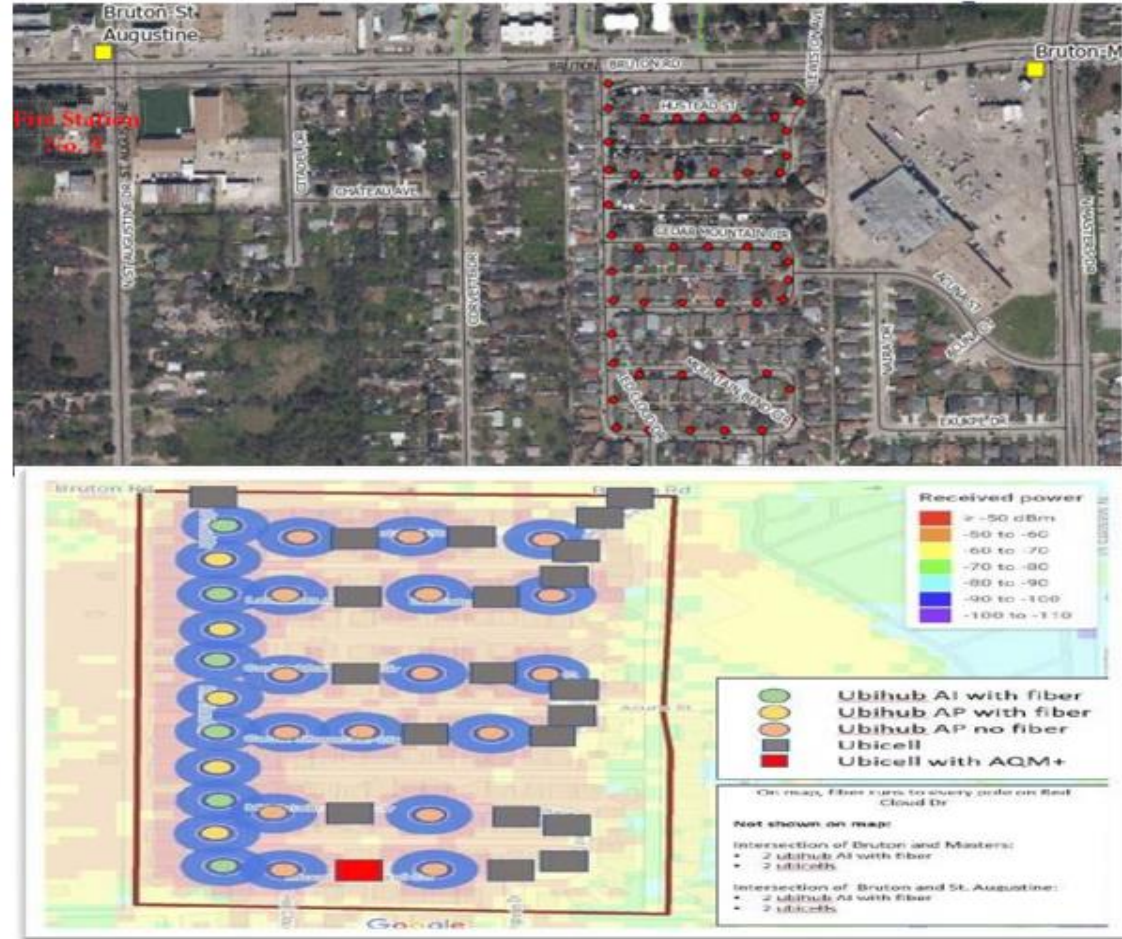


City Actions to Bridge Digital Divide 4



Red Cloud Neighborhood Project

- City upgrading and installing streetlights within the Red Cloud Neighborhood which include multi-function devices with Wi-Fi access points providing free City Wi-Fi to residents
- Construction currently in progress

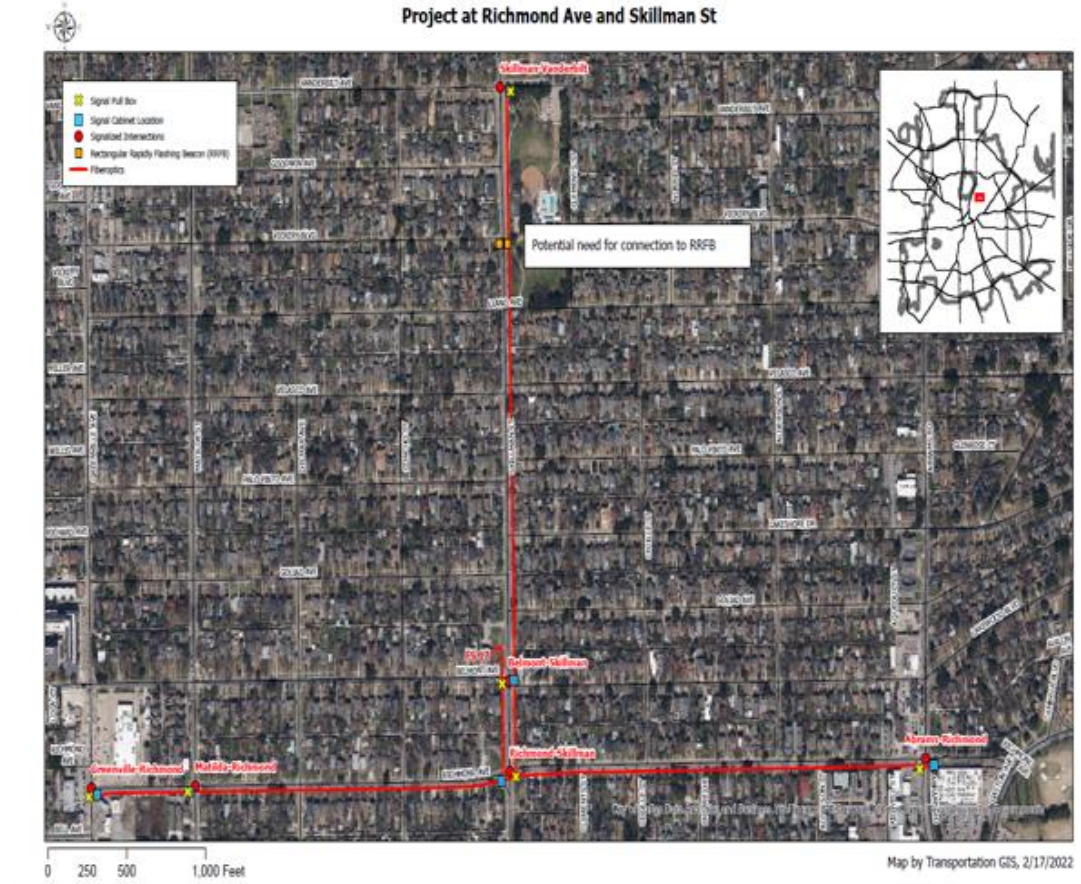


City Actions to Bridge Digital Divide 5



Richmond Avenue and Tietze Park Projects

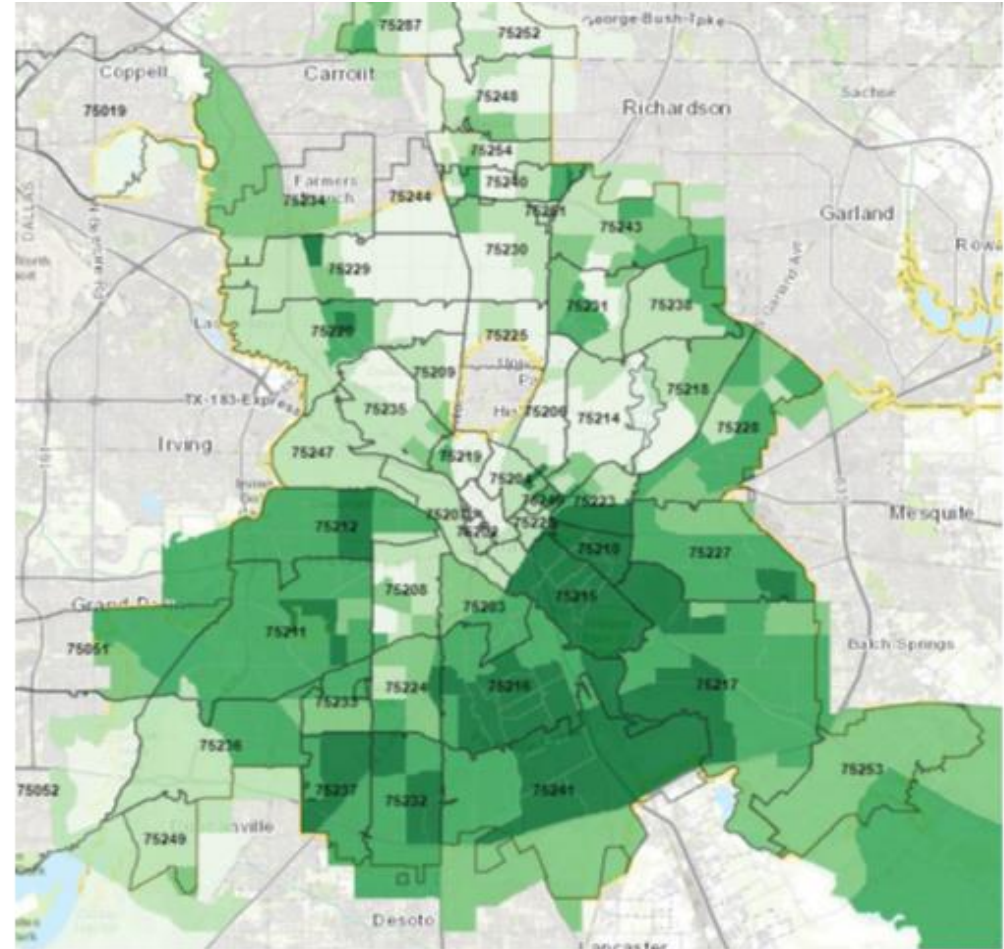
- Installation of fiber from Fire Stations #5 & #17 to traffic signals/streetlights along the routes in each area.
- City will install multi-function devices which include:
 - Access points providing free City Wi-Fi,
 - High-resolution cameras,
 - Gun shot detection,
 - Lighting controls, and,
 - Air quality monitoring.





City Actions to Bridge Digital Divide 6

- Four libraries designated to which free City Wi-Fi was extended to their parking lots
- Hardware devices available for check-out to the public with City support 3,000 Hotspots and 1,500 Laptop Bundles
- \$3 million designated to extend free City Wi-Fi to PKR parks and facilities
- Prioritized list of PKR parks and facilities identified and project underway to deploy City Wi-Fi
- Locations to which free City Wi-Fi is being extended based upon identified areas of need



Digital Equity Infrastructure (Middle Mile)

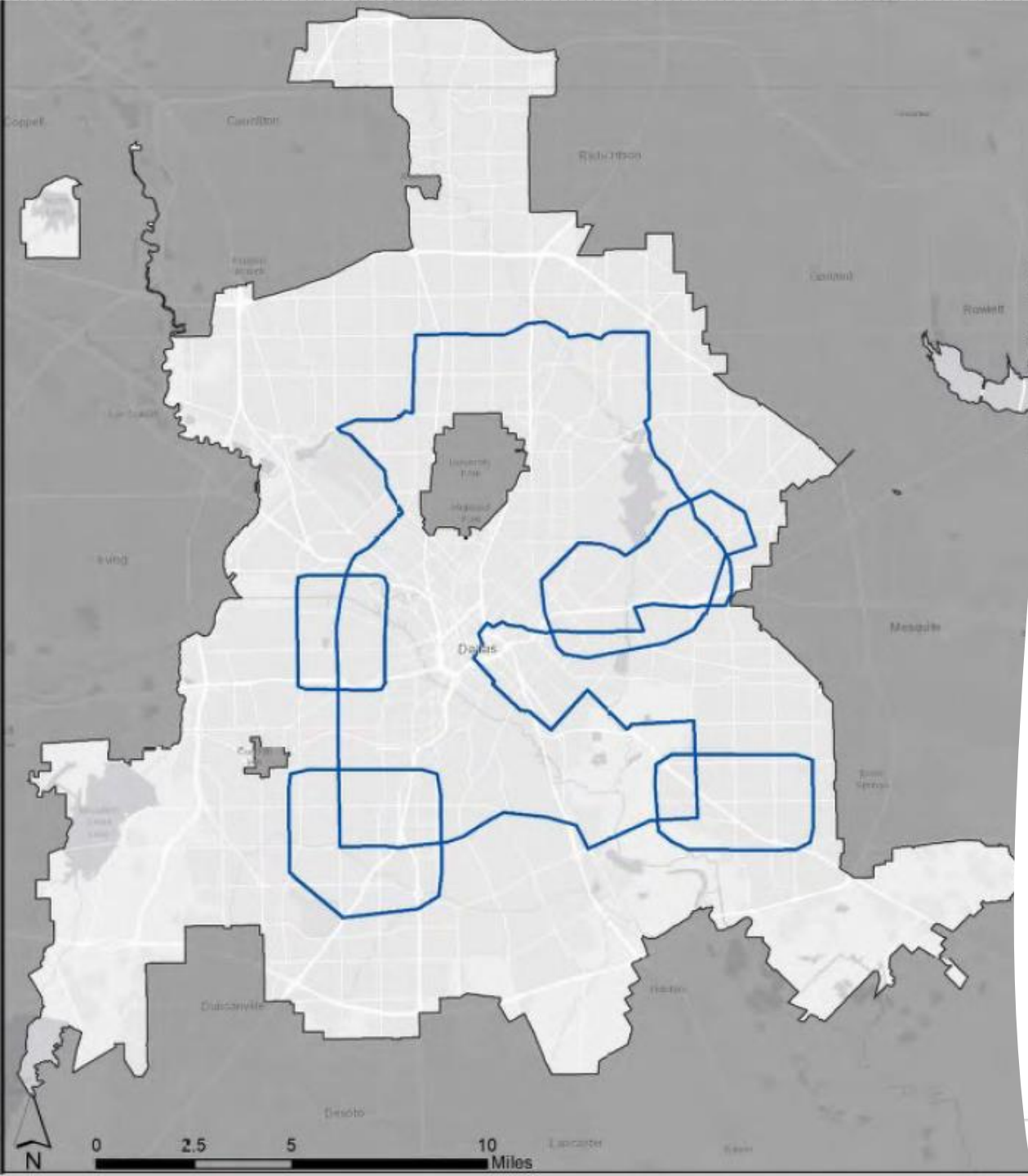


- **Function:**

- To provide cost effective connectivity for City of Dallas facilities

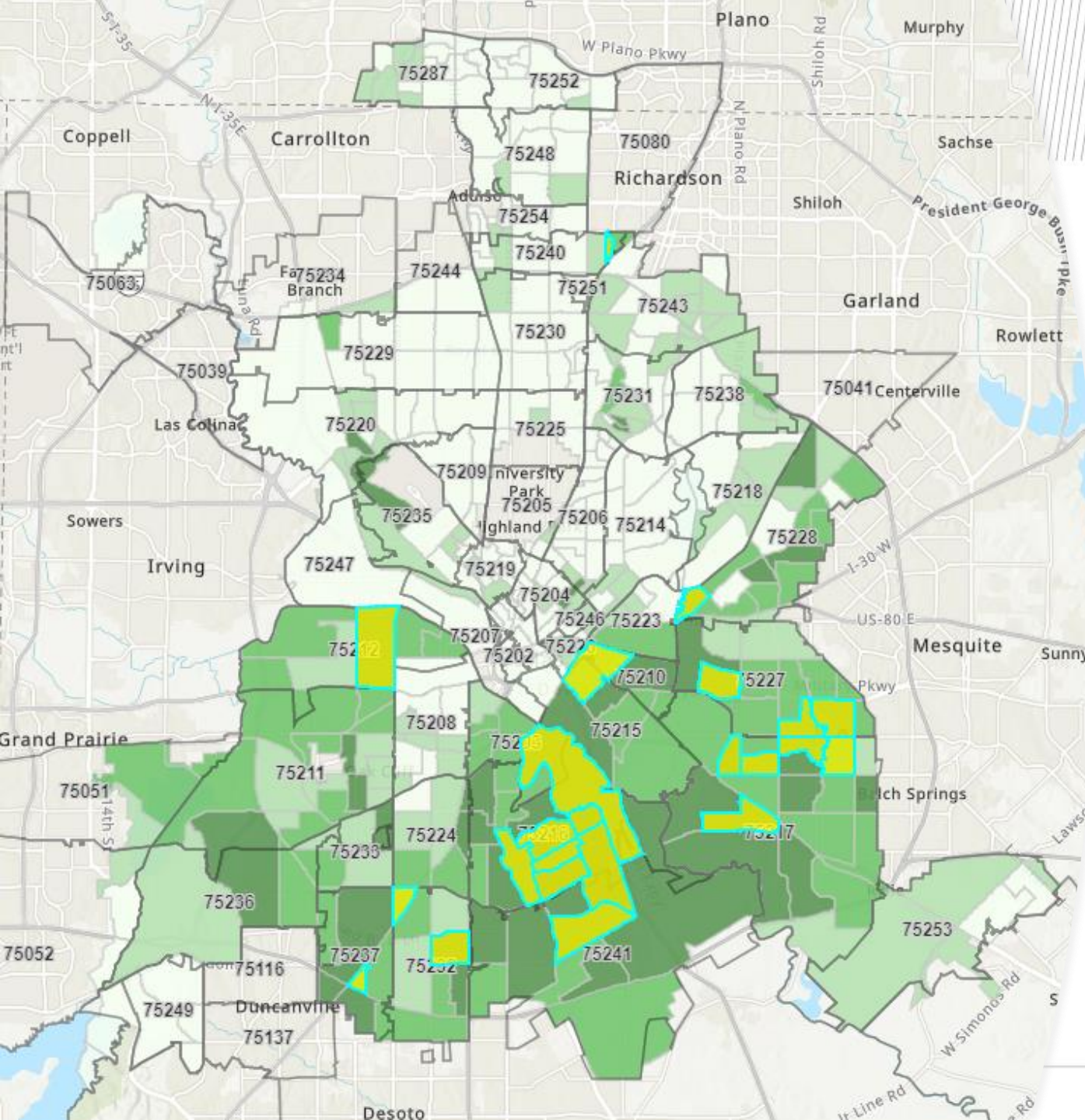
- **Why:**

- Cost to transport data is becoming more expensive due to the amount of data that is and will be transported now and into the future
- Current Service Provider cost models will parallel a logarithmic increase in data usage over the coming years
- City needs to implement a cost-effective data transport solution to deliver digital services today and into the future
- Multiple cities now have implemented similar solutions and seen significant savings as well as operational efficiencies.
- Can be leveraged to transport data from Last Mile locations very cost effectively in a Partnership with ISPs





Last Mile



- **Function**

- Deploying broadband service to unserved and underserved locations by addressing infrastructure and/adoption in those locations identified as underserved or unserved

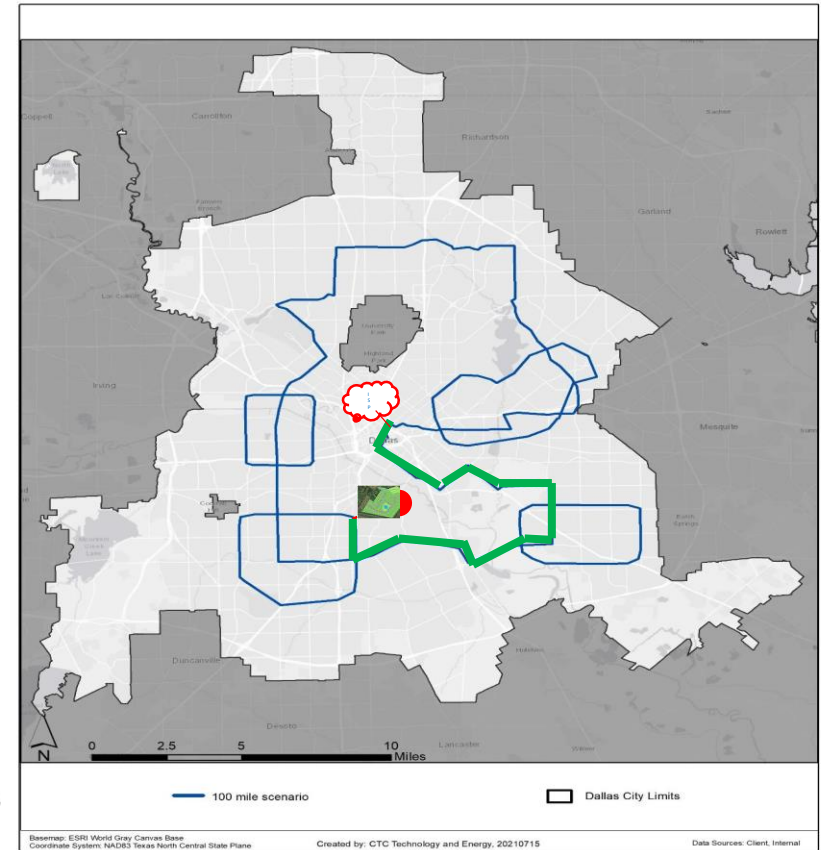
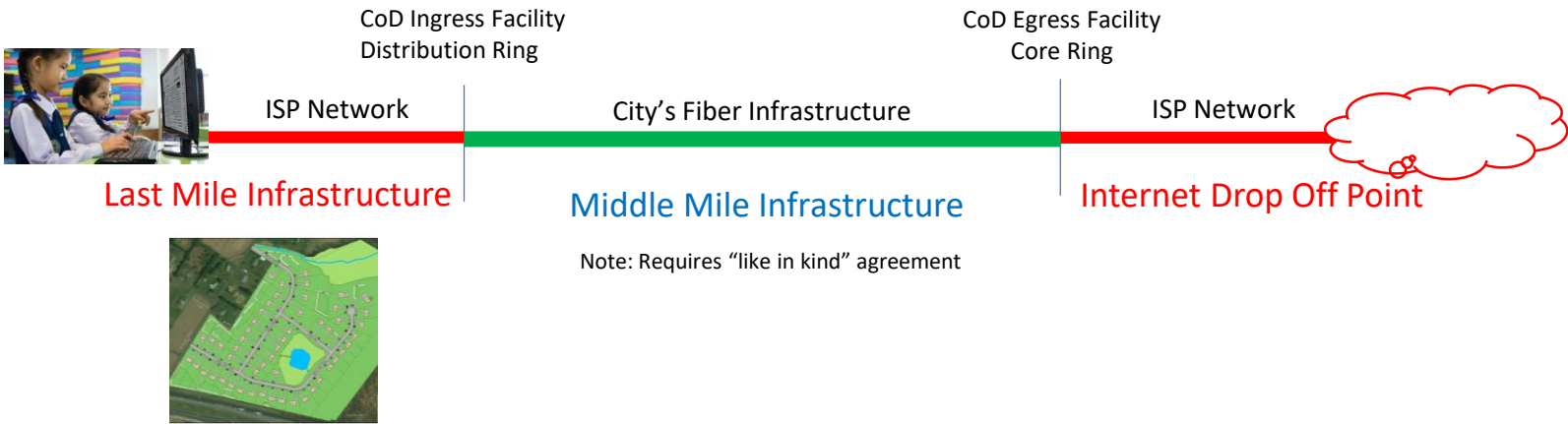
- **Why**

- BEAD will also address middle-class affordability, and further prioritizes proposals that improve affordability to ensure that networks built using taxpayer dollars are accessible to all Americans
- CoD RFP will focus on the following:
 - BEAD Program prioritizes projects designed to provide fiber connectivity directly to the end user.
 - Digital Literacy, Cyber-Security Education, Training on digital privacy and safety, Implementation of Entity Digital Equity Plans, Broadband sign-up assistance, Technology support, Multi-Lingual outreach support, and **Direct subsidies toward Broadband subscriptions**

Potential Public Private Partnership (PPP) Use Cases



	Use Case	Notes
1	PPP Leveraging Middle Mile Infrastructure	By leveraging CoD MM/DEI, PPP can save cost in building out a MM and those savings can be used to make the solution cost for the underserved or unserved areas more affordable. Note: This will require a "Like in Kind" agreement
2		



- By allowing multiple PPP to leverage our middle mile, we will provide a way to address the unserved or underserved areas of our City to remove the barriers that have prevented access whether due to lack of infrastructure or availability, such as affordability



Significant Updates for Digital Divide Effort



Budgetary / Funding

- New Funding Opportunities
 - Texas BOOT: The BOOT program is a competitive grant program to build last-mile broadband connections that increase high-speed broadband service to Texans
- BEADS Allocation Status
 - Date: June 30th
 - Texas expected to get between \$3-\$5Billion

Legislative Actions

- HB9 /HJR 125
- HB2662 /SB 1238
- SB1710
- SB2119
- SB1984
- HB1704 /SB 2528
- HB2859 /SB 1243





City of Dallas

