City of Dallas

IH-345 Feasibility Study Update

Transportation and Infrastructure Committee
May 15, 2023

Robert M. Perez, Ph.D., Assistant City Manager
Ceason Clemens, P.E., District Engineer, TxDOT

IH-345 Panel Discussion

- IH-345 Feasibility Study Background
- City of Dallas Consideration of IH-345 Options
- Summary of Redevelopment Options
- TxDOT Comments
- Next Steps
- Discussion/Questions

IH-345 Feasibility Study Background

- IH-345:
  - 1.4-mile, elevated, six-lane structure (Built 1973),
  - Urban highway (posted speed limit of 65 mph),
  - Connects I-45 to US 75 through downtown Dallas,
  - Provides connections to I-30 and Woodall Rogers,
  - Supports 180,000 vehicle per day.

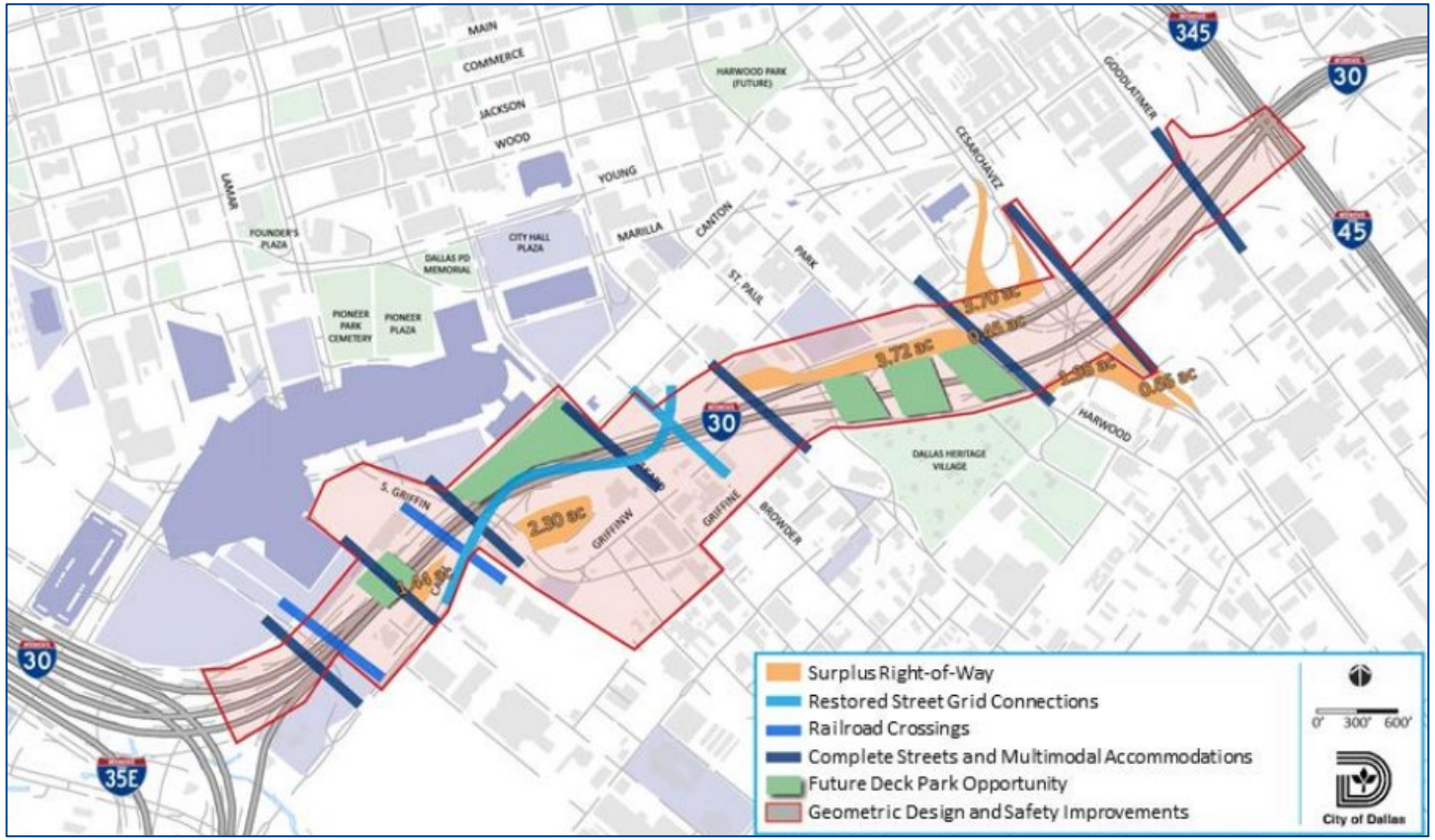
IH-345 Feasibility Study Background (continued)

- IH-345 Feasibility Study:
  - Completed by TxDOT; April 2018 – October 2022 (cost of $7M),
  - Purpose of the Feasibility Study was to develop alternatives for IH-345,
  - Goals of the Feasibility Study included:
    - Use of previous studies such as the 2016 TxDOT Dallas City Center Master Assessment Process (CityMAP),
    - An inclusive and transparent process; Public Involvement Plan,
    - Providing the best solution that maintains safety, mobility, and operability.

IH-345 Feasibility Study Background (continued)

- The IH-345 Feasibility Study incorporated data and plans such as:
  - 2013 I-345 Feasibility Study,
  - I-30 Canyon Project,
  - DART D2 Study,
  - SM Wright Project
  - As-built plans,
  - City of Dallas Vision Zero,
  - Downtown Dallas, Inc. (DDI) 360 Plan

Schematic of TxDOT I-30 Canyon Project



IH-345 Feasibility Study Background (continued)

- The IH-345 Feasibility Study also noted:
  - Projected increased travel demands on IH-345: 180,000 vehicles/day (2019) to 206,000 vehicles/day (2045),
  - Within the environmental project area (0.2 miles on each side of IH-345 between I-30 and Woodall Rogers):
    - Approximately 49% of the total population was comprised of minority populations,
    - Approximately 34% of the total population had a median income below the 2022 national poverty level of $27,750.

IH-345 Feasibility Study Background (continued)

- Given the IH-345 Feasibility Study's intent and goals and incorporation of previous studies and data, project considerations, and stakeholder input, TxDOT identified five options for IH-345 to include:
  - No build/leave as-is,
  - Depressed/below grade,
  - Removal/boulevard,
  - Elevated,
  - Refined hybrid (TxDOT recommendation).

City of Dallas Consideration of IH-345 Options

- The IH-345 Feasibility Study was briefed to:
  - Transportation and Infrastructure Committee on June 21, 2022 (Briefing by TxDOT),
  - City Council on October 19, 2022 (Briefing by TxDOT, NCTCOG, and Department of Transportation).
- A resolution of support for the Refined Hybrid Option was scheduled for City Council consideration on February 22, 2023 (Delayed).
- Public Panel Discussion on May 8, 2023.

City of Dallas Consideration of IH-345 Options (Continued)

- During the October 19, 2022, City Council briefing, feedback was requested on the following:
  1. Legal implications of removing IH-345?
  2. Cost for a boulevard/parallel thoroughfare street plan and what are the funding options?
  3. Cost/funding options of warranted grade separations of DART Green Line crossings?
  4. City of Dallas' financial and land use plans for surplus ROW adjacent to IH-30 and IH-345 (housing, commercial, parks)?

City of Dallas Consideration of IH-345 Options (Continued)

- Benefits and challenges of IH-345 Feasibility Study options (continued):

Option	No Build/Leave As Is	Depressed/Below Grade	Elevated
Benefits	1. Maintains hwy. connection between N/S Dallas and existing crossings of IH-345. 2. No impacts to traffic. 3. Construction costs absorbed by TxDOT.	1. Maintains hwy. connection between N/S Dallas. 2. (5.4) acres of potential surplus ROW and (8.8) acres of potential capping (14.2 acres potential development). 3. Some impact to traffic but provides 10' shared-use path across cross-streets. 4. Construction costs absorbed by TxDOT.	1. Maintains hwy. connection between N/S Dallas. 2. Smaller footprint results in (15.2) acres of potential surplus ROW. 3. Some impact to traffic but provides 10' shared-use path across cross-streets. 4. Construction costs absorbed by TxDOT.
Challenges	1. No surplus ROW for redevelopment. 2. Perceived barrier remains between communities. 3. Bridge structure will eventually reach end of life and need to be replaced.	1. Discontinuous frontage roads would sever Good Latimer Expy. and Canton St. 2. City of Dallas could purchase surplus ROW ($47M-$82M)[1] and fund deck caps ($269M)[2].	1. Perceived barrier remains between communities. 2. City of Dallas could purchase surplus ROW ($132M-$232M)[1].

Notes
1. Range is based upon TxDOT current cost of $200-$350 per sq. ft. of land recently purchased in the CBD.
2. Cost of decking is based upon an estimated cost of $30.4M per acre (deck, fire, mechanical, traffic, and lighting) for the Southern Gateway Phase II Project.

City of Dallas Consideration of IH-345 Options (Continued)

- Benefits and challenges of IH-345 Feasibility Study options (continued):

Option	Removal/Boulevard
Benefits	1. (25.2) acres of potential surplus ROW for development (most acres of any option). 2. Provides 10' shared-use path across cross-streets. 3. Removes perceived barrier between communities.
Challenges	1. Significant impacts to traffic. 2. Eliminates hwy. connection between South and North Dallas. 3. *Construction/ROW costs absorbed by the City of Dallas ($400M-$1B); need to assume: a. Demo of IH-345 and construction of blvd. (pavement, signals, utilities, intersection reconfigurations, etc.), b. ROW purchase from TxDOT and adjacent property owners of cross-streets, c. *Potential DART grade separations ($100M each; would be dependent upon average daily trips (ADT) of boulevard option). 4. Extensive process to remove IH-345 from the state highway system and likely to not be approved. 5. *May result in challenges to Title VI (legal issues would be determined by DOJ), which would affect probability of receiving state or federal funding or support.

Process includes steps such as:
1. FHWA and TTC approval to deauthorize IH-345 from the federal highway system,
2. Governor and TTC approval to convert IH-345 as surplus land,
3. Deauthorizations not originating in the USDOT, must be requested by states and approved by the US Secretary of Transportation.

***Council Question**

City of Dallas Consideration of IH-345 Options (Continued)

- Benefits and challenges of IH-345 Feasibility Study options (continued):

Option	Refined Hybrid
Benefits	1. Maintains hwy. connection between N/S Dallas and existing crossings of IH-345. 2. (8.7) acres of potential surplus ROW and (9.7) acres of potential capping (18.4 acres potential development). 3. Some impact to traffic but provides 10' shared-use path across cross-streets. 4. Removes perceived barrier between communities. 5. Construction costs absorbed by TxDOT.
Challenges	1. City of Dallas could purchase surplus ROW ($76M-$133M)[1] and fund deck caps ($295M)[2].

Notes
1. Range is based upon TxDOT current cost of $200-$350 per sq. ft. of land recently purchased in the CBD.
2. Cost of decking is based upon an estimated cost of $30.4M per acre (deck, fire, mechanical, traffic, and lighting) for the Southern Gateway Phase II Project.

Summary

- For any of the redevelopment options, the City of Dallas would:
  - Complete a market study to determine best use of surplus ROW/deck caps (Commercial, housing, parks, etc.),
  - Identify funding for surplus ROW and deck cap construction (combination of future bond funds, public-private partnerships, and available grants),
- Construction of all redevelopment options would be responsibility of TxDOT *except the removal/boulevard option ($400M-$1B)*.
- Removal/boulevard is the only option that presents state/federal processes to be addressed as well as potential Title VI challenges (limits available grant funds).

TxDOT Comments

I-345

City of Dallas:
Transportation and Infrastructure Committee
May 15, 2023

Ceason Clemens, P.E.

District Engineer

CityMAP (2014-2016)

- TxDOT-led study that looked at 30 miles of urban freeway segments in Dallas.
- Collaborative process to…improve MOBILITY, create a more LIVABLE urban core, increase ECONOMIC opportunity, CONNECT our neighborhoods and cultural resources.
- Evaluated the scenarios using a MULTI-DIMENSIONAL perspective.
- Looked at the "Art of the Possible," did not make recommendations.
- Looked at mobility on a regional level not individual corridor level.

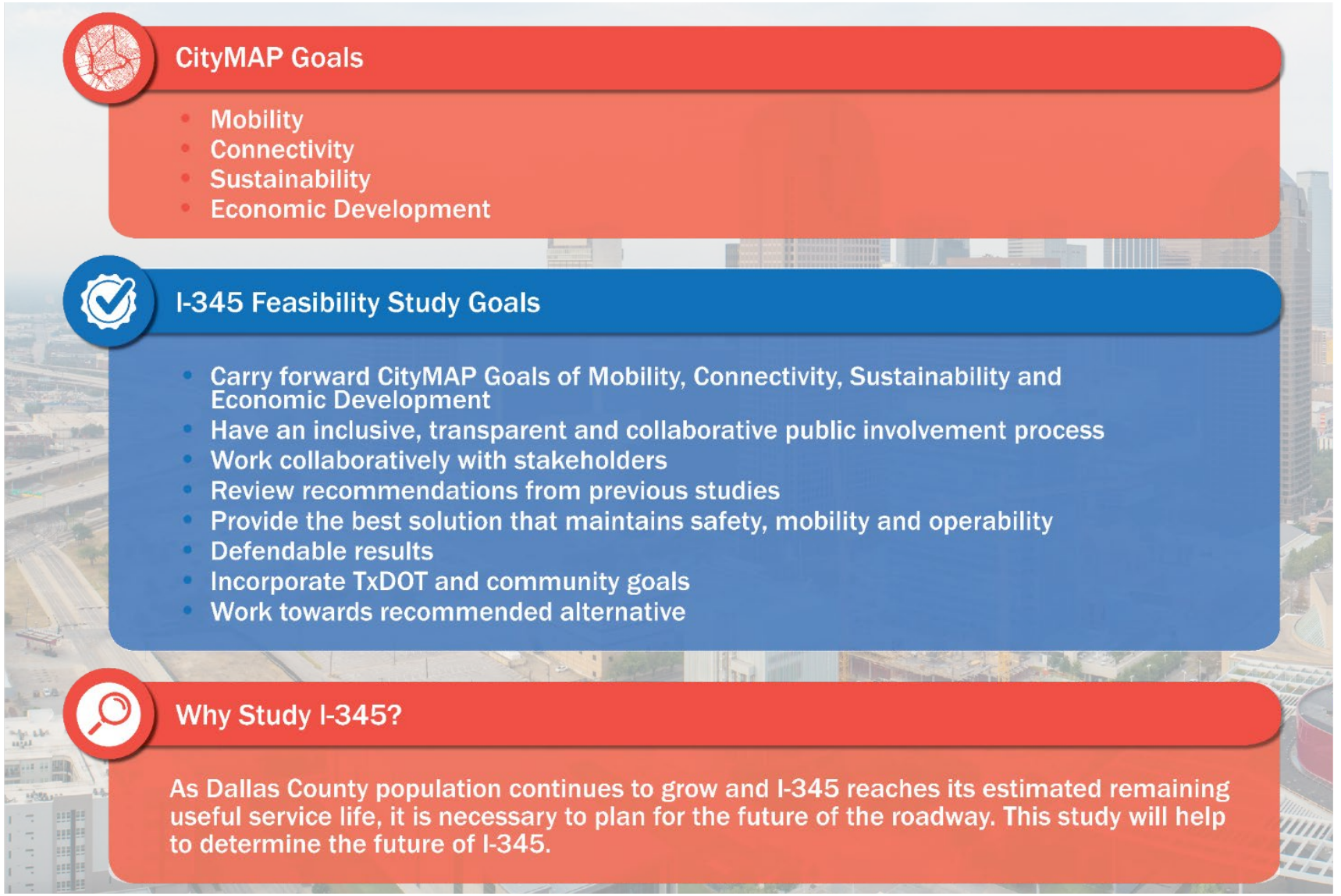
No Build

Below Grade Freeway

Reconstruct and Elevate with Ramp Modifications

Removal

CityMAP Goals, I-345 Feasibility Study Goals, and Why Study I-345?



Public Input and What We Heard

TxDOT I-345 Feasibility Study (2018-2022)

3 Public Meetings Series (December 2019, June 2021, May 2022)

- Notified 2500 individuals on a stakeholder mailing and email list
- Advertised each public meeting in 7 different local newspapers
- Utilized social media and dynamic message signs to further announce the public meetings
- 2,957 surveys/comments received with 10,533 views of the website during the comment period

Public Input and What We Heard

TOPICS THAT MATTERED TO YOU

Common themes from second series of public meetings

Community Cohesion

Better connections to areas east and west of I-345, and potential areas for capping

Impacts to access between South and Southern Dallas and North Dallas

Traffic Concerns

Pedestrian Safety

Economic Development Potential

Potential surplus right of way and areas for capping

City and Stakeholder Coordination

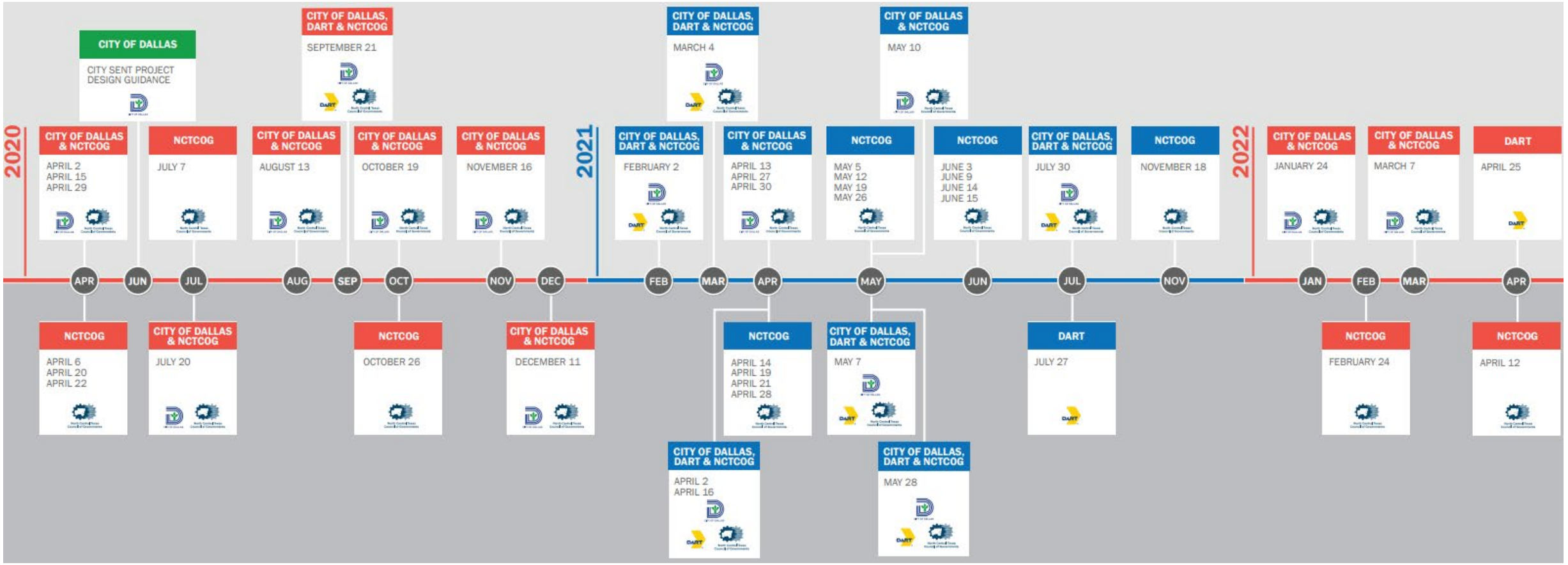
23 Meetings with City of Dallas staff including the following departments:

- Economic Development
- Housing
- Urban Planning
- Transportation

16 Meetings with City Council Members

73 Individual one-on-one stakeholder meetings

City and Agency Coordination



Alternatives Evaluation Matrix- What was Considered in the Decision

Mobility

- Vehicles
- Bicycle/Pedestrian
- Transit

Connectivity

- Access between freeways
- Access from the freeway to local roads
- Access between local roads
- Bicycle/Pedestrian

Sustainability

- Agency Coordination- City of Dallas Design Guidelines and DART's D2 plans
- Potential Surplus ROW
- Parks outside of State ROW
- Parks inside of State ROW and other Multiple Use Agreements in State ROW
- Communities (adjacent and beyond downtown)
- Sustainable Design

Economic Development

- Property Value Impacts
- Property Tax Revenue Impacts
- Potential Cap Locations

Alternatives Evaluation Matrix

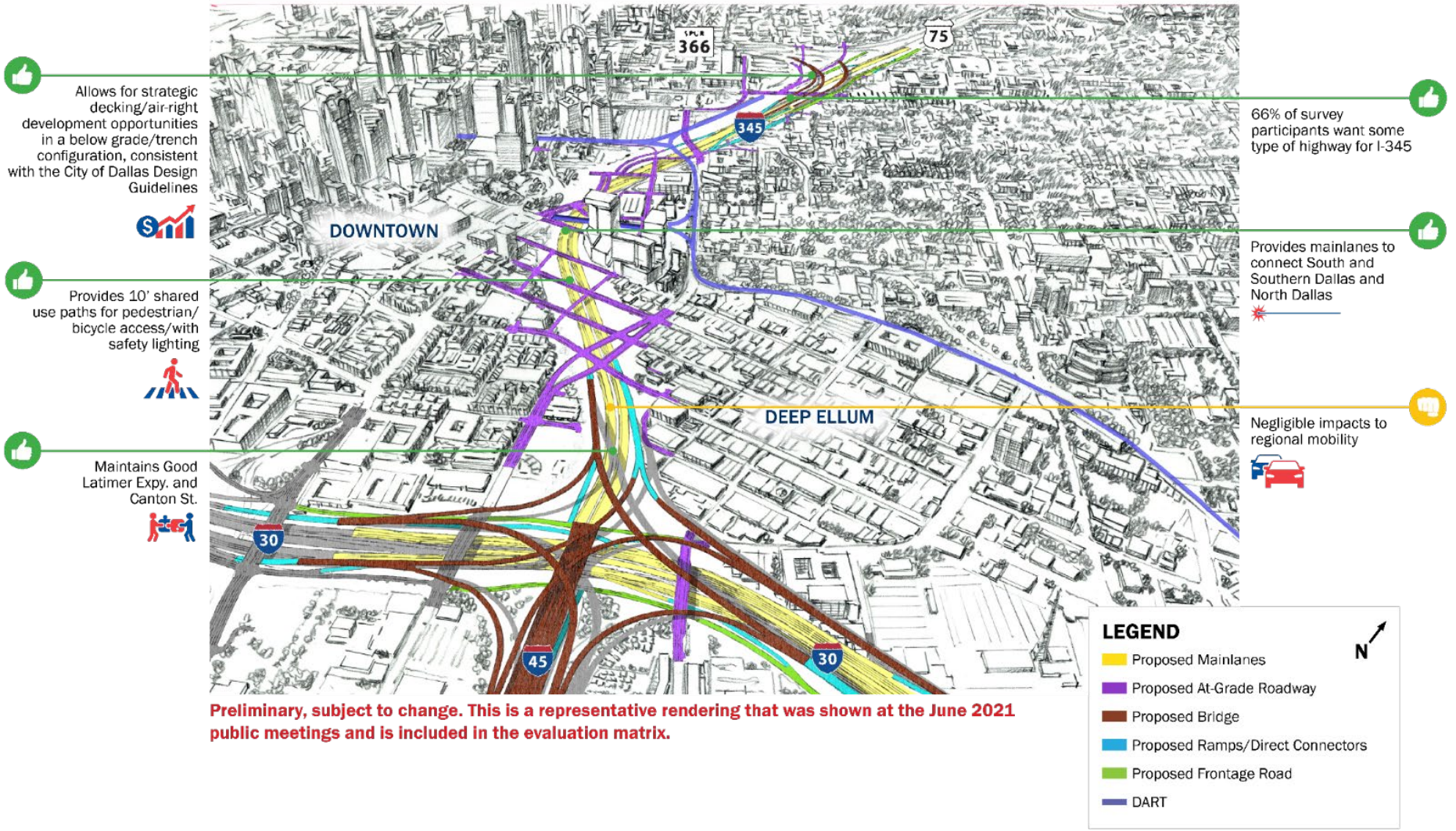
*Note: No new ROW would be required with any of the proposed alternatives. This includes no impacts to natural resources (wetlands, streams, farmland, wooded areas or floodplains) or cemeteries.

**N/A = Not applicable

Criteria Rating Scale in comparison to the No Build/Leave I-345 As-is				
Does not achieve criteria	Sometimes meets criteria	Neutral/No Change	Mostly meets criteria	Highly meets criteria
○	◔	◑	◕	●

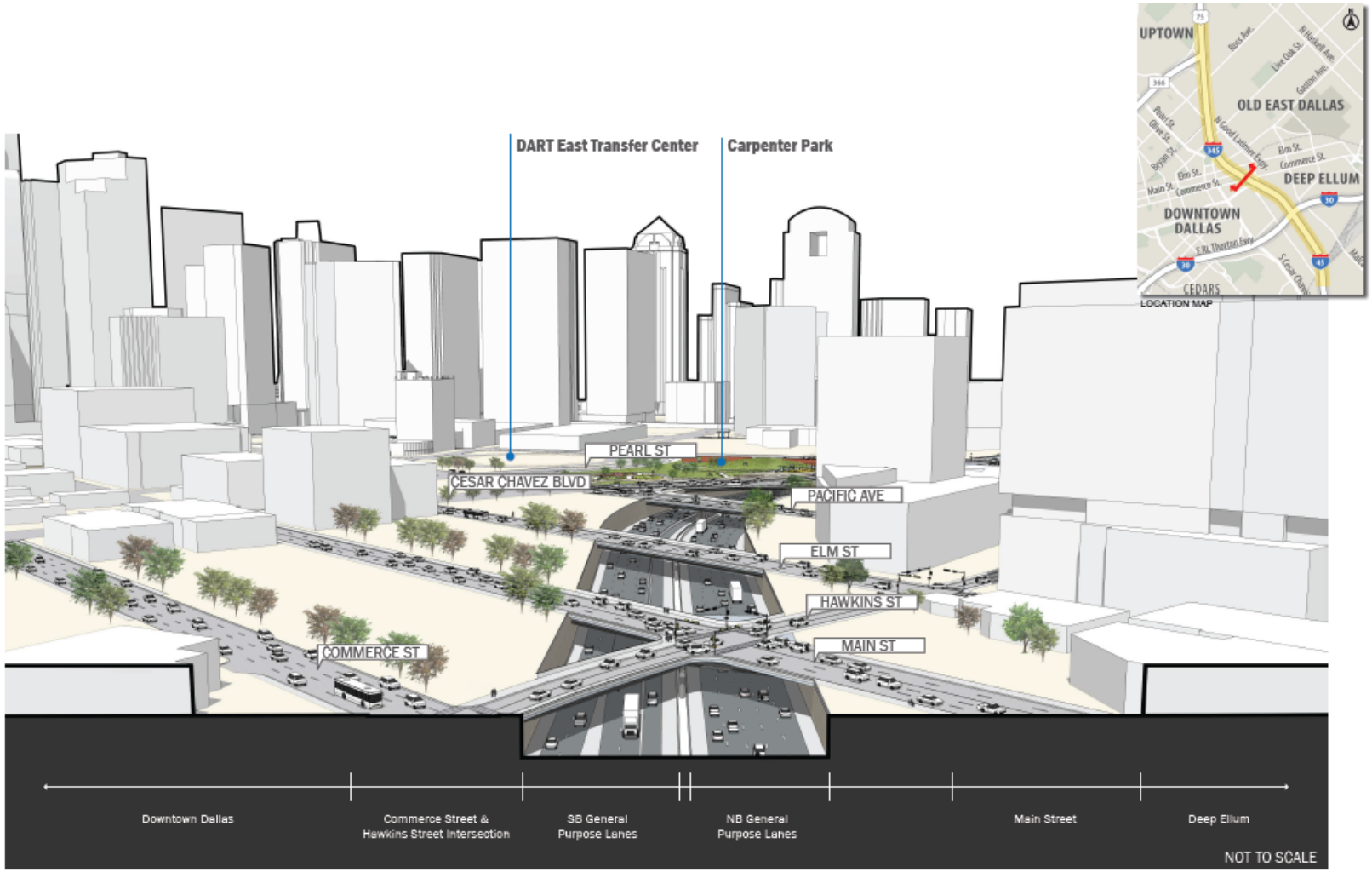
Criterion		Objective	No Build/ Leave I-345 As-Is	Depressed	Removal	Elevated	Hybrid	Key Takeaway
Mobility	Vehicles	Minimize impacts to corridor mobility on the freeways and local roads	◑	◑	○	◑	◑	Due to the changes in access with each proposed build alternative, traffic patterns will change traffic volumes on various freeways and local roads.
	Bicycle/Pedestrian	Improve bicycle/pedestrian mobility	◑	●	●	◕	●	All proposed build alternatives would improve bicycle and pedestrian mobility.
	Transit	Accomodate existing transit facilities and known future proposed transit projects	●	●	◔	●	●	All proposed build alternatives would accommodate existing transit and the proposed DART D2 alignment. The Removal alternative would have an at-grade crossing with the existing transit facility because of the increased traffic on local roads. With the Removal alternative, DART might have to consider grade separations to improve transit and vehicle operations and safety.
Connectivity	Access between freeways	Freeway to freeway connections	◑	◑	○	◑	◑	The Depressed, Elevated and Hybrid alternatives maintain the I-345 freeway system between I-30 and Woodall Rodgers Freeway (Spur 366). The Removal alternative severs the freeway connection.
	Access between freeways and local roads	Freeway to local road connections	◑	◑	○	◔	◔	I-345 has 16 existing access points (ramps). The Depressed alternative maintains 13 of the 16 access points. The Removal alternative severs the connection of I-345 to local roads. The Elevated alternative maintains 7 and the Hybrid alternative maintains 9 of the 16 access points.
	Access between local roads	Local road connections	◑	○	◕	◑	◑	In all proposed build alternatives, no new connections are proposed, however, the Taylor Street connection is severed. The Depressed alternative, in addition to Taylor Street, severs Canton Street and Good Latimer Expressway. The Removal alternative, in addition to Taylor Street, severs Canton Street.
	Bicycle/Pedestrian	Improve bicycle/pedestrian facility connections	◑	◑	●	●	●	All proposed build alternatives improve bicycle and pedestrian connections along proposed cross streets or frontage roads where applicable. The Depressed alternative does not maintain a connection across Good Latimer Expressway on the southern end of the study limits.
Sustainability	Agency Coordination	Respond to City of Dallas design guidance and DART D2 future plans	◑	◕	◕	◑	●	The alternatives were coordinated with the City of Dallas, NCTCOG and DART. The Hybrid alternative is the only proposed build alternative that meets all of the criteria received to date.
	Right of Way (ROW)*	Avoid additional ROW* and displacements	N/A**	●	●	●	●	All proposed build alternatives avoid additional ROW and would not result in any displacements.
	Parks outside State ROW	Avoid impacts to parks, recreational areas, and public usage facilities like parking, including existing and future amenities, outside existing State ROW	N/A	●	●	●	●	No additional ROW would be required and there would be no impacts to parks or recreational areas located outside of State ROW.
	Parks and public usage inside State ROW	Avoid impacts to parks, recreational areas, and public usage facilities like parking, including existing and future amenities within existing State ROW	N/A	○	○	●	○	The Elevated alternative would not result in permanent impacts to the existing public facilities within State ROW. The Depressed, Removal and Hybrid alternatives would result in permanent impacts to public facilities within the State ROW, including Julius Schepps Park, Bark Park Central, and Carpenter Park extension and existing parking lots.
	Communities	Minimize impacts to existing adjacent communities (Downtown/Deep Ellum)	○	◕	●	◔	◕	The No Build/Leave I-345 As-Is alternative is perceived as a barrier between Downtown and Deep Ellum. The Depressed and Hybrid alternatives would depress the mainlanes and improve the local road connections at grade, including adjacent bicycle and pedestrian accommodations. The Removal alternative replaces the existing highway with local streets, including adjacent bicycle and pedestrian accommodations. The Elevated alternative would be similar to the No Build/Leave I-345 As-Is alternative, but when reconstructed would allow for better connectivity under the mainlanes, including bicycle and pedestrian accommodations.
		Minimize impacts to existing communities beyond downtown	◑	◑	○	◑	◑	The No Build/Leave I-345 As-Is, Depressed, Elevated and Hybrid alternatives maintain the connection from South Dallas to North Dallas. The Removal alternative removes the connection and the communities would have to adjust travel patterns to alternate routes.
	Sustainable Design	Minimize maintenance costs through sustainable design elements	○	◔	◑	◔	◔	The No Build/Leave I-345 As-Is alternative requires significant maintenance to extend the life of the existing structure. The Removal alternative would have the least maintenance costs being an at-grade solution but will increase maintenance on local roads due to the increase in traffic volumes on the local roads. The Elevated alternative would have maintenance costs to inspect and repair any structural deficiencies over time. The Depressed and Hybrid alternatives could have significant maintenance costs to accommodate current DART D2, which requires storm water detention and a pump station. Any potential capping could also add maintenance costs dependent on the type of proposed amenities (TBD).
	Potential Surplus ROW	Amount of potential surplus ROW that could result in development (to be determined) (in acres)	N/A	◕	●	◕	◕	All of the proposed build alternatives have potential for surplus ROW.
Economic Development	Property Values Impacts	Property values at buildout due to potential for economic development (2020 dollars)	◑	●	●	◕	●	All of the proposed build alternatives have potential to increase property values at buildout; however, increased property values could result in higher property taxes which may negatively affect some residents and businesses.
	Property Tax Revenue Impacts	Annual incremental property tax revenue at buildout (2020 dollars)	◑	●	●	◕	●	All of the proposed build alternatives have potential to result in annual incremental property tax revenue at buildout; however increased property taxes could negatively affect some residents and businesses.
	Potential Cap Locations	Provides opportunity for potential development of capping over freeway	○	●	○	○	●	Ratings include both surplus ROW and potential development on top of the freeway.
Construction Cost	Cost ($)	Preliminary, approximate construction cost (2020 dollars)	N/A	$$$	$	$$	$$$	It is estimated that the cost of the alternatives would be approximately: depressed, $1B; elevated $650M; removal, $400M; and hybrid, $1B. There is significant cost associated with the Depressed and Hybrid alternatives. The higher cost is associated with depressing the highway and relocation of existing utilities.

Hybrid Alternative



Preliminary, subject to change. This is a representative rendering that was shown at the June 2021 public meetings and is included in the evaluation matrix.

Hybrid Alternative



1. Recommended alternative alignment does not require any additional right of way acquisition.
2. Traffic shown is for illustrative purposes only.
3. Bridge structures are representative of the preliminary feasibility level design. More detailed design will be completed in the next phase in coordination with adjacent projects.
4. The existing DART alignment is shown in the rendering. A small portion of the proposed DART D2 alignment is noted for informational purposes.
5. Recommended Alternative (May 2022). Model for representational purposes only. Preliminary and subject to change based on public input and technical review.

Next Steps

- City staff will brief this information to City Council on May 17, 2023.
- Staff will seek approval of a resolution of support of the Refined Hybrid option from City Council on May 24, 2023.
- On May 24, 2023, City Council will also consider a five-signature memorandum directing the City Manager to:
  - Conduct a feasibility study,
  - Postpone placing a resolution of support on City Council agenda until feasibility study is completed.

Discussion/Questions

City of Dallas

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