D2 Subway Project Development

Stakeholder Committee
Meeting #3
April 18, 2019
Purpose of Today’s Meeting

• To update stakeholders on D2 Subway progress since last meeting in October 2018
• To get feedback on:
  – 10% level of design
    o Alignment
    o Subway station platform and access locations
  – Environmental issues
Project Overview
D2 Subway Alignment & Stations
September 2017 LPA
D2 Subway Alignment & Stations
Including CBD East Refinement
Project Purpose

• Add **Core Capacity** to and through downtown
  – Some trains will be at capacity within a few years
• Provide **Operational Flexibility** for the system
  – Continuity of service during incidents
  – System expansion/added service
• Enhance **Mobility and Access** for existing and future riders
  – Get our riders where they need to go
• Enhance **Economic Development**
  – Add value through context sensitive design
FTA Capital Investment Grant Process

- Project Development is the first phase of the federal funding process.
- DART is doing Project Development and will request entry into Engineering after this phase is complete.

**Legend**
- FTA Approval
- FTA Evaluation, Rating & Approval

**Project Development**
- Complete environmental review process including developing and reviewing alternatives, selecting locally preferred alternative (LPA), and adopting it into the fiscally constrained long-range transportation plan.

**Engineering**
- Gain commitments of all non-New Starts funding.
- Complete sufficient engineering and design.

**Full Funding Grant Agreement**
- Construction.
Recent/Upcoming Meetings

• Deep Ellum Foundation Good Latimer Committee – November 28, February 28
• CBD East Focus Area meeting – March 28
• City of Dallas Staff Open House – April 10
• Joint TxDOT, COD, NCTCOG Coordination Meeting – April 18
• Public Meetings – April 25
• Continued regular bi-weekly City staff coordination meetings
• Continued one-on-one meetings with key stakeholders on site-specific topics
Status of Project Development Efforts
Engineering
Project Development Engineering Activities

- 10% Preliminary Engineering – Submitted March 8, 2019
  - Plan/Profile Scroll Plots
  - Draft Design and Geotechnical Data Reports
  - Tunnel Cross-Sections
  - Urban Design Summary Report
  - Draft Underground Station Architecture Concepts

10% design information in at www.DART.org/D2
Engineering
Station Architecture and Portal Concepts
Museum Way Overview and Station
Museum Way Overview and Station
Metro Center Station
Metro Center Station
Depth and Proximity to Limestone

Ground Level
20’ below
40’ below
60’ below
Metro Center Station
Overall Station and Portal Area Site Plan

Potential access portal
Metro Center Station
Station Portal Locations/Concepts

Portal on Undeveloped Land (parking lot)

Development Occurs around Station
Metro Center Station
Station Portal Locations/Concepts

Elm/ Griffin Concept
Elm/Griffin Precedent Image
Metro Center Station
Overall Concourse Plan

Griffin St
Elm St
West
Transfer Center
Pacific Ave
Metro Center Station
Platform Level Rendering
Commerce Station
Commerce Station
Depth and Proximity to Limestone

Ground Level

+ 1.25%

Limestone

Sand/Clay

20' below

40' below

60' below

80' below
Commerce Station
Overall Station and Portal Area Site Plan
Commerce Station
Station Portal Locations/Concepts

Commerce/Ervay Precedent Image
Commerce St. Station
Station Portal Locations/Concept
Commerce Station
Overall Platform Plan

- Center platform
- End loaded due to space constraints
Commerce Station
West Side Access (near Akard St)

Street Level Plan

Upper Mezzanine Plan
Commerce Station
Longitudinal Section (looking north)
Commerce Station
Cross Section (looking west near Akard)

AT&T / Browder Plaza

Magnolia Hotel / Pegasus Plaza
Commerce Station
Platform Level Rendering
CBD East Station
CBD East Station
Depth (shallow station)

Ground Level

20’ below

40’ below

CBD EAST STATION

+ 1.25%
CBD East Station

Shallow station without mezzanine level requires direct access from ends of or above platform.
CBD East Station
Station Portal Access/Concepts

Existing Location

Gipuzkoa, Spain

Istanbul, Turkey
CBD East Station
Station Portal Access/Concepts

Existing Location
Glasgow, Scotland
New York City, NY
CBD East Station
Station Portal Access/Concepts

Existing Location
CBD East Station
Station Development/Access Concept
Environmental
Project Development
Environmental Activities

- Existing conditions documentation is near completion to support Supplemental Draft Environmental Impact Statement (SDEIS)
- Key topics:
  - Traffic and transportation (auto, bike/pedestrian, parking, transit)
  - Noise/vibration
  - Displacement/acquisition
  - Historic resources and Parklands
  - Visual/aesthetics
  - Hazardous materials
  - Safety and security
  - Construction impacts
Historic Resources

- Area of Potential Effects (APE) defined as 300 feet from either side of alignment
- 600-foot radius around the three subway stations
- Resource age of 45 years from the anticipated revenue service date of 2024 (1979 or prior)
- Research conducted in collaboration with Preservation Dallas
Historic Resources

- Completed historic resource survey and request for determination of eligibility report
  - FTA submitted report to the Texas Historical Commission (THC) for review on March 14, 2019
  - Comments received April 12 and under review
Noise & Ground Borne Vibration

Moderate Noise Impact (1.6 dBA) at 96 units

Moderate Noise Impact (2.3 dBA) at 32 units

Moderate Noise Impact (1.3 dBA) at 48 units

Ground-borne Vibration Impacts at 36 units

Ground-borne Noise Impacts at 54 units

Analysis to be refined based on final track design
Parklands
DART Project Needs

• Adjacent property building foundation plans
• Set up one-on-one briefings on site specific issues
  – Property development plans/opportunities/schedules
  – Driveways/garage access/commercial loading zones/valet
Next Steps

- Finalize SDEIS Existing Conditions
- Complete impact assessments concurrent with 20% design
- Refine subway station concept plans (size, functions, access portal locations, fare control points)
- Refine Urban Design plans for station and tunnel portal areas
- Finalize Good Latimer track location in cooperation with Deep Ellum Foundation
- Evaluate tunnel construction methods

Next Stakeholder Committee meeting in Summer 2019 to focus on construction
# Schedule

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<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2024</th>
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Note: Schedule is preliminary and subject to change.

**ANTICIPATED KEY MILESTONE MEETINGS**

1. KICKOFF MEETINGS
2. EXISTING CONDITIONS/ISSUE IDENTIFICATION/10% PE
3. IMPACT ASSESSMENT FINDINGS/MITIGATION OPTIONS/10-20% PE
4. PUBLIC HEARING FOR SDEIS

REVENUE SERVICE - END OF 2024
How to Stay Involved

- Visit www.DART.org/D2
- Email D2@DART.org
- Attend meetings regularly
- Sign up for project alerts at www.DART.org/D2
- Request a briefing or meeting with your organization
- Mail the Project Manager
Focus Areas
Small Group Workshops

- At-Grade Segment from Victory Station to Museum Way Station
- Museum Way Station
- North Portal
- Metro Center Station
- Commerce Station
- CBD East Station
- East Portal
Subway Station Space Planning

• Station Sizing Considerations:
  – Functions to be accommodated and space needed such as vertical circulation, restrooms, service rooms (mechanical, electrical), police office, etc.
  – Maximum train capacity x 2.5
  – Design level of service (LOS) for passengers
  – Where fare enforcement begins (street level vs. mezzanine)
  – Physical constraints:
      o Building foundations
      o Geology (rock depth, thickness)
      o Right-of-way
      o Utilities
Preliminary Engineering
Subway Station Space Planning

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<th>&gt;= 13 ft&lt;sup&gt;2&lt;/sup&gt; per person</th>
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<td>LOS F</td>
<td>&lt; 2 ft&lt;sup&gt;2&lt;/sup&gt; per person</td>
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Planning for
LOS C for
maximum
crowd
conditions
Victory-Perot Museum Focus Area
Victory-Perot Station Area Plan
Metro Center Station Focus Area

Examples

Example 3 - Dubai, United Emirates

Example 4 - Chicago, Illinois

NOT TO SCALE

LEGEND
- Park/Plaza
- Potential Access to Subway
- Existing Pedestrian Tunnel
- Closed Pedestrian Tunnel
- Potential Streetcar
- D2 Subway Route
- Potential Subway Portal Access Routes
Commerce Station
Focus Area

Examples

Hollywood, California

New York, New York

Lisbon, Portugal

LEGEND
- Park/Plaza
- Potential Access to Subway
- Potential Streetcar
- D2 Subway Route
- Pedestrian Connection

NOT TO SCALE
CBD East Station Focus Area

Examples

1. Example 1 - San Francisco, CA
2. Example 2 - Tokyo, Japan
3. Example 3 - Stockholm, Sweden
Deep Ellum Focus Area
DART Rail Operations with D2

Orange Line Options (3):
- Continue existing service pattern to Parker Road Station
- Terminate near East TC and turnback to DFW
- Add service to Baylor
Commerce Station
West Side Access (near Akard St)

Lower Mezzanine Plan

Platform Plan