D2 Subway Project Development

Interagency Meeting

July 27, 2018

DART let's go.
Agenda

• Welcome and Introductions
• Project Background
• D2 Project Overview
• Project Development (PD) Efforts
  – Preliminary Engineering (PE)
  – Environmental Impact Statement (EIS)
  – Urban Design
• Public and Agency Involvement Framework
  – Your Role
• Next Steps and How to Stay Involved
Purpose of Today’s Meeting

• To reinitiate Project Development (PD) phase for the D2 Subway project
• To update agencies on the project
• To explain what Project Development entails
• To collect comments on issues for the engineering, environmental, and urban design process
• To discuss your role and how you can be involved
Project Team

- DART Team Members
  - Steve Salin, Vice President
  - Chad Edwards, Assistant Vice President
  - Ernie Martinez, D2 Project Manager
  - Kay Shelton, D2 Environmental Task Manager
  - Carlos Huerta, D2 Community Engagement

- Consultant Team Members
  - Tom Shelton, Program Manager
  - James Frye, Project Manager
  - Kris Lloyd, Environmental Lead
  - Israel Crowe, Engineering Lead
  - Brandi Crawford, Urban Design Lead
  - Jory Dille, Public and Agency Involvement Lead
Project Background and Overview
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
DART is conducting PD locally for the subway as the original two-year Federal timeline requirement was not met given the change in project definition in 2017.
Locally Preferred Alternative Commerce via Victory/Swiss
PROJECT OVERVIEW

Connection to the Existing Light Rail System. With D2 in place, the Green and Orange Lines would be shifted from the existing transit mall to instead use the D2 Subway alignment.

At-Grade Segment Using DART-Owned Right-of-Way. Key considerations include potential residential impacts, interface between auto traffic, bicycles, and pedestrian activity.

Museum Way Station. At-grade station integrated into surrounding land uses.

North Portal. Transition between surface to underground. Creates urban design opportunity for development over the portal and pedestrian linkages between Victory and West End areas.

Metro Center Station. Subway station serving as major transfer hub for all four light rail lines, bus service at West Transfer Center, and pedestrian connection opportunities on surface to surrounding developments and underground pedestrian tunnel network.

Commerse Station. Subway station providing central access to the downtown core including major employers, hotels, restaurants, parks and residential.

CBD East Station. Subway station serving this growing part of downtown, including access to Farmers Market, Deep Ellum, education, parks, and entertainment. Connection to bus service at East Transfer Center.

Connection to Existing Light Rail System. Junction will provide option to turn north or south. Current design concept includes rebuilding Green Line along Good Latimer and eliminating Deep Ellum Station. Deep Ellum would be served by enhanced pedestrian connections between existing Baylor Station and future CBD East Station.

East Portal. Transition between underground to surface along Swiss Avenue. Coordination with future plans for Carpenter Park and I-345. Opportunity for urban design and pedestrian linkages between downtown and Deep Ellum area.
Victory Segment and Museum Way Station (At-grade)
North Portal and Transition to Subway

Approximate Portal Limits

Portal and Cut and Cover Limits are desirable approximations. Limits are subject to change upon development of profile and review for tunnel constructability and geology at portal location.

Approximate Cut and Cover Limits
Commerce to CBD East Station
East Portal and Good Latimer Connection

North of Swiss Avenue
East Portal and Good Latimer Connection

South of Swiss Avenue

PORTAL AND CUT AND COVER LIMITS ARE DESIRABLE APPROXIMATIONS. LIMITS ARE SUBJECT TO CHANGE UPON DEVELOPMENT OF PROFILE AND REVIEW FOR TUNNEL CONSTRUCTABILITY AND GEOLOGY AT PORTAL LOCATION.
Project Development Efforts
Project Development Phase

- Project Development is the first phase of the federal funding process.
- DART is continuing PD locally and plans to request entry into Engineering after this phase is complete.

**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.

**LEGEND**
- FTA Approval
- FTA Evaluation, Rating & Approval
Project Funding

- The Project budget is included in the FY18 20-Year Financial Plan
  - $1.3 Billion estimate
- Since DART did not complete Project Development for original alignment within required two-year timeframe due to change to subway, we are proceeding locally with PE/EIS work
- FTA will continue to provide oversight and be lead Federal agency
- FTA indicated DART can reapply to enter at Engineering phase
- Funding approach will be to seek approximately 50% Federal grant
Project Development Phase

• What happens during Project Development?
  – Preliminary Engineering (PE) to a 30% level
  – Environmental Impact Statement (EIS) in accordance with National Environmental Policy Act (NEPA)
  – Urban Design task included

• Why is it important?
  – Establish Project Budget for the Federal Grant
  – Identifies Project Impacts and Mitigation Commitments
  – Refines the project for Engineering and Construction Phase
Project Development Phase
Preliminary Engineering (PE)

- PE is the first stage of design
  - Project will be developed up to 30% level
    - Alignment
    - Tunnel section
    - Utilities, Subsurface
    - Station Design
    - Street Modifications
    - Right-of-way requirements
    - Construction approach
  - Future phases will do final design from 30-100%
Project Development Phase
Environmental Impact Statement (EIS)

- Original Notice of Intent (NOI) issued April 2007
- Original Draft EIS published in March 2010
  - Initial assessment of potential impacts for multiple alternatives
- Supplemental Draft EIS will be prepared for the D2 Project – Why?
  - To address public, agency, stakeholder comments on the DEIS
  - To use more current data to reassess potential impacts within the project corridor
  - To assess potential impacts of new areas not included in 2010 DEIS
ENVIRONMENTAL CATEGORIES
FOR ANALYSIS IN THE SUPPLEMENTAL DRAFT EIS

Land Use & Zoning  Displacements/Relocations  Historic Resources  Water Resources
Community Facilities & Resources  Economic Effects  Parkland  Hazardous Materials
Socioeconomics & Demographics  Air Quality  Visual Effects  Traffic/Transportation Impacts
Environmental Justice  Noise & Vibration  Ecological Resources  Energy Impacts
Construction Impacts  Cumulative Impacts  Soils & Geology  Safety & Security Considerations
Cultural Resources

- Proposed Area of Potential Effects (APE) of 300 feet from either side of alignment
- 600-foot radius around the three subway stations to account for potential pedestrian access portals
- Proposed resource age of 45 years from the anticipated revenue service date of 2024 (1979 or prior)
- SHPO concurrence 7/16/18

let's go.
Historical Resources*

1. 1704 N. Griffin St.
2. Crown Plaza Hotel
3. Federal Building
4. Santa Fe Building
5. Adolphus Hotel
6. Magnolia Building
7. DP&L
8. Vaughn Mercantile
9. Continental Building
10. Statler Hotel
11. Lizard Lounge
12. 2615 Elm St.
13. Uptown Luna Prep

*NOT A COMPLETE LIST OF RESOURCES
Cultural Resources

• FTA has also provided project information to 17 Indian Tribes to determine any issues or sites of significance

• Boring core samples being photographed and assessed for potential archaeological interests

Boring B-1 Box 1
Parklands

- Section 4(f)
- TPWD Chapter 26
- Opportunities to activate parks/plazas with station portals
- Potential park impacts:
  - Pass underneath
  - Potential right-of-way needs
Noise & Vibration

Noise & Vibration Assessment Process:
1. Document existing noise and vibration levels at locations representative of sensitive land uses.
2. Estimate noise and vibration levels with the project:
   - Operating plan
   - Vehicle specifications
3. Identify impacts and propose mitigation consistent with FTA and DART guidance.

What kinds of land uses are considered sensitive?
- Land where quiet is essential to purpose:
  - Amphitheater
  - Recording studios
  - Some historic properties
- Places where people sleep:
  - Homes
  - Apartments
  - Hotels
  - Hospitals
- Institutional uses with daytime/evening use:
  - Churches
  - Libraries
  - Schools
  - Theaters
  - Cemeteries
  - Museums
  - Historic sites/parks

Types of Mitigation:

Mitigation for Noise Impacts if warranted:
If noise or vibration impacts are identified, mitigation measures may involve treatments:
1. At the noise source,
2. Along the source-to-receiver propagation path, or
3. At the receiver

Typical noise mitigation techniques include:
- Stringent transit vehicle and equipment noise specifications
- Rail vehicle treatments to minimize noise
- Track treatments (e.g., moveable-point frogs and wayside rail lubricators)
- Enhanced maintenance
- Restricted vehicle speeds or operating hours
- Installation of sound barriers (noise walls)
- Alignment modifications
- Insulation of affected buildings

Mitigation for vibration impacts if warranted:
Common vibration mitigation measures are similar to those for noise reduction and include:
- Stringent transit vehicle and equipment specifications
- Rail vehicle treatments
- Track treatments (e.g., moveable-point frogs, resilient rail fasteners, ballast mats, resiliently-supported ties, and floating track slabs)
- Enhanced maintenance
- Restricted vehicle speeds
- Use of deep trenches
- Alignment modifications
- Building vibration isolation (for new construction)
Noise and Vibration

- Noise measurements were done in 2009 (multiple alternatives) and 2016 (original LPA)
- New measurements will be taken at some of the same locations plus new locations based on new alignment and new developments
- Vibration testing being coordinated with geotechnical borings (120 ft depth)
  - Vibration data on ground-borne vibration propagation through the soil in the study area will be used to project future vibration from light rail operations
- Texas Historic Commission key concern related to potential noise and vibration impacts to historic buildings/foundations both during construction and operations
Transportation and Access

POTENTIAL ISSUES

1. Pedestrian and Auto Access/Circulation
2. Special Event Traffic
3. Museum Way cross-section
4. Potential Circulation/Access Changes
5. Private Parking Lot Access / Loss of Parking
6. Increased Pedestrian/Transfer Activity Between Rail/Bus
7. Pedestrian Access to Subway Station
8. Pedestrian Access to Subway Station
9. Temporary traffic/access changes
10. Pedestrian Access to Subway Station
11. Potential Impact to Parking Garage
12. Reconfiguration of Good Latimer
13. Pedestrian Access changes/improvements
Transportation and Access

• At-Grade segment through Victory to Woodall Rodgers Freeway
• At-Grade reconstruction in Swiss/Good Latimer area
• Tunnel portals and potential circulation/access changes
• Ridership and station access (pedestrian/other modes)
• Bicycle lane interface
• Parking impacts/mitigation
• Other key issues?
Construction Considerations

- Staging areas (materials, equipment, etc)
- Coordination with other projects
- Utility coordination/relocation
- Maintaining access / traffic & bus detours / pedestrian & bike access
- Construction noise/vibration
- Stormwater/air quality
- Safety
- Hauling routes
- Business impacts
- Special events
- Other issues?
Urban design relates to:
- Context sensitivity
- Experience/promotion of quality of life
- Enhanced access/mobility
- Recognition and wayfinding

Good urban design can be a catalytic driver:
- Implementation and success will rely on multi-agency partnerships

Considers feedback from stakeholders, riders, agencies, and the City of Dallas

Urban design can:
- Encourage ridership/desire to use
- Maximize the purpose of D2 Subway
- Enhance the livability of downtown
- Create long term value
- Integrate D2 Subway into the downtown fabric
Urban Transit Design Guidelines key principles:

• Creation of **pedestrian friendly** stations that are **accessible, safe, encourage transit ridership** and contribute to the public realm through **street-level activation** and **high quality** materials and detailing

• Contribution to a **sustainable** urban environment that follows low impact development standards and incorporates appropriate native landscaping

• Integration of **streetscapes** that enhance and encourage pedestrian activity while safely accommodating all other modes of transportation

• Enhancement of **economic development potential** along transit corridors and transit-oriented development around station
Metro Center Station Example

- Pedestrian access portal locations
- Urban design
- Connectivity with nearby uses, transit facilities, pedestrian tunnel system
- EIS - Safety/security, historic resources, real estate
- Construction approach, traffic and access, utilities
Schedule

Note: Schedule is preliminary and subject to change.
Public and Agency Involvement
Public and Agency Involvement Framework

POLICY & MANAGEMENT
RECOMMENDATIONS • DECISIONS

DART BOARD

FEDERAL TRANSIT ADMINISTRATION
DART STAFF

DALLAS CITY COUNCIL

PUBLIC & STAKEHOLDERS
ISSUE IDENTIFICATION • ADVISORY

STAKEHOLDER COMMITTEE

FOCUS AREA COMMITTEES
ONE-ON-ONE MEETINGS
SERVICES AREA CITIES

DDI MOBILITY COMMITTEE

TECHNICAL ENGINEERING DESIGN • ISSUE RESOLUTION

TECHNICAL COMMITTEE

UTILITIES/ AGENCIES
CITY OF DALLAS STAFF

DALLAS URBAN DESIGN PEER REVIEW PANEL
Your Role

- Attend Technical Committee meetings
  - Review engineering and environmental progress
- Identify key issues for the SDEIS
  - Early documentation of issues for EIS
- Share data, plans, information, studies
- Request a one-on-one meeting for specific topic
- Disseminate project information to your organization/group
- Assist DART with developing solutions for key issues
Next Steps
What’s Next

• DART is hosting a range of meetings to begin to identify issues, opportunities and discuss solutions, options
• Regular meetings will occur at key milestones
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