Dallas CBD Second Light Rail Alignment (D2)

Subway Project Refinement

Stakeholder Meeting
December 7, 2016
Discussion Items

• Background
• Schedule
• Public/Stakeholder Involvement
  – Comments/Questions from Audience
• Subway Construction Overview
  – Comments/Questions from Audience
• Initial Stakeholder Feedback
• Group Discussion/Next Steps
D2 LPA (September 2015)
Instructions
1. Draw a line to represent subway alignment
2. Draw a circle around desired station areas
3. Draw a rectangle to represent tunnel portal transition zones

Name: ____________________________ Organization: ____________________________

NOTES:
Green and Orange lines would shift to D2 to address core capacity
Red and Blue should have ability to shift to D2 during incidents/special events to address operational flexibility
Redefining D2 as a Subway

• Concerns with D2 mostly at-grade

• Recent Actions:
  – Dallas City Council approved resolution to pursue subway option from Woodall Rodgers to IH-345
  – DART Board approved FY17 Financial Plan with increased budget ($1.3 Billion YOE) for subway and larger FTA grant amount

• We need your help to define D2 as a subway
Why is D2 Important?

• 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
FTA Core Capacity Funding

• November 2015
  – FTA authorization to enter two-year Project Development (PD) phase to complete PE/EIS

• February 2016
  – D2 receives “Medium-High” rating from FTA

• September 2016
  – DART submits annual update to FTA
  – FTA held its review pending subway discussion
  – D2 will receive “not rated” in next report to Congress
FTA Project Development Extension

• DART has requested extension of PD by two years to November 4, 2019
• FTA is reviewing the request
• New schedule includes “LPA Refinement” phase prior to resuming PE/EIS activities
LPA Refinement Phase

LPA REFINEMENT PHASE

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DECISION MILESTONE
Public and Agency Involvement
Key to Success

POLICY & MANAGEMENT

DART BOARD

DALLAS CITY COUNCIL
POLICY COMMITTEE
DART STAFF/CONSULTANT TEAM

STAKEHOLDERS

STAKEHOLDER COMMITTEE
TECHNICAL COMMITTEE
DDI MOBILITY COMMITTEE
Discussion Review

• D2 Scope and Objective
• Process and Schedule
• Decision-Making Framework
Subway Construction Overview

• Current LPA is 2.4 miles
  – 0.7-mile tunnel segment
  – One subway station

• D2 Subway alignment needs to be developed to replace current LPA
Key Discussion Items

• Geology of the CBD
• Portal Transition Areas
• Subway Construction Methods
  – Tunnel Boring Machine (TBM)
  – Sequential Excavation Method (SEM)
  – Cut and Cover Method
• Station Construction and Access
Geology

GOOD TUNNELING MATERIAL

POOR TUNNELING MATERIAL
Portal Transition Areas
Mockingbird Station & North Portal

- Open shaft for lowering/assembling equipment
- Construction staging area
- Hauling routes
Subway Construction Methods

Tunnel Boring Machine (TBM)

“Tunnelling underground - Melbourne Metro Rail Project” courtesy of Melbourne Metro Rail Authority
Subway Construction Methods
Sequential Excavation Method (SEM)
Subway Construction Methods
Sequential Excavation Method (SEM)
Subway Construction Methods

Sequential Excavation Method (SEM)
Subway Construction Methods

Sequential Excavation Method (SEM)
Cut and Cover Construction Method

• Can be used for portions of subway
• Common construction method for stations, ventilation shafts, emergency access
• Requires temporary and/or permanent use of surface right-of-way
1. Utility relocation and initial street excavation
2. Install concrete decking/ temporary street surface
3. Station or subway construction and street restoration
Tunnel Earth Removal

Muck house
Subway Station Access

- Integrate into building
- Station plaza
- Sidewalk / Public right-of-way
- Connections to pedestrian tunnel system
- Multiple access points are possible
- Urban design opportunity at station access points
Station Integration into Adjacent Building Site or Plaza
Figure 2-39. Proposed Entrance for the Wilshire/La Cienega Station
Initial Feedback and Ideas

• What are your thoughts?
  – Top priorities for D2
    • Questionnaire
  – Alignment and station ideas
Summary of Feedback

• Seven (7) questionnaires returned
• Top priorities range from:
  – Clean & Reliable
  – Safe & Secure (Lighting)
  – Easy access/transfers, good signage
  – Enhance, preserve historic buildings/districts
  – As much underground as possible (Victory, Deep Ellum)
  – Maintain street grid, minimize traffic/pedestrian conflicts
  – Access to Perot Museum
  – Avoid surfacing within IH 345 footprint
Questionnaire Factors

What’s most important to you relating to the location of a subway alignment

*Mark each attribute as High (H), Medium (M) or Low (L) importance.*

- [ ] Ease of transfer from/to other transit (bus, light rail, TRE, streetcar, etc.)
- [ ] Connection opportunities to the underground pedestrian tunnel system
- [ ] Travel time through downtown
- [ ] Proximity to employment
- [ ] Proximity to residential
- [ ] Proximity to restaurant/entertainment/recreation
- [ ] Economic development / redevelopment potential
- [ ] Construction disruption and duration
- [ ] Minimizing impacts to downtown resources (historic structures, parks, etc.)
- [ ] Other(s)
Stakeholder Input for D2 Subway

Instructions

1. Draw a line to represent subway alignment
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Next Steps

• December
  – Technical committee workshop
  – Define initial range of subway alignments

• January
  – Stakeholder Committee Meeting
  – Summarize key issues/benefits of alignments
  – Initiate screening of alignments
  – General public meeting (January 19, 2017)

• February
  – Stakeholder Committee Meeting
  – Screening Evaluation/Short List
How to Stay Involved

• Attend project meetings
• Request Group/Organization briefings
• View materials and progress on www.DART.org/D2

• Comments? Email D2@DART.org
  – Provide comments early on key issues that DART should address in the process