



## Presentation to TJPA Board Caltrain Downtown Extension Project Update

September 29, 2008

# Transbay Transit Center

TJPA





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## Caltrain Downtown Extension Project (DTX)

Agenda:

- DTX Refined Locally Preferred Alternative (RLPA)
- DTX Preliminary Engineering (PE) Term 2
  - Task Progress
  - DTX Design Criteria
  - Meetings & Workshops
  - Next Steps
- DTX PE Term 2 Design Schedule



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## DTX PE Part I RLPA Definition – April 2007

- 2-track lead to DTX tunnel system
- Fourth/Townsend Underground Station
- 3 Track Tunnel on Townsend & 2<sup>nd</sup> Streets
- TTC with 3 Platforms and 6 Tracks
- Tail Tracks deferred until operationally required
- At-grade Rail Car Storage within Caltrain yard



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## DTX PE Term 2 Task Progress

- Updated Project Management Plan Issued
- Work in progress:
  - Refinements to Alignment and Typical Sections
  - Geotechnical Site Investigations
  - Traffic Counts
  - Traction Power Load Flow Analysis
  - Hazmat Sampling & Analysis Plan



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## DTX PE Term 2 Draft Design Criteria

- Intent: To provide a uniform basis for DTX design
- Basis: Generally follows “operator’s” criteria as amended or as otherwise stipulated by this design criteria:
  - Caltrain Engineering Standards
  - PCJPB Design Criteria – Electrification Program
  - CHSRA Design Criteria
- Objectives include:
  - Provide safe & reliable transport of passengers
  - Minimize capital, operating & maintenance costs
- Status: Draft Criteria issued August 8, 2008.



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## DTX PE Term 2 Draft Design Criteria

### Owners Requirements:

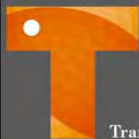
- Design Life:
  - Underground Structures : 100 yrs
  - Civil Drainage/OCS/Plant & Equipment : 50 yrs
  - Systems/Joints/Bearings : 25 yrs
- Seismic Performance:
  - Operating Basis: Minimal Damage / Immediate Use
  - Maximum: Repairable Damage / Limited Use
- Watertightness:
  - Stations / Equipment Rooms - dry
  - Running Tunnels - capillary wetting



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## DTX PE Term 2 Meetings & Workshops

- Caltrain
- CA HSR
- SFMTA – Central Subway & DPT
- Caltrans
- CCSF – DPW, PUC
- Utilities – PG&E, AT&T, Verizon
- Design Consultant:
  - Coordination
  - Task(s) kick-off
  - Constructware, CAD & QA/QC



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## Contracting Strategies Workshop

- Defines intent to procure & manage DTX construction
- Held on September 11/12, 2008
- Attendees:
  - TJPA/PMPC/DTX Design Consultant
  - Caltrain
  - City Attorneys Office
  - SFCTA
  - Invited Experts –Tunnel Construction, Rail Systems
- RLPA Scope



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## Contracting Strategies Workshop

- Identification of construction contracts
  - Construction method
  - Location
  - Contract value
  - Anticipated schedule
  - Project funding – cash flow
- Sequencing of construction for identified contracts
- Development of procurement recommendations
- Identify appropriate construction management methods



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## Contracting Strategies Workshop Goals

- Construct DTX in shortest possible timeframe
  - Minimize escalation costs
- Minimize disruption to Caltrain service
- Develop a 'reasonable' number of contract packages:
  - Too few contracts results in large contract values with fewer bidders (contractors will joint venture)
  - Too many contracts results in too many project interfaces (set conditions for disputes and claims)
  - Limited staging areas



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## Contracting Strategies Workshop Outcome

- Advance Contracts
  - Utility Relocation
  - Building Demolition
  - Caltrain Yard Site Clearing
- Civil Contracts
  - Townsend Street Cut and Cover
  - Mined Tunnel/Second Street Cut and Cover
  - Caltrain Yard Permanent Configuration
- Systems Contracts
  - Track
  - Systems - tunnel
  - Systems – ventilation building and shaft
  - Finishes



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## Contracting Strategies Workshop Outcome

- Design bid build is preferred procurement method.
  - Design build offers no schedule advantage for program
- Management of construction best performed by existing team for specialist work including mined tunnel and systems work.
- Investigate joint procurements with Caltrain
  - Best price
  - Dependent upon relative timing of construction
- Results summarized in revised Contract Packaging Report



## DTX PE Term 2 Next Steps

- Continue task progress
- Initiate tasks:
  - Cut and Cover Structures
  - Mined Tunnel
  - Existing Structures
- Evaluate/incorporate design criteria review comments
- Develop Revised Contract Packaging Report
- Begin Preliminary Hazard Assessment
- Continue coordination with operators/stakeholders
- Coordination w/ FRA, FTA, CPUC



## DTX PE Term 2 Design Schedule

- Critical path analyses completed
- Schedule demonstrates rational logic
- Current progress ahead of baseline schedule
- Developed schedule list of deliverables/milestones



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## Questions?

