Comprehensive Operations Analysis (COA) to support development of the Moving You Forward DART 10 Year Service Plan Public Meetings January 28, 29 and February 2, 2015
Agenda

• Introductions
• DART Background and Services
• Phased Approach to 2040 Transit System Plan
• Project Overview – What is a COA?
• Key Efforts to Date
• Public and Stakeholder Involvement
• Next Steps
• Open Discussion
DART Background

• Formed in 1983
• 13 cities today
  – Contracted service with Mesquite & Arlington
• Service Area 700 Sq-mi
• Population
  – Service Area 2.3 Million
  – Region 6.6 Million
• One-cent sales tax
• Annual operating budget $459 million
DART Family of Services

**Rail**
DART light rail service and Trinity Railway Express commuter rail service to Fort Worth

**Bus**
Local, express, transit center feeder, crosstown, rail feeder, and miscellaneous bus services

**Shuttles**
Shuttles connecting key colleges, businesses, and public facilities, plus McKinney Avenue Trolley
Paratransit
Demand-responsive van and taxi services for persons with disabilities who are unable to use regular fixed-route services

Vanpool
Groups of up to 15 commuters share a van for work trips

Flexible
On Call and Flex zones offering personalized neighborhood service
2030 Transit System Plan
Approved October 24, 2006

Rail
- Rail Line & Station (Existing/Committed)
- Express Rail
- Rapid Rail

Bus
- Express Bus
- Enhanced Bus
- Rapid Bus

Managed HOV Lanes
- DART Participation
- No DART Participation

Paratransit
(services provided systemwide)

Systemwide Mobility
- Intelligent Transportation Systems
- Transportation System Management
- Travel Demand Management
- Safety and Security
- Passenger Facilities
- Bicycle/Pedestrian Integration
- System Accessibility

Future rail alignments and station area locations subject to Service Plan amendments.
Phased Approach to 2040 Plan

**Phase 1 FY15**
- Key Issues / Guiding Principles
- Data Collection
- Transit Competitive Index (TCI) Tool
- Comp. Operations Analysis (COA)
- Future Conditions
- 10 Year Service Plan

**Phase 2 FY16**
- Evaluation Criteria
- Alternatives Development
- Regional Service Opportunity
- Evaluation / Financial Analysis
- Draft 2040 Plan
- Adopt 2040 Plan
What is a COA?
(Comprehensive Operations Analysis)

• Evaluates overall transit service efficiency and effectiveness, system route structure and delivery methods
• Results in a comprehensive review of all transit service as a system
• Culminates in a set of service recommendations, usually covering a 5-10 year period of implementation
COA Goals

• Increase route and system efficiency
• Better serve existing and emerging transit markets
• Reallocate resources to improve ridership and productivity
• Ensure services are equitable
• Develop support through public and stakeholder input
Why Now?

• Current rail build-out is nearly complete
• Bus routes have been reorganized around phased rail openings
• At the same time, levels of bus service have been reduced significantly
• Current emphasis is on coverage throughout the Service Area
• Can leverage recent data collection to better understand travel and ridership patterns
What will we get?

• A better understanding of our customer and market needs
• A **10-Year Service Plan** that phases service changes to respond to identified needs and build ridership
• Solid foundation build on through year 2040
  - Integrate recommendations into 2040 Transit System Plan
Key Efforts to Date

- On-Board Survey Results
- Travel Pattern Analysis
- System Level Analysis
- Route Level Analysis
DART On-Board Survey

• On-Board Passenger Survey was conducted on DART bus and rail routes in Spring 2014 through the NCTCOG Transit Travel Survey
• Collected more than 40,000 surveys expanded to represent 217,000 customers
• Questions include origin-destination, mode of access, demographics, trip purpose, etc.
DART On-Board Survey - Origins
On-Board Survey Highlights

- Customers are trending younger – more than 60% under age 35
- Most trips are work to/from home but 33% for other purposes
- Approximately 50% of DART customers have to transfer vehicles to complete trip
Travel Pattern Analysis

• Using actual travel data in the region for:
  – Trip Density Mapping & Analysis
  – Activity Center Identification
  – Activity Center Trip Distribution
  – Identify and Analyze Significant Travel Markets
Trip Density
Home Based
Work Origins
(AM Peak)
Trip Density
Home Based Work Destinations (AM Peak)
Activity Center Identification

- 22 Activity Centers
  - Group of zones exhibiting large trip volumes
  - High density trip generators / attractors (all trip purposes)
  - Known activity centers within the region
Addison Activity Center Trip Interaction

- DFW Region Divided into zones
- Trip Origins and Destinations identified in each zone
- Map reflects Trip Density by zone

Density = Trips / Square Miles in Zone
Downtown Dallas Activity Center Trip Interaction

- DFW Region Divided into zones
- Trip Origins and Destinations identified in each zone
- Map reflects Trip Density by zone

Density = Trips / Square Miles in Zone
Uptown Dallas Activity Center Trip Interaction

- DFW Region Divided into zones
- Trip Origins and Destinations identified in each zone
- Map reflects Trip Density by zone

Density = Trips / Square Miles in Zone
Deep Ellum/Baylor Activity Center Trip Interaction

- DFW Region Divided into zones
- Trip Origins and Destinations identified in each zone
- Map reflects Trip Density by zone

Density = Trips / Square Miles in Zone
Medical District Activity Center Trip Interaction

- DFW Region Divided into zones
- Trip Origins and Destinations identified in each zone
- Map reflects Trip Density by zone

Density = Trips / Square Miles in Zone
Service Performance

• System-Level Analysis
  – Service levels and Community Characteristics
  – Ridership volume mapping
  – System level service performance

• Route Level Analysis
  – Performance analysis and ranking by service type
  – Segment level analysis
  – Bus Stop level ridership activity (APC based)
Bus Stop Ridership Activity

- = 0-2
- = >2-10
- = >10-30
- = >30-100
- = >100
Bus Route 453 Crosstown

- More than 70% of trips are for work
- Nearly 20% trips for shopping/leisure
- Nearly 90% riders under age 45
- More than 50% of riders use it 5-7 days per week
Bus Route 183 Local

- More than 80% of trips are for work
- About 10% trips for shopping/leisure
- Nearly 90% riders under age 45
- More than 60% of riders use it 5-7 days per week
Public and Stakeholder Involvement

Phase 1 of 2040 TSP / Comprehensive Operations Analysis

Technical Advisory Committee for COA
- DART City Staff
- Stakeholders
- Agency staff

Customer Outreach
- At transit centers
- Displays
- Direct input

Video Updates
- Short, informative video “newsletters”

Social Media
- Facebook
- Twitter
- YouTube

Interviews/Briefings
- City Staff
- Stakeholders
- Service Partners

Meetings/Workshops
- Non-traditional times
- DART Board

Webpage
- Project Updates
- Survey/feedback links
- Mindmixer

Group Input
- Citizen Advisory Committee
- DART Customer Panel
Mindmixer Site

• DART is using Mindmixer to promote input, feedback and collaboration throughout the process.
• www.DART.org/movingyouforward
• Users register with an email and provide basic information on age, gender, and zip code
• DART staff engages users by posting a variety of topics

• How can you help?
  Participate!
  Forward the link to interested individuals or groups
Topics So Far

1. What’s Important to You? (Instant Poll)*
2. Improving DART Services (Idea Submission)*
3. Favorite Places to Go (Idea Submission)*
4. Defining “Frequent” (Survey)*
5. Crosstown Connectivity (Survey)*
6. Participant Survey*
7. Service Ideas (General Idea Submission)
8. Weekend Service

* Topics closed
MindMixer Input

• Some of the most frequently mentioned ideas include:
  – Bus Network Design (simplify routes)
  – Increase Frequency
  – Late Night / Weekend Service
  – Express Service (Bus and Rail)
  – Crosstown Service (Bus, Cotton Belt)
  – Specific Bus Route Ideas
  – Service Area Expansion
On-Site Customer Outreach
On-Site Customer Outreach

• Received over 600 comments from riders
• Comments focused on the following:
  – Service beyond DART Service Area
  – More frequency on routes
  – Extend service hours
  – Improved connections between bus and rail, bus and bus
  – Better service to specific markets
Key Issues and Opportunities

• Meeting future mobility needs
• Allocating resources in the most effective and efficient manner possible
• Serving existing riders while gaining new riders
• Serving new travel markets with focused and specialized transit services
• Providing the most appropriate service type to travel markets
• Designing competitive transit travel options
• Identifying new and innovative transit services
Next Steps & Schedule

• Finalize data analysis and document findings
• Complete Travel Pattern and Market Analysis
• Develop Potential Improvements and Strategies

• Schedule:
  o Late Spring - Draft 10-Year Service Plan for Discussion
  o Late Summer – Recommend 10-Year Service Plan for DART Board approval
Moving You Forward

DART 10 Year Service Plan

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