

NCTOG North Crosstown Study

*CORRIDOR*



**Oxford**<sup>®</sup>  
ESSELTE  
NO. 753 1/3  
10%



# **MOBILITY 2025**

## **NORTH CROSSTOWN CORRIDOR**

### **OVERVIEW OF TECHNICAL RECOMMENDATION**

**North Central Texas Council of Governments**

# North Crosstown Corridor Recommendations

**Objective:** Identify a transportation recommendation for the North Crosstown Corridor for inclusion in the Mobility 2025 Plan.

**Current Status:** Developed staff technical recommendation awaiting discussion with North Crosstown Corridor Task Force and public input for Regional Transportation Council approval on January 13, 2000.

## Background Technical I

- Mobility 2020 P
- Rail Ridership \
- Mobility 2025 F
- Mobility 2025 F
- North Crosstov
- North Crosstov

*John does not want the alignment from Addison to Richardson on CB to be removed. Leave in and evaluate every 3 years*

*CB → STILL CR OR CR*

## Technical Recommend

1. First Priority: I International A the Northwest Addison Intermodal Facility (see Mobility 2020 Plan). (Apply rail grade separation warrants in corridor.)
2. Reaffirm a Santa Fe/Burlington Northern connection from the Northeast Line to the Cottonbelt Corridor using the Burlington Northern alignment.
3. Eliminate the S.H. 190 alignment and the "utility corridor" alignment.
4. Add rail sections from an Addison Intermodal Facility to the southeast, along the I.H. 635 corridor, to meet the North Central Line.
5. Extend the North Central Line to the City of Allen and market the need to join a transportation authority.
6. Delete the Cottonbelt section east of Addison and maintain Mobility 2020 terminology:
  - "all existing railroad rights-of-way should be monitored for potential future transportation corridors"
 and add terminology that reiterates that:
  - the Cottonbelt Rail Line would be re-studied at 3-year intervals with the Mobility Plan frequency and when a Major Investment Study/Environmental Impact Study is started in the Santa Fe, Burlington Northern or I.H. 635 corridors.
7. Request public input regarding these recommendations.

ative 4

Fort Worth recommendations from eastern terminus at an to the

*CR on CB*

*can not be CR*

*after X-Mas.*

*ITEMS REC. BY TECH COM. / Remove #3 #1 (w/ Modification), #4, #7 / \*UTILITY CORRIDOR*

# North Crosstown Corridor Recommendations

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## Background Technical Data:

- Mobility 2020 Plan: Rail Recommendations
- Rail Ridership Warrants
- Mobility 2025 Plan: Maximum System Alternative 1
- Mobility 2025 Plan: Alternative 4
- North Crosstown Corridor Study: Light Rail Alternative 4
- North Crosstown Corridor Study: Commuter Rail Alternative 4

~~CB~~  
CB ⇒ STILL CR of LF

## Technical Recommendations:

1. First Priority: Pursue commuter rail service from Dallas/Fort Worth International Airport to the east with access to the rail recommendations from the Northwest Major Investment Study, ~~with the initial eastern terminus at an Addison Intermodal Facility~~ (see Mobility 2020 Plan). (Apply rail grade separation warrants in corridor.)
2. Reaffirm a Santa Fe/Burlington Northern connection from the Northeast Line to the Cottonbelt Corridor using the Burlington Northern alignment.
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after X-Mas.

ITEMS REC. BY TECH COM. / Remove #3  
#1 (w/ Modification), #4, #7 / \*UTILITY CORRIDOR

**Schedule:**

North Crosstown Corridor Task Force meeting – December 7, 1999

Mobility 2025 Public Meetings –

Dallas, December 6, 1999

Plano, December 7, 1999

North Richland Hills, December 8, 1999

Regional Transportation Council Information – December 9, 1999

North Crosstown Corridor Public Meetings –

*6:30 meeting time*

Plano, December 7, 1999

????, December 13, 1999

????, December 14, 1999

????, December 16, 1999

????, January 5, 2000

????, January 6, 2000

Regional Transportation Council Action – January 13, 2000

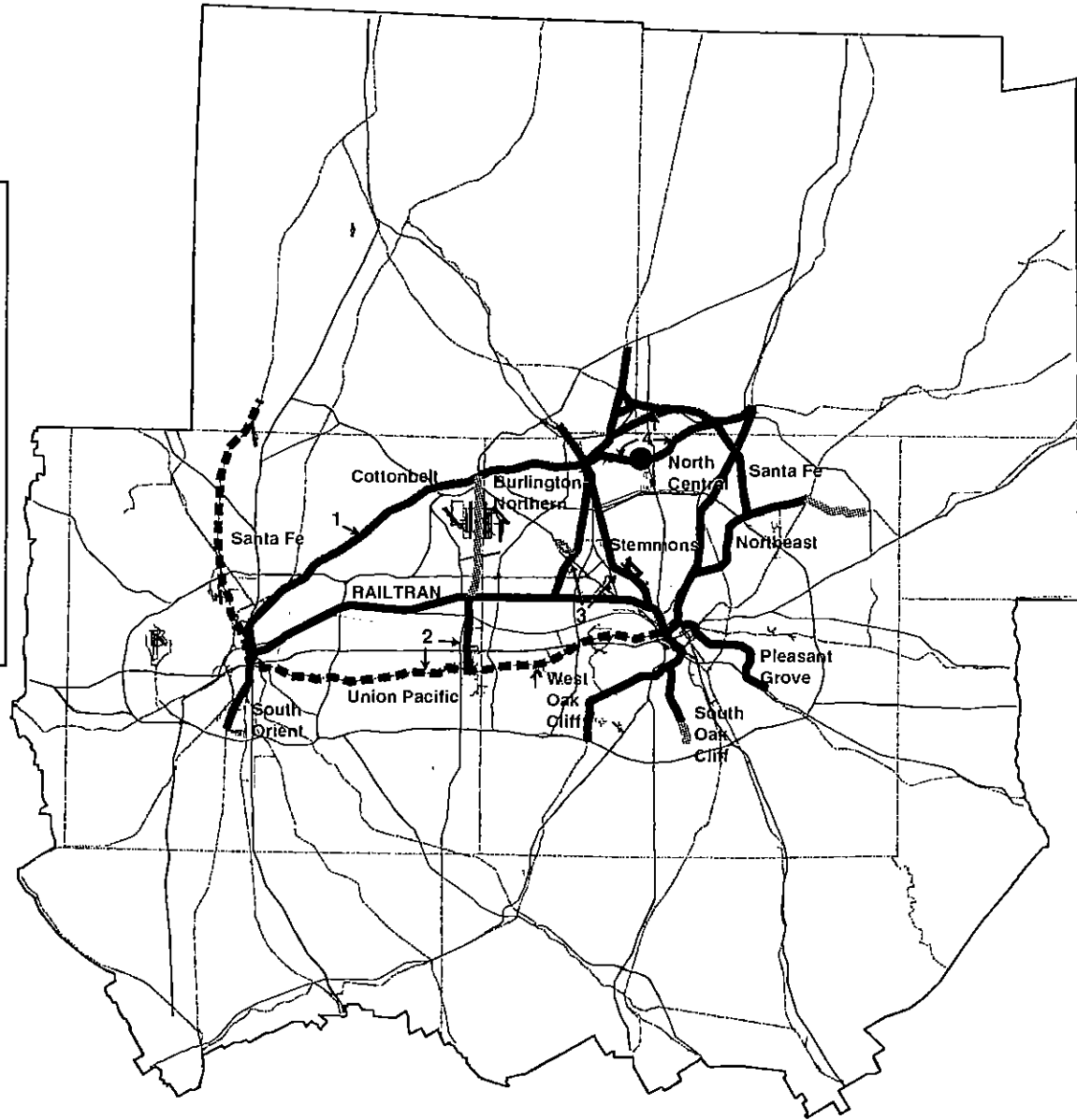
# Mobility 2020 Rail System



- COMMITTED LIGHT RAIL
- COOPERATIVELY FUNDED RAIL
- COMMITTED COMMUTER RAIL
- RAIL SYSTEM EXPANSION PENDING FURTHER STUDY
- COMMUTER RAIL SPECIAL EVENT SERVICE PENDING FURTHER STUDY
- POSSIBLE EASTERN TERMINUS
- 1-4 AREAS FOR FURTHER STUDY
- EXISTING RAILROAD RIGHTS-OF-WAY

All existing railroad rights-of-way should be monitored for potential future transportation corridors.

New facility locations indicate transportation needs and do not represent specific alignments.



# SUMMARY OF MOBILITY 2020 RAIL WARRANTS

<b>Rail Technology</b>	<b>Equity Warrant (Mayors' Committee April 1995)</b>	<b>Mobility 2020 Rail Warrant (August 1996)</b>	<b>Mobility 2020 Rail Equity Warrant<sup>1</sup> (October 1996)</b>
<b>Commuter</b>	---	3,100	1,120
<b>Intermediate Capacity Light Rail</b>	5,000	11,900	4,300 <sup>2</sup>
<b>Full Capacity Light Rail</b>	---	16,900	6,100
<b>Advanced Technology (Aero Rail)</b>	---	28,000	10,120
<b>Light Rail/ Tunnel</b>	---	42,500	15,360

<sup>1</sup> Used in Determining Rail Extensions

<sup>2</sup> Determined by Pleasant Grove from Jim Miller to Buckner Blvd.

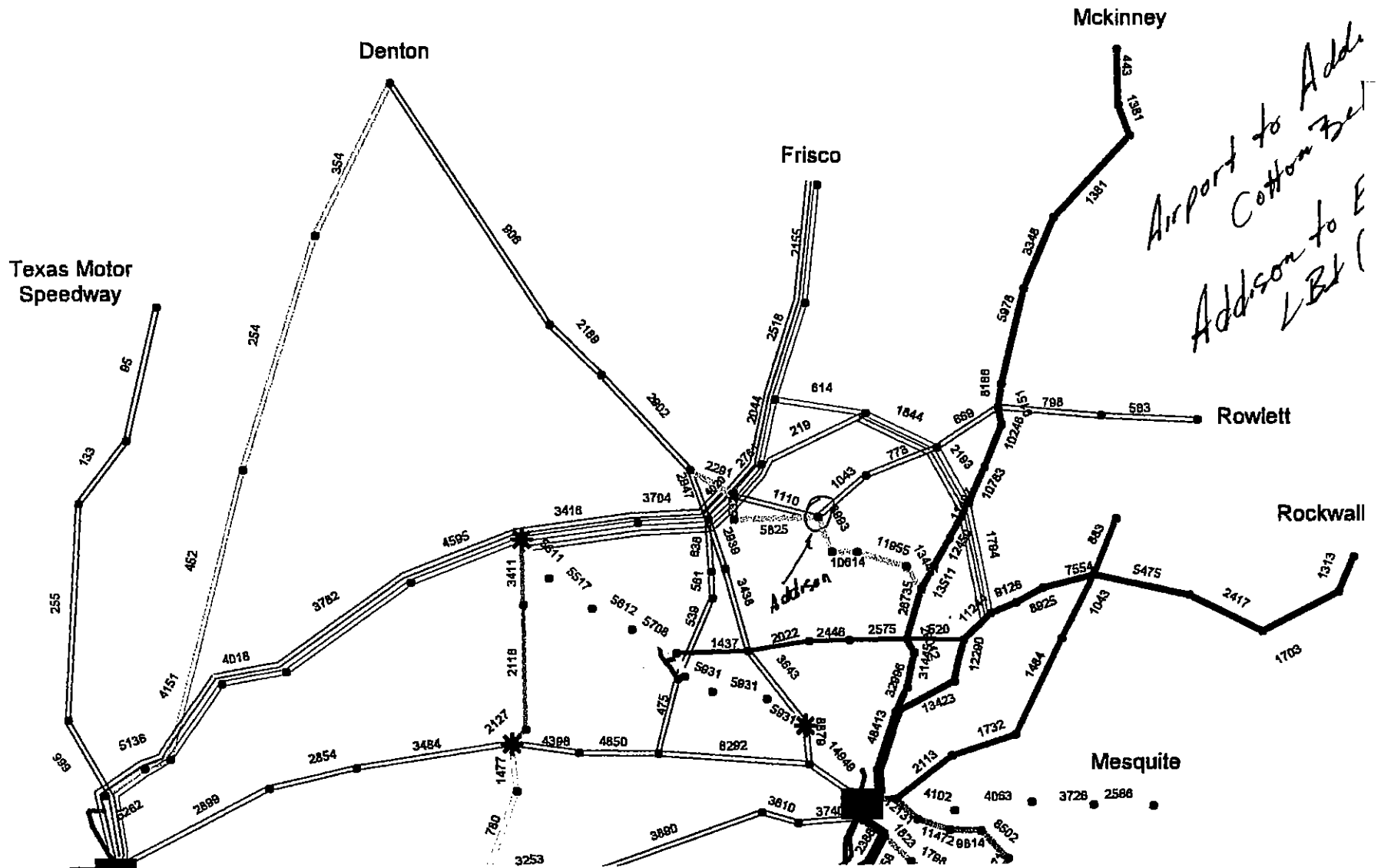




*PUBLIC MEETINGS -  
3 OPTIONS*

# MOBILITY 2025 PROGRAM 25 MAXSYS ALTERNATIVE 1

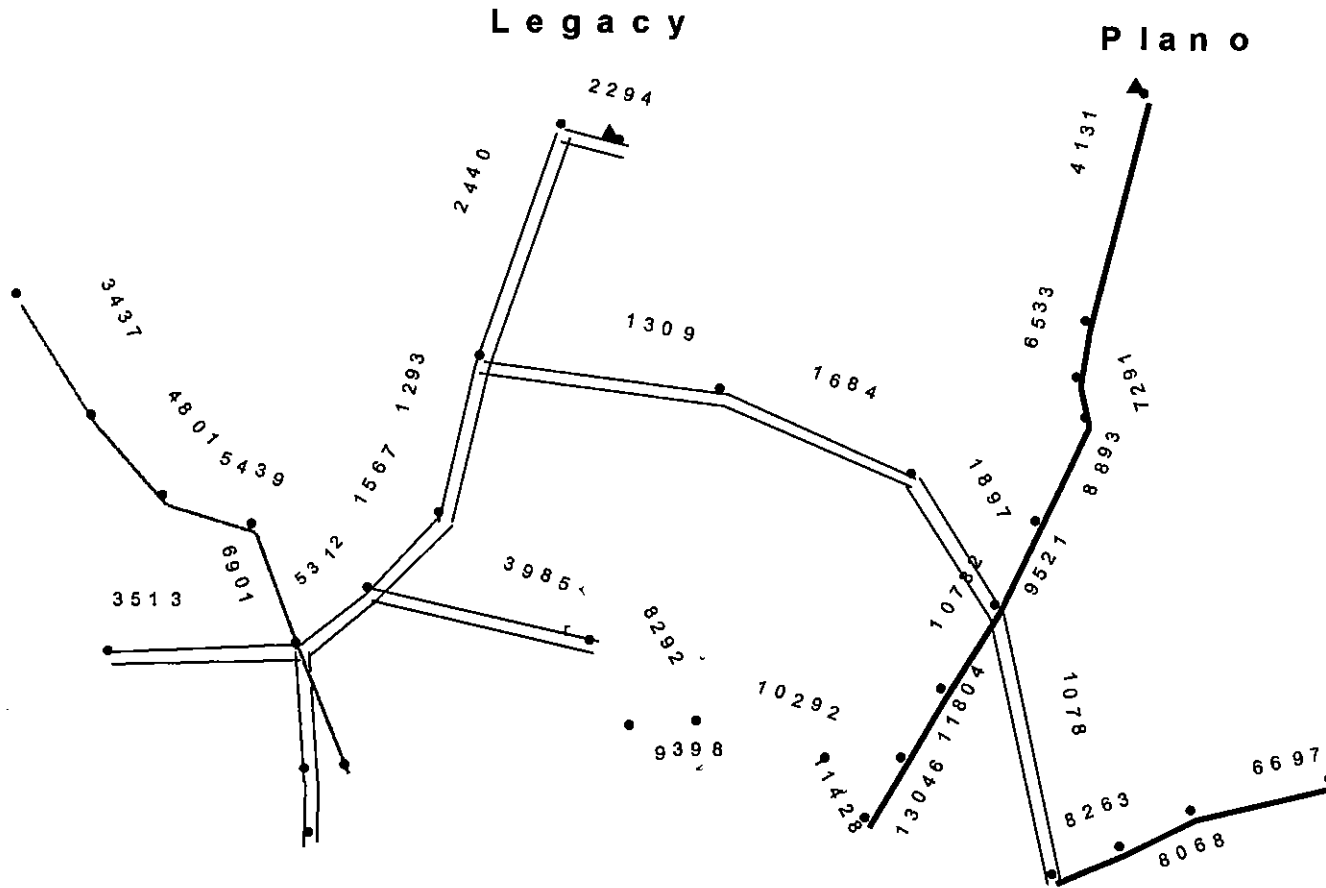
*DO EVERYTHING  
ALTERNATIVE*



*Airport to Addison  
Cotton Belt  
Addison to E  
LBK*

*1-*

# MOBILITY 2025 MAXIMUM SYSTEM ALTERNATIVE 4

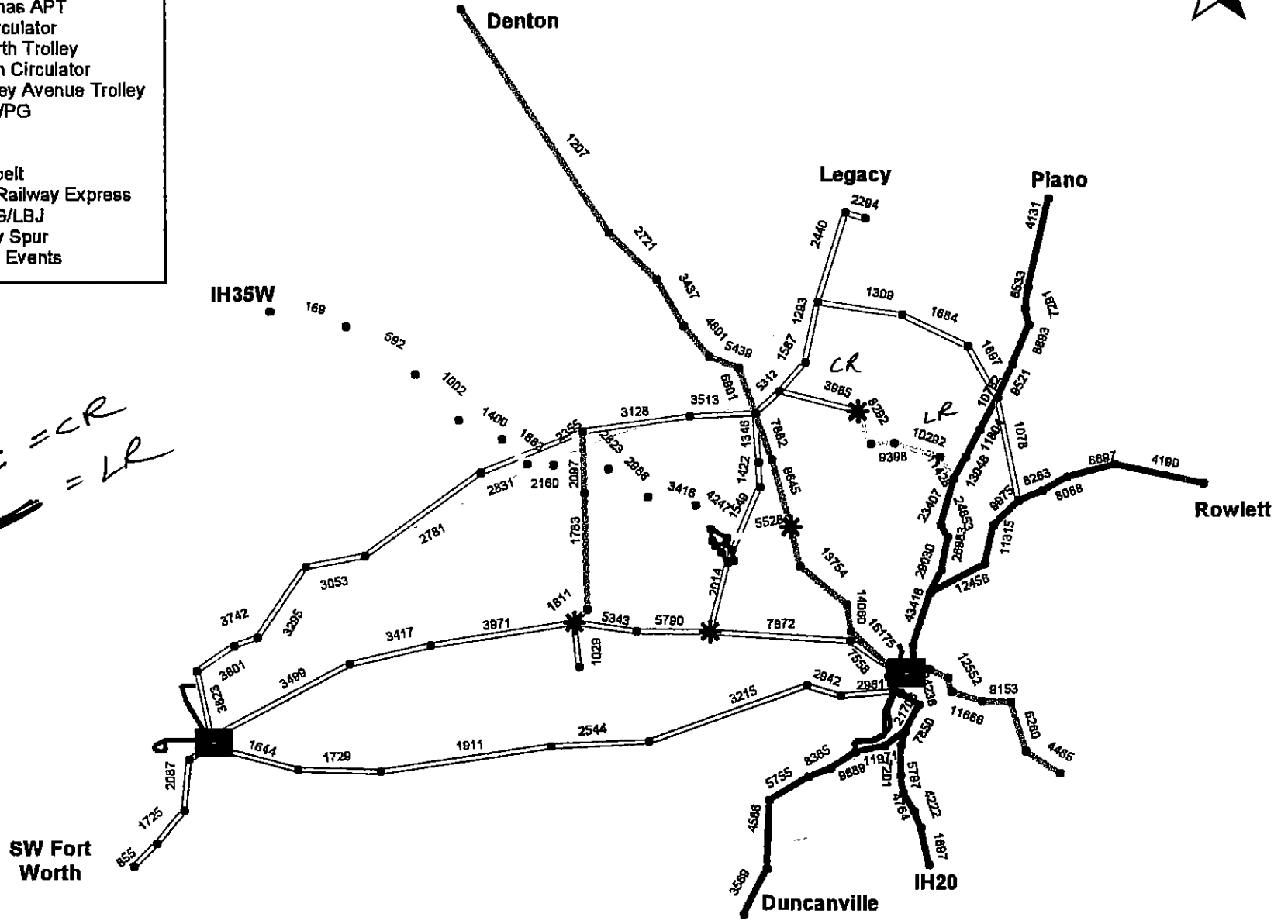


# MOBILITY 2025 MAXIMUM SYSTEM ALTERNATIVE 4



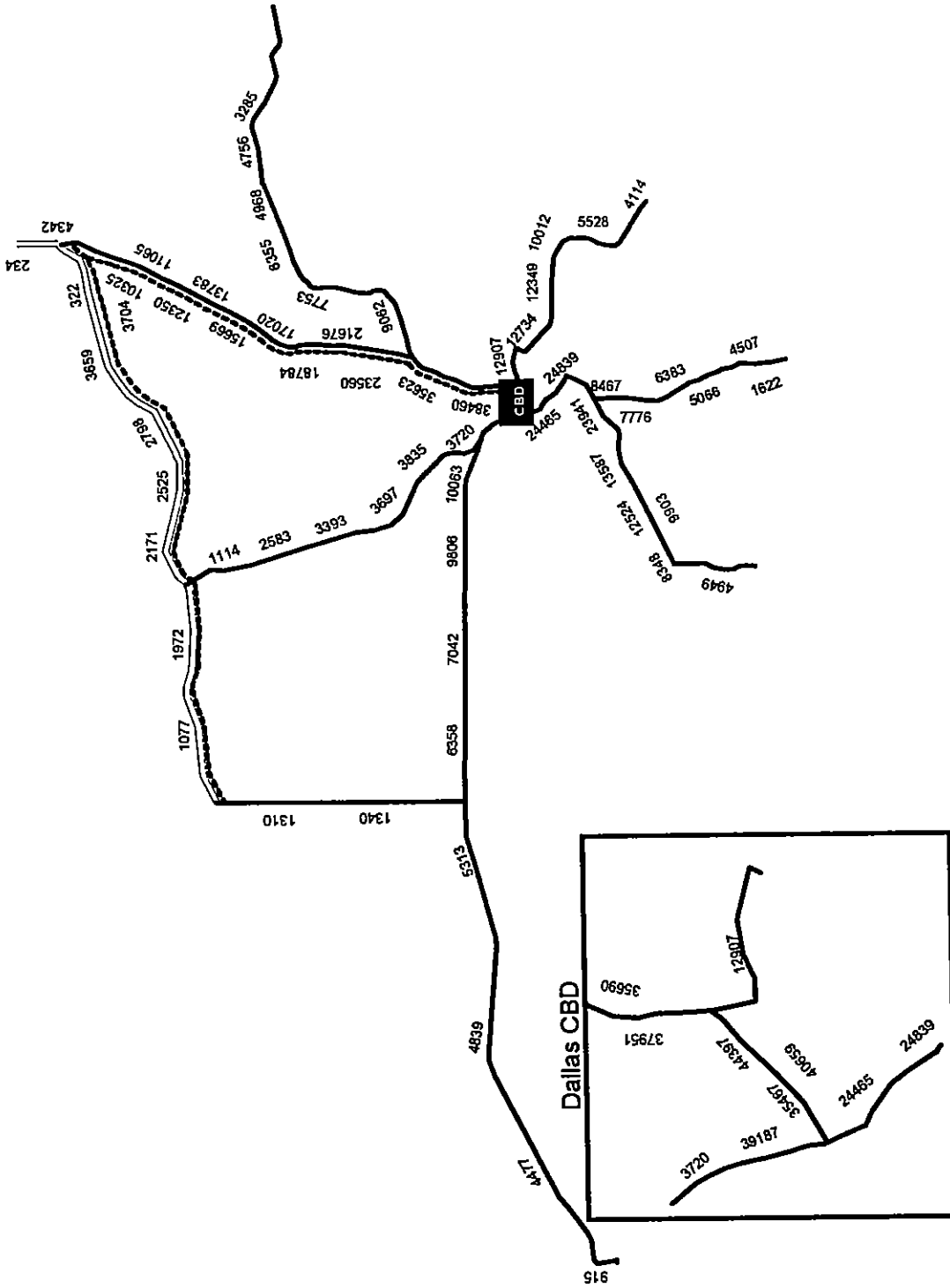
- \* Pulse Nodes
- Rail Stations
- 8-1: Allen/WOC
- 8-2: Rowlett/SOC
- 8-3: Las Colinas APT
- 8-4: DFW Circulator
- 8-5: Fort Worth Trolley
- 8-6: Jefferson Circulator
- 8-20: McKinney Avenue Trolley
- 8-21: Denton/PG
- 8-23: SH114
- 8-24: LBJ
- 8-25: Cottonbelt
- 8-30: Trinity Railway Express
- 8-33: BN/LEG/LBJ
- 8-31: Dorothy Spur
- 8-34: Special Events

= CR  
 = LR

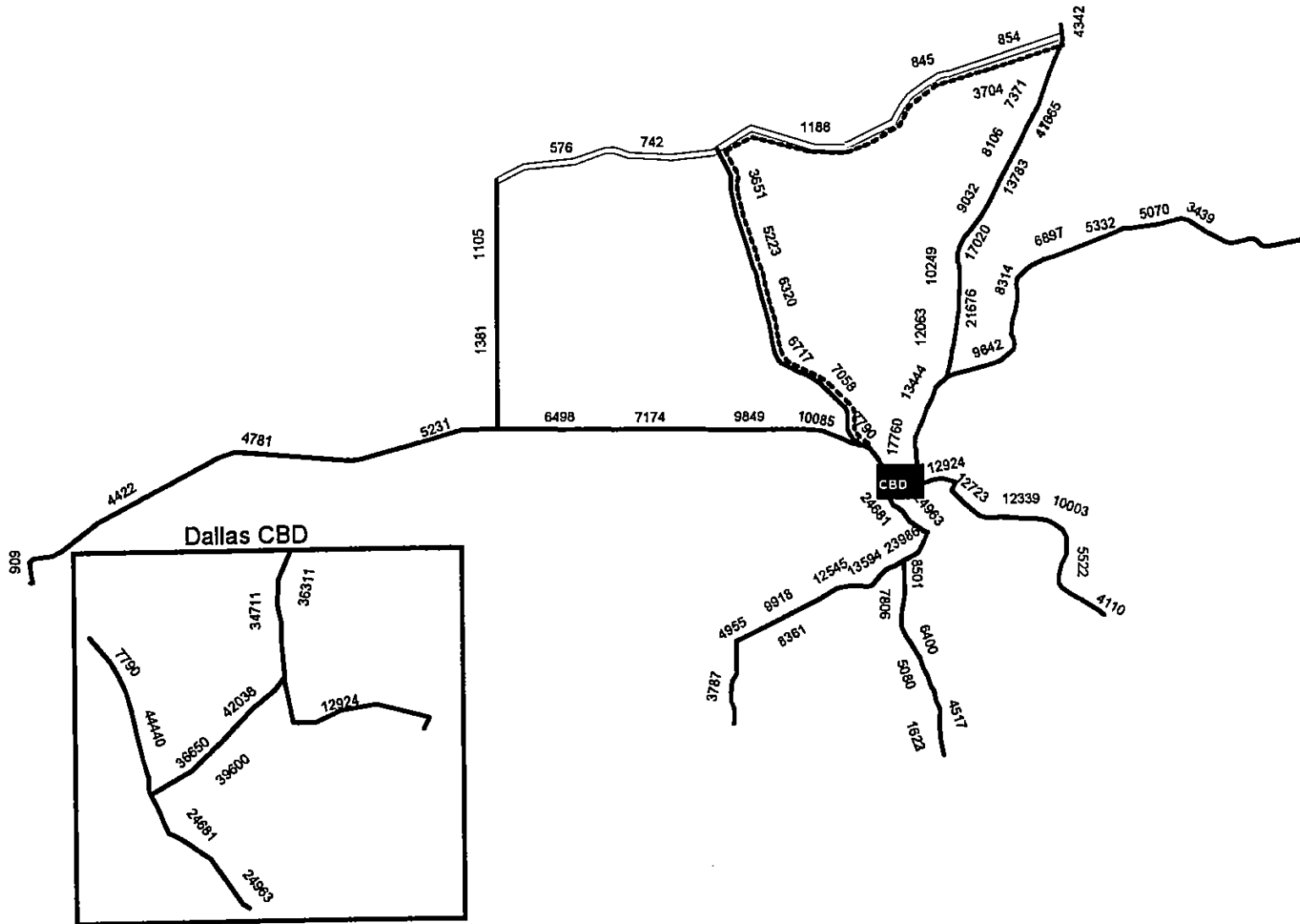


*LB*

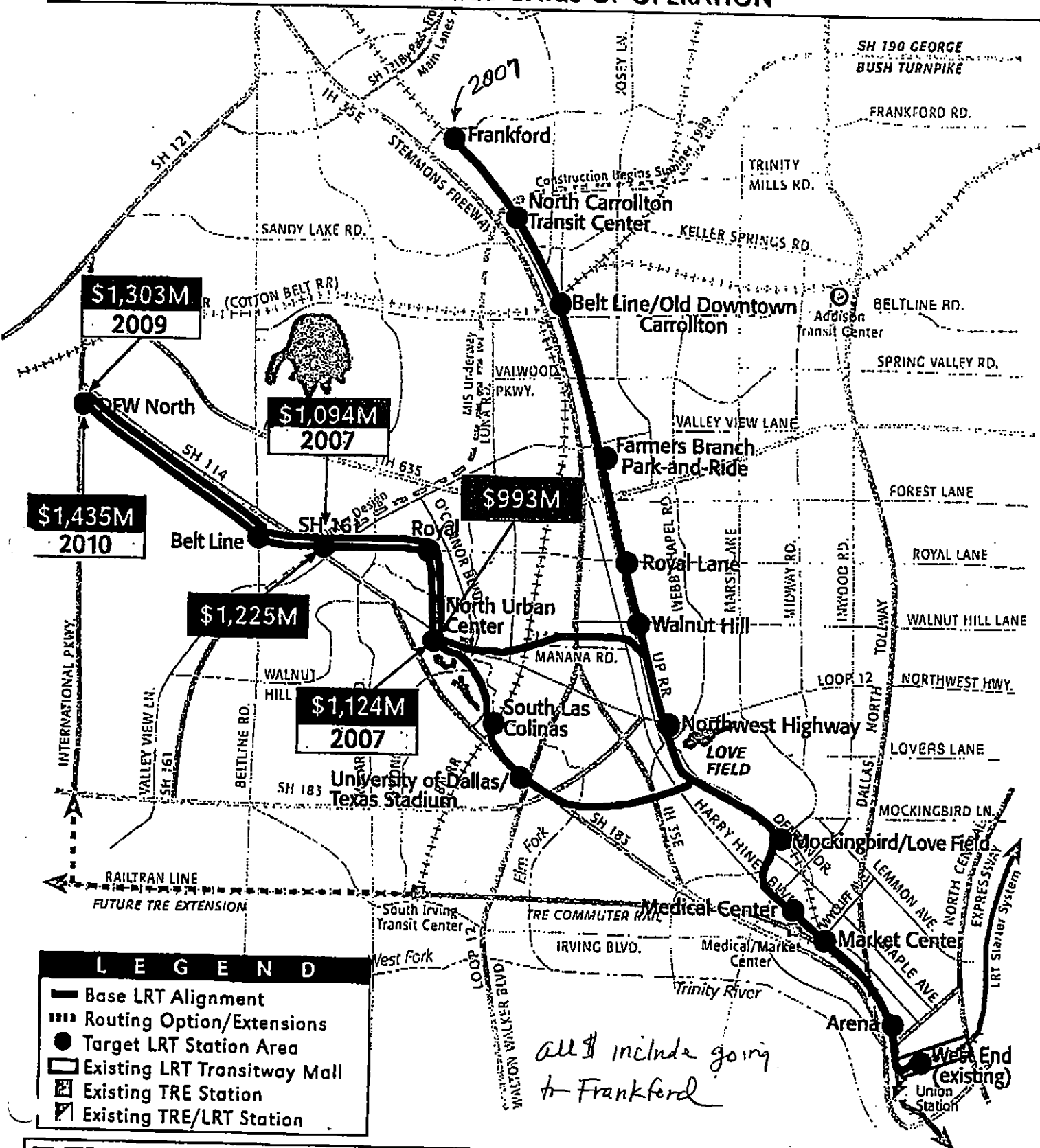
# North Crosstown Light Rail Alternative 4 Volumes



# North Crosstown Commuter Rail Alternative 4 Volumes



**AFFORDABILITY WITH LONG-TERM FINANCING**  
**TOTAL PROJECT COST: UP TO FRANKFORD WITH OPTIONS TO WEST (\$M)**  
**WITH ESTIMATED DATES OF OPERATION**



**LEGEND**

- Base LRT Alignment
- Routing Option/Extensions
- Target LRT Station Area
- ▭ Existing LRT Transitway Mall
- ⊠ Existing TRE Station
- ⊠ Existing TRE/LRT Station

*all \$ include going to Frankford*

**UD/TEXAS STADIUM VS. MANANA SPUR**  
**WESTERN TERMINUS OPTIONS**





North Central Texas Council of Governments

TO: John Baumgartner  
Director of Public Works, Town of Addison

FROM: Julie K. P. Dunbar, P.E., Principal Transportation Engineer

DATE: December 2, 1999 TELEFAX NUMBER: (972) 450-2837

Number of pages (including this cover sheet): 1

MESSAGE: REMINDER: The next meeting of the North Crosstown Corridor Evaluation  
Task Force is scheduled for Tuesday, December 7, 1999, in the Farmers Branch Library,  
13613 Webb Chapel Road. Some members of the Task Force have a conflict on that day  
with a meeting that is to be held at DART from 12 noon to 3 p.m. on the Northwest  
Corridor MIS. In order to allow them to get from the DART meeting to the Farmers Branch  
Library, we are going to delay the start of the Task Force meeting until 3:30 p.m. Please  
make note of the new time. Thanks, Julie

We are transmitting from a Canon FAX-L775. Our telefax number is (817) 640-3028. If you have any problems with this transmittal, please call (817) 695-9240.

Thank you.

TRANSPORTATION DEPARTMENT


616 Six Flags Drive, Centerpoint Two  
P.O. Box 5888, Arlington, Texas 76005-5888  
(817) 695-9240

# **MOBILITY 2020: NORTH CROSSTOWN CORRIDOR EVALUATION TASK FORCE**

**(APRIL 1996 - DECEMBER 1999)**

## **DECISION PROCESS AGENDA**

**1. Action: Does the committee wish to consider a position on a North Crosstown recommendation for presentation to the Regional Transportation Council? If yes, what is your opinion on:**

- The "utility" corridor?
- Rail under the George Bush Toll Road?
- The Santa Fe/Burlington Northern alignment?
-  The Cottonbelt alignment (west of Addison, east of Addison, the role of DART's financial commitment?)
- The LBJ Rail connection between North Central and Addison
- The North Central Extension to Allen?

If no, keep a recommendation for Mobility 2025 (clarify role of LBJ and Central Extension)?

**2. Under either position above, what is the public involvement process for January?**



THIS IS NOT REC.  
THIS IS HOW TO USE CITY DA

Rail Alternative Evaluation Process  
EVALUATION PROCESS

CATEGORY	CRITERIA	MEASURE	TYPE	LRT ALT 1	LRT ALT 2	LRT ALT 3	LRT ALT 4	LRT ALT 5 <sup>1</sup>	LRT ALT 6	LRT ALT 7 <sup>1</sup>	LRT ALT 8	LRT ALT 9	CRT ALT 1	CRT ALT 2 <sup>1</sup>	CRT ALT 4	CRT ALT 5 <sup>1</sup>	CRT ALT 7	CRT ALT 8	CRT ALT 9 <sup>1</sup>	
Mobility	Ridership	Boardings/Alightings		7,409	7,311	7,397	7,751	7,330	7,418	7,444	7,610	2,002	4,914	4,855	4,134	4,865	4,686	5,957	1,325	
		Transit systemwide ridership		232,808	233,409	235,031	234,879	233,635	235,282	235,400	235,420	232,648	232,212	232,825	233,837	233,050	233,478	233,921	232,050	
	Activity Centers	Employment at Activity Centers Assessed		273,575	222,450	222,450	323,100	228,925	228,925	270,075	263,600	140,650	273,575	222,450	323,100	228,925	270,075	263,600	140,650	
Environmental/ Quality of Life	Noise Impacts	Environmental Exposure <sup>2</sup> (percent red, purple and pink)		38.5%	38.0%	35.8%	27.7%	27.8%	23.9%	24.9%	34.6%	24.8%	38.5%	38.0%	27.7%	27.8%	24.9%	34.6%	24.8%	
	Sensitive Sites	Number of schools within 1/2 mile buffer (by type)	High Middle Elem.	0 6 5.5	1 6 9	0 5 8	0 5 4	1 5 6.5	0 4 6.5	1 5 6.5	1 6 6.5	1 6 9	0 4 2	0 6 5.5	1 6 9	0 5 4	1 5 6.5	1 5 6.5	1 6 9	0 4 2
		Number of fire stations within 1/2 mile buffer		5	6	5	5	4	3	4	6	3	5	6	5	4	4	4	6	3
		Number of fire station service areas that cross over a rail line		12	13	13	10	9	9	10	14	4	12	13	10	9	10	14	4	
		Number of school attendance boundaries that cross over rail line	High Middle Elem.	15 12 14.5	16 17 24	13 12 18	15 13 13	14 16 20.5	11 17 14.5	16 17 21.5	18 18 25	7 7 8	15 12 14.5	18 17 24	15 13 13	14 16 20.5	16 17 21.5	18 18 25	7 7 8	
	Traffic Impacts	Number of at-grade crossings		36	37	34	38	34	31	38	39	20	38	37	38	34	36	39	20	
		Number for separation		5	1	1	6	1	1	2	2	2	5	1	6	1	2	2	2	
Cost Effectiveness	Total Cost Effective.	Rail Length (miles)		28.55	30.35	28.35	23.57	27.24	25.24	38.54	41.85	13.24	26.55	30.35	21.84	25.81	36.81	41.85	13.24	
		Passenger Miles		93563	98639	103387	54748	52356	58949	64411	112804	8054	22810	22738	36609	20154	40551	52108	6160	
		Annualized Passenger Miles	(M)	24.33	25.65	26.88	14.23	13.61	15.33	16.75	29.33	2.09	5.83	5.91	9.52	5.24	10.54	13.55	1.80	
		Capital Cost <sup>3</sup>	(\$M)	453.6	505.1	471.1	413.8	454.7	420.7	626.8	677.2	228.4	175.3	187.0	159.7	162.1	215.7	240.7	89.6	
		Annualized Capital Cost <sup>3</sup>	(\$M)	54.5	60.7	56.7	49.8	54.7	50.6	75.4	81.4	27.5	21.1	22.5	19.2	19.5	25.9	28.9	10.8	
		Annualized Fare Revenue <sup>4</sup>	(\$M)	1.9	1.9	1.9	2.0	1.9	1.9	1.9	2.0	0.5	1.3	1.3	1.1	1.3	1.2	1.5	0.3	
	Net Cost	(\$M)	52.5	58.8	54.7	47.7	52.8	48.7	73.4	78.5	26.9	19.8	21.2	18.4	18.2	24.7	27.4	10.4		
	Net Cost per Passenger Miles		\$ 2.16	\$ 2.29	\$ 2.04	\$ 3.35	\$ 3.88	\$ 3.17	\$ 4.39	\$ 2.71	\$ 12.87	\$ 3.34	\$ 3.59	\$ 1.90	\$ 3.48	\$ 2.35	\$ 2.02	\$ 6.51		
	Net Cost per boarding and alighting	(\$)	\$ 27.32	\$ 30.96	\$ 28.46	\$ 23.69	\$ 27.69	\$ 25.23	\$ 37.94	\$ 40.16	\$ 51.76	\$ 15.50	\$ 16.82	\$ 16.86	\$ 14.41	\$ 20.29	\$ 17.69	\$ 30.28		

Anything under 25% is a keeper

Less \$2.50 is keeper

Less \$25 is keeper

1 Ridership derived from other forecasts.  
2 Percent of route with existing single family or multifamily landuse with 85 feet of track; see attached map.  
3 Used DART unit costs and 0.12026 capital recovery factor. (20 yr, 3.5 %)  
4 Used 260 days/year annualization factor and \$1/ride flatfare.  
5 Assumes \$3M per grade separation and 1.4M per at-grade crossing

Best. (BY DATA)  
CB → BN → SF → CB  
(1, 1, 1, 1)  
12/7/99