

*Comprehensive Review of  
FasTracks Status  
and Future Strategic Direction*

Regional Transportation District  
Board of Directors Retreat  
May 19, 2007

# *Overview*

Under the direction of the Board of Directors, staff has developed alternatives to complete the FasTracks program, given changes experienced in the cost of materials and revenue projections.

The recommended alternative provides opportunities for FasTracks to be built within the general scope, timeframe, and within the financial capacity afforded by the voters of the District in 2004.

# *Purpose of Retreat*

- Update board on status of FasTracks revenues and costs
- Present options for delivering FasTracks
- Identify risk factors and future opportunities for FasTracks program
- Present critical decisions and milestones for FasTracks implementation
- Provide analysis of commuter rail vehicle technologies (EMU and DMU)

# *FasTracks Challenges:*

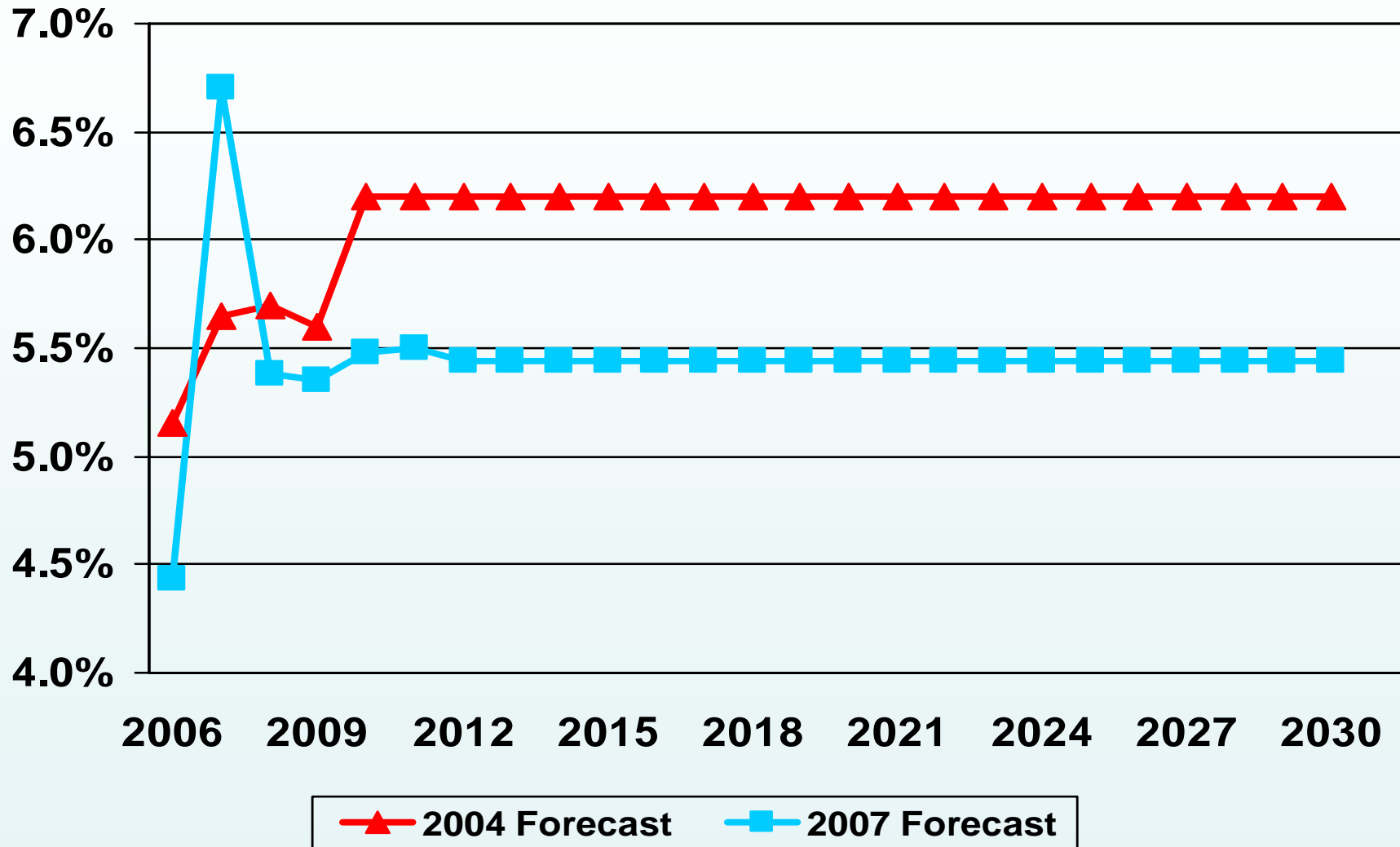
- Revenue forecast decreases:
  - Sales and use tax collections below forecast
  - Forecasts of future revenues down
    - Future projections are subject to change as the program evolves and further actual experience is obtained.
- Capital cost increases:
  - Material, labor and ROW escalation
  - Third party requests/enhancements
  - Scope clarifications/changes

# *Total FasTracks Sales and Use Tax Forecasts - 2005-2030*



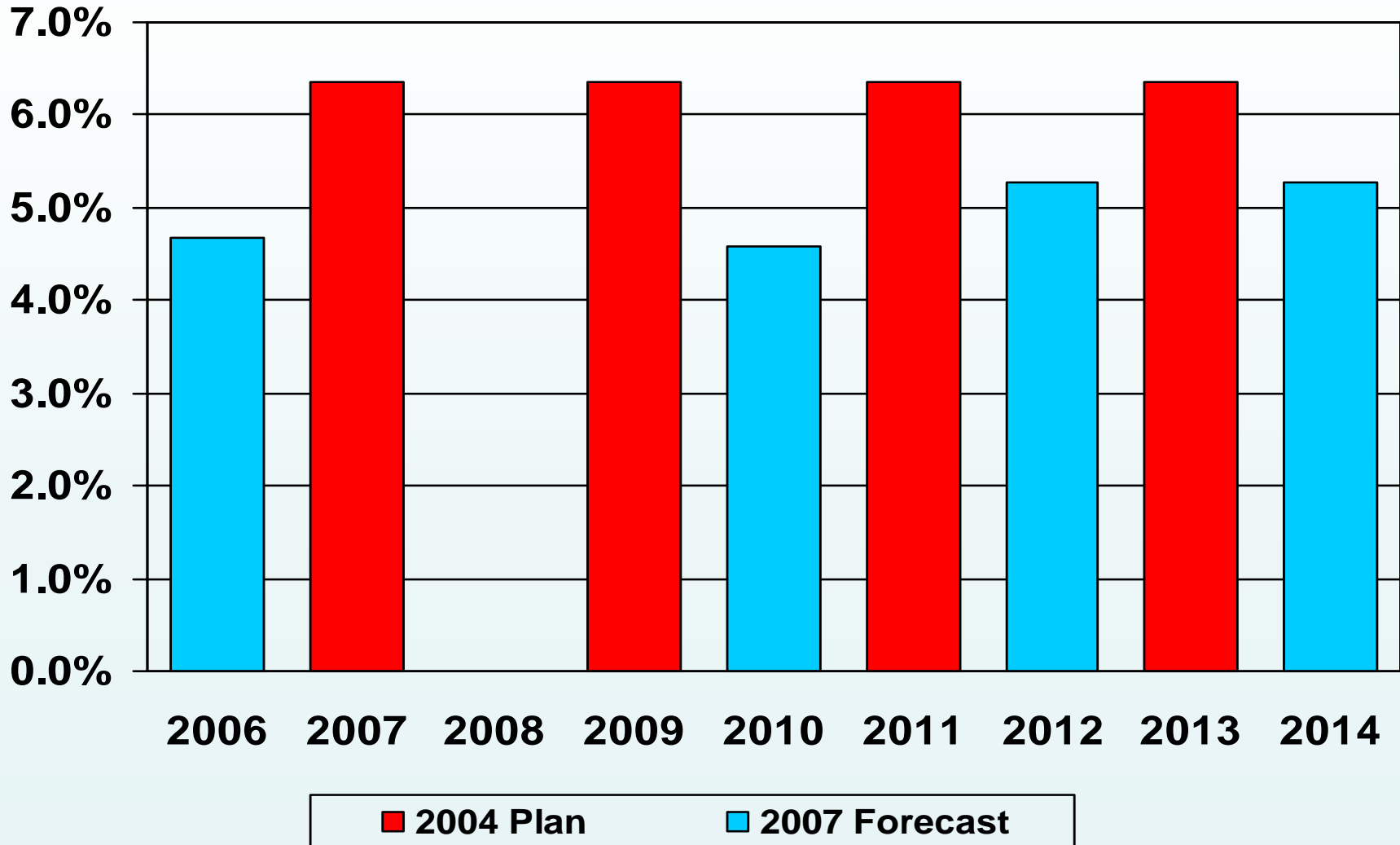
# *FasTracks Sales Tax Growth Rates 2006-2030*

## *Actual vs. Forecast*



\* The 2007 growth rate of 6.7% represents recovery from the impact of the blizzard of December 2006.

# *FasTracks Interest Rate Assumptions by Year of Debt Issuance*



# *FasTracks Program Capital Cost Summary*

	\$2006	\$Inflated**
<b>Original FasTracks Costs</b>	<b>\$4.01B</b>	<b>\$4.72B</b>
<u>2007 Cost Updates</u>		
Material, Labor, ROW Escalation	+\$0.78B	+\$1.03B
Scope Changes & Cost Containment	+\$0.32B	\$0.42B
<b>Current Working Cost Estimate*</b>	<b>\$5.11B</b>	<b>\$6.17B</b>
<b><i>Net Change from Original Cost</i></b>	<b><i>\$1.10B</i></b>	<b><i>\$1.45B</i></b>
<i>* Current working cost estimate includes contingency of:</i>	<i>\$0.56B</i>	<i>\$0.68B</i>

\*\* Current working cost estimate is inflated at Consumer Price Index (average of 3.4% per year); actual increases could be different.



# *FasTracks Program Budget Summary (\$Millions)*

Revenue Source	Original FasTracks Plan	2007 Forecast <sup>1</sup>	2007 Recommended Alternative <sup>2</sup>
Sales Tax Bonds	\$2,365.9	\$3,175.8	\$3,175.8
COPs	\$203.1	\$448.0	\$448.0
TIFIA Loan	\$142.7	\$212.2	\$212.2
Pay as You Go	\$985.0	\$108.5	\$108.5
Federal New Start	\$815.4	\$1,220.2	\$1,220.2
Federal Other	\$110.0	\$207.2	\$207.2
Local Contribution	\$95.0	\$127.5	\$127.5
Alternative Financing Strategies <sup>3</sup>	N/A	N/A	\$669.9
<b>Total Plan Revenues</b>	<b>\$4,717.1</b>	<b>\$5,499.4</b>	<b>\$6,169.3</b>
<b>Total Plan Costs</b>	<b>\$4,717.1</b>	<b>\$6,169.3</b>	<b>\$6,169.3</b>
<b>Funding Shortfall</b>	<b>\$0.0</b>	<b>(\$669.9)</b>	<b>\$0.0</b>

1. Assumes traditional financing (30-year sales tax bonds) and escalated construction costs.
2. Assumes potential savings of 10% of construction costs from public-private partnership opportunities, additional financing capacity through extended repayment schedule, and other value capture opportunities.
3. Alternative financing strategies are detailed on pages 10-12.

# *FasTracks Program Funding*

## *Details of Alternative Financing Strategies*

- Revised public-financed debt opportunities
  - Extend repayment period
  - Additional lease financing of assets (COP or master lease)
  - Additional use of TIFIA loan structures
- Public-private partnership opportunities
  - Project construction (Design/Build, DBFOM)
  - Contracted operations
  - Stations and parking
  - Transit-oriented development – value-capture

# *FasTracks Program Funding*

## *Details of Alternative Financing Strategies*

- Sale of excess RTD properties
- Advertising and vending opportunities
  - Stations
  - On-board vehicles
- Outside equity contributions to projects
- Additional state and/or local funding and partnerships
  - Senate Bill 1 funds
  - Local improvement districts (TIF, parking)
  - Third party funding for requested enhancements

# *FasTracks Program Funding*

## *Details of Alternative Financing Strategies*

- Ongoing cost containment and value engineering of the program and specific projects
- Accelerated construction schedule
- Early procurement of materials and vehicles

# *Strategies to Solve FasTracks Program Funding Gap*

- Based on materials received to date, approaches identified should solve FasTracks program funding gap
- Staff will not have detailed financial model assumptions until after public-private partnership advisor is selected in June 2007
- PPP proposals must be solicited and received before actual results can be quantified

# *FasTracks Cost Estimates by Corridor 2007 Update*

## *Starting Point: Original FasTracks Plan Capital Cost Estimates (2003)*

- Alignments and technology based on ongoing studies in each corridor - feasibility study, MIS, or EIS
- Unit rates based on previous RTD project costs and CDOT cost indices
- Quantity estimates based on ongoing studies, existing mapping, and site observations
  - Conceptual-level station locations and site plans, profiles, parking requirements
  - Cost percentages applied when quantity estimates not available

# *Starting Point: Original FasTracks Plan Capital Cost Estimates (2003)*

- Individual cost estimates were prepared for each corridor, maintenance facility, or enhancement to existing facility
- Corridor construction schedules were used to allocate costs by year of expenditure
- Consumer Price Index forecast applied to escalate current year dollars to inflated dollars
  - Colorado Legislative Council forecasts through 2008
  - Rates developed by Center for Business and Economic Forecasting for 2009-2025
  - Rates ranged from 3.0% to 3.8% per year
  - Average annual inflation rate of 3.3% through FasTracks construction period



# *External Validation of Original FasTracks Plan Budget (2003)*

- Scope and Cost Estimates
  - Independent review by Earth Tech (consultant) at request of RTD
  - Reviewed and approved by DRCOG as part of SB 208 process
- Cost Escalation Estimates
  - Reviewed and approved by DRCOG as part of SB 208 process
- Revenue Estimates
  - Independent review by AECOM (hired by DRCOG) as part of SB 208 process
- Overall plan reviewed by Metro Denver Chamber of Commerce

# *How the 2007 Capital Cost Estimates were Updated*

- Most current information on alignments, railroad issues, stations, facilities and planning/engineering progress
- New unit rates based on current bid prices (metro area and nationally)
- Updated ROW estimates
- New technologies (EMU/DMU), where applicable
- Cost containment applied to reduce costs

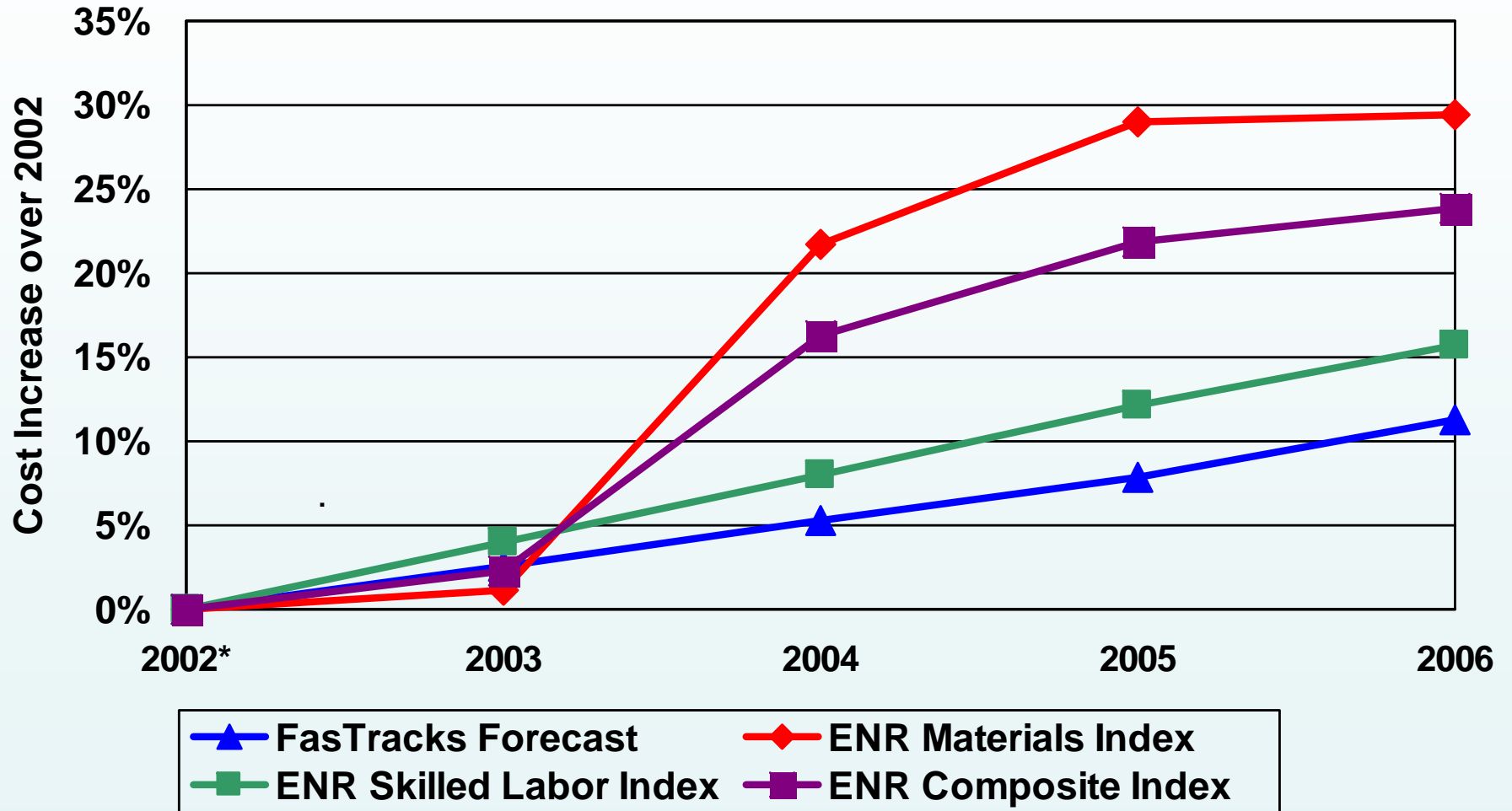
# *2007 Capital Cost Estimates Escalation to Inflated Dollars*

- Adopted corridor construction schedule was used to determine year of expenditure
- Consumer Price Index forecast applied to escalate 2006 dollars to inflated dollars
  - Colorado Legislative Council forecasts through 2011
  - Original CBEF forecasts after 2012
  - Rates range from 3.2% to 3.8% per year
  - Average annual inflation rate of 3.4% through FasTracks construction period

# *Changes from Original FasTracks Budget*

- **Material, Labor and ROW Escalation**
  - Costs grew faster than 2003-2006 Consumer Price Index (CPI) which was used as FasTracks escalation factor
- **Third Party Requests/Enhancements**
  - Stations, park-n-Rides, vehicle technology
- **Scope Clarifications/Changes**
  - Changes to coordinate with freight rail operations, utility relocations, new rules and regulations, and more advanced design

# *FasTracks Cost Escalation 2002-2006 Forecast vs. Actual*



\* 2002 was the base year of the original FasTracks cost forecasts.

# *Commuter Rail Vehicle Technology*

- Current Assumptions
  - East Corridor: EMU
  - Gold Line: EMU
  - North Metro: DMU
  - Northwest Rail: DMU
- Comparative analysis will be presented later today
  - Capital, operating, and life cycle costs
  - Community and environmental factors
  - Schedule and funding impacts

# *West Corridor Cost Summary*

## *(inflated dollars, in millions)*

<b>Original FasTracks Budget<sup>+</sup></b>	<b>\$511.8</b>
Material, Labor, ROW Escalation	+\$186.8
Scope Changes & Cost Containment	-\$64.4
<b>Current Working Estimate*</b>	<b>\$634.3</b>
<p><i>+ Original FasTracks budget includes \$3.5 million for improvements to the Elati facility.</i></p> <p><i>* Current working estimate includes contingency of \$55.1 million.</i></p>	

Current working estimate is inflated at Consumer Price Index (average of 3.4% per year); actual increases could be different.

<p><b>Major Changes:</b></p> <ul style="list-style-type: none"> <li>• Build single track from Federal Center to JeffCo</li> <li>• Additional utility relocations and retaining walls</li> <li>• Revised drainage requirements</li> <li>• Modify Sheridan grade crossing</li> <li>• Auraria West Station realignment</li> </ul>
<p><b>Third Party Requests/Enhancements:</b></p> <ul style="list-style-type: none"> <li>• Project includes bridge changes to accommodate Denver drainage improvements (to be resolved)</li> <li>• JeffCo station relocation</li> <li>• Bike paths</li> </ul>
<p><b>Potential Solutions:</b></p> <ul style="list-style-type: none"> <li>• <i>Additional federal funding</i></li> <li>• <i>Additional cost containment from contractor's guaranteed maximum price</i></li> <li>• <i>Resolution of four outstanding value engineering items continuing</i></li> <li>• <i>Working on further reductions in cost</i></li> </ul>

# *Northwest Rail Corridor Cost Summary*

## *(inflated dollars, in millions)*

<b>Original FasTracks Budget</b>	<b>\$565.1</b>
Material, Labor, ROW Escalation	+\$84.8
Scope Changes & Cost Containment	+\$35.1
<b>Current Working Estimate*</b>	<b>\$685.0</b>
<p><i>* Current working estimate includes contingency of \$98.4 million.</i></p>	

Current working estimate is inflated at Consumer Price Index (average of 3.4% per year); actual increases could be different.

<p><b>Major Changes:</b></p> <ul style="list-style-type: none"> <li>• Additional railroad requirements for pedestrian bridges at stations</li> <li>• Additional wetlands impact mitigation</li> <li>• Build three-car instead of four-car platforms</li> <li>• Modifications at Utah Junction from trench to flyover</li> </ul>
<p><b>Third Party Requests/Enhancements:</b></p> <ul style="list-style-type: none"> <li>• Does not include non-FasTracks stations at Westminster Center, Broomfield and East Boulder and associated parking and ROW</li> <li>• Cost includes extension of line from Twin Peaks to downtown Longmont (cost-neutral)</li> </ul>
<p><b>Potential Solutions:</b></p> <ul style="list-style-type: none"> <li>• <i>Additional cost containment</i></li> <li>• <i>Contractor-driven value engineering</i></li> </ul>



# *Gold Line Corridor Cost Summary*

## *(inflated dollars, in millions)*

<b>Original FasTracks Budget</b>	<b>\$463.5</b>
Material, Labor, ROW Escalation	+\$52.2
Scope Changes & Cost Containment	+\$37.5
<b>Current Working Estimate*</b>	<b>\$553.2</b>
<p><i>* Current working estimate includes contingency of \$60.9 million.</i></p>	

Current working estimate is inflated at Consumer Price Index (average of 3.4% per year); actual increases could be different.

<p><b>Major Changes:</b></p> <ul style="list-style-type: none"> <li>• Technology change from light rail to commuter rail (EMU)             <ul style="list-style-type: none"> <li>– Reduced vehicle and systems costs</li> <li>– Increased ROW, pedestrian bridge, and trackwork costs</li> </ul> </li> </ul>
<p><b>Third Party Requests/Enhancements:</b></p> <ul style="list-style-type: none"> <li>• No significant items</li> </ul>
<p><b>Potential Solutions:</b></p> <ul style="list-style-type: none"> <li>• <i>Potential PPP candidate – benefits to be determined</i></li> <li>• <i>Additional cost containment</i></li> <li>• <i>Finalize technology selection</i></li> <li>• <i>Design and engineering refinements</i></li> </ul>

# *I-225 Corridor Cost Summary*

## *(inflated dollars, in millions)*

<b>Original FasTracks Budget</b>	<b>\$442.3</b>
Material, Labor, ROW Escalation	+\$147.3
Scope Changes & Cost Containment	+\$43.8
<b>Current Working Estimate*</b>	<b>\$633.5</b>
<p><i>* Current working estimate includes contingency of \$75.9 million.</i></p>	

Current working estimate is inflated at Consumer Price Index (average of 3.4% per year); actual increases could be different.

<p><b>Major Changes:</b></p> <ul style="list-style-type: none"> <li>• More complicated bridge structure and elevated station at Colfax</li> <li>• Cut and cover tunnel under NB I-225 at Exposition</li> <li>• Increased design development for electrification and signaling</li> <li>• Increased environmental mitigation</li> </ul>
<p><b>Third Party Requests/Enhancements:</b></p> <ul style="list-style-type: none"> <li>• No significant items</li> </ul>
<p><b><i>Potential Solutions:</i></b></p> <ul style="list-style-type: none"> <li>• <i>Additional cost containment</i></li> <li>• <i>Alternative delivery options</i></li> <li>• <i>Design and engineering refinements</i></li> </ul>

# *East Corridor Cost Summary*

## *(inflated dollars, in millions)*

<b>Original FasTracks Budget</b>	<b>\$702.1</b>
Material, Labor, ROW Escalation	+\$278.8
Scope Changes & Cost Containment	+\$156.3
<b>Current Working Estimate*</b>	<b>\$1,137.2</b>
<p><i>* Current working estimate includes contingency of \$170.0 million.</i></p>	

Current working estimate is inflated at Consumer Price Index (average of 3.4% per year); actual increases could be different.

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| <p><b>Major Changes:</b></p> <ul style="list-style-type: none"> <li>• Additional drainage needs</li> <li>• Additional ROW</li> <li>• Additional cost to relocate utilities under UP ROW</li> <li>• Build at-grade crossing at Peoria instead of grade separation</li> </ul>   |
| <p><b>Third Party Requests/Enhancements:</b></p> <ul style="list-style-type: none"> <li>• Includes costs associated with EMU technology</li> <li>• Does not include non-FasTracks stations at 64<sup>th</sup>/Peña and 72<sup>nd</sup>/Himalaya</li> <li>• Includes additional station at Colorado without parking</li> </ul> |
| <p><b>Potential Solutions:</b></p> <ul style="list-style-type: none"> <li>• <i>Potential PPP candidate – benefits to be determined</i></li> <li>• <i>Additional cost containment</i></li> <li>• <i>Finalize technology selection</i></li> <li>• <i>Continued review of drainage requirements</i></li> </ul>                   |

# *North Metro Corridor Cost Summary*

## *(inflated dollars, in millions)*

<b>Original FasTracks Budget</b>	<b>\$420.0</b>
Material, Labor, ROW Escalation	+\$103.0
Scope Changes & Cost Containment	+\$113.7
<b>Current Working Estimate*</b>	<b>\$636.7</b>
<p><i>* Current working estimate includes contingency of \$76.3 million.</i></p>	

Current working estimate is inflated at Consumer Price Index (average of 3.4% per year); actual increases could be different.

<p><b>Major Changes:</b></p> <ul style="list-style-type: none"> <li>• Additional retaining walls and structures</li> <li>• Alignment change to avoid Sand Creek Junction (UP/BNSF railroad junction)</li> <li>• Increased utility relocation and environmental mitigation costs</li> <li>• Build three-car instead of four-car platforms</li> </ul>
<p><b>Third Party Requests/Enhancements:</b></p> <ul style="list-style-type: none"> <li>• Does not include additional drainage requirements by Denver</li> <li>• Includes grade separation at York (shared cost between RTD and City of Thornton)</li> </ul>
<p><b>Potential Solutions:</b></p> <ul style="list-style-type: none"> <li>• <i>Potential PPP candidate – benefits to be determined</i></li> <li>• <i>Design and engineering refinements</i></li> <li>• <i>Additional cost containment</i></li> <li>• <i>Adjust TIFIA loan amounts</i></li> </ul>

# *Central Corridor Extension Cost Summary*

## *(inflated dollars, in millions)*

<b>Original FasTracks Budget</b>	<b>\$68.7</b>
Material, Labor, ROW Escalation	+\$8.3
Scope Changes & Cost Containment	-\$8.3
<b>Current Working Estimate*</b>	<b>\$68.7</b>
<p><i>* Current working estimate includes contingency of \$10.1 million.</i></p>	

Current working estimate is inflated at Consumer Price Index (average of 3.4% per year); actual increases could be different.

<p><b>Major Changes:</b></p> <ul style="list-style-type: none"> <li>• Operate single-vehicle light rail on Downing St. and connect to downtown LRT loop</li> </ul>
<p><b>Third Party Requests/Enhancements:</b></p> <ul style="list-style-type: none"> <li>• Does not include cost to extend to Civic Center</li> </ul>
<p><b><i>Potential Solutions:</i></b></p> <ul style="list-style-type: none"> <li>• <i>Additional cost containment</i></li> <li>• <i>Alternative delivery options</i></li> <li>• <i>Design and engineering refinements</i></li> <li>• <i>Contractor-driven value engineering</i></li> </ul>

# *Southeast Corridor Extension Cost Summary*

## *(inflated dollars, in millions)*

<b>Original FasTracks Budget</b>	<b>\$136.8</b>
Material, Labor, ROW Escalation	+\$27.2
Scope Changes & Cost Containment	+\$15.0
<b>Current Working Estimate*</b>	<b>\$179.0</b>
<p><i>* Current working estimate includes contingency of \$19.0 million.</i></p>	

Current working estimate is inflated at Consumer Price Index (average of 3.4% per year); actual increases could be different.

<p><b>Major Changes:</b></p> <ul style="list-style-type: none"> <li>• Additional light rail fleet vehicles to meet demand</li> </ul>
<p><b>Third Party Requests/Enhancements:</b></p> <ul style="list-style-type: none"> <li>• No significant items</li> </ul>
<p><b><i>Potential Solutions:</i></b></p> <ul style="list-style-type: none"> <li>• <i>Additional cost containment</i></li> <li>• <i>Alternative delivery options</i></li> <li>• <i>Design and engineering refinements</i></li> </ul>

# Southwest Corridor Extension Cost Summary

*(inflated dollars, in millions)*

<b>Original FasTracks Budget</b>	<b>\$134.9</b>
Material, Labor, ROW Escalation	+\$62.9
Scope Changes & Cost Containment	-\$6.4
<b>Current Working Estimate*</b>	<b>\$191.4</b>

\* *Current working estimate includes contingency of \$19.3 million.*

Current working estimate is inflated at Consumer Price Index (average of 3.4% per year); actual increases could be different.

<p><b>Major Changes:</b></p> <ul style="list-style-type: none"> <li>• Significant increase in materials costs due to major bridge structures over RR ROW, County Line Road, and C-470</li> <li>• Roadway connection to Santa Fe no longer required as part of project (developer is currently constructing road)</li> </ul>
<p><b>Third Party Requests/Enhancements:</b></p> <ul style="list-style-type: none"> <li>• No significant items</li> </ul>
<p><b>Potential Solutions:</b></p> <ul style="list-style-type: none"> <li>• <i>Additional cost containment</i></li> <li>• <i>Alternative delivery options</i></li> <li>• <i>Design and engineering refinements</i></li> </ul>

# *US 36 BRT – Phase 1 Cost Summary*

*(inflated dollars, in millions)*

<b>Original FasTracks Budget</b>	<b>\$22.2</b>
Material, Labor, ROW Escalation	-\$0.8
Scope Changes & Cost Containment	+\$0.0
<b>Current Working Estimate*</b>	<b>\$21.4</b>

Current working estimate is inflated at Consumer Price Index (average of 3.4% per year); actual increases could be different.

<p><b>Major Changes:</b></p> <ul style="list-style-type: none"> <li>• Project on budget</li> </ul>
<p><b>Third Party Requests/Enhancements</b></p> <ul style="list-style-type: none"> <li>• No significant items</li> </ul>
<p><b>Phase 1 includes the following park-n-Ride improvements:</b></p> <ul style="list-style-type: none"> <li>• Westminster Center – completed</li> <li>• East Flatirons Circle – completed</li> <li>• US 36 &amp; McCaslin – completed</li> <li>• Church Ranch relocation – scheduled completion May 2007</li> <li>• Broomfield Events Center – planned 2009</li> </ul>



# *US 36 BRT – Phase 2 Cost Summary*

*(inflated dollars, in millions)*

<b>Original FasTracks Budget</b>	<b>\$204.1</b>
Material, Labor, ROW Escalation	+\$19.7
Scope Changes & Cost Containment	+\$0.0
<b>Current Working Estimate*</b>	<b>\$223.9</b>
<p>Most of these funds will not be spent unless CDOT reconstructs US 36.</p> <p><i>* Current working estimate includes contingency of \$14.9 million.</i></p>	

Current working estimate is inflated at Consumer Price Index (average of 3.4% per year); actual increases could be different.

<p><b>Major Changes:</b></p> <ul style="list-style-type: none"> <li>• None</li> </ul>
<p><b>Third Party Requests/Enhancements</b></p> <ul style="list-style-type: none"> <li>• No significant items</li> </ul>
<p><b>Phase 2 includes the following:</b></p> <ul style="list-style-type: none"> <li>• RTD contribution to highway improvements to accommodate BRT</li> <li>• BRT platforms in highway median</li> <li>• Bike path along US 36</li> </ul>

# *Denver Union Station Cost Summary*

## *(inflated dollars, in millions)*

<b>Original FasTracks Budget</b>	<b>\$268.4</b>
Material, Labor, ROW Escalation	+\$0.0
Scope Changes & Cost Containment	+\$0.0
<b>Current Working Estimate*</b>	<b>\$268.4</b>
<p><i>* Current working estimate includes contingency of \$19.7 million.</i></p>	

Current working estimate is inflated at Consumer Price Index (average of 3.4% per year); actual increases could be different.

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| <p><b>Major Changes:</b></p> <ul style="list-style-type: none"> <li>• Reflects RTD and federal contributions to project</li> </ul>                            |
| <p><b>Third Party Requests/Enhancements:</b></p> <ul style="list-style-type: none"> <li>• Fully funded by third parties – master developer and TIF</li> </ul> |

# *Light Rail Maintenance Facility Cost Summary*

*(inflated dollars, in millions)*

<b>Original FasTracks Budget</b>	<b>\$100.4</b>
Material, Labor, ROW Escalation	+\$26.1
Scope Changes & Cost Containment	-\$26.1
<b>Current Working Estimate*</b>	<b>\$100.4</b>
<p><i>+ Original FasTracks budget decreased by \$3.5m of Elati facility improvements included in West Corridor costs.</i></p> <p><i>* Current working estimate includes contingency of \$12.0 million.</i></p>	

Current working estimate is inflated at Consumer Price Index (average of 3.4% per year); actual increases could be different.

<p><b>Major Changes:</b></p> <ul style="list-style-type: none"> <li>• Reduced capacity requirements due to Gold Line technology change from light rail to commuter rail</li> <li>• Expand existing Elati and Mariposa facilities to accommodate FasTracks LRT vehicles instead of building new LRT maintenance facility</li> </ul>
<p><b>Third Party Requests/Enhancements</b></p> <ul style="list-style-type: none"> <li>• No significant items</li> </ul>
<p><b><i>Potential Solutions:</i></b></p> <ul style="list-style-type: none"> <li>• <i>Additional design refinements</i></li> <li>• <i>Vehicle selection needed prior to any further cost reduction</i></li> </ul>

# *Commuter Rail Maintenance Facility Cost Summary*

*(inflated dollars, in millions)*

<b>Original FasTracks Budget</b>	<b>\$80.4</b>
Material, Labor, ROW Escalation	+\$12.9
Scope Changes & Cost Containment	+\$109.4
<b>Current Working Estimate*</b>	<b>\$202.7</b>
<p><i>* Current working estimate includes contingency of \$29.9 million.</i></p>	

Current working estimate is inflated at Consumer Price Index (average of 3.4% per year); actual increases could be different.

<p><b>Original Facility Concept:</b></p> <ul style="list-style-type: none"> <li>• Purchase existing BNSF 23<sup>rd</sup> Street facility</li> <li>• Commuter rail in three corridors: East, North Metro, Northwest</li> <li>• Single technology – diesel locomotive-hauled coaches</li> </ul>
<p><b>Major Changes:</b></p> <ul style="list-style-type: none"> <li>• Facility to be located at UP 36<sup>th</sup> Street yards             <ul style="list-style-type: none"> <li>– ROW cost increases due to change in facility location</li> <li>– Construction cost increases due to move to location without existing facility</li> <li>– Increased environmental and utility mitigation</li> <li>– Revised drainage requirements</li> </ul> </li> <li>• Capacity increase to accommodate Gold Line change to commuter rail from light rail</li> <li>• Changes to accommodate maintenance of two technologies – EMU and DMU vehicles</li> </ul>
<p><b>Potential Solutions:</b></p> <ul style="list-style-type: none"> <li>• <i>Additional design refinements</i></li> <li>• <i>Potential PPP candidate – benefits to be determined</i></li> <li>• <i>Continued review of drainage requirements</i></li> </ul>

# *Bus Maintenance Facility Cost Summary*

*(inflated dollars, in millions)*

<b>Original FasTracks Budget</b>	<b>\$71.7</b>
Material, Labor, ROW Escalation	-\$0.4
Scope Changes & Cost Containment	-\$11.8
<b>Current Working Estimate*</b>	<b>\$59.5</b>
<p><i>* Current working estimate includes contingency of \$6.0 million.</i></p>	

Current working estimate is inflated at Consumer Price Index (average of 3.4% per year); actual increases could be different.

<p><b>Major Changes:</b></p> <ul style="list-style-type: none"> <li>• Design facility for 125-bus capacity based on revised fixed route bus service plan</li> <li>• Design facility with outdoor canopy instead of indoor bus storage</li> </ul>
<p><b>Third Party Requests/Enhancements:</b></p> <ul style="list-style-type: none"> <li>• No significant items</li> </ul>
<p><b>Potential Solutions:</b></p> <ul style="list-style-type: none"> <li>• <i>Additional design refinements</i></li> </ul>

# *Other FasTracks Project Costs*

## *(inflated dollars, in millions)*

<b>Original FasTracks Budget</b>	<b>\$524.7</b>
Material, Labor, ROW Escalation	+\$18.3
Scope Changes & Cost Containment	+\$31.1
<b>Current Working Estimate*</b>	<b>\$574.2</b>

*\* Current working estimate includes contingency of \$4.8 million.*

Current working estimate is inflated at Consumer Price Index (average of 3.4% per year); actual increases could be different.

### Major Changes:

- Additional vehicles for growth in existing light rail corridors

### Third Party

#### Requests/Enhancements:

- No significant items

### Other project costs include:

- Non-corridor park-n-Rides
- US 85 ROW preservation
- Upgrades to existing light rail corridors
- 23<sup>rd</sup> Street flyover
- ITS and SCADA systems
- Program management costs

# *FasTracks Program Alternatives*

# *FasTracks Program Alternatives*

- Option 1 – Build to Budget and Schedule; Reduce Scope
  - Pros:
    - Program remains at committed budget
    - Can be constructed within existing revenue forecasts and debt limits
  - Cons/Risks:
    - Increased materials costs will require major reductions in project scope
    - Could require additional scope reductions for future increases in material and labor costs
    - Will require shortening of corridors



# *FasTracks Program Alternatives*

- Option 2: Maintain Original Scope; Extend Schedule
  - Pros:
    - Consistent with original FasTracks scope
  - Cons/Risks:
    - Requires extended construction schedule to match cash flow
    - Corridor openings delayed
    - Continued cost escalation
    - Public expectations for program schedule not met
    - May require additional funding to complete program

# *FasTracks Program*

## *Recommended Alternative*

- Option 3: Maintain Original Project Scope and Schedule with Revised Budget and Financing
  - Pros:
    - Scope generally maintained
    - Schedule maintained
    - Can be achieved within the 4/10 cent voter approved measure
  - Cons/Risks:
    - Requires innovative project delivery and financing methods
    - Dependent on successful private sector partnership

# *Public-Private Partnerships (PPP)*

## *Benefits and Risks*

### Benefits:

- Lower construction and/or operating costs
- Financing opportunities available through private partners
- Cost savings to RTD due to options not available to public entity (e.g. depreciation on assets, joint development)
- Potential for reduced price risks with defined-cost contracts
- Accelerated completion of corridors
- May allow RTD to replace capital expenditure with operating expense
- FTA very receptive and supportive of PPP projects

### Risks:

- Adds complexity to FasTracks procurement and implementation processes
- Requires detailed project definition to maximize opportunities and minimize costs
- Will require operating contracts to specify:
  - Fare structure
  - Service schedules
  - Performance standards
  - Liquidated damages and/or penalties for non-compliance
  - Surety bonds and insurance
  - Ownership requirements
- Project must present an attractive investment opportunity for private partners
- Potential for higher long-term financing costs
- Will require RTD to perform contract monitoring and quality assurance

# *Risk Factors and Opportunities for FasTracks Program*

- Completion of Railroad Negotiations
- Continued Escalation of Materials, Labor, and ROW Costs
- Sales and Use Tax Revenue Fluctuations
- Interest Rate Fluctuations

## *Risk Factor: Completion of Railroad Negotiations*

- Required to define operating plans and specific alignments
- Need price certainty for financial plan
- Final deal required to meet FasTracks schedule
- Necessary to specify alignments and station sites for PPP opportunities

## *Risk Factor: Current Status of Railroad Negotiations*

- Property needs identified and available
- Advanced discussion on operating plans
- Liability concerns resolved
- Engineering and property appraisal process initiated

## *Risk Factor: CPI vs. Construction Escalation*

- 2007 cost estimates account for actual material and labor escalation through 2006
- Cost estimates from 2007 forward reflect average inflation rate of 3.4% per year; actual increases could be different
- Material, labor and ROW escalation will be reviewed annually and will require further adjustments to the program if needed

# *Risk Factors: Sales and Use Tax and Interest Rates*

- Economic slowdown could reduce revenues available to program below revised forecast levels
- Interest rates on RTD debt could increase to levels beyond those assumed in the plan



# *Risk Factor Mitigation Strategies*

- Higher costs or lower revenues would require annual review to:
  - Conduct additional cost containment
  - Pursue additional local, state, and federal funding
  - Pursue innovative project delivery methods
  - Review program schedule
- Advance procurement could mitigate risk of additional cost escalation
  - Advance procurement of 29 vehicles for West Corridor saved RTD approximately \$20 million

# *Opportunities: Sales and Use Tax and Interest Rates*

- Additional economic growth could increase revenues available to program above revised forecast levels
- Continued low interest rates on RTD debt could improve RTD ability to service debt required to fund the plan

# *Critical Decisions for FasTracks Implementation*

1. Commuter Rail Vehicle Technology
  - Must be determined for Penta-P eligibility
2. Project Delivery Methods
3. Revisions to Financial Plan to Include Additional Revenue/Financial Assumptions

# *1. Commuter Rail Vehicle Technology*

Analysis of EMU and DMU technology to be presented later today

## *2. Decision on Project Delivery Methods*

- Selection of project delivery method (to include PPP) defines level of design and engineering and time frame for procurement
- Packaging of corridors to ensure efficient project oversight, management, and delivery
- Long lead time to write and procure contracts for different delivery methods (i.e. DBFOM)
- Need to start procurement effort soon to meet FasTracks schedule

### *3. Decision on Financial Plan Opportunities*

- RTD has issued a Request for Qualifications to retain an advisor for Public-Private Partnership (PPP) and other alternative financing methods, and received responses to the RFQ
- Timely selection of the advisor will allow further refinement of alternative financing opportunities to be incorporated into the FasTracks financial plan
  - Public-private partnerships
  - Other alternative financing methods
  - Additional revenue sources

## *2007 Critical Milestones for FasTracks Implementation*

Date	Milestone
May 19, 2007	<ul style="list-style-type: none"> <li>• Board of Directors Retreat - Comprehensive review of FasTracks status and future strategic direction</li> </ul>
June 2007	<ul style="list-style-type: none"> <li>• Board reviews and adopts commuter rail vehicle technology strategy</li> <li>• Board selects Public-Private Partnership (PPP) advisor to begin refinement of alternative financing opportunities</li> <li>• Board authorizes revised application to FTA Penta-P program for selected corridors</li> </ul>
July 2007	<ul style="list-style-type: none"> <li>• Board reviews and adopts project delivery methods for each corridor</li> <li>• Board reviews detailed alternatives for FasTracks financial plan, including revised assumptions and PPP procurement strategies</li> </ul>
August 2007	<ul style="list-style-type: none"> <li>• Board adopts updated FasTracks Financial Plan to obtain New Starts grant for West Corridor and prepare annual SB 208 report to DRCOG</li> </ul>
Fall 2007	<ul style="list-style-type: none"> <li>• DRCOG review and approval of updated FasTracks Financial Plan through SB 208 process</li> <li>• Final agreement with master developer for Denver Union Station</li> </ul>
Dec. 2007	Framework for final railroad negotiations completed

# *Summary*

The FasTracks program has experienced unforeseen changes in the cost of materials and revenue projections.

We have developed a comprehensive set of tools and strategies designed to address and mitigate the unexpected changes, and we fully expect to deliver the general scope and schedule of the FasTracks program within the financial capacity approved by the voters of the District in 2004.