

The background of the slide features a photograph of a train station platform. A train is visible on the tracks, with the word "Northbound" printed on its side. The platform is equipped with several tall, modern light poles. In the foreground, there is a silhouette of a city skyline with various building shapes. The overall image has a semi-transparent, light-colored overlay.

# SECTION H

## COST ESTIMATE REVIEW

## **Section H: Cost Estimate Review**

The cost estimates for the three corridors were prepared using the same template as prepared for the MIS phase. Each corridor is broken up into segments following the previous model. This facilitates comparing the current plan with the earlier plan and can identify the areas of cost changes in the project more specifically.

### **1.0 Major items measured**

The following is a list of major items measured, along with a description of how the items were estimated. The items included are the same as originally estimated with some additions such as shoo-fly tracks, direct fixation, pedestrian bridges, and retaining walls.

#### **Bridges**

Lengths of bridges are based on the vertical profile and the estimated lateral clearance requirements for the elements being spanned.

#### **Retaining Walls**

Estimated area of major retaining walls has been developed considering available ROW and the profile of the new track relative to existing ground line. Cost of walls has been included with the associated bridge structure.

#### **Earthwork**

The estimated earthwork was calculated with In-Roads using templates for the proposed typical track sections and the digital terrain model of the existing ground.

#### **Trackwork**

For all corridors, measured trackwork is as shown on the proposed conceptual plan layout. The North Metro estimate also includes relocated and temporary trackwork (shoo-fly) for the BNSF RR.

#### **Right-of-Way**

For North Metro and Gold Line, the full width of the existing railroad corridor was included in the anticipated right-of-way area. For areas outside of the existing railroad corridor, or highway section (I-225 median), top of cut and toe of fill depict the ROW needed. At park-n-ride locations the limits of anticipated acquisition were based on meeting the parking needs at the rate of 80 spaces per acre. These limits were applied to the GIS assessors map information to determine the required right-of-way at each impacted parcel.

### **2.0 Estimated costs**

In general the unit costs used in the MIS process and updated for the FasTracks program (estimated 2002 costs) were applied to the new quantities develop in this study. The unit cost for bridges and right-of –way have been updated to reflect the 2004 costs. The following tables show the overall cost estimates for the three corridors, and a summary of the right-of-way costs for the three corridors. For each corridor, the tables present a side by side comparison of the estimated costs in the MIS/FasTracks estimate and the current

scoping estimate and the differences between these two estimates. Also included is the estimated cost for each segment in the corridor.

### **3.0 Estimate Analysis**

In each corridor, there are deviations from the original costs. These variations are, in most cases, the result of a more detailed analysis, but in some cases are the result of a changed alignment or changed project conditions. These major variations are as follows:

#### **North Metro**

The total cost of the North Metro Commuter Rail Corridor is \$326.3 Million, an increase of \$84.0 Million over the FasTracks estimate. Right-of-way and structures account for most of this difference.

Per the MIS Locally Preferred Alternative, the commuter rail alignment was anticipated to follow the UPRR corridor from Union Station to the Sand Creek junction of the UPRR and BNSF RR. By the start of Three Corridors Scoping project, the UPRR had indicated their railroad alignment was no longer available for the development of the North Metro. As a result, this project evaluated an alignment following the BNSF RR past the Globeville Yard up to Sand Creek junction. The cost of right of way for this portion is \$18.7 Million, and the cost of structures is \$8.9 Million. The MIS estimated cost of structures in this reach is \$2.6 Million. Previously the estimated cost of right-of-way for this segment was included in the \$31 Million for the entire railroad corridor.

An alignment through the Sand Creek Junction/I-270 crossing could not meet the geometric design criteria for a commuter rail operation. An alignment through Sand Creek also required about a 5000 foot viaduct and significant relocation of the BNSF RR. The alignment presented in the plans responds to Commerce City's desires to develop a station in the vicinity of 64<sup>th</sup> Avenue and Colorado Boulevard. The right-of-way cost for this segment is \$24.0 Million of which \$11.2 Million is for the industrial area near 64<sup>th</sup> Avenue and Colorado Boulevard. An alignment further to the west along the O'Brian Canal could significantly reduce the right-of-way cost versus the industrial area. The cost of structures is \$13.8 Million versus the original estimate of \$2.5 Million. The alignment shown in the conceptual plans calls for Commuter Rail to go under York Road accounting for most of this cost differential.

Contingencies and other add-ons for the expanded structures add about \$13.4 Million to the project. The cost of the UPRR corridor also increased because the actual width of corridor is greater than originally estimated.

#### **Gold Line**

The total cost of the Gold Line LRT is \$262.4 Million, an increase of \$3.3 Million over the FasTracks estimate. The MIS/FasTracks estimate was based on an alignment along the south side of the BNSF RR tracks and along the west side of the UPRR on the north-south leg into Denver Union Station. The current estimate is based on an alignment along the north side of the BNSF RR on the east-west leg and between the BNSF RR and

the UPRR on the north-south leg. Most of the differences between the two estimates are because of the change in alignment. The new alignment has more earthwork, building demolition, and retaining walls. The estimate also accounts for the profile into the below grade loop at Denver Union Station (DUS).

In the joint US 36 Commuter Rail/Gold Line LRT Corridor, the estimate for this project assumes the Gold Line project will cover the cost of earthwork for the LRT foot print, the bridge span over the LRT, and retaining wall on one side of the trench. The joint corridor will have a significant impact on the Trailer on Flat Car (TOFC) facility. No cost has been included in this estimate for modifying or relocating this facility. The estimate does include a cost for the removal and replacement of two existing railroad tracks from Utah Junction through I-25. The estimate also includes an allowance for relocating the Amtrak track from the South Platte River to north of 38<sup>th</sup> Avenue.

### **I-225**

The total cost of the I-225 LRT corridor is \$253.1 Million, a decrease of \$8.7 Million from the MIS/FasTracks estimate. The MIS estimate was based on an alignment in the median of I-225 from Parker Road to Exposition Avenue, an at-grade alignment around Aurora Mall along Sable Boulevard, in the median of I-225 from Ellsworth Avenue to Colfax Avenue, through the UCHSC campus to Peoria, terminating at Smith Road and the future East Corridor line. The current alignment is in the median from Parker Road until Exposition where it leaves the median for the remainder of the corridor. Most of the cost differential is the result of a reduction in concrete pavement and concrete barrier removal and replacement from Ellsworth Avenue to Colfax Avenue.

The proposed alignment for the LRT between the Iliff Avenue interchange and Mississippi Avenue matches the future alignment of I-225. CDOT anticipates reconstructing I-225 but does not have any funding or schedule for this work. The current estimate does not include any allowance for reconstructing I-225 to accommodate the proposed LRT alignment.

**GOLD LINE**

MIS/Fastracks Estimate

Scoping Study Estimate

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<b>1.0</b>	<b>REMOVALS / RELOCATIONS</b>							
1.1	TRACK REMOVAL	TF	\$20.00	23,058	\$461,160.00	26,000	\$520,000.00	\$58,840.00
1.2	PAVED SURFACES - ROADWAY	SY	\$4.50	0	\$0.00	8,614	\$38,765.00	\$38,765.00
1.3	BRIDGE DEMOLITION	EA	\$40,000.00	0	\$0.00	1	\$40,000.00	\$40,000.00
1.4	BUILDING DEMOLITION	EA	\$20,000.00	0	\$0.00	28	\$560,000.00	\$560,000.00
								\$697,605.00
								\$0.00
<b>2.0</b>	<b>EARTHWORK</b>							\$0.00
2.1	EARTHWORK - GENERAL	CY	\$5.25	153,500	\$805,875.00	378,064	\$1,984,836.00	\$1,178,961.00
2.2	EMBANKMENT	CY	\$8.00	35,200	\$281,600.00	0	\$0.00	(\$281,600.00)
2.3	EXCAVATION	CY	\$4.50	0	\$0.00	0	\$0.00	\$0.00
								\$897,361.00
								\$0.00
<b>3.0</b>	<b>RECONSTRUCTION / CONSTRUCTION</b>							\$0.00
3.1	PAVEMENT - ASPHALT	SY	\$30.00	0	\$0.00	5,000	\$150,000.00	\$150,000.00
3.2	PAVEMENT - CONCRETE	SY	\$50.00	1,300	\$65,000.00	4,444	\$222,200.00	\$157,200.00
3.3	CURB & GUTTER	LF	\$10.00					\$0.00
3.4	SIDEWALK	LF	\$20.00	0	\$0.00	500	\$10,000.00	\$10,000.00
3.5	OFF STREET TRAIL (CONCRETE)	SY	\$30.00	0	\$0.00	0	\$0.00	\$0.00
3.6	6' CHAIN LINK FENCE	LF	\$12.00	32,000	\$384,000.00	32,000	\$384,000.00	\$0.00
3.7	RURAL FENCE	LF	\$4.00	0	\$0.00	11,200	\$44,800.00	\$44,800.00
								\$362,000.00
								\$0.00
<b>4.0</b>	<b>BRIDGES/STRUCTURES</b>							\$0.00
	GL Depression to DUS	LS	\$11,841,000.00			1	\$11,841,000.00	\$11,841,000.00
	GL over 20th Street	LS	\$297,000.00			1	\$297,000.00	\$297,000.00
	GL Flyover (Amtrack, S Platte & CML)	LS	\$7,821,000.00			1	\$7,821,000.00	\$7,821,000.00
4.1	LRT BRIDGE - OVER CML & S. PLATTE RIVER	LS	\$14,121,900.00	1	\$14,121,900.00	0	\$0.00	(\$14,121,900.00)
	GL over 38th	LS	\$352,800.00			1	\$352,800.00	\$352,800.00
4.2	LRT BRIDGE - 38th AVE	LS	\$185,640.00	1	\$185,640.00	0	\$0.00	(\$185,640.00)
	Clear Creek Junction	LS	\$8,790,000.00			1	\$8,790,000.00	\$8,790,000.00
	LRT under I 76	LS	\$324,000.00			1	\$324,000.00	\$324,000.00
4.3	LRT BRIDGE - 48th AVE/I-70 to 52nd	LS	\$16,110,900.00	1	\$16,110,900.00	0	\$0.00	(\$16,110,900.00)
	GL over Federal	LS	\$882,000.00			1	\$882,000.00	\$882,000.00
4.4	LRT BRIDGE - FEDERAL	LS	\$1,690,650.00	1	\$1,690,650.00	0	\$0.00	(\$1,690,650.00)
	GL over Clear Creek	LS	\$891,000.00			1	\$891,000.00	\$891,000.00
4.5	LRT BRIDGE - CLEAR CREEK (W. of Federal)	LS	\$1,690,650.00	1	\$1,690,650.00	0	\$0.00	(\$1,690,650.00)
	Sheridan Retaining wall	LS	\$165,600.00			1	\$165,600.00	\$165,600.00
	GL over UPRR	LS	\$3,604,750.00			1	\$3,604,750.00	\$3,604,750.00
4.6	LRT BRIDGE - INDUSTRY FLYOVER 1	LS	\$4,271,760.00	1	\$3,986,160.00	0	\$0.00	(\$3,986,160.00)
	Ralston Road	LS	\$800,000.00			1	\$800,000.00	\$800,000.00
	GL over Ralston Creek	LS	\$742,500.00			1	\$742,500.00	\$742,500.00
4.7	LRT BRIDGE - RALSTON CREEK CROSSING	LS	\$856,800.00	1	\$856,800.00	0	\$0.00	(\$856,800.00)
	GL over Wadsworth Bypass	LS	\$297,000.00			1	\$297,000.00	\$297,000.00
4.8	LRT BRIDGE - WADSWORTH BYPASS	LS	\$428,400.00	1	\$428,400.00	0	\$0.00	(\$428,400.00)
	GL over Kipling	LS	\$612,000.00			1	\$612,000.00	\$612,000.00
4.9	LRT BRIDGE - KIPLING	LS	\$428,400.00	1	\$428,400.00	0	\$0.00	(\$428,400.00)

**GOLD LINE**

MIS/Fastracks Estimate

Scoping Study Estimate

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				ESTIMATED QUANTITY	ESTIMATED COST	ESTIMATED QUANTITY	ESTIMATED COST	
4.10	LRT BRIDGE - INDUSTRY FLYOVER 2	LS	\$2,187,900.00	1	\$2,187,900.00	0	\$0.00	(\$2,187,900.00)
4.11	LRT BRIDGE - WARD	LS	\$1,591,200.00	1	\$1,591,200.00	0	\$0.00	(\$1,591,200.00)
4.12	MODIFY EXISTING BRIDGE - I-25	LS	\$555,000.00	1	\$555,000.00	1	\$555,000.00	\$0.00 (\$5,857,950.00)
								\$0.00
5.0	<b>RETAINING WALLS</b>			0		0		\$0.00
5.1	0 TO 10'	LF	\$280.00	150	\$42,000.00	10,200	\$2,856,000.00	\$2,814,000.00
5.2	10 TO 15'	LF	\$480.00	75	\$36,000.00	1,200	\$576,000.00	\$540,000.00
5.3	15 TO 20'	LF	\$740.00	405	\$299,700.00	0	\$0.00	(\$299,700.00)
5.4	> 20'	LF	\$1,020.00	100	\$102,000.00	0	\$0.00	(\$102,000.00) \$2,952,300.00
								\$0.00
6.0	<b>BOX CULVERTS</b>							\$0.00
6.1	CBC 70 SF - 100 SF	LF	\$850.00	0	\$0.00	0	\$0.00	\$0.00
6.2	CBC >100 SF	LF	\$1,250.00	0	\$0.00	0	\$0.00	\$0.00
								\$0.00
7.0	<b>TRACKWORK</b>							\$0.00
7.1	DOUBLE BALLASTED TRACK - LRT	LF	\$270.00	52,100	\$14,067,000.00	54,555	\$14,729,850.00	\$662,850.00
7.2	SINGLE BALLASTED TRACK - FREIGHT/COMRAIL	TF	\$145.00	21,643	\$3,138,235.00	30,200	\$4,379,000.00	\$1,240,765.00
7.3	DOUBLE BALLASTED TRACK - FREIGHT/COMRAIL	LF	\$300.00					\$0.00
7.4	TRACKWORK REHABILITATION - FREIGHT/COMRAIL	TF	\$40.00	0	\$0.00	0	\$0.00	\$0.00
7.5	DOUBLE DIRECT FIXATION TRACK - LRT	LF	\$500.00	7,100	\$3,550,000.00	3,930	\$1,965,000.00	(\$1,585,000.00)
7.6	DOUBLE TRACK RETAINED - LRT	LF	\$330.00					\$0.00
7.7	DOUBLE EMBEDDED TRACK - LRT	LF	\$640.00	0	\$0.00	0	\$0.00	\$0.00
7.8	DOUBLE EMBEDDED TRACK - FREIGHT/COMRAIL	LF	\$660.00	0	\$0.00	0	\$0.00	\$0.00 \$318,615.00
								\$0.00
8.0	<b>SPECIAL TRACKWORK</b>							\$0.00
8.1	#6 TURNOUT (LRT)	EA	\$50,000.00	0	\$0.00	0	\$0.00	\$0.00
8.2	#8 TURNOUT (LRT)	EA	\$65,000.00	0	\$0.00	0	\$0.00	\$0.00
8.3	#10 TURNOUT (LRT)	EA	\$90,000.00	0	\$0.00	0	\$0.00	\$0.00
8.4	#20 TURNOUT (COM/FREIGHT)	EA	\$170,000.00	0	\$0.00	0	\$0.00	\$0.00
8.5	#6 CROSSOVER (LRT)	EA	\$100,000.00	0	\$0.00	0	\$0.00	\$0.00
8.6	#8 CROSSOVER (LRT)	EA	\$130,000.00	15	\$1,950,000.00	14	\$1,820,000.00	(\$130,000.00)
8.7	#10 CROSSOVER (LRT)	EA	\$160,000.00	0	\$0.00	0	\$0.00	\$0.00
8.8	#20 CROSSOVER (COM/FREIGHT)	EA	\$350,000.00	0	\$0.00	0	\$0.00	\$0.00 (\$130,000.00)
								\$0.00
9.0	<b>SIGNALS</b>							\$0.00
9.1	COMMUNICATIONS	MI	\$800,000.00	11	\$8,960,000.00	11	\$8,861,363.64	(\$98,636.36)
9.2	SIGNAL SYSTEM	MI	\$500,000.00	11	\$5,600,000.00	11	\$5,538,352.27	(\$61,647.73) (\$160,284.09)
								\$0.00
10.0	<b>SYSTEM WIDE ELEMENTS</b>							\$0.00
10.1	TRACTION ELECTRIFICATION SYSTEM	MI	\$1,800,000.00	11	\$20,160,000.00	11.08	\$19,938,068.18	(\$221,931.82)
10.2	CORROSION CONTROL	MI	\$60,000.00	11	\$672,000.00	11.08	\$664,602.27	(\$7,397.73)
10.3	FARE COLLECTION	STATION	\$280,000.00	8	\$2,240,000.00	7	\$1,960,000.00	(\$280,000.00)
10.4	DUCTBANK - LRT	MI	\$720,000.00	11	\$8,064,000.00	11.08	\$7,975,227.27	(\$88,772.73)
10.5	DUCTBANK - COMRAIL	MI	\$500,000.00					\$0.00 (\$598,102.27)
								\$0.00
11.0	<b>AT-GRADE CROSSINGS</b>							\$0.00
11.1	52nd Ave.	EA	\$300,000.00	1	\$300,000.00	0	\$0.00	(\$300,000.00)
11.2	Pecos Street	EA	\$300,000.00	1	\$300,000.00	1	\$300,000.00	\$0.00

**GOLD LINE**

MIS/Fastracks Estimate

Scoping Study Estimate

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				ESTIMATED QUANTITY	ESTIMATED COST	ESTIMATED QUANTITY	ESTIMATED COST		
11.3	Lowell Boulevard	EA	\$300,000.00	1	\$300,000.00	1	\$300,000.00	\$0.00	
11.4	Tennyson Street	EA	\$300,000.00	1	\$300,000.00	1	\$300,000.00	\$0.00	
11.5	Lamar Street	EA	\$300,000.00	1	\$300,000.00	1	\$300,000.00	\$0.00	
11.6	Vance Street	EA	\$300,000.00	1	\$300,000.00	1	\$300,000.00	\$0.00	
11.7	Old Wadsworth Boulevard	EA	\$300,000.00	1	\$300,000.00	1	\$300,000.00	\$0.00	
11.8	Allison Street	EA	\$300,000.00	1	\$300,000.00	1	\$300,000.00	\$0.00	
11.9	Balsam Street	EA	\$300,000.00	1	\$300,000.00	1	\$300,000.00	\$0.00	
11.10	Carr Street	EA	\$300,000.00	1	\$300,000.00	1	\$300,000.00	\$0.00	
11.11	Garrison Street	EA	\$300,000.00	1	\$300,000.00	1	\$300,000.00	\$0.00	
11.12	Independence Street	EA	\$300,000.00	1	\$300,000.00	1	\$300,000.00	\$0.00	
11.13	State Home Road	EA	\$300,000.00	1	\$300,000.00	1	\$300,000.00	\$0.00	
11.14	Miller Street	EA	\$300,000.00	1	\$300,000.00	1	\$300,000.00	\$0.00	
11.15	Parfet Street	EA	\$300,000.00	1	\$300,000.00	1	\$300,000.00	\$0.00	
11.16	Robb Street	EA	\$300,000.00	1	\$300,000.00	1	\$300,000.00	\$0.00	
11.17	Tabor Street	EA	\$300,000.00	1	\$300,000.00	1	\$300,000.00	\$0.00	
11.18	48th Ave / Frontage Rd	EA	\$300,000.00	1	\$300,000.00	0	\$0.00	(\$300,000.00)	(\$600,000.00)
								\$0.00	
12.0	<b>STATIONS - CONNECTIONS</b>							\$0.00	
12.1	STATION - BRT	EA	\$6,000,000.00	0	\$0.00	0	\$0.00	\$0.00	
12.2	STATION - LRT	EA	\$750,000.00	6	\$4,500,000.00	6	\$4,500,000.00	\$0.00	
	Ped access across BNSF	EA	\$1,200,000.00			4	\$4,800,000.00	\$4,800,000.00	
12.3	STATION - COMRAIL	EA	\$1,000,000.00	0	\$0.00	0	\$0.00	\$0.00	
12.4	END-OF-LINE STATION - LRT	EA	\$1,000,000.00	1	\$1,000,000.00	1	\$1,000,000.00	\$0.00	
12.5	END-OF-LINE STATION - COMRAIL	EA	\$1,500,000.00	0	\$0.00	0	\$0.00	\$0.00	
	ELEVATED STATION	EA	\$1,500,000.00	0	\$0.00	0	\$0.00	\$0.00	\$4,800,000.00
								\$0.00	
<b>SUBTOTAL (A)</b>					<b>\$125,612,170</b>	<b>\$128,293,715</b>		\$2,681,544.64	\$2,681,544.64
								\$0.00	
13.0	DRAINAGE	5 % OF (A)	5%		\$6,280,608.50		\$6,414,685.73	\$134,077.23	
								\$0.00	
14.0	UTILITY RELOCATION	4 % OF (A)	4%		\$5,024,486.80		\$5,131,748.59	\$107,261.79	
								\$0.00	
15.0	NOISE MITIGATION	2 % OF (A)	2%		\$2,512,243.40		\$2,565,874.29	\$53,630.89	
								\$0.00	
16.0	SIGNING AND STRIPING	1 % OF (A)	1%		\$1,256,121.70		\$1,282,937.15	\$26,815.45	
								\$0.00	
17.0	CONSTRUCTION TRAFFIC CONTROL	3 % OF (A)	3%		\$3,768,365.10		\$3,848,811.44	\$80,446.34	
								\$0.00	
18.0	URBAN DESIGN / LANDSCAPING	1 % OF (A)	1%		\$1,256,121.70		\$1,282,937.15	\$26,815.45	
								\$0.00	
<b>TOTAL COST OF CONSTRUCTION BID ITEMS (CBI)</b>					<b>\$145,710,117</b>	<b>\$148,820,709</b>		\$3,110,591.78	\$3,110,591.78
								\$0.00	
19.0	MOBILIZATION	6 % OF (CBI)	6%		\$8,742,607.03		\$8,929,242.54	\$186,635.51	
								\$0.00	

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<b>20.0</b>	<b>CONTINGENCIES &amp; OTHER COSTS</b>							\$0.00	
20.1	CONTINGENCIES	25 % OF (CBI)	25%		\$36,427,529.30		\$37,205,177.24	\$777,647.94	
20.2	ENGINEERING - PE/EIS	3.5 % OF (CBI)	3.5%		\$5,099,854.10		\$5,208,724.81	\$108,870.71	
20.3	ENGINEERING - FINAL	9.5 % OF (CBI)	9.5%		\$13,842,461.13		\$14,137,967.35	\$295,506.22	
20.4	CONSTRUCTION MANAGEMENT	12 % OF (CBI)	12%		\$17,485,214.06		\$17,858,485.08	\$373,271.01	
20.5	INSURANCE AND LEGAL	2 % OF (CBI)	2%		\$2,914,202.34		\$2,976,414.18	\$62,211.84	
	TOTAL	49% OF (CBI)						\$0.00	
								\$0.00	
21.0	ACTIVATION / SYSTEM INTEGRATION -- LRT	LS	\$1,500,000.00		\$1,500,000		\$1,500,000	\$0.00	
								\$0.00	
<b>COST OF CONSTRUCTION BID ITEMS PLUS MOBILIZATION AND CONTINGENCIES</b>					<b>\$231,721,985</b>		<b>\$236,636,720</b>	\$0.00	
								\$4,914,735.01	\$4,914,735.01
								\$0.00	
22.0	<b>ROW ACQUISITION</b>				\$27,377,000		\$21,055,289	(\$6,321,711.00)	
22.1	ROW ACQUISITION	LS			\$0.00		\$4,989,074.00	\$4,989,074.00	
22.2	BNSF ROW ACQUISITION	LS			\$0.00		\$0.00	\$0.00	
22.3	UPRR ROW ACQUISITION	LS			\$0.00		\$0.00	\$0.00	(\$1,332,637.00)
	Jolly Rancher Siding	LS						\$0.00	
<b>GRAND TOTAL</b>					<b>\$259,098,985</b>		<b>\$262,681,083</b>	\$0.00	
								\$3,582,098.01	\$3,582,098.01
								\$0.00	



**GOLD LINE**

DUS to Federal

Federal to Olde Town

Olde Town to Ward

Scoping Study Estimate

ITEM NO.	ITEM	UNIT	UNIT COST	SEGMENT 1		SEGMENT 2		SEGMENT 3		TOTAL CORRIDOR	
				ESTIMATED QUANTITY	ESTIMATED COST	ESTIMATED QUANTITY	ESTIMATED COST	ESTIMATED QUANTITY	ESTIMATED COST	ESTIMATED QUANTITY	ESTIMATED COST
5.4	> 20'	LF	\$1,020.00		\$0.00		\$0.00		\$0.00	0	\$0.00
6.0	<b>BOX CULVERTS</b>										
6.1	CBC 70 SF - 100 SF	LF	\$850.00		\$0.00		\$0.00	0	\$0.00	0	\$0.00
6.2	CBC >100 SF	LF	\$1,250.00		\$0.00		\$0.00	0	\$0.00	0	\$0.00
7.0	<b>TRACKWORK</b>										
7.1	DOUBLE BALLASTED TRACK - LRT	LF	\$270.00	23805	\$6,427,350.00	14570	\$3,933,900.00	16180	\$4,368,600.00	54,555	\$14,729,850.00
7.2	SINGLE BALLASTED TRACK - FREIGHT/COMRAIL	TF	\$145.00	30200	\$4,379,000.00		\$0.00		\$0.00	30,200	\$4,379,000.00
7.3	DOUBLE BALLASTED TRACK - FREIGHT/COMRAIL	LF	\$300.00		\$0.00		\$0.00		\$0.00		
7.4	TRACKWORK REHABILITATION - FREIGHT/COMRAIL	TF	\$40.00		\$0.00		\$0.00		\$0.00	0	\$0.00
7.5	DOUBLE DIRECT FIXATION TRACK - LRT	LF	\$500.00	2280	\$1,140,000.00	1380	\$690,000.00	270	\$135,000.00	3,930	\$1,965,000.00
7.6	DOUBLE TRACK RETAINED - LRT	LF	\$330.00		\$0.00		\$0.00		\$0.00		
7.7	DOUBLE EMBEDDED TRACK - LRT	LF	\$640.00		\$0.00		\$0.00		\$0.00	0	\$0.00
7.8	DOUBLE EMBEDDED TRACK - FREIGHT/COMRAIL	LF	\$660.00		\$0.00		\$0.00		\$0.00	0	\$0.00
8.0	<b>SPECIAL TRACKWORK</b>										
8.1	#6 TURNOUT (LRT)	EA	\$50,000.00		\$0.00		\$0.00		\$0.00	0	\$0.00
8.2	#8 TURNOUT (LRT)	EA	\$65,000.00		\$0.00		\$0.00		\$0.00	0	\$0.00
8.3	#10 TURNOUT (LRT)	EA	\$90,000.00		\$0.00		\$0.00		\$0.00	0	\$0.00
8.4	#20 TURNOUT (COM/FREIGHT)	EA	\$170,000.00		\$0.00		\$0.00		\$0.00	0	\$0.00
8.5	#6 CROSSOVER (LRT)	EA	\$100,000.00		\$0.00		\$0.00		\$0.00	0	\$0.00
8.6	#8 CROSSOVER (LRT)	EA	\$130,000.00	6	\$780,000.00	4	\$520,000.00	4	\$520,000.00	14	\$1,820,000.00
8.7	#10 CROSSOVER (LRT)	EA	\$160,000.00		\$0.00		\$0.00		\$0.00	0	\$0.00
8.8	#20 CROSSOVER (COM/FREIGHT)	EA	\$350,000.00		\$0.00		\$0.00		\$0.00	0	\$0.00
9.0	<b>SIGNALS</b>										
9.1	COMMUNICATIONS	MI	\$800,000.00	4.94	\$3,952,272.73	3.02	\$2,416,666.67	3.12	\$2,492,424.24	11	\$8,861,363.64
9.2	SIGNAL SYSTEM	MI	\$500,000.00	4.94	\$2,470,170.45	3.02	\$1,510,416.67	3.12	\$1,557,765.15	11	\$5,538,352.27
10.0	<b>SYSTEM WIDE ELEMENTS</b>										
10.1	TRACTION ELECTRIFICATION SYSTEM	MI	\$1,800,000.00	4.94	\$8,892,613.64	3.02	\$5,437,500.00	3.12	\$5,607,954.55	11.08	\$19,938,068.18
10.2	CORROSION CONTROL	MI	\$60,000.00	4.94	\$296,420.45	3.02	\$181,250.00	3.12	\$186,931.82	11.08	\$664,602.27
10.3	FARE COLLECTION	STATION	\$280,000.00	3	\$840,000.00	2	\$560,000.00	2	\$560,000.00	7	\$1,960,000.00
10.4	DUCTBANK - LRT	MI	\$720,000.00	4.94	\$3,557,045.45	3.02	\$2,175,000.00	3.12	\$2,243,181.82	11.08	\$7,975,227.27
10.5	DUCTBANK - COMRAIL	MI	\$500,000.00		\$0.00		\$0.00		\$0.00		
11.0	<b>AT-GRADE CROSSINGS</b>										
11.1	52nd Ave.	EA	\$300,000.00		\$0.00		\$0.00		\$0.00	0	\$0.00
11.2	Pecos Street	EA	\$300,000.00	1	\$300,000.00		\$0.00		\$0.00	1	\$300,000.00
11.3	Lowell Boulevard	EA	\$300,000.00		\$0.00	1	\$300,000.00		\$0.00	1	\$300,000.00
11.4	Tennyson Street	EA	\$300,000.00		\$0.00	1	\$300,000.00		\$0.00	1	\$300,000.00
11.5	Lamar Street	EA	\$300,000.00		\$0.00	1	\$300,000.00		\$0.00	1	\$300,000.00
11.6	Vance Street	EA	\$300,000.00		\$0.00	1	\$300,000.00		\$0.00	1	\$300,000.00
11.7	Old Wadsworth Boulevard	EA	\$300,000.00		\$0.00		\$0.00	1	\$300,000.00	1	\$300,000.00
11.8	Allison Street	EA	\$300,000.00		\$0.00		\$0.00	1	\$300,000.00	1	\$300,000.00
11.9	Balsam Street	EA	\$300,000.00		\$0.00		\$0.00	1	\$300,000.00	1	\$300,000.00
11.10	Carr Street	EA	\$300,000.00		\$0.00		\$0.00	1	\$300,000.00	1	\$300,000.00
11.11	Garrison Street	EA	\$300,000.00		\$0.00		\$0.00	1	\$300,000.00	1	\$300,000.00
11.12	Independence Street	EA	\$300,000.00		\$0.00		\$0.00	1	\$300,000.00	1	\$300,000.00
11.13	State Home Road	EA	\$300,000.00		\$0.00		\$0.00	1	\$300,000.00	1	\$300,000.00
11.14	Miller Street	EA	\$300,000.00		\$0.00		\$0.00	1	\$300,000.00	1	\$300,000.00
11.15	Parfet Street	EA	\$300,000.00		\$0.00		\$0.00	1	\$300,000.00	1	\$300,000.00
11.16	Robb Street	EA	\$300,000.00		\$0.00		\$0.00	1	\$300,000.00	1	\$300,000.00
11.17	Tabor Street	EA	\$300,000.00		\$0.00		\$0.00	1	\$300,000.00	1	\$300,000.00

**GOLD LINE**

DUS to Federal

Federal to Olde Town

Olde Town to Ward

Scoping Study Estimate

ITEM NO.	ITEM	UNIT	UNIT COST	SEGMENT 1		SEGMENT 2		SEGMENT 3		TOTAL CORRIDOR	
				ESTIMATED QUANTITY	ESTIMATED COST	ESTIMATED QUANTITY	ESTIMATED COST	ESTIMATED QUANTITY	ESTIMATED COST	ESTIMATED QUANTITY	ESTIMATED COST
11.18	48th Ave / Frontage Rd	EA	\$300,000.00		\$0.00		\$0.00		\$0.00	0	\$0.00
<b>12.0</b>	<b>STATIONS - CONNECTIONS</b>										
12.1	STATION - BRT	EA	\$6,000,000.00		\$0.00		\$0.00		\$0.00	0	\$0.00
12.2	STATION - LRT	EA	\$750,000.00	3	\$2,250,000.00	2	\$1,500,000.00	1	\$750,000.00	6	\$4,500,000.00
	Ped access across BNSF	EA	\$1,200,000.00	1	\$1,200,000.00	2	\$2,400,000.00	1	\$1,200,000.00	4	\$4,800,000.00
12.3	STATION - COMRAIL	EA	\$1,000,000.00		\$0.00		\$0.00		\$0.00	0	\$0.00
12.4	END-OF-LINE STATION - LRT	EA	\$1,000,000.00		\$0.00		\$0.00	1	\$1,000,000.00	1	\$1,000,000.00
12.5	END-OF-LINE STATION - COMRAIL	EA	\$1,500,000.00		\$0.00		\$0.00		\$0.00	0	\$0.00
	ELEVATED STATION	EA	\$1,500,000.00		\$0.00		\$0.00		\$0.00	0	\$0.00
<b>SUBTOTAL (A)</b>					<b>\$69,751,490</b>		<b>\$31,477,662</b>		<b>\$28,094,203</b>		<b>\$128,293,715</b>
13.0	DRAINAGE	5 % OF (A)	5%		\$3,487,574.49		\$1,573,883.09		\$1,404,710.15		\$6,414,685.73
14.0	UTILITY RELOCATION	4 % OF (A)	4%		\$2,790,059.59		\$1,259,106.47		\$1,123,768.12		\$5,131,748.59
15.0	NOISE MITIGATION	2 % OF (A)	2%		\$1,395,029.79		\$629,553.24		\$561,884.06		\$2,565,874.29
16.0	SIGNING AND STRIPING	1 % OF (A)	1%		\$697,514.90		\$314,776.62		\$280,942.03		\$1,282,937.15
17.0	CONSTRUCTION TRAFFIC CONTROL	3 % OF (A)	3%		\$2,092,544.69		\$944,329.86		\$842,826.09		\$3,848,811.44
18.0	URBAN DESIGN / LANDSCAPING	1 % OF (A)	1%		\$697,514.90		\$314,776.62		\$280,942.03		\$1,282,937.15
<b>TOTAL COST OF CONSTRUCTION BID ITEMS (CBI)</b>					<b>\$80,911,728</b>		<b>\$36,514,088</b>		<b>\$32,589,276</b>		<b>\$148,820,709</b>
19.0	MOBILIZATION	6 % OF (CBI)	6%		\$4,854,703.69		\$2,190,845.26		\$1,955,356.53		\$8,929,242.54
<b>20.0</b>	<b>CONTINGENCIES &amp; OTHER COSTS</b>										
20.1	CONTINGENCIES	25 % OF (CBI)	25%		\$20,227,932.02		\$9,128,521.93		\$8,147,318.89		\$37,205,177.24
20.2	ENGINEERING - PE/EIS	3.5 % OF (CBI)	3.5%		\$2,831,910.48		\$1,277,993.07		\$1,140,624.64		\$5,208,724.81
20.3	ENGINEERING - FINAL	9.5 % OF (CBI)	9.5%		\$7,686,614.17		\$3,468,838.33		\$3,095,981.18		\$14,137,967.35
20.4	CONSTRUCTION MANAGEMENT	12 % OF (CBI)	12%		\$9,709,407.37		\$4,381,690.53		\$3,910,713.07		\$17,858,485.08
20.5	INSURANCE AND LEGAL	2 % OF (CBI)	2%		\$1,618,234.56		\$730,281.75		\$651,785.51		\$2,976,414.18
	TOTAL	49% OF (CBI)									
21.0	ACTIVATION / SYSTEM INTEGRATION -- LRT	LS	\$1,500,000.00		\$1,500,000		\$1,500,000		\$1,500,000		\$1,500,000
<b>COST OF CONSTRUCTION BID ITEMS PLUS MOBILIZATION AND CONTINGENCIES</b>					<b>\$129,340,530</b>		<b>\$59,192,259</b>		<b>\$52,991,055</b>		<b>\$236,636,720</b>
						<b>Seg 1+2</b>	<b>\$188,532,789</b>				
22.0	ROW ACQUISITION										\$21,055,289
22.1	ROW ACQUISITION	LS									\$4,989,074.00
22.2	BNSF ROW ACQUISITION	LS									\$0.00
22.3	UPRR ROW ACQUISITION	LS									\$0.00
	Jolly Rancher Siding	LS									
<b>GRAND TOTAL</b>											<b>\$262,681,083</b>

**I-225 CORRIDOR**

MIS/Fastracks Estimate

Scoping Study Estimate

ITEM NO.	ITEM	UNIT	UNIT COST	TOTAL CORRIDOR		TOTAL CORRIDOR		MIS vs Scoping Estimate Increase/(decrease)	
				ESTIMATED QUANTITY	ESTIMATED COST	ESTIMATED QUANTITY	ESTIMATED COST		
<b>1.0</b>	<b>REMOVALS / RELOCATIONS</b>								\$0
1.1	TRACK REMOVAL	TF	\$20	0	\$0.00	0	\$0.00		\$0
1.2	PAVED SURFACES - ROADWAY	SY	\$5	28,509	\$128,290.50	20,944	\$94,248.00		(\$34,043)
1.3	BRIDGE DEMOLITION	EA	\$40,000	0	\$0.00	0	\$0.00		\$0
1.4	BUILDING DEMOLITION	EA	\$20,000	14	\$280,000.00	27	\$540,000.00		\$260,000
1.5	MISCELLANEOUS (CORRIDOR SPECIFIC ITEMS)			0	\$0.00	0	\$0.00		\$0
	BARRIER	LF	\$8	8,062	\$64,496.00	0	\$0.00		(\$64,496) \$161,462
									\$0
<b>2.0</b>	<b>EARTHWORK</b>								\$0
2.1	EARTHWORK - GENERAL	CY	\$5	103,838	\$545,149.50	101,998	\$535,489.50		(\$9,660)
2.2	EMBANKMENT	CY	\$8	58,928	\$471,424.00	0	\$0.00		(\$471,424)
2.3	EXCAVATION	CY	\$5	5,595	\$25,177.50	0	\$0.00		(\$25,178)
2.4	EARTHWORK - PREMIUM FOR DIFFICULT CONDITIONS	CY	\$10	64,523	\$645,230.00	22,833	\$228,330.00		(\$416,900) (\$923,162)
									\$0
<b>3.0</b>	<b>RECONSTRUCTION / CONSTRUCTION</b>								\$0
3.1	PAVEMENT - ASPHALT	SY	\$30	0	\$0.00	11,722	\$351,660.00		\$351,660
3.2	PAVEMENT - CONCRETE	SY	\$50	52,890	\$2,644,500.00	556	\$27,800.00		(\$2,616,700)
3.3	CURB & GUTTER	LF	\$10	0	\$0.00	1,990	\$19,900.00		\$19,900
3.4	SIDEWALK	LF	\$20	0	\$0.00	0	\$0.00		\$0
3.5	OFF STREET TRAIL (CONCRETE)	SY	\$30	0	\$0.00	0	\$0.00		\$0
3.6	6' CHAIN LINK FENCE	LF	\$12	99,394	\$1,192,728.00	84,800	\$1,017,600.00		(\$175,128)
3.7	RURAL FENCE	LF	\$4	0	\$0.00	0	\$0.00		\$0
3.8	MISCELLANEOUS (CORRIDOR SPECIFIC ITEMS)								\$0
	TYPE 7 BARRIER	LF	\$70	51,770	\$3,623,900.00	17,000	\$1,190,000.00		(\$2,433,900) (\$4,854,168)
									\$0
<b>4.0</b>	<b>BRIDGES/STRUCTURES</b>								\$0
	CORRIDOR SPECIFIC BRIDGES								\$0
4.1	ILIFF (Bridge Complex)	LS	\$11,067,664	1	\$11,067,664.00	0	\$0.00		(\$11,067,664)
	LRT over Iliff	LS	\$700,000			1	\$700,000.00		\$700,000
	LRT under I225/Abilene/Exposition	LS	\$8,140,000			1	\$8,140,000.00		\$8,140,000
4.2	I-25/EXPOSITION (LRT FLYOVER)	LS	\$2,628,016	1	\$2,628,016.00	0	\$0.00		(\$2,628,016)
4.3	I-25/ELLSWORTH (LRT FLYOVER)	LS	\$2,341,600	1	\$2,341,600.00	0	\$0.00		(\$2,341,600)
4.4	2ND AVE. (NEW LRT BRIDGE OVER 2nd)	LS	\$596,700	1	\$596,700.00	0	\$0.00		(\$596,700)
4.5	PEDESTRIAN BRIDGE FROM 6TH STATION TO PNR	LS	\$755,000	1	\$755,000.00	0	\$0.00		(\$755,000)
	LRT over 6th Avenue	LS	\$2,276,100			1	\$2,276,100.00		\$2,276,100
4.6	6TH (NEW LRT BRIDGE OVER HWY)	LS	\$914,940	1	\$914,940.00	0	\$0.00		(\$914,940)
	LRT over Toll Gate Creek	LS	\$624,000			1	\$624,000.00		\$624,000
4.7	TOLLGATE CREEK (EXISTING BRIDGE) - MODIFY	LS	\$337,500	1	\$337,500.00	0	\$0.00		(\$337,500)
4.8	13TH (EXISTING BRIDGE) - MODIFY	LS	\$262,500	1	\$262,500.00	0	\$0.00		(\$262,500)
	Ped Tunnel at 13th Ave	LS	\$50,000			1	\$50,000.00		\$50,000
	LRT Colfax Flyover	LS	\$16,436,000			1	\$16,436,000.00		\$16,436,000
4.9	I-25/COLFAX TO SAND CK PKWY	LS	\$8,534,460	1	\$8,534,460.00	0	\$0.00		(\$8,534,460)
	LRT over Sand Creek	LS	\$900,000			1	\$900,000.00		\$900,000
4.10	SAND CREEK (NEW LRT BRIDGE)	LS	\$1,253,070	1	\$1,253,070.00	0	\$0.00		(\$1,253,070) \$434,650

I-225 CORRIDOR

MIS/Fastracks Estimate

Scoping Study Estimate

ITEM NO.	ITEM	UNIT	UNIT COST	TOTAL CORRIDOR		TOTAL CORRIDOR		MIS vs Scoping Estimate Increase/(decrease)
				ESTIMATED QUANTITY	ESTIMATED COST	ESTIMATED QUANTITY	ESTIMATED COST	
								\$0
<b>5.0</b>	<b>RETAINING WALLS</b>							\$0
5.1	0 TO 10'	LF	\$280	0	\$0.00	0	\$0.00	\$0
5.2	10 TO 20'	LF	\$480	0	\$0.00	0	\$0.00	\$0
5.3	> 20'	LF	\$1,020	0	\$0.00	0	\$0.00	\$0
								\$0
<b>6.0</b>	<b>BOX CULVERTS</b>							\$0
6.1	CBC 70 SF - 100 SF	LF	\$850	0	\$0.00	0	\$0.00	\$0
6.2	CBC >100 SF	LF	\$1,250	0	\$0.00	0	\$0.00	\$0
								\$0
<b>7.0</b>	<b>TRACKWORK</b>							\$0
7.1	DOUBLE BALLASTED TRACK - LRT	LF	\$270	4,437	\$1,197,990.00	0	\$0.00	(\$1,197,990)
7.2	SINGLE BALLASTED TRACK - FREIGHT/COMRAIL	TF	\$145	0	\$0.00	0	\$0.00	\$0
7.3	DOUBLE BALLASTED TRACK - FREIGHT/COMRAIL	LF	\$300	0	\$0.00	0	\$0.00	\$0
7.4	TRACKWORK REHABILITATION - FREIGHT	TF	\$40	0	\$0.00	0	\$0.00	\$0
7.5	DOUBLE DIRECT FIXATION TRACK - LRT	LF	\$500	5,558	\$2,779,000.00	5,605	\$2,802,500.00	\$23,500
7.6	DOUBLE TRACK RETAINED -LRT	LF	\$330	41,611	\$13,731,630.00	37,755	\$12,459,150.00	(\$1,272,480)
7.7	DOUBLE EMBEDDED TRACK - LRT	LF	\$640	4,100	\$2,624,000.00	6,440	\$4,121,600.00	\$1,497,600
7.8	DOUBLE EMBEDDED TRACK - FREIGHT/COMRAIL	LF	\$660	0	\$0.00	0	\$0.00	\$0 (\$949,370)
								\$0
<b>8.0</b>	<b>SPECIAL TRACKWORK</b>							\$0
8.1	#6 TURNOUT (LRT)	EA	\$50,000	0	\$0.00	0	\$0.00	\$0
8.2	#8 TURNOUT (LRT)	EA	\$65,000	0	\$0.00	0	\$0.00	\$0
8.3	#10 TURNOUT (LRT)	EA	\$90,000	0	0	0	0	\$0
8.4	#20 TURNOUT (COM/FREIGHT)	EA	\$170,000	0	0	0	0	\$0
8.5	#6 CROSSOVER (LRT)	EA	\$100,000	0	0	0	0	\$0
8.6	#8 CROSSOVER (LRT)	EA	\$130,000	0	0	0	0	\$0
8.7	#10 CROSSOVER (LRT)	EA	\$160,000	18	2,880,000	18	2,880,000	\$0
8.8	#20 CROSSOVER (COM/FREIGHT)	EA	\$350,000	0	0	0	0	\$0
								\$0
<b>9.0</b>	<b>SIGNALS</b>							\$0
9.1	COMMUNICATIONS	MI	\$800,000	9.89	\$7,908,636.36	9.43	\$7,545,454.55	(\$363,182)
9.2	SIGNAL SYSTEM	MI	\$500,000	9.89	\$4,942,897.73	9.43	\$4,715,909.09	(\$226,989) (\$590,170)
								\$0
<b>10.0</b>	<b>SYSTEM WIDE ELEMENTS</b>							\$0
10.1	TRACTION ELECTRIFICATION SYSTEM	MI	\$1,800,000	9.89	\$17,794,431.82	9.43	\$16,977,272.73	(\$817,159)
10.2	CORROSION CONTROL	MI	\$60,000	9.89	\$593,147.73	9.43	\$565,909.09	(\$27,239)
10.3	FARE COLLECTION	STATION	\$280,000	9	\$2,520,000.00	7	\$1,960,000.00	(\$560,000)
10.4	DUCTBANK - LRT	MI	\$720,000	9.89	\$7,117,772.73	9.43	\$6,790,909.09	(\$326,864)
10.5	DUCTBANK - COMRAIL	MI	\$500,000	0	\$0.00	0	\$0.00	\$0 (\$1,731,261)
								\$0
<b>11.0</b>	<b>AT-GRADE CROSSINGS</b>							\$0
11.1	CORRIDOR SPECIFIC CROSSINGS							\$0
11.2	AURORA MALL ENTRY AT EXPOSITION	EA	\$300,000	1	\$300,000.00	1	\$300,000.00	\$0
11.3	SABLE AT CENTERPOINT	EA	\$300,000	1	\$300,000.00	1	\$300,000.00	\$0
11.4	CENTERPOINT	EA	\$300,000	1	\$300,000.00	1	\$300,000.00	\$0
11.5	ALAMEDA	EA	\$300,000	1	\$300,000.00	1	\$300,000.00	\$0
11.6	SABLE AT ALAMEDA	EA	\$300,000	1	\$300,000.00	1	\$300,000.00	\$0

I-225 CORRIDOR

MIS/Fastracks Estimate

Scoping Study Estimate

ITEM NO.	ITEM	UNIT	UNIT COST	TOTAL CORRIDOR		TOTAL CORRIDOR		MIS vs Scoping Estimate Increase/(decrease)	
				ESTIMATED QUANTITY	ESTIMATED COST	ESTIMATED QUANTITY	ESTIMATED COST		
11.7	CEDAR AT SABLE	EA	\$300,000	1	\$300,000.00	1	\$300,000.00	\$0	
11.8	ASSUMED 1 ON SOUTH SIDE OF ELLSWORTH	EA	\$300,000	1	\$300,000.00	1	\$300,000.00	\$0	
	4th Avenue	EA	\$300,000		\$0.00	1	\$300,000.00	\$300,000	
11.9	SAND CREEK PKWY	EA	\$300,000	1	\$300,000.00	1	\$300,000.00	\$0	
11.10	MONTVIEW BLVD THROUGH REDEVELOPED FITZSIMMONS	EA	\$300,000	6	\$1,800,000.00	6	\$1,800,000.00	\$0	
11.11	30TH	EA	\$300,000	1	\$300,000.00	1	\$300,000.00	\$0	
11.12	31ST	EA	\$300,000	1	\$300,000.00	1	\$300,000.00	\$0	
11.13	BARANMOOR AT PEORIA	EA	\$300,000			1	\$300,000.00	\$300,000	
	Private Drives	EA	\$300,000	1	\$300,000.00	3	\$900,000.00	\$600,000	\$1,200,000
								\$0	
12.0	<b>STATIONS - CONNECTIONS</b>							\$0	
12.1	STATION - BRT	EA	\$6,000,000	0	\$0.00	0	\$0.00	\$0	
12.2	STATION - LRT	EA	\$750,000	6	\$4,500,000.00	5	\$3,750,000.00	(\$750,000)	
12.3	STATION - COMRAIL	EA	\$1,000,000	0	\$0.00	0	\$0.00	\$0	
	Pedestrian Bridge/Vertical Access Smith Road	EA	\$2,000,000			1	\$2,000,000.00	\$2,000,000	
	Pedestrian Bridge/Vertical Access Jewel/Florida	EA	\$2,600,000			1	\$2,600,000.00	\$2,600,000	
12.4	END-OF-LINE STATION - LRT	EA	\$1,000,000	1	\$1,000,000.00	1	\$1,000,000.00	\$0	
12.5	END-OF-LINE STATION - COMRAIL	EA	\$1,500,000	0	\$0.00	0	\$0.00	\$0	
12.6	ELEVATED STATION	EA	\$1,500,000	2	\$3,000,000.00	1	\$1,500,000.00	(\$1,500,000)	\$2,350,000
								\$0	
<b>SUBTOTAL (A)</b>					<b>\$116,001,851.86</b>	<b>\$111,099,832.05</b>		<b>(\$4,902,020)</b>	
								\$0	
13.0	DRAINAGE	5 % OF (A)	5%		\$5,800,092.59		\$5,554,991.60	(\$245,101)	
								\$0	
14.0	UTILITY RELOCATION	4 % OF (A)	4%		\$4,640,074.07		\$4,443,993.28	(\$196,081)	
								\$0	
15.0	NOISE MITIGATION							\$0	
	RESIDENTIAL	3 % OF (A)						\$0	
	COMMERCIAL	2 % OF (A)						\$0	
	INDUSTRIAL	1 % OF (A)	1%		\$1,160,018.52		\$1,110,998.32	(\$49,020)	
								\$0	
16.0	SIGNING AND STRIPING		1%		\$1,160,018.52		\$1,110,998.32	(\$49,020)	
								\$0	
17.0	CONSTRUCTION TRAFFIC CONTROL		8%		\$9,280,148.15		\$8,887,986.56	(\$392,162)	
								\$0	
18.0	URBAN DESIGN / LANDSCAPING		1%		\$1,160,018.52		\$1,110,998.32	(\$49,020)	
								\$0	
<b>TOTAL COST OF CONSTRUCTION BID ITEMS (CBI)</b>					<b>\$139,202,222</b>	<b>\$133,319,798</b>		<b>(\$5,882,424)</b>	<b>(\$5,882,424)</b>
								\$0	
19.0	MOBILIZATION	6 % OF (CBI)	6%		\$8,352,133.33		\$7,999,187.91	(\$352,945)	
								\$0	
20.0	<b>CONTINGENCIES &amp; OTHER COSTS</b>							\$0	
20.1	CONTINGENCIES	25 % OF (CBI)	25.00%		\$34,800,555.56		\$33,329,949.61	(\$1,470,606)	
20.2	ENGINEERING DESIGN - PE/EIS	3.5 % OF (CBI)	3.50%		\$4,872,077.78		\$4,666,192.95	(\$205,885)	

**I-225 CORRIDOR**

MIS/Fastracks Estimate

Scoping Study Estimate

ITEM NO.	ITEM	UNIT	UNIT COST	TOTAL CORRIDOR		TOTAL CORRIDOR		MIS vs Scoping Estimate Increase/(decrease)	
				ESTIMATED QUANTITY	ESTIMATED COST	ESTIMATED QUANTITY	ESTIMATED COST		
20.3	ENGINEERING DESIGN - FINAL	9.5 % OF (CBI)	9.50%		\$13,224,211.11		\$12,665,380.85	(\$58,830)	
20.4	CONSTRUCTION MANAGEMENT	12 % OF (CBI)	12.00%		\$16,704,266.67		\$15,998,375.81	(\$705,891)	
20.5	INSURANCE AND LEGAL	2 % OF (CBI)	2.00%		\$2,784,044.44		\$2,666,395.97	(\$117,648)	
	TOTAL	52% OF (CBI)						\$0	
								\$0	
21.0	ACTIVATION / SYSTEM INTEGRATION							\$0	
21.1	LRT	LS	\$1,500,000	1	\$1,500,000.00	1	\$1,500,000.00	\$0	
21.2	CRT	LS	\$1,000,000					\$0	
								\$0	
<b>COST OF CONSTRUCTION BID ITEMS PLUS MOBILIZATION AND CONTINGENCIES</b>					<b>\$221,439,511</b>		<b>\$212,145,282</b>	<b>(\$9,294,230)</b>	<b>(\$9,294,230)</b>
								\$0	
22.0	ROW ACQUISITION				\$40,380,000		\$40,952,160	\$572,160	\$572,160
								\$0	
								\$0	
								\$0	
								\$0	
<b>GRAND TOTAL</b>					<b>\$261,819,511</b>		<b>\$253,097,442</b>	<b>(\$8,722,070)</b>	<b>(\$8,722,070)</b>
								\$0	



I-225 CORRIDOR

Nine Mile to Iliff

Iliff to Aurora City Center

Aurora City Center to Fitzsimons S

Fitzsimons S to Peoria/Smith

Scoping Study Estimate

ITEM NO.	ITEM	UNIT	UNIT COST	SEGMENT 1		SEGMENT 2		SEGMENT 3		SEGMENT 4		TOTAL CORRIDOR	
				ESTIMATED QUANTITY	ESTIMATED COST	ESTIMATED QUANTITY	ESTIMATED COST	ESTIMATED QUANTITY	ESTIMATED COST	ESTIMATED QUANTITY	ESTIMATED COST	ESTIMATED QUANTITY	ESTIMATED COST
7.6	DOUBLE TRACK RETAINED -LRT	LF	\$330	6500	\$2,145,000	13565	\$4,476,450	11050	\$3,646,500	6640	\$2,191,200	37,755	\$12,459,150.00
7.7	DOUBLE EMBEDDED TRACK - LRT	LF	\$640	0	\$0	720	\$460,800	360	\$230,400	5360	\$3,430,400	6,440	\$4,121,600.00
7.8	DOUBLE EMBEDDED TRACK - FREIGHT/COMRAIL	LF	\$660	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0.00
8.0	<b>SPECIAL TRACKWORK</b>												
8.1	#6 TURNOUT (LRT)	EA	\$50,000	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0.00
8.2	#8 TURNOUT (LRT)	EA	\$65,000	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0.00
8.3	#10 TURNOUT (LRT)	EA	\$90,000	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0.00
8.4	#20 TURNOUT (COM/FREIGHT)	EA	\$170,000	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0.00
8.5	#6 CROSSOVER (LRT)	EA	\$100,000	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0.00
8.6	#8 CROSSOVER (LRT)	EA	\$130,000	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0.00
8.7	#10 CROSSOVER (LRT)	EA	\$160,000	2	\$320,000	6	\$960,000	4	\$640,000	6	\$960,000	18	\$2,880,000
8.8	#20 CROSSOVER (COM/FREIGHT)	EA	\$350,000	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0.00
9.0	<b>SIGNALS</b>												
9.1	COMMUNICATIONS	MI	\$800,000	1.23	\$984,848	2.90	\$2,318,182	2.97	\$2,378,788	2.33	\$1,863,636	9.43	\$7,545,454.55
9.2	SIGNAL SYSTEM	MI	\$500,000	1.23	\$615,530	2.90	\$1,448,864	2.97	\$1,486,742	2.33	\$1,164,773	9.43	\$4,715,909.09
10.0	<b>SYSTEM WIDE ELEMENTS</b>												
10.1	TRACTION ELECTRIFICATION SYSTEM	MI	\$1,800,000	1.23	\$2,215,909	2.90	\$5,215,909	2.97	\$5,352,273	2.33	\$4,193,182	9.43	\$16,977,272.73
10.2	CORROSION CONTROL	MI	\$60,000	1.23	\$73,864	2.90	\$173,864	2.97	\$178,409	2.33	\$139,773	9.43	\$565,909.09
10.3	FARE COLLECTION	STATION	\$280,000	0	\$0	3	\$840,000	2	\$560,000	2	\$560,000	7	\$1,960,000.00
10.4	DUCTBANK - LRT	MI	\$720,000	1.23	\$886,364	2.90	\$2,086,364	2.97	\$2,140,909	2.33	\$1,677,273	9.43	\$6,790,909.09
10.5	DUCTBANK - COMRAIL	MI	\$500,000	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0.00
11.0	<b>AT-GRADE CROSSINGS</b>												
11.1	CORRIDOR SPECIFIC CROSSINGS												
11.2	AURORA MALL ENTRY AT EXPOSITION	EA	\$300,000	0	\$0	1	\$300,000	0	\$0	0	\$0	1	\$300,000.00
11.3	SABLE AT CENTERPOINT	EA	\$300,000	0	\$0	1	\$300,000	0	\$0	0	\$0	1	\$300,000.00
11.4	CENTERPOINT	EA	\$300,000	0	\$0	1	\$300,000	0	\$0	0	\$0	1	\$300,000.00
11.5	ALAMEDA	EA	\$300,000	0	\$0	0	\$0	1	\$300,000	0	\$0	1	\$300,000.00
11.6	SABLE AT ALAMEDA	EA	\$300,000	0	\$0	0	\$0	1	\$300,000	0	\$0	1	\$300,000.00
11.7	CEDAR AT SABLE	EA	\$300,000	0	\$0	0	\$0	1	\$300,000	0	\$0	1	\$300,000.00
11.8	ASSUMED 1 ON SOUTH SIDE OF ELLSWORTH	EA	\$300,000	0	\$0	0	\$0	1	\$300,000	0	\$0	1	\$300,000.00
	4th Avenue	EA	\$300,000	0	\$0	0	\$0	1	\$300,000	0	\$0	1	\$300,000.00
11.9	SAND CREEK PKWY	EA	\$300,000	0	\$0	0	\$0	0	\$0	1	\$300,000	1	\$300,000.00
11.10	MONTVIEW/BLVD THROUGH REDEVELOPED FITZSIMMONS	EA	\$300,000	0	\$0	0	\$0	0	\$0	6	\$1,800,000	6	\$1,800,000.00
11.11	30TH	EA	\$300,000	0	\$0	0	\$0	0	\$0	1	\$300,000	1	\$300,000.00
11.12	31ST	EA	\$300,000	0	\$0	0	\$0	0	\$0	1	\$300,000	1	\$300,000.00
11.13	BARANMOOR AT PEORIA	EA	\$300,000	0	\$0	0	\$0	0	\$0	1	\$300,000	1	\$300,000.00
	Private Drives	EA	\$300,000	0	\$0	0	\$0	0	\$0	3	\$900,000	3	\$900,000.00
12.0	<b>STATIONS - CONNECTIONS</b>												
12.1	STATION - BRT	EA	\$6,000,000	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0.00
12.2	STATION - LRT	EA	\$750,000	0	\$0	3	\$2,250,000	1	\$750,000	1	\$750,000	5	\$3,750,000.00
12.3	STATION - COMRAIL	EA	\$1,000,000	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0.00
	Pedestrian Bridge/Vertical Access Smith Road	EA	\$2,000,000	0	\$0	0	\$0	0	\$0	1	\$2,000,000	1	\$2,000,000.00
	Pedestrian Bridge/Vertical Access Jewel/Florida	EA	\$2,600,000	0	\$0	1	\$2,600,000	0	\$0	0	\$0	1	\$2,600,000.00
12.4	END-OF-LINE STATION - LRT	EA	\$1,000,000	0	\$0	0	\$0	0	\$0	1	\$1,000,000	1	\$1,000,000.00
12.5	END-OF-LINE STATION - COMRAIL	EA	\$1,500,000	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0.00
12.6	ELEVATED STATION	EA	\$1,500,000	0	\$0	0	\$0	1	\$1,500,000	0	\$0	1	\$1,500,000.00
<b>SUBTOTAL (A)</b>					<b>\$8,466,085</b>		<b>\$34,116,865</b>		<b>\$42,893,787</b>		<b>\$25,623,096</b>		<b>\$111,099,832.05</b>
13.0	DRAINAGE	5 % OF (A)	5%		\$423,304		\$1,705,843		\$2,144,689		\$1,281,155		\$5,554,991.60
14.0	UTILITY RELOCATION	4 % OF (A)	4%		\$338,643		\$1,364,675		\$1,715,751		\$1,024,924		\$4,443,993.28
15.0	NOISE MITIGATION												
	RESIDENTIAL	3 % OF (A)											
	COMMERCIAL	2 % OF (A)											
	INDUSTRIAL	1 % OF (A)	1%		\$84,661		\$341,169		\$428,938		\$256,231		\$1,110,998.32

I-225 CORRIDOR

Nine Mile to Iliiff

Iliiff to Aurora City Center

Aurora City Center to Fitzsimons S

Fitzsimons S to Peoria/Smith

Scoping Study Estimate

ITEM NO.	ITEM	UNIT	UNIT COST	SEGMENT 1		SEGMENT 2		SEGMENT 3		SEGMENT 4		TOTAL CORRIDOR	
				ESTIMATED QUANTITY	ESTIMATED COST	ESTIMATED QUANTITY	ESTIMATED COST	ESTIMATED QUANTITY	ESTIMATED COST	ESTIMATED QUANTITY	ESTIMATED COST	ESTIMATED QUANTITY	ESTIMATED COST
16.0	SIGNING AND STRIPING		1%		\$84,661		\$341,169		\$428,938		\$256,231		\$1,110,998.32
17.0	CONSTRUCTION TRAFFIC CONTROL		8%		\$677,287		\$2,729,349		\$3,431,503		\$2,049,848		\$8,887,986.56
18.0	URBAN DESIGN / LANDSCAPING		1%		\$84,661		\$341,169		\$428,938		\$256,231		\$1,110,998.32
<b>TOTAL COST OF CONSTRUCTION BID ITEMS (CBI)</b>					<b>\$10,159,302</b>		<b>\$40,940,237</b>		<b>\$51,472,544</b>		<b>\$30,747,715</b>		<b>\$133,319,798</b>
19.0	MOBILIZATION	6 % OF (CBI)	6%		\$609,558		\$2,456,414		\$3,088,353		\$1,844,863		\$7,999,187.91
20.0	<b>CONTINGENCIES &amp; OTHER COSTS</b>												
20.1	CONTINGENCIES	25 % OF (CBI)	25.00%		\$2,539,825		\$10,235,059		\$12,868,136		\$7,686,929		\$33,329,949.61
20.2	ENGINEERING DESIGN - PE/EIS	3.5 % OF (CBI)	3.50%		\$355,576		\$1,432,908		\$1,801,539		\$1,076,170		\$4,666,192.95
20.3	ENGINEERING DESIGN - FINAL	9.5 % OF (CBI)	9.50%		\$965,134		\$3,889,323		\$4,889,892		\$2,921,033		\$12,665,380.85
20.4	CONSTRUCTION MANAGEMENT	12 % OF (CBI)	12.00%		\$1,219,116		\$4,912,828		\$6,176,705		\$3,689,726		\$15,998,375.81
20.5	INSURANCE AND LEGAL	2 % OF (CBI)	2.00%		\$203,186		\$818,805		\$1,029,451		\$614,954		\$2,666,395.97
	TOTAL	52% OF (CBI)											
21.0	ACTIVATION / SYSTEM INTEGRATION												
21.1	LRT	LS	\$1,500,000	1	\$1,500,000	1	\$1,500,000	1	\$1,500,000	1	\$1,500,000	1	\$1,500,000.00
21.2	CRT	LS	\$1,000,000										
<b>COST OF CONSTRUCTION BID ITEMS PLUS MOBILIZATION AND CONTINGENCIES</b>					<b>\$17,551,696</b>		<b>\$66,185,575</b>		<b>\$82,826,620</b>		<b>\$50,081,390</b>		<b>\$212,145,282</b>
22.0	ROW ACQUISITION												\$40,952,160
<b>GRAND TOTAL</b>					<b>\$17,551,696</b>		<b>\$66,185,575</b>		<b>\$82,826,620</b>		<b>\$50,081,390</b>		<b>\$253,097,442</b>

**NORTH COMMUTER RAIL CORRIDOR**

MIS/Fastracks Estimate

Scoping Cost Estimate

ITEM NO.	ITEM	UNIT	UNIT COST	TOTAL CORRIDOR		TOTAL CORRIDOR		MIS vs Scoping Estimate Increase/(decrease)
				ESTIMATED QUANTITY	ESTIMATED COST	ESTIMATED QUANTITY	ESTIMATED COST	
<b>1.0</b>	<b>REMOVALS / RELOCATIONS</b>							
1.1	TRACK REMOVAL	TF	\$20.00	88,512	\$1,770,240.00	70,504	\$1,410,080.00	(\$360,160.00)
1.2	PAVED SURFACES - ROADWAY	SY	\$4.50	10,150	\$45,675.00	5,900	\$26,550.00	(\$19,125.00)
1.3	BRIDGE DEMOLITION	EA	\$40,000.00	3	\$120,000.00	1	\$40,000.00	(\$80,000.00)
1.4	BUILDING DEMOLITION	EA	\$20,000.00	0	\$0.00	2	\$40,000.00	\$40,000.00
1.5	MISCELLANEOUS (CORRIDOR SPECIFIC ITEMS)							\$0.00
								\$0.00
<b>2.0</b>	<b>EARTHWORK</b>							\$0.00
2.1	EARTHWORK - GENERAL	CY	\$5.25	329,212	\$1,728,362.48	573,067	\$3,008,601.75	\$1,280,239.28
2.2	EMBANKMENT	CY	\$8.00	0	\$0.00	0	\$0.00	\$0.00
2.3	EXCAVATION	CY	\$4.50	0	\$0.00	38,000	\$171,000.00	\$171,000.00
2.4	EARTHWORK - PREMIUM FOR DIFFICULT CONDITIONS	CY	\$10.00	0	\$0.00	0	\$0.00	\$0.00
								\$1,451,239.28
								\$0.00
<b>3.0</b>	<b>RECONSTRUCTION / CONSTRUCTION</b>							\$0.00
3.1	PAVEMENT - ASPHALT	SY	\$30.00	0	\$0.00	10,534	\$316,020.00	\$316,020.00
3.2	PAVEMENT - CONCRETE	SY	\$50.00	0	\$0.00	0	\$0.00	\$0.00
3.3	CURB & GUTTER	LF	\$10.00	0	\$0.00	7,900	\$79,000.00	\$79,000.00
3.4	SIDEWALK	LF	\$20.00	0	\$0.00	4,900	\$98,000.00	\$98,000.00
3.5	OFF STREET TRAIL (CONCRETE)	SY	\$30.00	0	\$0.00	0	\$0.00	\$0.00
3.6	6' CHAIN LINK FENCE	LF	\$12.00	138,854	\$1,666,248.00	153,818	\$1,845,816.00	\$179,568.00
3.7	RURAL FENCE	LF	\$4.00	34,844	\$139,376.00	39,737	\$158,948.00	\$19,572.00
3.8	MISCELLANEOUS (CORRIDOR SPECIFIC ITEMS)							\$0.00
								\$692,160.00
								\$0.00
<b>4.0</b>	<b>BRIDGES/STRUCTURES</b>							\$0.00
4.1	LUMP SUMS FOR INDIVIDUAL STRUCTURES	LS						\$0.00
	AMTRAK & SOUTH PLATTE R	LS	\$5,900,000.00			1	\$5,900,000.00	\$5,900,000.00
						1	\$0.00	\$0.00
	WASHINGTON/38TH	LS	\$500,000.00			1	\$500,000.00	\$500,000.00
	SOUTH PLATTE	LS	\$1,200,000.00			1	\$1,200,000.00	\$1,200,000.00
	47TH	LS	\$400,000.00			1	\$400,000.00	\$400,000.00
	STOCKSHOW	LS	\$400,000.00			1	\$400,000.00	\$400,000.00
	RACE CT	LS	\$500,000.00			1	\$500,000.00	\$500,000.00
	BNSF over North Metro/Brighton	LS	\$8,415,000.00			1	\$8,415,000.00	\$8,415,000.00
		LS				1	\$0.00	\$0.00
	Railroad Wye	LS	\$3,100,000.00			1	\$3,100,000.00	\$3,100,000.00
	Sand Creek	LS	\$1,100,000.00			1	\$1,100,000.00	\$1,100,000.00
	I-270	LS	\$1,200,000.00			1	\$1,200,000.00	\$1,200,000.00
	STOCKSHOW COMPLEX (2 tracks)	LS	\$151,620.00	1	\$151,620.00	0	\$0.00	(\$151,620.00)
	RACE ST (2 tracks)	LS	\$530,670.00	1	\$530,670.00	0	\$0.00	(\$530,670.00)
	YORK (3 tracks)	LS	\$1,137,150.00	1	\$1,137,150.00	0	\$0.00	(\$1,137,150.00)
	UPRR N (2 tracks)	LS	\$631,750.00	1	\$631,750.00	0	\$0.00	(\$631,750.00)
	UPRR S (3 tracks)	LS	\$189,525.00	1	\$189,525.00	0	\$0.00	(\$189,525.00)
	59TH/SAND CREEK/60TH (2 BRIDGES)	LS	\$2,527,000.00	1	\$2,527,000.00	0	\$0.00	(\$2,527,000.00)
	CLEAR CREEK	LS	\$151,620.00	1	\$151,620.00	1	\$151,620.00	\$0.00

**NORTH COMMUTER RAIL CORRIDOR**

MIS/Fastracks Estimate

Scoping Cost Estimate

ITEM NO.	ITEM	UNIT	UNIT COST	TOTAL CORRIDOR		TOTAL CORRIDOR		MIS vs Scoping Estimate Increase/(decrease)	
				ESTIMATED QUANTITY	ESTIMATED COST	ESTIMATED QUANTITY	ESTIMATED COST		
	I-76	LS	\$170,000.00	0	\$0.00	1	\$170,000.00	\$170,000.00	
	74TH AVENUE	LS	\$120,000.00	0	\$0.00	1	\$120,000.00	\$120,000.00	
	SOUTH PLATTE	LS	\$1,377,215.00	1	\$1,377,215.00	0	\$0.00	(\$1,377,215.00)	
	SOUTH PLATTE	LS	\$2,500,000.00			1	\$2,500,000.00	\$2,500,000.00	
	DRAINAGEWAY SOUTH OF 124TH	LS	\$126,350.00	1	\$126,350.00	1	\$126,350.00	\$0.00	
	88TH AVENUE GRADE SEPARATION	LS	\$4,500,000.00	1	\$4,500,000.00	0	\$0.00	(\$4,500,000.00)	
	104TH AVENUE GRADE SEPARATION	LS	\$4,500,000.00	1	\$4,500,000.00	1	\$4,500,000.00	\$0.00	
	120TH AVE. GRADE SEPARATION	LS	\$4,500,000.00	1	\$4,500,000.00	1	\$4,500,000.00	\$0.00	
	DRAINAGEWAY (2300' N OF STEELE)	LS	\$164,255.00	1	\$164,255.00	1	\$164,255.00	\$0.00	
	DRAINAGEWAY (1200' S OF 88TH)	LS	\$126,350.00	1	\$126,350.00	1	\$126,350.00	\$0.00	
	E-470	LS	\$505,400.00	0	\$0.00	0	\$0.00	\$0.00	\$14,460,070.00
								\$0.00	
<b>5.0</b>	<b>RETAINING WALLS</b>							\$0.00	
5.1	0 TO 10'	LF	\$280.00	0	\$0.00	0	\$0.00	\$0.00	
5.2	10 TO 15'	LF	\$480.00	0	\$0.00	0	\$0.00	\$0.00	
5.3	15 TO 20'	LF	\$740.00	0	\$0.00	0	\$0.00	\$0.00	
5.4	> 20'	LF	\$1,020.00	0	\$0.00	0	\$0.00	\$0.00	
								\$0.00	
<b>6.0</b>	<b>BOX CULVERTS</b>							\$0.00	
6.1	CBC 70 SF - 100 SF	LF	\$850.00	0	\$0.00	0	\$0.00	\$0.00	
6.2	CBC >100 SF	LF	\$1,250.00	0	\$0.00	0	\$0.00	\$0.00	
								\$0.00	
<b>7.0</b>	<b>TRACKWORK</b>							\$0.00	
7.1	DOUBLE BALLASTED TRACK - LRT	LF	\$270.00	0	\$0.00	0	\$0.00	\$0.00	
7.2	SINGLE BALLASTED TRACK - FREIGHT/COMRAIL	TF	\$145.00	33,840	\$4,906,800.00	31,604	\$4,582,580.00	(\$324,220.00)	
7.3	DOUBLE BALLASTED TRACK - FREIGHT/COMRAIL	LF	\$300.00	74,863	\$22,458,900.00	71,282	\$21,384,600.00	(\$1,074,300.00)	
7.4	TRACKWORK REHABILITATION - FREIGHT	TF	\$40.00	0	\$0.00	0	\$0.00	\$0.00	
7.5	DOUBLE DIRECT FIXATION TRACK - LRT	LF	\$500.00	0	\$0.00	0	\$0.00	\$0.00	
7.6	DOUBLE TRACK RETAINED -LRT	LF	\$330.00	0	\$0.00	0	\$0.00	\$0.00	
7.7	DOUBLE EMBEDDED TRACK - LRT	LF	\$640.00	0	\$0.00	0	\$0.00	\$0.00	
7.8	DOUBLE EMBEDDED TRACK - FREIGHT/COMRAIL	LF	\$660.00	0	\$0.00	0	\$0.00	\$0.00	
	Shoo-Fly @ Brighton/York	LF	\$1,000.00			3,000	\$3,000,000.00	\$3,000,000.00	\$1,601,480.00
								\$0.00	
								\$0.00	
<b>8.0</b>	<b>SPECIAL TRACKWORK</b>							\$0.00	
8.1	#6 TURNOUT (LRT)	EA	\$50,000.00	0	\$0.00	0	\$0.00	\$0.00	
8.2	#8 TURNOUT (LRT)	EA	\$65,000.00	0	\$0.00	0	\$0.00	\$0.00	
8.3	#10 TURNOUT (LRT)	EA	\$90,000.00	0	\$0.00	0	\$0.00	\$0.00	
8.4	#20 TURNOUT (COM/FREIGHT)	EA	\$170,000.00	49	\$8,330,000.00	5	\$850,000.00	(\$7,480,000.00)	
8.5	#6 CROSSOVER (LRT)	EA	\$100,000.00	0	\$0.00	0	\$0.00	\$0.00	
8.6	#8 CROSSOVER (LRT)	EA	\$130,000.00	0	\$0.00	0	\$0.00	\$0.00	
8.7	#10 CROSSOVER (LRT)	EA	\$160,000.00	0	\$0.00	0	\$0.00	\$0.00	
8.8	#20 CROSSOVER (COM/FREIGHT)	EA	\$350,000.00	13	\$4,550,000.00	7	\$2,450,000.00	(\$2,100,000.00)	
								\$0.00	(\$9,580,000.00)
<b>9.0</b>	<b>SIGNALS</b>							\$0.00	
9.1	COMMUNICATIONS	MI	\$800,000.00	18	\$14,638,181.82	19	\$14,888,000.00	\$249,818.18	
9.2	SIGNAL SYSTEM	MI	\$500,000.00	18.30	\$9,148,863.64	18.61	\$9,305,000.00	\$156,136.36	\$405,954.55
								\$0.00	

**NORTH COMMUTER RAIL CORRIDOR**

MIS/Fastracks Estimate

Scoping Cost Estimate

ITEM NO.	ITEM	UNIT	UNIT COST	TOTAL CORRIDOR		TOTAL CORRIDOR		MIS vs Scoping Estimate Increase/(decrease)	
				ESTIMATED QUANTITY	ESTIMATED COST	ESTIMATED QUANTITY	ESTIMATED COST		
<b>10.0</b>	<b>SYSTEM WIDE ELEMENTS</b>							\$0.00	
10.1	TRACTION ELECTRIFICATION SYSTEM	MI	\$1,800,000.00	0	\$0.00	0	\$0.00	\$0.00	
10.2	CORROSION CONTROL	MI	\$60,000.00	0	\$0.00	0	\$0.00	\$0.00	
10.3	FARE COLLECTION	STATION	\$280,000.00	6	\$1,680,000.00	8	\$2,240,000.00	\$560,000.00	
10.4	DUCTBANK - LRT	MI	\$720,000.00	0	\$0.00	0	\$0.00	\$0.00	
10.5	DUCTBANK - COMRAIL	MI	\$500,000.00	18	\$9,148,863.64	19	\$9,305,000.00	\$156,136.36	\$716,136
								\$0.00	
<b>11.0</b>	<b>AT-GRADE CROSSINGS</b>							\$0.00	
11.1	CORRIDOR SPECIFIC CROSSINGS	EA	\$300,000.00	0	\$0.00	0	\$0.00	\$0.00	
	156TH AVE	EA	\$300,000.00	1	\$300,000.00	1	\$300,000.00	\$0.00	
	144TH AVE	EA	\$300,000.00	1	\$300,000.00	1	\$300,000.00	\$0.00	
	136TH AVE	EA	\$300,000.00	1	\$300,000.00	1	\$300,000.00	\$0.00	
	YORK STREET	EA	\$300,000.00	0	\$0.00	1	\$300,000.00	\$300,000.00	
	128TH AVE	EA	\$300,000.00	1	\$300,000.00	1	\$300,000.00	\$0.00	
	124TH AVE	EA	\$300,000.00	1	\$300,000.00	1	\$300,000.00	\$0.00	
	112TH AVE	EA	\$300,000.00	1	\$300,000.00	1	\$300,000.00	\$0.00	
	100TH AVE	EA	\$300,000.00	1	\$300,000.00	1	\$300,000.00	\$0.00	
	THORNTON PKWY	EA	\$300,000.00	0	\$0.00	1	\$300,000.00	\$300,000.00	
	88TH AVENUE	EA	\$300,000.00	0	\$0.00	1	\$300,000.00	\$300,000.00	
	STEELE ST	EA	\$300,000.00	1	\$300,000.00	1	\$300,000.00	\$0.00	
	Pvt 74TH NORTH	EA	\$300,000.00	1	\$300,000.00	1	\$300,000.00	\$0.00	
	Pvt 74TH SOUTH	EA	\$300,000.00	1	\$300,000.00	1	\$300,000.00	\$0.00	
	68TH AVE	EA	\$300,000.00	1	\$300,000.00	1	\$300,000.00	\$0.00	
	COLORADO BLVD	EA	\$300,000.00	1	\$300,000.00	0	\$0.00	(\$300,000.00)	
	64TH AVE	EA	\$300,000.00	1	\$300,000.00	1	\$300,000.00	\$0.00	
	Metro Wastewater	EA	\$300,000.00			1	\$300,000.00	\$300,000.00	
	Relocated York Street	EA	\$300,000.00	0	\$0.00	1	\$300,000.00	\$300,000.00	
	BRIGHTON BLVD	EA	\$300,000.00	1	\$300,000.00	0	\$0.00	(\$300,000.00)	
	56TH AVE	EA	\$300,000.00	1	\$300,000.00	0	\$0.00	(\$300,000.00)	
	RIVERSIDE CEMETARY	EA	\$300,000.00	1	\$300,000.00	1	\$300,000.00	\$0.00	\$600,000.00
								\$0.00	
<b>12.0</b>	<b>STATIONS - CONNECTIONS</b>							\$0.00	
12.1	STATION - BRT	EA	\$6,000,000.00	0	\$0.00	0	\$0.00	\$0.00	
12.2	STATION - LRT	EA	\$750,000.00	0	\$0.00	0	\$0.00	\$0.00	
	Pedestrian Access across UPRR	EA	\$1,040,000.00			2	\$2,080,000.00	\$2,080,000.00	
12.3	STATION - COMRAIL	EA	\$1,000,000.00	5	\$5,000,000.00	8	\$8,000,000.00	\$3,000,000.00	
12.4	END-OF-LINE STATION - LRT	EA	\$1,000,000.00	0	\$0.00	0	\$0.00	\$0.00	
12.5	END-OF-LINE STATION - COMRAIL	EA	\$1,500,000.00	1	\$1,500,000.00	0	\$0.00	(\$1,500,000.00)	
12.6	ELEVATED STATION	EA	\$1,500,000.00	0	\$0.00	0	\$0.00	\$0.00	\$3,580,000.00
								\$0.00	
<b>SUBTOTAL (A)</b>					<b>\$112,245,016</b>		<b>\$125,752,771</b>	\$13,507,755.18	\$13,507,755.18
								\$0.00	
								\$0.00	
13.0	DRAINAGE	5 % OF (A)	5%		\$5,612,250.78		\$6,287,638.54	\$675,387.76	
								\$0.00	
14.0	UTILITY RELOCATION	4 % OF (A)	4%		\$4,489,800.62		\$5,030,110.83	\$540,310.21	
								\$0.00	

**NORTH COMMUTER RAIL CORRIDOR**

MIS/Fastracks Estimate

Scoping Cost Estimate

ITEM NO.	ITEM	UNIT	UNIT COST	TOTAL CORRIDOR		TOTAL CORRIDOR		MIS vs Scoping Estimate Increase/(decrease)	
				ESTIMATED QUANTITY	ESTIMATED COST	ESTIMATED QUANTITY	ESTIMATED COST		
15.0	NOISE MITIGATION							\$0.00	
	RESIDENTIAL	3 % OF (A)						\$0.00	
	COMMERCIAL	2 % OF (A)	2%		\$2,244,900.31		\$2,515,055.42	\$270,155.10	
	INDUSTRIAL	1 % OF (A)						\$0.00	
16.0	SIGNING AND STRIPING		1%		\$1,122,450.16		\$1,257,527.71	\$135,077.55	
17.0	CONSTRUCTION TRAFFIC CONTROL		3%		\$3,367,350.47		\$3,772,583.12	\$405,232.66	
18.0	URBAN DESIGN / LANDSCAPING		1%		\$1,122,450.16		\$1,257,527.71	\$135,077.55	
								\$0.00	
<b>TOTAL COST OF CONSTRUCTION BID ITEMS (CBI)</b>					<b>\$130,204,218</b>		<b>\$145,873,214</b>	\$15,668,996.01	\$15,668,996.01
								\$0.00	
19.0	MOBILIZATION	6 % OF (CBI)	6%		\$7,812,253.08		\$8,752,392.84	\$940,139.76	
								\$0.00	
20.0	CONTINGENCIES & OTHER COSTS							\$0.00	
20.1	CONTINGENCIES	25 % OF (CBI)	25.00%		\$32,551,054.51		\$36,468,303.52	\$3,917,249.00	
20.2	ENGINEERING DESIGN - PE/EIS	3.5 % OF (CBI)	3.50%		\$4,557,147.63		\$5,105,562.49	\$548,414.86	
20.3	ENGINEERING DESIGN - FINAL	9.5 % OF (CBI)	9.50%		\$12,369,400.72		\$13,857,955.34	\$1,488,554.62	
20.4	CONSTRUCTION MANAGEMENT	12 % OF (CBI)	12.00%		\$15,624,506.17		\$17,504,785.69	\$1,880,279.52	
20.5	INSURANCE AND LEGAL	2 % OF (CBI)	2.00%		\$2,604,084.36		\$2,917,464.28	\$313,379.92	
	TOTAL	52% OF (CBI)						\$0.00	
								\$0.00	
21.0	ACTIVATION / SYSTEM INTEGRATION							\$0.00	
21.1	LRT	LS	\$1,500,000					\$0.00	
21.2	CRT	LS	\$1,000,000	1	\$1,000,000.00	1	\$1,000,000.00	\$0.00	
								\$0.00	
<b>COST OF CONSTRUCTION BID ITEMS PLUS MOBILIZATION AND CONTINGENCIES</b>					<b>\$206,722,665</b>		<b>\$231,479,678</b>	\$24,757,013.70	\$24,757,013.70
								\$0.00	
22.0	ROW ACQUISITION				\$35,278,000		\$47,277,250	\$11,999,250.00	
22.1	ROW ACQUISITION	LS						\$0.00	
22.2	BNSF ROW ACQUISITION	LS						\$0.00	
22.3	Rail Road Acquisition	LS					\$47,547,018	\$47,547,018.00	\$59,546,268.00
								\$0.00	
<b>GRAND TOTAL</b>					<b>\$242,000,665</b>		<b>\$326,303,946</b>	\$84,303,281.70	\$84,303,281.70
								\$0.00	



**NORTH COMMUTER RAIL CORRIDOR**

DUS to Commerce City

Commerce City to 124th

124th to SH 7

Scoping Cost Estimate

ITEM NO.	ITEM	UNIT	UNIT COST	SEGMENT 1		SEGMENT 2		SEGMENT 3		TOTAL CORRIDOR	
				ESTIMATED QUANTITY	ESTIMATED COST	ESTIMATED QUANTITY	ESTIMATED COST	ESTIMATED QUANTITY	ESTIMATED COST	ESTIMATED QUANTITY	ESTIMATED COST
	DRAINAGEWAY SOUTH OF 124TH	LS	\$126,350.00	0	\$0.00	1	\$126,350.00	0	\$0.00	1	\$126,350.00
	88TH AVENUE GRADE SEPARATION	LS	\$4,500,000.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00
	104TH AVENUE GRADE SEPARATION	LS	\$4,500,000.00	0	\$0.00	1	\$4,500,000.00	0	\$0.00	1	\$4,500,000.00
	120TH AVE. GRADE SEPARATION	LS	\$4,500,000.00	0	\$0.00	1	\$4,500,000.00	0	\$0.00	1	\$4,500,000.00
	DRAINAGEWAY (2300' N OF STEELE)	LS	\$164,255.00	0	\$0.00	1	\$164,255.00	0	\$0.00	1	\$164,255.00
	DRAINAGEWAY (1200' S OF 88TH)	LS	\$126,350.00	0	\$0.00	1	\$126,350.00	0	\$0.00	1	\$126,350.00
	E-470	LS	\$505,400.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00
<b>5.0</b>	<b>RETAINING WALLS</b>										
5.1	0 TO 10'	LF	\$280.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00
5.2	10 TO 15'	LF	\$480.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00
5.3	15 TO 20'	LF	\$740.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00
5.4	> 20'	LF	\$1,020.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00
<b>6.0</b>	<b>BOX CULVERTS</b>										
6.1	CBC 70 SF - 100 SF	LF	\$850.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00
6.2	CBC >100 SF	LF	\$1,250.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00
<b>7.0</b>	<b>TRACKWORK</b>										
7.1	DOUBLE BALLASTED TRACK - LRT	LF	\$270.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00
7.2	SINGLE BALLASTED TRACK - FREIGHT/COMRAIL	TF	\$145.00	4000	\$580,000.00	2100	\$304,500.00	25504	\$3,698,080.00	31,604	\$4,582,580.00
7.3	DOUBLE BALLASTED TRACK - FREIGHT/COMRAIL	LF	\$300.00	29382	\$8,814,600.00	39200	\$11,760,000.00	2700	\$810,000.00	71,282	\$21,384,600.00
7.4	TRACKWORK REHABILITATION - FREIGHT	TF	\$40.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00
7.5	DOUBLE DIRECT FIXATION TRACK - LRT	LF	\$500.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00
7.6	DOUBLE TRACK RETAINED -LRT	LF	\$330.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00
7.7	DOUBLE EMBEDDED TRACK - LRT	LF	\$640.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00
7.8	DOUBLE EMBEDDED TRACK - FREIGHT/COMRAIL	LF	\$660.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00
	Shoo-Fly @ Brighton/York	LF	\$1,000.00	3000	\$3,000,000.00	0	\$0.00	0	\$0.00	3,000	\$3,000,000.00
<b>8.0</b>	<b>SPECIAL TRACKWORK</b>										
8.1	#6 TURNOUT (LRT)	EA	\$50,000.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00
8.2	#8 TURNOUT (LRT)	EA	\$65,000.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00
8.3	#10 TURNOUT (LRT)	EA	\$90,000.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00
8.4	#20 TURNOUT (COM/FREIGHT)	EA	\$170,000.00	2	\$340,000.00	2	\$340,000.00	1	\$170,000.00	5	\$850,000.00
8.5	#6 CROSSOVER (LRT)	EA	\$100,000.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00
8.6	#8 CROSSOVER (LRT)	EA	\$130,000.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00
8.7	#10 CROSSOVER (LRT)	EA	\$160,000.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00
8.8	#20 CROSSOVER (COM/FREIGHT)	EA	\$350,000.00	2	\$700,000.00	5	\$1,750,000.00	0	\$0.00	7	\$2,450,000.00
<b>9.0</b>	<b>SIGNALS</b>										
9.1	COMMUNICATIONS	MI	\$800,000.00	5.85	\$4,680,000.00	7.42	\$5,936,000.00	5.34	\$4,272,000.00	19	\$14,888,000.00
9.2	SIGNAL SYSTEM	MI	\$500,000.00	5.85	\$2,925,000.00	7.42	\$3,710,000.00	5.34	\$2,670,000.00	18.61	\$9,305,000.00
<b>10.0</b>	<b>SYSTEM WIDE ELEMENTS</b>										
10.1	TRACTION ELECTRIFICATION SYSTEM	MI	\$1,800,000.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00
10.2	CORROSION CONTROL	MI	\$60,000.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00
10.3	FARE COLLECTION	STATION	\$280,000.00	2	\$560,000.00	3	\$840,000.00	3	\$840,000.00	8	\$2,240,000.00
10.4	DUCTBANK - LRT	MI	\$720,000.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00
10.5	DUCTBANK - COMRAIL	MI	\$500,000.00	5.85	\$2,925,000.00	7.42	\$3,710,000.00	5.34	\$2,670,000.00	19	\$9,305,000.00
<b>11.0</b>	<b>AT-GRADE CROSSINGS</b>										

**NORTH COMMUTER RAIL CORRIDOR**

DUS to Commerce City

Commerce City to 124th

124th to SH 7

Scoping Cost Estimate

ITEM NO.	ITEM	UNIT	UNIT COST	SEGMENT 1		SEGMENT 2		SEGMENT 3		TOTAL CORRIDOR	
				ESTIMATED QUANTITY	ESTIMATED COST	ESTIMATED QUANTITY	ESTIMATED COST	ESTIMATED QUANTITY	ESTIMATED COST	ESTIMATED QUANTITY	ESTIMATED COST
<b>11.1</b>	<b>CORRIDOR SPECIFIC CROSSINGS</b>	EA	\$300,000.00							0	\$0.00
	156TH AVE	EA	\$300,000.00	0	\$0.00	0	\$0.00	1	\$300,000.00	1	\$300,000.00
	144TH AVE	EA	\$300,000.00	0	\$0.00	0	\$0.00	1	\$300,000.00	1	\$300,000.00
	136TH AVE	EA	\$300,000.00	0	\$0.00	0	\$0.00	1	\$300,000.00	1	\$300,000.00
	YORK STREET	EA	\$300,000.00	0	\$0.00	0	\$0.00	1	\$300,000.00	1	\$300,000.00
	128TH AVE	EA	\$300,000.00	0	\$0.00	0	\$0.00	1	\$300,000.00	1	\$300,000.00
	124TH AVE	EA	\$300,000.00	0	\$0.00	0	\$0.00	1	\$300,000.00	1	\$300,000.00
	112TH AVE	EA	\$300,000.00	0	\$0.00	1	\$300,000.00	0	\$0.00	1	\$300,000.00
	100TH AVE	EA	\$300,000.00	0	\$0.00	1	\$300,000.00	0	\$0.00	1	\$300,000.00
	THORNTON PKWY	EA	\$300,000.00	0	\$0.00	1	\$300,000.00	0	\$0.00	1	\$300,000.00
	88TH AVENUE	EA	\$300,000.00	0	\$0.00	1	\$300,000.00	0	\$0.00	1	\$300,000.00
	STEELE ST	EA	\$300,000.00	0	\$0.00	1	\$300,000.00	0	\$0.00	1	\$300,000.00
	Pvt 74TH NORTH	EA	\$300,000.00	0	\$0.00	1	\$300,000.00	0	\$0.00	1	\$300,000.00
	Pvt 74TH SOUTH	EA	\$300,000.00	0	\$0.00	1	\$300,000.00	0	\$0.00	1	\$300,000.00
	68TH AVE	EA	\$300,000.00	1	\$300,000.00	0	\$0.00	0	\$0.00	1	\$300,000.00
	COLORADO BLVD	EA	\$300,000.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00
	64TH AVE	EA	\$300,000.00	1	\$300,000.00	0	\$0.00	0	\$0.00	1	\$300,000.00
	Metro Wastewater	EA	\$300,000.00	1	\$300,000.00	0	\$0.00	0	\$0.00	1	\$300,000.00
	Relocated York Street	EA	\$300,000.00	1	\$300,000.00	0	\$0.00	0	\$0.00	1	\$300,000.00
	BRIGHTON BLVD	EA	\$300,000.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00
	56TH AVE	EA	\$300,000.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00
	RIVERSIDE CEMETARY	EA	\$300,000.00	1	\$300,000.00	0	\$0.00	0	\$0.00	1	\$300,000.00
<b>12.0</b>	<b>STATIONS - CONNECTIONS</b>										
<b>12.1</b>	<b>STATION - BRT</b>	EA	\$6,000,000.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00
<b>12.2</b>	<b>STATION - LRT</b>	EA	\$750,000.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00
	Pedestrian Access across UPRR	EA	\$1,040,000.00	0	\$0.00	2	\$2,080,000.00	0	\$0.00	2	\$2,080,000.00
<b>12.3</b>	<b>STATION - COMRAIL</b>	EA	\$1,000,000.00	2	\$2,000,000.00	3	\$3,000,000.00	3	\$3,000,000.00	8	\$8,000,000.00
<b>12.4</b>	<b>END-OF-LINE STATION - LRT</b>	EA	\$1,000,000.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00
<b>12.5</b>	<b>END-OF-LINE STATION - COMRAIL</b>	EA	\$1,500,000.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00
<b>12.6</b>	<b>ELEVATED STATION</b>	EA	\$1,500,000.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00
<b>SUBTOTAL (A)</b>					<b>\$53,437,908</b>		<b>\$51,066,461</b>		<b>\$21,248,402</b>		<b>\$125,752,771</b>
<b>13.0</b>	<b>DRAINAGE</b>	5 % OF (A)	5%		\$2,671,895		\$2,553,323		\$1,062,420		\$6,287,638.54
<b>14.0</b>	<b>UTILITY RELOCATION</b>	4 % OF (A)	4%		\$2,137,516		\$2,042,658		\$849,936		\$5,030,110.83
<b>15.0</b>	<b>NOISE MITIGATION</b>										
	RESIDENTIAL	3 % OF (A)									
	COMMERCIAL	2 % OF (A)	2%		\$1,068,758		\$1,021,329		\$424,968		\$2,515,055.42
	INDUSTRIAL	1 % OF (A)									
<b>16.0</b>	<b>SIGNING AND STRIPING</b>		1%		\$534,379		\$510,665		\$212,484		\$1,257,527.71
<b>17.0</b>	<b>CONSTRUCTION TRAFFIC CONTROL</b>		3%		\$1,603,137		\$1,531,994		\$637,452		\$3,772,583.12
<b>18.0</b>	<b>URBAN DESIGN / LANDSCAPING</b>		1%		\$534,379		\$510,665		\$212,484		\$1,257,527.71

**NORTH COMMUTER RAIL CORRIDOR**

DUS to Commerce City

Commerce City to 124th

124th to SH 7

Scoping Cost Estimate

ITEM NO.	ITEM	UNIT	UNIT COST	SEGMENT 1		SEGMENT 2		SEGMENT 3		TOTAL CORRIDOR	
				ESTIMATED QUANTITY	ESTIMATED COST	ESTIMATED QUANTITY	ESTIMATED COST	ESTIMATED QUANTITY	ESTIMATED COST	ESTIMATED QUANTITY	ESTIMATED COST
<b>TOTAL COST OF CONSTRUCTION BID ITEMS (CBI)</b>					<b>\$61,987,974</b>		<b>\$59,237,094</b>		<b>\$24,648,146</b>		<b>\$145,873,214</b>
19.0	<b>MOBILIZATION</b>	6 % OF (CBI)	6%		\$3,719,278		\$3,554,226		\$1,478,889		\$8,752,392.84
20.0	<b>CONTINGENCIES &amp; OTHER COSTS</b>										
20.1	CONTINGENCIES	25 % OF (CBI)	25.00%		\$15,496,993		\$14,809,274		\$6,162,037		\$36,468,303.52
20.2	ENGINEERING DESIGN - PE/EIS	3.5 % OF (CBI)	3.50%		\$2,169,579		\$2,073,298		\$862,685		\$5,105,562.49
20.3	ENGINEERING DESIGN - FINAL	9.5 % OF (CBI)	9.50%		\$5,888,857		\$5,627,524		\$2,341,574		\$13,857,955.34
20.4	CONSTRUCTION MANAGEMENT	12 % OF (CBI)	12.00%		\$7,438,557		\$7,108,451		\$2,957,778		\$17,504,785.69
20.5	INSURANCE AND LEGAL	2 % OF (CBI)	2.00%		\$1,239,759		\$1,184,742		\$492,963		\$2,917,464.28
	TOTAL	52% OF (CBI)									
21.0	ACTIVATION / SYSTEM INTEGRATION										
21.1	LRT	LS	\$1,500,000								
21.2	CRT	LS	\$1,000,000	1	\$1,000,000.00	1	\$1,000,000.00	1	\$1,000,000.00	1	\$1,000,000.00
<b>COST OF CONSTRUCTION BID ITEMS PLUS MOBILIZATION AND CONTINGENCIES</b>					<b>\$98,940,998</b>		<b>\$94,594,609</b>		<b>\$39,944,071</b>		<b>\$231,479,678</b>
						Seg 1 + 2	<b>\$193,535,608</b>				
22.0	<b>ROW ACQUISITION</b>								ROW costs not updated		\$47,277,250
22.1	ROW ACQUISITION	LS									
22.2	BNSF ROW ACQUISITION	LS									
22.3	Rail Road Acquisition	LS									\$47,547,018
<b>GRAND TOTAL</b>											<b>\$326,303,946</b>