

APPENDIX F
NORTHERN PARKWAY ALTERNATIVE 2
ESTIMATED PROJECT COST

**Northern Parkway - Loop 303 to Grand Avenue
Alternative 2
Project Estimated Cost (2009 Dollars)
6/29/2009**

Segment	ROW	Design	Construction	Total
Sarival Avenue	\$2,703,000	\$1,274,059	\$15,925,738	\$19,902,797
Reems Road	\$3,706,200	\$1,688,789	\$21,109,868	\$26,504,858
Bullard Avenue	\$5,734,800	\$1,325,911	\$16,573,890	\$23,634,601
BNSF Webb Spur Crossing	\$0	\$238,172	\$2,977,152	\$3,215,324
Litchfield Road	\$3,762,600	\$2,014,500	\$25,181,254	\$30,958,355
Dysart Road	\$3,794,400	\$2,830,348	\$35,379,345	\$42,004,093
El Mirage Alternative Access Streets	\$759,600	\$226,055	\$2,825,688	\$3,811,344
El Mirage Road	\$3,359,800	\$2,649,296	\$33,116,199	\$39,125,295
Agua Fria River Bridge	\$0	\$1,021,614	\$12,770,171	\$13,791,785
115th Avenue (Option 2)	\$2,019,600	\$3,686,336	\$46,079,206	\$51,785,142
107th Avenue (Option 2)	\$4,062,500	\$1,547,938	\$19,349,220	\$24,959,657
Loop 101 - Northern Parkway Bypass	\$0	\$10,192,274	\$127,403,422	\$137,595,696
Loop 101 - Northern Ave (107th to Loop 101)	\$11,866,500	\$1,945,294	\$24,316,177	\$38,127,971
Loop 101 - Northern Ave (Loop 101 to 87th)	\$12,305,000	\$1,775,460	\$22,193,248	\$36,273,708
83rd Avenue	\$5,075,000	\$2,949,531	\$36,869,132	\$44,893,662
75th Avenue	\$10,016,000	\$3,050,171	\$38,127,132	\$51,193,303
Grand Avenue	\$7,468,000	\$4,177,969	\$52,224,608	\$63,870,577
Total Costs	\$76,633,000	\$42,593,716	\$532,421,449	\$651,648,165

Project Cost Estimate
Sarival Road Grade Separated Intersection (Sta 82+00 to Sta 115+00)
6/29/2009

Description	Unit	Quantity	Unit Cost	Total
Clearing and Grubbing	LS	1	10,000.00	\$10,000
Subgrade Preparation	SY	55,742	3.00	\$167,226
Remove Existing Pavement	SY	2,191	2.00	\$4,382
New Bridge Structure	SF	29,419	97.00	\$2,853,643
Embankment (Borrow)	CY	155,000	9.00	\$1,395,000
Excavation	CY	7,136	5.00	\$35,680
Mainline (12" PCCP)	SY	40,466	45.00	\$1,820,970
Ramp/Arterial (11" PCCP)	SY	15,276	40.00	\$611,040
Mainline & Ramp (AB)	CY	6,194	25.00	\$154,850
Concrete Curb & Gutter	LF	5,388	15.00	\$80,820
Concrete Median Curb	LF	1,031	18.00	\$18,558
Sidewalk	SF	3,258	4.50	\$14,661
ROW Fence	LF	6,633	10.00	\$66,330
Concrete Half Barrier	LF	2,180	45.00	\$98,100
Concrete Half Barrier Transition	EA	2	3,000.00	\$6,000
Concrete Median Barrier	LF	2,864	65.00	\$186,160
Attenuators	EA	2	20,000.00	\$40,000
Pavement Marking & Signing	mi	0.5	310,000.00	\$155,000
ITS Conduit and Junction Boxes	mi	0.5	100,000.00	\$50,000
Roadway Lighting	mi	0.5	250,000.00	\$125,000
Traffic Signals	EA	1	250,000.00	\$250,000
Irrigation Relocation	LS	1	713,864.00	\$713,864
Utility Relocation	LS	1	202,125.00	\$202,125
Drainage	LS	1	406,545.00	\$406,545
Landscaping	SF	215,165	1.50	\$322,748

Total **\$9,788,702**

Traffic Control	4.0%	\$391,548
Mobilization	8.0%	\$783,096
Misc. Items (Survey, Contractor QC, dust palliative, furnish water, SWPPP, Communications relocation, Potholing)	12.1%	\$1,184,433

Total **\$12,147,779**

Unidentified Items	15.0%	\$1,822,167
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Total **\$13,969,945**

Construction Administration / Contingencies	14.0%	\$1,955,792
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Total Construction Cost **\$15,925,738**

Engineering and Design	8%	\$1,274,059
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Total Project Cost **\$17,199,797**

ROW	Acre	\$/acre		
	18.02	\$150,000		\$2,703,000
	Each	\$/ea		

Resident Relocations	0	\$300,000		\$0
Business Relocations	0	\$500,000		\$0

Total ROW Costs **\$2,703,000**

Total Project Cost Including ROW **\$19,902,797**

Project Cost Estimate
Reems Road Grade Separated Intersection (Sta 115+00 to 1/2-mile east)
6/29/2009

Description	Unit	Quantity	Unit Cost	Total
Clearing and Grubbing	LS	1	10,000.00	\$10,000
Subgrade Preparation	SY	79,628	3.00	\$238,884
Remove Existing Pavement	SY	2,179	2.00	\$4,358
New Bridge Structure	SF	24,092	103.00	\$2,481,476
Embankment (Borrow)	CY	247,958	9.00	\$2,231,622
Excavation	CY	23,741	5.00	\$118,705
Mainline (12" PCCP)	SY	56,541	45.00	\$2,544,345
Ramp/Arterial (11" PCCP)	SY	23,086	40.00	\$923,440
Mainline, Ramp, and Arterial (AB)	CY	8,848	25.00	\$221,200
Concrete Curb & Gutter	LF	9,178	15.00	\$137,670
Concrete Median Curb	LF	807	18.00	\$14,526
Sidewalk	SF	5,519	4.50	\$24,836
ROW Fence	LF	11,291	10.00	\$112,910
Concrete Half Barrier	LF	2,563	45.00	\$115,335
Concrete Half Barrier Transition	EA	2	3,000.00	\$6,000
Concrete Median Barrier	LF	4,044	65.00	\$262,860
Attenuators	EA	2	20,000.00	\$40,000
Pavement Marking & Signing	mi	1	310,000.00	\$310,000
ITS Conduit and Junction Boxes	mi	1.0	100,000.00	\$100,000
Roadway Lighting	mi	1	250,000.00	\$250,000
Traffic Signals	EA	1	250,000.00	\$250,000
Irrigation Relocation	LS	1	228,103.00	\$228,103
Utility Relocation	LS	1	143,325.00	\$143,325
Drainage	LS	1	1,247,350.00	\$1,247,350
Landscaping	SF	638,777	1.50	\$958,166

Total **\$12,975,110**

Traffic Control	4.0%	\$519,004
Mobilization	8.0%	\$1,038,009
Misc. Items (Survey, Contractor QC, dust palliative, furnish water, SWPPP, Communications relocation, Potholing)	12.1%	\$1,569,988

Total **\$16,102,112**

Unidentified Items	15.0%	\$2,415,317
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Total **\$18,517,428**

Construction Administration / Contingencies	14.0%	\$2,592,440
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Total Construction Cost **\$21,109,868**

Engineering and Design	8%	\$1,688,789
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Total Project Cost **\$22,798,658**

ROW	Acre	\$/acre		
	41.18	\$90,000		\$3,706,200
	Each	\$/ea		

Resident Relocations	0	\$300,000		\$0
Business Relocations	0	\$500,000		\$0

Total ROW Costs **\$3,706,200**

Total Project Cost Including ROW **\$26,504,858**

Project Cost Estimate
Bullard Road Segment (1/2-mile west and east)
6/29/2009

Description	Unit	Quantity	Unit Cost	Total
Clearing and Grubbing	LS	1	10,000.00	\$10,000
Subgrade Preparation	SY	68,664	3.00	\$205,992
Embankment (Borrow)	CY	0	9.00	\$0
Excavation	CY	42,974	5.00	\$214,870
Excavation - Drainage Basin	CY	431,000	5.00	\$2,155,000
Mainline (12" PCCP)	SY	68,664	45.00	\$3,089,880
Mainline (AB)	CY	7,506	25.00	\$187,650
ROW Fence	LF	12,897	10.00	\$128,970
Concrete Half Barrier	LF	2,172	45.00	\$97,740
Concrete Half Barrier Transition	EA	1	3,000.00	\$3,000
Concrete Median Barrier	LF	5,231	65.00	\$340,015
Attenuators	EA	1	20,000.00	\$20,000
Pavement Marking & Signing	mi	1	110,000.00	\$110,000
ITS Conduit and Junction Boxes	mi	1.0	100,000.00	\$100,000
Roadway Lighting	mi	1	250,000.00	\$250,000
Irrigation Relocation	LS	1	657,098.00	\$657,098
Utility Relocation	LS	1	0.00	\$0
Drainage	LS	1	1,639,144.00	\$1,639,144
Landscaping	SF	763,061	1.50	\$1,144,592

Total **\$10,353,951**

Traffic Control	2.0%	\$207,079
Mobilization	8.0%	\$828,316
Misc. Items (Survey, Contractor QC, dust palliative, furnish water, SWPPP, Communications relocation, Potholing)	12.1%	\$1,252,828

Total **\$12,642,174**

Unidentified Items	15.0%	\$1,896,326
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Total **\$14,538,500**

Construction Administration / Contingencies	14.0%	\$2,035,390
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Total Construction Cost **\$16,573,890**

Engineering and Design	8%	\$1,325,911
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Total Project Cost **\$17,899,801**

	Acre	\$/acre	
ROW	32.36	\$90,000	\$2,912,400
ROW (Drainage Basin in Luke APZ 1)	47.04	\$60,000	\$2,822,400
	Each	\$/ea	
Resident Relocations	0	\$300,000	\$0
Business Relocations	0	\$500,000	\$0

Total ROW Costs **\$5,734,800**

Total Project Cost Including ROW **\$23,634,601**

Additional Project Cost Estimate
BNSF Webb Spur Crossing - Parkway Elevated, 3:1 Embankment Slope
6/29/2009

Description	Unit	Quantity	Unit Cost	Total
New Bridge Structure	SF	8,704	180.00	\$1,566,720
Retaining Wall (MSE)	SF	5,330	55.00	\$293,150
				\$0

Total **\$1,859,870**

Traffic Control 2.0% \$37,197
Mobilization 8.0% \$148,790
Misc. Items (Survey, Contractor QC, dust palliative,
furnish water, SWPPP, Communications relocation,
Potholing) 12.1% \$225,044

Total \$2,270,901

Unidentified Items 15.0% \$340,635

Total **\$2,611,536**

Construction Administration / Contingencies 14.0% \$365,615

Total Construction Cost **\$2,977,152**

Engineering and Design 8% \$238,172

Total Project Cost **\$3,215,324**

	Acre	\$/acre	
ROW	0.00	\$90,000	\$0
ROW	0.00	\$60,000	\$0

	Each	\$/ea	
Resident Relocations	0	\$300,000	\$0
Business Relocations	0	\$500,000	\$0

Resident Relocations 0 \$300,000 \$0

Business Relocations 0 \$500,000 \$0

Total ROW Costs **\$0**

Additional Project Cost Including ROW **\$3,215,324**

Project Cost Estimate
Litchfield Road Grade Separated Intersection (1/2-mile west and east)
6/29/2009

Description	Unit	Quantity	Unit Cost	Total
Clearing and Grubbing	LS	1	10,000.00	\$10,000
Subgrade Preparation	SY	131,285	3.00	\$393,855
Remove Existing Pavement	SY	7,796	2.00	\$15,592
New Bridge Structure	SF	26,214	120.00	\$3,145,680
Embankment (Borrow)	CY	0	5.60	\$0
Excavation	CY	148,496	5.00	\$742,480
Mainline (12" PCCP)	SY	81,549	45.00	\$3,669,705
Ramp (11" PCCP)	SY	17,945	40.00	\$717,800
Arterial (AC)	TONS	10,443	63.00	\$657,909
Mainline, Ramp, and Arterial (AB)	CY	19,886	25.00	\$497,150
Concrete Curb & Gutter	LF	15,212	15.00	\$228,180
Concrete Median Curb	LF	4,968	18.00	\$89,424
Sidewalk	SF	5,977	4.50	\$26,897
ROW Fence	LF	12,113	10.00	\$121,130
Concrete Half Barrier	LF	1,159	45.00	\$52,155
Concrete Half Barrier Transition	EA	3	3,000.00	\$9,000
Concrete Median Barrier	LF	5,658	65.00	\$367,770
Attenuators	EA	3	20,000.00	\$60,000
Pavement Marking & Signing	mi	1	310,000.00	\$310,000
ITS Conduit and Junction Boxes	mi	1.0	100,000.00	\$100,000
Roadway Lighting	mi	1	250,000.00	\$250,000
Traffic Signals	EA	1	250,000.00	\$250,000
Irrigation Relocation	LS	1	913,800.00	\$913,800
Utility Relocation	LS	1	112,725.00	\$112,725
Drainage	LS	1	1,325,640.00	\$1,325,640
Landscaping	SF	940,455	1.50	\$1,410,683

Total **\$15,477,574**

Traffic Control 4.0% \$619,103
Mobilization 8.0% \$1,238,206
Misc. Items (Survey, Contractor QC, dust palliative,
furnish water, SWPPP, Communications relocation,
Potholing) 12.1% \$1,872,786

Total **\$19,207,669**

Unidentified Items 15.0% \$2,881,150

Total **\$22,088,820**

Construction Administration / Contingencies 14.0% \$3,092,435

Total Construction Cost **\$25,181,254**

Engineering and Design 8% \$2,014,500

Total Project Cost **\$27,195,755**

ROW	Acre	\$/acre	
	52.71	\$60,000	\$3,162,600
	Each	\$/ea	

Resident Relocations	2	\$300,000	\$600,000
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Business Relocations	0	\$500,000	\$0
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Total ROW Costs **\$3,762,600**

Total Project Cost Including ROW **\$30,958,355**

Project Cost Estimate
Dysart Road Grade Separated Intersection (1/2-mile west and east)
6/29/2009

Description	Unit	Quantity	Unit Cost	Total
Clearing and Grubbing	LS	1	10,000.00	\$10,000
Subgrade Preparation	SY	121,667	3.00	\$365,001
Remove Existing Pavement	SY	32,534	2.00	\$65,068
New Bridge Structure	SF	30,708	110.00	\$3,377,880
Embankment (Borrow)	CY	222,273	9.00	\$2,000,457
Excavation	CY	45,266	5.00	\$226,330
Mainline (12" PCCP)	SY	68,901	45.00	\$3,100,545
Ramp (11" PCCP)	SY	14,560	40.00	\$582,400
Arterial (6" AC)	TONS	12,550	63.00	\$790,650
Mainline, Ramp, and Arterial (AB)	CY	19,886	25.00	\$497,150
Concrete Curb & Gutter	LF	21,151	15.00	\$317,265
Concrete Median Curb	LF	1,467	18.00	\$26,406
Sidewalk	SF	41,202	4.50	\$185,409
ROW Fence	LF	8,879	10.00	\$88,790
Retaining Wall	SF	73,242	55.00	\$4,028,310
Concrete Half Barrier	LF	3,812	45.00	\$171,540
Concrete Half Barrier Transition	EA	2	3,000.00	\$6,000
Concrete Median Barrier	LF	4,988	65.00	\$324,220
Attenuators	EA	2	20,000.00	\$40,000
Pavement Marking & Signing	mi	1	310,000.00	\$310,000
ITS Conduit and Junction Boxes	mi	1.0	100,000.00	\$100,000
Roadway Lighting	mi	1	250,000.00	\$250,000
Traffic Signals	EA	1	250,000.00	\$250,000
Irrigation Relocation	LS	1	1,028,243.00	\$1,028,243
Utility Relocation	LS	1	449,625.00	\$449,625
Drainage	LS	1	1,826,510.00	\$1,826,510
Landscaping	SF	577,085	2.00	\$1,154,170

Total **\$21,571,969**

Traffic Control	5.0%	\$1,078,598
Mobilization	8.0%	\$1,725,758
Misc. Items (Survey, Contractor QC, dust palliative, furnish water, SWPPP, Communications relocation, Potholing)	12.1%	\$2,610,208

Total **\$26,986,533**

Unidentified Items	15.0%	\$4,047,980
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Total **\$31,034,513**

Construction Administration / Contingencies	14.0%	\$4,344,832
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Total Construction Cost **\$35,379,345**

Engineering and Design	8%	\$2,830,348
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Total Project Cost **\$38,209,693**

ROW	Acre	\$/acre	
	32.16	\$90,000	\$2,894,400

Resident Relocations	Each	\$/ea	
	3	\$300,000	\$900,000

Business Relocations	0	\$500,000	\$0
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Total ROW Costs **\$3,794,400**

Total Project Cost Including ROW **\$42,004,093**

Project Cost Estimate
EI Mirage Alternative Access Streets (127th Ave & Butler Extension)
6/29/2009

Description	Unit	Quantity	Unit Cost	Total
Clearing and Grubbing	LS	1	2,000.00	\$2,000
Subgrade Preparation	SY	29,973	3.00	\$89,919
Collector Road (3" AC)	TONS	4,923	72.00	\$354,456
Mainline, Ramp, and Arterial (AB)	CY	4,995	30.00	\$149,850
Concrete Curb & Gutter	LF	10,362	15.00	\$155,430
Sidewalk	SF	51,810	4.50	\$233,145
Pavement Marking & Signing	LS	1	2,000.00	\$2,000
Roadway Lighting	LS	1	100,000.00	\$100,000
Traffic Signals	EA	2	250,000.00	\$500,000
Irrigation Relocation	LS	1	100,000.00	\$100,000
Utility Relocation	LS	1	0.00	\$0
Drainage	LS	1	50,000.00	\$50,000

Total **\$1,736,800**

Traffic Control	4.0%	\$69,472
Mobilization	8.0%	\$138,944
Misc. Items (Survey, Contractor QC, dust palliative, furnish water, SWPPP, Communications relocation, Potholing)	12.1%	\$210,153

Total **\$2,155,369**

Unidentified Items	15.0%	\$323,305
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Total **\$2,478,674**

Construction Administration / Contingencies	14.0%	\$347,014
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Total Construction Cost **\$2,825,688**

Engineering and Design	8%	\$226,055
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Total Project Cost **\$3,051,744**

ROW	Acre	\$/acre		
	8.44	\$90,000		\$759,600

Resident Relocations	Each	\$/ea		
	0	\$300,000		\$0

Business Relocations				
	0	\$500,000		\$0

Total ROW Costs **\$759,600**

Total Project Cost Including ROW **\$3,811,344**

Project Cost Estimate
El Mirage Road Grade Separated Intersection (1/2-mile west to Agua Fria River Bridge Abutment)
6/29/2009

Description	Unit	Quantity	Unit Cost	Total
Clearing and Grubbing	LS	1	10,000.00	\$10,000
Subgrade Preparation	SY	101,544	3.00	\$304,632
Remove Existing Pavement	SY	35,033	2.00	\$70,066
New Bridge Structure	SF	30,708	110.00	\$3,377,880
Embankment (Borrow)	CY	502,280	9.00	\$4,520,520
Excavation	CY	6,333	5.00	\$31,665
Mainline (12" PCCP)	SY	60,031	45.00	\$2,701,395
Arterial (6" AC)	TONS	13,637	63.00	\$859,131
Mainline, Ramp, Arterial (AB)	CY	18,201	25.00	\$455,025
Concrete Curb & Gutter	LF	16,791	15.00	\$251,865
Concrete Median Curb	LF	336	18.00	\$6,048
Sidewalk	SF	35,222	4.50	\$158,499
ROW Fence	LF	5,360	10.00	\$53,600
Retaining Wall	SF	64,935	55.00	\$3,571,425
Concrete Half Barrier	LF	5,275	45.00	\$237,375
Concrete Half Barrier Transition	EA	3	3,000.00	\$9,000
Concrete Median Barrier	LF	4,320	65.00	\$280,800
Attenuators	EA	3	20,000.00	\$60,000
Pavement Marking & Signing	mi	1	310,000.00	\$310,000
ITS Conduit and Junction Boxes	mi	1.0	100,000.00	\$100,000
Roadway Lighting	mi	1	250,000.00	\$250,000
Traffic Signals	EA	1	250,000.00	\$250,000
Irrigation Relocation	LS	1	0.00	\$0
Utility Relocation	LS	1	149,625.00	\$149,625
Drainage	LS	1	1,200,750.00	\$1,200,750
Landscaping	SF	486,376	2.00	\$972,752

Total **\$20,192,053**

Traffic Control	5.0%	\$1,009,603
Mobilization	8.0%	\$1,615,364
Misc. Items (Survey, Contractor QC, dust palliative, furnish water, SWPPP, Communications relocation, Potholing)	12.1%	\$2,443,238
Total		\$25,260,258

Unidentified Items	15.0%	\$3,789,039
Total		\$29,049,297

Construction Administration / Contingencies	14.0%	\$4,066,902
Total Construction Cost		\$33,116,199

Engineering and Design	8%	\$2,649,296
Total Project Cost		\$35,765,495

ROW	Acre	\$/acre		
	26.22	\$90,000		\$2,359,800
Resident Relocations	Each	\$/ea		
	0	\$300,000		\$0
Business Relocations	2	\$500,000		\$1,000,000
Total ROW Costs				\$3,359,800

Total Project Cost Including ROW **\$39,125,295**

**Project Cost Estimate
 Agua Fria River Bridge
 6/29/2009**

Description	Unit	Quantity	Unit Cost	Total
New Bridge Structure	SF	96,740	80.00	\$7,739,200
Remove Existing Pavement	SY	2,100	2.00	\$4,200
Pavement Marking and Signing	LS	1	3,000.00	\$3,000
Roadway Lighting	LS	1	40,000.00	\$40,000
				\$0
				\$0
				\$0
				\$0

Total **\$7,786,400**

Traffic Control	5.0%	\$389,320
Mobilization	8.0%	\$622,912
Misc. Items (Survey, Contractor QC, dust palliative, furnish water, SWPPP, Communications relocation, Potholing)	12.1%	\$942,154

Total **\$9,740,786**

Unidentified Items	15.0%	\$1,461,118
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Total **\$11,201,904**

Construction Administration / Contingencies	14.0%	\$1,568,267
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Total Construction Cost **\$12,770,171**

Engineering and Design	8.0%	\$1,021,614
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Total Project Cost **\$13,791,785**

ROW	Acre	\$/acre		
	0	\$100,000		\$0

Total Project Cost Including ROW **\$13,791,785**

Project Cost Estimate
115th Ave Segment (TI Added)(Agua Fria River Bridge East Abut to 111th Ave)
Alternative 2
6/29/2009

Description	Unit	Quantity	Unit Cost	Total
Clearing and Grubbing	LS	1	10,000.00	\$10,000
Subgrade Preparation	SY	124,885	3.00	\$374,655
Remove Existing Pavement	SY	19,072	2.00	\$38,144
Remove Existing Barrier	LF	2,700	12.00	\$32,400
New Bridge Structure	SF	31,050	110.00	\$3,415,500
Embankment (Borrow)	CY	648,265	9.00	\$5,834,385
Excavation	CY	988	5.00	\$4,940
Mainline & Ramp (AC)	TONS	17,390	63.00	\$1,095,570
Mainline & Ramp (PCCP)	SY	36,927	45.00	\$1,661,715
Mainline & Ramp (AB)	CY	15,867	25.00	\$396,675
Concrete Curb & Gutter	LF	8,242	15.00	\$123,630
Concrete Median Curb	LF	2,661	18.00	\$47,898
Sidewalk	SF	43,165	4.50	\$194,243
ROW Fence	LF	2,211	10.00	\$22,110
Retaining Wall	SF	176,000	55.00	\$9,680,000
Noise Wall (B1)	LS	1	223,300.00	\$223,300
Concrete Half Barrier	LF	13,281	45.00	\$597,645
Concrete Half Barrier Transition	EA	6	3,000.00	\$18,000
Concrete Median Barrier	LF	4,096	65.00	\$266,240
Attenuators	EA	6	20,000.00	\$120,000
Pavement Marking & Signing	mi	1	310,000.00	\$310,000
ITS Conduit and Junction Boxes	mi	1.0	100,000.00	\$100,000
Roadway Lighting	mi	1	250,000.00	\$250,000
Traffic Signals	LS	1	200,000.00	\$200,000
Irrigation Relocation	LS	1	0.00	\$0
Utility Relocation	LS	1	1,186,585.00	\$1,186,585
Drainage	LS	1	519,830.00	\$519,830
Landscaping	SF	465,229	2.00	\$930,458

Total **\$27,653,923**

Traffic Control	7.0%	\$1,935,775
Mobilization	8.0%	\$2,212,314
Misc. Items (Survey, Contractor QC, dust palliative, furnish water, SWPPP, Communications relocation, Potholing)	12.1%	\$3,346,125

Total **\$35,148,135**

Unidentified Items	15.0%	\$5,272,220
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Total **\$40,420,356**

Construction Administration / Contingencies	14.0%	\$5,658,850
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Total Construction Cost **\$46,079,206**

Engineering and Design	8%	\$3,686,336
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Total Project Cost **\$49,765,542**

ROW	Acre	\$/acre	
	22.44	\$90,000	\$2,019,600
	Each	\$/ea	
Resident Relocations	0	\$300,000	\$0
Business Relocations	0	\$500,000	\$0

Total ROW Costs **\$2,019,600**

Total Project Cost Including ROW **\$51,785,142**

Project Cost Estimate
107th Ave (111th Ave to 107th Ave)
(Includes Royal Palm Rd - 111th Ave to 111th Ln, Royal Palm Rd - 108th Dr to 107th Ave, Augusta Ave)
and Orangewood Ave.)
Alternative 2
6/29/2009

Description	Unit	Quantity	Unit Cost	Total
Clearing and Grubbing	LS	1	10,000.00	\$10,000
Subgrade Preparation	SY	58,380	3.00	\$175,140
Remove Existing Pavement	SY	37,624	2.00	\$75,248
Remove Existing Curb & Gutter	LF	2,400	6.00	\$14,400
New Bridge Structure	SF	11,220	120.00	\$1,346,400
Embankment (Borrow)	CY	147,326	9.00	\$1,325,934
Excavation	CY	7,708	5.00	\$38,540
Mainline & Ramp (AC)	TONS	17,898	63.00	\$1,127,574
Arterial (AC)	TONS	1,752	63.00	\$110,376
Connector Rd (AC)	TONS	1,046	72.00	\$75,312
Mainline, Ramp, and Arterial (AB)	CY	14,454	25.00	\$361,350
Connector Rd (AB)	CY	1,061	30.00	\$31,830
Concrete Curb & Gutter	LF	12,201	15.00	\$183,015
Concrete Median Curb	LF	4,783	18.00	\$86,094
Sidewalk	SF	72,792	4.50	\$327,564
ROW Fence	LF	0	10.00	\$0
Retaining Wall	SF	35,360	55.00	\$1,944,800
Noise Wall (B2-B9)	LS	1	1,718,500.00	\$1,718,500
Concrete Half Barrier	LF	1,100	45.00	\$49,500
Concrete Half Barrier Transition	EA	0	3,000.00	\$0
Concrete Median Barrier	LF	0	65.00	\$0
Attenuators	EA	4	20,000.00	\$80,000
Pavement Marking & Signing	mi	0.5	110,000.00	\$55,000
ITS Conduit and Junction Boxes	mi	0.5	100,000.00	\$50,000
Roadway Lighting	mi	0.5	250,000.00	\$125,000
Traffic Signals	EA	1	200,000.00	\$200,000
Irrigation Relocation	LS	1	0.00	\$0
Utility Relocation	LS	1	1,373,545.00	\$1,373,545
Drainage	LS	1	412,490.00	\$412,490
Landscaping	LF	104,869	3.00	\$314,607

Total **\$11,612,219**

Traffic Control	7.0%	\$812,855
Mobilization	8.0%	\$928,978
Misc. Items (Survey, Contractor QC, dust palliative, furnish water, SWPPP, Communications relocation, Potholing)	12.1%	\$1,405,078

Total **\$14,759,130**

Unidentified Items	15.0%	\$2,213,870
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Total **\$16,973,000**

Construction Administration / Contingencies	14.0%	\$2,376,220
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Total Construction Cost **\$19,349,220**

Engineering and Design	8%	\$1,547,938
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Total Project Cost **\$20,897,157**

ROW	Acre	\$/acre	
	11.45	\$250,000	\$2,862,500

Resident Relocations	Each	\$/ea	
	4	\$300,000	\$1,200,000
Business Relocations	0	\$500,000	\$0

Total ROW Costs **\$4,062,500**

Total Project Cost Including ROW **\$24,959,657**

Project Cost Estimate
Loop 101 Segment Northern Avenue Improvements (107th Ave to Loop 101)
3/12/2007

Description	Unit	Quantity	Unit Cost	Total
Clearing and Grubbing	LS	1	5,000.00	\$5,000
Subgrade Preparation	SY	96,452	3.00	\$289,356
Remove Existing Pavement	SY	52,668	2.00	\$105,336
Remove PCCP	SY	3,452	5.00	\$17,260
Remove Existing Curb & Gutter	LF	11,321	6.00	\$67,926
New Bridge Structure @ New River (EB Northern)	SF	19,543	80.00	\$1,563,440
Embankment (Borrow)	CY	21,183	9.00	\$190,647
Excavation	CY	42,335	5.00	\$211,675
PCCP at L 101	SY	14,291	45.00	\$643,095
Mainline & Ramp (11" AC)	TONS	15,279	63.00	\$962,577
Northern Avenue (9" AC)	TONS	22,650	63.00	\$1,426,950
Arterial (6" AC)	TONS	3,556	63.00	\$224,028
Asphalt Rubber Surface Course (1")	TONS	1,389	115.00	\$159,735
Mainline & Ramp & Arterial (AB)	CY	10,054	25.00	\$251,350
Northern Avenue (AB)	CY	11,491	25.00	\$287,275
Concrete Curb & Gutter	LF	19,935	15.00	\$299,025
Concrete Median Curb	LF	8,165	18.00	\$146,970
Sidewalk	SF	79,374	4.50	\$357,183
Noise Wall (B10-B12)	LS	1	974,680.00	\$974,680
Concrete Half Barrier	LF	3,983	45.00	\$179,235
Concrete Half Barrier Transition	EA	3	3,000.00	\$9,000
Concrete Median Barrier	LF	0	65.00	\$0
Attenuators	EA	2	20,000.00	\$40,000
Pavement Marking & Signing	LS	1	60,000.00	\$60,000
Roadway Lighting	LS	1	250,000.00	\$250,000
Traffic Signals (103rd, 99th, Loop 101 W & E)	LS	4	187,500.00	\$750,000
Utility Relocation	LS	1	3,432,968.88	\$3,432,969
Drainage	LS	1	1,107,190.00	\$1,107,190
Landscaping	SF	193,727	3.00	\$581,181

Total **\$14,593,083**

Traffic Control	7.0%	\$1,021,516
Mobilization	8.0%	\$1,167,447
Misc. Items (Survey, Contractor QC, dust palliative, furnish water, SWPPP, Communications relocation, Potholing)	12.1%	\$1,765,763

Total **\$18,547,808**

Unidentified Items	15.0%	\$2,782,171
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Total **\$21,329,980**

Construction Administration / Contingencies	14.0%	\$2,986,197
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Total Construction Cost **\$24,316,177**

Engineering and Design	8%	\$1,945,294
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Total Project Cost **\$26,261,471**

ROW	Acre	\$/acre	
	26.37	\$450,000	\$11,866,500

Resident Relocations	Each	\$/ea	
	0	\$300,000	\$0
Business Relocations	0	\$500,000	\$0

Total ROW Costs **\$11,866,500**

Total Project Cost Including ROW **\$38,127,971**

Project Cost Estimate
Loop 101 Segment Northern Parkway Bypass (103rd Ave to 91st Ave)
6/29/2009

Description	Unit	Quantity	Unit Cost	Total
Subgrade Preparation	SY	93,410	3.00	\$280,230
New Bridge Structure @ 103rd Ave	SF	27,597	85.00	\$2,345,745
New Bridge Structure @ New River/99th Ave	SF	82,415	85.00	\$7,005,275
New Bridge Structure @ EB New River	SF	47,942	85.00	\$4,075,070
New Bridge Structure @ EB over 99th Ave	SF	10,284	105.00	\$1,079,820
New Bridge Structure @ 97th Ave	SF	21,145	100.00	\$2,114,500
New Bridge Structure @ SB SR 101L Ramp	SF	8,000	110.00	\$880,000
New Bridge Structure @ SR 101L	SF	37,050	105.00	\$3,890,250
New Bridge Structure @ NB Loop 101 Off-Ramp	SF	14,520	145.00	\$2,105,400
New Bridge Structure @ EB Northern Ave	SF	51,946	110.00	\$5,714,060
New Bridge Structure @ 93rd Ave Ramp A	SF	11,855	140.00	\$1,659,700
New Bridge Structure @ 93rd Ave Ramp B	SF	3,146	140.00	\$440,440
New Bridge Structure @ 93rd Ave	SF	31,457	120.00	\$3,774,840
New Bridge Structure @ 91st Ave	SF	31,457	120.00	\$3,774,840
Embankment (Borrow)	CY	745,499	9.00	\$6,709,491
Excavation	CY	137,212	5.00	\$686,060
Mainline (13" PCCP)	SY	88,566	48.00	\$4,251,168
Arterial (9" AC)	TONS	2,387	63.00	\$150,381
Asphalt Rubber Surface Course (1")	TONS	4,849	115.00	\$557,635
Mainline & Ramp (AB)	CY	11,052	25.00	\$276,300
Concrete Curb & Gutter	LF	1,409	15.00	\$21,135
Retaining Wall	SF	345,140	55.00	\$18,982,700
Concrete Half Barrier	LF	16,269	45.00	\$732,105
Concrete Half Barrier Transition	EA	4	3,000.00	\$12,000
Concrete Median Barrier	LF	7,821	65.00	\$508,365
Attenuators	EA	5	20,000.00	\$100,000
Pavement Marking & Signing	mi	1.5	310,000.00	\$465,000
ITS Conduit and Junction Boxes	mi	1.5	100,000.00	\$150,000
Roadway Lighting	LS	1.5	250,000.00	\$375,000
Utility Relocation	LS	1	0.00	\$0
Drainage	LS	1	1,653,755.00	\$1,653,755
Landscaping	SF	562,827	3.00	\$1,688,481

Total **\$76,459,746**

Traffic Control	7.0%	\$5,352,182
Mobilization	8.0%	\$6,116,780
Misc. Items (Survey, Contractor QC, dust palliative, furnish water, SWPPP, Communications relocation, Potholing)	12.1%	\$9,251,629

Total **\$97,180,337**

Unidentified Items	15.0%	\$14,577,051
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Total **\$111,757,388**

Construction Administration / Contingencies	14.0%	\$15,646,034
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Total Construction Cost **\$127,403,422**

Engineering and Design	8%	\$10,192,274
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Total Project Cost **\$137,595,696**

ROW	Acre	\$/acre	
	0.00	\$450,000	\$0
	Each	\$/ea	

Resident Relocations	0	\$300,000	\$0
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Business Relocations	0	\$500,000	\$0
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Total ROW Costs **\$0**

Total Project Cost Including ROW **\$137,595,696**

Project Cost Estimate
Loop 101 Segment Northern Avenue Improvements (Loop 101 to 87th Ave)
(Includes Hayward Ave Connection)
6/29/2009

Description	Unit	Quantity	Unit Cost	Total
Clearing and Grubbing	LS	1	5,000.00	\$5,000
Subgrade Preparation	SY	93,557	3.00	\$280,671
Remove Existing Pavement	SY	58,194	2.00	\$116,388
Remove PCCP	SY	3,307	5.00	\$16,535
Remove Existing Curb & Gutter	LF	10,766	6.00	\$64,596
Embankment (Borrow)	CY	5,118	9.00	\$46,062
Excavation	CY	25,170	5.00	\$125,850
Mainline (11" AC)	TONS	12,455	63.00	\$784,665
Northern Avenue (9" AC)	TONS	23,818	63.00	\$1,500,534
Arterial (6" AC)	TONS	8,061	63.00	\$507,843
Connector Rd (3" AC) (Hayward Ave.)	TONS	1,040	72.00	\$74,880
Asphalt Rubber Surface Course (1")	TONS	1,132	115.00	\$130,180
Mainline & Arterial (10"AB)	CY	12,561	25.00	\$314,025
Northern Avenue (9" AB)	CY	12,084	25.00	\$302,100
Connector Rd (6" AB) (Hayward Ave)	CY	1,055	30.00	\$31,650
Concrete Curb & Gutter	LF	21,697	15.00	\$325,455
Concrete Median Curb	LF	5,680	18.00	\$102,240
Sidewalk	SF	87,882	4.50	\$395,469
Noise Wall (B13-B15)	LS	1	1,090,040.00	\$1,090,040
Pavement Marking & Signing	mi	1	60,000.00	\$60,000
Roadway Lighting	mi	1	250,000.00	\$250,000
Traffic Signals (93rd, 91st)	LS	2	250,000.00	\$500,000
Utility Relocation	LS	1	3,432,968.88	\$3,432,969
Drainage	LS	1	2,550,020.00	\$2,550,020
Landscaping	SF	103,953	3.00	\$311,859

Total **\$13,319,031**

Traffic Control	7.0%	\$932,332
Mobilization	8.0%	\$1,065,522
Misc. Items (Survey, Contractor QC, dust palliative, furnish water, SWPPP, Communications relocation, Potholing)	12.1%	\$1,611,603
Total		\$16,928,488

Unidentified Items	15.0%	\$2,539,273
Total		\$19,467,761

Construction Administration / Contingencies	14.0%	\$2,725,487
Total Construction Cost		\$22,193,248

Engineering and Design	8%	\$1,775,460
Total Project Cost		\$23,968,708

ROW	Acre	\$/acre	
	24.90	\$450,000	\$11,205,000
	Each	\$/ea	
Resident Relocations	2	\$300,000	\$600,000
Business Relocations	1	\$500,000	\$500,000
Total ROW Costs			\$12,305,000

Total Project Cost Including ROW **\$36,273,708**

Project Cost Estimate
83rd Ave Grade Separated Intersection (87th Ave to 79th Ave)
6/29/2009

Description	Unit	Quantity	Unit Cost	Total
Clearing and Grubbing	LS	1	10,000.00	\$10,000
Subgrade Preparation	SY	94,183	3.00	\$282,549
Remove Existing Pavement	SY	18,827	2.00	\$37,654
Remove Existing Curb & Gutter	LF	10,000	6.00	\$60,000
New Bridge Structure	SF	20,910	115.00	\$2,404,650
Embankment (Borrow)	CY	56,957	9.00	\$512,613
Excavation	CY	62,988	5.00	\$314,940
Mainline (11" AC)	TONS	31,838	63.00	\$2,005,794
Arterial/Ramp (9" AC)	TONS	14,776	63.00	\$930,888
Connector Rd (3" AC)	TONS	1,861	72.00	\$133,992
Asphalt Rubber Surface Course (1")	TONS	2,894	115.00	\$332,810
Mainline (10" AB)	CY	14,685	25.00	\$367,125
Arterial/Ramp (9" AB)	CY	7,496	25.00	\$187,400
Connector Rd (6" AB)	CY	1,889	30.00	\$56,670
Concrete Curb & Gutter	LF	21,329	15.00	\$319,935
Concrete Median Curb	LF	7,357	18.00	\$132,426
Sidewalk	SF	64,586	4.50	\$290,637
Retaining Wall (MSE)	SF	42,772	55.00	\$2,352,460
Noise Wall (B16)	LS	1	974,400.00	\$974,400
Concrete Half Barrier	LF	3,911	45.00	\$175,995
Concrete Half Barrier Transition	EA	2	3,000.00	\$6,000
Concrete Median Barrier	LF	1,746	65.00	\$113,490
Attenuators	EA	2	20,000.00	\$40,000
Pavement Marking & Signing	mi	1	110,000.00	\$110,000
ITS Conduit and Junction Boxes	mi	1.0	100,000.00	\$100,000
Roadway Lighting	mi	1	250,000.00	\$250,000
Traffic Signals	LS	1	250,000.00	\$250,000
Irrigation Relocation	LS	1	0.00	\$0
Utility Relocation	LS	1	6,601,756.00	\$6,601,756
Drainage	LS	1	1,921,690.00	\$1,921,690
Landscaping	LF	283,575	3.00	\$850,725

Total **\$22,126,599**

Traffic Control	7.0%	\$1,548,862
Mobilization	8.0%	\$1,770,128
Misc. Items (Survey, Contractor QC, dust palliative, furnish water, SWPPP, Communications relocation, Potholing)	12.1%	\$2,677,318

Total **\$28,122,907**

Unidentified Items	15.0%	\$4,218,436
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Total **\$32,341,343**

Construction Administration / Contingencies	14.0%	\$4,527,788
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Total Construction Cost **\$36,869,132**

Engineering and Design	8%	\$2,949,531
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Total Project Cost **\$39,818,662**

ROW	Acre	\$/acre	
	16.70	\$250,000	\$4,175,000

Resident Relocations	Each	\$/ea	
	3	\$300,000	\$900,000

Business Relocations	0	\$500,000	\$0
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Total ROW Costs **\$5,075,000**

Total Project Cost Including ROW **\$44,893,662**

Project Cost Estimate
75th Ave Grade Separated Intersection (79th Ave to 71st Ave)
(Includes SRP Roadway)
6/29/2009

Description	Unit	Quantity	Unit Cost	Total
Clearing and Grubbing	LS	1	10,000.00	\$10,000
Subgrade Preparation	SY	100,522	3.00	\$301,566
Remove Existing Pavement	SY	42,455	2.00	\$84,910
Remove Existing Curb & Gutter	LF	10,000	6.00	\$60,000
New Bridge Structure	SF	20,910	115.00	\$2,404,650
Embankment (Borrow)	CY	88,601	9.00	\$797,409
Excavation	CY	35,134	5.00	\$175,670
Mainline (11" AC)	TONS	32,895	63.00	\$2,072,385
Arterial/Ramp (9" AC)	TONS	14,835	63.00	\$934,605
Arterial (6" AC)	TONS	4,132	63.00	\$260,316
Connector Rd (3" AC)	TONS	512	72.00	\$36,864
Mainline & Arterial (10" AB)	CY	18,666	25.00	\$466,650
Ramp (9" AB)	CY	7,527	25.00	\$188,175
Connector Rd (AB)	CY	536	30.00	\$16,080
Concrete Curb & Gutter	LF	18,983	15.00	\$284,745
Concrete Median Curb	LF	8,655	18.00	\$155,790
Sidewalk	SF	74,024	4.50	\$333,108
Retaining Wall (MSE)	SF	52,059	55.00	\$2,863,245
Noise Wall (B17-B18)	LS	1	1,958,600.00	\$1,958,600
Concrete Half Barrier	LF	4,360	45.00	\$196,200
Concrete Half Barrier Transition	EA	2	3,000.00	\$6,000
Concrete Median Barrier	LF	2,837	65.00	\$184,405
Attenuators	EA	2	20,000.00	\$40,000
Pavement Marking & Signing	mi	1	110,000.00	\$110,000
ITS Conduit and Junction Boxes	mi	1.0	100,000.00	\$100,000
Roadway Lighting	mi	1	250,000.00	\$250,000
Traffic Signals	EA	1	250,000.00	\$250,000
Irrigation Relocation	LS	1	0.00	\$0
Utility Relocation	LS	1	5,978,141.13	\$5,978,141
Drainage	LS	1	1,371,670.00	\$1,371,670
Landscaping	LF	330,130	3.00	\$990,390

Total **\$22,881,574**

Traffic Control	7.0%	\$1,601,710
Mobilization	8.0%	\$1,830,526
Misc. Items (Survey, Contractor QC, dust palliative, furnish water, SWPPP, Communications relocation, Potholing)	12.1%	\$2,768,670

Total **\$29,082,481**

Unidentified Items	15.0%	\$4,362,372
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Total **\$33,444,853**

Construction Administration / Contingencies	14.0%	\$4,682,279
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Total Construction Cost **\$38,127,132**

Engineering and Design	8%	\$3,050,171
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Total Project Cost **\$41,177,303**

ROW	Acre	\$/acre	
	15.29	\$400,000	\$6,116,000
Resident Relocations	Each	\$/ea	
	13	\$300,000	\$3,900,000
Business Relocations	0	\$500,000	\$0

Total ROW Costs **\$10,016,000**

Total Project Cost Including ROW **\$51,193,303**

Project Cost Estimate
Grand Ave Segment (71st Ave to 65th Ave, Grand Ave, Connector Improvements)
6/29/2009

Description	Unit	Quantity	Unit Cost	Total
Clearing and Grubbing	LS	1	10,000.00	\$10,000
Subgrade Preparation	SY	86,189	3.00	\$258,567
Remove Existing Pavement	SY	35,114	2.00	\$70,228
Remove Existing Curb & Gutter	LF	18,074	6.00	\$108,444
New Bridge Structure	SF	118,399	141.00	\$16,694,259
Embankment (Borrow)	CY	35,601	9.00	\$320,409
Excavation	CY	34,517	5.00	\$172,585
Flyover PCCP (11.5")	SY	11,073	40.00	\$442,920
Northern Avenue (9" AC)	TONS	25,745	63.00	\$1,621,935
Grand (9" AC)	TONS	11,269	63.00	\$709,947
Flyover (4" AB)	CY	1,230	25.00	\$30,750
Northern/Grand (AB)	CY	19,414	25.00	\$485,350
Concrete Curb & Gutter	LF	17,865	15.00	\$267,975
Concrete Median Curb	LF	10,484	18.00	\$188,712
Sidewalk	SF	74,927	4.50	\$337,172
Retaining Wall	SF	50,948	55.00	\$2,802,140
Concrete Half Barrier	LF	3,644	45.00	\$163,980
Concrete Half Barrier Transition	EA	2	3,000.00	\$6,000
Concrete Median Barrier	LF	2,024	65.00	\$131,560
Attenuators	EA	2	20,000.00	\$40,000
Pavement Marking & Signing	mi	1	310,000.00	\$310,000
ITS Conduit and Junction Boxes	mi	1.0	100,000.00	\$100,000
Roadway Lighting	mi	1	250,000.00	\$250,000
Traffic Signals (Grand, Connector A2)	LS	2	200,000.00	\$400,000
Irrigation Relocation	LS	1	0.00	\$0
Utility Relocation	LS	1	3,019,570.00	\$3,019,570
Drainage	LS	1	689,645.00	\$689,645
RR Crossing	LF	200	1,300.00	\$260,000
Landscaping	LF	483,290	3.00	\$1,449,870

Total **\$31,342,018**

Traffic Control 7.0% \$2,193,941
Mobilization 8.0% \$2,507,361
Misc. Items (Survey, Contractor QC, dust palliative, furnish water, SWPPP, Communications relocation, Potholing) 12.1% \$3,792,384

Total **\$39,835,704**

Unidentified Items 15.0% \$5,975,356
Total **\$45,811,060**

Construction Administration / Contingencies 14.0% \$6,413,548
Total Construction Cost **\$52,224,608**

Engineering and Design 8% \$4,177,969
Total Project Cost **\$56,402,577**

ROW	Acre	\$/acre	
	12.42	\$400,000	\$4,968,000

Resident Relocations	Each	\$/ea	
	0	\$300,000	\$0

Business Relocations	5	\$500,000	\$2,500,000
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Total ROW Costs **\$7,468,000**

Total Project Cost Including ROW **\$63,870,577**