

Appendix A – Cost Estimates

WASHINGTON ST. CORRIDOR STUDY

8th Avenue to 1st Avenue - Full Reconstruct (2660 feet) November 22, 2011

Item No.	Item Description	Quantity	Unit	Unit Price	Amount
1	Removal of Pavement	19600	SY	\$11	\$215,600
2	Removal of Curb and Gutter	5400	LF	\$5	\$24,300
3	Removal of Sidewalk	3000	SY	\$11	\$33,000
4	24" Base Material For Street	17000	CY	\$30	\$510,000
5	10" PCC Pavement	19000	SY	\$65	\$1,235,000
6	4" PCC Sidewalk	4230	SY	\$45	\$190,350
7	PCC Curb and Gutter	5400	LF	\$26	\$140,400
8	Mobilization	1	L SUM	\$325,000	\$325,000
9	Contract Bond	1	L SUM	\$25,000	\$25,000
10	Landscaping/Erosion Control	1	L SUM	\$50,000	\$50,000
11	Driveway Reconfiguration	1	LS	\$10,000	\$10,000
12	Pavement Markings and Signage	1	L SUM	\$40,000	\$40,000
13	Lighting	1	L SUM	\$100,000	\$100,000
14	ROW Easement (for utility relocation)	1	L SUM	\$15,000	\$15,000
15	Traffic Control	1	L SUM	\$40,000	\$40,000
16	Storm Sewer	1	L SUM	\$75,000	\$75,000
17	Utilities Adjustment	1	L SUM	\$150,000	\$150,000
18	Water Main & Sanitary Sewer Adjustments	1	L SUM	\$75,000	\$75,000
19	Signals	1	L SUM	\$200,000	\$200,000

Sub-Total	\$3,453,650
Contingencies @ 25%	\$863,413
Engineering @ 20%	\$690,730
Total 2011 Cost	\$5,007,793

Planning Term	2023-2035
1st Year Cost (2023)	\$8,017,637
Mid-Point Cost (2029)	\$10,144,869
Final Year Cost (2035)	\$12,836,495

Note: Forecasted costs assume a 4% inflation rate.

Note: Standalone projects at 2nd Ave. North, University Ave. & 8th Ave. North are not included in this estimate.

WASHINGTON ST. CORRIDOR STUDY

8th Avenue North - Signal Installation November 22, 2011					
Item No.	Item Description	Quantity	Unit	Unit Price	Amount
1	Contract Bond	1	L SUM	\$2,000	\$2,000
2	Mobilization	1	L SUM	\$7,500	\$7,500
3	Traffic Control	1	L SUM	\$3,500	\$3,500
4	4" PCC Sidewalk	90	SY	\$60	\$5,400
5	Landscaping/Erosion Control	1	L SUM	\$1,500	\$1,500
6	Pavement Markings and Signage	1	L SUM	\$10,000	\$10,000
7	Signal System	1	L SUM	\$185,000	\$185,000
Sub-Total					\$214,900
Contingencies @ 25%					\$53,725
Engineering @ 20%					\$42,980
Total 2011 Cost					\$311,605
Planning Term					Part of Another Priority
1st Year Cost					Part of Another Priority
Mid-Point Cost					Part of Another Priority
Final Year Cost					Part of Another Priority

Note: Forecasted costs assume a 4% inflation rate.

University Avenue - Left Turn Signal Head Replacement November 22, 2011					
Item No.	Item Description	Quantity	Unit	Unit Price	Amount
1	Contract Bond	1	L SUM	\$1,000	\$1,000
2	Mobilization	1	L SUM	\$5,000	\$5,000
3	Traffic Control	1	L SUM	\$3,500	\$3,500
4	Signal Revisions	1	L SUM	\$3,000	\$3,000
5	Pavement Markings and Signage	1	L SUM	\$500	\$500
Sub-Total					\$13,000
Contingencies @ 25%					\$3,250
Engineering @ 20%					\$2,600
Total 2011 Cost					\$18,850
Planning Term					Part of Another Priority
1st Year Cost					Part of Another Priority
Mid-Point Cost					Part of Another Priority
Final Year Cost					Part of Another Priority

Note: Forecasted costs assume a 4% inflation rate.

WASHINGTON ST. CORRIDOR STUDY

2nd Avenue North - Traffic Signal Removal November 22, 2011					
Item No.	Item Description	Quantity	Unit	Unit Price	Amount
1	Contract Bond	1	L SUM	\$2,000	\$2,000
2	Mobilization	1	L SUM	\$12,500	\$12,500
3	Traffic Control	1	L SUM	\$7,500	\$7,500
4	Pavement Marking and Signage	1	L SUM	\$10,000	\$10,000
5	Traffic Signal Removal	1	L SUM	\$17,500	\$17,500
Sub-Total					\$49,500
Contingencies @ 25%					\$12,375
Engineering @ 20%					\$9,900
Total 2011 Cost					\$71,775
Planning Term					Part of Another Priority
1st Year Cost					Part of Another Priority
Mid-Point Cost					Part of Another Priority
Final Year Cost					Part of Another Priority

Note: Forecasted costs assume a 4% inflation rate.

WASHINGTON ST. CORRIDOR STUDY

1st Avenue North to 5th Avenue South - Full Reconstruct (1000 Feet) November 22, 2011

Item No.	Item Description	Quantity	Unit	Unit Price	Amount
1	Removal of Pavement	6670	SY	\$11	\$73,370
2	Removal of Curb and Gutter	2000	LF	\$5	\$9,000
3	Removal of Sidewalk	1115	SY	\$11	\$12,265
4	24" Base Material For Street	6190	CY	\$30	\$185,700
5	10" PCC Pavement	6670	SY	\$65	\$433,550
6	4" PCC Sidewalk	1555	SY	\$45	\$69,975
7	PCC Curb and Gutter	2000	LF	\$30	\$60,000
8	Mobilization	1	L SUM	\$200,000	\$200,000
9	Contract Bond	1	L SUM	\$60,000	\$60,000
10	Seeding/Erosion Control	1	L SUM	\$34,000	\$34,000
11	Pavement Markings and Signage	1	L SUM	\$10,000	\$10,000
12	Lighting	1	L SUM	\$55,000	\$55,000
13	Traffic Control	1	L SUM	\$30,000	\$30,000
14	Storm Sewer	1	L SUM	\$250,000	\$250,000
15	Utilities Adjustment	1	L SUM	\$150,000	\$150,000
16	Water Main	1	L SUM	\$20,000	\$20,000
17	Bridge (32' clearspan)	1	L SUM	\$6,547,625	\$6,547,625

Sub-Total	\$8,200,485
Contingencies @ 25%	\$2,050,121
Engineering @ 20%	\$1,640,097
Total 2011 Cost	\$11,890,703

Planning Term	2016-2022
1st Year Cost (2016)	\$14,466,859
Mid-Point Cost (2019)	\$16,273,248
Final Year Cost (2022)	\$18,305,191

Note: Forecasted costs assume a 4% inflation rate.

Note: Bridge cost conservatively represents the higher cost bridge alternative. This alternative includes full bridge replacement with sloped sides.

WASHINGTON ST. CORRIDOR STUDY

Bridge (32' Clearspan) With Side-Slopes November 22, 2011					
Item No.	Item Description	Quantity	Unit	Unit Price	Amount
1	REMOVAL OF STRUCTURE	1	L SUM	\$500,000	\$500,000
2	CLASS 1 EXCAVATION	1	L SUM	\$25,000	\$25,000
3	FOUNDATION PREPARATION	1	EA	\$50,000	\$50,000
4	CLASS AE-3 CONCRETE	400	CY	\$750	\$300,000
5	REINFORCING STEEL - GRADE 60	80000	LBS	\$1	\$100,000
6	STRUCTURAL STEEL	750000	LBS	\$3	\$2,250,000
7	STEEL PILING HP 12 X 53	2600	LF	\$50	\$130,000
8	STEEL PILING HP 14 X 102	3400	LF	\$75	\$255,000
9	PEDESTRIAN RAILING	300	LF	\$200	\$60,000
10	MOBILIZATION	1	LS	\$350,000	\$350,000
11	SLOPE PROTECTION CONCRETE	625	SY	\$125	\$78,125
12	RAILROAD TRACK	1075	LIN FT	\$200	\$215,000
13	BEARING ASSEMBLY	240	EA	\$750	\$180,000
14	MOVE STORM WATER LIFT STATION	1	L SUM	\$250,000	\$250,000
15	PROPERTY ACQUISITION	1	L SUM	\$100,000	\$100,000
				Sub-Total	\$4,843,125
				Contingencies @ 25%	\$1,210,781
				Engineering @ 20%	\$968,625
				Total 2011 Cost	\$7,022,531
				Planning Term	2016-2022
				1st Year Cost (2016)	\$8,543,983
				Mid-Point Cost (2019)	\$9,610,819
				Final Year Cost (2022)	\$10,810,864

Note: Forecasted costs assume a 4% inflation rate.

WASHINGTON ST. CORRIDOR STUDY

Bridge (32' Clearspan) With Side-Slopes/Retaining Wall Combination November 22, 2011

Item No.	Item Description	Quantity	Unit	Unit Price	Amount
1	REMOVAL OF STRUCTURE	1	L SUM	\$500,000	\$500,000
2	CLASS 1 EXCAVATION	1	L SUM	\$25,000	\$25,000
3	FOUNDATION PREPARATION	1	EA	\$50,000	\$50,000
4	CLASS AE-3 CONCRETE	450	CY	\$750	\$337,500
5	REINFORCING STEEL - GRADE 60	90000	LBS	\$1	\$112,500
6	STRUCTURAL STEEL	650000	LBS	\$3	\$1,950,000
7	STEEL PILING HP 12 X 53	2600	LF	\$50	\$130,000
8	STEEL PILING HP 14 X 102	3400	LF	\$75	\$255,000
9	PEDESTRIAN RAILING	250	LF	\$200	\$50,000
10	MOBILIZATION	1	LS	\$350,000	\$350,000
11	SLOPE PROTECTION CONCRETE	325	SY	\$125	\$40,625
12	RETAINING WALL	3750	SF	\$75	\$281,250
13	RAILROAD TRACK	1000	LIN FT	\$200	\$200,000
14	BEARING ASSEMBLY	240	EA	\$750	\$180,000
15	MOVE STORM WATER LIFT STATION	1	L SUM	\$250,000	\$250,000
16	PROPERTY ACQUISITION	1	L SUM	\$100,000	\$100,000

Sub-Total	\$4,811,875
Contingencies @ 25%	\$1,202,969
Engineering @ 20%	\$962,375
Total 2011 Cost	\$6,977,219

Planning Term	2016-2022
1st Year Cost (2016)	\$8,488,853
Mid-Point Cost (2019)	\$9,548,806
Final Year Cost (2022)	\$10,741,108

Note: Forecasted costs assume a 4% inflation rate.

WASHINGTON ST. CORRIDOR STUDY

Bridge (32' Clearspan) With Retaining Walls November 22, 2011

Item No.	Item Description	Quantity	Unit	Unit Price	Amount
1	REMOVAL OF STRUCTURE	1	L SUM	\$500,000	\$500,000
2	CLASS 1 EXCAVATION	1	L SUM	\$25,000	\$25,000
3	FOUNDATION PREPARATION	1	EA	\$50,000	\$50,000
4	CLASS AE-3 CONCRETE	500	CY	\$750	\$375,000
5	REINFORCING STEEL - GRADE 60	100000	LBS	\$1	\$125,000
6	STRUCTURAL STEEL	350000	LBS	\$3	\$1,050,000
7	STEEL PILING HP 12 X 53	2300	LF	\$50	\$115,000
8	STEEL PILING HP 14 X 102	3400	LF	\$75	\$255,000
9	PEDESTRIAN RAILING	190	LF	\$200	\$38,000
10	MOBILIZATION	1	LS	\$350,000	\$350,000
11	RETAINING WALL	6550	SF	\$75	\$491,250
12	RAILROAD TRACK	1075	LIN FT	\$200	\$215,000
13	BEARING ASSEMBLY	240	EA	\$750	\$180,000
14	MOVE STORM WATER LIFT STATION	1	L SUM	\$250,000	\$250,000
15	PROPERTY ACQUISITION	1	L SUM	\$50,000	\$50,000

Sub-Total	\$4,069,250
Contingencies @ 25%	\$1,017,313
Engineering @ 20%	\$813,850
Total 2011 Cost	\$5,900,413

Planning Term	2016-2022
1st Year Cost (2016)	\$7,178,754
Mid-Point Cost (2019)	\$8,075,122
Final Year Cost (2022)	\$9,083,414

Note: Forecasted costs assume a 4% inflation rate.

WASHINGTON ST. CORRIDOR STUDY

Shoo-Fly November 22, 2011					
Item No.	Item Description	Quantity	Unit	Unit Price	Amount
1	REMOVAL OF STRUCTURE	1	L SUM	\$100,000	\$100,000
2	CLASS 1 EXCAVATION	1	L SUM	\$10,000	\$10,000
3	CLASS AE-3 CONCRETE	40	CY	\$600	\$24,000
4	REINFORCING STEEL - GRADE 60	10000	LBS	\$1	\$11,000
5	STRUCTURAL STEEL	310000	LBS	\$2	\$620,000
6	STEEL PILING HP 12 X 53	2300	LF	\$45	\$103,500
7	RAILROAD TRACK	2000	LIN FT	\$200	\$400,000
8	BEARING ASSEMBLY	48	EA	\$750	\$36,000
9	PROPERTY ACQUISITION	1	L SUM	\$400,000	\$400,000
Sub-Total					\$1,704,500
Contingencies @ 25%					\$426,125
Engineering @ 20%					\$340,900
Total 2011 Cost					\$2,471,525
Planning Term					2016-2022
1st Year Cost (2016)					\$3,006,988
Mid-Point Cost (2019)					\$3,382,453
Final Year Cost (2022)					\$3,804,799

Note: Forecasted costs assume a 4% inflation rate.

WASHINGTON ST. CORRIDOR STUDY

5th Avenue South to 7th Avenue South - Full Reconstruct (750 Feet) November 22, 2011

Item No.	Item Description	Quantity	Unit	Unit Price	Amount
1	Removal of Pavement	5250	SY	\$11	\$57,750
2	Removal of Curb and Gutter	15000	LF	\$5	\$67,500
3	Removal of Sidewalk	420	SY	\$11	\$4,620
4	24" Base Material For Street	22100	CY	\$30	\$663,000
5	10" PCC Pavement (Roadway)	30900	SY	\$65	\$2,008,500
6	4" PCC Sidewalk	6700	SY	\$45	\$301,500
7	PCC Curb and Gutter	23850	LF	\$26	\$620,100
8	Median Concrete	5950	SY	\$35	\$208,250
9	Mobilization	1	L SUM	\$500,000	\$500,000
10	Contract Bond	1	L SUM	\$30,000	\$30,000
11	Seeding/Erosion Control	1	L SUM	\$15,000	\$15,000
12	Pavement Markings and Signage	1	L SUM	\$50,000	\$50,000
13	Lighting	1	L SUM	\$80,000	\$80,000
14	Traffic Control	1	L SUM	\$25,000	\$25,000
15	Storm Sewer	1	L SUM	\$70,000	\$70,000
16	Utilities Adjustment	1	L SUM	\$170,000	\$170,000
17	Water Main	1	L SUM	\$40,000	\$40,000
18	Signals	3	EA	\$200,000	\$600,000
19	Right-of-way(Railroad) ¹	1	L SUM	\$1,200,000	\$1,200,000
20	Remodel Fire Station ¹	1	L SUM	\$1,800,000	\$1,800,000
21	6th Avenue	1	L SUM	\$250,000	\$250,000
22	Signals	1	L SUM	\$250,000	\$250,000

Sub-Total	\$9,011,220
¹Contingencies @ 25%	\$1,502,805
¹Engineering @ 20%	\$1,202,244
Total 2011 Cost	\$11,716,269

Planning Term	2023-2035
1st Year Cost (2023)	\$18,758,124
Mid-Point Cost (2029)	\$23,735,011
Final Year Cost (2035)	\$30,032,361

¹Engineering and Contingencies factored into lump sum cost for ROW acquisition and Fire Station Remodel.

Note: Forecasted costs assume a 4% inflation rate.

WASHINGTON ST. CORRIDOR STUDY

7th Avenue to Hammerling - Full Reconstruct (2990 Feet) November 22, 2011					
Item No.	Item Description	Quantity	Unit	Unit Price	Amount
1	Removal of Pavement	22600	SY	\$11	\$248,600
2	Removal of Curb and Gutter	6000	LF	\$5	\$27,000
3	Removal of Sidewalk	5300	SY	\$11	\$58,300
4	24" Base Material For Street	19700	CY	\$30	\$591,000
5	10" PCC Pavement	21800	SY	\$65	\$1,417,000
6	4" PCC Sidewalk	5320	SY	\$45	\$239,400
7	PCC Curb and Gutter	6000	LF	\$26	\$156,000
8	Mobilization	1	L SUM	\$300,000	\$300,000
9	Contract Bond	1	L SUM	\$30,000	\$30,000
10	Landscaping/Erosion Control	1	L SUM	\$50,000	\$50,000
11	Driveway Reconfiguration	1	L SUM	\$20,000	\$20,000
12	Pavement Markings and Signage	1	L SUM	\$60,000	\$60,000
13	Lighting	1	L SUM	\$115,000	\$115,000
14	ROW Easement (for utility relocation)	1	LSUM	\$15,000	\$15,000
15	Traffic Control	1	L SUM	\$40,000	\$40,000
16	Storm Sewer	1	L SUM	\$85,000	\$85,000
17	Utilities Adjustment	1	L SUM	\$150,000	\$150,000
18	Water Main & Sanitary Sewer Adjustments	1	L SUM	\$50,000	\$50,000
19	Signals	1	L SUM	\$75,000	\$75,000
20	Transit Turn Outs	4	EA	\$15,000	\$60,000
21	8th Avenue Realignment	1	L SUM	\$275,000	\$275,000
22	10th Avenue Realignment	1	L SUM	\$310,000	\$310,000
23	14th Avenue Realignment	1	L SUM	*	\$0
24	9th Avenue Pedestrian Beacon	1	L SUM	\$80,000	\$80,000
				Sub-Total	\$4,452,300
				Contingencies @ 25%	\$1,113,075
				Engineering @ 20%	\$890,460
				Total 2011 Cost	\$6,455,835
				Planning Term	2023-2035
				1st Year Cost (2023)	\$10,336,000
				Mid-Point Cost (2029)	\$13,078,337
				Final Year Cost (2035)	\$16,548,269

Note: Forecasted costs assume a 4% inflation rate.
* Included in mainline items.

WASHINGTON ST. CORRIDOR STUDY

15th Avenue South - Install Right Turn Lanes November 22, 2011

Item No.	Item Description	Quantity	Unit	Unit Price	Amount
1	Contract Bond	1	L SUM	\$1,000	\$1,000
2	Removal of Pavement	0	SY	\$11	\$0
3	Removal of Curb and Gutter	375	LF	\$5	\$1,688
4	Removal of Sidewalk	0	SY	\$11	\$0
5	Mobilization	1	L SUM	\$10,000	\$10,000
6	Traffic Control	1	L SUM	\$5,000	\$5,000
7	24" Base Material For Street	230	CY	\$30	\$6,900
8	10" PCC Pavement	235	SY	\$80	\$18,800
9	PCC Curb and Gutter	375	LF	\$30	\$11,250
10	Pavement Markings and Signage	1	L SUM	\$2,500	\$2,500
11	Landscaping/Erosion Control	1	L SUM	\$1,500	\$1,500

Sub-Total	\$58,638
Contingencies @ 25%	\$14,659
Engineering @ 20%	\$11,728
Total 2011 Cost	\$85,024

Planning Term	Part of Another Priority
1st Year Cost	Part of Another Priority
Mid-Point Cost	Part of Another Priority
Final Year Cost	Part of Another Priority

Note: Forecasted costs assume a 4% inflation rate.

WASHINGTON ST. CORRIDOR STUDY

17th Avenue South - Extend Southbound Turning Lanes November 22, 2011					
Item No.	Item Description	Quantity	Unit	Unit Price	Amount
1	Contract Bond	1	L SUM	\$1,500	\$1,500
2	Removal of Pavement	0	SY	\$11	\$0
3	Removal of Curb and Gutter	390	LF	\$5	\$1,755
4	Removal of Sidewalk	0	SY	\$11	\$0
5	Mobilization	1	L SUM	\$15,000	\$15,000
6	Traffic Control	1	L SUM	\$7,500	\$7,500
7	24" Base Material For Street	190	CY	\$30	\$5,700
8	10" PCC Pavement	250	SY	\$80	\$20,000
9	PCC Curb and Gutter	390	LF	\$30	\$11,700
10	Pavement Markings and Signage	1	L SUM	\$2,500	\$2,500
11	Seeding/Erosion Control	1	L SUM	\$1,500	\$1,500
Sub-Total					\$67,155
Contingencies @ 25%					\$16,789
Engineering @ 20%					\$13,431
Total 2011 Cost					\$97,375
Planning Term					Part of Another Priority
1st Year Cost					Part of Another Priority
Mid-Point Cost					Part of Another Priority
Final Year Cost					Part of Another Priority

Note: Forecasted costs assume a 4% inflation rate.

Traffic Signal Fiber Optic Interconnect November 22, 2011					
Item No.	Item Description	Quantity	Unit	Unit Price	Amount
1	Contract Bond	1	L SUM	\$1,500	\$1,500
2	Mobilization	1	L SUM	\$5,000	\$5,000
3	Traffic Control	1	L SUM	\$3,500	\$3,500
4	Fiber Optic Interconnect	12335	LF	\$38	\$462,563
Sub-Total					\$472,563
Contingencies @ 25%					\$118,141
Engineering @ 20%					\$94,513
Total 2011 Cost					\$685,216
Planning Term					2023-2035
1st Year Cost (2023)					\$1,097,052
Mid-Point Cost (2029)					\$1,388,121
Final Year Cost (2035)					\$1,756,416

Note: Forecasted costs assume a 4% inflation rate.

WASHINGTON ST. CORRIDOR STUDY

Alternate Bicycle Route Adjacent to Corridor November 22, 2011

Item No.	Item Description	Quantity	Unit	Unit Price	Amount
1	Pavement Markings and Signage	1	L SUM	\$20,000	\$20,000
2	Pedestrian Beacon ¹	1	L SUM	\$80,000	\$80,000
3	Mobilization	1	L SUM	\$8,000	\$8,000
4	Contract Bond	1	L SUM	\$1,200	\$1,200
5	Traffic Control	1	L SUM	\$10,000	\$10,000

Sub-Total	\$119,200
Contingencies @ 25%	\$29,800
Engineering @ 20%	\$23,840
Total 2011 Cost	\$172,840

Planning Term	2016-2022
1st Year Cost (2023)	\$210,286
Mid-Point Cost (2029)	\$236,543
Final Year Cost (2035)	\$266,079

¹Pedestrian beacon relocation is pending Winship Elementary acceptance

Note: Forecasted costs assume a 4% inflation rate.