

## **APPENDIX C.**

(Detailed Cost Estimates)

**PHALEN REGIONAL PARK MULTIMODAL  
TRANSPORTATION IMPROVEMENT STUDY  
ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COSTS**

SRF CONSULTING GROUP COMM. NO. 10437.00

DECEMBER 21, 2017

PROJECT FOCUS AREA	TOTAL COST	30% CONTINGENCY	TOTAL COST + 30% CONTINGENCY
FA1 - NORTH END	\$430,800	\$129,300	\$560,100
FA2 - ARCADE ST PARK ENTRANCE	\$192,900	\$57,900	\$250,800
FA3 - PICNIC ISLAND AREA	\$361,700	\$108,600	\$470,300
FA4-W - PICNIC PAVILLION	\$138,800	\$41,700	\$180,500
FA4-E - LAKESIDE CENTER	\$158,900	\$47,700	\$206,600
FA5 - BEACH AREA	\$392,600	\$117,800	\$510,400
FA6 - SOUTH END	\$11,800	\$3,600	\$15,400
<b>PROJECT TOTALS</b>	<b>\$1,687,500</b>	<b>\$506,600</b>	<b>\$2,194,100</b>

## FA1 NORTH END

<b>REMOVALS</b>					
ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
1	Remove and Dispose Bituminous Pavement	SY	4,902	\$5.00	\$24,508.80
2	Remove and Dispose Bituminous Trail	SF	4,189	\$1.75	\$7,330.26
3	Remove and Dispose Concrete Curb and Gutter	LF	2,911	\$5.00	\$14,555.00
4	Clear and Grub Tree	EA	8	\$500.00	\$4,000.00
5	Remove Catch Basin/Manhole	EA	2	\$600.00	\$1,200.00
6	Salvage to Reinstall Fire Hydrant	EA	1	\$600.00	\$600.00
7	Relocate Power Pole	EA	1	\$3,000.00	\$3,000.00
<b>REMOVALS SUBTOTAL</b>					<b>\$55,194.06</b>

<b>SITE IMPROVEMENTS</b>					
ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
8	Subgrade Preparation	SY	4,656	\$4.00	\$18,623.56
9	8" Class 5 Aggregate Base	TON	1,414	\$25.00	\$35,338.89
10	2" Bituminous Base Course	TON	399	\$80.00	\$31,946.36
11	Tack Coat (0.05 Gal/SY)	GAL	177	\$5.00	\$883.47
12	2" Bituminous Wear Course	TON	399	\$80.00	\$31,946.36
13	3" Bituminous Wear Course (Trail)	TON	91	\$80.00	\$7,302.81
14	4" Aggregate Base (Trail)	TON	108	\$25.00	\$2,692.78
15	4" Concrete Sidewalk w/4" Aggregate Base	SF	991	\$15.00	\$14,865.00
16	B612M Concrete Curb & Gutter	LF	2,026	\$25.00	\$50,650.00
17	Install Catch Basin/Manhole and Connect to Existing Storm Pipe	EA	4	\$3,000.00	\$12,000.00
18	Sod Type Lawn	SY	3,179	\$9.00	\$28,611.00
19	Roadway/Parking Lot Striping (4" Solid Paint)	LF	956	\$0.10	\$95.60
20	Pavement Message (Handicapped Parking)	EA	2	\$750.00	\$1,500.00
21	Install New Light Foundation, Pole, and Fixture	EA	9	\$4,000.00	\$36,000.00
22	Install Deciduous Tree	EA	35	\$500.00	\$17,500.00
23	Fishing Pier	EA	1	\$10,000.00	\$10,000.00
<b>IMPROVEMENTS SUBTOTAL</b>					<b>\$299,955.82</b>
<b>FOCUS AREA SUBTOTAL 1</b>					<b>\$355,149.88</b>

24	General Site Grading (10%)	LS	1	\$35,514.99	\$35,514.99
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**FOCUS AREA SUBTOTAL 2 \$390,664.87**

25	Erosion Control (3%)	LS	1	\$11,719.95	\$11,719.95
26	Traffic Control (2%)	LS	1	\$7,813.30	\$7,813.30

**FOCUS AREA SUBTOTAL 3 \$410,198.11**

27	Mobilization (5%)	LS	1	\$20,509.91	\$20,509.91
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**FOCUS AREA TOTAL \$430,708.02**

## FA2 ARCADE STREET PARK ENTRY

REMOVALS					
ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
1	Remove and Dispose Bituminous Pavement	SY	1,494	\$5.00	\$7,470.75
2	Remove and Dispose Concrete Curb and Gutter	LF	1,426	\$5.00	\$7,131.25
3	Remove Catch Basin/Manhole	EA	3	\$600.00	\$1,800.00
4	Remove Gate Arm	EA	4	\$500.00	\$2,000.00

**REMOVALS SUBTOTAL** \$18,402.00

SITE IMPROVEMENTS					
ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
5	Subgrade Preparation	SY	1,457	\$4.00	\$5,827.56
6	8" Class 5 Aggregate Base	TON	426	\$25.00	\$10,650.00
7	2" Bituminous Base Course	TON	120	\$80.00	\$9,627.60
8	Tack Coat (0.05 Gal/SY)	GAL	53	\$5.00	\$266.25
9	2" Bituminous Wear Course	TON	120	\$80.00	\$9,627.60
10	4" Concrete Sidewalk w/4" Aggregate Base	SF	1,471	\$15.00	\$22,062.00
11	B612M Concrete Curb & Gutter	LF	1,028	\$25.00	\$25,708.50
12	Install Catch Basin/Manhole and Connect to Existing Storm Pipe	EA	2	\$3,000.00	\$6,000.00
13	Sod Type Lawn	SY	518	\$9.00	\$4,660.43
14	Roadway/Parking Lot Striping (4" Solid Paint)	LF	407	\$0.10	\$40.70
15	Pavement Message (Handicapped Parking)	EA	1	\$750.00	\$750.00
16	Pedestrian Crosswalk Bar (Epoxy, 2'x10')	EA	4	\$100.00	\$400.00
17	Install New Light Foundation, Pole, and Fixture	EA	6	\$4,000.00	\$24,000.00
18	Install New Sign (Park Welcome)	EA	1	\$15,000.00	\$15,000.00
19	Install Deciduous Tree	EA	12	\$500.00	\$6,000.00

**IMPROVEMENTS SUBTOTAL** \$140,620.64

**FOCUS AREA SUBTOTAL 1** \$159,022.64

20	General Site Grading (10%)	LS	1	\$15,902.26	\$15,902.26
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**FOCUS AREA SUBTOTAL 2** \$174,924.90

21	Erosion Control (3%)	LS	1	\$5,247.75	\$5,247.75
22	Traffic Control (2%)	LS	1	\$3,498.50	\$3,498.50

**FOCUS AREA SUBTOTAL 3** \$183,671.14

23	Mobilization (5%)	LS	1	\$9,183.56	\$9,183.56
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**FOCUS AREA TOTAL** \$192,854.70

## FA3 PICNIC ISLAND AREA

REMOVALS					
ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
1	Remove and Dispose Bituminous Pavement	SY	3,045	\$5.00	\$15,225.00
2	Remove and Dispose Bituminous Trail	SF	3,499	\$1.75	\$6,122.74
3	Remove and Dispose Concrete Walk	SF	117	\$2.00	\$233.68
4	Remove and Dispose Concrete Curb and Gutter	LF	2,080	\$5.00	\$10,400.00
5	Mill Bituminous Surface (2")	SY	992	\$2.00	\$1,984.00
6	Clear and Grub Tree	EA	2	\$500.00	\$1,000.00
7	Remove Catch Basin/Manhole	EA	3	\$600.00	\$1,800.00
8	Remove Light Foundation, Pole, and Fixture	EA	1	\$1,000.00	\$1,000.00
9	Salvage and Store Gate Arm	EA	4	\$500.00	\$2,000.00

**REMOVALS SUBTOTAL \$39,765.42**

SITE IMPROVEMENTS					
ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
10	Subgrade Preparation	SY	3,814	\$4.00	\$15,255.11
11	8" Class 5 Aggregate Base	TON	1,039	\$25.00	\$25,976.67
12	2" Bituminous Base Course	TON	294	\$80.00	\$23,482.91
13	Tack Coat (0.05 Gal/SY)	GAL	179	\$5.00	\$895.00
14	2" Bituminous Wear Course	TON	406	\$80.00	\$32,480.00
15	3" Bituminous Wear Course (Trail)	TON	75	\$80.00	\$5,982.97
16	4" Aggregate Base (Trail)	TON	88	\$25.00	\$2,206.11
17	4" Concrete Sidewalk w/4" Aggregate Base	SF	3,436	\$15.00	\$51,540.00
18	B612M Concrete Curb & Gutter	LF	1,769	\$25.00	\$44,225.00
19	Install Catch Basin/Manhole and Connect to Existing Storm Pipe	EA	3	\$3,000.00	\$9,000.00
20	Sod Type Lawn	SY	1,177	\$9.00	\$10,591.00
21	Roadway/Parking Lot Striping (4" Solid Paint)	LF	1,586	\$0.10	\$158.60
22	Pavement Message (Handicapped Parking)	EA	3	\$750.00	\$2,250.00
23	Pedestrian Crosswalk Bar (Epoxy, 3'x10')	EA	4	\$100.00	\$400.00
24	Install New Light Foundation, Pole, and Fixture	EA	9	\$3,000.00	\$27,000.00
25	Re-Install Gate Arm	EA	4	\$750.00	\$3,000.00
26	Install Deciduous Tree	EA	8	\$500.00	\$4,000.00

**IMPROVEMENTS SUBTOTAL \$258,443.37**

**FOCUS AREA SUBTOTAL 1 \$298,208.79**

27	General Site Grading (10%)	LS	1	\$29,820.88	\$29,820.88
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**FOCUS AREA SUBTOTAL 2 \$328,029.67**

28	Erosion Control (3%)	LS	1	\$9,840.89	\$9,840.89
29	Traffic Control (2%)	LS	1	\$6,560.59	\$6,560.59

**FOCUS AREA SUBTOTAL 3 \$344,431.15**

30	Mobilization (5%)	LS	1	\$17,221.56	\$17,221.56
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**FOCUS AREA TOTAL \$361,652.71**

## FA4-W PICNIC PAVILLION

REMOVALS					
ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
1	Remove and Dispose Bituminous Pavement	SY	600	\$5.00	\$3,001.95
2	Remove and Dispose Concrete Curb and Gutter	LF	547	\$5.00	\$2,733.50
3	Mill Bituminous Surface (2")	SY	2,466	\$2.00	\$4,932.00
4	Remove Catch Basin/Manhole	EA	2	\$600.00	\$1,200.00
5	Salvage and Store Gate Arm	EA	4	\$500.00	\$2,000.00

**REMOVALS SUBTOTAL \$13,867.45**

SITE IMPROVEMENTS					
ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
6	Subgrade Preparation	SY	843	\$4.00	\$3,372.00
7	8" Class 5 Aggregate Base	TON	297	\$25.00	\$7,414.44
8	2" Bituminous Base Course	TON	84	\$80.00	\$6,702.66
9	Tack Coat (0.05 Gal/SY)	GAL	160	\$5.00	\$800.00
10	2" Bituminous Wear Course	TON	362	\$80.00	\$28,960.00
11	B612M Concrete Curb & Gutter	LF	457	\$25.00	\$11,425.00
12	Install Catch Basin/Manhole and Connect to Existing Storm Pipe	EA	2	\$3,000.00	\$6,000.00
13	Sod Type Lawn	SY	17	\$9.00	\$153.00
14	Roadway/Parking Lot Striping (4" Solid Paint)	LF	1,747	\$0.10	\$174.70
15	Pavement Message (Handicapped Parking)	EA	4	\$750.00	\$3,000.00
16	Install New Light Foundation, Pole, and Fixture	EA	1	\$4,000.00	\$4,000.00
17	Install New Sign (Park Welcome)	EA	1	\$15,000.00	\$15,000.00
18	Furnish and Install Dumpster Enclosure	EA	1	\$10,000.00	\$10,000.00
19	Re-Install Gate Arm	EA	4	\$750.00	\$3,000.00
20	Install Deciduous Tree	EA	1	\$500.00	\$500.00

**IMPROVEMENTS SUBTOTAL \$100,501.80**

**FOCUS AREA SUBTOTAL 1 \$114,369.25**

21	General Site Grading (10%)	LS	1	\$11,436.93	\$11,436.93
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**FOCUS AREA SUBTOTAL 2 \$125,806.18**

22	Erosion Control (3%)	LS	1	\$3,774.19	\$3,774.19
23	Traffic Control (2%)	LS	1	\$2,516.12	\$2,516.12

**FOCUS AREA SUBTOTAL 3 \$132,096.49**

24	Mobilization (5%)	LS	1	\$6,604.82	\$6,604.82
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**FOCUS AREA TOTAL \$138,701.31**

## FA4-E LAKESIDE CENTER

REMOVALS					
ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
1	Remove and Dispose Bituminous Pavement	SY	607	\$5.00	\$3,035.00
2	Remove and Dispose Concrete Curb and Gutter	LF	482	\$5.00	\$2,408.90
3	Mill Bituminous Surface (2")	SY	2,072	\$2.00	\$4,144.00
4	Remove Catch Basin/Manhole	EA	2	\$600.00	\$1,200.00
5	Remove Light Foundation, Pole, and Fixture	EA	1	\$1,000.00	\$1,000.00

**REMOVALS SUBTOTAL \$11,787.90**

SITE IMPROVEMENTS					
ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
6	Subgrade Preparation	SY	988	\$4.00	\$3,952.89
7	8" Class 5 Aggregate Base	TON	268	\$25.00	\$6,707.78
8	2" Bituminous Base Course	TON	76	\$80.00	\$6,063.83
9	Tack Coat (0.05 Gal/SY)	GAL	137	\$5.00	\$685.00
10	2" Bituminous Wear Course	TON	310	\$80.00	\$24,800.00
11	4" Concrete Sidewalk w/4" Aggregate Base	SF	1,861	\$15.00	\$27,915.00
12	B612M Concrete Curb & Gutter	LF	498	\$25.00	\$12,450.00
13	Install Catch Basin/Manhole and Connect to Existing Storm Pipe	EA	2	\$3,000.00	\$6,000.00
14	Sod Type Lawn	SY	285	\$9.00	\$2,568.00
15	Roadway/Parking Lot Striping (4" Solid Paint)	LF	1,372	\$0.10	\$137.20
16	Pavement Message (Handicapped Parking)	EA	3	\$750.00	\$2,250.00
17	Install New Sign (Park Welcome)	EA	1	\$15,000.00	\$15,000.00
18	Furnish and Install Dumpster Enclosure	EA	1	\$10,000.00	\$10,000.00
19	Install Deciduous Tree	EA	1	\$500.00	\$500.00

**IMPROVEMENTS SUBTOTAL \$119,029.70**

**FOCUS AREA SUBTOTAL 1 \$131,000.00**

20	General Site Grading (10%)	LS	1	\$13,100.00	\$13,100.00
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**FOCUS AREA SUBTOTAL 2 \$144,100.00**

21	Erosion Control (3%)	LS	1	\$4,323.00	\$4,323.00
22	Traffic Control (2%)	LS	1	\$2,882.00	\$2,882.00

**FOCUS AREA SUBTOTAL 3 \$151,305.00**

23	Mobilization (5%)	LS	1	\$7,565.25	\$7,565.25
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**FOCUS AREA TOTAL \$158,870.25**

## FA5 BEACH AREA

REMOVALS					
ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
1	Remove and Dispose Bituminous Pavement	SY	2,435	\$5.00	\$12,173.85
2	Remove and Dispose Bituminous Trail	SF	8,361	\$1.75	\$14,631.96
3	Remove and Dispose Concrete Walk	SF	2,643	\$2.00	\$5,286.00
4	Remove and Dispose Concrete Curb and Gutter	LF	1,846	\$5.00	\$9,230.00
5	Mill Bituminous Surface (2")	SY	3,602	\$2.00	\$7,204.00
5	Clear and Grub Tree	EA	6	\$500.00	\$3,000.00
6	Remove Catch Basin/Manhole	EA	4	\$600.00	\$2,400.00
7	Remove Light Foundation, Pole, and Fixture	EA	1	\$1,000.00	\$1,000.00
8	Relocate Hydrant	EA	1	\$2,500.00	\$2,500.00

**REMOVALS SUBTOTAL** \$57,425.81

SITE IMPROVEMENTS					
ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
8	Subgrade Preparation	SY	3,656	\$4.00	\$14,623.56
9	8" Class 5 Aggregate Base	TON	684	\$25.00	\$17,105.56
10	2" Bituminous Base Course	TON	193	\$80.00	\$15,463.42
11	Tack Coat (0.05 Gal/SY)	GAL	266	\$5.00	\$1,330.00
12	2" Bituminous Wear Course	TON	600	\$80.00	\$48,000.00
13	3" Bituminous Wear Course (Trail)	TON	202	\$80.00	\$16,134.89
14	4" Aggregate Base (Trail)	TON	238	\$25.00	\$5,949.44
15	4" Concrete Sidewalk w/4" Aggregate Base	SF	3,859	\$15.00	\$57,885.00
16	B612M Concrete Curb & Gutter	LF	1,470	\$25.00	\$36,750.00
17	Install Catch Basin/Manhole and Connect to Existing Storm Pipe	EA	4	\$3,000.00	\$12,000.00
18	Sod Type Lawn	SY	1,180	\$9.00	\$10,621.00
19	Roadway/Parking Lot Striping (4" Solid Paint)	LF	1,729	\$0.10	\$172.90
20	Pavement Message (Handicapped Parking)	EA	5	\$750.00	\$3,750.00
21	Install New Light Foundation, Pole, and Fixture	EA	2	\$4,000.00	\$8,000.00
22	Install New Sign (Park Welcome)	EA	1	\$15,000.00	\$15,000.00
23	Install Deciduous Tree	EA	7	\$500.00	\$3,500.00

**IMPROVEMENTS SUBTOTAL** \$266,285.77

**FOCUS AREA SUBTOTAL 1** \$323,711.58

24	General Site Grading (10%)	LS	1	\$32,371.16	\$32,371.16
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**FOCUS AREA SUBTOTAL 2** \$356,082.74

25	Erosion Control (3%)	LS	1	\$10,682.48	\$10,682.48
26	Traffic Control (2%)	LS	1	\$7,121.65	\$7,121.65

**FOCUS AREA SUBTOTAL 3** \$373,886.88

27	Mobilization (5%)	LS	1	\$18,694.34	\$18,694.34
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**FOCUS AREA TOTAL** \$392,581.22



## FA6 SOUTH END

<b>REMOVALS</b>					
<b>ITEM</b>	<b>DESCRIPTION</b>	<b>UNIT</b>	<b>QUANTITY</b>	<b>UNIT PRICE</b>	<b>AMOUNT</b>
1	Mill Bituminous Surface	SY	875	\$2.00	\$1,750.00
<b>REMOVALS SUBTOTAL</b>					<b>\$1,750.00</b>
<b>SITE IMPROVEMENTS</b>					
<b>ITEM</b>	<b>DESCRIPTION</b>	<b>UNIT</b>	<b>QUANTITY</b>	<b>UNIT PRICE</b>	<b>AMOUNT</b>
2	Tack Coat (0.05 Gal/SY)	GAL	44	\$5.00	\$220.00
3	2" Bituminous Wear Course	TON	99	\$80.00	\$7,920.00
4	Roadway/Parking Lot Striping (4" Solid Paint)	LF	743	\$0.10	\$74.30
5	Pavement Message (Handicapped Parking)	EA	1	\$750.00	\$750.00
<b>IMPROVEMENTS SUBTOTAL</b>					<b>\$8,964.30</b>
<b>FOCUS AREA SUBTOTAL</b>					<b>\$10,714.30</b>
6	Traffic Control (2%)	LS	1	\$214.29	\$214.29
<b>FOCUS AREA SUBTOTAL 3</b>					<b>\$11,142.87</b>
7	Mobilization (5%)	LS	1	\$557.14	\$557.14
<b>FOCUS AREA TOTAL</b>					<b>\$11,700.02</b>