

Traverse City River Walk

Master Plan

November 11, 2022



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Suite 1509
New York, NY 10018
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CONSTRUCTION COST
& RISK CONSULTANTS

Traverse City River Walk - Master Plan

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November 11, 2022

PROJECT

Traverse City River Walk
Master Plan
Traverse City , MI

CLIENT

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Project Number 4242-OTH-22-INFS-TCRIVERWALK

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BASIS & QUALIFICATIONS

November 11, 2022

Standard Mark Ups Included

Design / Estimating Contingency	15.0%	
General Conditions / General Req.	15.0%	Includes for management time for GC / CM as well as costs associated with protection / temporary works etc
GC Fees	5.0%	
Insurances / Bond	3.0%	
Construction Contingency	10.0%	
Escalation		See below table for calculations and phasing summary

Documents Utilized

2950_2022.1021_TC RIVERFRONT SITE_1in - 40ft

2950_2022.1020_TC RIVERWALK + PEDESTRIAN PLAZA FINAL
CONCEPT DESIGN (Page 30 to 60 and Page 69 to 75)

Site Photographs for Existing Condition

Working Hours Assumptions

Day Shift work at 8 hours/day. No premium on labor.

No weekend work. (limited to deliveries if required)

Labor Rates based on Prevailing Wage

Assume some road closures / diversions required to facilitate construction

General Statement

The information used to prepare this ROM cost is at a high level where we have made assumptions

and included allowances to create a realistic and reasonably robust budget

We have not allowed for adjusting the river edge with any extensive infill

We have not allowed for any costs associated with temporary work to highways or diversions during bridge construction

We have not allowed for any major changes in general site levels.

Budget allowances for various aspects of hardscape and softscape is based on similar projects Dharam is working on across the USA.

We have included money in the budget for work associated with Green and Sustainably initiatives

Escalation Forecast Table used in the report	
Date	Escalation Rate
1-Dec-2022	0.67%
1-Jan-2023	8.00%
1-Jan-2024	8.00%
1-Jan-2025	5.00%
1-Jan-2026	5.00%
1-Jan-2027	5.00%
1-Jan-2028	5.00%
1-Jan-2029	5.00%
1-Jan-2030	5.00%

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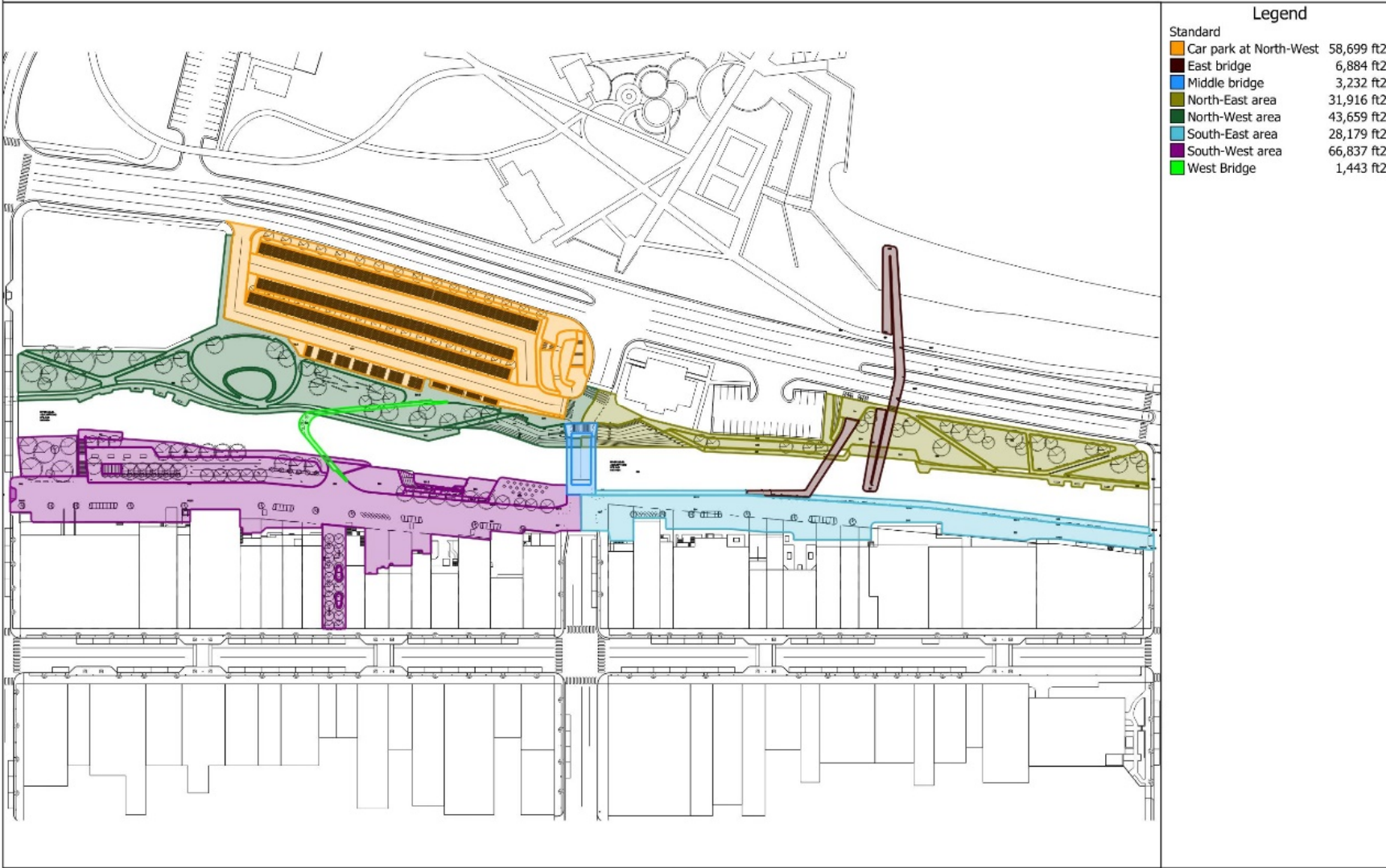
AREA TAKEOFF

November 11, 2022

Descriptions	Qty	Unit
Total Areas	240,849	SF
North West	43,659	SF
North East	31,916	SF
South West	66,837	SF
South East	28,179	SF
West Bridge	1,443	SF
Middle Bridge	3,232	SF
East Bridge	1,613	SF
Parkway Bridge	5,271	SF
Car Park, North West	58,699	SF

iTWO costX Drawing

Project: 4742-TC-Riverwalk
Building: Landscape Plan
Drawing: Site plan
Filename: D:\DHARAM CONSULTING\NEW YORK\4742-NY-OTH-22-INF5-TCRIVERWALK\Drawings\2950_2022.1021_TC RIVERFRONT SITE_1in - 40ft.pdf



iTWO costX

Traverse City River Walk - Master Plan

COST SUMMARY

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The cost summary details costs for each area of the project.

Mark ups are calculated below the trade cost section as a total - We have detailed construction costs for both overall total and individually to the right.

All costs are in 4Q2022 dollars and do not include for any future escalation

For this early stage we have included a contingency of 25% for design, estimating and construction

Mark ups are indicated as percentages for now until we have more information regarding schedule for construction

As a general note the cost ranges /SF are similar to other projects recently priced in similar US average cost of construction locations

Pedestrian bridge costs can run from \$600 to \$1000/SF depending on complexity and costs of spanning water ways can push this higher

		240,849 SF					
		SF	\$/SF	Total \$USD	Mark Ups	Total Const Cost	\$/SF
1.	North West	43,659	182	7,934,892	\$ 4,602,237	\$ 12,537,129	287
2.	North East	31,916	175	5,579,982	\$ 3,236,389	\$ 8,816,371	276
3.	South West	66,837	162	10,794,727	\$ 6,260,942	\$ 17,055,669	255
4.	South East	28,179	145	4,083,698	\$ 2,368,545	\$ 6,452,243	229
5.	West Bridge	1,443	1,134	1,636,700	\$ 949,286	\$ 2,585,986	1,792
6.	Middle Bridge	3,232	87	279,590	\$ 162,162	\$ 441,752	137
7.	East Bridge	1,613	1,087	1,752,675	\$ 1,016,552	\$ 2,769,227	1,717
8.	Parkway Bridge	5,271	1,032	5,440,425	\$ 3,155,447	\$ 8,595,872	1,631
9.	Car Park, North West	58,699	51	3,014,200	\$ 1,748,236	\$ 4,762,436	81
SUBTOTAL TRADE COST (1-9)		\$ 168	\$ 40,516,888			\$ 64,016,684	\$ 266
Design / Estimating Contingency		15.0%	25	6,077,533			
General Conditions / General Req.		15.0%	25	6,077,533			
GC Fees		5.0%	8	2,025,844			
Insurances / Bond		3.0%	5	1,215,507			
Construction Contingency		10.0%	17	4,051,689			
SUBTOTAL TRADE + MARK-UP		58.0%	\$ 266	\$ 64,016,684			
Escalation - See Phasing table		0.00%	-	-			
TOTAL PROJECT CONSTRUCTION COST 4Q2022		\$ 266	\$ 64,016,684				

CLIENT PROJECT COSTS

We have included above for construction cost only - All other project costs should be added into the overall project budget.

Design Team Fees

Contractor Preconstruction Services

City Agency Permits and fees

Road diversions / City or agency costs

Owner staffing costs

Legal fees

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COST SUMMARY - PHASING INCLUDING ESCALATION

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Based upon initial conversation with Architect and the client regarding project schedule / phasing Dharam has produced a draft summary which included escalation for 3 phases of work.

As a rule of thumb to calculate how long each phase would take to deliver its reasonable to assume an expenditure on total value of construction of \$1M per month

Total Trade \$USD 240,849 SF				Total Trade & Mark-Up \$USD				Total Construction Cost incl. Escalation \$USD									
SF	\$/SF	Total \$		Mark Ups	Total \$	\$/SF		Escalation %	Total \$	\$/SF							
Phase 1 - (Jan. 2025)							Jan. 2025										
1.	North West	43,659	182	7,934,892	\$	4,602,237	\$	12,537,129	287	23.29%	\$	15,456,836	354				
3.	South West	66,837	162	10,794,727	\$	6,260,942	\$	17,055,669	255	23.29%	\$	21,027,675	315				
5.	West Bridge	1,443	1,134	1,636,700	\$	949,286	\$	2,585,986	1,792	23.29%	\$	3,188,223	2,209				
6.	Middle Bridge	3,232	87	279,590	\$	162,162	\$	441,752	137	23.29%	\$	544,630	169				
Phase 1a - (Jan. 2025)							Jan. 2025										
9.	Car Park, North West	58,699	51	3,014,200	\$	1,748,236	\$	4,762,436	81	23.29%	\$	5,871,535	100				
Phase 2 - (Jan. 2028)							Jan. 2028										
2.	North East	31,916	175	5,579,982	\$	3,236,389	\$	8,816,371	276	42.72%	\$	12,582,886	394				
4.	South East	28,179	145	4,083,698	\$	2,368,545	\$	6,452,243	229	42.72%	\$	9,208,759	327				
7.	East Bridge	1,613	1,087	1,752,675	\$	1,016,552	\$	2,769,227	1,717	42.72%	\$	3,952,291	2,450				
Phase 3 - (Jan. 2030)							Jan. 2030										
8.	Parkway Bridge	5,271	1,032	5,440,425	\$	3,155,447	\$	8,595,872	1,631	57.35%	\$	13,525,674	2,566				
SUBTOTAL TRADE COST (1-9)				\$	168	\$	40,516,888			\$	64,016,684	\$	266	\$	85,358,507	\$	354
Design Contingency				15.0%	25	6,077,533			37 months	Phase 1 - (Jan. 2025)	40,217,363	349					
General Conditions / General Req.				15.0%	25	6,077,533			4 months	Phase 1a - (Jan. 2025)	5,871,535	100					
GC Fees				5.0%	8	2,025,844			23 months	Phase 2 - (Jan. 2028)	25,743,935	417					
Insurances / Bond				3.0%	5	1,215,507			13 months	Phase 3 - (Jan. 2030)	13,525,674	2,566					
Construction Contingency				10.0%	17	4,051,689											
SUBTOTAL TRADE + MARK-UP 4Q2022				58.0%	\$	266	\$	64,016,684	TOTAL CONSTRUCTION COST INCL. ESCALATION		\$	85,358,507	\$	354			

NOTE - Advice on Schedule is preliminary only

A full schedule should be drafted up as part of the next phase

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ESTIMATE DETAIL

240,849 SF

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		QTY	Unit	Rate	\$ Total
1	North West	43,659	SF		for qty. only
2					
3	<u>Site Demolition</u>	43,659	SF		for qty. only
4	Site Clearing & Grubbing; incl. tree removals	43,659	SF	7.00	305,613
5	Existing Walkway; to be removed	7,550	SF	5.00	37,750
6	Asphalt at NW of existing middle bridge; to be removed	1,200	SF	6.00	7,200
7	Existing Steps; to be removed	595	SF	20.00	11,900
8					
9	<u>River Edge Remediation</u>				
10	Riparian and Grove	528	LF		for qty only
11	- Allow for excavation of existing and replacement of soils, 20' wide zone at water, Geotextile underlayment to protect soil erosion and to provide stability for plantings	10,560	SF	100.00	1,056,000
12	Urban	204	LF		for qty only
13	- Allow for Excavation, Piling, Pumping, concrete river wall, back fill soils, assume 15' height				
14	- Excavation	2,267	CY	300.00	680,000
15	- Piling	3,060	SF	250.00	765,000
16	- Concrete Retaining Wall	227	CY	2,500.00	566,667
17	- Backfill of Soils	2,267	CY	100.00	226,667
18					
19	<u>Landscaping & Hardscaping</u>				
20	Forest	7,428	SF	50.00	371,400
21	- Canopy: Maples, Sweetgum, Beeches				incl. above
22	- Understory: Hornbeam, Redbud, Alemanchier				incl. above
23	- Shrubs: Callicarpa, Viburnum, Oakleaf hydrangea				incl. above
24	- Groundcover: native ferns				incl. above
25	- Trees				incl. above
26	- Top Soil				incl. above
27	Riparian	4,147	SF	30.00	124,410
28	- Native Shrubs & Grasses				incl. above
29	- Dispersed Trees: Willow, River birch				incl. above
30	Grove	8,707	SF	30.00	261,210
31	- Canopy: Maples, Sweetgum, Beeches				incl. above
32	- Groundcover: Lawn				incl. above
33	- Trees				incl. above
34	Urban	2,678	SF	50.00	133,900
35	- Trees: Ginkgo, Tulip Poplar, Sugar Maple				incl. above
36	- Shrubs and grasses: Russian sage, Winterberry				incl. above
37	- Groundcover: Flowering perennial				incl. above
38	Meadow	3,946	SF	10.00	39,460
39	- Native grasses and perennial wildflowers, Sumac at edges				incl. above
40	Lawn area	1,633	SF	5.00	8,165
41					
42	<u>Pedestrian Plazas & Walkways</u>				
43	Boardwalk along the river	4,497	SF	150.00	674,550
44	- Fixed boardwalk; assume on piles with fixed connection, wood decking	451	SF	150.00	67,650
45	- Piles	326	VLF	300.00	97,650

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		QTY	Unit	Rate	\$ Total
46	- Floating boardwalk; assume on piles with flexible connection, wood decking	4,046	SF	175.00	708,050
47	- Transition between fixed and floating boardwalk	1	EA	10,000.00	10,000
48	Pavers; incl. proper underlayments	1,988	SF	25.00	49,700
49	Walkway around landscape; assume pavers	7,964	SF	25.00	199,100
50					
51	<u>Site Development</u>				
52	Benches; Size - 6'8" long x 1'6" wide; (3) EA	21	LF	1,750.00	36,750
53	Bollards around central bridge	10	EA	3,000.00	30,000
54	Public art at meadow amphitheater; allow	1	LS	15,000.00	15,000
55	Public art near parking; allow	1	LS	15,000.00	15,000
56					
57	<u>Stairs</u>				
58	Steps; along river edge, leading into the water	2,678	SF	250.00	669,500
59	- River steps - 7 nos, 105'6" avg width (curved)	2,553	SF		incl. above
60	- Transition steps - 16' avg width with (5) steps	125	SF		incl. above
61	- Concrete foundations for steps	247.96	CY	1,200.00	297,556
62	- Excavation; allow	235	CY	50.00	11,750
63	- Guard Rail; assume metal - 3'6" high	77	LF	95.00	7,315
64	- Finish to stair tread	2,678	SF	5.00	13,390
65					
66	<u>Electrical</u>				
67	General Electrical work as required, including site lighting installation and wiring	43,659	SF	10.00	436,590
68					
69	Subtotal North West			\$181.75 / SF	7,934,892
70					
71	North East	31,916	SF		for qty. only
72					
73	<u>Site Demolition</u>	31,916	SF		for qty. only
74	Site Clearing & Grubbing; incl. tree removals	31,916	SF	7.00	223,412
75	Existing Walkway; to be removed	5,659	SF	5.00	28,295
76	Asphalt at NE of existing middle bridge; to be removed	734	SF	6.00	4,404
77	Stairs; incl. wood railing, to be removed	361	SF	20.00	7,220
78	Existing Wooden Boardwalk; to be removed	2,477	SF	15.00	37,155
79	Concrete Slab Deck; to be removed	695	SF	22.00	15,290
80	Existing Car Parking	12,480	SF		ETR
81					
82	<u>River Edge Remediation</u>				
83	Forest, Riparian and Meadow	212	LF		for qty only
84	- Allow for excavation of existing and replacement of soils, 20' wide zone at water, Geotextile underlayment to protect soil erosion and to provide stability for plantings	4,240	SF	100.00	424,000
85	Urban	143	LF		for qty only
86	- Allow for Excavation, Piling, Pumping, concrete river wall, back fill soils, assume 15' height				
87	- Excavation	1,589	CY	300.00	476,667
88	- Piling	2,145	SF	250.00	536,250
89	- Concrete Retaining Wall	159	CY	2,500.00	397,222
90	- Backfill of Soils	1,589	CY	100.00	158,889

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240,849 SF

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		QTY	Unit	Rate	\$ Total
91					
92	<u>Landscaping & Hardscaping</u>				
93	Forest	4,378	SF	50.00	218,900
94	- Canopy: Maples, Sweetgum, Beeches				incl. above
95	- Understory: Hornbeam, Redbud, Alemanchier				incl. above
96	- Shrubs: Callicarpa, Viburnum, Oakleaf hydrangea				incl. above
97	- Groundcover: native ferns				incl. above
98	- Trees				incl. above
99	Riparian	5,603	SF	30.00	168,090
100	- Native Shrubs & Grasses				incl. above
101	- Dispersed Trees: Willow, River birch				incl. above
102	Grove	1,301	SF	30.00	39,030
103	- Canopy: Maples, Sweetgum, Beeches				incl. above
104	- Groundcover: Lawn				incl. above
105	- Trees				incl. above
106	Urban	3,022	SF	50.00	151,100
107	- Trees: Ginkgo, Tulip Poplar, Sugar Maple				incl. above
108	- Shrubs and grasses: Russian sage, Winterberry				incl. above
109	- Groundcover: Flowering perennial				incl. above
110	Meadow	58	SF	10.00	580
111	- Native grasses and perennial wildflowers, Sumac at edges				incl. above
112	Lawn area	1,532	SF	5.00	7,660
113					
114	<u>Pedestrian Plazas & Walkways</u>				
115	Boardwalk along the river	4,139	SF		for qty. only
116	- Fixed boardwalk; assume on piles with fixed connection, wood decking	1,367	SF	150.00	205,050
117	- Floating boardwalk; assume on piles with flexible connection, wood decking	2,772	SF	175.00	485,100
118	- Transition between fixed and floating boardwalk	3	EA	10,000.00	30,000
119	Pavers; incl. proper underlayments	1,832	SF	25.00	45,800
120	Walkway around landscape; assume pavers	6,430	SF	25.00	160,750
121					
122	<u>Site Development</u>				
123	Benches; Size - 6'8" long x 1'6" wide; (3) EA	21	LF	1,750.00	36,750
124	Bollards around central bridge	11	EA	3,000.00	33,000
125	Guard Rail; assume metal - 3'6" high	304	LF	95.00	28,880
126	Public art near overlook bridge; allow	1	LS	15,000.00	15,000
127	Public art at river steps; allow	1	LS	15,000.00	15,000
128					
129	<u>Stairs</u>				
130	Steps at overlook bridge -45'6" avg width	381	SF	250.00	95,250
131	- Ramp near overlook bridge	175	SF	50.00	8,750
132	River Steps along the river edge	3,022	SF	250.00	755,500
133	- River steps - 14 nos, 88' avg width (curved)	3,022	SF		incl. above
134	- Excavation; allow	235	CY	50.00	11,750
135	- Concrete foundations for steps	279.81	CY	1,200.00	335,778
136	- Finish to the tread	235	SF	5.00	1,175

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		QTY	Unit	Rate	\$ Total
137					
138	<u>Retaining Walls</u>				
139	Retaining wall at gateway overlook park - 7' avg ht	1,071	SF	75.00	80,325
140	Retaining wall at urban nature park - 2' ht	304	SF	75.00	22,800
141					
142	<u>Electrical</u>				
143	General Electrical work as required, including site lighting installation and wiring	31,916	SF	10.00	319,160
144					
145	Subtotal North East			\$174.83 / SF	5,579,982
146					
147	South West	66,837	SF		for qty. only
148					
149	<u>Site Demolition</u>	66,837	SF		for qty. only
150	Site Clearing & Grubbing; incl. tree removals	66,837	SF	7.00	467,859
151	Existing Road; to be removed	51,757	SF	6.00	310,542
152	Existing Guard Rails; to be removed	695	LF	20.00	13,900
153	J Smith walkway; to be removed	3,693	SF	22.00	81,246
154	- Existing Hardscape	1,553	SF		incl. above
155	- Softscape; incl. curbs	2,140	SF		incl. above
156	- Existing Seat Walls	1	LS		incl. above
157					
158	<u>River Edge Remediation</u>				
159	Riparian	438	LF		for qty only
160	- Allow for excavation of existing and replacement of soils, 20' wide zone at water, Geotextile underlayment to protect soil erosion and to provide stability for plantings	8,760	SF	100.00	876,000
161	Urban	276	LF		for qty only
162	- Allow for Patch and Repair existing concrete embankment wall and re-surfacing, above the water line, assume 10' height	2,760	SF	300.00	828,000
163					
164	<u>Landscaping & Hardscaping</u>				
165	Forest	3,400	SF	50.00	170,000
166	- Canopy: Maples, Sweetgum, Beeches				incl. above
167	- Understory: Hornbeam, Redbud, Alemanchier				incl. above
168	- Shrubs: Callicarpa, Viburnum, Oakleaf hydrangea				incl. above
169	- Groundcover: native ferns				incl. above
170	- Trees				incl. above
171	- Shrub				incl. above
172	Riparian	4,088	SF	30.00	122,640
173	- Native Shrubs & Grasses				incl. above
174	- Dispersed Trees: Willow, River birch				incl. above
175	Urban	43,692	SF	50.00	2,184,600
176	- Trees: Ginkgo, Tulip Poplar, Sugar Maple				incl. above
177	- Shrubs and grasses: Russian sage, Winterberry				incl. above
178	- Groundcover: Flowering perennial	10,221	SF		for qty. only
179	Lawn area	10,053	SF	5.00	50,265
180					
181	<u>Pedestrian Plazas & Walkways</u>				
182	Decking; assume wood decking	3,390	SF	50.00	169,500

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240,849 SF

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		QTY	Unit	Rate	\$ Total
183	Pavers; incl. proper underlayments	40,115	SF	Landscaping & Hardscaping above	
184					
185	<u>J Smith Walkway</u>	3,693	SF		for qty. only
186	Pavers at J Smith Walkway	3,503	SF	40.00	140,120
187	Softscape with curb on edges at J Smith Walkway (84 LF)	190	SF	5.00	950
188	Trees	20	EA	1,500.00	30,000
189	Social pods benches integrated with softscape at J Smith walkway - 1'10" wide	107	LF	1,750.00	187,250
190					
191	<u>Site Development</u>				
192	Benches at garden terrace; Size - 8' long x 4' wide; (4) EA	200	LF	1,750.00	350,000
193	Benches at garden terrace; Size - 8' long x 2'3" wide; (6) EA	49	LF	1,750.00	85,750
194	Seat wall integrated with planters	582	SF	200.00	116,400
195	Bollards with integrated lighting	10	EA	4,000.00	40,000
196	Bollards around central bridge	14	EA	3,000.00	42,000
197	Ramps near the deck - 3 EA	377	SF	300.00	113,100
198	Public art at urban terrace	1	EA	15,000.00	15,000
199					
200	<u>Stairs</u>				
201	Stair at west of garden terrace (from pavers to the deck) - 9'6" avg width with (38) steps, with railing	439	SF	400.00	175,600
202	- Concrete foundations for steps	97	CY	1,200.00	116,760
203	- Finish to the tread	439	SF	5.00	2,195
204	Steps at Urban terrace - 6 nos, 32'6" avg width (curved)	338	SF	250.00	84,500
205	- Concrete foundations for steps	32	CY	1,200.00	38,400
206	- Finish to the tread	338	SF	5.00	1,690
207	Transition stairs near deck, 5'6" wide with (3) steps	19	SF	250.00	4,750
208	Stair at Garden Terrace, 12'4" wide with (12) steps, with railing	304	SF	250.00	76,000
209	- Concrete foundations for steps	40	CY	1,200.00	48,000
210	- Finish to the tread	304	SF	5.00	1,520
211	- Guard Rail; assume metal - 3'6" high	681	LF	95.00	64,695
212	Additional Stairs; allowance	1	LS	200,000.00	200,000
213					
214	<u>Retaining Walls</u>				
215	Garden Terrace				
216	- 3' ht; incl. foundation	498	SF	300.00	149,400
217	- 6' ht; incl. foundation	1,296	SF	300.00	388,800
218	- 10' ht; incl. foundation	2,360	SF	300.00	708,000
219					
220	<u>100 Block</u>				
221	<u>Electrical</u>				
222	General Electrical work as required, including site lighting installation and wiring	66,837	SF	10.00	668,370
223	Connect to Existing	1	LS		for qty. only
224	Distribution Transformer	1	EA		for qty. only
225	Manhole/Pull box	3	EA		for qty. only
226	Main Electrical Line	814	LF		for qty. only
227	Sub main Electrical Line	489	LF		for qty. only
228					

Traverse City River Walk - Master Plan

ESTIMATE DETAIL

240,849 SF

November 11, 2022

		QTY	Unit	Rate	\$ Total
229	<u>Storm Water Drainage</u>				
230	General Storm and water drainage as required	66,837	SF	15.00	1,002,555
231	Permeable collection strip, underground detention with treatment	798	SF		for qty. only
232	Planting inlets	10	EA		for qty. only
233	Connect to Existing	1	LS		for qty. only
234	Allow for the channel drain in parking area	1	LS		for qty. only
235	Drainage Pipe	1,608	LF		for qty. only
236	Additional drainage pipe for slope	322	LF		for qty. only
237	Catchbasin	15	EA		for qty. only
238					
239	<u>Sewer</u>				
240	General Sewer lines as required	66,837	SF	10.00	668,370
241	Connect to Existing	1	LS		for qty. only
242	Protect existing pipes; allow	790	LF		for qty. only
243	Temporary sewer line; allow	1	LS		for qty. only
244	Sewer Structure-Sewer Main; allow	834	LF		for qty. only
245	Manhole	21	EA		for qty. only
246	Demolition of Sewer Pipe	759	LF		for qty. only
247					
248	Subtotal South West			\$161.51 / SF	10,794,727
249					
250	South East	28,179	SF		for qty. only
251					
252	<u>Site Demolition</u>	28,179	SF		for qty. only
253	Site Clearing & Grubbing; incl. tree removals	28,179	SF	7.00	197,253
254	Existing Road; to be removed	22,015	SF	6.00	132,090
255	Existing Wooden Boardwalk; to be removed	355	SF	15.00	5,325
256	Existing Guard Rail; to be removed	695	LF	20.00	13,900
257					
258	<u>River Edge Remediation</u>				
259	Urban	710	LF		for qty only
260	- Allow for Patch and Repair existing concrete embankment wall and re-surfacing, above the water line, assume 10' height	7,100	SF	125.00	887,500
261					
262	<u>Landscaping & Hardscaping</u>				
263	Urban	20,630	SF	50.00	1,031,500
264	- Trees: Ginkgo, Tulip Poplar, Sugar Maple				incl. above
265	- Shrubs and grasses: Russian sage, Winterberry				incl. above
266	- Groundcover: Flowering perennial				incl. above
267					
268	<u>Pedestrian Plazas & Walkways</u>				
269	Overlook Boardwalk; assume wood decking	4,279	SF	75.00	320,925
270	- Piles at overlook boardwalk	25	EA	10,000.00	250,000
271	Pavers; incl. proper underlayments				incl in Landscaping & Hardscaping above
272					
273	<u>Site Development</u>				
274	Bollards with integrated lighting	6	EA	4,000.00	24,000
275	Bollards around central bridge	12	EA	3,000.00	36,000

Traverse City River Walk - Master Plan

ESTIMATE DETAIL

240,849 SF

November 11, 2022

		QTY	Unit	Rate	\$ Total
276	Guard rail at overlook boardwalk; Assume metal - 3'6" high	611	LF	95.00	58,045
277					
278	<u>100 Block</u>				
279	<u>Electrical</u>				
280	General Electrical work as required, including site lighting installation and wiring	28,179	SF	15.00	422,685
281	Connect to Existing	1	LS		for qty. only
282	Distribution Transformer	1	EA		for qty. only
283	Manhole/Pull box	2	EA		for qty. only
284	Main Electrical Line	902	LF		for qty. only
285	Sub main Electrical Line	372	LF		for qty. only
286	Lighting installation and wiring	28,179	SF		for qty. only
287					
288	<u>Storm Water Drainage</u>				
289	General Storm and water drainage as required	28,179	SF	15.00	422,685
290	Permeable collection strip, underground detention with treatment	446	SF		for qty. only
291	Planting inlets	6	EA		for qty. only
292	Connect to Existing	1	LS		for qty. only
293	Allow for the channel drain in parking area	1	LS		for qty. only
294	Drainage Pipe	970	LF		for qty. only
295	Additional drainage pipe for slope	194	LF		for qty. only
296	Catchbasin	12	EA		for qty. only
297					
298	<u>Sewer</u>				
299	General Sewer lines as required	28,179	SF	10.00	281,790
300	Connect to Existing	1	LS		for qty. only
301	Protect existing pipes; allow	1	LS		for qty. only
302					
303	Subtotal South East			\$144.92 / SF	4,083,698
304					
305	West Bridge	1,443	SF		for qty. only
306					
307	<u>Demolition</u>				
308	Existing Bridge; to be removed, 884 SF	1	LS	50,000.00	50,000
309					
310	<u>Site Improvements</u>				
311	New Bridge	1,443	SF		for qty only
312	- Site Preperation and Earth works for new Bridge	1,443	SF	50.00	72,150
313	- Foundations and Bridge Structure	1,443	SF	750.00	1,082,250
314	- Deck; assume wood decking	1,443	SF	150.00	216,450
315	- Guard rail; assume metal - 3'6" high	479	LF	300.00	143,700
316					
317	<u>Electrical</u>				
318	General Electrical work as required, including site lighting installation and wiring; allow	1,443	SF	50.00	72,150
319					
320	Subtotal West Bridge			\$1,134.23 / SF	1,636,700
321					

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ESTIMATE DETAIL

240,849 SF

November 11, 2022

		QTY	Unit	Rate	\$ Total
322	Middle Bridge	3,232	SF		for qty. only
323					
324	<u>Demolition</u>				
325	Existing Bridge; assumed remove paving for new, general repair	3,232	SF	10.00	32,320
326					
327	<u>Site Improvements</u>				
328	Asphalt pavement	1,569	SF	30.00	47,070
329	Pavers on walkway; incl. proper underlayment	1,664	SF	25.00	41,600
330	Repair and Re-Paint of Existing Guard rail; Assume metal - 3'6" high	162	LF	300.00	48,600
331	Allow for markings and signs	1	LS	10,000.00	10,000
332					
333	Far East Bridge; allow for patch and repair work	1	LS	50,000.00	50,000
334	Far West Bridge; allow for patch and repair work	1	LS	50,000.00	50,000
335					
336	Subtotal Middle Bridge			\$86.51 / SF	279,590
337					
338	East Bridge	1,613	SF		for qty. only
339					
340	<u>Demolition</u>				
341	Existing Bridge; to be removed, 1,741 SF	1	LS	75,000.00	75,000
342					
343	<u>Site Improvements</u>				
344	New Bridge	1,613	SF		for qty. only
345	- Site Preperation and Earth works for new Bridge	1,613	SF	50.00	80,650
346	- Foundations and Bridge Structure	1,613	SF	750.00	1,209,750
347	- Deck; assume wood decking	1,613	SF	150.00	241,950
348	- Guard rail; assume metal - 3'6" high	350	LF	300.00	105,000
349					
350	<u>Electrical</u>				
351	General Electrical work as required, including site lighting installation and wiring; allow	1,613	SF	25.00	40,325
352					
353	Subtotal East Bridge			\$1,086.59 / SF	1,752,675
354					
355	Parkway Bridge	5,271	SF		for qty. only
356					
357	<u>Site Improvements</u>				
358	New Bridge	5,271	SF		for qty. only
359	- Site Preperation and Earth works for new Bridge	5,271	SF	50.00	263,550
360	- Foundations and Bridge Structure	5,271	SF	750.00	3,953,250
361	- Deck; assume wood decking	5,271	SF	150.00	790,650
362	- Guard rail; assume metal - 3'6" high	1,004	LF	300.00	301,200
363					
364	<u>Electrical</u>				
365	General Electrical work as required, including site lighting installation and wiring; allow	5,271	SF	25.00	131,775
366					
367	Subtotal Parkway Bridge			\$1,032.14 / SF	5,440,425

Traverse City River Walk - Master Plan

ESTIMATE DETAIL

240,849 SF

November 11, 2022

		QTY	Unit	Rate	\$ Total
368					
369	Car Park, North West	58,699	SF		for qty. only
370					
371	<u>Site Demolition</u>	58,699	SF		for qty. only
372	Site Clearing & Grubbing; incl. tree removals	2,324	SF	7.00	16,268
373	Parking Lot	56,375	SF		for qty. only
374	- Existing Asphalt; to be removed	45,993	SF	6.00	275,958
375	- Existing Softscape; to be removed	10,382	SF	7.00	72,674
376	- Existing Temporary Structure; to be removed (870SF)	1	EA	10,000.00	10,000
377					
378	<u>Site Improvements</u>				
379	Parking	56,375	SF		for qty. only
380	- Asphalt paving, curbs etc	45,031	SF	50.00	2,251,550
381	- Softscape around parking space with (34) trees	8,915	SF	5.00	44,575
382	- Walkway around parking and connecting to stairs; assume pavers	2,429	SF	25.00	60,725
383					
384	Ramp and Transition Steps; from parking lot to rivers edge	2,315	SF		for qty. only
385	- Ramp	1,604	SF	50.00	80,200
386	- Stair - 9'3" avg width; Steps - 10 nos with (1) landing	157	SF	250.00	39,250
387	- Stair - 13' avg width; Steps - 10 nos with (3) landing	554	SF	250.00	138,500
388	- Guard Rail; assume metal - 3'6" high; allow	100	LS	95.00	9,500
389					
390	Site Signage; allow	1	LS	15,000.00	15,000
391					
392	Subtotal Car Park, North West			\$51.35 / SF	3,014,200