

## **Appendix B – Cost Estimates and Schedules**

**Estimated Development Cost Summary Table**  
Construction Costs and TPC

	Site Layout	Total Construction Cost Subtotal*	Total Project Cost (with contingency)**
Mack Point	Phase 1	\$127,664,000	\$165,963,000
	Phase 2	\$218,957,000	\$284,644,000
Sears Island	Phase 1	\$76,576,000	\$99,548,000
	Phase 2	\$141,820,000	\$184,365,000

\* Estimated Construction Cost includes all material, labor and equipment to complete the work and indirect costs including Contractor Supervision, Corporate Overhead and Profit, and Bonds and Insurance costs.

\*\* MN TPC includes the construction cost subtotal with a project contingency of 30%.



McClaffitt & Nichol

Mack Point  
Phase 1

Date : 17-Nov-2021

Item	Description	Quantity	Unit	Unit Price	Subtotal	TOTAL
<b>1</b>	<b>Contractor Mobilization/Demobilization</b>					<b>\$2,782,000</b>
1.1	Mobilization	1	ls	\$2,782,000	\$2,782,000	
<b>2</b>	<b>Earth Retention Structures</b>					<b>\$21,188,066</b>
2.1	Installation of Steel Cellular Cofferdams (Includes fill and relieving platform)	632	lf	\$27,861	\$17,608,317	
2.2	Placement of Embankment Armor Stone	22,929	ton	\$150	\$3,439,308	
2.3	Placement of Embankment Underlayer Stone	1,404	ton	\$100	\$140,440	
<b>3</b>	<b>Earth Fill, Dredge and Soil Improvments</b>					<b>\$47,776,417</b>
3.1	Dredge (with Amendment)	613,740	cy	\$70	\$42,961,800	
3.2	Placement of Soils in Infill Area	368,655	cy	\$3.25	\$1,198,129	
3.3	Imported Soil for Embankments	66,972	cy	\$54.00	\$3,616,488	
<b>4</b>	<b>Uplands</b>					<b>\$19,014,957</b>
4.1	Site Demolition	1	LS	\$250,000.00	\$250,000	
4.2	Grading and Compaction of Uplands Soils	1,316,962	sf	\$0.18	\$237,053	
4.3	Installation of Dense Graded Aggregate Topping Surface	180,103	cy	\$64.00	\$11,526,606	
4.4	Site Stormwater system	30	ac	\$100,000	\$3,023,317	
4.5	Site Water system	30	ac	\$20,000	\$604,663	
4.6	Site Electrical system	30	ac	\$100,000	\$3,023,317	
4.7	Rerouting of southern rail spur	3,500	lf	\$100	\$350,000	
<b>5</b>	<b>Mooring Dolphins</b>					<b>\$1,750,000</b>
5.1	20'x20' Dolphins for Floating Asset	2	ea	\$875,000	\$1,750,000	
<b>6</b>	<b>Remediation</b>					<b>\$3,000,000</b>
6.1	Remediation/In Ground Debris	1	ls	\$3,000,000	\$3,000,000	
<b>Subtotal Costs</b>						<b>\$95,511,439</b>
<b>7</b>	<b>Construction Indirects</b>					<b>\$32,152,000</b>
7.1	Supervision (General Conditions)	12	%		\$11,462,000	
7.2	Bonds & Insurance	2	%		\$2,140,000	
7.3	Corporate Overhead & Profit	17	%		\$18,550,000	
<b>Total Construction Costs</b>						<b>\$127,663,439</b>
<b>8</b>	<b>Contingency</b>					<b>\$38,299,032</b>
		30	%		38,299,032	
<b>Total Project Cost</b>						<b>\$165,962,471</b>

**Mack Point  
Phase 1**

- Notes:**
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  - 2) Volumes for site preparation are based on M&N understanding of site conditions, no survey information is available at this time.
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  - 4) Pricing assumes all resources are readily available locally.
  - 5) Price is based on unencumbered contractor access to the site.
  - 6) Price does not include any costs for construction site property lease or acquisition expenses.
  - 7) No extreme weather risk included (force majeure).
  - 8) Minimal geotechnical information is available at this time.
  - 9) Cost escalation is not included.
  - 10) Price does not include environmental restrictions.
  - 11) Price does not include any associated costs due to hazardous waste.
  - 12) Price does not include any associated costs due to rock dredging.
  - 13) Price does not include any associated costs due to pile driving/drilling into rock.
  - 14) Price does not include any costs for post construction site remediation or reconstruction
  - 15) Costs for owner's project management or overhead expenses are not included.

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- This construction cost estimate is an 'Opinion of Probable Cost' made by a consultant. In providing opinions of construction cost, it is recognized that neither the client nor the consultant has control over the cost of labor, equipment, materials, or the contractor's means and methods of determining constructability, pricing or schedule. This opinion of construction cost is based on the consultant's reasonable professional judgement and experience and does not constitute a warranty, expressed or implied, that contractor's bids or negotiated prices for the work will not vary from the client's.



McGuffin & Nichol

Mack Point  
Phase 2

Date : 17-Nov-2021

Item	Description	Quantity	Unit	Unit Price	Subtotal	TOTAL
<b>1</b>	<b>Contractor Mobilization/Demobilization</b>					<b>\$4,772,000</b>
1.1	Mobilization	1	ls	\$4,772,000	\$4,772,000	
<b>2</b>	<b>Earth Retention Structures</b>					<b>\$49,449,999</b>
2.1	Installation of Steel Cellular Cofferdams (Includes fill and relieving platform)	1,563	lf	\$29,437	\$46,010,649	
2.2	Placement of Embankment Armor Stone	22,019	ton	\$150	\$3,302,921	
2.3	Placement of Embankment Underlayer Stone	1,364	ton	\$100	\$136,429	
<b>3</b>	<b>Earth Fill, Dredge and Soil Improvments</b>					<b>\$75,413,323</b>
3.1	Dredge (with Amendment)	848,139	cy	\$70	\$59,369,763	
3.2	Placement of Soils in Infill Area	848,139	cy	\$3.25	\$2,756,453	
3.3	Imported Soil for Infill	181,257	cy	\$54.00	\$9,787,853	
3.4	Imported Soil for Embankments	64,801	cy	\$54.00	\$3,499,254	
<b>4</b>	<b>Uplands</b>					<b>\$29,178,332</b>
4.1	Site Demolition	1	LS	\$350,000.00	\$350,000	
4.2	Grading and Compaction of Uplands Soils	1,738,464	sf	\$0.18	\$312,924	
4.3	Installation of Dense Graded Aggregate Topping Surface	302,896	cy	\$64.00	\$19,385,323	
4.4	Site Stormwater system	40	ac	\$100,000	\$3,990,948	
4.5	Site Water system	40	ac	\$20,000	\$798,190	
4.6	Site Electrical system	40	ac	\$100,000	\$3,990,948	
4.7	Rerouting of southern rail spur	3,500	lf	\$100	\$350,000	
<b>5</b>	<b>Remediation</b>					<b>\$5,000,000</b>
5.1	Remediation/In Ground Debris	1	ls	\$5,000,000	\$5,000,000	
<b>Subtotal Costs</b>						<b>\$163,813,654</b>
<b>6</b>	<b>Construction Indirects</b>					<b>\$55,143,000</b>
6.1	Supervision (General Conditions)	12	%		\$19,658,000	
6.2	Bonds & Insurance	2	%		\$3,670,000	
6.3	Corporate Overhead & Profit	17	%		\$31,815,000	
<b>Total Construction Costs</b>						<b>\$218,956,654</b>
<b>7</b>	<b>Contingency</b>					<b>\$65,686,996</b>
		30	%		\$ 65,686,996	
<b>Total Project Cost</b>						<b>\$284,643,650</b>

**Mack Point****Phase 2**

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  - 3) Price is based on aerial diagrams of site.
  - 4) Pricing assumes all resources are readily available locally.
  - 5) Price is based on unencumbered contractor access to the site.
  - 6) Price does not include any costs for construction site property lease or acquisition expenses.
  - 7) No extreme weather risk included (force majeure).
  - 8) Minimal geotechnical information is available at this time.
  - 9) Cost escalation is not included.
  - 10) Price does not include environmental restrictions.
  - 11) Price does not include any associated costs due to hazardous waste.
  - 12) Price does not include any associated costs due to rock dredging.
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  - 14) Price does not include any costs for post construction site remediation or reconstruction
  - 15) Costs for owner's project management or overhead expenses are not included.

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Opinion of Probable Cost



Sears Island  
Phase 1

Date : 17-Nov-2021

Item	Description	Quantity	Unit	Unit Price	Subtotal	TOTAL
<b>1</b>	<b>Contractor Mobilization/Demobilization</b>					<b>\$1,669,000</b>
1.1	Mobilization	1	ls	\$1,669,000	\$1,669,000	
<b>2</b>	<b>Earth Retention Structures</b>					<b>\$21,718,182</b>
2.1	Installation of Steel Cellular Cofferdams (Includes fill and relieving platform)	632	lf	\$27,974	\$17,679,387	
2.2	Placement of Embankment Armor Stone	25,884	ton	\$150	\$3,882,605	
2.3	Placement of Embankment Underlayer Stone	1,562	ton	\$100	\$156,190	
<b>3</b>	<b>Earth Cut / Fill and Soil Improvements</b>					<b>\$7,098,740</b>
3.1	Clear Site	30	ac	\$10,000	\$299,967	
3.2	Soil Cut from Uplands	754,999	cy	\$5	\$3,774,994	
3.3	Placement of Soils in Infill Area	314,554	cy	\$3.25	\$1,022,301	
3.4	Placement of Soil Surcharge	231,385	cy	\$3.25	\$752,001	
3.5	Removal of Soil Surcharge	208,246	cy	\$6	\$1,249,478	
<b>4</b>	<b>Uplands</b>					<b>\$23,053,145</b>
4.1	Grading and Compaction of Uplands Soils	1,306,663	sf	\$0.18	\$235,199	
4.2	Installation of Dense Graded Aggregate Topping Surface	175,292	cy	\$64	\$11,218,666	
4.3	Site Stormwater system	30	ac	\$100,000	\$2,999,673	
4.4	Site Water system	30	ac	\$20,000	\$599,935	
4.5	Site Electrical system	30	ac	\$100,000	\$2,999,673	
4.6	Pulling Utilities from Providers onto Island	1	ls	\$5,000,000	\$5,000,000	
<b>5</b>	<b>Mooring Dolphins</b>					<b>\$1,750,000</b>
5.1	20'x20' Dolphins for Floating Asset	2	ea	\$875,000	\$1,750,000	
<b>6</b>	<b>Remediation</b>					<b>\$2,000,000</b>
6.1	Remediation/In Ground Debris	1	ls	\$2,000,000	\$2,000,000	
<b>Subtotal Costs</b>						<b>\$57,289,068</b>
<b>7</b>	<b>Construction Indirects</b>					<b>\$19,286,000</b>
7.1	Supervision (General Conditions)	12	%		\$6,875,000	
7.2	Bonds & Insurance	2	%		\$1,284,000	
7.3	Corporate Overhead & Profit	17	%		\$11,127,000	
<b>Total Construction Costs</b>						<b>\$76,575,068</b>
<b>8</b>	<b>Contingency</b>					<b>\$22,972,520</b>
		30	%		\$22,972,520	
<b>Total Project Cost</b>						<b>\$99,547,588</b>

**Sears Island  
Phase 1**

Date : 17-Nov-2021

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Opinion of Probable Cost



moffatt & nichol

Sears Island  
Phase 2

Date : 17-Nov-2021

Item	Description	Quantity	Unit	Unit Price	Subtotal	TOTAL
<b>1</b>	<b>Contractor Mobilization/Demobilization</b>					<b>\$3,091,000</b>
1.1	Mobilization	1	ls	\$3,091,000	\$3,091,000	
<b>2</b>	<b>Earth Retention Structures</b>					<b>\$49,355,394</b>
2.1	Installation of Steel Cellular Cofferdams (Includes fill and relieving platform)	1,563	lf	\$28,198	\$44,072,922	
2.2	Placement of Embankment Armor Stone	33,938	ton	\$150	\$5,090,749	
2.3	Placement of Embankment Underlayer Stone	1,917	ton	\$100	\$191,724	
<b>3</b>	<b>Earth Cut / Fill and Soil Improvments</b>					<b>\$15,492,725</b>
3.1	Clear Site	44	ac	\$10,000	\$436,829	
3.2	Soil Cut from Uplands	1,213,925	cy	\$5	\$6,069,624	
3.4	Placement of Soils in Infill Area	838,658	cy	\$3.25	\$2,725,639	
3.5	Placement of Soil Surcharge	723,773	cy	\$3.25	\$2,352,261	
3.6	Removal of Soil Surcharge	651,395	cy	\$6	\$3,908,372	
<b>4</b>	<b>Uplands</b>					<b>\$34,413,066</b>
4.1	Grading and Compaction of Uplands Soils	1,902,834	sf	\$0.18	\$342,510	
4.2	Installation of Dense Graded Aggregate Topping Surface	304,068	cy	\$64	\$19,460,324	
4.3	Site Stormwater system	44	ac	\$100,000	\$4,368,287	
4.4	Site Water system	44	ac	\$20,000	\$873,657	
4.5	Site Electrical system	44	ac	\$100,000	\$4,368,287	
4.6	Pulling Utilities from Providers onto Island	1	ls	\$5,000,000	\$5,000,000	
<b>5</b>	<b>Remediation</b>					<b>\$3,750,000</b>
5.1	Remediation/In Ground Debris	1	ls	\$3,750,000	\$3,750,000	
<b>Subtotal Costs</b>						<b>\$106,102,185</b>
<b>6</b>	<b>Construction Indirects</b>					<b>\$35,717,000</b>
6.1	Supervision (General Conditions)	12	%		\$12,733,000	
6.2	Bonds & Insurance	2	%		\$2,377,000	
6.3	Corporate Overhead & Profit	17	%		\$20,607,000	
<b>Total Construction Costs</b>						<b>\$141,819,185</b>
<b>7</b>	<b>Contingency</b>					<b>\$42,545,756</b>
		30	%		42,545,756	
<b>Total Project Cost</b>						<b>\$184,364,941</b>

Phase 2

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