

## Revised Cost Calculations for Charleston Navy Base Alternatives

### Section 1: Navy Base Elements

**Item #1.1:** Southern road/rail access to Navy Base site including bridge over Shipyard Creek and I-26 interchanges

Item	Quantity	Unit Cost	1994 Cost	1998 Cost
Road/Rail Bridge over Shipyard Creek*	1	\$ 55,000,000	\$ -	\$ 55,000,000
Road Access	4 mi.	\$ 1,500,000	\$ 6,000,000	\$ 6,494,593
Double Track Rail Access	20,000 lf	\$ 110	\$ 2,200,000	\$ 2,381,351
I-26 Interchange w/flyovers	1	\$ 43,560,000	\$ 43,560,000	\$ 47,150,745
Spruill Ave. Grade Separation	1	\$ 14,000,000	\$ 14,000,000	\$ 15,154,050
Montague Ave. Grade Separation	1	\$ 14,000,000	\$ 14,000,000	\$ 15,154,050
Dorchester Ave. Grade Separation	1	\$ 14,000,000	\$ 14,000,000	\$ 15,154,050
<b>Subtotal</b>				<b>\$ 156,488,839</b>
Professional Services		7% subtotal		\$ 10,954,219
Contingency		15% subtotal		\$ 23,473,326
<b>Total Navy Base Site Access</b>				<b>\$ 190,916,384</b>

Source: 1994 VZM Report to Trident's Best with costs escalated to 1998 dollars except Shipyard Creek Bridge which is a revised estimate

**Item #1.2:** Intermodal yard at the Navy Base, 30 acres to match URS Greiner Terminal Concept III drawing for Daniel Island.

Item	Quantity	Unit Cost	1998 Cost
Demolition	1.00 ls	\$ 2,000,000	\$ 2,000,000
Mitigation, Remediation, Stabilization	30.00 ac	\$ 200,000	\$ 6,000,000
Site Prep	1,306,800 sf	\$ 0.25	\$ 326,700
Landfill	145,200 cy	\$ 5.00	\$ 726,000
Site Development	30.00 ac	\$ 350,000	\$ 10,500,000
Rail Trackage	20,000 lf	\$ 110.00	\$ 2,200,000
Site Structures	10,000 sf	\$ 100.00	\$ 1,000,000
<b>Subtotal</b>			<b>\$ 22,752,700</b>
Professional Services		7% subtotal	\$ 1,592,689
Contingency		15% subtotal	\$ 3,412,905
<b>Total for Intermodal Yard</b>			<b>\$ 27,758,294</b>

**Item #1.3:** 5,000 feet of berth, 250 acres of marine terminal, 250 acres of support facilities (i.e. remote storage, chassis pool, warehousing, etc.) at the NAVY BASE SITE

**Marine Terminal (250 Acres)**

Item	Quantity	Unit Cost	1998 Cost
Demolition	1.00 ls	\$ 22,500,000	\$ 22,500,000
Mitigation, Remediation, Stabilization	250.00 ac	\$ 225,000	\$ 56,250,000
Site Prep	10,890,000 sf	\$ 0.25	\$ 2,722,500
Landfill	8,066,667 cy	\$ 5.00	\$ 40,333,333
Site Development	250.00 ac	\$ 350,000	\$ 87,500,000
Container Wharf	5,000 lf	\$ 10,000	\$ 50,000,000
Site Structures	200,000 sf	\$ 100.00	\$ 20,000,000
<b>Subtotal</b>			<b>\$ 279,305,833</b>
Professional Services		7% subtotal	\$ 19,551,408
Contingency		15% subtotal	\$ 41,895,875
<b>Total for Marine Terminal</b>			<b>\$ 340,753,117</b>

**Support Facilities (250 Acres)**

Assume: 30 acres for intermodal yard, 50 acres of road/rail corridor. The cost to develop these facilities is estimated earlier. This leaves 170 acres for warehousing, chassis pools, support operations, etc.

Item	Quantity	Unit Cost	1998 Cost
Demolition	1.00 ls	\$ 2,000,000	\$ 2,000,000
Mitigation, Remediation, Stabilization	170.00 ac	\$ 225,000	\$ 38,250,000
Site Prep	7,405,200 sf	\$ 0.25	\$ 1,851,300
Landfill	1,371,333 cy	\$ 5.00	\$ 6,856,667
Site Development	170.00 ac	\$ 100,000	\$ 17,000,000
Site Structures	375,000 sf	\$ 80.00	\$ 30,000,000
<b>Subtotal</b>			<b>\$ 95,957,967</b>
Professional Services		7% subtotal	\$ 6,717,058
Contingency		15% subtotal	\$ 14,393,695
<b>Total for Support Facilities</b>			<b>\$ 117,068,719</b>

**Item #1.4:** 7,000 feet of berth and 350 acres of marine terminal, 350 acres of support facilities (i.e. remote storage, chassis pool, warehousing, etc.) at the NAVY BASE SITE

**Marine Terminal (350 Acres)**

Item	Quantity	Unit Cost	1998 Cost
Demolition	1.00 ls	\$ 30,000,000	\$ 30,000,000
Mitigation, Remediation, Stabilization	350.00 ac	\$ 225,000	\$ 78,750,000
Site Prep	15,246,000 sf	\$ 0.25	\$ 3,811,500
Landfill	11,293,333 cy	\$ 5.00	\$ 56,466,667
Site Development	350.00 ac	\$ 350,000	\$ 122,500,000
Container Wharf	7,000 lf	\$ 10,000	\$ 70,000,000
Site Structures	280,000 sf	\$ 100.00	\$ 28,000,000
<b>Subtotal</b>			<b>\$ 389,528,167</b>
Professional Services		7% subtotal	\$ 27,266,972
Contingency		15% subtotal	\$ 58,429,225
<b>Total for Marine Terminal</b>			<b>\$ 475,224,363</b>

**Support Facilities (350 Acres)**

Assume: 30 acres for intermodal yard, 50 acres of road/rail corridor. The cost to develop these facilities is estimated earlier. This leaves 270 acres for warehousing, chassis pools, support operations, etc.

Item	Quantity	Unit Cost	1998 Cost
Demolition	1.00 ls	\$ 7,500,000	\$ 7,500,000
Mitigation, Remediation, Stabilization	270.00 ac	\$ 120,000	\$ 32,400,000
Site Prep	11,761,200 sf	\$ 0.25	\$ 2,940,300
Landfill	2,178,000 cy	\$ 5.00	\$ 10,890,000
Site Development	230.00 ac	\$ 100,000	\$ 23,000,000
Site Structures	600,000 sf	\$ 80.00	\$ 48,000,000
<b>Subtotal</b>			<b>\$ 124,730,300</b>
Professional Services		7% subtotal	\$ 8,731,121
Contingency		15% subtotal	\$ 18,709,545
<b>Total for Support Facilities</b>			<b>\$ 152,170,966</b>

**Section 2: Daniel Island Elements**

**Item #2.1:** Road/rail access to Daniel Island terminal(s) including bridges and interchanges.

Item	Quantity	Unit Cost	1998 Cost
Rail Access from EC&B	1 ls	\$ 90,000,000	\$ 90,000,000
Road Access including bridges	1 ls	\$ 75,000,000	\$ 75,000,000
<b>Subtotal</b>			<b>\$ 165,000,000</b>
Professional Services		7% subtotal	\$ 11,550,000
Contingency		15% subtotal	\$ 24,750,000
<b>Total Daniel Island Site Access</b>			<b>\$ 201,300,000</b>

**Item #2.2:** Intermodal yard at Daniel Island, assume 30 acres per URS Greiner Terminal Concept III drawing.

Item	Quantity	Unit Cost	1998 Cost
Demolition	1.00 ls	\$ 50,000	\$ 50,000
Mitigation, Remediation, Stabilization	30.00 ac	\$ 200,000	\$ 6,000,000
Site Prep	1,306,800 sf	\$ 0.25	\$ 326,700
Landfill	48,400 cy	\$ 5.00	\$ 242,000
Site Development	30.00 ac	\$ 350,000	\$ 10,500,000
Rail Trackage	20,000 lf	\$ 110.00	\$ 2,200,000
Site Structures	10,000 sf	\$ 100.00	\$ 1,000,000
<b>Subtotal</b>			<b>\$ 20,318,700</b>
Professional Services		7% subtotal	\$ 1,422,309
Contingency		15% subtotal	\$ 3,047,805
<b>Total for Intermodal Yard</b>			<b>\$ 24,788,814</b>

**Item #2.3:** 7,000 feet of berth and 350 acres of marine terminal, 350 acres of support facilities (i.e. remote storage, chassis pool, warehousing, etc.) on the COOPER River side of Daniel Island

*Marine Terminal (350 Acres)*

Item	Quantity	Unit Cost	1998 Cost
Demolition	1.00 ls	\$ 350,000	\$ 350,000
Mitigation, Remediation, Stabilization	350.00 ac	\$ 265,000	\$ 92,750,000
Site Prep	15,246,000 sf	\$ 0.25	\$ 3,811,500
Landfill	7,000,000 cy	\$ 5.00	\$ 35,000,000
Site Development	350.00 ac	\$ 350,000	\$ 122,500,000
Container Wharf	7,000 lf	\$ 10,000	\$ 70,000,000
Site Structures	280,000 sf	\$ 100.00	\$ 28,000,000
<b>Subtotal</b>			<b>\$ 352,411,500</b>
Professional Services		7% subtotal	\$ 24,668,805
Contingency		15% subtotal	\$ 52,861,725
<b>Total for Marine Terminal</b>			<b>\$ 429,942,030</b>

*Support Facilities (350 Acres)*

Assume: 30 acres for intermodal yard, 100 acres of road/rail corridor. The cost to develop these facilities is estimated earlier. This leaves 220 acres for warehousing, chassis pools, remote storage, etc.

Item	Quantity	Unit Cost	1998 Cost
Demolition	1.00 ls	\$ 150,000	\$ 150,000
Mitigation, Remediation, Stabilization	220.00 ac	\$ 120,000	\$ 26,400,000
Site Prep	9,583,200 sf	\$ 0.25	\$ 2,395,800
Landfill	1,064,800 cy	\$ 5.00	\$ 5,324,000
Site Development	220.00 ac	\$ 100,000	\$ 22,000,000
Site Structures	600,000 sf	\$ 100.00	\$ 60,000,000
<b>Subtotal</b>			<b>\$ 116,269,800</b>
Professional Services		7% subtotal	\$ 8,138,886
Contingency		15% subtotal	\$ 17,440,470
<b>Total for Support Facilities</b>			<b>\$ 141,849,156</b>

**Item #2.4:** 5,000 feet of berth and 250 acres of marine terminal, 250 acres of support facilities (i.e. remote storage, chassis pool, warehousing, etc.) on the **WANDO** River side of Daniel Island

*Marine Terminal (250 Acres)*

Item	Quantity	Unit Cost	1998 Cost
Demolition	1.00 ls	\$ 250,000	\$ 250,000
Mitigation, Remediation, Stabilization	250.00 ac	\$ 350,000	\$ 87,500,000
Site Prep	10,890,000 sf	\$ 0.25	\$ 2,722,500
Landfill	3,000,000 cy	\$ 5.00	\$ 15,000,000
Site Development	250.00 ac	\$ 350,000	\$ 87,500,000
Container Wharf	5,000 lf	\$ 10,000	\$ 50,000,000
Site Structures	240,000 sf	\$ 100.00	\$ 24,000,000
<b>Subtotal</b>			<b>\$ 266,972,500</b>
Professional Services		7% subtotal	\$ 18,688,075
Contingency		15% subtotal	\$ 40,045,875
<b>Total for Marine Terminal</b>			<b>\$ 325,706,450</b>

*Support Facilities (250 Acres)*

Assume: 30 acres for intermodal yard, 100 acres of road/rail corridor. The cost to develop these facilities is estimated earlier. This leaves 120 acres for warehousing, chassis pools, support operations, etc.

Item	Quantity	Unit Cost	1998 Cost
Demolition	1.00 ls	\$ 50,000	\$ 50,000
Mitigation, Remediation, Stabilization	120.00 ac	\$ 120,000	\$ 14,400,000
Site Prep	5,227,200 sf	\$ 0.25	\$ 1,306,800
Landfill	580,800 cy	\$ 5.00	\$ 2,904,000
Site Development	120.00 ac	\$ 100,000	\$ 12,000,000
Site Structures	300,000 sf	\$ 100.00	\$ 30,000,000
<b>Subtotal</b>			<b>\$ 60,660,800</b>
Professional Services		7% subtotal	\$ 4,246,256
Contingency		15% subtotal	\$ 9,099,120
<b>Total for Support Facilities</b>			<b>\$ 74,006,176</b>