

***Every Day Counts Case Study 1***

<b>Project name</b>	Prefabricated Alt. CS 1 Fla.
<b>Labor rate table</b>	Labor 2011
<b>Equipment rate table</b>	Equip 2011
<b>Notes</b>	<ol style="list-style-type: none"> <li>1. Pricing is 2011 \$.</li> <li>2. Construction Schedule of 12 mos.</li> <li>3. Rates reflect majority of work performed days with the exception of actual installation of bridges.</li> <li>4. 2 Bridges.</li> <li>5. Labor Cost/Unit - This reflects the cost of Labor to put one unit of measure of work in place. This is comprised of a typical crew with associated productivity required to perform the activity. Labor is priced up to include base rate, fringes, taxes, insurance, etc.</li> <li>6. Material Cost/Unit - This cost represents the final installed cost for all the materials associated with the item of work.</li> <li>7. Sub Contract Cost/Unit - this represents the Sub Contract all in Cost to put one unit of work in place. This cost includes all costs necessary to reflect a total installed cost (incls. Labor, equipment and material).</li> <li>8. Equipment Cost/Unit - This represents the cost of Construction Equipment necessary to put one unit of work in place. This cost includes equipment ownership and maintenance and operational costs.</li> <li>9. Other Cost/Unit - This cost represents all other costs necessary to perform the item of work and not covered by the abovementioned costs.</li> <li>10. Total cost/unit - This is the summation of all unit costs to arrive at a total cost per unit to put one one item of work in place.</li> <li>11. Total Amount - Total cost to put the quantity of units specified in place.</li> </ol>
<b>Report format</b>	Sorted by 'LOCATION/Pay Item/Group phase/Phase' 'Detail' summary Allocate addons

**Cost Estimating Spreadsheet Report**  
**Prefabricated Alt. CS 1**

Spreadsheet Level	Takeoff Quantity	Labor Cost/Unit	Material Cost/Unit	Sub Cost/Unit	Equip Cost/Unit	Other Cost/Unit	Total Cost/Unit	Total Amount
-------------------	------------------	-----------------	--------------------	---------------	-----------------	-----------------	-----------------	--------------

**Additional Cost Additional Cost SPMT's**

\* unassigned \*

01-54-23.00 Temporary Scaffolding And Platforms

01-54-23.70 Scaffolding

Scaffolding, steel tubular, heavy duty shoring for elev slab forms, floor area, rent/month of complete system, to 14'-8" H	300.00 csf	-	51.42	-	-	-	51.42	15,425
								<u>15,425</u>
								15,425

02-43-00.00 Structure Moving

02-43-13.13 Bridge Relocation

Remove Existing Bridges Out & Install New Bridges SPMT	1.00 totl	-	-	526,139.46	-	-	526,139.46	526,139
Remove Existing Bridges Out & Install New Bridges SPMT 2nd Bridge	1.00 totl	-	-	263,069.73	-	-	263,069.73	263,070
								<u>789,209</u>
								789,209

32-12-16.00 Asphalt Paving

32-12-16.13 Plant-Mix Asphalt Paving

Allow for additional Paving etc.	1,000.00 ton	6.23	62.18	-	3.46	-	71.86	71,861
								<u>71,861</u>
								71,861

32-34-00.00 Fabricated Bridges

32-34-10.10 Bridges, Highway

Temporary Concrete	100.00 cy	270.95	198.50	-	19.01	-	488.46	48,846
Temporary Concrete Remove	100.00 cy			-		149.47	149.47	14,947
								<u>63,793</u>
								63,793

34-71-13.00 Vehicle Barriers

34-71-13.17 Security Vehicle Barriers

Jersey Barriers	64.00 ea	79.32	119.58	-	31.50	-	230.40	14,745
-----------------	----------	-------	--------	---	-------	---	--------	--------

**Cost Estimating Spreadsheet Report**  
*Prefabricated Alt. CS 1*

Spreadsheet Level	Takeoff Quantity	Labor Cost/Unit	Material Cost/Unit	Sub Cost/Unit	Equip Cost/Unit	Other Cost/Unit	Total Cost/Unit	Total Amount
<i>34-71-13.17 Security Vehicle Barriers</i>								
Jersey Barriers Pier Expansion	200.00 ea	79.32	119.58	-	31.50	-	230.40	46,080
Detour	2.00 Day	-	-	-	-	3,826.47	3,826.47	7,653
<i>Security Vehicle Barriers Vehicle Barriers</i>								68,478
<i>* unassigned *</i>								68,478
<b>Additional Cost</b>								<b>1,008,766</b>
<b>Additional Cost</b>								<b>1,008,766</b>
<b>SPMT's</b>								

**General Conditions General Conditions**

*\* unassigned \**

*01-31-00.00 Project Management And Coordination*

*01-31-13.20 Field Personnel*

Field Personnel, clerk, average	42.00 week	436.46	-	-	-	-	436.46	18,331
Field engineer, average	47.00 week	1,345.24	-	-	-	-	1,345.24	63,226
Field Personnel, project manager, average	47.00 week	2,212.18	-	-	-	-	2,212.18	103,972
Field Personnel, superintendent, average	42.00 week	2,032.81	-	-	-	-	2,032.81	85,378
<i>Field Personnel</i>								270,908
<i>Project Management And Coordination</i>								270,908

*01-32-33.00 Photographic Documentation*

*01-32-33.50 Photographs*

Construction Photographs	42.00 set	-	567.99	-	-	-	567.99	23,856
<i>Photographs</i>								23,856
<i>Photographic Documentation</i>								23,856

*01-45-00.00 Quality Control*

*01-45-23.50 Testing*

Field Testing	2.00 prjc	-	-	-	-	35,981.96	35,981.96	71,964
<i>Testing</i>								71,964
<i>Quality Control</i>								71,964

*01-52-13.00 Field Offices And Sheds*

*01-52-13.20 Office And Storage Space*

**Cost Estimating Spreadsheet Report**  
**Prefabricated Alt. CS 1**

Spreadsheet Level	Takeoff Quantity	Labor Cost/Unit	Material Cost/Unit	Sub Cost/Unit	Equip Cost/Unit	Other Cost/Unit	Total Cost/Unit	Total Amount
<i>01-52-13.20 Office And Storage Space</i>								
Office Trailer, furnished, rent per month, 32' x 8', excl. hookups	12.00 ea	-	288.18	-	-	-	288.18	3,458
Storage Boxes, rent per month, 20' x 8'	24.00 ea	-	87.89	-	-	-	87.89	2,109
<i>Office And Storage Space</i>								<u>5,568</u>
<i>01-52-13.40 Field Office Expense</i>								
Field Office Expense, office equipment rental, average	12.00 mo	-	179.37	-	-	-	179.37	2,152
Field Office Expense, office supplies, average	12.00 mo	-	113.60	-	-	-	113.60	1,363
Field Office Expense, telephone bill; avg. bill/month, incl. long dist.	12.00 mo	-	251.11	-	-	-	251.11	3,013
Field Office Expense, field office lights & HVAC	12.00 mo	-	131.53	-	-	-	131.53	1,578
<i>Field Office Expense</i>								<u>8,107</u>
<i>Field Offices And Sheds</i>								<u>13,675</u>
<i>01-56-26.00 Temporary Fencing</i>								
<i>01-56-26.50 Temporary Fencing</i>								
Temporary Fencing, chain link, 6' high, 11 ga	2,000.00 lf	3.17	8.37	-	-	-	11.54	23,077
<i>Temporary Fencing</i>								<u>23,077</u>
<i>Temporary Fencing</i>								<u>23,077</u>
<i>01-58-00.00 Project Identification</i>								
<i>01-58-13.50 Signs</i>								
Project Signs	50.00 sf	-	21.40	-	-	-	21.40	1,070
<i>Signs</i>								<u>1,070</u>
<i>Project Identification</i>								<u>1,070</u>
<i>01-71-23.00 Field Engineering</i>								
<i>01-71-23.13 Construction Layout</i>								
Survey Crew	30.00 day	1,898.46	-	-	90.63	-	1,989.09	59,673
<i>Construction Layout</i>								<u>59,673</u>
<i>Field Engineering</i>								<u>59,673</u>
<b>* unassigned *</b>								<b>464,223</b>
<b>General Conditions</b>								<b>464,223</b>
<b>General Conditions</b>								<b>464,223</b>

**Cost Estimating Spreadsheet Report**  
**Prefabricated Alt. CS 1**

Spreadsheet Level	Takeoff Quantity	Labor Cost/Unit	Material Cost/Unit	Sub Cost/Unit	Equip Cost/Unit	Other Cost/Unit	Total Cost/Unit	Total Amount
<b>Permanent Walls Permanent Walls</b>								
<b>400-2-10 Concrete Class II</b>								
<i>03-30-00.00 Cast-In-Place Concrete</i>								
<i>03-30-53.40 Concrete In Place</i>								
Approach Slab	84.40 cy	142.64	173.39	-	20.87	-	336.90	28,434
								28,434
								28,434
<b>400-2-10 Concrete Class II</b>								
<b>28,434</b>								
<b>415-1-9 Reinforcing Steel</b>								
<i>03-21-05.00 Reinforcing Steel Accessories</i>								
<i>03-21-10.60 Reinforcing In Place</i>								
Reinforcing Steel Approach Slabs	21,112.00 lb	0.37	0.06	-	0.08	-	0.51	10,676
								10,676
								10,676
								10,676
<b>415-1-9 Reinforcing Steel</b>								
<b>10,676</b>								
<b>* unassigned *</b>								
<i>03-37-13.00 Shotcrete</i>								
<i>03-37-13.60 Shotcrete (Wet-Mix)</i>								
Shotcrete	5,456.00 sf	26.04	3.68	-	14.76	-	44.49	242,711
								242,711
								242,711
<i>31-32-36.00 Soil Nailing</i>								
<i>31-32-36.16 Grouted Soil Nailing</i>								
Gouted soil nailing,drill hole,install # 8 nail,grout,diffclt,grade 75,20 min setup per hole&80/hr drilling	220.00 ea	255.14	639.74	-	243.13	-	1,138.01	250,361
								250,361
								250,361
<b>* unassigned *</b>								
<b>493,072</b>								
<b>Permanent Walls</b>								
<b>Permanent Walls</b>								
<b>532,182</b>								

**Substructure-End Substructure-End Bents**

**400-4-5 Concrete Class IV (Substructure)**

*03-30-00.00 Cast-In-Place Concrete*

**Cost Estimating Spreadsheet Report**  
**Prefabricated Alt. CS 1**

Spreadsheet Level	Takeoff Quantity	Labor Cost/Unit	Material Cost/Unit	Sub Cost/Unit	Equip Cost/Unit	Other Cost/Unit	Total Cost/Unit	Total Amount
<i>03-30-53.40 Concrete In Place</i>								
Concrete Class IV	78.20 cy	285.29	197.30	-	41.73	-	524.32	41,002
<i>Concrete In Place</i>								41,002
<i>Cast-In-Place Concrete</i>								41,002
<b>400-4-5 Concrete Class IV (Substructure)</b>								<b>41,002</b>
 <b>415-1-5 Reinforcing Steel Substructure</b>								
<i>03-21-05.00 Reinforcing Steel Accessories</i>								
<i>03-21-10.60 Reinforcing In Place</i>								
Reinforcing Steel	10,550.00 lb	0.49	0.50	-	0.11	-	1.09	11,508
<i>Reinforcing In Place</i>								11,508
<i>Reinforcing Steel</i>								11,508
<i>Accessories</i>								
<b>415-1-5 Reinforcing Steel Substructure</b>								<b>11,508</b>
 <b>455-133-2 Sheetpile Wall (Temporary)</b>								
<i>31-41-16.00 Sheet Piling</i>								
<i>31-41-16.10 Sheet Piling Systems</i>								
Sheet piling, steel, Temporary	3,680.00 sf	4.83	14.29	-	4.33	-	23.45	86,293
<i>Sheet Piling Systems</i>								86,293
<i>Sheet Piling</i>								86,293
<b>455-133-2 Sheetpile Wall (Temporary)</b>								<b>86,293</b>
 <b>455-143-3 Test Piles</b>								
<i>31-62-00.00 Driven Piles</i>								
<i>31-62-13.23 Prestressed Concrete Piles</i>								
Prestressed Concrete Piles, Test Piles	380.00 vlf	29.69	37.67	-	18.54	-	85.90	32,641
<i>Prestressed Concrete Piles</i>								32,641
<i>Driven Piles</i>								32,641
<b>455-143-3 Test Piles</b>								<b>32,641</b>
 <b>455-34-3 Concrete Piling Prestressed</b>								
<i>31-62-00.00 Driven Piles</i>								
<i>31-62-13.23 Prestressed Concrete Piles</i>								
Prestressed Concrete Piles	640.00 vlf	10.80	37.67	-	6.74	-	55.21	35,331
<i>Prestressed Concrete Piles</i>								35,331

**Cost Estimating Spreadsheet Report**  
**Prefabricated Alt. CS 1**

Spreadsheet Level	Takeoff Quantity	Labor Cost/Unit	Material Cost/Unit	Sub Cost/Unit	Equip Cost/Unit	Other Cost/Unit	Total Cost/Unit	Total Amount
<i>Driven Piles</i>								35,331
<b>455-34-3 Concrete Piling</b>								<b>35,331</b>
<b>Prestressed</b>								
<b>Substructure-End</b>								<b>206,775</b>
<b>Substructure-End</b>								
<b>Bents</b>								
<b>Substructure-Piers Substructure-Piers</b>								
<b>400-4-25 Concrete Class V Superstructure</b>								
<i>03-30-00.00 Cast-In-Place Concrete</i>								
<i>03-30-53.40 Concrete In Place</i>								
Concrete Class V	94.60 cy	228.23	179.37	-	33.38	-	440.98	41,717
<i>Concrete In Place</i>								41,717
<i>Cast-In-Place Concrete</i>								41,717
<b>400-4-25 Concrete Class V Superstructure</b>								<b>41,717</b>
<b>400-4-5 Concrete Class IV (Substructure)</b>								
<i>03-30-00.00 Cast-In-Place Concrete</i>								
<i>03-30-53.40 Concrete In Place</i>								
Concrete Class IV	39.20 cy	285.29	197.30	-	41.73	-	524.32	20,553
<i>Concrete In Place</i>								20,553
<i>Cast-In-Place Concrete</i>								20,553
<b>400-4-5 Concrete Class IV (Substructure)</b>								<b>20,553</b>
<b>415-1-5 Reinforcing Steel Substructure</b>								
<i>03-21-05.00 Reinforcing Steel Accessories</i>								
<i>03-21-10.60 Reinforcing In Place</i>								
Reinforcing Steel	20,042.00 lb	0.49	0.50	-	0.11	-	1.09	21,861
<i>Reinforcing In Place</i>								21,861
<i>Reinforcing Steel</i>								21,861
<i>Accessories</i>								
<b>415-1-5 Reinforcing Steel Substructure</b>								<b>21,861</b>
<b>455-143-5 Test Piles</b>								
<i>31-62-00.00 Driven Piles</i>								
<i>31-62-13.23 Prestressed Concrete Piles</i>								
Prestressed concrete piles, 24" square, Test Pile	210.00 vlf	29.69	65.77	-	18.54	-	114.00	23,940
<i>Prestressed Concrete Piles</i>								23,940

**Cost Estimating Spreadsheet Report**  
**Prefabricated Alt. CS 1**

Spreadsheet Level	Takeoff Quantity	Labor Cost/Unit	Material Cost/Unit	Sub Cost/Unit	Equip Cost/Unit	Other Cost/Unit	Total Cost/Unit	Total Amount
<i>Driven Piles</i>								23,940
<b>455-143-5 Test Piles</b>								<b>23,940</b>
<b>455-34-5 Concrete Piling Prestressed</b>								
<i>31-62-00.00 Driven Piles</i>								
<i>31-62-13.23 Prestressed Concrete Piles</i>								
Prestressed concrete piles, 24" square, <i>Prestressed Concrete Piles</i>	1,800.00 vlf	10.80	65.77	-	6.74	-	83.31	149,951
<i>Driven Piles</i>								149,951
<b>455-34-5 Concrete Piling Prestressed Substructure-Piers Substructure-Piers</b>								<b>149,951 258,022</b>
<b>Superstructure Superstructure</b>								
<b>110-3 Structure Removal of Existing</b>								
<i>02-41-16.00 Structure Demolition</i>								
<i>02-41-16.33 Bridge Demolition</i>								
Bridge demolition <i>Bridge Demolition Structure Demolition</i>	21,048.00 sf	12.72	-	-	8.26	-	20.98	441,610
<b>110-3 Structure Removal of Existing</b>								<b>441,610 441,610</b>
<b>400-147 Composite Neoprene Pads</b>								
<i>05-05-23.00 Metal Fastenings</i>								
<i>05-05-23.80 Vibration &amp; Bearing Pads</i>								
Bearing Pads <i>Vibration &amp; Bearing Pads Metal Fastenings</i>	10.60 cf	78.49	717.46	-	-	-	795.95	8,437
<b>400-147 Composite Neoprene Pads</b>								<b>8,437 8,437 8,437</b>
<b>400-2-4 Concrete Class II</b>								
<i>03-30-00.00 Cast-In-Place Concrete</i>								
<i>03-30-53.40 Concrete In Place</i>								
Concrete Class II <i>Concrete In Place Cast-In-Place Concrete</i>	866.20 cy	142.65	173.39	-	20.87	-	336.90	291,820
								291,820 291,820



**Cost Estimating Spreadsheet Report**  
**Prefabricated Alt. CS 1**

Spreadsheet Level	Takeoff Quantity	Labor Cost/Unit	Material Cost/Unit	Sub Cost/Unit	Equip Cost/Unit	Other Cost/Unit	Total Cost/Unit	Total Amount
<b>400-2-4 Concrete Class II</b>								<b>291,820</b>
<b>400-5-25 Concrete Class V Superstructure</b>								
<i>03-30-00.00 Cast-In-Place Concrete</i>								
<i>03-30-53.40 Concrete In Place</i>								
Concrete Class V	162.60 cy	228.23	179.37	-	33.38	-	440.98	71,703
Concrete In Place								71,703
Cast-In-Place Concrete								71,703
<b>400-5-25 Concrete Class V Superstructure</b>								<b>71,703</b>
<b>400-9 Bridge Floor Grooving</b>								
<i>32-13-13.00 Concrete Paving</i>								
<i>32-13-13.23 Concrete Paving Surface Treatment</i>								
Concrete Grooving	3,536.00 sy	2.31	-	-	5.20	-	7.52	26,581
Concrete Paving Surface Treatment								26,581
Concrete Paving								26,581
<b>400-9 Bridge Floor Grooving</b>								<b>26,581</b>
<b>415-1-4 Reinforcing Steel</b>								
<i>03-21-05.00 Reinforcing Steel Accessories</i>								
<i>03-21-10.60 Reinforcing In Place</i>								
Reinforcing Steel Superstructure	201,944.00 lb	0.37	0.06	-	0.08	-	0.51	102,118
Reinforcing In Place								102,118
Reinforcing Steel Accessories								102,118
<b>415-1-4 Reinforcing Steel</b>								<b>102,118</b>
<b>458-1-12 Bridge Deck Expansion Joint</b>								
<i>32-34-00.00 Fabricated Bridges</i>								
<i>32-34-10.10 Bridges, Highway</i>								
Bridge Deck Expansion Joint	274.00 lf	105.39	326.45	-	3.69	-	435.53	119,335
Bridges, Highway								119,335
Fabricated Bridges								119,335
<b>458-1-12 Bridge Deck Expansion Joint</b>								<b>119,335</b>
<b>460-2-1 Structural Steel</b>								
<i>05-12-23.00 Structural Steel For Bridges</i>								

**Cost Estimating Spreadsheet Report**  
**Prefabricated Alt. CS 1**

Spreadsheet Level	Takeoff Quantity	Labor Cost/Unit	Material Cost/Unit	Sub Cost/Unit	Equip Cost/Unit	Other Cost/Unit	Total Cost/Unit	Total Amount
<i>05-12-23.77 Structural Steel Projects</i>								
Structural Steel	450.00 ton	1,271.58	1,913.23	-	515.29	-	3,700.10	1,665,046
<i>Structural Steel Projects</i>								1,665,046
<i>Structural Steel For Bridges</i>								1,665,046
<b>460-2-1 Structural Steel</b>								<b>1,665,046</b>
<b>461-113-7 Multi Rotational Bearing Assembly</b>								
<i>05-05-23.00 Metal Fastenings</i>								
<i>05-05-23.80 Vibration &amp; Bearing Pads</i>								
Multirrotational Bearing (1750 Kip)	2.00 ea	594.61	9,566.17	-	-	-	10,160.78	20,322
<i>Vibration &amp; Bearing Pads</i>								20,322
<i>Metal Fastenings</i>								20,322
<b>461-113-7 Multi Rotational Bearing Assembly</b>								<b>20,322</b>
<b>461-114-5 Multi Rotational Bearing Assembly</b>								
<i>05-05-23.00 Metal Fastenings</i>								
<i>05-05-23.80 Vibration &amp; Bearing Pads</i>								
Multirrotational Bearing (1200 Kip)	2.00 ea	392.44	5,978.86	-	-	-	6,371.30	12,743
<i>Vibration &amp; Bearing Pads</i>								12,743
<i>Metal Fastenings</i>								12,743
<b>461-114-5 Multi Rotational Bearing Assembly</b>								<b>12,743</b>
<b>462-2-11 Post Tensioning Tendons</b>								
<i>03-23-00.00 Stressing Tendons</i>								
<i>03-23-05.50 Prestressing Steel</i>								
Post Tensioning Strands	11,364.00 lb	1.90	0.61	-	0.02	-	2.53	28,728
<i>Prestressing Steel</i>								28,728
<i>Stressing Tendons</i>								28,728
<b>462-2-11 Post Tensioning Tendons</b>								<b>28,728</b>
<b>521-5-1 Concrete Traffic Railing</b>								
<i>34-71-13.00 Vehicle Barriers</i>								
<i>34-71-13.26 Vehicle Guide Rails</i>								
Concrete Traffic Railing Barrier Bridge	1,240.00 lf	12.88	49.03	-	4.44	-	66.35	82,275
<i>Vehicle Guide Rails</i>								82,275



**Estimate Totals**

Description	Amount	Net Amount	Totals	Hours	Rate	Cost Basis	Percent of Total
Labor	1,889,726	1,889,726		10,449.281 ch			35.38%
Material	1,887,855	1,887,855					35.35%
Subcontract	789,209	789,209					14.78%
Equipment	679,331	679,331		3,261.644 ch			12.72%
Other	94,564	94,564					1.77%
	<b>5,340,685</b>		<b>5,340,685</b>				<b>100.00</b>
<b>Total</b>			<b>5,340,685</b>				<b>100.00%</b>