

***Every Day Counts Case Study 2***

<b>Project name</b>	Prefabricated Alt. CS 2 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 14 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 2**

Spreadsheet Level	Takeoff Quantity	Labor Cost/Unit	Material Cost/Unit	Sub Cost/Unit	Equip Cost/Unit	Other Cost/Unit	Total Cost/Unit	Total Amount
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**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	-	51.33	-	-	-	51.33	15,400
								<u>15,400</u>
								15,400
<i>Scaffolding</i>								
<i>Temporary Scaffolding</i>								
<i>And Platforms</i>								

02-43-00.00 Structure Moving

02-43-13.13 Bridge Relocation

Remove Existing Bridges Out & Install New Bridges SPMT	1.00 totl	-	-	525,277.03	-	-	525,277.03	525,277
Remove Existing Bridges Out & Install New Bridges SPMT 2nd Bridge	1.00 totl	-	-	525,277.03	-	-	525,277.03	525,277
								<u>1,050,554</u>
								1,050,554
<i>Bridge Relocation</i>								
<i>Structure Moving</i>								

32-12-16.00 Asphalt Paving

32-12-16.13 Plant-Mix Asphalt Paving

Allow for additional Paving etc.	1,000.00 ton	6.22	62.08	-	3.45	-	71.74	71,743
								<u>71,743</u>
								71,743
<i>Plant-Mix Asphalt Paving</i>								
<i>Asphalt Paving</i>								

32-34-00.00 Fabricated Bridges

32-34-10.10 Bridges, Highway

Temporary Concrete	100.00 cy	270.50	198.17	-	18.98	-	487.66	48,766
Temporary Concrete	100.00 cy			-		149.23	149.23	14,923
Remove								
								<u>63,688</u>
								63,688
<i>Bridges, Highway</i>								
<i>Fabricated Bridges</i>								

34-71-13.00 Vehicle Barriers

34-71-13.17 Security Vehicle Barriers

Jersey Barriers	64.00 ea	79.19	119.38	-	31.45	-	230.02	14,721
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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	79.19	119.38	-	31.45	-	230.02	46,004
Detour	2.00 Day	-	-	-	-	3,820.20	3,820.20	7,640
<i>Security Vehicle Barriers</i>								68,366
<i>Vehicle Barriers</i>								68,366
<b>* unassigned *</b>								<b>1,269,751</b>
<b>Additional Cost</b>								<b>1,269,751</b>
<b>Additional Cost</b>								
<b>SPMT's</b>								
 <b>Additional Cost Det Additional Cost Detour</b>								
<b>* unassigned *</b>								
<i>01-54-36.00 Equipment Mobilization</i>								
<i>01-54-36.50 Mobilization Or Demob.</i>								
Transport Bridge to Site	4.00 ea	477.05	-	-	815.76	-	1,292.81	5,171
Transport Bridge back to FDOT	4.00 ea	477.05	-	-	815.76	-	1,292.81	5,171
<i>Mobilization Or Demob.</i>								10,342
<i>Equipment Mobilization</i>								10,342
 <i>01-55-00.00 Vehicular Access And Parking</i>								
<i>01-55-23.50 Roads And Sidewalks</i>								
Temporary, roads	2,000.00 lf			-		1,134.12	1,134.12	2,268,242
Temporary, roads Remove	2,000.00 lf			-		155.20	155.20	310,391
<i>Roads And Sidewalks</i>								2,578,633
<i>Vehicular Access And Parking</i>								2,578,633
 <i>32-34-00.00 Fabricated Bridges</i>								
<i>32-34-10.10 Bridges, Highway</i>								
Fabricated highway bridges, Install	330.00 lf	46.66		-	13.95	-	60.60	19,999
Fabricated highway bridges, Remove	330.00 lf	46.66		-	13.95	-	60.60	19,999
Fabricated highway bridges, concrete in place, abutment	350.00 cy	270.50	198.17	-	18.98	-	487.66	170,680
Fabricated highway bridges, concrete in place, abutment Remove	350.00 cy			-		149.23	149.23	52,229



**Cost Estimating Spreadsheet Report**  
**Prefabricated Alt. CS 2**

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	14.00 ea	-	287.71	-	-	-	287.71	4,028
Storage Boxes, rent per month, 20' x 8'	28.00 ea	-	87.75	-	-	-	87.75	2,457
<i>Office And Storage Space</i>								<u>6,485</u>
<i>01-52-13.40 Field Office Expense</i>								
Field Office Expense, office equipment rental, average	14.00 mo	-	179.07	-	-	-	179.07	2,507
Field Office Expense, office supplies, average	14.00 mo	-	113.41	-	-	-	113.41	1,588
Field Office Expense, telephone bill; avg. bill/month, incl. long dist.	14.00 mo	-	250.70	-	-	-	250.70	3,510
Field Office Expense, field office lights & HVAC	14.00 mo	-	131.32	-	-	-	131.32	1,838
<i>Field Office Expense</i>								<u>9,443</u>
<i>Field Offices And Sheds</i>								<u>15,928</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	3.16	8.36	-	-	-	11.52	23,040
<i>Temporary Fencing</i>								<u>23,040</u>
<i>Temporary Fencing</i>								<u>23,040</u>
<i>01-58-00.00 Project Identification</i>								
<i>01-58-13.50 Signs</i>								
Project Signs	50.00 sf	-	21.37	-	-	-	21.37	1,068
<i>Signs</i>								<u>1,068</u>
<i>Project Identification</i>								<u>1,068</u>
<i>01-71-23.00 Field Engineering</i>								
<i>01-71-23.13 Construction Layout</i>								
Survey Crew	35.00 day	1,895.35	-	-	90.48	-	1,985.83	69,504
<i>Construction Layout</i>								<u>69,504</u>
<i>Field Engineering</i>								<u>69,504</u>
<b>* unassigned *</b>								<b>525,305</b>
<b>General Conditions</b>								<b>525,305</b>
<b>General Conditions</b>								<b>525,305</b>

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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	262.60 cy	142.41	173.10	-	20.83	-	336.34	88,324
Concrete In Place								88,324
Cast-In-Place Concrete								88,324
<b>400-2-10 Concrete Class II</b>								<b>88,324</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	53,832.00 lb	0.37	0.06	-	0.08	-	0.51	27,177
Reinforcing In Place								27,177
Reinforcing Steel								27,177
Accessories								
<b>415-1-9 Reinforcing Steel</b>								<b>27,177</b>
<b>521-8-1 Concrete Traffic Railing</b>								
<i>34-71-13.00 Vehicle Barriers</i>								
<i>34-71-13.26 Vehicle Guide Rails</i>								
Concrete Traffic Railing	220.00 lf	12.86	48.95	-	4.43	-	66.24	14,573
Barrier Retaining Wall								14,573
Vehicle Guide Rails								14,573
Vehicle Barriers								14,573
<b>521-8-1 Concrete Traffic Railing</b>								<b>14,573</b>
<b>548-12 Retainig Wall System</b>								
<i>32-32-23.00 Retaining Walls</i>								
<i>32-32-23.13 Retaining Walls</i>								
Retaining Wall System	22,144.00 sf	7.63	14.03	-	4.24	-	25.89	573,392
Retaining Walls								573,392
Retaining Walls								573,392
<b>548-12 Retainig Wall System</b>								<b>573,392</b>
<b>Permanent Walls</b>								<b>703,466</b>
<b>Permanent Walls</b>								

**Substructure-End Substructure-End Bents**

400-4-5 Concrete Class IV (Substructure)

**Cost Estimating Spreadsheet Report**  
**Prefabricated Alt. CS 2**

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>03-30-00.00 Cast-In-Place Concrete</i>								
<i>03-30-53.40 Concrete In Place</i>								
Concrete Class IV	144.00 cy	284.82	196.98	-	41.66	-	523.46	75,378
								75,378
								75,378
								75,378
<b>400-4-5 Concrete Class IV (Substructure)</b>								<b>75,378</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	19,440.00 lb	0.49	0.50	-	0.11	-	1.09	21,170
								21,170
								21,170
								21,170
<b>415-1-5 Reinforcing Steel Substructure</b>								<b>21,170</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	380.00 vlf	29.64	65.66	-	18.51	-	113.81	43,248
								43,248
								43,248
<b>455-143-5 Test Piles</b>								<b>43,248</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, Prestressed Concrete Piles	2,240.00 vlf	10.78	65.66	-	6.73	-	83.17	186,300
								186,300
								186,300
<b>455-34-5 Concrete Piling Prestressed</b>								<b>186,300</b>
<b>Substructure-End</b>								<b>326,096</b>
<b>Substructure-End</b>								
<b>Bents</b>								

**Cost Estimating Spreadsheet Report**  
**Prefabricated Alt. CS 2**

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>Substructure-Piers Substructure-Piers</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	306.00 cy	284.82	196.98	-	41.66	-	523.46	160,179
Concrete In Place								160,179
Cast-In-Place Concrete								160,179
<b>400-4-5 Concrete Class IV (Substructure)</b>								<b>160,179</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	45,900.00 lb	0.49	0.50	-	0.11	-	1.09	49,984
Reinforcing In Place								49,984
Reinforcing Steel								49,984
Accessories								
<b>415-1-5 Reinforcing Steel Substructure</b>								<b>49,984</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	170.00 vlf	29.64	65.66	-	18.51	-	113.81	19,348
Prestressed Concrete Piles								19,348
Driven Piles								19,348
<b>455-143-5 Test Piles</b>								<b>19,348</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, Prestressed Concrete Piles	1,960.00 vlf	10.78	65.66	-	6.73	-	83.17	163,012
Driven Piles								163,012
<b>455-34-5 Concrete Piling Prestressed</b>								<b>163,012</b>
<b>Substructure-Piers</b>								<b>392,523</b>
<b>Substructure-Piers</b>								



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**Prefabricated Alt. CS 2**

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>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	21,048.00 sf	12.93	-	-	8.40	-	21.33	448,839
Bridge Demolition								448,839
Structure Demolition								448,839
<b>110-3 Structure Removal of Existing</b>								<b>448,839</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	37.80 cf	71.80	716.29	-	-	-	788.08	29,790
Vibration & Bearing Pads								29,790
Metal Fastenings								29,790
<b>400-147 Composite Neoprene Pads</b>								<b>29,790</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	905.20 cy	130.48	173.10	-	19.09	-	322.67	292,081
Concrete In Place								292,081
Cast-In-Place Concrete								292,081
<b>400-2-4 Concrete Class II</b>								<b>292,081</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	4,158.00 sy	2.12	-	-	4.76	-	6.88	28,591
Concrete Paving Surface Treatment								28,591
Concrete Paving								28,591
<b>400-9 Bridge Floor Grooving</b>								<b>28,591</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	185,566.00 lb	0.33	0.06	-	0.07	-	0.47	86,763



**Estimate Totals**

Description	Amount	Net Amount	Totals	Hours	Rate	Cost Basis	Percent of Total
Labor	1,527,962	1,527,962		10,797.578	ch		19.12%
Material	1,410,201	1,410,201					17.65%
Subcontract	1,050,554	1,050,554					13.15%
Equipment	441,715	441,715		2,409.123	ch		5.53%
Other	3,558,957	3,558,957					44.55%
	<b>7,989,389</b>		<b>7,989,389</b>				<b>100.00</b>
<b>Total</b>			<b>7,989,389</b>				<b>100.00%</b>