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

**Project name** Prefabricated Alt. CS 2

Fla.

Labor rate table Labor 2011

**Equipment rate table** Equip 2011

**Notes** 1. Pricing is 2011 \$.

2. Construction Schedule of 14 mos.

Rates reflect majority of work performed days with the exception of actual installation of bridges.

4. 2 Bridges.

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.

6. Material Cost/Unit - This cost represents the final installed cost for all the materials associated with the item of work.

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).

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.

9. Other Cost/Unit - This cost represents all other costs necessary to perform the item of work and not covered by the abovementioned costs.

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.

11. Total Amount - Total cost to put the quantity of units specified in place.

Report format

Sorted by 'LOCATION/Pay Item/Group phase/Phase'

'Detail' summary Allocate addons

Spreadsheet Level	Takeoff Quantity	Labor Cost/Unit	Material Cost/Unit	Sub Cost/Unit	Equip Cost/Unit	Other Cost/Unit To	tal Cost/Unit	Total Amount
Additional Cost Additional Cost	t SPMT's							
* unassigned *								
01-54-23.00 Temporary Scaffolding	And Platforms							
01-54-23.70 Scaffolding								
Scaffolding, steel tubular,	300.00 csf	-	51.33	-	-	-	51.33	15,400
heavy duty shoring for elev								
slab forms, floor area, rent/month of complete								
system, to 14'-8" H								
Scaffolding							_	15,400
Temporary Scaffolding								15,400
And Platforms								
02-43-00.00 Structure Moving								
02-43-13.13 Bridge Relocation								
Remove Existing Bridges	1.00 totl	-	-	525,277.03	-		525,277.03	525,277
Out & Install New Bridges								
SPMT	1.00 totl			E2E 277 02			E2E 277 02	E2E 277
Remove Existing Bridges Out & Install New Bridges	1.00 1011	-	-	525,277.03	-		525,277.03	525,277
SPMT 2nd Bridge								
Bridge Relocation							-	1,050,554
Structure Moving								1,050,554
32-12-16.00 Asphalt Paving								
32-12-16.13 Plant-Mix Asphalt Pa	aving							
Allow for additional Paving etc.	1,000.00 ton	6.22	62.08	-	3.45	-	71.74	71,743
Plant-Mix Asphalt Paving								71,743
Asphalt Paving								71,743
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 Remove	100.00 cy			-		149.23	149.23	14,923
Bridges, Highway							-	63,688
Fabricated Bridges								63,688
34-71-13.00 Vehicle Barriers								
34-71-13.17 Security Vehicle Bar	rriers							
Jersey Barriers	64.00 ea	79.19	119.38	-	31.45	-	230.02	14,721

Spreadsheet Level	Takeoff Quantity	Labor Cost/Unit	Material Cost/Unit	Sub Cost/Unit	Equip Cost/Unit	Other Cost/Unit	Total Cost/Unit	Total Amount
34-71-13.17 Security Vehicle Ba								
Jersey Barriers Pier	200.00 ea	79.19	119.38	-	31.45	-	230.02	46,004
Expansion								
Detour	2.00 Day	-	-	-	-	3,820.20	3,820.20	7,640
Security Vehicle Barriers Vehicle Barriers								68,366 68,366
* unassigned *								1,269,751
Additional Cost								1,269,751
Additional Cost  Additional Cost								1,209,731
SPMT's								
* unassigned *  01-54-36.00 Equipment Mobilization 01-54-36.50 Mobilization Or Den Transport Bridge to Site Transport Bridge back to FDOT Mobilization Or Demob. Equipment Mobilization	n	477.05 477.05	- -	-	815.76 815.76		1,292.81 1,292.81 -	5,171 5,171 
01-55-00.00 Vehicular Access And	•							10,342
01-55-23.50 Roads And Sidewa	2,000.00 If					4 424 40	4 404 40	0.000.040
Temporary, roads Temporary, roads Remove	2,000.00 If			-		1,134.12 155.20	1,134.12 155.20	2,268,242 310,391
Roads And Sidewalks Vehicular Access And Parking	2,000.00 11					133.20	133.20	2,578,633 2,578,633
32-34-00.00 Fabricated Bridges								
32-34-10.10 Bridges, Highway								
Fabricated highway bridges, Install	330.00 lf	46.66		-	13.95	-	60.60	19,999
Fabricated highway bridges, Remove	330.00 If	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

Spreadsheet Level	Takeoff Quantity	Labor Cost/Unit	Material Cost/Unit	Sub Cost/Unit	Equip Cost/Unit	Other Cost/Unit	Total Cost/Unit	Total Amount
Bridges, Highway Fabricated Bridges							_	262,908 262,908
34-71-13.00 Vehicle Barriers 34-71-13.17 Security Vehicle Barriers Maintain Detour Security Vehicle Barriers Vehicle Barriers * unassigned * Additional Cost Det	rriers 300.00 day	-	-	-		- 89.54	89.54 _	26,861 26,861 26,861 <b>2,878,744</b> <b>2,878,744</b>
Additional Cost Detour								
General Conditions General Co * unassigned * 01-31-00.00 Project Management A								
01-31-13.20 Field Personnel Field Personnel, clerk, average	49.00 week	435.74	-	-			435.74	21,351
Field engineer, average Field Personnel, project	55.00 week 55.00 week	1,343.04 2,208.55	-	-			1,343.04 2,208.55	73,867 121,470
manager, average Field Personnel, superintendent, average Field Personnel Project Management And	49.00 week	2,029.48	-	-			2,029.48	99,444 316,133 316,133
Coordination  01-32-33.00 Photographic Documer  01-32-33.50 Photographs	ntation							
Construction Photographs Photographs Photographic Documentation	49.00 set	-	567.06	-			567.06 <sub>-</sub>	27,786 27,786 27,786
01-45-00.00 Quality Control 01-45-23.50 Testing Field Testing Testing Quality Control	2.00 prjc	-	-	-		- 35,922.99	35,922.99	71,846 71,846 71,846

		Labor	Material		Equip			
Spreadsheet Level	Takeoff Quantity	Cost/Unit	Cost/Unit	Sub Cost/Unit	Cost/Unit	Other Cost/Unit	Total Cost/Unit	Total Amount
01-52-13.20 Office And Storage S	Space							
Office Trailer, furnished, rent per month, 32' x 8', excl. hookups	14.00 ea	-	287.71	-			287.71	4,02
Storage Boxes, rent per month, 20' x 8' Office And Storage Space	28.00 ea	-	87.75	-			87.75	2,45 6,48
Onice And Storage Space								0,40
01-52-13.40 Field Office Expense	)							
Field Office Expense, office equipment rental, average	14.00 mo	-	179.07	-			179.07	2,50
Field Office Expense, office supplies, average	14.00 mo	-	113.41	-		-	113.41	1,58
Field Office Expense, telephone bill; avg. bill/month, incl. long dist.	14.00 mo	-	250.70	-			250.70	3,51
Field Office Expense, field office lights & HVAC	14.00 mo	-	131.32	-			131.32	1,83
Field Office Expense Field Offices And Sheds								9,44 15,92
01-56-26.00 Temporary Fencing 01-56-26.50 Temporary Fencing								
Temporary Fencing, chain link, 6' high, 11 ga	2,000.00 lf	3.16	8.36	-		-	11.52	23,04
Temporary Fencing Temporary Fencing								23,0- 23,0-
01-58-00.00 Project Identification 01-58-13.50 Signs								
Project Signs	50.00 sf	-	21.37	-			21.37	
Signs Project Identification								1,0 1,0
01-71-23.00 Field Engineering 01-71-23.13 Construction Layout								
Survey Crew	35.00 day	1,895.35	-	-	90.48	-	1,985.83	69,50
Construction Layout								69,5
Field Engineering								69,5
* unassigned *								525,30
General Conditions								525,30
General Conditions								

Spreadsheet Level	Takeoff Quantity	Labor Cost/Unit	Material Cost/Unit	Sub Cost/Unit	Equip Cost/Unit	Other Cost/Unit	Total Cost/Unit	Total Amount
Permanent Walls Permanent Wa	alls							
400-2-10 Concrete Class II								
03-30-00.00 Cast-In-Place Concrete	•							
03-30-53.40 Concrete In Place	000.00	440.44	470.40		00.00		222.24	20.004
Approach Slab  Concrete In Place	262.60 cy	142.41	173.10	-	20.83	-	336.34 _	88,324 88,324
Concrete In Place  Cast-In-Place Concrete								88,324
400-2-10 Concrete Class II								88,324
ME 4 0 Painfanaina Staal								
415-1-9 Reinforcing Steel 03-21-05.00 Reinforcing Steel Acces	esorios							
03-21-10.60 Reinforcing In Place								
Reinforcing Steel Approach	53,832.00 lb	0.37	0.06	-	0.08	-	0.51	27,177
Slabs							_	
Reinforcing In Place								27,177
Reinforcing Steel								27,177
Accessories								07.477
415-1-9 Reinforcing Steel								27,177
521-8-1 Concrete Traffic Railing								
34-71-13.00 Vehicle Barriers								
34-71-13.26 Vehicle Guide Rails								
Concrete Traffic Railing	220.00 If	12.86	48.95	-	4.43	-	66.24	14,573
Barrier Retaining Wall							-	
Vehicle Guide Rails Vehicle Barriers								14,573 14,573
521-8-1 Concrete Traffic								14,573 14,573
Railing								14,010
540 40 Batalala W. II O								
548-12 Retainig Wall System 32-32-23.00 Retaining Walls								
32-32-23.00 Retaining Walls								
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
548-12 Retainig Wall								573,392
System								
Permanent Walls								703,466
Permanent Walls								

#### Substructure-End Substructure-End Bents

400-4-5 Concrete Class IV (Substructure)

Cost/Unit   Cost									
03-30-53.40 Concrete In Place Concrete Class IV 144.00 cy 284.82 196.98 - 41.66 - 523.46 75,3 Concrete In Place 75,3 Concrete In Place 75,3 Cast-In-Place Concrete Class IV 75,3 400-4-5 Concrete Class IV 75,3 (Substructure)  415-1-5 Reinforcing Steel Substructure 03-21-05.00 Reinforcing In Place Reinforcing Steel 19,440.00 lb 0.49 0.50 - 0.11 - 1.09 21,1 Reinforcing In Place Reinforcing Steel Accessories 415-1-5 Reinforcing Steel Accessories 415-1-5 Reinforcing Steel Substructure 21,1 Reinforcing Steel 21,1 Substructure	Spreadsheet Level	Takeoff Quantity			Sub Cost/Unit	Equip Cost/Unit	Other Cost/Unit	Total Cost/Unit	Total Amount
Concrete Class IV 144.00 cy 284.82 196.98 - 41.66 - 523.46 75,3  Concrete In Place 75,3  Cast-In-Place Concrete 4400-4-5 Concrete Class IV (Substructure) 75,3  (Substructure) 75,3  415-1-5 Reinforcing Steel Substructure 75,3  03-21-10.60 Reinforcing In Place 86 19,440.00 lb 10.49 10.50 - 10.11 - 10.9 21,1  Reinforcing Steel 19,440.00 lb 10.49 10.50 - 10.11 - 10.9 21,1  Reinforcing Steel 19,440.00 lb 10.49 10.50 - 10.11 - 10.9 21,1  Reinforcing Steel 10,440.00 lb 10.49 10.50 - 10.11 - 10.9 21,1  Reinforcing Steel 10,440.00 lb 10.49 10.50 - 10.11 - 10.9 21,1  Reinforcing Steel 10,440.00 lb 10,49 10,50 - 10,50 10,		•							
Concrete In Place Cast-In-Place Concrete 400-4-5 Concrete Class IV (Substructure)  415-1-5 Reinforcing Steel Substructure 03-21-05.00 Reinforcing Steel Accessories 03-21-10.60 Reinforcing In Place Reinforcing Steel 19,440.00 lb 0.49 0.50 - 0.11 - 1.09 21,1 Reinforcing In Place Reinforcing Steel 21,1 Reinforcing Steel 21,1 Accessories 415-1-5 Reinforcing Steel 21,1 Substructure									
Cast-In-Place Concrete 400-4-5 Concrete Class IV (Substructure)  415-1-5 Reinforcing Steel Substructure  03-21-05.00 Reinforcing Steel Accessories  03-21-10.60 Reinforcing In Place  Reinforcing Steel 19,440.00 lb 0.49 0.50 - 0.11 - 1.09 21,1  Reinforcing Steel Ste		144.00 cy	284.82	196.98	-	41.66	-	523.46	75,378
400-4-5 Concrete Class IV (Substructure)  415-1-5 Reinforcing Steel Substructure  03-21-05.00 Reinforcing In Place Reinforcing Steel 19,440.00 lb 0.49 0.50 - 0.11 - 1.09 21,1 Reinforcing In Place Reinforcing Steel 21,1 Reinforcing Steel 221,1 Substructure									75,378
(Substructure)  415-1-5 Reinforcing Steel Substructure  03-21-05.00 Reinforcing Steel Accessories  03-21-10.60 Reinforcing In Place  Reinforcing Steel 19,440.00 lb 0.49 0.50 - 0.11 - 1.09 21,1  Reinforcing In Place 21,1  Reinforcing Steel 21,1  Accessories  415-1-5 Reinforcing Steel 21,1  Substructure									75,378
### 415-1-5 Reinforcing Steel Substructure  ### 03-21-05.00 Reinforcing Steel Accessories  ### 03-21-10.60 Reinforcing In Place  ### Reinforcing Steel									75,378
03-21-05.00 Reinforcing Steel Accessories 03-21-10.60 Reinforcing In Place Reinforcing Steel 19,440.00 lb 0.49 0.50 - 0.11 - 1.09 21,1 Reinforcing In Place Reinforcing Steel 21,1 Accessories 415-1-5 Reinforcing Steel Substructure	445 4 5 Dainfanaina Staal Subaturat								
03-21-10.60 Reinforcing In Place         Reinforcing Steel       19,440.00 lb       0.49       0.50       -       0.11       -       1.09       21,1         Reinforcing In Place       21,1         Reinforcing Steel       21,1         Accessories       415-1-5 Reinforcing Steel         Substructure       21,1									
Reinforcing Steel       19,440.00 lb       0.49       0.50       -       0.11       -       1.09       21,1         Reinforcing In Place       Reinforcing Steel         Accessories       415-1-5 Reinforcing Steel         Substructure									
Reinforcing In Place Reinforcing Steel Accessories 415-1-5 Reinforcing Steel Substructure			0.49	0.50	_	0.11	_	1.09	21,170
Reinforcing Steel Accessories 415-1-5 Reinforcing Steel Substructure	<del>-</del>	10,440.00 10	0.43	0.50		0.11		1.00	21,170
Accessories 415-1-5 Reinforcing Steel Substructure	<u> </u>								21,170
415-1-5 Reinforcing Steel Substructure	•								27,770
Substructure									21,170
	_								,
455-143-5 Test Piles	455-143-5 Test Piles								
31-62-00.00 Driven Piles	31-62-00.00 Driven Piles								
31-62-13.23 Prestressed Concrete Piles	31-62-13.23 Prestressed Concre	te Piles							
Prestressed concrete piles, 380.00 vlf 29.64 65.66 - 18.51 - 113.81 43,2	Prestressed concrete piles,	380.00 vlf	29.64	65.66	-	18.51	-	113.81	43,248
24" square, Test Pile	24" square, Test Pile							_	
·									43,248
Piles									
·									43,248
455-143-5 Test Piles 43,2	455-143-5 Test Piles								43,248
455-34-5 Concrete Piling Prestressed	_	d							
31-62-00.00 Driven Piles		. 5"							
31-62-13.23 Prestressed Concrete Piles			40.70	05.00		0.70		00.47	400.000
Prestressed concrete piles, 2,240.00 vlf 10.78 65.66 - 6.73 - 83.17 186,3 24" square,		2,240.00 VII	10.78	65.66	-	6.73	-	83.17	186,300
· ·	• •							=	186,300
Piles									700,300
· · · · · · · · · · · · · · · · · · ·									186.300
									186,300
Prestressed	_								100,000
Substructure-End 326.0	Substructure-End								326,096
Substructure-End	Substructure-End								,
Bents									

Spreadsheet Level	Takeoff Quantity	Labor Cost/Unit	Material Cost/Unit	Sub Cost/Unit	Equip Cost/Unit	Other Cost/Unit Total Cost/Unit	Total Amount
Substructure-Piers Substructur	re-Piers						
400-4-5 Concrete Class IV (Substruc	ture)						
03-30-00.00 Cast-In-Place Concrete	е						
03-30-53.40 Concrete In Place							
Concrete Class IV	306.00 cy	284.82	196.98	-	41.66	523.46	160,179
Concrete In Place Cast-In-Place Concrete							160,179 160,179
400-4-5 Concrete Class IV							160,179
(Substructure)							100,170
415-1-5 Reinforcing Steel Substruct							
03-21-05.00 Reinforcing Steel Acce							
03-21-10.60 Reinforcing In Place Reinforcing Steel	e 45,900.00 lb	0.49	0.50	-	0.11	- 1.09	49,984
Reinforcing Steel  Reinforcing In Place	45,900.00 15	0.49	0.50	-	0.11	- 1:09	49,984
Reinforcing Steel							49,984
Accessories							-7
415-1-5 Reinforcing Steel							49,984
Substructure							
455-143-5 Test Piles							
31-62-00.00 Driven Piles	ota Dilaa						
31-62-13.23 Prestressed Concre Prestressed concrete piles,	170.00 vlf	29.64	65.66	_	18.51	- 113.81	19,348
24" square, Test Pile	170.00 VII	23.04	05.00		10.51	- 113.01	19,540
Prestressed Concrete							19,348
Piles							,
Driven Piles							19,348
455-143-5 Test Piles							19,348
455-34-5 Concrete Piling Prestresse	d						
31-62-00.00 Driven Piles 31-62-13.23 Prestressed Concre	oto Dilon						
Prestressed concrete piles,	1,960.00 vlf	10.78	65.66	_	6.73	83.17	163,012
24" square,	1,900.00 VII	10.76	05.00	_	0.73	- 05.17	100,012
Prestressed Concrete							163,012
Piles							/
Driven Piles							163,012
455-34-5 Concrete Piling							163,012
Prestressed							
Substructure-Piers							392,523
Substructure-Piers							

Spreadsheet Level	Takeoff Quantity	Labor Cost/Unit	Material Cost/Unit	Sub Cost/Unit	Equip Cost/Unit	Other Cost/Unit	Total Cost/Unit	Total Amount
Superstructure Superstructure 110-3 Structure Removal of Existing 02-41-16.00 Structure Demolition 02-41-16.33 Bridge Demolition Bridge demolition Bridge Demolition Structure Demolition 110-3 Structure Removal of Existing		12.93		-	8.40	-	21.33 _	448,839 448,839 448,839 <b>448,839</b>
400-147 Composite Neoprene Pads 05-05-23.00 Metal Fastenings 05-05-23.80 Vibration & Bearing Bearing Pads Vibration & Bearing Pads Metal Fastenings 400-147 Composite Neoprene Pads	<i>Pads</i> 37.80 cf	71.80	716.29	-	-	-	788.08 _	29,790 29,790 29,790 <b>29,790</b>
400-2-4 Concrete Class II 03-30-00.00 Cast-In-Place Concrete 03-30-53.40 Concrete In Place Concrete Class II Concrete In Place Cast-In-Place Concrete 400-2-4 Concrete Class II	905.20 cy	130.48	173.10	-	19.09	-	322.67 _	292,081 292,081 292,081 292,081
400-9 Bridge Floor Grooving 32-13-13.00 Concrete Paving 32-13-13.23 Concrete Paving Su Concrete grooving Concrete Paving Surface Treatment Concrete Paving 400-9 Bridge Floor Grooving	urface Treatment 4,158.00 sy	2.12	-	-	4.76	-	6.88 _	28,591 28,591 28,591 <b>28,591</b>
415-1-4 Reinforcing Steel 03-21-05.00 Reinforcing Steel Acce 03-21-10.60 Reinforcing In Place Reinforcing Steel Superstructure		0.33	0.06	-	0.07	-	0.47	86,763

Spreadsheet Level	Takeoff Quantity	Labor Cost/Unit	Material Cost/Unit	Sub Cost/Unit	Equip Cost/Unit	Other Cost/Unit	Total Cost/Unit	Total Amount
Reinforcing In Place Reinforcing Steel Accessories								86,763 86,763
415-1-4 Reinforcing Steel								86,763
<b>450-2-54 Prestressed Beams</b> 32-34-00.00 Fabricated Bridges 32-34-10.10 Bridges, Highway								
Fabricated highway bridges, precast, prestressed concrete, I beams	4,224.00 lf	•	-	-	-	191.01	191.01	806,826
Bridges, Highway								806,826
Fabricated Bridges 450-2-54 Prestressed								806,826 <b>806,826</b>
Beams								
458-1-12 Bridge Deck Expansion Join 32-34-00.00 Fabricated Bridges 32-34-10.10 Bridges, Highway	nt							
Bridge Deck Expansion  Joint	274.00 lf	96.41	325.91	-	3.38	-	425.69	116,640
Bridges, Highway							•	116,640
Fabricated Bridges 458-1-12 Bridge Deck								116,640 <b>116,640</b>
Expansion Joint								
<b>521-5-1 Concrete Traffic Railing</b> 34-71-13.00 Vehicle Barriers 34-71-13.26 Vehicle Guide Rails								
Concrete Traffic Railing	1,296.00 If	11.79	48.95	-	4.06	-	64.79	83,972
Barrier Bridge Vehicle Guide Rails								83,972
Vehicle Barriers								83,972
521-5-1 Concrete Traffic Railing								83,972
Superstructure								1,893,502
Superstructure								

#### **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%	
	7,989,389		7,989,389				100.00	100.00%
Total			7.989.389					