APPENDIX G

COST AND FUNDING METHODOLOGY AND CALCULATIONS

2/1/11

	1	2	3	4	5
	NO BUILD	SR 52 - 10 LANES (GROUND)	SR 52 - 10 LANES (6 GROUND/4 ELEVATED)	SR 54 - 8 LANES (GROUND) PLUS TOWER ROAD - 6 LANES (GROUND)	SR 54 - 8 LANES (GROUND) PLUS SR 52 - 8 LANES (GROUND)
Roadway Costs		SR 52 - 10 LANES (GROUND)	SR 52 (6 LANE GROUND)	SR 54 - 8 LANES (GROUND)	SR 54 - 8 LANES (GROUND)
		US 19 to Suncoast Parkway	US 19 to Suncoast Parkway	US 19 to Suncoast Parkway	US 19 to Suncoast Parkway
Description		Add Urban Lanes (6 to 8)	Add 1 Urban Lane to Outside	Add Urban Lanes (6 to 8)	Add Urban Lanes (6 to 8)
Length (Miles)		9.57	9.57	12.95	12.95
Cost/Mile		$9,451,942	$3,599,221	$9,451,942	$9,451,942
Cost (1)	$0	$90,455,087	$34,444,541	$122,402,652	$122,402,652
		US 19 to Suncoast	US 19 to Suncoast Parkway	Suncoast Parkway to US 41	Suncoast Parkway to US 41
Description		Add 1 Urban Lane to Outside	Add 1 Urban Lane to Outside	Add Urban Lanes (4 to 8)	Add Urban Lanes (4 to 8)
Length (Miles)		9.57	9.57	5.03	5.03
Cost/Mile		$3,599,221	$3,599,221	$10,801,670	$10,801,670
Cost (2)	$0	$34,444,541	$34,444,541	$54,332,400	$54,332,400
					SR 52- 8 LANES (GROUND)
		US 19 to Suncoast	Suncoast Parkway to US 41		US 19 to Suncoast Parkway
Description		Add 1 Urban Lane to Outside	New Constr. (6 Lane Urban)		Add Urban Lanes (6 to 8)
Length (Miles)		9.57	3.19		9.57
Cost/Mile		$3,599,221	$12,769,687		$9,451,942
Cost (3)	$0	$34,444,541	$40,735,300	$0	$90,455,087
		Suncoast Parkway to US 41		TOWER ROAD - 6 LANES (GROUND)	Suncoast Parkway to US 41
Description		New Constr. (6 Lane Urban)		New Constr. (6 Lane Urban) W/O MOT	Add Urban Lanes (2 to 4)
Length (Miles)		3.19		11.61	3.19
Cost/Mile		$0		$11,608,806	$7,238,910
Cost (4)	$0	$0	$0	$134,778,238	$23,092,122
		Suncoast Parkway to US 41			Suncoast Parkway to US 41
Description		Add Urban Lanes (6 to 8)			Add Urban Lanes (4 to 8)
Length (Miles)		3.19			3.19
Cost/Mile		$9,451,942			$10,801,670
Cost (5)	$0	$30,151,696	$0	$0	$34,457,327
		Suncoast Parkway to US 41			
Description		Add Urban 1 Lanes to Outside			
Length (Miles)		3.19			
Cost/Mile		$3,599,221			
Cost (6)		$11,481,514			
		Suncoast Parkway to US 41			
Description		Add Urban 1 Lanes to Outside			
Length (Miles)		3.19			
Cost/Mile		$3,599,221			
Cost (7)		$11,481,514			
Bridge Costs			SR 52 (4 LANE ELEVATED)		
Bridge Type			Elevated Bridge	S. Branch/Wildlife Corridor Mid-Level	
Bridge Length (ft)			67,373	600	
Bridge Width (ft)			86	127	
Bridge Area (sf)			5,794,078	76,200	
Cost/sf			$213	$193	
Cost (8)	$0	$0	$1,234,862,874	$14,668,500	$0
Bridge Type				Suncoast Parkway Overpass	
Bridge Length (ft)				250	
Bridge Width (ft)				127	
Bridge Area (sf)				31,750	
Cost/sf				$213	
Cost (9)	$0	$0	$0	$6,766,719	$0
Bridge Type				Anclote River Overpass	
Bridge Length (ft) (See Below)				700	
Bridge Width (ft)				24	
Bridge Area (sf)				16,800	
Cost/sf				$213	
Cost (10)	$0	$0	$0	$3,580,500	$0
Ex Avg Road R/W (Excl Ponds)		140	140	161 SR 54 ; 0 Tower Rd	161 SR 54 ; 140 SR 52
Req'd R/W Width		216	178	192 SR 54 ; 168 Tower Rd	192 SR 54 ; 192 SR 52
% Add'l Road R/W (Excl Ponds)		35.19%	21.35%	16.15% SR 54; 100.00% Tower RD.	16.15% SR 54; 27.08% SR 52
85% Constr. Related Costs*	$0	$180,590,059	$1,142,814,168	$286,049,657	$276,028,650
Right of Way Costs**	$0	$76,249,136	$28,083,550	$225,995,164	$82,343,891
Total Cost for Alternative	$0	$256,839,195	$1,170,897,718	$512,044,821	$358,372,541
Rounded	$0	$256,839,000	$1,170,898,000	$512,045,000	$358,373,000

*Costs include construction, mobilization and contingency. Design and CEI are not included.

**Right of way costs are based on 120% of unfactored construction costs, excluding elevated bridges.

				SR 54 R/W Costs	SR 54 R/w Costs
Ex Avg Road R/W (Excl Ponds)				161	161
Req'd R/W Width				192	192
% Add'l Road R/W (Excl Ponds)				16.15%	16.15%
Construction Related Costs				$176,735,052	$176,735,052
Subtotal Right of Way Costs				$34,242,416	$34,242,416
				Tower Rd R/W Costs	SR 52 R/W Costs
				0	140
				168	192
				100.00%	27.08%
Construction Related Costs				$159,793,956	$148,004,536
Subtotal Right of Way Costs				$191,752,748	$48,101,474
Total Right of Way Costs				$225,995,164	$82,343,891

FDOT LRE

Add Urban 1 Lanes to Outside					Total Construction			Total Project
FDOT	MOT	Mobilization	Subtotal	Contingency	Cost	PE Design 15%	CEI 15%	Cost
$2,379,650	$237,965	$261,762	$2,879,377	$719,844	**$3,599,221**	$539,883	$539,883	$4,678,987

Add Urban Lanes (6 to 8)					Total Construction			Total Project
FDOT	MOT	Mobilization	Subtotal	Contingency	Cost	PE Design 15%	CEI 15%	Cost
$6,249,218	$624,922	$687,414	$7,561,554	$1,890,388	**$9,451,942**	$1,417,791	$1,417,791	$12,287,525

Add Urban Lanes (4 to 8)					Total Construction			Total Project
FDOT	MOT	Mobilization	Subtotal	Contingency	Cost	PE Design 15%	CEI 15%	Cost
$7,141,600	$714,160	$785,576	$8,641,336	$2,160,334	**$10,801,670**	$1,620,251	$1,620,251	$14,042,171

Add Urban Lanes (2 to 4)					Total Construction			Total Project
FDOT	MOT	Mobilization	Subtotal	Contingency	Cost	PE Design 15%	CEI 15%	Cost
$4,786,056	$478,606	$526,466	$5,791,128	$1,447,782	**$7,238,910**	$1,085,836	$1,085,836	$9,410,583

New Constr. (6 Lane Urban) W/O MOT					Total Construction			Total Project
FDOT	MOT	Mobilization	Subtotal	Contingency	Cost	PE Design 15%	CEI 15%	Cost
$8,442,768	$0	$844,277	$9,287,045	$2,321,761	**$11,608,806**	$1,741,321	$1,741,321	$15,091,448

New Construction (6 Lane Urban) W/MOT					Total Construction			Total Project
FDOT	MOT	Mobilization	Subtotal	Contingency	Cost	PE Design 15%	CEI 15%	Cost
$8,442,768	$844,277	$928,704	$10,215,749	$2,553,937	**$12,769,687**	$1,915,453	$1,915,453	$16,600,593

Mid-Level Bridge					Total Construction			Total Project
FDOT	MOT	Mobilization	Subtotal	Contingency	Cost	PE Design 15%	CEI 15%	Cost
$140	$0	$14	$154	$39	**$193**	$29	$29	$250

Overpass Bridge					Total Construction			Total Project
FDOT	MOT	Mobilization	Subtotal	Contingency	Cost	PE Design 15%	CEI 15%	Cost
$155	$0	$16	$171	$43	**$213**	$32	$32	$277

Description (Cost Per Mile)	LRE Const Cost	Mobilization	Subtotal	Contingency	Total Const Cost	Design @15%	CEI @ 15%	Total
New Construction 4 lane Divided Urban	$8,537,780	$853,778	$9,391,558	$2,347,890	$11,739,448	$1,760,917	$1,760,917	$15,261,282
New Construction 4 lane Divided Rural	$6,991,163	$699,116	$7,690,279	$1,922,570	$9,612,849	$1,441,927	$1,441,927	$12,496,704
Multi-use trail 12' wide	$170,591	$17,059	$187,650	$46,913	$234,563	$35,184	$35,184	$304,931
Description (Cost per Sq ft)								
Mid-Level Bridge	$155	$16	$171	$43	$213	$32	$32	$277
Roadway Overpass	$170	$17	$187	$47	$234	$35	$35	$304
Description (Cost per Acre)								
Pond -Stormwater & Flood Compensation	$343,782	$34,378	$378,160	$94,540	$472,700	$70,905	$70,905	$614,510

LRE Const cost figures based on FDOT District 7 Roadway Costs Per Centerline Mile Obtained at the following URL: http://www.dot.state.fl.us/planning/policy/costs/costs-D7.pdf

Adjusted total unit costs are based on the LRE costs with factor for mobilization and 25% unknown contingency. MOT is not included since this project is new alignment without MOT concerns.

Description (Cost Per Mile)	LRE Const Cost	Mobilization	Subtotal	Contingency	Total Const Cost	Design @15%	CEI @ 15%	Total
New Construction 4 lane Divided Urban	$8,537,780	$853,778	$9,391,558	$2,347,890	$11,739,448	$1,760,917	$1,760,917	$15,261,282
New Construction 4 lane Divided Rural	$6,991,163	$699,116	$7,690,279	$1,922,570	$9,612,849	$1,441,927	$1,441,927	$12,496,704
Multi-use trail 12' wide	$170,591	$17,059	$187,650	$46,913	$234,563	$35,184	$35,184	$304,931
Description (Cost per Sq ft)								
Mid-Level Bridge	$155	$16	$171	$43	$213	$32	$32	$277
Roadway Overpass	$170	$17	$187	$47	$234	$35	$35	$304
Description (Cost per Acre)								
Pond -Stormwater & Flood Compensation	$343,782	$34,378	$378,160	$94,540	$472,700	$70,905	$70,905	$614,510

LRE Const cost figures based on FDOT District 7 Roadway Costs Per Centerline Mile Obtained at the following URL: http://www.dot.state.fl.us/planning/policy/costs/costs-D7.pdf

Adjusted total unit costs are based on the LRE costs with factor for mobilization and 25% unknown contingency. MOT is not included since this project is new alignment without MOT concerns.

6a			
urban	8436.75	8436.75	1.60
rural Ph 2	15816	16723.8	3.17
rural to suncoast	20489	20914	3.96
Bridge	425	46074.55	8.73
6b			
urban	9235.52	9235.52	1.75
rural	21571.46	21571.46	4.09
rural to suncoast	16781.92	17206.92	3.26
Bridge	425		9.10
6c			
urban	9235.54	9235.54	1.75
rural	21563.96	21563.96	4.08
rural to suncoast	16385.1	16805.1	3.18
Bridge	420		9.01
6d			
urban	8436.75	8436.75	1.60
rural	21701.41	21701.41	4.11
rural to suncoast	16125	16560	3.14
Bridge	435		8.85
6e			
urban	8436.75	8436.75	1.60
rural	20869.81	20869.81	3.95
rural to suncoast	16125	16560	3.14
Bridge	435		8.69
6f			
urban	8436.75	8436.75	1.60
rural	20864.5	20864.5	3.95
rural to suncoast	16125	16560	3.14
Bridge	435		8.69
6g			
urban	8436.75	8436.75	1.60
rural	20600	20600	3.90
rural to suncoast	16125	16560	3.14
Bridge	435		8.64

Estimated Costs Alternatives 6A through 6G							
Alternatives	**6A**	**6B**	**6C**	**6D**	**6E**	**6F**	**6G**
Construction Costs							
Roadway Costs							
Description	4-Lane Div Urban	4-Lane Div Urban	4-Lane Div Urban	4-Lane Div Urban	4-Lane Div Urban	4-Lane Div Urban	4-Lane Div Urban
Length (Miles)	1.60	1.75	1.75	1.60	1.60	1.60	1.60
Cost/Mile	$8,168,305	$8,168,305	$8,168,305	$8,168,305	$8,168,305	$8,168,305	$8,168,305
Cost (1)	$13,069,288	$14,294,534	$14,294,534	$13,069,288	$13,069,288	$13,069,288	$13,069,288
Description	4-Lane Div Rural	4-Lane Div Rural	4-Lane Div Rural	4-Lane Div Rural	4-Lane Div Rural	4-Lane Div Rural	4-Lane Div Rural
Length (Miles)	7.13	7.35	7.26	7.25	7.09	7.09	7.04
Cost/Mile	$6,475,914	$6,475,914	$6,475,914	$6,475,914	$6,475,914	$6,475,914	$6,475,914
Cost (2)	$46,173,267	$47,597,968	$47,015,136	$46,950,377	$45,914,230	$45,914,230	$45,590,435
Bridge Costs							
Bridge Type	Mid-Level	Mid-Level	Mid-Level	Mid-Level	Mid-Level	Mid-Level	Mid-Level
Bridge Length (ft) (River)	845	1100	1100	845	845	845	845
Bridge Width (ft)	99	99	99	99	99	99	99
Bridge Area (sf)	83655	108900	108900	83655	83655	83655	83655
Cost/sf	$164	$164	$164	$164	$164	$164	$164
Cost (1)	$13,688,049	$17,818,763	$17,818,763	$13,688,049	$13,688,049	$13,688,049	$13,688,049
Bridge Type	Overpass	Overpass	Overpass	Overpass	Overpass	Overpass	Overpass
Bridge Length (ft) (Wildlife)	120	120	120	120	120	120	120
Bridge Width (ft)	99	99	99	99	99	99	99
Bridge Area (sf)	11880	11880	11880	11880	11880	11880	11880
Cost/sf	$181	$181	$181	$181	$181	$181	$181
Cost (2)	$2,152,136	$2,152,136	$2,152,136	$2,152,136	$2,152,136	$2,152,136	$2,152,136
Bridge Type	Overpass	Overpass	Overpass	Overpass	Overpass	Overpass	Overpass
Bridge Length (ft) (See Below)	720	720	720	270	270	260	270
Bridge Width (ft)	87	87	87	87	87	87	87
Bridge Area (sf)	62640	62640	62640	23490	23490	22620	23490
Cost/sf	$181	$181	$181	$181	$181	$181	$181
Cost	$11,347,628	$11,347,628	$11,347,628	$4,255,360	$4,255,360	$4,097,754	$4,255,360
Other Costs							
Multi-Use Trail:	2-Way 12' Wide	2-Way 12' Wide	2-Way 12' Wide	2-Way 12' Wide	2-Way 12' Wide	2-Way 12' Wide	2-Way 12' Wide
Length (Miles)	3.96	3.26	3.18	3.14	3.14	3.14	3.14
Cost/Mile	$170,951	$170,951	$170,951	$170,951	$170,951	$170,951	$170,951
Cost	$676,965	$557,299	$543,623	$536,785	$536,785	$536,785	$536,785
Constructed Related Costs*	$87,107,333	$93,768,327	$93,171,819	$80,651,996	$79,615,849	$79,458,244	$79,292,054
Right of Way Costs**							
R/W to be Acquired (miles) 01		1.04	1.04				
Const. Cost/Mile		$6,534,644	$6,534,644				
R/W to be Acquired (miles) 02	2.17	4.09	4.08	4.11	2.95	3.65	2.90
Const. Cost/Mile	$5,180,731	$5,180,731	$5,180,731	$5,180,731	$5,180,731	$5,180,731	$5,180,731
Roadway Construction Cost	$11,242,187	$21,189,191	$21,137,383	$21,292,805	$15,283,157	$18,909,669	$15,024,121
Bridge Area	62,640	62,640	62,640	23,490	23,490	22,620	23,490
Bridge Cost/SqFt	$145	$145	$145	$145	$145	$145	$145
Bridge Construction Cost	$9,078,102	$9,078,102	$9,078,102	$3,404,288	$3,404,288	$3,278,204	$3,404,288
Total Construction Cost	$20,320,289	$36,801,937	$36,750,129	$24,697,094	$18,687,445	$22,187,872	$18,428,409
Right of Way Cost (120%)	$24,384,346	$44,162,324	$44,100,155	$29,636,512	$22,424,934	$26,625,447	$22,114,091
Total Cost for Alternative	$111,491,679	$137,930,651	$137,271,974	$110,288,508	$102,040,784	$106,083,690	$101,406,144
Rounded	$111,492,000	$137,931,000	$137,272,000	$110,289,000	$102,041,000	$106,084,000	$101,406,000

*Costs include construction costs, mobilization and Contingency. Design and Construction Engineering costs are not included.

**Right of way costs are based on 120% of unfactored D-7 construction costs adjusted to 85% to reflect County cost history. To account for project segments where right of way will be provided to the County at no cost, only the construction costs associated with segments where right of way must be acquired are considered.

Bridge Lengths Segment 02 (RRE Phase II)		Length (Ft)
Suncoast Overpass	Alt's A, B & C	450
Bexley Easement	All Alts	135
CSX RR	Alt A,B,C,D,E & G	135
CSX RR	Alt F	125

Estimated Costs Alternatives 6A through 6G

			Acquired/ Donated	Needed
a	urban	1.60	1.60	0.00
	2	3.17	1.00	2.17
	1	3.96	0.00	3.96
		8.73		
b	urban	1.75	0.71	1.04
	2	4.09	0.00	4.09
	1	3.26	3.26	0.00
		9.10		
c	urban	1.75	0.71	1.04
	2	4.08	0.00	4.08
	1	3.18	3.18	0.00
		9.01		
d	urban	1.60	1.60	0.00
	2	4.11	0.00	4.11
	1	3.14	3.14	0.00
		8.85		
e	urban	1.60	1.60	0.00
	2	3.95	1.00	2.95
	1	3.14	3.14	0.00
		8.69		
f	urban	1.60	1.60	0.00
	2	3.95	0.30	3.65
	1	3.14	3.14	0.00
		8.69		
g	urban	1.60	1.60	0.00
	2	3.90	1.00	2.90
	1	3.14	3.14	0.00