PORT EVERGLADES MASTER PLAN

APPENDIX C
ROI AND NPV CALCULATION TABLES




FINANCIAL ANALYSIS OF:

Cruise Terminal 4 (CT-4) Redevelopment

The financial analysis of CT-4 considers a $13.0 million investment in CT-4 to accommodate 6,000 additional revenue passengers on an existing weekly sailing for 26 weeks plus 7,200 revenue passengers on an additional weekly sailing for 26 weeks. These numbers are based on 100% occupancy, and include that the number of revenue passengers is double the number of passengers (embarking and disembarking passengers). While 90% load factor is an average for the cruise industry, as has been noted, occupancy can exceed 100% in the cruise industry, due to calculation of capacity based on twin berths.

The analysis assumes a 2-year design and construction period, with the additional traffic starting the first year after construction It is assumed that no existing business would be displaced by the project, that is the port would continue to serve the same other business as if the CT-4 upgrade was not built. It should be noted that this does not imply any assumption about whether the other business increases, decreases or remains about the same, only that it is not affected by the CT-4 upgrade.

The revenues are assumed to include a $10 per passenger permanent charge and an additional capital recovery charge for the first five years. The total incremental revenue passengers are approximately 343,200 revenue passengers. The capital recovery charge is assumed to be sufficient to recover the investment with 8.5% interest over the first 5 years of operation. The number of passengers to which the capital recovery charge would apply was not determined. Thus, the capital recovery charge per passenger was not calculated. The resulting revenues would be approximately $6.9 million per year for the first 5 years, declining in year 6 to about $3.4 million, after conclusion of the capital recovery charge.

Operating costs are assumed to be 50% of the regular $10 per passenger charge. Based on this assumption, the resulting incremental operating costs would average $1.7 million per year.

The resulting net revenues would be about $5.2 million per year for the first 5 years, declining to $1.7 million per year in year 6 when the capital recovery charge was ended.

Based on these assumptions, the CT-4 project would provide a Net Present Value (NPV) of $14.9 million, the amount by which the future net revenues discounted at 8.50% per year would exceed the initial investment of $13.0 million. The project would provide a Return on Investment (ROI) (or Internal Rate of Return) of 27.9% per year.

TABLE 1: NET PRESENT VALUE AND RETURN ON INVESTMENT EXAMPLE CALCULATION: CRUISE TERMINAL 4 (CT-04)

PRELIMINARY DRAFT

Year																						
Ref to start up = 1	-1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Ref to zero at start of constr	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Existing sailing - 3,000 additional passengers for 26 weeks																						
Sailings per week			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Weeks			26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
Revenue passengers per sailing			6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000
Revenue passengers			156,000	156,000	156,000	156,000	156,000	156,000	156,000	156,000	156,000	156,000	156,000	156,000	156,000	156,000	156,000	156,000	156,000	156,000	156,000	156,000
Regular revenue rate			$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00
Regular revenue amount			$ 1,560,000	$ 1,560,000	$ 1,560,000	$ 1,560,000	$ 1,560,000	$ 1,560,000	$ 1,560,000	$ 1,560,000	$ 1,560,000	$ 1,560,000	$ 1,560,000	$ 1,560,000	$ 1,560,000	$ 1,560,000	$ 1,560,000	$ 1,560,000	$ 1,560,000	$ 1,560,000	$ 1,560,000	$ 1,560,000
Additional sailing - 3,600 additional passengers for 26 weeks																						
Sailings per week			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Weeks			26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
Revenue passengers per sailing			7,200	7,200	7,200	7,200	7,200	7,200	7,200	7,200	7,200	7,200	7,200	7,200	7,200	7,200	7,200	7,200	7,200	7,200	7,200	7,200
Revenue passengers			187,200	187,200	187,200	187,200	187,200	187,200	187,200	187,200	187,200	187,200	187,200	187,200	187,200	187,200	187,200	187,200	187,200	187,200	187,200	187,200
Regular revenue rate			$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00
Regular revenue amount			$ 1,872,000	$ 1,872,000	$ 1,872,000	$ 1,872,000	$ 1,872,000	$ 1,872,000	$ 1,872,000	$ 1,872,000	$ 1,872,000	$ 1,872,000	$ 1,872,000	$ 1,872,000	$ 1,872,000	$ 1,872,000	$ 1,872,000	$ 1,872,000	$ 1,872,000	$ 1,872,000	$ 1,872,000	$ 1,872,000
Operating cost factor as percent of regular rate			50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
Total CRF amount			$3,439,160.35	3,439,160	3,439,160	3,439,160	3,439,160	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Regular revenue amount for CT-04			$ 3,432,000	$ 3,432,000	$ 3,432,000	$ 3,432,000	$ 3,432,000	$ 3,432,000	$ 3,432,000	$ 3,432,000	$ 3,432,000	$ 3,432,000	$ 3,432,000	$ 3,432,000	$ 3,432,000	$ 3,432,000	$ 3,432,000	$ 3,432,000	$ 3,432,000	$ 3,432,000	$ 3,432,000	$ 3,432,000
Total revenue			$ 6,871,160	$ 6,871,160	$ 6,871,160	$ 6,871,160	$ 6,871,160	$ 3,432,000	$ 3,432,000	$ 3,432,000	$ 3,432,000	$ 3,432,000	$ 3,432,000	$ 3,432,000	$ 3,432,000	$ 3,432,000	$ 3,432,000	$ 3,432,000	$ 3,432,000	$ 3,432,000	$ 3,432,000	$ 3,432,000
Operating cost			$ 1,716,000	$ 1,716,000	$ 1,716,000	$ 1,716,000	$ 1,716,000	$ 1,716,000	$ 1,716,000	$ 1,716,000	$ 1,718,000	$ 1,716,000	$ 1,716,000	$ 1,716,000	$ 1,716,000	$ 1,716,000	$ 1,716,000	$ 1,716,000	$ 1,716,000	$ 1,716,000	$ 1,716,000	$ 1,716,000

Year																						
Ref to start up = 1	-1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Ref to zero at start of constr	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Investment Cost	(6,500,000)	(6,500,000)																				
Revenues																						
Total CRF amount			3,439,160	3,439,160	3,439,160	3,439,160	3,439,160	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Regular revenue amount for CT-04			3,432,000	3,432,000	3,432,000	3,432,000	3,432,000	3,432,000	3,432,000	3,432,000	3,432,000	3,432,000	3,432,000	3,432,000	3,432,000	3,432,000	3,432,000	3,432,000	3,432,000	3,432,000	3,432,000	3,432,000
Total revenue			6,871,160	6,871,160	6,871,160	6,871,160	6,871,160	3,432,000	3,432,000	3,432,000	3,432,000	3,432,000	3,432,000	3,432,000	3,432,000	3,432,000	3,432,000	3,432,000	3,432,000	3,432,000	3,432,000	3,432,000
Operating cost			1,716,000	1,716,000	1,716,000	1,716,000	1,716,000	1,716,000	1,716,000	1,716,000	1,716,000	1,716,000	1,716,000	1,716,000	1,716,000	1,716,000	1,716,000	1,716,000	1,716,000	1,716,000	1,716,000	1,716,000
Net Operating Revenues			5,155,160	5,155,160	5,155,160	5,155,160	5,155,160	1,716,000	1,716,000	1,716,000	1,716,000	1,716,000	1,716,000	1,716,000	1,716,000	1,716,000	1,716,000	1,716,000	1,716,000	1,716,000	1,716,000	1,716,000
Total	(6,500,000)	(6,500,000)	5,155,160	5,155,160	5,155,160	5,155,160	5,155,160	1,716,000	1,716,000	1,716,000	1,716,000	1,716,000	1,716,000	1,716,000	1,716,000	1,716,000	1,716,000	1,716,000	1,716,000	1,716,000	1,716,000	1,716,000
Discount factor	8.50%	1	0.9217	0.8495	0.7829	0.7216	0.6650	0.6129	0.5649	0.5207	0.4799	0.4423	0.4076	0.3757	0.3463	0.3191	0.2941	0.2711	0.2499	0.2303	0.2122	0.1956	0.1803
PVs Disc rate	8.50%	(6,500,000)	(5,990,783)	4,379,078	4,036,017	3,719,831	3,428,416	3,159,830	969,414	893,469	823,474	756,962	699,504	644,704	594,197	547,647	504,744	465,202	428,758	395,168	364,210	335,678	309,380
NPV		$ 14,966,899																				
ROI		27.94%																				
PVs of Investment and CRF Only		(6,500,000)	(5,990,783)	2,921,413	2,692,546	2,481,610	2,287,198	2,108,016														
NPV of Inv and CRF		-																				

Notes:

1. The capital recovery factor (CRF) charge would be on all line passengers, not only the new ships for 5 years. (subject to negotiation.)
This is incremental revenue associated with the project, even though it is to be on all passengers, not only new passengers.
The CRF charge is approximately sufficient to recover the investment in 5 years with 8.50% interest.
2. The $10 charge would be permanent with 50% operating cost factor, but only the part on the additional traffic indicated is incremental cost associated with CT-04
3. The project revenues include 3,000 additional passengers on 1 existing sailing per week for 26 weeks and 3,600 passengers on 1 additional sailing for 26 weeks; revenue passengers are double those numbers..
4. Industry wide load factor has often ranged around 90% for the cruise industry but no figures were published for PEV.
In addition, load factor for cruise ships can exceed 100% due to the way it is calculated. usually 2 passengers per cabin (twin berth) is considered 100%.
5. Operating cost factor of 50% applied to the regular $10 charge but not to the additional capital recovery charge.
6. The analyses assumes no business displaced by the project; all other revenues will continue to accrue the same as if the project were not built.

Cruise Terminal 19 (CT-19) Expansion

The financial analysis of CT-19 considers a $6.7 million investment in CT-19 to accommodate 1,600 additional revenue passengers on each of 2 existing weekly sailings for 26 weeks. These numbers are based on 100% occupancy, and include that the number of revenue passengers is double the number of passengers (embarking and disembarking passengers).

The analysis assumes a 2-year design and construction period, with the additional traffic starting the first year after construction It is assumed that no existing business would be displaced by the project, that is the port would continue to serve the same other business as if the CT-19 upgrade was not built.

The revenues are assumed to include a $10 per passenger permanent charge and an additional capital recovery charge for the first five years. The total incremental revenue passengers are approximately 83,200 revenue passengers. The capital recovery charge is assumed to be sufficient to recover the investment with 8.5% interest over the first 5 years of operation. The resulting revenues would be approximately $2.6 million per year for the first 5 years, declining in year 6 to about $832,000, after conclusion of the capital recovery charge.

Operating costs are assumed to be 50% of the regular $10 per passenger charge. Based on this assumption, the resulting incremental operating costs would average $416,000 per year.

The resulting net revenues would be about $2.2 million per year for the first 5 years, declining to $416,000 per year in year 6 when the capital recovery charge was ended.

Based on these assumptions, the CT-19 project would provide a Net Present Value (NPV) of $3.6 million, the amount by which the future net revenues discounted at 8.50% per year would exceed the initial investment of $6.7 million. The project would provide a Return on Investment (ROI) (or Internal Rate of Return) of 19.8% per year.

TABLE 2: NET PRESENT VALUE AND RETURN ON INVESTMENT EXAMPLE CALCULATION: CRUISE TERMINAL 19 (CT-19)

PRELIMINARY DRAFT

Year																							
Ref to start up = 1	-1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Ref to zero at start of constr	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	
Existing sailing - 800 additional passengers for 26 weeks																							
Sailings per week			2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
Weeks			26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	
Revenue passengers per sailing			1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	
Revenue passengers			83,200	83,200	83,200	83,200	83,200	83,200	83,200	83,200	83,200	83,200	83,200	83,200	83,200	83,200	83,200	83,200	83,200	83,200	83,200	83,200	
Regular revenue rate		$	10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00	
Regular revenue amount		$	832,000	$ 832,000	$ 832,000	$ 832,000	$ 832,000	$ 832,000	$ 832,000	$ 832,000	$ 832,000	$ 832,000	$ 832,000	$ 832,000	$ 832,000	$ 832,000	$ 832,000	$ 832,000	$ 832,000	$ 832,000	$ 832,000	$ 832,000	
Additional sailing - No																							
Sailings per week			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Weeks			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Revenue passengers per sailing			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Revenue passengers			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Regular revenue rate			$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Regular revenue amount		$	-	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Operating cost factor as percent of regular rate			50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	
Total CRF amount			$1,772,490	1,772,490	1,772,490	1,772,490	1,772,490	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Regular revenue amount for CT-19		$	832,000	$ 832,000	$ 832,000	$ 832,000	$ 832,000	$ 832,000	$ 832,000	$ 832,000	$ 832,000	$ 832,000	$ 832,000	$ 832,000	$ 832,000	$ 832,000	$ 832,000	$ 832,000	$ 832,000	$ 832,000	$ 832,000	$ 832,000	
Total revenue		$	2,604,490	$ 2,604,490	$ 2,604,490	$ 2,604,490	$ 2,604,490	$ 832,000	$ 832,000	$ 832,000	$ 832,000	$ 832,000	$ 832,000	$ 832,000	$ 832,000	$ 832,000	$ 832,000	$ 832,000	$ 832,000	$ 832,000	$ 832,000	$ 832,000	
Operating cost		$	416,000	$ 416,000	$ 416,000	$ 416,000	$ 416,000	$ 416,000	$ 416,000	$ 416,000	$ 416,000	$ 416,000	$ 416,000	$ 416,000	$ 416,000	$ 416,000	$ 416,000	$ 416,000	$ 416,000	$ 416,000	$ 416,000	$ 416,000	

Year																							
Ref to start up = 1	-1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Ref to zero at start of constr	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	
Investment Cost	(3,350,000)	(3,350,000)																					
Revenues																							
Total CRF amount			1,772,490	1,772,490	1,772,490	1,772,490	1,772,490	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Regular revenue amount for CT-19			832,000	832,000	832,000	832,000	832,000	832,000	832,000	832,000	832,000	832,000	832,000	832,000	832,000	832,000	832,000	832,000	832,000	832,000	832,000	832,000	
Total revenue			2,604,490	2,604,490	2,604,490	2,604,490	2,604,490	832,000	832,000	832,000	832,000	832,000	832,000	832,000	832,000	832,000	832,000	832,000	832,000	832,000	832,000	832,000	
Operating cost			416,000	416,000	416,000	416,000	416,000	416,000	416,000	416,000	416,000	416,000	416,000	416,000	416,000	416,000	416,000	416,000	416,000	416,000	416,000	416,000	
Net Operating Revenues			2,188,490	2,188,490	2,188,490	2,188,490	2,188,490	416,000	416,000	416,000	416,000	416,000	416,000	416,000	416,000	416,000	416,000	416,000	416,000	416,000	416,000	416,000	
Total	(3,350,000)	(3,350,000)	2,188,490	2,188,490	2,188,490	2,188,490	2,188,490	416,000	416,000	416,000	416,000	416,000	416,000	416,000	416,000	416,000	416,000	416,000	416,000	416,000	416,000	416,000	
Discount factor 8.50%	1	0.9217	0.8495	0.7829	0.7216	0.6650	0.6129	0.5649	0.5207	0.4799	0.4423	0.4076	0.3757	0.3483	0.3191	0.2941	0.2711	0.2499	0.2303	0.2122	0.1956	0.1803	
PVs Disc rate 8.50%	(3,350,000)	(3,087,558)	1,859,025	1,713,387	1,579,158	1,455,445	1,341,424	235,009	216,598	199,630	183,991	169,577	156,292	144,048	132,763	122,362	112,776	103,941	95,798	88,293	81,376	75,001	
NPV	$ 3,628,339																						
ROI	19.82%																						
PVs of Investment and CRF Only	(3,350,000)	(3,087,558)	1,505,651	1,387,697	1,278,983	1,178,787	1,086,439																
NPV of Inv and CRF	0																						

Notes:

1. The capital recovery factor (CRF) charge would be on all line passengers, not only the new ships for 5 years. (subject to negotiation.)
This is incremental revenue associated with the project, even though it is to be on all passengers, not only new passengers.
The CRF charge is approximately sufficient to recover the investment in 5 years with 8.50% interest.
2. The $10 charge would be permanent with 50% operating cost factor, but only the part on the additional traffic indicated is incremental cost associated with CT-19.
3. The project revenues include 800 additional passengers on each of 2 existing sailings per week for 26 weeks; revenue passengers are double these numbers..
4. Industry wide load factor has often ranged around 90% for the cruise industry but no figures were published for PEV.
In addition, load factor for cruise ships can exceed 100% due to the way it is calculated, usually 2 passengers per cabin (twin berth) is considered 100%.
5. Operating cost factor of 50% applied to the regular $10 charge but not to the capital recovery charge..
6. The analysis assumes no business displaced by the project; all other revenues will continue to accrue the same as if the project were not built.

Cruise Terminal 21 / 22 (CT-21 / 22) Expansion

The financial analysis of CT-21 / 22 considers a $22.0 million investment in CT-21 / 22 to accommodate 2,600 additional revenue passengers on each of two existing weekly sailings for 26 weeks. These numbers are based on 100% occupancy, and include that the number of revenue passengers is double the number of passengers (embarking and disembarking passengers).

The analysis assumes a 2-year design and construction period, with the additional traffic starting the first year after construction It is assumed that no existing business would be displaced by the project, that is the port would continue to serve the same other business as if the CT-21 / 22 upgrade was not built.

The revenues are assumed to include a $10 per passenger permanent charge and an additional capital recovery charge for the first five years. The total incremental revenue passengers are approximately 135,200 revenue passengers. The capital recovery charge is assumed to be sufficient to recover the investment with 8.5% interest over the first 5 years of operation. The resulting revenues would be approximately $7.2 million per year for the first 5 years, declining in year 6 to about $1.4 million, after conclusion of the capital recovery charge.

Operating costs are assumed to be 50% of the regular $10 per passenger charge. Based on this assumption, the resulting incremental operating costs would average $676,000 per year.

The resulting net revenues would be about $6.5 million per year for the first 5 years, declining to $676,000 per year in year 6 when the capital recovery charge was ended.

Based on these assumptions, the CT-21/22 project would provide a Net Present Value (NPV) of $5.9 million, the amount by which the future net revenues discounted at 8.50% per year would exceed the initial investment of $22.0 million. The project would provide a Return on Investment (ROI) (or Internal Rate of Return) of 15.1% per year.

TABLE 3: NET PRESENT VALUE AND RETURN ON INVESTMENT EXAMPLE CALCULATION: CRUISE TERMINAL 21 / 22 (CT-21 / 22)

PRELIMINARY DRAFT

Year																							
Ref to start up = 1		-1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Ref to zero at start of constr		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Existing sailing - 800 additional passengers for 26 weeks																							
Sailings per week				2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Weeks				26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
Revenue passengers per sailing				2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,600
Revenue passengers				135,200	135,200	135,200	135,200	135,200	135,200	135,200	135,200	135,200	135,200	135,200	135,200	135,200	135,200	135,200	135,200	135,200	135,200	135,200	135,200
Regular revenue rate				$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00
Regular revenue amount				$ 1,352,000	$ 1,352,000	$ 1,352,000	$ 1,352,000	$ 1,352,000	$ 1,352,000	$ 1,352,000	$ 1,352,000	$ 1,352,000	$ 1,352,000	$ 1,352,000	$ 1,352,000	$ 1,352,000	$ 1,352,000	$ 1,352,000	$ 1,352,000	$ 1,352,000	$ 1,352,000	$ 1,352,000	$ 1,352,000
Additional sailing - No																							
Sailings per week				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weeks				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Revenue passengers per sailing				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Revenue passengers				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Regular revenue rate				$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Regular revenue amount				$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Operating cost factor as percent of regular rate				50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
Total CRF amount				$5,820,118	5,820,118	5,820,118	5,820,118	5,820,118	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Regular revenue amount for CT-21/22				$ 1,352,000	$ 1,352,000	$ 1,352,000	$ 1,352,000	$ 1,352,000	$ 1,352,000	$ 1,352,000	$ 1,352,000	$ 1,352,000	$ 1,352,000	$ 1,352,000	$ 1,352,000	$ 1,352,000	$ 1,352,000	$ 1,352,000	$ 1,352,000	$ 1,352,000	$ 1,352,000	$ 1,352,000	$ 1,352,000
Total revenue				$ 7,172,118	$ 7,172,118	$ 7,172,118	$ 7,172,118	$ 7,172,118	$ 1,352,000	$ 1,352,000	$ 1,352,000	$ 1,352,000	$ 1,352,000	$ 1,352,000	$ 1,352,000	$ 1,352,000	$ 1,352,000	$ 1,352,000	$ 1,352,000	$ 1,352,000	$ 1,352,000	$ 1,352,000	$ 1,352,000
Operating cost				$ 676,000	$ 676,000	$ 676,000	$ 676,000	$ 676,000	$ 676,000	$ 676,000	$ 676,000	$ 676,000	$ 676,000	$ 676,000	$ 676,000	$ 676,000	$ 676,000	$ 676,000	$ 676,000	$ 676,000	$ 676,000	$ 676,000	$ 676,000

Year																							
Ref to start up = 1		-1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Ref to zero at start of constr		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Investment Cost		(11,000,000)	(11,000,000)																				
Revenues																							
Total CRF amount				5,820,118	5,820,116	5,820,118	5,820,118	5,820,118	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Regular revenue amount for CT-21/22				1,352,000	1,352,000	1,352,000	1,352,000	1,352,000	1,352,000	1,352,000	1,352,000	1,352,000	1,352,000	1,352,000	1,352,000	1,352,000	1,352,000	1,352,000	1,352,000	1,352,000	1,352,000	1,352,000	1,352,000
Total revenue				7,172,118	7,172,118	7,172,118	7,172,118	7,172,118	1,352,000	1,352,000	1,352,000	1,352,000	1,352,000	1,352,000	1,352,000	1,352,000	1,352,000	1,352,000	1,352,000	1,352,000	1,352,000	1,352,000	1,352,000
Operating cost				676,000	676,000	676,000	676,000	676,000	676,000	676,000	676,000	676,000	676,000	676,000	676,000	676,000	676,000	676,000	676,000	676,000	676,000	676,000	676,000
Net Operating Revenues				6,496,118	6,496,116	6,496,118	6,496,118	6,496,118	676,000	676,000	676,000	676,000	676,000	676,000	676,000	676,000	676,000	676,000	676,000	676,000	676,000	676,000	678,000
Total		(11,000,000)	(11,000,000)	6,496,118	6,496,118	6,496,118	6,496,118	6,496,116	676,000	676,000	676,000	676,000	676,000	676,000	676,000	676,000	676,000	676,000	676,000	676,000	676,000	676,000	676,000
Discount factor	8.50%	1	0.9217	0.8495	0.7829	0.7216	0.6650	0.6129	0.5649	0.5207	0.4799	0.4423	0.4076	0.3757	0.3463	0.3191	0.2941	0.2711	0.2499	0.2303	0.2122	0.1956	0.1803
PVs Disc rate	6.50%	(11,000,000)	(10,138,249)	5,518,161	5,085,863	4,667,431	4,320,213	3,981,763	381,890	351,973	324,399	298,985	275,562	253,974	234,078	215,740	198,839	183,261	168,904	155,672	143,477	132,237	121,877
NPV		$ 5,896,051																					
ROI		15.11%																					
PVs of Investment and CRF Only		(11,000,000)	(10,138,249)	4,943,930	4,556,617	4,199,647	3,870,643	3,567,412															
NPV of Inv and CRF		0																					

Notes:

1. The capital recovery factor (CRF) charge would be on all line passengers, not only the new ships for 5 years. (subject to negotiation.)
This is incremental revenue associated with the project, even though it is to be on all passengers, not only new passengers.
The CRF charge is approximately sufficient to recover the investment in 5 years with 8.50% interest.
2. The $10 charge would be permanent with 50% operating cost factor, but only the part on the additional traffic indicated is incremental cost associated with CT- 21 / 22.
3. The project revenues include 1,300 additional passengers on each of 2 existing sailings per week for 26 weeks; revenue passengers are double these numbers.
4. Industry wide load factor has often ranged around 90% for the cruise industry but no figures were published for PEV.
In addition, load factor for cruise ships can exceed 100% due to the way it is calculated, usually 2 passengers per cabin (twin berth) is considered 100%
5. Operating cost factor of 50% applied to the regular $10 charge but not to the capital recovery charge..
6. The analysis assumes no business displaced by the project; all other revenues will continue to accrue the same as if the project were not built.

TABLE 1: NET PRESENT VALUE AND RETURN ON INVESTMENT EXAMPLE CALCULATION: PROJECT GENESIS

PRELIMINARY DRAFT

Year																							
Ref to start up = 1		-1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Ref to zero at start of constr		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Navigator																							
Sailings per week				1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Revenue passengers per sailing				6,228	6,228																		
Revenue passengers				323,856	323,856																		
CRF rate				5	5																		
CRF amount				$ 1,619,280	$ 1,619,280																		
Regular revenue rate				$ 10.00	$ 10.00																		
Regular revenue amount				$ 3,238,560	$ 3,238,560																		
Genesis																							
Sailings per week				0	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Revenue passengers per sailing				11,232	11,232	11,232	11,232	11,232	11,232	11,232	11,232	11,232	11,232	11,232	11,232	11,232	11,232	11,232	11,232	11,232	11,232	11,232	11,232
Revenue passengers				-	584,064	1,168,128	1,168,128	1,168,128	1,168,128	1,168,128	1,168,128	1,168,128	1,168,128	1,168,128	1,168,128	1,168,128	1,168,128	1,168,128	1,168,128	1,168,128	1,168,128	1,168,128	1,168,128	1,168,128
CRF rate				$5.00	$5.00	$5.00	$5.00	$5.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
CRF amount				$ -	$ 2,920,320	$ 5,840,640	$ 5,840,640	$ 5,840,640	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Regular revenue rate				$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00	$10.00
Regular revenue amount				$ -	$ 5,840,640	$ 11,681,280	$ 11,681,280	$ 11,681,280	$ 11,681,280	$ 11,681,280	$ 11,681,280	$ 11,681,280	$ 11,681,280	$ 11,681,280	$ 11,681,280	$ 11,681,280	$ 11,681,280	$ 11,681,280	$ 11,681,280	$ 11,681,280	$ 11,681,280	$ 11,681,280	$ 11,681,280	$ 11,681,280
Other revenue passengers subject to CRF				1,576,144	992,080	731,872	731,872	731,872	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRF rate				$5.00	$5.00	$5.00	$5.00	$5.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
CRF amount				$ 7,880,720	$ 4,960,400	$ 3,659,360	$ 3,659,360	$ 3,659,360	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Operating cost factor as percent of regular rate				50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
Total CRF amount				$ 9,500,000	$ 9,500,000	$ 9,500,000	$ 9,500,000	$ 9,500,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Regular revenue amount for CT-18				$ 3,238,560	$ 9,079,200	$ 11,681,280	$ 11,681,280	$ 11,681,280	$ 11,681,280	$ 11,681,280	$ 11,681,280	$ 11,681,280	$ 11,681,280	$ 11,681,280	$ 11,681,280	$ 11,681,280	$ 11,681,280	$ 11,681,280	$ 11,681,280	$ 11,681,280	$ 11,681,280	$ 11,681,280	$ 11,681,280	$ 11,681,280	$ 11,681,280
Total revenue				$ 12,738,560	$ 18,579,200	$ 21,181,280	$ 21,181,280	$ 21,181,280	$ 11,681,280	$ 11,681,280	$ 11,681,280	$ 11,681,280	$ 11,681,280	$ 11,681,280	$ 11,681,280	$ 11,681,280	$ 11,681,280	$ 11,681,280	$ 11,681,280	$ 11,681,280	$ 11,681,280	$ 11,681,280	$ 11,681,280	$ 11,681,280	$ 11,681,280
Operating cost				$ 1,619,280	$ 4,539,600	$ 5,840,640	$ 5,840,640	$ 5,840,640	$ 5,840,640	$ 5,840,640	$ 5,840,640	$ 5,840,640	$ 5,840,640	$ 5,840,640	$ 5,840,640	$ 5,840,640	$ 5,840,640	$ 5,840,640	$ 5,840,640	$ 5,840,640	$ 5,840,640	$ 5,840,640	$ 5,840,640	$ 5,840,640	$ 5,840,640

Year																							
Ref to start up = 1		-1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Ref to zero at start of constr		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Investment Cost		(18,692,500)	(18,692,500)																				
Revenues																							
Total CRF amount				9,500,000	9,500,000	9,500,000	9,500,000	9,500,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Regular revenue amount for CT-18				3,238,560	9,079,200	11,681,280	11,681,280	11,681,280	11,681,280	11,681,280	11,681,280	11,681,280	11,681,280	11,681,280	11,681,280	11,681,280	11,681,280	11,681,280	11,681,280	11,681,280	11,681,280	11,681,280	11,681,280	11,681,280
Total revenue				12,738,560	18,579,200	21,181,280	21,181,280	21,181,280	11,681,280	11,681,280	11,681,280	11,681,280	11,681,280	11,681,280	11,681,280	11,681,280	11,681,280	11,681,280	11,681,280	11,681,280	11,681,280	11,681,280	11,681,280	11,681,280
Operating cost				1,619,280	4,539,600	5,840,640	5,840,640	5,840,640	5,840,640	5,840,640	5,840,640	5,840,640	5,840,640	5,840,640	5,840,640	5,840,640	5,840,640	5,840,640	5,840,640	5,840,640	5,840,640	5,840,640	5,840,640	5,840,640
Net Operating Revenues				11,119,280	14,039,600	15,340,640	15,340,640	15,340,640	5,840,640	5,840,640	5,840,640	5,840,640	5,840,640	5,840,640	5,840,640	5,840,640	5,840,640	5,840,640	5,840,640	5,840,640	5,840,640	5,840,640	5,840,640	5,840,640
Total		(18,692,500)	(18,692,500)	11,119,280	14,039,600	15,340,640	15,340,640	15,340,640	5,840,640	5,840,640	5,840,640	5,840,640	5,840,640	5,840,640	5,840,640	5,840,640	5,840,640	5,840,640	5,840,640	5,840,640	5,840,640	5,840,640	5,840,640	5,840,640
Discount factor	8.50%	1	0.9217	0.8495	0.7829	0.7216	0.6650	0.6129	0.5649	0.5207	0.4799	0.4423	0.4076	0.3757	0.3463	0.3191	0.2941	0.2711	0.2499	0.2303	0.2122	0.1956	0.1803
PVs Disc rate	8.50%	(18,692,500)	(17,228,111)	9,445,331	10,991,717	11,069,411	10,202,222	9,402,970	3,299,531	3,041,043	2,802,804	2,583,230	2,380,857	2,194,338	2,022,432	1,863,992	1,717,965	1,583,378	1,459,335	1,345,009	1,239,640	1,142,525	1,053,018
NPV		$ 44,920,138																					
ROI		26.59%																					
PVs of Investment and CRF Only		(18,692,500)	(17,228,111)	8,069,825	7,437,627	6,854,956	6,317,932	5,822,978															
NPV of Inv and CRF		(1,417,293)																					

Notes:

1. The $5 capital recovery factor (CRF) charge would be on all line passengers, not only the new ships, about 1.9 million for 5 years. (subject to negotiation.)
This is incremental revenue associated with Genesis, even though it is to be on all RCI passengers, not only Genesis.
The CRF charge is approximately sufficient to recover the investment in 5 years with 8.50% interest.
2. The $10 charge would be permanent with 50% operating cost factor, but only the part on Navigator and Genesis is incremental cost associated with CT-18.
3. The project revenues include 1 Navigator in the first year, 1 Navigator + 1 Genesis in the second year and 2 Genesis in the third year and thereafter, as per discussion with Port Everglades.
4. In terms of incremental business, the existing business would necessarily be displaced by the new tonnage, which would support considering the entire revenue passenger traffic from the new ships as incremental.
5. Industry wide load factor has often ranged around 90% for the cruise industry but no figures were published for PEV or RCI.
In addition, load factor for cruise ships can exceed 100% due to the way it is calculated, usually 2 passengers per cabin (twin berth) is considered 100%. Information provided by Port Everglades indicated load factors for RCI have been around 100% in PEV
6. Operating cost factor of 50% applied to the regular $10 charge but not to the additional capital recovery charge of $5.
7. The analysis assumes no business displaced by the Genesis project; all other revenues will continue to accrue the same as if the project were not built.

Ship characteristics

Genesis

Ship passenger capacity	5,616
Revenue passengers per ship	11,232
Number of sailings/year/ship	52
Number of ships	2
Annual revenue passengers	1,168,128
CRF per passenger	$5.00
Revenue per passenger	$10.00
Operating expenses	$5.00
Construction cost of project	$37.4 M

Navigator

Ship passenger capacity	3,114
Revenue passengers per ship	6,228
Number of sailings/year/ship	52
Number of ships	1
Annual revenue passengers	323,856
CRF per passenger	$ 5.00
Revenue per passenger	$ 10.00
Operating expenses	$ 5.00