

Rental Residential Development

Case Study and Exercise

Townhouses for Sale

Construction Sources & Uses

			Total Project	Per Unit Average					
			47 Units	Full Cost	Subsidized				
Land Costs			\$ 452,000	\$ 9,617	\$ 9,617	NFP loan repaid from sales revenues			
Land Acquisition Loan Interest			\$ 91,500	\$ 1,947	\$ 1,947	Deferred costs recovered from sales revenues			
Land Acquisition Closing Costs			\$ 4,500	\$ 96	\$ 96	Equity recovered from sales revenues			
Demolition			\$ 50,000	\$ 1,064	\$ -	Grant			
Accounting			\$ 4,000	\$ 85	\$ 85	Bank loan (repaid)			
Legal			\$ 30,000	\$ 638	\$ 638	Bank loan (repaid)			
Taxes			\$ 3,000	\$ 64	\$ 64	Bank loan (repaid)			
Insurance			\$ 1,000	\$ 21	\$ 21	Bank loan (repaid)			
Reimbursables			\$ 1,000	\$ 21	\$ 21	Bank loan (repaid)			
Developer Fee			\$ 100,000	\$ 2,128	\$ 2,128	Bank loan (repaid)			
Rezoning			\$ 1,000	\$ 21	\$ 21	Bank loan (repaid)			
Permits			\$ 2,500	\$ 53	\$ 53	Bank loan (repaid)			
Fannie Mae			\$ 5,000	\$ 106	\$ 106	Bank loan (repaid)			
Transfer Fees			\$ 11,000	\$ 234	\$ 234	Deferred costs recovered from sales revenues			
Marketing			\$ 20,000	\$ 426	\$ 426	Bank loan (repaid)			
Construction Loan Interest			\$ 237,000	\$ 5,043	\$ 5,043	Bank loan (repaid)			
Construction Loan Fee			\$ 42,500	\$ 904	\$ 904	Bank loan (repaid)			
Inspections			\$ 4,200	\$ 89	\$ 89	Bank loan (repaid)			
Appraisals			\$ 3,000	\$ 64	\$ 64	Bank loan (repaid)			
Survey			\$ 8,500	\$ 181	\$ 181	Bank loan (repaid)			
Title			\$ 3,300	\$ 70	\$ 70	Bank loan (repaid)			
Environmental Audit			\$ 2,000	\$ 43	\$ -	Grant			
Subsurface Engg.			\$ 2,000	\$ 43	\$ 43	Bank loan (repaid)			
Site Engg.			\$ 20,000	\$ 426	\$ 426	Bank loan (repaid)			
Architecture			\$ 60,000	\$ 1,277	\$ 1,277	Bank loan (repaid)			
Bldg. Engg.			\$ 15,000	\$ 319	\$ 319	Bank loan (repaid)			
Reproductions			\$ 2,500	\$ 53	\$ 53	Bank loan (repaid)			
Construction (@\$65/SF)			\$ 3,390,400	\$ 72,136	\$ 72,136	Bank loan (repaid)			
Contingency			\$ 300,000	\$ 6,383	\$ 6,383	Bank loan (repaid)			
Road Extension			\$ 436,000	\$ 9,277	\$ -	Grant/reimbursement			
Warranty			\$ 14,100	\$ 300	\$ 300	Deferred costs recovered from sales revenues			
	Totals		\$ 5,317,000	\$ 113,128	\$ 102,745		980 SF Unit \$ 85,117	1,080 SF Unit \$ 95,117	1,180 SF Unit \$ 105,117
	Closing Costs 3%		\$ 159,510	\$ 3,394	\$ 3,082		\$ 2,554	\$ 2,985	\$ 3,285
	R/E Commissions		\$ 206,000	\$ 4,383	\$ 3,981		3,870.40	4,265.34	4,660.28
	Total Costs to Buyer		3.87%	\$ 120,904	\$ 109,808		\$ 91,541	\$ 102,367	\$ 113,062

Townhouses for Sale

Affordability Analysis

[illegible]

Land Development Costs

	# of acres	\$/acre	Total land costs
Land	13.494	\$ 130,680	\$1,763,396

	% of land costs	Total soft costs	\$/acre
Soft Costs Details			
Legal Costs	4.0%	\$ 70,536	\$ 5,227
Insurance	5.0%	\$ 88,170	\$ 6,534
Accounting	1.0%	\$ 17,634	\$ 1,307
Environmental Report	0.1%	\$ 2,500	\$ 185
Engineering Fees	3.0%	\$ 52,902	\$ 3,920
Survey Fees	3.0%	\$ 52,902	\$ 3,920
Permits & Fees	4.0%	\$ 70,536	\$ 5,227
Bonds	1.0%	\$ 17,634	\$ 1,307
Contingency	1.1%	\$ 18,641	\$ 1,381
Total Soft Costs	22.2%	\$ 391,454	\$ 29,009

	Total hard costs	\$/acre
Hard Costs Details		
Mobilization	\$ 2,699	\$ 200
Erosion control	\$ 33,735	\$ 2,500
Grading	\$ 215,904	\$ 16,000
Storm water	\$ 175,422	\$ 13,000
Sanitary sewer	\$ 107,952	\$ 8,000
Curb	\$ -	\$ -
Water system	\$ -	\$ -
Street Paving	\$ -	\$ -
Sidewalks	\$ -	\$ -
Landscaping	\$ 539,760	\$ 40,000
Miscellaneous (5% of total other hard costs)	\$ 53,774	\$ 3,985
Total Hard Costs	\$ 1,129,245	\$ 83,685
Total Hard & Soft Costs (LAND DEVELOPMENT)	\$ 1,520,699	\$ 112,694

	Linear FT.	\$/LF	Total Costs	
Curb	0	\$ 7.00	\$ -	equals the LF of street times 2
Water system	0	\$ 15.00	\$ -	equals the LF of street
Street paving (12' lane)	0	\$ 30.00	\$ -	equals the LF of street times the number of lanes
4' Concrete wide Sidewalks	0	\$ 10.00	\$ -	
			\$ -	

BUILDING NEW TOWNHOUSE UNITS FOR SALE

ASSUMPTIONS ABOUT BUYERS

INTEREST RATE	8.5%	
TERM OF LOAN	30	YEARS
TAX RATE	\$ 1.40	PER \$100 OF TAX VALUE
INSURANCE	1.0%	PER ANNUM OF PROPERTY/TAX VALUE
MANAGEMENT	\$ 2,000	PER UNIT PER YEAR
"FRONT END RATIO"	28.0%	MAXIMUM % OF GROSS INCOME AVAILABLE FOR RENT

ASSUMPTIONS ABOUT DEVELOPMENT

COST/ACRE LAND	\$ 130,680	OR \$/SF -->	\$ 3.00
NUMBER OF ACRES	2.0		
CLOSING COSTS	5.0%		ATTY'S FEES, SURVEYS, ENVIRONMENTAL ASSESSMENTS
NUMBER OF UNITS BUILT	25		
GROSS DENSITY	12.5		UNITS/ACRE
DEMOLITION	\$ 10,000		@ \$1,000/UNIT (EXISTING BLDGS)
SITE PREP/GRADING	\$ 5,000		COST/ACRE
SIZE OF UNIT BUILT (SF)	1,000		
CONST. COSTS/SF	\$ 55.00		
CONST. INTEREST RATE	9.0%		ANNUAL
LANDSCAPING	\$ 40,000		COST/ACRE
ARCHITECTURAL DESIGN	8.0%		% OF CONSTRUCTION & LANDSCAPING COSTS
DEVELOPER PROFIT	10.0%		% OF TOTAL COSTS
CONTINGENCIES	5.0%		% OF CONSTRUCTION & LANDSCAPING COSTS

	TOTAL	PER UNIT
LAND (INCL CLOSING \$)	\$ 274,428	\$ 10,977
LAND DEVELOPMENT EXP.	\$ 225,389	\$ 9,016
DEMOLITION	\$ 10,000	\$ 400
SITE PREPARATION	\$ 10,000	\$ 400
CONSTRUCTION	\$ 1,375,000	\$ 55,000
LANDSCAPING	\$ 80,000	\$ 3,200
ARCHITECTURAL SVC.	\$ 116,400	\$ 4,656
CONST. INTEREST	\$ 123,750	\$ 4,950
CONTINGENCIES	\$ 72,750	\$ 2,910

TOTALS \$2,287,717 \$ 91,509 DOESN'T INCLUDE SALES/MKT, WARRENTY, ETC. (6-10%)

SALES PRICE \$ 100,660 TOTAL + PROFIT TOTAL PROFIT = \$ 228,772

DOWNPAYMENT (5%) \$ (5,033)
DEFERRABLE/FORGIVABLE 2ND MORTGAGE \$ (7,500)

AMOUNT TO BE FINANCED \$ 88,127

PRINCIPLE + INTEREST \$683.35 8.5% 30 YEARS
TAXES \$ 117.44 \$ 1.40 PER \$100 TAX VALUE
INSURANCE \$ 83.88 1.0% OF TAX VALUE/APPAISED VALUE
HOME OWNERS FEE \$ 100.00 \$ 100.00 PER MONTH

MONTHLY HH EXPENSES \$984.67

MIN. QUALIFYING HH INCOME \$ 3,517 MONTHLY
\$ 42,200 ANNUALLY
\$ 20.69 HOURLY

ANNUAL PROPERTY TAX REVENUES \$ 35,231

BUILDING NEW APARTMENTS FOR RENT

ASSUMPTIONS ABOUT OPERATIONS

INTEREST RATE	7.0%	
TERM OF LOAN	10	YEARS
TAX RATE	\$ 1.25	PER \$100 OF TAX VALUE
INSURANCE	1.0%	PER ANNUM OF PROPERTY/TAX VALUE
MANAGEMENT	\$ 4,500	PER UNIT PER YEAR
"FRONT END RATIO"	28.0%	MAXIMUM % OF GROSS INCOME AVAILABLE FOR RENT

ASSUMPTIONS ABOUT DEVELOPMENT

COST/ACRE LAND	\$ 130,680	OR \$/SF --> \$ 3.00
NUMBER OF ACRES	13.6	
SOFT COSTS	5.0%	APPRAISALS, LOAN ORIGATION FEES, ETC.
NUMBER OF UNITS BUILT	165	
GROSS DENSITY	12.2	UNITS/ACRE
DEMOLITION	\$ 100,000	PLUG
SITE PREP/GRADING	\$ 5,000	COST/ACRE
AVG. SIZE OF UNIT BUILT (SF)	1,700	
CONST. COSTS/SF	\$ 65.00	
CONST. INTEREST RATE	4.5%	ANNUAL
LANDSCAPING	\$ 40,000	COST/ACRE
ARCHITECTURAL DESIGN	5.0%	% OF CONSTRUCTION & LANDSCAPING COSTS
DEVELOPER PROFIT	10.0%	% OF TOTAL COSTS
CONTINGENCIES	5.0%	% OF CONSTRUCTION & LANDSCAPING COSTS

	TOTAL	PER UNIT		MINIMUM REQUIRED MONTHLY RENT	MINIMUM REQUIRED MONTHLY INCOME	MINIMUM REQUIRED ANNUAL INCOME
LAND (INCL CONST. SOFT \$)	\$ 1,863,092	\$ 11,291				
DEMOLITION	\$ 100,000	\$ 606				
LAND DEVELOPMENT EXP.	\$ 1,530,166	\$ 9,274				
SITE PREPARATION	\$ 67,890	\$ 411				
CONSTRUCTION	\$ 18,232,500	\$ 110,500		\$ 800.00	\$ 2,857.14	\$ 34,285.71
LANDSCAPING	\$ 543,120	\$ 3,292		\$ 1,600.00	\$ 5,714.29	\$ 68,571.43
ARCHITECTURAL SVC.	\$ 938,781	\$ 5,690				
CONST. INTEREST	\$ 820,463	\$ 4,973				
CONTINGENCIES	\$ 938,781	\$ 5,690				
TOTALS	\$ 25,034,792	\$ 151,726				

Rental Housing Operating Analysis

PER UNIT MONTHLY RENT	UNIT TYPE	UNITS	SIZE	MONTHLY NET RENT	TOTAL ANNUAL RENT
\$ 800.00	2BR/1B	0	850	\$ -	\$ -
\$ 1,600.00	4BR/2B	165	1700	\$ 264,000	\$ 3,168,000
TOTAL GROSS RENTS FROM UNITS				\$ 264,000	\$ 3,168,000
LESS VACANCY RATE					\$ (316,800)
VACANT UNITS				10.0%	17
NET REVENUES					\$ 2,851,200
OPERATING EXPENSES/UNIT/YR.				\$ 4,500	\$ (742,500)
NET OPERATING INCOME					\$ 2,108,700
AVAILABLE TO SERVICE DEBT @ RATIO				1.25	\$ 1,686,960
MAXIMUM LOAN SUPPORTABLE					\$22,029,464
ANNUAL INTEREST RATE				6.5%	
TERM IN YEARS				30	
REQUIRED EQUITY INVESTMENT					\$ 3,005,328
ANNUAL CASH FLOW					\$ 421,740
RATE OF RETURN (BEFORE TAX)					14.03%
ANNUAL PROPERTY TAX REVENUE					\$ 312,935

Project Summary - \$700,000 City grant + \$573,150 bank loan (7.5% for 10 yrs.)

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Rental Residential Exercise

Class Follows & Duplicates
Instructor Analysis of Project

Gateway Village Apartments (38 two bdrm/18 three bdrm)								
					38	18	du's	
				40900	650	900	SF	
			Per Unit	Per SF	2Bdrm	3Bdrm		
LAND (INCL CLOSING \$)	0.6%	\$ 27,231.54	\$ 486.28	\$ 0.67	\$ 432.78	\$ 599.23		
DEMOLITION	0.4%	\$ 17,289.87	\$ 308.75	\$ 0.42	\$ 274.78	\$ 380.46		
LAND DEVELOPMENT EXP.	6.8%	\$ 329,333.06	\$ 5,880.95	\$ 8.05	\$ 5,233.90	\$ 7,246.94		
SITE PREPARATION	0.4%	\$ 17,289.87	\$ 308.75	\$ 0.42	\$ 274.78	\$ 380.46		
CONSTRUCTION	72.7%	\$ 3,518,487.92	\$ 62,830.14	\$ 86.03	\$ 55,917.29	\$ 77,423.94		
LANDSCAPING	2.9%	\$ 138,318.94	\$ 2,469.98	\$ 3.38	\$ 2,198.22	\$ 3,043.69		
ARCHITECTURAL SVC.	6.0%	\$ 292,544.55	\$ 5,224.01	\$ 7.15	\$ 4,649.24	\$ 6,437.41		
CONST. INTEREST	6.5%	\$ 316,663.91	\$ 5,654.71	\$ 7.74	\$ 5,032.56	\$ 6,968.15		
CONTINGENCIES	3.8%	\$ 182,840.34	\$ 3,265.01	\$ 4.47	\$ 2,905.78	\$ 4,023.38		
	100.0%	\$ 4,840,000.00	\$ 86,428.57	\$ 118.34	\$ 76,919.32	\$ 106,503.67		
		\$ 4,840,000.00			\$ 2,922,933.99	\$ 1,917,066.01	\$ 4,840,000.00	

Gateway Village Apartments (38 two bdrm/18 three bdrm)								
		Unit Type	Size (SF)	Number	Rent/Month	Monthly	Annually	
		2Bdrm	650	38	\$ 719.00	\$ 27,322.00	\$ 327,864.00	
		3Bdrm	900	18	\$ 913.00	\$ 16,434.00	\$ 197,208.00	
				56		\$ 43,756.00	\$ 525,072.00	
		Total Gross Rent						
		Less Vacancy Rate		7.45%		\$ (3,259.82)	\$ (39,117.86)	
		Vacant units		4.172				
		Units Months of Rent =		672				
		% Vacant Unit Months		50.06				
		Net Revenues				\$ 40,496.18	\$ 485,954.14	
		Net Operating Expense/Unit/Year =			\$ 3,000.00	\$ (14,000.00)	\$ (168,000.00)	
		Net Operating Income				\$ 26,496.18	\$ 317,954.14	
		Available to Service Debt @ Ratio			1.25	\$ 21,196.94	\$ 254,363.31	
			Principle	Rate	Term (Years)			
\$501,046.00		1st City Loan	\$ 501,046.00	3.0%	30	(\$2,112.43)	(\$25,563.00)	
		2nd City Loan	\$ 2,196,203.00	3.0%	55	(\$6,798.93)	(\$82,026.14)	
			\$ 2,142,751.00	Remaining		\$ 12,285.58	\$ 146,774.17	

Gateway Village Apartments (38 two bdrm/18 three bdrm)								
			Principle	Rate	Term (Years)			
\$501,046.00		1st City Loan	\$ 501,046.00	3.0%	30	(\$2,112.43)	(\$25,563.00)	
		2nd City Loan	\$ 2,196,203.00	3.0%	55	(\$6,798.93)	(\$82,026.14)	
			\$ 2,142,751.00	Remaining		\$ 12,285.58	\$ 146,774.17	
Max Supportable Bank Loan								
Rate	5.5%		\$1,473,257.62					
Term (Years)	15							
		Cash Flow				\$ 5,299.24	\$ 63,590.83	
Equity Investment Needed								
			\$ 669,493.38					
Rate of Return (before tax)				9.50%				

Project Detail - Cash Flow																					
				Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15			
Gross Income (@ 3%/year increase)				\$ 525,072	\$ 540,824	\$ 557,049	\$ 573,760	\$ 590,973	\$ 608,702	\$ 626,963	\$ 645,772	\$ 665,146	\$ 685,100	\$ 705,653	\$ 726,822	\$ 748,627	\$ 771,086	\$ 794,219			
Less Vacancy Rate 7.45%				\$ (39,118)	\$ (40,291)	\$ (41,500)	\$ (42,745)	\$ (44,028)	\$ (45,348)	\$ (46,709)	\$ (48,110)	\$ (49,553)	\$ (51,040)	\$ (52,571)	\$ (54,148)	\$ (55,773)	\$ (57,446)	\$ (59,169)			
Total Effective Gross Income				\$ 485,954	\$ 500,533	\$ 515,549	\$ 531,015	\$ 546,946	\$ 563,354	\$ 580,255	\$ 597,662	\$ 615,592	\$ 634,060	\$ 653,082	\$ 672,674	\$ 692,854	\$ 713,640	\$ 735,049			
Operating Expenses (@4%/year increase)																					
Management Fee (10%)				\$ 48,595	\$ 50,053	\$ 51,555	\$ 53,102	\$ 54,695	\$ 56,335	\$ 58,025	\$ 59,766	\$ 61,559	\$ 63,406	\$ 65,308	\$ 67,267	\$ 69,285	\$ 71,364	\$ 73,505			
Legal & Audit				\$ 6,000	\$ 6,240	\$ 6,490	\$ 6,749	\$ 7,019	\$ 7,300	\$ 7,592	\$ 7,896	\$ 8,211	\$ 8,540	\$ 8,881	\$ 9,237	\$ 9,606	\$ 9,990	\$ 10,390			
Advertising				\$ 7,500	\$ 7,800	\$ 8,112	\$ 8,436	\$ 8,774	\$ 9,125	\$ 9,490	\$ 9,869	\$ 10,264	\$ 10,675	\$ 11,102	\$ 11,546	\$ 12,008	\$ 12,488	\$ 12,988			
Gas & Electric				\$ 16,000	\$ 16,640	\$ 17,306	\$ 17,998	\$ 18,718	\$ 19,466	\$ 20,245	\$ 21,055	\$ 21,897	\$ 22,773	\$ 23,684	\$ 24,631	\$ 25,617	\$ 26,641	\$ 27,707			
Water, Sewer, Waste Removal				\$ 12,000	\$ 12,480	\$ 12,979	\$ 13,498	\$ 14,038	\$ 14,600	\$ 15,184	\$ 15,791	\$ 16,423	\$ 17,080	\$ 17,763	\$ 18,473	\$ 19,212	\$ 19,981	\$ 20,780			
Supplies				\$ 7,000	\$ 7,280	\$ 7,571	\$ 7,874	\$ 8,189	\$ 8,517	\$ 8,857	\$ 9,212	\$ 9,580	\$ 9,963	\$ 10,362	\$ 10,776	\$ 11,207	\$ 11,656	\$ 12,122			
Insurance				\$ 12,600	\$ 13,104	\$ 13,628	\$ 14,173	\$ 14,740	\$ 15,330	\$ 15,943	\$ 16,581	\$ 17,244	\$ 17,934	\$ 18,651	\$ 19,397	\$ 20,173	\$ 20,980	\$ 21,819			
Pest Control				\$ 9,500	\$ 9,880	\$ 10,275	\$ 10,686	\$ 11,114	\$ 11,558	\$ 12,021	\$ 12,501	\$ 13,001	\$ 13,521	\$ 14,062	\$ 14,625	\$ 15,210	\$ 15,818	\$ 16,451			
Maintenance/Repair				\$ 17,500	\$ 18,200	\$ 18,928	\$ 19,685	\$ 20,473	\$ 21,291	\$ 22,143	\$ 23,029	\$ 23,950	\$ 24,908	\$ 25,904	\$ 26,940	\$ 28,018	\$ 29,139	\$ 30,304			
Miscellaneous				\$ 5,000	\$ 5,200	\$ 5,408	\$ 5,624	\$ 5,849	\$ 6,083	\$ 6,327	\$ 6,580	\$ 6,843	\$ 7,117	\$ 7,401	\$ 7,697	\$ 8,005	\$ 8,325	\$ 8,658			
Operating Reserves @\$235/du				\$ 13,160	\$ 13,160	\$ 13,160	\$ 13,160	\$ 13,160	\$ 13,160	\$ 13,160	\$ 13,160	\$ 13,160	\$ 13,160	\$ 13,160	\$ 13,160	\$ 13,160	\$ 13,160	\$ 13,160			
Replacement Reserves @\$235/du				\$ 13,160	\$ 13,160	\$ 13,160	\$ 13,160	\$ 13,160	\$ 13,160	\$ 13,160	\$ 13,160	\$ 13,160	\$ 13,160	\$ 13,160	\$ 13,160	\$ 13,160	\$ 13,160	\$ 13,160			
Total Operating Expenses				\$ 168,015	\$ 173,197	\$ 178,572	\$ 184,146	\$ 189,928	\$ 195,926	\$ 202,147	\$ 208,599	\$ 215,293	\$ 222,236	\$ 229,439	\$ 236,911	\$ 244,662	\$ 252,702	\$ 261,044			
per unit = \$ 3,000.28 2005\$																					
Net Operating Income				\$ 317,939	\$ 327,335	\$ 336,977	\$ 346,869	\$ 357,017	\$ 367,428	\$ 378,108	\$ 389,063	\$ 400,299	\$ 411,824	\$ 423,643	\$ 435,764	\$ 448,193	\$ 460,938	\$ 474,005			
Bank Loan Debt Service				\$ 254,363	\$ 254,363	\$ 254,363	\$ 254,363	\$ 254,363	\$ 254,363	\$ 254,363	\$ 254,363	\$ 254,363	\$ 254,363	\$ 254,363	\$ 254,363	\$ 254,363	\$ 254,363	\$ 254,363			
Debt Service Ratio				1.25	1.29	1.32	1.36	1.40	1.44	1.49	1.53	1.57	1.62	1.67	1.71	1.76	1.81	1.86			
Cash Flow				\$ 63,575	\$ 72,972	\$ 82,614	\$ 92,506	\$ 102,654	\$ 113,065	\$ 123,745	\$ 134,700	\$ 145,936	\$ 157,460	\$ 169,279	\$ 181,400	\$ 193,830	\$ 206,574	\$ 219,642			
Cash Flow to Equity Investor				\$ (63,591)	\$ (63,591)	\$ (63,591)	\$ (63,591)	\$ (63,591)	\$ (63,591)	\$ (63,591)	\$ (63,591)	\$ (63,591)	\$ (63,591)	\$ (63,591)	\$ (63,591)	\$ (63,591)	\$ (63,591)	\$ (63,591)		\$ (953,862)	
Cash Flow (Profit to CDC)				\$ (15)	\$ 9,381	\$ 19,023	\$ 28,915	\$ 39,063	\$ 49,474	\$ 60,154	\$ 71,109	\$ 82,345	\$ 93,869	\$ 105,689	\$ 117,809	\$ 130,239	\$ 142,984	\$ 156,051		\$ 1,106,089	