

Property Assumptions

Property and purchase assumptions

Property size	420 units
Rent	\$750.00
Vacancy allowance	7.00%
Operating expense ratio	45.00%
Purchase price	\$24,000,000
Acquisition costs	\$400,000
Date property will be put in service	1/1/2010

Loan assumptions

Maximum LTV ratio	70.00%
Minimum debt-coverage ratio	1.30
Mortgage interest rate	8.50%
Amortization length	20 years
Loan term	10 years
Loan fees	2.50 points

Depreciation assumptions

Depreciable life	27.5 years
Tax assessor building value	\$80
Tax assessor land value	\$20
Appraised building value	\$22,000,000
Appraised land value	\$4,000,000

Tax assumptions

Ordinary income tax rate	35.00%
Capital gains tax rates	15.00%
Depreciation recapture tax rate	25.00%

Sale assumptions

Cap rate at sale	9.00%
Sale costs	5.00%
Date property will be sold	12/31/2014
Year 6 NOI	\$2,652,750

Other assumptions

After-tax equity discount rate	12.00%
Rent growth rate	5.00%
Operating expense growth rate	3%

Pro Forma Operating Statement (First Year)

Potential gross income	\$	3,780,000	= 420 units x \$750.00 x 12
- Vacancy & collection @ 7.00%	\$	264,600	
Effective gross income	\$	3,515,400	
- Operating expenses @ 45.00%	\$	1,581,930	
Net operating income	\$	1,933,470	
- Annual debt service	\$	1,487,285	
Before-tax cash flow	\$	446,185	
- Taxes from operations	\$	-	
After-tax cash flow	\$	446,185	

Capitalization rate	8.06%	= NOI ÷ purchase price
Cash-on-cash return	4.59%	= BTCF ÷ (purchase price – loan amount)

Mortgage Calculations

Property value	\$24,000,000	
Maximum loan-to-value ratio	70.00%	
LTV-based maximum loan amount	\$ 16,800,000	
Net operating income	\$ 1,933,470	
÷ Minimum debt coverage ratio	1.30	
Maximum annual debt service	\$ 1,487,285	
Maximum monthly payment	\$ 123,940	= Maximum ADS ÷ 12
DCR-based maximum loan amount	\$ 14,281,755	P/Y = 12, N = 20 x 12, I = 8.50%, PMT = -123,940, FV = 0
Maximum loan amount	\$ 14,281,755	= Minimum of LTV- and DCR-based calculations
Monthly payment	\$ 123,940	P/Y = 12, N = 20 x 12, I = 8.50%, PV = -14,281,755, FV = 0
Annual debt service	\$ 1,487,285	Monthly payment x 12
Debt coverage ratio	1.30	= NOI / ADS
Mortgage constant	10.41%	= ADS / loan amount
Total loan fees	\$ 357,044	= \$14,281,755 x 2.50 / 100

Tax Calculations

Taxable Income Calculations (First Year)

Net operating income	\$	1,933,470	
– Depreciation allowance	\$	719,487	
– Interest expense	\$	1,203,045	P1 = 1, P2 = 12
– Amortization expense	\$	35,704	
Taxable income	\$	(24,766)	
x Tax rate		35.00%	
Tax	\$	-	Losses must be carried forward to year 2

Depreciation Calculations

Assessor's building value ratio	80.00%	= \$0,080 / (\$0,080 + \$0,020)
Appraiser's building value ratio	84.62%	= \$22,000,000 / (\$22,000,000 + \$4,000,000)
Purchase price	\$	24,000,000
+ Acquisition costs	\$	400,000
Initial basis	\$	24,400,000
x Percent of value in building		84.62%
Depreciable basis	\$	20,646,154
÷ Depreciable life		27.5
Annual depreciation allowance	\$	750,769
		Depreciation allowance when held full year
First year depreciation allowance	\$	719,487
		Normal allowance x 11.5 ÷ 12
Last year depreciation allowance	\$	719,487
		Normal allowance x 11.5 ÷ 12
Total straight line depreciation	\$	3,691,281
		= 3 x \$750,769 + \$719,487 + \$719,487

Amortization Calculations

Loan amount	\$	14,281,755	
x Points		<u>2.50</u>	
Total loan fees	\$	357,044	
÷ Term of loan		<u>10</u>	
Annual amortization expense	\$	35,704	Amortized expenses when loan is held full year
First year amortized expenses	\$	35,704	Normal expense × 12 ÷ 12
Last year amortized expenses	\$	35,704	Normal allowance × 12 ÷ 12
Total loan fees	\$	357,044	
– Amortized expenses claimed	\$	<u>178,522</u>	= 3 × \$35,704 + \$35,704 + \$35,704
Unclaimed amortized loan fees	\$	178,522	

Sale Calculations

Sale Cash Flows

Year 6 NOI	\$ 2,652,750
÷ Cap rate at sale	9.00%
Sale price	\$ 29,474,999
– Costs of sale at 5.00%	\$ 1,473,750
Net sale price	\$ 28,001,249
– Mortgage balance due	\$ 12,586,108
Before-tax equity reversion	\$ 15,415,141
– Taxes from sale	\$ 1,400,525
After-tax equity reversion	\$ 14,014,616

P2 = 60

Adjusted Basis Calculations

Initial basis	\$ 24,400,000
– Straight-line depreciation	\$ 3,691,281
Adjusted basis	\$ 20,708,719

Capital Gains Calculations

Net sale price	\$ 28,001,249
– Adjusted basis	\$ 20,708,719
Total gain on sale	\$ 7,292,530
– Straight-line depreciation	\$ 3,691,281
Gain due to appreciation	\$ 3,601,249

Limited to the greater of the total gain or 0

Taxes from Sale

Depreciation recapture at 25.00%	\$ 922,820	= \$3,691,281 × 25.00%
Capital gains at 15.00%	\$ 540,187	= \$3,601,249 × 15.00%
Unclaimed amortization at 35.00%	\$ (62,483)	= \$178,522 × 35.00%
Total taxes from sale	\$ 1,400,525	

NPV and IRR Calculations

Initial Cash Flow Calculations

Purchase price	\$	24,000,000
+ Acquisition costs	\$	400,000
- Mortgage loan proceeds	\$	14,281,755
+ Mortgage loan fees	\$	357,044
Total date 0 cash flows	\$	10,475,289

Cash Flow Analysis

<u>Year</u>	<u>Cash Flow</u>
Date 0	\$ (10,475,289)
Date 1	\$ 446,185
Date 2	\$ 549,080
Date 3	\$ 619,030
Date 4	\$ 701,849
Date 5	\$ 14,792,730 = \$778,114 + \$14,014,616

NPV @ 12.00% =	\$	(358,744)	Do not invest, because NPV < 0.
IRR =		11.15%	Do not invest, because IRR < discount rate.

Cash Flow Analysis

Annual Operating Statements

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Year 6</u>
Potential gross income	\$ 3,780,000	\$ 3,969,000	\$ 4,167,450	\$ 4,375,823	\$ 4,594,614	\$ 4,824,344
– <u>Vacancy & collection @ 7.00%</u>	\$ 264,600	\$ 277,830	\$ 291,722	\$ 306,308	\$ 321,623	\$ 337,704
Effective gross income	\$ 3,515,400	\$ 3,691,170	\$ 3,875,728	\$ 4,069,515	\$ 4,272,991	\$ 4,486,640
– <u>Operating expenses @ 45.00%</u>	\$ 1,581,930	\$ 1,629,388	\$ 1,678,270	\$ 1,728,618	\$ 1,780,476	\$ 1,833,890
Net operating income	\$ 1,933,470	\$ 2,061,782	\$ 2,197,458	\$ 2,340,897	\$ 2,492,514	\$ 2,652,750
– Annual debt service	\$ 1,487,285	\$ 1,487,285	\$ 1,487,285	\$ 1,487,285	\$ 1,487,285	
Before-tax cash flow	\$ 446,185	\$ 574,497	\$ 710,173	\$ 853,612	\$ 1,005,229	
– Taxes from operations	\$ -	\$ 25,417	\$ 91,143	\$ 151,763	\$ 227,116	
After-tax cash flow	\$ 446,185	\$ 549,080	\$ 619,030	\$ 701,849	\$ 778,114	

Taxable Income Calculations

Net operating income	\$ 1,933,470	\$ 2,061,782	\$ 2,197,458	\$ 2,340,897	\$ 2,492,514
– Depreciation allowance	\$ 719,487	\$ 750,769	\$ 750,769	\$ 750,769	\$ 719,487
– Interest expense	\$ 1,203,045	\$ 1,177,921	\$ 1,150,576	\$ 1,120,814	\$ 1,088,421
– <u>Amortization expense</u>	<u>\$ 35,704</u>	<u>\$ 35,704</u>	<u>\$ 35,704</u>	<u>\$ 35,704</u>	<u>\$ 35,704</u>
Taxable income before passive losses	\$ (24,766)	\$ 97,388	\$ 260,409	\$ 433,609	\$ 648,902
Passive loss carry-forward	\$ -	\$ (24,766)	\$ -	\$ -	\$ -
Taxable income	\$ -	\$ 72,621	\$ 260,409	\$ 433,609	\$ 648,902
x Tax rate	<u>35.00%</u>	<u>35.00%</u>	<u>35.00%</u>	<u>35.00%</u>	<u>35.00%</u>
Tax	\$ -	\$ 25,417	\$ 91,143	\$ 151,763	\$ 227,116