STRIP SHOPPING CENTER INVESTMENT

Physical Characteristics
Strip shopping center with brick/steel construction.
5 stores, 2,000 square feet of gross area each.
Leaseable area to gross building area, 95.5%.
Effective age is 10 years.
5,000 square feet of on-site parking.

Legal Aspects
Leased fee. Overall the tenants appear to have "B" credit ratings.

Market Analysis
Data on four comparable properties are in Table 1. The comparables appear to be rented at market rents. Demand for this type of property is strong and rents are projected to increase 4% annually (compounded) with vacancy and bad debt losses expected to be zero. Prices of shopping centers have increased 6% over the past year.

Operating Expenses
Real estate property taxes are $7,000 annually and taxes are projected to increase $800 every 3 years. Last increase was 1 year ago.
Exterior and general maintenance is currently $100 a month.
Maintenance is projected to increase annually by $10 per month.
Roof should be replaced during Year 2 at a projected cost of $12,500.
Management fees are 5% of rents collected.
All other expenses are paid by tenants.

Current Leases:

Store A
Lease expires in two years.
Rent is $825 per month.
Tenant will re-lease at market rent at expiration.

Store B
Lease expires in 5 yrs and will be renewed at market rents at the end of term.
Rent is $1,223 per month.
Rent will increase at a rate of 3% annually or ½ the change in the CPI, whichever is greater.
CPI is expected to increase 3% annually over the next 5 years.

Stores C, D, E
Space recently leased for 10 years.
Annual rent is $8 per leaseable sq ft. with escalator clauses of 4% per year.

Reversion Assumptions
Projected holding period is five years.
Sale price is estimated by capitalizing the Year 6 NOI at an overall cap rate of 13.5%.
Sale expenses estimated at 8% of sale price.

Construction Costs
Data from a cost estimation service indicates that the base construction costs for this type of property is $44.00 per gross square foot. A location adjustment factor of 1.05 is required to account for the fact that the property is in a higher cost of construction area. The property has an effective age of 10 years. Physical depreciation is at a rate of 2% for each year of age. There appears to be no economic or functional depreciation. Other site improvements (parking lot, etc) are estimated to have a depreciated cost of $25,000. Current land transactions indicate a land value of $75,000. Entrepreneurial profit is $50,000.

Depreciation
Straight line method; 39 year useful life; 85% is depreciable

Mortgage Financing
75% loan-to-value ratio.
8.5% interest rate; 20 year maturity (monthly payments)
$10,000 in financing costs
Prepayment penalty of 3% of outstanding balance
Equity Required Rates  
14% on 100% equity financing.
18% dividend rate of return
22% before-tax required rate of return
12% after-tax required rate of return

Investor’s Marginal Tax Rates  
Ordinary income tax rate is 28%
Capital gain tax rate is 20%
Depreciation recapture tax rate is 25%

Asking Price  
$510,000
The investor expects $7,500 in acquisition costs

Table 1. Information on Sales of Comparable Shopping Centers

<table>
<thead>
<tr>
<th>Comparable Property</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sale Price</td>
<td>$504,000</td>
<td>$488,000</td>
<td>$608,000</td>
<td>$401,600</td>
</tr>
<tr>
<td>Months since sale</td>
<td>2.0</td>
<td>1.0</td>
<td>1.0</td>
<td>3.0</td>
</tr>
<tr>
<td>Gross income at sale</td>
<td>$75,000</td>
<td>$72,000</td>
<td>$88,000</td>
<td>$61,050</td>
</tr>
<tr>
<td>Vacancy</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>OER at sale</td>
<td>0.17</td>
<td>0.17</td>
<td>0.15</td>
<td>0.18</td>
</tr>
<tr>
<td>Property rights</td>
<td>leased fee</td>
<td>leased fee</td>
<td>leased fee</td>
<td>leased fee</td>
</tr>
<tr>
<td>Construction</td>
<td>Brick/steel</td>
<td>Brick/steel</td>
<td>Brick/steel</td>
<td>Brick/steel</td>
</tr>
<tr>
<td>Effective age (years)</td>
<td>10</td>
<td>9</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>Number of stores</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Tenant credit rating</td>
<td>A</td>
<td>B</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>Onsite parking</td>
<td>4,000 sq. ft.</td>
<td>5,000 sq. ft.</td>
<td>4,500 sq. ft.</td>
<td>6,000 sq. ft.</td>
</tr>
<tr>
<td>Leasable Area</td>
<td>9,500 sq. ft.</td>
<td>9,000 sq. ft.</td>
<td>11,000 sq. ft.</td>
<td>7,400 sq. ft.</td>
</tr>
<tr>
<td>Gross Area</td>
<td>10,000 sq. ft.</td>
<td>9,375 sq. ft.</td>
<td>11,500 sq. ft.</td>
<td>7,800 sq. ft.</td>
</tr>
</tbody>
</table>
**Question 1:** For each of the comparable sales, compute the following:
   
   a. Rent per leaseable square foot  
   b. Rent per gross square foot  
   c. Sale price per leaseable square foot  
   d. Sale price per gross square foot  

**Question 2:** Forecast the NOI and NSP at Contract Rental Rates.  

**Question 3:** Forecast the NOI and NSP at Market Rental Rates.  

**Question 4:** Estimate the market value assuming 100% equity financing.  The investor's required rate of return is 14.0%.  

**Question 5:** Estimate the leased-fee value assuming 100% equity financing.  The investor's required rate of return is 14%.  

**Question 6:** Calculate the mortgage amortization schedule for years 1 through 5, at the $510,000 asking price.  

**Question 7:** Calculate the depreciation deduction, at the $510,000 asking price.  

**Question 8:** Set up the depreciation schedule for years 1 through 5.  

**Question 9:** Forecast the ATCF's for years 1 through 5 using the NOI under the existing leases.  

**Question 10:** Forecast the ATER in year 5, using the forecast of NSP under the existing leases.  

**Question 11:** At the asking price of $510,000, compute the following expected rates of return:  
   a. Overall Rate  
   b. Equity dividend rate  

**Question 12:** Compute the NPV and IRR on equity using the forecasted before-tax cash flows.  The investor's required rate of return is 22%.  

**Question 13:** Compute the NPV and IRR on equity using the forecasted after-tax cash flows.  

**Question 14:** Estimate the leased-fee value using the gross income multiplier approach.  

**Question 15:** Estimate the market value using the gross income multiplier approach.  

**Question 16:** Estimate the leased-fee value using a market extracted overall cap rate.  

**Question 17:** Estimate the market value using a market extracted overall rate.  

**Question 18:** The Investors can finance the project with a loan-to-value ratio of 75% with a mortgage interest rate of 8.5% with (monthly) payments over an amortization period of 20 years.  The required equity dividend rate is 18%.  Estimate the (1) market value and (2) leased-fee value using the weighted average cost of capital approach.
**Question 19:** Data from a cost estimation service indicates that the base construction costs for this type of property is $44.00 per gross square foot. A location adjustment factor of 1.05 is required to account for the fact that the property is in a higher cost of construction area. The property has an effective age of 10 years. Physical depreciation is at a rate of 2% for each year of age. There appears to be no economic or functional depreciation. Other site improvements (parking lot, etc) are estimated to have a depreciated cost of $25,000. Current land transactions indicate a land value of $75,000. Entrepreneurial profit is $50,000. What is the indicated value based on the cost approach?

**Question 20:** Estimate the market value of the subject property using the comparison approach, using price per square leaseable square foot as the unit of comparison. Property values have increased 6% over the last year (.5% per month). Each year of property age reduces value by 2%.

**Question 21:** Estimate the market value of the shopping center using mortgage-equity analysis. The equity required rate of return is 22%. The project can be financed as follows: L/V ratio = 75%; i = 8.5%; monthly payments over 20 years.

**Question 22:** Estimate the leased fee value using mortgage-equity analysis. The equity required rate of return is 22%. The project can be financed as follows: L/V ratio = 75%; i = 8.5%; monthly payments over 20 years.

**Question 23:** What is the leased-fee value using mortgage-equity analysis adjusted for the acquisition costs, financing costs, and mortgage prepayment penalty?

**Question 24:** Summarize and critique the various estimates of value.