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This article is an expansion of the previously published article in the January/February 2022 issue of Right of Way Magazine and expands on the methodology that was noted in Part 1. In Part 2, we will illustrate how market extraction was applied in developing the value of a special use property for which the sales comparison and income capitalization approaches were not found to provide reliable indications of value. This is a real-world example of the valuation of a church camp located in northern Texas.

Subject of Assignment

This subject of the appraisal was a church camp located in an area of northern Texas, which was transforming from rural to urban. The purpose of the assignment was to develop an opinion of the fee simple market value of the real property.

The subject site contained 54.8 acres. Its northern boundary fronted on a state highway. It was located just outside of city limits and was therefore unzoned, but it was on the nearest city's Future Land Use plan as one-third commercial, one-third suburban living, and one-third regional development. Municipal water and sewer were available but would have to be extended to the property at the owner's expense. Surrounding uses were a combination of commercial, industrial, rural and single family in nature.

Because the subject property included multiple buildings with different years of construction, an average age was calculated for the property. This was based on the known dates of construction, estimated for the unknown dates based on construction characteristics and by viewing historical aerial photos, then averaged by the total gross building area. This calculation resulted in an average age of 45 years.

EXTRACTING DEPRECIATION IN THE COST APPROACH PART 2



Building Areas

Building	GBA	Year of Construction (Actual or Estimated)	Age	Condition
Church / Conference Center	24,273 sq.ft.	1980s	33	Average
Church	5,902 sq.ft.	1960s, renov. 1980s	53	Average
Office Building	5,210 sq.ft.	1963	55	Good
Cafeteria	5,000 sq.ft.	1960s, renov. 1980s	53	Average
Guest Quarters	2,212 sq.ft.	1960s, renov. 1980s	53	Good
Single Family Residence	2,678 sq.ft.	1965	53	Average
Dormitories	16,616 sq.ft.	1965-1993	46	Average
Gymnasium	11,730 sq.ft.	1960s, renov. 1980s	53	Good
Indoor Pool Building	4,824 sq.ft.	1984	34	Average
Single Family Residence	1,847 sq.ft.	1970s	43	Average
Single Family Residence	1,853 sq.ft.	1970	48	Average
Single Family Residence	1,570 sq.ft.	1970	48	Poor
Single Family Residence	887 sq.ft.	1965	53	Poor
Parsonage	2,133 sq.ft.	1965	53	Average
Total	86,735 sq.ft.	Weighted Average	45	



Highest and Best Use

It is often the case that a highest and best use conclusion cannot be determined until market data is collected for a variety of property types in order to determine which use satisfies economic demand and maximizes the financial rewards. In this case, data was collected for agricultural land, residential land and commercial land. Based on this data, the highest and best use of the land as vacant was concluded to be for mixed commercial and residential development.

The subject property had been utilized as a recreational camp, church and convention center for more than 50 years. It was a special purpose property, which is defined as “a property with a unique physical design, special construction materials or a layout that particularly adapts its utility to the use for which it was built,” according to “The Dictionary of Real Estate Appraisal, 6th Edition.”

Three sales of recreational camps were found. All were located in rural areas. The subject was located in the direct path of urban development from two sides. The highest and best use of the comparables’ land, if vacant, was for rural and/or agricultural uses, rather than the urban development projected for the subject. Therefore, the subject’s location was vastly superior which was reflected in the value per square foot of land area.

The sale price per square foot of land area for the comparable sales (sale price ÷ land size) ranged from \$0.14 to \$0.18. The subject was estimated to have a land value as vacant of \$1.00 per square foot. If the highest price per square foot of gross building area (sale price ÷ GBA) shown by the comparable sales of \$22.00 was multiplied by the subject’s gross building area of 86,735 square feet, the result was \$1,900,000, which was less than the value estimated for the subject’s land as vacant of \$2,400,000.

$$\begin{aligned}
 \$22.00/\text{sq.ft. GBA} \times 86,735 \text{ sq.ft. GBA} &= \$1,900,000 \\
 \text{Subject land value as vacant} &= \$2,400,000 \\
 \$1,900,000 < \$2,400,000 &\text{ illustrates lack of comparability between subject and sales}
 \end{aligned}$$

It was concluded that the Sales Comparison Approach using sales of recreational camps did not offer a reliable estimate of value for the subject property because the highest and best use (and value) of the comparables’ land was not consistent with the subject. But this analysis did illustrate that the subject’s existing improvements are not consistent with the highest and best use of the land.

Conversion of this special purpose property to an alternative use was considered, but was determined to be highly unlikely due to its unique construction and limited buyers.

It was concluded that the value of the subject property as improved exceeded the value of the site as vacant; therefore, continued use of the existing improvements was considered feasible, at least until the buildings reach the end of their economic lives and the site is redeveloped.

Land Value

Sales of vacant land which shared the same highest and best use with the subject, mixed-use development, were relied upon in an estimate of the value of the land as vacant. This was concluded to be \$1.00 per square foot for a value of \$2,400,000.



Construction Cost New

Due to the age of the improvements, a replacement cost estimate was used. While replacement cost new, in theory, eliminates functional obsolescence, some items of functional obsolescence were nevertheless included in these costs. Construction costs new were provided by a local general contractor and were supplemented utilizing the “Marshall Valuation Service” manual. Indirect costs were included. The replacement cost new of all improvements was estimated at \$19,000,000.

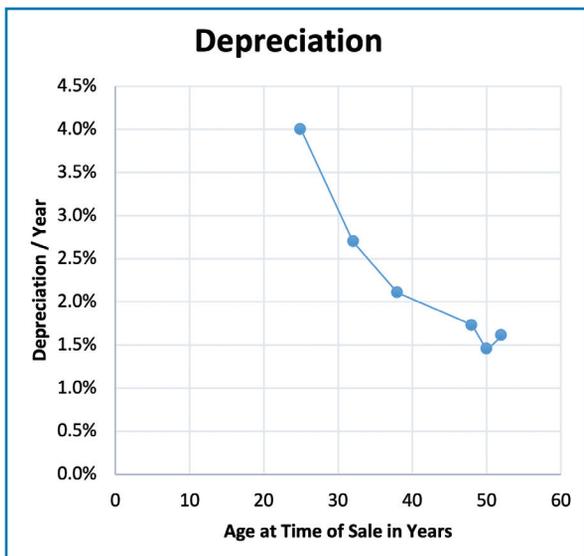
Depreciation

Physical deterioration was present due to the age of the buildings. Functional obsolescence was included as the existing improvements would not meet current building standards, such as the lack of an automatic fire protection system and lack of a municipal sewage disposal system. The site was under-improved with a land to building ratio of 27.5:1. The highest and best use as vacant, and the highest and best use as improved, were inconsistent with one another.

As was previously explained, sales of recreational camps were not reliable for a value indication for the subject. Therefore, an alternative source of market data was researched. The dominant building on the subject property was the church/conference building, which was a 24,273 square foot building constructed in the 1960s in the fashion of an auditorium. All of the buildings on the property were constructed for and to support religious purposes. Therefore, sales of churches in the Dallas/Fort Worth area were researched to assist in an estimate of depreciation. These sales were not considered similar enough to the subject for direct use in a Sales Comparison Approach due to their smaller building sizes, smaller site sizes and the fact that they were singularly used as churches, rather than recreational religious camps.

In order to extract the land value of each comparable, each comparables’ location was researched for land sales which had highest and best uses similar to that estimated for each comparable as though vacant. The difference between the contributory value of the improvements (sale price less land value) was compared with replacement cost new, with the difference being depreciation.

The following table summarizes the data for the six comparable sales. The subject was also included in the table, which organized the sales by age.



Summary of Extracted Depreciation

Sale No.	Sale Price	Age	Underlying Land Value	Contributory Value of Improvements	Replacement Cost New	Total Depreciation	Depreciation, Annualized
1	\$4,075,000	25	\$4,075,000	\$0	N/A	100%	4.0%
2	\$1,700,000	32	\$1,067,200	\$632,800	\$5,089,592	88%	2.7%
3	\$1,200,000	38	\$102,000	\$1,098,000	\$5,270,562	79%	2.1%
Subject		45					
4	\$2,150,000	48	\$1,296,300	\$853,700	\$4,818,532	82%	1.7%
5	\$1,000,000	50	\$160,800	\$839,200	\$3,026,100	72%	1.4%
6	\$575,000	52	\$152,200	\$422,800	\$2,913,280	85%	1.6%



The data revealed a clear pattern of depreciation. As the improvements aged, the annual average depreciation reduced. The subject fell between Sales No. 3 and No. 4 in age, which placed the applicable depreciation between 1.7 percent and 2.1 percent per year. This would suggest overall depreciation between 77 percent (45 x 1.7%) and 95 percent (45 x 2.1%); an overall depreciation of 85 percent was concluded for the subject.

This example is in no way meant to imply that this is the only way to estimate or apply market extraction in the Cost Approach. It is only provided to illustrate that market data can be used in a logical manner to apply quantifiable techniques to the valuation process. ❄️

Replacement Cost New, All Improvements	\$19,000,000
Depreciation Estimate (%)	85%
Depreciation Estimate (\$)	\$16,150,000
Depreciated Cost, All Improvements	\$2,850,000
Plus Land Value	\$2,400,000
Indicated Value	\$5,250,000



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Conclusion

For this special purpose property, neither the Sales Comparison Approach nor the Income Capitalization Approach was found to offer a reliable method of valuing the subject property. The Cost Approach was relied upon and resulted in a logical and defensible opinion of value using market evidence.



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