Valuation *of* church properties

By George Canning, AACI, P.APP

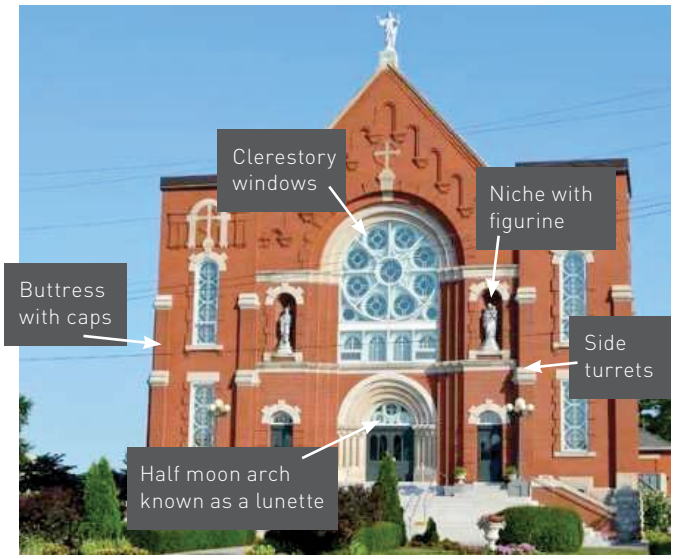
Before one can begin the process of valuing a church property, it is best to become familiar with its architecture, interior workings and definitions.

Church architectural styles have changed considerably over the centuries due to the nature of the religious organization, the availability of raw materials and financing, and their approach to worship. In Ontario, there are numerous cathedrals, but, for the most part, church buildings tend to be a mixture of many different types of historical architectural features such as Gothic, Byzantine and Romanesque, to name a few.

Presently, there seems to be a movement away from building churches based upon these older architectural styles because of high construction costs and functionality. Most valuers will be asked to determine the market value of a church property in which the attendance has been decreasing and the building requires significant maintenance costs and repairs. This seems to be a common theme, whereby church members are dying off and there is less financial support. There is no question that there has been a steady decline away from traditional church organizations because of shifts in 'belief.'

Church building exteriors tend to have varying designs and construction elements. It is commonly found that the Bell Tower and the Bell itself have been removed, generally due to safety reasons and the decrease in the purpose of ringing the church bell as a call to worship. The accompanying images of common church buildings found throughout Ontario show the different parts of churches. Understanding some architectural detail of the church building/property under appraisal and the churches uses as comparable may suggest that a possible predictor variable is the architecture of the building itself.

The correct naming of the interior parts of a church building is a critical component of the appraisal. These names can vary relative to the church organization. If the appraiser is not sure or is unfamiliar, it is best to ask the church representative for the correct names. Below are some common parts of the interior of a church.



Vestibule: This is the area of the church also known as the front entrance. Here one will find a church person handing out pamphlets for the service. This area tends to be decorated with church memorabilia or, in some organizations, a baptismal pool.

Nave: The area of the church whereby the members sit on pews or, in some cases, there are areas for wheelchairs or for standing.

Sanctuary: This area is in front of the Nave and is noted as a separate area denoted by steps or a railing.

Pulpit: This is where the minister or priest speaks. It can be raised above the sanctuary. Generally, this area has decorative wood paneling with carved elements.

Choir loft: This is the area where the choir sits. It is generally near the Organist and set off by a wooden rail or steps.

It is not uncommon to find an upper balcony area that is used by church members. It is also a common place for any sound equipment. The more modern churches will have a full complement of offices, washrooms, Sunday school rooms and additional rooms for private prayer. The basements usually have some kitchen features and are generally used for gatherings at the end of the service or for storage.

Appraisal considerations

Before the actual appraisal valuation process, it is critical to understand the church building and property under appraisal from various perspectives.

First, what has been the historical record of repairs and maintenance? Is the appraiser dealing with a church building that has a regular maintenance program or has deferred maintenance that has placed the congregation into a position of selling the property? If it is the latter, are there estimates of the cost of repairs?

Second, does the church property come with a Manse, which is a separate house used by the minister or priest, but located on the grounds of the church property? Is the Manse under a separate deed or title so that it can be sold separately from the church building and remaining property?

Third, it is important to note whether or not there have been enquiries by other church organizations to buy the property? This speaks directly to market demand.

Fourth, has the church ever been listed privately or on the open marketplace?

Fifth, is there an alternative use for the property other than a church? Here we are addressing the highest and best use of the property overall.

Example of a church appraisal

We were asked to complete an appraisal of a church property located in Oxford County. It was a typical church building that had considerable amounts of deferred maintenance.

A very important consideration to the valuation of churches is to isolate the demand for these properties over time. This can be completed by gathering a database of previously sold church properties. In our case, we had searched for church property sales in the subject county and within the surrounding counties. The sales all occurred after January 1, 2010. We did filter for sale prices since we found sales of $1.00, $2.00 or under $1,000. There were a total of 33 observations.

We cannot over emphasize the use of graphs and collecting a database of the property under appraisal. By completing this action, the appraiser can obtain a better market perspective of the specific property type and its relationship to sale price activity.

One does not have to purchase a very expensive program to complete this type of analysis. The most common ones are Excel or R, which is free.

The square dotted line is a LOWESS smoother, which 'smooths' out the entire data set and forms a common trend line. We are seeing a downward trend in pricing beginning in 2018. Some further analysis of the sale prices of the church properties shows that the average price is $250,333, with a minimum of $35,000. The median is at $175,000.

Descriptive Statistics: SALE PRICE

Variable	N	N*	Mean	SE Mean	StDev	Minimum	Q1	Median	Q3
SALE PRICE	33	0	250333	37003	212563	35000	105000	175000	318500

Variable	Maximum
SALE PRICE	975000

Data analysis process

For the valuation of church properties, it is not simply a question of finding the most current sales in rural Ontario and applying the data to the subject property. Care needs to be given as to the selection of the predictor variables that are going to be used in the analysis. Predictor variables are the ones that cause a response to the response variable, which is always the unit of measure. In our case, we selected the selling price per square foot of church building, including the land.

Earlier, we mentioned one 'architecture.' In our case, we found that this variable did not aid the appraiser in explaining the differences in the selling prices of the comparables. That does not mean that this variable should be ignored every time a church appraisal is required. In other church appraisals, we have found that it does play a role in explaining price. The architectural aspects of church buildings seem to be a geographical issue. It is more dominant in larger communities and cities as opposed to the rural areas of Ontario.

While exploring our data, we found that location, building size, seating capacity and condition were the strongest predictor variables when it came to explaining the differences in the prices of the comparables. Building age, lot size and basement finishing did nothing to explain pricing.

So how do you determine which predictor variables are the best? To answer this question, one needs to employ a quality point analysis methodology that is strictly geared to the direct comparison approach (DCA). With this exploratory data tool, a valuer can quickly determine the strength and weaknesses of all potential predictor variables. We can see that in the quality point analysis used in the report (Graph 3) that depicts the predictor variables used in the analysis.

PREDICTOR VARIABLES	WEIGHTS MARKET	
Location	**(x**	**0.24)**
Building Size	**(x**	**0.13)**
Seating Capacity	**(x**	**0.36)**
Condition	**(x**	**0.27)**
	(x	**1.00)**
Adjusted Sp Per Church Bldg		

The weights shown on the right are actual percentages. A 0.24 is 24% and all the weights would have to add up to 100% or 1.00. A Solver in Excel is used to determine the amount of the weight for each predictor variable. This is subsequently based upon the scores allocated to each predictor variable for each sale. Since the appraiser should not arbitrarily allocate his or her own weights to each predictor variable, it is best to use the Solver. The Solver can try up to 20,000 possible weights for each predictor variable in less than a second before it selects the best weights. It would take the appraiser a significantly longer period of time to arrive at the correct weights. So, there are three questions that need addressing:

1. Is there any relationship between the weights and the sale price of the comparables?
2. How does one know if those weights are correct?
3. Where did the predictor variables come from?

1. There is no relationship between the allocated weights for each predictor variable and the sale prices of the comparables. One cannot say that the predictor variable location with a weight of 24% means that the sale price of each sale represents 24%. The reason is due to the fact that the weights would change dependent upon the number of sales selected. Does that statement jeopardize the validity of the weights? No it does not. Each data set used in the analysis of real estate will produce a variety of weights, given the scores allocated to the predictor variables by the appraiser. Over time, we have noticed that a similar range of weights does emerge given varying data sets of similar types of properties.

   The amount of the weights for each predictor variable are important, because they tell the 'strength' of the weight relative to explaining the differences in the selling prices of the comparables. After all, that is the sole purpose of the DCA: to explain and reduce variation in the selling prices of the comparables. In the example above, the appraiser would expect to see a large weight for such predictor variables as location, condition and seating capacity, since those would be core issues for any buyer.
2. There is no secret formula when it comes to the selection of predictor variables. The appraiser should start with some common ones relative to the property under appraisal. We have put together a small list of possible predictor variables relative to various property types. At the end of the day, predictor variables can also change relative to location. For example, a vacant parcel of commercial land in 'small town Ontario' may not have the same number or type of predictor variables. Remember: predictor variables are a product of how the buyer and seller see the property, as well as being a function of explaining price.

PROPERTY TYPE	SUGGESTED PREDICTOR VARIABLES
Industrial Building	Location, Lot Size, Building Age, Ceiling Height, Office space amount, Building Size, Mezzanine area
Converted Office Buildings	Location, Lot Size, Parking, Building Age, Building Size, Architecture, Basement Finishing and Zoning
Retail Plaza/ Shopping Centre	Location, Lot Size, Average per square foot of rent, Tenant Type, Building Age, Building Size, Parking
Apartment	Location, Building Age, Condition, Average Rent per Suite, Lot Size, Building Size
Vacant Farm Land	Location, Shape, Soil Rating, Workable Acres, Total Acres, Topography
Improved Farm	Location, Total Acres, Workable Acres, House, Outbuildings, Specific Barn Size, number of animals(cows, pigs, chickens, turkeys)
Commercial Land	Location, Shape, Zoning, Servicing, Lot Size, Topography
Development Land	Location, Lot Size, Zoning, Official Plan, Servicing, Shape

3. With quality point, we can monitor the 'correctness' (for lack of a better phrase) regarding the best predictor variable selection by two ways.

(A) Monitor the coefficient of variance percentage (COV%) of the adjusted selling price per unit of measure selected by the appraiser. In our case, it is the selling price per square foot of church building, including the land. All the COV% consists of is the standard deviation of the adjusted selling price per unit of measure, expressed as a percentage of the mean adjusted selling price of the unit of measure. In QP, it is calculated automatically. The lower the COV% means that there is very little variance between the low and the high of the adjusted selling price of the unit of measure. That is the goal of every DCA.

Therefore, if the predictor variables selected are incorrect, there is no way that the COV% would be below 5%, for example. We can see that in the adjusted selling price output section in the valuation of the church property shown below. The $4.21 is the average or mean of the adjusted selling price per square foot of church building, including the land. The standard deviation (SD) is the distance around the above mean of $4.21. The COV% of 2% is the relationship of the SD to the mean expressed as a %.

ADJUSTED SELLING PRICE OUTPUT	
Mean	**$4.21**
Standard Deviation	**$0.10**
Coefficient of Variance %	**2%**

(B) Residual testing is a good way to determine if the appraiser's decisions about the selection of the predictor variables and their scores are correct. In quality point, we turn the model onto itself and predict the selling prices of each sale based upon the scores allocated to the predictor variables. Obviously, if we have the wrong predictor variable or allocated score, then we should see a large error in the residuals or difference between the actual selling price of the comparables and their predicted prices. This is automatically completed in QP. In regards to the church property appraisal, this analysis is shown as follows:

What the residual testing shows in the above church DCA is that, 'on average,' the difference between the actual and predicted is 1.64%. It is statistically impossible to have such a low average predicted amount by chance only. It is the result of proper data analysis by the appraiser and using a very powerful tool in the DCA: QP.

Summary

The valuation of specialty properties such as churches requires a great deal of analysis and the appraiser asking the RIGHT questions. The condition of not only the sale properties and the subject property is a key component. We have found that church owners do not segregate their future maintenance costs into present, somewhat into the future, and well into the future. They simply look at maintenance as one lump sum. However, from an appraisal perspective, there is a difference between a $100,000 maintenance cost that could be spread over five years as opposed to the same cost that is needed presently. That has a large bearing on the appraisal process. We have also found that the buyers of church properties in need of repair rely quite heavily on having one of the church members being able to fix the repairs at a substantially lower cost than if an outside contractor was hired. No appraiser can predict that situation and should only rely on the contracted cost of repairs.

PREDICTED UNIT PRICE	INDEX #1	INDEX #2	INDEX #3	INDEX #4	INDEX #5	INDEX #6	INDEX #7
Predicted Selling Price Per Sq Foot of Church Bldg	**$4.21**	**$79.88**	**$59.88**	**$45.09**	**$46.72**	**$59.62**	**$60.57**
Selling Price Per Square Foot of Church Bldg	**$30.39**	**$83.39**	**$59.61**	**$44.79**	**$47.02**	**$59.04**	**$61.18**
Absolute Error (Predicted less Actual)	**1.26**	**-3.51**	**0.27**	**0.30**	**-0.31**	**0.59**	**-0.61**
Absolute Error As % of Actual Price	**4.13%**	**-4.21%**	**0.45%**	**0.67%**	**-0.65%**	**0.99%**	**-1.00%**