

Selection of the Church Roof Finish

By Facilities Project Steering Committee

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St. Catherine's will soon be replacing its church roof because the current 48-year old roof is substantially beyond its useful life. In the design process, the Facilities Project Steering Committee (FPSC) identified several possible roof finishes for analysis. In the analysis phase, the FPSC considered the life expectancy, warranty information, and life cycle costs for the finishes as well as the parishioners' reactions based on aesthetics and/or cost.

The following report identifies the finish that was selected and summarizes the information used for the decision.

If you have questions about this report, please contact Mike Redlin at mhr5@cornell.edu.

The Selection:

The FPSC recommended, and Sr Mary accepted, **Asphalt Shingle** for the roof finish based on its cost effectiveness, proven durability over time, and parishioner acceptance. The type and color are as shown to parishioners in the "middle" sample.

The Information:

Table #1 summarizes the information for the analyzed finishes. For each, the table presents the initial cost, the life expectancy and warranty information, the predictable maintenance and its cost, and the life-cycle cost.

The FPSC used 50 years as the time period for comparisons. All the finishes, except for **genuine cedar shake**, have a life expectancy and warranty period near 50 years. **Genuine cedar shake**, with its life expectancy of 25 years, must be replaced once in this period. **Genuine cedar shake** was removed from further consideration and was not included in the parishioner questionnaire because its estimated life-cycle cost was substantially more than the others.

The FPSC noted that, although the life expectancies and warranties for the other three appear similar, there is one meaningful difference. The life expectancy for **asphalt shingle** is based on actual field experience; the life expectancies for the other two are based on manufacturers' estimates instead of long term field experience.

Charts #1 and #2 summarize the reactions from 140 parishioners on the three finishes. When only aesthetics were considered, more parishioners preferred **vinyl cedar shake** (78%) than **asphalt shingle** (69%). However, when both aesthetics and cost were considered, more parishioners preferred **asphalt shingle** (78%) than **vinyl cedar shake** (74%). In both cases, **slate tile** was the least preferred.

