



*Before*

## *Restoring A Limestone Wall*

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**W**ater hazards on a golf course are important both for adding to the quality of the game and for enhancing the beauty of the course. Glen Flora Country Club was fortunate to have a natural stream winding across several fairways and rough areas, though the stream banks were badly eroded.

In 1957, a local contractor was hired to build a cut limestone wall in the stream to

remedy the bank erosion problem. This wall was 400 feet in length and varied from three to four feet in height. The stone was laid in layers and was well fitted. The white stone wall made a lovely sight with the arched bridges crossing the stream.

The original wall stood for 13 years, but gradually succumbed to the ravages of winter frost and spring flooding. Eventually, sections





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of the wall crumbled and erosion was once again a problem on the stream banks. It was decided most practical to rebuild the wall completely. Because it seemed more economical to use our own labor rather than hire an outside contractor, work on the wall was necessarily delayed until the latter part of August, 1970, when some labor time was available.

In the first phase of the operation, all loose limestone was removed from the bottom of the stream. The second phase marked the actual rebuilding of the wall. We began the operation in the rough area to minimize danger to the laborers and lessen inconvenience to the golfers during the busy early fall golfing period. The golf season was over by the time the project was completed in the late fall.

We worked on only 20 to 30 feet of the wall

at a time. The men removed all the stones, laid them out in rows to facilitate choice of the correct sizes for later fitting, straightened the banks and also leveled the stream bed. To make a solid foundation, the largest stones were then placed at the bottom of the wall. One layer was laid at a time until the desired height was reached. All spaces were filled with stone, making the rebuilt wall wider and stronger than the original wall.

To replace missing sections of stone and to make the new wall stronger, an additional 10 tons of limestone was purchased at a cost of \$400. A total of 324 manhours was spent on rebuilding the wall at a cost of \$810. The total cost of labor and materials, including removal of excess dirt, was \$1,210. The maintenance crew took pride in their work and did an excellent job for the club.