

CONSTRUCTION MANAGEMENT BREADTH

Introduction

To determine whether the redesign of the electrical system would be an improvement a cost analysis had to occur. It comes down to money for many redesigns and for the new electrical system it was close.

In comparing systems only the new equipment for the combination was considered

As seen in the electrical section the cost of combining distribution panels and upgrading to a larger transformer does not pay off in the end. The new redesigned system cost is \$23639 compared to \$20292. The cost of the larger equipment exceeds the cost of the combined smaller transformers by close to \$5000. The larger equipment was harder to find prices for because it is not as common as a transformer rated at 150 KVA compared to the larger 500 KVA.

The table below shows a summary of the cost analysis that was performed. Costs were taken from GE and is attached in the appendix.

	Transformer	Cost	Circuit Breaker	Cost	Distribution Panel	Cost	Fuse Size	Cost	Total
New System	500 KVA	20783	1200A	106	1200 A	2450	1200	300	23639
Old System	150 KVA + 225 KVA	15488	500 A + 800 A	212	600 A + 800 A	4542	500+800	50	20292