PRELIMINARY FEASIBILITY STUDY

REVISED SUMMARY AND COMMENTS

OF

ECONOMIC ANALYSIS

FOR THE

CITY OF MARQUETTE

PUBLIC WORKS SERVICE CENTER

REVISED AUGUST 23, 1985

	SERVICE LIFE	$ INITIAL CAPITAL OUTLAY	$ SALVAGE VALUE	ANNUAL COSTS/SAVINGS						TOTAL EQUIVALENT ANNUAL COSTS $
				CAPITAL $	MAINT./ OP'NS. $	ENERGY/ UTILITIES $	OUTSIDE MAINT. CONTR. $	MANAGEMENT SEPARATION $	(SALVAGE) $	
A	15	291,731	0	38,356	1,274,061	43,300	21,000	33,075	0	1,409,792
B	33	1,261,731	970,000	131,851	1,232,600	38,950	21,000	39,000	(4365)	1,469,036
C	55	4,445,550	4,138,300	446,691	1,025,124	178,280	0	6232	(2191)	1,654,356

A = REMAIN IN EXISTING FACILITY
B = REMODEL EXISTING FACILITY
C = CONSTRUCT NEW FACILITY

NOTE: If we consider the salvage value of the existing facility as a present credit towards initial capital outlay, the equivalent annual cost of "C" becomes $1,618,385

TABLE I

EQUIVALENT ANNUAL COST ESTIMATES

NOTES REGARDING REVISED TABLE 1

1. If we remove the cost of money from the annual costs, the equivalent annual costs become

   A = 1,371,436

   B = 1,337,185

   C = 1,207,665

   This indicates an operating savings of $163,771 over existing operations. If we assume 4% inflation, this means a savings of over $31.3 million dollars over the life of the new facility.

2. More importantly, at the end of the life of each of the other alternatives, a new facility will need to be constructed. Assuming 4% inflation holds for those periods, and a building is constructed such as the one proposed, the construction cost factors would be:

   15 year @ 4% inflation factor = 1.801

   33 year @ 4% inflation factor = 3.648

   After 15 years the building would cost

   1.801 x 4,445,550 = $8,006,640.00

   After 33 years the building would cost

   3.648 x 4,445,550 = $ 16,217,370

These would both be 55 year useable life buildings.