Church & School of the Annunciation
Energy Audit Recommendations - Summary
October 11,2008

Recommendations	Proposed Savings	Maybe	Estimated Cost	Est. Years Payback	Responses
I. ITEMS WE ARE CURRENTLY DOING					
- Reduce Hot Water Temperature Church Kitchen from 155F to 120F	$ 1,455	*	$ -	(1.0)	We can do, kitchen workers may complain.
- Boiler tune ups	$ 2,168		$ 2,400	(1.0)	We do have annual and on-going tune ups We are under contract with Owens to do annual tune ups and on going mtc. We told the auditor so.
- Steam Trap maintenance	$ 945		$ 1,250	1.0	Nothing wrong with our steam traps. Failure of traps will make it too hot or too cold in room. We replace when they go bad.
- Repair & Calibrate Pneumatic Controls	$ 1,608		$ 3,000	2.0	Owens is under contract, they replace 3/year regardless, If others are bad we replace.
- Variable Speed Drives for air handlers fans	$ 1,375		$ 10,000	7.0	We have variable speed drives on our A/C airhandler, fans, and pumps.
- Fully Modulating Burner	$ 2,153		$ 40,000	14.0	We have fully modulating burners. When put on high they will automatically go low when catch up. If you need more heat they will go up automatically.
SUB - TOTALS I. - Doing	**$ 9,704**		**$ 56,650**		
II. ITEMS WE ARE LOOKING INTO/GETTING ESTIMATES					
- Water Heater timers	$ 1,634	*	$ 2,000	1.0	5 units on premise, we will have Muska Elect quote cost.
- Weather strip external doors	$ 384	*	$ 800	2.0	Contractors don't want to bid this low cost maintenance. They want to replace doors. There is no standard door, all are different. We will look into some type of weatherstripping and do some testing on selected doors.
SUB - TOTALS II. - Looking Into	**$ 2,018**		**$ 2,800**		
II. ITEMS WE FEEL ARE NOT COST EFFECTIVE AT THIS TIME					
- Variable Speed Drives for Hot Water Pumps	$ 502		$ 4,500	9.0	This would be self defeating as pumps are basically on all winter.
- Steam to Hot Water Conversion	$ 9,958		$ 100,000	11.0	Sounds reasonable, but doubt $100k investment at this time.
- Outdoor Air Ventilation Controls	$ 1,450		$ 15,000	10.0	Our system does regulate the outside air. But not at a variable rate, at a rate we set. Our economizer works but a standard rate. We doubt the estimated investment of $15k would make that difference in performance.
- High Efficiency Boilers	$ 7,773		$ 150,000	17.0	Replacement Cost seems low.Total cost to remove, plumbing, electrical, and boiler replacements we think could be as high as 3 times the estimate. In any case the cost and payback would not be justified at this time. Also, it should be noted that our boilers are on currently on the Small Volumn Dual fuel rate, our water heaters are on Commercial Fixed Rate.
SUB - TOTALS III. - Not Now Cost Effective	**$ 19,683**		**$ 269,500**		
TOTALS I.-II.-III.	**$ 31,405**	**$ 3,473**	**$ 328,950**		