## Mall Balances Energy Savings With Customer Shopping Needs

What does a dynamic, thriving regional shopping center do to conserve energy, yet retain shopping convenience and efficiency for the thousands of customers that depend

on that center's services for their daily shopping needs.

In the wake of the crisis' first big surge Livonia Mall took measures to shop the control of the slash energy use. The Livonia Mall, as one of the area's biggest businesses and a town center, has implemented many energy saving measures such as turning down thermostats, dimming lights, especially high energy spotlights in the stores, cutting back instore demonstrations of electric appliances and even turning off the big Livonia landmark, their pylon, shortly after closing.

However, faced with the problems of security and safety to their customers in the parking lots, the Mall has decided to restrict only the lights within the Mall, yet maintain a\_well-lighted parking area during the hours of darkness.

The center Mall lights have been converted from high energy spots to bare strip tube lighting, which is the most efficient use of energy for lighting. And even the power of the new lights have been cut in half.

Drop ceilings in most of the stores and mall courts have helped conserving heat loss directly

through the roof (the main cause of heat loss) by the insulating properties of the air trapped between. Some stores have yet to turn on their furnaces this winter, while others, more exposed to the elements with outside windows, have set their thermostats from 65-68°. The Mall itself is being maintained at 68°.

Fortunately, through the fore-thought of the Mall's owners, George Klein and Jack Shenkman and their architect, Louis G. Redstone, Livonia Mall, one of the first enclosed Malls to be built in Michigan, was constructed with few exterior windows and doorways so heating and cooling have never been excessive in use of fuels. They found the insulative powers of masonry versus glass is 275 to 1.

In December the Mall as a whole, including stores and parking lot, showed an actual savings of 10% in energy over the previous year and 25% for the Mall area itself. In the Mall area there was a cutback in wattage of approximately 2,120 watts for a period of 19 out of 24 hours, and a lesser savings on the remaining 5 hours.

The difficulty of energy planning is balancing customer comfort and shopping convenience with energy-saving measures. So far Livonia Mall has been able to maintain a balance equitable to both sides.

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