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HVAC Change Is Coming - Bulletin One

Shadowwood will soon begin a large-scale project to replace the entire heating and air-conditioning (HVAC) infrastructure. As this will involve the most comprehensive upgrade to the Shadowwood property since its initial construction, the HVAC Committee, on behalf of the leadership and management teams, prepared the following update bulletin for owners.

Question (Q): Why is the Association replacing the HVAC system?

Answer (A): The system is being replaced for the following reasons:

- Most of the air conditioners are original, 35-year-old equipment. In addition to being difficult and costly to maintain, parts are no longer available for these units, these systems are very inefficient and consume a great deal of energy to operate. The units are also very noisy, unattractive and require refrigeration chemicals that damage the environment and will no longer be commercially available after this year.
- Most of the heating plant is original with small natural gas boilers having been installed 15 years ago to replace large oil- and gas-fired boilers originally installed in the clubhouse basement. These small boilers are now failing and need to be replaced.
- The heating system cannot be modulated and operates at maximum output from early fall through late spring. This wastes an enormous amount of energy and results in very high winter gas (heating) bills.
- Likewise, the air conditioning system cannot be modulated and operates either on at maximum output or off. This often results in over cooling, but under dehumidification, resulting in cool, but damp and uncomfortable interior conditions.
- The SCA uses an obsolete and wasteful “two-pipe” HVAC technology. This system does not allow simultaneous heating and cooling. During spring and fall months, when some residents may want heating and others cooling, the Association is unable to accommodate that desire. The new system will operate as residents wish and provide cooling or heating (or nothing at all) on any day of the year. In addition, low- or high-speed air circulation without heating or cooling will be possible in the units for the first time at Shadowwood.
- Our thermostats (which belong to the Association) are not programmable, use mercury - a potent poison and environmental toxin -- and are no longer available in the market.
- The existing heating distribution plumbing system is corroded and cannot be economically repaired or replaced.
- An unexpected, but valuable, tax benefit is now available - see below for more details.

Q: What will this cost me?

A: As you know, and based on professional recommendations, the Association increased the maintenance assessment substantially over the past several years and has been investing more than \$600,000 a year into replacement reserves - funds that will be used, in part, for the HVAC replacement program. What's more, the Association will attempt to negotiate an innovative equipment lease or loan arrangement, while interest rates are at historic lows, so that it will not own the HVAC equipment and avoid any upfront cost and the ownership and maintenance nightmares of owned equipment. The reserve funds will be used to pay for needed upgrades to other common elements and to fund lease payments. As such, the Association does not anticipate the immediate need for a special assessment or for significantly higher maintenance assessments.

Q: Why can't I replace my unit's HVAC system myself?

A: All of the SCA HVAC equipment is owned by the Association, not by individuals, as a common element. As such, maintenance and repair of these items is the responsibility of the Association, not individual owners.

Q: I've heard that a big tax credit of \$1500 is available for the HVAC upgrades. Will I be able to take it?

A: **In most instances, the answer is YES!** The SCA has received clarification from the IRS that most unit owners will be able to take the credit even though the Association will be paying for the HVAC upgrade. The equipment being installed is ultra-high efficiency (17 SEER) and will meet the tax-credit eligibility cut off of 15 SEER. As always, please consult with competent counselors before determining that the tax credit may be claimed.

Q: I've heard that the Association is installing heat pumps. Aren't heat pumps cold and drafty?

A: Today's modern heat-pump technology, particularly the technology being selected by the SCA, produces warm, comfortable heat with air outlet temperatures as warm as that currently produced by the SCA gas heating system. In addition, the blower motors operate at constantly variable speeds so that higher velocity air is delivered in cooling mode and lower velocity, warmer, air is delivered in winter. Air speed will vary continuously depending on temperature and season. And, on the few very coldest days of the year, when the outdoor temperature is below 10 degrees, the SCA is installing electronically controlled booster heaters in each HVAC unit that may activate if your unit needs supplemental heat or to keep the air outlet temperature from feeling cool.

Q: But isn't electric heat expensive?

A: No. Electricity is purchased in bulk by Shadowood and through prudent limits on what is called "demand," Shadowood owners enjoy electricity rates substantially lower than individuals. In addition, while it is true that traditional forms of electric heat do consume a large amount of electricity, the heat pumps being installed at SCA are ultra efficient and will consume far less energy than either the electric air conditioners or the gas heating does today. In addition, electricity prices are stable; natural gas prices fluctuate wildly from day to day and season to season. Of course, gas rates are highest in the winter when the consumption is highest - resulting in \$200 gas bills for SCA units. Our utility bills will be stable from year to year and season to season with much smaller peaks and valleys that we now suffer through.

The Association estimates that most owners will see a significant reduction in utility expenses. For those unit owners who actively conserve electricity, set their thermostats at reasonable levels, install compact fluorescent bulbs, replace their windows and doors, weather-strip doors and windows and unplug electronic devices when not being used, the HVAC Committee estimates that utility expenses may decrease by as much as 50 percent. What's more, if the Association is permitted to sub meter electricity, conservation-minded unit owners will directly benefit by all energy-saving measures they may choose to use or implement and will be enjoying significantly lower monthly assessments now than in any of the past five or more years.

Q: Speaking of doors and windows, why are they not being changed?

A: All Shadowood doors and windows are unit, not common, elements. As such, they are part of the unit to which they appertain and replacement or repairs to them are the responsibility of the unit owners. Please note, however, that tax credits may be available to unit owners who do choose to replace their doors and windows and significant energy savings will result from new, modern windows and doors. As such, the HVAC Committee strongly urges unit owners to replace their doors and windows to take advantage of the tax credit and enjoy additional comfort, quieter units and increased energy savings. Consult with your tax and legal counselors for more information.

Q: When will my system be changed?

A: Details are still being discussed with various vendors, but about six units a day (or one address) will be changed. The oldest units will be changed first, and an entire row of addresses sharing one boiler will all be changed at the same time. We do not anticipate any unit being without heat or air conditioning for more than two days and portable heaters and coolers will be made available to those who may want them.

Q: What else is being changed?

A: The Association is replacing its obsolete energy-management system with a modern, off-the-shelf and industry-standard digital, internet-enabled system. This system will control and monitor outdoor lighting and adjust the security lighting automatically so that the lights are on only when needed rather than operating 24 hours a day and wasting energy as many of the lights do today. In addition, and pending legal review, the Association will re-implement electricity sub metering so that each unit will be charged for the electricity consumed in the unit and for a share of the common utility expenses. In this way, each unit owner will be assessed for only that much energy that is consumed in the unit for both heating and cooling and all other in-unit electricity consumption. The Association may also replace existing water heaters with ultra-efficient models as time and resources allow.

Q: Where can I get more information?

A: Details, as they become available, will be posted on the SCA TV Channel (channel 10 for resident owners), on the SCA Website, shadowoodcondos.com, and in special bulletins such as this one. The Association may schedule information meetings at the clubhouse if there is enough interest from residents in such a meeting. You may email questions to the HVAC Committee at president@shadowoodcondos.com and please let the HVAC committee if you would like to attend an informational meeting at the clubhouse. Please indicate your time and day preferences.

Next Issue: Answers to your questions and vendor updates.