The weather may have cooled down during the last half of the Leonardo Arms Building One restoration project, but the work didn’t. Much work remained on the table including the installation of the waterproofing membrane, new walkway guardrails, new first floor walkways and balconies, and the repair of the suspended stucco ceiling. But, before the project could move on to these tasks, the association had to resolve the issue of dealing with the overages presented in the previous article.

In part one of this article, which ran in the February 2011 issue, methods of funding overages were discussed as well as how an association can...
sometimes use reserve funds to cover overages. The question arose, “How do we determine our new reserve contribution rates after utilizing those funds for project-related expenses?” That is where a Reserve Impact Statement (RIS) comes into play.

An RIS takes your current reserve fund criteria, applies the overages the association wants to pay out of reserves, redistributes the remaining funds appropriately, and determines the new reserve contribution rate in order to maintain a healthy reserve fund. This essentially avoids the impact of a second assessment, spreads it out over a longer period of time, and rolls it into the reserve contribution rate. RIS’s can also be used to recalculate reserve contributions when reserve expenses exceed the amount in reserves for that line item or when reserve expenses occur earlier than planned. RIS’s are invaluable tools that cost significantly less than a whole new reserve study. However, they utilize the current reserve plan without re-evaluating it for correctness, and it is only recommended for associations that have had a professionally prepared or updated reserve study within the last three years.

If no contingency was planned for and no reserve funds are available to utilize, the final option for funding overages is to have the association perform a second assessment. The cost of overages should be evaluated by the association’s engineer to determine if they are in line with industry standard rates.
Corrective Measures

The Leonardo Arms Building One Association planned ahead and prepared a contingency amount of funds for such overages. The scope and cost of the overages was agreed upon, and the project never missed a beat. The suspended stucco ceiling above the walkways was previously repaired incorrectly. Almost all areas that were repaired during the previous restoration project needed replacement and were removed. The metal framing supporting the stucco lath (metal mesh that the stucco is placed onto) was installed per industry standard details. Many details and specifications that are “standard” in new construction have flaws that are exposed only after a building has significantly aged. This was the case with the stucco ceilings. When exposed to only a small amount of moisture, the framing would rust and break apart. In many locations, hundreds of pounds of stucco were suspended above the walkways and residents’ heads by caulking and paint alone.

The engineer and contractor met to discuss a new framing method and develop a system that went beyond the “industry standard.” The final design changed the original system and included rust-resistant materials and redundant fastening so that if the damage ever occurred again, it would reveal itself and not fall.

The first floor walkways and balconies were completely demolished and a new cast-in-place design was provided by the engineer. The reconstruction of the slabs and beams went smoothly and little to no complications presented themselves.

The next challenge was installing the new guardrails. The original guardrails were core drilled and grout set into the slab. When the contractor started removing some of the rail posts, he discovered several issues. First, the slab was barely three inches thick at the edge and there was no metal pan for the last several inches. This meant if new holes were to be cored into the slab, the contractor would likely punch through the slab and there would be no way to pack the grout in around the new posts since it would all just fall into the ceiling below. The second problem was that the original construction of the building exhibited this very problem. In many locations, cardboard, roofing felt, and other miscellaneous materials were found in otherwise hollow cores. It appears that the original contractor wedged whatever he could find into the post pockets in order to temporarily hold them still, then poured his three-fourth-inch concrete topping against the rail, locking it into place and hiding the mistake. The association was fortunate over the years that the limitations of the old rail system did not result in the harm of any persons.

A surface mount method was decided upon as the only viable way to safely attach the new rails to the slab without significantly rebuilding all the walkways.

The final major step in the project was to apply the waterproofing membrane to the walkways and the first floor balconies. The system used was a three-step process utilizing a popular polyurethane based system. The first coat is the actual waterproofing coat applied directly to the prepared concrete. The second coat is a topping material, which has sand broadcast into it. Whatever sand sticks to the second coat remains and the rest is brushed off the surface. A third and final coat was applied over the sand impregnated layer giving the surface a non-slip texture and protecting the waterproofing base from ultraviolet (UV) light damage. These types of systems
typically need recoating every five years to correct scratches and blemishes and to restore the UV protection.

The reconstruction of the first floor walkways and balconies were phased so that residents on floors two through six always had access to at least one elevator. The contractor met with first floor residents who had special needs and provided other means of access to their units during this phase. Temporary stairs were built to several first floor balconies allowing unit owners to come and go as they pleased throughout the project. This increases resident satisfaction and reduced project downtime for the contractor.

The Final Touch

Bold moves were made to improve the appearance of the building. The association knew that the new rails on the walkways were going to be a significant improvement to the aesthetics of the property and so they decided to make some other changes as well. The existing paint scheme at Leonardo Arms was a simple white with beige trim. The scheme had never been changed since the buildings were built. Several new paint color schemes were presented to the association by the paint manufacturer using software that shows the paint on an actual photo of the building before it’s ever painted. A scheme was decided upon, and the contractor was able to incorporate the new colors into the project timeline.

Old wooden walls built alongside the main walkway ramps were also torn down in favor of extending the new guardrail and adding additional awning material. The overall change took the building from a drab 1970’s appearance to a vibrant and warm place to call home. To say the residents at Leonardo Arms Building One were happy about the final results would be an understatement.

Construction projects are never enjoyable for the residents and are often referred to as a necessary evil. But a well-developed plan and competent professionals can make it as painless as possible.

Joshua L. Porter is president/founder of Consult Engineering, Inc. For more information, visit www.consultengineering.com.