

Ad Hoc Balcony Committee Research & Recommendations

Table of Contents

Section A	Page
<ul style="list-style-type: none">• Fact Sheet about Fairlington Villages Balconies<ul style="list-style-type: none">- Basic Project & Product Information- Specifications• Endurable Building Products (Balcony Manufacturer) Cleaning & Maintenance<ul style="list-style-type: none">- Railing & Deck Frames- Decking• Case Study: Fairlington Villages	<ul style="list-style-type: none">A-1A-2A-3
 Section B	
Summary of Research & Recommendations (Including Concerns, Summary of Research, Recommendations; Permitted & Not Permitted Items; & Images)	
<ul style="list-style-type: none">• Overarching Principles: Safety, Liability, Damage to Property• Planters, Hanging Baskets & Flower Boxes• Lighting & Decorative Items• Privacy & Noise Abatement Items• Free-Standing Items & Storage• Grills & Fire Pits• Hammocks• Umbrellas	<ul style="list-style-type: none">B-1B-2B-3B-4B-5B-6B-7B-8
 Section C	
Recommended FV Handbook Language on Balcony Allowances & Restrictions	
<ul style="list-style-type: none">• Balcony & Deck Care Recommended by Balcony Manufacturer• Planters, Hanging Baskets & Flower Boxes• Lighting & Decorative Items• Privacy & Noise Abatement Items• Free-Standing Items & Storage• Grills & Fire Pits• Hammocks• Umbrellas	<ul style="list-style-type: none">C-1C-1C-2C-2C-2-3C-3C-3C-3-4

Section A

Fact Sheet about Fairlington Villages (FV) Balconies

Basic Project & Product Information

- Six phases of balcony replacement: Project began in 2012 and ended in 2017.
- Replacement Cost to FV (from reserve funds): \$12 million
- Balconies are limited common elements owned by FV
- Balcony Manufacturer: Endurable Building Products
- Balcony Product: “alumiLAST Railings, Deck Frames and Decking”

“The balconies were manufactured in the Endurable factory in Minnesota and shipped to this site. The basic deck configuration featured the main aluminum deck frame (which is pre-built and welded as one unit, then power coated); it is lifted into place and bolted to the side of the building and secured to the concrete footings with 4” x 4” matching powder coated aluminum posts. The decking panel is fastened from below and the railings are installed to complete the balcony.”¹

Website information from www.endurable.com:

“Our alumiLAST® framing is perfect for multifamily decks. The products feature fully-welded frames with aluminum joists, posts, beams, decking and railing. We offer a variety of powder coat colors so you can find one that matches your client’s existing color scheme. Aluminum decks are ideal for condo decks, apartment decks and lofts because they outperform other materials like wood and vinyl.

Our aluminum decks:

- Require minimal maintenance—they will never rot, twist, warp or rust.
- Are non-combustible to meet all safety code requirements.
- Are built-in complete assemblies or modular panels for fast and easy installation.”

Specifications

- Number of FV balconies: 972
- Life of balconies: 40 years
- Warranty: 50 years
- Weight supported: 3,000 lbs. per floor x 3 = 9,000 lbs.
- Deck material: 2mm thick, textured surface
- Balcony size: 6’30” wide x 13’30” long (Monticello unit)
- Rail separation: meets code for child safety
- Damage, Maintenance & Repair:
 - DECK: “The balcony deck *can’t* be fully resurfaced. If damaged, the deck will have to be replaced. Small sections of peeled surface can be repaired with a special compound, but FV hasn’t tried that yet. The installation of new decks and the repair of the surface will have to be done by the original installer, American Restoration. The decks and the special compound for the repairs are provided by Endurable Building Products,” according to M. Galvez.
 - RAILINGS: Scratches may be painted with black enamel touch-up.”²
- Liability: Normal wear & tear-FV; Negligence-Owner

Sources:

¹ Case Study: Fairlington Villages by Endurable Building Products

² Endurable Building Products Care and Maintenance Guide for alumiLAST Railings, Deck Frames and Decking Balance: Miguel Galvez (FV Facilities Manager)

Section B

Summary of Research & Recommendations

Overarching Principles: Safety, Liability, Damage to Property

Safety

The safety of all unit residents is of utmost importance; this was the highest priority for the Balcony Committee. Fairlington is a densely populated neighborhood and residents must be mindful of how their actions and personal belongings may impact their fellow residents, such as items falling to lower-level units or becoming airborne in high winds. Many of the Committee's recommendations for restrictions on balcony items derive from this priority on the safety of all residents.

Liability

The Committee, in coordination with the FV Association Board of Directors and Management, consulted with the Association's legal counsel regarding responsibility and liability for personal items on balconies. Legal counsel provided the following statement for inclusion in the Handbook:

Residents are responsible for safely securing all personal items placed or stored on balconies. Residents shall be liable for and shall indemnify, defend and hold harmless the Association from any and all damage to, without limitation, any person, neighboring units or common elements (including limited common elements) or any other property. To the extent the resident is a tenant, the Unit Owner/landlord shall be jointly and severally liable for same and shall jointly indemnify, defend and hold the Association harmless. Residents and Landlord Owners are strongly encouraged to obtain insurance coverage to cover any claims that may arise due to items that may fall from their balconies.

Damage to Property

The Committee's recommendations also prioritized limiting the potential for damage to Association property – the limited common elements of the balcony deck and railings. The Committee consulted with the balcony manufacturer with specific questions on what items or actions may damage the balcony deck and railings. The manufacturer confirmed that scratches to the powder coat surface of balcony railings can easily be touched up by residents, so the Committee recommends permitting a number of items to be attached to or hung from railings. In addition, the balcony manufacturer, Endurable Building Products, confirmed that each balcony is built to support 3,000 lbs. of weight.

Planters, Hanging Baskets & Flower Boxes

Concerns

- Weight of items on balcony deck and railings
- Potential for scratches or other damage to balcony railings
- If not properly secured, heavy items may fall

Summary of Research

- Each balcony deck can support 3,000 lbs.
- Plants and hanging baskets can get heavy (e.g. 50+ lbs.), but heavy-duty zip ties can be used to securely hang them and prevent items falling
- Planters can be attached to balcony railings using zip ties to prevent items falling
- Scratches to balcony railings can easily be repaired, per manufacturer guidance

Recommendations

Permitted Items:

- Planters on balcony deck with shims/feet underneath
- Planters hung from railings (saddle style or one-sided boxes facing in) and securely attached using zip ties or cords; on ground level balconies, one-sided boxes may face out
- Hanging baskets hung securely from above balcony crossbeam (for first and second floor units)

Not Permitted Items:

- Clay bricks as planter shims or supports
- Securing or hanging baskets or planters using bungee cords
- One-sided flower boxes facing out, on second and third floor units

Examples of saddle style planters:



Lighting & Decorative Items

Concerns

- Outdoor lighting: Bright lighting may negatively impact surrounding neighbors (shining into windows, etc.)
- Candles may ignite nearby combustible materials if left unattended
- Hanging decorative items may fall
- Bird feeders: Fallen seeds can attract rodents and other pests.

Summary of Research

- Outdoor lighting: Some condo communities limit amount of light emitted from decorative outdoor lighting and limit hours when used
- Candles can be monitored by residents to ensure safety
- Hanging decorative items can be securely attached to eliminate falling
- Bird feeders: Hummingbird feeders use sugar water (not seeds) and thus do not attract pests. Bird feeders are allowed only on first floor patios and on upper level balconies where there are no patios below.

Recommendations

Permitted Items:

- Decorative outdoor lighting: no brighter than 45 watts/450 lumens (turned off between 11:00 pm – 6:00 am), attached to balcony posts or railings by wrapping or using zip ties
- Candles at least 12 inches away from combustible materials
- Hanging decorative items: hung securely
- Hummingbird feeders. Bird feeders are allowed only on first floor patios and on upper level balconies where there are no patios below.

Not Permitted Items:

- Bird feeders that use any types of seeds. Not permitted on upper level balconies with patios underneath.

Examples of outdoor lighting and hanging decorative items:



Privacy & Noise Abatement Items

Concerns

- Weight of items on balcony deck and railings potentially exceeding safe load
- Potential for scratches or other damage to balcony railings
- Potential for items to become airborne in high wind and/or to fall

Summary of Research

- Privacy screens that allow wind to pass through them are safe, as long as they are securely attached to balcony railings
- Curtains have the potential to become airborne in high wind and could catch fire if they come in contact with grills/candles on neighboring units
- Free-standing privacy dividers can mitigate noise from HVAC units and neighboring balconies and can be securely attached to railing posts to mitigate falling in high wind
- Scratches to balcony railings can easily be repaired, per manufacturer

Recommendations

Permitted Items:

- Privacy screen panels attached to railings (plastic leaves, aerated screen)
- Decorative free-standing privacy dividers: on interior side facing other balconies/HVAC units, neutral solid color (black, brown/wood, beige, or white)

Not Permitted Items:

- Curtains
- Patio canopies

Examples of privacy screens and free-standing privacy dividers:



Free-Standing Items & Storage

Concerns

- Weight of items on balcony deck and railings
- Potential for items to become airborne in high wind and/or to fall; glass items in particular can become airborne and do significant damage

Summary of Research

- Each balcony deck can support 3,000 lbs.
- Scratches to balcony railings can easily be repaired, per manufacturer
- Deck storage box can provide additional storage for residents
- Floor coverings with plastic/rubber backing may melt and damage the balcony deck; polypropylene or wood materials do not melt

Recommendations

Permitted Items:

- Bicycles
- Resin deck/storage boxes: height not exceeding height of balcony railing
- Patio-type furniture
- Floor coverings made of polypropylene (outdoor rugs, interlocking tiles) or wood
- Children's tents or teepees

Not Permitted Items:

- Glass tables and shelving
- Floor coverings with plastic or rubber backing
- Artificial turf
- Clay bricks and other free-standing items placed to close the gap between the bottom horizontal rail and the deck

Examples of resin storage box and polypropylene and wood floor coverings:



Grills & Fire Pits

Concerns

- Smoke from grills and recreational fires affects neighboring units
- Open flames from cooking devices and recreational fires present a fire safety hazard

Summary of Research

- Arlington County and the City of Alexandria prohibit open-flame cooking devices, recreational fires, and portable outdoor firepits on balconies
- Electric grills are permitted in Arlington and Alexandria when used according to manufacturer instructions and plugged into a proper electrical outlet
- Deep fryers and turkey fryers use large amounts of oil at high temperature and can cause fire, serious injuries, and damage to balcony deck and condo units

Recommendations

Permitted Items:

- Electric grills designed for outdoor use

Not Permitted Items:

- Charcoal and gas grills
- Portable outdoor firepits
- Other recreational fires
- All smokers, deep fryers/turkey fryers

Examples of outdoor electric grills:



Hammocks

Concerns

- Weight of items on balcony deck and railings
- Potential for scratches or other damage to balcony railings

Summary of Research

- Each balcony deck can support 3,000 lbs.; hammock on stand can be supported by balcony
- Balcony manufacturer (Endurable Building Products) confirmed that a hammock can be safely hung from balcony cross beams or between two vertical support posts, provided gross total weight is 250 pounds or less
- Installation of a hammock must not use any invasive procedures such as drilling holes in the balcony structure or the brick wall of the unit building
- Scratches to balcony railings can easily be repaired, per manufacturer

Recommendations

Permitted Items:

- Free-standing hammocks with a stainless steel hammock stand
- Single-person hammocks hung between the two vertical support posts at opposite ends of the balcony
- Hanging or suspended seating hung using a combination of horizontal or vertical support beams/posts (gross weight limit of 250 pounds)
- Limit of one hammock or hanging/suspended seat per balcony

Not Permitted Items:

- Installing hammock using invasive anchor points

Examples of permitted hammocks:



Umbrellas

Concerns

- Weight of umbrella base stand on balcony deck
- Concern about umbrella becoming uplifted in high wind
- Potential for scratches or other damage to balcony railings

Summary of Research

- Each balcony deck can support 3,000 lbs.
- Balcony manufacturer (Endurable Building Products) confirmed that an umbrella holder can be safely attached to the balcony railing, and scratches to balcony railings can easily be repaired
- An umbrella tethered to a balcony railing is less likely to be uplifted in high wind than an umbrella in a stand
- An umbrella in a base stand should be tethered to the balcony railing to prevent the base from tipping or falling over
- Cantilever umbrellas require significantly more weight in the base stand because of their large size and are more likely to be unsafe in inclement weather

Recommendations

Permitted Items:

- Umbrellas tethered to balcony railing
- Umbrellas in base stands tethered to balcony railing

Not Permitted Items:

- Cantilever umbrellas

Examples of umbrellas tethered to railing:



Section C

Fairlington Villages Handbook

Recommended Language on

Balcony Allowances & Restrictions

Responsibility for Items on Balconies

Residents are responsible for safely securing all personal items placed or stored on balconies. Residents shall be liable for and shall indemnify, defend and hold harmless the Association from any and all damage to, without limitation, any person, neighboring units or common elements (including limited common elements) or any other property. To the extent the resident is a tenant, the Unit Owner/landlord shall be jointly and severally liable for same and shall jointly indemnify, defend and hold the Association harmless. Residents and Landlord Owners are strongly encouraged to obtain insurance coverage to cover any claims that may arise due to items that may fall from their balconies.

Balcony & Deck Care Recommended by Manufacturer

Maintenance:

- Check periodically for any loose parts, such as screws or railing pickets.
- If chips or scratches are found in the powder coat surface of the railing, use black enamel touch-up paint (either spray or liquid).

Planters, Hanging Baskets & Flower Boxes

Planters, hanging baskets, and flower boxes on railings (saddle style or one-sided boxes facing in) are permitted. On ground-level balconies, one-sided planters may face out. Planters must have shims or feet so that air can circulate, allowing water to drain away and keeping the balcony deck clean and dry. Hanging baskets may be hung from the crossbeam of an above balcony using heavy duty zip ties or cords that can support the weight of the basket. Flower boxes must be securely attached to railings using zip ties to prevent them from falling. Planters that straddle the rail must be designed to fit the balcony railing width (2 inches).

Restrictions:

- Clay bricks, which absorb water, are not permitted as planter shims or supports.
- One-sided flower boxes on railings facing out are not permitted on second and third floor balconies because they may fall.
- Holes may not be drilled into bricks/mortar, railings, decks, or roofs.
- Bungee cords may not be used to secure hanging baskets or planters.
- Residents may not sweep or throw any dirt or debris off of balconies.

Lighting & Decorative Items

Decorative outdoor lighting, no brighter than 45 watts/450 lumens, is permitted. Lighting must be securely fastened to railings or posts (either by wrapping around or using zip ties) and turned off between the hours of 11:00 pm-6:00 am.

Candles are permitted provided they are at least 12 inches away from combustible materials, including decorative materials, and are not left unattended.

Hanging decorative items are permitted provided they are hung securely. Hummingbird feeders are permitted because they use a sugar and water mixture rather than seeds.

Restrictions:

- Bird feeders that use any type of seeds are not permitted, since they attract rodents and other pests.

Privacy & Noise Abatement Items

Privacy screens made of faux panels (e.g. plastic leaves, aerated screen) are permitted. They must be firmly secured to balcony railings with zip ties, bungee cords, or non-scratching materials.

Decorative free-standing privacy dividers are permitted. They may only be placed on the interior side facing other balconies and/or HVAC units, and they must be firmly secured to railing posts with at least 50 lb. strength cables or other heavy-duty ties and/or bungee cords. Privacy dividers must be a neutral solid color (black, brown/wood, beige, or white).

Restrictions:

- Curtains are not permitted because they can become airborne in high winds and could be a fire hazard.
- Patio canopies are not permitted because they are designed for anchoring in the ground and are not safe for use on balconies.

Free-Standing Items & Storage

Bicycles, resin deck/storage boxes, and patio-type furniture are permitted. Resin deck/storage boxes may not exceed the height of the balcony railing.

Floor coverings (such as outdoor rugs or interlocking tiles) made of polypropylene or wood are permitted.

Children's tents or teepees are permitted provided they are disassembled and stored during heavy wind and rainstorms so as not to become airborne.

Restrictions:

- Glass tables and glass shelving of any size and function are not permitted because they can become airborne and break.

- Floor coverings with plastic or rubber backing as well as artificial turf are not permitted because they can melt and damage the balcony deck surface.
- Clay bricks and other free-standing items placed to close the gap between the bottom horizontal rail and the deck are not permitted because they are not secured and can easily fall.

Grills & Fire Pits

Electric grills that are designed for outdoor use and listed by a recognized testing authority are permitted. Manufacturer's safety precautions and instructions must be followed, including requirements for the type of electrical outlet (e.g. GFCI outlet); amperage, cord length and outdoor usage rating for an extension cord (if needed), and protection from weather.

One GFCI electrical outlet is permitted to be installed on balconies provided it is installed no more than 18 inches above the ground or a balcony deck on an exterior wall, is installed by a professional, licensed electrician, and is enclosed in a weatherproof receptacle with a hinged cover over the outlet.

Refer to the Handbook section on Fire Safety and Prevention (page 57, Eight Edition, 2021) for additional information.

Restrictions:

- In accordance with the Arlington County Fire Prevention Code Section 308.1.4 and City of Alexandria restrictions, which follow the Virginia Statewide Fire Prevention Code Section 308.3.1, all charcoal and gas grills, portable outdoor firepits, and other recreational fires are not permitted on balconies.
- All smokers and deep fryers/turkey fryers are not permitted regardless of heat source (charcoal, gas, electricity).

Hammocks

Hammocks and other types of hanging/suspended seating are permitted provided that the installation and use does not alter the balcony structure (support beams, railings, deck, ceiling) or the brick wall. Types of approved hammocks include: free standing hammocks with a stainless steel hammock stand, single person hammocks hung **only** between the 2 vertical support posts at opposite ends of the balcony, and hanging or suspended seating hung using a combination of the horizontal or vertical support beams/posts (gross weight limit of 250 pounds). There is a limit of **one** hammock or hanging/suspended seat per balcony.

Restrictions:

- Invasive anchor points (drilling holes, adding high tension wiring with crimps, etc.) are not permitted.

Umbrellas

Umbrellas tethered to balcony railings or in base stands tethered to the balcony railing are permitted. Quality (one, two or three-tier) umbrellas must be tethered securely to inside balcony

railings using fasteners such as steel strap U-brackets (for bottom, middle and upper attachment to the balcony rail on the 2-inch rail), gear ties, zip ties, or paracord. A variety of umbrella deck mounts/patio umbrella holders to secure umbrellas to the balcony railing can be purchased online or in home improvement stores.

Umbrellas in a base stand must be in a heavy duty stand appropriate for the size of the umbrella (add 10 pounds for every foot; a 7.5 foot umbrella requires a 75-80 pound base stand and a 9 foot umbrella requires a 90-100 pound base stand). The umbrella must also be tethered to the railing for safety using a bungee cord, gear ties, or strap. Use of an *umbrella cone wedge plug stabilizer* to steady the base stand and pole connection is strongly suggested.

For safety, always close and secure umbrellas with a strap, tie, or cover bag when not in use, as well as in excessively windy and stormy weather.

Restrictions:

- Cantilever umbrellas are not permitted because the base and canopy size are too large for Fairlington balconies.

ENDURABLE[™]

Building Products

Endurable Care and Maintenance Guide for alumiLAST Railings, Deck Frames and Decking

Railing & Deck Frames

CLEANING

- A. **Dirt and Debris** – To remove dirt and debris, use clean water and dish soap, rinse with water. Do NOT use acid solutions, steel wool, or other harsh abrasives. Do NOT power wash.

MAINTENANCE

- A. Periodically check for any loose parts, such as screws or railing pickets.
- B. If chips or scratches are found in the powder coat surface, use a similar color enamel touch up paint (either spray or liquid).

GRILLS

- A. Keep grills and other high heat sources at least 18" to 24" away from railings and other building structures.
- B. Grill mats are recommended to prevent hot ash material from landing on the deck surface.

Decking

CLEANING

- A. **Dirt and Debris** – Clean deck to remove dirt and debris. Dish soap and water is generally all that is needed. An eco-friendly cleaner called Citadel's Eco Cleaner is also available directly from Citadel Coatings. Phone 866-765-4310 or www.citadelcoatings.com. Do NOT use acid solutions, bleach, steel wool, or other harsh abrasives.
- B. **Ice and Snow** – Use a plastic shovel, NOT a metal shovel to remove ice and snow. Apply calcium chloride to melt ice. Rinse off debris when first practical.
- C. **Oil & Grease Stains** - Rinse the stain with dish soap and hot water as soon as possible. For tough stains, Citadel's Eco Cleaner may be required. Contact Citadel Coatings at 866-765-4310.
- D. **Mold & Mildew** – Semi-annual (spring and fall) cleaning of the deck is important to prevent the buildup of pollen and other debris that can support the growth of mold.

Case Study: Fairlington Villages

How Do You Solve the Problem of Aging Decks?

Faced with 972 degrading 35 year old steel and concrete balconies and decks, the Fairlington Villages Condominium Association Board of Directors was looking for a logical solution. The board was keenly aware of the daunting task at hand with apparent structural issues and escalating needs for maintenance; constant rust remediation, painting and concrete repair.

As one of the nation's largest condominium associations they have experience with large scale repair projects but this was a huge undertaking - due to the age of the buildings, the tight confines, types of materials used and number of people affected. In 2007 they brought in restorative engineers Tadjer, Cohen, Edelson & Associates (TCE) to assess the scope of the problem. What TCE found were significant and ongoing issues with structural integrity. The steel was failing in areas due to years of water infiltration and expansion, rust-through on some deck pans, issues with deteriorating concrete and the railings were no longer compliant with current building code. The potential for further failure in the steel posts and the concrete work convinced the board that it was time to find a solution. The options were to repair and replace, continue to maintain, or replace the decks and railings entirely. With the code issues, failing supports and escalating future maintenance costs considered, the decision was made to replace all of the decks.

The cost of replacing ALL 972 decks, as originally built, with painted steel frames, supports, railings and waffle pans filled with concrete, was estimated and determined to be prohibitive at more than \$20 million. While researching alternatives, restorative engineers from TCE discovered the Endurable Building Products (Endurable) structural aluminum deck system at a contractor's trade show in Washington, D.C. This unique product features Endurable's alumiLAST® 2" x 6" hollow-core aluminum frames, with matching aluminum railings and posts. The materials are custom

ENDURABLE™
Building Products

powder coated to color match and have several decking material options. The Endurable decks met all of the specifications for the Fairlington Villages project: structural integrity to code, color matching to existing style, low maintenance and ease of installation, plus they provide an exceptional 50 Year Structural Warranty.

TCE presented the Endurable option to the Fairlington Villages Association and it was decided to investigate the product further. TCE contacted David Battel, president of Endurable and provided plans to begin the bidding process. The design engineers at Endurable prepared a comprehensive plan to meet the variables of this extensive project. Mr. Battel and his team then came to several board and community meetings at Fairlington Villages and presented their structural aluminum decks, explained the long-lasting durability, ease of installation and even prepared a small mock-up so homeowners could get a feel for the materials. The approval process took over six months with extensive talks on design issues, cost and procedures before the association board decided to move forward with Endurable. With the Endurable system the Board estimated the overall construction costs could be reduced by nearly 40%.

The next step was that TCE had to prepare a Balcony Repair Project manual for the Association Board to secure contractor bids for the project. Ten contractors bid on the project with five submitting formal proposals.



Real Problem: Rusting, High Maintenance



Real Solution: Solid for Years to Come

In 2010 Colin Homer, of Legum & Norman Property Management, became General Manager of the Fairlington Villages homeowner's association. Moving forward with this project became one of his first priorities. With over 35 years experience in property management and having handled multi-million dollar rehabilitation projects in the past, Mr. Homer was uniquely qualified to get the ball rolling. He understood the process for working with a multi-year phased project. After selecting a contractor, Mr. Homer performed a financial analysis to ensure sufficient funding for this project in accordance with the cost estimates. The analysis concluded that the project should begin in FY11 and end in FY17. The next step, after board approval and the initial phase construction contract was signed, was to get several pilot decks installed.

Working with TCE as project manager, Endurable and the construction team installed five pilot decks, two on townhomes and one 3-level stacked deck

972 Decks
\$12.4 Million
5 Years
50 Yr. Warranty
No Rust
Easy Installation
Color Matching



Fairlington Villages is a rolling 93 acre community with over 1,700 homes, in townhome and apartment configurations designed by renowned architects Kenneth Franzheim and Alan B. Mills in the early 1940's. It sits across the two counties of Fairfax and Arlington, VA which when combined, created their name "Fairlington." These homes were built in the brick Colonial style with slate roofs and narrow tree-lined streets by the Defense Homes Corporation at the behest of president Franklin D. Roosevelt. The homes were built for military families and government workers. In the early 1970's these rental homes were converted to condominiums. During that process it was decided to add decks and balconies to provide personal outdoor space.

structure on multi-level building, in June of 2011. "This worked really well for us," said Mr. Horner. "We were able to see the decks in all applications and we also replaced our highest priority decks at the same time." As part of the test, Endurable showed two decking options - an interlocking aluminum plank and a full-size panel aluminum panel, featuring an internal honeycomb structure, with a polyurea coating.

The response to the decks was overwhelmingly positive. The clean look, smooth threshold transitions and quality construction were all noted. Interestingly, the homeowners approved the new full-size panel decking, developed specifically for this project, although it added nearly \$1000 more per deck.

The real challenge for the Fairlington Villages Association was managing the overall cost of the project. Although they had a very healthy reserve this was the largest individual project expenditure they had faced. It was decided that 6 phases over 5 years made the most fiscal sense. "Creating a phased schedule, with approximately 200 decks per year worked for us financially keeping the annual expenditure in the \$2 million range," said Mr. Horner. "We have never had a special assessment in our 40+ year history and, with this plan, that record stayed intact."

The first year of construction was a learning curve for all parties. Installation was a five step process taking between three and six weeks: 1. Notify homeowners to clear their decks; 2. A pre-construction survey had to be done; 3. The old balcony was removed and debris cleared; 4. The new balcony was installed; 5. Final inspections. "Because we have a very active association, with quality communication as a key, everyone was well aware of their phase. After all, we had to manage the expectations of the 972 homeowners that would be waiting for their decks to be installed," said Horner.

The decks were manufactured in the Endurable factory in Minnesota and shipped to the site. The basic deck configuration featured the main aluminum deck frame (which is pre-built and welded as one unit, then powder-coated), it is lifted into place and bolted to the side of the building and secured to the concrete footings with 4" x 4" matching powder-coated aluminum posts. The decking panel is fastened from below and the railings are installed to complete the balcony.

During construction new issues had to be addressed; detailed plans from TCE and Endurable had to be prepared as each deck required its own permit. Concrete footings became a real issue with a greater number having to be replaced or repaired than originally estimated. On the 3-level decks homeowner's ground level patios, fences, and gardens had to be protected which was not included in the construction bid and became an Association responsibility.

Variances were also offered for owners that wanted to add stairs at their own expense. The Endurable Deck System is designed to accommodate several versions of stairs, both traditional and spiral, based on the height needed and cost considerations. In total 25 stair variations were applied for: 7 traditional stair designs of varying heights and 4 different spiral staircases were installed.

After the first phase of construction the contracting company advised that they wanted to renegotiate their contract higher based on

the scale of the work. The board decided that a rebid process was necessary and, after a 10 month delay, selected concrete and masonry rehabilitation company American Restoration LLC. American Restoration has a sterling reputation for quality and offered a mobile style of construction that required a smaller staging footprint on the site. The rebid process yielded a significant year-to-year savings as

well. (The overall project was now estimated to be completed at \$12.4 Million)

Coming into the project Mike Nagle, president of American Restoration was excited to work with the Endurable decking product. Because of the reduced weight of the materials and ease of installation his crew was able to easily stage materials off-site at their facility. This was a real selling point as the association was forced to give up a lot of prime parking areas to the previous contractor's trailer and storage units. "The mobility and lighter weight of

\$600,000 Under Budget

the Endurable deck materials allowed us to easily access the work areas, especially those that did not have nearby parking," said Mike Nagle, president of American Restoration. "Fairlington Villages features rolling terrain and lots of mature trees which made the construction of these decks ideal for this site. An aluminum deck panel is a lot easier to install on the third floor than concrete" he said. His crews maintained controlled work sites, repairing and installing in a methodical manner. Trucking new materials in and debris out daily kept the area organized, presentable and safe.

After learning how to properly install the Endurable Deck System the experienced American Restoration team of union masons and installers quickly mastered the process. "They not only met and exceeded installation goals throughout the remainder of the project, they did it without inconveniencing the homeowners and truly became part of the Fairlington

Villages family." Said Horner, "They were so polite and professional, there was not a single registered homeowner complaint during their 5 years in our community."

"Working with American Restoration and Endurable was great" said Jason Nachman, PE of TCE, "Their responsive style and streamlined approach to the process made our job a lot easier" In fact the American Restoration team was so efficient that they were awarded all subsequent phases of the project.

Even with the delay of having to select a new contractor this entire project was finished ahead of schedule and \$600,000 under budget.

For Colin Horner, General Manager at Fairlington Villages this process was testament to a great team working together. He is the first to point to his staff; Facilities Manager Miquel Galvez and Operations Manager Mark Johnson for their dedication and hard work in the day-to-day process of this project. The responsiveness and commitment of the Association's Board of Directors was key in seeing this project to completion. Huge credit is also due to the professionals from Tadjer, Cohen, Edelson and Associates, Endurable Building Products and American Restoration, LLC. "There are always going to be challenges in construction projects," said Horner "it's how the contractors respond to those challenges that show their true colors. This team was golden."

Endurable Building Products (www.endurable.com) created their first aluminum deck system in 2003. These decks are designed for people who want the lowest maintenance deck system available, combined with a clean look and fast and simple installation. Their alumiLAST® decks and balconies are shipped to customers across the country and are used in both new construction and restoration projects.

ENDURABLE™
Building Products



Call for a FREE cost analysis!
800.933.2060 • 763.585.0097 (in MN)

www.endurable.com