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## CONDOMINIUM RESERVE STUDY REPORT

Saturday, June 29, 2024

Las Vistas in Inverrary Condominium Association Inc.

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## CONTENTS

|                                                         |           |
|---------------------------------------------------------|-----------|
| INTRODUCTION & METHODOLOGY .....                        | 3         |
| STRUCTURAL INTEGRITY RESERVE STUDY .....                | 4         |
| REPLACEMENT COST USEFUL LIFE .....                      | 5         |
| ACCOUNTING PROCEDURE .....                              | 5         |
| NOTE FROM THE ENGINEER .....                            | 6         |
| PHOTOS TAKEN DURING INSPECTION .....                    | 6         |
| SPECIFIC COMMON ELEMENTS IN THIS REPORT .....           | 7         |
| <b>1. ROOF .....</b>                                    | <b>7</b>  |
| <b>2. STRUCTURE .....</b>                               | <b>9</b>  |
| <b>3. FIREPROOFING AND FIRE PROTECTION SYSTEMS.....</b> | <b>10</b> |
| <b>4. PLUMBING .....</b>                                | <b>11</b> |
| <b>5. ELECTRICAL SYSTEM.....</b>                        | <b>12</b> |
| <b>6. WATERPROOFING AND EXTERIOR PAINTING .....</b>     | <b>13</b> |
| <b>7. WINDOWS AND EXTERIOR DOORS. ....</b>              | <b>16</b> |
| <b>8. ELEVATOR .....</b>                                | <b>17</b> |
| <b>9. HEATING AND COOLING.....</b>                      | <b>17</b> |
| <b>10. SWIMMING POOL OR SPA AND EQUIPMENT. ....</b>     | <b>17</b> |
| <b>11. Seawall. ....</b>                                | <b>17</b> |
| <b>12. PAVEMENT AND PARKING AREAS.....</b>              | <b>17</b> |
| <b>13. DRAINAGE SYSTEM.....</b>                         | <b>18</b> |
| <b>14. IRRIGATION SYSTEM.....</b>                       | <b>20</b> |
| <b>15. TRASH CHUTE .....</b>                            | <b>20</b> |
| ESTIMATED COST TABLE (ECT) .....                        | 21        |
| LIMITATIONS.....                                        | 24        |

## INTRODUCTION & METHODOLOGY

Las Vistas in Inverrary Condominium Association Inc. is located in the City of Lauderdale, Broward County. The building consists of **four stories**. According to the Broward County Property Appraiser's public records, this property was built in **1974**. Akouri Consulting Engineers Inc. (ACE) was retained to conduct a Structural Integrity Reserve study (SIRS) and fund maintenance protocol for a 25-year span. The SIRS was completed on June 29, 2024, and is to be updated every 10 years to reflect the property's condition and any changes in economic conditions.

## PURPOSE AND SCOPE OF SERVICES

The purpose of this reserve study is to identify major repair, replacement, and maintenance items that should be included in the Board of Directors' reserve schedule, as well as to identify the estimated useful life, estimated remaining useful life, replacement cost of each component, and to propose appropriate reserve funding beginning with 2024 budget year. In order to achieve these objectives, ACE'S scope of services included but was not limited to:

- Interview the Board members and property manager to obtain relevant maintenance and repair history.
- Interview the vendors that provide maintenance and repair for the reserve components.
- Research the estimated useful life and replacement cost of each reserve component.
- Review available construction drawings and research available Building Permit Records.

The Reserve Study is conducted in compliance with Florida Condominium Act, (Chapter 718 section 112 (1) (f) 2. a, and (g) Florida Statutes.

Besides annual operating expenses, the budget must include reserve accounts for capital expenditures and deferred maintenance.

The amount to be reserved for an item is determined by the Board most recent structural integrity reserve study that shall be completed by December 31, 2024. If the amount to be reserved for an item is not in the Cooperative Board of Director's initial or most recent structural

integrity reserve study or the Board has not completed a structural integrity reserve study, the amount must be computed using a formula based upon estimated remaining useful life and estimated replacement cost or deferred maintenance expense of the reserve item. The Board of Directors may adjust replacement reserve assessments annually to consider any changes in estimates or extension of the useful life of a reserve item caused by deferred maintenance.

The members of a cooperative may determine, by a majority vote to provide no reserves or less reserves than required by this subsection. However, effective December 31, 2024, the Board may not determine to provide no reserves or less reserves than required by this subsection for items listed in paragraph (g), Chapter 718 section 112 (1).

## STRUCTURAL INTEGRITY RESERVE STUDY

A Board of Directors must have a structural integrity reserve study completed at least every 10 years after the condominium or cooperative creation for each building on the property that is three stories or higher in height which includes, at a minimum, a study of the following items as related to the structural integrity and safety of the building:

1. Roof.
2. Structure, including load-bearing walls and primary structural members and primary structural systems as those terms are defined in s. 627.706.
3. Fireproofing and fire protection systems.
4. Plumbing.
5. Electrical systems.
6. Waterproofing and exterior painting.
7. Windows and exterior doors.

Any other item that has a deferred maintenance expense or replacement cost that exceeds \$10,000 and the failure to replace or maintain such item negatively affects the items listed in sub-subparagraphs 1.-7, as determined by the licensed engineer or architect performing the visual inspection portion of the structural integrity reserve study.

Such as:

8. Elevators.
9. Heating and cooling systems.

10. Swimming pool or spa and equipment.
11. Seawalls.
12. Pavement and parking areas.
13. Drainage systems.
14. Irrigation systems.
15. Trash Chute.

## REPLACEMENT COST USEFUL LIFE

ACE obtained replacement cost and estimated expected useful life information through a combination of speaking with contractors and vendors, reviewing the RS Means construction cost database, Fannie Mae estimates useful life tables, researching advertised and online vendor pricing, general industry standards, the experience, knowledge, and skills of ACE's principal engineer who is a licensed engineer, a licensed and active general contractor, and a licensed and active roofer. Throughout this report, the terms "Estimated Expected Useful Life" and "Estimated Remaining Useful Life" will be used. These terms are defined below:

**Estimated Expected Useful Life (a.k.a, Estimated Useful Life):** The total life of a newly purchased asset before deferred maintenance or a replacement of the item is needed.

**Estimated Remaining Useful Life (a.k.a, Estimated Remaining Life):** The length of time a particular asset has left before deferred maintenance or a capital expenditure is needed.

## ACCOUNTING PROCEDURE

This reserve schedule presented herein has been prepared based on pooled reserve methods. Projected replacement costs and anticipated year of replacement were estimated for each reserve component based upon available pricing information and the current observed condition of each item. Interest and inflation rates cannot be accurately projected and are not required to be included in a reserve funding model. Therefore, these rates have not been included in the reserve funding model presented herein.

Florida Administrative Code (FAC) requires the reserve funding model for pooled reserves to extend out to a time equal to the longest "estimated remaining useful life" of any component being reserved for. ACE uses a 25-year projection period as this generally exceeds the estimated useful life (both expected and remaining) of all common reserve schedule components. Furthermore, components with expected useful lives more than 25 years (such as concrete

structures, plumbing systems, electrical systems, etc.) are typically excluded from the reserve schedule unless their estimated remaining useful life is less than 25 years. Furthermore, FAC requires that the balance of the pooled reserve account is not allowed to drop below \$0.00 at any point during the projection period.

## NOTE FROM THE ENGINEER

The scope of inspections excludes any in depth engineering analysis of the capacity of the building structure or detailed evaluation of the performance of the mechanical and electrical systems. The estimates for the useful life of the various components are based on the assumption of reasonable care and promptness in attending to the individual deficiencies, as well as, the implementation of a program of inspection and maintenance.

The purpose of this report is to verify significant defects and/or deficiencies with respect to all the building elements listed in this report. The observations and resulting opinions are based upon current construction methods and standards that are considered normal and customary as of the time of this inspection. The staff at Akouri Consulting Engineers Inc (ACE) has conducted on site inspections and made observations on the date indicated within this report. The observations that were made were visual in nature and therefore were non-destructive. No demolition unless specifically noted as such was conducted. The exterior of the building, including the roof, was easily observable unless otherwise noted. Access to the interior common areas was provided along with access to all units within the condominium.

ACE has used its best engineering judgement and ability to inspect and report the items presented herein, but ACE cannot guarantee that all past, present, or potential deficiencies or detective conditions have been found during its inspections.

## PHOTOS TAKEN DURING INSPECTION

ACE will not include photos in this report but will provide a link to a Dropbox folder for downloading all photos. Including the photos in the report would increase its size and make it inconvenient to email. The photos will be available in high resolution and of excellent quality for review.

## SPECIFIC COMMON ELEMENTS IN THIS REPORT

### 1. ROOF

The roof system is a single ply system with poor drainage.

- a. **Description:** ACE performed a visual inspection of the roof. The single-ply system was installed without proper tapered insulation to provide positive drainage. It is recommended that the existing single-ply system be replaced with a Modified Bitumen Built-Up Roof System at the time of its scheduled replacement. The advantages of Modified Bitumen Built-Up Roof System Over Single-Ply Systems are as follows:

**Durability:** Modified bitumen built-up roofs typically consist of multiple layers of asphalt and reinforcing materials, providing robust protection against weathering, UV radiation, and mechanical damage.

**Resilience:** They offer excellent resistance to punctures and tears, making them suitable for areas prone to foot traffic or mechanical equipment use.

**Seam Strength:** The built-up nature of the system and the use of hot asphalt or cold adhesives for bonding ensure strong seams, reducing the risk of water infiltration.

**Repairability:** Modified bitumen roofs are often easier to repair locally compared to single-ply systems, allowing for targeted repairs without the need to replace large sections.

**Adaptability:** They can be installed in various configurations, including heat-welded seams or cold-adhesive applications, adapting to different roof shapes and designs.

In summary, replacing the existing single ply roof system with a Modified Bitumen Built-Up Roof System is recommended due to its proven durability, resilience, and repairability, which collectively contribute to long-term cost-effectiveness and reliable protection for the building.

- b. **Required Maintenance:** The roof system must be inspected periodically and after every mechanical maintenance performed on the roof

- c. **Useful Life:** If correctly maintained, the roof system is expected to achieve the useful lifespan indicated in the Estimated Cost Table, which we will refer to throughout this study as the ECT. We assess that the current roof covering, with the necessary repairs, will have a remaining useful life as detailed in the ECT.
  
- d. **Required Repairs:** During the inspection, it was revealed that a portion of the parapet walls lack proper water resistance. These parapets must be treated in accordance with specifications prepared by an engineer to prevent water intrusion into the roof system and to avoid voiding any existing warranty. All mansard roof tiles must be replaced. However, due to budget constraints, we are assigning the system a remaining life as indicated in the ECT.
  
- e. **Replacement Cost:** The cost of replacing this element is included in the ECT. It should be recognized, however, that neither ACE nor the Board has control over cost of labor, materials, or equipment, nor do they have control of the Contractor's methods of determining bid prices, or competitive bidding, the market, or of negotiating conditions.

## 2. STRUCTURE

The building is a concrete frame structure. It consists of catwalks and balconies. These elements have been poorly maintained due to the following:

1. Lack of waterproofing.
  2. The installation of tiles and carpet along balconies.
  3. The installation of carpet along catwalks.
- a. **Description:** ACE conducted a visual inspection of the structural system and all balconies. The structural framing, consisting of beams, columns, and slabs, is in fair condition, and its remaining life can be extended with restoration.
  - b. **Required Maintenance:** The building requires concrete restoration.
  - c. **Useful Life:** If well repaired and maintained, the expected useful life of the structures is estimated to be as shown in the ECT. We believe this structure to have a remaining useful life as shown in the ECT.
  - d. **Required Repairs:** The building requires concrete restoration.
  - e. **Replacement Cost:** The cost of replacing this element is included in the ECT. It should be recognized, however, that neither ACE nor the Board has control over cost of labor, materials, or equipment, nor do they have control of the Contractor's methods of determining bid prices, or competitive bidding, the market, or of negotiating conditions.

### 3. FIREPROOFING AND FIRE PROTECTION SYSTEMS

- a. **Description:** The building lacks a fire sprinkler system, though the fire extinguishers and fire alarm components are strategically located throughout the premises. All through-floor or through-wall penetrations are concealed and not accessible.
- b. **Required Maintenance:** ACE recommends an annual inspection of the fire fire alarm components. Regular inspections, testing, and maintenance are crucial for ensuring the system remains operational over its expected lifespan and may even extend beyond the estimated useful life.
- c. **Useful Life:** If well maintained, the expected useful life of the fireproofing, and fire alarm components estimated to be as shown in the ECT. We believe these systems have a remaining useful life as shown in the ECT.
- d. **Requires Repairs:** ACE did not observe any deficiencies to recommend repairs.
- e. **Replacement Cost:** The cost of replacing this element is included in the ECT. It should be recognized, however, that neither ACE nor the Board has control over cost of labor, materials, or equipment, nor do they have control of the Contractor's methods of determining bid prices, or competitive bidding, the market, or of negotiating conditions.

#### 4. PLUMBING

- a. **Description:** ACE conducted a visual inspection of the accessible plumbing system in the building. This system is comprised of all plumbing fixtures, water heater, the water supply piping system, and the building storm water and sanitary waste drain piping. There are no records as to the replacement of any common plumbing components since the original construction.
- b. **Required Maintenance:** All fixtures require monitoring and maintenance as found to be necessary. Water supply and drain piping should be checked as part of a structured maintenance program. Fixtures and other components should be similarly monitored. We found no issue associated with any of the plumbing components in our visual review of exposed fixtures and piping.
- c. **Useful Life:** With proper maintenance, the plumbing system should have an estimated remaining useful life *as shown in the ECT* before starting to experience failure of risers and underground water supply.
- d. **Required repairs:** ACE did not identify any apparent deficiencies that would necessitate repair recommendations.
- e. **Replacement Cost:** The cost of replacing this element is included in the ECT. It should be recognized, however, that neither ACE nor the Board has control over cost of labor, materials, or equipment, nor do they have control of the Contractor's methods of determining bid prices, or competitive bidding, the market, or of negotiating conditions.

## 5. ELECTRICAL SYSTEM

- a. **Description:** ACE conducted a visual inspection of the electrical system in the building. The Electrical System comprised of all wiring, panels and circuit breakers, switches, receptacles, outlets, lighting fixtures, lamps, and ballasts on the “house side” of the meter. There is no standby emergency generator in this building.
- b. **Required Maintenance:** The Electrical System requires constant attention and replacement of lamps and ballasts, and monitoring of the Electrical/Mechanical rooms to assure there is code required clearance at all electrical panels and that these rooms are not used for storage. Individual components should be maintained in accordance with instructions presented in the various manufacturers’ manuals and as part of a planned maintenance program.
- c. **Useful Life:** The electrical system should have an estimated remaining useful life *as shown in the ECT*. Wiring should be expected to last the life of the building. Some components may need selective replacement as part of the ongoing maintenance.
- d. **Required repairs:** ACE did not observe any immediate repairs that were required.
- e. **Replacement Cost:** The cost of replacing this element is included in the ECT. It should be recognized, however, that neither ACE nor the Board has control over cost of labor, materials, or equipment, nor do they have control of the Contractor’s methods of determining bid prices, or competitive bidding, the market, or of negotiating conditions.

## 6. WATERPROOFING AND EXTERIOR PAINTING

### Waterproofing

- a. **Description:** ACE conducted a visual inspection of the building, which includes concrete framing, cantilevered concrete catwalks, concrete balconies, and concrete staircases. As a maintenance protocol it is crucial to properly protect it from concrete spalling.

To make a catwalk, balconies, and concrete stairs waterproof, it's important to use appropriate waterproofing materials and techniques and under the supervision of qualified professionals such as engineers and local waterproofing manufacturer representatives. Depending on the specific requirements, this could involve the use of waterproofing built up systems, coatings, or other materials that create a watertight barrier beneath or within the structure. These materials are specifically designed to prevent water from penetrating and causing damage to the underlying structure.

These elements should be aforesought because they are more vulnerable to structural deterioration than any other building element. Structural deterioration in concrete consists of rebar corrosion causing spalling. There are three elements that cause spalling. These elements are as follows:

1. Oxygen.
2. Water.
3. Steel.

The elimination of one element will prevent spalling. Therefore, for this reason, water-retaining-carpets and/or tiles are strongly discouraged, and waterproofing is recommended for new and existing concrete decks.

Waterproofing is required to prevent spalling. However, when constructed, the vast majority of balconies/catwalks are left without any waterproofing protection. When balconies/catwalks are not waterproofed, water can seep into the porous concrete and rust the structural steel reinforcement within it. Rusted, steel expands which then causes the concrete to crumble and spall.

Deterioration rates vary due to the specific circumstances of the building. One of the most damaging factors leading to the rusting of reinforcing steel is outdoor carpeting and tiles. Like a sponge, carpets absorb moisture and remain damp for long periods of time. Carpets keep the balconies/catwalks in a state of perpetual wetness, speeding up the

deterioration process. Tiles sandwich the water and facilitate the intrusion into the structural steel.

Whichever waterproofing finish you choose, it will be a vast improvement over any moisture trapping carpet/tiles sold as an outdoor product. Each layer of protection will help prevent further moisture absorption, enhancing the longevity of the concrete.

- b. Required Maintenance:** The catwalks, balconies, and staircases are not properly maintained. The lack of waterproofing may contribute to the deterioration of the concrete in these areas. ACE recommends applying an approved waterproofing product along the catwalks, staircases, and balconies.
- c. Useful Life:** This element should have an estimated remaining useful life as shown in the ECT.
- d. Required repairs:** ACE recommends installing an approved waterproofing system on the catwalks and staircases. We also recommend engaging a qualified professional engineer and a local manufacturer representative for any waterproofing work at the building. This element should be addressed during concrete restoration.
- e. Replacement Cost:** The cost of replacing this element is included in the concrete restoration.

#### Painting and Caulking

- a. Description:** ACE conducted a visual inspection of the building. This section covers the cost to paint and caulk the exterior envelope. The exterior walls of the structure were found to be in fair condition, showing no major signs of wear and tear or defects. The building must be painted.

ACE would like to emphasize the importance of painting and caulking in preserving the structural integrity of your building and maintaining a pleasant appearance. While painting is not considered a waterproofing system, it does provide water resistance, which is crucial for protecting the building against moisture damage. Painting serves as a protective barrier for the exterior surfaces, it acts as a shield against various

environmental elements such as rain, sunlight, wind, and temperature fluctuations. By applying quality paint, it helps to prevent water intrusion and moisture absorption, which can cause significant damage over time. When water penetrates the exterior surfaces of a building, it can seep into cracks, gaps, or joints. This moisture can then lead to various problems, including rotting of wood, corrosion of metal, deterioration of masonry, and the growth of mold and mildew. These issues not only compromise the structural integrity of the building but also pose health risks to its occupants.

Caulking, on the other hand, plays a vital role in sealing gaps and joints between different building materials. It provides an additional layer of protection against moisture infiltration, preventing water from seeping into vulnerable areas such as windows, doors, and other openings. By sealing these gaps, caulking helps to maintain the structural stability of the building and reduces the potential for water-related damage. In addition to its functional benefits, painting also enhances the aesthetic appeal of the building.

- b. **Required Maintenance:** The entire building envelope must be painted on a regular basis, and all openings properly caulked.
- c. **Useful Life:** This element should have an estimated remaining useful life as shown in the ECT.
- d. **Required repairs:** The building envelope does not require immediate repairs but shall, bur this element shall be addressed during concrete restoration.
- e. **Replacement Cost:** The cost of replacing this element is included in the concrete restoration.

## 7. WINDOWS AND EXTERIOR DOORS.

- a. **Description:** ACE conducted a visual inspection of the building and identified a minimal number of windows and doors throughout the structure that are considered common elements.
- b. **Required Maintenance:** All doors and windows must be maintained on a regular basis, and all openings properly caulked.
- c. **Useful Life:** This element should have an estimated remaining useful life as shown in the ECT.
- d. **Required Repairs:** ACE recommends the refurbishment of the exterior windows. The application of exterior caulking should be implemented as needed until replacement.
- e. **Replacement Cost:** The cost of replacing this element is included in the ECT. It should be recognized, however, that neither ACE nor the Board has control over cost of labor, materials, or equipment, nor do they have control of the Contractor's methods of determining bid prices, or competitive bidding, the market, or of negotiating conditions.

## 8. ELEVATOR

**Description:** ACE conducted a visual inspection of the elevator. the electrical system of the elevator will not negatively affect the elements listed in this report. Therefore, the elevator will be excluded from the SIRS.

## 9. HEATING AND COOLING

**Description:** ACE did not observe common mechanical equipment. Therefore, the mechanical and cooling elements will be excluded from the SIRS.

## 10. SWIMMING POOL OR SPA AND EQUIPMENT.

**Description:** ACE conducted a visual inspection of the common swimming pool and pool deck. . ACE did not observe structural deficiencies that will negatively affect the elements listed in this report. Therefore, the common swimming pool and pool deck. will be excluded from the SIRS.

## 11. Seawall.

Description: ACE did not observe a seawall adjacent to the property. Therefore, the seawall will be excluded from the SIRS.

## 12. PAVEMENT AND PARKING AREAS.

The pavement will not negatively affect the elements listed in this report. Therefore, the pavement will be excluded from the SIRS.

### 13. DRAINAGE SYSTEM.

- a. **Description:** ACE conducted a visual inspection of the drainage system around the building and recommends improvements. Poor drainage could negatively impact the elements listed in this report. Therefore, drainage will be included in the SIRS. Please be advised that poor drainage around the foundation may cause differential settlement causing the exterior walls and the slab to settle and/or crack. Therefore, to prevent differential settlement and cracks in the exterior walls and the slab on grade the building requires drainage improvement to keep excessive water away from the exterior walls, such as roof gutter and downspout, improving surface drainage, redirecting rainwater runoff and splash-back away from the building. All trees, shrubs, planters along the exterior walls should be removed. All equipment should be installed over properly graded ground. ACE recommending that the drainage improvement be performed in accordance with plans prepared by an engineer and approved by the Local Building Department.

The Florida Building Code section 1804.4 states the following:

#### 1804.4 Site grading.

The ground immediately adjacent to the foundation shall be sloped away from the building at a slope of not less than one unit vertical in 20 units horizontal (5-percent slope) for a minimum distance of 10 feet (3048 mm) measured perpendicular to the face of the wall. If physical obstructions or lot lines prohibit 10 feet (3048 mm) of horizontal distance, a 5-percent slope shall be provided to an approved alternative method of diverting water away from the foundation. Swales used for this purpose shall be sloped a minimum of 2 percent where located within 10 feet (3048 mm) of the building foundation. Impervious surfaces within 10 feet (3048 mm) of the building foundation shall be sloped a minimum of 2 percent away from the building.

Exception: Where climatic or soil conditions warrant, the slope of the ground away from the building foundation shall be permitted to be reduced to not less than one unit vertical in 48 units horizontal (2-percent slope). The procedure used to establish the final ground level adjacent to the foundation shall account for additional settlement of the backfill.

- b.     **Required Maintenance:** Drainage improvement is required.
- c.     **Useful Life:** This element should have an estimated remaining useful life as shown in the ECT.
- d.     **Required repairs:** Drainage improvement is required.
- e.     **Replacement Cost:** The cost of replacing this element is included in the ECT. It should be recognized, however, that neither ACE nor the Board has control over cost of labor, materials, or equipment, nor do they have control of the Contractor's methods of determining bid prices, or competitive bidding, the market, or of negotiating conditions.

#### 14. IRRIGATION SYSTEM.

**Description:** ACE conducted a visual inspection of the common irrigation system. The system was found to be in fair condition, with no significant defects.

Note: The irrigation will negatively affect the elements listed in this report. However, the cost of replacement is less than \$10,000.00. Therefore, irrigation will be excluded from the SIRS.

#### 15. TRASH CHUTE.

Note: The trash chute will not negatively affect the elements listed in this report. Therefore, the trash chute will be excluded from the SIRS.

## ESTIMATED COST TABLE (ECT)

| 2024 RESERVE COMPONENT DETAIL                       |          |       |               |                          |                       |                                  |                            |
|-----------------------------------------------------|----------|-------|---------------|--------------------------|-----------------------|----------------------------------|----------------------------|
| Description                                         | Quantity | Units | Cost Per Unit | Current Replacement Cost | Estimated Useful Life | Estimated Remaining Life (Years) | Project replacement (Year) |
| <b>Roof</b>                                         | 1        | LS    | \$350,000.00  | \$350,000.00             | 15                    | 10                               | 2034                       |
| Roof Repair                                         | 1        | LS    | \$20,000.00   | \$20,000.00              | 15                    | 0                                | 2024                       |
| Mansard Tiles                                       | 1        | LS    | \$50,000.00   | \$50,000.00              | 15                    | 2                                | 2026                       |
| <b>Structural</b>                                   |          |       |               |                          |                       |                                  |                            |
| Concrete Restoration                                | 1        | LS    | \$550,000.00  | \$550,000.00             | 25                    | 3                                | 2027                       |
| <b>Fire proofign &amp; Fire Protection Systems</b>  |          |       |               |                          |                       |                                  |                            |
| Fire proofign & Fire Protection Systems             | 0        |       | \$0.00        | \$0.00                   | 50                    | 34                               | 2058                       |
| <b>Plumbing</b>                                     |          |       |               |                          |                       |                                  |                            |
| water and Sewer Lines                               | 1        | LS    | \$200,000.00  | \$200,000.00             | 60                    | 15                               | 2039                       |
| <b>Electrical Systems</b>                           |          |       |               |                          |                       |                                  |                            |
| Electrical service, panels, and wiring (Electrical) | 1        | LS    | \$ 20,000.00  | \$ 20,000.00             | 60                    | 15                               | 2039                       |
| <b>Waterproofing&amp; Painting</b>                  |          |       |               |                          |                       |                                  |                            |
| Waterproofing                                       |          |       |               |                          |                       |                                  |                            |
| Painting                                            |          |       |               |                          |                       |                                  |                            |
| <b>Windows &amp; Exterior Doors</b>                 |          |       |               |                          |                       |                                  |                            |
| Windows & Exterior Doors                            | 1        | LS    | \$ 10,000.00  | \$10,000.00              | 25                    | 10                               | 2034                       |
| <b>Elevator</b>                                     |          |       |               |                          |                       |                                  |                            |
| Elevator Repair and parts replacement               |          |       |               |                          |                       |                                  |                            |
| <b>Heating &amp; Cooling</b>                        |          |       |               |                          |                       |                                  |                            |
| Heating & Cooling                                   |          |       |               |                          |                       |                                  |                            |
| <b>Swimming Pool or Spa &amp; Equipment</b>         |          |       |               |                          |                       |                                  |                            |
| Swimming Pool or Spa & Equipment                    |          |       |               |                          |                       |                                  |                            |
| <b>Seawall</b>                                      |          |       |               |                          |                       |                                  |                            |
| Seawall                                             |          |       |               |                          |                       |                                  |                            |
| <b>Pavement and Parking areas</b>                   |          |       |               |                          |                       |                                  |                            |
| Asphalt milling and Resurfacing                     |          |       |               |                          |                       |                                  |                            |
| <b>Drainage system</b>                              |          |       |               |                          |                       |                                  |                            |
| Drainage (French Drainage, Catch Basins)            | 1        | LS    | \$30,000.00   | \$30,000.00              | 50                    | 7                                | 2031                       |
| <b>Irrigation System</b>                            |          |       |               |                          |                       |                                  |                            |
| Sprinkler heads                                     |          |       |               |                          |                       |                                  |                            |
| <b>Trash Chute</b>                                  |          |       |               |                          |                       |                                  |                            |
|                                                     |          |       | <b>Total</b>  | <b>\$1,230,000.00</b>    |                       |                                  |                            |

## EXPENSES BY YEAR

| Year #       | Year | Current<br>replacement<br>Cost | Description                                                                |
|--------------|------|--------------------------------|----------------------------------------------------------------------------|
| 0            | 2024 | \$20,000.00                    | Roof Repair                                                                |
| 1            | 2025 | \$0.00                         |                                                                            |
| 2            | 2026 | \$50,000.00                    | Mansard Tiles                                                              |
| 3            | 2027 | \$550,000.00                   | Concrete Restoration                                                       |
| 4            | 2028 | \$0.00                         |                                                                            |
| 5            | 2029 | \$0.00                         |                                                                            |
| 6            | 2030 | \$0.00                         |                                                                            |
| 7            | 2031 | \$30,000.00                    | Drainage (French Drainage, Catch Basins)                                   |
| 8            | 2032 | \$0.00                         |                                                                            |
| 9            | 2033 | \$0.00                         |                                                                            |
| 10           | 2034 | \$360,000.00                   | Roof, Windows & Exterior Doors                                             |
| 11           | 2035 | \$0.00                         |                                                                            |
| 12           | 2036 | \$0.00                         |                                                                            |
| 13           | 2037 | \$0.00                         |                                                                            |
| 14           | 2038 | \$0.00                         |                                                                            |
| 15           | 2039 | \$220,000.00                   | water and Sewer Lines, Electrical service, panels, and wiring (Electrical) |
| 16           | 2040 | \$0.00                         |                                                                            |
| 17           | 2041 | \$0.00                         |                                                                            |
| 18           | 2042 | \$0.00                         |                                                                            |
| 19           | 2043 | \$0.00                         |                                                                            |
| 20           | 2044 | \$0.00                         |                                                                            |
| 21           | 2045 | \$0.00                         |                                                                            |
| 22           | 2046 | \$0.00                         |                                                                            |
| 23           | 2047 | \$0.00                         |                                                                            |
| 24           | 2048 | \$0.00                         |                                                                            |
| 25           | 2049 | \$0.00                         |                                                                            |
| <b>Total</b> |      | <b>\$1,230,000.00</b>          |                                                                            |

| <b>CASH FLOW SUMMARY</b> |             |                                       |                                        |                                      |                             |
|--------------------------|-------------|---------------------------------------|----------------------------------------|--------------------------------------|-----------------------------|
| <b>Year #</b>            | <b>Year</b> | <b>Beginning<br/>Year<br/>Balance</b> | <b>Annual Reserve<br/>Contribution</b> | <b>Projected Annual<br/>Expenses</b> | <b>Year End<br/>Balance</b> |
| 0                        | 2024        | \$25,000.00                           | \$200,000.00                           | \$20,000.00                          | \$205,000.00                |
| 1                        | 2025        | \$205,000.00                          | \$200,000.00                           | \$0.00                               | \$405,000.00                |
| 2                        | 2026        | \$405,000.00                          | \$200,000.00                           | \$50,000.00                          | \$555,000.00                |
| 3                        | 2027        | \$555,000.00                          | \$200,000.00                           | \$550,000.00                         | \$205,000.00                |
| 4                        | 2028        | \$205,000.00                          | \$50,000.00                            | \$0.00                               | \$255,000.00                |
| 5                        | 2029        | \$255,000.00                          | \$50,000.00                            | \$0.00                               | \$305,000.00                |
| 6                        | 2030        | \$305,000.00                          | \$50,000.00                            | \$0.00                               | \$355,000.00                |
| 7                        | 2031        | \$355,000.00                          | \$50,000.00                            | \$30,000.00                          | \$375,000.00                |
| 8                        | 2032        | \$375,000.00                          | \$40,000.00                            | \$0.00                               | \$415,000.00                |
| 9                        | 2033        | \$415,000.00                          | \$40,000.00                            | \$0.00                               | \$455,000.00                |
| 10                       | 2034        | \$455,000.00                          | \$26,000.00                            | \$360,000.00                         | \$121,000.00                |
| 11                       | 2035        | \$121,000.00                          | \$26,000.00                            | \$0.00                               | \$147,000.00                |
| 12                       | 2036        | \$147,000.00                          | \$26,000.00                            | \$0.00                               | \$173,000.00                |
| 13                       | 2037        | \$173,000.00                          | \$26,000.00                            | \$0.00                               | \$199,000.00                |
| 14                       | 2038        | \$199,000.00                          | \$21,000.00                            | \$0.00                               | \$220,000.00                |
| 15                       | 2039        | \$220,000.00                          |                                        | \$220,000.00                         | \$0.00                      |
| 16                       | 2040        | \$0.00                                |                                        | \$0.00                               | \$0.00                      |
| 17                       | 2041        | \$0.00                                |                                        | \$0.00                               | \$0.00                      |
| 18                       | 2042        | \$0.00                                |                                        | \$0.00                               | \$0.00                      |
| 19                       | 2043        | \$0.00                                |                                        | \$0.00                               | \$0.00                      |
| 20                       | 2044        | \$0.00                                |                                        | \$0.00                               | \$0.00                      |
| 21                       | 2045        | \$0.00                                |                                        | \$0.00                               | \$0.00                      |
| 22                       | 2046        | \$0.00                                |                                        | \$0.00                               | \$0.00                      |
| 23                       | 2047        | \$0.00                                |                                        | \$0.00                               | \$0.00                      |
| 24                       | 2048        | \$0.00                                |                                        | \$0.00                               | \$0.00                      |
| 25                       | 2049        | \$0.00                                |                                        | \$0.00                               | \$0.00                      |
|                          |             |                                       | <b>Total</b>                           | <b>\$1,230,000.00</b>                |                             |

## LIMITATIONS

ACE used available information to estimate the replacement cost, useful life, and remaining useful life of each reserve component. These estimates should be considered our reasonable opinion at the time of this report. It should be anticipated that costs may increase or decrease with time and that anticipated useful life and estimated remaining life will vary. It is always possible that unanticipated conditions such as economic changes or shortages of materials or labor could significantly affect current pricing. As such, we recommend that the Board reserve schedule be reevaluated on a frequent basis (a reserve study should be performed every 1 to 5 years).

The information obtained from the Board's vendors or other 3<sup>rd</sup> parties, if included in this report, was assumed to be true and correct. However, ACE cannot assume responsibility for the accuracy of such information. Our evaluation of the remaining useful lives and/or physical condition of the reserve components was based upon visual inspection only and no destructive testing was performed.

These services have been conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the location where the Work was performed. No other warranty, expressed or implied, is made including, without limitation, any warranty of fitness for a particular purpose other than those expressly stated herein.

The report is also limited to the information available at the time it was prepared. There is a possibility that conditions may exist which could not be identified within the scope of the assessment, or which could not be identified during the site visit.

Las Vistas in Inverrary Condominium Association Inc.

Mr. Chuck Palazzo

Property Manager

Subject:        Structural Integrity Reserve Study Report  
                    Las Vistas in Inverrary Condominium Association Inc.

I, George Akouri, PE, certify that, to the best of my knowledge and belief, all statements contained in this Report are true and correct.

We appreciate the opportunity to assist with the SIRS. Please call if any comments or questions arise after reading our report.

Sincerely,

Akouri Consulting Engineers

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George Akouri, MSCE, P.E.

P.E. # 0049526        Engineering License

CGC 058841    Certified General Contractor

CCC1329062    Certified Roofing Contractor