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1. RESERVE STUDY EXECUTIVE SUMMARY

Client: Mountain Park Ranch Homeowners Association (Mountain Park Ranch)
Location: Phoenix, Arizona
Reference: 060163

Property Basics: Mountain Park Ranch Homeowners Association is a planned unit development which is responsible for the common elements shared by 7,008 units comprised of single family homes, apartments and commercial properties. The development was built from 1984 to 1999. The development contains asphalt parking areas, an irrigation system, five lakes, perimeter walls, three playgrounds, six tennis courts, one basketball court, and three recreation centers.

Reserve Components Identified: 50 Reserve Components.

Inspection Date: February 27, 2014. We conducted previous Reserve Studies on May 30, 2006 and July 14, 2010.

Funding Goal: The Funding Goal of this Reserve Study is to maintain reserves above an adequate, not excessive threshold during one or more years of significant expenditures. Our recommended Funding Plan recognizes this threshold funding year shortly after 2044 due to replacement of pool structures.

Cash Flow Method: We use the Cash Flow Method to compute the Reserve Funding Plan. This method offsets future variable Reserve Expenditures with existing and future stable levels of reserve funding. Our application of this method also considers:

- current and future local costs of replacement
- 0.5% annual rate of return on invested reserves
- 0.9% future Inflation Rate for estimating Future Replacement Costs

Sources for Local Costs of Replacement: Our proprietary database, historical costs and published sources, i.e., R.S. Means, Incorporated.


Recommended Reserve Funding: The Association budgeted $172,529 for Reserve Contributions in 2014. We recommend that the Association adopt a reserve budget of $208,000 in 2015. Afterwards, the Association should budget gradual annual increases in reserve funding, that in part consider the effects of inflation through 2044, the limit of this study's Cash Flow Analysis. The initial adjustment in Reserve Contributions of $35,471 represents about a one percent (1.4%) adjustment in the 2014 total Operating Budget of $2,452,630. This initial adjustment of $35,471 is equivalent to an average monthly increase of $0.42 per unit owner.

Certification: This Precision 20/20 Full Reserve Study exceeds the Community Associations Institute (CAI) and the Association of Professional Reserve Analysts (APRA) standards fulfilling the requirements of a “Level I Full Reserve Study.”
# Mountain Park Ranch

Recommended Reserve Funding Table and Graph

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Respectfully submitted on April 23, 2014 by RESERVE ADVISORS, INC.

Alan M. Ebert, PRA\(^1\), RS\(^2\), Associate Director of Quality Assurance
Visual Inspection and Report by: Stephanie A. Mueller, RS
Reviewed by: Nicole L. Lowery

\(^1\) PRA (Professional Reserve Analyst) is the professional designation of the Association of Professional Reserve Analysts. Learn more about APRA at http://www.apra-usa.com.

\(^2\) RS (Reserve Specialist) is the reserve provider professional designation of the Community Associations Institute (CAI) representing America's more than 300,000 condominium, cooperative and homeowners associations.
2. RESERVE STUDY REPORT

At the direction of the Board that recognizes the need for proper reserve planning, we have conducted a Precision 20/20 Full Reserve Study of

Mountain Park Ranch Homeowners Association

Phoenix, Arizona

and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, February 27, 2014. We conducted previous Reserve Studies on May 30, 2006 and July 14, 2010.

We present our findings and recommendations in the following report sections and spreadsheets:

- **Identification of Property** - Segregates all property into several areas of responsibility for repair or replacement
- **Reserve Expenditures** - Identifies reserve components and related quantities, useful lives, remaining useful lives and future reserve expenditures during the next 30 years
- **Reserve Funding Plan** - Presents the recommended Reserve Contributions and year-end Reserve Balances for the next 30 years
- **Condition Assessment** - Describes the reserve components, describes our recommendations for repairs or replacement, and includes detailed solutions and procedures for replacements for the benefit of current and future board members
- **Photographs** - Documentation of Condition of various property elements
- **Methodology** - Lists the national standards, methods and procedures used, financial information relied upon for the Financial Analysis of the Reserve Study
- **Definitions** - Contains definitions of terms used in the Reserve Study, consistent with national standards
- **Professional Service Conditions** - Describes Assumptions and Professional Service Conditions
- **Credentials and Resources**
IDENTIFICATION OF PROPERTY

Mountain Park Ranch Homeowners Association is a planned unit development which is responsible for the common elements shared by 7,008 units comprised of single family homes, apartments and commercial properties. The development was built from 1984 to 1999. The development contains asphalt parking areas, an irrigation system, five lakes, perimeter walls, three playgrounds, six tennis courts, one basketball court, and three recreation centers. We identify 50 major reserve components that are likely to require capital repair or replacement during the next 30 years.

Our investigation includes Reserve Components or property elements as set forth in your Declaration. Our analysis begins by segregating the property elements into several areas of responsibility for repair and replacement. Our process of identification helps assure that future boards and the management team understand whether reserves, the operating budget or Homeowners fund certain replacements and assists in preparation of the annual budget. We derive these segregated classes of property from our review of the information provided by the Association and through conversations with Management. These classes of property include:

- Reserve Components
- Long-Lived Property Elements
- Operating Budget Funded Repairs and Replacements
- Property Maintained by Homeowners
- Property Maintained by Others

We advise that the Board conduct an annual review of these classes of property to confirm its policy concerning the manner of funding, i.e., from reserves or the operating budget. The Reserve Study identifies Reserve Components as set forth in your Declaration or which were identified as part of your request for proposed services. Reserve Components are defined by CAI as property elements with:
• Mountain Park Ranch responsibility
• Limited useful life expectancies
• Predictable remaining useful life expectancies
• Replacement cost above a minimum threshold

Long-Lived Property Elements do not have predictable Remaining Useful Lives. The operating budget should fund infrequent repairs. Funding untimely or unexpected replacements from reserves will necessitate increases to Reserve Contributions. Periodic updates of this Reserve Study will help determine the merits of adjusting the Reserve Funding Plan. We identify the following Long-Lived Property Elements as excluded from reserve funding at this time.

• Electrical Systems, Common
• Foundations
• Perimeter Walls, Metal Fences (We include partial replacements at the time of each paint application. Future updates to the reserve study will consider the need for more significant replacements.)
• Pipes, Interior Building, Water and Sewer, Pool Houses
• Pipes, Subsurface Utilities
• Pool Structures, Recreation Centers #2 and #3
• Roofs, Copper, Recreation Center #2
• Structural Frames, Pool Houses and Ramadas

The operating budget provides money for the repair and replacement of certain Reserve Components. Operating Budget Funded Repairs and Replacements relate to:

• General Maintenance to the Common Elements
• Expenditures less than $5,000 (These relatively minor expenditures have a limited effect on the recommended Reserve Contributions.)
• Basketball Court, Standards
• Drinking Fountains
• Lakes, Aerators, Float Valves and Skimmer Baskets
• Lakes, Chemical Treatments
• Landscape
• Light Fixtures, Wall Mounted, Ceiling Mounted, Bollards and Landscape
• Office Furnishings
• Paint Finishes, Touch Up
• Sand Replenishment
• Security System
• Shade Structures, Paint Finishes and Interim Fabric Replacement
• Sump Pumps
• Tennis Courts, Standards
• Volleyball Courts
• Water Heaters, Pool Houses
• Other Repairs normally funded through the Operating Budget

Property Maintained by Homeowners relates to:

• Homes and Lots
• Perimeter Walls (50%)

Certain items have been designated as the responsibility of others to repair or replace.

Property Maintained by Others relates to:

• Concrete Sidewalks, Other than Recreation Centers and Parks (City of Phoenix)
• Foot Bridges (City of Phoenix)
• Light Poles and Fixtures, Streets (City of Phoenix)
• Office Building, Interior and Exterior (Leased)
• Street Systems (City of Phoenix)
3. RESERVE EXPENDITURES and FUNDING PLAN

The tables following this introduction present:

Reserve Expenditures

- Line item numbers
- Total quantities replaced during the next 30 years
- Quantities replaced per phase (in a single year)
- Reserve component inventory
- Estimated first year of event (i.e., replacement, application, etc.)
- Life analysis showing
  - useful life
  - remaining useful life
- Unit cost of replacement
- 2014 local cost of replacement
- Total future costs of replacement anticipated during the next 30 years
- Schedule of estimated future costs for each reserve component including inflation

Reserve Funding Plan

- Reserves at the beginning of each year
- Total recommended reserve contributions
- Estimated interest earned from invested reserves
- Anticipated expenditures by year
- Anticipated reserves at year end

Financial statements prepared by your association by you or others might rely in part on information contained in this section. For your convenience, we have provided an electronic data file containing the tables of Reserve Expenditures and Reserve Funding Plan.
The most important category of Reserve Components noted in Reserve Expenditures is the Property Site Elements. The following chart illustrates the relative importance of the Reserve Expenditures and relative funding during the next 30 years.

**Mountain Park Ranch**
Future Expenditures Relative Cost Illustration
### Reserve Component Inventory

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</tbody>
</table>

### Explanatory Notes:

1. FY2014 is Fiscal Year beginning January 1, 2014 and ending December 31, 2014.

2. Reserve Advisors, Inc. has calculated the estimated future inflation rate for estimating Future Replacement Costs.
<table>
<thead>
<tr>
<th>Line Item</th>
<th>Quantity:</th>
<th>30-Year Per</th>
<th>Total Phase</th>
<th>Units</th>
<th>Reserve Component Inventory</th>
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<tbody>
<tr>
<td>5.50</td>
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<td>18</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>5.50</td>
<td>12</td>
<td>12</td>
<td>Squares Roof, Flat, Recreation Centers #1 and #3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.50</td>
<td>64,000</td>
<td>6,300</td>
<td>Square Feet</td>
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### Property Site Elements

<table>
<thead>
<tr>
<th>Item</th>
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<tbody>
<tr>
<td>4.020</td>
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<td>Asphalt Pavement, Crack Repair, Patch and Seal Coat</td>
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<td>Asphalt Pavement, Mill and Overlay, Parking Areas</td>
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<td>4.045</td>
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<td>Asphalt Pavement, Total Replacement, Parking Areas</td>
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<tr>
<td>4.139</td>
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<tr>
<td>4.140</td>
<td>7</td>
<td>8</td>
<td>Each Concrete Sidewalks and Curbs, Partial</td>
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<td>4.201</td>
<td>31</td>
<td>31</td>
<td>Each Granola, Replacement</td>
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<td>170</td>
<td>Each Irrigation System, Controls, Phased</td>
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<tr>
<td>4.501</td>
<td>5,700</td>
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<td>Square Yards</td>
<td>Lakes, Sediment Removal and Concrete Repairs</td>
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<tr>
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<td>Each Light Poles and Fixtures</td>
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<td>4.601</td>
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<td>Each Maintenance Vehicles</td>
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<tr>
<td>4.640</td>
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<td>Linear Feet</td>
<td>Petemeter Walls, Metal Fences, Paint Finishes and Capital Repairs, Phased</td>
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<tr>
<td>4.641</td>
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<td>Square Feet</td>
<td>Petemeter Walls, Stucco, Paint Finishes and Capital Repairs, Phased</td>
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<tr>
<td>4.660</td>
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<td>1</td>
<td>Allowance Playground Equipment, Recreation Center #1 (Includes two shade structures)</td>
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<tr>
<td>4.660</td>
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<td>Allowance Playground Equipment, Recreation Center #2 (Includes two shade structures)</td>
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<tr>
<td>4.662</td>
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<td>Allowance Playground Equipment, Recreation Center #3 (Includes one shade structure)</td>
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<td>4.680</td>
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<td>Allowance Signage, Capital Improvements, Phased</td>
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<td>4.650</td>
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<td>Tennis and Basketball Courts, Color Coat, Phased</td>
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<tr>
<td>4.651</td>
<td>475</td>
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<td>Linear Feet</td>
<td>Tennis Courts, Fences, Phased</td>
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<td>4.655</td>
<td>33</td>
<td>33</td>
<td>Each Tennis Courts, Lights Poles and Fixtures, Phased</td>
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<td>4.655</td>
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<td>Each Tennis Courts, Shelters and Benches</td>
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<tr>
<td>4.660</td>
<td>4,400</td>
<td>4,400</td>
<td>Square Yards</td>
<td>Tennis Courts, Contact Replacement, Phased</td>
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<td>6,300</td>
<td>6,300</td>
<td>Square Feet</td>
<td>Tennis Courts, Windscreen</td>
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### Post House and Office Elements

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<th>Item</th>
<th>Quantity:</th>
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<th>Units</th>
<th>Reserve Component Inventory</th>
</tr>
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<tbody>
<tr>
<td>5.901</td>
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<td>18</td>
<td>Each Doors, Metal, Phased</td>
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<td>5.400</td>
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<td>1</td>
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<tr>
<td>5.401</td>
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<td>6</td>
<td>Each Rest Room Remodeling</td>
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<td>5.501</td>
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<td>Squares Roof, Concrete Tiles, Recreation Center #1</td>
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<tr>
<td>5.603</td>
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<td>Squares Roof, Flat, Recreation Centers #1 and #3</td>
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<td>5.861</td>
<td>64,000</td>
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<td>Square Feet</td>
<td>Walls, Stucco, Paint Finishes and Capital Repairs</td>
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### Reserve Component Inventory

<table>
<thead>
<tr>
<th>Line</th>
<th>Item</th>
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### Reserve Expenditures

#### Pool Elements

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<th>Phase 1</th>
<th>Phase 2</th>
<th>Phase 3</th>
<th>Phase 4</th>
<th>Phase 5</th>
<th>Phase 6</th>
<th>Phase 7</th>
<th>Phase 8</th>
<th>Phase 9</th>
<th>Phase 10</th>
<th>Phase 11</th>
<th>Phase 12</th>
<th>Phase 13</th>
<th>Phase 14</th>
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<tbody>
<tr>
<td>6.200</td>
<td>28,700</td>
<td>Concrete Deck, Textured Coating, Partial Replacements and Repairs, Recreation Center #1</td>
<td>2016</td>
<td>8 to 12</td>
<td>2</td>
<td>5.93</td>
<td>46,960</td>
<td>163,356</td>
<td>40,635</td>
<td>54,506</td>
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<td>6.201</td>
<td>21,860</td>
<td>Concrete Deck, Textured Coating, Partial Replacements and Repairs, Recreation Center #2</td>
<td>2018</td>
<td>8 to 12</td>
<td>4</td>
<td>5.93</td>
<td>39,710</td>
<td>139,413</td>
<td>41,159</td>
<td>45,017</td>
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<tr>
<td>6.202</td>
<td>26,010</td>
<td>Concrete Deck, Textured Coating, Partial Replacements and Repairs, Recreation Center #3</td>
<td>2020</td>
<td>8 to 12</td>
<td>6</td>
<td>5.93</td>
<td>47,885</td>
<td>165,548</td>
<td>50,319</td>
<td>75,076</td>
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<tr>
<td>6.400</td>
<td>6,100</td>
<td>Fences, Metal, Paint Finishes</td>
<td>2015</td>
<td>9 to 3</td>
<td>1</td>
<td>8.00</td>
<td>12,200</td>
<td>54,270</td>
<td>12,310</td>
<td>13,707</td>
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<td>6.401</td>
<td>2,105</td>
<td>Fences, Metal, Replacement</td>
<td>2016</td>
<td>9 to 31</td>
<td>19</td>
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<td>106,873</td>
<td>6,310</td>
<td>8,683</td>
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<tr>
<td>6.500</td>
<td>600</td>
<td>Furniture, Phased</td>
<td>2015</td>
<td>9 to 12</td>
<td>1</td>
<td>7.00</td>
<td>5,000</td>
<td>103,253</td>
<td>6,054</td>
<td>8,163</td>
<td>6,275</td>
<td>6,398</td>
<td>6,504</td>
<td>6,621</td>
<td>6,741</td>
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</table>

#### Reserve Study Update with Site Visit

- **Estimated Life Analysis, 2014 Cost Total**
  - **FY2014**
  - **2026**
  - **Event**
  - **Useful Remaining**
  - **Costs**
  - **RUL = 0**

- **Explanatory Notes:**
  1. 0.9% is the estimated future Inflation Rate for estimating Future Replacement Costs.
  2. FY2014 is Fiscal Year beginning January 1, 2014 and ending December 31, 2014.
#### Reserve Component Inventory

**Concrete Deck, Textured Coating; Partial Replacements and Repairs, Recreation Center #1**
- **Cost:** $183,956, **Unit:** 2016, **Years:** 8 to 12, **Phase:** 2

**Concrete Deck, Textured Coating; Partial Replacements and Repairs, Recreation Center #2**
- **Cost:** $155,413, **Unit:** 2016, **Years:** 8 to 12, **Phase:** 4

**Concrete Deck, Textured Coating; Partial Replacements and Repairs, Recreation Center #3**
- **Cost:** $165,548, **Unit:** 2020, **Years:** 8 to 12, **Phase:** 6

**Fences, Metal, Paint Finishes**
- **Cost:** $54,270, **Unit:** 2015, **Years:** 8 to 8, **Phase:** 1

**Fences, Metal, Replacement**
- **Cost:** $15,363, **Unit:** 2023, **Years:** to 19, **Phase:** 19

**Furniture, Phased**
- **Cost:** $103,253, **Unit:** 2015, **Years:** 10 to 12, **Phase:** 1

**Mechanical Equipment, Heaters, Phased**
- **Cost:** $54,619, **Unit:** 2022, **Years:** 10 to 12, **Phase:** 10

**Pool Finish, Tile, Spa**
- **Cost:** $103,253, **Unit:** 2023, **Years:** 0 to 20, **Phase:** 20

**Shade Structures, Phased**
- **Cost:** $646,341, **Unit:** 2014, **Years:** 20 to 0, **Phase:** 0

**Mechanical Equipment, Heaters, Phased**
- **Cost:** $15,363, **Unit:** 2022, **Years:** 8 to 12, **Phase:** 8

**Mechanical Equipment, Remaining, Recreation Center #1, Phased**
- **Cost:** $11,541, **Unit:** 2016, **Years:** to 15, **Phase:** 15

**Mechanical Equipment, Remaining, Recreation Center #2, Phased**
- **Cost:** $12,179, **Unit:** 2018, **Years:** 15 to 20, **Phase:** 15

**Mechanical Equipment, Remaining, Recreation Center #3, Phased**
- **Cost:** $12,851, **Unit:** 2020, **Years:** 15 to 20, **Phase:** 15

**Pool Finish, Plaster, Recreation Center #1**
- **Cost:** $163,906, **Unit:** 2021, **Years:** 7 to 15, **Phase:** 7

**Pool Finish, Plaster, Recreation Center #2**
- **Cost:** $103,253, **Unit:** 2021, **Years:** 7 to 15, **Phase:** 7

**Pool Finish, Plaster, Recreation Center #3**
- **Cost:** $101,691, **Unit:** 2021, **Years:** 7 to 15, **Phase:** 7

**Concrete Deck, Textured Coating, Partial Replacements and Repairs, Recreation Center #1**
- **Cost:** $49,237, **Unit:** 2016, **Years:** 6 to 10, **Phase:** 6

**Concrete Deck, Textured Coating, Partial Replacements and Repairs, Recreation Center #2**
- **Cost:** $15,263, **Unit:** 2016, **Years:** 6 to 10, **Phase:** 6

**Concrete Deck, Textured Coating, Partial Replacements and Repairs, Recreation Center #3**
- **Cost:** $16,095, **Unit:** 2016, **Years:** 6 to 10, **Phase:** 6

**Mechanical Equipment, Heaters, Recreation Center #1**
- **Cost:** $106,673, **Unit:** 2016, **Years:** 6 to 10, **Phase:** 6

**Mechanical Equipment, Heaters, Recreation Center #2**
- **Cost:** $135,413, **Unit:** 2018, **Years:** 6 to 10, **Phase:** 6

**Mechanical Equipment, Heaters, Recreation Center #3**
- **Cost:** $163,956, **Unit:** 2020, **Years:** 6 to 10, **Phase:** 6

**Fences, Metal, Paint Finishes**
- **Cost:** $12,200, **Unit:** 2015, **Years:** 6 to 8, **Phase:** 6

**Concrete Deck, Textured Coating, Partial Replacements and Repairs, Recreation Center #1**
- **Cost:** $11,541, **Unit:** 2016, **Years:** to 15, **Phase:** 15

**Concrete Deck, Textured Coating, Partial Replacements and Repairs, Recreation Center #2**
- **Cost:** $11,535, **Unit:** 2015, **Years:** to 19, **Phase:** 19

**Concrete Deck, Textured Coating, Partial Replacements and Repairs, Recreation Center #3**
- **Cost:** $55,035, **Unit:** 2016, **Years:** to 15, **Phase:** 15

**Negative Allowance**
- **Cost:** 0, **Unit:** 2016, **Years:** 15 to 20, **Phase:** 15

**Mechanical Equipment, Remaining, Recreation Center #3, Phased**
- **Cost:** 0, **Unit:** 2016, **Years:** 15 to 20, **Phase:** 15

**Mechanical Equipment, Remaining, Recreation Center #2, Phased**
- **Cost:** 0, **Unit:** 2018, **Years:** 15 to 20, **Phase:** 15

**Mechanical Equipment, Remaining, Recreation Center #1, Phased**
- **Cost:** 0, **Unit:** 2016, **Years:** 15 to 20, **Phase:** 15

**Each Furniture, Phased**
- **Cost:** 0, **Unit:** 2015, **Years:** 10 to 12, **Phase:** 10

**Allowance**
- **Cost:** 0, **Unit:** 2016, **Years:** 15 to 20, **Phase:** 15

**Each Shade Structures, Phased**
- **Cost:** 0, **Unit:** 2014, **Years:** 20 to 0, **Phase:** 20

**Each Ramadas, Renovation, Recreation Centers #1 and #2, Phased**
- **Cost:** 0, **Unit:** 2020, **Years:** 6 to 10, **Phase:** 6

**Allowance Mechanical Equipment, Remaining, Recreation Center #3, Phased**
- **Cost:** 0, **Unit:** 2018, **Years:** 6 to 10, **Phase:** 6

**Allowance Mechanical Equipment, Remaining, Recreation Center #2, Phased**
- **Cost:** 0, **Unit:** 2018, **Years:** 6 to 10, **Phase:** 6

**Allowance Mechanical Equipment, Remaining, Recreation Center #1, Phased**
- **Cost:** 0, **Unit:** 2018, **Years:** 6 to 10, **Phase:** 6

**Each Mechanical Equipment, Heaters, Phased**
- **Cost:** 0, **Unit:** 2022, **Years:** 8 to 12, **Phase:** 8

**Each Shade Structures, Phased**
- **Cost:** 0, **Unit:** 2014, **Years:** 20 to 0, **Phase:** 20

**Allowance**
- **Cost:** 0, **Unit:** 2016, **Years:** 15 to 20, **Phase:** 15

**Each Ramadas, Renovation, Recreation Center #3**
- **Cost:** 0, **Unit:** 2018, **Years:** 4 to 8, **Phase:** 4

**Each Mechanical Equipment, Heaters, Phased**
- **Cost:** 0, **Unit:** 2022, **Years:** 10 to 12, **Phase:** 10

**Reserve Study Update with Site Visit**
- **Cost:** $9,081,076, **Unit:** 2015, **Years:** 0 to 20, **Phase:** 0

---

**Reserve Study Update with Site Visit**
- **Cost:** $8,891,876, **Unit:** 2016, **Years:** 1 to 2, **Phase:** 1

---

**Reserve Study Update with Site Visit**
- **Cost:** $8,891,876, **Unit:** 2016, **Years:** 1 to 2, **Phase:** 1
### RESERVE FUNDING PLAN

#### CASH FLOW ANALYSIS
Mountain Park Ranch
Homeowners Association
Phoenix, Arizona

Individual Reserve Budgets & Cash Flows for the Next 30 Years

<table>
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<tr>
<th></th>
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<tbody>
<tr>
<td>Reserves at Beginning of Year (Note 1)</td>
<td>$2,606,937</td>
<td>$2,643,972</td>
<td>$2,437,640</td>
<td>$2,183,207</td>
<td>$2,248,380</td>
<td>$2,444,874</td>
<td>$2,500,810</td>
<td>$2,352,606</td>
<td>$2,203,780</td>
<td>$2,070,167</td>
<td>$2,073,101</td>
<td>$2,262,522</td>
<td>$2,259,717</td>
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<td>Total Recommended Reserve Contributions (Note 2)</td>
<td>172,529</td>
<td>208,000</td>
<td>209,900</td>
<td>211,800</td>
<td>213,700</td>
<td>215,600</td>
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<td>221,500</td>
<td>223,500</td>
<td>225,500</td>
<td>227,500</td>
<td>229,500</td>
<td>231,600</td>
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<td>Plus Estimated Interest Earned, During Year (Note 3)</td>
<td>13,095</td>
<td>12,672</td>
<td>11,700</td>
<td>11,065</td>
<td>11,051</td>
<td>11,704</td>
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<td>12,103</td>
<td>11,363</td>
<td>10,658</td>
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<td>10,812</td>
<td>11,277</td>
<td>11,160</td>
<td>10,662</td>
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(continued)

| Individual Reserve Budgets & Cash Flows for the Next 30 Years, Continued |
|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 | 2037 | 2038 | 2039 | 2040 | 2041 | 2042 | 2043 | 2044 |
| Reserves at Beginning of Year | $2,064,803 | $2,062,518 | $1,944,284 | $2,001,105 | $1,838,270 | $1,918,462 | $1,876,357 | $1,868,561 | $1,777,587 | $1,732,399 | $1,645,129 | $1,447,150 | $1,477,303 | $1,474,793 | $1,571,042 |
| Total Recommended Reserve Contributions | 237,900 | 240,000 | 242,200 | 244,400 | 246,600 | 248,800 | 251,000 | 253,300 | 255,600 | 257,900 | 260,200 | 262,500 | 264,900 | 267,300 | 269,700 |
| Plus Estimated Interest Earned, During Year | 10,293 | 9,992 | 9,839 | 9,575 | 9,368 | 9,463 | 9,339 | 9,093 | 8,753 | 8,423 | 7,711 | 7,293 | 7,362 | 7,596 | 6,757 |
| Anticipated Reserves at Year End | $2,062,518 | $1,944,284 | $2,001,105 | $1,838,270 | $1,918,462 | $1,876,357 | $1,868,561 | $1,777,587 | $1,732,399 | $1,645,129 | $1,447,150 | $1,477,303 | $1,474,793 | $1,571,042 | $1,138,421 |

(NOTES 4&5)

**Explanatory Notes:**

2. Reserve Contributions for 2014 are budgeted; 2015 is the first year of recommended contributions.
3. 0.5% is the estimated annual rate of return on invested reserves.
4. Accumulated year 2044 ending reserves consider the need to fund for replacement of the remaining pool structures shortly after 2044, and the age, size, overall condition and complexity of the property.
5. Threshold Funding Year (reserve balance at critical point).
4. CONDITION ASSESSMENT

The Condition Assessment of this *Precision 20/20 Full Reserve Study* includes *Enhanced Solutions and Procedures* for select significant components. These narratives describe the Reserve Components, document specific problems and conditions, and may include detailed solutions and procedures for necessary capital repairs and replacements for the benefit of current and future board members. We advise the Board use this information to help define the scope and procedures for repair or replacement when soliciting bids or proposals from contractors. *However, the Report in whole or part is not and should not be used as a design specification or design engineering service.*

**Property Site Elements**

*Asphalt Pavement, Crack Repair, Patch and Seal Coat* - Asphalt pavement comprises 3,230 square yards of parking areas at the three recreation centers. The Association installed a two-inch overlay in 2007. The pavement is in good overall condition. We note cracks and previous repairs. Pages 5.2 and 5.3 of *Photographs* depict these conditions. To maximize the life of the pavement, the Association should plan for seal coat applications and repairs every three- to five-years. These activities reduce water infiltration and the effects of inclement weather. We elaborate on solutions and procedures necessary for the optimal maintenance of asphalt pavement in the following discussion.

We recommend periodic seal coat applications, crack repairs and patching to maintain the pavement. These activities minimize the damaging effects of vehicle fluids, maintain a uniform and positive appearance, and maximize the useful life of the pavement. Asphalt pavement is susceptible to isolated areas of accelerated deterioration at the centerlines of streets and at high traffic areas such as intersections. Depressions often appear at areas where vehicles park such as...
driveways and parking areas. Isolated areas of depressions, cracks and deterioration indicate the need for crack repairs and patching. The contractor should patch areas that exhibit potholes, alligator or spider web pattern cracks, and areas of pavement that are severely deteriorated from oil and gasoline deposits from parking vehicles. Area patching requires total replacement of isolated areas of pavement. The contractor should mechanically rout and fill all cracks with hot emulsion. Crack repair minimizes the chance of the cracks transmitting through the pavement.

There are four main types of seal coats available: fog coat, acrylic sealer, chip seals and asphaltic emulsion. A fog coat is a simple mixture of water and asphalt. Acrylic sealers include an acrylic additive to the water and asphalt mixture for greater resistance to abrasion. Fog coats and acrylic sealers are typically spray applied and are only for aesthetic purposes. Chip seal is the most substantial type of seal coat which involves placement of oil and aggregate on the driving surface. Either a roller or normal vehicular traffic works the gravel into the oil. Asphaltic emulsions combine a sharp sand mixture or mineral fibers, and an emulsifying agent with the water and asphalt mixture. Asphaltic emulsions are typically hand applied with squeegees to ensure that the sealer fills surface abrasions and minor cracks. This prevents the infiltration of water through cracks into the underlying pavement base. Seal coats therefore minimize the damaging effects of water from expansion and contraction. We regard asphaltic emulsions as the most effective and economical type of seal coat.

Mountain Park Ranch should repair any isolated areas of deteriorated pavement prior to seal coat applications. Proposals for seal coat applications should include crack repairs and patching. The contractor should only apply seal coat applications after repairs are completed. A
seal coat does not bridge or close cracks, therefore, unrepaired cracks render the seal coat applications useless. Our future estimates of cost include an allowance for repair activities.

We recommend that Mountain Park Ranch plan the next application of seal coat in 2015 and subsequent applications every four years thereafter except when repaving occurs. Line Item 4.020 of *Reserve Expenditures* notes our estimate of future costs and anticipated times of these activities.

**Asphalt Pavement, Repaving** - As stated above, asphalt pavement comprises 3,230 square yards of parking areas at the three recreation centers. The Association installed a two-inch overlay in 2007. The pavement is in good overall condition. We note cracks and previous repairs. The useful life of pavement in Phoenix is from 15- to 25-years. We include the following repaving solutions and procedures for the benefit of the present and future board members.

Components of asphalt pavement include native soil, aggregate and asphalt. First the contractor creates a base course of aggregate or crushed stone and native soil. The base course is individually compacted to ninety-five percent (95%) dry density prior to the application of the asphalt. Compaction assures a stable base for the asphalt that reduces the possibility of settlement. The initial installation of asphalt uses at least two lifts, or two separate applications of asphalt, over the base course. The first lift is the binder course. The second lift is the wearing course. The wearing course comprises a finer aggregate for a smoother more watertight finish. The following diagram depicts these components:
The manner of repaving is either a *mill and overlay* or *total replacement*. A mill and overlay is a method of repaving where cracked, worn and failed pavement is mechanically removed or milled until sound pavement is found. A new layer of asphalt is overlaid atop the remaining base course of pavement. Total replacement includes the removal of all existing asphalt down to the base course of aggregate and native soil followed by the application of two or more new lifts of asphalt. We recommend mill and overlayment on asphalt pavement that exhibits normal deterioration and wear. We recommend total replacement of asphalt pavement that exhibits severe deterioration, inadequate drainage, pavement that has been overlaid multiple times in the past or where the configuration makes overlayment not possible. Based on the apparent visual condition and configuration of the asphalt pavement, we recommend the mill and overlay method for initial repaving followed by the total replacement method for subsequent repaving at Mountain Park Ranch.
A variety of repairs are necessary to deteriorated pavement prior to the application of an overlay. The contractor should use a combination of area patching, crack repair and milling before the overlayment. Properly milled pavement removes part of the existing pavement and permits the overlay to match the elevation of adjacent areas not subject to repaving. Milling also allows the contractor to make adjustments to the slope of the pavement to ensure proper drainage. The contractor should clean the milled pavement to ensure proper bonding of the new overlayment. We recommend an overlayment thickness that averages 1½ inches (not less than one inch or more than two inches). Variable thicknesses are often necessary to create an adequate slope for proper drainage. The contractor should identify and quantify areas of pavement that require area patching, crack repair and milling to help the Association compare proposed services.

Total replacement requires the removal of all existing asphalt. For area patching, we recommend the contractor use a rectangular saw cut to remove the deteriorated pavement. For larger areas such as entire parking areas or driveways, we recommend the contractor grind, mill or pulverize the existing pavement to remove it. The contractor should then augment and compact the existing aggregate and native soil to create a stable base. Finally the contractor should install the new asphalt in at least two lifts.

The time of replacement is dependent on the useful life, age and condition of the pavement. The useful life is dependent in part on the maintenance applied to the pavement, the amounts and concentration of auto solvents that penetrate the pavement, the exposure to sunlight and detrimental effects of inclement weather. Mountain Park Ranch should repair any isolated areas of deteriorated pavement concurrent with periodic seal coat applications. We recommend
the Association plan for a milling and overlayment of the pavement with area patching of up to ten percent (10%) by 2023 and a subsequent total replacement by 2043. We depict this information on Line Items 4.040 and 4.045 of Reserve Expenditures. Our estimates of cost include an allowance for repairs to the one catch basin at Recreation Center #2.

**Concrete Benches, Patios, Tables and Trash Receptacles** - Mountain Park Ranch maintains concrete benches, patios, tables and trash receptacles throughout the common areas. These elements vary in age and condition, and have varied useful lives. Based on historical information and at the direction of Management, we include an allowance of $7,000 plus inflation for partial replacements in 2015 and every three years thereafter. We depict this information on Line Item 4.139 of Reserve Expenditures.

**Concrete Sidewalks and Curbs** - The Association maintains 30,450 square feet of concrete sidewalks and 5,670 linear feet of concrete curbs at the recreation centers and ponds, including landscaping curbs. The sidewalks and curbs are in good overall condition. We note isolated cracks, settlement and spalled concrete. Pages 5.4 and 5.5 of Photographs depict these conditions. These applications of concrete have useful lives of up to 65 years although isolated deterioration of limited areas of concrete is common. Inclement weather, inadequate subsurface preparation and improper concrete mixtures or finishing techniques can result in premature deterioration such as settlement, chips, cracks and spalls. Variable conditions like these result in the need to plan for periodic partial replacements of the concrete flatwork throughout the next 30 years.

We estimate that up to 6,090 square feet of concrete sidewalks, or twenty percent (20%) of the total, and 860 linear feet of concrete curbs, or fifteen percent (15%) of the total, will
require replacement during the next 30 years. We recommend the Association budget for partial replacements every four years beginning by 2017. Line Item 4.140 of *Reserve Expenditures* notes our estimate of future costs and anticipated times of replacements. We base our estimate of replacement on four-inch thick, 3,000 psi (pounds per square inch) concrete with 6x6 - W1.4xW1.4 steel reinforcing mesh. We recommend an annual inspection of the sidewalks to identify potential trip hazards. We suggest that the Association grind down or mark these hazards with orange safety paint prior to replacement and fund this ongoing activity through the operating budget. The times and costs of these replacements may vary. However, the estimated expenditures detailed in *Reserve Expenditures* are sufficient to budget appropriate reserves.

**Granite, Replenishment** - Mountain Park Ranch maintains crushed granite at the recreation centers, lakes, along the base of the perimeter walls and other common areas. The effects of precipitation over time can cause movement and erosion. At the direction of Management, we include an annual allowance of $17,000 plus inflation for granite replenishment beginning in 2014. We depict this information on Line Item 4.201 of *Reserve Expenditures*.

**Irrigation System** - An irrigation system waters the common lawn and landscaped areas. The system includes 68 controllers and 1,200 heads. The system is original and reported in fair condition. Irrigation systems typically include the following components:

- Electronic controls (timer)
- Impact rotors
- Network of supply pipes
- Pop-up heads
- Valves
Water pressure activates the lawn spray pop-up heads. Controllers operate the main water flow valves. The exact amounts and locations of system components were not ascertained due to the nature of the underground construction and the non-invasive nature of the inspection.

The 12 satellite controllers and 56 standard controllers vary in age and condition, and have a useful life of up to 15 years. The satellite controllers were replaced from 2009 to 2011. We recommend that the Association anticipate replacement a phased replacement of the controllers beginning by 2016, concluding by 2022 and every 13 years thereafter. We base our cost partially on historical costs and depict this information on Line Item 4.400 of Reserve Expenditures.

The system as a whole has a useful life of up to 45 years. The system network supply pipes will dislodge as tree roots grow and soil conditions change. Mountain Park Ranch should anticipate interim and partial replacements of the system network supply pipes and other components as normal maintenance to maximize the useful life of the irrigation system. The Association should fund these ongoing seasonal repairs through the operating budget. In addition, we recommend Mountain Park Ranch budget for a phased replacement of the system beginning by 2029 and concluding by 2035. We note this information on Line Item 4.420 of Reserve Expenditures.

**Lakes** - The Association maintains five lakes located throughout the property. The health or condition of a lake is reflected in the clarity of the water, balance of plant life, the ability of the water to retain life giving gases and the health of the fish in larger bodies of water. Three factors which affect the health of lakes are erosion, buildup of silt and algae blooms. We note moderate areas of erosion. Pages 5.6 and 5.7 of Photographs depict these conditions.
Management does not report any problems with algae blooms. We include the following solutions and procedures as a summary of the minimum requirements for successful lake management for present and future board members.

Eutrophication is a process in which a lake becomes more shallow and more biologically productive. Human or animal activity often increases the rate of eutrophication. Erosion and storm water deposit fines or silt into the lake and affect the rate of eutrophication. The amount and intensity of rainfall, soil saturation levels and ground cover all affect the amount of deposits into the lake. Run-off from construction excavations is another contributor to changes in the depth of the lake. Lawn fertilizers are another source of nutrients that contribute to eutrophication. Fertilizers often contain nitrogen and phosphorous which exacerbate nutrient loads into the water system. We advise that Mountain Park Ranch consider the use of fertilizers with low or no phosphorus content for areas adjacent to the lakes.

Another method to slow eutrophication is the use of algae-killing chemical treatments. Introduction of metal compounds, such as copper sulfate, to the water renders the nutrients inactive to the algae. If necessary, we recommend the Association fund the use of chemical treatments to control algae growth in the lake through the operating budget. The Association should first obtain all permits necessary for the use of chemical treatments.

There are several methods with which the Association can manage the lakes and limit algae blooms and slow the eutrophication process. We discuss each management method below.

**Aeration** - The use of small pumps, motors and aerators circulates lake water and increases the amount of entrained oxygen in the water, increasing water quality and reducing algae growths. Mountain Park Ranch utilizes various aerators and bubblers. We recommend the Association replace the aerators as normal maintenance through the operating budget.
**Bulkheads** - The lake shorelines comprise 2,950 linear feet of concrete bulkheads. The bulkheads are original and in good overall condition. These types of walls have an indeterminate useful life with periodic inspections and capital repairs up every 10 years. The shorelines are also subject to fluctuations in water levels, increased plant growth and migrating storm and ground water resulting in the need for erosion control measures. The steep shoreline embankments are likely to exacerbate soil movement and erosion. The use and maintenance of landscape, natural vegetation and/or stone rip rap along the lake shorelines will help maintain an attractive appearance and prevent soil erosion.

Maintenance should include inspections, replacement of up to four percent (4%) of the bulkheads and replacement of up to ten percent (10%) of plantings. We recommend that the Association plan for these activities by 2017 and every 10 years thereafter. We note this information on Line Item 4.512 of *Reserve Expenditures*.

**Pumps** - The Association utilizes four 15 horsepower (HP) pumps at the lakes for irrigation. Management informs us the Association conducts aggressive annual maintenance on the pumps. We anticipate a useful life of up to 20 years based on continued aggressive maintenance. We recommend the Association anticipate replacement by 2018 and again by 2038. The times of these replacements may vary. However, we judge the amount shown on Line Item 4.513 of *Reserve Expenditures* sufficient to budget appropriate reserves.

**Sediment Removal and Concrete Repairs** - Approximately 9,700 square yards of water surface area comprise the lakes. The floor and wall surfaces of the lakes are concrete. We were unable to inspect the concrete floor surfaces of the lakes during our non-invasive inspection. The Association’s lake maintenance company evaluated the lakes and concluded that sediment removal was not necessary in the near term.

We recommend the Association anticipate the need to perform an inspection of the underlying concrete structures every 35 years, including removal of silt that has built up over time, and repair cracks in the underlying concrete floor and wall surfaces. For reserve budgeting purposes, we estimate the need to drain the lakes, remove sediment that has built up at the bottom of the lakes, inspect the underlying concrete structures and perform repairs to up to two percent (2%) of the concrete. Based on the evaluation and limited erosion, we conservatively recommend that the Association budget for this variable but probable activity by 2037. The time and cost of this maintenance activity may vary. However, we judge the amount shown on Line Item 4.514 of *Reserve Expenditures* sufficient to budget appropriate reserves.

The above management methods will help to maintain the lakes and potentially reduce more costly future maintenance expenditures.

**Light Poles and Fixtures** - The Association uses 29 metal light fixtures atop metal poles to illuminate the recreation centers. These elements vary in age, including original lights, are in
far condition and have useful lives of up to 25 years. The Association should anticipate the need for replacement by 2017 and again by 2042. We note this information on Line Item 4.560 of Reserve Expenditures.

To reduce energy consumption, Mountain Park Ranch should consider the use of compact fluorescent lighting (CFL) or LED (light emitting diode) lighting. LED lighting uses at least seventy-five percent (75%)\(^1\) less energy than incandescent lighting, and thus reduces energy operating costs. Additionally, LED lighting reduces maintenance costs because it lasts 35- to 50-times longer than incandescent lighting and two- to five-times longer than fluorescent lighting. LED lighting also reduces energy cooling costs because they produce very little heat. The following chart, provided by Energy Star, depicts the lifetime savings of LED lighting compared to incandescent and compact fluorescent lighting (CFL):

\(^1\) Information based on the following website: http://www.energystar.gov/index.cfm?c=ssl.pr_why_es_com.
Maintenance Vehicles - Mountain Park Ranch maintains one 2004 Nissan Frontier pickup and one 2007 Dodge Ram pickup. These elements have a useful life of up to 12 years. At the direction of Management, we include replacement of both vehicles in 2015 and every 11 years thereafter. We depict this information on Line Item 4.601 of Reserve Expenditures.

Perimeter Walls, Metal Fences - The Association maintains approximately 49,300 linear feet of metal view fences at the perimeter walls located throughout the property. The fences were last painted from approximately 2009 to 2011. The protective finishes are in fair condition overall condition. We note rust and loose components. Management informs us the Association has historically painted the fences every six years over three phases. Fences of this type have a long useful life but are not maintenance free. Periodic maintenance should include
periodic applications of protective paint finish to the metal surfaces and partial replacement of deteriorated sections as needed. Metal components at grade and key structural connections are especially prone to failure if not thoroughly maintained. Secure and rust free fasteners and connections will prevent premature deterioration. Based on historical practices, we include paint applications every six years. We also recommend partial replacements of up to five percent (5%) with each three-year cycle.

Periodic applications of paint to the metal will help maximize the useful life. Preparation of the metal before application of the paint finish is important. The paint contractor should remove all soil, dirt, oil, grease and other foreign materials before application of the paint finish to maximize its useful life. The contractor should also remove paint blisters and rust prior to the paint finish application. We recommend the use of a power wire brush, scraper and/or sander as effective means of removal. The Association should require the application of a primer on bare metal. The primer for metal surfaces should include a rust inhibitor for added protection. We recommend the Association refinish the fences beginning in 2015, concluding by 2017 and every six years thereafter. We base our cost partially on historical information and include an additional cost for partial replacements. We depict this information on Line Item 4.640 of Reserve Expenditures.

**Perimeter Walls, Stucco** - The Association maintains approximately 264,000 linear feet of stucco perimeter walls that comprise approximately 1,140,400 square feet of stucco surface area. This quantity includes one side of the walls, as homeowners are responsible for maintenance of their inside side. The stucco was last painted from approximately 2008 to 2010.
and is in fair condition. We note cracks, stains and finish deterioration. Pages 5.9 and 5.10 of

*Photographs* depict these conditions.

Stucco is Portland cement plaster that is applied directly to a solid base such as masonry or concrete. The inherent composition of stucco along with proper installation results in stucco wall systems having indefinitely long useful lives with periodic finish applications and proper maintenance. The useful life of these finish applications is from 8- to 10-years. Periodic paint finish applications to stucco help prevent water infiltration and spalling from weather exposure, maintain a good appearance and maximize the useful life of the system. We advise that Mountain Park Ranch budget for phased paint applications, partial stucco replacements and crack repairs beginning in 2014, concluding by 2016 and every eight years thereafter. The exact amount of area in need of repair will be discretionary based on the actual future conditions and the desired appearance. Each paint product has the limited ability to bridge (cover and seal) cracks but we recommend repair of all cracks which exceed the ability of the paint product to seal. Our estimate of cost also considers that the homeowners will sufficiently maintain their side of the wall so as not to compromise the structural integrity of the walls. We depict this information based on historical information on Line Item 4.641 of *Reserve Expenditures*.

**Playground Equipment** - The Association maintains playground equipment at each recreation center. The playground equipment includes the following elements:

- Swingsets
- Playsets
- Surface, Sand
- Shade Structures

The playground equipment at Recreation Centers #1 and #2 were replaced in 2011, and the playground equipment at Recreation Center #3 was replaced in 2008. The playgrounds are in
good overall condition. Safety is the major purpose for maintaining playground equipment. We recommend an annual inspection of the playground equipment to identify and repair as normal maintenance loose connections and fasteners or damaged elements. We suggest the Association learn more about the specific requirements of playground equipment at http://www.playgroundsafty.org. We recommend the use of a specialist for the design or replacement of the playground environment. Playground equipment of this type has a useful life of 15- to 20- years. We recommend replacement of the playground equipment at Recreation Center #3 by 2028, and at Recreation Centers #1 and #2 by 2031. We include this information on Line Items 4.660 through 4.662 of Reserve Expenditures.

Signage - The Association maintains six property identification signs at five locations that include the following elements:

- Light Fixtures
- Letters
- Masonry
- Stucco

The signage was renovated from approximately 2006 to 2008 and is in good condition. Community signage contributes to the overall aesthetic appearance to owners and potential buyers. Renovation or replacement of community signs is often predicated upon the desire to "update" the perceived identity of the community rather than for utilitarian concerns. Therefore, the specific times for replacement or renovation are discretionary. We recommend the Association plan to renovate the signage every 20 years. We include a phased renovation beginning by 2026 and concluding by 2028. Renovation should include the following work:

- Repointing and repairs to the masonry and stucco
- Replacement of the remaining components listed above
We base our estimate of cost on historical costs and note this information on Line Item 4.800 of *Reserve Expenditures*. The Association should fund interim repairs and replacements through the operating budget.

**Tennis and Basketball Courts** - Mountain Park Ranch maintains 4,400 square yards of asphalt comprising six tennis courts and 122 square yards of concrete comprising one basketball court. The basketball court was recently replaced. The components of the tennis and basketball courts include the *color coat, fence, light poles and fixtures, shelters and benches*, the playing *surfaces*, and *windscreens*. We comment on the respective quantities, conditions and times of replacements in the following sections of this narrative.

**Color Coat** - The court color coat surfaces were replaced in 2011 and are in fair overall condition. We recommend the Association apply a new color coat every four- to six-years to maximize the useful life. Prior to the application of the color coat, the Association should require the contractor to rout and fill all cracks with hot emulsion. This deters water infiltration and further deterioration of the asphalt playing surface. We advise the Association to perform crack repairs and apply a new color coat in 2015 and every five years thereafter except when replacement occurs. We include this information on Line Item 4.830 of *Reserve Expenditures*.

**Fences** - Approximately 1,365 linear feet of metal chain link fence enclose the tennis courts. The chain link fences are original and in fair to poor condition. We note damage and rust. Page 5.14 of *Photographs* depicts this condition. Chain link fences of this type have a useful life of up to 25 years. We recommend the Association anticipate a phased replacement of the fences beginning in 2015 and concluding by 2017.
subsequent phased replacement is likely beginning by 2040 and concluding by 2042, concurrent with asphalt surface replacement. We depict this information on Line Item 4.840 of *Reserve Expenditures.*

*Light Poles and Fixtures* - The Association maintains 33 light poles and fixtures to illuminate the courts. The metal poles and fixtures are original and in fair to poor condition. Light poles and fixtures of this type have a useful life of up to 35 years. We recommend the Association anticipate replacement in 2015, concurrent with asphalt surface replacement. We include this information on Line Item 4.850 of *Reserve Expenditures.*

*Shelters and Benches* - The Association maintains one shelter and two benches at each pair of tennis courts. These elements are in fair condition and have useful lives of 20- to 25-years. We recommend the Association plan for their replacement in 2015 and again by 2040. We include this information on Line Item 4.851 of *Reserve Expenditures.*

*Surface* - The age of the court playing surfaces was not available at the time of our inspection, but the courts are possibly original. The courts are in fair overall condition. The maintenance supervisor informs us the tennis courts are a cushion court. A cushion court is typically comprised of multiple layers of cushioned rubber atop an asphalt base. The maintenance supervisor reports that the courts at Recreation Center #2 are prone to more problems and complaints. Asphalt tennis courts have useful lives of up to 25 years. In consideration of the observed condition and to maintain a safe playing surface, we recommend the Association anticipate a phased replacement beginning by
2020 and concluding by 2022. We note this information on Line Item 4.860 of Reserve Expenditures. We recommend replacement of the tennis standards from the operating budget on an as needed basis.

**Windscreens** - The Association maintains approximately 1,050 linear feet of windscreens at the fences and court divisions. These elements are in fair condition and have useful lives of up to five years. We recommend the Association plan for their replacement by 2016 and every five years thereafter. We include this information on Line Item 4.861 of Reserve Expenditures.

The times and costs of these replacements may vary. However, the estimated expenditures detailed in Reserve Expenditures are sufficient to budget appropriate reserves.

**Pool House and Office Elements**

**Doors** - The three pool houses comprise seven single doors and eight double doors. The age of the metal doors was not available at the time of our inspection, but the doors have likely been replaced as needed. The doors exhibit rust and faded finishes. Page 5.17 of Photographs depicts this condition. The useful life of metal exterior doors is up to 30 years. The useful life of the doors is based on the occurrence of water infiltration, thermal inefficiencies compared to present technology, type of frame, availability of replacement parts and aesthetics. The Association plans to replace a few doors in 2014. Based on these factors, we recommend the Association anticipate replacement of three doors in 2014 and every six years thereafter. We depict this information on Line Item 5.301 of Reserve Expenditures.

**Office Equipment** - Management staff utilizes various pieces of office equipment, including computers, printers and copiers, at the management office. Management reports that
the office equipment was upgraded in 2013 for approximately $12,000 and is sufficient for daily office operations. We use an average functional useful life of five years for these amenities. Normal use and changes in hardware and software technologies render the replacement of the computer equipment a periodic and ongoing activity. We include an allowance for replacement of the office equipment every five years starting by 2018. We note this information on Line Item 5.400 of Reserve Expenditures.

Rest Rooms - The Association maintains two rest rooms at each recreation center pool house. Components of the rest rooms include:

- Epoxy floor coverings
- Paint finishes on the walls and ceiling
- Light fixtures
- Plumbing fixtures

The majority of these components were replaced in 2012 and are in good overall condition. The maintenance supervisor informs us the Association will complete minor updates at Recreation Center #1 in 2014 funded through means other than reserves. The useful life of rest room components varies up to 25 years. Periodic renovations are an astute practice to maintain a positive overall appearance of the Association. We recommend the Association budget for a renovation by 2035. We note this information on Line Item 5.401 of Reserve Expenditures. The Association should verify the rest room renovations comply with the Americans with Disability Act (ADA). The Association should budget for interim paint and epoxy applications funded through the operating budget.
Roofs, Concrete Tiles - Approximately 13 squares\(^2\) of concrete tiles comprise the roofs at Recreation Center #1 pool house. The roofs were replaced in 2001 and are in good overall condition. Management does not report history of leaks. We include the following solutions and procedures pertaining to replacement of concrete tile roofs for the benefit of present and future board members.

The useful life of a concrete tile roof is up to 30 years. A tile roof rarely fails at all points of application simultaneously. Rather, occurrences of roof leaks will increase as more concrete tiles crack, break and dislodge. This deterioration will result in increased maintenance costs such that replacement becomes the least costly long-term alternative as compared to ongoing repairs.

A concrete tile roof system comprises sheathing, underlayment, battens and the tiles themselves. The following narrative briefly discusses these components.

Sheathing - We recommend a minimum of 15/32 inch thick plywood sheathing. We do not recommend the use of OSB (oriented strand board) due to its poor performance in high wind conditions or in the event of becoming saturated due to eventual roof leaks.

Underlayment - We recommend a double layer of 30-pound felt paper, modified bitumen sheet or self adhered ("peel and stick") sheet.

Battens - Battens are wood or composite strips that elevate the tile off the underlayment allowing for air and storm water flow between the underlayment and tiles.

Tiles - Traditional roof tiles include clay and concrete. Depending on their composition, tiles are hand pressed or machine extruded, are fired or cured and come in multiple finishes. The tiles are mechanically fastened, adhesive set, foam applied or mudded onto the sheathing.

We could not confirm the type of underlayment due to the noninvasive, nondestructive nature of our visual inspection. However, replacement standards should conform to the local

\(^2\) We quantify the roof area in squares, where one square is equal to 100 square feet of surface area.
building code and manufacturer’s specifications at the time of actual replacement. The manner of construction is such that the underlayment is the primary line of defense from water infiltration. The tiles act to shade the underlayment from harmful sunlight and to protect the roof from heavy winds. Most storm water is shed from the roof tiles into the gutters or over the edge of the roof. However, this tile style is meant to allow water to pass between the tiles onto the underlayment. The underlayment thus sheds any remaining water into the gutters. In fact, horizontal driving rains will force their way up and under the tile only to be shed at some other point.

The function of flashing is to provide a watertight junction between the roofing materials and roof penetrations. Plumbing vent stacks are one example where counter flashing and collars are often used. A short list of these points is the interface of sloped and flat roofs, at the leading edges of all roofs (as drip edge flashing), and any openings in the sloped roof such as plumbing stack vents and roof vents.

There are three general considerations for the maintenance of concrete tile roofs that we discuss in the following narratives.

**Eradication of Pests** - It is common for birds or animals to nest in the cavities of the edge tiles. These conditions are most common in shaded areas. As trees around the roofs continue to mature and encroach on the roofs, the Association should watch for the problem of infestation and prune back the trees as normal maintenance.

**Removal of Mildew** - Mildew build-up is a common aesthetic concern for homeowners. If the Association chooses to clean the roofs of mildew and any related stains, we advise the Association use a mild solution of anti-fungal chemicals and water, such as a ten percent (10%) chlorine to water solution. Personnel can apply the solution by walking across the roofs or by a remote aerial boom spray nozzle. The latter is the safest but more costly method. Use of personnel on the roofs will result in some tile damage. However, the additional cost of an aerial boom may outweigh the potential repair costs. We advise the Association to obtain bids for both methods and weigh the
overall cost options. In any event, the contractor should include the cost to repair any broken tiles that result from the cleaning operation.

**Ongoing Repairs** - Ongoing repairs, if conducted in a timely manner, should help maximize and achieve the long anticipated useful life inherent in concrete roofing tiles. The Association should retain a maintenance company for inspections of the roofs semiannually and after significant storms, and conduct repairs and partial replacements as necessary.

The Association should fund these maintenance activities through the operating budget.

The Association should employ the above procedures as they relate to maintenance and normal repairs to achieve a long useful life for the concrete tile roofs. In consideration of the age and visual condition, we advise the Association prepare for replacement by 2026. We depict this information on Line Item 5.601 of *Reserve Expenditures*.

**Roofs, Flat** - Mountain Park Ranch maintains flat roof sections at the pool houses at Recreation Centers #1 and #3. These flat roofs consist of approximately 12 squares. The roofs were replaced in approximately 2010 and are reported in good condition. The useful life of a flat roof is from 15- to 20-years.

The time or need to replace roofs becomes apparent with multiple or recurring leaks. Mountain Park Ranch should determine whether the origin of the leaks is from the membrane or flashings. The Association may incur less cost by repairs to the flashings than replacement of an entire roof. The membrane and insulation impede the process of finding a break in the membrane. Therefore, because the difficulty in finding several or many breaks in a membrane, replacement eventually becomes the more economical option rather than repair.

All flat roofs including built-up, EPDM (ethylene propylene diene monomer) and modified bitumen have useful lives of 15- to 20-years. Based on the information furnished by
Representatives of the Association and the known age of the roofs, we recommend the Association anticipate the replacement of the flat roofs by 2028. We recommend the Association replace the existing roofs with the most economical type of flat roof with consideration given to competitive bids and proposals from several roofing contractors. For budgeting purposes, we base our estimate on Line Item 5.603 of Reserve Expenditures on replacement of the existing roofs using like material.

**Walls, Stucco** - Stucco comprises approximately 16,000 square feet of the pool house exteriors. The stucco is in good overall condition. The stucco paint finish is in fair condition with peeled paint and cracks evident. Pages 5.17 and 5.18 of Photographs depict these conditions. We elaborate on solutions and procedures necessary for the optimal maintenance of stucco in the following discussion.

Stucco is Portland cement plaster that is applied either directly to a solid base such as masonry or concrete, or is applied to galvanized metal lath attached with galvanized fasteners to frame construction. In frame construction, two layers of a Grade D water-vapor permeable building paper are necessary to separate the stucco from the wood product sheathing. The following graphic details the typical components of a stucco wall system on frame construction; however, the actual construction may vary and must follow the specifications of the supplier, manufacturer or local building codes:

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3Graphic provided by the Portland Cement Association. Reserve Advisors, Inc. does not have any financial or other interest in this company and includes this reference for informational purposes only.
The inherent composition of stucco along with proper installation results in stucco wall systems having indefinitely long useful lives with periodic finish applications and proper maintenance. The useful life of these finish applications is from 8- to 10-years. We recognize that the initial finish may achieve a longer useful life. Color variations at repairs often warrant complete coating application to maintain aesthetics. Periodic repairs and finish applications to help prevent water infiltration and spalling from weather exposure, maintain a good appearance and maximize the useful life of the system. We include the following commentary as a summary of the minimum requirements for a successful paint finish application for present and future board members.

Correct and complete preparation of the surface before application of the paint finish maximizes the useful life of the paint finish and surface. The contractor should remove all loose, peeled or blistered paint before application of the new paint finish. The contractor should then
power wash the surface to remove all dirt and biological growth. Water-soluble cleaners that will not attack Portland cement are acceptable for removing stains.

Summarizing the minimum requirements of the proposed scope of work, all bids should include the following:

1. Name of paint finish product
2. The contractor will involve manufacturer representatives to ensure specifications and warranty
3. The contractor will apply the paint to clean and dry surfaces at the manufacturer's recommended spreading rates
4. The contractor will apply successive coats of the paint finish, with sufficient time elapse between coats, as necessary to ensure uniform appearance
5. The contractor will conduct crack repairs and replace deteriorated or damaged stucco prior to the application of the paint finish
6. The contractor will replace deteriorated sealants or caulk prior to the application of the paint finish

In consideration of the above recommended maintenance, useful life and age of the stucco paint finishes, we advise that Mountain Park Ranch budget for paint applications, partial stucco replacements and crack repairs in 2015 and every nine years thereafter. Our estimate of cost anticipates the following in coordination with each paint finish application:

- Crack repairs as needed (Each paint product has the limited ability to bridge (cover and seal) cracks but we recommend repair of all cracks which exceed the ability of the paint product to seal.)
- Replacement of up to two percent (2%), of the stucco walls (The exact amount of area in need of replacement will be discretionary based on the actual future conditions and the desired appearance.)
- Replacement of up to fifty percent (50%) of the sealants in coordination with each paint finish application.

We depict this information on Line Item 5.861 of Reserve Expenditures.

Pool Elements

Concrete Decks - Concrete decks with a textured coating surround the pools and comprise a total of approximately 24,790 square feet. The decks are original and in good to fair condition. We note cracks, disintegration/spall and coating deterioration, which is more typical
at Recreation Center #1. Pages 5.18 and 5.19 of *Photographs* depict these conditions. The age of the textured coatings is unknown and is in fair to poor condition. We summarize the decks below:

- Recreation Center #1, 8,900 square feet, coating in poor condition
- Recreation Center #2, 7,220 square feet, coating in fair condition
- Recreation Center #3, 8,670 square feet, coating in good to fair condition

The useful life of a concrete pool deck is up to 60 years or more with regular coating applications and repairs. We recommend the Association conduct inspections, partial replacements and repairs to the deck every 8- to 12-years in conjunction with coating replacements.

Inadequate subsurface preparation, improper concrete mixtures, poor finishing techniques, soil movement and water infiltration underneath the concrete deck can cause significant settlement and cracks in the concrete. The pool deck should also be free of trip hazards for the safety of residents and their guests. We recommend the Association budget for the following at each deck every 10 years:

- Selective cut out and replacements of up to ten percent (10%) of concrete
- Crack repairs as needed
- Mortar joint repairs
- Caulk replacement
- Coating replacement

Based on condition, we anticipate the need for these activities as follows:

- Recreation Center #1 by 2016
- Recreation Center #2 by 2018
- Recreation Center #3 by 2020

The times, amounts and related costs of these repairs and replacements may vary. However, we judge the amounts shown on Line Items 6.200 through 6.202 of *Reserve Expenditures* sufficient to budget appropriate reserves.
Fences, Metal - The Association maintains approximately 1,525 linear feet of metal fences at the pool decks. The fences were replaced in 2004 and are in good to fair overall condition. The protective finishes are in poor condition. We note rust and peeled finishes. Pages 5.20 and 5.21 of Photographs depict these conditions. Fences of this type have a long useful life but are not maintenance free. Periodic maintenance should include periodic applications of protective paint finish to the metal surfaces and partial replacement of deteriorated sections as needed. Metal components at grade and key structural connections are especially prone to failure if not thoroughly maintained. Secure and rust free fasteners and connections will prevent premature deterioration. We recommend paint applications every six-to eight-years and we anticipate a useful life of up to 35 years for the fences.

Periodic applications of paint to the metal will help maximize the useful life. Preparation of the metal before application of the paint finish is important. At the time of inspection, we noted a significant amount of the fence with peeled paint, which suggests the fence was not adequately prepared before the last application. We suggest the Association ensure subsequent applications include sufficient preparation prior to painting. This should maximize the useful life of the fences and reduce the possibility of premature deterioration.

The paint contractor should remove all soil, dirt, oil, grease and other foreign materials before application of the paint finish to maximize its useful life. The contractor should also remove paint blisters and rust prior to the paint finish application. We recommend the use of a power wire brush, scraper and/or sander as effective means of removal. The
Association should require the application of a primer on bare metal. The primer for metal surfaces should include a rust inhibitor for added protection.

We recommend the Association refinish the fences in 2015 and every six years thereafter except when replacement occurs. We recommend the Association anticipate replacement of the pool fences by 2033. We include this information on Line Items 6.400 and 6.401 of Reserve Expenditures.

**Furniture** - Associated furniture and fixtures around the pool include the approximate following:

- Chairs (100)
- Lounges (20)
- Tables (70)
- Trash receptacles (10)
- Ladders and life safety equipment

These items vary in age and are in good to fair condition. Pool furniture has a useful life of up to 12 years. We recommend the Association budget an allowance for replacement of up to twenty percent (20%) of the pool furniture and fixtures in 2015 and every two years thereafter. The times and costs of these replacements may vary. However, we judge the amounts shown on Line Item 6.500 of Reserve Expenditures sufficient to budget appropriate reserves. We recommend interim re-strapping, refinishing, cushion replacements, reupholstering and other repairs to the furniture as normal maintenance to maximize its useful life.

**Mechanical Equipment** - The pool mechanical equipment comprises the following:

- Automatic chlorinators
- Controls
- Filters (six per recreation center)
- Three main pool heaters at Recreation Center #1, replaced 2012-2013
- Three spa heaters (one per recreation center), replaced 2012-2013
• Interconnected pipe, fittings and valves
• Pumps (six per recreation center)
• Electrical panels
• Exhaust fans

The pool mechanical equipment is primarily in good condition. Excluding the heaters, the remaining equipment was replaced from approximately 2004 to 2010. Pool mechanical equipment has a useful life of up to 15 years. Failure of the pool mechanical equipment as a single event is unlikely. We recommend the Association anticipate the following replacement activities:

• Heaters, phased beginning by 2022 and concluding by 2023, and every 10 years thereafter
• Remaining at Recreation Center #1, fifty percent (50%) by 2016 and every six years thereafter
• Remaining at Recreation Center #2, fifty percent (50%) by 2018 and every six years thereafter
• Remaining at Recreation Center #3, fifty percent (50%) by 2020 and every six years thereafter

We consider interim replacement of motors and minor repairs as normal maintenance. We note this information on Line Items 6.600 through 6.603 of Reserve Expenditures.

Pool Finishes, Plaster - The main pool walls and floor surfaces have the following plaster finishes based on the horizontal surface area:

• Recreation Center #1, 3,460 square feet, replaced in 2006
• Recreation Center #2, 3,460 square feet, replaced in 2006
• Recreation Center #3, 4,050 square feet, replaced in 2006

The finishes are in good overall condition. We note isolated areas of worn finish. This type of pool finish deteriorates with time and requires periodic maintenance and replacement. We recommend the Association anticipate the need to replace the finish and conduct related repairs every up to 15 years to maintain the integrity of the pool structure. Removal and replacement provides the opportunity to inspect the pool structure and to allow for partial repairs.
of the underlying concrete surfaces as needed. We recommend the Association budget for the following by 2021 and every 15 years thereafter:

- Removal and replacement of the finish
- Partial replacements of the scuppers and coping as needed
- Replacement of tiles as needed
- Replacement of joint sealants as needed
- Concrete structure repairs as needed

We include this information on Line Items 6.800 through 6.802 of Reserve Expenditures.

**Pool Finishes, Tile** - The kiddie and spa pool walls and floor surfaces have the following tile finishes based on the horizontal surface area:

- Recreation Center #1, 255 square feet at kiddie and 85 square feet at spa, replaced in 2006
- Recreation Center #2, 255 square feet at kiddie and 85 square feet at spa, replaced in 2006
- Recreation Center #3, 340 square feet at kiddie and 85 square feet at spa, replaced in 2006

The finishes are in good overall condition with the exception of the kiddie pool at #1. The kiddie pool at #1 exhibits loose tiles and depression. Page 5.23 of Photographs depicts this condition. The maintenance supervisor informs us the tile was not installed properly. The Association plans to replace the tile here in 2014. Typically, these tile finishes have a useful life of up to 20 years. We recommend the Association anticipate replacement of all the tile finishes at the kiddie pools by 2024 and again by 2042, and replacement of the tile finishes at the spas by 2023 and again by 2040. We depict this information on Line Items 6.803 and 6.804 of Reserve Expenditures.

**Ramadas** - Mountain Park Ranch maintains a Ramada at each recreation center. The Ramada at Recreation Center #1 was replaced in 2003, and the Ramada at Recreation Center #2 was renovated in 2007. The roofing and main structure at Ramada at Recreation Center #3 is
likely original. The Ramada at Recreation Center #3 exhibits rust and is reported to leak into the lighting components. Page 5.24 of *Photographs* depicts this condition. The Ramadas are constructed of wood framed stucco with aluminum roofing at #1 and #2, and steel roofing at #3. We recommend the Association plan for renovations every 20 years. Renovations should include paint finishes and repairs to the stucco, replacement of lights and roofing. Based on condition and age, we recommend the Association renovate #3 by 2018, #1 by 2020, #2 by 2022 and every 20 years thereafter. We depict this information on Line Items 6.811 and 6.812 of *Reserve Expenditures*.

**Shade Structures** - Mountain Park Ranch maintains one shade structure with a fabric covering at each recreation center pool deck. The shade structures are in good to fair condition at an unknown age. These elements have a useful life of 15- to 20-years. We recommend the Association budget for a phased replacement beginning by 2026 and concluding by 2030. We depict this information on Line Item 6.813 of *Reserve Expenditures*. The Association should budget for paint applications and interim fabric replacement through the operating budget. We include the shade structures at the playground on a separate line item, “*Playground Equipment*”.

**Structure and Deck** - The concrete pool structures at Recreation Center #1 comprise a total of approximately 3,800 square feet of horizontal surface area. The structures are original and visually appear in good condition. The concrete floor and walls have a plaster or tile finish. This finish makes it difficult to thoroughly inspect the concrete structure during a noninvasive visual inspection. We note isolated areas of worn finish.
We anticipate a total useful life of up to 60 years for the pool structure. The need to replace a pool structure depends on the condition of the concrete structure, the condition of the embedded or concealed water circulation piping, possible long term uneven settlement of the structure, and the increasing cost of repair and maintenance. Deterioration of any one of these component systems could result in complete replacement of the pool. For example, deferral of a deteriorated piping system could result in settlement and cracks in the pool structure. This mode of failure is more common as the system ages and deterioration of the piping system goes undetected. For reserve budgeting purposes, we recommend Mountain Park Ranch plan to replace the following components by 2044.

- Concrete deck
- Pool structure
- Subsurface piping

The time and cost of this project may vary. However, we judge the amount shown on Line Item 6.900 of Reserve Expenditures sufficient to budget appropriate reserves. We consider the pool structures at Recreation Centers #2 and #3 long-lived, and do not anticipate their replacement within the next 30 years.

**Reserve Study Update**

An ongoing review by the Board and an Update of this Reserve Study in two- to three-years are necessary to ensure an equitable funding plan since a Reserve Study is a snapshot in time. Many variables change after the study is conducted that may result in significant overfunding or underfunding the reserve account. Variables that may affect the Reserve Funding Plan include, but are not limited to:

- Deferred or accelerated capital projects based on Board discretion
- Changes in the interest rates on reserve investments
- Changes in the *local* construction inflation rate
• Additions and deletions to the Reserve Component Inventory
• The presence or absence of maintenance programs
• Unusually mild or extreme weather conditions
• Technological advancements

Periodic updates incorporate these variable changes since the last Reserve Study or Update.

The Association can expense the fee for an Update with site visit from the reserve account. This fee is included in the Reserve Funding Plan. We base this budgetary amount on updating the same property components and quantities of this Reserve Study report. Budgeting for an Update demonstrates the Board's objective to continue fulfilling its fiduciary responsibility to maintain the commonly owned property and to fund reserves appropriately.
5. PHOTOGRAPHS

Photographs document the conditions of various property components as of the date of our visual inspection, February 27, 2014. The Condition Assessment contains references to these photographs.

The following is an overview image of the subject property:

The next pages contain the photographs related to the Condition Assessment
Asphalt pavement parking area at Recreation Center #1

Pavement cracks and repairs at Recreation Center #1

Pavement repairs at Recreation Center #2
Pavement repairs at Recreation Center #3

Concrete tables, patios and trash receptacle

Cracks at Recreation Center #3 table
Settled curb and gutter at Recreation Center #3

Curb cracks at Recreation Center #1

Hairline sidewalk cracks near pond
Isolated crack at Recreation Center #3

Landscaping with crushed granite

Typical satellite control for irrigation system
Lake near Ray Road and East Dry Creek Road

One of two lakes near East Chandler Boulevard and South 28\textsuperscript{th} Street

Erosion at lake near South 28\textsuperscript{th} Street
One of two lakes near Recreation Center #1 (twin lakes)

Erosion at twin lake

Erosion at twin lake
Light pole and fixture

Perimeter wall and metal fence

Rust and peeled finish
Fence rust and loose component

Stucco finish deterioration

Peeled paint finish
Step crack

Step crack

Stucco finish deterioration
Playground and shade structures at Recreation Center #1

Playground and shade structure at Recreation Center #2

Playground and shade structure at Recreation Center #3
The Association should check fasteners and fund paint applications through the operating budget.

Rust at shade structure

Signage

Tennis courts
Tennis court asphalt surface

Concrete basketball court

Color coat deterioration and hairline crack at basketball court
Coating deterioration at Recreation Center #2

Typical damaged and loose fence

Typical light pole finish deterioration
Rust at light pole

Damage at shelter

Recreation Center #1 pool house
Recreation Center #2 pool house/rest room building

Recreation Center #3 pool house

Rust and faded finish at door
Typical rest room

Concrete tile roof at Recreation Center #1

Peeled stucco paint
Stucco crack

Recreation Center #1

Concrete deck disintegration and coating deterioration at Recreation Center #1
Chipped deck coating at Recreation Center #1

Recreation Center #2

Isolated deck cracks at Recreation Center #2
Recreation Center #3

Typical metal fence at pools

Peeled finish at Recreation Center #1
Fence rust at Recreation Center #3

Main pool heaters at Recreation Center #1

Typical spa heater
Typical filters and pumps

*Pebble-Sheen* plaster finish in good condition

Isolated plaster finish wear at Recreation Center #3
Loose tiles and depressions at Recreation Center #1 kiddie pool

Typical spa with tile finish

Ramada at Recreation Center #1
Aluminum trellis roof at Recreation Center #2 (similar to Recreation Center #1)

Ramada at Recreation Center #3

Rust at Recreation Center #3’s Ramada
6. METHODOLOGY

Reserves for replacement are the amounts of money required for future expenditures to repair or replace Reserve Components that wear out before the entire facility or project wears out. Reserving funds for future repair or replacement of the Reserve Components is also one of the most reliable ways of protecting the value of the property’s infrastructure and marketability.

Mountain Park Ranch can fund capital repairs and replacements in any combination of the following:

1. Increases in the operating budget during years when the shortages occur
2. Loans using borrowed capital for major replacement projects
3. Level monthly reserve assessments annually adjusted upward for inflation to increase reserves to fund the expected major future expenditures
4. Special assessments

We do not advocate special assessments or loans unless near term circumstances dictate otherwise. Although loans provide a gradual method of funding a replacement, the costs are higher than if the Association were to accumulate reserves ahead of the actual replacement. Interest earnings on reserves also accumulate in this process of saving or reserving for future replacements, thereby defraying the amount of gradual reserve collections. We advocate the third method of Level Monthly Reserve Assessments with relatively minor annual adjustments. The method ensures that Homeowners pay their "fair share" of the weathering and aging of the commonly owned property each year. Level reserve assessments preserve the property and enhance the resale value of the homes.

This Reserve Study is in compliance with and exceeds the National standards set forth by the Community Associations Institute (CAI) and the Association of Professional Reserve Analysts (APRA) fulfilling the requirements of a “Full Reserve Study.” These standards require a Reserve Component to have a “predictable remaining Useful Life.” Estimating Remaining Useful Lives and Reserve Expenditures beyond 30 years is often indeterminate. Long-Lived Property Elements are necessarily excluded from this analysis. We considered the following factors in our analysis:

1 Identified in the APRA “Standards - Terms and Definitions” and the CAI "Terms and Definitions".
The Cash Flow Method to compute, project and illustrate the 30-year Reserve Funding Plan

Local\(^2\) costs of material, equipment and labor

Current and future costs of replacement for the Reserve Components

Costs of demolition as part of the cost of replacement

Local economic conditions and a historical perspective to arrive at our estimate of long term future inflation for construction costs in Phoenix, Arizona at an annual inflation rate of 0.9%. Isolated or regional markets of greater construction (development) activity may experience slightly greater rates of inflation for both construction materials and labor.

The past and current maintenance practices of Mountain Park Ranch and their effects on remaining useful lives

The Funding Plan excludes necessary operating budget expenditures. It is our understanding that future operating budgets will provide for the ongoing normal maintenance of Reserve Components.

The anticipated effects of appreciation of the reserves over time in accord with your average current return or yield on investment of your cash equivalent assets at an annual rate of 0.5% (We did not consider the costs, if any, of Federal and State Taxes on income derived from interest and/or dividend income).

Interest rates on reserves are steady or increasing in concert with the certificates of deposit and money market rates. Slight increases exist in the savings rates of one, two or three-year CDs. Without significant differences in these savings rates, shorter term investments are the choice of many investors. We recommend consultation with a professional investment adviser before investing reserves to determine an appropriate investment strategy to maximize a safe return on reserve savings. The following

\(^2\) See Credentials for addition information on our use of published sources of cost data.
table summarizes rates of inflation and key rates for government securities, generally considered as safe investment alternatives.

<table>
<thead>
<tr>
<th>Interest Rate and Inflation Data</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2013:1 (A)</td>
<td>2013:2 (A)</td>
</tr>
<tr>
<td>1-Year Treasury Bill</td>
<td>0.15%</td>
<td>0.13%</td>
</tr>
<tr>
<td>10-Year Treasury Note</td>
<td>1.86%</td>
<td>1.86%</td>
</tr>
<tr>
<td>30-Year Treasury Bond</td>
<td>3.10%</td>
<td>3.08%</td>
</tr>
<tr>
<td>Consumer Price Index (annualized rate)</td>
<td>3.21%</td>
<td>-1.68%</td>
</tr>
<tr>
<td>Residential Construction® Producer Price Index-Inflation Rate, Bureau of Labor Statistics (Year over Year August 2013)</td>
<td>1.7%</td>
<td></td>
</tr>
<tr>
<td>National Market Savings Rates as found in <a href="http://www.bankrate.com">http://www.bankrate.com</a></td>
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<td>for Money Market Savings</td>
</tr>
<tr>
<td>0.25% for 1-Year Certificate of Deposit</td>
<td>0.50%</td>
<td>for 3-Year Certificate of Deposit</td>
</tr>
<tr>
<td>Estimated Near Term Yield Rate for Reserve Savings</td>
<td>0.5%</td>
<td></td>
</tr>
<tr>
<td>Est. Near Term Local Inflation Rate for Future Capital Expenditures</td>
<td>0.9%</td>
<td>10/17/2013</td>
</tr>
</tbody>
</table>

Updates to this Reserve Study will continue to monitor historical facts and trends concerning the external market conditions.
7. DEFINITIONS

Definitions are derived from the standards set forth by the Community Associations Institute (CAI) representing America's 305,000 condominium and homeowners associations and cooperatives, and the Association of Professional Reserve Analysts, setting the standards of care for reserve study practitioners.

**Cash Flow Method** - A method of calculating Reserve Contributions where contributions to the reserve fund are designed to offset the variable annual expenditures from the reserve fund. Different Reserve Funding Plans are tested against the anticipated schedule of reserve expenses until the desired funding goal is achieved.

**Component Method** - A method of developing a Reserve Funding Plan with the total contribution is based on the sum of the contributions for individual components.

**Current Cost of Replacement** - That amount required today derived from the quantity of a Reserve Component and its unit cost to replace or repair a Reserve Component using the most current technology and construction materials, duplicating the productive utility of the existing property at current local market prices for materials, labor and manufactured equipment, contractors' overhead, profit and fees, but without provisions for building permits, overtime, bonuses for labor or premiums for material and equipment. We include removal and disposal costs where applicable.

**Fully Funded Balance** - The Reserve balance that is in direct proportion to the fraction of life "used up" of the current Repair or Replacement cost similar to Total Accrued Depreciation

**Funding Goal (Threshold)** - The stated purpose of this Reserve Study is to determine the adequate, not excessive, minimal threshold reserve balances.

**Future Cost of Replacement** - Reserve Expenditure derived from the inflated current cost of replacement or current cost of replacement as defined above, with consideration given to the effects of inflation on local market rates for materials, labor and equipment.

**Long-Lived Property Component** - Property component of Mountain Park Ranch responsibility not likely to require capital repair or replacement during the next 30 years with an unpredictable remaining Useful Life beyond the next 30 years.

**Percent Funded** - The ratio, at a particular point of time (typically the beginning of the Fiscal Year), of the actual (or projected) Reserve Balance to the Fully Funded Balance, expressed as a percentage.

**Remaining Useful Life** - The estimated remaining functional or useful time in years of a Reserve Component based on its age, condition and maintenance.

**Reserve Component** - Property elements with: 1) Mountain Park Ranch responsibility; 2) limited Useful Life expectancies; 3) predictable Remaining Useful Life expectancies; and 4) a replacement cost above a minimum threshold.

**Reserve Component Inventory** - Line Items in Reserve Expenditures that identify a Reserve Component.

**Reserve Contribution** - An amount of money set aside or Reserve Assessment contributed to a Reserve Fund for future Reserve Expenditures to repair or replace Reserve Components.

**Reserve Expenditure** - Future Cost of Replacement of a Reserve Component.

**Reserve Fund Status** - The accumulated amount of reserves in dollars at a given point in time, i.e., at year end.

**Reserve Funding Plan** - The portion of the Reserve Study identifying the Cash Flow Analysis and containing the recommended Reserve Contributions and projected annual expenditures, interest earned and reserve balances.

**Reserve Study** - A budget planning tool that identifies the current status of the reserve fund and a stable and equitable Funding Plan to offset the anticipated future major common area expenditures.

**Useful Life** - The anticipated total time in years that a Reserve Component is expected to serve its intended function in its present application or installation.
8. PROFESSIONAL SERVICE CONDITIONS

Our Services - Reserve Advisors, Inc. will perform its services as an independent contractor in accordance with our professional practice standards. Our compensation is not contingent upon our conclusions.

Our inspection and analysis of the subject property is limited to visual observations and is noninvasive. We will inspect sloped roofs from the ground. We will inspect flat roofs where safe access (stairs or ladder permanently attached to the structure) is available. The report is based upon a “snapshot in time” at the moment of our observation. Conditions can change between the time of inspection and the issuance of the report. Reserve Advisors does not investigate, nor assume any responsibility for any existence or impact of any hazardous materials, structural, latent or hidden defects which may or may not be present on or within the property. Our opinions of estimated costs and remaining useful lives are not a guarantee of the actual costs of replacement, a warranty of the common elements or other property elements, or a guarantee of remaining useful lives.

We assume, without independent verification, the accuracy of all data provided to us. You agree to indemnify and hold us harmless against and from any and all losses, claims, actions, damages, expenses or liabilities, including reasonable attorneys' fees, to which we may become subject in connection with this engagement, because of any false, misleading or incomplete information which we have relied upon as supplied by you or others under your direction, or which may result from any improper use or reliance on the report by you or third parties under your control or direction. Your obligation for indemnification and reimbursement shall extend to any controlling person of Reserve Advisors, Inc., including any director, officer, employee, affiliate, or agent. Liability of Reserve Advisors, Inc. and its employees, affiliates, and agents for errors and omissions, if any, in this work is limited to the amount of its compensation for the work performed in this engagement.

Report - Reserve Advisors, Inc. will complete the services in accordance with the Proposal. We will consider any additional information made available to us in the interest of promptly issuing a Final Report (if requested). However, the Report represents a valid opinion of our findings and recommendations and is deemed complete and final if no Final Report or changes are requested within six months of our inspection. We retain the right to withhold the Report or Final Report if payment for services is not rendered in a timely manner. All files, work papers or documents developed by us during the course of the engagement remains our property.

Your Obligations - You agree to provide us access to the subject property during our on-site visual inspection and tour. You will provide to us to the best of your ability and if reasonably available, historical and budgetary information, the governing documents, and other information that we request and deem necessary to complete our Study. You agree to pay our actual attorneys’ fees and any other costs incurred in the event we have to initiate litigation to collect on any unpaid balance for our services.

Use of Our Report and Your Name - Use of our Report(s) is limited to only the purpose stated herein. Any use or reliance for any other purpose, by you or third parties, is invalid. Our Reserve Study Report in whole or part is not and cannot be used as a design specification, design engineering services or an appraisal. You may show our report in its entirety to those third parties who need to review the information contained herein. The Client and other third parties viewing this report should not reference our name or our report, in whole or in part, in any document prepared and/or distributed to third parties without our written consent. This report contains intellectual property developed by Reserve Advisors, Inc. specific to this engagement and cannot be reproduced or distributed to those who conduct reserve studies without the written consent of Reserve Advisors, Inc.
We reserve the right to include our client's name in our client lists, but we will maintain the confidentiality of all conversations, documents provided to us, and the contents of our reports, subject to legal or administrative process or proceedings. These conditions can only be modified by written documents executed by both parties.

**Payment Terms, Due Dates and Interest Charges** - The retainer payment is due upon authorization and prior to shipment of the report. The final payment of the fee is due immediately upon receipt of the Report. Subsequent changes to the report can be made for up to six months from the initial report date. Any outstanding balance after 30 days of the invoice date is subject to an interest charge of 1.5% per month. Any litigation necessary to collect an unpaid balance shall be venued in Milwaukee County Circuit Court in the State of Wisconsin.

**CONDITIONS OF OUR SERVICE ASSUMPTIONS**

To the best of our knowledge, all data set forth in this report are true and accurate. Although gathered from reliable sources, we make no guarantee nor assume liability for the accuracy of any data, opinions, or estimates identified as furnished by others that we used in formulating this analysis.

We did not make any soil analysis or geological study with this report; nor were any water, oil, gas, coal, or other subsurface mineral and use rights or conditions investigated.

Substances such as asbestos, urea-formaldehyde foam insulation, other chemicals, toxic wastes, environmental mold or other potentially hazardous materials could, if present, adversely affect the validity of this study. Unless otherwise stated in this report, the existence of hazardous substance, that may or may not be present on or in the property, was not considered. Our opinions are predicated on the assumption that there are no hazardous materials on or in the property. We assume no responsibility for any such conditions. We are not qualified to detect such substances, quantify the impact, or develop the remedial cost.

We have made a visual inspection of the property and noted visible physical defects, if any, in our report. Our inspection and analysis was made by employees generally familiar with real estate and building construction; however, we did not do any invasive testing. Accordingly, we do not opine on, nor are we responsible for, the structural integrity of the property including its conformity to specific governmental code requirements, such as fire, building and safety, earthquake, and occupancy, or any physical defects that were not readily apparent during the inspection.

Our opinions of the remaining useful lives of the property elements do not represent a guarantee or warranty of performance of the products, materials and workmanship.
9. CREDENTIALS

HISTORY AND DEPTH OF SERVICE

Founded in 1991, Reserve Advisors, Inc. is the leading provider of reserve studies, insurance appraisals, developer turnover transition studies, expert witness services, and other engineering consulting services. Clients include community associations, resort properties, hotels, clubs, non-profit organizations, apartment building owners, religious and educational institutions, and office/commercial building owners in 48 states, Canada and throughout the world.

The architectural engineering consulting firm was formed to take a leadership role in helping fiduciaries, boards, and property managers manage their property like a business with a long range master plan known as a Reserve Study.

Reserve Advisors employs the largest staff of Reserve Specialists with bachelor’s degrees in engineering dedicated to Reserve Study services. Our principals are founders of Community Associations Institute's (CAI) Reserve Committee, that developed national standards for reserve study providers. One of our principals is a Past President of the Association of Professional Reserve Analysts (APRA). Our vast experience with a variety of building types and ages, on-site examination and a historical analyses are keys to determining accurate remaining useful life estimates of building components.

No Conflict of Interest - As consulting specialists, our independent opinion eliminates any real or perceived conflict of interest because we do not conduct or manage capital projects.

TOTAL STAFF INVOLVEMENT

Several staff members participate in each assignment. The responsible advisor involves the staff through a Team Review, exclusive to Reserve Advisors, Inc., and by utilizing the experience of other staff members, each of whom has served hundreds of clients. We conduct Team Reviews, an internal quality assurance review of each assignment, including: the inspection; building component costing; lifing; and technical report phases of the assignment. Each Team Review requires the attendance of several engineers, a Review Coordinator, Director of Quality Assurance and other participatory peers. Due to our extensive experience with building components, we do not have a need to utilize subcontractors.

OUR GOAL

To help our clients fulfill their fiduciary responsibilities to maintain property in good condition.

VAST EXPERIENCE WITH A VARIETY OF BUILDINGS

Reserve Advisors, Inc. has conducted reserve studies for a multitude of different communities and building types. We've analyzed thousands of buildings, from as small as a 3,500 square-foot day care center to the 100-story John Hancock Center in Chicago. We also routinely inspect buildings with various types of mechanical systems such as simple electric heat, to complex systems with air handlers, chillers, boilers, elevators, and life safety security systems.

We're familiar with all types of building exteriors as well. Our well versed staff regularly identifies optimal repair and replacement solutions for such building exterior surfaces such as adobe, brick, stone, concrete, stucco, EIFS, wood products, stained glass and aluminum siding, and window wall systems.

OLD TO NEW

Reserve Advisors experience includes ornate and vintage buildings as well as modern structures. Our specialists are no strangers to older buildings. We're accustomed to addressing the unique challenges posed by buildings that date to the 1800's. We recognize and consider the methods of construction employed into our analysis. We recommend appropriate replacement programs that apply cost effective technologies while maintaining a building's character and appeal.
QUALIFICATIONS
THEODORE J. SALGADO
Principal Owner

CURRENT CLIENT SERVICES
Theodore J. Salgado is a co-founder of Reserve Advisors, Inc., which is dedicated to serving community associations, city and country clubs, religious organizations, educational facilities, and public and private entities throughout the United States. He is responsible for the production, management, review, and quality assurance of all reserve studies, property inspection services and consulting services for a nationwide portfolio of more than 6,000 clients. Under his direction, the firm conducts reserve study services for community associations, apartment complexes, churches, hotels, resorts, office towers and vintage architecturally ornate buildings.

PRIOR RELEVANT EXPERIENCE
Before founding Reserve Advisors, Inc. with John P. Poehlmann in 1991, Mr. Salgado, a professional engineer registered in the State of Wisconsin, served clients for over 15 years through American Appraisal Associates, the world's largest full service valuation firm. Mr. Salgado conducted facilities analyses of hospitals, steel mills and various other large manufacturing and petrochemical facilities and casinos.

He has served clients throughout the United States and in foreign countries, and frequently acted as project manager on complex valuation, and federal and state tax planning assignments. His valuation studies led to negotiated settlements on property tax disputes between municipalities and property owners.

Mr. Salgado has authored articles on the topic of reserve studies and facilities maintenance. He also co-authored "Reserves", an educational videotape produced by Reserve Advisors on the subject of Reserve Studies and maintaining appropriate reserves. Mr. Salgado has also written in-house computer applications manuals and taught techniques relating to valuation studies.

EXPERT WITNESS
Mr. Salgado has testified successfully before the Butler County Board of Tax Revisions in Ohio. His depositions in pretrial discovery proceedings relating to reserve studies of Crestview Estates Condominium Association in Wauconda, Illinois, Rivers Point Row Property Owners Association, Inc. in Charleston, South Carolina and the North Shore Club Associations in South Bend, Indiana have successfully assisted the parties in arriving at out of court settlements.

EDUCATION - Milwaukee School of Engineering - B.S. Architectural Engineering

PROFESSIONAL AFFILIATIONS/DESIGNATIONS
American Association of Cost Engineers - Past President, Wisconsin Section
Association of Construction Inspectors - Certified Construction Inspector
Association of Professional Reserve Analysts - Past President & Professional Reserve Analyst (PRA)
Community Associations Institute - Member and Volunteer Leader of multiple chapters
Concordia Seminary, St. Louis - Member, National Steering Committee
Milwaukee School of Engineering - Member, Corporation Board
Professional Engineer, Wisconsin, Registered in 1982
JOHN P. POEHLMANN, RS
Principal

John P. Poehlmann is a co-founder of Reserve Advisors, Inc. He is responsible for the finance, accounting, marketing, and overall administration of Reserve Advisors, Inc. He also regularly participates in internal Quality Control Team Reviews of Reserve Study reports.

Mr. Poehlmann directs corporate marketing, including business development, advertising, press releases, conference exhibiting, and direct mail promotions. He frequently speaks throughout the country at seminars and workshops on the benefits of future planning and budgeting for capital repairs and replacements of building components and other assets.

Mr. Poehlmann served on the national Board of Trustees of Community Associations Institute. Community Associations Institute (CAI) is a national, nonprofit 501(c)(6) trade association created in 1973 to provide education and resources to America's 305,000 residential condominium, cooperative and homeowner associations and related professionals and service providers. The Institute is dedicated to fostering vibrant, responsive, competent community associations that promote harmony, community, and responsible leadership.

He is a founding member of the Institute's Reserve Committee. The Reserve Committee developed national standards and the Reserve Specialist (RS) Designation Program for Reserve Study providers. Mr. Poehlmann has authored numerous articles on the topic of Reserve Studies, including Planning for Replacement of Property Doesn't Have to Be Like a Trip to the Dentist, Reserve Studies for the First Time Buyer, Sound Association Planning Parallels Business Concepts, and Reserve Studies Minimize Liability. He has worked with a variety of publications, including the Chicago Tribune, The Milwaukee Journal/Sentinel, Common Ground, Common Interest, and Condo Management. He also co-authored "Reserves", an educational videotape produced by Reserve Advisors on the subject of Reserve Studies and the benefits of maintaining appropriate reserves. The videotape is available through Reserve Advisors or CAI's website, www.caionline.org and libraries in the State of Virginia.

INDUSTRY SERVICE AWARDS
CAI National Rising Star Award - To an individual whose leadership abilities and professional contributions have earmarked them for even greater accomplishments in the future.

CAI Michigan Chapter Award - "Given to the individual who contributed their time, expertise, and resources toward improving the quality of services offered by the chapter. Mr. Poehlmann was unanimously selected as the winner of the CAI Michigan Chapter Award."

EDUCATION
University of Wisconsin-Milwaukee - Master of Science Management
University of Wisconsin - Bachelor of Business Administration

PROFESSIONAL AFFILIATIONS
Community Associations Institute (CAI) - Founding member of Reserve Committee; former member of National Board of Trustees; Reserve Specialist (RS) designation; Member of multiple chapters
Association of Condominium, Townhouse, & Homeowners Associations (ACTHA) – member
CURRENT CLIENT SERVICES

Alan M. Ebert, a Geological Engineer, is an Advisor for Reserve Advisors, Inc. Mr. Ebert is responsible for the inspection and analysis of the condition of clients' properties, and recommending engineering solutions to prolong the lives of the components. He also forecasts capital expenditures for the repair and/or replacement of the property components and prepares technical reports on assignments. He is responsible for conducting Life Cycle Cost Analyses and Capital Replacement Forecast services and the preparation of Reserve Study Reports for condominiums, townhomes and homeowner associations.

The following is a partial list of clients served by Alan Ebert demonstrating his breadth of experiential knowledge of community associations in construction and related buildings systems.

**Brownsville Winter Haven** Located in Brownsville, Texas, this unique homeowners association contains 525 units. The Association maintains three pools and pool houses, a community and management office, landscape and maintenance equipment, and nine irrigation canals with associated infrastructure.

**Rosemont Condominiums** This unique condominium is located in Alexandria, Virginia and dates to the 1940's. The two mid-rise buildings utilize decorative stone and brick masonry. The development features common interior spaces, multi-level wood balconies and common asphalt parking areas.

**Stillwater Homeowners Association** Located in Naperville, Illinois, Stillwater Homeowners Association maintains four tennis courts, an Olympic sized pool and an upscale ballroom with commercial-grade kitchen. The community also maintains three storm water retention ponds and a detention basin.

**Birchfield Community Services Association** This extensive Association comprises seven separate parcels which include 505 townhome and single family homes. This Community Services Association is located in Mt. Laurel, New Jersey. Three lakes, a pool, a clubhouse and management office, wood carports, aluminum siding, and asphalt shingle roofs are a few of the elements maintained by the Association.

**Oakridge Manor Condominium Association** Located in Londonderry, New Hampshire, this Association includes 104 units at 13 buildings. In addition to extensive roads and parking areas, the Association maintains a large septic system and significant concrete retaining walls.

**Memorial Lofts Homeowners Association** This upscale high rise is located in Houston, Texas. The 20 luxury units include large balconies and decorative interior hallways. The 10-story building utilizes a painted stucco facade and TPO roof, while an on-grade garage serves residents and guests.

PRIOR RELEVANT EXPERIENCE

Mr. Ebert earned his Bachelor of Science degree in Geological Engineering from the University of Wisconsin-Madison. His relevant course work includes foundations, retaining walls, and slope stability. Before joining Reserve Advisors, Inc., Mr. Ebert was an oilfield engineer and tested and evaluated hundreds of oil and gas wells throughout North America.

EDUCATION

University of Wisconsin-Madison - B.S. Geological Engineering

PROFESSIONAL AFFILIATIONS/DESIGNATIONS

- Reserve Specialist (RS) - Community Associations Institute
- Professional Reserve Analyst (PRA) - Association of Professional Reserve Analysts
- Professional Engineering License - Wisconsin 2012
QUALIFICATIONS
STEPHANIE A. MUELLER, RS
Responsible Advisor

CURRENT CLIENT SERVICES
Stephanie A. Mueller, a Civil Engineer, is an Advisor for Reserve Advisors, Inc. Ms. Mueller is responsible for the inspection and analysis of the condition of clients' properties, and recommending engineering solutions to prolong the lives of the components. She also forecasts capital expenditures for the repair and/or replacement of the property components and prepares technical reports on assignments. She is responsible for conducting Life Cycle Cost Analysis and Capital Replacement Forecast services on townhomes and planned unit developments.

The following is a partial list of clients served by Stephanie Mueller demonstrating her breadth of experiential knowledge of community associations in construction and related buildings systems.

Windsor Oaks Condominiums Located in Charlotte, North Carolina, this community comprises 156 condominium homes. A cozy clubhouse and pool area offers party and recreational space for entertaining. The development also contains asphalt pavement streets, perimeter walls and an expansive irrigation system.

Caswell Lofts Situated in lively Austin, Texas, five loft-style buildings comprise 42 condominiums. The buildings comprise brick masonry, fiber cement siding and flat roof assemblies. Homeowners can enjoy the fresh air on the extended open balconies.

Village at Washington’s Landing This picturesque community on Herrs Island overlooks downtown Pittsburgh. The 85 townhomes and 3 single family homes feature asphalt shingle and metal roofs, brick masonry and wood composite siding.

Carriage Manor RV Resort This attractive resort in Mesa, Arizona offers 911 recreational vehicle lots. The clubhouse and crafts building feature a banquet hall, billiards room, commercial kitchen and various club rooms. The buildings’ exteriors comprise stucco walls, modified bitumen roofs and concrete tile roofs. Located throughout the resort are tennis courts, a pool, golf driving cages, putting greens and a dog park.

Beechnut Woods Located in Grafton, Wisconsin, this quaint community comprises 68 townhomes. The buildings feature brick masonry, vinyl siding and asphalt shingle roofs. The development contains a gazebo, pond, retaining walls and concrete flatwork.

Sonoma Homeowners Association This expansive community of 1,000 homeowners is located in Round Rock, Texas. Homeowners enjoy the use of two pools, splash area, water slide, playgrounds and a pavilion. Located throughout the property are perimeter fences, ponds and an irrigation system.

Holly Creek Located in Plymouth, Minnesota, this inviting community comprises 108 townhomes in 21 buildings. The buildings feature vinyl siding and asphalt shingle roofs. The development includes asphalt driveways and concrete sidewalks.

PRIOR RELEVANT EXPERIENCE
Before joining Reserve Advisors, Inc., Ms. Mueller attended the University of Wisconsin in Madison, Wisconsin where she attained her Bachelor of Science degree in Civil Engineering. Her studies focused on structural engineering. At the University of Wisconsin, she managed a team responsible for the design of a new drinking water facility for a rural Wisconsin town.

EDUCATION
University of Wisconsin-Madison - B.S. Civil Engineering

PROFESSIONAL AFFILIATIONS
Engineer In Training (E.I.T.) Registration - Wisconsin 2009
Reserve Specialist (RS) - Community Associations Institute
QUALIFICATIONS
JOHN C. DECKER, P.E., PRA, RS
Review Coordinator

CURRENT CLIENT SERVICES
John C. Decker, a Professional Engineer (P.E.) in civil engineering, is an Advisor for Reserve Advisors, Inc. Mr. Decker is responsible for the inspection and analysis of the condition of clients' property, and recommending engineering solutions to prolong the lives of the components. He also forecasts capital expenditures for the repair and/or replacement of the property components and prepares technical reports on assignments. He is responsible for conducting Life Cycle Cost Analysis and Capital Replacement Forecast services and the preparation of Reserve Study and Transition Study Reports for apartments, high rises, condominiums, townhomes and homeowners associations. John Decker frequently serves as the Quality Assurance Review Coordinator for Recreational, Townhome, Mid Rise and High Rise communities. Mr. Decker has experience leading Associations to a negotiated settlement concerning appropriate reserve at the time of developer turnover.

The following is a partial list of clients served by John Decker demonstrating his breadth of experiential knowledge of community associations in construction and related buildings systems.

East Rich Street Lofts This vintage mid-rise was built in the early 1900’s and recently converted to condominiums. The combination of vintage and current styling make it an important fixture in downtown Columbus, Ohio.

Central Park Condominium Association In the north suburbs of Chicago is this mid-rise building built in 1971. At four stories tall this stunning property features spacious floor plans and a high level of finish.

Fairlington Village A 1703-unit residential development in Arlington, Virginia. This property was originally constructed between 1942 and 1945 and was selected for the National Register for Historic Places by the Federal Government. The development includes six pools, 13 tennis courts and a community center.

The Brownstone Located in downtown Chicago is this 23-story, 75-unit building. The building contains underground parking, rooftop pool and a fitness center.

Savoy Park Located in suburban Virginia, these recently constructed mid-rise buildings have an underground parking structure, pool and tasteful and spacious courtyards.

Regency Park 130-unit, 28-building townhome community located in the northern suburbs of Detroit is a comfortable development constructed amongst mature pine trees and an adjacent golf club.

Park Lane Upscale condominium and townhome development of 153 units in a five-story mid-rise building and 17 townhome units. This gated community includes a unique below grade recreation center, tennis courts and an outdoor pool.

Museum Park Tower I Located in downtown Chicago, this 19 story high rise includes 221 luxury units in this modern building constructed in the early 2000’s. The building includes a multi-story underground parking garage.

PRIOR RELEVANT EXPERIENCE
Before joining Reserve Advisors, Inc., Mr. Decker was a Staff Engineer for a construction engineering firm. He was responsible supervision of a team of engineering technicians who provided field and laboratory testing services of construction materials for large-scale commercial construction projects.

EDUCATION
University of Wisconsin, Platteville - B.S. Civil Engineering

PROFESSIONAL AFFILIATIONS / DESIGNATIONS
Professional Engineer (P.E.) Registration - Wisconsin 2007
Reserve Specialist (RS) - Community Associations Institute
Professional Reserves Analyst (PRA) - Association of Professional Reserve Analysts
QUALIFICATIONS
NICOLE L. LOWERY, RS
Associate Director of Quality Assurance

CURRENT CLIENT SERVICES
Nicole L. Lowery, a Civil Engineer, is an Advisor for Reserve Advisors, Inc. Ms. Lowery is responsible for the inspection and analysis of the condition of clients' property, and recommending engineering solutions to prolong the lives of the components and prepares reports on assignments. She is responsible for conducting Life Cycle Cost Analysis and Capital Replacement Forecast services on condominiums, townhomes, planned unit developments, and homeowner associations.

The following is a partial list of clients served by Nicole Lowery demonstrating her breadth of experiential knowledge of community associations in construction and related buildings systems.

**Berkeley Square Condominium Association** A townhome style condominium development of 122 units in 18 buildings located in Tampa, Florida. The buildings feature complex roof designs, masonry veneer, and stucco construction.

**3 Chisolm Street Homeowners Association** This historic Charleston, South Carolina community was constructed in 1929 and 1960 and comprises brick and stucco construction with asphalt shingle and modified bitumen roofs. The unique buildings were originally the Murray Vocational School. The buildings were transformed in 2002 to 27 high-end condominiums. The property includes a courtyard and covered parking garage.

**Lakes of Pine Run Condominium Association** This condominium community comprises 112 units in 41 buildings of stucco construction with asphalt shingle roofs. Located in Ormond Beach, Florida, it has a domestic water treatment plant and wastewater treatment plant for the residents of the property.

**Rivertowne on the Wando Homeowners Association** This exclusive river front community is located on the Wando River in Mount Pleasant, South Carolina. This unique Association includes several private docks along the Wando River, a pool and tennis courts for use by its residents.

**Biltmore Estates Homeowners Association** This private gated community is located in Miramar, Florida, just northwest of Miami, Florida and consists of 128 single family homes. The lake front property maintains a pool, a pool house and private streets.

**Bellavista at Miromar Lakes Condominium Association** Located in the residential waterfront resort community of Miromar Lakes Beach & Golf Club in Fort Myers, Florida, this property comprises 60 units in 15 buildings. Amenities include a clubhouse and a pool.

PRIOR RELEVANT EXPERIENCE
Before joining Reserve Advisors, Inc., Ms. Lowery was a project manager with Kipcon in New Brunswick, New Jersey and the Washington, D.C. Metro area for eight years, where she was responsible for preparing reserve studies and transition studies for community associations. Ms. Lowery successfully completed the bachelors program in Civil Engineering from West Virginia University in Morgantown, West Virginia.

EDUCATION
West Virginia University - B.S. Civil Engineering

PROFESSIONAL AFFILIATIONS / DESIGNATIONS
Reserve Specialist (RS) - Community Associations Institute
RESOURCES

Reserve Advisors, Inc. utilizes numerous resources of national and local data to conduct its Professional Services. A concise list of several of these resources follows:

**Association of Construction Inspectors.** (ACI) the largest professional organization for those involved in construction inspection and construction project management. ACI is also the leading association providing standards, guidelines, regulations, education, training, and professional recognition in a field that has quickly become important procedure for both residential and commercial construction, found on the web at http://www.iami.org. Several advisors and a Principal of Reserve Advisors, Inc. hold Senior Memberships with ACI.

**American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.** (ASHRAE) the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., devoted to the arts and sciences of heating, ventilation, air conditioning and refrigeration; recognized as the foremost, authoritative, timely and responsive source of technical and educational information, standards and guidelines, found on the web at http://www.ashrae.org. Reserve Advisors, Inc. actively participates in its local chapter and holds individual memberships.

**Community Associations Institute.** (CAI) America's leading advocate for responsible communities noted as the only national organization dedicated to fostering vibrant, responsive, competent community associations. Their mission is to assist community associations in promoting harmony, community, and responsible leadership.

**Marshall & Swift / Boeckh.** (MS/B) the worldwide provider of building cost data, co-sourcing solutions, and estimating technology for the property and casualty insurance industry found on the web at http://www.msbinfo.com

**R.S. Means CostWorks.** North America's leading supplier of construction cost information. As a member of the Construction Market Data Group, Means provides accurate and up-to-date cost information that helps owners developers, architects, engineers, contractors and others to carefully and precisely project and control the cost of both new building construction and renovation projects found on the web at http://www.rsmeans.com

**Reserve Advisors, Inc.** library of numerous periodicals relating to reserve studies, condition analyses, chapter community associations, and historical costs from thousands of capital repair and replacement projects, and product literature from manufacturers of building products and building systems.