

January 21, 2010

**Smoky Ridge Maintenance Association  
Centennial, Colorado**

## EXECUTIVE SUMMARY

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 Smoky Ridge Maintenance Association (Smoky Ridge) located in Centennial, Colorado and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, September 15, 2009. This Reserve Study is a budget planning tool that identifies the current status of the reserve fund and a stable and equitable Reserve Funding Plan to offset the anticipated future major common area expenditures.

This study is in compliance with and exceeds the standards set forth by Community Associations Institute (CAI) and the Association of Professional Reserve Analysts (APRA) fulfilling the requirements of a "Full Reserve Study." For brevity, we use the term Reserve Study herein. A Reserve Study comprises two parts:

### Physical Analysis

- Component Inventory
- Condition Assessment
- Estimated Useful Life, Remaining Useful Life and Replacement Cost

### Financial Analysis

- Fund Status
- Funding Plan

**Exhibit B** presents the numerical data of the Physical and Financial Analyses.

**APRA**

Association of Professional Reserve Analysts

MEMBER OF  
**community**  
ASSOCIATIONS INSTITUTE

Smoky Ridge Maintenance Association is a planned unit development which is responsible for the common elements shared by 516 single family homes. The Association was built from 1983 to 1985. The development contains perimeter wood fences, an irrigation system masonry pillars and monuments. We identify four major common elements that are likely to require capital repair or replacement during the next 30 years.

The unaudited cash status of the reserve fund, as of September 1, 2009, as reported by Management is \$34,000. If the Association were to continue to fund reserves at its 2009 budgeted amount of \$2,358, the reserve fund would incur a potential shortage by 2011.

The Funding Goal of this Reserve Study is to keep the reserve balance above an adequate, not excessive threshold when reserves are needed the most due to one or more years of significant expenditures. Our recommended Funding Plan recognizes these thresholds or critical points in 2013 and 2038.

Smoky Ridge 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 applies the Cash Flow Method to compute the Reserve Funding Plan. The Reserve Funding Plan determines adequate, not excessive, Reserve Contributions through a 30-year Cash Flow Analysis that incorporates the current reserve funds, future interest earned, and projected Reserve Expenditures.

The Reserve Expenditures reflect current and future *local* costs of replacement, projected earned interest, the average annual fund balances and anticipated inflation. Sources for *local* costs of replacement include our proprietary database, historical costs and published sources, i.e., R.S. Means, Incorporated.

We identified the anticipated Reserve Expenditures for Reserve Components during the next 30 years as either near term or long term. *Near term* expenditures relate to capital needs from now through 2014, the next five years beyond this current fiscal year. These *near term* expenditures comprise \$195,243, or about fourteen percent (13.6%), of the next 30 years of **Exhibit B Reserve Expenditures**. Expenditures beyond the next five years are more important when compared with the current needs of Smoky Ridge and tend to govern the amounts of

recommended Reserve Contributions. The current Reserve Expenditures relate primarily to replacement of irrigation system replacement at Himalaya Street.

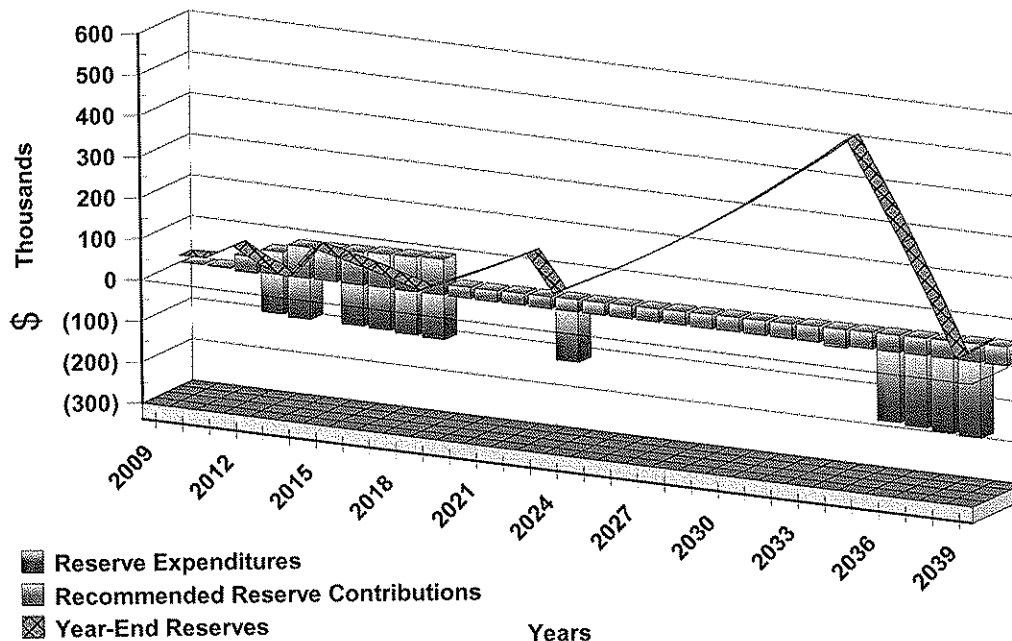
The Association budgeted \$2,358 for Reserve Contributions in 2009. Management informs us that the Association maintain the 2009 budget amount of \$2,358 in 2010. We recommend that the Association budget \$36,000 in 2011 and annual phased increases in Reserve Contributions of \$20,000 in 2012 and 2013. Afterwards, the Association should budget gradual annual increases in reserve funding, that in part consider the effects of inflation through 2018. By 2019, the Association will have fully funded for replacement of the wood perimeter fences. Therefore, the Association may anticipate a *decrease* in the annual Reserve Contribution to \$27,000. Beginning in 2020, the Association can again budget less significant increases in reserve funding, that in part consider the effects of inflation through 2039, the limit of this study's Cash Flow Analysis. The recommended year 2011 Reserve Contribution of \$36,000 is \$33,642 than the prior budgeted amount and represents about a thirty-four percent (33.5%) adjustment in the 2009 total Operating Budget of \$107,328. This initial adjustment of \$36,000 equivalent to an average annual increase of \$69.77 per homeowner. These contributions will maintain a Reserve Fund for the major expenditures as identified in **Exhibit B. Exhibit B Reserve Funding Plan** enumerates the details regarding recommended annual Reserve Contributions and projected year end reserve balances.

Based on the investigation and analysis as detailed in the accompanying narrative, we recommend the following Reserve Funding Plan (Reserve Contributions) to offset the anticipated future Reserve Expenditures of the subject Reserve Components during the next 30 years.

### Recommended Reserve Contributions

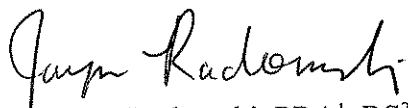
Year	\$	Year	\$	Year	\$
2010	2,358	2020	27,700	2030	36,300
2011	36,000	2021	28,500	2031	37,300
2012	56,000	2022	29,300	2032	38,300
2013	76,000	2023	30,100	2033	39,400
2014	78,100	2024	30,900	2034	40,500
2015	80,200	2025	31,700	2035	41,600
2016	82,400	2026	32,600	2036	42,700
2017	84,700	2027	33,500	2037	43,900
2018	87,000	2028	34,400	2038	45,100
2019	27,000	2029	35,300	2039	46,300

### Recommended Reserve Funding Plan Smoky Ridge Maintenance Association

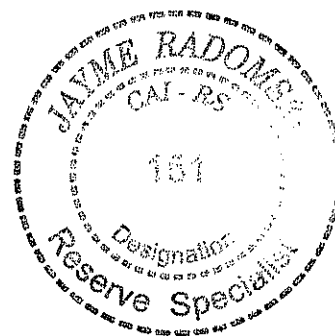


Ongoing Board reviews and an Update of this Reserve Study in two- to three- years are necessary to ensure an equitable funding plan since a Reserve Study is a snapshot in time. Many variables change after the study is conducted that may result in significant overfunding or underfunding the reserve account. Examples include deferred or accelerated projects based on Board discretion, interest rate changes on reserve investments and *local* construction inflation rate changes. We have not investigated any liabilities against the property.

Respectfully submitted on January 21, 2010 by  
RESERVE ADVISORS, INC.



Jayme R. Radomski, PRA<sup>1</sup>, RS<sup>2</sup>, Director of Quality Assurance  
Reference #: 090848  
Visual Inspection and Report by: Candace J. Douglas, RS



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<sup>1</sup> 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>.

<sup>2</sup> 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.

## NARRATIVE 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 certain property exhibited to us as that of

### **Smoky Ridge Maintenance Association**

### **Centennial, Colorado**

and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, September 15, 2009.

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.

This Reserve Study uses a 30-year Cash Flow Analysis to project and illustrate the Reserve Funding Plan. National standards<sup>3</sup> require a Reserve Component to have a "predictable remaining Useful Life." Estimating Remaining Useful Lives and Reserve Expenditures beyond 30 years is often indeterminate and may involve more than one life cycle for a particular Reserve Component. Construction inflation can also vary greatly over many years.

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<sup>3</sup> Identified in the APRA "Standards - Terms and Definitions" and the CAI "Terms and Definitions".

### Manner of Report Presentation

Our report comprises an Executive Summary, Narrative, Conclusion, Supplementary Information, Definitions and Exhibits. The Executive Summary identifies the property, fiscal considerations, recommended reserve funding and projections concerning reserve funding. The Narrative sets forth the nature and extent of the investigation and includes the following sections:

- Manner of Report Presentation
- Considerations and Methodology
- Identification of Reserve Components
- Condition Assessment
- Explanation of the Exhibits
- Conclusion
- Supplementary Information for Financial Statements

Supplementary Information for Financial Statements contains significant unaudited information from the Reserve Expenditures about Reserve Component categories and estimated current and future replacement costs. Definitions contains terms and definitions used throughout this Reserve Study and the industry. **Exhibits A, B, C, D** and **E** contain pertinent information relating to the analysis.

**Exhibit A Photographs** documents the conditions of various property components as of the date of our visual inspection, September 15, 2009. The Condition Assessment contains references to these photographs.

**Exhibit B** presents two tables. The first table Reserve Expenditures includes the Reserve Component Inventory, Reserve Expenditures, estimates of future costs and anticipated times of

replacements during the next 30 years. The second table Reserve Funding Plan includes Reserve Contributions for the next 30 years based on Reserve Expenditures.

**Exhibit C *Reserve Funding Graphs*** contains two graphs and one pie chart. The graph Recommended Reserve Funding Plan shows the future fund balances based on the anticipated Reserve Expenditures and recommended annual Reserve Contributions during the next 30 years. The second graph Reserve Balances compares the recommended year end amounts of accumulated reserves with the potential shortage of reserves if the Association were to continue contributing to reserves at its current budgeted amount for the next 30 years. The pie chart Estimated Future Reserve Expenditures illustrates the relative importance of Reserve Expenditures and relative funding during the next 30 years.

**Exhibit D** describes Assumptions of the Reserve Study of how we collect and analyze data. The statement of Professional Service Conditions identifies the general manner of professional services provided, as stated in the original authorized Confirmation of Services for this Reserve Study.

**Exhibit E *Credentials*** contains the Qualifications of the Firm, Responsible Advisor and Review Coordinator, and resources we use in our analysis, i.e., published sources of cost data.

### Considerations and Methodology

This Reserve Study is in compliance with and exceeds the standards set forth by Community Associations Institute (CAI) and the Association of Professional Reserve Analysts (APRA) fulfilling the requirements of a “Full Reserve Study.” For brevity, we use the term Reserve Study herein. We considered the following factors in our analysis:

<b>Information Furnished by Management</b>	
September 1, 2009 unaudited Cash Status of the Reserve Fund	\$34,000
Remaining 2009 Budgeted Reserve Contributions	\$590
Anticipated Interest on Reserve Fund	\$236
Less Anticipated Reserve Expenditures	\$0
<b>Projected 2009 Year-End Reserve Balance</b>	<b>\$34,825</b>

The Cash Flow Method to compute the 30-year Reserve Funding Plan

The identification of individual Reserve Components with their anticipated year of replacement as detailed in **Exhibit B Reserve Expenditures**

Local<sup>4</sup> costs of material, equipment and labor

The current and future costs of replacement for the Reserve Components

The costs of removal of the worn out elements 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 Centennial, Colorado at an annual inflation rate of 2.8%

The past and current maintenance practices of Smoky Ridge and their effects on remaining useful lives

The Funding Plan excludes necessary operating budget expenditures. It is our understanding that the current operating budget and future operating budgets will provide for the ongoing normal maintenance of Reserve Components or property elements unless specifically identified in the *Reserve Component Inventory of Exhibit B Reserve Expenditures*. Smoky Ridge should continue to include these costs of maintenance in the operating budget.

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<sup>4</sup> See **Exhibit E Credentials** for addition information on our use of published sources of cost data.

The anticipated effects of appreciation of the reserves over time in accord with an anticipated future return or yield on investment of your cash equivalent assets at an annual rate of 2.8% (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. No significant differences 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.

Updates to this Reserve Study will continue to monitor historical facts and trends concerning the external market conditions. The following table summarizes rates of inflation and key rates for government securities, generally considered as safe investment alternatives.

Interest Rate and Inflation Data								
Actual = (A)	2008:1 (A)	2009:1 (A)	2009:2 (A)	2009:3 (A)	2009:4 (A)	2010:1 (E)	2010:2 (E)	2010:3 (E)
Federal Funds	0.13%	0.25%	0.25%	0.25%	0.05%	0.05%	0.10%	0.10%
90-Day Treasury Bill	1.60	0.95	0.90	0.30	0.30	0.30	0.30	0.30
1-Year Treasury Bill	3.35	2.75	2.84	3.20	3.45	3.50	3.60	3.60
10-Year Treasury Note	4.15	3.70	3.70	4.00	4.45	4.50	4.55	4.55
30-Year Treasury Bond	4.00	0.00	0.01	0.00	0.00	0.01	0.02	0.02
Consumer Price Index	\$0	\$0	0.02	0.02	0.02	0.02	0.03	0.04
<b>National Market Savings Rates</b>	0.75%	for Money Market Savings			2.00%	for 3-Year Certificate of Deposit		
	1.60%	for 1-Year Certificate of Deposit			2.50%	for 5-Year Certificate of Deposit		
<b>Estimated Long Term Yield Rate for Reserve Savings . . . . .</b>					<b>2.8%</b>			
<b>Estimated Long Term Inflation Rate for Future Capital Expenditures . . . . .</b>					<b>2.8%</b>			

With localized exceptions, the inflation rate for construction materials and labor are trending higher in a sustained manner. Isolated or regional markets of greater construction (development) activity may experience slightly greater rates of inflation for both construction materials and labor.

### Identification of Reserve Components

Smoky Ridge Maintenance Association is a planned unit development which is responsible for the common elements shared by 516 single family homes. The Association was built from 1983 to 1985. The development contains perimeter wood fences, an irrigation system masonry pillars and monuments. We identify six major common elements that are likely to require capital repair or replacement during the next 30 years.

Our investigation included Reserve Components or property elements as set forth in your Declaration. Our analysis began by segregating the property elements into several areas of responsibility for repair and replacement. We derived these segregated classes of property from our review of the information provided to us and through conversations with Management.

These five classes of property include:

- 1) Reserve Components
- 2) Long-Lived Property Elements
- 3) Operating Budget Funded Repairs and Replacements
- 4) Property Maintained by Homeowners
- 5) Property Maintained by the City of Centennial

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 following pages briefly describe these five classes.

Reserve Components are defined as property elements with: 1) Smoky Ridge responsibility; 2) limited Useful Life expectancies; 3) predictable Remaining Useful Life expectancies; and 4) a replacement cost above a minimum threshold.

The Reserve Components comprise four line items likely to require Reserve Expenditures during the next 30 years. **Exhibit B Reserve Expenditures** details this first class of property which we summarize as follows:

- Fences, Wood
- Irrigation System
- Monuments and Pillars, Capital Repairs and Partial Repointing

In addition to the Reserve Components listed above, we list the following Long-Lived Property Elements, defined as those items without predictable Remaining Useful Life expectancies:

- Electrical Systems
- Structural Frames

Long-Lived Property Elements (without predictable Remaining Useful Lives) may require infrequent repairs due to abuse, normal wear and tear or unknown construction defects. Smoky Ridge should fund the cost of these infrequent replacements from the operating budget. Funding untimely or unexpected replacements from reserves will necessitate adjustments to future Reserve Contributions. An update of this Reserve Study will help determine the merits of adjusting the Reserve Funding Plan.

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 \$2,000 (*These relatively minor expenditures have a limited effect on the recommended Reserve Contributions.*)
- Drainage Areas, Maintenance and Capital Repairs
- Fences, Paint Finishes and Partial Replacements
- Irrigation System, Controllers
- Landscape
- Landscape, Lighting
- Monuments, Stones
- Paint Finishes, Touch Up
- Signage, Wood Insert, Monument
- Other Repairs normally funded through the Operating Budget

Certain items have been designated as the responsibility of the homeowner to repair or replace. Property Maintained by Homeowners relates to:

- Homes and Lots

Certain items have been designated as the responsibility of the City of Centennial to repair or replace. Property Maintained by the City of Centennial relates to:

- Asphalt Pavement Streets
- Catch Basins
- Concrete Curbs and Gutters
- Concrete Sidewalks

### Condition Assessment

The Condition Assessment of this *Precision 20/20 Full Reserve Study* includes *Enhanced Solutions and Procedures (ESP)* 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.*

**Fences, Wood** - The Association maintains approximately 10,600 linear feet of wood fences along Himalaya Street, Crestline Circle and East Progress Circle. The wood fences are in fair condition. The age of the wood fences was not available at the time of our inspection. We note deterioration, settlement, and detached and missing boards. Pages 1 and 3 of **Exhibit A Photographs** depict these conditions. Wood fences of this type have useful lives of 15- to 20-years. The Association should anticipate periodic partial replacements due to the nonuniform nature of wood deterioration. Along with these partial replacements, the Association should apply periodic paint applications as needed and fund these activities through the operating budget. The Association should anticipate a phased replacement beginning by 2015 and concluding by 2018. We depict this information on Line Item 4.285 of **Exhibit B Reserve Expenditures**.

**Irrigation System** - The Smoky Ridge irrigation system utilizes six controllers, 1,025 sprinkler heads and drip emitters, arranged in 63 zones to water the landscaped areas. An irrigation system typically includes 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 overall condition of the irrigation system is good along Crestline Circle and Progress Circle and fair at Himalaya Street an age of 24 years as reported by the irrigation contractor. The system as a whole has a useful life of 35- to 40-years. The system network supply pipes will dislodge as tree roots grow and soil conditions change. Smoky Ridge should anticipate interim and partial replacements of the system network supply pipes and other components, i.e., controllers, electronic and mechanical items, 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 Smoky Ridge budget for a complete phased replacement of the system along Himalaya Street beginning by 2011 and concluding by 2012. We recommend the Association anticipate replacement of the system along Crestline Circle and Progress Circle by 2023. We note this information on Line Items 4.420 and 4.421 of **Exhibit B** *Reserve Expenditures*.

**Monuments and Pillars, Masonry, Capital Repairs and Partial Repointing** - The Association maintains approximately 3,000 square feet of masonry at the monuments and pillars. The overall condition of the masonry is good without any visually significant areas of structural cracks or mortar deterioration. We note mortar cracks, missing bricks and deterioration at the pillar caps. Page 3 of **Exhibit A Photographs** depict these conditions. Masonry generally requires less maintenance than other types of exterior elements. However, masonry is not maintenance free. Smoky Ridge should plan for the periodic inspection of the masonry to identify and repair areas of deterioration. Common types of masonry deterioration include efflorescence, spalling and cracking.

*Repointing* is a process of raking and cutting out defective mortar to a depth of not less than  $\frac{1}{2}$  inch nor more than  $\frac{3}{4}$  inch and replacing it with new mortar. We advise a complete inspection of the monuments and pillars, and partial repointing with related masonry repairs every ten years to forestall deterioration. We suggest that the Association budget for repointing of up to five percent (5%), or about 150 square feet, and replacement of up to two percent (2%), or 60 square feet of masonry, by 2013 and every ten years thereafter. We depict this information on Line Item 4.640 of **Exhibit B Reserve Expenditures**.

**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.

### Explanation of the Exhibits

**Exhibit A *Photographs*** documents the conditions of various property components as of the date of our visual inspection, September 15, 2009. The previous section, Condition Assessment, contains several references to these photographs.

**Exhibit B *Reserve Expenditures and Reserve Funding Plan*** covers a 30-year period. Information about the Reserve Components and Expenditures for the most relevant next 20 years (2009 through 2029) is found on a convenient 11- by 17-inch foldout spreadsheet. The remaining ten years (2030 through 2039) follow in a concise 8½- by 11-inch table. Data for each Reserve Component is presented on a single row with columns of information as follows:

- Line Items are included for reference purposes
- Total Quantities are the total anticipated quantity for replacement during the next 30 years (*this is not necessarily the "total" quantity maintained by the Association as this quantity may represent more than one Useful Life cycle or a partial replacement*)
- Per Phase Quantities are the anticipated quantity for each replacement event
- Units clarify the unit of measure used to quantify the elements
- Reserve Component Inventory identifies each Reserve Component
- The Estimated First Year of Replacement is included to help the Association understand the priority of future Reserve Expenditures
- Results of the Life Analysis show both the total Useful Life and Remaining Useful Life for each Reserve Component
- Unit Cost is the cost per unit we used to calculate the per phase cost
- The 2009 Cost of Replacement Per Phase is the per phase cost in today's dollars
- The Total Future Costs of Replacement is the total cost for all phases of replacement during the next 30 years and *includes* the effects of inflation at a 2.8% annual percentage rate
- The remaining columns in Reserve Expenditures 11- by 17-inch foldout spreadsheet present the estimated future inflated costs for each for the next 20 years

- The remaining ten years of future Reserve Expenditures from years 2030 to 2039 follow in a concise 8½- by 11-inch table


**Exhibit B Reserve Funding Plan** includes the Cash Flow Analysis and recommended Reserve Contributions for the next 30 years based on the Reserve Expenditures and a 2.8% annual percentage rate earned on the average annual fund balances. The specific information found on the last 11- by 17-inch foldout spreadsheet includes:

- Reserves at Beginning of Year
- Recommended Reserve Contribution (positive cash flow)
- Estimated Interest Earned
- Anticipated Expenditures (negative cash flow)
- Anticipated Reserves at Year End
- Predicted Reserves (based on current funding levels)

**Exhibit C Reserve Funding Graphs** contains two graphs and a pie chart based on the numerical data found in the Reserve Funding Plan. The graphs illustrate our recommendations and observations pertaining to reserve balances, recommended annual Reserve Contributions and Reserve Expenditures during the next 30 years.

The graph Recommended Reserve Funding Plan shows the following data points:

-- -- Recommended Reserve Balances that are the result of expenditures as matched against existing reserves and contributions to reserves

 Recommended Reserve Contributions or additional assessment that increase reserves

 Reserve Expenditures

The second Reserve Funding Graph titled Reserve Balances compares the recommended year-end amounts of reserves with the potential shortage of reserves if the Association were to continue contributing to reserves at its current budgeted amount for the next 30 years. The potential shortages are based on matching the estimated future Reserve Expenditures against existing reserves and current annual amounts of Reserve Contributions. This second graph answers the hypothetical question of when a shortfall in reserves could occur if there were no change in the annual budget of Reserve Contributions.

The pie chart Estimated Future Reserve Expenditures illustrates the relative importance of the Reserve Expenditures and relative funding during the next 30 years. Smoky Ridge can regard reserve needs for these expenditures as requiring a similar allocation of existing reserves and future Reserve Contributions.

**Exhibit D** describes Assumptions of the Reserve Study of how we collect and analyze data. The statement of Professional Service Conditions identifies the general manner of professional services provided, as stated in the original authorized Confirmation of Services for this Reserve Study.

**Exhibit E *Credentials*** contains the Qualifications of the Firm, Responsible Advisor and Review Coordinator. Theodore J. Salgado and John P. Poehlmann are the Principals of Reserve Advisors, Inc., Candace J. Douglas conducted the visual inspection of Smoky Ridge Maintenance Association and Todd M. Walter served as Review Coordinator for this Reserve Study.

## CONCLUSION

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 Smoky Ridge Maintenance Association (Smoky Ridge) located in Centennial, Colorado and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, September 15, 2009. This Reserve Study is a budget planning tool that identifies the current status of the reserve fund and a stable and equitable Reserve Funding Plan to offset the anticipated future major common area expenditures.

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The Association budgeted \$2,358 for Reserve Contributions in 2009. Management informs us that the Association maintain the 2009 budget amount of \$2,358 in 2010. We recommend that the Association budget \$36,000 in 2011 and annual phased increases in Reserve Contributions of \$20,000 in 2012 and 2013. Afterwards, the Association should budget gradual annual increases in reserve funding, that in part consider the effects of inflation through 2018. By 2019, the Association will have fully funded for replacement of the wood perimeter fences.

Therefore, the Association may anticipate a *decrease* in the annual Reserve Contribution to \$27,000. Beginning in 2020, the Association can again budget less significant increases in reserve funding, that in part consider the effects of inflation through 2039, the limit of this study's Cash Flow Analysis. The recommended year 2011 Reserve Contribution of \$36,000 is \$33,642 than the prior budgeted amount and represents about a thirty-four percent (33.5%) adjustment in the 2009 total Operating Budget of \$107,328. This initial adjustment of \$36,000 equivalent to an average annual increase of \$69.77 per homeowner. These contributions will maintain a Reserve Fund for the major expenditures as identified in **Exhibit B. Exhibit B Reserve Funding Plan** enumerates the details regarding recommended annual Reserve Contributions and projected year end reserve balances.

Based on the investigation and analysis as detailed in the accompanying narrative, we recommend the following Reserve Contributions to fund the expected expenditures of the subject Reserve Components during the next 30 years.

### Recommended Reserve Contributions

Year	\$	Year	\$	Year	\$
2010	2,358	2020	27,700	2030	36,300
2011	36,000	2021	28,500	2031	37,300
2012	56,000	2022	29,300	2032	38,300
2013	76,000	2023	30,100	2033	39,400
2014	78,100	2024	30,900	2034	40,500
2015	80,200	2025	31,700	2035	41,600
2016	82,400	2026	32,600	2036	42,700
2017	84,700	2027	33,500	2037	43,900
2018	87,000	2028	34,400	2038	45,100
2019	27,000	2029	35,300	2039	46,300

The Reserve Funding Plan recommends 2039 year end accumulated reserves of approximately \$67,000. We judge this amount of accumulated reserves in 2039 desirable or necessary, in consideration of the age, size and complexity of the property. Future needs, although beyond the limit of the Cash Flow Analysis of this Reserve Study, are reflected in the amount of accumulated 2039 year end reserves.

An ongoing review by the Board and an Update of this Reserve Study in two- to three-years are necessary to ensure a continued equitable funding plan since a Reserve Study is a snapshot in time. Many variables change after the Reserve Study is conducted that may result in significant overfunding or underfunding. Examples include deferred or accelerated capital projects based on Board discretion, changes in the interest rates on reserve investments; and changes in the *local* construction inflation rate.

**SUPPLEMENTARY INFORMATION FOR FINANCIAL STATEMENTS**

The *Audit and Accounting Guide for Common Interest Realty Associations* presents recommendations on Supplementary Information on Future Major Repairs and Replacements in end of fiscal year Audits of Financial Statements for community associations<sup>5</sup>. Accountants use discretion and judgment on how to present the Supplementary Information on Future Major Repairs and Replacements. However, the Supplementary Information on Future Major Repairs and Replacements often references and includes excerpts from our Reserve Studies. The following table excerpts significant unaudited information from the Reserve Expenditures about Reserve Component categories and estimated current and future replacement costs based on inflation at an annual rate of 2.8%.

**Unaudited Supplemental Information on Future Major Repairs and Replacements**

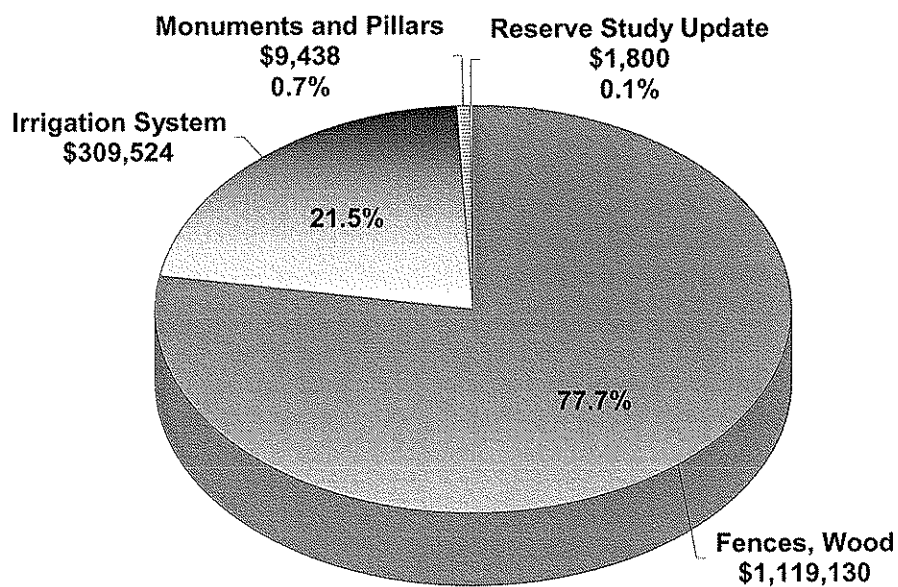
<i>Reserve Component Categories</i>	<i>Total Current Replacement Costs</i>	<i>Total Future or Inflated Replacement Costs</i>	<i>% of Total Future Replacements</i>	<i>Component of Projected 2009 YE Fund Balance</i>
Fences, Wood	\$670,980	\$1,119,130	77.7%	\$27,067
Irrigation System	\$254,775	\$309,524	21.5%	\$7,486
Monuments and Pillars	\$6,300	\$9,438	0.7%	\$228
Reserve Study Update	\$1,800	\$1,800	0.1%	\$44
<b>Totals</b>	<b>\$933,855</b>	<b>\$1,439,892</b>	<b>100%</b>	<b>\$34,825</b>

The information included in the table above may be included as part of the Supplementary Information on Future Major Repairs and Replacements. *However, Reserve Advisors, Inc. does not certify that the information in the table will fully satisfy the recommendations of the AICPA guideline.*

<sup>5</sup> American Institute of Certified Public Accountants (AICPA) *Audit and Accounting Guide - Common Interest Realty Associations*; American Institute of Certified Public Accountants, Inc.; 2003

The most important category of Reserve Components noted in **Exhibit B Reserve Expenditures** is the Wood Fences. The following chart illustrates the relative importance of the Reserve Expenditures and relative funding during the next 30 years.

### Future Expenditures Relative Cost Illustration Smoky Ridge Maintenance Association



## DEFINITIONS<sup>1</sup>

**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.

**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 in the cost of replacement where applicable.

**Funding Goal** - The stated purpose of this Reserve Study to determine the adequate, not excessive, future annual, reasonable *Reserve Contributions* to fund future *Reserve Expenditures*.

**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 Smoky Ridge 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.

**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) Smoky Ridge 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 **Exhibit B 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.

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<sup>1</sup> Definitions are derived from the standards set forth by the Community Associations Institute (CAI) representing America's 286,000 condominium and homeowners associations and cooperatives, and the Association of Professional Reserve Analysts, setting the standards of care for reserve study practitioners.