

FOREST HEIGHTS HOA PRIVATE ROADS
MAINTENANCE PLAN UPDATE
RESERVE STUDY
LEVEL III: UPDATE WITH NO VISUAL SITE INSPECTION
2012

Report Date: December 6, 2011



FOREST HEIGHT HOA PRIVATE STREETS

Executive Summary

Year of Report:

January 1, 2012 to December 31, 2012

Number of Units:

243 Units

Parameters:

Beginning Balance: \$101,575

Year 2012 Suggested Contribution: \$24,835

Year 2012 Projected Interest Earned: \$120

Inflation: 2.5%

Annual Increase to Suggested Contribution: 12%

Lowest Cash Balance Over 30 Years (Threshold): \$18,442

Average Reserve Assessment per Unit: \$102.02

Page References:

- | | | |
|---|--|----------------------|
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Prior Year's Actual Contribution: \$23,374

**Forest Heights HOA – Private Streets
Maintenance Plan Update
Reserve Study Update
Disclosure Information
2012**

We have conducted a level III (see page 2-1) offsite reserve study update and a maintenance plan update for the Forest Heights HOA Common Property and Private Roads for the year beginning January 1, 2012 in accordance with guidelines established by Community Associations Institute and the American Institute of Certified Public Accountants.

This reserve study update and maintenance plan update are in compliance with the legislative changes made in 2007 to ORS Chapters 94 and 100.

In addition to providing the reserve study update and maintenance plan update, we also provide tax and review/audit services to the Association.

Assumptions used for inflation, interest and other factors are detailed in PAGE 1-2. Income tax factors were not considered due variables affecting net taxable income and the election of tax form to be filed

David T. Schwindt, the representative in charge of this report, is a designated Reserve Study Specialist, Professional Reserve Analyst, and Certified Public Accountant licensed in the states of Oregon, Washington, California, and Arizona.

The terms *RS Means*, *National Construction Estimator*, and *Fannie Mae Expected Useful Life Tables and Forms* refer to construction industry estimating databases that are used throughout the industry to establish cost estimates and useful life estimates for common building components and products. We suggest that the Association obtain firm bids for these services.

We are not aware of any material issues which, if not disclosed, would cause a material distortion of this report.

Certain information, such as the beginning balance of reserve funds and other information as detailed on the component detail reports, was provided by Association representatives and is deemed to be reliable by us. This reserve study is a reflection of the information provided to us and cannot be used for the purpose of performing an audit, a quality/forensic analysis, or background checks of historical records.

Site visits should not be considered a project audit or quality inspection of the Association's property.

Certain costs outlined in the reserve study are subjective and, as a result, are for planning purposes only. The Association should obtain firm bids at the time of work. Actual costs will depend upon the scope of work as defined at the time the repair, replacement, or restoration is performed. All estimates relating to future work are good faith estimates and projections are based on the estimated inflation rate, which may or may not prove accurate. All future costs and life expectancies should be reviewed and adjusted annually.



This reserve study, unless specifically stated in the report, assumes no fungi, mold, asbestos, lead paint, urea-formaldehyde foam insulation, termite control substances, other chemicals, toxic wastes, radon gas, electro-magnetic radiation or other potentially hazardous materials (on the surface or sub-surface), or termites on the property. The existence of any of these substances may adversely affect the accuracy of this reserve study. Schwindt & Company assumes no responsibility regarding such conditions, as we are not qualified to detect substances, determine the impact, or develop remediation plans/costs.

Since destructive testing was not performed, this reserve study does not attempt to address latent and/or patent defects. Neither does it address useful life expectancies that are abnormally short due either to improper design, installation, nor to subsequent improper maintenance. This reserve study assumes all components will be reasonably maintained for the remainder of their life expectancy.

Physical Analysis:

New projects generally include information provided by developers and/or refer to drawings.

Full onsite reserve studies generally include field measurements and do not include destructive testing. Drawings are usually not available for existing projects.

Level II, (see page 2-1) onsite updates generally include observations of physical characteristics but do not include field measurements. A Level II study was last completed in 2008.

The client is considered to have deemed previously developed component quantities as accurate and reliable. The current work is reliant on the validity of prior reserve studies.

This reserve study should be reviewed carefully. It may not include all common and limited common element components that will require major maintenance, repair, or replacement in future years, and may not include regular contributions to a reserve account for the cost of such maintenance, repair, or replacement. The failure to include a component in a reserve study, or to provide contributions to a reserve account for a component, may, under some circumstances, require homeowners to pay on demand (as a special assessment) their share of common expenses for the cost of major maintenance, repair, or replacement of a reserve component.

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FOREST HEIGHTS HOA PRIVATE ROADS

MAINTENANCE PLAN UPDATE

2012

Forest Heights HOA Private Roads Executive Summary of Maintenance Plan

Regular maintenance of common elements is necessary to insure the maximum useful life and optimum performance of components. Of particular concern are items that may present a safety hazard to residents or guests if they are not maintained in a timely manner and components that perform a water-proofing function.

This maintenance plan is a cyclical plan that calls for maintenance at regular intervals. The frequency of the maintenance activity and the cost of the activity at the first instance follow a short descriptive narrative. This maintenance plan should be reviewed on an annual basis when preparing the annual operating budget for the Association

Checklists, developed by Reed Construction Data, Inc., can be photocopied or accessed from the RS Means website:

<http://www.rsmeans.com/supplement/67346.asp>

They can be used to assess and document the existing condition of an association's common elements and to track the carrying out of planned maintenance activities.

**Forest Heights HOA Private Roads
Maintenance Plan Update
2012**

Pursuant to Oregon State Statutes Chapters 94 and 100, which require a maintenance plan as an integral part of the reserve study, the maintenance procedures are as follows:

The Board of Directors should refer to this maintenance plan each year when preparing the annual operating budget for the Association to ensure that annual maintenance costs are included in the budget for the years that they are scheduled.

Property Inspection

Schwindt & Co. recommends that a provision for the annual inspection of common area components be included in the maintenance plan for all Associations. This valuable management tool will help to ensure that all components achieve a maximum useful life expectancy and that they are functioning as intended throughout their lifespan.

The inspection should be performed by a qualified professional and should include a written summary of conclusions with specific recommendations for any needed repairs or maintenance.

This expense is included in the reserve study for the Association.

Frequency: Annually

Private Roads – Slurry Surfacing

Maintenance of asphalt paving includes the periodic application of an asphalt emulsion and filler known commonly as “slurry surfacing”. This procedure is typically performed every 5-10 years depending on a variety of factors that can affect the useful life of the sealer.

Vehicle traffic is one such factor and Associations that have asphalt paving that carries considerable vehicle traffic should consider a maintenance program that calls for slurry surfacing of asphalt driving surfaces as frequently as every 7 years.

This work should be performed by a licensed paving contractor.

This expense is included in the reserve study for the Association.

Frequency: Every 7 years, starting in 2016

Private Roads – Overlay

Renewal of asphalt paving refers to the periodic application of a bituminous asphalt overlay that is typically applied in 1” to 2” thicknesses, depending on the individual project specifications. This overlay is known as a “wearing course” and is designed to renew the life of the pavement for another lifecycle of equal duration to the initial life expectancy of the pavement. The new surface will subsequently be maintained in the same manner as the original asphalt surface.

This work should be performed by a licensed paving contractor.

This expense is included in the reserve study for the Association.

Frequency: Every 7 years, starting in 2023.

Street Cleaning and Catch Basin – Maintenance

Storm drains on private roadways should be cleaned out annually. Leaves and debris should be removed every autumn in order to prevent the drains from back up.

This expense is included in the Reserve Study for the Association.

Frequency: Annually

Lights – Maintenance

The street lights and poles on private roadways should be inspected every year for damages. The burnt out light bulbs should be replaced as needed; average one every two years.

This expense is included in the Reserve Study for the Association.

Frequency: Annually

Lighting: Exterior Common Area – Inspection/Maintenance

Lighting is a crucial element in the provision of safety and security. All lighting systems should be inspected frequently and care must be taken to identify and correct deficiencies.

Various fixture types may be used according to area needs. Lighting systems should be designed to provide maximum, appropriate illumination at minimal energy expenditures. Lighting maintenance processes should include a general awareness of factors that cause malfunctions in lighting systems, such as dirt accumulation and lumen depreciation. It is important to fully wash, rather than dry-wipe, exterior surfaces to reclaim light and prevent further deterioration.

The street light poles should be painted every 20 years over a 5 year period.

Deficiencies, required maintenance, and required repairs after completion of the review should be noted by the maintenance contractor and/or association representatives.

Repairs and inspections should be completed by a qualified professional.

The cost to paint the eleven monuments is included in the Association's reserve study.

This expense should be included in the annual operating budget for the Association as general property maintenance expense.

Inspection Frequency: Bi-Weekly

Painting Frequency: Every 20 years, starting in 2016-2012

This maintenance plan is designed to preserve and extend the useful life of assets and is dependent upon proper inspection and follow up procedures.

FOREST HEIGHTS HOA PRIVATE ROADS
RESERVE STUDY
LEVEL III: UPDATE WITH NO VISUAL SITE INSPECTION
2012

**Forest Heights HOA Private Roads
Category Detail Index**

Asset ID	Description	Replacement	Page
Streets/Asphalt			
1002	Private Roads - Overlay 1/3	2023	1-13
1007	Private Roads - Slurry Surfacing 1/3	2016	1-13
1001	Private Roads - Slurry Surfacing 2/3	2016	1-14
Painting			
1012	Light Poles - Painting 2016-2020	2016	1-16
1013	Light Poles - Painting 2031-2035	2031	1-16
Lighting			
1009	Lights - Partial Replacement Phase I	2024	1-18
1006	Lights - Partial Replacement Phase II	2034	1-18
Inspection			
1010	Annual Inspection	2012	1-20
1008	Annual Maintenance - Catch basins	2012	1-20
1011	Annual Maintenance - Street Lights	2012	1-20
	Total Funded Assets	10	
	Total Unfunded Assets	<u>0</u>	
	Total Assets	10	

Forest Heights HOA Private Roads

Property Description

Forest Heights Homeowners Association (FHHOA) has been in existence as an Oregon Nonprofit Corporation since 1989; a master planned community located in the west hills of Portland, Oregon. In March of 2003, Nauru Phosphates Royalties, the developer of Forest Heights, relinquished control of the Association to the owners and the HOA became self-managed.

During the 2003 turn over from Developer to Association it was recognized that the Association is financially responsible for the maintenance of Private Streets and their related features (i.e. street light, storm drains, etc) and is authorized to specially assess owners who primarily benefit from the use of private streets. The Board of Directors has approved the private street assessment required by Oregon State Statutes in order to maintain these private streets.

This study uses information supplied by the Association and various construction pricing and scheduling manuals to determine useful lives and replacement costs.

Funds are being accumulated in the replacement fund based on estimates of future need for repairs and replacement of common property components. Actual expenditures, investment income and provisions for income taxes however, may vary from estimated amounts and the variations may be material. Therefore, amounts accumulated in the replacement fund may not be adequate to meet future funding needs.

If additional funds are needed, the Association has the right, subject to member approval, to increase regular assessments or levy special assessments, or it may delay repairs or replacements until funds are available.

This study uses information supplied by the Association and various construction pricing and scheduling manuals to determine useful lives and replacement costs.

Forest Heights HOA Private Roads
 Portland, Oregon
Cash Flow Method - Threshold Funding Model Summary

Report Date	December 06, 2011
Account Number	2fhhoa
Budget Year Beginning	January 01, 2012
Budget Year Ending	December 31, 2012
Total Units	243

<i>Report Parameters</i>	
Inflation	2.50%
Interest Rate on Reserve Deposit	0.10%
Tax Rate on Interest	0.00%
Contingency	0.00%
2012 Beginning Balance	\$101,575.00

Threshold Funding
 Fully Reserved Model Summary

- This study utilizes the cash flow method and the threshold funding model, which establishes a reserve funding goal that keeps the reserve balance above a specified dollar or percent funded amount. It is assumed that the threshold method is funded with a positive threshold balance, therefore, "fully reserved".
- The following items were not included in the analysis because they have useful lives greater than 30 years: grading/drainage, foundation/footings, sanitary sewage, telephone, cable, and internet lines.
- This funding scenario begins with an initial contribution of **\$24,835** in **2012** and increases **12%** each year until 2025. In 2025, the contribution is **\$108,367** and for the remaining years of the study. A minimum balance of **\$18,442** is maintained.
- The purpose of this study is to insure that adequate replacement funds are available when components reach the end of their useful life. Components will be replaced as required, not necessarily in their expected replacement year. This analysis should be updated annually.

Cash Flow Method - Threshold Funding Model Summary of Calculations

Required Annual Contribution	\$24,835.00
<i>\$102.20 per unit annually</i>	
Average Net Annual Interest Earned	<u>\$120.46</u>
Total Annual Allocation to Reserves	\$24,955.46
<i>\$102.70 per unit annually</i>	

**Forest Heights HOA Private Roads
Cash Flow Method - Threshold Funding Model Projection**

Beginning Balance: \$101,575

Year	Current Cost	Annual Contribution	Annual Interest	Annual Expenditures	Projected Ending Reserves
2012	460,677	24,835	120	5,950	120,580
2013	472,194	27,815	142	6,099	142,439
2014	483,999	31,153	167	6,251	167,508
2015	496,099	34,891	196	6,407	196,188
2016	508,502	39,078	99	136,520	98,845
2017	477,855	43,768	133	9,855	132,891
2018	489,801	49,020	172	10,101	171,982
2019	502,046	54,902	217	10,353	216,747
2020	514,597	61,491	268	10,612	267,893
2021	524,015	68,869	329	7,431	329,661
2022	537,116	77,134	399	7,617	399,578
2023	550,544	86,390	18	467,544	18,442
2024	564,307	96,757	68	47,481	67,785
2025	578,415	108,367	168	8,202	168,118
2026	592,875	108,367	268	8,407	268,346
2027	607,697	108,367	368	8,617	368,465
2028	622,889	108,367	468	8,833	468,467
2029	638,462	108,367	568	9,054	568,349
2030	654,423	108,367	121	555,763	121,074
2031	670,784	108,367	216	13,924	215,733
2032	687,553	108,367	310	14,272	310,138
2033	704,742	108,367	404	14,629	404,280
2034	722,361	108,367	444	68,609	444,482
2035	740,420	108,367	537	15,370	538,017
2036	753,938	108,367	636	10,762	636,258
2037	772,787	108,367	84	660,627	84,082
2038	792,106	108,367	181	11,307	181,324
2039	811,909	108,367	278	11,589	278,380
2040	832,207	108,367	375	11,879	375,243
2041	853,012	108,367	471	12,176	471,906

**Forest Heights HOA Private Roads
Component Summary By Category**

Description	Date in Service	Replacement Year	Useful	Adjustment	Remaining	Units	Unit Cost	Current Cost
Streets/Asphalt								
Private Roads - Overlay 1/3	1989	2023	7	27	11	109,495 SF	2.50	273,739
Private Roads - Slurry Surfacing 1/3	2009	2016	7	0	4	109,495 SF	0.35	38,323
Private Roads - Slurry Surfacing 2/3	2009	2016	7	0	4	218,991 SF	0.35	<u>76,647</u>
Streets/Asphalt - Total								\$388,710
Painting								
Light Poles - Painting 2016-2020	2011	2016	1	4	4	12 Each	230.00	2,760
Light Poles - Painting 2031-2035	2011	2031	1	19	19	12 Each	230.00	<u>2,760</u>
Painting - Total								\$5,520
Lighting								
Lights - Partial Replacement Phase I	1994	2024	30	0	12	28 Each	1,030.00	29,355
Lights - Partial Replacement Phase II	1994	2034	30	10	22	28 Each	1,092.73	<u>31,143</u>
Lighting - Total								\$60,498
Inspection								
Annual Inspection	2010	2012	1	0	0	1 Total	500.00	500
Annual Maintenance - Catch basins	2011	2012	1	0	0	39 Each	100.00	3,950
Annual Maintenance - Street Lights	2011	2012	1	0	0	1 Total	1,500.00	<u>1,500</u>
Inspection - Total								\$5,950
Total Asset Summary								<u>\$460,677</u>

**Forest Heights HOA Private Roads
Component Summary By Group**

Description	Date in Service	Replacement Year	Useful	Adjustment	Remaining	Units	Unit Cost	Current Cost
Capital								
Lights - Partial Replacement Phase I	1994	2024	30	0	12	28 Each	1,030.00	29,355
Lights - Partial Replacement Phase II	1994	2034	30	10	22	28 Each	1,092.73	31,143
Private Roads - Overlay 1/3	1989	2023	7	27	11	109,495 SF	2.50	<u>273,739</u>
Capital - Total								<u>\$334,237</u>
Non-Capital								
Annual Inspection	2010	2012	1	0	0	1 Total	500.00	500
Annual Maintenance - Catch basins	2011	2012	1	0	0	39 Each	100.00	3,950
Annual Maintenance - Street Lights	2011	2012	1	0	0	1 Total	1,500.00	1,500
Light Poles - Painting 2016-2020	2011	2016	1	4	4	12 Each	230.00	2,760
Light Poles - Painting 2031-2035	2011	2031	1	19	19	12 Each	230.00	2,760
Private Roads - Slurry Surfacing 1/3	2009	2016	7	0	4	109,495 SF	0.35	38,323
Private Roads - Slurry Surfacing 2/3	2009	2016	7	0	4	218,991 SF	0.35	<u>76,647</u>
Non-Capital - Total								<u>\$126,440</u>
Total Asset Summary								<u>\$460,677</u>

**Forest Heights HOA Private Roads
Distribution by Percentage of Ideally Funded**

Description	<i>Remaining Life</i>	<i>Beginning Balance</i>	<i>Assessment Distributed</i>	<i>Interest Distributed</i>	<i>Expenditures</i>	<i>Ending Balance</i>
Streets/Asphalt						
Private Roads - Overlay 1/3	11	66,756	16,863	82		83,701
Private Roads - Slurry Surfacing 1/3	4	5,921	1,496	7		7,424
Private Roads - Slurry Surfacing 2/3	4	<u>11,842</u>	<u>2,991</u>	<u>15</u>		<u>14,848</u>
Streets/Asphalt - Total		<u>\$84,519</u>	<u>\$21,350</u>	<u>\$104</u>		<u>\$105,973</u>
Painting						
Light Poles - Painting 2016-2020	4	199	50			250
Light Poles - Painting 2031-2035	19	<u>50</u>	<u>13</u>			<u>62</u>
Painting - Total		<u>\$249</u>	<u>\$63</u>			<u>\$312</u>
Lighting						
Lights - Partial Replacement Phase I	12	6,349	1,604	8		7,961
Lights - Partial Replacement Phase II	22	<u>5,052</u>	<u>1,276</u>	<u>6</u>		<u>6,335</u>
Lighting - Total		<u>\$11,402</u>	<u>\$2,880</u>	<u>\$14</u>		<u>\$14,296</u>
Inspection						
Annual Inspection	0	454	46		500	0
Annual Maintenance - Catch basins	0	3,589	360	2	3,950	0
Annual Maintenance - Street Lights	0	<u>1,363</u>	<u>137</u>	<u>1</u>	<u>1,500</u>	0
Inspection - Total		<u>\$5,406</u>	<u>\$542</u>	<u>\$3</u>	<u>\$5,950</u>	
Grand - Total		<u><u>\$101,575</u></u>	<u><u>\$24,835</u></u>	<u><u>\$120</u></u>	<u><u>\$5,950</u></u>	<u><u>\$120,580</u></u>

**Forest Heights HOA Private Roads
Annual Expenditure Detail**

Description	Expenditures
Replacement Year 2012	
Annual Inspection	500
Annual Maintenance - Catch basins	3,950
Annual Maintenance - Street Lights	1,500
Total for 2012	\$5,950
Replacement Year 2013	
Annual Inspection	512
Annual Maintenance - Catch basins	4,049
Annual Maintenance - Street Lights	1,537
Total for 2013	\$6,099
Replacement Year 2014	
Annual Inspection	525
Annual Maintenance - Catch basins	4,150
Annual Maintenance - Street Lights	1,576
Total for 2014	\$6,251
Replacement Year 2015	
Annual Inspection	538
Annual Maintenance - Catch basins	4,254
Annual Maintenance - Street Lights	1,615
Total for 2015	\$6,407
Replacement Year 2016	
Annual Inspection	552
Annual Maintenance - Catch basins	4,360
Annual Maintenance - Street Lights	1,656
Light Poles - Painting 2016-2020	3,047
Private Roads - Slurry Surfacing 1/3	42,302
Private Roads - Slurry Surfacing 2/3	84,604
Total for 2016	\$136,520
Replacement Year 2017	
Annual Inspection	566
Annual Maintenance - Catch basins	4,469

**Forest Heights HOA Private Roads
Annual Expenditure Detail**

Description	Expenditures
<i>Replacement Year 2017 continued...</i>	
Annual Maintenance - Street Lights	1,697
Light Poles - Painting 2016-2020	3,123
Total for 2017	<u>\$9,855</u>
Replacement Year 2018	
Annual Inspection	580
Annual Maintenance - Catch basins	4,581
Annual Maintenance - Street Lights	1,740
Light Poles - Painting 2016-2020	3,201
Total for 2018	<u>\$10,101</u>
Replacement Year 2019	
Annual Inspection	594
Annual Maintenance - Catch basins	4,695
Annual Maintenance - Street Lights	1,783
Light Poles - Painting 2016-2020	3,281
Total for 2019	<u>\$10,353</u>
Replacement Year 2020	
Annual Inspection	609
Annual Maintenance - Catch basins	4,813
Annual Maintenance - Street Lights	1,828
Light Poles - Painting 2016-2020	3,363
Total for 2020	<u>\$10,612</u>
Replacement Year 2021	
Annual Inspection	624
Annual Maintenance - Catch basins	4,933
Annual Maintenance - Street Lights	1,873
Total for 2021	<u>\$7,431</u>
Replacement Year 2022	
Annual Inspection	640
Annual Maintenance - Catch basins	5,056
Annual Maintenance - Street Lights	1,920
Total for 2022	<u>\$7,617</u>

**Forest Heights HOA Private Roads
Annual Expenditure Detail**

Description	Expenditures
Replacement Year 2023	
Annual Inspection	656
Annual Maintenance - Catch basins	5,183
Annual Maintenance - Street Lights	1,968
Private Roads - Overlay 1/3	359,169
Private Roads - Slurry Surfacing 2/3	100,567
Total for 2023	<u>\$467,544</u>
Replacement Year 2024	
Annual Inspection	672
Annual Maintenance - Catch basins	5,312
Annual Maintenance - Street Lights	2,017
Lights - Partial Replacement Phase I	39,479
Total for 2024	<u>\$47,481</u>
Replacement Year 2025	
Annual Inspection	689
Annual Maintenance - Catch basins	5,445
Annual Maintenance - Street Lights	2,068
Total for 2025	<u>\$8,202</u>
Replacement Year 2026	
Annual Inspection	706
Annual Maintenance - Catch basins	5,581
Annual Maintenance - Street Lights	2,119
Total for 2026	<u>\$8,407</u>
Replacement Year 2027	
Annual Inspection	724
Annual Maintenance - Catch basins	5,721
Annual Maintenance - Street Lights	2,172
Total for 2027	<u>\$8,617</u>
Replacement Year 2028	
Annual Inspection	742
Annual Maintenance - Catch basins	5,864

**Forest Heights HOA Private Roads
Annual Expenditure Detail**

Description	Expenditures
<i>Replacement Year 2028 continued...</i>	
Annual Maintenance - Street Lights	2,227
Total for 2028	<u>\$8,833</u>
Replacement Year 2029	
Annual Inspection	761
Annual Maintenance - Catch basins	6,010
Annual Maintenance - Street Lights	2,282
Total for 2029	<u>\$9,054</u>
Replacement Year 2030	
Annual Inspection	780
Annual Maintenance - Catch basins	6,161
Annual Maintenance - Street Lights	2,339
Private Roads - Overlay 1/3	426,940
Private Roads - Slurry Surfacing 2/3	119,543
Total for 2030	<u>\$555,763</u>
Replacement Year 2031	
Annual Inspection	799
Annual Maintenance - Catch basins	6,315
Annual Maintenance - Street Lights	2,398
Light Poles - Painting 2031-2035	4,412
Total for 2031	<u>\$13,924</u>
Replacement Year 2032	
Annual Inspection	819
Annual Maintenance - Catch basins	6,473
Annual Maintenance - Street Lights	2,458
Light Poles - Painting 2031-2035	4,523
Total for 2032	<u>\$14,272</u>
Replacement Year 2033	
Annual Inspection	840
Annual Maintenance - Catch basins	6,634
Annual Maintenance - Street Lights	2,519

**Forest Heights HOA Private Roads
Annual Expenditure Detail**

Description	Expenditures
<i>Replacement Year 2033 continued...</i>	
Light Poles - Painting 2031-2035	4,636
Total for 2033	<u>\$14,629</u>
 Replacement Year 2034	
Annual Inspection	861
Annual Maintenance - Catch basins	6,800
Annual Maintenance - Street Lights	2,582
Light Poles - Painting 2031-2035	4,752
Lights - Partial Replacement Phase II	53,615
Total for 2034	<u>\$68,609</u>
 Replacement Year 2035	
Annual Inspection	882
Annual Maintenance - Catch basins	6,970
Annual Maintenance - Street Lights	2,647
Light Poles - Painting 2031-2035	4,870
Total for 2035	<u>\$15,370</u>
 Replacement Year 2036	
Annual Inspection	904
Annual Maintenance - Catch basins	7,144
Annual Maintenance - Street Lights	2,713
Total for 2036	<u>\$10,762</u>
 Replacement Year 2037	
Annual Inspection	927
Annual Maintenance - Catch basins	7,323
Annual Maintenance - Street Lights	2,781
Private Roads - Overlay 1/3	507,497
Private Roads - Slurry Surfacing 2/3	142,099
Total for 2037	<u>\$660,627</u>
 Replacement Year 2038	
Annual Inspection	950
Annual Maintenance - Catch basins	7,506

**Forest Heights HOA Private Roads
Annual Expenditure Detail**

Description	Expenditures
<i>Replacement Year 2038 continued...</i>	
Annual Maintenance - Street Lights	2,850
Total for 2038	<u>\$11,307</u>
 Replacement Year 2039	
Annual Inspection	974
Annual Maintenance - Catch basins	7,694
Annual Maintenance - Street Lights	2,922
Total for 2039	<u>\$11,589</u>
 Replacement Year 2040	
Annual Inspection	998
Annual Maintenance - Catch basins	7,886
Annual Maintenance - Street Lights	2,995
Total for 2040	<u>\$11,879</u>
 Replacement Year 2041	
Annual Inspection	1,023
Annual Maintenance - Catch basins	8,083
Annual Maintenance - Street Lights	3,070
Total for 2041	<u>\$12,176</u>

**Forest Heights HOA Private Roads
Detail Report by Category**

Private Roads - Overlay 1/3		331,805 SF	@ \$2.50
Asset ID	1002	Asset Cost	\$273,739.12
	Capital	Percent Replacement	33%
	Streets/Asphalt	Future Cost	\$359,169.45
Placed in Service	August 1989		
Useful Life	7		
Adjustment	27		
Replacement Year	2023		
Remaining Life	11		

This provision funds for the renewal of the private roads. Renewal of asphalt paving refers to the periodic application of a bituminous asphalt overlay that is typically applied in 1” to 2” thicknesses, depending on the individual project specifications. This overlay is known as a “wearing course” and is designed to renew the life of the pavement for another lifecycle of equal duration to the initial life expectancy of the pavement. The new surface will subsequently be maintained in the same manner as the original asphalt surface.

The asphalt overlay is a Level II class C mix.

This work should be performed by a licensed paving contractor.

Estimated cost is based on square foot (SF) data provided by Coast Pavement.

Estimated useful life assumptions are based on accepted industry estimates as established by RS Means, The National Construction Estimator and/or Fannie Mae Expected useful life tables and forms.

Private Roads - Slurry Surfacing 1/3		331,805 SF	@ \$0.35
Asset ID	1007	Asset Cost	\$38,323.48
	Non-Capital	Percent Replacement	33%
	Streets/Asphalt	Future Cost	\$42,301.95
Placed in Service	August 2009		
Useful Life	7		
Replacement Year	2016		
Remaining Life	4		

This provision is for the periodic maintenance of the private roads. The slurry seal is a Type II

**Forest Heights HOA Private Roads
Detail Report by Category**

Private Roads - Slurry Surfacing 1/3 continued...

emulsified asphalt slurry seal in accordance with ISAA specs A-105 using CQS set Emulsion.

Maintenance of the private roads includes the periodic application of an asphalt emulsion and filler, commonly known as "slurry surfacing".

This work should be performed by a licensed paving contractor.

Costs are based on 2009 actual costs, including crack filling and asphalt repairs before sealing.

Estimated useful life assumptions are based on accepted industry estimates as established by RS Means, The National Construction Estimator and/or Fannie Mae Expected useful life tables and forms.

Private Roads - Slurry Surfacing 2/3		331,805 SF	@ \$0.35
Asset ID	1001	Asset Cost	\$76,646.95
	Non-Capital	Percent Replacement	66%
	Streets/Asphalt	Future Cost	\$84,603.90
Placed in Service	August 2009		
Useful Life	7		
Replacement Year	2016		
Remaining Life	4		

This provision is for the periodic maintenance of the private roads. The slurry seal is a Type II emulsified asphalt slurry seal in accordance with ISAA specs A-105 using CQS set Emulsion.

Maintenance of the private roads includes the periodic application of an asphalt emulsion and filler, commonly known as "slurry surfacing". This component funds for slurry surfacing of the asphalt surfaces in 2016.

This work should be performed by a licensed paving contractor.

Costs are based on 2009 actual costs, including crack filling and asphalt repairs before sealing.

Estimated useful life assumptions are based on accepted industry estimates as established by RS Means, The National Construction Estimator and/or Fannie Mae Expected useful life tables and forms.

Estimated cost is based on square foot (SF) data provided by Coast Pavement.

**Forest Heights HOA Private Roads
Detail Report by Category**

Light Poles - Painting 2016-2020			
		12 Each	@ \$230.00
Asset ID	1012	Asset Cost	\$2,760.00
	Non-Capital	Percent Replacement	100%
	Painting	Future Cost	\$3,046.52
Placed in Service	January 2011		
Useful Life	1		
Adjustment	4		
Replacement Year	2016		
Remaining Life	4		

This provision is for the painting of the 57 light fixtures located on the private streets. The Association plans to paint them over a 5 year period.

The estimated cost and useful life based on information provided by the Association.

NOTE: This is a provision for an anticipated expense. Should the Association find that the cost of this item is greater than or less than the amount provided for herein, this study should be updated to reflect the actual component cost.

Light Poles - Painting 2031-2035			
		12 Each	@ \$230.00
Asset ID	1013	Asset Cost	\$2,760.00
	Non-Capital	Percent Replacement	100%
	Painting	Future Cost	\$4,412.27
Placed in Service	January 2011		
Useful Life	1		
Adjustment	19		
Replacement Year	2031		
Remaining Life	19		

This provision is for the painting of the 57 light fixtures located on the private streets. The Association plans to paint them over a 5 year period.

The estimated cost and useful life based on information provided by the Association.

NOTE: This is a provision for an anticipated expense. Should the Association find that the cost of this item is greater than or less than the amount provided for herein, this study should be updated to reflect the actual component cost.

**Forest Heights HOA Private Roads
Detail Report by Category**

Painting - Total Current Cost	\$5,520
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**Forest Heights HOA Private Roads
Detail Report by Category**

Lights - Partial Replacement Phase I		57 Each	@ \$1,030.00
Asset ID	1009	Asset Cost	\$29,355.00
	Capital	Percent Replacement	50%
	Lighting	Future Cost	\$39,479.21
Placed in Service	January 1994		
Useful Life	30		
Replacement Year	2024		
Remaining Life	12		

This provision is for the partial replacement of half of the 57 light fixtures located on the private streets. This is fixtures only. It is assumed the pole sections have a remaining useful life greater than 30 years.

Estimated cost and useful life based on information provided by the Association.

NOTE: This is a provision for an anticipated expense. Should the association find that the cost of this item is greater than or less than the amount provided for herein, this study should be updated to reflect the actual component cost.

Lights - Partial Replacement Phase II		57 Each	@ \$1,092.73
Asset ID	1006	Asset Cost	\$31,142.80
	Capital	Percent Replacement	50%
	Lighting	Future Cost	\$53,614.56
Placed in Service	January 1994		
Useful Life	30		
Adjustment	10		
Replacement Year	2034		
Remaining Life	22		

This provision is for the partial replacement of half of the 57 light fixtures located on the private streets. This does not include street light poles. This is fixtures only. It is assumed the pole sections have a remaining useful life greater than 30 years.

Estimated cost and useful life based on information provided by the Association.

NOTE: This is a provision for an anticipated expense. Should the association find that the cost of this item is greater than or less than the amount provided for herein, this study should be updated to reflect the actual component cost.

**Forest Heights HOA Private Roads
Detail Report by Category**

Lighting - Total Current Cost **\$60,498**

**Forest Heights HOA Private Roads
Detail Report by Category**

Annual Inspection		1 Total	@ \$500.00
Asset ID	1010	Asset Cost	\$500.00
	Non-Capital	Percent Replacement	100%
	Inspection	Future Cost	\$500.00
Placed in Service	January 2010		
Useful Life	1		
Replacement Year	2012		
Remaining Life	0		

This provision is for an annual property inspection by a qualified reserve study professional.

Annual Maintenance - Catch basins		79 Each	@ \$100.00
Asset ID	1008	Asset Cost	\$3,950.00
	Non-Capital	Percent Replacement	50%
	Inspection	Future Cost	\$3,950.00
Placed in Service	January 2011		
Useful Life	1		
Replacement Year	2012		
Remaining Life	0		

This provision is for the annual maintenance of the catch basins.

There are 79 catch basins that have an average cost of \$100 each. The Association cleans half of these basins each year. Service provided by Pacific Power Vacuum.

The cost and useful life per Association.

Annual Maintenance - Street Lights		1 Total	@ \$1,500.00
Asset ID	1011	Asset Cost	\$1,500.00
	Non-Capital	Percent Replacement	100%
	Inspection	Future Cost	\$1,500.00
Placed in Service	January 2011		
Useful Life	1		
Replacement Year	2012		
Remaining Life	0		

This provision is for the annual maintenance of the street lights.

**Forest Heights HOA Private Roads
Detail Report by Category**

Annual Maintenance - Street Lights continued...

For the light maintenance 1,500 is based on prior year expenditures for bulb, globe and transformer replacement. Labor and Parts provided by Advanced Lighting Northwest.

The cost and useful life per Association.

Inspection - Total Current Cost	\$5,950
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Additional Disclosures

Levels of Service

The following three categories describe the various types of Reserve Studies from exhaustive to minimal.

I. Full: A Reserve Study in which the following five Reserve Study tasks are performed:

- Component Inventory
- Condition Assessment (based upon on-site visual observations)
- Life and Valuation Estimates
- Fund Status
- Funding Plan

II. Update, With Site Visit/On-Site Review: A Reserve Study update in which the following five Reserve Study tasks are performed:

- Component Inventory (verification only, not quantification)
- Condition Assessment (based on on-site visual observations)
- Life and Valuation Estimates
- Fund Status
- Funding Plan

III. Update, No Site Visit/Off Site Review: A Reserve Study update with no on-site visual observations in which the following three Reserve Study tasks are performed:

- Life and Valuation Estimates
- Fund Status
- Funding Plan

Terms and Definitions

CASH FLOW METHOD: A method of developing a reserve *Funding Plan* 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: The individual line items in the *Reserve Study* developed or updated in the *Physical Analysis*. These elements form the building blocks for the *Reserve Study*. *Components* typically are: 1) association responsibility; 2) with limited *Useful Life* expectancies; 3) predictable *Remaining Useful Life* expectancies; 4) above a minimum threshold cost; and 5) as required by local codes.

COMPONENT INVENTORY: The task of selecting and quantifying reserve *Components*. This task can be accomplished through on-site visual observations, review of association design and organizational documents, a review of established association precedents, and discussion with appropriate association representative(s) of the Association or cooperative.

COMPONENT METHOD: A method of developing a reserve *Funding Plan* where the total contribution is based on the sum of contributions for individual *Components*. See *Cash Flow Method*.

CONDITION ASSESSMENT: The task of evaluating the current condition of the *Component* based on observed or reported characteristics.

CURRENT REPLACEMENT COST: See *Replacement Cost*.

DEFICIT: An actual or projected *Reserve Balance* that is less than the *Fully Funded Balance*. The opposite would be a *Surplus*.

EFFECTIVE AGE: The difference between *Useful Life* and *Remaining Useful Life*. Not always equivalent to chronological age since some *Components* age irregularly. Used primarily in computations.

FINANCIAL ANALYSIS: The portion of a *Reserve Study* where current status of the reserves (measured as cash or *Percent Funded*) and a recommended reserve contribution rate (reserve *Funding Plan*) are derived, and the projected reserve income and expense over time is presented. The *Financial Analysis* is one of the two parts of a *Reserve Study*.

FULLY FUNDED: 100% Funded. When the actual or projected *Reserve Balance* is equal to the *Fully Funded Balance*.

FULLY FUNDED BALANCE (FFB): Total accrued depreciation, an indicator against which actual or projected *Reserve Balance* can be compared. The *Reserve Balance* that is in direct proportion to the fraction of life “used up” of the current repair or *Replacement Cost*. This number is calculated for each *Component*, then added together for an association total. Two formulas can be utilized, depending on the provider’s sensitivity to interest and inflation effects. Note: Both yield identical results when interest and inflation are equivalent.

$$\text{FFB} = \text{Current Cost} \times \text{Effective Age} / \text{Useful Life}$$

or

$$\text{FFB} = (\text{Current Cost} \times \text{Effective Age} / \text{Useful Life}) + [(\text{Current Cost} \times \text{Effective Age} / \text{Useful Life}) / (1 + \text{Interest Rate})^{\text{Remaining Life}}] - [(\text{Current Cost} \times \text{Effective Age} / \text{Useful Life}) / (1 + \text{Inflation Rate})^{\text{Remaining Life}}]$$

FUND STATUS: The status of the reserve fund as compared to an established benchmark such as percent funding. The Association appears to be adequately funded as the threshold method.

FUNDING GOALS: Independent of methodology utilized, the following represent the basic categories of *Funding Plan* goals:

- Baseline Funding: Establishing a reserve funding goal of keeping the reserve cash balance above zero.
- Full Funding: Setting a reserve funding goal of attaining and maintaining reserves at or near 100% funded.
- Statutory Funding: Establishing a reserve funding goal of setting aside the specific minimum amount of reserves required by local statutes.

- **Threshold Funding:** Establishing a reserve funding goal of keeping the *Reserve Balance* above a specified dollar or *Percent Funded* amount. Depending on the threshold, this may be more or less conservative than fully funding.

FUNDING PLAN: An association’s plan to provide income to a reserve fund to offset anticipated expenditures from that fund.

FUNDING PRINCIPLES:

- Sufficient Funds When Required
- Stable Contribution Rate over the Years
- Evenly Distributed Contributions over the Years
- Fiscally Responsible

LIFE AND VALUATION ESTIMATES: The task of estimating *Useful Life*, *Remaining Useful Life*, and repair or *Replacement Costs* for the reserve *Components*.

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.

PHYSICAL ANALYSIS: The portion of the *Reserve Study* where the *Component Inventory*, *Condition Assessment*, and *Life and Valuation Estimate* tasks are performed. This represents one of the two parts of the *Reserve Study*.

REMAINING USEFUL LIFE (RUL): Also referred to as “Remaining Life” (RL). The estimated time, in years, that a reserve *Component* can be expected to continue to serve its intended function. Projects anticipated to occur in the initial year have “zero” *Remaining Useful Life*.

REPLACEMENT COST: The cost of replacing, repairing, or restoring a reserve *Component* to its original functional condition. The *Current Replacement Cost* would be the cost to replace, repair, or restore the *Component* during that particular year.

RESERVE BALANCE: Actual or projected funds as of a particular point in time that the Association has identified for use to defray the future repair or replacement of those major *Components* which the Association is obligated to maintain. Also known as reserves, reserve accounts, or cash reserves. Based upon information provided and not audited.

RESERVE PROVIDER: An individual that prepares *Reserve Studies*.

RESERVE STUDY: A budget planning tool which identifies the current status of the reserve fund and a stable and equitable *Funding Plan* to offset the anticipated future major common area expenditures. The *Reserve Study* consists of two parts: the *Physical Analysis* and the *Financial Analysis*.

RESPONSIBLE CHARGE: A reserve specialist in *Responsible Charge* of a *Reserve Study* shall render regular and effective supervision to those individuals performing services which directly and materially affect the quality and competence rendered by the reserve specialist. A reserve specialist shall maintain such records as are

reasonably necessary to establish that the reserve specialist exercised regular and effective supervision of a *Reserve Study* of which he was in *Responsible Charge*. A reserve specialist engaged in any of the following acts or practices shall be deemed not to have rendered the regular and effective supervision required herein:

- The regular and continuous absence from principal office premises from which professional services are rendered, except for performance of field work or presence in a field office maintained exclusively for a specific project;
- The failure to personally inspect or review the work of subordinates where necessary and appropriate;
- The rendering of a limited, cursory, or perfunctory review of plans or projects in lieu of an appropriate detailed review;
- The failure to personally be available on a reasonable basis or with adequate advance notice for consultation and inspection where circumstances require personal availability.

SPECIAL ASSESSMENT: An assessment levied on the members of an association in addition to regular assessments. *Special Assessments* are often regulated by governing documents or local statutes.

SURPLUS: An actual or projected *Reserve Balance* greater than the *Fully Funded Balance*. The opposite would be a *Deficit*.

USEFUL LIFE (UL): Total *Useful Life* or depreciable life. The estimated time, in years, that a *Reserve Component* can be expected to serve its intended function if properly constructed in its present application or installation.