NEW COLUMBIA OWNERS ASSOCIATION

MAINTENANCE PLAN UPDATE

RESERVE STUDY

LEVEL III: UPDATE WITH NO VISUAL SITE INSPECTION

2015

Schwindt & Co.
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Members American Institute of Certified Public Accountants / Oregon Society of Certified Public Accountants

NEW COLUMBIA OWNERS ASSOCIATION

Executive Summary

Year of Report:

January 1, 2015 to December 31, 2015

Number of Units:

849 Units

Parameters:

Beginning Balance: $0

Year 2015 Suggested Contribution: $93,000

Year 2015 Projected Interest Earned: $45

Inflation: 2.50%

Annual Increase to Suggested Contribution: 5.00%

Lowest Cash Balance Over 30 Years (Threshold): $41,296

Average Reserve Assessment per Unit: $9.13

Prior Year's Actual Contribution: $88,000

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New Columbia Owners Association
Maintenance Plan Update
Reserve Study Update - Offsite
Disclosure Information
2015

We have conducted an offsite reserve study update and maintenance plan update for the New Columbia Owners Association for the year beginning January, 1 2015,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 is in compliance with the legislative changes made in 2007 to ORS Chapters 94 and 100.

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

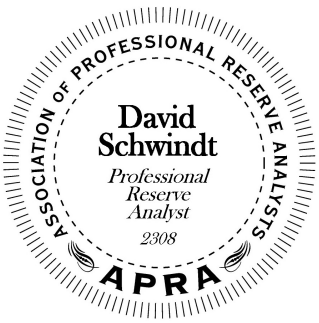
Assumptions used for inflation, interest, and other factors are detailed on page 16. Income tax factors were not considered due to variables affecting net taxable income and the election of tax form to be filed.

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.

Article IV, Section 4.10.1.1 of the Association's Declaration states, "the Association shall be responsible for maintenance and repair of the Common Areas (including all improvements and any utilities thereon, to the extent such utilities are not maintained by governmental authorities). Maintenance of the Common Areas shall include maintaining, repairing, and replacing of grass, sod, trees, shrubs, and bushes in a neat, clean, and attractive condition and the maintenance and repair of all underground sprinkler systems."

Article IV, Section 4.10.1.2 of the Association's Declaration states, "In connection with the Conditions of Approval, as defined in Section 7.12.1, the Declarant has entered into, or will be entering into, maintenance agreements with the City of Portland for operation and maintenance of portions of the Property. Declarant may, at its election and from time to time, assign any or all such maintenance agreements to the Association and the Association shall accept such assignment without condition, shall faithfully perform all of its obligations thereunder, and shall indemnify Declarant from any claim, cause of action, damage, cost, or expense arising from the Association's performance under such maintenance agreement. Until such time as the operation and maintenance agreements are assigned to the Association, Declarant hereby reserves the right to enter any Lot or Common Area to perform any activity Declarant deems necessary to its performance under such agreements."



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Article 7, Section 7.6 of the Association's Declaration states, "Each Owner shall maintain such Owner's Lot(s) and improvements thereon in a clean and attractive condition, in good repair and in such fashion as not to create a fire hazard. Such maintenance shall include, without limitation, painting, repair, replacement and care for roofs, gutters, downspouts, exterior building surfaces, walks and other exterior improvements and glass surfaces. In addition, each Owner shall keep all shrubs, trees, grass and plantings of every kind on such Owner's Lot neatly trimmed, properly cultivated and free of trash, weeds and other unsightly material. Damage caused by fire, flood, storm, earthquake, riot, vandalism, or other causes shall likewise be the responsibility of each Owner and shall be repaired within a reasonable period of time."

Article XII, Section 12.1 of the Association's Bylaws states, "The necessary work to maintain, repair or replace any improvements on the New Columbia Common Areas shall be the responsibility of the Association. The Association shall have the right, to be exercised by the Board of Directors, to have access to each Lot as may be necessary for the maintenance, repair or replacement of any improvements on the New Columbia Common Areas to make emergency repairs necessary for the public safety, or to abate any nuisance existing in any residence."

All information regarding the useful lives and costs of reserve components were derived by the vendors, the Association's prior reserve study provided by Donna Kelly of Housing Authority of Portland, and various construction pricing and scheduling manuals.

According to the Association, the insurance deductible is funded in the operating budget.

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. This site visit does not evaluate the condition of the property to determine the useful life or needed repairs. Schwindt & Company suggests that the Association perform a building envelope inspection to determine the condition, performance, and the useful life of all the components.

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.

Onsite updates generally include observations of physical characteristics, but do not include field measurements.

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 both homeowners and multi-family building owners to pay 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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NEW COLUMBIA OWNERS ASSOCIATION

MAINTENANCE PLAN UPDATE

2015

New Columbia Owners Association
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.

New Columbia Owners Association
Maintenance Plan Update
2015

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.

Landscape Irrigation System Upgrades

Maintenance, upgrades and repairs to the landscape irrigation system should be anticipated with this type of component. These maintenance procedures will include replacement of the control mechanism, replacement of damaged piping, upgrading of sprinkler heads and valve components and any other work that is advised by repair professionals.

In recent years improvements have been made to this type of system which has increased the efficiency of the water distribution process. Such improvements can be expected to continue to be made and the owners of such systems are well advised to plan on periodic upgrades to maintain the efficiency of their systems.

Lawn irrigation systems also require periodic testing to insure proper operation. Sometimes this testing is mandated by ordinance or building codes. All such testing and any routine maintenance is assumed to be included in the operating budget.

All work on lawn irrigation systems must be performed by licensed contractors who specialize in this type of work.

The irrigation system is maintained by Rob Hamrick of TruGreen.

According to Rob, the clock and software for the irrigation system will need upgrades and/or replacement in 2014-2017.

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

Frequency: Every 10 years, beginning in 2016

Playground Equipment Maintenance

The playground equipment should be visually inspected each year to check for loose or broken parts. Particular attention should be paid to any item which may present a safety hazard when children are playing on or around the equipment. Repair of any defective conditions should be completed

immediately to insure safe operation and maximum useful life of these components.

Other maintenance to be expected will include cleaning, lubricating and touch up painting of exposed, painted surfaces to prevent rust and surface oxidation.

This work should be performed periodically throughout the year.

The expense for this maintenance is assumed to be included in the annual operating budget for the Association.

Frequency: Annually.

Lighting: Exterior – Inspection/Maintenance

Note: Replacement of flickering or burned-out bulbs should be immediate.

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.

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.

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

Frequency: Bi-Weekly

Concrete Pavement Maintenance

Maintenance of the concrete pavement will include cleaning and pressure washing the exposed surfaces to maintain appearances and to insure that the walking surfaces are free of slippery surface deposits that may create a safety hazard.

Cracks caused by settling or heaving of the ground should be examined and repaired to insure that no trip hazard is present on the walking surfaces. These cracks should be filled with a suitable concrete patching compound to prevent water intrusion below the surface of the concrete which can undermine the integrity of the base material, thereby causing further settling.

This cost is included in the reserve study as Concrete Pavement – Maintenance.

Frequency: Every 4 years, beginning in 2016

Asphalt Seal Coating – Alleys

Maintenance of asphalt paving includes the periodic application of an asphalt emulsion sealer or "seal coat" as it is commonly known. This procedure is typically performed every 4-7 years depending on a variety of factors that can affect the useful life of the sealer.

Vehicle traffic is one such factor and Association's that have asphalt paving that carries considerable vehicle traffic should consider a maintenance program that calls for seal coating of asphalt driving surfaces as frequently as every 4 years.

This maintenance procedure involves thoroughly cleaning all pavements, filling of any surface cracks and patching of any locally damaged pavement surfaces. The emulsion sealer is then applied, typically with a vehicle mounted spraying system or for small areas a roller application is sometimes used.

Parking area demarcation lines will need to be renewed each time that a seal coat is applied. The component expense includes the cost of this work as well as the seal coating cost.

This work should be performed by a licensed paving contractor.

This cost is included in the reserve study as Alleys – Asphalt – Seal Coating.

Frequency: Every 7 years beginning in 2021

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

NEW COLUMBIA OWNERS ASSOCIATION

RESERVE STUDY UPDATE

LEVEL III: UPDATE WITH NO VISUAL SITE INSPECTION

2015

New Columbia Owners Association
Property Description

New Columbia Owners Association is a Planned Unit Development (P.U.D.) that manages and maintains land and improvements for the owners of dwellings within the New Columbia development. The property is located in Portland, Oregon. and was constructed in the year 2005. The Association is not responsible for the maintenance, repair and replacement of any part of the individual unit owners home or improvements on their private property.

The Association will maintain a variety of infrastructure improvements including but not limited to asphalt and concrete pavement, common area lighting, park areas and playground equipment and the lawn irrigation system.

The individual homeowners are responsible for all maintenance and repair of their homes.

This study uses information supplied by the Association's prior reserve study provided by Donna Kelly of Housing Authority of Portland in 2006, vendors, and various construction pricing and scheduling manuals to determine useful lives and replacement costs.

A site visit was performed by Schwindt & Company in 2012. Schwindt and Company did not investigate components as to condition and estimated useful life.

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 board approval, to increase regular assessments, levy special assessments, otherwise the Association may delay repairs or replacements until funds are available.

New Columbia Owners Association
Portland, Oregon
Cash Flow Method - Threshold Funding Model Summary

Report Date	**September 19, 2014**
Account Number	**2newco**
Budget Year Beginning	**January 01, 2015**
Budget Year Ending	**December 31, 2015**
Total Units	**849**

Report Parameters

Inflation	**2.50%**
Annual Assessment Increase	**5.00%**
Interest Rate on Reserve Deposit	**0.10%**
2015 Beginning Balance	

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 funded”.
- The following items were not included in the analysis because they have useful lives greater than 30 years: sanitary sewage and storm drains, telephone, cable, and internet lines.
- This funding scenario begins with a contribution of **$93,000** in **2015** and increases **5.00%** each year for the remaining years of the study. A minimum balance of **$41,296** is maintained.
- **This reserve study funding scenario uses a contribution increase higher than the estimated inflation rate. This puts the Association at a higher risk of special assessment.**
- 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 Month Contribution	**$7,750.00**
$9.13 per unit monthly	
Average Net Month Interest Earned	**$3.76**
Total Month Allocation to Reserves	**$7,753.76**
$9.13 per unit monthly	

New Columbia Owners Association
Portland, Oregon
Cash Flow Method - Threshold Funding Model Projection

Beginning Balance: $0

Year	Annual Contribution	Annual Interest	Annual Expenditures	Projected Ending Reserves
2015	93,000	45	5,244	87,801
2016	97,650	62	78,387	107,127
2017	102,532	85	77,273	132,471
2018	107,659	112	79,205	161,036
2019	113,042	188	34,791	239,475
2020	118,694	271	32,585	325,856
2021	124,629	297	96,394	354,388
2022	130,860		443,952	41,296
2023	137,403	91	24,368	154,423
2024	144,274	136	96,443	202,389
2025	151,487	285		354,161
2026	159,062	310	130,151	383,382
2027	167,015	330	143,772	406,955
2028	175,365	19	482,564	99,776
2029	184,134	185	14,130	269,965
2030	193,340	375		463,680
2031	203,007		605,975	60,712
2032	213,158	101	74,792	199,179
2033	223,816	256	64,755	358,495
2034	235,006	393	93,401	500,493
2035	246,757	538	96,711	651,076
2036	259,095	663	128,446	782,388
2037	272,049	177	752,381	302,234
2038	285,652	223	233,934	354,174
2039	299,934	517		654,625
2040	314,931	732	93,288	877,000
2041	330,678	973	83,803	1,124,848
2042	347,211	1,229	84,442	1,388,846
2043	364,572	1,567	19,965	1,735,020
2044	382,801	1,765	178,498	1,941,087

New Columbia Owners Association
Component Summary By Category

Description	Date in Service	Replacement Year	Useful	Adjustment	Remaining	Units	Unit Cost	Current Cost
Lighting								
Lighting - Upgrade Chnage Order	2014	2015	1	0	0	1 Total	5,244.00	5,244
Lighting - Total								$5,244
Grounds Components								
Alleys - Storm Drain Pavers	2005	2055	50	0	40	3,350 SF	29.96	100,366
Alleys Concrete Sidewalk - Partial Replace..	2005	2028	25	-2	13	6,660 SF	11.09	73,859
Catch Basins, Soakage Drywell & Sedimen..	2014	2017	3	0	2	1 Total	10,000.00	10,000
Concrete Pavement - Maintenance	2012	2016	4	0	1	94,000 SF	0.20	18,800
Concrete Sidewalk Partial Replacement - B..	2005	2028	25	-2	13	780 SF	11.09	8,650
Concrete Sidewalk Partial Replacement - B..	2005	2028	25	-2	13	1,080 SF	11.09	11,977
Concrete Sidewalk Partial Replacement - ..	2005	2028	25	-2	13	7,090 SF	11.09	78,628
Concrete Sidewalk Partial Replacement - P..	2005	2028	25	-2	13	3,208 SF	11.09	35,577
Irrigation System Upgrades I	2014	2024	10	0	9	1 Total	58,425.00	58,425
Irrigation System Upgrades II	2005	2017	10	2	2	1 Total	39,975.00	39,975
Irrigation System Upgrades III	2005	2018	10	3	3	1 Total	39,975.00	39,975
Landscaping I	2005	2016	10	1	1	1 Total	23,575.00	23,575
Landscaping II	2005	2017	10	2	2	1 Total	23,575.00	23,575
Landscaping III	2005	2018	10	3	3	1 Total	23,575.00	23,575
Sandfilters - Maintenance	2011	2016	5	0	1	1 Total	34,100.00	34,100
Storm Drain Pavers - Maintenance	2013	2018	5	0	3	1 Total	10,000.00	10,000
Grounds Components - Total								$591,058
Common Area Lighting								
Exterior Lights - Pole only	2012	2032	20	0	17	20 Each	978.52	20,353
Exterior Lights Electrical - Ballasts	2012	2027	15	0	12	288 Each	150.53	43,353
Common Area Lighting - Total								$63,706
Asphalt Pavement								
Alleys - Asphalt - Overlay	2005	2031	25	1	16	258,000 SF	1.45	374,100
Alleys - Asphalt - Seal Coat	2014	2021	7	0	6	258,000 SF	0.19	49,020
Alleys - Asphalt - Seal Coat (II)	2031	2038	7	7	23	258,000 SF	0.19	49,020
Asphalt Pavement - Total								$472,140
Park & Playground Equipment								
Pocket Park - Benches	2012	2019	7	0	4	20 EA	787.97	15,759
Pocket Park - Picnic Tables	2012	2019	7	0	4	10 EA	1,575.94	15,759
Pocket Park - Rubber Tiles	2005	2022	15	2	7	10,800 SF	15.67	169,236
Pocket Park 1 - Bellatrix	2005	2022	15	2	7	1 EA	37,760.48	37,760
Pocket Park 1 - Spica	2005	2022	15	2	7	2 EA	3,443.61	6,887
Pocket Park 2 - Argo	2005	2022	15	2	7	1 EA	4,892.54	4,893
Pocket Park 2 - Decorative Metal Fence	2005	2022	15	2	7	60 LF	65.24	3,914
Pocket Park 2 - Play Structure II	2005	2022	15	2	7	1 Total	42,653.04	42,653

New Columbia Owners Association
Component Summary By Category

Description	Date in Service	Replacement Year	Useful	Adjustment	Remaining	Units	Unit Cost	Current Cost
Park & Playground Equipment continued...								
Pocket Park 2 - Supernova	2005	2022	15	2	7	1 EA	7,708.91	7,709
Pocket Park 3 - Double Shifter	2005	2022	15	2	7	1 EA	9,659.65	9,660
Pocket Park 3 - Homestead	2005	2022	15	2	7	1 EA	27,159.96	27,160
Pocket Park 3 - Satellite Binocular	2005	2022	15	2	7	1 EA	2,439.99	2,440
Pocket Park 3 - Triple Shifter	2005	2022	15	2	7	1 EA	9,339.75	9,340
Pocket Park 3 - Ziggy	2005	2022	15	2	7	1 EA	2,289.46	2,289
Pocket Park 4 - Play Structure I	2005	2022	15	2	7	1 Total	42,653.04	42,653
Pocket Park 4 - Spica	2005	2022	15	2	7	2 EA	3,443.61	6,887
Park & Playground Equipment - Total								$405,000
Total Asset Summary								$1,537,148

New Columbia Owners Association
Portland, Oregon
Component Summary By Group

Description	Date in Service	Replacement Year	Useful	Adjustment	Remaining	Units	Unit Cost	Current Cost
Capital								
Alleys - Asphalt - Overlay	2005	2031	25	1	16	258,000 SF	1.45	374,100
Alleys - Storm Drain Pavers	2005	2055	50	0	40	3,350 SF	29.96	100,366
Alleys Concrete Sidewalk - Partial Replace..	2005	2028	25	-2	13	6,660 SF	11.09	73,859
Concrete Sidewalk Partial Replacement - B..	2005	2028	25	-2	13	780 SF	11.09	8,650
Concrete Sidewalk Partial Replacement - B..	2005	2028	25	-2	13	1,080 SF	11.09	11,977
Concrete Sidewalk Partial Replacement - ..	2005	2028	25	-2	13	7,090 SF	11.09	78,628
Concrete Sidewalk Partial Replacement - P..	2005	2028	25	-2	13	3,208 SF	11.09	35,577
Exterior Lights - Pole only	2012	2032	20	0	17	20 Each	978.52	20,353
Exterior Lights Electrical - Ballasts	2012	2027	15	0	12	288 Each	150.53	43,353
Irrigation System Upgrades I	2014	2024	10	0	9	1 Total	58,425.00	58,425
Irrigation System Upgrades II	2005	2017	10	2	2	1 Total	39,975.00	39,975
Irrigation System Upgrades III	2005	2018	10	3	3	1 Total	39,975.00	39,975
Lighting - Upgrade Chnage Order	2014	2015	1	0	0	1 Total	5,244.00	5,244
Pocket Park - Benches	2012	2019	7	0	4	20 EA	787.97	15,759
Pocket Park - Picnic Tables	2012	2019	7	0	4	10 EA	1,575.94	15,759
Pocket Park - Rubber Tiles	2005	2022	15	2	7	10,800 SF	15.67	169,236
Pocket Park 1 - Bellatrix	2005	2022	15	2	7	1 EA	37,760.48	37,760
Pocket Park 1 - Spica	2005	2022	15	2	7	2 EA	3,443.61	6,887
Pocket Park 2 - Argo	2005	2022	15	2	7	1 EA	4,892.54	4,893
Pocket Park 2 - Decorative Metal Fence	2005	2022	15	2	7	60 LF	65.24	3,914
Pocket Park 2 - Play Structure II	2005	2022	15	2	7	1 Total	42,653.04	42,653
Pocket Park 2 - Supernova	2005	2022	15	2	7	1 EA	7,708.91	7,709
Pocket Park 3 - Double Shifter	2005	2022	15	2	7	1 EA	9,659.65	9,660
Pocket Park 3 - Homestead	2005	2022	15	2	7	1 EA	27,159.96	27,160
Pocket Park 3 - Satellite Binocular	2005	2022	15	2	7	1 EA	2,439.99	2,440
Pocket Park 3 - Triple Shifter	2005	2022	15	2	7	1 EA	9,339.75	9,340
Pocket Park 3 - Ziggy	2005	2022	15	2	7	1 EA	2,289.46	2,289
Pocket Park 4 - Play Structure I	2005	2022	15	2	7	1 Total	42,653.04	42,653
Pocket Park 4 - Spica	2005	2022	15	2	7	2 EA	3,443.61	6,887
Capital - Total								$1,295,483
Non-Capital								
Alleys - Asphalt - Seal Coat	2014	2021	7	0	6	258,000 SF	0.19	49,020
Alleys - Asphalt - Seal Coat (II)	2031	2038	7	7	23	258,000 SF	0.19	49,020
Catch Basins, Soakage Drywell & Sedimen..	2014	2017	3	0	2	1 Total	10,000.00	10,000
Concrete Pavement - Maintenance	2012	2016	4	0	1	94,000 SF	0.20	18,800
Landscaping I	2005	2016	10	1	1	1 Total	23,575.00	23,575
Landscaping II	2005	2017	10	2	2	1 Total	23,575.00	23,575
Landscaping III	2005	2018	10	3	3	1 Total	23,575.00	23,575
Sandfilters - Maintenance	2011	2016	5	0	1	1 Total	34,100.00	34,100
Storm Drain Pavers - Maintenance	2013	2018	5	0	3	1 Total	10,000.00	10,000
Non-Capital - Total								$241,665

New Columbia Owners Association
Portland, Oregon
Component Summary By Group

Description	Date in Service	Replacement Year	Useful	Adjustment	Remaining	Units	Unit Cost	Current Cost
Total Asset Summary								$1,537,148

New Columbia Owners Association
Annual Expenditure Detail

Description	Expenditures
Replacement Year 2015	
Lighting - Upgrade Chnage Order	5,244
Total for 2015	**$5,244**
Replacement Year 2016	
Concrete Pavement - Maintenance	19,270
Landscaping I	24,164
Sandfilters - Maintenance	34,952
Total for 2016	**$78,387**
Replacement Year 2017	
Catch Basins, Soakage Drywell & Sediment Tanks - Maintenance	10,506
Irrigation System Upgrades II	41,999
Landscaping II	24,768
Total for 2017	**$77,273**
Replacement Year 2018	
Irrigation System Upgrades III	43,049
Landscaping III	25,388
Storm Drain Pavers - Maintenance	10,769
Total for 2018	**$79,205**
Replacement Year 2019	
Pocket Park - Benches	17,395
Pocket Park - Picnic Tables	17,395
Total for 2019	**$34,791**
Replacement Year 2020	
Catch Basins, Soakage Drywell & Sediment Tanks - Maintenance	11,314
Concrete Pavement - Maintenance	21,270
Total for 2020	**$32,585**
Replacement Year 2021	
Alleys - Asphalt - Seal Coat	56,848
Sandfilters - Maintenance	39,546
Total for 2021	**$96,394**

New Columbia Owners Association
Annual Expenditure Detail

Description	Expenditures
Replacement Year 2022	
Pocket Park - Rubber Tiles	201,168
Pocket Park 1 - Bellatrix	44,885
Pocket Park 1 - Spica	8,187
Pocket Park 2 - Argo	5,816
Pocket Park 2 - Decorative Metal Fence	4,653
Pocket Park 2 - Play Structure II	50,701
Pocket Park 2 - Supernova	9,163
Pocket Park 3 - Double Shifter	11,482
Pocket Park 3 - Homestead	32,285
Pocket Park 3 - Satellite Binocular	2,900
Pocket Park 3 - Triple Shifter	11,102
Pocket Park 3 - Ziggy	2,721
Pocket Park 4 - Play Structure I	50,701
Pocket Park 4 - Spica	8,187
Total for 2022	**$443,952**
Replacement Year 2023	
Catch Basins, Soakage Drywell & Sediment Tanks - Maintenance	12,184
Storm Drain Pavers - Maintenance	12,184
Total for 2023	**$24,368**
Replacement Year 2024	
Concrete Pavement - Maintenance	23,479
Irrigation System Upgrades I	72,965
Total for 2024	**$96,443**
No Replacement in 2025	
Replacement Year 2026	
Catch Basins, Soakage Drywell & Sediment Tanks - Maintenance	13,121
Landscaping I	30,932
Pocket Park - Benches	20,678
Pocket Park - Picnic Tables	20,678
Sandfilters - Maintenance	44,742
Total for 2026	**$130,151**

New Columbia Owners Association
Annual Expenditure Detail

Description	Expenditures
Replacement Year 2027	
Exterior Lights Electrical - Ballasts	58,304
Irrigation System Upgrades II	53,762
Landscaping II	31,706
Total for 2027	**$143,772**
Replacement Year 2028	
Alleys - Asphalt - Seal Coat	67,575
Alleys Concrete Sidewalk - Partial Replacement	101,816
Concrete Pavement - Maintenance	25,916
Concrete Sidewalk Partial Replacement - Block 19 Common Green	11,924
Concrete Sidewalk Partial Replacement - Block 20 Common Green	16,511
Concrete Sidewalk Partial Replacement - Other common greens	108,390
Concrete Sidewalk Partial Replacement - Pedestrian Connections	49,043
Irrigation System Upgrades III	55,106
Landscaping III	32,498
Storm Drain Pavers - Maintenance	13,785
Total for 2028	**$482,564**
Replacement Year 2029	
Catch Basins, Soakage Drywell & Sediment Tanks - Maintenance	14,130
Total for 2029	**$14,130**
No Replacement in 2030	
Replacement Year 2031	
Alleys - Asphalt - Overlay	555,354
Sandfilters - Maintenance	50,622
Total for 2031	**$605,975**
Replacement Year 2032	
Catch Basins, Soakage Drywell & Sediment Tanks - Maintenance	15,216
Concrete Pavement - Maintenance	28,606
Exterior Lights - Pole only	30,970
Total for 2032	**$74,792**

New Columbia Owners Association
Annual Expenditure Detail

Description	Expenditures
Replacement Year 2033	
Pocket Park - Benches	24,579
Pocket Park - Picnic Tables	24,579
Storm Drain Pavers - Maintenance	15,597
Total for 2033	**$64,755**
Replacement Year 2034	
Irrigation System Upgrades I	93,401
Total for 2034	**$93,401**
Replacement Year 2035	
Alleys - Asphalt - Seal Coat	80,325
Catch Basins, Soakage Drywell & Sediment Tanks - Maintenance	16,386
Total for 2035	**$96,711**
Replacement Year 2036	
Concrete Pavement - Maintenance	31,576
Landscaping I	39,596
Sandfilters - Maintenance	57,274
Total for 2036	**$128,446**
Replacement Year 2037	
Irrigation System Upgrades II	68,820
Landscaping II	40,586
Pocket Park - Rubber Tiles	291,352
Pocket Park 1 - Bellatrix	65,007
Pocket Park 1 - Spica	11,857
Pocket Park 2 - Argo	8,423
Pocket Park 2 - Decorative Metal Fence	6,739
Pocket Park 2 - Play Structure II	73,430
Pocket Park 2 - Supernova	13,271
Pocket Park 3 - Double Shifter	16,630
Pocket Park 3 - Homestead	46,758
Pocket Park 3 - Satellite Binocular	4,201
Pocket Park 3 - Triple Shifter	16,079
Pocket Park 3 - Ziggy	3,941
Pocket Park 4 - Play Structure I	73,430

New Columbia Owners Association
Annual Expenditure Detail

Description	Expenditures
Replacement Year 2037 continued...	
Pocket Park 4 - Spica	11,857
Total for 2037	**$752,381**
Replacement Year 2038	
Alleys - Asphalt - Seal Coat (II)	86,501
Catch Basins, Soakage Drywell & Sediment Tanks - Maintenance	17,646
Irrigation System Upgrades III	70,540
Landscaping III	41,601
Storm Drain Pavers - Maintenance	17,646
Total for 2038	**$233,934**
No Replacement in 2039	
Replacement Year 2040	
Concrete Pavement - Maintenance	34,854
Pocket Park - Benches	29,217
Pocket Park - Picnic Tables	29,217
Total for 2040	**$93,288**
Replacement Year 2041	
Catch Basins, Soakage Drywell & Sediment Tanks - Maintenance	19,003
Sandfilters - Maintenance	64,800
Total for 2041	**$83,803**
Replacement Year 2042	
Exterior Lights Electrical - Ballasts	84,442
Total for 2042	**$84,442**
Replacement Year 2043	
Storm Drain Pavers - Maintenance	19,965
Total for 2043	**$19,965**
Replacement Year 2044	
Catch Basins, Soakage Drywell & Sediment Tanks - Maintenance	20,464
Concrete Pavement - Maintenance	38,472

New Columbia Owners Association
Annual Expenditure Detail

Description	Expenditures
Replacement Year 2044 continued...	
Irrigation System Upgrades I	119,561
Total for 2044	**$178,498**

Lighting - Upgrade Chnage Order

		1 Total	@ $5,244.00
Asset ID	1045	Asset Cost	$5,244.00
	Capital	Percent Replacement	100%
	Lighting	Future Cost	$5,244.00
Placed in Service	January 2014		
Useful Life	1		
Replacement Year	2015		
Remaining Life	0		

This component is for an upgrade of the lighting system.

The cost and useful life is based on information from the Association.

Lighting - Total Current Cost **$5,244**

Alleys - Storm Drain Pavers

		3,350 SF	@ $29.96
Asset ID	1005	Asset Cost	$100,366.00
	Capital	Percent Replacement	100%
	Grounds Components	Future Cost	$269,489.11
Placed in Service	July 2005		
Useful Life	50		
Replacement Year	2055		
Remaining Life	40		

This component provides funding for the replacement of the Storm Drain Pavers located in the Alleys. The New Columbia prior reserve study lists the useful life of the pavers at 25 years and estimates the cost to replace them at $80,400 at $24 per square foot.

This is found on blocks 1-7.

The estimated useful life of the Storm Drain Pavers is based on the recommendations of John Manson a Senior Project Manager at the Housing Authority of Portland.

The area estimate was provided in the Association's reserve study prior to 2007.

Alleys Concrete Sidewalk - Partial Replacement

		33,300 SF	@ $11.09
Asset ID	1009	Asset Cost	$73,859.40
	Capital	Percent Replacement	20%
	Grounds Components	Future Cost	$101,816.00
Placed in Service	July 2005		
Useful Life	25		
Adjustment	-2		
Replacement Year	2028		
Remaining Life	13		

This component funds for the partial replacement of 20% of the concrete sidewalk portion of the alleys every 25 years.

Since the expected useful life of a typical concrete sidewalk installation is greater than 30 years, this component only provides funding for the replacement of a percentage of the total amount of sidewalk area.

The New Columbia Capital Reserve Study prior to 2007 indicated that there are approximately 33,300 square feet of alley sidewalk area.

The cost is based on a per square foot estimate provided by Coast Pavement.

The useful life assumption is based on estimates established on RS Means and/or the National

Alleys Concrete Sidewalk - Partial Replacement continued...

Estimator.

The Association should obtain a bid to confirm this estimate.

Catch Basins, Soakage Drywell & Sediment Tanks - Maintenance

		1 Total	@ $10,000.00
Asset ID	1043	Asset Cost	$10,000.00
	Non-Capital	Percent Replacement	100%
	Grounds Components	Future Cost	$10,506.25
Placed in Service	January 2014		
Useful Life	3		
Replacement Year	2017		
Remaining Life	2		

This provision is to maintain the catch basins, soakage areas, drywell and sediment tanks.

The cost and useful life are based on information from the Association.

Concrete Pavement - Maintenance

		94,000 SF	@ $0.20
Asset ID	1030	Asset Cost	$18,800.00
	Non-Capital	Percent Replacement	100%
	Grounds Components	Future Cost	$19,270.00
Placed in Service	July 2012		
Useful Life	4		
Replacement Year	2016		
Remaining Life	1		

This component provides funding for the periodic maintenance and repair of the concrete pavement surfaces.

Maintenance includes cleaning the exposed surfaces areas with a light pressure washing to remove dirt and surface deposits which may create a slip hazard, and repairing cracks to eliminate trip hazards and to prevent water intrusion below the surface of the concrete.

According to the Association, this was done in 2012 for approximately $15,000.

The useful life assumption is based on estimates established on RS Means and/or the National Estimator.

The area was provided in the Association's reserve study prior to 2007.

Concrete Sidewalk Partial Replacement - Block 19 Common Green

		3,900 SF	@ $11.09
Asset ID	1006	Asset Cost	$8,650.20
	Capital	Percent Replacement	20%
	Grounds Components	Future Cost	$11,924.40
Placed in Service	July 2005		
Useful Life	25		
Adjustment	-2		
Replacement Year	2028		
Remaining Life	13		

This component funds for the partial replacement of 20% of the concrete sidewalks portions of the Block 19 common green every 25 years.

Since the expected useful life of a typical concrete sidewalk installation is greater than 30 years, this component only provides funding for the replacement of a percentage of the total amount of sidewalk area.

The New Columbia Capital Reserve Study has indicated that there are approximately 3,900 square feet of sidewalk area at Block 19.

The cost is based on a per square foot estimate provided by Coast Pavement.

The useful life assumption is based on estimates established on RS Means and/or the National Estimator.

The Association should obtain a bid to confirm this estimate.

Concrete Sidewalk Partial Replacement - Block 20 Common Green

		5,400 SF	@ $11.09
Asset ID	1007	Asset Cost	$11,977.20
	Capital	Percent Replacement	20%
	Grounds Components	Future Cost	$16,510.70
Placed in Service	July 2005		
Useful Life	25		
Adjustment	-2		
Replacement Year	2028		
Remaining Life	13		

This component funds for the partial replacement of 20% of the concrete sidewalks portions of the Block 20 common green every 25 years.

Concrete Sidewalk Partial Replacement - Block 20 Common Green continued...

Since the expected useful life of a typical concrete sidewalk installation is greater than 30 years, this component only provides funding for the replacement of a percentage of the total amount of sidewalk area.

The New Columbia Capital Reserve Study has indicated that there are approximately 5,400 square feet of sidewalk area at Block 20.

The cost is based on per square feet estimates provided by Coast Pavement.

The useful life assumption is based on estimates established on RS Means and/or the National Estimator.

The Association should obtain a bid to confirm this estimate.

Concrete Sidewalk Partial Replacement - Other common greens

		35,450 SF	@ $11.09
Asset ID	1008	Asset Cost	$78,628.10
	Capital	Percent Replacement	20%
	Grounds Components	Future Cost	$108,389.70
Placed in Service	July 2005		
Useful Life	25		
Adjustment	-2		
Replacement Year	2028		
Remaining Life	13		

This component funds for the partial replacement of 20% of the concrete sidewalks portions of the other common greens every 25 years.

Since the expected useful life of a typical concrete sidewalk installation is greater than 30 years, this component only provides funding for the replacement of a percentage of the total amount of sidewalk area.

The New Columbia Capital Reserve Study has indicated that there are approximately 35,450 square feet of sidewalk area at the other common greens.

The cost is based on a per square foot estimate provided by Coast Pavement.

The useful life assumption is based on estimates established on RS Means and/or the National Estimator.

The Association should obtain a bid to confirm this estimate.

Concrete Sidewalk Partial Replacement - Pedestrian Connections

		16,040 SF	@ $11.09
Asset ID	1010	Asset Cost	$35,576.72
	Capital	Percent Replacement	20%
	Grounds Components	Future Cost	$49,042.90
Placed in Service	July 2005		
Useful Life	25		
Adjustment	-2		
Replacement Year	2028		
Remaining Life	13		

This component funds for the partial replacement of 20% of the concrete sidewalks portions of the public pedestrian connections every 25 years.

Since the expected useful life of a typical concrete sidewalk installation is greater than 30 years, this component only provides funding for the replacement of a percentage of the total amount of sidewalk area.

The New Columbia Capital Reserve Study has indicated that there are approximately 16,040 square feet of sidewalk areas at pedestrian connections.

The cost is based on a per square foot estimate provided by Coast Pavement.

The useful life assumption is based on estimates established on RS Means and/or the National Estimator.

The Association should obtain a bid to confirm this estimate.

Irrigation System Upgrades I

		1 Total	@ $58,425.00
Asset ID	1033	Asset Cost	$58,425.00
	Capital	Percent Replacement	100%
	Grounds Components	Future Cost	$72,964.82
Placed in Service	January 2014		
Useful Life	10		
Replacement Year	2024		
Remaining Life	9		

This component provides funding for upgrades to the irrigation. The original system was installed in 2005.

The irrigation system is maintained by Rob Hamrick of TruGreen.

The Association obtained a bid $57,000 for clock replacement for 2014. In 2013 they spent

Irrigation System Upgrades I continued...

$27,000 on replacements.

Because the original system will last approximately 9 years, a 10 years useful life is used for another upgrade. If the Association decides that the useful life should be longer, this component will need to be revised.

Irrigation System Upgrades II

		1 Total	@ $39,975.00
Asset ID	1034	Asset Cost	$39,975.00
	Capital	Percent Replacement	100%
	Grounds Components	Future Cost	$41,998.73
Placed in Service	January 2005		
Useful Life	10		
Adjustment	2		
Replacement Year	2017		
Remaining Life	2		

This component provides funding for upgrades to the irrigation system. The original system was installed in 2005.

The irrigation system is maintained by Rob Hamrick of TruGreen.

Because the original system will last approximately 9 years, a 10 years useful life is used for another upgrade. If the Association decides that the useful life should be longer, this component will need to be revised.

Irrigation System Upgrades III

		1 Total	@ $39,975.00
Asset ID	1036	Asset Cost	$39,975.00
	Capital	Percent Replacement	100%
	Grounds Components	Future Cost	$43,048.70
Placed in Service	January 2005		
Useful Life	10		
Adjustment	3		
Replacement Year	2018		
Remaining Life	3		

This component provides funding for upgrades to the irrigation system. The original system was installed in 2005.

The irrigation system is maintained by Rob Hamrick of TruGreen.

Because the original system will last approximately 9 years, a 10 years useful life is used for another upgrade. If the Association decides that the useful life should be longer, this

Irrigation System Upgrades III continued...

component will need to be revised.

Landscaping I

		1 Total	@ $23,575.00
Asset ID	1038	Asset Cost	$23,575.00
	Non-Capital	Percent Replacement	100%
	Grounds Components	Future Cost	$24,164.37
Placed in Service	January 2005		
Useful Life	10		
Adjustment	1		
Replacement Year	2016		
Remaining Life	1		

This component is for the renewal of the landscaping.

The cost and useful life are based on information from the Association.

The Association should obtain a bid to confirm this cost.

Landscaping II

		1 Total	@ $23,575.00
Asset ID	1039	Asset Cost	$23,575.00
	Non-Capital	Percent Replacement	100%
	Grounds Components	Future Cost	$24,768.48
Placed in Service	January 2005		
Useful Life	10		
Adjustment	2		
Replacement Year	2017		
Remaining Life	2		

This component is for the renewal of the landscaping.

The cost and useful life are based on information from the Association.

The Association should obtain a bid to confirm this cost.

Landscaping III

		1 Total	@ $23,575.00
Asset ID	1040	Asset Cost	$23,575.00
	Non-Capital	Percent Replacement	100%
	Grounds Components	Future Cost	$25,387.70
Placed in Service	January 2005		
Useful Life	10		
Adjustment	3		
Replacement Year	2018		
Remaining Life	3		

This component is for the renewal of the landscaping.

The cost and useful life are based on information from the Association.

The Association should obtain a bid to confirm this cost.

Sandfilters - Maintenance

		1 Total	@ $34,100.00
Asset ID	1044	Asset Cost	$34,100.00
	Non-Capital	Percent Replacement	100%
	Grounds Components	Future Cost	$34,952.50
Placed in Service	January 2011		
Useful Life	5		
Replacement Year	2016		
Remaining Life	1		

This provision is for the maintenance of the sand filters.

The cost and useful life are based on information from the Association.

Storm Drain Pavers - Maintenance

		1 Total	@ $10,000.00
Asset ID	1031	Asset Cost	$10,000.00
	Non-Capital	Percent Replacement	100%
	Grounds Components	Future Cost	$10,768.91
Placed in Service	January 2013		
Useful Life	5		
Replacement Year	2018		
Remaining Life	3		

This component funds for the washing and vacuum cleaning of the Storm Drain Pavers once every 5 years.

This is found on blocks 1-7.

Storm Drain Pavers - Maintenance continued...

The estimated cost and useful life of this component was provided by John Manson a Senior Project Manager at the Housing Authority of Portland.

The Association should obtain a bid to confirm this cost.

Grounds Components - Total Current Cost	**$591,058**

Exterior Lights - Pole only

		208 Each	@ $978.52
Asset ID	1002	Asset Cost	$20,353.22
	Capital	Percent Replacement	10%
	Common Area Lighting	Future Cost	$30,969.82
Placed in Service	July 2012		
Useful Life	20		
Replacement Year	2032		
Remaining Life	17		

This component funds for the partial replacement of exterior common area lighting poles. The expected useful life of the component is greater than the scope of this reserve study. This provision is a contingency for replacement of the poles due to accidents or vandalism.

Note: This component provides funding for the poles only, one of three parts included in the common area lighting.

This assumes the 2013 lighting project is completed.

The New Columbia Reserve Study provided by Donna Kelley provided a quantity of 208 light poles.

The estimated cost to replace the poles was taken from the New Columbia Reserve Study. .

The useful life assumption is based on estimates established on RS Means and/or the National Estimator.

The Association should obtain a bid to confirm this estimate

Exterior Lights Electrical - Ballasts

		288 Each	@ $150.53
Asset ID	1003	Asset Cost	$43,352.64
	Capital	Percent Replacement	100%
	Common Area Lighting	Future Cost	$58,304.48
Placed in Service	July 2012		
Useful Life	15		
Replacement Year	2027		
Remaining Life	12		

This component provides funding for the replacement of exterior common area lighting ballasts.

The New Columbia Reserve Study lists the useful life of the ballasts at 60,000 hours of continuous use, assuming that the lights should only be on 50% of the time, it was calculated to give them a useful life of 14 years.

This assumes the 2013 lighting project is completed.

Exterior Lights Electrical - Ballasts continued...

The New Columbia Reserve Study provided by Donna Kelley provided a quantity of 288 ballasts lights.

Note: This component provides funding for the ballasts only.

The cost to replace the ballasts is based on an estimate provided by John Manson a Senior Project Manager at the Housing Authority of Portland.

The Association should obtain a bid to confirm this cost.

Common Area Lighting - Total Current Cost **$63,706**

Alleys - Asphalt - Overlay

		258,000 SF	@ $1.45
Asset ID	1028	Asset Cost	$374,100.00
	Capital	Percent Replacement	100%
	Asphalt Pavement	Future Cost	$555,353.55
Placed in Service	July 2005		
Useful Life	25		
Adjustment	1		
Replacement Year	2031		
Remaining Life	16		

This component provides funding for asphalt overlay.

The area estimate was provided in the Association's reserve study prior to 2007.

The cost is based on a per square foot estimate provided by Coast Pavement.

The useful life assumption is based on estimates established on RS Means and/or the National Estimator.

The Association should obtain a bid to confirm this estimate.

Alleys - Asphalt - Seal Coat

		258,000 SF	@ $0.19
Asset ID	1029	Asset Cost	$49,020.00
	Non-Capital	Percent Replacement	100%
	Asphalt Pavement	Future Cost	$56,848.17
Placed in Service	July 2014		
Useful Life	7		
Replacement Year	2021		
Remaining Life	6		

Maintenance of asphalt paving includes the periodic application of an asphalt emulsion sealer or “seal coat” as it is commonly known. This procedure is typically performed every 4-7 years depending on a variety of factors that can affect the useful life of the sealer.

Vehicle traffic is one such factor and Associations which have asphalt paving that carries considerable vehicle traffic should consider a maintenance program that calls for seal coating of asphalt driving surfaces as frequently as every 4 years.

This maintenance procedure involves thoroughly cleaning all pavements, filling of any surface cracks and patching any locally damaged pavement surfaces. The emulsion sealer is then applied, typically with a vehicle mounted spraying system, or for small areas, a roller application may be used. Asphalt contractors recommend seal coating immediately after performing an overlay (skim coat). This will help insure the prevention of water penetration which can lead to damage and deterioration.

Alleys - Asphalt - Seal Coat continued...

Parking area demarcation lines will need to be renewed each time that a seal coat is applied. The component expense includes the cost of this work as well as the seal coating cost.

The cost is based on a per square foot estimates provided by Coast Pavement.

The useful life assumption is based on estimates established on RS Means and/or the National Estimator.

The area estimate was provided in the Association's reserve study prior to 2007.

The Association should obtain a bid to confirm this estimate.

Alleys - Asphalt - Seal Coat (II)

		258,000 SF	@ $0.19
Asset ID	1032	Asset Cost	$49,020.00
	Non-Capital	Percent Replacement	100%
	Asphalt Pavement	Future Cost	$86,501.21
Placed in Service	July 2031		
Useful Life	7		
Adjustment	7		
Replacement Year	2038		
Remaining Life	23		

This component provides funding for seal coating of the asphalt alleys every 7 years after the overlay scheduled in the year 2031.

Maintenance of asphalt paving includes the periodic application of an asphalt emulsion sealer or “seal coat” as it is commonly known. This procedure is typically performed every 4-7 years depending on a variety of factors that can affect the useful life of the sealer.

Vehicle traffic is one such factor and Associations which have asphalt paving that carries considerable vehicle traffic should consider a maintenance program that calls for seal coating of asphalt driving surfaces as frequently as every 4 years.

This maintenance procedure involves thoroughly cleaning all pavements filling of any surface cracks and patching of any locally damaged pavement surfaces. The emulsion sealer is then applied, typically with a vehicle mounted spraying system, or for small areas, a roller application may be used. Asphalt contractors recommend seal coating immediately after performing an overlay (skim coat). This will help insure the prevention of water penetration which can lead to damage and deterioration.

Parking area demarcation lines will need to be renewed each time that a seal coat is applied.

Alleys - Asphalt - Seal Coat (II) continued...

The component expense includes the cost of this work as well as the seal coating cost.

The cost is based on a per square foot estimate provided by Coast Pavement.

The useful life assumption is based on estimates established on RS Means and/or the National Estimator.

The area was provided in the Association's reserve study prior to 2007.

The Association should obtain a bid to confirm this estimate.

Asphalt Pavement - Total Current Cost	**$472,140**

Pocket Park - Benches

		20 EA	@ $787.97
Asset ID	1014	Asset Cost	$15,759.40
	Capital	Percent Replacement	100%
	Park & Playground Equipment	Future Cost	$17,395.43
Placed in Service	July 2012		
Useful Life	7		
Replacement Year	2019		
Remaining Life	4		

This component provides funding for the replacement of the benches located in Pocket Park.

According to the Association, the tables and benches were replaced for approximately $30,000 total.

The New Columbia Reserve Study provided by Donna Kelley provided an estimated cost of $26,000 to replace benches.

The useful life assumption is based on estimates established on RS Means and/or the National Estimator.

Pocket Park - Picnic Tables

		10 EA	@ $1,575.94
Asset ID	1015	Asset Cost	$15,759.40
	Capital	Percent Replacement	100%
	Park & Playground Equipment	Future Cost	$17,395.43
Placed in Service	July 2012		
Useful Life	7		
Replacement Year	2019		
Remaining Life	4		

This component provides funding for the replacement of the picnic tables located in Pocket Park

According to the Association, the tables and benches were replaced for approximately $30,000 total.

The New Columbia Reserve Study provided by Donna Kelley provided an estimated cost of $26,000 to replace these picnic tables. There are 10 picnic tables.

The useful life assumption is based on estimates established on RS Means and/or the National Estimator.

Pocket Park - Rubber Tiles

		10,800 SF	@ $15.67
Asset ID	1017	Asset Cost	$169,236.00
	Capital	Percent Replacement	100%
	Park & Playground Equipment	Future Cost	$201,168.42
Placed in Service	July 2005		
Useful Life	15		
Adjustment	2		
Replacement Year	2022		
Remaining Life	7		

This component provides funding for the replacement of the rubber tiles located in Pocket Park.

The useful life assumption is based on estimates established on RS Means and/or the National Estimator.

The New Columbia Reserve Study provided by Donna Kelley provided an area of 10,800 square feet of rubber tiles. An estimated cost of $12.50 per square foot was provided to replace the rubber tiles.

Pocket Park 1 - Bellatrix

		1 EA	@ $37,760.48
Asset ID	1020	Asset Cost	$37,760.48
	Capital	Percent Replacement	100%
	Park & Playground Equipment	Future Cost	$44,885.34
Placed in Service	July 2005		
Useful Life	15		
Adjustment	2		
Replacement Year	2022		
Remaining Life	7		

This component provides funding for the replacement of the Bellatrix piece of the Kompan Play Equipment located in Pocket Park 1.

The New Columbia Reserve Study provided by Donna Kelley provided an estimated cost of $30,100 to replace Bellatrix piece.

The useful life assumption is based on estimates established on RS Means and/or the National Estimator.

Pocket Park 1 - Spica

		2 EA	@ $3,443.61
Asset ID	1019	Asset Cost	$6,887.22
	Capital	Percent Replacement	100%
	Park & Playground Equipment	Future Cost	$8,186.74
Placed in Service	July 2005		
Useful Life	15		
Adjustment	2		
Replacement Year	2022		
Remaining Life	7		

This component provides funding for the replacement of the Spica piece of the Kompan Play Equipment located in Pocket Park 1.

The useful life assumption is based on estimates established on RS Means and/or the National Estimator.

The New Columbia Reserve Study provided by Donna Kelley a quantity of four Spica. An estimated cost of $2,745 was provided to replace each Spica.

Pocket Park 2 - Argo

		1 EA	@ $4,892.54
Asset ID	1021	Asset Cost	$4,892.54
	Capital	Percent Replacement	100%
	Park & Playground Equipment	Future Cost	$5,815.69
Placed in Service	July 2005		
Useful Life	15		
Adjustment	2		
Replacement Year	2022		
Remaining Life	7		

This component provides funding for the replacement of the Argo piece of the Kompan Play Equipment located in Pocket Park 2.

The useful life assumption is based on estimates established on RS Means and/or the National Estimator.

The New Columbia Reserve Study provided by Donna Kelley provided a cost of $3,900 to replace the Argo.

Pocket Park 2 - Decorative Metal Fence

		60 LF	@ $65.24
Asset ID	1016	Asset Cost	$3,914.40
	Capital	Percent Replacement	100%
	Park & Playground Equipment	Future Cost	$4,652.99
Placed in Service	July 2005		
Useful Life	15		
Adjustment	2		
Replacement Year	2022		
Remaining Life	7		

This component provides funding for the replacement of the decorative metal fence located in Pocket Park 2.

The useful life assumption is based on estimates established on RS Means and/or the National Estimator.

The New Columbia Reserve Study provided by Donna Kelley provided an length of 60 linear feet with an estimated cost of $52 per linear foot to replace the fence.

Pocket Park 2 - Play Structure II

		1 Total	@ $42,653.04
Asset ID	1041	Asset Cost	$42,653.04
	Capital	Percent Replacement	100%
	Park & Playground Equipment	Future Cost	$50,701.06
Placed in Service	July 2005		
Useful Life	15		
Adjustment	2		
Replacement Year	2022		
Remaining Life	7		

This component provides funding for the replacement of the play structure piece of the Hags Play Equipment located in Pocket Park 2.

The useful life assumption is based on estimates established on RS Means and/or the National Estimator.

The New Columbia Reserve Study provided by Donna Kelley provided a quantity of 2 play structures. An estimated cost of $68,000 was provided to replace the two play structures.

Pocket Park 2 - Supernova

		1 EA	@ $7,708.91
Asset ID	1022	Asset Cost	$7,708.91
	Capital	Percent Replacement	100%
	Park & Playground Equipment	Future Cost	$9,163.47
Placed in Service	July 2005		
Useful Life	15		
Adjustment	2		
Replacement Year	2022		
Remaining Life	7		

This component provides funding for the replacement of the Super Nova piece of the Kompan Play Equipment located in Pocket Park 2.

The useful life assumption is based on estimates established on RS Means and/or the National Estimator.

The New Columbia Reserve Study provided by Donna Kelley provided a cost of $6,145 to replace the Super Nova.

Pocket Park 3 - Double Shifter

		1 EA	@ $9,659.65
Asset ID	1023	Asset Cost	$9,659.65
	Capital	Percent Replacement	100%
	Park & Playground Equipment	Future Cost	$11,482.29
Placed in Service	July 2005		
Useful Life	15		
Adjustment	2		
Replacement Year	2022		
Remaining Life	7		

This component provides funding for the replacement of the Double Shifter piece of the Kompan Play Equipment located in Pocket Park 3.

The useful life assumption is based on estimates established on RS Means and/or the National Estimator.

The New Columbia Reserve Study provided by Donna Kelley provided an estimated cost of $7,700 to replace the Double Shifter.

Pocket Park 3 - Homestead

		1 EA	@ $27,159.96
Asset ID	1025	Asset Cost	$27,159.96
	Capital	Percent Replacement	100%
	Park & Playground Equipment	Future Cost	$32,284.66
Placed in Service	July 2005		
Useful Life	15		
Adjustment	2		
Replacement Year	2022		
Remaining Life	7		

This component provides funding for the replacement of the Homestead piece of the Kompan Play Equipment located in Pocket Park 3.

The useful life assumption is based on estimates established on RS Means and/or the National Estimator.

The New Columbia Reserve Study provided by Donna Kelley provided an estimated cost of $21,650 to replace the Homestead piece.

Pocket Park 3 - Satellite Binocular

		1 EA	@ $2,439.99
Asset ID	1026	Asset Cost	$2,439.99
	Capital	Percent Replacement	100%
	Park & Playground Equipment	Future Cost	$2,900.38
Placed in Service	July 2005		
Useful Life	15		
Adjustment	2		
Replacement Year	2022		
Remaining Life	7		

This component provides funding for the replacement of the Satellite Binocular piece of the Kompan Play Equipment located in Pocket Park 3.

The useful life assumption is based on estimates established on RS Means and/or the National Estimator.

The New Columbia Reserve Study provided by Donna Kelley provided a cost of $1,945 to replace the Satellite Binocular.

Pocket Park 3 - Triple Shifter

		1 EA	@ $9,339.75
Asset ID	1024	Asset Cost	$9,339.75
	Capital	Percent Replacement	100%
	Park & Playground Equipment	Future Cost	$11,102.03
Placed in Service	July 2005		
Useful Life	15		
Adjustment	2		
Replacement Year	2022		
Remaining Life	7		

This component provides funding for the replacement of the Triple Shifter piece of the Kompan Play Equipment located in Pocket Park 3.

The useful life assumption is based on estimates established on RS Means and/or the National Estimator.

The New Columbia Reserve Study provided by Donna Kelley provided a cost of $7,445 to replace the Triple Shifter.

Pocket Park 3 - Ziggy

		1 EA	@ $2,289.46
Asset ID	1027	Asset Cost	$2,289.46
	Capital	Percent Replacement	100%
	Park & Playground Equipment	Future Cost	$2,721.45
Placed in Service	July 2005		
Useful Life	15		
Adjustment	2		
Replacement Year	2022		
Remaining Life	7		

This component provides funding for the replacement of the Ziggy piece of the Kompan Play Equipment located in Pocket Park 3.

The useful life assumption is based on estimates established on RS Means and/or the National Estimator.

The New Columbia Reserve Study provided by Donna Kelley provided a cost of $1,825 to replace the Ziggy.

Pocket Park 4 - Play Structure I

		1 Total	@ $42,653.04
Asset ID	1018	Asset Cost	$42,653.04
	Capital	Percent Replacement	100%
	Park & Playground Equipment	Future Cost	$50,701.06
Placed in Service	July 2005		
Useful Life	15		
Adjustment	2		
Replacement Year	2022		
Remaining Life	7		

This component provides funding for the replacement of the play structure piece of the Hags Play Equipment located in Pocket Park 4.

The useful life assumption is based on estimates established on RS Means and/or the National Estimator.

The New Columbia Reserve Study provided by Donna Kelley provided a quantity of 2 play structures. An estimated cost of $68,000 was provided to replace the two play structures.

Pocket Park 4 - Spica

		2 EA	@ $3,443.61
Asset ID	1042	Asset Cost	$6,887.22
	Capital	Percent Replacement	100%
	Park & Playground Equipment	Future Cost	$8,186.74
Placed in Service	July 2005		
Useful Life	15		
Adjustment	2		
Replacement Year	2022		
Remaining Life	7		

This component provides funding for the replacement of the Spica piece of the Kompan Play Equipment located in Pocket Park 4.

The useful life assumption is based on estimates established on RS Means and/or the National Estimator.

The New Columbia Reserve Study provided by Donna Kelley a quantity of four Spica. An estimated cost of $2,745 was provided to replace each Spica.

Park & Playground Equipment - Total Current Cost $405,000

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.

FFB = Current Cost X *Effective Age* / *Useful Life*

or

FFB = (Current Cost X *Effective Age* / *Useful Life*) + [(Current Cost X *Effective Age* / *Useful Life*) / (1 + Interest Rate) ^ Remaining Life] - [(Current Cost X *Effective Age* / *Useful Life*) / (1 + Inflation Rate) ^ 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 statues.
- 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 R*eserve Component* can be expected to serve its intended function if properly constructed in its present application or installation.