

# Capital Reserve Replacement Fund Analysis For Pine View Townhome Condominium Association Harrisburg, Pennsylvania

February 2022 Falcon Client: 21-1036



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Please observe that this document consists of three sections which are independently page numbered; the Narrative Report (whose page numbers have an "N" prefix), the Calculation Tables (whose page numbers have a "C" prefix), and the Appendix (whose page numbers have an "A" prefix).

# **Community Description**

The Pine View Townhome Condominium Association consists of 44 residential units within eight (8) buildings. The community was reportedly constructed in phases from 2006 to 2013. The construction style of the units does vary, and the community consists of six 6-unit buildings and two 4-unit buildings. The subject community is located in Harrisburg, Pennsylvania and is accessible along the western portion of the site at the intersection of Needlewood Drive and Jonestown Road.

The internal roadway (Needlewood Drive) is owned and maintained by the Association. Further, the Association is also responsible paving at the four (4) common parking areas. Other site components include concrete sidewalks (common area), concrete curbing, entrance monument, signage, mailboxes, fencing (adjacent to Unit 147 Needlewood Drive) and stormwater management facilities.

The Association is also responsible for exterior building components including roofing and cladding (i.e., vinyl siding and stone veneer).

No recreational amenities (i.e., clubhouse, pool, tennis courts, etc.) are associated with the subject community.

# **Capital Reserve Replacement Analysis Overview**

The function of a Capital Reserve Replacement Analysis is to inform and advise the Community Association as to the likely capital expenditures for replacement of common elements over the time frame considered by the analysis and the annual contribution levels to the Capital Reserve Replacement Fund calculated as being sufficient to avoid having to levy special assessments or take out a loan in order to support the predicted capital expenditures.

All Capital Reserve Replacement Analyses therefore assume that the Association is funding capital expenditures through the use of regular (e.g. annual, quarterly, or monthly), budgeted contributions to an account set aside for the sole purpose of funding the replacement of a designated set of common elements (often called the "Capital Reserve Fund").

A Community Association can defer common element replacement projects. Such deferrals tend to result in the gradual decrease in property values as the infrastructure and appearance of the community facilities degrade over time. In addition, such deferrals often result in the final replacement costs increasing significantly due to more extensive deterioration and additional damage to other common elements resulting from the failure of the common element to be replaced.

# Association Considerations for a Capital Reserve Replacement Analysis

Each Association has a number of choices and options to consider during the Capital Reserve Replacement Analysis process. Two of the most important decisions are the Methodology (q.v.) of the analysis and the Funding Goal (q.v.) of the Association, although there are a number of other considerations, including:

- Budget Thresholds the budget threshold is simply the lowest total project cost that the Association wants to fund
  using the Capital Reserve Fund. This is normally a function of the Association's proclivities, operating budget size,
  and administrative/fiscal history some communities will fund a \$5,000 project through the maintenance or
  operating budget, while others prefer to schedule and fund a \$500 project through the capital reserve budget. Many
  Associations never make a formal decision, leaving this to the professionals who prepare their Capital Reserve
  Replacement Analyses.
- Federal Housing Authority/Housing & Urban Development Limitations the federal government is a significant
  mortgage insurance provider. The FHA/HUD mortgage insurance programs currently require that community
  Associations fund replacement reserves for capital expenditures and deferred maintenance with at least 10% of the
  Association budget in order to meet eligibility requirements for FHA mortgage insurance failure to maintain this
  level of replacement reserve funding can trigger requests for a current (less than 36 month old) reserve study (level

I or II scope – a site visit is required) by an independent third-party demonstrably competent in regards to such studies justifying a lower contribution level.

- Maintenance Budget no project should be funded in two places. Any and all maintenance contracts for common elements should be reviewed, and any common element whose complete replacement is included in the maintenance contract should be removed from consideration in the Capital Reserve Replacement Analysis, since the Association is already allocating funds to replace the element.
- Operating Budget no project should be funded in two places. Any common elements that the Association is
  planning to replace in a series of incremental projects on an annual or irregular (as-needed) basis using the
  operating budget funds should be removed from consideration in the Capital Reserve Replacement Analysis, since
  the Association is already allocating funds to replace the element.
- Preventive or Deferred Maintenance Budget no project should be funded in two places. The Association should
  compare its capital reserve budget to its preventive/deferred maintenance budget. Line items existing in both
  schedules should be removed from one or the other, since the Association is already allocating funds to replace the
  element.
- Statutory Requirements some jurisdictions may require that certain elements are included in a reserve fund analysis, and other municipalities agree to accept responsibility for some elements (most commonly roadways).
   Such factors cannot be determined by site inspection – the Association should have documentation indicating any such factors, and should certainly inform the professionals performing the Capital Reserve Replacement Analysis of these factors.
- Time Window the time window is simply the time span that the Association desires to consider its capital reserve
  expenditures over. Typically, Associations do not consider common elements with a condition assessed remaining
  life cycle of longer than 30 years as part of the Capital Reserve Replacement Analysis. As a general rule, longer
  time windows are more conservative (resulting in higher annual contribution levels), with the longer time windows
  allows the Association a longer lead-time to accumulate funds for large projects.
- Interest and Inflation interest (sometimes called the rate of return) and inflation can have significant influence on the capital reserve budget. Increasing interest rates tends to reduce the necessary annual contributions, as the Association is essentially collecting additional funding from investment of its capital reserve fund. Increasing inflation rates tends to increase the necessary annual contributions, as the Association needs to collect additional funds to account for the decreasing purchasing power of money. The Falcon Group generally recommends that most Associations are better served by assuming interest and inflation rates of zero and updating their Capital Reserve Replacement Analysis every two to three years (thus correcting for the effects of interest and inflation every second or third year), rather than making assumptions about factors that vary significantly and unpredictably with market forces. That being said, if the Association desires, The Falcon Group can certainly assume whatever average annual interest and inflation rates the Association requests.

Besides the above considerations, there are two decisions that the Association will need to make:

#### **Funding Goals**

The funding goal helps to determine the methodology used in the Capital Reserve Replacement Analysis and also is the principal reflection of the Association's fiscal policy. Funding goals can be categorized by their fiscal aggressiveness (willingness to risk the need to levy a special assessment or take out a loan) – more aggressive funding goals tend to result in lower annual levels of contribution to the capital reserve fund, with associated higher risks of shortfalls requiring special assessments or loans.

There are four basic funding goals used by communities when determining Capital Reserve Fund requirements:

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- Baseline Funding is the most aggressive funding goal commonly used by Associations. Baseline funding is essentially a special case of threshold funding, where the goal is to never have a negative capital reserve fund balance (in other words the threshold is zero). As this funding goal provides no margin for errors, unexpected or unforeseeable expenses, or market forces that are not in the Association's favor, The Falcon Group does not recommend this as a funding goal for the Association's capital reserve budget.
- Full Funding is the most conservative funding goal commonly used by Associations. Full funding is best understood as an attempt to maintain the capital reserve fund at or near 100% of the accumulated common element depreciation. As an example: assuming element X has a life cycle of 10 years, is presently 5 years old, and has a replacement cost of \$10,000, then the full funding goal would be to have \$5,000 (5/10 x \$10,000) in the capital reserve fund for this item. Full funding, as defined by GAP Report #24 ("A Complete Guide to Reserve Funding & Reserve Investment Strategies", 4th ed., produced by CAI), appears simpler than it actually is in practice, and tends to result in over-funding if the community is starting with a capital reserve fund balance less than the current depreciation of its common elements, or to result in under-funding if the community is starting with a capital reserve fund balance greater than the current depreciation of its common elements, unless applied carefully and with the understanding that annual contributions will change over the course of time as overages and shortages are corrected, resulting in an annual contribution recommendation that decreases or increases with the passage of time in all except the simplest cases.
- Statutory Funding is a funding goal (and/or methodology) that the community is legally obligated to meet or exceed.
   Such funding goals are typically the result of state or local statutes or the result of one or more provisions in the governing documents of the Community Association. The relative aggressiveness of such funding goals will vary depending upon the statute or provision involved.
- Threshold Funding is normally a moderate funding goal. The essential goal of threshold funding is to avoid having a capital reserve fund balance below some predetermined level (the "threshold" or "threshold balance"), which can be determined as a percentage of the total cost to replace the considered common elements, by decree as some absolute value (e.g. the community decides that \$100,000 is the threshold balance because that is a number it is comfortable with), or as some multiple of the annual contribution (e.g. the community wants to have a capital reserve fund balance of no less than 9 months of capital reserve fund contributions). Note that Baseline Funding is essentially a threshold funding goal where the threshold balance equals zero.

#### Methodology

There are essentially three methods used in Capital Reserve Analyses performed for most communities. The decision of which methodology to use is made by the Community Association, often under the advisement of its accountant, lawyer, and/or engineer. These three methodologies are:

- Cash Flow methodologies are based upon a projection of the future expenditures that the Community Association
  is likely to experience. The cash flow is then determined, based upon these expenditures, so that the resulting
  Capital Reserve Fund balances over the time window meet the funding goal.
- Component methodologies are based upon calculating the yearly contribution necessary to fund the replacement
  of each common element that is being considered. Each element is considered separately, producing a series of
  distinct line item entries of necessary contributions, which are summed to produce the total annual contribution to
  meet the funding goal.
- Statutory methodologies, like Statutory Funding Goals, are determined entirely by the statutes and/or governing document provisions that create the methodology. Statutory methodologies will most commonly resemble cash flow or component methodologies, but can theoretically be based upon any fiscal or legal conceptualization of the capital reserve funding.

Methodology and funding goal are normally related closely to each other. As a rule, baseline and threshold funding goals are most easily calculated using a cash flow methodology, full funding goals are normally calculated using a component

methodology, and statutory funding goals and methodologies are often found together (e.g. the local government legislates both what the funding goal is and how the community calculates its reserve fund contribution to insure that the funding goal is met).

Please note that cash flow methodologies and component methodologies cannot be easily compared on a line item by line item basis, as cash flow methodologies do not generate a definite line item breakdown of how the annual funding is distributed between the various line items. Likewise, cash flow methodologies do not lend themselves to division of common element responsibilities between various entities. For instance, if an Association is internally divided between several subgroups that do not share all common elements (for instance, an Association where owners of detached dwelling units do not own a share of the common elements of multifamily buildings in the Association and vice versa, but all owners share responsibility for the recreational facilities and site improvements), then the proper application a cash flow methodology would require multiple analyses, with one analysis for each division of responsibility (in the aforesaid case, there would need to be an analysis for detached dwelling unit buildings, an analysis for multifamily buildings, and an analysis for the recreational facilities and site improvements), and each analysis requiring a distinct set of initial conditions (most notably initial capital reserve fund balances).

# **Analysis**

A Capital Reserve Replacement Analysis consists of a series of calculations, which essentially attempt to create a mathematical model of the Association's capital reserve fund expenditures/cash flows over a designated time window, and then determine the annual contributions to the capital reserve fund necessary to support the modeled expenditures/cash flows.

Capital Reserve Replacement Analyses, as performed by The Falcon Group, performs several sets of separate, distinct, and independent calculations upon the same basic information. This permits the analysis to include a component methodology full funding calculation and several cash flow methodology threshold funding calculations (using different threshold balances) to permit the Association to more fully examine its possible capital reserve funding options. Please note that the cash flow and component methodologies cannot be directly compared on a line item by line item basis, due to the significant differences between the underlying mathematics of these methodologies.

The Capital Reserve Replacement Analysis calculations and results are shown in a series of tables and graphs that demonstrate the general viability and end results of the various scenarios. These tables and graphs allow the Association to verify that one or more of the scenarios considered meet Association requirements and do not engage in unacceptable levels of over- or under-funding, as well as allowing the Association to inspect the underlying assumptions and numerical bases of the various scenarios and compare the costs (annual contributions over the time window of the analysis) of achieving these scenarios.

Please note that this Capital Reserve Replacement Analysis is a guide, not a legally binding document. The Association should not allow itself to feel constrained from performing necessary or desirable projects simply because they are not included in this analysis, nor should it feel itself forced to perform any project simply because it has been scheduled in this analysis. If work needs to be done, then do it, and likewise, if the common element condition does not justify replacement or refurbishment, then refrain from performing the work until it needs to be done. The Falcon Group believes and recommends that every Association should have a reserve analysis performed no less than once every three years to allow the updating of estimated replacement costs to reflect inflation, technological advances, changes in the construction industry, and current market forces, as well to allow alterations in life cycle information to reflect any significant alterations in the Association's common element conditions or quantities, as well as any significant changes in industry standards or market forces.

# **Limits of Inspection & Disclosures**

The Falcon Group will not accept responsibility for the detection or analysis of conditions not visible to the naked eye under normal lighting conditions, or conditions located in areas which cannot be accessed by inspectors.

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On-site inspections include walking the improved areas of the site and visual inspection of representative samples of the observable common elements. Please note that The Falcon Group cannot accept responsibility for detection of non-representative conditions as part of the on-site inspections.

Note that a reserve analysis is not a structural evaluation. Reserve analyses are undertaken without complete design plans and do not include the development of as-built plans, and in any case the scope of work does not include comprehensive structural analysis of plans, invasive procedures to expose and field measure structural members and connections to verify compliance with plan specifications, and/or long-term observations to establish foundation settlement and building movement patterns. The majority of the structural components of the typical building are concealed, and cannot be directly evaluated without invasive or remote viewing techniques, and many structural failures are the result of condition/usage changes, concealed and/or gradually developing geotechnical issues, and/or maintenance issues – a building that appears to be structurally sound at present may develop structural issues with the passage of time, and concealed structural issues that currently produce no (or negligible) visible warning signs may produce significant symptoms in the future. The Falcon Group should be contacted regarding a structural evaluation proposal, should the Association desire (or is in need of for regulatory reasons) such an evaluation.

On-site inspections are limited, most notably by the following:

- Unless otherwise stated in the Common Element Descriptions & General Comments, no non-visual examinations were conducted.
- No destructive or invasive testing of any kind was undertaken.
- At no time was any private residence entered, nor were the interior conditions of any private residence examined.
- No security measures (locks, alarms, etc.) were circumvented, and areas within security perimeters were examined from outside said perimeter.
- No area of the site inaccessible to pedestrian traffic was examined and no areas requiring special tools to access or necessitating specific equipment or training to work in safely were entered.

Conditions stated in the report are representative of the general observed conditions of each item. Isolated areas of above or below average conditions may exist for any item. This analysis is not meant to be, nor should it be used as, a detailed condition evaluation of the common elements or a construction defect investigation.

No attempt has been made to predict either the rate of inflation or the rate of return on investments and savings that can be achieved by the Association. The Falcon Group assumes that the Association can achieve a consistent rate of return on investments and savings that equals or exceeds inflation, and that any investment income above and beyond the rate of inflation will be retained within the Capital Reserve Fund, but, for budgeting purposes, assumes that the annual rate of cost inflation and the annual rate of investment return seen by the Association is zero (0%). The Association should consult with its accountant to verify the viability of these assumptions. If the Association desires inclusion of non-zero inflation and investment return, please contact The Falcon Group with the desired annual rates of inflation and investment return so that a revised analysis can be prepared to reflect the Association's desired assumptions in this regard.

Information provided by official representatives of the Association is assumed to be reliable and accurate. This analysis is a reflection of the information supplied to The Falcon Group, and has been assembled for the Association's use; this analysis is not meant to be an audit, quality/forensic analysis, or background check of historical information. Similarly, on-site inspections performed as part of this analysis should not be considered a project audit or quality inspection of any reserve project.

# **Community Specific Conditions & Commentary**

#### **General Comments**

Please note that, based upon professional judgment and information provided by the Association or the Association's management professionals, the following have not been considered as part of this Capital Reserve Replacement Analysis:

- Annual maintenance tasks (e.g. filling pot-holes & sealing pavement cracks).
- Building-mounted light fixtures (e.g. entrance lights & security lights).
- Doors and windows, both exterior and interior.
- Drainage repairs or enhancements.
- Fire suppression systems (e.g. fire sprinkler heads and valves) and fire hydrants.
- · Landscaping and irrigation systems, including maintenance, replacement, or enhancement.
- Painting, sealing, or staining of exterior or interior wooden components.
- Painting of exterior or interior metal components.
- Preventive maintenance tasks (e.g. power-washing siding, annual inspections).
- Protected or concealed structural components, such as foundations, wall framing, floor/ceiling framing, roof framing, and similar components.
- Radon mitigation systems.
- Routine (e.g. sweeping stoops, snow clearing) and emergency (e.g. repairing broken stair treads) maintenance tasks.
- Underground utilities.

Should the above list be incorrect, please notify The Falcon Group so that the analysis can be appropriately amended.

These items are excluded from this analysis because they are typically considered to be either maintenance or operating expenses, and are therefore expected to be accounted for in those budgets, or have predicted remaining life cycles that exceed the analysis time window, and are therefore not typically considered a capital expenditure (at this point in time), or are not common elements, and are therefore not the Association's responsibility. The Association should review all maintenance and operating budgets to confirm that sufficient funding is being allocated toward all maintenance and operating budget items, and the Association's legal professionals should verify the responsibilities of both Association and individual unit owners to confirm that the common element list used in the analysis is accurate.

## **Calculation Table Notes**

The following are notes that provide specific comments for use with the Association's current Capital Reserve Replacement Analysis. These notes are numbered and correspond to the numbers given in the analysis Calculation Tables, which immediately follow these notes.

1. General Note on Aging Estimates: Many of the line item components vary slightly in age and/or condition; however, in general like components have been assigned an estimated average remaining useful service life based upon our observations. Single or isolated replacements of certain components may be needed occasionally and can be funded through the capital reserves as the need arises. Such as-needed isolated replacements may be especially prevalent for items like heaved or broken sections of concrete flatwork, etc. For purposes of establishing the funding

strategies, complete replacement projects are assumed in most cases (with exceptions for percentage or partial quantities where complete replacement is not typically necessary). Capital reserve replacement projects are generally more economical when completed as larger, more comprehensive scopes of work due to realized economies of scale and mobilization costs.

Due to the current escalation in material costs due to the covid-19 pandemic, it is recommended that the Association perform an administrative update in the next two (2) years when costs are likely to have stabilized.

- 2. General Note on Replacement Cost Estimates: In accordance with recommended industry standards, the replacement cost estimates utilized for this analysis should be reviewed and updated every two to three (2 3) years. Periodic professional updates of this analysis for pricing, aging, physical conditions, and actual fund balances are required to prevent an underfunded condition from developing in the future.
- 3. <u>Unit Costs:</u> Similarly, the estimated per-unit costs used are average costs for the type, quality and class of existing components. Further, unit costs are typical average costs for the item understanding that specific costs can be expected to vary both above and below the unit cost used in the analysis.
- 4. <u>General Note on Component Quantities:</u> The current analysis uses field-measured Line Item Quantities. Field measurements performed as part of this analysis are not meant or intended to be used for contractor bidding, design work/calculations, or any function other than budget calculation.

The current analysis also uses common element quantities developed from publicly available data sources and/or images. The quality of such information varies widely, and the precision that can be achieved in such quantity measurements is therefore often limited.

- 5. The cost used assumes complete replacement of the existing roof systems with allowances for flashing, underlayment, and ventilation enhancements. Please note that detailed roof/attic inspections were not performed as part of this scope of work and the remaining useful life given for the roofing is based solely on the age of the roof system, information provided by the Association, and general visual observations.
  - Up to the point of replacement, we recommend that regular inspections and proper maintenance occur to identify and repair any roofing issues. We have assumed that this work will be funded via the general operating budget and no costs for this work are included in the funding analysis.
- 6. We have included a line item for gutters and leaders as full scale replacement will likely be required or desired during the roof replacement project as the gutters will become damaged over time from ice and snow accumulations and physical abuse from ladders.
- 7. Please note that the existing masonry veneer should not need complete replacement within the time window of this analysis, however, no detailed analysis of the façade has been performed and it is assumed that the system currently functions properly. This type of façade requires ongoing maintenance. The Association should routinely monitor the maintenance activities and conditions of this system and may find it prudent to have detailed inspections of this system performed to verify proper installation and the condition of concealed materials/details if maintenance costs involving the system become excessive or leaks are developing. A re-pointing and repair item has been included in the funding schedule.
- 8. The Association should review the condition of the vinyl siding with each update of the reserve analysis. Vinyl siding is typically structurally sound for 45-50 years, and the existing siding is therefore approaching an age where inclusion in the reserve is justifiable The Falcon Group would recommend serious consideration regarding the inclusion of the vinyl siding in the analysis in the next reserve analysis update.

Please note that unless otherwise noted, no testing or removal of materials has been performed as part of the preparation of any reserve analysis performed by The Falcon Group for this community and conditions may exist behind concealed components of the exterior wall systems that may result in reduced life cycles as a result of

inadequate construction such as underlayment and flashing deficiencies which may exist. The remaining life cycle used has been based solely on the age of the community, visual observations of a representative sampling of the community and information provided by the Association. The Association should routinely monitor the maintenance activities and conditions of the vinyl siding and may find it prudent to have detailed inspections of the system performed to verify proper installation and the condition of concealed materials/details.

9. This item has been budgeted for future expenditures based upon the assumption that 5% of the gross element quantity will be replaced every three (3) years for the foreseeable future. Based upon actual replacement projects in the future, the Association may want to increase or decrease this number to reflect actual rates of failure propagation. Cost reflects a general average cost as there are some steps and railings that will increase the unit costs at some locations.

Please note that, as a matter of best operating practice, all common area pedestrian walkways should be subjected to annual inspection for safety concerns, including trip hazards. This evaluation does not purport to be an inclusive or definitive walkway safety evaluation.

- 10. This item has been budgeted for future expenditures based upon the assumption that 10% of the gross element quantity will be replaced every 10 years and coincident to paving reconstruction.
- 11. The community roadways are generally aging well. During the next paving resurfacing project, roadway areas containing substantial areas of cracking and sub-grade failures will require enhanced repairs. The costs shown in the funding schedule reflect these conditions as well as drainage inlet wall repairs that are needed at some locations. The cost for this item assumes milling for drainage and planar continuity purposes, as well as to maintain curb reveal.

Note that common parking area replacement also assumes full depth repairs (as required) and the installation of a new 2" thick wearing course.

- 12. The Falcon Group has observed that a quality seal coat material (applied using a two coating application procedure) applied over the bituminous pavement surface approximately five (5) years after installation of the asphalt (and every three to five years thereafter until a new pavement surface is installed) to seal superficial cracks and prevent water infiltration is generally useful. In addition to its aesthetic appeal, sealcoating prevents water infiltration from occurring in small voids and small surface cracks. Large cracks in pavement should be cleaned of all debris and filled with a thicker sealant annually prior to the onset of winter as a matter of routine or preventive maintenance.
- 13. <u>General Note on Threshold / Cash Flow Based Funding Calculations:</u> Please note that modifications were made to the initial year funding requirements in the Cash Flow Projection Tables for both the 5% and 10% Threshold Funding Scenarios in order to prevent an overfunded condition in future years (see Projection Tables Page C-14, 'Projected Contribution' column, and Graph, Page C-15).
- 14. <u>Long-Life Exclusion</u>: Please note that the estimated remaining useful service life for this line item is projected to last beyond the 30-year time window of this analysis. Therefore, we have not yet included a funding requirement for this line item. Future reserve funding analyses should consider starting funding for this line item at such time as its estimated remaining useful service life falls within the timeline of the funding analysis.
- 15. The study does include a line item allowance for non-annual maintenance or repairs of the on-site stormwater management features (i.e., detention basin, surface inlets, drainage swales, etc.) on five-year cycles over the study period. These costs are difficult to predict and based on actual repair projects, the Association may want to increase or decrease this number to reflect actual repair costs.
- 16. Unit of Measure Abbreviations:

LF = Linear Foot LS = Lump Sum SQ = Square SF = Square Foot SY = Square Yard

	Client			Sc	ope of Wo	ork	
Pine View Townho	ome Condominium Assoc	ciation					
F	ile Number						
21-1036				Full Stud	ly with Meas	surement	
	Version						
F	ebruary, 2022				Revisions		
Comm	unity Information			Description		Check By	Date
Number of Units	44						
Date of Original Construction	circa. 2006						
Location	Harrisburg, Penns	ylvania					
Init	ial Conditions						
Initial Fiscal Year	2023						
Initial Fund Balance	\$84,000						
Prior Year Annual Contribution	\$10,800						
			ļ	Analysis C	alculation	Constants	
Last Day of Fiscal Year	December 3°	1	Time W	/indow		30	
Initial Percent Funded	21.74%						
Initial Estimated Total Replacement Cost	\$995,116						
PV Expenditure in Time Window	\$864,172						
Su	mmary of Funding S						
Funding Schedule	Note		scal Year ontribution	Maximu Bala		Minimun Balaı	
Full Funding	see Funding Projection for annual contributions in other than initial fiscal year	\$62	,194	\$541	,664	\$132,	845
%5 Threshold Funding	see Funding Projection for annual contributions in other than initial fiscal year	\$48	,684	\$411	,968	\$49,7	756
%10 Threshold Funding	see Funding Projection for annual contributions in other than initial fiscal year	\$53	,207	\$448	3,154	\$99,	512



				Re	eserve S	chedule	
		Life	Cycle		E	Estimated Cost	
	Line Item footnotes in parentheses at the end of each line item	Typically Expected	Condition Assessed Remaining (note 1)	Quantity (note 2)	Unit of Measure	Unit Cost	Line Item Occurrence Cost
1	BUILDING-Façade-masonry, repair allowance, 5%-[7]	15	10	437	SF	\$ 12.00	\$ 5,244
	BUILDING-Façade-vinyl siding-[8,14]	45	31	58,730	SF	-	-
	BUILDING-Roof-gutters & downspouts, phase 1-[6]	25	8	1,932	LF	8.00	15,456
4	BUILDING-Roof-gutters & downspouts, phase 2-[6]	25	9	1,746	LF	8.00	13,968
	BUILDING-Roof-gutters & downspouts, phase 3-[6]	25	10	1,656	LF	8.00	13,248
	BUILDING-Roof-gutters & downspouts, phase 4-[6]	25	15	918	LF	8.00	7,344
7	BUILDING-Roof-shingle replacement, phase 1-[5]	25	8	336	SQ	500.00	168,000
	BUILDING-Roof-shingle replacement, phase 2-[5]	25	9	270	SQ	500.00	135,000
	BUILDING-Roof-shingle replacement, phase 3-[5] BUILDING-Roof-shingle replacement, phase 4-[5]	25 25	10 15	288 126	SQ SQ	500.00 500.00	144,000 63,000
	SITE WORK-Curbing-concrete, 10%-[10]	10	5	240	LF	35.00	8,400
	SITE WORK-Curbing-conclete, 10%-[10] SITE WORK-Entrance Features-masonry monument, refurbish	35	18	1	LS	7,500.00	7,500
	SITE WORK-Entrance Features-signage	20	1	2	EA	1,500.00	3,000
	SITE WORK-Fencing-4ft vinyl	25	7	47	LF	52.00	2,444
	SITE WORK-Paving-asphalt, reconstruction-[11]	25	15	3,993	SY	26.00	103,818
	SITE WORK-Paving-asphalt, seal coat-[12]	5	0	3,993	SY	1.95	7,786
	SITE WORK-Postal-cluster mailboxes	20	3	4	EA	1,350.00	5,400
	SITE WORK-Sidewalks-concrete, 5%-[9]	3	0	445	SF	12.50	5,563
	SITE WORK-Stormwater-allowance, non-annual repairs-[15]	5	2	1	LS	5,000.00	5,000
						-	-
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				Full Fun	ding Sche	dule	
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	Line Item footnotes in parentheses at the end of each line item	Total Line Item Cost	Current Theoretical Full Funding Line Item Balance	Initial Fund Allocation (pooling)	Current Overage (+) or Shortage (-)	Effective Age of Component	Current Theoretical Full Funding Line Item Annual Contribution
1	BUILDING-Façade-masonry, repair allowance, 5%-[7]	\$ 104,832	\$ 1,398	\$ 275	\$ (1,123)	4	\$ 350
2	BUILDING-Façade-vinyl siding-[8,14]		-	-	-	-	-
3	BUILDING-Roof-gutters & downspouts, phase 1-[6]	15,456	9,892	1,946	(7,946)	16	618
	BUILDING-Roof-gutters & downspouts, phase 2-[6]	13,968	8,381	1,649	(6,732)	15	559
	BUILDING-Roof-gutters & downspouts, phase 3-[6] BUILDING-Roof-gutters & downspouts, phase 4-[6]	13,248 7,344	7,419 2,644	1,460 520	(5,959) (2,124)	14	530 294
7	BUILDING-Roof-shingle replacement, phase 1-[5]	168,000	107,520	21,155	(86,365)		6,720
8	BUILDING-Roof-shingle replacement, phase 2-[5]	135,000	81,000	15,937	(65,063)	15	5,400
	BUILDING-Roof-shingle replacement, phase 3-[5]	144,000	80,640	15,866	(64,774)		5,760
	BUILDING-Roof-shingle replacement, phase 4-[5]	63,000	22,680	4,462	(18,218)	9	2,520
11	SITE WORK-Curbing-concrete, 10%-[10]	84,070	3,360	661	(2,699)	4	840
12	SITE WORK-Entrance Features-masonry monument, refurbish	7,500	3,429	675	(2,754)		214
13	SITE WORK-Entrance Features-signage	3,000	2,700	531	(2,169)		150
	SITE WORK-Fencing-4ft vinyl	2,444	1,662	327	(1,335)		98
	SITE WORK-Paving-asphalt, reconstruction-[11]	103,818	37,374	7,354	(30,021)	9	4,153
	SITE WORK-Paving-asphalt, seal coat-[12]	7,786	6,229	6,229	(0.470)	4	1,557
17	SITE WORK-Postal-cluster mailboxes	5,400	4,320	850	(3,470)	16	270
18	SITE WORK-Sidewalks-concrete, 5%-[9] SITE WORK-Stormwater-allowance, non-annual repairs-[15]	111,250 5,000	3,708 2,000	3,708	(1,606)	2	1,854 1,000
19	SITE WORK-Stofffwater-allowance, non-armual repairs-[13]	3,000	2,000	394	(1,000)	-	1,000
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	BUILDING-Façade-masonry, repair allowance, 5%-[7] BUILDING-Façade-vinyl siding-[8,14]	\$ \$	10,488	-	-	-
	BUILDING-Paçade-viriyi sidirig-[o, 14] BUILDING-Roof-gutters & downspouts, phase 1-[6]	\$	15,456	-	-	-
4	BUILDING-Roof-gutters & downspouts, phase 2-[6]	\$	13,968	-	-	-
	BUILDING-Roof-gutters & downspouts, phase 3-[6]	\$	13,248	-	-	-
	BUILDING-Roof-gutters & downspouts, phase 4-[6]	\$	7,344	-	-	-
	BUILDING-Roof-shingle replacement, phase 1-[5] BUILDING-Roof-shingle replacement, phase 2-[5]	\$ \$	168,000 135,000	-	-	-
9	BUILDING-Roof-shingle replacement, phase 3-[5]	\$	144,000	-	-	-
	BUILDING-Roof-shingle replacement, phase 4-[5]	\$	63,000	-	•	-
	SITE WORK-Curbing-concrete, 10%-[10]	\$	25,200	-	-	-
	SITE WORK-Entrance Features-masonry monument, refurbish SITE WORK-Entrance Features-signage	\$ \$	7,500 6,000	-	3,000	-
14	SITE WORK-Fencing-4ft vinyl	\$	2,444	-	-	_
	SITE WORK-Paving-asphalt, reconstruction-[11]	\$	103,818	-	-	-
	SITE WORK-Paving-asphalt, seal coat-[12]	\$	46,718	7,786	-	-
	SITE WORK-Postal-cluster mailboxes SITE WORK-Sidewalks-concrete, 5%-[9]	\$ \$	10,800 61,188	5,563	-	-
19	SITE WORK-Sidewarks-condete, 5%-[5] SITE WORK-Stormwater-allowance, non-annual repairs-[15]	\$	30,000	5,505	-	5,000
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	BUILDING-Façade-vinyl siding-[8,14] BUILDING-Roof-gutters & downspouts, phase 1-[6]	-	-	-	-
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5	BUILDING-Roof-gutters & downspouts, phase 3-[6]	-	-	-	-
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	BUILDING-Roof-shingle replacement, phase 1-[5] BUILDING-Roof-shingle replacement, phase 2-[5]	-	-	-	-
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10	BUILDING-Roof-shingle replacement, phase 4-[5]	-	-	-	-
	SITE WORK-Curbing-concrete, 10%-[10]	-	-	8,400	-
	SITE WORK-Entrance Features-masonry monument, refurbish SITE WORK-Entrance Features-signage	-	-	-	-
	SITE WORK-Entrance Features-signage SITE WORK-Fencing-4ft vinyl	-	-	-	-
	SITE WORK-Paving-asphalt, reconstruction-[11]	-	-	-	-
16	SITE WORK-Paving-asphalt, seal coat-[12]	-	-	7,786	-
	SITE WORK-Postal-cluster mailboxes	5,400	-	-	-
	SITE WORK-Sidewalks-concrete, 5%-[9] SITE WORK-Stormwater-allowance, non-annual repairs-[15]	5,563	-	-	5,563
19	SITE WORK-Stoffiwater-allowance, non-annual repairs-[13]	-		-	-
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	BUILDING-Façade-masonry, repair allowance, 5%-[7]	-	-	-	5,244
	BUILDING-Façade-vinyl siding-[8,14]	-	-	-	-
	BUILDING-Roof-gutters & downspouts, phase 1-[6]	-	15,456	- 42.000	-
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	BUILDING-Roof-gutters & downspouts, phase 3-[6]	-	-	-	13,240
	BUILDING-Roof-shingle replacement, phase 1-[5]	-	168,000	-	_
8	BUILDING-Roof-shingle replacement, phase 2-[5]	-	-	135,000	-
	BUILDING-Roof-shingle replacement, phase 3-[5]	-	-	-	144,000
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	SITE WORK-Curbing-concrete, 10%-[10]	-	-	-	-
	SITE WORK-Entrance Features-masonry monument, refurbish SITE WORK-Entrance Features-signage	-	-	-	-
	SITE WORK-Fencing-4ft vinyl	2,444			_
	SITE WORK-Paving-asphalt, reconstruction-[11]	-,	-	-	-
16	SITE WORK-Paving-asphalt, seal coat-[12]	-	-	-	7,786
	SITE WORK-Postal-cluster mailboxes	-	-	-	-
	SITE WORK-Sidewalks-concrete, 5%-[9]	-	-	5,563	-
19	SITE WORK-Stormwater-allowance, non-annual repairs-[15]	5,000	-	-	-
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	BUILDING-Roof-gutters & downspouts, phase 4-[6]	-	-	-	-
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	SITE WORK-Curbing-concrete, 10%-[10]	-	-	-	-
	SITE WORK-Entrance Features-masonry monument, refurbish		_		_
	SITE WORK-Entrance Features-signage	-	-	-	-
	SITE WORK-Fencing-4ft vinyl	-	-	-	-
	SITE WORK-Paving-asphalt, reconstruction-[11]	-	-	-	-
	SITE WORK-Paving-asphalt, seal coat-[12]	-	-	-	-
	SITE WORK-Postal-cluster mailboxes	-		-	-
	SITE WORK-Sidewalks-concrete, 5%-[9] SITE WORK-Stormwater-allowance, non-annual repairs-[15]	-	5,563 5,000	-	-
19	SITE WORK-Stormwater-allowance, non-annual repairs-[15]	-	5,000	-	-
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	BUILDING-Façade-masonry, repair allowance, 5%-[7]	-	-	-	-
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	BUILDING-Roof-gutters & downspouts, phase 1-[6] BUILDING-Roof-gutters & downspouts, phase 2-[6]	-	-	-	-
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	BUILDING-Roof-gutters & downspouts, phase 4-[6]	7,344	-	-	-
7	BUILDING-Roof-shingle replacement, phase 1-[5]	-	-	-	-
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	BUILDING-Roof-shingle replacement, phase 3-[5]	-	-	-	-
	BUILDING-Roof-shingle replacement, phase 4-[5]	63,000	-	-	-
	SITE WORK-Curbing-concrete, 10%-[10] SITE WORK-Entrance Features-masonry monument, refurbish	8,400	-	-	7.500
	SITE WORK-Entrance Features-masonry monument, returbish SITE WORK-Entrance Features-signage	-	-	-	7,500
	SITE WORK-Fencing-4ft vinyl	_			
	SITE WORK-Paving-asphalt, reconstruction-[11]	103,818	_	_	-
	SITE WORK-Paving-asphalt, seal coat-[12]	-	-	-	-
	SITE WORK-Postal-cluster mailboxes	-	-	-	-
	SITE WORK-Sidewalks-concrete, 5%-[9]	5,563	-	-	5,563
19	SITE WORK-Stormwater-allowance, non-annual repairs-[15]	-	-	5,000	-
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4	BUILDING-Roof-gutters & downspouts, phase 2-[6]	-	-	-	-
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7	BUILDING-Roof-shingle replacement, phase 1-[5]	-	-	-	-
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	SITE WORK-Curbing-concrete, 10%-[10]	-	-	-	-
	SITE WORK-Entrance Features-masonry monument, refurbish	-	-	-	-
13	SITE WORK-Entrance Features-signage	-	-	3,000	_
	SITE WORK-Fencing-4ft vinyl	-	-	-	-
	SITE WORK-Paving-asphalt, reconstruction-[11]	-	-	-	-
	SITE WORK-Paving-asphalt, seal coat-[12] SITE WORK-Postal-cluster mailboxes	-	7,786	-	-
	SITE WORK-Postal-cluster mailboxes SITE WORK-Sidewalks-concrete, 5%-[9]	-	<u>-</u>	5,563	<del>-</del>
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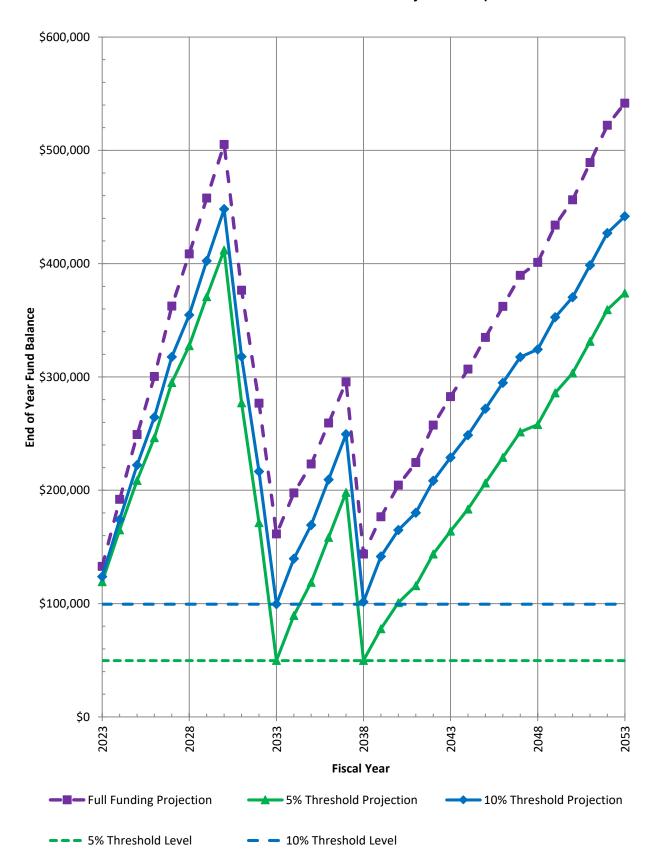
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		5,400	5,563	21,430	
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3	BUILDING-Paçade-viriyi siding-[o, 14] BUILDING-Roof-gutters & downspouts, phase 1-[6]	-	-	-	-
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	BUILDING-Roof-gutters & downspouts, phase 3-[6]	-	-	-	-
6	BUILDING-Roof-gutters & downspouts, phase 4-[6]	-	-	-	-
7	BUILDING-Roof-shingle replacement, phase 1-[5]	-	-	-	-
8	BUILDING-Roof-shingle replacement, phase 2-[5]	-	-	-	-
9	BUILDING-Roof-shingle replacement, phase 3-[5] BUILDING-Roof-shingle replacement, phase 4-[5]	-	-	-	-
	SITE WORK-Curbing-concrete, 10%-[10]	-	-	8,400	-
	SITE WORK-Entrance Features-masonry monument, refurbish	_		- 0,400	
	SITE WORK-Entrance Features-signage	-	-	-	_
	SITE WORK-Fencing-4ft vinyl	-	-	-	-
	SITE WORK-Paving-asphalt, reconstruction-[11]	-	-	-	-
	SITE WORK-Paving-asphalt, seal coat-[12]	-	-	7,786	-
17	SITE WORK-Postal-cluster mailboxes	5,400	-	-	-
18	SITE WORK-Sidewalks-concrete, 5%-[9]	-	5,563	-	-
19	SITE WORK-Stormwater-allowance, non-annual repairs-[15]	-	<del>-</del>	-	-
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1	BUILDING-Façade-masonry, repair allowance, 5%-[7]	-	-	-	-
2	BUILDING-Façade-vinyl siding-[8,14]	-	-	-	-
	BUILDING-Roof-gutters & downspouts, phase 1-[6]	-	-	-	-
	BUILDING-Roof-gutters & downspouts, phase 2-[6]	-	-	-	-
	BUILDING-Roof-gutters & downspouts, phase 3-[6]	-	-	-	-
	BUILDING-Roof-gutters & downspouts, phase 4-[6] BUILDING-Roof-shingle replacement, phase 1-[5]	-	-	-	-
	BUILDING-Roof-shingle replacement, phase 1-[5]	-	-	-	-
	BUILDING-Roof-shingle replacement, phase 3-[5]	-	_	_	_
	BUILDING-Roof-shingle replacement, phase 4-[5]	-	-	-	-
	SITE WORK-Curbing-concrete, 10%-[10]	-	-	-	-
	SITE WORK-Entrance Features-masonry monument, refurbish	-	-	-	-
	SITE WORK-Entrance Features-signage	-	-	-	-
	SITE WORK-Fencing-4ft vinyl	-	-	-	-
	SITE WORK-Paving-asphalt, reconstruction-[11]	-	-	-	7,786
	SITE WORK-Paving-asphalt, seal coat-[12] SITE WORK-Postal-cluster mailboxes	-	-	-	1,100
	SITE WORK-Fostal-cluster mailboxes SITE WORK-Sidewalks-concrete, 5%-[9]	5,563	-		5,563
	SITE WORK-Stormwater-allowance, non-annual repairs-[15]	5,000	-	-	
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ır	e (in Future al Year		Full Funding Scenario Projection					
Fiscal Year		Nominal Expenditure (in Future Dollars) in Fiscal Year		Start of Year Fund Balance	Projected Contribution		End of Year Fund Balance	
2023	\$	13,349	\$	84,000	\$	62,194	\$	132,845
2024		3,000		132,845		62,194		192,039
2025		5,000		192,039		62,194		249,233
2026		10,963		249,233		62,194		300,465
2027		-		300,465		62,194		362,659
2028		16,186		362,659		62,194		408,666
2029		5,563		408,666		54,809		457,913
2030		7,444		457,913		54,809		505,278
2031		183,456		505,278		54,809		376,631
2032		154,531		376,631		54,809		276,910
2033		170,278		276,910		54,809		161,440
2034		-		161,440		36,179		197,619
2035		10,563		197,619		36,179		223,236
2036		-		223,236		36,179		259,415
2037		-		259,415		36,179		295,594
2038		188,125		295,594		36,179		143,648
2039		-		143,648		32,973		176,622
2040		5,000		176,622		32,973		204,595
2041		13,063		204,595		32,973		224,506
2042		-		224,506		32,973		257,479
2043		7,786		257,479		32,973		282,667
2044		8,563		282,667		32,886		306,990
2045		5,000		306,990		32,886		334,877
2046		5,400		334,877		32,886		362,363
2047		5,563		362,363		32,886		389,687
2048		21,430		389,687		32,886		401,143
2049		-		401,143		32,886		434,030
2050		10,563		434,030		32,886		456,354
2051		-		456,354		32,886		489,240
2052		-		489,240		32,886		522,127
2053		13,349		522,127		32,886		541,664

ır	e (in Future al Year	5% Threshold Funding Scenario Projection				10% Threshold Funding Scenario Projection				
Yea	diture Fisca	Initi	al Year Thre	shold of \$49,	756	Initial Year Threshold of \$99,512				
Fiscal Year	Nominal Expenditure (in Future Dollars) in Fiscal Year	Start of Year Fund Balance	Projected Contribution	End of Year Fund Balance	Nominal Threshold in Year	Start of Year Fund Balance	Projected Contribution	End of Year Fund Balance	Nominal Threshold in Year	
2023	\$ 13,349	\$ 84,000	\$ 48,684	\$ 119,335	\$ 49,756	\$ 84,000	\$ 53,207	\$ 123,858	\$ 99,512	
2024	3,000	119,335	48,684	165,019	49,756	123,858	53,207	174,066	99,512	
2025	5,000	165,019	48,684	208,703	49,756	174,066	53,207	222,273	99,512	
2026	10,963	208,703	48,684	246,425	49,756	222,273	53,207	264,518	99,512	
2027	-	246,425	48,684	295,109	49,756	264,518	53,207	317,725	99,512	
2028	16,186	295,109	48,684	327,607	49,756	317,725	53,207	354,746	99,512	
2029	5,563	327,607	48,684	370,728	49,756	354,746	53,207	402,391	99,512	
2030	7,444	370,728	48,684	411,968	49,756	402,391	53,207	448,154	99,512	
2031	183,456	411,968	48,684	277,197	49,756	448,154	53,207	317,906	99,512	
2032	154,531	277,197	48,684	171,350	49,756	317,906	53,207	216,583	99,512	
2033	170,278	171,350	48,684	49,756	49,756	216,583	53,207	99,512	99,512	
2034	-	49,756	39,740	89,496	49,756	99,512	40,137	139,649	99,512	
2035	10,563	89,496	39,740	118,673	49,756	139,649	40,137	169,224	99,512	
2036	-	118,673	39,740	158,413	49,756	169,224	40,137	209,361	99,512	
2037	-	158,413	39,740	198,153	49,756	209,361	40,137	249,499	99,512	
2038	188,125	198,153	39,740	49,769	49,756	249,499	40,137	101,512	99,512	
2039	-	49,769	28,000	77,769	49,756	101,512	40,137	141,649	99,512	
2040	5,000	77,769	28,000	100,769	49,756	141,649	28,280	164,929	99,512	
2041	13,063	100,769	28,000	115,706	49,756	164,929	28,280	180,147	99,512	
2042	-	115,706	28,000	143,706	49,756	180,147	28,280	208,427	99,512	
2043	7,786	143,706	28,000	163,920	49,756	208,427	28,280	228,920	99,512	
2044	8,563	163,920	28,000	183,357	49,756	228,920	28,280	248,638	99,512	
2045	5,000	183,357	28,000	206,357	49,756	248,638	28,280	271,918	99,512	
2046	5,400	206,357	28,000	228,957	49,756	271,918	28,280	294,798	99,512	
2047	5,563	228,957	28,000	251,395	49,756	294,798	28,280	317,515	99,512	
2048	21,430	251,395	28,000	257,965	49,756	317,515	28,280	324,365	99,512	
2049	-	257,965	28,000	285,965	49,756	324,365	28,280	352,645	99,512	
2050	10,563	285,965	28,000	303,402	49,756	352,645	28,280	370,362	99,512	
2051	-	303,402	28,000	331,402	49,756	370,362	28,280	398,642	99,512	
2052	-	331,402	28,000	359,402	49,756	398,642	28,280	426,922	99,512	
2053	13,349	359,402	28,000	374,053	49,756	426,922	28,280	441,853	99,512	

## **End of Fiscal Year Fund Projection Graph**



# **Annual Contribution in Fiscal Year Graph**



2023 total expenditure \$13,349 consisting of these projects:	2024 total expenditure \$3,000 consisting of these projects:	2025 total expenditure \$5,000 consisting of these projects:	2026 total expenditure \$10,963 consisting of these projects:
SITE WORK-Paving-asphalt, seal coat- [12] \$7,786	SITE WORK-Entrance Features-signage \$3,000	SITE WORK-Stormwater-allowance, non- annual repairs-[15] \$5,000	SITE WORK-Sidewalks-concrete, 5%-[9] \$5,563
SITE WORK-Sidewalks-concrete, 5%-[9] \$5,563			SITE WORK-Postal-cluster mailboxes \$5,400

2027 total expenditure \$0 consisting of these projects:	2028 total expenditure \$16,186 consisting of these projects:	2029 total expenditure \$5,563 consisting of these projects:	2030 total expenditure \$7,444 consisting of these projects:
	SITE WORK-Curbing-concrete, 10%-[10] \$8,400 SITE WORK-Paving-asphalt, seal coat- [12] \$7,786	SITE WORK-Sidewalks-concrete, 5%-[9] \$5,563	SITE WORK-Stormwater-allowance, non- annual repairs-[15] \$5,000 SITE WORK-Fencing-4ft vinyl \$2,444

2031	2032	2033	2034
total expenditure \$183,456 consisting of these projects:	total expenditure \$154,531 consisting of these projects:	total expenditure \$170,278 consisting of these projects:	total expenditure \$0 consisting of these projects:
BUILDING-Roof-shingle replacement, phase 1-[5] \$168,000	BUILDING-Roof-shingle replacement, phase 2-[5] \$135,000	BUILDING-Roof-shingle replacement, phase 3-[5] \$144,000	
BUILDING-Roof-gutters & downspouts, phase 1-[6] \$15,456	BUILDING-Roof-gutters & downspouts, phase 2-[6] \$13,968	BUILDING-Roof-gutters & downspouts, phase 3-[6] \$13,248	
	SITE WORK-Sidewalks-concrete, 5%-[9] \$5,563	SITE WORK-Paving-asphalt, seal coat- [12] \$7,786	
		BUILDING-Façade-masonry, repair allowance, 5%-[7] \$5,244	

2036 total expenditure \$0 consisting of these projects:	2037 total expenditure \$0 consisting of these projects:	2038 total expenditure \$188,125 consisting of these projects:
		SITE WORK-Paving-asphalt, reconstruction-[11] \$103,818
		BUILDING-Roof-shingle replacement, phase 4-[5] \$63,000
		SITE WORK-Curbing-concrete, 10%-[10] \$8,400
		BUILDING-Roof-gutters & downspouts, phase 4-[6] \$7,344
		SITE WORK-Sidewalks-concrete, 5%-[9] \$5,563
	total expenditure \$0	total expenditure \$0 total expenditure \$0

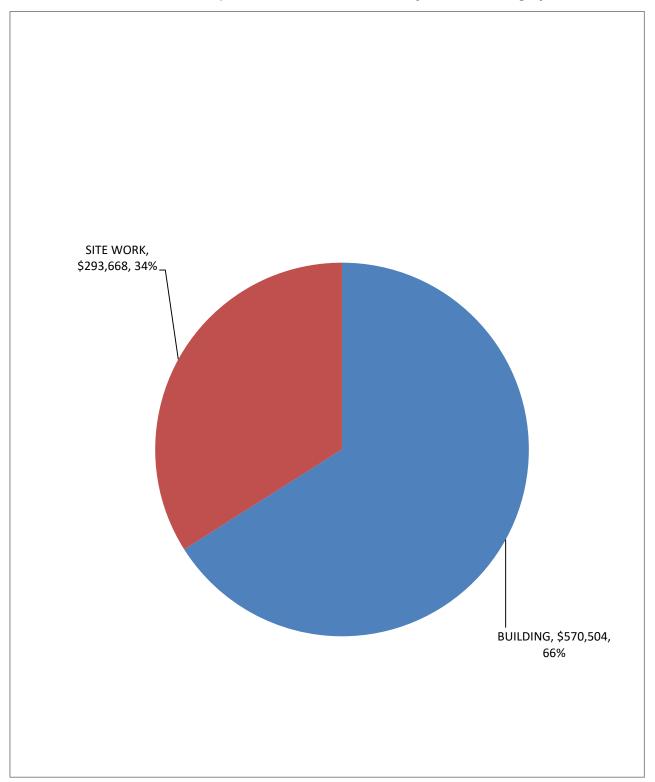
total expenditure \$5,000 consisting of these projects:	2041 total expenditure \$13,063 consisting of these projects:	2042 total expenditure \$0 consisting of these projects:
SITE WORK-Stormwater-allowance, non- annual repairs-[15] \$5,000	SITE WORK-Entrance Features-masonry monument, refurbish \$7,500 SITE WORK-Sidewalks-concrete, 5%-[9] \$5,563	
		annual repairs-[15] \$5,000 monument, refurbish \$7,500  SITE WORK-Sidewalks-concrete, 5%-[9]

2043 total expenditure \$7,786 consisting of these projects:	2044 total expenditure \$8,563 consisting of these projects:	2045 total expenditure \$5,000 consisting of these projects:	2046 total expenditure \$5,400 consisting of these projects:
total expenditure \$7,786	total expenditure \$8,563 consisting of these projects:	total expenditure \$5,000	total expenditure \$5,400

SITE WORK-Sidowalik-concrete, 5%-[0] SITE WORK-Cubring-concrete, 10%-[10] SITE WORK-Sidowalik-concrete, 5%-[0] SITE WORK-S	2047 total expenditure \$5,563 consisting of these projects:	2048 total expenditure \$21,430 consisting of these projects:	2049 total expenditure \$0 consisting of these projects:	2050 total expenditure \$10,563 consisting of these projects:
	consisting of these projects:  SITE WORK-Sidewalks-concrete, 5%-[9]	consisting of these projects:  SITE WORK-Curbing-concrete, 10%-[10] \$8,400  SITE WORK-Paving-asphalt, seal coat- [12] \$7,786  BUILDING-Façade-masonry, repair		consisting of these projects:  SITE WORK-Sidewalks-concrete, 5%-[9] \$5,563  SITE WORK-Stormwater-allowance, non-

2051 total expenditure \$0 consisting of these projects:	2052 total expenditure \$0 consisting of these projects:	2053 total expenditure \$13,349 consisting of these projects:
		SITE WORK-Paving-asphalt, seal coat- [12] \$7,786 SITE WORK-Sidewalks-concrete, 5%-[9]
		\$5,563

## Present Value Expenditure Over Time Window by Line Item Category



# **Calculation Table Explanatory Descriptions**

The following sections describe the individual sheets of the Calculation Tables, in the order they appear in the report.

## **Executive Summary**

This page shows the basic fiscal and initial condition information upon which the remainder of the analysis has been based and includes basic information regarding the Association, the report (including its revision history), and a basic summary of the funding schedules considered in the analysis.

#### Client

This entry lists the full (official) name of the Association, to the best of The Falcon Group's knowledge.

#### File Number

This entry indicates the file/client number that The Falcon Group has assigned to the Association for our internal filing and archiving purposes. This number should remain constant through all of the communications that the Association has with The Falcon Group.

#### Version

This entry indicates the month and year in which this analysis was performed. This information is included to allow differentiation between precedent and antecedent analyses.

## **Community Information**

These entries indicate the number of privately owned portions (be they detached single family dwellings, condominium units, attached single family dwellings [often called townhouses], business condominium units, or some combination thereof) within the Association, the approximate or median date of original construction, and the geographic location of the Association's physical components (which is often useful information in that construction costs tend to vary with geographic location and local market forces).

#### **Initial Conditions**

These entries list the conditions that The Falcon Group understands to exist as of the first day of the initial fiscal year of the analysis shown (while most Associations have fiscal years that run concurrent with calendar years, this is not universal, and the initial conditions therefore include an explicit listing of the last day of the Association's fiscal year), and include the initial fund balance, which is often pro-rated from the current fund balance, based upon the date of the current fund balance and the prior year's annual contribution. The initial conditions also include the initial percent funded, which gives an indication of how conservatively the Association has historically funded its capital reserve fund to the beginning of the initial fiscal year, and the initial estimated total replacement cost, which is the basis that The Falcon Group typically uses to determine the threshold levels for the cash-flow methodology fund projections.

The "Initial Percent Funded" entry is the "Initial Fund Balance" entry divided by the sum of the "Current Theoretical Full Funding Line Item Balance" entries, expressed as a percentage, and can therefore be thought of as a numerical comparison of how closely the initial fund balance reflects the theoretical fund balance that should exist if the Association was correctly executing a full funding approach up to the beginning of the initial year of the analysis.

Included in this area, for the Association's edification, is the "PV Expenditure in Time Window", which is the summation of the "Present Value of Line Item Expenditures in Time Window" column from the Expenditure Projection.

#### Scope of Work

This indicates the processes undertaken as part of the analysis evaluation. The Falcon Group, besides specifying scopes of work by CAI standards (updates with and without site visits and full studies) also indicates if the Association requested

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field measurement of the common elements, and indicates if other work scopes (e.g. roof or siding inspections, moisture testing, etc.) beyond typical visual inspection and quantity measurement, are included in the analysis evaluation.

#### Revisions

Many Capital Reserve Replacement Analyses are revised one or more times to reflect changes in assumptions, new information, or alternative funding goals. The revision entries indicate dates that The Falcon Group has revised the current analysis, and include short descriptions of the revisions made and initials of the editor in The Falcon Group who performed the revision(s).

## **Analysis Calculation Constants**

These entries list the constants used in the analysis, including the time window (industry standard time window is thirty years), the assumed annual rate of cost inflation (The Falcon Group, unless otherwise directed by the Association, will assume this to be zero), and the assumed annual rate of investment return (The Falcon Group, unless otherwise directed by the Association, will assume this to be zero).

#### **Summary of Funding Schedules Over Time Window**

These entries indicate the funding schedules (the various scenarios) considered in the analysis, along with relevant notes regarding these funding schedules, the contribution required in the initial fiscal year to comply with the funding schedule as calculated, and the maximum and minimum end of year fund balances projected to occur in each of the funding schedules.

#### **Line Item Schedules**

There are two distinct line item schedules, the reserve schedule, which displays life cycle and estimated cost information that is used to develop the expenditure projection, and the depreciation schedule, which displays the depreciation and fund allocation information that is used to develop the full funding scenario projection.

#### Line Item

These entries name the individual projects/expenditures that are expected to be funded through the Association's capital reserve fund and are therefore being considered in the analysis. Each line item name is compounded of a category (typical categories are ANCILLARY, BUILDING, and SITE), a type (such as Pavement, Roof, Swimming Pool, or Utility, among others), a description (such as asphalt, concrete, metal railing, seal coating, wood deck, or so forth), and, in some cases a miscellaneous component including secondary descriptions (such as street names, building numbers, or phase numbers) and notes (typically in the form of one or more numbers in parenthesis that reference the notes in the narrative section of the report), with all components being separated by hyphens. The line item names are constructed in this fashion so that they can be easily organized into related categories. The organization of the individual line items in a systematic fashion (arranging similar or related line items in close proximity to each other) tends to make the Line Item Schedules and Expenditure Projection of the analysis more easily read, cross-referenced, and checked.

Always be mindful of notes – due to the tabular nature of the Calculation Sheets, important qualifications, disclosures, and observations regarding individual line items typically cannot be expected to fit within the space limitations of the Calculation Sheets, so the line item notes often include vital explanatory material.

#### Life Cycle [Reserve Schedule]

The typically expected life cycle is the number of years that The Falcon Group would expect to see between occurrences of the line item expenditure. The condition assessed remaining life cycle is the number of years that The Falcon Group expects to elapse before the next occurrence of the line item expenditure.

#### **Estimated Cost [Reserve Schedule]**

The total line item cost per occurrence of the line item expenditure in the initial year is determined by multiplying the line item quantity by the line item unit cost. Please note that each line item has also been given a unit of measure – this is very important, in that a both quantity and unit cost entries cannot be appropriately interpreted without knowing the unit of

measurement (for instance, there is a vast difference between a square foot of concrete and a cubic yard of concrete, and quantities and unit costs based upon cubic yards will be very different from those based upon square feet).

It must be understood that estimated costs are shown for the initial fiscal year of the analysis. If inflation is assumed to be zero, than the estimated line item cost per occurrence will be constant over the time window – otherwise estimated line item costs will change over the time window.

The individual line item unit costs (the estimated cost for which the components represented by the line item can be realistically replaced, reconstructed, or refurbished as the case may be, per unit of measurement) are based upon the cost information available to us as of the time the analysis is performed, as well as various assumptions in regards to non-visible construction details and material characteristics. The Falcon Group bases unit costs upon current R.S. Means reference books (R.S. Means is a commercially available series of cost estimating guides published by Reed Construction Data), contractor bids for similar scopes of work with which The Falcon Group has been involved, industry/manufacturer specific information, and whatever historical expenditure information that the Association has supplied to The Falcon Group for review.

The Association should remain aware that these are estimated costs. Market forces can alter individual costs significantly in comparatively short periods of time due to material price increases, labor shortages, regulatory environment changes, and etcetera. Actual costs can also be significantly altered by design requirements (e.g. use of unusual materials or design details), project or community specific requirements (e.g. unusually restricted hours of work), or other factors that are not determined until the actual project designs and specifications are created. The actual cost that the Association will see can be expected to vary to a greater or lesser degree from what has been estimated for the purposes of this Capital Reserve Replacement Analysis.

Please note that the Line Item Occurrence Cost is not necessarily identical to the Total Line Item Cost (q.v.), in that line items, for various reasons, may not be showing the entire quantity of the common element considered in the analysis (this is typically done to allow more accurate modeling of items such as concrete pedestrian walks, where replacement is often performed on an as-needed basis for comparatively small portions of the total, and is generally combined with a very short life cycle to reflect many small expenditures rather than a single large expenditure).

#### **Total Line Item Cost**

This line item entry is simply the total quantity of the common element multiplied by the unit cost. Please note that, for various reasons, the analysis tables may not be showing the total quantity of the common element in question (q.v., Estimated Cost), in which case this entry will not agree with the Line Item Occurrence Cost entry under the Reserve Schedule heading. These entries have been included for the use of accounting professionals and community managers, and do not necessarily appear elsewhere in the analysis, as expenditure projections are based upon the Line Item Occurrence Cost entries.

#### Current Theoretical Full Funding Line Item Balance [Full Funding Schedule]

This line item entry is essentially the difference between the estimated line item occurrence cost and the depreciated value at the beginning of the initial fiscal year of the analysis (based upon simple straight-line depreciation of the occurrence cost over the typically expected life cycle with an assumed residual value of zero), and thus represents both the value of the common element(s) represented by the line item that has been lost to senescence (aging), wear, weathering, and other forms of deterioration since the installation of said element(s) and the theoretical "ideal" level of funding expected if the Association was attempting to maintain full funding.

#### Initial Fund Allocation [Full Funding Schedule]

This line item entry is the portion of the initial fund balance that has been allocated to the line item for calculation purposes. The process of determining this allocation is called "pooling", and tends to become a complex issue, especially in regards to fund distribution in severely under-funded situations. The Falcon Group uses an algorithm that preferentially directs funding allocation to cover expenditures occurring in the initial fiscal year and allocates the remainder based upon the



individual line item current cumulative depreciations. Note the sum of all line item initial fund allocations, by definition, is equal to the initial fund balance.

The Association should remember that pooling is essentially an accounting convenience that is used to allow the component methodology calculations, not an intrinsic characteristic of the typical capital reserve fund. It is rare for an Association to explicitly divide their capital reserve fund into separate savings or investment accounts for each individual line item of their Capital Reserve Replacement Analysis, and the line item initial fund allocation is therefore not normally reflected in any administrative or fiscal structure within an Association.

#### Current Overage (+) or Shortage (-) [Full Funding Schedule]

This line item entry is simply the difference between the initial fund allocation and the current theoretical full funding line item balance. Positive numbers indicate overages (the initial fund allocation is greater than the current theoretical full funding line item balance) while negative numbers indicates shortages (the initial fund allocation is less than the current theoretical full funding line item balance). An Association that is fully funded will have neither overages nor shortages.

#### **Effective Age of Component [Full Funding Schedule]**

This line item entry is essentially the numerical representation of the estimated number of full years of "typical" deterioration experienced by the components of the line item up to the initial year of the analysis. Thus, if a line item has an expected life cycle of 15 years and a condition assessed remaining life of 10 years, it has an effective age of 4, because the line item is in the midst of its 5<sup>th</sup> year.

#### **Current Theoretical Full Funding Line Item Annual Contribution [Full Funding Schedule]**

This line item entry is the estimated value of the common element(s) represented by the line item that is lost each year to senescence (aging), wear, weathering, and other forms of deterioration, and is therefore a form of depreciation. This analysis assumes all depreciation to be a linear function of the line item life cycle and occurrence cost for budgeting purposes. Depreciation is an accounting convention and mathematical construction, not necessarily a true reflection of the actual physical deterioration of many common elements. Many objects tend to experience a gradually increasing rate of deterioration as they age, and their actual value often more closely resembles a logarithmic or exponential function than a linear function. The difficulties in attempting to more accurately model actual material degradation mathematically make depreciation via linear functions the favored basis of calculation for full funding analyses.

## **Expenditure Projection**

The expenditure projection sheets essentially cycle the line item life cycles, including various non-cyclical or meta-cyclical factors, over the analysis time window and generate the predicted cash-outflow from the Association's capital reserve fund over the course of the analysis time window.

The majority of the expenditure projection takes the form of an array or grid that cross-references each line item (the rows) with each fiscal year (the columns) in the analysis time window, with line item expenditure occurrences in each fiscal year being summed to produce the nominal expenditure (in future dollars) for each fiscal year.

#### Line Item

These entries are identical to the entries in the line item schedules.

#### **Fiscal Year**

These entries indicate the fiscal year in which the entries below are occurring. Please note that, depending upon the start/end date of the Association's fiscal year, these years may or may not match calendar periods. The Falcon Group will generally use the calendar year numeral in which the fiscal year starts as the fiscal year numeral – for instance, if an Association's fiscal year runs from April 1 to March 1, then The Falcon Group would indicate the fiscal year from April 1, 2020 to March 1, 2021 as the 2020 fiscal year.

#### Nominal Expenditure (in Future Dollars) in Fiscal Year

These entries are the sums of the expenditures projected to occur in each individual fiscal year. These entries reflect the effects of any assumed rate of cost inflation, and are therefore in terms of future dollars for the fiscal year in which they appear.

#### Present Value of Line Item Expenditures in Time Window

These entries are the summation of the projected expenditures for each individual line item. These entries reflect the effects of any assumed rate of cost inflation and rate of return on investment, and are therefore an estimate of the current dollar sum (present value) that is theoretically equivalent to the cash-flow represented for the line item. In other words, if the Association has an initial reserve fund balance equal to the sum of all of the present value of line item expenditures in time window entries, then it would theoretically be able to fund all of the expenditures projected to occur within the current time window out of the reserve fund and its investment earnings without any contributions from the Association, with the last expenditures in the time window reducing the fund balance to zero. The Falcon Group has never observed such a situation, and would never advise an Association to attempt such a strategy; these entries have been included to give the Association an index by which it can determine which line items are likely to have the most influence on threshold funding scenario projections (and thus where changes are most likely to materially alter recommended annual contributions).

## **Annual Funding Projection**

The annual funding projection sheets display the projected expenditures from the capital reserve fund, contributions to the capital reserve fund, and the resulting start of year and end of year fund balances for the various funding scenarios considered in the analysis. Each sheet takes the form of an array or grid that cross-references each fiscal year (the rows) with the projected expenditures in that fiscal year, and the starting and ending fund balances, projected contribution, and (in the case of threshold funding scenarios) the nominal threshold (initial year threshold corrected for cost inflation) for each scenario considered in the analysis. Please note that each scenario is represented by the columns underneath the title of the scenario (located along the top of the sheet), and that these scenarios are each independently calculated.

#### Fiscal Year and Nominal Expenditure (in Future Dollars) in Fiscal Year

These entries have identical values to the entries in the expenditure projection, although they have been transposed, which is to say that these entries are displayed horizontally from left to right in the expenditure projection but are displayed vertically from top to bottom in the annual funding projection.

#### Start of Year Fund Balance

These entries are the projected capital reserve fund balance on the first day of the given fiscal year for the given scenario projection. Please observe that the start of year fund balance for all considered funding scenarios is the same in the initial fiscal year, and equals the initial fund balance.

The start of year fund balance for fiscal years after the initial year is equal to preceding fiscal years end of year fund balance for the given scenario plus any return on investment.

#### **Projected Contribution**

These entries are the per annum contributions to the capital reserve fund for the given fiscal year and given scenario projection.

#### **End of Year Fund Balance**

These entries are the projected capital reserve fund balances on the last day of the given fiscal year for the given scenario projection; it is essentially the sum of that fiscal year's start of year fund balance and projected contribution, less the expenditure in that fiscal year.



#### **Nominal Threshold in Year**

These entries are initial year threshold (which is shown directly below the threshold scenario title), corrected for the estimated cumulative cost inflation since the initial fiscal year. Where the assumed rate of cost inflation is zero, all of these entries should be identical within a given funding scenario.

## **Projection Graphs**

These sheets contain graphic representations of subsets of the information within the annual funding projection.

The end of fiscal year fund project graph is a graphical comparison of the various scenario projections tabulated in the annual funding projection. This graph contains information given in the annual funding projection in a more accessible format that often proves helpful for qualitative judgments of the merits of the various funding scenarios offered in the Capital Reserve Replacement Analysis. This graph displays the end of year fund balances for the various funding scenarios, as well as the various non-zero threshold balances so as to allow for relatively simple comparison between the various scenarios over the analysis time window.

## **Expenditure Calendar**

These sheets display the total (nominal) expenditure within each fiscal year of the analysis time window, along with the list of line items and their associated expenditures (in order from greatest to least expenditure) occurring in the given fiscal year.

The expenditure calendar essentially displays the same basic information set as the expenditure projection, but organizes the information in a different format that many users find more accessible. While the expenditure projection predominantly organizes information by line item and only secondarily by year, the expenditure calendar organizes information predominantly by year.