



July 29, 2015

Ms. Tabitha Palmer  
Conway Management Group, LLC  
914 N. Walnut Street  
Wilmington, Delaware 19801

Reference: **Beacon Hill Townhome Condominium Association  
Reserve Study Update  
Kipcon Project No. 11645-01**

Dear Ms. Palmer:

Attached please find Kipcon's Reserve Study Update, which has been prepared for the Beacon Hill Townhome Condominium Association.

This Reserve Study Update has been prepared in conformance with the *National Reserve Study Standards* of the Community Associations Institute (CAI), which is a national educational organization for the community association industry. It is recommended that prior to implementing this Reserve Study, it be reviewed by the Association's accountant, paying particular attention to the beginning balance and the funding plan.

As always, if you have any questions or comments, please do not hesitate to contact me. Thank you again for selecting Kipcon to provide these services.

Very truly yours,

**KIPCON INCORPORATED**

Brandon Femia, R.S.  
Manager, Reserve Studies

BF/mw

**Kipcon Inc.**

1215 Livingston Avenue  
Suite 200  
North Brunswick, NJ 08902

**P** (732) 220-0200  
(800) 828-4118  
**F** (732) 220-9017  
**E** info@kipcon.com

[www.kipcon.com](http://www.kipcon.com)



**KIPCON**  
Engage. Execute. Engineer.



## Reserve Study Update

PREPARED FOR

**Beacon Hill Townhome Condominium Association  
Wilmington, Delaware**

PREPARED BY

**Kipcon Incorporated  
Project No. 11645-01  
July 29, 2015**

---

**Brandon Femia, R.S.  
Reserve Specialist Number 249**

## Contents

Executive Summary .....	1
Key Figures .....	2
Physical Analysis .....	3
Sitework .....	4
Waterproofing .....	6
Exterior .....	8
Electrical .....	10
Financial Analysis .....	12
Thirty Year Cash Flow Chart .....	14
Thirty Year Projection Graph .....	15
Expenditures Graph By Year .....	16
Expenditures List By Year .....	17
Disclosures .....	18
Glossary of Abbreviations .....	19
Bibliography .....	20

## Executive Summary

The following Reserve Study Update was prepared by Kipcon Incorporated for the Beacon Hill Townhome Condominium Association located in Wilmington, Delaware. The 36 year old community comprises 72 units in 9 buildings. This report was based upon visual observations made on Friday, May 29, 2015, as well as information provided by Ms. Tabitha Palmer, the Property Manager.

The purpose of a Reserve Study Update is to provide recommendations to the Association in regard to the amount of funding to be set aside to perform future replacements of the common elements as becomes necessary. The basis for this study is an analysis of the condition and replacement costs of the components which will require replacement within the next 30 years. The components and quantities used in this report were taken from the information from the prior Reserve Study prepared by Reserve Advisors in 2011. The quantities have not been updated by Kipcon Incorporated within the scope of this study unless noted.

As required by the *National Reserve Study Standards* of the Community Associations Institute, a Reserve Study Update comprises a Physical Analysis and a Financial Analysis. The Physical Analysis involves estimating the useful lives and replacement costs of common element components included within the Reserve Study. The estimated remaining lives of components are based on field observations by Kipcon Incorporated. Estimated replacement costs are based on construction cost estimating standards, information supplied by contractors, and industry experience. The Financial Analysis is prepared based upon the projected future annual reserve needs of the community association over the next 30 years.

This Reserve Study Update indicates the Association's reserves are underfunded. The Association's current annual contribution is \$46,900, whereas this study recommends an annual contribution of \$50,353 in order to fully fund the reserves. It is recommended that the Association increase its annual contribution amount to the recommended amount of \$50,353. However, it is also recommended that the Association review this study with its financial advisor before implementing a funding plan.

Based upon field observations by Kipcon Incorporated and the available reviewed data, the existing conditions at the Beacon Hill Townhome Condominium Association are accurately represented within this report. It should be recognized that costs and useful lives fluctuate as a result of variables which include overall economic conditions, conditions within the construction industry, unanticipated severe weather, and the amount of ongoing maintenance performed. To ensure that proper funding levels are maintained, this report should be updated in two (2) years to provide the Association with a more current assessment of the status of its reserve fund.

This report is prepared for budgetary purposes only. In most cases, bids solicited for replacement of any of the components will not match the costs shown in the Component Inventory. The costs contained within this report are obtained from the sources previously listed and are based on the replacement of the existing components with components of similar quality. Specific notes in this regard may be contained within this report.

## Key Figures

### Level of Service Provided:

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

### Physical Description

Number of Units: 72 Units  
Number of Buildings: 9 Buildings  
Age of Community: Approximately 36 Years Old

### Financial Description

Beginning Reserve Balance: \$69,563  
Source of Beginning Reserve Balance and Annual Contribution: Ms. Tabitha Palmer, Conway Management Group, LLC  
Previous Preparer: Reserve Advisors  
Prev. Sched. Date: June 23, 2011  
Funding Goal: Full Funding

### Reserve Fund Status

Current Percent Funded (Beginning Reserve Balance/Full Funding Balance): 16.02%  
Current Annual Contribution: \$46,900  
Previously Recommended Annual Contribution: \$46,900 (2015)  
Recommended Annual Contribution: \$50,353  
Averaging Interval: 30 Years

## Physical Analysis

The following data represents the Physical Analysis portion of the Reserve Study. This analysis is based on the Component Inventory which incorporates a Condition Assessment of each specific component. The Condition Assessment is presented as the Estimated Remaining Life of each Component with the accompanying Notes. Also included is a valuation of the replacement cost for each Component. These costs are derived as outlined within this study.

Construction costs and useful life estimates in this report represent the Engineer's best judgment as a professional familiar with the construction industry. It is recognized, however, that neither the Engineer nor the Association has control over the cost of labor, energy, materials, or equipment; over the contractors' methods of determining bid prices; or over competitive bidding, marketing, or negotiating conditions.

Further, the Engineer cannot accurately determine the ongoing rate of deterioration, or the amount of preventive maintenance employed on an ongoing basis for determination of estimated useful lives. In all cases, unless stated otherwise, the useful life estimates are based upon visual inspections with no destructive testing employed. Accordingly, the Engineer cannot and does not warrant or represent those bids or negotiated prices and useful lives will not vary from that presented within the evaluation prepared or agreed to by the Engineer.

### Beacon Hill Townhome Condominium Association Component Schedule Summary of Replacement Reserve Needs

Effective Date: January 1, 2016

CATEGORY	RESERVE REQUIREMENT PRESENT DOLLARS	BEGINNING BALANCE	BALANCE REQUIRING FUNDING	ANNUAL RESERVE FUNDING REQUIRED	FULL FUNDING BALANCE	PERCENT FUNDED
Sitework Totals	\$231,188	\$22,720	\$208,468	\$37,618	\$141,862	The Percent Funded and Funding Goal are based on fully funding each component within the schedule. Please review the report for various funding strategies.
Waterproofing Totals	\$249,350	\$7,589	\$241,761	\$12,203	\$47,384	
Exterior Totals	\$483,350	\$38,443	\$444,907	\$29,769	\$240,036	
Electrical Totals	\$10,132	\$811	\$9,321	\$932	\$5,066	
<b>GRAND TOTALS</b>	<b>\$974,020</b>	<b>\$69,563</b>	<b>\$904,457</b>	<b>\$80,523</b>	<b>\$434,349</b>	<b>16.02%</b>



# Reserve Study Update



Beacon Hill Townhome Condominium Association  
 Project No. 11645-01  
 July 29, 2015

## Sitework

Sitework										
COMPONENT	QUANTITY	UNIT	COST	RESERVE REQUIREMENT PRESENT DOLLARS	BEGINNING BALANCE	ESTIMATED USEFUL LIFE	ESTIMATED REMAINING USEFUL LIFE	ANNUAL RESERVE FUNDING REQUIRED	FULL FUNDING BALANCE	NOTES
Asphalt Pavement, Sealcoat	6,780	SY	\$2.05	\$13,908	\$0	5	5	\$2,782	\$0	1
Asphalt Pavement, Overlay	6,780	SY	\$14.00	\$94,920	\$12,922	20	3	\$27,333	\$80,682	2
Concrete Curbs	3,460	LF	\$23.84	\$82,481	\$6,605	30	15	\$5,058	\$41,240	3
Concrete Sidewalks	4,000	SF	\$9.97	\$39,880	\$3,193	30	15	\$2,446	\$19,940	4
Wood Privacy Fencing	2,160	LF	\$0.00	\$0	\$0	20	10	\$0	\$0	5
<b>TOTALS</b>				<b>\$231,188</b>	<b>\$22,720</b>			<b>\$37,618</b>	<b>\$141,862</b>	

## Notes

1. Pavement sealcoating is recommended to be performed two (2) years after pavement installation and every five (5) years thereafter.
2. Asphalt pavement is installed within roadways and parking areas within the community. The unit cost shown represents milling and a two inch (2") overlay (after compaction). It also includes six percent (6%) for engineering fees. The roadways and parking areas in the community were observed to be in poor to fair condition overall.
3. Concrete curbing is installed in various areas of the community. The unit cost shown represents the removal and replacement of the curbing. The estimated remaining useful life shown represents replacing the curbing on an as-needed basis.
4. Concrete walkways and sidewalks are installed throughout the community. The unit cost shown represents the complete removal and replacement of the concrete sidewalks and is based on local contractor pricing. The estimated remaining useful life represents replacing the sidewalks on an as-needed basis.
5. The wood privacy fencing has been removed from the Reserve Study at the request of the Association.



# Reserve Study Update



Beacon Hill Townhome Condominium Association  
 Project No. 11645-01  
 July 29, 2015

## Waterproofing

Waterproofing										
COMPONENT	QUANTITY	UNIT COST	RESERVE REQUIREMENT PRESENT DOLLARS	BEGINNING BALANCE	ESTIMATED USEFUL LIFE	ESTIMATED REMAINING USEFUL LIFE	ANNUAL RESERVE FUNDING REQUIRED	FULL FUNDING BALANCE	NOTES	
Gutters and Downspouts	4,700	LF	\$4.50	\$21,150	\$1,761	25	12	\$1,616	\$10,998	6
Roof Replacement- Building 1	72	SQ	\$350.00	\$25,200	\$646	25	21	\$1,169	\$4,032	7
Roof Replacement- Building 2	91	SQ	\$350.00	\$31,850	\$612	25	22	\$1,420	\$3,822	7
Roof Replacement- Building 3	109	SQ	\$350.00	\$38,150	\$978	25	21	\$1,770	\$6,104	7
Roof Replacement- Building 4	63	SQ	\$350.00	\$22,050	\$565	25	21	\$1,023	\$3,528	7
Roof Replacement- Building 5	54	SQ	\$350.00	\$18,900	\$484	25	21	\$877	\$3,024	7
Roof Replacement- Building 6	45	SQ	\$350.00	\$15,750	\$404	25	21	\$731	\$2,520	7
Roof Replacement- Building 7	91	SQ	\$350.00	\$31,850	\$816	25	21	\$1,478	\$5,096	7
Roof Replacement- Building 8	45	SQ	\$350.00	\$15,750	\$404	25	21	\$731	\$2,520	7
Roof Replacement- Building 9	82	SQ	\$350.00	\$28,700	\$919	25	20	\$1,389	\$5,740	7
<b>TOTALS</b>				<b>\$249,350</b>	<b>\$7,589</b>			<b>\$12,203</b>	<b>\$47,384</b>	

## Notes

6. Aluminum gutters and downspouts are installed at the roofs of the buildings throughout the community. Typically, it is recommended that the gutters and downspouts be replaced at the time of roof replacement.
  
7. Dimensional fiberglass shingles are installed at the roof of the nine (9) buildings throughout the community. The unit cost shown is based on the removal and replacement of the existing shingles. The cost to remove and replace any roof sheathing or flashing is not included in the unit cost. A six percent (6%) markup has been included in the unit cost for related engineering fees. The estimated remaining useful life is based on the average age of the shingles of each building. Shingle replacement dates were provided by the Association. For purposes of this study, the Building numbers represent the following units:
  - Building One, located on West Court, contains Units 1, 3, 5, 7, 9, 11, 13, and 15.
  - Building Two, located on West Court, contains Units 2, 4, 6, 8, 10, 12, 14, 16, 18, and 20.
  - Building Three, located on Center Court, contains Units 101, 103, 105, 107, 109, 111, 113, 115, 117, 119, 121, and 123.
  - Building Four, located on Center Court, contains Units 100, 102, 104, 106, 108, and 110.
  - Building Five, located on Center Court, contains Units 112, 114, 116, 118, 120, 122, and 124.
  - Building Six, located on East Court, contains Units 201, 203, 205, 207, 209, 211, 213, 215, 217, and 219.
  - Building Seven, located on East Court, contains Units 228, 230, 232, 234, and 236.
  - Building Eight, located on East Court, contains Units 200, 202, 204, 206, 208, 210, 212, 214, and 216.
  - Building Nine, located on East Court, contains Units 218, 220, 222, 224, and 226.

# Reserve Study Update



Beacon Hill Townhome Condominium Association  
 Project No. 11645-01  
 July 29, 2015

## Exterior

<b>Exterior</b>											
COMPONENT	QUANTITY	UNIT	COST	RESERVE REQUIREMENT PRESENT DOLLARS	BEGINNING BALANCE	ESTIMATED USEFUL LIFE	ESTIMATED REMAINING USEFUL LIFE	ANNUAL RESERVE FUNDING REQUIRED	FULL FUNDING BALANCE	NOTES	
Shutters	220	PR	\$149.00	\$32,780	\$2,625	20	10	\$3,016	\$16,390	8	
Masonry Wall Repointing (50%)	18,600	SF	\$11.50	\$213,900	\$17,814	25	12	\$16,341	\$111,228	9	
Vinyl Siding	29,400	SF	\$8.05	\$236,670	\$18,004	40	21	\$10,413	\$112,418	10	
<b>TOTALS</b>				<b>\$483,350</b>	<b>\$38,443</b>			<b>\$29,769</b>	<b>\$240,036</b>		

## Notes

8. Shutters are installed on the exteriors of the building. The estimated remaining useful life represents replacing the shutters on an as-needed basis.
9. The unit cost represents the repointing of the exterior masonry walls. The quantity shown represents 50% of the total quantity, or the amount that will likely require repointing in the timeframe shown. The estimated remaining useful life represents repointing the exterior walls on an as-needed basis.
10. Vinyl siding is installed at the exterior of the buildings throughout the community. The unit cost shown represents the removal and replacement of the vinyl siding and trim. The siding was observed to be in good condition overall.

## Electrical

<b>Electrical</b>										
COMPONENT	QUANTITY	UNIT COST	RESERVE REQUIREMENT PRESENT DOLLARS	BEGINNING BALANCE	ESTIMATED USEFUL LIFE	ESTIMATED REMAINING USEFUL LIFE	ANNUAL RESERVE FUNDING REQUIRED	FULL FUNDING BALANCE	NOTES	
Light Fixtures- Floodlights	30	EA	\$337.74	\$10,132	\$811	20	10	\$932	\$5,066	11
<b>TOTALS</b>				<b>\$10,132</b>	<b>\$811</b>		<b>\$932</b>	<b>\$5,066</b>		

## Notes

11. Light Fixtures are installed at the exterior of the buildings. The estimated remaining useful life represents replacing the fixtures on an as-needed basis. The replacement cost shown was provided by the Association.

## Financial Analysis

The Cash Flow Chart and Cash Flow Graph (pages 144 and 15) contain a Projected Thirty (30) Year Cash Flow of the reserve requirements for the Beacon Hill Townhome Condominium Association. This analysis contains three (3) funding scenarios. The first, entitled Full Funding, is based on the assumption that all of the items which make up the schedule will be fully funded. In other words, Full Funding means that each component will accumulate its full replacement cost over the span of its Estimated Useful Life. When a component reaches the end of its useful life (which varies for each reserve component), the component would be replaced and the funding cycle would immediately begin again for that particular component.

Because expenditures vary from year to year, the Annual Contribution to the reserve changes over the projection period. Since it is impractical for the Association to adjust the amount of its contribution to the reserve fund on a yearly basis, a cash flow analysis based on an average contribution amount (designated Average Annual Contribution) is shown under Full Funding Analysis on page 144. The average annual contribution is based on an average of Full Funding contributions over 30 Years.

The second funding scenario, entitled Current Funding, represents a projection of the Association's current contribution amount for the next 30 years. It is based on the Beginning Balance provided by Tabitha Palmer and the calculated expenditures.

The third funding scenario, entitled Baseline Funding, is based on keeping the Reserve Fund Balance above a threshold value of \$0. This funding scenario entails substantial risk since any change in replacement costs or replacement timeframes could potentially cause the Reserve Fund Balance to drop below zero dollars in a given year.

1. The Full Funding Annual Contribution for the year beginning 2016 would be \$80,523. This amount is taken directly from the Summary of Replacement Reserve Needs on page 3, and is the amount used in the cash flow projection.
2. Projections of the Full Funding Annual Contribution amount for Years 2017 through 2045 vary from year to year, but generally decrease over time to an amount of \$38,237 in the final year of the projection.
3. The Full Funding Average Annual Contribution is \$50,353. The average annual contribution is based on an average of Full Funding contributions over 30 Years.
4. The Annual Contribution for the 30 year time frame, when applying Baseline Funding, is \$45,265. If the Association implements Baseline Funding, it is imperative that the Reserve Study be updated annually to minimize the danger of creating a deficit in the reserve fund.

On the Projected Thirty (30) Year Cash Flow Chart on page 144, the column entitled Reserve Fund Balance shows the projected reserve fund amounts over the 30 year period. This cash balance is also represented by the upper line on the Cash Flow Graph (see page 155) which is designated as the Reserve Fund Balance – Full Funding. This is calculated by taking the amount that is currently



contained in the reserve fund, adding to it the Average Annual Contribution, and subtracting the Annual Expenditure, if any.

The column entitled Reserve Fund Balance under Baseline Funding shows the projected reserve fund amounts over the 30 year period. The Reserve Fund Balance – Baseline Funding is represented by the second line on the Cash Flow Graph on page 15 and is calculated in the same manner as the Reserve Fund Balance – Full Funding, except that the Annual Contribution is used instead of the Average Annual Contribution.

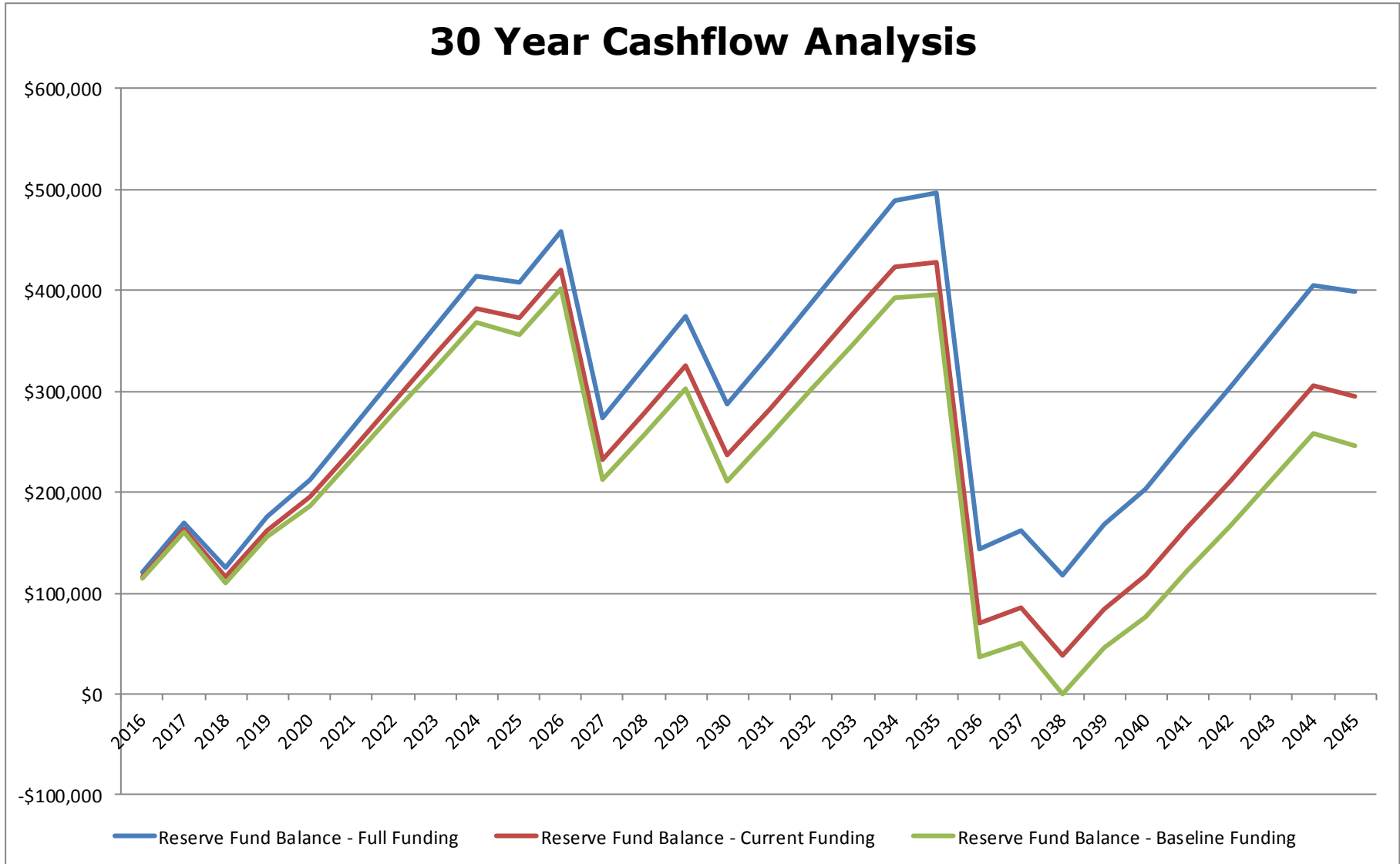
## Thirty Year Cash Flow Chart

### Beacon Hill Townhome Condominium Association Component Schedule Summary of Replacement Reserve Needs

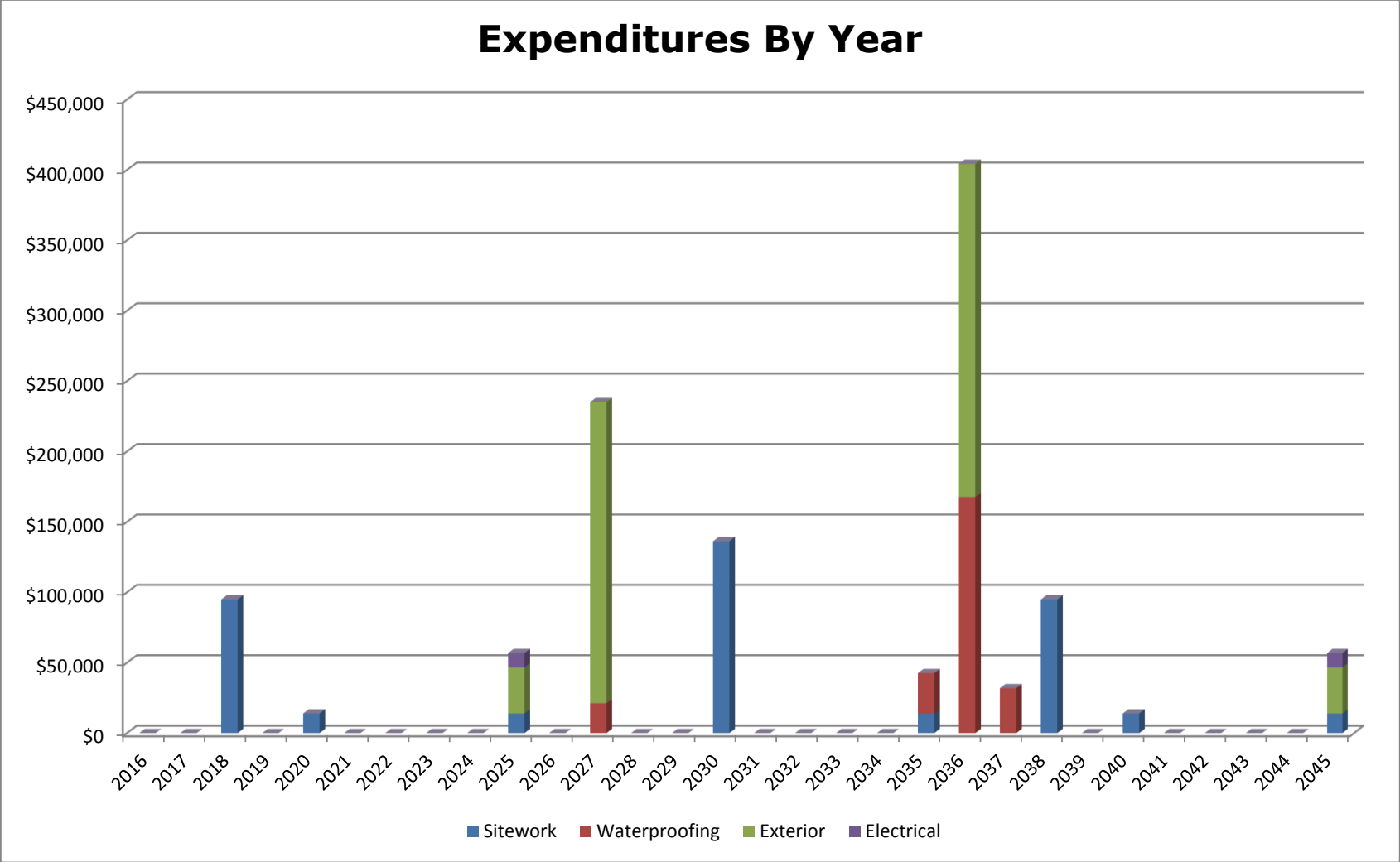
Effective Date: January 1, 2016

YEAR BEGINNING		CURRENT FUNDING ANALYSIS		FULL FUNDING ANALYSIS			BASELINE FUNDING ANALYSIS	
ANNUAL EXPENDITURE	ANNUAL CONTRIBUTION	RESERVE FUND BALANCE	REQUIRED ANNUAL CONTRIBUTION	AVERAGE REQUIRED ANNUAL CONTRIBUTION	RESERVE FUND BALANCE	ANNUAL CONTRIBUTION	RESERVE FUND BALANCE	
<b>Pooling Factor:</b>						<b>100.00%</b>	<b>89.90%</b>	
<b>Beginning Balance:</b>			<b>\$69,563</b>			<b>\$69,563</b>	<b>\$69,563</b>	
2016	\$0	\$46,900	\$116,463	\$80,523	\$50,353	\$119,916	\$45,265	\$114,828
2017	\$0	\$46,900	\$163,363	\$86,551	\$50,353	\$170,269	\$45,265	\$160,093
2018	\$94,920	\$46,900	\$115,343	\$104,804	\$50,353	\$125,702	\$45,265	\$110,439
2019	\$0	\$46,900	\$162,243	\$57,290	\$50,353	\$176,055	\$45,265	\$155,704
2020	\$13,908	\$46,900	\$195,235	\$59,523	\$50,353	\$212,500	\$45,265	\$187,062
2021	\$0	\$46,900	\$242,135	\$55,444	\$50,353	\$262,853	\$45,265	\$232,327
2022	\$0	\$46,900	\$289,035	\$55,853	\$50,353	\$313,206	\$45,265	\$277,592
2023	\$0	\$46,900	\$335,935	\$56,523	\$50,353	\$363,559	\$45,265	\$322,857
2024	\$0	\$46,900	\$382,835	\$57,783	\$50,353	\$413,912	\$45,265	\$368,122
2025	\$56,820	\$46,900	\$372,916	\$61,145	\$50,353	\$407,445	\$45,265	\$356,568
2026	\$0	\$46,900	\$419,816	\$55,554	\$50,353	\$457,798	\$45,265	\$401,833
2027	\$235,050	\$46,900	\$231,666	\$60,734	\$50,353	\$273,101	\$45,265	\$212,048
2028	\$0	\$46,900	\$278,566	\$43,269	\$50,353	\$323,454	\$45,265	\$257,314
2029	\$0	\$46,900	\$325,466	\$43,666	\$50,353	\$373,807	\$45,265	\$302,579
2030	\$136,268	\$46,900	\$236,097	\$45,114	\$50,353	\$287,892	\$45,265	\$211,576
2031	\$0	\$46,900	\$282,997	\$40,333	\$50,353	\$338,245	\$45,265	\$256,841
2032	\$0	\$46,900	\$329,897	\$40,312	\$50,353	\$388,598	\$45,265	\$302,106
2033	\$0	\$46,900	\$376,797	\$40,314	\$50,353	\$438,951	\$45,265	\$347,371
2034	\$0	\$46,900	\$423,697	\$40,354	\$50,353	\$489,304	\$45,265	\$392,637
2035	\$42,608	\$46,900	\$427,989	\$40,504	\$50,353	\$497,049	\$45,265	\$395,294
2036	\$404,320	\$46,900	\$70,569	\$40,453	\$50,353	\$143,082	\$45,265	\$36,240
2037	\$31,850	\$46,900	\$85,619	\$38,498	\$50,353	\$161,585	\$45,265	\$49,655
2038	\$94,920	\$46,900	\$37,599	\$38,443	\$50,353	\$117,018	\$45,265	<b>\$0</b>
2039	\$0	\$46,900	\$84,499	\$38,232	\$50,353	\$167,371	\$45,265	\$45,265
2040	\$13,908	\$46,900	\$117,492	\$38,238	\$50,353	\$203,817	\$45,265	\$76,623
2041	\$0	\$46,900	\$164,392	\$38,223	\$50,353	\$254,169	\$45,265	\$121,888
2042	\$0	\$46,900	\$211,292	\$38,223	\$50,353	\$304,522	\$45,265	\$167,153
2043	\$0	\$46,900	\$258,192	\$38,225	\$50,353	\$354,875	\$45,265	\$212,419
2044	\$0	\$46,900	\$305,092	\$38,227	\$50,353	\$405,228	\$45,265	\$257,684
2045	\$56,820	\$46,900	\$295,172	\$38,237	\$50,353	\$398,762	\$45,265	\$246,129
<b>TOTAL</b>		<b>\$1,407,000</b>		<b>\$1,510,590</b>	<b>\$1,510,590</b>		<b>\$1,357,957</b>	

## Thirty Year Projection Graph



## Expenditures Graph By Year



## Expenditures List By Year

<b>2016:</b>		<b>2031:</b>	
<b>2017:</b>		<b>2032:</b>	
<b>2018:</b>	Asphalt Pavement, Overlay	<b>2033:</b>	
<b>2019:</b>		<b>2034:</b>	
<b>2020:</b>	Asphalt Pavement, Sealcoat	<b>2035:</b>	Asphalt Pavement, Sealcoat, Roof Replacement- Building 9
<b>2021:</b>		<b>2036:</b>	Roof Replacement- Building 1, Roof Replacement- Building 3, Roof Replacement- Building 4, Roof Replacement- Building 5, Roof Replacement- Building 6, Roof Replacement- Building 7, Roof Replacement- Building 8, Vinyl Siding
<b>2022:</b>		<b>2037:</b>	Roof Replacement- Building 2
<b>2023:</b>		<b>2038:</b>	Asphalt Pavement, Overlay
<b>2024:</b>		<b>2039:</b>	
<b>2025:</b>	Asphalt Pavement, Sealcoat, Shutters, Light Fixtures- Floodlights	<b>2040:</b>	Asphalt Pavement, Sealcoat
<b>2026:</b>		<b>2041:</b>	
<b>2027:</b>	Gutters and Downspouts, Masonry Wall Repointing (50%)	<b>2042:</b>	
<b>2028:</b>		<b>2043:</b>	
<b>2029:</b>		<b>2044:</b>	
<b>2030:</b>	Asphalt Pavement, Sealcoat, Concrete Curbs, Concrete Sidewalks	<b>2045:</b>	Asphalt Pavement, Sealcoat, Shutters, Light Fixtures- Floodlights

## Disclosures

In accordance with the *National Reserve Study Standards* of the Community Associations Institute, the following disclosures are provided regarding the preparation of this Reserve Study.

**General.** Kipcon Incorporated is not aware of any involvement with the Beacon Hill Townhome Condominium Association which could result in any actual or perceived conflicts of interest which would influence the preparation of this study.

**Physical Analysis.** The on-site observations which were performed in the preparation of this study were cursory in nature and only included the accessible common and limited common elements. In addition, no field measurements were taken to confirm or provide quantities unless specifically outlined within this report.

**Financial Analysis.** Unless specifically noted within this report, Kipcon Incorporated has not utilized any assumptions in regard to interest, inflation, taxes, or any other outside economic factors.

**Personnel Credentials.** This study has been prepared under the direction of Mitchell H. Frumkin, P.E., R.S., C.G.P. Comprehensive curriculum vitae can be provided on request.

**Completeness.** Kipcon Incorporated is not aware of any material issues, which if not disclosed, would cause a distortion of the Association's situation.

**Reliance on Client Data.** Information provided by the official representative of the Association regarding financial, physical, quantity, or historical issues will be deemed reliable by Kipcon Incorporated.

**Scope.** This Reserve Study will be a reflection of information provided to Kipcon Incorporated and assembled for the Association's use, not for the purpose of performing an audit, quality/forensic analyses, or background checks of historical records.

**Reserve Balance.** The actual or projected total presented in this Reserve Study is based upon the information provided and was not audited.

**Reserve Projects.** Information provided to Kipcon Incorporated about the reserve project will be considered reliable. Any on-site inspection should not be considered a project audit or quality inspection.

**Reserve Study Updates.** The items which are included in the Component Inventory are based on information provided in the report being updated, and are reliant on the validity of the previously developed Reserve Study. The quantities have not been confirmed by Kipcon Incorporated unless specifically noted. The quantities in the previously developed Reserve Study have been considered to be deemed accurate by the Association. No components have been added to or removed from the most recent Component Inventory unless specifically indicated in the Notes section of this report.

## Glossary of Abbreviations

### **Abbreviation Definition**

Avg.	Average
B.F.	Board Feet
Bit/Bitum.	Bituminous
Bldg.	Building
Brk.	Brick
Calc.	Calculated
C.C.F.	Hundred Cubic Feet
C.F.	Cubic Feet
C.L.F.	Hundred Lineal Feet
Col.	Column
Conc.	Concrete
Cont.	Continuous, Continued
C.S.F.	Hundred Square Feet
Cu. Ft.	Cubic Feet
C.Y.	Cubic Yard
DHW	Domestic Hot Water
Diam.	Diameter
Ea.	Each
Est.	Estimated
Ext.	Exterior
Fig.	Figure
Fin.	Finished
Fixt.	Fixture
Flr.	Floor
FRP	Fiberglass Reinforced Plastic
Ft.	Foot, Feet
Galv.	Galvanized
Ht.	Height
Htrs.	Heaters
HVAC	Heating, Ventilation and AC
HW	Hot Water
In.	Inch
Int.	Interior
Inst.	Installation
Insul.	Insulation
lb.	Pound
L.F.	Lineal Feet

### **Abbreviation Definition**

Lg.	Long, Length
L.S.	Lump Sum
Maint.	Maintenance
Mat., Mat'l.	Material
Max.	Maximum
MBF	Thousand Board Feet
M.C.F.	Thousand Cubic Feet
Min.	Minimum
Misc.	Miscellaneous
M.L.F.	Thousand Lineal Feet
M.S.F	Thousand Square Feet
M.S.Y.	Thousand Square Yards
NA	Not Available/Applicable
No.	Number
O.C.	On Center
P.E.	Professional Engineer
Ply.	Plywood
Pr.	Pair
PVC	Polyvinyl Chloride
Pvmt.	Pavement
Quan., Qty.	Quantity
R.C.P.	Reinforced Concrete Pipe
Reinf.	Reinforced
Req'd	Required
Sch., Sched.	Schedule
S.F.	Square Feet
Sq.	Square
Std.	Standard
S.Y.	Square Yards
Sys.	System
T & G	Tongue and Groove
Th., Thk.	Thick
Tot.	Total
Unfin.	Unfinished
V.C.T.	Vinyl Composition Tile
Vent.	Ventilator
Yd.	Yard



## Bibliography

- 1) *Reserve Funds: How and Why Community Associations Invest Assets*  
Edited by Mitchell H. Frumkin, P.E., M.B.A., R.S. and Nico F. March, C.F.M.  
Community Associations Institute  
Second Edition 2009
- 2) *National Reserve Study Standards*  
by the Community Associations Institute  
Dated 2008
- 3) *Common Interest Realty Association Audit and Accounting Guide*  
by the American Institute of Certified Public Accountants  
Dated 2006
- 4) *Life Cycle Cost Analysis*  
by the American Institute of Architects  
Dated 1977
- 5) *Means Open Shop Building Construction Cost Data*  
by R.S. Means Company, Inc.  
Dated 2015
- 6) *Means Site Work and Landscaping Cost Data*  
by R.S. Means Company, Inc.  
Dated 2015
- 7) *Means Mechanical Cost Data*  
by R. S. Means Company, Inc.  
Dated 2015
- 8) *Means Electrical Cost Data*  
by R. S. Means Company, Inc.  
Dated 2015
- 9) Previous Preparer: Reserve Advisors  
Dated June 23, 2011