

RESERVE FUND STUDY UPDATE WITHOUT SITE VISIT
OTTAWA CARLETON CONDOMINIUM CORPORATION No. 735,
OTTAWA, ONTARIO



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STUDY SUMMARY

Based on our review of the previous Reserve Fund Study Update with Site Visit was produced by Keller Engineering and dated August 26, 2014, a fiscal analysis and best current estimate, it is recommended that annual reserve fund contributions of Ottawa Carleton Standard Condominium Corporation No. 735 be increased to **\$345,743** in fiscal year **2017/18**. Increases in the annual contributions in fiscal year **2018/19** and all years thereafter are budgeted at **2.0% per year**, which is our assumed yearly construction cost increase. This funding plan, in our opinion, will provide adequate funds to carry out necessary repair work and will provide a surplus which will be required in later years to pay for major capital expenditures anticipated beyond the time period examined in this Reserve Fund Study.


The following revisions have been made to the Comprehensive Reserve Fund Study with Site Visit, based on information provided by the Board Directors:


- Parking garage drive lane traffic bearing membrane repair allowance postponed 3 years to fiscal year 2017/18
- Isolated glazing unit replacement budget of \$4,640 added in fiscal year 2016/17
- Interior door replacement budget of \$3,262 added in fiscal year 2016/17
- Emergency generator exhaust code compliance upgrade allowance postponed 3 years to fiscal year 2017/18
- Door entry system replacement rescheduled for fiscal year 2035/36, and budget lowered to \$15,000
- CCTC camera replacement postponed 2 years to fiscal year 2017/18
- Domestic hot water heater repair budget of \$5,537 added in fiscal year 2016/17
- Domestic hot water storage tank replacement rescheduled for fiscal year 2025/26 and every 10 years thereafter, and budget increased to \$17,000
- Elevator code compliant car top guardrail installation postponed 3 years to fiscal year 2017/18.
- Elevator code compliant equipment guarding installation postponed 3 years to fiscal year 2017/18.
- Elevator pit water damaged equipment repair postponed 3 years to fiscal year 2017/18.
- Elevator full load testing postponed 3 years to fiscal year 2017/18 and every 5 years thereafter.

Future Work

The following items are not expected to require repair or replacement within the 30-year scope of this study; however, it is likely that work will be required in the future. Budgeting for these items will commence as they approach the 30-year scope of the Reserve Fund Study:

- Interior door replacement


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1.0 INTRODUCTION

1.1 Scope

The Board of Directors of Ottawa-Carleton Standard Condominium Corporation No. 735 (OCSCC No. 735) commissioned Keller Engineering to prepare the following Reserve Fund Study Update. The work included the review of the current Reserve Fund Study Update with Site Visit and make adjustments based on input from the Board of Directors and/or the Property Management on the work carried out and the performance of the common elements over the past few years.

In accordance with 'The Condominium Act, 1998', the purpose of this study is to determine whether the amount of money in the reserve fund and the amount of contributions collected by the Corporation are adequate to provide for the expected costs of major repairs and replacement of the common elements and assets of the Corporation. The Reserve Fund Study contains findings about the current conditions of the common elements and it tabulates major capital expenditure predictions over the next 30 years.

This Reserve Fund Study satisfies the requirements of a Reserve Fund Study Update without Site Visit as outlined in Part IV of the Ontario Regulation 48/01, s. 28.

1.2 Description of Property

Ottawa-Carleton Standard Condominium Corporation No. 735 is an 11-year old, 22-storey highrise containing 199 residential units and 2 retail units. The property, also known as East Market III is located at 179 George Street, in Ottawa, Ontario

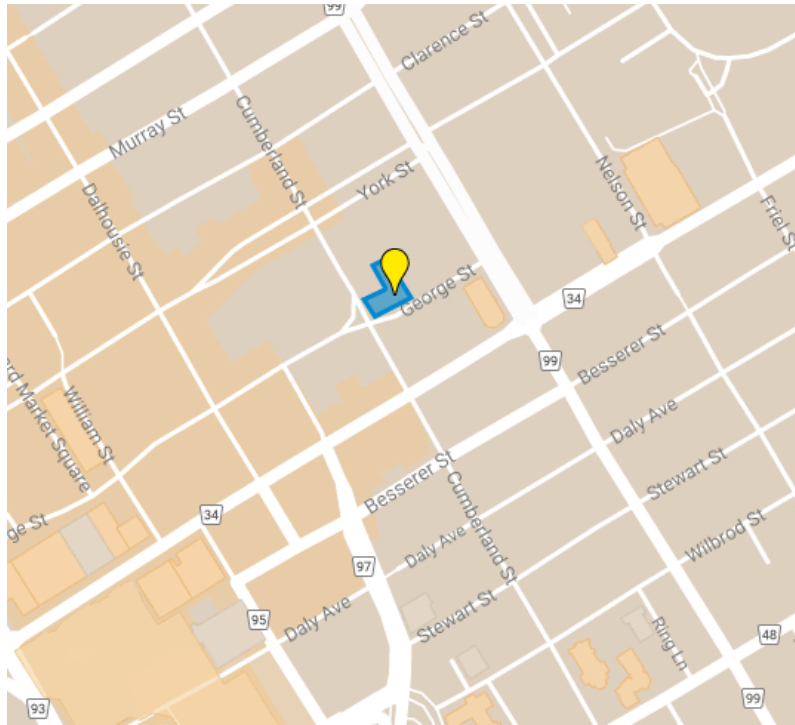


Fig.1: Location of OCSCC No. 735

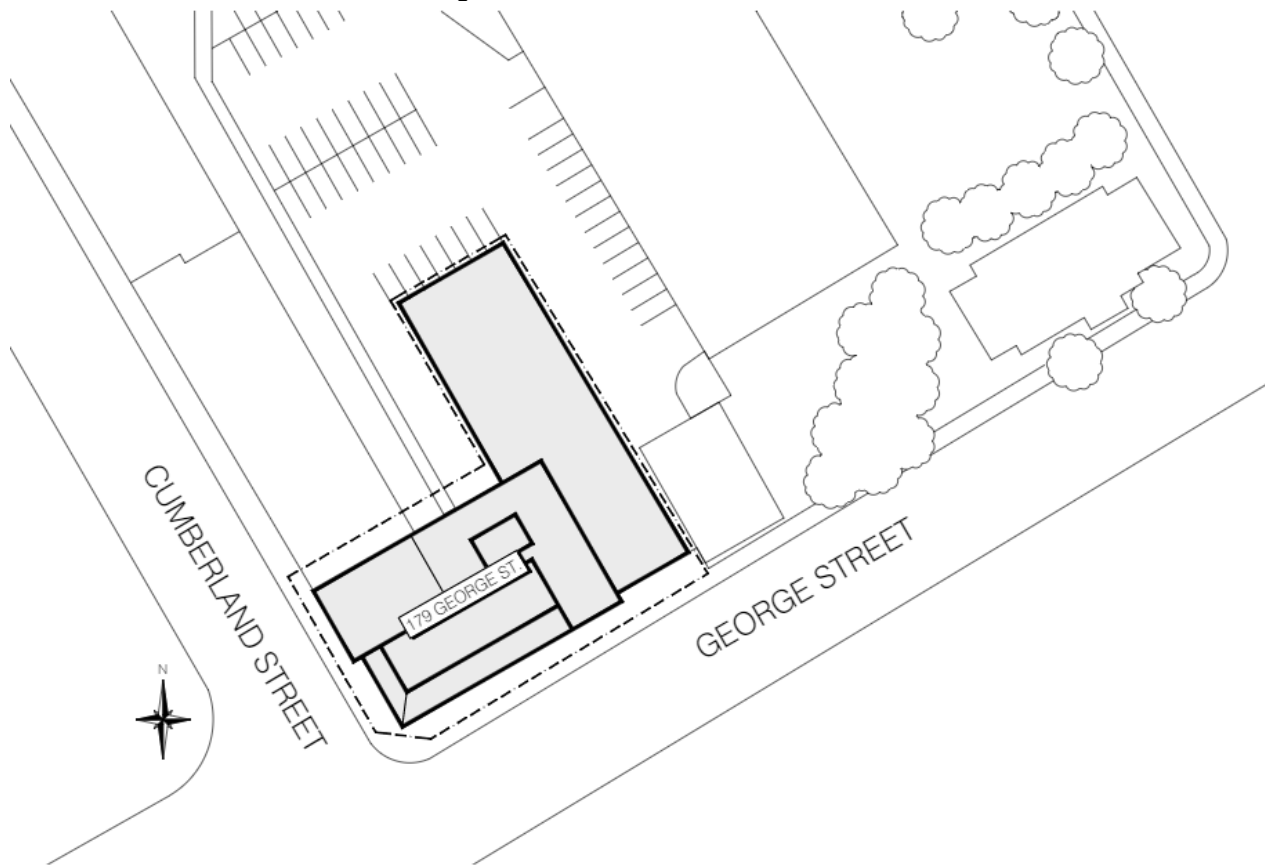


Fig. 2: Key Plan

1.3 References

Reference Materials were provided by Ms. Kayla McKale, of Capital Concierge Property Management, Property Manager for OCSCC No735.

The following documents were available for review for the purpose of completing this study:

- Previous Reserve Fund Studies
 - Reserve Fund Study Update with Site Visit; dated August 26, 2014; Keller Engineering
- Auditor's Statements
 - Fiscal Year 2015/16; dated November 7, 2016
- Operating Budget
 - Fiscal year 2016/17
- Shared Facilities Annual Budget
 - Fiscal year 2016/17
- Shared Facilities Agreement; dated June 7, 2004

The following documents were requested for; however, were not made available for this study:

- Auditor's Statements
 - Fiscal Year 2014/15
 - Fiscal Year 2013/14
-

2.0 GENERAL INFORMATION

2.1 Determination of Repair/Replacement Costs

The costs and scheduling for the major repair/replacement work involving the common elements to the Corporation have been taken directly from the Reserve Fund Study Update with Site Visit, unless revisions have been requested or are required as part of this update due to poor performance, increased cost, or unanticipated work.

COST INCREASES

Keller Engineering has reviewed each of the capital expenditures for the repair and replacement of the common building components, and have made adjustments in one of the following manners:

- i) The capital expenditures have been increased by inflation to approximate the cost of the work in current dollars. The inflation rates for the past three years have been taken directly from the data posted by Statistics Canada for construction projects in the Ottawa-Gatineau area.
- ii) The capital expenditures have been increased to reflect a market increase factor. Based on our experience over the past few years, the cost of some construction specialties has increased dramatically above the average inflation rate due to unique increases in the cost of materials and labour.

FORECASTING COSTS

Capital expenditures for repair and replacement of building components have been forecasted in current dollars and the most probable fiscal years when these expenditures will be required have been set out in this report. Adjustments for construction cost increases as well as earned interest are automatically made to the spreadsheet and, since the annual fees are to be revised in the current year, the recommended contributions are also determined in current dollars. Beyond the current year, it is the Board's responsibility to ensure that the reserve fund contributions are in line with those outlined in the spreadsheet.

When an expense will be incurred depends on a number of factors, such as:

- i) The urgency of repair or replacement: Some building components, such as water supply, sanitary sewers or electricity distribution mains, must operate flawlessly at all times. Interruptions in their working condition cannot be tolerated and repair costs for these items cannot be deferred.
- ii) The perceived importance of a repair or replacement: For example, caulking, paving or painting need not be addressed when the first blemishes appear. The Board of Directors has considerable freedom to delay or advance the time when funds will be spent on these non-essential types of repairs to suit the demand from owners and the financial constraints of the Corporation's budget.

In most cases, expenses for each common element have been budgeted for the specific fiscal year in which the repair or replacement will likely be required. If possible, repair or replacement of the common elements will usually be performed throughout the corporation during one year rather than spreading the repairs out over a few years as this is generally the most cost effective solution. For cases where repair or replacement of a building component is not required throughout the corporation at the same time, it may be more cost effective to phase the work over two or more years. Phasing the work may also be necessary due to a lack of reserve funds. A prudent manager would be expected to determine whether phasing the work is cost effective and have the work performed accordingly. Some of the expenses outlined in this Reserve Fund Study will occur early in the predicted time period, other expenses will be incurred later however the accumulated reserve fund should be sufficient to pay for all of these expenses as they come due.

It is within the Board's mandate to advance or defer non-essential repair contracts based on sound technical advice at the time of the scheduled repair.

ENGINEERING FEES

To ensure that major repair and replacement work at the condominium corporation is properly specified and performed, it is strongly recommended, that an experienced engineer be hired to provide professional assistance. Engaging the services of a professional engineer would ensure that the work is properly specified, tendered, and executed. Engineering fees related to the common element repairs will be paid out of the reserve fund. Accordingly, a suitable allowance for engineering fees has been included in the spreadsheet where it is likely that the Board will require professional assistance in implementing the work. Depending on the extent and complexity of the work, engineering fees can range between 5% and 15% of the value of the construction project.

2.2 Financial Plan

SPREADSHEET

The main purpose of the spreadsheet is to determine the annual reserve fund contributions required to ensure that there will be sufficient funds to pay for all foreseeable expenditures over the 30-year plan. To determine the total expenditures to be incurred in each fiscal year, the projected expenditures are entered into the spreadsheet, summed and adjusted for yearly construction cost increases.

INFLATION RATES

Over the past few years, the rate at which construction costs increase has varied significantly between - 0.7% and 4.4%. An annual inflation rate of **2.0%** has been used in this report. This rate is based on annually published data by Statistics Canada relating to the construction price index for apartment buildings in the local region.

While the increase in construction costs will fluctuate from year to year, an annual rate of **2.0%** will likely provide a reasonable representation of how prices will increase over the next few years.

INTEREST RATES

For this Reserve Fund Study, a **2.0%** interest rate was assumed in calculating the annual contributions from interest earned on the reserve fund balance.

While actual inflation and interest rates may differ from those assumed for this report, the above rates, in combination, should be representative over the next few years.

DETERMINING CONTRIBUTION AMOUNTS

Trial values for the annual reserve fund contributions are entered into the spreadsheet and through an iterative process the most appropriate annual contributions are determined and used to establish the 30-year funding plan. The iterations account for annual expenditures, annual contributions from owners' monthly fees as well as contributions from investment interest earned on the unused balance of the reserve fund. As noted previously, these figures are adjusted to account for yearly construction cost increases prior to determining the recommended funding plan and the annual contributions are shown in the actual dollar values for each respective year.

The most appropriate contribution ensures that sufficient funds are accumulated in the reserve fund to cover all anticipated expenditures as they come due while leaving a surplus at the end of the study period. The size of the surplus depends greatly on the individual condominium and on the expenses that are to be incurred beyond the study period. Condominiums which are expected to incur large expenditures shortly beyond the study period should have a large surplus.

At the end of the spreadsheet, the remaining reserve fund is shown in current dollars to provide a better perspective of the fund balance at the end of the study period.

Reserve funds for condominiums declared after May 5, 2001 must be adequately funded by the end of the fiscal year following each reserve fund study. The most accepted interpretation of adequate funding is that annual contributions remain constant increasing only by inflation and that no special assessments are necessary.

In accordance with the Condominium Act and the associated Regulations, Reserve Fund Study Updates must be conducted every 3 years. These updates will allow for adjustments to interest rates, construction cost increases, and/or the funding plan, due to any unforeseen costs incurred over the 3-year period. Prices for future reserve fund studies are for budgeting purposes only and do not constitute a fee proposal for future services.

3.0 ASSUMPTIONS AND LIMITATIONS

The accuracy of the discussions, conclusions and cost information contained in this study is limited to the extent of information available at this time. No on-site or visual assessment of the condition or technical audit of the common elements of the Corporation was carried out as part of this Reserve Fund Study, unless otherwise specified. Meetings by Keller Engineering with the Board of Directors held on site at the Corporation building(s) do not constitute a site or visual inspection of the common elements.

Life expectancy projections for the common elements assume that the corporation will provide satisfactory and timely periodic maintenance. The study does not make allowances for the effects of rare events such as flood, fire, lightning, explosions, earthquakes etc.

Future cost projections for the repair or replacement of common element items is based on a set inflation rate taken as an average of past years' construction price index, which is provided by Statistics Canada. As market value increases may vary annually, it is difficult to determine the percentage increase on an item by item basis. Therefore, the most accurate projection is provided by reviewing the previous year's average of the entire construction industry and extrapolated over the life span of the study.

It is assumed that the expected performance standards and appearance correspond to the current norm. Furthermore, housing industry averages and manufacturers' published data on component life expectancy apply to this condominium corporation.

All revisions that have been made to the previous Reserve Fund Study were at the request of the Corporation or its counsel, and were solely based on work carried out to date and the advice from industry professionals.

4.0 APPENDICES

4.1 Spreadsheet for Major Repair and Replacement

As described in Section 2: General Information, the purpose of the spreadsheet is to determine the annual reserve fund contributions required to ensure that there will be sufficient funds to pay for all foreseeable expenditures over the next thirty years.

4.2 Notice of Future Funding (Formerly Form 15)

The Notice of Future Funding of the Reserve Fund is included in Appendix B. This notice contains a summary of the Reserve Fund Study as well as the proposed plan for future funding. Copies of this notice are to be sent to each of the unit owners to give notice and make them aware of the proposed plan.

Within 120 days of receiving the study, it is the responsibility of the Board of Directors in consort with the Corporation's property management and financial advisors, to review the Reserve Fund Study and propose a plan for future funding of the reserve fund which the Board determines will ensure that the fund will be adequate for the purpose for which it was established.

5.0 TECHNICAL AUDIT AND COSTING

The following sections include a brief technical discussion of the major building components common to the condominium corporation, approximate quantities involved, life expectancy, repair and replacement costs as well as the fiscal years in which work is anticipated.

5.1 Architectural/Structural/Civil

5.1.1 Site Services

UNDERGROUND SERVICES

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .A Cleaning of the sewers is estimated to cost **\$2,600** and this work has been budgeted in fiscal year **2019/20 and every 5 years** thereafter.
- .B Camera inspection of the sewers is estimated to cost **\$2,600** and this work has been budgeted in fiscal year **2019/20 and every 10 years** thereafter.
- .C Although costs are not included in this study, as they do not constitute a major repair or replacement, we recommend that camera inspections and sewer cleaning be performed ever 5 and 10 years respectively, using funds from the operating budget.

■ Sewer Cleaning & Inspection

. Quantity	Allowance
. Cost (Cleaning)	\$2,600
. Year(s)	2019/20, 2024/25 2029/30, 2034/35 2039/40, 2044/45
. Cost (Inspection)	\$2,600
. Year(s)	2019/20, 2029/30 2039/40

5.1.2 Parking Garage

PODIUM SLAB COVERED WITH LANDSCAPING

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .A Replacement of the podium waterproofing including all landscaping is estimated to cost **\$438,700** and this work has been budgeted in fiscal year **2036/37**.
- .B Although costs are not included in this study, as it does not constitute a major repair or replacement, we recommend that a comprehensive investigation of the waterproofing under the landscaping be performed in the next 15-20 years, using funds from the operating budget.

■ Podium Landscaping & Waterproofing Replacement

. Qty	1,150m ²
. Cost	\$438,700
. Year(s)	2036/37

INTERMEDIATE SLABS

According to the information provided, the drive lane membrane repair allowance, originally scheduled for fiscal year 2014/15, was not used. This allowance has been rescheduled for fiscal year 2017/18. The allowance for this work has been increased by inflation to \$15,300.

No other changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

■ Traffic Bearing Membrane Waterproofing - Drive Lanes

. Qty	2,275m ²
. Cost (Repair)	\$15,300
. Year(s)	2017/18
. Cost (Replace)	\$320,000
. Year(s)	2021/22, 2041/42

We recommend the following work be anticipated and funded:

- .C Replacement of the traffic bearing membrane at the drive lanes estimated to cost **\$320,000** and this work has been budgeted in fiscal year **2021/22 and every 20 years** thereafter
- .D Replacement of the traffic bearing membrane at the parking stalls is estimated to cost **\$366,500** and this work has been budgeted in fiscal year **2029/30**.
- .E Minor repairs of the traffic bearing membrane should be performed, as required, using funds from the operating budget.

■ Traffic Bearing Membrane Waterproofing – Parking Stalls	
. Qty	2,850m ²
. Cost	\$366,500
. Year(s)	2029/30

5.1.3 Pavers

TERRACE PAVERS

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .A Costs for replacement of the podium pavers have been included with the replacement of the podium membrane in Section 5.1.2.
- .B Costs for replacement of the roof pavers have been included with the replacement of the roofing system in Section 5.1.12.
- .C Minor resetting and replacement of the pavers should be performed as required using funds from the operating budget

5.1.4 Exterior Concrete

CONCRETE PLANTER

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .A To ensure funds are available when minor repairs of the precast concrete planters are required, an allowance of **\$5,200** has been budgeted in fiscal year **2026/27**.
- .B Minor repairs of the concrete planters should be performed as required using funds from the operating budget.

■ Concrete Planter Repair Allowance	
. Qty	Allowance
. Cost	\$5,200
. Year(s)	2026/27

CONCRETE ROOF ELEMENTS

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .C To ensure funds are available when repairs to the concrete roof elements are required, an allowance of **\$5,200** and has been budgeted in fiscal year **2018/19 and every 5 years thereafter**.

■ Concrete Roof Elements Repair Allowance	
. Qty	Allowance
. Cost	\$5,200
. Year(s)	2018/19, 2023/24 2028/29, 2033/34 2038/39, 2043/44

HEATED CONCRETE RAMP

No other changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .D Total replacement of the heated concrete ramp is estimated to cost **\$51,600**. In accordance with the original declaration, OCSCC 735 will be responsible for 50% of that cost. Replacement of the condominium portion of the ramp is estimated to cost **\$25,800**, and this work has been budgeted [in fiscal year **2025/26**.
- .E Minor concrete repairs of the concrete ramp should be performed, as required, using funds from the operating budget.
- .F Costs for the replacement of the ramp electrical heating system have been included in Section 6.2.5 – Electrical Heating Systems.

Heated Concrete Ramp	
. Qty	90m ²
. Cost	\$25,800
. Year(s)	2025/26

5.1.5 Foundation Walls**CONCRETE FOUNDATION WALLS**

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .A Minor concrete repairs of the foundation walls should be performed as required using funds from the operating budget.

5.1.6 Balconies**BALCONY STRUCTURE**

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .A Repairs of the balcony slabs are estimated to cost **\$402,600** and this work has been budgeted in fiscal year **2040/41**.
- .B Although costs are not included in this study, as it does not constitute a major repair or replacement, we recommend that a comprehensive investigation of the balcony slabs be performed in the next 20-25 years, using funds from the operating budget.

Balcony Structure Repair	
. Qty	Allowance
. Cost	\$402,600
. Year(s)	2040/41

BALCONY RAILINGS

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

Balcony Railings	
. Cost	\$165,200
. Year(s)	2045/46

We recommend the following work be anticipated and funded:

- .C Replacement of the balcony railings is estimated to cost **\$165,200** and this work has been budgeted in fiscal year **2045/46**.

5.1.7 Masonry

MASONRY VENEER

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .A In order to ensure funds are available to perform isolated repairs when required, an allowance of **\$41,300** has been made in fiscal year **2017/18 and every 12 years** thereafter.
- .B Minor repairs of the masonry should be performed, as required, using funds from the operating budget.
- .C Although costs are not included in this study, as it does not constitute a major repair or replacement, we recommend that a comprehensive survey of the masonry veneer be performed in the next 20-25 years, using funds from the operating budget.

CONCRETE BLOCK MASONRY

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .D Minor repairs of the concrete block masonry should be performed, as required, using funds from the operating budget.

Masonry Veneer Repairs

. Qty	Allowance
. Cost	\$41,300
. Year(s)	2017/18, 2029/30 2041/42

5.1.8 Exterior Coatings

EXTERIOR PAINTING

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .A Exterior painting is estimated to cost **\$2,100** and this work has been budgeted in fiscal year **2020/21** and **every 6 years** thereafter
- .B Minor repainting and staining should be performed, as required, using funds from the operating budget

Exterior Painting

. Qty	Allowance
. Cost	\$2,100
. Year(s)	2020/21, 2026/27 2032/33, 2038/39, 2044/45

5.1.9 Caulking

CAULKING

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .A Replacement of the caulking is estimated to cost **\$103,200** and this work has been budgeted in fiscal year **2017/18 and every 12 years** thereafter
- .B Minor repairs of the caulking should be performed, as required, using funds from the operating budget.

Caulking	
. Qty	Allowance
. Cost	\$103,200
. Year(s)	2017/18, 2029/30 2041/42

5.1.10 Windows & Balcony Doors

WINDOWS

According to the information provided, a sum of \$4,640 was spent in fiscal year 2016/17 to replace isolated glazing units. This expenditure has been budgeted in the spreadsheet accordingly.

No other changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .A Replacement of the windows is estimated to cost **\$6,142,600** and this work has been budgeted over a 4-year period starting in fiscal year **2045/46**.
- .B Minor repairs including replacement of hardware, screens, weatherstripping and isolated thermopanes should be performed, as required, using funds from the operating budget.

Isolated Window Glazing Replacement	
. Cost	\$4,640
. Year(s)	2016/17

Window Replacement	
. Cost	\$6,142,600
. Year(s)	2045/46 – 2048/49

BALCONY DOORS

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .C Replacement of the balcony doors is estimated to cost **\$825,800** and this work has been budgeted over a 4-year period starting in fiscal year **2045/46**.
- .D Minor repairs including replacement of hardware, screens, weatherstripping and isolated thermopanes should be performed, as required, using funds from the operating budget.

Balcony Door Replacement	
. Cost	\$825,800
. Year(s)	2045/46 – 2048/49

5.1.11 Doors

EXTERIOR ENTRANCE DOORS

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .A Replacement of the exterior entrance is estimated to cost **\$10,300** and this work has been budgeted in fiscal year **2035/36**.
- .B Minor repairs of the exterior entrance doors should be performed, as required, using funds from the operating budget.

Exterior Entrance Door Replacement	
. Qty.	Allowance
. Cost	\$10,300
. Year(s)	2035/36

INTERIOR DOORS

According to the information provided, a sum of \$3,262 was spent in fiscal year 2016/17 to replace the balcony doors at 2 units. This expenditure has been budgeted in the spreadsheet accordingly.

No other changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .E Replacement of the interior doors is estimated to cost **\$566,800** and this work has been budgeted **beyond the 30-year planning period** of this study.
- .F Minor repairs of the interior doors should be performed, as required, using funds from the operating budget.

Isolated Interior Door Replacement	
. Cost	\$3,262
. Year(s)	2016/17

Interior Door Replacement	
. Cost	\$566,800
. Year(s)	beyond 2045/46

GARAGE DOORS

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .G Replacement of the interior fire rated garage doors is estimated to cost **\$20,600** and this work has been budgeted in fiscal year **2020/21 and every 15 years** thereafter.
- .H Replacement of the exterior garage doors is estimated to cost **\$5,700** and this work has been budgeted in fiscal year **2021/22 and every 15 years** thereafter.
- .I Minor repairs of the garage doors should be performed, as required, using funds from the operating budget.

Interior Garage Door Replacement	
. Qty.	2
. Cost	\$20,600
. Year(s)	2020/21, 2035/36

Exterior Garage Door Replacement	
. Qty.	1
. Cost	\$5,700
. Year(s)	2021/22, 2036/37

5.1.12 Roofing Systems

INVERTED ROOFING SYSTEM

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

Inverted Roofing System Replacement	
. Qty	650m ²
. Cost	\$154,800
. Year(s)	2025/26

We recommend the following work be anticipated and funded:

- .A Replacement of the inverted roofing membrane system is estimated to cost **\$154,800** and this work has been budgeted in fiscal year **2025/26**.
- .B Minor repairs of the inverted roofing membrane system should be performed, as required, using funds from the operating budget.

5.1.13 Common Corridors

PAINTED WALLS

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .A Repainting of the corridor walls is estimated to cost **\$67,100** and this work has been budgeted in fiscal year **2019/20 and every 10 years thereafter**.
- .B Minor patch repairs should be performed, as required, using funds from the operating budget.

CARPET

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .C Replacement of the corridor carpet is estimated to cost **\$,000** and this work has been budgeted in fiscal year **### and every ### years thereafter**.
- .D Minor repairs of the should be performed, as required, using funds from the operating budget.

5.1.14 Common Rooms

LOBBY

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .A Refinishing of the lobby is estimated to cost **\$3,100** and this work has been budgeted in fiscal year **2030/31**.
- .B Minor repairs to the finishes should be performed, as required, using funds from the operating budget.

Corridor Paint

. Cost	\$67,100
. Year(s)	2019/20, 2029/30 2039/40

Corridor Carpet

. Qty	720m ²
. Cost	\$87,700
. Year(s)	2022/23, 2037/38

Lobby Refinishing Allowance

. Qty	Allowance
. Cost	\$3,100
. Year(s)	2030/31

STAIRWELLS

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .C Repainting of the stairwells is estimated to cost **\$10,300** and this work has been budgeted in fiscal year **2019/20 and every 10 years thereafter**.
- .D Minor repairs to the finishes should be performed, as required, using funds from the operating budget.

Stairwell Paint	
. Qty	Allowance
. Cost	\$10,300
. Year(s)	2019/20, 2029/30 2039/40

COMMON ROOMS

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .E Refinishing of the common rooms is estimated to cost **\$11,400** and this work has been budgeted in fiscal year **2019/20 and every 10 years thereafter**.
- .F Minor repairs to the furniture or finishes should be performed, as required, using funds from the operating budget.

Common Room Refinishing Allowance	
. Qty	Allowance
. Cost	\$11,400
. Year(s)	2019/20, 2029/30 2039/40

5.1.15 Reflective Pool**REFLECTIVE POOL**

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .A Replacement of the pool liner and repairs to the concrete structure is estimated to cost **\$15,500** and this work has been budgeted in fiscal year **2024/25 and every 15 years thereafter**.

Reflective Pool Lining & Concrete Repair	
. Qty	Allowance
. Cost	\$15,500
. Year(s)	2024/25, 2039/40

5.1.16 Gazebo**GAZEBO**

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .A Gazebo repainting and isolated wood panel replacement is estimated to cost **\$2,100** and this work has been budgeted in fiscal year **2030/31**.
- .B Minor repairs to the gazebo should be performed, as required, using funds from the operating budget.

Gazebo Repairs	
. Qty	Allowance
. Cost	\$2,100
. Year(s)	2030/31

5.2 Electrical

5.2.1 Electrical Distribution

MAIN HYDRO EQUIPMENT

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .A Total replacement of the main hydro equipment is estimated to cost **\$263,600**. In accordance with the original declaration, OCSCC 735 will be responsible for 47% of that cost. Replacement of the condominium portion of this equipment is estimated to cost **\$123,900**, and this work has been budgeted in fiscal year **2045/46**.
- .B Vault maintenance and testing is estimated to cost **\$3,100**, and this work has been budgeted in fiscal year **2021/22 and every 5 years thereafter**.

MAIN DISCONNECT SWITCHGEAR

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .C Replacement of the main disconnect switchgear is estimated to cost **\$113,600** and this work has been budgeted [in fiscal year **2045/46**.
- .D Electrical maintenance is estimated to cost **\$3,600**, and this work has been budgeted in fiscal year **2021/22 and every 5 years thereafter**.
- .E Infrared thermography is estimated to cost **\$3,100**, and this work has been budgeted in fiscal year **2021/22 and every 5 years thereafter**.

DISTRIBUTION BREAKER PANELS

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .F Replacement of the common area breaker panels is estimated to cost **\$61,900** and this work has been budgeted in fiscal year **2045/46**.

Hydro Vault Equipment Replacement	
. Cost	\$123,900
. Year(s)	2045/46

Vault Maintenance	
. Cost	\$3,100
. Year(s)	2021/22, 2026/27 2031/32, 2036/37 2041/42

Main Disconnect Switchgear	
. Cost	\$113,600
. Year(s)	2045/46

Electrical Maintenance	
. Cost	\$3,600
. Year(s)	2021/22, 2026/27 2031/32, 2036/37 2041/42

Infrared Thermography	
. Cost	\$3,100
. Year(s)	2021/22, 2026/27 2031/32, 2036/37 2041/42

Common Area Breaker Panels	
. Cost	\$61,900
. Year(s)	2045/46

Suite Distribution Breaker Panels	
. Cost	\$103,200
. Year(s)	2045/46

- .G Replacement of the suite distribution breaker panels is estimated to cost **\$103,200** and this work has been budgeted in fiscal year **2045/46**.

DRY CORE TRANSFORMERS

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .H Replacement or overhaul of the dry core transformers is estimated to cost **\$175,500** and this work has been budgeted in fiscal year **2040/41**.

Dry Core Transformers	
. Cost	\$175,500
. Year(s)	2040/41

5.2.2 Lighting

INTERIOR LIGHT FIXTURES

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .A Full scale replacement of the light fixtures should not be required during the span of this study, and consequently, no funds have been allocated for fixture replacement. When individual fixtures and light bulbs/tubes require replacement, the costs should be paid for out of the operating budget.

EXTERIOR LIGHT FIXTURES

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .B Replacement of the common light fixtures is estimated to cost **\$2,100** and this work has been budgeted in fiscal year **2020/21 and every 15 years thereafter**.
- .C Isolated replacement or minor repairs of the common light fixtures should be performed, as required, using funds from the operating budget.

Exterior Light Fixtures	
. Cost	\$2,100
. Year(s)	2020/21, 2035/36

5.2.3 Fire Alarm System

FIRE ALARM PANEL

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .A Replacement of the fire alarm panel is estimated to cost **\$10,300** and this work has been budgeted in fiscal year **2040/41**.

Fire Alarm Panel	
. Cost	\$10,300
. Year(s)	2040/41

- .B Although costs are not included in this study, as they do not constitute a major repair or replacement, the ULC 536 test of the fire alarm system is required on an annual basis, using funds from the operating budget.

FIRE ALARM SENSORS

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .C Replacement of the smoke detectors, heat sensors, and pull stations is estimated to cost **\$165,200** and this work has been budgeted in fiscal year **2025/26 and every 20 years thereafter**.

Fire Alarm Sensors	
. Cost	\$165,200
. Year(s)	2025/26, 2045/46

5.2.4 Emergency Power System

EMERGENCY POWER SYSTEM

According to the information provided, the emergency generator exhaust system was not brought up to code as originally scheduled in fiscal year 2014/15. The remedial work has been rescheduled for fiscal year 2017/18 and the budget has increased by inflation to \$61,900.

No other changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .A Replacement of the emergency power generator is estimated to cost **\$82,600** and this work has been budgeted in fiscal year **2035/36**.

Emergency Generator Exhaust System	
. Cost	\$61,900
. Year(s)	2017/18

Emergency Generator & Transfer Switch	
. Cost	\$82,600
. Year(s)	2035/36

5.2.5 Electrical Heating Systems

FORCED FLOW & BASEBOARD ELECTRIC HEATERS

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .A In order to ensure funds are available to perform isolated replacement when required, an allowance of **\$3,100** has been made in fiscal year **2025/26 and every 10 years thereafter**.

Forced Flow Electric Heaters	
. Qty	Allowance
. Cost	\$3,100
. Year(s)	2025/26, 2035/36, 2045/46

GARAGE RAMP SNOW MELT SYSTEM

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .B Replacement of the parking garage ramp electric snow melt system excluding removal and reinstatement of concrete slab is

Garage Ramp Snow Melt System	
. Cost	\$20,600
. Year(s)	2025/26

estimated to cost **\$51,200**. In accordance with the original declaration, OCSCC 735 will be responsible for 50% of that cost. Replacement of the condominium portion of this equipment is estimated to cost **\$20,600**, and this work has been budgeted in fiscal year **2025/26**.

5.2.6 Security Systems

DOOR ENTRY SYSTEM

According to the information provided, the door entry system was replaced in fiscal year 2015/16. Subsequent replacement has been scheduled for fiscal year 2035/36. The budget for this work has been lowered to \$15,000 to reflect actual replacement costs.

Door Entry System	
. Cost	\$15,000
. Year(s)	2035/36

KEY FOB SYSTEM

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

Key Fob System	
. Cost	\$3,100
. Year(s)	2020/21

We recommend the following work be anticipated and funded:

- .A Replacement of the key-fob system is estimated to cost **\$3,100** and this work has been budgeted in fiscal year **2020/21**.

CCTV SYSTEM

According to the information provided, the CCTV cameras were not replaced in fiscal year 2015/16. This work has been rescheduled for fiscal year 2017/18 and every 10 years thereafter. The budget for this work has been increased by inflation to \$7,200.

CCTV Cameras	
. Cost	\$7,200
. Year(s)	2017/18, 2027/28 2037/38

No other changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

CCTV Monitoring Station	
. Cost	\$6,200
. Year(s)	2020/21, 2035/36

We recommend the following work be anticipated and funded:

- .B Replacement of the CCTV monitoring system is estimated to cost **\$6,200** and this work has been budgeted in fiscal year **2020/21** and every **15 years thereafter**.

5.3 Mechanical

5.3.1 Ventilation System

MAKE-UP AIR UNITS

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .A Replacement of the make-up air unit is estimated to cost **\$46,500** and this work has been budgeted in fiscal year **2035/36**.

Make-up Air Unit	
. Cost	\$46,500
. Year(s)	2035/36

Stairwell Pressurization Fans	
. Cost	\$9,300
. Year(s)	2035/36

- .B Replacement of the stairwell pressurization fans are estimated to cost **\$9,300** and this work has been budgeted in fiscal year **2035/36**.
- .C Replacement of the elevator shaft pressurization fan is estimated to cost **\$25,800** and this work has been budgeted in fiscal year **2035/36**.

Elevator Shaft Pressurization Fan	
. Cost	\$25,800
. Year(s)	2035/36

EXHAUST FANS

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .D Due to the varying usage of the exhaust fans, isolated replacement need only be completed as required. For budgeting purposes, an allowance of **\$10,300** has been made in fiscal year **2025/26** and **every 20 years thereafter** to ensure funds are available when the work is required.

Exhaust Fans	
. Cost	\$10,300
. Year(s)	2025/26, 2045/46

GARAGE VENTILATION

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .E Replacement of the garage exhaust fans is estimated to cost **\$6,200** and this work has been budgeted in fiscal year **2035/36**.

Garage Exhaust Fans	
. Cost	\$6,200
. Year(s)	2035/36

GARAGE GAS MONITORING SYSTEM

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .F Replacement of the CO sensors is estimated to cost **\$6,200** and this work has been budgeted [in fiscal year **2020/21** and **every 15 years thereafter**.
- .G Replacement of isolated CO sensors should be performed, as required, using funds from the operating budget.

CO Sensors	
. Cost	\$6,200
. Year(s)	2020/21, 2035/36

5.3.2 Heating & A/C Systems

HEATING BOILERS

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .A Replacement of the heating boilers is estimated to cost **\$185,800** and this work has been budgeted in fiscal year **2030/31**.

Heating Boilers	
. Qty	4
. Cost	\$185,800
. Year(s)	2030/31

CHILLERS

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .B Replacement of the chillers is estimated to cost **\$409,200** and this work has been budgeted in fiscal year **2025/26 and every 20 years thereafter**.

Air Cooled Screw Chillers	
. Qty	2
. Cost	\$409,200
. Year(s)	2025/26, 2045/46

EXPANSION TANKS

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .C Replacement of the expansion tank is estimated to cost **\$2,100** and this work has been budgeted in fiscal year **2025/26** and every **20** years thereafter
- .D Replacement of the expansion tank bladder is estimated to cost **\$1,000** and this work has been budgeted in fiscal year **2020/21 and every 20 years thereafter**.

Expansion Tank	
. Cost	\$2,100
. Year(s)	2025/26, 2045/46

Expansion Tank Bladder	
. Cost	\$1,000
. Year(s)	2020/21, 2040/41

FAN COIL UNITS

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .E Replacement of the common area fan coil units is estimated to cost **\$10,300** and this work has been budgeted in fiscal year **2025/26 and every 20 years thereafter**.

Fan Coil Units	
. Qty	5
. Cost	\$10,300
. Year(s)	2025/26, 2045/46

AIR CONDITIONER UNIT

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

- .F Replacement of the elevator machine room air conditioner unit is estimated to cost **\$4,600** and this work has been budgeted in fiscal year **2035/36**.

Elevator Machine Room Cooling	
. Qty	1
. Cost	\$4,600
. Year(s)	2035/36

FORCED FLOW HYDRONIC HEATERS

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .G Replacement of the forced flow hydronic heaters is estimated to cost **\$15,500** and this work has been budgeted in fiscal year **2035/36**.

Forced Flow Hydronic Heaters	
. Cost	\$15,500
. Year(s)	2035/36

5.3.3 Plumbing Systems

DOMESTIC COLD WATER BOOSTER PUMPS

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .A Replacement of the cold water booster pumps is estimated to cost **\$31,000** and this work has been budgeted [in fiscal year **2035/36**.

Domestic Cold-Water Booster Pumps	
. Cost	\$31,000
. Year(s)	2035/36

DOMESTIC HOT WATER HEATERS

According to the information provided, \$5,537 was spent in fiscal year 2016/17 to replace 5 burners on the domestic hot water heaters. This expenditure has been budgeted in the spreadsheet accordingly.

No other changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .B Replacement of the domestic hot water heaters is estimated to cost **\$61,900** and this work has been budgeted in fiscal year **2025/26 and every 20 years thereafter**.

DHW Heater Repairs	
. Cost	\$5,537
. Year(s)	2016/17

Domestic Hot Water Heaters	
. Cost	\$61,900
. Year(s)	2025/26, 2045/46

DOMESTIC HOT WATER CIRCULATION PUMPS

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .C Replacement of the domestic hot water circulation pumps is estimated to cost **\$5,200** and this work has been budgeted in fiscal year **2035/36**.

Domestic Hot Water Circulation Pumps	
. Cost	\$5,200
. Year(s)	2035/36

DOMESTIC HOT WATER STORAGE TANKS

According to the information provided, the domestic hot water storage tanks were replaced in fiscal year 2015/16 at a cost of \$17,000. Subsequent replacement has been scheduled for fiscal year 2025/26 and every 10 years thereafter.

Domestic Hot Water Storage Tanks	
. Qty	4
. Cost	\$17,000
. Year(s)	2025/26, 2035/36 2045/46

CHILLED WATER SYSTEM RECIRCULATION PUMPS

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .D Replacement of the recirculation pumps for the chilled water system is estimated to cost **\$15,500** and this work has been budgeted in fiscal year **2035/36**.

Domestic Cold Water Recirculation Pumps	
. Cost	\$15,500
. Year(s)	2035/36

HOT WATER SYSTEM RECIRCULATION PUMPS

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .E Replacement of the recirculation pumps for the hot water system is estimated to cost **\$15,500** and this work has been budgeted in fiscal year **2035/36**.

Domestic Hot Water Recirculation Pumps	
. Cost	\$15,500
. Year(s)	2035/36

5.3.4 Pool Mechanical Systems**GROUND WATER FILTRATION**

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .A Replacement of the ground water filtration system is estimated to cost **\$34,100** and this work has been budgeted in fiscal year **2020/21** and every **20** years thereafter.
- .B Replacement of the active carbon filter media is estimated to cost **\$4,100** and this work has been budgeted in fiscal year **2020/21** and every **5** years thereafter.

Ground Water Filtration Equipment	
. Cost	\$34,100
. Year(s)	2020/21, 2040/41

Carbon Filter Media	
. Cost	\$4,100
. Year(s)	2020/21, 2025/26 2030/31, 2035/36 2040/41, 2045/46

5.3.5 Sump Pumps**SUMP PUMP**

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .A Replacement of the elevator, garage, and storm water sump pumps is estimated to cost **\$20,600** and this work has been budgeted in fiscal year **2025/26 and every 20 years thereafter**.
- .B Replacement of the shared sump pumps is estimated to cost **\$23,300**. In accordance with the original declaration, OCSCC 735 will be responsible for 40% of that cost. Replacement of the condominium portion of this equipment is estimated to cost **\$9,300**, and this work has been budgeted in fiscal year **2020/21 and every 20 years thereafter**.

Sump Pumps	
. Qty	5
. Cost	\$20,600
. Year(s)	2025/26, 2045/46

Shared Sump Pumps	
. Qty	6
. Cost	\$9,300
. Year(s)	2020/21, 2040/41

5.3.6 Elevators**ELEVATORS**

According to the information provided, the code compliant car top guardrails were not installed in fiscal year 2015/16. This work has been rescheduled for fiscal year 2017/18. The budget for this work has been increased by inflation to \$8,300.

Code Compliant Car Top Guardrails	
. Cost	\$8,300
. Year(s)	2017/18

According to the information provided, the code compliant equipment guarding was not installed in fiscal year 2015/16. This work has been rescheduled for fiscal year 2017/18. The budget for this work has been increased by inflation to \$25,800.

According to the information provided, the water damaged elevator pit equipment was not repaired in fiscal year 2015/16. This work has been rescheduled for fiscal year 2017/18. The budget for this work has been increased by inflation to \$8,300.

According to the information provided, elevator full load testing was not completed in fiscal year 2015/16. This work has been rescheduled for fiscal year 2017/18. The budget for this work has been increased by inflation to \$7,200.

No other changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .A Replacement of the elevator control systems and interior cabs is estimated to cost **\$309,700** and this work has been budgeted in fiscal year **2035/36**.
- .B In order to ensure funds are available to perform potential mandatory TSSA upgrades, an allowance of **\$7,200** has been made annually from fiscal year **2016/17 to 2024/25**.

■ Code Compliant Equipment Guarding	
. Cost	\$25,800
. Year(s)	2017/18

■ Water Damage Equipment Repair	
. Cost	\$8,300
. Year(s)	2017/18

■ Full Load Testing	
. Cost	\$7,200
. Year(s)	2017/18, 2022/23 2027/28, 2032/33 2037/38, 2042/43

■ Elevator Controls & Cab Modernization	
. Qty	2
. Cost	\$309,700
. Year(s)	2035/36

■ TSSA Elevator Contingency Allowance	
. Cost	\$6,200
. Year(s)	2016/17 – 2024/25

5.3.7 Fire Protection Systems

FIRE PROTECTION SYSTEMS

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .A Maintenance costs and occasional part replacement should be performed, as required, using funds from the operating budget.

FIRE PUMPS

No changes have been made to the allowances (except for an inflationary increase) or to the scheduling for the work in this section from the Comprehensive Study.

We recommend the following work be anticipated and funded:

- .A Replacement of the fire pump and jockey pump is estimated to cost **\$31,000** and this work has been budgeted in fiscal year **2035/36**.

■ Fire Pump & Jockey Pump	
. Cost	\$31,000
. Year(s)	2035/36

**APPENDIX A:
SPREADSHEET
FOR MAJOR
REPAIR AND
REPLACEMENT
COSTS**

OCSCC 735: Spreadsheet For Major Repair & Replacement Costs, Fiscal Years 2017 to 2046

AGE OF COMPLEX	11 Years	12 Years	13 Years	14 Years	15 Years	16 Years	17 Years	18 Years	19 Years	20 Years	21 Years	22 Years	23 Years	24 Years	25 Years
REPAIR/REPLACEMENT ITEMS ²	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31
5.1 CIVIL, ARCHITECTURAL															
5.1.1 Site Services				\$5,200					\$2,600					\$5,200	
5.1.2 Parking Garage		\$15,500				\$320,000								\$366,500	
5.1.3 Pavers															
5.1.4 Exterior Concrete			\$5,200					\$5,200		\$25,800	\$5,200		\$5,200		
5.1.5 Foundation Walls															
5.1.6 Balconies															
5.1.7 Masonry		\$41,300												\$41,300	
5.1.8 Exterior Coatings					\$2,100						\$2,100				
5.1.9 Caulking		\$103,200												\$103,200	
5.1.10 Windows & Balcony Doors	\$4,640														
5.1.11 Doors	\$3,262				\$20,600	\$5,700									
5.1.12 Roofing Systems										\$154,900					
5.1.13 Common Corridors				\$67,100			\$87,700							\$67,100	
5.1.14 Common Rooms				\$21,700					\$20,600					\$21,700	\$3,100
5.1.15 Reflective Pool									\$15,500						
5.1.16 Gazebo															\$2,100
5.2 ELECTRICAL SYSTEMS															
5.2.1 Electrical Distribution	\$9,800					\$9,800					\$9,800				
5.2.2 Lighting					\$2,100										
5.2.3 Fire Alarm System										\$165,200					
5.2.4 Emergency Power System		\$61,300													
5.2.5 Electrical Heating System										\$23,700					
5.2.6 Security Systems		\$7,200			\$9,300							\$7,200			
5.3 MECHANICAL SYSTEMS															
5.3.1 Ventilation System					\$6,200					\$10,300					
5.3.2 Heating & A/C System					\$1,000					\$425,300					\$185,800
5.3.3 Plumbing System	\$5,537									\$89,300					
5.3.4 Pool Mechanical Systems					\$38,200					\$4,100					\$4,100
5.3.5 Sump Pumps					\$9,300					\$20,600					
5.3.6 Elevators	\$6,200	\$55,800	\$6,200	\$23,700	\$6,100	\$6,200	\$13,400	\$6,200	\$6,200			\$7,200			
5.3.7 Fire Protection System															
Reserve Fund Study Update	\$4,100			\$6,900			\$4,100			\$7,500			\$4,100		
YEARLY EXPENDITURE TOTALS	\$33,539	\$284,300	\$11,400	\$124,600	\$94,900	\$341,700	\$105,200	\$11,400	\$44,900	\$926,700	\$17,100	\$14,400	\$9,300	\$605,000	\$195,100
EXPENDITURES INCL. INFLATION ³	\$33,539	\$289,986	\$11,861	\$132,227	\$102,723	\$377,264	\$118,472	\$13,095	\$52,608	\$1,107,492	\$20,845	\$17,905	\$11,795	\$782,632	\$257,430
CONTRIBUTIONS FROM FEES	\$338,964	\$345,743	\$352,658	\$359,711	\$366,905	\$374,243	\$381,728	\$389,363	\$397,150	\$405,093	\$413,195	\$421,459	\$429,888	\$438,486	\$447,255
ADDITIONAL CONTRIBUTIONS															
INTEREST CONTRIBUTIONS ¹	\$42,144	\$46,643	\$51,591	\$58,374	\$64,519	\$68,461	\$72,472	\$80,396	\$89,302	\$87,491	\$86,127	\$95,906	\$106,143	\$109,034	\$109,678
REMAINING RESERVE FUND	\$2,280,972	\$2,383,372	\$2,775,761	\$3,061,619	\$3,390,321	\$3,455,761	\$3,791,489	\$4,248,153	\$4,681,997	\$4,067,089	\$4,545,566	\$5,045,026	\$5,569,262	\$5,334,150	\$5,633,653

ESTIMATED RESERVE FUND = \$1,933,403 August 31, 2016
CURRENT ANNUAL CONTRIBUTIONS = \$338,964 September 1, 2016
FUTURE ANNUAL CONTRIBUTIONS = \$345,743 September 1, 2017

NOTES: 1) Interest contributions for each year are based on the average remaining reserve fund for that year at an interest rate of 2.0%.
2) Estimates for expenditures include HST and, where appropriate, engineering fees.

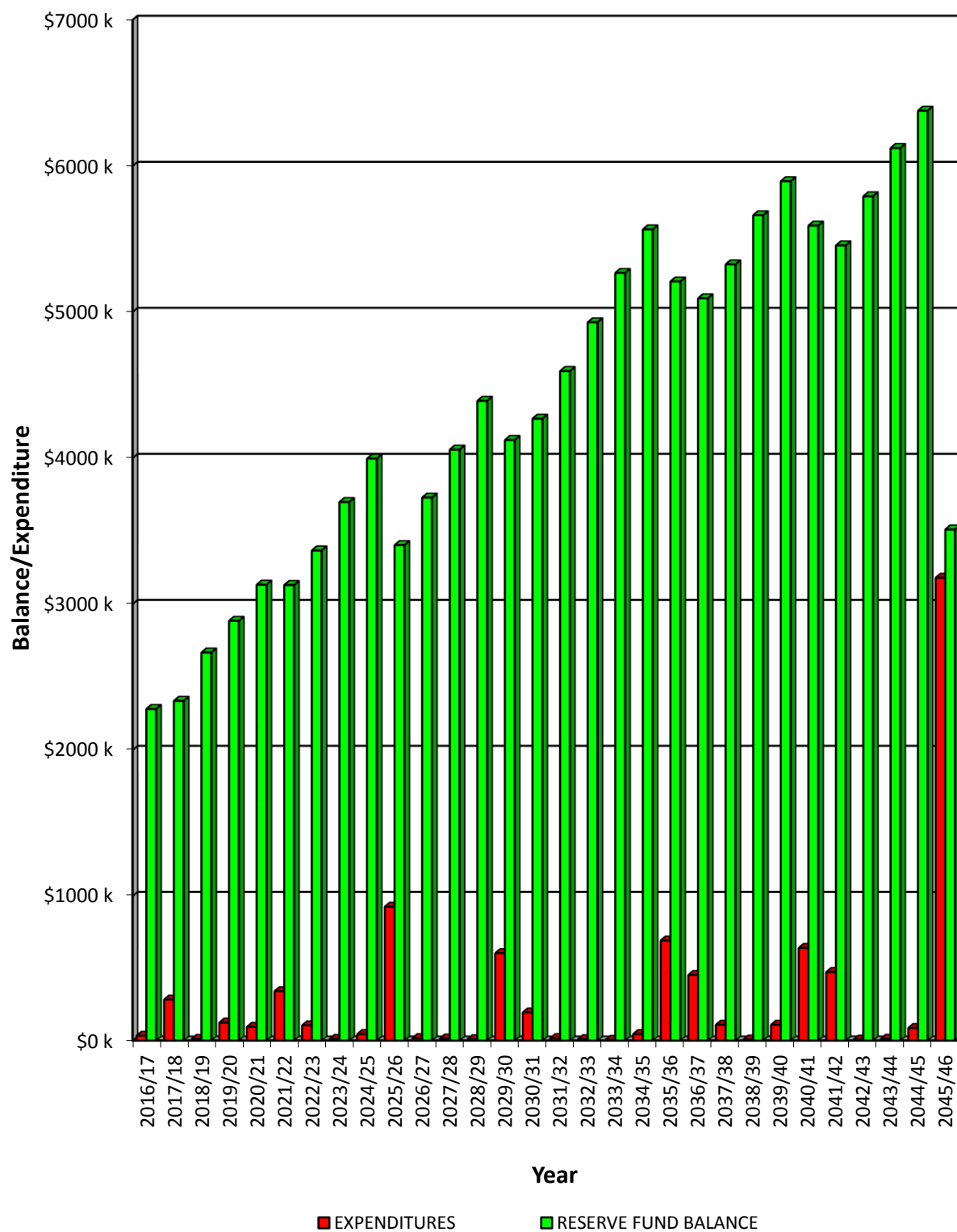
26 Years	27 Years	28 Years	29 Years	30 Years	31 Years	32 Years	33 Years	34 Years	35 Years	36 Years	37 Years	38 Years	39 Years	40 Years		AGE OF COMPLEX	
2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42	2042/43	2043/44	2044/45	2045/46	TOTALS	REPAIR/REPLACEMENT ITEMS	
																5.1	CIVIL, ARCHITECTURAL
			\$2,600					\$5,200					\$2,600		\$23,400	5.1.1	Site Services
					\$438,700					\$320,000					\$1,460,700	5.1.2	Parking Garage
															\$0	5.1.3	Pavers
		\$5,200					\$5,200					\$5,200			\$62,200	5.1.4	Exterior Concrete
															\$0	5.1.5	Foundation Walls
									\$402,600					\$165,200	\$567,800	5.1.6	Balconies
										\$41,300					\$123,900	5.1.7	Masonry
	\$2,100						\$2,100						\$2,100		\$10,500	5.1.8	Exterior Coatings
										\$103,200					\$309,600	5.1.9	Caulking
					\$30,900	\$5,700								\$1,742,100	\$1,746,740	5.1.10	Windows & Balcony Doors
															\$66,162	5.1.11	Doors
														\$154,900	\$309,800	5.1.12	Roofing Systems
						\$87,700		\$67,100							\$376,700	5.1.13	Common Corridors
			\$20,600					\$21,700					\$20,600		\$130,000	5.1.14	Common Rooms
								\$15,500							\$31,000	5.1.15	Reflective Pool
															\$2,100	5.1.16	Gazebo
																5.2	ELECTRICAL SYSTEMS
\$9,800					\$9,800				\$175,500	\$9,800				\$392,300	\$626,600	5.2.1	Electrical Distribution
				\$2,100											\$4,200	5.2.2	Lighting
									\$10,300					\$165,200	\$340,700	5.2.3	Fire Alarm System
				\$82,600									\$61,900	\$7,200	\$213,000	5.2.4	Emergency Power System
				\$3,100										\$3,100	\$29,900	5.2.5	Electrical Heating System
				\$24,300		\$7,200									\$55,200	5.2.6	Security Systems
																5.3	MECHANICAL SYSTEMS
				\$98,600										\$10,300	\$125,400	5.3.1	Ventilation System
				\$15,500					\$1,000					\$425,300	\$1,053,900	5.3.2	Heating & A/C System
				\$94,400										\$89,300	\$278,537	5.3.3	Plumbing System
				\$4,100					\$38,200					\$4,100	\$92,800	5.3.4	Pool Mechanical Systems
									\$9,300					\$20,600	\$59,800	5.3.5	Sump Pumps
	\$7,200		\$17,500	\$306,400		\$7,200					\$7,100				\$482,600	5.3.6	Elevators
				\$31,000											\$31,000	5.3.7	Fire Protection System
\$7,500			\$4,100			\$7,500			\$4,100			\$7,500			\$57,400	Reserve Fund Study Update	
\$17,300	\$9,300	\$5,200	\$44,800	\$693,000	\$454,200	\$109,600	\$7,300	\$109,500	\$641,000	\$474,300	\$7,100	\$12,700	\$87,200	\$3,179,600	\$8,671,639	YEARLY EXPENDITURE TOTALS	
\$23,284	\$12,767	\$7,281	\$63,985	\$1,009,570	\$674,917	\$166,117	\$11,286	\$172,670	\$1,031,008	\$778,139	\$11,881	\$21,677	\$151,817	\$5,646,476	\$13,112,750	EXPENDITURES INCL. INFLATION	
\$456,201	\$465,325	\$474,631	\$484,124	\$493,806	\$503,682	\$513,756	\$524,031	\$534,512	\$545,202	\$556,106	\$567,228	\$578,573	\$590,144	\$601,947	\$13,751,108	CONTRIBUTIONS FROM FEES	
															\$0	ADDITIONAL CONTRIBUTIONS	
\$118,184	\$129,516	\$141,424	\$153,246	\$155,376	\$151,575	\$156,419	\$168,270	\$180,504	\$182,898	\$179,443	\$186,435	\$201,436	\$215,558	\$173,386	\$3,661,952	INTEREST CONTRIBUTIONS	
\$6,184,754	\$6,766,827	\$7,375,601	\$7,948,986	\$7,588,597	\$7,568,938	\$8,072,996	\$8,754,011	\$9,296,356	\$8,993,448	\$8,950,857	\$9,692,639	\$10,450,970	\$11,104,855	\$6,233,712	\$6,233,712	REMAINING RESERVE FUND	
															REMAINING RESERVE FUND IN 2017 DOLLARS		\$3,510,280

3) Inflation assumed to be at an average rate of 2.0% over the time frame examined above.

4) The inflation increase of 3.2% for the past 3 years is derived from the data posted by Statistics Canada.

5) The market increase are based on Keller Engineering's experience over the past 3 years on similar projects.

OCSCC 735 - Reserve Fund Annual Expenditures/Closing Balance



**APPENDIX B:
NOTICE OF FUTURE
FUNDING OF
RESERVE FUND**

NOTICE OF FUTURE FUNDING OF THE RESERVE FUND

(under subsection 94 (9) of the Condominium Act, 1998)

TO: All Owners of Ottawa Carleton Standard Condominium Corporation No. 735

The Board has received and reviewed a Class 3 - Reserve Fund Study Update without Site Inspection dated July 27, 2017, prepared by Keller Engineering, and has proposed a plan for the future funding of the reserve fund that the Board of Directors has determined will ensure that, in accordance with the regulations made under the Condominium Act, 1998, the reserve fund will be adequate for the major repair and replacement of the common elements and assets of the corporation.

This notice contains:

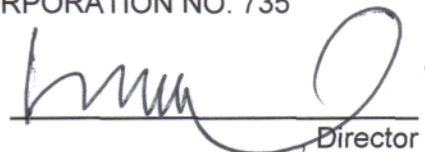
1. A summary of the reserve fund study.
2. A summary of the proposed funding plan.
3. A statement indicating the areas, if any, in which the proposed funding plan differs from the reserve fund study.

At the present time, the average contribution per unit per month to the reserve fund is \$140.53 ($\$338,964 \div 201 \text{ Units} \div 12 \text{ Months}$). Based on the proposed funding plan, the average increase in the contribution per unit per month will be \$2.81 in fiscal year ending 2018; thereafter, increases in the contributions will be in line with inflation, currently assumed to be 2.0%.

The proposed funding plan, recommended by Keller Engineering, will be implemented on or before September 01, 2017.

Dated this 27 day of July, 2017.

OTTAWA CARLETON STANDARD CONDOMINIUM CORPORATION NO. 735


_____, Director


_____, Director

SUMMARY OF RESERVE FUND STUDY

The following is a summary of the Class 3 - Reserve Fund Study Update without Site Inspection dated July 27, 2017, prepared by Keller Engineering, for Ottawa Carleton Standard Condominium Corporation No. 735 (known as the 'Reserve Fund Study').

Subsection 94 (1) of the Condominium Act, 1998, requires the corporation to conduct periodic studies to determine whether the amount of money in the reserve fund and the amount of contributions collected by the corporation are adequate to provide for the expected costs of major repair and replacement of the common elements and assets of the corporation. As a result, the corporation has obtained the Reserve Fund Study.

The estimated expenditures from the reserve fund for the next thirty (30) years are set out in the CASH FLOW TABLE. In this summary, the term 'annual contribution' means the total amount to be contributed each year to the reserve fund, exclusive of interest earned on the reserve fund. The recommended contribution for fiscal year ending 2018 of \$ 345,743 is based on the estimated expenditures and the following:

Opening Balance of the Reserve Fund:	\$ 1,933,403
Minimum Reserve Fund Balance during the projected period:	\$ 2,280,972
Assumed Annual Inflation Rate for Reserve Fund Expenditures:	2.0%
Assumed Annual Interest Rate for interest earned on the Reserve Fund:	2.0%

The Reserve Fund Study can be examined by making a written request to the Board of Directors of Ottawa Carleton Standard Condominium Corporation No. 735.

CASH FLOW TABLE

Opening Balance of the Reserve Fund:	\$ 1,933,403
Current Annual Contributions:	\$ 338,964
Minimum Reserve Fund Balance (as indicated in this table):	\$ 2,280,972
Assumed Annual Inflation Rate for Reserve Fund Expenditures:	2.0%
Assumed Annual Interest Rate for interest on the Reserve Fund:	2.0%

Fiscal Year Ending	Opening Balance	Recommended Annual Total Contribution	Estimated Inflation Adjusted Expenditures	Estimated Interest Earned	Percentage Increase (Decrease) in Recommended Annual Total Contribution	Closing Balance
2016/17	\$1,933,403	\$338,964	\$33,539	\$42,144	2.0%	\$2,280,972
2017/18	\$2,280,972	\$345,743	\$289,986	\$46,643	2.0%	\$2,383,372
2018/19	\$2,383,372	\$352,658	\$11,861	\$51,591	2.0%	\$2,775,761
2019/20	\$2,775,761	\$359,711	\$132,227	\$58,374	2.0%	\$3,061,619
2020/21	\$3,061,619	\$366,905	\$102,723	\$64,519	2.0%	\$3,390,321
2021/22	\$3,390,321	\$374,243	\$377,264	\$68,461	2.0%	\$3,455,761
2022/23	\$3,455,761	\$381,728	\$118,472	\$72,472	2.0%	\$3,791,489
2023/24	\$3,791,489	\$389,363	\$13,095	\$80,396	2.0%	\$4,248,153
2024/25	\$4,248,153	\$397,150	\$52,608	\$89,302	2.0%	\$4,681,997
2025/26	\$4,681,997	\$405,093	\$1,107,492	\$87,491	2.0%	\$4,067,089
2026/27	\$4,067,089	\$413,195	\$20,845	\$86,127	2.0%	\$4,545,566
2027/28	\$4,545,566	\$421,459	\$17,905	\$95,906	2.0%	\$5,045,026
2028/29	\$5,045,026	\$429,888	\$11,795	\$106,143	2.0%	\$5,569,262
2029/30	\$5,569,262	\$438,486	\$782,632	\$109,034	2.0%	\$5,334,150
2030/31	\$5,334,150	\$447,255	\$257,430	\$109,678	2.0%	\$5,633,653
2031/32	\$5,633,653	\$456,201	\$23,284	\$118,184	2.0%	\$6,184,754
2032/33	\$6,184,754	\$465,325	\$12,767	\$129,516	2.0%	\$6,766,827
2033/34	\$6,766,827	\$474,631	\$7,281	\$141,424	2.0%	\$7,375,601
2034/35	\$7,375,601	\$484,124	\$63,985	\$153,246	2.0%	\$7,948,986
2035/36	\$7,948,986	\$493,806	\$1,009,570	\$155,376	2.0%	\$7,588,597
2036/37	\$7,588,597	\$503,682	\$674,917	\$151,575	2.0%	\$7,568,938
2037/38	\$7,568,938	\$513,756	\$166,117	\$156,419	2.0%	\$8,072,996
2038/39	\$8,072,996	\$524,031	\$11,286	\$168,270	2.0%	\$8,754,011
2039/40	\$8,754,011	\$534,512	\$172,670	\$180,504	2.0%	\$9,296,356
2040/41	\$9,296,356	\$545,202	\$1,031,008	\$182,898	2.0%	\$8,993,448
2041/42	\$8,993,448	\$556,106	\$778,139	\$179,443	2.0%	\$8,950,857
2042/43	\$8,950,857	\$567,228	\$11,881	\$186,435	2.0%	\$9,692,639
2043/44	\$9,692,639	\$578,573	\$21,677	\$201,436	2.0%	\$10,450,970
2044/45	\$10,450,970	\$590,144	\$151,817	\$215,558	2.0%	\$11,104,855
2045/46	\$11,104,855	\$601,947	\$5,646,476	\$173,386	2.0%	\$6,233,712

SUMMARY OF PROPOSED PLAN FOR FUTURE FUNDING OF THE RESERVE FUND

The following is a summary of the Board's proposed plan for the future funding of the reserve fund.

The Board of Ottawa Carleton Standard Condominium Corporation No. 735 has reviewed the Class 3 Update without Site Inspection Reserve Fund Study dated July 27, 2017, prepared by Keller Engineering, for the Corporation (known as the 'Reserve Fund Study') and has proposed a plan for future funding of the reserve fund that the Board has determined will ensure that, in accordance with the regulations made under the Condominium Act, 1998, the reserve fund will be adequate for the major repair and replacement of the common elements and assets of the corporation.

The Board has adopted the funding recommendations of the Reserve Fund Study and will implement them as set out in the CONTRIBUTION TABLE.

The total annual contribution recommended under the proposed funding plan for fiscal year ending 2018 is \$345,743 which represents an increase of 2.0% over the amount already budgeted.

The Proposed Plan for Future Funding of the Reserve Fund can be examined by making a written request to the Board of Directors of Ottawa Carleton Standard Condominium Corporation No. 735.

CONTRIBUTION TABLE

Fiscal Year Ending	A Annual Contribution*	% Increase Over Previous Year	B Other Contribution (e.g. special assessment, loan)	A + B Total Contribution Each Year to Reserve Fund
2016/17	\$338,964	2.0%	\$0	\$338,964
2017/18	\$345,743	2.0%	\$0	\$345,743
2018/19	\$352,658	2.0%	\$0	\$352,658
2019/20	\$359,711	2.0%	\$0	\$359,711
2020/21	\$366,905	2.0%	\$0	\$366,905
2021/22	\$374,243	2.0%	\$0	\$374,243
2022/23	\$381,728	2.0%	\$0	\$381,728
2023/24	\$389,363	2.0%	\$0	\$389,363
2024/25	\$397,150	2.0%	\$0	\$397,150
2025/26	\$405,093	2.0%	\$0	\$405,093
2026/27	\$413,195	2.0%	\$0	\$413,195
2027/28	\$421,459	2.0%	\$0	\$421,459
2028/29	\$429,888	2.0%	\$0	\$429,888
2029/30	\$438,486	2.0%	\$0	\$438,486
2030/31	\$447,255	2.0%	\$0	\$447,255
2031/32	\$456,201	2.0%	\$0	\$456,201
2032/33	\$465,325	2.0%	\$0	\$465,325
2033/34	\$474,631	2.0%	\$0	\$474,631
2034/35	\$484,124	2.0%	\$0	\$484,124
2035/36	\$493,806	2.0%	\$0	\$493,806
2036/37	\$503,682	2.0%	\$0	\$503,682
2037/38	\$513,756	2.0%	\$0	\$513,756
2038/39	\$524,031	2.0%	\$0	\$524,031
2039/40	\$534,512	2.0%	\$0	\$534,512
2040/41	\$545,202	2.0%	\$0	\$545,202
2041/42	\$556,106	2.0%	\$0	\$556,106
2042/43	\$567,228	2.0%	\$0	\$567,228
2043/44	\$578,573	2.0%	\$0	\$578,573
2044/45	\$590,144	2.0%	\$0	\$590,144
2045/46	\$601,947	2.0%	\$0	\$601,947

* The term 'annual contribution' means the amount to be contributed each year to the reserve fund from the monthly common expenses

DIFFERENCES BETWEEN THE RESERVE FUND STUDY AND THE PROPOSED PLAN FOR FUTURE FUNDING OF THE RESERVE FUND

The Plan for Future Funding of the Reserve Fund proposed by the Board differs from the Reserve Fund in the following respects:

NIL