

MOUNT ROYAL AIRPARK PROPERTY OWNERS' ASSOCIATION

CAPITAL EXPENDITURE COMMITTEE

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Version 1.0

CAPITAL IMPROVEMENT PLAN

2023

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1 Mission Statement

This committee's mission is to establish a list of capital improvement projects and identify and establish maintenance, repair, and replacement cost over time. The Committee is responsible for providing recommendations to the Board of Directors. The Committee will establish a reserve line-item budget which should be detailed, adequately structured, easy, and straightforward.

2 Authority

Article VII.- Owner Assessments, Section 7.01 Creation of Assessments authorizes the Association to levy assessments against each Lot for Association expenses as the Board may specifically authorize from time to time. There are three kinds of assessments for Association Expenses and other obligations (a) *Base Assessments* to fund Common Expenses for the general benefit of all Lots as described in Section 7.02; (b) *Special Assessments* as described in Section 7.03; and (c) *Specific Assessments* as described in Section 7.04. Each Owner, by accepting a deed or entering a recorded contract of sale for any portion of the Community is deemed to covenant and agree to pay these assessments. (See *Appendix A- Second Amended and Restated Declaration of Easements, Covenants, Conditions and Restrictions for Mount Royal Airpark, (Covenants) August 25, 2014*).¹

The annual *Base Assessments* may be adjusted in an amount not to exceed an increase of **five percent** if approved by two-thirds of the Board of Directors. Any annual adjustment of more than **five percent** will be approved by the affirmative vote of a majority of the Members in person or by proxy at a duly called and noticed special or annual meetings of the Members, at which a quorum is present.

Special Assessments may be levied for a calendar year, applicable to that calendar year only, for any purpose approved by **two-thirds (2/3)** of the Board of Directors. However, no *Special Assessments* may be levied during a calendar year if the amount exceeds \$50,000.00 without the affirmative vote of a majority of the Membership, except as outlined in the Covenants. *Special Assessments* are payable in such a manner and at such times as determined by the Board and may be payable in installments extending beyond the fiscal year in which *the Special Assessment* was approved.

During the Annual Membership meeting, March 26, 2022, a motion was made by Jason Sheffield and second by Rebecca Poston to create a 10-year capital expenditure plan identifying cost projections and other future costs for capital improvements and advise the Board regarding ways to fund these projects.² The membership unanimously

approved the following volunteers, Jason Sheffield, Ed Connell, Lindy Farmer, David Johnston, Joe Miller, and Rebecca Poston.

3 Strategic Development for Optimal Airpark Growth

The report is a valuable strategic tool to help the MRAP POA budget responsibly and avoid surprise expenses, make informed decisions, save money, and protect property values for optimal airpark growth.

Which Physical Assets are Funded by Reserves?

There is a national-standard four-part test to determine which expenses should appear in the Reserve Component List. First, it must be a common area of maintenance responsibility. Second, the component must have a limited life. Third, the remaining life must be predictable (or it is a surprise that cannot be accurately anticipated). Fourth, the component must be above the minimum threshold cost (often between 0.5% and 1% of an association's total budget). This limits Reserve Components to major, predictable expenses. Within this framework, it is inappropriate to include lifetime components, unpredictable expenses (such as damage due to fire, flood, or hurricanes), and expenses more appropriately handled from the operational budget or as an insured loss.

How do we establish Useful Life and Remaining Useful Life estimates?

Useful life and remaining useful life estimates will be based on visual inspections, history, vendor evaluations, and recommendations.

How do we establish Current Repair/Replacement Cost Estimates?

Current proposals, vendor recommendations, reliable national industry cost estimating guidebooks.

How much Reserves are enough?

Reserve adequacy is not measured in cash terms. Reserve adequacy is found when the *amount* of current Reserve cash is compared to Reserve component deterioration (the *needs of the association*). Having *enough* means the association can execute its projects in a timely manner with existing Reserve funds. Not having *enough* typically creates deferred maintenance or special assessments.

Adequacy is measured in a two-step process:

- 1) Calculate the *value of deterioration* at the association (called Fully Funded Balance, or FFB).
- 2) Compare that to the Reserve Fund Balance and express it as a percentage.

Each year, the *value of deterioration* at the association changes. When there is more deterioration (as components approach the time, they need to be replaced), there should be more cash to offset that deterioration and prepare for the expenditure. Conversely, the *value of deterioration* shrinks after projects are accomplished. The *value of deterioration* (the FFB) changes each year and is a moving but predictable target.

There is a high risk of special assessments and deferred maintenance when the Percent Funded is *weak*, below 30%. Approximately 30% of all associations are in this high-risk range. While the 100% point is Ideal (Indicating Reserve cash is equal to the *value of deterioration*), a Reserve Fund in the 70% - 130% range is considered strong (low risk of special assessment).

Measuring Reserves by Percent Funded tells how well prepared your association is for upcoming Reserve expenses.

How much should we contribute?

According to National Reserve Study Standards, there are four Funding Principles to balance in developing your Reserve Funding Plan. The first objective is to design a plan that provides sufficient cash to perform the Reserve projects on time. Second, a stable contribution is desirable because it keeps these naturally irregular expenses from unsettling the budget.

Reserve contributions that are evenly distributed over current and future owners enable each owner to pay their fair share of the association's Reserve expenses over the years. And finally, the plan is fiscally responsible and safe for the Board of Directors to recommend to the Association.

What is our Recommended Funding Goal?

Maintaining the Reserve Fund at a level equal to the value of deterioration is called "Full Funding" (100 percent Funded). As each asset ages and becomes "used up," the Reserve Fund grows proportionally. This is simple, responsible, and our recommendation. Evidence shows that associations in the 70-130% range enjoy low risk of special assessments or deferred maintenance.

Allowing the Reserves to fall close to zero, but not below zero, is called Baseline Funding. Doing so allows the Reserve Fund to drop into the 0 to 30% range, where there is a high risk of special assessments and deferred maintenance. Since Baseline Funding still provides for the timely execution of all Reserve projects, and only the "margin of safety" is different, Baseline Funding contributions average only 10% to 15% less than Full Funding contributions. Threshold Funding is the title of all other Cash or Percent Funded objectives between Baseline Funding and Full Funding.

3.1 Reserve Fund Status

The starting point for our financial analysis is the 2022 Reserve Fund balance projected to be \$252,322.63 which includes a \$25,000 budgeted contribution from the MRAP POA operating account. Comparing the Reserve Balance to the Fully Funded Balance of \$1,303,978 indicates the Reserves are 23.2 percent funded. In the end, the 10 years reserves will be 81 percent funded.

3.2 Reserve Component Detail

The 10-Year Plan was based on the useful life, remaining useful life, and current cost (best case) estimates of each component under the following categories.

- Site and Grounds
- Building Exteriors
- Mechanical, Electrical, and Plumbing
- Pavilion

Site and Grounds- \$1,143,600

Within the 10-year plan asphalt seal and repair for the roadway and taxiways is the largest expenditure with an estimated cost of \$740,000 followed by replacing fountains, pavers, and the entry monument at \$51,600.

Building Exteriors- \$59,600

There was no cost associated with replacing roofs or windows and doors within the 10 years.

Mechanical, Electrical, and Plumbing- \$75,778

During the 10 years, it is estimated the front entry system along with the runway light system will need to be replaced for \$65,778.

Pavilion- \$25,000

There was no cost associated with replacing roofs or windows and doors within the 10 years.

3.2.1 Reserve Component Detail Table

Reserve Component Detail	Quantity	Useful Life	Remaining Life	Current Cost Estimate	
				Best Case	Worst Case
Site and Grounds				\$1,143,600	\$1,372,320
Asphalt- Overlay Runway	3000' x 40' = 120,000 sqft	30	15	330,000	396,000
Asphalt- Seal/Repair- Roadway and taxiways	5,280' x 3 miles	30	6	740,000	888,000
Concrete Sidewalks- Repair per sq ft	1000	50	30	15,000	18,000
Metal Perimeter Fencing- Repair	2	20	20	5,000	6,000
Fountain/Water Features- Replace	3	20	10	30,000	36,000
Paver (Roadway)- Repair/Replace	600	20	10	3,600	4,320
Entry Fencing (Metal)- Replace		30	20	5,000	6,000
Monument/Sign- Replace	1	30	10	15,000	18,000
Building Exteriors				59,600	71,520
Roofs- Replace	Numerous Components	40	35	25,000	30,000
Windows & Doors- Replace		30	25	34,600	41,520
Mechanical/Electrical/Plumbing				75,778	90,934
Entry Systems- Replace	1 system		5	8,000	10,000
Gate Actuator Levers- Replace	2 levers		88	10,000	12,000
Runway Light System- Replace	1 system		55	57,778	69,334
Pavilion				25,000	30,000
Remodel Allowance	Numerous Components	15	20	25,000	30,000
Total Expenditures				\$1,303,978	\$1,564,774

4 Recommended Funding Plan

The Capital Expenditure Committee is recommending budgeted contributions increase as determined by the Reserve Committee to offset the current cost estimate evaluating the useful life and remaining life of the current reserve component detail.

5 Appendix

5.1 Mt Royal Entrance Gate – Entry Methods (3001-3002)

Updated: 2022-08-28

Current Entry Method

The existing gate entry controller is a Linear AE1000PLUS (there is also a spare, repaired unit in the gatehouse). Entry is triggered by:

- the keypad using an entry code, or
- a call to a homeowner from the controller, or
- a wireless transmitter

Wireless transmitters operate on a frequency of 318MHz. Residents currently use the following:

- key fob transmitter (Linear model ACT-31B, factory block-coded)
- visor clip-on (Linear model MT-1B factory block-coded)
- vehicle in-built door opener – most can be cloned from a key fob or visor transmitter

The key fob generally has a shorter range than the others. An MT-1B or vehicle device will usually trigger the open function at a range of 150' from the gatehouse, and about 250' from the gate. The gate takes 10s to open fully. At 20mph a vehicle would reach the gate by the time it is fully open.

It has been reported that some residents find the existing transmitter-based facility inconvenient, but there has been no assessment of the source or degree of dissatisfaction. Some residents may have experience with more automated techniques in use in other gated communities which are 'passive' and do not require action on the part of the driver to gain entrance.

The more common passive access methods use barcode or transponder systems, less common is the use of automatic license/number plate recognition (ANPR).

Barcode

Each vehicle has a barcode attached to the inside of a window on its right-hand side. A reader mounted adjacent to the gatehouse uses lasers to scan a passing barcode and send the barcode id to the existing entry controller via a Wiegand (serial) interface. If the barcode id is present in the entry controller's database, 'gate open' is triggered. Barcode stickers would need to be managed and issued by the entry controller database administrator, currently Tom Cacek.

One possible reader is the BA-440 from Barcode Automation, inc. (BAi). It requires a 24VDC power source, which can be provided by the existing control box in the gatehouse. Its current price is \$6,300 and BAi's barcode stickers (decals) cost about \$4 each. The total budget cost, including the mounting of the reader, would be about \$8,000.

Transponder

An RFID (radio-frequency identification) tag is fitted to each vehicle. The tag is interrogated by an RFID reader mounted on, or adjacent to, the gatehouse. As with the barcode system, the reader sends the tag's id to the entry controller over a Wiegand interface. A tag is 'beam powered' so does not require a power source. Tags are typically stuck on the inside of a vehicle's windshield or a headlamp. Operation and support are almost identical to that described for barcodes.

A suitable RFID reader is the TransCore SmartPass® 4 RFID Reader. It can be powered from the existing control box and has a read range of about 12'. Its current price is \$5,200. Windshield "micro mini" stickers measure 3"x1" and cost \$12 each. They can only be used on a nonmetallic windshield. Increasingly common are headlamp stickers. These measure about 4"x1", are mostly transparent, and cost \$15 each. Total costs will be around \$8,000.

Automatic License/Number Plate Recognition (ANPR)

An ANPR system consists of:

- a camera, or cameras, to capture an image of the rear of a vehicle
- image processing software to locate and declutter/enhance the part of the image containing the license tag
- optical character recognition (OCR) software to create the string of characters representing the tag number

The other two options are relatively straightforward to implement and integrate into the existing entry controller system. ANPR is significantly more complex and represents more of a systems integration challenge. There is no simple off-the-shelf solution. The cost of building a reliable system is likely to be around \$10,000.

Comparing the Options

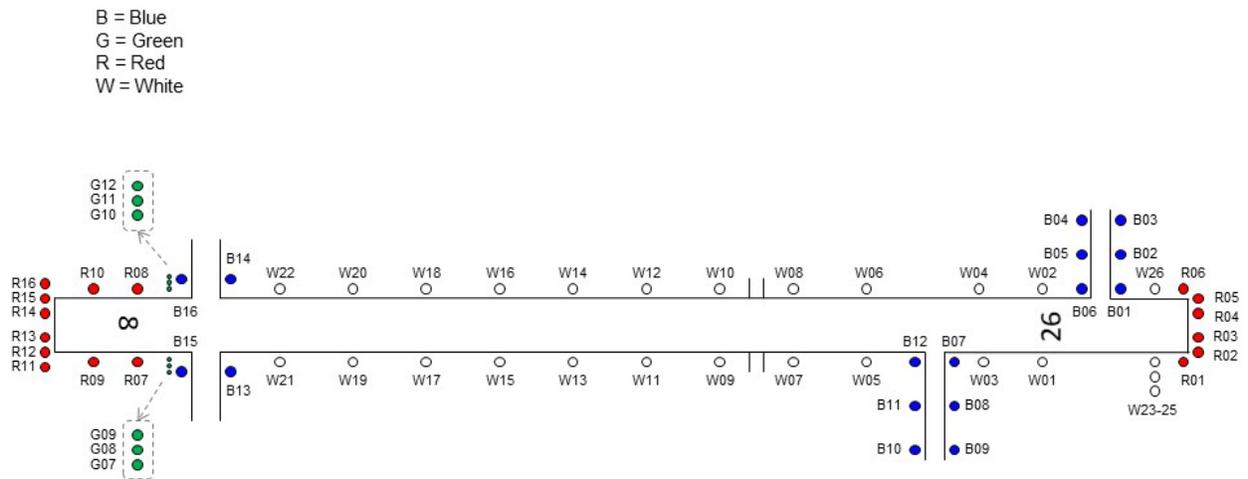
Any of these options will incur costs of about \$8,000-10,000. All can be made to integrate with the existing Linear entry controller, although ANPR would be more of a challenge. ANPR is also likely to have some operational limitations. Large-scale ANPR systems, such as those used on toll roads, use complex image processing and AI techniques to reach accuracy levels of 95-98% and, of course, do not have to support immediate actions, like opening a gate! Unlike the other two options where the target of interrogation is unlikely to be obscured, license tags can be hidden by trailers, covered in dirt, etc. It seems sensible to exclude ANPR for now.

Barcodes and transponders are similar in terms of integration and management. Transponders are likely to have a slightly higher read-success rate – radio waves are less likely to be blocked. Research suggests that RFID (transponder) systems are now being deployed at a faster rate than barcode systems.

At this stage, it appears transponders represent the best 'passive' system for Mt Royal. Given that we currently have a working and reliable 'active' system and, unless there is increasing and justifiable demand for something that does not require pressing a button, there are probably greater priorities for the CEC.

5.2 Runway Light Schematic (3003)

Lights – Location / Identification



Scale is approximate

Drawn by: Mike Stamp
 Last update: 2021-10-04

¹ Mt. Royal Airpark Property Owners' Association, - *Second Amended and Restated Declaration of Easements, Covenants, Conditions and Restrictions for Mount Royal Airpark, (Covenants) August 25, 2014*

² Mt. Royal Airpark Property Owners' Association, March 26, 2022, *Annual Membership Meeting Minutes*, available at https://www.mrappoa.com/uploads/4/9/8/5/49853541/2022-03-26_annual_mtg_revised.pdf