



# ASSOCIATION RESERVES™

*Planning For The Inevitable™*

SCHOOLS, COLLEGES  
or UNIVERSITIES



## RESERVE STUDY

Serving the Nation

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# Welcome to your Reserve Study!

**A** Reserve Study is a valuable tool to help you budget responsibly for your property. This report contains all the information you need to avoid surprise expenses, make informed decisions, save money, and protect property values.

**R**egardless of the property type, it's a fact of life that the very moment construction is completed, every major building component begins a predictable process of physical deterioration. The operative word is "predictable" because *planning for the inevitable* is what a Reserve Study by **Association Reserves** is all about!

In this Report, you will find three key results:

- **Reserve Funding Plan**  
A multi-year funding plan based on current Reserve Fund strength that allows for component repairs & replacements to be completed in a timely manner, with an emphasis on avoiding "catch-up" funding sources.
- **Reserve Fund Strength**  
A calculation that measures how well the Reserve Fund has kept pace with the property's physical deterioration.
- **Component List**  
Unique to each property, the Component List serves as the foundation of the Reserve Study and details the scope and schedule of all necessary repairs & replacements.

## Questions?

Please contact your Project Manager directly.



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[YOUR PROPERTY NAME]

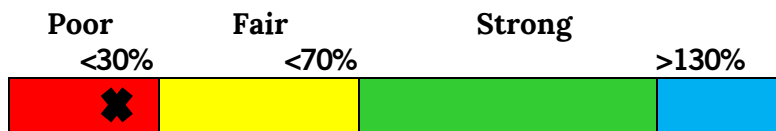
Report #: 17918-0

[Anywhere in the world]

# of Units: 1

Level of Service: **Reserve Study- FULL****July 1, 2019 through June 30, 2020****Findings & Recommendations****as of July 1, 2019**

Starting Reserve Balance .....	\$355,700
Fully Funded Reserve Balance .....	\$1,467,512
Average Reserve Deficit (Surplus) per Unit.....	\$1,111,812
%-Funded .....	24.2%
Recommended 2019 Annual "Full Funding" Reserve Contribution .....	\$203,100
Recommended 2019 "Additional Funding" for Reserves .....	\$900,000
Most recent Reserve Contribution Rate .....	\$100,000

**Reserve Fund Strength (%-Funded)**

**Risk of Cash Flow Problems** ----- **High**      **Medium**      **Low**

**Economic Assumptions:**Net Annual "After Tax" Interest Earnings, accruing to Reserves ----- **1.00%**Annual Inflation Rate ----- **3.00%****Comments:**

This is a "Full" Reserve Study (also called a "Full" Capital Plan), meaning it was an original project, created from scratch. No prior comprehensive Reserve planning had been done prior to this project. This report is based on our site inspection on 10/8/2018. This Reserve Study was prepared by a credentialed Reserve Specialist (RS).

Our challenge with your school was to identify the dates of the building areas, and identify upcoming major Reserve expenses. Much has been done over the years, but modernization or repair/replace projects have been done locally, primarily funded with capital campaigns. Our goal was to identify the inevitable upcoming projects necessary to maintain your facilities, helping you to set tuition and budget appropriately to be able to perform your Reserve projects in a timely manner without reliance on capital campaigns.

We found that your Reserve Fund is in the 0-30% "weak" range at 24.2%-funded. Our clients in this range have a High risk of Reserve cash-flow problems (insufficient cash to perform scheduled projects) in the near future. That is the case with your school.

Based on your financial starting point and your anticipated future expenses, our recommendation is to essentially double your Reserve contribution rate and initiate a campaign to collect special funding of \$900,000. Note that raising your Reserve contribution to our recommended amount will eliminate the need for similar capital campaigns in the future.



Your multi-year Funding Plan is designed to provide for timely execution of Reserve projects and gradually bring your school closer to the “Fully Funded” (100%) level, which will make it able to tolerate some minor financial "surprises".

#	Component	Useful Life UL (years)	Remaining Useful Life RUL (years)	Current Average Cost (\$)
<b>General Common</b>				
201	Asphalt - Reconstruction	30	0	\$337,500
202	Asphalt - Seal/Repair	3	1	\$19,700
320	Pole Lights - Replace	20	11	\$35,200
322	Bollard Lights - Replace	15	10	\$14,700
405	Play Equipment - Replace	15	10	\$47,500
412	Play Yard Surface - Resurface	8	0	\$38,750
415	Canopy - Replace	10	4	\$11,450
914	Lockers - 1/4 Replace	6	1	\$19,300
1107	Metal Fence/Rail - Repaint	5	2	\$23,100
<b>Building Exteriors</b>				
1115	Bldg Exterior - 1/4 Repaint	3	0	\$27,350
1301	Maint Bldg Tile Roof - Replace	25	0	\$16,450
1302	Cap Sheet Roof (Pavilion) - Replace	20	11	\$28,550
1302	Roof (Admin, Library) - Replace	20	2	\$14,850
1304	Tile Roof - Replace Underlay	25	0	\$126,000
1308	Metal Overhang - Refurbish	30	25	\$20,000
1310	Gutters/Downspouts - Replace	8	2	\$7,000
<b>Building Interiors</b>				
601	Carpet (2010) - Replace	10	1	\$73,200
601	Carpet (2013) - Replace	10	4	\$83,100
601	Carpet (2015) - Replace	10	6	\$59,100
602	Linoleum Floor - Replace	15	9	\$43,400
603	Cafeteria Tile - Replace	20	17	\$14,600
607	Assembly Room - Resurface	10	1	\$13,150
909	Restrooms - Partial Refurb	2	0	\$21,000
910	Cafeteria/Kitchen - Refurbish	20	17	\$22,000
912	Staff Lounge - Refurbish	15	8	\$11,000
921	Admin Bldg Cabinetry - Replace	20	18	\$20,000
921	Cabinetry (2010) - Rep	20	11	\$58,550
921	Cabinetry (2013) - Rep	20	14	\$217,500
921	Cabinetry (2015) - Rep	20	16	\$142,500
1802	Elevator Cab - Remodel	15	10	\$20,000
<b>Mechanical &amp; Systems</b>				
302	Back-Up Generator - Replace	30	0	\$40,000

303	Heat Pumps - Replace	15	10	\$88,000
304	Split-System (VAA) - Replace	10	7	\$21,000
305	Surveillance System - Modernize	5	3	\$12,500
306	Make-Up Air Unit - Replace	15	13	\$40,000
306	Ventilation Fans - Partial Replace	5	2	\$8,000
308	Air Handlers - Replace	20	0	\$75,000
309	Chiller - Replace	20	0	\$55,000
312	Cooling Tower - Replace	20	0	\$72,500
801	Boiler - Replace	20	13	\$25,000
803	Water Heater/Tank - Replace	15	10	\$5,000
1801	Elevator - Modernize	25	20	\$140,000
1803	Fire Alarm System - Modernize	20	18	\$175,000
1810	Golf Carts - Replace	10	1	\$20,000
1810	Utility Vehicles - Partial Replace	10	0	\$104,000
45	Total Funded Components			

**Yellow highlights** indicate items with RUL = 0 years, requiring attention in 2019.

## Introduction



A Capital Plan is the art and science of anticipating, and preparing for, a property major predictable repair and replacement expenses. Partially art, because in this field we are making projections about the future. Partially science, because our work is a combination of research and well-defined computations, following consistent National Reserve Study Standard principles.

The foundation of this and every Capital Plan is your Component List (what you are reserving for). This is because the Component List defines the *scope and schedule* of all your anticipated upcoming major, predictable capital projects. Based on that List and your starting balance, we calculate the property Capital Fund Strength (reported in terms of "Percent Funded"). Then we compute a Funding Plan to provide for the needs of the property. These form the three results of your Capital Plan.



Capital contributions are not "for the future". Capital contributions are designed to offset the ongoing, daily deterioration of your Capital assets. Done well, a stable, budgeted Capital Funding Plan will collect sufficient funds from the owners who enjoyed the use of those assets, so the property is financially prepared for the irregular expenditures scattered through future years when those projects eventually require replacement.

## Methodology



For this [Capital Plan](#), we started with a review of ownership boundaries, as detailed by property, recent Capital expenditures, an evaluation of how expenditures are handled (ongoing maintenance vs Capital), and research into any well-established historical precedents. We performed

an on-site inspection to quantify and evaluate your major predictable, creating your Reserve Component List *from scratch*.



## *Which Physical Assets are Funded by Reserves?*

There is a national-standard four-part test to determine which expenses should appear in your Component List. First, it must be a maintenance responsibility. Second, the component must have a limited life. Third, the remaining life must be predictable (or it by definition is a *surprise* which cannot be accurately anticipated). Fourth, the component must be above a minimum threshold cost (often between .5% and 1% of an property total budget). This limits Capital Components to major, predictable expenses.



RESERVE COMPONENT "FOUR-PART TEST"

Within this framework, it is inappropriate to include *lifetime* components, unpredictable expenses (such as damage due to fire, flood, or earthquake), 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?*

- 1) Visual Inspection (observed wear and age)
- 2) Property Reserves database of experience
- 3) Property History (install dates & previous life cycle information)
- 4) Vendor Evaluation and Recommendation

## *How do we establish Current Repair/Replacement Cost Estimates?*

In this order...

- 1) Actual property cost history, or current proposals
- 2) Comparison to Property Reserves database of work done at similar properties
- 3) Vendor Recommendations
- 4) Reliable National Industry cost estimating guidebooks

## *How much Reserves are enough?*

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

Adequacy is measured in a two-step process:

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



Each year, the *value of deterioration* at the property 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 funding needs and deferred maintenance when the Percent Funded is *weak*, below 30%. Approximately 30% of all properties 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 funding needs).

Measuring your Capital Funds by Percent Funded tells how well prepared your property is for upcoming Reserve expenses. Those charged with maintaining the physical property should be very aware of this important figure!

## How much should we contribute?



According to National Reserve Study Standards, there are four Funding Principles to balance in developing your Reserve Funding Plan. Our first objective is to design a plan that provides you with sufficient cash to perform your 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 property's Reserve expenses over the years. And finally, we develop a plan that is fiscally responsible and safe for Boardmembers to recommend to their property. Remember, it is the Board's job to provide for the ongoing care of the real property that supports your entity mission.

## What is our Recommended Funding Goal?

Maintaining the Reserve Fund at a level equal to the value of deterioration is called "Full Funding" (100% Funded). As each asset ages and becomes "used up," the Reserve Fund grows proportionally. **This is simple, responsible, and our recommendation.** Evidence shows that properties in the 70 - 130% range *enjoy a low risk of special funding needs 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 - 30% range, where there is a high risk of special funding needs & 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% - 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.

## Site Inspection Notes

During our site visit on 10/8/2018, we started with a brief meeting with Controller John Young, and then started the site inspection guided by Facility Manager Jurgen Schlossen, beginning with the mechanical equipment and rooftop areas. We visually inspected all the buildings and grounds (thank you Jurgen and his team). Historical information on what was remodeled or refurbished when was provided by long-term Head of School Theresa Armour.

Please refer to the Photographic Inventory Appendix for additional information on each of your Reserve components.





## Projected Expenses

While this Reserve Study looks forward 30 years, we have no expectation that all these expenses will all take place as anticipated. This Reserve Study needs to be updated annually because we expect the timing of these expenses to shift and the size of these expenses to change. We do feel more certain of the timing and cost of near-term expenses than expenses many years away. Please be aware of your near-term expenses, which we are able to project more accurately than the more distant projections.

The figure below summarizes the projected future expenses at your school as defined by your Reserve Component List. A summary of these components are shown in the Component Details table, while a summary of the expenses themselves are shown in the 30-yr Expense Summary table. Note the significant expenses in the initial year, consisting of asphalt renovation, Tile roof replacement, major HVAC projects, and replacing your aged vehicles.

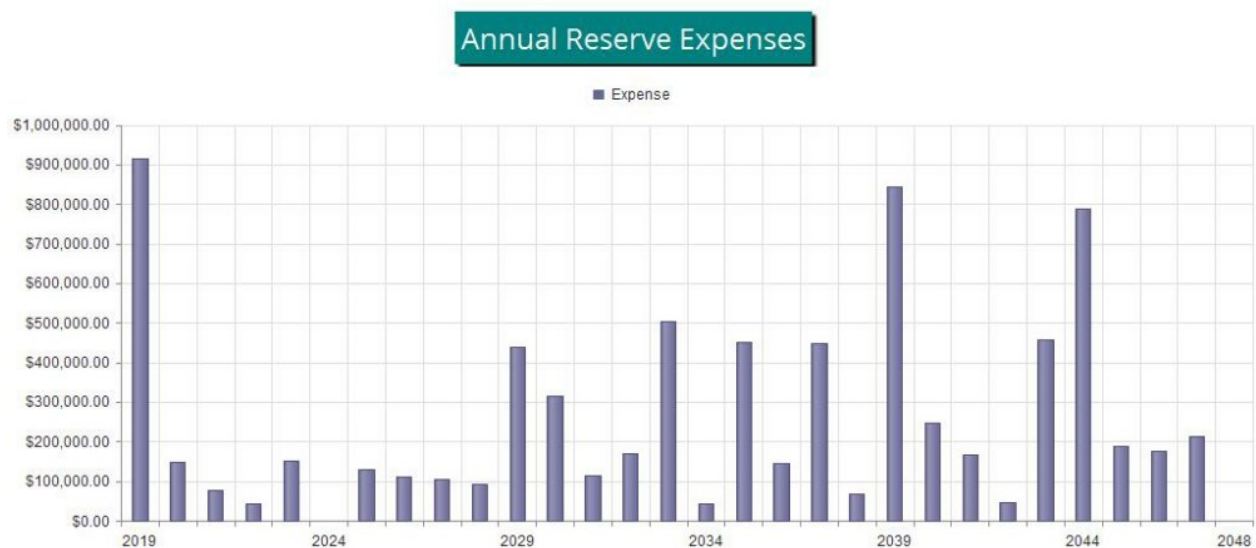


Figure 1

Reserve Fund Status

The starting point for our financial analysis is your Reserve Fund balance, projected to be \$355,700 as-of the start of your Fiscal Year on 7/1/2019. This is based on your actual balance on 10/31/18 of \$389,255 and anticipated Reserve expenses projected through the end of your Fiscal Year. As of your Fiscal Year Start, your Fully Funded Balance is computed to be \$1,467,512. This figure represents the deteriorated value of your common area components. Comparing your Reserve Balance to your Fully Funded Balance indicates your Reserves are 24.2 % Funded. Across the country approximately 35% of our clients that are between 20-30% Funded experience cash flow problems due to inadequate Reserves causing fundraisers or deferred maintenance.

Recommended Funding Plan

Based on your current Percent Funded and your near-term and long-term Reserve needs, we are recommending budgeted contributions of \$203,100 this Fiscal Year along with a one-time capital infusion of \$900,000. The overall 30-yr plan, in perspective, is shown below. This same information is shown numerically in both the 30-yr Summary and the Cash Flow Detail tables.

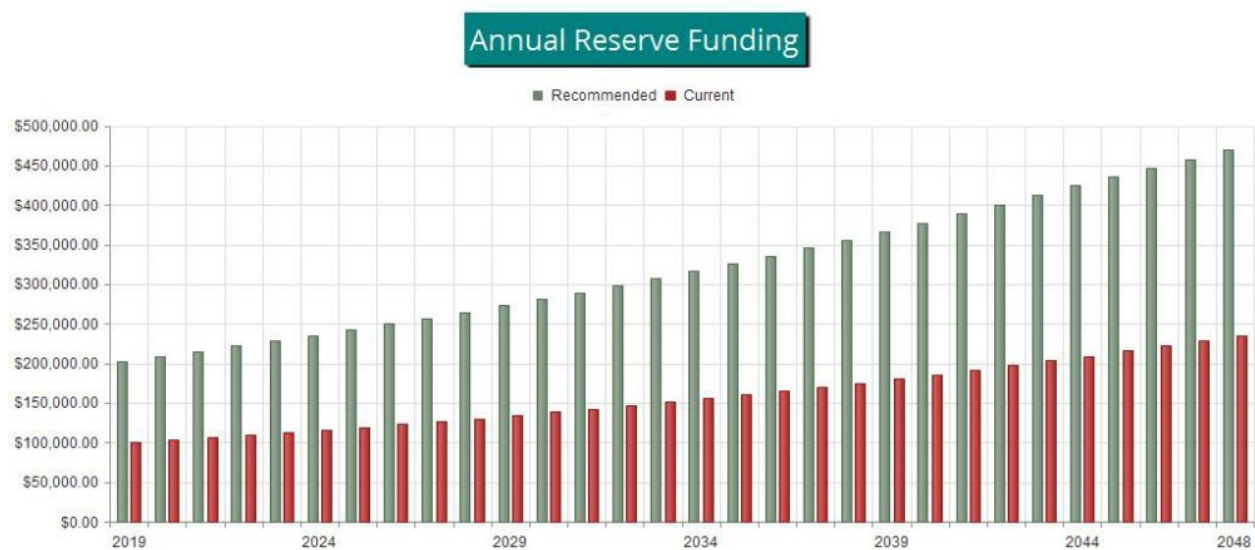


Figure 2

The following chart shows your Reserve balance under our recommended Full Funding Plan and at your current budgeted contribution rate, compared to your always-changing Fully Funded Balance target. Note how future capital campaigns are not anticipated with our recommended funding plan.

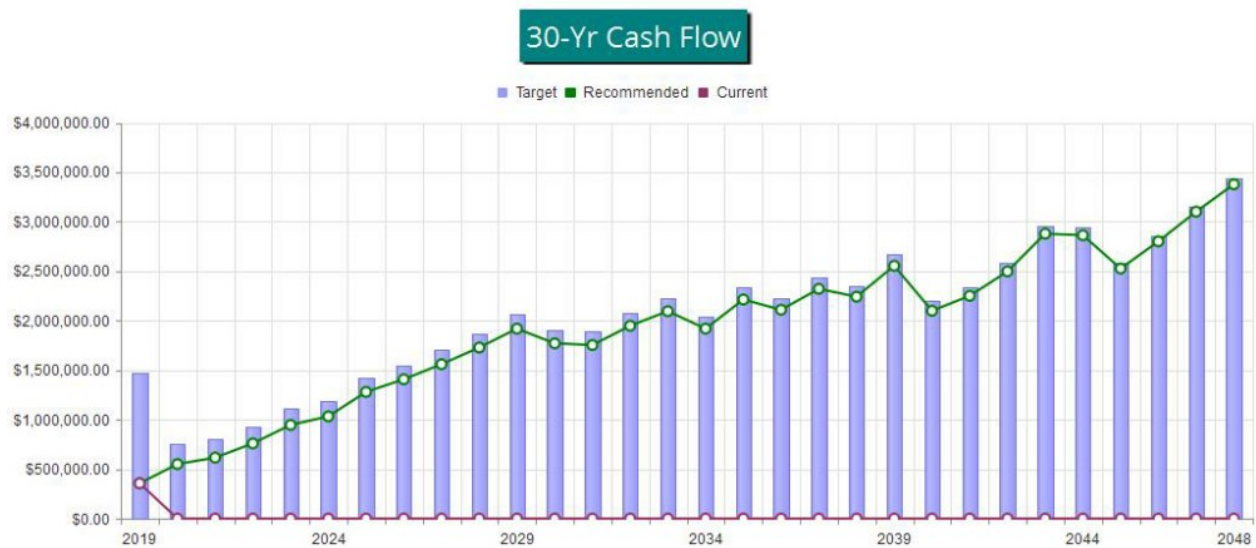


Figure 3

This figure shows the same information plotted on a Percent Funded scale. It is clear here to see how your Reserve Fund strength approaches the 100% Funded level under our recommended multi-yr Funding Plan.



Figure 4

## Table Descriptions

The tabular information in this Report is broken down into nine tables, not all which may have been chosen by your Project Manager to appear in your report. Tables are listed in the order in which they appear in your Report.

Executive Summary is a summary of your Reserve Components

Budget Summary is a management and accounting tool, summarizing groupings of your Reserve Components.

Analysis Summary provides a summary of the starting financial information and your Project Manager's Financial Analysis decision points.

Reserve Component List Detail discloses key Component information, providing the foundation upon which the financial analysis is performed.

Fully Funded Balance shows the calculation of the Fully Funded Balance for each of your components, and their contributions to the property total. For each component, the Fully Funded Balance is the fraction of life used up multiplied by its estimated Current Replacement Cost.

Component Significance shows the relative significance of each component to Reserve funding needs of the your property, helping you see which components have more (or less) influence than others on your total Reserve contribution rate. The deterioration cost/yr of each component is calculated by dividing the estimated Current Replacement Cost by its Useful Life, then that component's percentage of the total is displayed.

Accounting-Tax Summary provides information on each Component's proportionate portion of key totals, valuable to accounting professionals primarily during tax preparation time of year.

30-Yr Reserve Plan Summary provides a one-page 30-year summary of the cash flowing into and out of the Reserve Fund, with a display of the Fully Funded Balance, Percent Funded, and special funding needs risk at the beginning of each year.

30-Year Income/Expense Detail shows the detailed income and expenses for each of the next 30 years. This table makes it possible to see which components are projected to require repair or replacement in a particular year, and the size of those individual expenses.



# Reserve Component List Detail

17918-0  
Full

#	Component	Quantity	Useful Life	Rem. Useful Life	Current Cost Estimate	
					Best Case	Worst Case
General Common						
201	Asphalt - Reconstruction	Approx 96,400 GSF	30	0	\$289,000	\$386,000
202	Asphalt - Seal/Repair	Approx 96400 GSF	3	1	\$15,400	\$24,000
320	Pole Lights - Replace	(16) Fixtures	20	11	\$32,000	\$38,400
322	Bollard Lights - Replace	(14) Fixtures	15	10	\$12,600	\$16,800
405	Play Equipment - Replace	(2) Structures	15	10	\$40,000	\$55,000
412	Play Yard Surface - Resurface	Approx 3100 GSF	8	0	\$34,100	\$43,400
415	Canopy - Replace	(1) 21x42 Shade Cover	10	4	\$9,700	\$13,200
914	Lockers - 1/4 Replace	Approx (642) Lockers	6	1	\$16,900	\$21,700
1107	Metal Fence/Rail - Repaint	Approx 2100 LF	5	2	\$21,000	\$25,200
Building Exteriors						
1115	Bldg Exterio - 1/4 Repaint	Approx 67,000 GSF	3	0	\$24,200	\$30,500
1301	Maint Bldg Tile Roof - Replace	Approx 2350 GSF	25	0	\$14,100	\$18,800
1302	Cap Sheet Roof (Pavilion) - Replace	Approx 4300 GSF	20	11	\$27,000	\$30,100
1302	Roof (Admin, Library) - Replace	Approx 2010 GSF	20	2	\$12,600	\$17,100
1304	Tile Roof - Replace Underlay	Approx 18000 GSF	25	0	\$108,000	\$144,000
1308	Metal Overhang - Refurbish	Approx 600 GSF	30	25	\$18,000	\$22,000
1310	Gutters/Downspouts - Replace	Approx 2010 LF	8	2	\$5,000	\$9,000
Building Interiors						
601	Carpet (2010) - Replace	Approx 1220 GSY	10	1	\$67,100	\$79,300
601	Carpet (2013) - Replace	Approx 1390 GSY	10	4	\$76,200	\$90,000
601	Carpet (2015) - Replace	Approx 985 GSY	10	6	\$54,200	\$64,000
602	Linoleum Floor - Replace	Approx 6200 GSF	15	9	\$37,200	\$49,600
603	Cafeteria Tile - Replace	Approx 730 GSF	20	17	\$13,200	\$16,000
607	Assembly Room - Resurface	Approx 1050 GSF	10	1	\$10,500	\$15,800
909	Restrooms - Partial Refurb	(7) of (35) Restrooms	2	0	\$18,000	\$24,000
910	Cafeteria/Kitchen - Refurbish	(1) Cafeteria	20	17	\$18,000	\$26,000
912	Staff Lounge - Refurbish	(1) Lounge	15	8	\$8,000	\$14,000
921	Admin Bldg Cabinetry - Replace	Approx 130 LF	20	18	\$15,000	\$25,000
921	Cabinetry (2010) - Rep	Approx 390 LF	20	11	\$48,800	\$68,300
921	Cabinetry (2013) - Rep	Approx 1450 LF	20	14	\$181,000	\$254,000
921	Cabinetry (2015) - Rep	Approx 950 LF	20	16	\$119,000	\$166,000
1802	Elevator Cab - Remodel	(2) Cabs	15	10	\$16,000	\$24,000
Mechanical and Systems						
302	Back-Up Generator - Replace	(1) Onan/Cummins System	30	0	\$30,000	\$50,000
303	Heat Pumps - Replace	(8) Daikin Units	15	10	\$80,000	\$96,000
304	Split-System (VAA) - Replace	(6) Daikin Units	10	7	\$18,000	\$24,000
305	Surveillance System - Modernize	(1) System	5	3	\$10,000	\$15,000
306	Make-Up Air Unit - Replace	(1) Temtrol Unit	15	13	\$30,000	\$50,000
306	Ventilation Fans - Partial Replace	Fans Motors Etc.	5	2	\$6,000	\$10,000
308	Air Handlers - Replace	(2) Large Units	20	0	\$60,000	\$90,000
309	Chiller - Replace	(1) Trane Liquid Chiller	20	0	\$50,000	\$60,000
312	Cooling Tower - Replace	(1) BAC Tower	20	0	\$65,000	\$80,000
801	Boiler - Replace	(2) Laars Mighty Therm2	20	13	\$20,000	\$30,000
803	Water Heater/Tank - Replace	(4) American 30 Gallon	15	10	\$4,600	\$5,400

#	Component	Quantity	Useful Life	Rem. Useful Life	Current Cost Estimate	
					Best Case	Worst Case
1801	Elevator - Modernize	(2) 2-Stop Elevator	25	20	\$120,000	\$160,000
1803	Fire Alarm System - Modernize	Panels Lights Etc.	20	18	\$150,000	\$200,000
1810	Golf Carts - Replace	(5) Carts	10	1	\$15,000	\$25,000
1810	Utility Vehicles - Partial Replace	(2) Suburbans (2) Vans	10	0	\$88,000	\$120,000
45	Total Funded Components					

#	Component	Current	X	Effective	Age	/	Useful	Life	=	Fully
		Cost								Funded
		Estimate								Balance
General Common										
201	Asphalt - Reconstruction	\$337,500	X	30	/	30	=			\$337,500
202	Asphalt - Seal/Repair	\$19,700	X	2	/	3	=			\$13,133
320	Pole Lights - Replace	\$35,200	X	9	/	20	=			\$15,840
322	Bollard Lights - Replace	\$14,700	X	5	/	15	=			\$4,900
405	Play Equipment - Replace	\$47,500	X	5	/	15	=			\$15,833
412	Play Yard Surface - Resurface	\$38,750	X	8	/	8	=			\$38,750
415	Canopy - Replace	\$11,450	X	6	/	10	=			\$6,870
914	Lockers - 1/4 Replace	\$19,300	X	5	/	6	=			\$16,083
1107	Metal Fence/Rail - Repaint	\$23,100	X	3	/	5	=			\$13,860
Building Exteriors										
1115	Bldg Exterio - 1/4 Repaint	\$27,350	X	3	/	3	=			\$27,350
1301	Maint Bldg Tile Roof - Replace	\$16,450	X	25	/	25	=			\$16,450
1302	Cap Sheet Roof (Pavilion) - Replace	\$28,550	X	9	/	20	=			\$12,848
1302	Roof (Admin, Library) - Replace	\$14,850	X	18	/	20	=			\$13,365
1304	Tile Roof - Replace Underlay	\$126,000	X	25	/	25	=			\$126,000
1308	Metal Overhang - Refurbish	\$20,000	X	5	/	30	=			\$3,333
1310	Gutters/Downspouts - Replace	\$7,000	X	6	/	8	=			\$5,250
Building Interiors										
601	Carpet (2010) - Replace	\$73,200	X	9	/	10	=			\$65,880
601	Carpet (2013) - Replace	\$83,100	X	6	/	10	=			\$49,860
601	Carpet (2015) - Replace	\$59,100	X	4	/	10	=			\$23,640
602	Linoleum Floor - Replace	\$43,400	X	6	/	15	=			\$17,360
603	Cafeteria Tile - Replace	\$14,600	X	3	/	20	=			\$2,190
607	Assembly Room - Resurface	\$13,150	X	9	/	10	=			\$11,835
909	Restrooms - Partial Refurb	\$21,000	X	2	/	2	=			\$21,000
910	Cafeteria/Kitchen - Refurbish	\$22,000	X	3	/	20	=			\$3,300
912	Staff Lounge - Refurbish	\$11,000	X	7	/	15	=			\$5,133
921	Admin Bldg Cabinetry - Replace	\$20,000	X	2	/	20	=			\$2,000
921	Cabinetry (2010) - Rep	\$58,550	X	9	/	20	=			\$26,348
921	Cabinetry (2013) - Rep	\$217,500	X	6	/	20	=			\$65,250
921	Cabinetry (2015) - Rep	\$142,500	X	4	/	20	=			\$28,500
1802	Elevator Cab - Remodel	\$20,000	X	5	/	15	=			\$6,667
Mechanical and Systems										
302	Back-Up Generator - Replace	\$40,000	X	30	/	30	=			\$40,000
303	Heat Pumps - Replace	\$88,000	X	5	/	15	=			\$29,333
304	Split-System (VAA) - Replace	\$21,000	X	3	/	10	=			\$6,300
305	Surveillance System - Modernize	\$12,500	X	2	/	5	=			\$5,000
306	Make-Up Air Unit - Replace	\$40,000	X	2	/	15	=			\$5,333
306	Ventilation Fans - Partial Replace	\$8,000	X	3	/	5	=			\$4,800
308	Air Handlers - Replace	\$75,000	X	20	/	20	=			\$75,000
309	Chiller - Replace	\$55,000	X	20	/	20	=			\$55,000
312	Cooling Tower - Replace	\$72,500	X	20	/	20	=			\$72,500
801	Boiler - Replace	\$25,000	X	7	/	20	=			\$8,750
803	Water Heater/Tank - Replace	\$5,000	X	5	/	15	=			\$1,667

#	Component	Current						Fully
		Cost	Effective		Useful			Funded
		Estimate	X	Age	/	Life	=	Balance
1801	Elevator - Modernize	\$140,000	X	5	/	25	=	\$28,000
1803	Fire Alarm System - Modernize	\$175,000	X	2	/	20	=	\$17,500
1810	Golf Carts - Replace	\$20,000	X	9	/	10	=	\$18,000
1810	Utility Vehicles - Partial Replace	\$104,000	X	10	/	10	=	\$104,000
								\$1,467,512



# Component Significance

17918-0  
Full

#	Component	Useful Life (yrs)	Current Cost Estimate	Deterioration Cost/Yr	Deterioration Significance
General Common					
201	Asphalt - Reconstruction	30	\$337,500	\$11,250	6.52 %
202	Asphalt - Seal/Repair	3	\$19,700	\$6,567	3.80 %
320	Pole Lights - Replace	20	\$35,200	\$1,760	1.02 %
322	Bollard Lights - Replace	15	\$14,700	\$980	0.57 %
405	Play Equipment - Replace	15	\$47,500	\$3,167	1.83 %
412	Play Yard Surface - Resurface	8	\$38,750	\$4,844	2.81 %
415	Canopy - Replace	10	\$11,450	\$1,145	0.66 %
914	Lockers - 1/4 Replace	6	\$19,300	\$3,217	1.86 %
1107	Metal Fence/Rail - Repaint	5	\$23,100	\$4,620	2.68 %
Building Exteriors					
1115	Bldg Exterio - 1/4 Repaint	3	\$27,350	\$9,117	5.28 %
1301	Maint Bldg Tile Roof - Replace	25	\$16,450	\$658	0.38 %
1302	Cap Sheet Roof (Pavilion) - Replace	20	\$28,550	\$1,428	0.83 %
1302	Roof (Admin, Library) - Replace	20	\$14,850	\$743	0.43 %
1304	Tile Roof - Replace Underlay	25	\$126,000	\$5,040	2.92 %
1308	Metal Overhang - Refurbish	30	\$20,000	\$667	0.39 %
1310	Gutters/Downspouts - Replace	8	\$7,000	\$875	0.51 %
Building Interiors					
601	Carpet (2010) - Replace	10	\$73,200	\$7,320	4.24 %
601	Carpet (2013) - Replace	10	\$83,100	\$8,310	4.81 %
601	Carpet (2015) - Replace	10	\$59,100	\$5,910	3.42 %
602	Linoleum Floor - Replace	15	\$43,400	\$2,893	1.68 %
603	Cafeteria Tile - Replace	20	\$14,600	\$730	0.42 %
607	Assembly Room - Resurface	10	\$13,150	\$1,315	0.76 %
909	Restrooms - Partial Refurb	2	\$21,000	\$10,500	6.08 %
910	Cafeteria/Kitchen - Refurbish	20	\$22,000	\$1,100	0.64 %
912	Staff Lounge - Refurbish	15	\$11,000	\$733	0.42 %
921	Admin Bldg Cabinetry - Replace	20	\$20,000	\$1,000	0.58 %
921	Cabinetry (2010) - Rep	20	\$58,550	\$2,928	1.70 %
921	Cabinetry (2013) - Rep	20	\$217,500	\$10,875	6.30 %
921	Cabinetry (2015) - Rep	20	\$142,500	\$7,125	4.13 %
1802	Elevator Cab - Remodel	15	\$20,000	\$1,333	0.77 %
Mechanical and Systems					
302	Back-Up Generator - Replace	30	\$40,000	\$1,333	0.77 %
303	Heat Pumps - Replace	15	\$88,000	\$5,867	3.40 %
304	Split-System (VAA) - Replace	10	\$21,000	\$2,100	1.22 %
305	Surveillance System - Modernize	5	\$12,500	\$2,500	1.45 %
306	Make-Up Air Unit - Replace	15	\$40,000	\$2,667	1.54 %
306	Ventilation Fans - Partial Replace	5	\$8,000	\$1,600	0.93 %
308	Air Handlers - Replace	20	\$75,000	\$3,750	2.17 %
309	Chiller - Replace	20	\$55,000	\$2,750	1.59 %
312	Cooling Tower - Replace	20	\$72,500	\$3,625	2.10 %
801	Boiler - Replace	20	\$25,000	\$1,250	0.72 %
803	Water Heater/Tank - Replace	15	\$5,000	\$333	0.19 %
1801	Elevator - Modernize	25	\$140,000	\$5,600	3.24 %

#	Component	Useful Life (yrs)	Current Cost Estimate	Deterioration Cost/Yr	Deterioration Significance
1803	Fire Alarm System - Modernize	20	\$175,000	\$8,750	5.07 %
1810	Golf Carts - Replace	10	\$20,000	\$2,000	1.16 %
1810	Utility Vehicles - Partial Replace	10	\$104,000	\$10,400	6.02 %
45	Total Funded Components			\$172,673	100.00 %

# 30-Year Reserve Plan Summary

17918-0  
Full

Fiscal Year Start: 2019	Interest: 1.00 %	Inflation: 3.00 %
Reserve Fund Strength Calculations: (All values of Fiscal Year Start Date)	Projected Reserve Balance Changes	

Year	Starting	Fully	Percent	Special Funding Needs	% Increase In Annual Reserve	Reserve	Loan or Special Funding Needs	Interest Income	Reserve Expenses
	Reserve Balance	Funded Balance							
2019	\$355,700	\$1,467,512	24.2 %	High	103.10 %	\$203,100	\$900,000	\$4,525	\$913,550
2020	\$549,775	\$748,433	73.5 %	Low	3.00 %	\$209,193	\$0	\$5,822	\$149,711
2021	\$615,080	\$799,873	76.9 %	Low	3.00 %	\$215,469	\$0	\$6,867	\$78,454
2022	\$758,962	\$931,746	81.5 %	Low	3.00 %	\$221,933	\$0	\$8,521	\$43,545
2023	\$945,871	\$1,109,191	85.3 %	Low	3.00 %	\$228,591	\$0	\$9,886	\$152,225
2024	\$1,032,122	\$1,185,850	87.0 %	Low	3.00 %	\$235,449	\$0	\$11,551	\$0
2025	\$1,279,122	\$1,427,606	89.6 %	Low	3.00 %	\$242,512	\$0	\$13,424	\$128,301
2026	\$1,406,757	\$1,550,649	90.7 %	Low	3.00 %	\$249,787	\$0	\$14,824	\$112,042
2027	\$1,559,327	\$1,700,502	91.7 %	Low	3.00 %	\$257,281	\$0	\$16,428	\$105,459
2028	\$1,727,577	\$1,868,194	92.5 %	Low	3.00 %	\$264,999	\$0	\$18,223	\$92,313
2029	\$1,918,486	\$2,061,215	93.1 %	Low	3.00 %	\$272,949	\$0	\$18,437	\$439,326
2030	\$1,770,546	\$1,909,565	92.7 %	Low	3.00 %	\$281,138	\$0	\$17,609	\$316,505
2031	\$1,752,788	\$1,887,041	92.9 %	Low	3.00 %	\$289,572	\$0	\$18,494	\$113,277
2032	\$1,947,578	\$2,080,553	93.6 %	Low	3.00 %	\$298,259	\$0	\$20,204	\$171,084
2033	\$2,094,957	\$2,227,936	94.0 %	Low	3.00 %	\$307,207	\$0	\$20,059	\$503,768
2034	\$1,918,454	\$2,044,911	93.8 %	Low	3.00 %	\$316,423	\$0	\$20,648	\$42,610
2035	\$2,212,915	\$2,339,458	94.6 %	Low	3.00 %	\$325,916	\$0	\$21,603	\$451,003
2036	\$2,109,431	\$2,230,511	94.6 %	Low	3.00 %	\$335,693	\$0	\$22,141	\$146,608
2037	\$2,320,658	\$2,440,384	95.1 %	Low	3.00 %	\$345,764	\$0	\$22,802	\$447,485
2038	\$2,241,740	\$2,355,468	95.2 %	Low	3.00 %	\$356,137	\$0	\$23,966	\$68,387
2039	\$2,553,456	\$2,667,560	95.7 %	Low	3.00 %	\$366,821	\$0	\$23,253	\$844,357
2040	\$2,099,173	\$2,199,121	95.5 %	Low	3.00 %	\$377,826	\$0	\$21,737	\$248,721
2041	\$2,250,014	\$2,339,770	96.2 %	Low	3.00 %	\$389,161	\$0	\$23,724	\$166,030
2042	\$2,496,869	\$2,579,736	96.8 %	Low	3.00 %	\$400,835	\$0	\$26,864	\$46,379
2043	\$2,878,189	\$2,960,366	97.2 %	Low	3.00 %	\$412,860	\$0	\$28,690	\$457,480
2044	\$2,862,259	\$2,939,510	97.4 %	Low	3.00 %	\$425,246	\$0	\$26,929	\$788,621
2045	\$2,525,813	\$2,587,799	97.6 %	Low	2.50 %	\$435,877	\$0	\$26,620	\$187,839
2046	\$2,800,471	\$2,855,515	98.1 %	Low	2.50 %	\$446,774	\$0	\$29,491	\$176,481
2047	\$3,100,255	\$3,154,467	98.3 %	Low	2.50 %	\$457,944	\$0	\$32,374	\$213,235
2048	\$3,377,339	\$3,436,383	98.3 %	Low	2.50 %	\$469,392	\$0	\$36,286	\$0

# 30-Year Income/Expense Detail (yrs 0 through 4)

17918-0  
Full

Fiscal Year	2019	2020	2021	2022	2023
Starting Reserve Balance	\$355,700	\$549,775	\$615,080	\$758,962	\$945,871
Annual Reserve Contribution	\$203,100	\$209,193	\$215,469	\$221,933	\$228,591
Recommended Special Assessments	\$900,000	\$0	\$0	\$0	\$0
Interest Earnings	\$4,525	\$5,822	\$6,867	\$8,521	\$9,886
Total Income	\$1,463,325	\$764,790	\$837,416	\$989,416	\$1,184,347
# Component					
<b>General Common</b>					
201 Asphalt - Reconstruction	\$337,500	\$0	\$0	\$0	\$0
202 Asphalt - Seal/Repair	\$0	\$20,291	\$0	\$0	\$22,173
320 Pole Lights - Replace	\$0	\$0	\$0	\$0	\$0
322 Bollard Lights - Replace	\$0	\$0	\$0	\$0	\$0
405 Play Equipment - Replace	\$0	\$0	\$0	\$0	\$0
412 Play Yard Surface - Resurface	\$38,750	\$0	\$0	\$0	\$0
415 Canopy - Replace	\$0	\$0	\$0	\$0	\$12,887
914 Lockers - 1/4 Replace	\$0	\$19,879	\$0	\$0	\$0
1107 Metal Fence/Rail - Repaint	\$0	\$0	\$24,507	\$0	\$0
<b>Building Exteriors</b>					
1115 Bldg Exterio - 1/4 Repaint	\$27,350	\$0	\$0	\$29,886	\$0
1301 Maint Bldg Tile Roof - Replace	\$16,450	\$0	\$0	\$0	\$0
1302 Cap Sheet Roof (Pavilion) - Replace	\$0	\$0	\$0	\$0	\$0
1302 Roof (Admin, Library) - Replace	\$0	\$0	\$15,754	\$0	\$0
1304 Tile Roof - Replace Underlay	\$126,000	\$0	\$0	\$0	\$0
1308 Metal Overhang - Refurbish	\$0	\$0	\$0	\$0	\$0
1310 Gutters/Downspouts - Replace	\$0	\$0	\$7,426	\$0	\$0
<b>Building Interiors</b>					
601 Carpet (2010) - Replace	\$0	\$75,396	\$0	\$0	\$0
601 Carpet (2013) - Replace	\$0	\$0	\$0	\$0	\$93,530
601 Carpet (2015) - Replace	\$0	\$0	\$0	\$0	\$0
602 Linoleum Floor - Replace	\$0	\$0	\$0	\$0	\$0
603 Cafeteria Tile - Replace	\$0	\$0	\$0	\$0	\$0
607 Assembly Room - Resurface	\$0	\$13,545	\$0	\$0	\$0
909 Restrooms - Partial Refurb	\$21,000	\$0	\$22,279	\$0	\$23,636
910 Cafeteria/Kitchen - Refurbish	\$0	\$0	\$0	\$0	\$0
912 Staff Lounge - Refurbish	\$0	\$0	\$0	\$0	\$0
921 Admin Bldg Cabinetry - Replace	\$0	\$0	\$0	\$0	\$0
921 Cabinetry (2010) - Rep	\$0	\$0	\$0	\$0	\$0
921 Cabinetry (2013) - Rep	\$0	\$0	\$0	\$0	\$0
921 Cabinetry (2015) - Rep	\$0	\$0	\$0	\$0	\$0
1802 Elevator Cab - Remodel	\$0	\$0	\$0	\$0	\$0
<b>Mechanical and Systems</b>					
302 Back-Up Generator - Replace	\$40,000	\$0	\$0	\$0	\$0
303 Heat Pumps - Replace	\$0	\$0	\$0	\$0	\$0
304 Split-System (VAA) - Replace	\$0	\$0	\$0	\$0	\$0
305 Surveillance System - Modernize	\$0	\$0	\$0	\$13,659	\$0
306 Make-Up Air Unit - Replace	\$0	\$0	\$0	\$0	\$0
306 Ventilation Fans - Partial Replace	\$0	\$0	\$8,487	\$0	\$0
308 Air Handlers - Replace	\$75,000	\$0	\$0	\$0	\$0
309 Chiller - Replace	\$55,000	\$0	\$0	\$0	\$0
312 Cooling Tower - Replace	\$72,500	\$0	\$0	\$0	\$0
801 Boiler - Replace	\$0	\$0	\$0	\$0	\$0
803 Water Heater/Tank - Replace	\$0	\$0	\$0	\$0	\$0
1801 Elevator - Modernize	\$0	\$0	\$0	\$0	\$0
1803 Fire Alarm System - Modernize	\$0	\$0	\$0	\$0	\$0
1810 Golf Carts - Replace	\$0	\$20,600	\$0	\$0	\$0
1810 Utility Vehicles - Partial Replace	\$104,000	\$0	\$0	\$0	\$0
Total Expenses	\$913,550	\$149,711	\$78,454	\$43,545	\$152,225
Ending Reserve Balance	\$549,775	\$615,080	\$758,962	\$945,871	\$1,032,122

<b>Fiscal Year</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>
Starting Reserve Balance	\$1,032,122	\$1,279,122	\$1,406,757	\$1,559,327	\$1,727,577
Annual Reserve Contribution	\$235,449	\$242,512	\$249,787	\$257,281	\$264,999
Recommended Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$11,551	\$13,424	\$14,824	\$16,428	\$18,223
Total Income	\$1,279,122	\$1,535,058	\$1,671,368	\$1,833,035	\$2,010,799
# Component					
<b>General Common</b>					
201 Asphalt - Reconstruction	\$0	\$0	\$0	\$0	\$0
202 Asphalt - Seal/Repair	\$0	\$0	\$24,229	\$0	\$0
320 Pole Lights - Replace	\$0	\$0	\$0	\$0	\$0
322 Bollard Lights - Replace	\$0	\$0	\$0	\$0	\$0
405 Play Equipment - Replace	\$0	\$0	\$0	\$0	\$0
412 Play Yard Surface - Resurface	\$0	\$0	\$0	\$49,087	\$0
415 Canopy - Replace	\$0	\$0	\$0	\$0	\$0
914 Lockers - 1/4 Replace	\$0	\$0	\$23,737	\$0	\$0
1107 Metal Fence/Rail - Repaint	\$0	\$0	\$28,410	\$0	\$0
<b>Building Exteriors</b>					
1115 Bldg Exterio - 1/4 Repaint	\$0	\$32,657	\$0	\$0	\$35,686
1301 Maint Bldg Tile Roof - Replace	\$0	\$0	\$0	\$0	\$0
1302 Cap Sheet Roof (Pavilion) - Replace	\$0	\$0	\$0	\$0	\$0
1302 Roof (Admin, Library) - Replace	\$0	\$0	\$0	\$0	\$0
1304 Tile Roof - Replace Underlay	\$0	\$0	\$0	\$0	\$0
1308 Metal Overhang - Refurbish	\$0	\$0	\$0	\$0	\$0
1310 Gutters/Downspouts - Replace	\$0	\$0	\$0	\$0	\$0
<b>Building Interiors</b>					
601 Carpet (2010) - Replace	\$0	\$0	\$0	\$0	\$0
601 Carpet (2013) - Replace	\$0	\$0	\$0	\$0	\$0
601 Carpet (2015) - Replace	\$0	\$70,568	\$0	\$0	\$0
602 Linoleum Floor - Replace	\$0	\$0	\$0	\$0	\$56,627
603 Cafeteria Tile - Replace	\$0	\$0	\$0	\$0	\$0
607 Assembly Room - Resurface	\$0	\$0	\$0	\$0	\$0
909 Restrooms - Partial Refurb	\$0	\$25,075	\$0	\$26,602	\$0
910 Cafeteria/Kitchen - Refurbish	\$0	\$0	\$0	\$0	\$0
912 Staff Lounge - Refurbish	\$0	\$0	\$0	\$13,934	\$0
921 Admin Bldg Cabinetry - Replace	\$0	\$0	\$0	\$0	\$0
921 Cabinetry (2010) - Rep	\$0	\$0	\$0	\$0	\$0
921 Cabinetry (2013) - Rep	\$0	\$0	\$0	\$0	\$0
921 Cabinetry (2015) - Rep	\$0	\$0	\$0	\$0	\$0
1802 Elevator Cab - Remodel	\$0	\$0	\$0	\$0	\$0
<b>Mechanical and Systems</b>					
302 Back-Up Generator - Replace	\$0	\$0	\$0	\$0	\$0
303 Heat Pumps - Replace	\$0	\$0	\$0	\$0	\$0
304 Split-System (VAA) - Replace	\$0	\$0	\$25,827	\$0	\$0
305 Surveillance System - Modernize	\$0	\$0	\$0	\$15,835	\$0
306 Make-Up Air Unit - Replace	\$0	\$0	\$0	\$0	\$0
306 Ventilation Fans - Partial Replace	\$0	\$0	\$9,839	\$0	\$0
308 Air Handlers - Replace	\$0	\$0	\$0	\$0	\$0
309 Chiller - Replace	\$0	\$0	\$0	\$0	\$0
312 Cooling Tower - Replace	\$0	\$0	\$0	\$0	\$0
801 Boiler - Replace	\$0	\$0	\$0	\$0	\$0
803 Water Heater/Tank - Replace	\$0	\$0	\$0	\$0	\$0
1801 Elevator - Modernize	\$0	\$0	\$0	\$0	\$0
1803 Fire Alarm System - Modernize	\$0	\$0	\$0	\$0	\$0
1810 Golf Carts - Replace	\$0	\$0	\$0	\$0	\$0
1810 Utility Vehicles - Partial Replace	\$0	\$0	\$0	\$0	\$0
Total Expenses	\$0	\$128,301	\$112,042	\$105,459	\$92,313
Ending Reserve Balance	\$1,279,122	\$1,406,757	\$1,559,327	\$1,727,577	\$1,918,486

<b>Fiscal Year</b>	<b>2029</b>	<b>2030</b>	<b>2031</b>	<b>2032</b>	<b>2033</b>
Starting Reserve Balance	\$1,918,486	\$1,770,546	\$1,752,788	\$1,947,578	\$2,094,957
Annual Reserve Contribution	\$272,949	\$281,138	\$289,572	\$298,259	\$307,207
Recommended Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$18,437	\$17,609	\$18,494	\$20,204	\$20,059
Total Income	\$2,209,873	\$2,069,294	\$2,060,854	\$2,266,041	\$2,422,222
# Component					
<b>General Common</b>					
201 Asphalt - Reconstruction	\$0	\$0	\$0	\$0	\$0
202 Asphalt - Seal/Repair	\$26,475	\$0	\$0	\$28,930	\$0
320 Pole Lights - Replace	\$0	\$48,725	\$0	\$0	\$0
322 Bollard Lights - Replace	\$19,756	\$0	\$0	\$0	\$0
405 Play Equipment - Replace	\$63,836	\$0	\$0	\$0	\$0
412 Play Yard Surface - Resurface	\$0	\$0	\$0	\$0	\$0
415 Canopy - Replace	\$0	\$0	\$0	\$0	\$17,319
914 Lockers - 1/4 Replace	\$0	\$0	\$0	\$28,343	\$0
1107 Metal Fence/Rail - Repaint	\$0	\$0	\$32,935	\$0	\$0
<b>Building Exteriors</b>					
1115 Bldg Exterio - 1/4 Repaint	\$0	\$0	\$38,995	\$0	\$0
1301 Maint Bldg Tile Roof - Replace	\$0	\$0	\$0	\$0	\$0
1302 Cap Sheet Roof (Pavilion) - Replace	\$0	\$39,520	\$0	\$0	\$0
1302 Roof (Admin, Library) - Replace	\$0	\$0	\$0	\$0	\$0
1304 Tile Roof - Replace Underlay	\$0	\$0	\$0	\$0	\$0
1308 Metal Overhang - Refurbish	\$0	\$0	\$0	\$0	\$0
1310 Gutters/Downspouts - Replace	\$9,407	\$0	\$0	\$0	\$0
<b>Building Interiors</b>					
601 Carpet (2010) - Replace	\$0	\$101,326	\$0	\$0	\$0
601 Carpet (2013) - Replace	\$0	\$0	\$0	\$0	\$125,696
601 Carpet (2015) - Replace	\$0	\$0	\$0	\$0	\$0
602 Linoleum Floor - Replace	\$0	\$0	\$0	\$0	\$0
603 Cafeteria Tile - Replace	\$0	\$0	\$0	\$0	\$0
607 Assembly Room - Resurface	\$0	\$18,203	\$0	\$0	\$0
909 Restrooms - Partial Refurb	\$28,222	\$0	\$29,941	\$0	\$31,764
910 Cafeteria/Kitchen - Refurbish	\$0	\$0	\$0	\$0	\$0
912 Staff Lounge - Refurbish	\$0	\$0	\$0	\$0	\$0
921 Admin Bldg Cabinetry - Replace	\$0	\$0	\$0	\$0	\$0
921 Cabinetry (2010) - Rep	\$0	\$81,047	\$0	\$0	\$0
921 Cabinetry (2013) - Rep	\$0	\$0	\$0	\$0	\$328,988
921 Cabinetry (2015) - Rep	\$0	\$0	\$0	\$0	\$0
1802 Elevator Cab - Remodel	\$26,878	\$0	\$0	\$0	\$0
<b>Mechanical and Systems</b>					
302 Back-Up Generator - Replace	\$0	\$0	\$0	\$0	\$0
303 Heat Pumps - Replace	\$118,265	\$0	\$0	\$0	\$0
304 Split-System (VAA) - Replace	\$0	\$0	\$0	\$0	\$0
305 Surveillance System - Modernize	\$0	\$0	\$0	\$18,357	\$0
306 Make-Up Air Unit - Replace	\$0	\$0	\$0	\$58,741	\$0
306 Ventilation Fans - Partial Replace	\$0	\$0	\$11,406	\$0	\$0
308 Air Handlers - Replace	\$0	\$0	\$0	\$0	\$0
309 Chiller - Replace	\$0	\$0	\$0	\$0	\$0
312 Cooling Tower - Replace	\$0	\$0	\$0	\$0	\$0
801 Boiler - Replace	\$0	\$0	\$0	\$36,713	\$0
803 Water Heater/Tank - Replace	\$6,720	\$0	\$0	\$0	\$0
1801 Elevator - Modernize	\$0	\$0	\$0	\$0	\$0
1803 Fire Alarm System - Modernize	\$0	\$0	\$0	\$0	\$0
1810 Golf Carts - Replace	\$0	\$27,685	\$0	\$0	\$0
1810 Utility Vehicles - Partial Replace	\$139,767	\$0	\$0	\$0	\$0
Total Expenses	\$439,326	\$316,505	\$113,277	\$171,084	\$503,768
Ending Reserve Balance	\$1,770,546	\$1,752,788	\$1,947,578	\$2,094,957	\$1,918,454



<b>Fiscal Year</b>	<b>2034</b>	<b>2035</b>	<b>2036</b>	<b>2037</b>	<b>2038</b>
Starting Reserve Balance	\$1,918,454	\$2,212,915	\$2,109,431	\$2,320,658	\$2,241,740
Annual Reserve Contribution	\$316,423	\$325,916	\$335,693	\$345,764	\$356,137
Recommended Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$20,648	\$21,603	\$22,141	\$22,802	\$23,966
Total Income	\$2,255,526	\$2,560,434	\$2,467,265	\$2,689,224	\$2,621,842
# Component					
<b>General Common</b>					
201 Asphalt - Reconstruction	\$0	\$0	\$0	\$0	\$0
202 Asphalt - Seal/Repair	\$0	\$31,613	\$0	\$0	\$34,544
320 Pole Lights - Replace	\$0	\$0	\$0	\$0	\$0
322 Bollard Lights - Replace	\$0	\$0	\$0	\$0	\$0
405 Play Equipment - Replace	\$0	\$0	\$0	\$0	\$0
412 Play Yard Surface - Resurface	\$0	\$62,182	\$0	\$0	\$0
415 Canopy - Replace	\$0	\$0	\$0	\$0	\$0
914 Lockers - 1/4 Replace	\$0	\$0	\$0	\$0	\$33,843
1107 Metal Fence/Rail - Repaint	\$0	\$0	\$38,181	\$0	\$0
<b>Building Exteriors</b>					
1115 Bldg Exterio - 1/4 Repaint	\$42,610	\$0	\$0	\$46,562	\$0
1301 Maint Bldg Tile Roof - Replace	\$0	\$0	\$0	\$0	\$0
1302 Cap Sheet Roof (Pavilion) - Replace	\$0	\$0	\$0	\$0	\$0
1302 Roof (Admin, Library) - Replace	\$0	\$0	\$0	\$0	\$0
1304 Tile Roof - Replace Underlay	\$0	\$0	\$0	\$0	\$0
1308 Metal Overhang - Refurbish	\$0	\$0	\$0	\$0	\$0
1310 Gutters/Downspouts - Replace	\$0	\$0	\$0	\$11,917	\$0
<b>Building Interiors</b>					
601 Carpet (2010) - Replace	\$0	\$0	\$0	\$0	\$0
601 Carpet (2013) - Replace	\$0	\$0	\$0	\$0	\$0
601 Carpet (2015) - Replace	\$0	\$94,838	\$0	\$0	\$0
602 Linoleum Floor - Replace	\$0	\$0	\$0	\$0	\$0
603 Cafeteria Tile - Replace	\$0	\$0	\$24,132	\$0	\$0
607 Assembly Room - Resurface	\$0	\$0	\$0	\$0	\$0
909 Restrooms - Partial Refurb	\$0	\$33,699	\$0	\$35,751	\$0
910 Cafeteria/Kitchen - Refurbish	\$0	\$0	\$36,363	\$0	\$0
912 Staff Lounge - Refurbish	\$0	\$0	\$0	\$0	\$0
921 Admin Bldg Cabinetry - Replace	\$0	\$0	\$0	\$34,049	\$0
921 Cabinetry (2010) - Rep	\$0	\$0	\$0	\$0	\$0
921 Cabinetry (2013) - Rep	\$0	\$0	\$0	\$0	\$0
921 Cabinetry (2015) - Rep	\$0	\$228,671	\$0	\$0	\$0
1802 Elevator Cab - Remodel	\$0	\$0	\$0	\$0	\$0
<b>Mechanical and Systems</b>					
302 Back-Up Generator - Replace	\$0	\$0	\$0	\$0	\$0
303 Heat Pumps - Replace	\$0	\$0	\$0	\$0	\$0
304 Split-System (VAA) - Replace	\$0	\$0	\$34,710	\$0	\$0
305 Surveillance System - Modernize	\$0	\$0	\$0	\$21,280	\$0
306 Make-Up Air Unit - Replace	\$0	\$0	\$0	\$0	\$0
306 Ventilation Fans - Partial Replace	\$0	\$0	\$13,223	\$0	\$0
308 Air Handlers - Replace	\$0	\$0	\$0	\$0	\$0
309 Chiller - Replace	\$0	\$0	\$0	\$0	\$0
312 Cooling Tower - Replace	\$0	\$0	\$0	\$0	\$0
801 Boiler - Replace	\$0	\$0	\$0	\$0	\$0
803 Water Heater/Tank - Replace	\$0	\$0	\$0	\$0	\$0
1801 Elevator - Modernize	\$0	\$0	\$0	\$0	\$0
1803 Fire Alarm System - Modernize	\$0	\$0	\$0	\$297,926	\$0
1810 Golf Carts - Replace	\$0	\$0	\$0	\$0	\$0
1810 Utility Vehicles - Partial Replace	\$0	\$0	\$0	\$0	\$0
Total Expenses	\$42,610	\$451,003	\$146,608	\$447,485	\$68,387
Ending Reserve Balance	\$2,212,915	\$2,109,431	\$2,320,658	\$2,241,740	\$2,553,456

<b>Fiscal Year</b>	<b>2039</b>	<b>2040</b>	<b>2041</b>	<b>2042</b>	<b>2043</b>
Starting Reserve Balance	\$2,553,456	\$2,099,173	\$2,250,014	\$2,496,869	\$2,878,189
Annual Reserve Contribution	\$366,821	\$377,826	\$389,161	\$400,835	\$412,860
Recommended Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$23,253	\$21,737	\$23,724	\$26,864	\$28,690
Total Income	\$2,943,530	\$2,498,736	\$2,662,899	\$2,924,568	\$3,319,739
# Component					
<b>General Common</b>					
201 Asphalt - Reconstruction	\$0	\$0	\$0	\$0	\$0
202 Asphalt - Seal/Repair	\$0	\$0	\$37,747	\$0	\$0
320 Pole Lights - Replace	\$0	\$0	\$0	\$0	\$0
322 Bollard Lights - Replace	\$0	\$0	\$0	\$0	\$0
405 Play Equipment - Replace	\$0	\$0	\$0	\$0	\$0
412 Play Yard Surface - Resurface	\$0	\$0	\$0	\$0	\$78,771
415 Canopy - Replace	\$0	\$0	\$0	\$0	\$23,275
914 Lockers - 1/4 Replace	\$0	\$0	\$0	\$0	\$0
1107 Metal Fence/Rail - Repaint	\$0	\$0	\$44,262	\$0	\$0
<b>Building Exteriors</b>					
1115 Bldg Exterio - 1/4 Repaint	\$0	\$50,879	\$0	\$0	\$55,597
1301 Maint Bldg Tile Roof - Replace	\$0	\$0	\$0	\$0	\$0
1302 Cap Sheet Roof (Pavilion) - Replace	\$0	\$0	\$0	\$0	\$0
1302 Roof (Admin, Library) - Replace	\$0	\$0	\$28,454	\$0	\$0
1304 Tile Roof - Replace Underlay	\$0	\$0	\$0	\$0	\$0
1308 Metal Overhang - Refurbish	\$0	\$0	\$0	\$0	\$0
1310 Gutters/Downspouts - Replace	\$0	\$0	\$0	\$0	\$0
<b>Building Interiors</b>					
601 Carpet (2010) - Replace	\$0	\$136,174	\$0	\$0	\$0
601 Carpet (2013) - Replace	\$0	\$0	\$0	\$0	\$168,925
601 Carpet (2015) - Replace	\$0	\$0	\$0	\$0	\$0
602 Linoleum Floor - Replace	\$0	\$0	\$0	\$0	\$88,223
603 Cafeteria Tile - Replace	\$0	\$0	\$0	\$0	\$0
607 Assembly Room - Resurface	\$0	\$24,463	\$0	\$0	\$0
909 Restrooms - Partial Refurb	\$37,928	\$0	\$40,238	\$0	\$42,689
910 Cafeteria/Kitchen - Refurbish	\$0	\$0	\$0	\$0	\$0
912 Staff Lounge - Refurbish	\$0	\$0	\$0	\$21,709	\$0
921 Admin Bldg Cabinetry - Replace	\$0	\$0	\$0	\$0	\$0
921 Cabinetry (2010) - Rep	\$0	\$0	\$0	\$0	\$0
921 Cabinetry (2013) - Rep	\$0	\$0	\$0	\$0	\$0
921 Cabinetry (2015) - Rep	\$0	\$0	\$0	\$0	\$0
1802 Elevator Cab - Remodel	\$0	\$0	\$0	\$0	\$0
<b>Mechanical and Systems</b>					
302 Back-Up Generator - Replace	\$0	\$0	\$0	\$0	\$0
303 Heat Pumps - Replace	\$0	\$0	\$0	\$0	\$0
304 Split-System (VAA) - Replace	\$0	\$0	\$0	\$0	\$0
305 Surveillance System - Modernize	\$0	\$0	\$0	\$24,670	\$0
306 Make-Up Air Unit - Replace	\$0	\$0	\$0	\$0	\$0
306 Ventilation Fans - Partial Replace	\$0	\$0	\$15,329	\$0	\$0
308 Air Handlers - Replace	\$135,458	\$0	\$0	\$0	\$0
309 Chiller - Replace	\$99,336	\$0	\$0	\$0	\$0
312 Cooling Tower - Replace	\$130,943	\$0	\$0	\$0	\$0
801 Boiler - Replace	\$0	\$0	\$0	\$0	\$0
803 Water Heater/Tank - Replace	\$0	\$0	\$0	\$0	\$0
1801 Elevator - Modernize	\$252,856	\$0	\$0	\$0	\$0
1803 Fire Alarm System - Modernize	\$0	\$0	\$0	\$0	\$0
1810 Golf Carts - Replace	\$0	\$37,206	\$0	\$0	\$0
1810 Utility Vehicles - Partial Replace	\$187,836	\$0	\$0	\$0	\$0
Total Expenses	\$844,357	\$248,721	\$166,030	\$46,379	\$457,480
Ending Reserve Balance	\$2,099,173	\$2,250,014	\$2,496,869	\$2,878,189	\$2,862,259

<b>Fiscal Year</b>	<b>2044</b>	<b>2045</b>	<b>2046</b>	<b>2047</b>	<b>2048</b>
Starting Reserve Balance	\$2,862,259	\$2,525,813	\$2,800,471	\$3,100,255	\$3,377,339
Annual Reserve Contribution	\$425,246	\$435,877	\$446,774	\$457,944	\$469,392
Recommended Special Assessments	\$0	\$0	\$0	\$0	\$0
Interest Earnings	\$26,929	\$26,620	\$29,491	\$32,374	\$36,286
Total Income	\$3,314,434	\$2,988,310	\$3,276,737	\$3,590,573	\$3,883,017
# Component					
<b>General Common</b>					
201 Asphalt - Reconstruction	\$0	\$0	\$0	\$0	\$0
202 Asphalt - Seal/Repair	\$41,247	\$0	\$0	\$45,072	\$0
320 Pole Lights - Replace	\$0	\$0	\$0	\$0	\$0
322 Bollard Lights - Replace	\$30,779	\$0	\$0	\$0	\$0
405 Play Equipment - Replace	\$99,454	\$0	\$0	\$0	\$0
412 Play Yard Surface - Resurface	\$0	\$0	\$0	\$0	\$0
415 Canopy - Replace	\$0	\$0	\$0	\$0	\$0
914 Lockers - 1/4 Replace	\$40,410	\$0	\$0	\$0	\$0
1107 Metal Fence/Rail - Repaint	\$0	\$0	\$51,312	\$0	\$0
<b>Building Exteriors</b>					
1115 Bldg Exterio - 1/4 Repaint	\$0	\$0	\$60,752	\$0	\$0
1301 Maint Bldg Tile Roof - Replace	\$34,443	\$0	\$0	\$0	\$0
1302 Cap Sheet Roof (Pavilion) - Replace	\$0	\$0	\$0	\$0	\$0
1302 Roof (Admin, Library) - Replace	\$0	\$0	\$0	\$0	\$0
1304 Tile Roof - Replace Underlay	\$263,816	\$0	\$0	\$0	\$0
1308 Metal Overhang - Refurbish	\$41,876	\$0	\$0	\$0	\$0
1310 Gutters/Downspouts - Replace	\$0	\$15,096	\$0	\$0	\$0
<b>Building Interiors</b>					
601 Carpet (2010) - Replace	\$0	\$0	\$0	\$0	\$0
601 Carpet (2013) - Replace	\$0	\$0	\$0	\$0	\$0
601 Carpet (2015) - Replace	\$0	\$127,455	\$0	\$0	\$0
602 Linoleum Floor - Replace	\$0	\$0	\$0	\$0	\$0
603 Cafeteria Tile - Replace	\$0	\$0	\$0	\$0	\$0
607 Assembly Room - Resurface	\$0	\$0	\$0	\$0	\$0
909 Restrooms - Partial Refurb	\$0	\$45,288	\$0	\$48,046	\$0
910 Cafeteria/Kitchen - Refurbish	\$0	\$0	\$0	\$0	\$0
912 Staff Lounge - Refurbish	\$0	\$0	\$0	\$0	\$0
921 Admin Bldg Cabinetry - Replace	\$0	\$0	\$0	\$0	\$0
921 Cabinetry (2010) - Rep	\$0	\$0	\$0	\$0	\$0
921 Cabinetry (2013) - Rep	\$0	\$0	\$0	\$0	\$0
921 Cabinetry (2015) - Rep	\$0	\$0	\$0	\$0	\$0
1802 Elevator Cab - Remodel	\$41,876	\$0	\$0	\$0	\$0
<b>Mechanical and Systems</b>					
302 Back-Up Generator - Replace	\$0	\$0	\$0	\$0	\$0
303 Heat Pumps - Replace	\$184,252	\$0	\$0	\$0	\$0
304 Split-System (VAA) - Replace	\$0	\$0	\$46,647	\$0	\$0
305 Surveillance System - Modernize	\$0	\$0	\$0	\$28,599	\$0
306 Make-Up Air Unit - Replace	\$0	\$0	\$0	\$91,517	\$0
306 Ventilation Fans - Partial Replace	\$0	\$0	\$17,770	\$0	\$0
308 Air Handlers - Replace	\$0	\$0	\$0	\$0	\$0
309 Chiller - Replace	\$0	\$0	\$0	\$0	\$0
312 Cooling Tower - Replace	\$0	\$0	\$0	\$0	\$0
801 Boiler - Replace	\$0	\$0	\$0	\$0	\$0
803 Water Heater/Tank - Replace	\$10,469	\$0	\$0	\$0	\$0
1801 Elevator - Modernize	\$0	\$0	\$0	\$0	\$0
1803 Fire Alarm System - Modernize	\$0	\$0	\$0	\$0	\$0
1810 Golf Carts - Replace	\$0	\$0	\$0	\$0	\$0
1810 Utility Vehicles - Partial Replace	\$0	\$0	\$0	\$0	\$0
Total Expenses	\$788,621	\$187,839	\$176,481	\$213,235	\$0
Ending Reserve Balance	\$2,525,813	\$2,800,471	\$3,100,255	\$3,377,339	\$3,883,017

## Accuracy, Limitations, and Disclosures

Association Reserves and its employees have no ownership, management, or other business relationships with the client other than this Reserve Study engagement. Robert M. Nordlund, P.E., R.S., company Founder/CEO, is a California licensed Professional Engineer (Mechanical, #22322), and credentialed Reserve Specialist (#5). All work done by Association Reserves is performed under his Responsible Charge and is performed in accordance with National Reserve Study Standards (NRSS). There are no material issues to our knowledge that have not been disclosed to the client that would cause a distortion of the client's situation.

Per NRSS, information provided by official representative(s) of the client, vendors, and suppliers regarding financial details, component physical details and/or quantities, or historical issues/conditions will be deemed reliable, and is not intended to be used for the purpose of any type of audit, quality/forensic analysis, or background checks of historical records. As such, information provided to us has not been audited or independently verified.

Estimates for interest and inflation have been included, because including such estimates are more accurate than ignoring them completely. When we are hired to prepare Update reports, the client is considered to have deemed those previously developed component quantities as accurate and reliable, whether established by our firm or other individuals/firms (unless specifically mentioned in our Site Inspection Notes). During inspections our company standard is to establish measurements within 5% accuracy, and our scope includes visual inspection of accessible areas and components and does not include any destructive or other testing. Our work is done only for budget purposes. Uses or expectations outside our expertise and scope of work include, but are not limited to, project audit, quality inspection, and the identification of construction defects, hazardous materials, or dangerous conditions. Identifying hidden issues such as but not limited to plumbing or electrical problems are also outside our scope of work. Our estimates assume proper original installation & construction, adherence to recommended preventive maintenance, a stable economic environment, and do not consider frequency or severity of natural disasters. Our opinions of component Useful Life, Remaining Useful Life, and current or future cost estimates are not a warranty or guarantee of actual costs or timing.

Because the physical and financial status of the property, legislation, the economy, weather, owner expectations, and usage are all in a continual state of change over which we have no control, we do not expect that the events projected in this document will all occur exactly as planned. This Reserve Study is by nature a "one-year" document in need of being updated annually so that more accurate estimates can be incorporated. It is only because a long-term perspective improves the accuracy of near-term planning that this Report projects expenses into the future. We fully expect a number of adjustments will be necessary through the interim years to the cost and timing of expense projections and the funding necessary to prepare for those estimated expenses.

In this engagement our compensation is not contingent upon our conclusions, and our liability in any matter involving this Reserve Study is limited to our fee for services rendered.

## Terms and Definitions

<b>BTU</b>	British Thermal Unit (a standard unit of energy)
<b>DIA</b>	Diameter
<b>GSF</b>	Gross Square Feet (area). Equivalent to Square Feet
<b>GSY</b>	Gross Square Yards (area). Equivalent to Square Yards
<b>HP</b>	Horsepower
<b>LF</b>	Linear Feet (length)
<b>Effective Age</b>	The difference between Useful Life and Remaining Useful Life. Note that this is not necessarily equivalent to the chronological age of the component.
<b>Fully Funded Balance (FFB)</b>	The value of the deterioration of the Reserve Components. This is the fraction of life "used up" of each component multiplied by its estimated Current Replacement. While calculated for each component, it is summed together for an property total.
<b>Inflation</b>	Cost factors are adjusted for inflation at the rate defined in the Executive Summary and compounded annually. These increasing costs can be seen as you follow the recurring cycles of a component on the "30-yr Income/Expense Detail" table.
<b>Interest</b>	Interest earnings on Reserve Funds are calculated using the average balance for the year (taking into account income and expenses through the year) and compounded monthly using the rate defined in the Executive Summary. Annual interest earning assumption appears in the Executive Summary.
<b>Percent Funded</b>	The ratio, at a particular point in time (the first day of the Fiscal Year), of the actual (or projected) Reserve Balance to the Fully Funded Balance, expressed as a percentage.
<b>Remaining Useful Life (RUL)</b>	The estimated time, in years, that a common area component can be expected to continue to serve its intended function.
<b>Useful Life (UL)</b>	The estimated time, in years, that a common area component can be expected to serve its intended function.

## Component Details

The primary purpose of the Component Details appendix is to provide the reader with the basis of our funding assumptions resulting from our physical analysis and subsequent research. The information presented here represents a wide range of components that were observed and measured against National Reserve Study Standards to determine if they meet the criteria for reserve funding.

- 1) Common area repair & replacement responsibility
- 2) Component must have a limited useful life
- 3) Life limit must be predictable
- 4) Above a minimum threshold cost (board's discretion – typically ½ to 1% of Annual operating expenses).

Not all your components may have been found appropriate for reserve funding. In our judgment, the components meeting the above four criteria are shown with the Useful Life (how often the project is expected to occur), Remaining Useful Life (when the next instance of the expense will be) and representative market cost range termed “Best Cost” and “Worst Cost”. There are many factors that can result in a wide variety of potential costs, and we have attempted to present the cost range in which your actual expense will occur.

Where no Useful Life, Remaining Useful Life, or pricing exists, the component was deemed inappropriate for Reserve Funding.

## General Common

**Comp #: 201 Asphalt - Reconstruction****Quantity: Approx 96,400 GSF**

Location: Entry drive and pkg lot.

Funded?: Yes. Meets National Reserve Study Standards four-part test

History: Unknown

Comments: Poor general condition. Uneven, with significant cracking and potholes. The useful life is based on the assumption that the association will reseal and repair the asphalt on schedule. We also recommend that the association hire an asphalt consultant to gather the proper specifications of your asphalt project to insure that the association is planning properly. For long-term budget stability it is best to fund for complete reconstruction projects rather than overlay projects.

Useful Life:  
30 years

Remaining Life:  
0 years



Best Case: \$ 289,000

Worst Case: \$ 386,000

Lower estimate to remove and replace,  
\$3/GSF

Higher estimate, addnl labor or materials, ,  
\$4/GSF

Cost Source: ARI Cost Database



**Comp #: 202 Asphalt - Seal/Repair****Quantity: Approx 96400 GSF**

Location: Entry Drive and pkg lot

Funded?: Yes. Meets National Reserve Study Standards four-part test

History: Unknown

Comments: Poor general condition. Significant cracking, allowing moisture to penetrate to structural base. Expect to seal one yr after new surface is installed. Asphalt should be sealed regularly to ensure a full useful life. Sealing at regular intervals restores the appearance and minimizes penetration of water and other surface contaminants. Seal coating is essential preventive maintenance and should not be deferred.

Useful Life:  
3 years

Remaining Life:  
1 years



Best Case: \$ 15,400

Worst Case: \$ 24,000

Lower estimate to prep and seal, \$.16/GSF

Higher estimate, \$.25/GSF (addnl labor to seal/stripe)

Cost Source: ARI Cost Database

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**Comp #: 320 Pole Lights - Replace****Quantity: (16) Fixtures**

Location: Parking lot area

Funded?: Yes. Meets National Reserve Study Standards four-part test

History: New in approx 2010

Comments: The fixtures were intact and assumed to be functional. No damage or abuse noted. In fair condition at this time. Observed during daylight hours

Useful Life:  
20 years

Remaining Life:  
11 years



Best Case: \$ 32,000

Worst Case: \$ 38,400

Lower estimate to replace, \$2000 ea, installed

Higher estimate, \$2400 ea

Cost Source: ARI Cost Database

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**Comp #: 322 Bollard Lights - Replace****Quantity: (14) Fixtures**

Location:

Funded?: Yes.

History:

Comments: The bollard lights varied in condition throughout the property. Inspected during daylight hours but assumed to be functional. In fair condition at this time.

Useful Life:

15 years

Remaining Life:

10 years



Best Case: \$ 12,600

Worst Case: \$ 16,800

Cost Source:

---

**Comp #: 405 Play Equipment - Replace****Quantity: (2) Structures**

Location: Adjacent to admin bldg

Funded?: Yes. Meets National Reserve Study Standards four-part test

History: New in approx 2013

Comments: The play equipment was intact and in fair condition. No signs of damage. Best to inspect on a regular basis in order to ensure safety.

Useful Life:

15 years

Remaining Life:

10 years



Best Case: \$ 40,000

Worst Case: \$ 55,000

Lower estimate for replacement set, installed

Higher estimate

Cost Source: ARI Cost Database

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**Comp #: 412 Play Yard Surface - Resurface****Quantity: Approx 3100 GSF**

Location: Adjacent to admin bldg

Funded?: Yes. Meets National Reserve Study Standards four-part test

History: New in approx 2010

Comments: The play yard surface was in poor condition. Areas of chipping and staining evident at this time. Cushioned area under play eqp similarly cracked, some material loss. Best to resurface in the immediate future in order to restore safety and appearance.

Useful Life:  
8 years

Remaining Life:  
0 years



Best Case: \$ 34,100

Worst Case: \$ 43,400

Lower estimate to replace, \$11/GSF

Higher estimate, \$14/GSF

Cost Source: ARI Cost Database

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**Comp #: 415 Canopy - Replace****Quantity: (1) 21x42 Shade Cover**

Location: Play yard area, adjacent to admin bldg

Funded?: Yes. Meets National Reserve Study Standards four-part test

History: New in approx 2013

Comments: The shade canopy was intact and free of any damage. Minor fading, some fraying at connection points. Normal sun weathering noted. No reported problems.

Useful Life:  
10 years

Remaining Life:  
4 years



Best Case: \$ 9,700

Worst Case: \$ 13,200

Lower estimate to replace, \$11/GSF

Higher estimate, \$15/GSF

Cost Source: ARI Cost Database

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**Comp #: 914 Lockers - 1/4 Replace****Quantity: Approx (642) Lockers**

Location: Scattered locations throughout facility

Funded?: Yes. Meets National Reserve Study Standards four-part test

History: Done in phases, so different ages &amp; conditions.

Comments: The lockers varied in condition throughout the property. Minor denting and wear observed on the exterior surfaces of the oldest. None showing significant damage. Expect to continue replacement in approx four phases on this interval.

Useful Life:  
6 yearsRemaining Life:  
1 years

Best Case: \$ 16,900

Worst Case: \$ 21,700

Lower estimate to replace 1/4 @ \$105 ea

Higher estimate, 1/4 @ \$135 ea

Cost Source: Estimate provided by client

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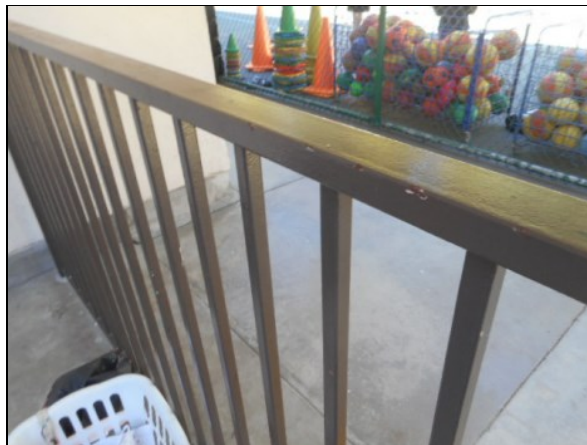
**Comp #: 1107 Metal Fence/Rail - Repaint****Quantity: Approx 2100 LF**

Location: Scattered areas throughout grounds

Funded?: Yes. Meets National Reserve Study Standards four-part test

History: Unknown

Comments: The metal surfaces appear to be in fair condition. Minor scuffs beginning to show but no serious lack of paint coverage noted. Regular paint cycles will help protect the ironwork from damaging weather and irrigation elements while maintaining an attractive appearance.

Useful Life:  
5 yearsRemaining Life:  
2 years

Best Case: \$ 21,000

Worst Case: \$ 25,200

Lower estimate to prep and paint, \$10/LF

Higher estimate, \$12/LF

Cost Source: ARI Cost Database

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## Building Exteriors

**Comp #: 1115 Bldg Exterio - 1/4 Repaint****Quantity: Approx 67,000 GSF**

Location: Scattered locations throughout

Funded?: Yes. Meets National Reserve Study Standards four-part test

History: Painted at different times based on construction cycles

Comments: Varying conditions observed throughout. The buildings were constructed in different years; as such complete repainting will likely not be needed. Funding provided for partial painting cycles.

Useful Life:  
3 yearsRemaining Life:  
0 years

Best Case: \$ 24,200

Worst Case: \$ 30,500

Lower estimate to paint approx 1/4 of total

Higher estimate

Cost Source: ARI Cost Database

---

**Comp #: 1301 Maint Bldg Tile Roof - Replace****Quantity: Approx 2350 GSF**

Location: Maintenance building - rear of property

Funded?: Yes. Meets National Reserve Study Standards four-part test

History: Unknown. Definitely prior to 1990.

Comments: No access to closely inspect. Based on the age of the roof it is assumed to have reached an extended useful life. Although no major problems have been reported it is best to replace before failure occurs.

Useful Life:  
25 yearsRemaining Life:  
0 years

Best Case: \$ 14,100

Worst Case: \$ 18,800

Lower estimate to replace, \$6/GSF

Higher estimate, \$8/GSF

Cost Source: ARI Cost Database



**Comp #: 1302 Cap Sheet Roof (Pavilion) - Replace****Quantity: Approx 4300 GSF**

Location: Main school building

Funded?: Yes. Meets National Reserve Study Standards four-part test

History: New in approx 2010

Comments: The pavilion roof generally intact. Local staining observed, but no soft spots or loose seams. No leaks, no problems reported.

Useful Life:

20 years

Remaining Life:

11 years



Best Case: \$ 27,000

Worst Case: \$ 30,100

Lower estimate to replace, \$5.50/GSF

Higher estimate, \$7/GSF

Cost Source: ARI Cost DatabaseMain

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**Comp #: 1302 Roof (Admin, Library) - Replace****Quantity: Approx 2010 GSF**

Location: Admin and Library bldg

Funded?: Yes. Meets National Reserve Study Standards four-part test

History: New in approx 2000

Comments: General discoloration weathering and wear detected during inspection. No water ponding soft spots or major damage noted. Although no major problems have been reported it is best to replace before failure occurs.

Useful Life:

20 years

Remaining Life:

2 years



Best Case: \$ 12,600

Worst Case: \$ 17,100

Lower estimate to replace, \$6.25/GSF

Higher estimate, \$8.50/GSF

Cost Source: ARI Cost Database

**Comp #: 1304 Tile Roof - Replace Underlay****Quantity: Approx 18000 GSF**

Location: Library, Admin, and Pavilion roof perimeter areas

Funded?: Yes. Meets National Reserve Study Standards four-part test

History: Generally older, definitely prior to 2000

Comments: Based on the previously reported age the tile roof is assumed to have reached an extended useful life. Although no major problems have been reported it is best to replace before failure occurs. A typical project involves removing and stacking existing tiles replacing all underlayment material and then re-laying tile. An allowance for some tile breakage is included in these costs.

Useful Life:  
25 years

Remaining Life:  
0 years



Best Case: \$ 108,000

Worst Case: \$ 144,000

Lower estimate to remove and replace,  
\$6/GSF

Higher estimate, \$8/GSF

Cost Source: ARI Cost Database

---

**Comp #: 1308 Metal Overhang - Refurbish****Quantity: Approx 600 GSF**

Location: Main entry area

Funded?: Yes. Meets National Reserve Study Standards four-part test

History: New with renovation in 2014

Comments: The overhang surfaces are new and in good condition. These materials should last beyond the 30-year scope of the report. Plan to clean and maintain as a general maintenance or alongside other exterior painting projects.

Useful Life:  
30 years

Remaining Life:  
25 years



Best Case: \$ 18,000

Worst Case: \$ 22,000

Lower estimate to refurbish

Higher estimate

Cost Source: Estimate provided by Client



**Comp #: 1310 Gutters/Downspouts - Replace**

**Quantity: Approx 2010 LF**

Location: Scattered locations throughout property

Funded?: Yes. Meets National Reserve Study Standards four-part test

History: Different ages depending on location.

Comments: Gutters appeared in good condition during the inspection. No serious deterioration noted. Best to fund for partial replacement to ensure consistent drainage.

Useful Life:  
8 years

Remaining Life:  
2 years



Best Case: \$ 5,000

Worst Case: \$ 9,000

Lower estimate for periodic repair project

Higher estimate

Cost Source: ARI Cost Database



## Building Interiors

### Comp #: 601 Carpet (2010) - Replace

Quantity: Approx 1220 GSY

Location: Zones recarpeted in 2010

Funded?: Yes. Meets National Reserve Study Standards four-part test

History: New in 2010

Comments: Noted to be in clean attractive condition. Showing some signs of wear. No tears or fraying visible. Plan for full service life.

Useful Life:  
10 years

Remaining Life:  
1 years



Best Case: \$ 67,100

Worst Case: \$ 79,300

Lower estimate for replacement carpet,  
\$55/GSY

Higher estimate, \$65/GSY

Cost Source: Client Cost History

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### Comp #: 601 Carpet (2013) - Replace

Quantity: Approx 1390 GSY

Location: Zones of school recarpeted in 2013

Funded?: Yes. Meets National Reserve Study Standards four-part test

History: Recarpeted in 2013

Comments: The carpet appears to be aging well. No abnormal wear or damage observed. Expect a full useful life.

Useful Life:  
10 years

Remaining Life:  
4 years



Best Case: \$ 76,200

Worst Case: \$ 90,000

Lower estimate to recarpet, \$55/GSY

Higher estimate, \$65/GSY

Cost Source: Client Cost History

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**Comp #: 601 Carpet (2015) - Replace****Quantity: Approx 985 GSY**

Location: Zones recarpeted in 2015

Funded?: Yes. Meets National Reserve Study Standards four-part test

History: Recarpeted in 2015

Comments: Noted to be in clean attractive condition. No deterioration noted.

Useful Life:

10 years

Remaining Life:

6 years



Best Case: \$ 54,200

Worst Case: \$ 64,000

Lower estimate to replace, \$55/GSY

Higher estimate, \$65/GSY

Cost Source: Client Cost History

---

**Comp #: 602 Linoleum Floor - Replace****Quantity: Approx 6200 GSF**

Location: All linoleum areas

Funded?: Yes. Meets National Reserve Study Standards four-part test

History: New in 2013

Comments: The linoleum floors appear to be clean and smooth. No abnormal wear or deterioration. Best to clean regularly to maintain good aesthetics.

Useful Life:

15 years

Remaining Life:

9 years



Best Case: \$ 37,200

Worst Case: \$ 49,600

Lower estimate to replace, \$6/GSF

Higher estimate, \$8/GSF

Cost Source: ARI Cost Database

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**Comp #: 603 Cafeteria Tile - Replace****Quantity: Approx 730 GSF**

Location: Cafeteria and food service area

Funded?: Yes. Meets National Reserve Study Standards four-part test

History: New in 2016

Comments: The cafeteria tile was replaced in recent years. All surfaces are clean and in good condition. No cracking observed.

Useful Life:

20 years

Remaining Life:

17 years



Best Case: \$ 13,200

Worst Case: \$ 16,000

Lower estimate to replace, \$18/GSF

Higher estimate, \$22/GSF

Cost Source: ARI Cost Database

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**Comp #: 607 Assembly Room - Resurface****Quantity: Approx 1050 GSF**

Location: Assembly room, main building

Funded?: Yes. Meets National Reserve Study Standards four-part test

History: New in 2010

Comments: The assembly room floor displays moderate wear. Periodic resurfacing will help ensure the assembly room floor remains clean and serviceable. Deferring maintenance will likely result in the need for more extensive replacements.

Useful Life:

10 years

Remaining Life:

1 years



Best Case: \$ 10,500

Worst Case: \$ 15,800

Lower estimate to replace, \$10/GSF

Higher estimate, \$15/GSF

Cost Source: ARI Cost Database

---

**Comp #: 909 Restrooms - Partial Refurb****Quantity: (7) of (35) Restrooms**

Location: Scattered locations throughout grounds

Funded?: Yes. Meets National Reserve Study Standards four-part test

History: School has a history of periodic local refurbishments,

Comments: The bathrooms vary in location depending on location. There is no expectation to refurbish all at the same time. Funding has been provided for periodic partial refurbishments to maintain appearances and cleanliness.

Useful Life:  
2 yearsRemaining Life:  
0 years

Best Case: \$ 18,000

Worst Case: \$ 24,000

Lower estimate to refurbish approx 1/5 of all  
areas

Higher estimate

Cost Source: Client Cost History

---

**Comp #: 910 Cafeteria/Kitchen - Refurbish****Quantity: (1) Cafeteria**

Location: Main building

Funded?: Yes. Meets National Reserve Study Standards four-part test

History: Refurbished in 2016

Comments: Includes kitchen area and 20 LF of wall shelves, 16 LF of counters, and 8 LF of built-in hot bar. The cafeteria was reportedly refurbished and restored in recent years. No signs of abuse or vandalism. Good conditions.

Useful Life:  
20 yearsRemaining Life:  
17 years

Best Case: \$ 18,000

Worst Case: \$ 26,000

Lower estimate for refurbish project

Higher estimate

Cost Source: Client Cost History

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**Comp #: 912 Staff Lounge - Refurbish****Quantity: (1) Lounge**

Location: Rear of admin area

Funded?: Yes. Meets National Reserve Study Standards four-part test

History: Refurbished in approx 2012

Comments: The room is attractive and aging well. In good condition. Includes (2) GE fridges (1) toaster oven (1) GE oven (5) microwaves (2) dishwashers 70 LF of cabinets/counters and assorted furniture.

Useful Life:  
15 yearsRemaining Life:  
8 years

Best Case: \$ 8,000

Worst Case: \$ 14,000

Lower estimate to refurbish

Higher estimate

Cost Source: ARI Cost Database

---

**Comp #: 921 Admin Bldg Cabinetry - Replace****Quantity: Approx 130 LF**

Location: Admin area

Funded?: Yes. Meets National Reserve Study Standards four-part test

History: New cabinetry in 2017

Comments: The admin building cabinetry appeared to be in good condition during the inspection. No serious deterioration noted. Expect a full service life.

Useful Life:  
20 yearsRemaining Life:  
18 years

Best Case: \$ 15,000

Worst Case: \$ 25,000

Lower estimate to replace

Higher estimate

Cost Source: Client Cost History

---



**Comp #: 921 Cabinetry (2010) - Rep****Quantity: Approx 390 LF**

Location: Areas renovated in 2010

Funded?: Yes. Meets National Reserve Study Standards four-part test

History: These represent the classroom areas renovated in 2010

Comments: The cabinetry appears to be in generally fair to good condition. No abnormal wear or abuse noted. With regular maintenance these materials should reach long useful lives.

Useful Life:

20 years

Remaining Life:

11 years



Best Case: \$ 48,800

Worst Case: \$ 68,300

Lower estimate for replacement, \$125/LF

Higher estimate, \$175/LF

Cost Source: ARI Cost Database

---

**Comp #: 921 Cabinetry (2013) - Rep****Quantity: Approx 1450 LF**

Location: Areas with new built-in cabinetry 2013

Funded?: Yes. Meets National Reserve Study Standards four-part test

History: Newly replaced in 2013

Comments: In these areas, the cabinetry appears to be in generally fair to good condition. No abnormal wear or abuse noted. With regular maintenance these materials should reach long useful lives.

Useful Life:

20 years

Remaining Life:

14 years



Best Case: \$ 181,000

Worst Case: \$ 254,000

Lower estimate to replace, \$125/LF

Higher estimate, \$175/LF

Cost Source: ARI Cost Database

---



**Comp #: 921 Cabinetry (2015) - Rep****Quantity: Approx 950 LF**

Location: Areas renovated in 2015

Funded?: Yes. Meets National Reserve Study Standards four-part test

History: These are the areas renovated in 2015

Comments: The areas of cabinetry appear to be in generally good, near-new condition. No abnormal wear or abuse noted. With regular maintenance these materials should reach long useful lives.

Useful Life:  
20 yearsRemaining Life:  
16 years

Best Case: \$ 119,000

Worst Case: \$ 166,000

Lower estimate for replacement cabinetry,  
\$125/LF

Higher estimate, \$175/LF

Cost Source: ARI Cost Database

---

**Comp #: 1802 Elevator Cab - Remodel****Quantity: (2) Cabs**

Location: Library and admin area

Funded?: Yes. Meets National Reserve Study Standards four-part test

History: Refurbished in 2014

Comments: The cab appears to be in good condition. No heavy abuse or damage noted. Best to remodel at regular intervals to preserve the school's aesthetic standards.

Useful Life:  
15 yearsRemaining Life:  
10 years

Best Case: \$ 16,000

Worst Case: \$ 24,000

Lower estimate for refurb project, \$8000 ea

Higher estimate, \$12,000 ea

Cost Source: ARI Cost Database

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## Mechanical and Systems

### Comp #: 302 Back-Up Generator - Replace

Quantity: (1) Onan/Cummins System

Location: Rear of admin bldg

Funded?: Yes. Meets National Reserve Study Standards four-part test

History: Reportedly approx 1970s

Comments: The generator was not tested during the inspection. Best to have the generator inspected and tested on a regular basis by your service vendor. Based on the unit's age the school should set aside the funding for replacement which may be needed at anytime.

Useful Life:  
30 years

Remaining Life:  
0 years



Best Case: \$ 30,000

Worst Case: \$ 50,000

Lower estimate for replacement unit, installed

Higher estimate

Cost Source: ARI Cost Database

---

### Comp #: 303 Heat Pumps - Replace

Quantity: (8) Daikin Units

Location: Roof of admin area

Funded?: Yes. Meets National Reserve Study Standards four-part test

History: All were new in 2014

Comments: Includes (1) 2-Ton (1) 10-Ton and (1) 12-Ton. The heat pumps are assumed to be functioning and aging normally. No problems reported. With regular maintenance expect a full useful life.

Useful Life:  
15 years

Remaining Life:  
10 years



Best Case: \$ 80,000

Worst Case: \$ 96,000

Lower estimate for replacement units @ \$10k ea, installed

Higher estimate, \$12k ea, installed

Cost Source: ARI Cost Database

**Comp #: 304 Split-System (VAA) - Replace****Quantity: (6) Daikin Units**

Location: Rear of admin bldg

Funded?: Yes. Meets National Reserve Study Standards four-part test

History: New in 2016

Comments: The units show minor wear and usage at this time. No rust or other forms of severe damage detected. In good general condition.

Useful Life:  
10 yearsRemaining Life:  
7 years

Best Case: \$ 18,000

Worst Case: \$ 24,000

Lower estimate for replacement units,  
installed

Higher estimate

Cost Source: ARI Cost Database

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**Comp #: 305 Surveillance System - Modernize****Quantity: (1) System**

Location: System in admin bldg, approx 56 cameras throughout

Funded?: Yes. Meets National Reserve Study Standards four-part test

History: New system in 2015. Accessories (cameras) replaced on an as-needed basis

Comments: This component provides for new or additional cameras recording equipment and software upgrades as deemed necessary by the Board. Equipment was not tested during the site inspection. Best to have the system inspected and tested on a regular basis by your service provider.

Useful Life:  
5 yearsRemaining Life:  
3 years

Best Case: \$ 10,000

Worst Case: \$ 15,000

Lower estimate for supplemental equipment

Higher estimate

Cost Source: Client Cost History

---

**Comp #: 306 Make-Up Air Unit - Replace****Quantity: (1) Temtrol Unit**

Location: Rooftop of main building

Funded?: Yes. Meets National Reserve Study Standards four-part test

History: New in 2017

Comments: The make-up air unit is reportedly functioning normally. No problems observed or reported. Plan for a full service life.

Model #: ITF-RDH11 Serial #: T020373-001-00.

Useful Life:

15 years

Remaining Life:

13 years



Best Case: \$ 30,000

Worst Case: \$ 50,000

Lower estimate for replacement unit, installed

Higher estimate

Cost Source: Client Cost History

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**Comp #: 306 Ventilation Fans - Partial Replace****Quantity: Fans Motors Etc.**

Location: Rooftop of classroom bldg

Funded?: Yes. Meets National Reserve Study Standards four-part test

History: Various conditions, due to being replaced at various times.

Comments: The ventilation fans are assumed to be functioning normally. Varying sizes styles and conditions observed. As there is no expectation to replace all of the fans at one time funding has been provided for regular repairs and upgrades.

Useful Life:

5 years

Remaining Life:

2 years



Best Case: \$ 6,000

Worst Case: \$ 10,000

Lower estimate for partial replacements

Higher estimate

Cost Source: ARI Cost Database

---

**Comp #: 308 Air Handlers - Replace****Quantity: (2) Large Units**

Location: Rooftop of admin bldg

Funded?: Yes. Meets National Reserve Study Standards four-part test

History: Unknown

Comments: The air handlers are reportedly functional but have reached extended useful lives. No problems reported but the school should fund with the expectation that failure could occur at anytime.

Useful Life:  
20 yearsRemaining Life:  
0 years

Best Case: \$ 60,000

Worst Case: \$ 90,000

Lower estimate for replacement units,  
installed

Higher estimate

Cost Source: ARI Cost Database

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**Comp #: 309 Chiller - Replace****Quantity: (1) Trane Liquid Chiller**

Location: Mechanical room area

Funded?: Yes. Meets National Reserve Study Standards four-part test

History: Original to property.

Comments: Old. Unknown vintage. While immediate replacement may not be needed it is best to fund with the expectation that failure could occur at anytime.

Useful Life:  
20 yearsRemaining Life:  
0 years

Best Case: \$ 50,000

Worst Case: \$ 60,000

Lower estimate for replacement unit, installed

Higher estimate

Cost Source: Research with local vendor/supplier

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**Comp #: 312 Cooling Tower - Replace****Quantity: (1) BAC Tower**

Location: Mechanical room area

Funded?: Yes. Meets National Reserve Study Standards four-part test

History: Unknown vintage

Comments: Includes (1) 3 HP pump. General wear/tear and aging observed. No rust leaks or severe damage witnessed. Based on the age it is best to fund with the expectation that failure could occur at anytime.

Useful Life:

20 years

Remaining Life:

0 years



Best Case: \$ 65,000

Worst Case: \$ 80,000

Lower estimate for replacement unit, installed

Higher estimate

Cost Source: Research with local vendor/supplier

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**Comp #: 801 Boiler - Replace****Quantity: (2) Laars Mighty Therm2**

Location: Parking lot side of main building

Funded?: Yes. Meets National Reserve Study Standards four-part test

History: New in 2012

Comments: General deterioration and surface wear observed during inspection. No rust or major damage detected. In fair condition. Plan to replace individual components as needed as an Operating expense.

Useful Life:

20 years

Remaining Life:

13 years



Best Case: \$ 20,000

Worst Case: \$ 30,000

Lower estimate for replacement unit, installed

Higher estimate

Cost Source: ARI Cost Database

---

**Comp #: 803 Water Heater/Tank - Replace****Quantity: (4) American 30 Gallon**

Location: Mechanical room area and other scattered areas throughout grounds

Funded?: Yes. Meets National Reserve Study Standards four-part test

History: New in 2013

Comments: The water heaters are assumed to be fully operational. No problems observed or reported. Good apparent conditions.

Model #: E62-30L-045D Serial #: 1325T470227.

Useful Life:  
15 yearsRemaining Life:  
10 years

Best Case: \$ 4,600

Worst Case: \$ 5,400

Lower estimate to replace, \$1150 ea

Higher estimate, \$1350 ea

Cost Source: ARI Cost Database

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**Comp #: 1801 Elevator - Modernize****Quantity: (2) 2-Stop Elevator**

Location: Admin and library areas

Funded?: Yes. Meets National Reserve Study Standards four-part test

History: Last refurbished in approx 2014

Comments: Refurbished in last few years. Reportedly in good functional condition, minimal repair calls. We are not licensed to inspect these systems. Not tested during inspection but found to be operational. Anticipate the need to modernize a hydraulic elevator every 20-30 years. Modernization consists primarily of replacing the controller door operator pumping unit valve tank push-button fixtures &amp; indicator fixtures.

Useful Life:  
25 yearsRemaining Life:  
20 years

Best Case: \$ 120,000

Worst Case: \$ 160,000

Lower estimate for modernization project

Higher estimate

Cost Source: ARI Cost Database

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**Comp #: 1803 Fire Alarm System - Modernize****Quantity: Panels Lights Etc.**

Location: Closet of Admin bldg

Funded?: Yes. Meets National Reserve Study Standards four-part test

History: New in 2017

Comments: New in last few years. Indicator lights on, not tested. Although some systems can last many years with only regular maintenance manufacturers do not make replacement parts for many systems once they reach a certain age. This component represents periodic technology upgrades. Panels and other smart" components should be replaced with more modern technology to ensure a quality

Useful Life:  
20 years

Remaining Life:  
18 years



Best Case: \$ 150,000

Worst Case: \$ 200,000

Lower estimate for replacement system,  
installed

Higher estimate

Cost Source: Client Cost History

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**Comp #: 1810 Golf Carts - Replace****Quantity: (5) Carts**

Location: Scattered throughout grounds

Funded?: Yes. Meets National Reserve Study Standards four-part test

History: All older units, new in approx 2010

Comments: The golf carts were not accessible for close inspection. All of the units are assumed to be operational. Plan to replace at regular intervals to ensure reliable function. All older, but functional.

Useful Life:  
10 years

Remaining Life:  
1 years



Best Case: \$ 15,000

Worst Case: \$ 25,000

Lower estimate for replacement carts, \$3000  
ea

Higher estimate, \$5000 ea

Cost Source: ARI Cost Database

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**Comp #: 1810 Utility Vehicles - Partial Replace**

**Quantity: (2) Suburbans (2) Vans**

Location: Parking Lot

Funded?: Yes. Meets National Reserve Study Standards four-part test

History: All new in 2007

Comments: The utility vehicles are marginally serviceable. Older vehicles, reported to be on their last legs due to hard years of usage. Vans have 84,522 mi and 76,123 mi. Suburbans have 95702 and 101,905 mi. No problems reported, but regular replacement should be anticipated to ensure regular operation.

Useful Life:  
10 years

Remaining Life:  
0 years



Best Case: \$ 88,000

Worst Case: \$ 120,000

Lower estimate for replacement vehicles, with trade-ins

Higher estimate, \$30,000 ea

Cost Source: ARI Cost Estimate

