



KING COUNTY FIRE PROTECTION DISTRICT NO.16

7220 NE 181st Street
KENMORE, WA 98028

BUSINESS: 425-354-1780 FAX: 425-354-1781

MINUTES

November 16, 2021

REGULAR MEETING BOARD OF COMMISSIONERS at Northshore Fire Department's Headquarters Station 51 Virtual Meeting via Zoom

I. OPEN REGULAR NORTHSHORE MEETING

1.1 Roll Call

Chair Rick Webster called the meeting to order at 5:00 PM.

Persons in attendance were Commissioners Eric Adman, Josh Pratt, Milton Curtis, Rick Webster, and Dave Maehren. Also present was Chief McDonald, Advisory members Lisa Wollum, Tyler Byers, Nate Herzog, Legal Counsel Matt Paxton, Board Secretary Amy Oakley, and 20 members of the public.

II. PUBLIC COMMENT

2.1 No public comments.

III. APPROVAL OF THE AGENDA

3.1 *Commissioner Pratt moved to add a discussion of the Deputy Chief position. Commissioner Maehren seconded. The Board discussed. Commissioner Pratt accepted a friendly amendment to include this discussion under the current Item 4.6 NSFD Operations Discussion. The motion passed unanimously.*

3.2 *Commissioner Adman moved to add Item 4.9 discussion of the North King County Training Consortium. Commissioner Curtis seconded. The Board discussed. The motion passed unanimously.*

3.3 *Commissioner Pratt moved to adopt the agenda as amended. Commissioner Curtis seconded. The motion passed unanimously.*

IV. BOARD DISCUSSION AND POSSIBLE ACTION ITEMS

4.1 Conversation with IAFF, Local 2459

- President, Jeremiah Ingersoll, addressed the Board with comments related to the 2022 collective bargaining process, the contract for services evaluation process, the North King County Training Consortium, and the Deputy Chief role.

4.2 RCL Reserve Funding Study

- Chief McDonald provided overview of the RCL reserve study.
- Chief McDonald and the Board will discuss the details of the study at the next meeting.

- 4.3 Revisit Resolution 20-10
 - The Board will review this resolution in January 2022 and make any adjustments based on the RCL Reserve Study.
- 4.4 Fire Marshal ILA Agreements
 - Chief McDonald updated the Board on the status of contracting for Fire Marshal services.
 - This item will be discussed further at the next meeting.
- 4.5 Contract for Services Update
 - Consultant, Tom Broetje, presented his analysis of the Eastside Fire & Rescue and Shoreline Contract for Services proposals.
 - The Board will discuss the analysis further at the next meeting.
- 4.6 NSFD Operations Discussion
 - Chief McDonald will be resigning from NSFD effective December 31, 2021.
 - The Board discussed the timing for selecting a contract for services.
 - The Board discussed temporarily promoting from within for the Deputy Chief role.

Commissioner Pratt moved to direct Chief McDonald to fill the position of the Deputy Chief from within. Commissioner Curtis seconded. The Board discussed. The motion failed 1-3. Commissioner Pratt voted in favor. Commissioners Webster, Maehren, and Curtis opposed. Commissioner Adman abstained from voting.

Commissioner Maehren moved to have a special meeting next week to review proposals from Chief McDonald on options to move forward upon his departure. Commissioner Webster seconded. Commissioner Maehren accepted a friendly amendment to have the meeting on Tuesday, November 23rd at 4pm. The motion passed unanimously.
 - The Board discussed timing and options for filling an interim Fire Marshal position. Chief McDonald will provide an update at the next meeting.
 - The Board discussed administrative responsibilities that will be outside of the contract for services. This item will remain on the agenda for the next meeting.
- 4.7 Water Rescue Program Discussion
 - Chief McDonald updated the Board on the status of the purchase of a rescue watercraft.
- 4.8 Discussion of Fire Chief Performance Review
 - The Board will not conduct a performance review for Chief McDonald.
- 4.9 North King County Training Consortium (NKCTC)
 - Chief McDonald updated the Board on the current operation and expansion of the NKCTC.

V. EXECUTIVE SESSION

The Board moved into Executive Session at 6:55PM until 7:25PM to discuss the performance of an employee pursuant to RCW 42.30.110(1)(g), to discuss with legal counsel representing the agency matters relating to litigation or potential litigation pursuant to RCW 42.30.110(1)(i), and

to discuss collective bargaining, the planning or adopting the strategy or position to be taken during the course of collective bargaining, or reviewing a proposal made in negotiations pursuant to RCW 42.30.140(4). The Board extended the session by 15 minutes. The Board moved back into open session at 7:40PM.

VI. BOARD RESOLUTIONS

6.1 None

VII. CONSENT AGENDA

7.1 Vouchers

- o The General Fund Vouchers totaled \$68,511.74
- o The Reserve Fund Vouchers totaled \$42,894.60

7.2 Meeting Minutes: 11/2/2021 and 11/9/2021

7.3 Commissioner Compensation

Commissioner Pratt moved to accept the consent agenda as presented. Commissioner Curtis seconded. The Board discussed. Commissioner Pratt accepted a friendly amendment to remove the Commissioner Compensation from the consent agenda. The motion passed unanimously.

- o The Board discussed Commissioner compensation timesheets. Commissioner Adman will resubmit his timesheet for approval at the next meeting.

Commissioner Maehren moved to approve Commissioner Curtis compensation request as submitted. Commissioner Webster seconded. The motion passed 4-0. Commissioner Curtis abstained from voting.

VIII. REPORTS

8.1 Fire Chief Report

- o Chief McDonald updated the Board regarding the 3-month extension of NORCOM IT contract, NEMCO hiring status, firefighter hiring process, and notification from Woodinville Fire & Rescue leaving the mobile integrated health (MIH) program.

8.2 Commissioner Reports

- o Commissioner Adman recognized the passing of former Commissioner Ron Gehrke.
- o Commissioner Maehren and Commissioner Adman will contact the family and coordinate with NUD.

8.3 Legal Counsel Reports

- o Legal Counsel Paxton updated the Board on federal vaccine mandates for Center for Medicare/Medicaid and OSHA requirements.

IX. UPCOMING BOARD AGENDAS

9.1 Setting of Future Meeting Agenda(s)

- o For the November 23rd Special Meeting agenda items will include update on the process for the selection of an Interim Deputy Chief appointment, Commissioner Compensation, swearing in of Commissioner Tyler Byers, Fire Marshal update, Contract for Services update, discussion of the decision process for Contract for Services.

ADJOURNMENT

The meeting adjourned at 8:02PM

NEXT MEETING DATE

The next Board of Commissioners meeting is scheduled for November 23, 2021, at 4:00PM.

Attachments: Agenda, RCL Reserve Study, Resolution 20-10, Contract for Service Proposal Analysis, Vouchers, Commissioner Compensation, Meeting Minutes 11/2 and 11/9, and Chief’s Report.

BOARD OF COMMISSIONERS

Electronically Signed- Eric Adman

ERIC ADMAN, Member

Electronically Signed- Josh Pratt

JOSH PRATT, Member

Electronically Signed- Tyler Byers

TYLER BYERS, Member

Electronically Signed- Rick Webster

RICK WEBSTER, Member

Electronically Signed- David C. Maehren

DAVID MAEHREN, Member

ATTEST

Amy Oakley

Amy Oakley, Secretary

King County Fire Protection District No. 16

Adopted at a Regular Meeting of the Board of Commissioners on December 7th, 2021

From: [Eric Adman](#)
To: [Board Secretary](#)
Subject: Re: E-Signatures Required - 12/7/21 Meeting
Date: Wednesday, December 8, 2021 4:05:17 AM
Attachments: AP_NOSHRFIR_APSUPINV_20211207095646 RES Fund.pdf
AP_NOSHRFIR_APSUPINV_20211207095818 GEN Fund.pdf
November Payroll Approval Document.pdf
November Payroll Taxes Approval Document.pdf
November DRS Approval Document.pdf
October Commissioner Payroll Approval Document.pdf
October Commissioner Payroll Taxes Approval Document.pdf
7.3 DRAFT Minutes RegularMtno 2021-11-16 with attachments.pdf
7.3 DRAFT Minutes SpecialMtno 2021-11-23 with attachments.pdf

The following documents are Approved and Electronically Signed this 8th day of December 2021 by Commissioner Adman.

- AP_NOSHRFIR_APSUPINV_20211207095646 RES Fund
- AP_NOSHRFIR_APSUPINV_20211207095818 GEN Fund
- November Payroll Approval Document
- November Payroll Taxes Approval Document
- November DRS Approval Document
- October Commissioner Payroll Approval Document
- October Commissioner Payroll Taxes Approval Document
- Meeting minutes: 11/16/21 and 11/23/21

From: [Byers, Tyler](#)
To: [Board Secretary](#)
Subject: RE: Example: E-Signatures Required - 12/7/21 Meeting
Date: Thursday, December 9, 2021 7:19:14 AM

The following documents are Approved and Electronically Signed this 9th day of December, 2021, by Commissioner Tyler Byers.

- AP_NOSHRFIR_APSUPINV_20211207095646 RES Fund
- AP_NOSHRFIR_APSUPINV_20211207095818 GEN Fund
- November Payroll Approval Document
- November Payroll Taxes Approval Document
- November DRS Approval Document
- October Commissioner Payroll Approval Document
- October Commissioner Payroll Taxes Approval Document
- Meeting minutes: 11/16/21 and 11/23/21

From: [Dave Maehren](#)
To: [Board Secretary](#)
Subject: RE: E-Signatures Required - 12/7/21 Meeting
Date: Wednesday, December 8, 2021 4:00:49 PM
Attachments: [image001.png](#)

The following documents are Approved and Electronically Signed this 8th day of December, 2021, by Commissioner David C. Maehren.

- AP_NOSHRFIR_APSUPINV_20211207095646 RES Fund
- AP_NOSHRFIR_APSUPINV_20211207095818 GEN Fund
- November Payroll Approval Document
- November Payroll Taxes Approval Document
- November DRS Approval Document
- October Commissioner Payroll Approval Document
- October Commissioner Payroll Taxes Approval Document
- Meeting minutes: 11/16/21 and 11/23/21

From: [Josh Pratt](#)
To: [Board Secretary](#)
Subject: RE: E-Signatures Required - 12/7/21 Meeting
Date: Wednesday, December 8, 2021 4:02:47 PM

The following documents are Approved and Electronically Signed this 8th day of December, 2021, by Commissioner Josh Pratt.

- AP_NOSHRFIR_APSUPINV_20211207095646 RES Fund
- AP_NOSHRFIR_APSUPINV_20211207095818 GEN Fund
- November Payroll Approval Document
- November Payroll Taxes Approval Document
- November DRS Approval Document
- October Commissioner Payroll Approval Document
- October Commissioner Payroll Taxes Approval Document
- Meeting minutes: 11/16/21 and 11/23/21

From: [Richard Webster](#)
To: [Board Secretary](#)
Subject: RE: E-Signatures Required - 12/7/21 Meeting
Date: Wednesday, December 8, 2021 7:20:04 AM

The following documents are Approved and Electronically Signed this 8th day of December, 2021, by Commissioner Rick Webster.

- AP_NOSHRFIR_APSUPINV_20211207095646 RES Fund
- AP_NOSHRFIR_APSUPINV_20211207095818 GEN Fund
- November Payroll Approval Document
- November Payroll Taxes Approval Document
- November DRS Approval Document
- October Commissioner Payroll Approval Document
- October Commissioner Payroll Taxes Approval Document
- Meeting minutes: 11/16/21 and 11/23/21



Northshore Fire Department Board of Commissioners

Headquarters Station 7220 NE 181st Street, Kenmore, WA

Northshore Fire Department Board of Commissioners

Regular Meeting Agenda

Tuesday, November 16, 2021

5:00PM

Meeting held virtually, via Zoom

To provide public comment, please see instructions at the end of the agenda.

To attend this meeting live, click the link below and enter the ID & Password provided.

A recording of this meeting will also be posted in AV Capture.

Join Zoom Meeting Online at:

<https://us02web.zoom.us/j/85044713997?pwd=dW1uWDFpNldpZlVSSU1ZYy9LSXVQQT09>

Call in to Zoom Meeting at: (253) 215-8782

Meeting ID: 850 4471 3997

Passcode: 743608

- I. Open Regular Northshore Board Meeting**
 - 1.1 Roll Call
- II. Public Comment**
 - 2.1 Public Comment
- III. Approval of Agenda**
 - 3.1 Approval of the Meeting Agenda
- IV. Board Discussion and Possible Action Items**
 - 4.1 Conversation with IAFF, Local 2459
 - 4.2 RCL Capital Reserve Funding Study
 - 4.3 Revisit Reserve Funding Resolution 20-10
 - 4.4 Fire Marshall ILA Agreements
 - 4.5 Contract for Services Update
 - 4.6 NSFD Operations Discussion
 - 4.7 Water Rescue Program Discussion



4.8 Fire Chief Performance Review Discussion

V. Executive Session

To discuss the performance of an employee pursuant to RCW 42.30.110(1)(g) and to discuss collective bargaining, the planning or adopting the strategy or position to be taken during the course of collective bargaining, or reviewing a proposal made in negotiations pursuant to RCW 42.30.140(4).

VI. Board Resolutions

None

VII. Consent Agenda

7.1 Vouchers

7.2 Meeting Minutes: Regular Meeting 11/2/2021 and Special Meeting 11/9/2021

7.3 Commissioner Compensation

VIII. Reports

8.1 Fire Chief Report

8.2 Commissioner Reports

8.3 Legal Counsel Report

IX. Upcoming Board Agendas

9.1 Setting of Future Meeting Agenda(s)

Adjournment

Next Regular Meeting: Tuesday, December 7th, 2021 at 5:00 PM

Public Comment Procedures for Virtual Meetings:

Individuals wishing to comment may comment by appearing at the virtual meeting and “raising their hand” or the equivalent. The chair shall recognize those persons and provide them the opportunity to comment. Three minutes are allowed for comment.

If you wish to provide written public comment, you may do so by submitting a written statement to boardsecretary@northshorefire.com. Any comments received up to one hour before the posted meeting time, will be read during the public comment period.

To ensure your written comments are received and read at the proper meeting, your email must include:

- Date & Time of the meeting your comments are intended for
- Your name
- Whether or not you live in the city limits of Lake Forest Park or Kenmore



- Agenda Item and/or subject your comments refer to

Emails without this information may not be read at the meeting. And, in accordance with normal procedure, messages of an overly repetitive or inappropriate (vulgarity) nature may be declined to be read at the discretion of the meeting Chair.

Please check the District's [AV Capture](#) for the most up-to-date information about individual meetings.

Questions? Email Board Secretary Amy Oakley at boardsecretary@northshorefire.com.



NORTHSHORE FIRE DEPARTMENT

Lake Forest Park and Kenmore, Washington

Standard Level 3 Capital Reserve Study

2022 FUNDING RECOMMENDATIONS

Issued November, 2021

Prepared by:
Denise Dana, Reserve Specialist





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ABBREVIATION KEY

EA	each
BLDG	building(s)
FIXT	fixture(s)
LF	liner foot
LS	lump sum
SF	square feet
SQ	roofing square
SY	square yard
ZN	zone



EXECUTIVE SUMMARY

This Capital Reserve Study was prepared by an independent Reserve Study Professional. Not all the information required for inclusion in reserve studies per RCW 64.90, RCW 64.38 or RCW 64.34 is applicable to the Northshore Fire Department. The calculations and definitions that are the basis for the report are represented in the Glossary of Terms, which refer to the appropriate RCW codes.

Northshore Fire Department has one station serving Kenmore and one station serving Lake Forest Park, Washington. Construction of Station 51 was completed in about 1995 & 2011 with construction of Station 57 finishing in about 1995. The headquarters are housed at Station 51, along with a training facility..

NORTHSHORE FIRE DEPARTMENT RESERVE FUND STATUS

NORTHSHORE FIRE DEPARTMENT'S FISCAL YEAR	a calendar year
RESERVE ACCOUNT BALANCE ON JANUARY 1, 2021	\$354,070 ¹
FULLY FUNDED BALANCE YEAR 2021	\$1,093,546 ²
PERCENT FUNDED AT TIME OF STUDY	32% ³
FUNDING STATUS - RISK OF SPECIAL ASSESSMENT	Moderate Risk
2021 PLANNED OR IMPLEMENTED SPECIAL ASSESSMENT	None
COMPONENT INCLUSION THRESHOLD VALUE	\$

NORTHSHORE FIRE DEPARTMENT CURRENT AND RECOMMENDED RESERVE CONTRIBUTIONS

CURRENT BUDGETED ANNUAL CONTRIBUTION TO RESERVES	\$185,300
2022 RECOMMENDED ANNUAL CONTRIBUTION RATE	\$182,300
2022 RECOMMENDED CONTRIBUTION PER MONTH	\$15,192
2022 AVERAGE CONTRIBUTION PER UNIT PER YEAR	\$182,300
2022 AVERAGE CONTRIBUTION PER UNIT PER MONTH	\$15,192
2022 BASELINE FUNDING PLAN CONTRIBUTION RATE	\$152,600
2022 FULL FUNDING PLAN CONTRIBUTION RATE	\$188,000

¹ The actual or projected total reserve fund balance presented in the Reserve Study is based on information provided by the Organization representative and was not audited by RCL.

² The fully funded balance for each reserve component is calculated by multiplying the current replacement cost of that reserve component by its effective age, then dividing the result by that reserve component's useful life. The sum total of all reserve components' fully funded balances is the Organization's fully funded balance as defined in RCW 64.34.020 §24 & RCW §64.90.010 §26. The fully funded balance changes from year to year.

³ The percent fully funded acts as a measuring tool to assess an Organization's ability to absorb unplanned expenses. These expenses could be emergency repairs not covered by insurance, or expenses that differ from the existing Reserve Study in terms of timing or cost.



FINANCIAL OVERVIEW FOR 2022

\$525,948

2022 Estimated Starting Balance

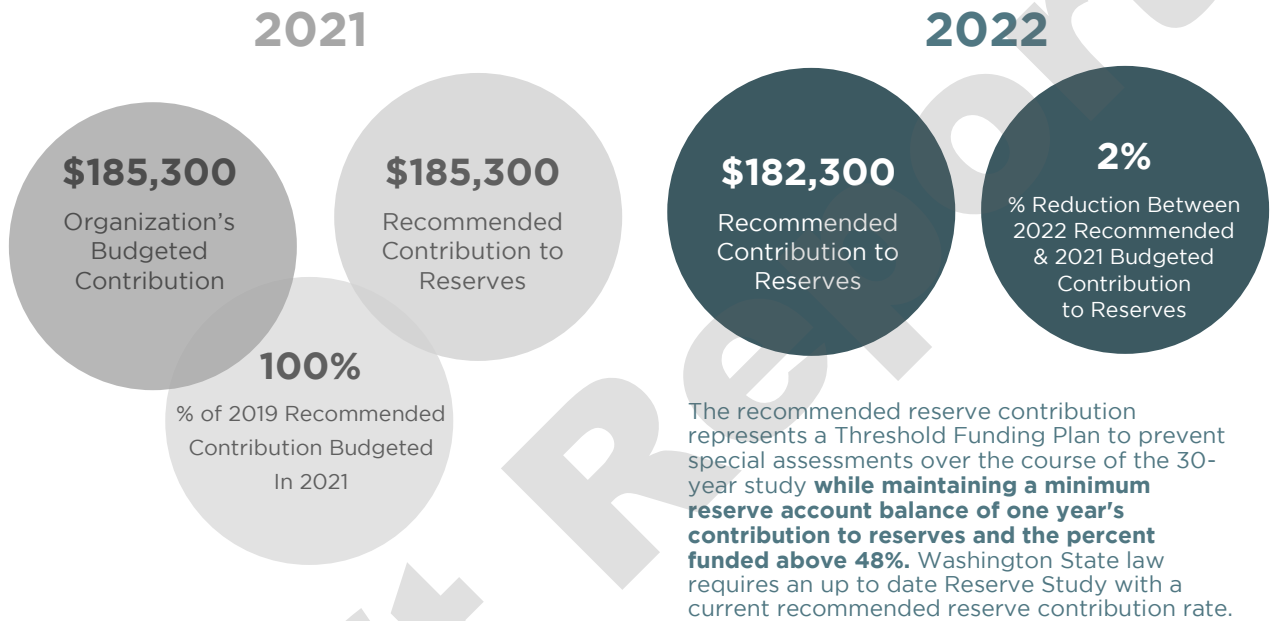
48%

2022 Estimated Percent Funded w/the Recommended Funding Plan

\$175,884

2022 Estimated Reserve Expenditures

RESERVE CONTRIBUTION COMPARISON 2021 VS 2022



ESTIMATED STARTING RESERVE FUND BALANCE FOR 2022

BALANCE CALCULATIONS

The fiscal year for Northshore Fire Department is a calendar year.

\$354,070	Reserve Fund Balance as of January 1, 2021
(\$0)	Anticipated Remaining Reserve Expenses In 2021
\$0	Planned Special Assessment In 2021
\$169,858	Remaining Reserve Contributions For 2021
\$2,019	Projected Interest on the 2021 Reserve Fund Balance
\$525,948	ESTIMATED STARTING BALANCE FOR FISCAL YEAR 2022

THERE ARE NO ANTICIPATED REMAINING MAINTENANCE EXPENSES FOR 2021.



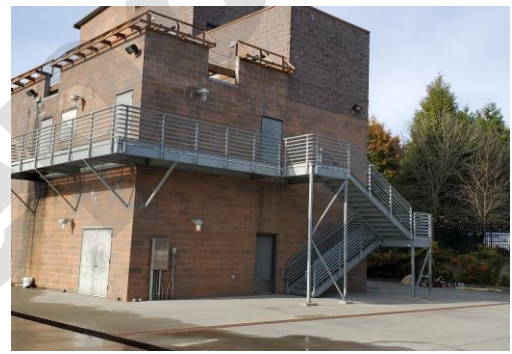
ORGANIZATION OVERVIEW

Northshore Fire Department has one station serving Kenmore and one serving Lake Forest Park in the State of Washington.

The Department headquarters are housed at Station 51, along with a training facility, in Kenmore. Construction of Station 51 was completed in 2011.

Station 57 occupies a site in Lake Forest Park and was constructed in 1995.

Images are from file photos taken at the last site visit.



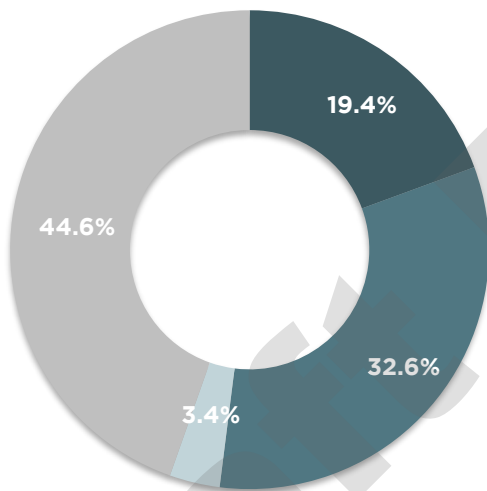


COMPONENT SUMMARY

Each reserve component is evaluated to determine the current condition, the remaining useful life, and the estimated replacement cost. Reserve studies for homeowners' associations are required to include any reserve component that would cost more than one percent of the annual budget of the association, not including the reserve account, for major maintenance, repair, or replacement (RCW 64.38.070). While the law defines the inclusion threshold to be 1% of the operating budget, or \$0, components valued less than the legal threshold may be included to better capture reserve funding for Northshore Fire Department.

ANTICIPATED EXPENSES¹ ALLOCATED OVER 30 YEARS FOR NORTHSHORE FIRE DEPARTMENT

The components listed below provide examples for each category and may or may not pertain specifically to components that Northshore Fire Department is responsible for maintaining.



PRIMARY EXPENSES

19.4% LIFE SAFETY: plumbing, drainage, HVAC, electrical, lighting, & fire suppression

32.6% EXTERIOR ENVELOPE: structural components, guardrails, decks, siding, chimney chases, roofing, gutters & downspouts, doors, windows, skylights, caulking, & exterior finishes

3.4% ELEVATOR: dedicated equipment, interior cab refurbishment & major maintenance for the elevator

SECONDARY EXPENSES - Discretionary

44.6% SECONDARY including paving, docks, fencing, walkways, signage, mailboxes, kitchen & laundry equipment, interior flooring & paint, furniture, intercom, security systems, reserve studies²

The total anticipated Primary and Secondary expenses over the next 30 years are illustrated to help the community understand the ratio of obligatory and elective maintenance. The ratio for the first five years is provided later in the report to assist with budgeting refinements.

Primary Expenses are maintenance expenses that should not be deferred due to the potential consequences of postponing upkeep of these components.

Secondary Expenses are maintenance expenses that could potentially be deferred since the timing of maintenance is typically discretionary.

¹ Not all components that are the individual unit owners' responsibility are described in the report. Items maintained with funds from the annual operating and/or individual unit owners are not included in the reserve fund analysis.

² While reserve study annual updates are required by law, there is no penalty for not completing an annual update and the lack of an annual update does not necessarily pose a risk to public safety.



COMPONENT LIST

The component list is based on information provided by Northshore Fire Department. Reserve Consultants LLC does not provide legal interpretations of governing documents. It is the responsibility of Northshore Fire Department to ensure that the component list is complete and complies with their governing documents. Many factors may influence the actual costs that the Organization will experience. The quality of replacement materials of items can significantly impact cost, as well as the timing between replacements. The use of Architects or independent construction managers to specify and oversee work may also cause additional expenses.



COMPONENT DESCRIPTION		MAINT. CYCLE	REMAINING USEFUL LIFE	NEXT MAINT. YEAR	CURRENT REPLACEMENT COST
2.4.1 Concrete - Paving Repairs	Site	10	3	2024	\$18,550
2.4.2 Concrete - Repaint Stalls & Curbs	Site	10	1	2022	\$1,700
2.7.1 Prefinished Metal Fence - Replace	Site	30	19	2040	\$74,420
2.7.2 Prefinished Metal Fence & Gates - Maintenance	Site	10	3	2024	\$7,440
2.7.3 Gate Operator - Maintenance	Site	3	1	2022	\$1,680
2.8.1 Wood Benches - Maintenance	Site	10	3	2024	\$2,240
2.9.1 Landscaping - Maintenance	Site	8	6	2027	\$15,290
3.3.1 Concrete Walkways - Repair	Concrete	6	1	2022	\$5,560
3.3.2 Cast Concrete Retaining Walls - Repair	Concrete	15	4	2025	\$16,180
6.1.1 Garbage Bin Enclosure - Repair	Ext Envelope	15	4	2025	\$2,550
6.2.1 Pedestal Paver - Maintenance	Ext Envelope	30	19	2040	\$1,870
6.2.2 PVC Thermoplastic Membrane - Replace	Ext Envelope	30	19	2040	\$4,040
6.4.1 Brick Siding - Maintenance	Ext Envelope	20	9	2030	\$9,830
6.4.2 CMU Wall - Tuck Point	Ext Envelope	20	9	2030	\$54,800
6.4.3 Fiber Cement Board Siding - Repair	Ext Envelope	10	1	2022	\$6,260
6.4.4 Metal Siding - Replace	Ext Envelope	35	24	2045	\$41,970
7.1.1 Sealant Joints - Replace	Ext Envelope	15	4	2025	\$22,870
7.3.1 Scuppers, Gutters & Downspouts - Replace	Ext Envelope	30	19	2040	\$3,640
7.4.1 Low Sloped Ribbed Roof - Replace	Ext Envelope	30	19	2040	\$193,100
7.4.2 Low Sloped Smooth Roof - Replace	Ext Envelope	30	19	2040	\$127,240
7.4.3 Tower Composition Shingles - Replace	Ext Envelope	30	19	2040	\$1,230
7.4.4 Tower Metal Roof - Replace	Ext Envelope	50	39	2060	\$5,250
7.4.5 Apparatus Bay Metal Roof - Replace	Ext Envelope	40	29	2050	\$16,620
7.4.6 Roof Inspection & Minor Repair	Ext Envelope	5	3	2024	\$6,250
8.2.1 Folding Bay Doors & Hardware - Maintenance	Ext Envelope	5	2	2023	\$5,610
8.2.2 Overhead Bay Doors & Hardware - Replace	Ext Envelope	30	19	2040	\$24,670
8.2.3 Overhead Bay Door Operator - Contingency	Ext Envelope	5	2	2023	\$13,010
8.2.4 Coiling Door - Maintenance	Ext Envelope	30	19	2040	\$10,090
8.2.5 Doors & Hardware - Maintenance	Ext Envelope	5	1	2022	\$3,650
8.3.1 Storefront System - Maintenance	Ext Envelope	15	4	2025	\$7,820



COMPONENT DESCRIPTION		MAINT. CYCLE	REMAINING USEFUL LIFE	NEXT MAINT. YEAR	CURRENT REPLACEMENT COST
8.3.2	Storefront System - Replace Ext Envelope	60	50	2071	\$39,090
8.5.1	Aluminum Windows - Replace Ext Envelope	40	29	2050	\$176,280
9.8.1	Cedar Wood Siding - Maintenance Ext Envelope	6	1	2022	\$22,300
9.8.2	Concrete Siding - Maintenance Ext Envelope	12	1	2022	\$5,160
9.8.3	Exterior Steel - Maintenance Ext Envelope	6	4	2025	\$8,160
9.8.4	Fiber Cement Board Siding - Caulk & Paint Ext Envelope	8	1	2022	\$21,630
10.4.1	Exterior Signage - Refurbish Specialties	10	2	2023	\$2,550
10.5.1	Exterior Mail Pedestal Unit - Replace Specialties	25	14	2035	\$2,240
11.1.1	Propane Forklift - Replace Equipment	20	8	2029	\$22,430
11.4.1	Admin Kitchen Equipment - Contingency Equipment	10	6	2027	\$5,100
11.4.2	Duty Crew Kitchen Equipment - Contingency Equipment	5	3	2024	\$15,290
11.6.1	Laundry Equipment - Contingency Equipment	5	3	2024	\$3,810
11.6.2	Unimac Gear Extractor - Replace Equipment	12	1	2022	\$8,970
11.6.3	Ramair Gear Dryer - Replace Equipment	12	1	2022	\$11,210
11.8.1	Air Compressor System - Replace Equipment	15	4	2025	\$8,970
12.1.1	Apparatus Bay - Refurbish Finishes/Furnishings	25	14	2035	\$70,190
12.1.2	Admin Common Areas - Repaint Finishes/Furnishings	16	5	2026	\$17,610
12.1.3	Exercise Room - Refurbish Finishes/Furnishings	20	9	2030	\$3,060
12.1.4	Bunk Gear Storage - Refurbish Finishes/Furnishings	10	3	2024	\$8,160
12.1.5	Admin Offices - Refurbish Finishes/Furnishings	16	5	2026	\$25,480
12.1.6	Lobby - Refurbish Finishes/Furnishings	15	6	2027	\$20,390
12.1.7	Public Meeting Room - Refurbish Finishes/Furnishings	12	1	2022	\$15,290
12.1.8	Public & Admin Restrooms - Refurbish Finishes/Furnishings	20	9	2030	\$19,620
12.2.1	Duty Crew Common Areas - Full Repaint Finishes/Furnishings	16	7	2028	\$14,000
12.2.2	Duty Crew Common Areas - Touchup Paint Finishes/Furnishings	16	15	2036	\$14,000
12.2.3	Duty Crew Sleep Room Interiors - Refurbish Finishes/Furnishings	10	3	2024	\$25,230
12.2.4	Duty Crew Kitchen Interiors - Refurbish Finishes/Furnishings	10	9	2030	\$10,190
12.2.5	Duty Crew Laundry Interiors - Refurbish Finishes/Furnishings	10	2	2023	\$2,040
12.2.6	Duty Crew Office/Training Areas - Refurbish Finishes/Furnishings	15	4	2025	\$6,120
12.2.7	Duty Crew Restrooms - Refurbish Finishes/Furnishings	10	2	2023	\$16,820



COMPONENT DESCRIPTION		MAINT. CYCLE	REMAINING USEFUL LIFE	NEXT MAINT. YEAR	CURRENT REPLACEMENT COST	
12.4.1	1st Floor Interior Carpet Flooring - Replace	Finishes/Furnishings	24	13	2034	\$34,740
12.4.2	2nd Floor Interior Carpet Flooring - Replace	Finishes/Furnishings	16	5	2026	\$25,020
12.4.3	1st Floor Resilient Flooring - Replace	Finishes/Furnishings	20	9	2030	\$2,350
12.4.4	2nd Floor Resilient Flooring - Replace	Finishes/Furnishings	15	4	2025	\$2,760
12.4.5	1st Floor Sheet Flooring - Replace	Finishes/Furnishings	20	9	2030	\$32,810
12.4.6	2nd Floor Sheet Flooring - Replace	Finishes/Furnishings	15	4	2025	\$42,230
12.4.7	1st Floor Stained Concrete - Refurbish	Finishes/Furnishings	12	1	2022	\$15,440
12.6.1	Elevator Cab Interior - Remodel	Finishes/Furnishings	40	29	2050	\$6,120
14.1.1	Elevator - Major Upgrades	Elevator	40	29	2050	\$127,420
14.1.2	Elevators - 5 Year Load Test	Elevator	5	5	2026	\$5,610
15.2.1	Plumbing System - Contingency	Life Safety	5	3	2024	\$5,100
15.2.2	Plumbing Supply Lines - Replace	Life Safety	60	49	2070	\$61,160
15.3.1	Irrigation System - Contingency	Life Safety	10	8	2029	\$10,500
15.3.2	Storm Water System - Contingency	Life Safety	3	1	2022	\$5,100
15.4.1	Fire Detection System - Maintenance	Life Safety	5	3	2024	\$2,550
15.4.2	Fire Sprinkler System - Maintenance	Life Safety	15	4	2025	\$8,160
15.5.1	Water Heater - Contingency	Life Safety	20	9	2030	\$16,600
15.6.1	Heat Recovery Unit - Replace	Life Safety	25	14	2035	\$13,460
15.6.2	Indirect Makeup AHU - Replace	Life Safety	20	9	2030	\$10,090
15.6.3	Furnace - Replace	Life Safety	20	9	2030	\$2,240
15.6.4	VRF Heat Pump - Contingency	Life Safety	6	4	2025	\$19,700
15.6.5	HVAC System - Contingency	Life Safety	5	3	2024	\$5,100
15.6.6	Infrared Heaters - Replace	Life Safety	20	9	2030	\$15,470
15.7.1	Exhaust Fans - Contingency	Life Safety	5	3	2024	\$7,770
16.3.1	Electrical System - Contingency	Life Safety	10	8	2029	\$5,100
16.5.1	Emergency Generator - Replace	Life Safety	30	19	2040	\$20,180
16.5.2	Generator Fuel Tank - Replace	Life Safety	30	19	2040	\$8,970
16.6.1	Exterior Light Fixtures - Replace	Life Safety	10	9	2030	\$10,190
16.8.1	Fire Control Panel - Replace	Life Safety	20	9	2030	\$3,810
16.9.1	Audio/Visual Equipment - Upgrades	Life Safety	15	4	2025	\$78,490



COMPONENT DESCRIPTION		MAINT. CYCLE	REMAINING USEFUL LIFE	NEXT MAINT. YEAR	CURRENT REPLACEMENT COST	
17.1.1	Fireblast 451 - Maintenance	Life Safety	10	9	2030	\$10,190
18.1.1	Security / Surveillance System - Replace	Security	10	1	2022	\$16,310
2.6.1	Asphalt Paving - Repair	Site	6	1	2022	\$4,120
2.6.2	Asphalt Pavement- Seal Coat & Restripe	Site	6	1	2022	\$5,150
2.7.4	Privacy Wood Fence - Replace	Site	15	8	2029	\$6,190
2.7.5	Chain-link Fence - Repair	Site	40	18	2039	\$4,360
2.9.2	Landscaping - Maintenance	Site	8	6	2027	\$5,100
2.9.3	Wetland - Maintenance	Site	15	13	2034	\$10,190
3.3.3	Exterior Concrete Paving - Repair	Concrete	6	2	2023	\$3,260
6.1.2	Garbage Bin Enclosure - Contingency	Ext Envelope	20	18	2039	\$1,530
6.4.5	Brick Siding - Maintenance	Ext Envelope	20	8	2029	\$13,080
7.3.2	Gutters & Downspouts - Replace	Ext Envelope	20	11	2032	\$3,220
7.4.7	Metal Roof - Replace	Ext Envelope	40	11	2032	\$61,220
7.4.8	Roof Inspection & Minor Repair	Ext Envelope	5	5	2026	\$3,060
8.2.8	Common Doors & Hardware - Maintenance	Ext Envelope	10	10	2031	\$3,380
8.2.6	Overhead Bay Door - Replace	Ext Envelope	20	8	2029	\$5,810
8.2.7	Bay Door Operator - Contingency	Ext Envelope	20	18	2039	\$56,070
8.3.3	Storefront System - Maintenance	Ext Envelope	10	8	2029	\$19,620
8.5.2	Aluminum Framed Windows - Replace	Ext Envelope	45	16	2037	\$30,580
9.8.5	Front Entry Steel Framed Structure - Paint	Ext Envelope	10	2	2023	\$2,290
10.4.2	Exterior Signage - Refurbish	Specialties	15	1	2022	\$2,550
11.4.3	Kitchen Equipment - Contingency	Equipment	5	6	2027	\$14,020
11.6.4	Laundry Equipment - Contingency	Equipment	5	3	2024	\$3,360
11.6.5	Station Extractor - Bunker Gear Washer	Equipment	12	5	2026	\$8,970
11.8.2	Air Compressor - Replace	Equipment	12	11	2032	\$40,840
12.3.1	Interior Concrete Floor - Refurbish	Finishes/Furnishings	25	24	2045	\$8,050
12.3.2	Apparatus Bay - Refurbish	Finishes/Furnishings	10	10	2031	\$13,770
12.3.3	Hallway & Stairwell Walls & Ceiling - Paint	Finishes/Furnishings	25	10	2031	\$7,140
12.3.4	Front Reception Desk & Office - Remodel	Finishes/Furnishings	10	11	2032	\$25,480
12.3.5	Kitchen - Remodel	Finishes/Furnishings	10	10	2031	\$10,190



COMPONENT DESCRIPTION		MAINT. CYCLE	REMAINING USEFUL LIFE	NEXT MAINT. YEAR	CURRENT REPLACEMENT COST
12.3.6 Day / Dining Room - Remodel	Finishes/Furnishings	15	10	2031	\$15,290
12.3.7 Duty Crew Sleep Rooms - Refurbish	Finishes/Furnishings	20	8	2029	\$5,100
12.3.8 Exercise Room - Refurbish	Finishes/Furnishings	15	14	2035	\$30,580
12.3.9 Locker & Restroom - Refurbish	Finishes/Furnishings	15	5	2026	\$2,040
12.3.10 Laundry & Utility Room - Refurbish	Finishes/Furnishings	10	8	2029	\$10,190
15.2.3 Plumbing System - Contingency	Life Safety	10	4	2025	\$5,100
15.3.3 Irrigation System - Contingency	Life Safety	5	2	2023	\$2,550
15.4.3 Fire Detection System - Maintenance	Life Safety	15	5	2026	\$5,100
15.4.4 Wet & Dry Fire Sprinkler System - Contingency	Life Safety	10	8	2029	\$5,610
15.5.2 Water Heater - Replace	Life Safety	15	2	2023	\$8,070
15.6.7 HVAC Units - Replace	Life Safety	15	6	2027	\$11,210
15.6.8 Furnace - Replace	Life Safety	10	4	2025	\$14,020
15.6.9 Infrared Overhead Heaters - Replace	Life Safety	10	8	2029	\$5,100
15.7.2 Exhaust Fans - Contingency	Life Safety	5	3	2024	\$4,440
16.3.2 Electrical System - Contingency	Life Safety	20	8	2029	\$6,730
16.5.3 Emergency Generator - Contingency	Life Safety	20	18	2039	\$8,970
16.6.2 Exterior Light Fixtures - Replace	Life Safety	15	1	2022	\$2,800
16.8.2 Fire Control Panel - Replace	Life Safety	20	8	2029	\$3,920
18.1.2 Security / Surveillance System - Upgrade	Security	10	1	2022	\$15,290



COMPONENTS EXCLUDED FROM THIS STUDY

OPERATING BUDGET

The following components may qualify for inclusion in the Reserve Study, but are excluded because the Organization elects to maintain them with funds from the operating budget:

- acoustic ceiling tiles
- asphalt walkway repairs
- BBQ grill
- diesel tank @ Station 57
- glazing replacement
- gym equipment
- interior light fixtures
- IT equipment
- tower wood trim & metal shutters
- rubber stair treads @ Station 57

ADJUSTMENTS TO COMPONENT RESERVE RECOMMENDATIONS

This reserve study provides updated information on the components from prior reserve studies. All cost estimates were adjusted to reflect the actual inflation rate for construction work in Washington State, and costs actually experienced by Northshore Fire Department or others in the area. To complete the report, we were provided with a record of recent expenditures on reserve components.

We use those figures, where applicable, for updating component cost projections, applying an appropriate inflation factor. Where updated figures from actual work performed are not available, cost projections from the previous reserve study are updated for inflation and rounded to the nearest \$10, using the RS Means 2019 to 2021 inflation figure of 1.94% for construction work.



FIVE YEARS AT A GLANCE (2022 - 2026)

The following reserve funded expenses are expected to occur in the next five years at Northshore Fire Department.

2022 (YEAR 1) ANTICIPATED MAINTENANCE ESTIMATED COST

Stn.51 2.4.2 Concrete - Repaint Stalls & Curbs	\$1,768
Stn.51 2.7.3 Gate Operator - Maintenance	\$1,747
Stn.51 3.3.1 Concrete Walkways - Repair	\$5,782
Stn.51 6.4.3 Fiber Cement Board Siding - Repair	\$6,510
Stn.51 8.2.5 Doors & Hardware - Maintenance	\$3,796
Stn.51 9.8.1 Cedar Wood Siding - Maintenance	\$23,192
Stn.51 9.8.2 Concrete Siding - Maintenance	\$5,366
Stn.51 9.8.4 Fiber Cement Board Siding - Caulk & Paint	\$22,495
Stn.51 11.6.2 Unimac Gear Extractor - Replace	\$9,329
Stn.51 11.6.3 Ramair Gear Dryer - Replace	\$11,658
Stn.51 12.1.7 Public Meeting Room - Refurbish	\$15,902
Stn.51 12.2.4 Duty Crew Kitchen Interiors - Refurbish	\$1,560
Stn.51 12.4.7 1st Floor Stained Concrete - Refurbish	\$16,058
Stn.51 15.3.2 Storm Water System - Contingency	\$5,304
Stn.51 18.1.1 Security / Surveillance System - Replace	\$16,962
Stn.57 2.6.1 Asphalt Paving - Repair	\$4,285
Stn.57 2.6.2 Asphalt Pavement- Seal Coat & Restripe	\$5,356
Stn.57 16.6.2 Exterior Light Fixtures - Replace	\$2,912
Stn.57 18.1.2 Security / Surveillance System - Upgrade	\$15,902

Total Estimated Expenses for 2022 (YEAR 1) \$175,884

Primary Expenses	\$69,575	40%
Secondary Expenses	\$106,309	60%

2023 (YEAR 2) ANTICIPATED MAINTENANCE ESTIMATED COST

Stn.51 8.2.1 Folding Bay Doors & Hardware - Maintenance	\$6,009
Stn.51 8.2.3 Overhead Bay Door Operator - Contingency	\$13,936
Stn.51 10.4.1 Exterior Signage - Refurbish	\$2,732
Stn.51 12.2.5 Duty Crew Laundry Interiors - Refurbish	\$2,185
Stn.51 12.2.7 Duty Crew Restrooms - Refurbish	\$18,018
Stn.57 3.3.3 Exterior Concrete Paving - Repair	\$3,492
Stn.57 9.8.5 Front Entry Steel Framed Structure - Paint	\$2,453
Stn.57 15.3.3 Irrigation System - Contingency	\$2,732
Stn.57 15.5.2 Water Heater - Replace	\$8,645

Total Estimated Expenses for 2023 (YEAR 2) \$60,202

Primary Expenses	\$33,775	56%
Secondary Expenses	\$26,427	44%



2024 (YEAR 3) ANTICIPATED MAINTENANCE

ESTIMATED COST

Stn.51 2.4.1 Concrete - Paving Repairs	\$20,467
Stn.51 2.7.2 Prefinished Metal Fence & Gates - Maintenance	\$8,209
Stn.51 2.8.1 Wood Benches - Maintenance	\$2,471
Stn.51 7.4.6 Roof Inspection & Minor Repair	\$6,896
Stn.51 11.4.2 Duty Crew Kitchen Equipment - Contingency	\$16,870
Stn.51 11.6.1 Laundry Equipment - Contingency	\$4,204
Stn.51 12.1.4 Bunk Gear Storage - Refurbish	\$9,003
Stn.51 12.2.3 Duty Crew Sleep Room Interiors - Refurbish	\$27,837
Stn.51 15.2.1 Plumbing System - Contingency	\$5,627
Stn.51 15.4.1 Fire Detection System - Maintenance	\$2,814
Stn.51 15.6.5 HVAC System - Contingency	\$5,627
Stn.51 15.7.1 Exhaust Fans - Contingency	\$8,573
Stn.57 11.6.4 Laundry Equipment - Contingency	\$3,707
Stn.57 15.7.2 Exhaust Fans - Contingency	\$4,899

Total Estimated Expenses for 2024 (YEAR 3)	\$127,204
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Primary Expenses	\$34,436	27%
Secondary Expenses	\$92,768	73%



2025 (YEAR 4) ANTICIPATED MAINTENANCE

ESTIMATED COST

Stn.51 2.7.3 Gate Operator - Maintenance	\$1,909
Stn.51 3.3.2 Cast Concrete Retaining Walls - Repair	\$18,388
Stn.51 6.1.1 Garbage Bin Enclosure - Repair	\$2,898
Stn.51 7.1.1 Sealant Joints - Replace	\$25,990
Stn.51 8.3.1 Storefront System - Maintenance	\$8,887
Stn.51 9.8.3 Exterior Steel - Maintenance	\$9,273
Stn.51 11.8.1 Air Compressor System - Replace	\$10,194
Stn.51 12.2.6 Duty Crew Office/Training Areas - Refurbish	\$6,955
Stn.51 12.4.4 2nd Floor Resilient Flooring - Replace	\$3,137
Stn.51 12.4.6 2nd Floor Sheet Flooring - Replace	\$47,992
Stn.51 15.3.2 Storm Water System - Contingency	\$5,796
Stn.51 15.4.2 Fire Sprinkler System - Maintenance	\$9,273
Stn.51 15.6.4 VRF Heat Pump - Contingency	\$22,388
Stn.51 16.9.1 Audio/Visual Equipment - Upgrades	\$89,199
Stn.57 15.2.3 Plumbing System - Contingency	\$5,796
Stn.57 15.6.8 Furnace - Replace	\$15,933

Total Estimated Expenses for 2025 (YEAR 4) \$284,008

Primary Expenses	\$195,433	69%
Secondary Expenses	\$88,575	31%

2026 (YEAR 5) ANTICIPATED MAINTENANCE

ESTIMATED COST

Stn.51 12.1.2 Admin Common Areas - Repaint	\$20,613
Stn.51 12.1.5 Admin Offices - Refurbish	\$29,825
Stn.51 12.4.2 2nd Floor Interior Carpet Flooring - Replace	\$29,287
Stn.51 14.1.2 Elevators - 5 Year Load Test	\$6,567
Stn.57 7.4.8 Roof Inspection & Minor Repair	\$3,582
Stn.57 11.6.5 Station Extractor - Bunker Gear Washer	\$10,500
Stn.57 12.3.9 Locker & Restroom - Refurbish	\$2,388
Stn.57 15.4.3 Fire Detection System - Maintenance	\$5,970

Total Estimated Expenses for 2026 (YEAR 5) \$108,732

Primary Expenses	\$16,119	15%
Secondary Expenses	\$92,613	85%



PROJECTED RESERVE ACCOUNT BALANCES

FOR EACH FUNDING PLAN OVER NEXT 5 YEARS

\$182,300 RECOMMENDED (THRESHOLD) FUNDING PLAN					
YEAR	ANNUAL RESERVE CONTRIBUTION	SPECIAL ASSESSMENT	YEAR END RESERVE BALANCE	PERCENT FUNDED	SPECIAL ASSESSMENT RISK LEVEL
1 (2022)	\$182,300	\$0	\$535,010	48%	Moderate Risk
2 (2023)	\$187,769	\$0	\$674,552	54%	Moderate Risk
3 (2024)	\$193,402	\$0	\$754,903	57%	Moderate Risk
4 (2025)	\$199,204	\$0	\$684,350	54%	Moderate Risk
5 (2026)	\$205,180	\$0	\$795,449	58%	Moderate Risk

\$185,300 CURRENT FUNDING PLAN					
YEAR	ANNUAL RESERVE CONTRIBUTION	SPECIAL ASSESSMENT	YEAR END RESERVE BALANCE	PERCENT FUNDED	SPECIAL ASSESSMENT RISK LEVEL
1 (2022)	\$185,300	\$0	\$538,016	48%	Moderate Risk
2 (2023)	\$190,859	\$0	\$680,741	54%	Moderate Risk
3 (2024)	\$196,585	\$0	\$764,430	57%	Moderate Risk
4 (2025)	\$202,482	\$0	\$697,379	55%	Moderate Risk
5 (2026)	\$208,557	\$0	\$812,152	59%	Moderate Risk

\$152,600 BASELINE FUNDING PLAN					
YEAR	ANNUAL RESERVE CONTRIBUTION	SPECIAL ASSESSMENT	YEAR END RESERVE BALANCE	PERCENT FUNDED	SPECIAL ASSESSMENT RISK LEVEL
1 (2022)	\$152,600	\$0	\$505,234	45%	Moderate Risk
2 (2023)	\$157,178	\$0	\$613,285	49%	Moderate Risk
3 (2024)	\$161,893	\$0	\$660,588	50%	Moderate Risk
4 (2025)	\$166,750	\$0	\$555,370	44%	Moderate Risk
5 (2026)	\$171,753	\$0	\$630,130	46%	Moderate Risk

\$188,000 FULL FUNDING PLAN					
YEAR	ANNUAL RESERVE CONTRIBUTION	SPECIAL ASSESSMENT	YEAR END RESERVE BALANCE	PERCENT FUNDED	SPECIAL ASSESSMENT RISK LEVEL
1 (2022)	\$188,000	\$0	\$540,723	48%	Moderate Risk
2 (2023)	\$193,640	\$0	\$686,310	55%	Moderate Risk
3 (2024)	\$199,449	\$0	\$773,005	58%	Moderate Risk
4 (2025)	\$205,433	\$0	\$709,105	56%	Moderate Risk
5 (2026)	\$211,596	\$0	\$827,181	60%	Moderate Risk

PERCENT FUNDED

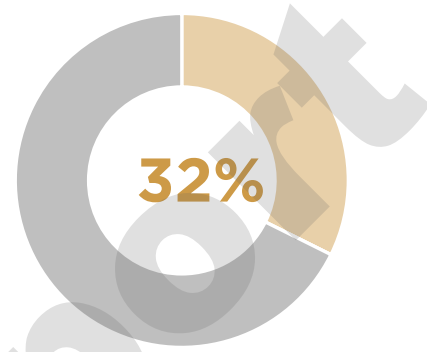
The "percent funded" is a measure of how much the Organization should have saved in their reserve account compared to the projected cost for all the components the Organization is responsible for, and relates to the level of deterioration compared to the cost to repair or replace the component.

We typically recommend a contribution rate to meet a minimum reserve account balance (threshold) goal instead of a 100% funded rate.

We usually recommend that an Organization consider a threshold equal to the recommended annual reserve contribution because this is the average maintenance expense over the thirty years. However, each Organization must judge their unique risk tolerance.

The Fully Funded Balance for Northshore Fire Department is \$1,093,546. The actual current funding is \$354,070. The Organization is approximately 32% funded.

This means that based on a straight-line savings for each reserve component, the Organization saved 32% of the accumulated depreciation of the reserve components.



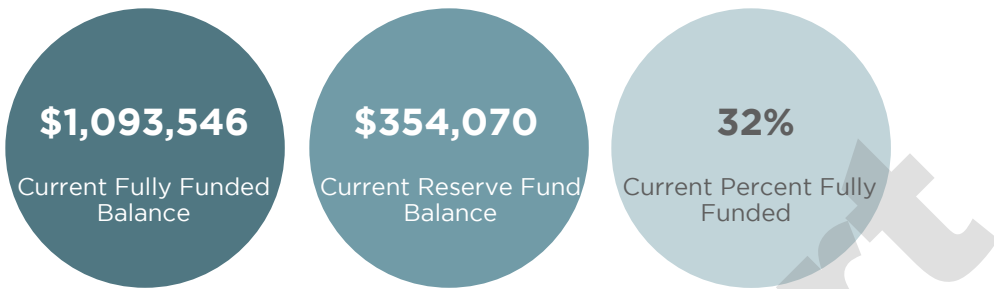
At 32%, Northshore Fire Department is considered to be at **moderate risk for a special assessment.**

EXAMPLE OF PERCENT FUNDED FOR ROOF REPLACEMENT

SCENARIO	ANALYSIS
<p>For a roof that lasts 10 years and costs \$100,000 to replace:</p> <ul style="list-style-type: none"> • Save \$10,000 each year, for 10 years • Year 2, the roof has deteriorated 20%. <ul style="list-style-type: none"> ○ If you have \$20,000 saved it is fully funded. ○ If you have \$10,000 saved it is 50% funded. • Year 8, the roof has deteriorated 80%. <ul style="list-style-type: none"> ○ If you have \$80,000 saved it is fully funded. ○ If you have \$20,000 saved it is 25% funded. If you have \$10,000 saved it is 13% funded. 	<ul style="list-style-type: none"> A. In effect, the percent funded is a measure of how well an Organization can withstand the risk of unexpected expenses. Such unexpected expenses include: emergency expenses not covered by insurance, expenses that are higher than predicted, and expenses that are required earlier than anticipated. B. A higher percent funded means more money is in the bank which lowers the risk of special assessment if something unexpected occurs. A poorly funded Organization has less cash on hand, therefore much higher risk of special assessment for unplanned expenses. C. By analyzing deterioration cycles and cash flow needs, we determine how much money should be steadily contributed, over a 30 year period, to fund the repair and replacement needs of the components included in the study. Budgeting to maintain a minimum balance, or threshold, helps to ensure that a special assessment will not be required if an unexpected expense arises.



FULLY FUNDED BALANCE CALCUATIONS

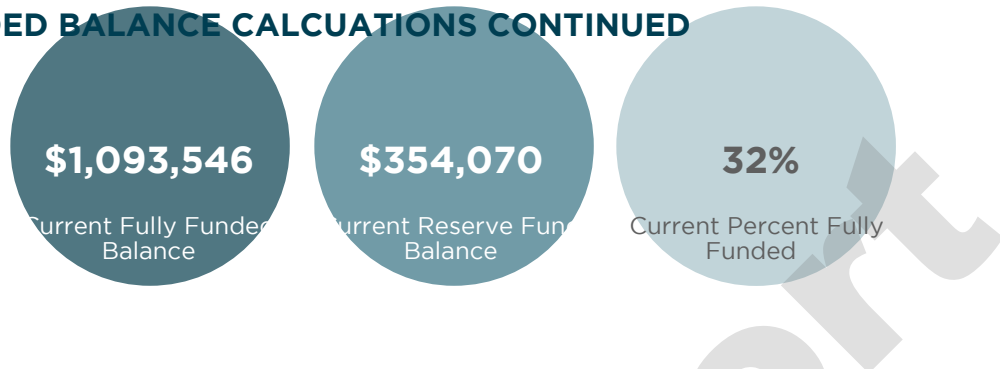


FULLY FUNDED BALANCE = *THE SUM OF* $\frac{\text{REPLACEMENT COST X EFFECTIVE AGE}}{\text{USEFUL LIFE}}$ *FOR ALL RESERVE COMPONENTS*

		COMPONENT DESCRIPTION	QTY	UNIT	MAINT. CYCLE (USEFUL LIFE)	REMAINING USEFUL LIFE	EFFECTIVE AGE	CURRENT REPLACEMENT COST	FULLY FUNDED BALANCE
3%	2.4.1	Concrete - Paving Repairs	65610	SF	10	3	7	\$18,550	\$12,985
100%	2.4.2	Concrete - Repaint Stalls & Curbs	76	EA	10	1	9	\$1,700	\$1,530
100%	2.7.1	Prefinished Metal Fence - Replace	885	LF	30	19	11	\$74,420	\$27,287
10%	2.7.2	Prefinished Metal Fence & Gates - Maintenance	885	LF	10	3	7	\$7,440	\$5,208
100%	2.7.3	Gate Operator - Maintenance	1	EA	3	1	2	\$1,680	\$1,120
100%	2.8.1	Wood Benches - Maintenance	4	EA	10	3	7	\$2,240	\$1,568
100%	2.9.1	Landscaping - Maintenance	1	LS	8	6	2	\$15,290	\$3,823
10%	3.3.1	Concrete Walkways - Repair	5700	SF	6	1	5	\$5,560	\$4,633
5%	3.3.2	Cast Concrete Retaining Walls - Repair	740	LF	15	4	11	\$16,180	\$11,865
100%	6.1.1	Garbage Bin Enclosure - Repair	1	EA	15	4	11	\$2,550	\$1,870
25%	6.2.1	Pedestal Paver - Maintenance	180	SF	30	19	11	\$1,870	\$686
100%	6.2.2	PVC Thermoplastic Membrane - Replace	180	SF	30	19	11	\$4,040	\$1,481
5%	6.4.1	Brick Siding - Maintenance	7010	SF	20	9	11	\$9,830	\$5,407
100%	6.4.2	CMU Wall - Tuck Point	6515	SF	20	9	11	\$54,800	\$30,140
3%	6.4.3	Fiber Cement Board Siding - Repair	6420	SF	10	1	9	\$6,260	\$5,634
100%	6.4.4	Metal Siding - Replace	2340	SF	35	24	11	\$41,970	\$13,191
100%	7.1.1	Sealant Joints - Replace	1700	LF	15	4	11	\$22,870	\$16,771
100%	7.3.1	Scuppers, Gutters & Downspouts - Replace	560	LF	30	19	11	\$3,640	\$1,335
100%	7.4.1	Low Sloped Ribbed Roof - Replace	101	SQ	30	19	11	\$193,100	\$70,803
100%	7.4.2	Low Sloped Smooth Roof - Replace	95	SQ	30	19	11	\$127,240	\$46,655
100%	7.4.3	Tower Composition Shingles - Replace	2	SQ	30	19	11	\$1,230	\$451
100%	7.4.4	Tower Metal Roof - Replace	6	SQ	50	39	11	\$5,250	\$1,155
100%	7.4.5	Apparatus Bay Metal Roof - Replace	19	SQ	40	29	11	\$16,620	\$4,571
5%	7.4.6	Roof Inspection & Minor Repair	223	SQ	5	3	2	\$6,250	\$2,500
10%	8.2.1	Folding Bay Doors & Hardware - Maintenance	5	EA	5	2	3	\$5,610	\$3,366
100%	8.2.2	Overhead Bay Doors & Hardware - Replace	4	EA	30	19	11	\$24,670	\$9,046
100%	8.2.3	Overhead Bay Door Operator - Contingency	4	EA	5	2	3	\$13,010	\$7,806
100%	8.2.4	Coiling Door - Maintenance	2	EA	30	19	11	\$10,090	\$3,700
100%	8.2.5	Doors & Hardware - Maintenance	5	EA	5	1	4	\$3,650	\$2,920
20%	8.3.1	Storefront System - Maintenance	420	SF	15	4	11	\$7,820	\$5,735



FULLY FUNDED BALANCE CALCUATIONS CONTINUED

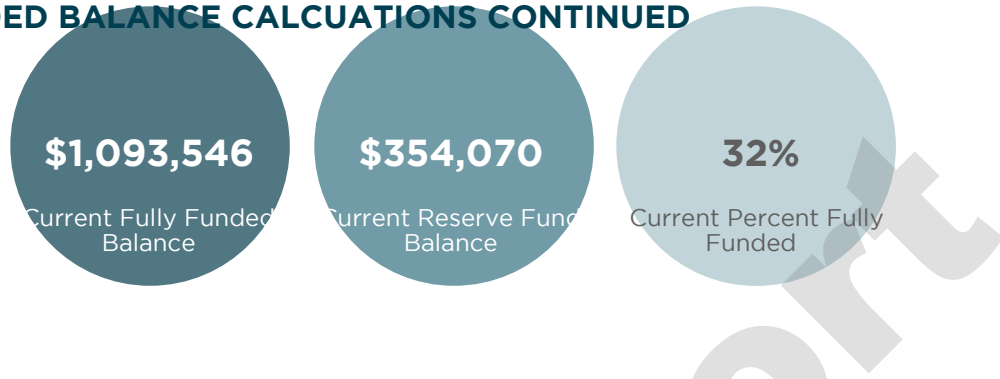


FULLY FUNDED BALANCE = *THE SUM OF* $\frac{\text{REPLACEMENT COST X EFFECTIVE AGE}}{\text{USEFUL LIFE}}$ *FOR ALL RESERVE COMPONENTS*

		COMPONENT DESCRIPTION	QTY	UNIT	MAINT. CYCLE (USEFUL LIFE)	REMAINING USEFUL LIFE	EFFECTIVE AGE	CURRENT REPLACEMENT COST	FULLY FUNDED BALANCE
100%	8.3.2	Storefront System - Replace	420	SF	60	50	10	\$39,090	\$6,515
100%	8.5.1	Aluminum Windows - Replace	2620	SF	40	29	11	\$176,280	\$48,477
100%	9.8.1	Cedar Wood Siding - Maintenance	1530	SF	6	1	5	\$22,300	\$18,583
100%	9.8.2	Concrete Siding - Maintenance	920	SF	12	1	11	\$5,160	\$4,730
100%	9.8.3	Exterior Steel - Maintenance	1	LS	6	4	2	\$8,160	\$2,720
100%	9.8.4	Fiber Cement Board Siding - Caulk & Paint	6420	SF	8	1	7	\$21,630	\$18,926
100%	10.4.1	Exterior Signage - Refurbish	1	LS	10	2	8	\$2,550	\$2,040
100%	10.5.1	Exterior Mail Pedestal Unit - Replace	1	EA	25	14	11	\$2,240	\$986
100%	11.1.1	Propane Forklift - Replace	1	EA	20	8	12	\$22,430	\$13,458
100%	11.4.1	Admin Kitchen Equipment - Contingency	1	LS	10	6	4	\$5,100	\$2,040
100%	11.4.2	Duty Crew Kitchen Equipment - Contingency	1	LS	5	3	2	\$15,290	\$6,116
100%	11.6.1	Laundry Equipment - Contingency	4	EA	5	3	2	\$3,810	\$1,524
100%	11.6.2	Unimac Gear Extractor - Replace	1	EA	12	1	11	\$8,970	\$8,223
100%	11.6.3	Ramair Gear Dryer - Replace	1	EA	12	1	11	\$11,210	\$10,276
100%	11.8.1	Air Compressor System - Replace	1	EA	15	4	11	\$8,970	\$6,578
100%	12.1.1	Apparatus Bay - Refurbish	12525	SF	25	14	11	\$70,190	\$30,884
100%	12.1.2	Admin Common Areas - Repaint	12115	SF	16	5	11	\$17,610	\$12,107
100%	12.1.3	Exercise Room - Refurbish	1	LS	20	9	11	\$3,060	\$1,683
100%	12.1.4	Bunk Gear Storage - Refurbish	1	LS	10	3	7	\$8,160	\$5,712
100%	12.1.5	Admin Offices - Refurbish	1	LS	16	5	11	\$25,480	\$17,518
100%	12.1.6	Lobby - Refurbish	1	LS	15	6	9	\$20,390	\$12,234
100%	12.1.7	Public Meeting Room - Refurbish	1	LS	12	1	11	\$15,290	\$14,016
100%	12.1.8	Public & Admin Restrooms - Refurbish	7	EA	20	9	11	\$19,620	\$10,791
100%	12.2.1	Duty Crew Common Areas - Full Repaint	9630	SF	16	7	9	\$14,000	\$7,875
100%	12.2.2	Duty Crew Common Areas - Touchup Paint	9630	SF	16	15	1	\$14,000	\$875
100%	12.2.3	Duty Crew Sleep Room Interiors - Refurbish	9	EA	10	3	7	\$25,230	\$17,661
100%	12.2.4	Duty Crew Kitchen Interiors - Refurbish	1	LS	10	9	1	\$10,190	\$1,019
100%	12.2.5	Duty Crew Laundry Interiors - Refurbish	1	LS	10	2	8	\$2,040	\$1,632
100%	12.2.6	Duty Crew Office/Training Areas - Refurbish	1	LS	15	4	11	\$6,120	\$4,488
100%	12.2.7	Duty Crew Restrooms - Refurbish	6	EA	10	2	8	\$16,820	\$13,456



FULLY FUNDED BALANCE CALCUATIONS CONTINUED

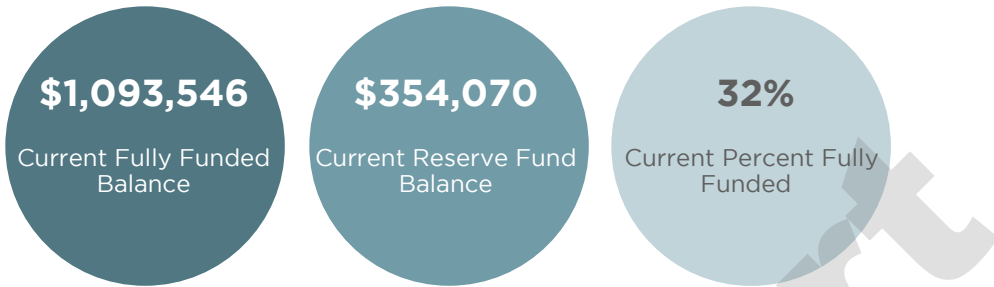


FULLY FUNDED BALANCE = THE SUM OF $\frac{\text{REPLACEMENT COST} \times \text{EFFECTIVE AGE}}{\text{USEFUL LIFE}}$ FOR ALL RESERVE COMPONENTS

COMPONENT DESCRIPTION			QTY	UNIT	MAINT. CYCLE (USEFUL LIFE)	REMAINING USEFUL LIFE	EFFECTIVE AGE	CURRENT REPLACEMENT COST	FULLY FUNDED BALANCE
100%	12.4.1	1st Floor Interior Carpet Flooring - Replace	704	SY	24	13	11	\$34,740	\$15,923
100%	12.4.2	2nd Floor Interior Carpet Flooring - Replace	507	SY	16	5	11	\$25,020	\$17,201
100%	12.4.3	1st Floor Resilient Flooring - Replace	655	SF	20	9	11	\$2,350	\$1,293
100%	12.4.4	2nd Floor Resilient Flooring - Replace	770	SF	15	4	11	\$2,760	\$2,024
100%	12.4.5	1st Floor Sheet Flooring - Replace	1950	SF	20	9	11	\$32,810	\$18,046
100%	12.4.6	2nd Floor Sheet Flooring - Replace	2510	SF	15	4	11	\$42,230	\$30,969
100%	12.4.7	1st Floor Stained Concrete - Refurbish	510	SF	12	1	11	\$15,440	\$14,153
100%	12.6.1	Elevator Cab Interior - Remodel	1	LS	40	29	11	\$6,120	\$1,683
100%	14.1.1	Elevator - Major Upgrades	1	EA	40	29	11	\$127,420	\$35,041
100%	14.1.2	Elevators - 5 Year Load Test	1	LS	5	5	-	\$5,610	\$0
100%	15.2.1	Plumbing System - Contingency	1	LS	5	3	2	\$5,100	\$2,040
100%	15.2.2	Plumbing Supply Lines - Replace	1	LS	60	49	11	\$61,160	\$11,213
100%	15.3.1	Irrigation System - Contingency	12	ZN	10	8	2	\$10,500	\$2,100
100%	15.3.2	Storm Water System - Contingency	1	LS	3	1	2	\$5,100	\$3,400
100%	15.4.1	Fire Detection System - Maintenance	1	LS	5	3	2	\$2,550	\$1,020
100%	15.4.2	Fire Sprinkler System - Maintenance	1	LS	15	4	11	\$8,160	\$5,984
100%	15.5.1	Water Heater - Contingency	2	EA	20	9	11	\$16,600	\$9,130
100%	15.6.1	Heat Recovery Unit - Replace	1	EA	25	14	11	\$13,460	\$5,922
100%	15.6.2	Indirect Makeup AHU - Replace	1	EA	20	9	11	\$10,090	\$5,550
100%	15.6.3	Furnace - Replace	1	EA	20	9	11	\$2,240	\$1,232
33%	15.6.4	VRF Heat Pump - Contingency	40	EA	6	4	2	\$19,700	\$6,567
100%	15.6.5	HVAC System - Contingency	1	LS	5	3	2	\$5,100	\$2,040
100%	15.6.6	Infrared Heaters - Replace	6	EA	20	9	11	\$15,470	\$8,509
33%	15.7.1	Exhaust Fans - Contingency	14	EA	5	3	2	\$7,770	\$3,108
100%	16.3.1	Electrical System - Contingency	1	LS	10	8	2	\$5,100	\$1,020
100%	16.5.1	Emergency Generator - Replace	1	EA	30	19	11	\$20,180	\$7,399
100%	16.5.2	Generator Fuel Tank - Replace	1	EA	30	19	11	\$8,970	\$3,289
100%	16.6.1	Exterior Light Fixtures - Replace	1	LS	10	9	1	\$10,190	\$1,019
100%	16.8.1	Fire Control Panel - Replace	1	EA	20	9	11	\$3,810	\$2,096
100%	16.9.1	Audio/Visual Equipment - Upgrades	1	LS	15	4	11	\$78,490	\$57,559



FULLY FUNDED BALANCE CALCUATIONS CONTINUED

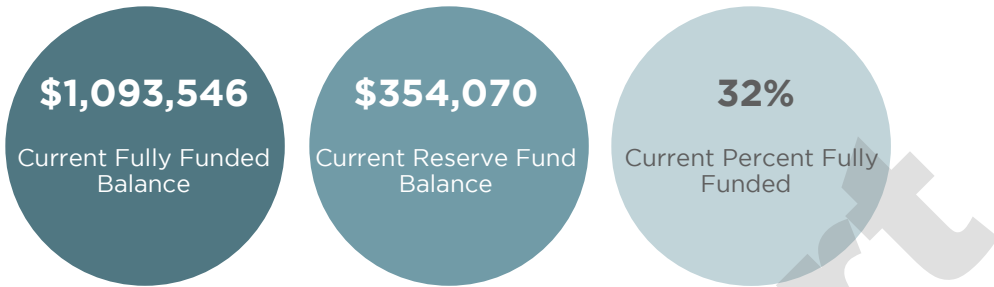


FULLY FUNDED BALANCE = THE SUM OF $\frac{\text{REPLACEMENT COST} \times \text{EFFECTIVE AGE}}{\text{USEFUL LIFE}}$ FOR ALL RESERVE COMPONENTS

		COMPONENT DESCRIPTION	QTY	UNIT	MAINT. CYCLE (USEFUL LIFE)	REMAINING USEFUL LIFE	EFFECTIVE AGE	CURRENT REPLACEMENT COST	FULLY FUNDED BALANCE
100%	17.1.1	Fireblast 451 - Maintenance	1	EA	10	9	1	\$10,190	\$1,019
100%	18.1.1	Security / Surveillance System - Replace	1	LS	10	1	9	\$16,310	\$14,679
5%	2.6.1	Asphalt Paving - Repair	9180	SF	6	1	5	\$4,120	\$3,433
100%	2.6.2	Asphalt Pavement- Seal Coat & Restripe	9180	SF	6	1	5	\$5,150	\$4,292
100%	2.7.4	Privacy Wood Fence - Replace	120	LF	15	8	7	\$6,190	\$2,889
100%	2.7.5	Chain-link Fence - Repair	205	LF	40	18	22	\$4,360	\$2,398
100%	2.9.2	Landscaping - Maintenance	1	LS	8	6	2	\$5,100	\$1,275
100%	2.9.3	Wetland - Maintenance	1	LS	15	13	2	\$10,190	\$1,359
20%	3.3.3	Exterior Concrete Paving - Repair	1730	SF	6	2	4	\$3,260	\$2,173
100%	6.1.2	Garbage Bin Enclosure - Contingency	1	LS	20	18	2	\$1,530	\$153
10%	6.4.5	Brick Siding - Maintenance	4860	SF	20	8	12	\$13,080	\$7,848
100%	7.3.2	Gutters & Downspouts - Replace	511	LF	20	11	9	\$3,220	\$1,449
100%	7.4.7	Metal Roof - Replace	70	SQ	40	11	29	\$61,220	\$44,385
5%	7.4.8	Roof Inspection & Minor Repair	70	SQ	5	5	-	\$3,060	\$0
15%	8.2.8	Common Doors & Hardware - Maintenance	31	EA	10	10	-	\$3,380	\$0
100%	8.2.6	Overhead Bay Door - Replace	5	EA	20	8	12	\$5,810	\$3,486
100%	8.2.7	Bay Door Operator - Contingency	5	EA	20	18	2	\$56,070	\$5,607
100%	8.3.3	Storefront System - Maintenance	5	EA	10	8	2	\$19,620	\$3,924
100%	8.5.2	Aluminum Framed Windows - Replace	1	LS	45	16	29	\$30,580	\$19,707
100%	9.8.5	Front Entry Steel Framed Structure - Paint	128	LF	10	2	8	\$2,290	\$1,832
100%	10.4.2	Exterior Signage - Refurbish	1	LS	15	10	5	\$2,550	\$850
50%	11.4.3	Kitchen Equipment - Contingency	5	EA	5	6	-	\$14,020	\$0
100%	11.6.4	Laundry Equipment - Contingency	2	EA	5	3	2	\$3,360	\$1,344
100%	11.6.5	Station Extractor - Bunker Gear Washer	1	EA	12	5	7	\$8,970	\$5,233
100%	11.8.2	Air Compressor - Replace	3640	SF	12	11	1	\$40,840	\$3,403
25%	12.3.1	Interior Concrete Floor - Refurbish	5748	SF	25	24	1	\$8,050	\$322
100%	12.3.2	Apparatus Bay - Refurbish	5844	SF	10	10	-	\$13,770	\$0
100%	12.3.3	Hallway & Stairwell Walls & Ceiling - Paint	1	LS	25	10	15	\$7,140	\$4,284
100%	12.3.4	Front Reception Desk & Office - Remodel	1	LS	10	11	-	\$25,480	\$0
100%	12.3.5	Kitchen - Remodel	1	LS	10	10	-	\$10,190	\$0



FULLY FUNDED BALANCE CALCUATIONS CONTINUED



FULLY FUNDED BALANCE = THE SUM OF $\frac{\text{REPLACEMENT COST X EFFECTIVE AGE}}{\text{USEFUL LIFE}}$ FOR ALL RESERVE COMPONENTS

COMPONENT DESCRIPTION	QTY	UNIT	MAINT. CYCLE (USEFUL LIFE)	REMAINING USEFUL LIFE	EFFECTIVE AGE	CURRENT REPLACEMENT COST	FULLY FUNDED BALANCE
100% 12.3.6 Day / Dining Room - Remodel	1	LS	15	10	5	\$15,290	\$5,097
100% 12.3.7 Duty Crew Sleep Rooms - Refurbish	1	LS	20	8	12	\$5,100	\$3,060
100% 12.3.8 Exercise Room - Refurbish	1	LS	15	14	1	\$30,580	\$2,039
100% 12.3.9 Locker & Restroom - Refurbish	1	LS	15	5	10	\$2,040	\$1,360
100% 12.3.10 Laundry & Utility Room - Refurbish	1	LS	10	8	2	\$10,190	\$2,038
100% 15.2.3 Plumbing System - Contingency	1	LS	10	4	6	\$5,100	\$3,060
100% 15.3.3 Irrigation System - Contingency	1	LS	5	2	3	\$2,550	\$1,530
100% 15.4.3 Fire Detection System - Maintenance	1	LS	15	5	10	\$5,100	\$3,400
100% 15.4.4 Wet & Dry Fire Sprinkler System - Contingency	1	LS	10	8	2	\$5,610	\$1,122
100% 15.5.2 Water Heater - Replace	3	EA	15	2	13	\$8,070	\$6,994
100% 15.6.7 HVAC Units - Replace	1	EA	15	6	9	\$11,210	\$6,726
100% 15.6.8 Furnace - Replace	5	EA	10	4	6	\$14,020	\$8,412
100% 15.6.9 Infrared Overhead Heaters - Replace	1	LS	10	8	2	\$5,100	\$1,020
33% 15.7.2 Exhaust Fans - Contingency	8	EA	5	3	2	\$4,440	\$1,776
100% 16.3.2 Electrical System - Contingency	1	EA	20	8	12	\$6,730	\$4,038
100% 16.5.3 Emergency Generator - Contingency	1	EA	20	18	2	\$8,970	\$897
100% 16.6.2 Exterior Light Fixtures - Replace	5	EA	15	1	14	\$2,800	\$2,613
100% 16.8.2 Fire Control Panel - Replace	1	EA	20	8	12	\$3,920	\$2,352
100% 18.1.2 Security / Surveillance System - Upgrade	1	LS	10	1	9	\$15,290	\$13,761
FULLY FUNDED BALANCE						Total	\$1,093,546

CURRENT RESERVE BALANCE = \$354,070

PERCENT FULLY FUNDED = 32%

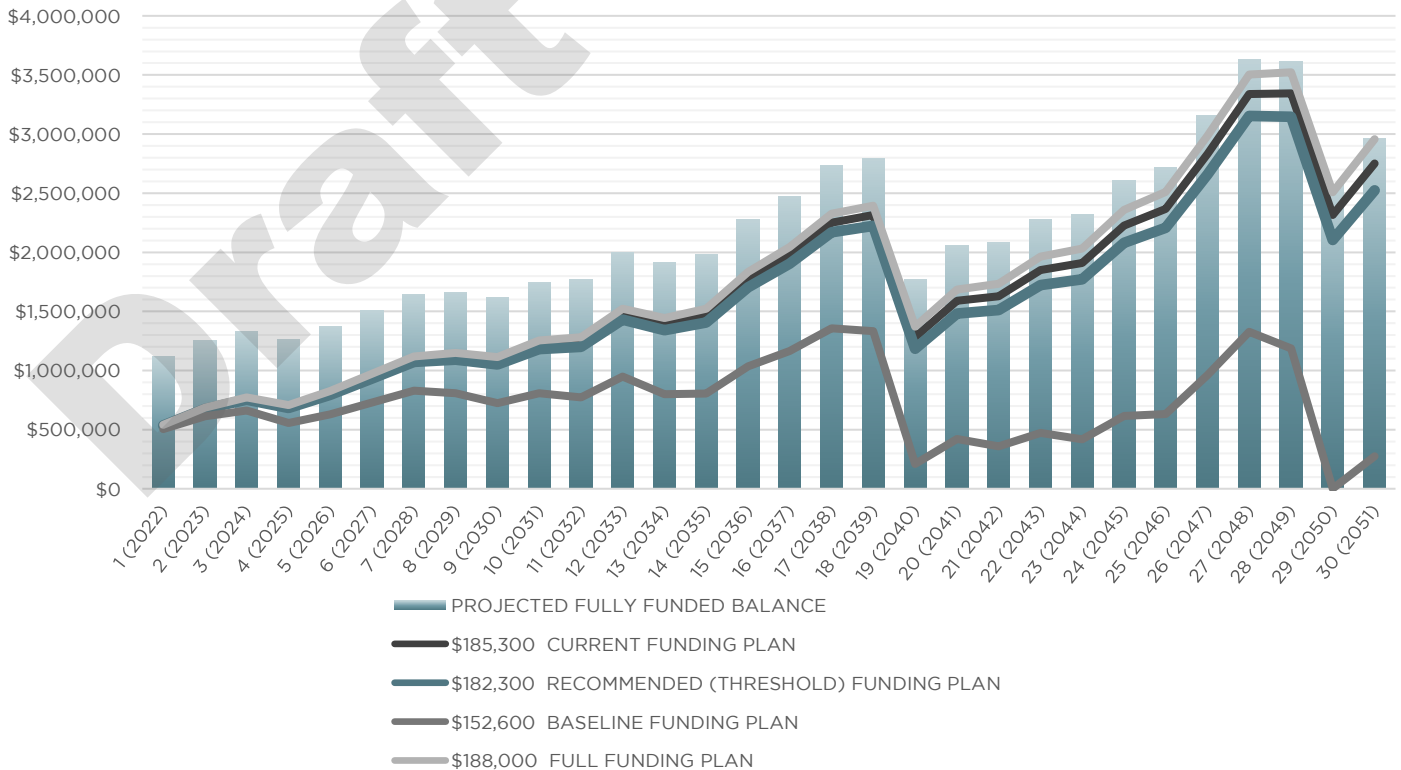


FUNDING PLANS

THRESHOLD FUNDING PLAN \$182,300	ELINE FUNDING PLAN \$152,600	FULL FUNDING PLAN \$188,000
RECOMMENDED	OPTIONAL STRATEGY	100% FUNDED BY YEAR 30
initial annual contribution of \$182,300	initial annual contribution of \$152,600	initial annual contribution of \$188,000
meets yearly projected reserve expenses	meets annual reserve expenses with no minimum balance requirement	most flexibility for cost variables and unplanned expenses
maintains minimum reserve balance equal to annual contribution amount	less flexibility with cost variables and unplanned expenses	lowest risk for special assessment

The Threshold Funding Plan is the **RECOMMENDED FUNDING PLAN** for Northshore Fire Department, balancing cashflow and anticipated expenses over 30 years while maintaining a minimum reserve account balance of one year's contribution to reserves and the percent funded above 48%. Cost projection accuracy decreases into the distant future. Assumptions should be reconsidered and updated with each revision of the study.

COMPARISON OF FULLY FUNDED BALANCE AND FUNDING PLANS





PROJECTED RESERVE ACCOUNT BALANCES

FOR FUNDING PLANS OVER 30 YEARS

The projected reserve account balance for each of the funding plans over the next 30 years is provided, along with the current funding plan projections.

FISCAL YEAR END	\$182,300 RECOMMENDED (THRESHOLD) FUNDING PLAN	\$185,300 CURRENT FUNDING PLAN	\$152,600 BASELINE FUNDING PLAN	\$188,000 FULL FUNDING PLAN
1 (2022)	\$535,010	\$538,016	\$505,234	\$540,723
2 (2023)	\$674,552	\$680,741	\$613,285	\$686,310
3 (2024)	\$754,903	\$764,430	\$660,588	\$773,005
4 (2025)	\$684,350	\$697,379	\$555,370	\$709,105
5 (2026)	\$795,449	\$812,152	\$630,130	\$827,181
6 (2027)	\$933,772	\$954,321	\$730,372	\$972,812
7 (2028)	\$1,073,117	\$1,097,693	\$829,829	\$1,119,810
8 (2029)	\$1,093,261	\$1,122,054	\$808,213	\$1,147,967
9 (2030)	\$1,051,801	\$1,085,007	\$723,052	\$1,114,893
10 (2031)	\$1,182,011	\$1,219,835	\$807,549	\$1,253,877
11 (2032)	\$1,199,279	\$1,242,368	\$772,675	\$1,281,151
12 (2033)	\$1,429,541	\$1,478,222	\$947,598	\$1,522,035
13 (2034)	\$1,340,872	\$1,395,485	\$800,228	\$1,444,634
14 (2035)	\$1,406,957	\$1,467,856	\$804,080	\$1,522,663
15 (2036)	\$1,704,912	\$1,772,471	\$1,036,093	\$1,833,273
16 (2037)	\$1,903,316	\$1,977,931	\$1,164,666	\$2,045,082
17 (2038)	\$2,169,662	\$2,251,743	\$1,357,092	\$2,325,613
18 (2039)	\$2,224,512	\$2,314,495	\$1,333,737	\$2,395,475
19 (2040)	\$1,184,055	\$1,282,393	\$210,574	\$1,370,892
20 (2041)	\$1,482,330	\$1,589,499	\$421,422	\$1,685,946
21 (2042)	\$1,511,680	\$1,628,179	\$358,393	\$1,733,024
22 (2043)	\$1,723,271	\$1,849,627	\$472,412	\$1,963,342
23 (2044)	\$1,772,603	\$1,909,366	\$418,727	\$2,032,446
24 (2045)	\$2,078,953	\$2,226,698	\$616,348	\$2,359,663
25 (2046)	\$2,208,710	\$2,368,045	\$631,392	\$2,511,438
26 (2047)	\$2,660,011	\$2,831,569	\$961,705	\$2,985,961
27 (2048)	\$3,153,293	\$3,337,736	\$1,327,420	\$3,503,725
28 (2049)	\$3,146,321	\$3,344,349	\$1,185,994	\$3,522,562
29 (2050)	\$2,103,347	\$2,315,684	\$1,339	\$2,506,777
30 (2051)	\$2,525,238	\$2,752,651	\$273,986	\$2,957,311

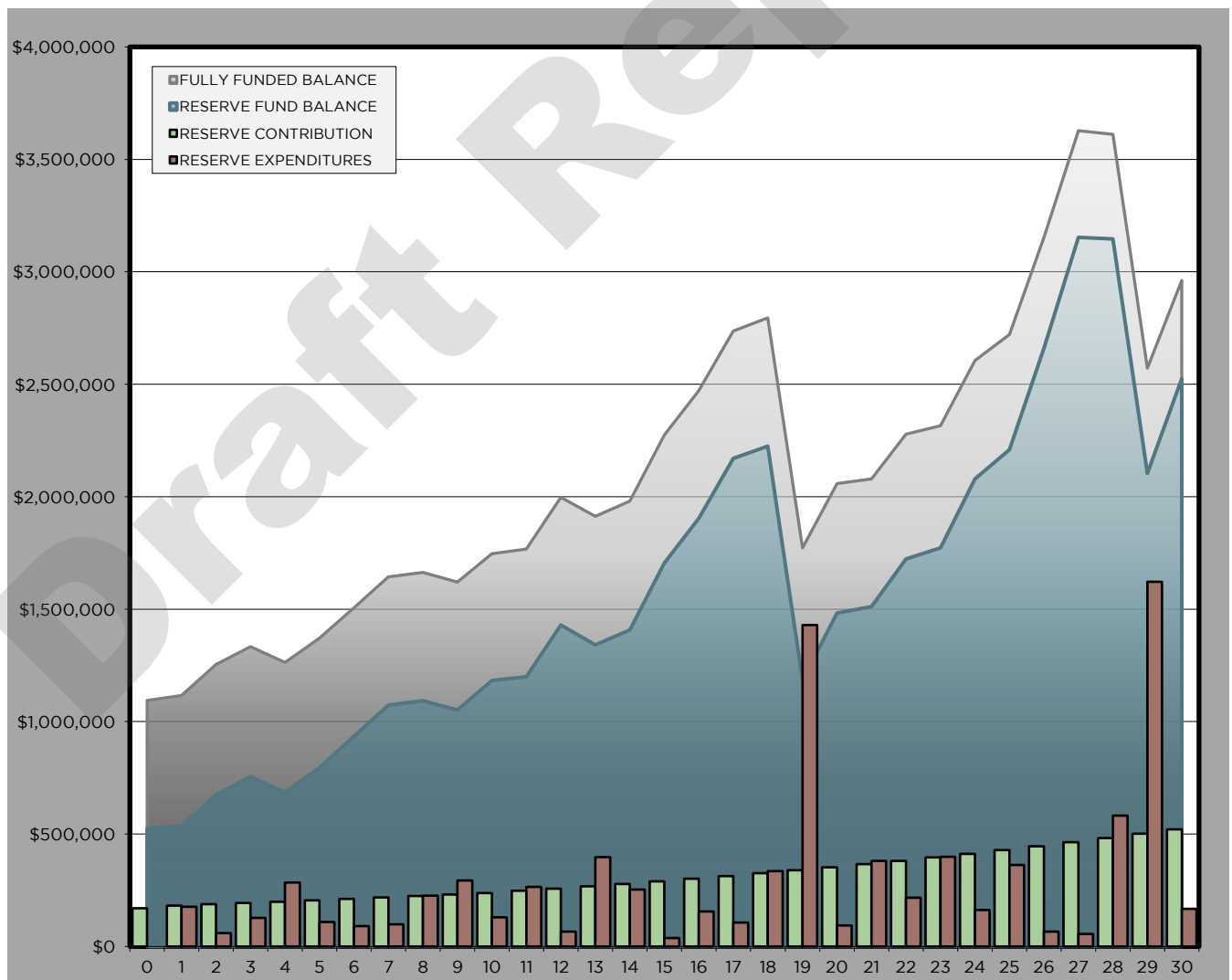


RESERVE STUDY PROJECTIONS USING INFLATED DOLLAR VALUES

The recommended contribution to reserves is primarily based on cashflow over thirty years to ensure a that there will be enough funds in reserves to cover anticipated expenses without the need of a special assessment. Monitoring the Fully Funded Balance helps anticipate future financial liabilities and the community's potential risk for a special assessment. The inflated scenario includes annual increases in the reserve contribution to keep up with inflation.

- **Teal Area Graph:** The fiscal year-end running reserve fund balance is shown as a line graph in teal.
- **Grey Area Graph:** The anticipated fully funded balance is shown as a line graph in grey.
- **Mint Green Bars:** The annual reserve fund contributions are shown as mint green bars.
- **Brick Red Bars:** The anticipated yearly reserve expenditures are shown as brick red bars, depicting the anticipated expenses over the next 30 years.

RECOMMENDED FUNDING PLAN STARTING AT \$182,300





RESERVE 30 YEAR SUMMARY AT THE RECOMMENDED FUNDING PLAN STARTING AT \$182,300

INFLATION & INTEREST ASSUMPTIONS ¹			
	CONTRIBUTION INFLATION	COMPONENT INFLATION	INTEREST
Years 0-1	0%	4%	0.5%
Years 2-10	3%	3%	2%
Years 11-30	4%	4%	3%

SPECIAL ASSESSMENT RISK

Nominal Risk	100% +
Low Risk	70% to 99%
Moderate Risk	25% to 69%
Highest Risk	0% to 24%

FISCAL YEAR END	FISCAL YEAR BEGINNING RESERVE BALANCE	RECOMMENDED ANNUAL RESERVE CONTRIBUTION ²	AVERAGE CONTRIBUTION PER UNIT PER MONTH ³	PROJECTED RESERVE EXPENDITURES	SPECIAL ASSESSMENT	PROJECTED INTEREST EARNED	FISCAL YEAR END RESERVE BALANCE	PROJECTED FULLY FUNDED BALANCE	PERCENT FUNDED
1 (2022)	\$525,948	\$182,300	\$15,192	(\$175,884)	\$0	\$2,646	\$535,010	\$1,116,507	48%
2 (2023)	\$535,010	\$187,769	\$15,647	(\$60,202)	\$0	\$11,976	\$674,552	\$1,253,683	54%
3 (2024)	\$674,552	\$193,402	\$16,117	(\$127,204)	\$0	\$14,153	\$754,903	\$1,332,889	57%
4 (2025)	\$754,903	\$199,204	\$16,600	(\$284,008)	\$0	\$14,250	\$684,350	\$1,262,732	54%
5 (2026)	\$684,350	\$205,180	\$17,098	(\$108,732)	\$0	\$14,651	\$795,449	\$1,370,963	58%
6 (2027)	\$795,449	\$211,336	\$17,611	(\$90,134)	\$0	\$17,121	\$933,772	\$1,506,409	62%
7 (2028)	\$933,772	\$217,676	\$18,140	(\$98,201)	\$0	\$19,870	\$1,073,117	\$1,643,383	65%
8 (2029)	\$1,073,117	\$224,206	\$18,684	(\$225,511)	\$0	\$21,449	\$1,093,261	\$1,662,857	66%
9 (2030)	\$1,093,261	\$230,932	\$19,244	(\$293,631)	\$0	\$21,238	\$1,051,801	\$1,620,666	65%
10 (2031)	\$1,051,801	\$237,860	\$19,822	(\$129,767)	\$0	\$22,117	\$1,182,011	\$1,747,121	68%
11 (2032)	\$1,182,011	\$247,375	\$20,615	(\$265,298)	\$0	\$35,191	\$1,199,279	\$1,767,612	68%
12 (2033)	\$1,199,279	\$257,270	\$21,439	(\$65,857)	\$0	\$38,850	\$1,429,541	\$1,997,003	72%
13 (2034)	\$1,429,541	\$267,560	\$22,297	(\$397,171)	\$0	\$40,942	\$1,340,872	\$1,913,238	70%
14 (2035)	\$1,340,872	\$278,263	\$23,189	(\$252,786)	\$0	\$40,608	\$1,406,957	\$1,979,845	71%
15 (2036)	\$1,406,957	\$289,393	\$24,116	(\$37,427)	\$0	\$45,988	\$1,704,912	\$2,274,191	75%
16 (2037)	\$1,704,912	\$300,969	\$25,081	(\$155,888)	\$0	\$53,324	\$1,903,316	\$2,471,955	77%
17 (2038)	\$1,903,316	\$313,008	\$26,084	(\$106,854)	\$0	\$60,192	\$2,169,662	\$2,737,168	79%
18 (2039)	\$2,169,662	\$325,528	\$27,127	(\$335,616)	\$0	\$64,939	\$2,224,512	\$2,795,157	80%
19 (2040)	\$2,224,512	\$338,549	\$28,212	(\$1,429,380)	\$0	\$50,373	\$1,184,055	\$1,773,068	67%
20 (2041)	\$1,184,055	\$352,091	\$29,341	(\$93,220)	\$0	\$39,405	\$1,482,330	\$2,058,071	72%
21 (2042)	\$1,482,330	\$366,175	\$30,515	(\$381,072)	\$0	\$44,246	\$1,511,680	\$2,078,914	73%
22 (2043)	\$1,511,680	\$380,822	\$31,735	(\$217,037)	\$0	\$47,807	\$1,723,271	\$2,277,410	76%
23 (2044)	\$1,723,271	\$396,055	\$33,005	(\$398,386)	\$0	\$51,663	\$1,772,603	\$2,315,794	77%
24 (2045)	\$1,772,603	\$411,897	\$34,325	(\$162,467)	\$0	\$56,920	\$2,078,953	\$2,605,457	80%
25 (2046)	\$2,078,953	\$428,373	\$35,698	(\$361,980)	\$0	\$63,364	\$2,208,710	\$2,721,577	81%
26 (2047)	\$2,208,710	\$445,508	\$37,126	(\$66,158)	\$0	\$71,952	\$2,660,011	\$3,153,117	84%
27 (2048)	\$2,660,011	\$463,328	\$38,611	(\$55,957)	\$0	\$85,911	\$3,153,293	\$3,627,671	87%
28 (2049)	\$3,153,293	\$481,861	\$40,155	(\$581,931)	\$0	\$93,098	\$3,146,321	\$3,611,414	87%
29 (2050)	\$3,146,321	\$501,135	\$41,761	(\$1,621,690)	\$0	\$77,581	\$2,103,347	\$2,571,562	82%
30 (2051)	\$2,103,347	\$521,181	\$43,432	(\$167,693)	\$0	\$68,403	\$2,525,238	\$2,961,613	85%

¹ The long term nature of this study requires that certain assumptions and predictions be made about future events. Since there can be no guarantee that these future events will occur as assumed, this analysis must be viewed in light of the circumstances under which it was conducted. Reasonable effort has been made to ensure that the conclusions of this report are based on reliable information and sound reasoning.

² The Recommended Annual Reserve Contribution includes inflation and any applicable recommended adjustments.

³ The Average Contribution Per Unit Per Month reflects the Recommended Annual Reserve Contribution divided by the total number of units in the community.



PURPOSE OF A RESERVE STUDY

The purpose of a Reserve Study is to recommend a reasonable annual reserve contribution rate made by an organization to its reserve account. Reserve accounts are established to fund major maintenance, repair, and replacement of common elements, including limited common elements, expected within the next thirty years. A Reserve Study is intended to project availability of adequate funds for the replacement or major repair of any significant component of the property as it becomes necessary without relying on special assessments. It is a budget planning tool which identifies the current status of the reserve account and a stable and equitable Funding Plan to offset the anticipated future major shared expenditures. Each reserve component is

evaluated to determine the current condition, the remaining useful life, and the estimated replacement cost. This information is combined into a spreadsheet to determine funding requirements and establish the annual contribution rate needed to minimize the potential for special assessments. All costs and annual reserve fund balances are shown with adjustments for annual inflation and interest earned. Ideally, an even level of contributions is established that maintains a positive balance in the reserve account over the timeline the study examines. Annual updates are key to keeping up with current trends in component pricing, inflation and interest rates, actual timing of maintenance experienced and the community's risk tolerance.

A Reserve Study also calculates a theoretical "Fully Funded Balance". Fully Funded Balance is the sum total of the reserve components' depreciated value using a straight-line depreciation method.

To calculate each component's depreciated value:

$$\text{Depreciated Value} = \text{Current Replacement Cost} \times \frac{\text{Effective Age}}{\text{Expected Useful Life}}$$

By comparing the actual current reserve fund balance, to the theoretical Fully Funded Balance a Percent Fully Funded is derived.

OUR APPROACH TO A RESERVE STUDY

Reserve Consultants LLC employs a "Reasonable Approach" when evaluating reserve components in order to draft a study that is of greatest value to our clients. This means we attempt to predict, based on the costs involved and the client's objectives, what a reasonable person will decide to have done when maintenance, repairs, or replacement become necessary. For example, a reasonable person will not replace a fence when

it only needs to be repainted. The benefit of this is that reserve contributions are minimized to allow for what is most likely to occur. Our studies are not based on a worst-case scenario, but rather on what we expect is most likely to occur. Our approach assumes minor problems will be corrected as they occur, before they become major problem.



LEVELS OF RESERVE STUDIES

As defined by Washington State Law for Common Interest Communities:

Level 1: The first level, an initial Reserve Study, must be based upon a visual site inspection conducted by a Reserve Study Professional. This is also known as a full Level 1 Reserve Study with a site visit.

Level 2: Thereafter at least every three years, an updated Reserve Study must be prepared, which again is based upon a visual site inspection conducted by a Reserve Study Professional. This is also known as a Level 2 update with a site visit.

Level 3: As noted earlier, the Association is required to update its Reserve Study every year. However, in two of the three years, the annual updates do not require a site visit. This is also known as a Level 3 update without a site visit.

This study is a Level 3 Reserve Study update without a site visit.

SOURCES USED IN COMPILING THIS REPORT

Reserve Consultants LLC has provided reserve studies and construction services since 1992 and base component repair and replacement costs on this extensive experience and information provided by the Organization. Sources used include:

- Review of previous reserve study report(s);
- Input provided by the organization’s representatives;
- Review of a list of components the organization is responsible for;
- Generally accepted construction, maintenance, and repair guidelines

The current replacement cost is an estimate and actual costs may vary. Material selection, timing of the work, and requirements for Architectural services or construction management can impact cost projections. All estimates assume that a licensed and bonded contractor will be utilized to complete the work due to liability issues. Regional cost factors are applied as appropriate.

DISCLOSURE

While this report is not in compliance with RCW 64.90, following disclosure is required to be included in every Reserve Study per RCW 64.90.550 § 3 and provides further consideration regarding components that are not included in the report:

"This reserve study should be reviewed carefully. It may not include all common and limited common element components that will require major maintenance, repair, or replacement in future years, and may not include regular contributions to a reserve account for the cost of such maintenance, repair, or replacement. The failure to include a component in a reserve study, or to provide contributions to a reserve account for a component, may, under some circumstances, require the association to (1) defer major maintenance, repair, or replacement, (2) increase future reserve contributions, (3) borrow funds to pay for major maintenance, repair, or replacement, or (4) impose special assessments for the cost of major maintenance, repair, or replacement."



LIMITATIONS AND ASSUMPTIONS OF A RESERVE STUDY

This Reserve Study is not a report on the condition of the assets maintained by Northshore Fire Department, or a detailed report of necessary maintenance to the assets. It is also not an investigation into or comment on the quality of construction of the reserve components, or whether the construction complies with the building code.

The component list is based on information provided by Northshore Fire Department. Reserve Consultants LLC does not provide legal interpretations of governing documents or auditing services on account information provided.

The observations made by Reserve Consultants LLC are limited to a visual inspection of a sample of the reserve components. Unless informed otherwise, our assumption is that the components are constructed in substantial compliance with the building code and to industry standards, and that it will receive ordinary and reasonable maintenance and repair by Northshore Fire Department. These assumptions include that most reserve components will achieve their normal useful lives for similar components in the Pacific Northwest, and that they will be replaced when necessary to prevent damage to other reserve components.

This Reserve Study assumes that the assets will be maintained to keep a good level of appearance, with a special emphasis on retaining the original appearance of the assets to the greatest possible extent. The analysis also assumes that Northshore Fire Department will replace materials as they are required with good quality materials, installed by qualified, licensed, contractors. We further assume that the assets will experience the full typical useful life for the new materials installed.

The long-term nature of this study requires that certain assumptions and predictions be made about future events. Since there can be no guarantee that these future events will occur as assumed, this analysis must be viewed in light of the circumstances under which it was conducted. Reasonable effort has been made to ensure that the conclusions of this report are based on reliable information and sound reasoning.

Ideally, this report would be updated annually with actual repair costs, reserve fund balances, etc. We recommend that the updated include a site inspection and professional review every three years; a site visit is required by Washington State Law at least once every three years for Common Interest Communities. Regular updating will allow changes based on actual occurrences and adjustments for the cost of repairs to be incorporated into the annual reserve contributions. This will allow any savings or additional costs to be properly allocated.



INFLATION AND INTEREST RATE PROJECTIONS

When making estimates on the future inflation and interest rates, we use a staggered approach to more accurately reflect future economic projections.

For inflation, we use the construction industry inflation rates published by RS Means, which differ from the consumer inflation index. The average annual construction inflation increase since 1990 is 3.07%. We do not apply inflation to the annual reserve contribution in Year 0. Likewise, we do not apply inflation to the recommended reserve contribution in Year 1 since this is the first year at the recommended contribution rate. Inflation applied to the components on the inflated spreadsheet is compounded annually; the values are listed for each year at the bottom of the inflated spreadsheet.

For interest rates, we analyze the historical data provided by the Board of Governors of the Federal Reserve. The average annual interest rate since 1990 is 2.82%. The interest for organizations is typically lower than average due to conservative investing options that are usually employed by organizations.

INFLATION AND INTEREST RATE PROJECTIONS

YEARS APPLIED	RESERVE CONTRIBUTION INFLATION	RESERVE EXPENSE INFLATION	INTEREST RATE
Year 0 (2021)	0%	0%	0.5%
Year 1 (2022)	0%	4%	0.5%
Year 2 (2023) through Year 10 (2031)	3%	3%	2%
Year 11 (2032) through Year 30 (2051)	4%	4%	3%



DISCLOSURES

1. Reserve Consultants LLC also provides construction inspection services for condominiums and does design and construction oversight for major repair projects, including roofing, decks and building envelope replacement.
2. No shareholder or employee of Reserve Consultants LLC has any interest in, or obligation to, any construction company, management company, or development entity that creates condominiums; nor is there any involvement with Northshore Fire Department which could result in a conflict of interest.
3. Reserve Consultants LLC has been a member of the Community Associations Institute since about 1993, and has worked with a variety of management companies, associations and other types of clients in Washington State.
4. This report and analysis is based upon observations of the visible and apparent condition of the building and its major components on the date of the inspection. Although care has been taken in the performance of this inspection, Reserve Consultants LLC (and/or its representatives) make no representations regarding latent or concealed defects which may exist and no warranty or guarantee is expressed or implied. This report is made only in the best exercise of our ability and judgment. Conclusions in this report are based on estimates of the age and normal working life of various items of equipment and appliances. Predictions of life expectancy and the balance of useful life are necessarily based on industry and/or statistical comparisons. It is essential to understand that actual conditions can alter the useful life of any item. The previous use or misuse, irregularity of servicing, faulty manufacture, unfavorable conditions, acts of god, and unforeseen circumstances make it impossible to state precisely when each item would require replacement. The client herein should be aware that certain components within the above referenced property may function consistent with their purpose at the time of inspection, but due to their nature, are subject to deterioration without notice.
5. Unless otherwise noted, all reserve components are assumed to meet the building code requirements in force at the time of construction. Any on-site inspection should not be considered a project audit or quality inspection.
6. Conclusions reached in this report assume responsible ownership and competent management of the property. Information provided by others is believed to be reliable. Information provided by others was not audited; we assume no responsibility for accuracy thereof. Any on-site inspection should not be considered a project audit or quality inspection.
7. The reserve study is a reflection of information provided to the consultant and assembled for the Organization's use, not for the purpose of performing an audit, quality/forensic analyses or background checks of historical record.



EVALUATOR'S CREDENTIALS

Denise Dana

Principal
Reserve Consultants LLC

B.S. Education,
M. Architecture

Washington Registered
Architect, #8702

LEED Accredited Professional
Reserve Specialist, #291

Denise Dana first obtained licensure as an Architect and became a LEED accredited professional in 2003. She is currently a licensed Architect in the State of Washington and is certified by the National Council of Architectural Registration Boards. With over twenty years of experience in architecture, her resume includes a variety of project types ranging from residential to corporate. She has worked through all phases of construction including design development, construction documentation and construction administration with project budgets varying from a few thousand dollars to over sixty million dollars. Denise has been conducting reserve studies since joining Reserve Consultants in 2008; in 2011 she was recognized as a 'Reserve Specialist' by the Community Associations Institute.



Glossary of Terms

Allocated Interests - the following interests allocated to each unit: (a) In a condominium, the undivided interest in the common elements, the common expense liability, and votes in the association; (b) In a cooperative, the common expense liability, the ownership interest, and votes in the association; and (c) In a plat community and miscellaneous community, the common expense liability and the votes in the association, and also the undivided interest in the common elements if owned in common by the unit owners rather than an association. RCW 64.90.010 §2.

Assessment - all sums chargeable by the association against a unit, including any assessments levied pursuant to RCW 64.90.480, fines or fees levied or imposed by the association pursuant to this chapter or the governing documents, interest and late charges on any delinquent account, and all costs of collection incurred by the association in connection with the collection of a delinquent owner's account, including reasonable attorneys' fees. RCW 64.90.010 §3.

Association or Unit Owners Association - the unit owners association organized under RCW 64.90.400 of WUCIOA and, to the extent necessary to construe sections of this chapter made applicable to common interest communities pursuant to RCW 64.90.085, 64.90.095, or 64.90.100 of WUCIOA, the association organized or created to administer such common interest communities. RCW 64.90.010 §4)

Baseline Funding Plan - A reserve contribution rate that is constant, increasing with inflation, to provide funds for all anticipated reserve expenses so that no special assessments are required for 30 years, but with no excess funds some years.

Board - the body, regardless of name, designated in the declaration, map, or organizational documents, with primary authority to manage the affairs of the association. RCW 64.90.010 §6.

Building Codes - Nationally recognized standards used to gauge the acceptability of a particular material or building procedure. Typically, if something is built to "code," it is acceptable to all concerned. Some often used codes are International Building Code (IBC) (applicable to most multifamily housing), International Residential Code (IRC) (applicable to one and two family structures), Washington Energy Code, National Electric Code (NEC), Uniform Plumbing Code (UPC), and the National Fire Protection Association Standards (NFPA).

These are usually amended slightly by each city or county.

Building Component - see "Reserve Component".

Component Number - A number assigned to each building component that allows grouping of like components. The numbers are based roughly on the Construction Specification Institute system.

Common Elements - (a) In a condominium or cooperative, all portions of the common interest community other than the units; (b) In a plat community or miscellaneous community, any real estate other than a unit within a plat community or miscellaneous community that is owned or leased either by the association or in common by the unit owners rather than an association; and (c) In all common interest communities, any other interests in real estate for the benefit of any unit owners that are subject to the declaration. RCW 64.90.010 §7.

Common Expense - any expense of the association, including allocations to reserves, allocated to all of the unit owners in accordance with common expense liability. RCW 64.90.010 §8.

Common Expense Liability - the liability for common expenses allocated to each unit pursuant to RCW 64.90.040 of RCW. RCW 64.90.010 §9.

Common Interest Community - real estate described in a declaration with respect to which a person, by virtue of the person's ownership of a unit, is obligated to pay for a share of real estate taxes, insurance premiums, maintenance, or improvement of, or services or other expenses related to, common elements, other units, or other real estate described in the declaration. "Common interest community" does not include an arrangement described in RCW 64.90.110 or RCW 64.90.115. A common interest community may be a part of another common interest community. RCW 64.90.010 §10.

Contribution Rate - in a Reserve Study as described in RCW 64.34, the amount contributed to the reserve account so that the association will have cash reserves to pay major maintenance, repair, or replacement costs without the need of a special assessment. RCW 64.34.020 (10)

Constant Dollars - costs and contributions are provided in today's dollars, no matter how far in the future they occur. Inflation and interest are not factored in.



Effective Age - the difference between the useful life and the remaining useful life. RCW 64.34.020 §19 & RCW §64.90.010 §21.

Full Funding Plan - a reserve funding goal of achieving one hundred percent fully funded reserves by the end of the thirty-year study period described under RCW 64.90.550 of WUCIOA, in which the reserve account balance equals the sum of the estimated costs required to maintain, repair, or replace the deteriorated portions of all reserve components. RCW §64.90.010 §25.

Fully Funded Balance - the current value of the deteriorated portion, not the total replacement value, of all the reserve components. The fully funded balance for each reserve component is calculated by multiplying the current replacement cost of that reserve component by its effective age, then dividing the result by that reserve component's useful life. The sum total of all reserve components' fully funded balances is the association's fully funded balance. RCW 64.34.020 §22 & RCW §64.90.010 §26.

Inflated Dollars - as opposed to constant dollars, inflated dollars recognize that costs in the future will probably be higher than today because each dollar will buy fewer goods and services. A rate of inflation must be assumed and applied to all future costs. Also referred to as future cost.

Inflation Multiplier - 100% plus the assumed rate of inflation. Thus, for an assumed yearly inflation rate of 5%, the "multiplier" would be 105% or 1.05 if expressed as a decimal number rather than as a percentage. Each successive year the previous year's "multiplier" is multiplied by this number to arrive at the next year's "multiplier."

Interest Rate Multiplier - The assumed rate of interest earned on the average annual reserve bank account balance. Thus, 4% interest would be 0.04 expressed as a decimal number. A rate of interest earned must be assumed for all future years. Typically this is lower than the rate of inflation.

Limited Common Element - a portion of the common elements allocated by the declaration or by operation of RCW 64.90.210 §1(b) or §2 for the exclusive use of one or more, but fewer than all, of the unit owners. RCW §64.90.010 §30.

Unit owners may be responsible for the cost to repair and maintain limited common elements, so those costs may not appear in a Reserve Study.

Maintenance Cycle - the frequency of maintenance on a component to reach or extend its Useful Life. Often shorter than the full "Useful Life" for repairs that occur in lieu of complete replacement.

Next Repair - the next time the "Repair Cycle" starts with work on a component.

Nominal Reserve Costs - the current estimated total replacement costs of the reserve components are less than fifty percent of the annual budgeted expense of the association, excluding contributions to the reserve funds, for a condominium or cooperative containing horizontal unit boundaries and less than seventy five percent of the annual budgeted expenses of the association, excluding contributions to the reserve fund for all other common interest communities. RCW §64.90.010 §34.

Percent Fully Funded - The percentage of the "Fully Funded Balance" which the current condominium Reserve Account actually has in it.

RCW - the Revised Code of Washington. RCW 64.34 is the **Washington Condominium Act**, the statute that governs 'New Act' condominiums formed between July 1, 1990 and June 30, 2018.

RCW 64.90 is the Uniform Common Interest Ownership Act (**WUCIOA**) and governs common interest properties formed after July 1, 2018 and requires all common interest properties in Washington State to comply with RCW 64.90.525.

Remaining useful life - the estimated time, in years, that a reserve component can be expected to continue to serve its intended function. RCW 64.34.020 §31.

Or the estimated time before a reserve component will require major maintenance, repair or replacement to perform its intended function. RCW §64.90.010 §44.

Replacement Cost - the current cost of replacing, repairing, or restoring a reserve component to its original functional condition. RCW 64.34.020 §32.

Or the estimated total cost to maintain, repair, or replace a reserve component to its original functional condition. RCW §64.90.010 §45.

Reserve Account - Money set aside for future repair and replacement projects. For condominiums, the RCW requires a separate Reserve Account be maintained to hold reserves to fund repair or replacement of Reserve Components.



Reserve Component - common elements whose cost of maintenance, repair, or replacement is infrequent, significant, and impractical to include in an annual budget. RCW 64.34.020 §34.

Or a physical component of the common interest community which the association is obligated to maintain, repair, or replace, which has an estimated useful life of less than thirty years, and for which the cost of such maintenance, repair or replacement is infrequent, significant, and impractical to include in an annual budget. RCW §64.90.010 §46.

Reserve Contribution Rate - The amount of money saved to fund replacement costs for maintenance and repairs of common elements. See "Contribution Rate". Current contributions and Recommended contributions may be different.

Reserve Specialist - A designation for those professionals who have met the standards established by Community Associations Institute (www.caionline.org) for Reserve Study providers.

Reserve Study - A physical assessment of a building and a subsequent report which estimates the anticipated major maintenance, repair, and replacement costs, whose infrequent and significant nature make them impractical to be included in an annual budget, which will need to be repaired or replaced over the next 30 years. It provides estimates of these replacement costs and details expected annual expenditures. It is used to calculate the Reserve Contribution Rate required to maintain a facility in good condition both functionally and cosmetically. The Washington Condominium Act sets out requirements for annual reserve studies.

Reserve Study Professional means an independent person suitably qualified by knowledge, skill, experience, training, or education to prepare a reserve study in accordance with RCW 64.34, RCW 64.34.020 §35, RCW 64.90.545 and RCW 64.90.550. For the purposes of WUCIOA, "independent" means a person who is not an employee, officer, or director, and has no pecuniary interest in the declarant, association, or any other party for whom the reserve study is prepared. RCW §64.90.010 §47.

Special Assessment - A levy against all unit owners that is necessary when a needed repair/replacement/upgrade has not been planned for, and for which insufficient money has been saved.

Threshold Funding (contribution rate) - A Reserve Contribution Rate that is constant, increasing with inflation, to provide funds for all anticipated Reserve Expenses for the life of the study, but leaving a minimum level of Reserves (the "threshold") at all times. Our default minimum threshold is one year's contribution.

Typ. - Abbreviation for 'typical'; used on photographs and in text to refer to a problem that is shown or described once, but applies to many locations.

Typical Life - An average expected life for an average building component. As in any statistical average, there is a range of years over which each individual item might fall. This is the same as "Useful life".

Useful life means the estimated time, in years, that a reserve component can be expected to serve its intended function. RCW 64.34.020 §40 or the estimated time during which a reserve component is expected to perform its intended function without major maintenance, repair or replacement. RCW §64.90.010 §59.

Year End Reserve Balance or Reserve Fund Balance - What is projected to be left in the reserve account after the expected yearly expenses and contributions are added to the prior year's carryover balance. Assumes that the reserve contributions and expenses occur as predicted.

Yearly Expenses - The total labor and material costs associated with all of the repairs/maintenance that are scheduled in that particular year.

30 Year Spreadsheet - A summary listing each building component and its yearly cost to maintain/repair over the next 30 years. It also lists the annual reserve fund balance, reserve contributions, reserve expenses and bank interest earned on any reserve fund balance.



APPENDIX A

NORTHSHORE FIRE DEPARTMENT

30-YEAR RESERVE STUDY PROJECTIONS
WITH STARTING RECOMMENDED FUNDING OF \$182,300
AND COMPOUND INFLATION

		16-Nov-21						
		STARTING RESERVE BALANCE	\$525,948	\$535,010	\$674,552	\$754,903	\$684,350	
		ANNUAL RESERVE CONTRIBUTION	\$182,300	\$187,769	\$193,402	\$199,204	\$205,180	
		ESTIMATED INTEREST EARNED	\$2,646	\$11,976	\$14,153	\$14,250	\$14,651	
		SPECIAL ASSESSMENT	\$0	\$0	\$0	\$0	\$0	
		ACCUMULATED CREDITS	\$710,894	\$734,754	\$882,107	\$968,358	\$904,181	
#	COMPONENT NAME	MAINT. CYCLE	NEXT MAINT.	1 2022	2 2023	3 2024	4 2025	5 2026
Stn.51	2.4.1 Concrete - Paving Repairs	10	3			\$20,467		
Stn.51	2.4.2 Concrete - Repaint Stalls & Curbs	10	1	\$1,768				
Stn.51	2.7.1 Prefinished Metal Fence - Replace	30	19					
Stn.51	2.7.2 Prefinished Metal Fence & Gates - Maintenance	10	3			\$8,209		
Stn.51	2.7.3 Gate Operator - Maintenance	3	1	\$1,747			\$1,909	
Stn.51	2.8.1 Wood Benches - Maintenance	10	3			\$2,471		
Stn.51	2.9.1 Landscaping - Maintenance	8	6					
Stn.51	3.3.1 Concrete Walkways - Repair	6	1	\$5,782				
Stn.51	3.3.2 Cast Concrete Retaining Walls - Repair	15	4				\$18,388	
Stn.51	6.1.1 Garbage Bin Enclosure - Repair	15	4				\$2,898	
Stn.51	6.2.1 Pedestal Paver - Maintenance	30	19					
Stn.51	6.2.2 PVC Thermoplastic Membrane - Replace	30	19					
Stn.51	6.4.1 Brick Siding - Maintenance	20	9					
Stn.51	6.4.2 CMU Wall - Tuck Point	20	9					
Stn.51	6.4.3 Fiber Cement Board Siding - Repair	10	1	\$6,510				
Stn.51	6.4.4 Metal Siding - Replace	35	24					
Stn.51	7.1.1 Sealant Joints - Replace	15	4				\$25,990	
Stn.51	7.3.1 Scuppers, Gutters & Downspouts - Replace	30	19					
Stn.51	7.4.1 Low Sloped Ribbed Roof - Replace	30	19					
Stn.51	7.4.2 Low Sloped Smooth Roof - Replace	30	19					
Stn.51	7.4.3 Tower Composition Shingles - Replace	30	19					
Stn.51	7.4.4 Tower Metal Roof - Replace	50	39					
Stn.51	7.4.5 Apparatus Bay Metal Roof - Replace	40	29					
Stn.51	7.4.6 Roof Inspection & Minor Repair	5	3			\$6,896		
Stn.51	8.2.1 Folding Bay Doors & Hardware - Maintenance	5	2		\$6,009			
Stn.51	8.2.2 Overhead Bay Doors & Hardware - Replace	30	19					
Stn.51	8.2.3 Overhead Bay Door Operator - Contingency	5	2		\$13,936			
Stn.51	8.2.4 Coiling Door - Maintenance	30	19					
Stn.51	8.2.5 Doors & Hardware - Maintenance	5	1	\$3,796				
Stn.51	8.3.1 Storefront System - Maintenance	15	4				\$8,887	
Stn.51	8.3.2 Storefront System - Replace	60	50					
Stn.51	8.5.1 Aluminum Windows - Replace	40	29					
Stn.51	9.8.1 Cedar Wood Siding - Maintenance	6	1	\$23,192				
Stn.51	9.8.2 Concrete Siding - Maintenance	12	1	\$5,366				
Stn.51	9.8.3 Exterior Steel - Maintenance	6	4				\$9,273	
Stn.51	9.8.4 Fiber Cement Board Siding - Caulk & Paint	8	1	\$22,495				
Stn.51	10.4.1 Exterior Signage - Refurbish	10	2		\$2,732			
Stn.51	10.5.1 Exterior Mail Pedestal Unit - Replace	25	14					
Stn.51	11.1.1 Propane Forklift - Replace	20	8					
Stn.51	11.4.1 Admin Kitchen Equipment - Contingency	10	6					
Stn.51	11.4.2 Duty Crew Kitchen Equipment - Contingency	5	3			\$16,870		
Stn.51	11.6.1 Laundry Equipment - Contingency	5	3			\$4,204		
Stn.51	11.6.2 Unimac Gear Extractor - Replace	12	1	\$9,329				
Stn.51	11.6.3 Ramair Gear Dryer - Replace	12	1	\$11,658				
Stn.51	11.8.1 Air Compressor System - Replace	15	4				\$10,194	
Stn.51	12.1.1 Apparatus Bay - Refurbish	25	14					
Stn.51	12.1.2 Admin Common Areas - Repaint	16	5					\$20,613
Stn.51	12.1.3 Exercise Room - Refurbish	20	9					
Stn.51	12.1.4 Bunk Gear Storage - Refurbish	10	3			\$9,003		
Stn.51	12.1.5 Admin Offices - Refurbish	16	5					\$29,825
Stn.51	12.1.6 Lobby - Refurbish	15	6					
Stn.51	12.1.7 Public Meeting Room - Refurbish	12	1	\$15,902				
Stn.51	12.1.8 Public & Admin Restrooms - Refurbish	20	9					
Stn.51	12.2.1 Duty Crew Common Areas - Full Repaint	16	7					
Stn.51	12.2.2 Duty Crew Common Areas - Touchup Paint	16	15					
Stn.51	12.2.3 Duty Crew Sleep Room Interiors - Refurbish	10	3			\$27,837		
Stn.51	12.2.4 Duty Crew Kitchen Interiors - Refurbish	10	9	\$1,560				
Stn.51	12.2.5 Duty Crew Laundry Interiors - Refurbish	10	2		\$2,185			
Stn.51	12.2.6 Duty Crew Office/Training Areas - Refurbish	15	4				\$6,955	
Stn.51	12.2.7 Duty Crew Restrooms - Refurbish	10	2		\$18,018			
Stn.51	12.4.1 1st Floor Interior Carpet Flooring - Replace	24	13					
Stn.51	12.4.2 2nd Floor Interior Carpet Flooring - Replace	16	5					\$29,287
Stn.51	12.4.3 1st Floor Resilient Flooring - Replace	20	9					
Stn.51	12.4.4 2nd Floor Resilient Flooring - Replace	15	4				\$3,137	
Stn.51	12.4.5 1st Floor Sheet Flooring - Replace	20	9					

Stn.51	12.4.6	2nd Floor Sheet Flooring - Replace	15	4						\$47,992		
Stn.51	12.4.7	1st Floor Stained Concrete - Refurbish	12	1	\$16,058							
Stn.51	12.6.1	Elevator Cab Interior - Remodel	40	29								
Stn.51	14.1.1	Elevator - Major Upgrades	40	29								
Stn.51	14.1.2	Elevators - 5 Year Load Test	5	5						\$6,567		
Stn.51	15.2.1	Plumbing System - Contingency	5	3			\$5,627					
Stn.51	15.2.2	Plumbing Supply Lines - Replace	60	49								
Stn.51	15.3.1	Irrigation System - Contingency	10	8								
Stn.51	15.3.2	Storm Water System - Contingency	3	1	\$5,304				\$5,796			
Stn.51	15.4.1	Fire Detection System - Maintenance	5	3			\$2,814					
Stn.51	15.4.2	Fire Sprinkler System - Maintenance	15	4						\$9,273		
Stn.51	15.5.1	Water Heater - Contingency	20	9								
Stn.51	15.6.1	Heat Recovery Unit - Replace	25	14								
Stn.51	15.6.2	Indirect Makeup AHU - Replace	20	9								
Stn.51	15.6.3	Furnace - Replace	20	9								
Stn.51	15.6.4	VRF Heat Pump - Contingency	6	4						\$22,388		
Stn.51	15.6.5	HVAC System - Contingency	5	3			\$5,627					
Stn.51	15.6.6	Infrared Heaters - Replace	20	9								
Stn.51	15.7.1	Exhaust Fans - Contingency	5	3			\$8,573					
Stn.51	16.3.1	Electrical System - Contingency	10	8								
Stn.51	16.5.1	Emergency Generator - Replace	30	19								
Stn.51	16.5.2	Generator Fuel Tank - Replace	30	19								
Stn.51	16.6.1	Exterior Light Fixtures - Replace	10	9								
Stn.51	16.8.1	Fire Control Panel - Replace	20	9								
Stn.51	16.9.1	Audio/Visual Equipment - Upgrades	15	4						\$89,199		
Stn.51	17.1.1	Fireblast 451 - Maintenance	10	9								
Stn.51	18.1.1	Security / Surveillance System - Replace	10	1	\$16,962							
Stn.57	2.6.1	Asphalt Paving - Repair	6	1	\$4,285							
Stn.57	2.6.2	Asphalt Pavement- Seal Coat & Restripe	6	1	\$5,356							
Stn.57	2.7.4	Privacy Wood Fence - Replace	15	8								
Stn.57	2.7.5	Chain-link Fence - Repair	40	18								
Stn.57	2.9.2	Landscaping - Maintenance	8	6								
Stn.57	2.9.3	Wetland - Maintenance	15	13								
Stn.57	3.3.3	Exterior Concrete Paving - Repair	6	2			\$3,492					
Stn.57	6.1.2	Garbage Bin Enclosure - Contingency	20	18								
Stn.57	6.4.5	Brick Siding - Maintenance	20	8								
Stn.57	7.3.2	Gutters & Downspouts - Replace	20	11								
Stn.57	7.4.7	Metal Roof - Replace	40	11								
Stn.57	7.4.8	Roof Inspection & Minor Repair	5	5						\$3,582		
Stn.57	8.2.8	Common Doors & Hardware - Maintenance	10	10								
Stn.57	8.2.6	Overhead Bay Door - Replace	20	8								
Stn.57	8.2.7	Bay Door Operator - Contingency	20	18								
Stn.57	8.3.3	Storefront System - Maintenance	10	8								
Stn.57	8.5.2	Aluminum Framed Windows - Replace	45	16								
Stn.57	9.8.5	Front Entry Steel Framed Structure - Paint	10	2			\$2,453					
Stn.57	10.4.2	Exterior Signage - Refurbish	15	10								
Stn.57	11.4.3	Kitchen Equipment - Contingency	5	6								
Stn.57	11.6.4	Laundry Equipment - Contingency	5	3			\$3,707					
Stn.57	11.6.5	Station Extractor - Bunker Gear Washer	12	5						\$10,500		
Stn.57	11.8.2	Air Compressor - Replace	12	11								
Stn.57	12.3.1	Interior Concrete Floor - Refurbish	25	24								
Stn.57	12.3.2	Apparatus Bay - Refurbish	10	10								
Stn.57	12.3.3	Hallway & Stairwell Walls & Ceiling - Paint	25	10								
Stn.57	12.3.4	Front Reception Desk & Office - Remodel	10	11								
Stn.57	12.3.5	Kitchen - Remodel	10	10								
Stn.57	12.3.6	Day / Dining Room - Remodel	15	10								
Stn.57	12.3.7	Duty Crew Sleep Rooms - Refurbish	20	8								
Stn.57	12.3.8	Exercise Room - Refurbish	15	14								
Stn.57	12.3.9	Locker & Restroom - Refurbish	15	5						\$2,388		
Stn.57	12.3.10	Laundry & Utility Room - Refurbish	10	8								
Stn.57	15.2.3	Plumbing System - Contingency	10	4					\$5,796			
Stn.57	15.3.3	Irrigation System - Contingency	5	2			\$2,732					
Stn.57	15.4.3	Fire Detection System - Maintenance	15	5						\$5,970		
Stn.57	15.4.4	Wet & Dry Fire Sprinkler System - Contingency	10	8								
Stn.57	15.5.2	Water Heater - Replace	15	2			\$8,645					
Stn.57	15.6.7	HVAC Units - Replace	15	6								
Stn.57	15.6.8	Furnace - Replace	10	4					\$15,933			
Stn.57	15.6.9	Infrared Overhead Heaters - Replace	10	8								
Stn.57	15.7.2	Exhaust Fans - Contingency	5	3			\$4,899					
Stn.57	16.3.2	Electrical System - Contingency	20	8								
Stn.57	16.5.3	Emergency Generator - Contingency	20	18								
Stn.57	16.6.2	Exterior Light Fixtures - Replace	15	1	\$2,912							
Stn.57	16.8.2	Fire Control Panel - Replace	20	8								
Stn.57	18.1.2	Security / Surveillance System - Upgrade	10	1	\$15,902							
TOTAL ANTICIPATED ANNUAL RESERVE EXPENSES					\$175,884	\$60,202	\$127,204	\$284,008	\$108,732			
ACCUMULATED CREDITS					\$710,894	\$734,754	\$882,107	\$968,358	\$904,181			
ACCUMULATED DEBITS					\$175,884	\$60,202	\$127,204	\$284,008	\$108,732			
YEAR-END BALANCE					\$535,010	\$674,552	\$754,903	\$684,350	\$795,449			
YEARS					1	2-10	11-30	1 (2022)	2 (2023)	3 (2024)	4 (2025)	5 (2026)
CONTRIBUTION INFLATION					0%	3%	4%	0%	3%	3%	3%	3%
COMPONENT COMPOUND INFLATION					4%	3%	4%	104%	107%	110%	114%	117%
INTEREST RATE MULTIPLIER					0.5%	2%	3%	1%	2%	2%	2%	2%

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APPENDIX A

NORTHSHORE FIRE DEPARTMENT

30-YEAR RESERVE STUDY PROJECTIONS
WITH STARTING RECOMMENDED FUNDING OF \$182,300
AND COMPOUND INFLATION

		16-Nov-21						
		STARTING RESERVE BALANCE	\$795,449	\$933,772	\$1,073,117	\$1,093,261	\$1,051,801	
		ANNUAL RESERVE CONTRIBUTION	\$211,336	\$217,676	\$224,206	\$230,932	\$237,860	
		ESTIMATED INTEREST EARNED	\$17,121	\$19,870	\$21,449	\$21,238	\$22,117	
		SPECIAL ASSESSMENT	\$0	\$0	\$0	\$0	\$0	
		ACCUMULATED CREDITS	\$1,023,906	\$1,171,318	\$1,318,772	\$1,345,432	\$1,311,778	
#	COMPONENT NAME	MAINT. CYCLE	NEXT MAINT.	6 2027	7 2028	8 2029	9 2030	10 2031
Stn.51	2.4.1 Concrete - Paving Repairs	10	3					
Stn.51	2.4.2 Concrete - Repaint Stalls & Curbs	10	1					
Stn.51	2.7.1 Prefinished Metal Fence - Replace	30	19					
Stn.51	2.7.2 Prefinished Metal Fence & Gates - Maintenance	10	3					
Stn.51	2.7.3 Gate Operator - Maintenance	3	1		\$2,086			\$2,280
Stn.51	2.8.1 Wood Benches - Maintenance	10	3					
Stn.51	2.9.1 Landscaping - Maintenance	8	6	\$18,434				
Stn.51	3.3.1 Concrete Walkways - Repair	6	1		\$6,904			
Stn.51	3.3.2 Cast Concrete Retaining Walls - Repair	15	4					
Stn.51	6.1.1 Garbage Bln Enclosure - Repair	15	4					
Stn.51	6.2.1 Pedestal Paver - Maintenance	30	19					
Stn.51	6.2.2 PVC Thermoplastic Membrane - Replace	30	19					
Stn.51	6.4.1 Brick Siding - Maintenance	20	9				\$12,950	
Stn.51	6.4.2 CMU Wall - Tuck Point	20	9				\$72,196	
Stn.51	6.4.3 Fiber Cement Board Siding - Repair	10	1					
Stn.51	6.4.4 Metal Siding - Replace	35	24					
Stn.51	7.1.1 Sealant Joints - Replace	15	4					
Stn.51	7.3.1 Scuppers, Gutters & Downspouts - Replace	30	19					
Stn.51	7.4.1 Low Sloped Ribbed Roof - Replace	30	19					
Stn.51	7.4.2 Low Sloped Smooth Roof - Replace	30	19					
Stn.51	7.4.3 Tower Composition Shingles - Replace	30	19					
Stn.51	7.4.4 Tower Metal Roof - Replace	50	39					
Stn.51	7.4.5 Apparatus Bay Metal Roof - Replace	40	29					
Stn.51	7.4.6 Roof Inspection & Minor Repair	5	3			\$7,994		
Stn.51	8.2.1 Folding Bay Doors & Hardware - Maintenance	5	2		\$6,967			
Stn.51	8.2.2 Overhead Bay Doors & Hardware - Replace	30	19					
Stn.51	8.2.3 Overhead Bay Door Operator - Contingency	5	2		\$16,156			
Stn.51	8.2.4 Coiling Door - Maintenance	30	19					
Stn.51	8.2.5 Doors & Hardware - Maintenance	5	1	\$4,401				
Stn.51	8.3.1 Storefront System - Maintenance	15	4					
Stn.51	8.3.2 Storefront System - Replace	60	50					
Stn.51	8.5.1 Aluminum Windows - Replace	40	29					
Stn.51	9.8.1 Cedar Wood Siding - Maintenance	6	1		\$27,692			
Stn.51	9.8.2 Concrete Siding - Maintenance	12	1					
Stn.51	9.8.3 Exterior Steel - Maintenance	6	4					\$11,073
Stn.51	9.8.4 Fiber Cement Board Siding - Caulk & Paint	8	1				\$28,496	
Stn.51	10.4.1 Exterior Signage - Refurbish	10	2					
Stn.51	10.5.1 Exterior Mail Pedestal Unit - Replace	25	14					
Stn.51	11.1.1 Propane Forklift - Replace	20	8			\$28,690		
Stn.51	11.4.1 Admin Kitchen Equipment - Contingency	10	6	\$6,149				
Stn.51	11.4.2 Duty Crew Kitchen Equipment - Contingency	5	3			\$19,557		
Stn.51	11.6.1 Laundry Equipment - Contingency	5	3			\$4,873		
Stn.51	11.6.2 Unimac Gear Extractor - Replace	12	1					
Stn.51	11.6.3 Ramair Gear Dryer - Replace	12	1					
Stn.51	11.8.1 Air Compressor System - Replace	15	4					
Stn.51	12.1.1 Apparatus Bay - Refurbish	25	14					
Stn.51	12.1.2 Admin Common Areas - Repaint	16	5					
Stn.51	12.1.3 Exercise Room - Refurbish	20	9				\$4,031	
Stn.51	12.1.4 Bunk Gear Storage - Refurbish	10	3					
Stn.51	12.1.5 Admin Offices - Refurbish	16	5					
Stn.51	12.1.6 Lobby - Refurbish	15	6	\$24,583				
Stn.51	12.1.7 Public Meeting Room - Refurbish	12	1					
Stn.51	12.1.8 Public & Admin Restrooms - Refurbish	20	9				\$25,848	
Stn.51	12.2.1 Duty Crew Common Areas - Full Repaint	16	7		\$17,385			
Stn.51	12.2.2 Duty Crew Common Areas - Touchup Paint	16	15					
Stn.51	12.2.3 Duty Crew Sleep Room Interiors - Refurbish	10	3					
Stn.51	12.2.4 Duty Crew Kitchen Interiors - Refurbish	10	9				\$13,425	
Stn.51	12.2.5 Duty Crew Laundry Interiors - Refurbish	10	2					
Stn.51	12.2.6 Duty Crew Office/Training Areas - Refurbish	15	4					
Stn.51	12.2.7 Duty Crew Restrooms - Refurbish	10	2					
Stn.51	12.4.1 1st Floor Interior Carpet Flooring - Replace	24	13					
Stn.51	12.4.2 2nd Floor Interior Carpet Flooring - Replace	16	5					
Stn.51	12.4.3 1st Floor Resilient Flooring - Replace	20	9				\$3,096	
Stn.51	12.4.4 2nd Floor Resilient Flooring - Replace	15	4					
Stn.51	12.4.5 1st Floor Sheet Flooring - Replace	20	9				\$43,225	

Stn.51	12.4.6	2nd Floor Sheet Flooring - Replace	15	4								
Stn.51	12.4.7	1st Floor Stained Concrete - Refurbish	12	1								
Stn.51	12.6.1	Elevator Cab Interior - Remodel	40	29								
Stn.51	14.1.1	Elevator - Major Upgrades	40	29								
Stn.51	14.1.2	Elevators - 5 Year Load Test	5	5					\$7,613			
Stn.51	15.2.1	Plumbing System - Contingency	5	3			\$6,523					
Stn.51	15.2.2	Plumbing Supply Lines - Replace	60	49								
Stn.51	15.3.1	Irrigation System - Contingency	10	8			\$13,430					
Stn.51	15.3.2	Storm Water System - Contingency	3	1		\$6,333			\$6,921			
Stn.51	15.4.1	Fire Detection System - Maintenance	5	3			\$3,262					
Stn.51	15.4.2	Fire Sprinkler System - Maintenance	15	4								
Stn.51	15.5.1	Water Heater - Contingency	20	9				\$21,870				
Stn.51	15.6.1	Heat Recovery Unit - Replace	25	14								
Stn.51	15.6.2	Indirect Makeup AHU - Replace	20	9				\$13,293				
Stn.51	15.6.3	Furnace - Replace	20	9				\$2,951				
Stn.51	15.6.4	VRF Heat Pump - Contingency	6	4					\$26,732			
Stn.51	15.6.5	HVAC System - Contingency	5	3			\$6,523					
Stn.51	15.6.6	Infrared Heaters - Replace	20	9				\$20,381				
Stn.51	15.7.1	Exhaust Fans - Contingency	5	3			\$9,938					
Stn.51	16.3.1	Electrical System - Contingency	10	8			\$6,523					
Stn.51	16.5.1	Emergency Generator - Replace	30	19								
Stn.51	16.5.2	Generator Fuel Tank - Replace	30	19								
Stn.51	16.6.1	Exterior Light Fixtures - Replace	10	9				\$13,425				
Stn.51	16.8.1	Fire Control Panel - Replace	20	9				\$5,019				
Stn.51	16.9.1	Audio/Visual Equipment - Upgrades	15	4								
Stn.51	17.1.1	Fireblast 451 - Maintenance	10	9				\$13,425				
Stn.51	18.1.1	Security / Surveillance System - Replace	10	1								
Stn.57	2.6.1	Asphalt Paving - Repair	6	1		\$5,116						
Stn.57	2.6.2	Asphalt Pavement- Seal Coat & Restripe	6	1		\$6,395						
Stn.57	2.7.4	Privacy Wood Fence - Replace	15	8			\$7,917					
Stn.57	2.7.5	Chain-link Fence - Repair	40	18								
Stn.57	2.9.2	Landscaping - Maintenance	8	6	\$6,149							
Stn.57	2.9.3	Wetland - Maintenance	15	13								
Stn.57	3.3.3	Exterior Concrete Paving - Repair	6	2			\$4,170					
Stn.57	6.1.2	Garbage Bin Enclosure - Contingency	20	18								
Stn.57	6.4.5	Brick Siding - Maintenance	20	8			\$16,730					
Stn.57	7.3.2	Gutters & Downspouts - Replace	20	11								
Stn.57	7.4.7	Metal Roof - Replace	40	11								
Stn.57	7.4.8	Roof Inspection & Minor Repair	5	5					\$4,152			
Stn.57	8.2.8	Common Doors & Hardware - Maintenance	10	10					\$4,587			
Stn.57	8.2.6	Overhead Bay Door - Replace	20	8			\$7,431					
Stn.57	8.2.7	Bay Door Operator - Contingency	20	18								
Stn.57	8.3.3	Storefront System - Maintenance	10	8			\$25,095					
Stn.57	8.5.2	Aluminum Framed Windows - Replace	45	16								
Stn.57	9.8.5	Front Entry Steel Framed Structure - Paint	10	2								
Stn.57	10.4.2	Exterior Signage - Refurbish	15	10					\$3,460			
Stn.57	11.4.3	Kitchen Equipment - Contingency	5	6	\$16,903							
Stn.57	11.6.4	Laundry Equipment - Contingency	5	3			\$4,298					
Stn.57	11.6.5	Station Extractor - Bunker Gear Washer	12	5								
Stn.57	11.8.2	Air Compressor - Replace	12	11								
Stn.57	12.3.1	Interior Concrete Floor - Refurbish	25	24								
Stn.57	12.3.2	Apparatus Bay - Refurbish	10	10					\$18,685			
Stn.57	12.3.3	Hallway & Stairwell Walls & Ceiling - Paint	25	10					\$9,689			
Stn.57	12.3.4	Front Reception Desk & Office - Remodel	10	11								
Stn.57	12.3.5	Kitchen - Remodel	10	10					\$13,827			
Stn.57	12.3.6	Day / Dining Room - Remodel	15	10					\$20,748			
Stn.57	12.3.7	Duty Crew Sleep Rooms - Refurbish	20	8			\$6,523					
Stn.57	12.3.8	Exercise Room - Refurbish	15	14								
Stn.57	12.3.9	Locker & Restroom - Refurbish	15	5								
Stn.57	12.3.10	Laundry & Utility Room - Refurbish	10	8			\$13,034					
Stn.57	15.2.3	Plumbing System - Contingency	10	4								
Stn.57	15.3.3	Irrigation System - Contingency	5	2		\$3,167						
Stn.57	15.4.3	Fire Detection System - Maintenance	15	5								
Stn.57	15.4.4	Wet & Dry Fire Sprinkler System - Contingency	10	8			\$7,176					
Stn.57	15.5.2	Water Heater - Replace	15	2								
Stn.57	15.6.7	HVAC Units - Replace	15	6	\$13,515							
Stn.57	15.6.8	Furnace - Replace	10	4								
Stn.57	15.6.9	Infrared Overhead Heaters - Replace	10	8			\$6,523					
Stn.57	15.7.2	Exhaust Fans - Contingency	5	3			\$5,679					
Stn.57	16.3.2	Electrical System - Contingency	20	8			\$8,608					
Stn.57	16.5.3	Emergency Generator - Contingency	20	18								
Stn.57	16.6.2	Exterior Light Fixtures - Replace	15	1								
Stn.57	16.8.2	Fire Control Panel - Replace	20	8				\$5,014				
Stn.57	18.1.2	Security / Surveillance System - Upgrade	10	1								
TOTAL ANTICIPATED ANNUAL RESERVE EXPENSES						\$90,134	\$98,201	\$225,511	\$293,631	\$129,767		
ACCUMULATED CREDITS					\$1,023,906	\$1,171,318	\$1,318,772	\$1,345,432	\$1,311,778			
ACCUMULATED DEBITS					\$90,134	\$98,201	\$225,511	\$293,631	\$129,767			
YEAR-END BALANCE					\$933,772	\$1,073,117	\$1,093,261	\$1,051,801	\$1,182,011			
YEARS					1	2-10	11-30	6 (2027)	7 (2028)	8 (2029)	9 (2030)	10 (2031)
CONTRIBUTION INFLATION					0%	3%	4%	3%	3%	3%	3%	3%
COMPONENT COMPOUND INFLATION					4%	3%	4%	121%	124%	128%	132%	136%
INTEREST RATE MULTIPLIER					0.5%	2%	3%	2%	2%	2%	2%	2%

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APPENDIX A

NORTHSHORE FIRE DEPARTMENT

30-YEAR RESERVE STUDY PROJECTIONS
WITH STARTING RECOMMENDED FUNDING OF \$182,300
AND COMPOUND INFLATION

		16-Nov-21						
		STARTING RESERVE BALANCE	\$1,182,011	\$1,199,279	\$1,429,541	\$1,340,872	\$1,406,957	
		ANNUAL RESERVE CONTRIBUTION	\$247,375	\$257,270	\$267,560	\$278,263	\$289,393	
		ESTIMATED INTEREST EARNED	\$35,191	\$38,850	\$40,942	\$40,608	\$45,988	
		SPECIAL ASSESSMENT	\$0	\$0	\$0	\$0	\$0	
		ACCUMULATED CREDITS	\$1,464,577	\$1,495,398	\$1,738,043	\$1,659,743	\$1,742,339	
#	COMPONENT NAME	MAINT. CYCLE	NEXT MAINT.	11 2032	12 2033	13 2034	14 2035	15 2036
Stn.51	2.4.1 Concrete - Paving Repairs	10	3			\$28,315		
Stn.51	2.4.2 Concrete - Repaint Stalls & Curbs	10	1	\$2,399				
Stn.51	2.7.1 Prefinished Metal Fence - Replace	30	19					
Stn.51	2.7.2 Prefinished Metal Fence & Gates - Maintenance	10	3			\$11,356		
Stn.51	2.7.3 Gate Operator - Maintenance	3	1			\$2,564		
Stn.51	2.8.1 Wood Benches - Maintenance	10	3			\$3,419		
Stn.51	2.9.1 Landscaping - Maintenance	8	6				\$24,272	
Stn.51	3.3.1 Concrete Walkways - Repair	6	1			\$8,487		
Stn.51	3.3.2 Cast Concrete Retaining Walls - Repair	15	4					
Stn.51	6.1.1 Garbage Bln Enclosure - Repair	15	4					
Stn.51	6.2.1 Pedestal Paver - Maintenance	30	19					
Stn.51	6.2.2 PVC Thermoplastic Membrane - Replace	30	19					
Stn.51	6.4.1 Brick Siding - Maintenance	20	9					
Stn.51	6.4.2 CMU Wall - Tuck Point	20	9					
Stn.51	6.4.3 Fiber Cement Board Siding - Repair	10	1	\$8,834				
Stn.51	6.4.4 Metal Siding - Replace	35	24					
Stn.51	7.1.1 Sealant Joints - Replace	15	4					
Stn.51	7.3.1 Scuppers, Gutters & Downspouts - Replace	30	19					
Stn.51	7.4.1 Low Sloped Ribbed Roof - Replace	30	19					
Stn.51	7.4.2 Low Sloped Smooth Roof - Replace	30	19					
Stn.51	7.4.3 Tower Composition Shingles - Replace	30	19					
Stn.51	7.4.4 Tower Metal Roof - Replace	50	39					
Stn.51	7.4.5 Apparatus Bay Metal Roof - Replace	40	29					
Stn.51	7.4.6 Roof Inspection & Minor Repair	5	3			\$9,540		
Stn.51	8.2.1 Folding Bay Doors & Hardware - Maintenance	5	2		\$8,234			
Stn.51	8.2.2 Overhead Bay Doors & Hardware - Replace	30	19					
Stn.51	8.2.3 Overhead Bay Door Operator - Contingency	5	2		\$19,095			
Stn.51	8.2.4 Coiling Door - Maintenance	30	19					
Stn.51	8.2.5 Doors & Hardware - Maintenance	5	1	\$5,151				
Stn.51	8.3.1 Storefront System - Maintenance	15	4					
Stn.51	8.3.2 Storefront System - Replace	60	50					
Stn.51	8.5.1 Aluminum Windows - Replace	40	29					
Stn.51	9.8.1 Cedar Wood Siding - Maintenance	6	1			\$34,039		
Stn.51	9.8.2 Concrete Siding - Maintenance	12	1			\$7,876		
Stn.51	9.8.3 Exterior Steel - Maintenance	6	4					
Stn.51	9.8.4 Fiber Cement Board Siding - Caulk & Paint	8	1					
Stn.51	10.4.1 Exterior Signage - Refurbish	10	2		\$3,743			
Stn.51	10.5.1 Exterior Mail Pedestal Unit - Replace	25	14				\$3,556	
Stn.51	11.1.1 Propane Forklift - Replace	20	8					
Stn.51	11.4.1 Admin Kitchen Equipment - Contingency	10	6					
Stn.51	11.4.2 Duty Crew Kitchen Equipment - Contingency	5	3			\$23,339		
Stn.51	11.6.1 Laundry Equipment - Contingency	5	3			\$5,816		
Stn.51	11.6.2 Unimac Gear Extractor - Replace	12	1			\$13,692		
Stn.51	11.6.3 Ramair Gear Dryer - Replace	12	1			\$17,111		
Stn.51	11.8.1 Air Compressor System - Replace	15	4					
Stn.51	12.1.1 Apparatus Bay - Refurbish	25	14				\$111,424	
Stn.51	12.1.2 Admin Common Areas - Repaint	16	5					
Stn.51	12.1.3 Exercise Room - Refurbish	20	9					
Stn.51	12.1.4 Bunk Gear Storage - Refurbish	10	3			\$12,455		
Stn.51	12.1.5 Admin Offices - Refurbish	16	5					
Stn.51	12.1.6 Lobby - Refurbish	15	6					
Stn.51	12.1.7 Public Meeting Room - Refurbish	12	1			\$23,339		
Stn.51	12.1.8 Public & Admin Restrooms - Refurbish	20	9					
Stn.51	12.2.1 Duty Crew Common Areas - Full Repaint	16	7					
Stn.51	12.2.2 Duty Crew Common Areas - Touchup Paint	16	15					\$23,113
Stn.51	12.2.3 Duty Crew Sleep Room Interiors - Refurbish	10	3			\$38,511		
Stn.51	12.2.4 Duty Crew Kitchen Interiors - Refurbish	10	9					
Stn.51	12.2.5 Duty Crew Laundry Interiors - Refurbish	10	2		\$2,994			
Stn.51	12.2.6 Duty Crew Office/Training Areas - Refurbish	15	4					
Stn.51	12.2.7 Duty Crew Restrooms - Refurbish	10	2		\$24,687			
Stn.51	12.4.1 1st Floor Interior Carpet Flooring - Replace	24	13			\$53,027		
Stn.51	12.4.2 2nd Floor Interior Carpet Flooring - Replace	16	5					
Stn.51	12.4.3 1st Floor Resilient Flooring - Replace	20	9					
Stn.51	12.4.4 2nd Floor Resilient Flooring - Replace	15	4					
Stn.51	12.4.5 1st Floor Sheet Flooring - Replace	20	9					

Stn.51	12.4.6	2nd Floor Sheet Flooring - Replace	15	4									
Stn.51	12.4.7	1st Floor Stained Concrete - Refurbish	12	1			\$23,568						
Stn.51	12.6.1	Elevator Cab Interior - Remodel	40	29									
Stn.51	14.1.1	Elevator - Major Upgrades	40	29									
Stn.51	14.1.2	Elevators - 5 Year Load Test	5	5					\$9,262				
Stn.51	15.2.1	Plumbing System - Contingency	5	3			\$7,785						
Stn.51	15.2.2	Plumbing Supply Lines - Replace	60	49									
Stn.51	15.3.1	Irrigation System - Contingency	10	8									
Stn.51	15.3.2	Storm Water System - Contingency	3	1			\$7,785						
Stn.51	15.4.1	Fire Detection System - Maintenance	5	3			\$3,892						
Stn.51	15.4.2	Fire Sprinkler System - Maintenance	15	4									
Stn.51	15.5.1	Water Heater - Contingency	20	9									
Stn.51	15.6.1	Heat Recovery Unit - Replace	25	14					\$21,367				
Stn.51	15.6.2	Indirect Makeup AHU - Replace	20	9									
Stn.51	15.6.3	Furnace - Replace	20	9									
Stn.51	15.6.4	VRF Heat Pump - Contingency	6	4									
Stn.51	15.6.5	HVAC System - Contingency	5	3			\$7,785						
Stn.51	15.6.6	Infrared Heaters - Replace	20	9									
Stn.51	15.7.1	Exhaust Fans - Contingency	5	3			\$11,860						
Stn.51	16.3.1	Electrical System - Contingency	10	8									
Stn.51	16.5.1	Emergency Generator - Replace	30	19									
Stn.51	16.5.2	Generator Fuel Tank - Replace	30	19									
Stn.51	16.6.1	Exterior Light Fixtures - Replace	10	9									
Stn.51	16.8.1	Fire Control Panel - Replace	20	9									
Stn.51	16.9.1	Audio/Visual Equipment - Upgrades	15	4									
Stn.51	17.1.1	Fireblast 451 - Maintenance	10	9									
Stn.51	18.1.1	Security / Surveillance System - Replace	10	1		\$23,017							
Stn.57	2.6.1	Asphalt Paving - Repair	6	1			\$6,289						
Stn.57	2.6.2	Asphalt Pavement- Seal Coat & Restripe	6	1			\$7,861						
Stn.57	2.7.4	Privacy Wood Fence - Replace	15	8									
Stn.57	2.7.5	Chain-link Fence - Repair	40	18									
Stn.57	2.9.2	Landscaping - Maintenance	8	6					\$8,096				
Stn.57	2.9.3	Wetland - Maintenance	15	13			\$15,554						
Stn.57	3.3.3	Exterior Concrete Paving - Repair	6	2					\$5,175				
Stn.57	6.1.2	Garbage Bin Enclosure - Contingency	20	18									
Stn.57	6.4.5	Brick Siding - Maintenance	20	8									
Stn.57	7.3.2	Gutters & Downspouts - Replace	20	11		\$4,544							
Stn.57	7.4.7	Metal Roof - Replace	40	11		\$86,396							
Stn.57	7.4.8	Roof Inspection & Minor Repair	5	5					\$5,052				
Stn.57	8.2.8	Common Doors & Hardware - Maintenance	10	10									
Stn.57	8.2.6	Overhead Bay Door - Replace	20	8									
Stn.57	8.2.7	Bay Door Operator - Contingency	20	18									
Stn.57	8.3.3	Storefront System - Maintenance	10	8									
Stn.57	8.5.2	Aluminum Framed Windows - Replace	45	16									
Stn.57	9.8.5	Front Entry Steel Framed Structure - Paint	10	2			\$3,361						
Stn.57	10.4.2	Exterior Signage - Refurbish	15	10									
Stn.57	11.4.3	Kitchen Equipment - Contingency	5	6		\$19,786							
Stn.57	11.6.4	Laundry Equipment - Contingency	5	3			\$5,129						
Stn.57	11.6.5	Station Extractor - Bunker Gear Washer	12	5									
Stn.57	11.8.2	Air Compressor - Replace	12	11		\$57,635							
Stn.57	12.3.1	Interior Concrete Floor - Refurbish	25	24									
Stn.57	12.3.2	Apparatus Bay - Refurbish	10	10									
Stn.57	12.3.3	Hallway & Stairwell Walls & Ceiling - Paint	25	10									
Stn.57	12.3.4	Front Reception Desk & Office - Remodel	10	11		\$35,958							
Stn.57	12.3.5	Kitchen - Remodel	10	10									
Stn.57	12.3.6	Day / Dining Room - Remodel	15	10									
Stn.57	12.3.7	Duty Crew Sleep Rooms - Refurbish	20	8									
Stn.57	12.3.8	Exercise Room - Refurbish	15	14					\$48,544				
Stn.57	12.3.9	Locker & Restroom - Refurbish	15	5									
Stn.57	12.3.10	Laundry & Utility Room - Refurbish	10	8									
Stn.57	15.2.3	Plumbing System - Contingency	10	4					\$8,096				
Stn.57	15.3.3	Irrigation System - Contingency	5	2			\$3,743						
Stn.57	15.4.3	Fire Detection System - Maintenance	15	5									
Stn.57	15.4.4	Wet & Dry Fire Sprinkler System - Contingency	10	8									
Stn.57	15.5.2	Water Heater - Replace	15	2									
Stn.57	15.6.7	HVAC Units - Replace	15	6									
Stn.57	15.6.8	Furnace - Replace	10	4					\$22,256				
Stn.57	15.6.9	Infrared Overhead Heaters - Replace	10	8									
Stn.57	15.7.2	Exhaust Fans - Contingency	5	3			\$6,777						
Stn.57	16.3.2	Electrical System - Contingency	20	8									
Stn.57	16.5.3	Emergency Generator - Contingency	20	18									
Stn.57	16.6.2	Exterior Light Fixtures - Replace	15	1									
Stn.57	16.8.2	Fire Control Panel - Replace	20	8									
Stn.57	18.1.2	Security / Surveillance System - Upgrade	10	1		\$21,578							
TOTAL ANTICIPATED ANNUAL RESERVE EXPENSES						\$265,298	\$65,857	\$397,171	\$252,786	\$37,427			
ACCUMULATED CREDITS						\$1,464,577	\$1,495,398	\$1,738,043	\$1,659,743	\$1,742,339			
ACCUMULATED DEBITS						\$265,298	\$65,857	\$397,171	\$252,786	\$37,427			
YEAR-END BALANCE						\$1,199,279	\$1,429,541	\$1,340,872	\$1,406,957	\$1,704,912			
YEARS						1	2-10	11-30	11 (2032)	12 (2033)	13 (2034)	14 (2035)	15 (2036)
CONTRIBUTION INFLATION						0%	3%	4%	4%	4%	4%	4%	4%
COMPONENT COMPOUND INFLATION						4%	3%	4%	141%	147%	153%	159%	165%
INTEREST RATE MULTIPLIER						0.5%	2%	3%	3%	3%	3%	3%	3%

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APPENDIX A

NORTHSHORE FIRE DEPARTMENT

30-YEAR RESERVE STUDY PROJECTIONS
WITH STARTING RECOMMENDED FUNDING OF \$182,300
AND COMPOUND INFLATION

		16-Nov-21						
		STARTING RESERVE BALANCE	\$1,704,912	\$1,903,316	\$2,169,662	\$2,224,512	\$1,184,055	
		ANNUAL RESERVE CONTRIBUTION	\$300,969	\$313,008	\$325,528	\$338,549	\$352,091	
		ESTIMATED INTEREST EARNED	\$53,324	\$60,192	\$64,939	\$50,373	\$39,405	
		SPECIAL ASSESSMENT	\$0	\$0	\$0	\$0	\$0	
		ACCUMULATED CREDITS	\$2,059,204	\$2,276,516	\$2,560,128	\$2,613,435	\$1,575,550	
#	COMPONENT NAME	MAINT. CYCLE	NEXT MAINT.	16 2037	17 2038	18 2039	19 2040	20 2041
Stn.51	2.4.1 Concrete - Paving Repairs	10	3					
Stn.51	2.4.2 Concrete - Repaint Stalls & Curbs	10	1					
Stn.51	2.7.1 Prefinished Metal Fence - Replace	30	19				\$143,734	
Stn.51	2.7.2 Prefinished Metal Fence & Gates - Maintenance	10	3					
Stn.51	2.7.3 Gate Operator - Maintenance	3	1	\$2,885			\$3,245	
Stn.51	2.8.1 Wood Benches - Maintenance	10	3					
Stn.51	2.9.1 Landscaping - Maintenance	8	6					
Stn.51	3.3.1 Concrete Walkways - Repair	6	1				\$10,738	
Stn.51	3.3.2 Cast Concrete Retaining Walls - Repair	15	4				\$31,250	
Stn.51	6.1.1 Garbage Bin Enclosure - Repair	15	4				\$4,925	
Stn.51	6.2.1 Pedestal Paver - Maintenance	30	19				\$3,612	
Stn.51	6.2.2 PVC Thermoplastic Membrane - Replace	30	19				\$7,803	
Stn.51	6.4.1 Brick Siding - Maintenance	20	9					
Stn.51	6.4.2 CMU Wall - Tuck Point	20	9					
Stn.51	6.4.3 Fiber Cement Board Siding - Repair	10	1					
Stn.51	6.4.4 Metal Siding - Replace	35	24					
Stn.51	7.1.1 Sealant Joints - Replace	15	4				\$44,171	
Stn.51	7.3.1 Scuppers, Gutters & Downspouts - Replace	30	19				\$7,030	
Stn.51	7.4.1 Low Sloped Ribbed Roof - Replace	30	19				\$372,950	
Stn.51	7.4.2 Low Sloped Smooth Roof - Replace	30	19				\$245,749	
Stn.51	7.4.3 Tower Composition Shingles - Replace	30	19				\$2,376	
Stn.51	7.4.4 Tower Metal Roof - Replace	50	39					
Stn.51	7.4.5 Apparatus Bay Metal Roof - Replace	40	29					
Stn.51	7.4.6 Roof Inspection & Minor Repair	5	3			\$11,607		
Stn.51	8.2.1 Folding Bay Doors & Hardware - Maintenance	5	2		\$10,018			
Stn.51	8.2.2 Overhead Bay Doors & Hardware - Replace	30	19				\$47,647	
Stn.51	8.2.3 Overhead Bay Door Operator - Contingency	5	2		\$23,232			
Stn.51	8.2.4 Coiling Door - Maintenance	30	19				\$19,488	
Stn.51	8.2.5 Doors & Hardware - Maintenance	5	1	\$6,267				
Stn.51	8.3.1 Storefront System - Maintenance	15	4				\$15,103	
Stn.51	8.3.2 Storefront System - Replace	60	50					
Stn.51	8.5.1 Aluminum Windows - Replace	40	29					
Stn.51	9.8.1 Cedar Wood Siding - Maintenance	6	1				\$43,070	
Stn.51	9.8.2 Concrete Siding - Maintenance	12	1					
Stn.51	9.8.3 Exterior Steel - Maintenance	6	4	\$14,011				
Stn.51	9.8.4 Fiber Cement Board Siding - Caulk & Paint	8	1		\$38,624			
Stn.51	10.4.1 Exterior Signage - Refurbish	10	2					
Stn.51	10.5.1 Exterior Mail Pedestal Unit - Replace	25	14					
Stn.51	11.1.1 Propane Forklift - Replace	20	8					
Stn.51	11.4.1 Admin Kitchen Equipment - Contingency	10	6	\$8,757				
Stn.51	11.4.2 Duty Crew Kitchen Equipment - Contingency	5	3			\$28,395		
Stn.51	11.6.1 Laundry Equipment - Contingency	5	3			\$7,076		
Stn.51	11.6.2 Unimac Gear Extractor - Replace	12	1					
Stn.51	11.6.3 Ramair Gear Dryer - Replace	12	1					
Stn.51	11.8.1 Air Compressor System - Replace	15	4				\$17,325	
Stn.51	12.1.1 Apparatus Bay - Refurbish	25	14					
Stn.51	12.1.2 Admin Common Areas - Repaint	16	5					
Stn.51	12.1.3 Exercise Room - Refurbish	20	9					
Stn.51	12.1.4 Bunk Gear Storage - Refurbish	10	3					
Stn.51	12.1.5 Admin Offices - Refurbish	16	5					
Stn.51	12.1.6 Lobby - Refurbish	15	6					
Stn.51	12.1.7 Public Meeting Room - Refurbish	12	1					
Stn.51	12.1.8 Public & Admin Restrooms - Refurbish	20	9					
Stn.51	12.2.1 Duty Crew Common Areas - Full Repaint	16	7					
Stn.51	12.2.2 Duty Crew Common Areas - Touchup Paint	16	15					
Stn.51	12.2.3 Duty Crew Sleep Room Interiors - Refurbish	10	3					
Stn.51	12.2.4 Duty Crew Kitchen Interiors - Refurbish	10	9				\$19,681	
Stn.51	12.2.5 Duty Crew Laundry Interiors - Refurbish	10	2					
Stn.51	12.2.6 Duty Crew Office/Training Areas - Refurbish	15	4				\$11,820	
Stn.51	12.2.7 Duty Crew Restrooms - Refurbish	10	2					
Stn.51	12.4.1 1st Floor Interior Carpet Flooring - Replace	24	13					
Stn.51	12.4.2 2nd Floor Interior Carpet Flooring - Replace	16	5					
Stn.51	12.4.3 1st Floor Resilient Flooring - Replace	20	9					
Stn.51	12.4.4 2nd Floor Resilient Flooring - Replace	15	4				\$5,331	
Stn.51	12.4.5 1st Floor Sheet Flooring - Replace	20	9					

Stn.51	12.4.6	2nd Floor Sheet Flooring - Replace	15	4					\$81,562			
Stn.51	12.4.7	1st Floor Stained Concrete - Refurbish	12	1								
Stn.51	12.6.1	Elevator Cab Interior - Remodel	40	29								
Stn.51	14.1.1	Elevator - Major Upgrades	40	29								
Stn.51	14.1.2	Elevators - 5 Year Load Test	5	5					\$11,268			
Stn.51	15.2.1	Plumbing System - Contingency	5	3			\$9,471					
Stn.51	15.2.2	Plumbing Supply Lines - Replace	60	49								
Stn.51	15.3.1	Irrigation System - Contingency	10	8			\$19,500					
Stn.51	15.3.2	Storm Water System - Contingency	3	1	\$8,757			\$9,850				
Stn.51	15.4.1	Fire Detection System - Maintenance	5	3			\$4,736					
Stn.51	15.4.2	Fire Sprinkler System - Maintenance	15	4				\$15,760				
Stn.51	15.5.1	Water Heater - Contingency	20	9								
Stn.51	15.6.1	Heat Recovery Unit - Replace	25	14								
Stn.51	15.6.2	Indirect Makeup AHU - Replace	20	9								
Stn.51	15.6.3	Furnace - Replace	20	9								
Stn.51	15.6.4	VRF Heat Pump - Contingency	6	4	\$33,825							
Stn.51	15.6.5	HVAC System - Contingency	5	3			\$9,471					
Stn.51	15.6.6	Infrared Heaters - Replace	20	9								
Stn.51	15.7.1	Exhaust Fans - Contingency	5	3			\$14,430					
Stn.51	16.3.1	Electrical System - Contingency	10	8			\$9,471					
Stn.51	16.5.1	Emergency Generator - Replace	30	19				\$38,975				
Stn.51	16.5.2	Generator Fuel Tank - Replace	30	19				\$17,325				
Stn.51	16.6.1	Exterior Light Fixtures - Replace	10	9				\$19,681				
Stn.51	16.8.1	Fire Control Panel - Replace	20	9								
Stn.51	16.9.1	Audio/Visual Equipment - Upgrades	15	4				\$151,594				
Stn.51	17.1.1	Fireblast 451 - Maintenance	10	9				\$19,681				
Stn.51	18.1.1	Security / Surveillance System - Replace	10	1								
Stn.57	2.6.1	Asphalt Paving - Repair	6	1				\$7,957				
Stn.57	2.6.2	Asphalt Pavement- Seal Coat & Restripe	6	1				\$9,947				
Stn.57	2.7.4	Privacy Wood Fence - Replace	15	8								
Stn.57	2.7.5	Chain-link Fence - Repair	40	18			\$8,097					
Stn.57	2.9.2	Landscaping - Maintenance	8	6								
Stn.57	2.9.3	Wetland - Maintenance	15	13								
Stn.57	3.3.3	Exterior Concrete Paving - Repair	6	2					\$6,548			
Stn.57	6.1.2	Garbage Bin Enclosure - Contingency	20	18			\$2,841					
Stn.57	6.4.5	Brick Siding - Maintenance	20	8								
Stn.57	7.3.2	Gutters & Downspouts - Replace	20	11								
Stn.57	7.4.7	Metal Roof - Replace	40	11								
Stn.57	7.4.8	Roof Inspection & Minor Repair	5	5				\$6,146				
Stn.57	8.2.8	Common Doors & Hardware - Maintenance	10	10				\$6,789				
Stn.57	8.2.6	Overhead Bay Door - Replace	20	8								
Stn.57	8.2.7	Bay Door Operator - Contingency	20	18			\$104,128					
Stn.57	8.3.3	Storefront System - Maintenance	10	8			\$36,436					
Stn.57	8.5.2	Aluminum Framed Windows - Replace	45	16	\$52,506							
Stn.57	9.8.5	Front Entry Steel Framed Structure - Paint	10	2								
Stn.57	10.4.2	Exterior Signage - Refurbish	15	10								
Stn.57	11.4.3	Kitchen Equipment - Contingency	5	6	\$24,072							
Stn.57	11.6.4	Laundry Equipment - Contingency	5	3			\$6,240					
Stn.57	11.6.5	Station Extractor - Bunker Gear Washer	12	5		\$16,017						
Stn.57	11.8.2	Air Compressor - Replace	12	11								
Stn.57	12.3.1	Interior Concrete Floor - Refurbish	25	24								
Stn.57	12.3.2	Apparatus Bay - Refurbish	10	10				\$27,659				
Stn.57	12.3.3	Hallway & Stairwell Walls & Ceiling - Paint	25	10								
Stn.57	12.3.4	Front Reception Desk & Office - Remodel	10	11								
Stn.57	12.3.5	Kitchen - Remodel	10	10				\$20,468				
Stn.57	12.3.6	Day / Dining Room - Remodel	15	10								
Stn.57	12.3.7	Duty Crew Sleep Rooms - Refurbish	20	8								
Stn.57	12.3.8	Exercise Room - Refurbish	15	14								
Stn.57	12.3.9	Locker & Restroom - Refurbish	15	5				\$4,098				
Stn.57	12.3.10	Laundry & Utility Room - Refurbish	10	8			\$18,924					
Stn.57	15.2.3	Plumbing System - Contingency	10	4								
Stn.57	15.3.3	Irrigation System - Contingency	5	2		\$4,553						
Stn.57	15.4.3	Fire Detection System - Maintenance	15	5				\$10,244				
Stn.57	15.4.4	Wet & Dry Fire Sprinkler System - Contingency	10	8			\$10,418					
Stn.57	15.5.2	Water Heater - Replace	15	2		\$14,410						
Stn.57	15.6.7	HVAC Units - Replace	15	6								
Stn.57	15.6.8	Furnace - Replace	10	4								
Stn.57	15.6.9	Infrared Overhead Heaters - Replace	10	8			\$9,471					
Stn.57	15.7.2	Exhaust Fans - Contingency	5	3			\$8,246					
Stn.57	16.3.2	Electrical System - Contingency	20	8								
Stn.57	16.5.3	Emergency Generator - Contingency	20	18			\$16,658					
Stn.57	16.6.2	Exterior Light Fixtures - Replace	15	1	\$4,808							
Stn.57	16.8.2	Fire Control Panel - Replace	20	8								
Stn.57	18.1.2	Security / Surveillance System - Upgrade	10	1								
TOTAL ANTICIPATED ANNUAL RESERVE EXPENSES					\$155,888	\$106,854	\$335,616	\$1,429,380	\$93,220			
ACCUMULATED CREDITS					\$2,059,204	\$2,276,516	\$2,560,128	\$2,613,435	\$1,575,550			
ACCUMULATED DEBITS					\$155,888	\$106,854	\$335,616	\$1,429,380	\$93,220			
YEAR-END BALANCE					\$1,903,316	\$2,169,662	\$2,224,512	\$1,184,055	\$1,482,330			
YEARS					1	2-10	11-30	16 (2037)	17 (2038)	18 (2039)	19 (2040)	20 (2041)
CONTRIBUTION INFLATION					0%	3%	4%	4%	4%	4%	4%	4%
COMPONENT COMPOUND INFLATION					4%	3%	4%	172%	179%	186%	193%	201%
INTEREST RATE MULTIPLIER					0.5%	2%	3%	3%	3%	3%	3%	3%

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APPENDIX A

NORTHSHORE FIRE DEPARTMENT

30-YEAR RESERVE STUDY PROJECTIONS
WITH STARTING RECOMMENDED FUNDING OF \$182,300
AND COMPOUND INFLATION

		16-Nov-21						
		STARTING RESERVE BALANCE	\$1,482,330	\$1,511,680	\$1,723,271	\$1,772,603	\$2,078,953	
		ANNUAL RESERVE CONTRIBUTION	\$366,175	\$380,822	\$396,055	\$411,897	\$428,373	
		ESTIMATED INTEREST EARNED	\$44,246	\$47,807	\$51,663	\$56,920	\$63,364	
		SPECIAL ASSESSMENT	\$0	\$0	\$0	\$0	\$0	
		ACCUMULATED CREDITS	\$1,892,752	\$1,940,308	\$2,170,989	\$2,241,420	\$2,570,690	
#	COMPONENT NAME	MAINT. CYCLE	NEXT MAINT.	21 2042	22 2043	23 2044	24 2045	25 2046
Stn.51	2.4.1 Concrete - Paving Repairs	10	3			\$41,913		
Stn.51	2.4.2 Concrete - Repaint Stalls & Curbs	10	1	\$3,551				
Stn.51	2.7.1 Prefinished Metal Fence - Replace	30	19					
Stn.51	2.7.2 Prefinished Metal Fence & Gates - Maintenance	10	3			\$16,810		
Stn.51	2.7.3 Gate Operator - Maintenance	3	1		\$3,650			\$4,106
Stn.51	2.8.1 Wood Benches - Maintenance	10	3			\$5,061		
Stn.51	2.9.1 Landscaping - Maintenance	8	6		\$33,218			
Stn.51	3.3.1 Concrete Walkways - Repair	6	1					\$13,588
Stn.51	3.3.2 Cast Concrete Retaining Walls - Repair	15	4					
Stn.51	6.1.1 Garbage Bln Enclosure - Repair	15	4					
Stn.51	6.2.1 Pedestal Paver - Maintenance	30	19					
Stn.51	6.2.2 PVC Thermoplastic Membrane - Replace	30	19					
Stn.51	6.4.1 Brick Siding - Maintenance	20	9					
Stn.51	6.4.2 CMU Wall - Tuck Point	20	9					
Stn.51	6.4.3 Fiber Cement Board Siding - Repair	10	1	\$13,077				
Stn.51	6.4.4 Metal Siding - Replace	35	24				\$98,622	
Stn.51	7.1.1 Sealant Joints - Replace	15	4					
Stn.51	7.3.1 Scuppers, Gutters & Downspouts - Replace	30	19					
Stn.51	7.4.1 Low Sloped Ribbed Roof - Replace	30	19					
Stn.51	7.4.2 Low Sloped Smooth Roof - Replace	30	19					
Stn.51	7.4.3 Tower Composition Shingles - Replace	30	19					
Stn.51	7.4.4 Tower Metal Roof - Replace	50	39					
Stn.51	7.4.5 Apparatus Bay Metal Roof - Replace	40	29					
Stn.51	7.4.6 Roof Inspection & Minor Repair	5	3			\$14,122		
Stn.51	8.2.1 Folding Bay Doors & Hardware - Maintenance	5	2		\$12,188			
Stn.51	8.2.2 Overhead Bay Doors & Hardware - Replace	30	19					
Stn.51	8.2.3 Overhead Bay Door Operator - Contingency	5	2		\$28,265			
Stn.51	8.2.4 Coiling Door - Maintenance	30	19					
Stn.51	8.2.5 Doors & Hardware - Maintenance	5	1	\$7,625				
Stn.51	8.3.1 Storefront System - Maintenance	15	4					
Stn.51	8.3.2 Storefront System - Replace	60	50					
Stn.51	8.5.1 Aluminum Windows - Replace	40	29					
Stn.51	9.8.1 Cedar Wood Siding - Maintenance	6	1					\$54,497
Stn.51	9.8.2 Concrete Siding - Maintenance	12	1					\$12,610
Stn.51	9.8.3 Exterior Steel - Maintenance	6	4			\$17,728		
Stn.51	9.8.4 Fiber Cement Board Siding - Caulk & Paint	8	1					\$52,860
Stn.51	10.4.1 Exterior Signage - Refurbish	10	2		\$5,540			
Stn.51	10.5.1 Exterior Mail Pedestal Unit - Replace	25	14					
Stn.51	11.1.1 Propane Forklift - Replace	20	8					
Stn.51	11.4.1 Admin Kitchen Equipment - Contingency	10	6					
Stn.51	11.4.2 Duty Crew Kitchen Equipment - Contingency	5	3			\$34,547		
Stn.51	11.6.1 Laundry Equipment - Contingency	5	3			\$8,608		
Stn.51	11.6.2 Unimac Gear Extractor - Replace	12	1					\$21,921
Stn.51	11.6.3 Ramair Gear Dryer - Replace	12	1					\$27,395
Stn.51	11.8.1 Air Compressor System - Replace	15	4					
Stn.51	12.1.1 Apparatus Bay - Refurbish	25	14					
Stn.51	12.1.2 Admin Common Areas - Repaint	16	5	\$36,787				
Stn.51	12.1.3 Exercise Room - Refurbish	20	9					
Stn.51	12.1.4 Bunk Gear Storage - Refurbish	10	3			\$18,437		
Stn.51	12.1.5 Admin Offices - Refurbish	16	5	\$53,227				
Stn.51	12.1.6 Lobby - Refurbish	15	6	\$42,594				
Stn.51	12.1.7 Public Meeting Room - Refurbish	12	1					\$37,366
Stn.51	12.1.8 Public & Admin Restrooms - Refurbish	20	9					
Stn.51	12.2.1 Duty Crew Common Areas - Full Repaint	16	7			\$31,632		
Stn.51	12.2.2 Duty Crew Common Areas - Touchup Paint	16	15					
Stn.51	12.2.3 Duty Crew Sleep Room Interiors - Refurbish	10	3			\$57,006		
Stn.51	12.2.4 Duty Crew Kitchen Interiors - Refurbish	10	9					
Stn.51	12.2.5 Duty Crew Laundry Interiors - Refurbish	10	2		\$4,432			
Stn.51	12.2.6 Duty Crew Office/Training Areas - Refurbish	15	4					
Stn.51	12.2.7 Duty Crew Restrooms - Refurbish	10	2		\$36,542			
Stn.51	12.4.1 1st Floor Interior Carpet Flooring - Replace	24	13					
Stn.51	12.4.2 2nd Floor Interior Carpet Flooring - Replace	16	5	\$52,266				
Stn.51	12.4.3 1st Floor Resilient Flooring - Replace	20	9					
Stn.51	12.4.4 2nd Floor Resilient Flooring - Replace	15	4					
Stn.51	12.4.5 1st Floor Sheet Flooring - Replace	20	9					

Stn.51	12.4.6	2nd Floor Sheet Flooring - Replace	15	4								
Stn.51	12.4.7	1st Floor Stained Concrete - Refurbish	12	1					\$37,733			
Stn.51	12.6.1	Elevator Cab Interior - Remodel	40	29								
Stn.51	14.1.1	Elevator - Major Upgrades	40	29								
Stn.51	14.1.2	Elevators - 5 Year Load Test	5	5					\$13,710			
Stn.51	15.2.1	Plumbing System - Contingency	5	3			\$11,523					
Stn.51	15.2.2	Plumbing Supply Lines - Replace	60	49								
Stn.51	15.3.1	Irrigation System - Contingency	10	8								
Stn.51	15.3.2	Storm Water System - Contingency	3	1		\$11,080			\$12,463			
Stn.51	15.4.1	Fire Detection System - Maintenance	5	3			\$5,762					
Stn.51	15.4.2	Fire Sprinkler System - Maintenance	15	4								
Stn.51	15.5.1	Water Heater - Contingency	20	9								
Stn.51	15.6.1	Heat Recovery Unit - Replace	25	14								
Stn.51	15.6.2	Indirect Makeup AHU - Replace	20	9								
Stn.51	15.6.3	Furnace - Replace	20	9								
Stn.51	15.6.4	VRF Heat Pump - Contingency	6	4		\$42,799						
Stn.51	15.6.5	HVAC System - Contingency	5	3			\$11,523					
Stn.51	15.6.6	Infrared Heaters - Replace	20	9								
Stn.51	15.7.1	Exhaust Fans - Contingency	5	3			\$17,556					
Stn.51	16.3.1	Electrical System - Contingency	10	8								
Stn.51	16.5.1	Emergency Generator - Replace	30	19								
Stn.51	16.5.2	Generator Fuel Tank - Replace	30	19								
Stn.51	16.6.1	Exterior Light Fixtures - Replace	10	9								
Stn.51	16.8.1	Fire Control Panel - Replace	20	9								
Stn.51	16.9.1	Audio/Visual Equipment - Upgrades	15	4								
Stn.51	17.1.1	Fireblast 451 - Maintenance	10	9								
Stn.51	18.1.1	Security / Surveillance System - Replace	10	1		\$34,071						
Stn.57	2.6.1	Asphalt Paving - Repair	6	1					\$10,069			
Stn.57	2.6.2	Asphalt Pavement- Seal Coat & Restripe	6	1					\$12,586			
Stn.57	2.7.4	Privacy Wood Fence - Replace	15	8			\$13,986					
Stn.57	2.7.5	Chain-link Fence - Repair	40	18								
Stn.57	2.9.2	Landscaping - Maintenance	8	6		\$11,080						
Stn.57	2.9.3	Wetland - Maintenance	15	13								
Stn.57	3.3.3	Exterior Concrete Paving - Repair	6	2								
Stn.57	6.1.2	Garbage Bin Enclosure - Contingency	20	18								
Stn.57	6.4.5	Brick Siding - Maintenance	20	8								
Stn.57	7.3.2	Gutters & Downspouts - Replace	20	11								
Stn.57	7.4.7	Metal Roof - Replace	40	11								
Stn.57	7.4.8	Roof Inspection & Minor Repair	5	5					\$7,478			
Stn.57	8.2.8	Common Doors & Hardware - Maintenance	10	10								
Stn.57	8.2.6	Overhead Bay Door - Replace	20	8								
Stn.57	8.2.7	Bay Door Operator - Contingency	20	18								
Stn.57	8.3.3	Storefront System - Maintenance	10	8								
Stn.57	8.5.2	Aluminum Framed Windows - Replace	45	16								
Stn.57	9.8.5	Front Entry Steel Framed Structure - Paint	10	2		\$4,975						
Stn.57	10.4.2	Exterior Signage - Refurbish	15	10					\$6,232			
Stn.57	11.4.3	Kitchen Equipment - Contingency	5	6		\$29,288						
Stn.57	11.6.4	Laundry Equipment - Contingency	5	3			\$7,592					
Stn.57	11.6.5	Station Extractor - Bunker Gear Washer	12	5								
Stn.57	11.8.2	Air Compressor - Replace	12	11			\$92,276					
Stn.57	12.3.1	Interior Concrete Floor - Refurbish	25	24					\$18,916			
Stn.57	12.3.2	Apparatus Bay - Refurbish	10	10								
Stn.57	12.3.3	Hallway & Stairwell Walls & Ceiling - Paint	25	10								
Stn.57	12.3.4	Front Reception Desk & Office - Remodel	10	11		\$53,227						
Stn.57	12.3.5	Kitchen - Remodel	10	10								
Stn.57	12.3.6	Day / Dining Room - Remodel	15	10					\$37,366			
Stn.57	12.3.7	Duty Crew Sleep Rooms - Refurbish	20	8								
Stn.57	12.3.8	Exercise Room - Refurbish	15	14								
Stn.57	12.3.9	Locker & Restroom - Refurbish	15	5								
Stn.57	12.3.10	Laundry & Utility Room - Refurbish	10	8								
Stn.57	15.2.3	Plumbing System - Contingency	10	4					\$11,984			
Stn.57	15.3.3	Irrigation System - Contingency	5	2		\$5,540						
Stn.57	15.4.3	Fire Detection System - Maintenance	15	5								
Stn.57	15.4.4	Wet & Dry Fire Sprinkler System - Contingency	10	8								
Stn.57	15.5.2	Water Heater - Replace	15	2								
Stn.57	15.6.7	HVAC Units - Replace	15	6		\$23,418						
Stn.57	15.6.8	Furnace - Replace	10	4				\$32,945				
Stn.57	15.6.9	Infrared Overhead Heaters - Replace	10	8								
Stn.57	15.7.2	Exhaust Fans - Contingency	5	3			\$10,032					
Stn.57	16.3.2	Electrical System - Contingency	20	8								
Stn.57	16.5.3	Emergency Generator - Contingency	20	18								
Stn.57	16.6.2	Exterior Light Fixtures - Replace	15	1								
Stn.57	16.8.2	Fire Control Panel - Replace	20	8								
Stn.57	18.1.2	Security / Surveillance System - Upgrade	10	1		\$31,941						
TOTAL ANTICIPATED ANNUAL RESERVE EXPENSES						\$381,072	\$217,037	\$398,386	\$162,467	\$361,980		
ACCUMULATED CREDITS						\$1,892,752	\$1,940,308	\$2,170,989	\$2,241,420	\$2,570,690		
ACCUMULATED DEBITS						\$381,072	\$217,037	\$398,386	\$162,467	\$361,980		
YEAR-END BALANCE						\$1,511,680	\$1,723,271	\$1,772,603	\$2,078,953	\$2,208,710		
YEARS					1	2-10	11-30	21 (2042)	22 (2043)	23 (2044)	24 (2045)	25 (2046)
CONTRIBUTION INFLATION					0%	3%	4%	4%	4%	4%	4%	4%
COMPONENT COMPOUND INFLATION					4%	3%	4%	209%	217%	226%	235%	244%
INTEREST RATE MULTIPLIER					0.5%	2%	3%	3%	3%	3%	3%	3%

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APPENDIX A

NORTHSHORE FIRE DEPARTMENT

30-YEAR RESERVE STUDY PROJECTIONS
WITH STARTING RECOMMENDED FUNDING OF \$182,300
AND COMPOUND INFLATION

		16-Nov-21						
		STARTING RESERVE BALANCE	\$2,208,710	\$2,660,011	\$3,153,293	\$3,146,321	\$2,103,347	
		ANNUAL RESERVE CONTRIBUTION	\$445,508	\$463,328	\$481,861	\$501,135	\$521,181	
		ESTIMATED INTEREST EARNED	\$71,952	\$85,911	\$93,098	\$77,581	\$68,403	
		SPECIAL ASSESSMENT	\$0	\$0	\$0	\$0	\$0	
		ACCUMULATED CREDITS	\$2,726,169	\$3,209,250	\$3,728,252	\$3,725,037	\$2,692,931	
#	COMPONENT NAME	MAINT. CYCLE	NEXT MAINT.	26 2047	27 2048	28 2049	29 2050	30 2051
Stn.51	2.4.1 Concrete - Paving Repairs	10	3					
Stn.51	2.4.2 Concrete - Repaint Stalls & Curbs	10	1					
Stn.51	2.7.1 Prefinished Metal Fence - Replace	30	19					
Stn.51	2.7.2 Prefinished Metal Fence & Gates - Maintenance	10	3					
Stn.51	2.7.3 Gate Operator - Maintenance	3	1			\$4,618		
Stn.51	2.8.1 Wood Benches - Maintenance	10	3					
Stn.51	2.9.1 Landscaping - Maintenance	8	6					\$45,461
Stn.51	3.3.1 Concrete Walkways - Repair	6	1					
Stn.51	3.3.2 Cast Concrete Retaining Walls - Repair	15	4					
Stn.51	6.1.1 Garbage Bln Enclosure - Repair	15	4					
Stn.51	6.2.1 Pedestal Paver - Maintenance	30	19					
Stn.51	6.2.2 PVC Thermoplastic Membrane - Replace	30	19					
Stn.51	6.4.1 Brick Siding - Maintenance	20	9				\$28,103	
Stn.51	6.4.2 CMU Wall - Tuck Point	20	9				\$156,669	
Stn.51	6.4.3 Fiber Cement Board Siding - Repair	10	1					
Stn.51	6.4.4 Metal Siding - Replace	35	24					
Stn.51	7.1.1 Sealant Joints - Replace	15	4					
Stn.51	7.3.1 Scuppers, Gutters & Downspouts - Replace	30	19					
Stn.51	7.4.1 Low Sloped Ribbed Roof - Replace	30	19					
Stn.51	7.4.2 Low Sloped Smooth Roof - Replace	30	19					
Stn.51	7.4.3 Tower Composition Shingles - Replace	30	19					
Stn.51	7.4.4 Tower Metal Roof - Replace	50	39					
Stn.51	7.4.5 Apparatus Bay Metal Roof - Replace	40	29				\$47,515	
Stn.51	7.4.6 Roof Inspection & Minor Repair	5	3			\$17,181		
Stn.51	8.2.1 Folding Bay Doors & Hardware - Maintenance	5	2		\$14,829			
Stn.51	8.2.2 Overhead Bay Doors & Hardware - Replace	30	19					
Stn.51	8.2.3 Overhead Bay Door Operator - Contingency	5	2		\$34,388			
Stn.51	8.2.4 Coiling Door - Maintenance	30	19					
Stn.51	8.2.5 Doors & Hardware - Maintenance	5	1	\$9,277				
Stn.51	8.3.1 Storefront System - Maintenance	15	4					
Stn.51	8.3.2 Storefront System - Replace	60	50					
Stn.51	8.5.1 Aluminum Windows - Replace	40	29				\$503,970	
Stn.51	9.8.1 Cedar Wood Siding - Maintenance	6	1					
Stn.51	9.8.2 Concrete Siding - Maintenance	12	1					
Stn.51	9.8.3 Exterior Steel - Maintenance	6	4			\$22,432		
Stn.51	9.8.4 Fiber Cement Board Siding - Caulk & Paint	8	1					
Stn.51	10.4.1 Exterior Signage - Refurbish	10	2					
Stn.51	10.5.1 Exterior Mail Pedestal Unit - Replace	25	14					
Stn.51	11.1.1 Propane Forklift - Replace	20	8			\$61,659		
Stn.51	11.4.1 Admin Kitchen Equipment - Contingency	10	6	\$12,962				
Stn.51	11.4.2 Duty Crew Kitchen Equipment - Contingency	5	3			\$42,032		
Stn.51	11.6.1 Laundry Equipment - Contingency	5	3			\$10,474		
Stn.51	11.6.2 Unimac Gear Extractor - Replace	12	1					
Stn.51	11.6.3 Ramair Gear Dryer - Replace	12	1					
Stn.51	11.8.1 Air Compressor System - Replace	15	4					
Stn.51	12.1.1 Apparatus Bay - Refurbish	25	14					
Stn.51	12.1.2 Admin Common Areas - Repaint	16	5					
Stn.51	12.1.3 Exercise Room - Refurbish	20	9				\$8,748	
Stn.51	12.1.4 Bunk Gear Storage - Refurbish	10	3					
Stn.51	12.1.5 Admin Offices - Refurbish	16	5					
Stn.51	12.1.6 Lobby - Refurbish	15	6					
Stn.51	12.1.7 Public Meeting Room - Refurbish	12	1					
Stn.51	12.1.8 Public & Admin Restrooms - Refurbish	20	9				\$56,092	
Stn.51	12.2.1 Duty Crew Common Areas - Full Repaint	16	7					
Stn.51	12.2.2 Duty Crew Common Areas - Touchup Paint	16	15					
Stn.51	12.2.3 Duty Crew Sleep Room Interiors - Refurbish	10	3					
Stn.51	12.2.4 Duty Crew Kitchen Interiors - Refurbish	10	9				\$29,132	
Stn.51	12.2.5 Duty Crew Laundry Interiors - Refurbish	10	2					
Stn.51	12.2.6 Duty Crew Office/Training Areas - Refurbish	15	4					
Stn.51	12.2.7 Duty Crew Restrooms - Refurbish	10	2					
Stn.51	12.4.1 1st Floor Interior Carpet Flooring - Replace	24	13					
Stn.51	12.4.2 2nd Floor Interior Carpet Flooring - Replace	16	5					
Stn.51	12.4.3 1st Floor Resilient Flooring - Replace	20	9				\$6,718	
Stn.51	12.4.4 2nd Floor Resilient Flooring - Replace	15	4					
Stn.51	12.4.5 1st Floor Sheet Flooring - Replace	20	9				\$93,801	

Stn.51	12.4.6	2nd Floor Sheet Flooring - Replace	15	4								
Stn.51	12.4.7	1st Floor Stained Concrete - Refurbish	12	1								
Stn.51	12.6.1	Elevator Cab Interior - Remodel	40	29				\$17,497				
Stn.51	14.1.1	Elevator - Major Upgrades	40	29				\$364,283				
Stn.51	14.1.2	Elevators - 5 Year Load Test	5	5					\$16,680			
Stn.51	15.2.1	Plumbing System - Contingency	5	3			\$14,020					
Stn.51	15.2.2	Plumbing Supply Lines - Replace	60	49								
Stn.51	15.3.1	Irrigation System - Contingency	10	8			\$28,864					
Stn.51	15.3.2	Storm Water System - Contingency	3	1			\$14,020					
Stn.51	15.4.1	Fire Detection System - Maintenance	5	3			\$7,010					
Stn.51	15.4.2	Fire Sprinkler System - Maintenance	15	4								
Stn.51	15.5.1	Water Heater - Contingency	20	9				\$47,458				
Stn.51	15.6.1	Heat Recovery Unit - Replace	25	14								
Stn.51	15.6.2	Indirect Makeup AHU - Replace	20	9				\$28,846				
Stn.51	15.6.3	Furnace - Replace	20	9				\$6,404				
Stn.51	15.6.4	VRF Heat Pump - Contingency	6	4			\$54,155					
Stn.51	15.6.5	HVAC System - Contingency	5	3			\$14,020					
Stn.51	15.6.6	Infrared Heaters - Replace	20	9				\$44,227				
Stn.51	15.7.1	Exhaust Fans - Contingency	5	3			\$21,359					
Stn.51	16.3.1	Electrical System - Contingency	10	8			\$14,020					
Stn.51	16.5.1	Emergency Generator - Replace	30	19								
Stn.51	16.5.2	Generator Fuel Tank - Replace	30	19								
Stn.51	16.6.1	Exterior Light Fixtures - Replace	10	9				\$29,132				
Stn.51	16.8.1	Fire Control Panel - Replace	20	9				\$10,892				
Stn.51	16.9.1	Audio/Visual Equipment - Upgrades	15	4								
Stn.51	17.1.1	Fireblast 451 - Maintenance	10	9				\$29,132				
Stn.51	18.1.1	Security / Surveillance System - Replace	10	1								
Stn.57	2.6.1	Asphalt Paving - Repair	6	1								
Stn.57	2.6.2	Asphalt Pavement- Seal Coat & Restripe	6	1								
Stn.57	2.7.4	Privacy Wood Fence - Replace	15	8								
Stn.57	2.7.5	Chain-link Fence - Repair	40	18								
Stn.57	2.9.2	Landscaping - Maintenance	8	6					\$15,164			
Stn.57	2.9.3	Wetland - Maintenance	15	13			\$28,012					
Stn.57	3.3.3	Exterior Concrete Paving - Repair	6	2		\$8,286						
Stn.57	6.1.2	Garbage Bin Enclosure - Contingency	20	18								
Stn.57	6.4.5	Brick Siding - Maintenance	20	8			\$35,956					
Stn.57	7.3.2	Gutters & Downspouts - Replace	20	11								
Stn.57	7.4.7	Metal Roof - Replace	40	11								
Stn.57	7.4.8	Roof Inspection & Minor Repair	5	5					\$9,098			
Stn.57	8.2.8	Common Doors & Hardware - Maintenance	10	10					\$10,050			
Stn.57	8.2.6	Overhead Bay Door - Replace	20	8			\$15,971					
Stn.57	8.2.7	Bay Door Operator - Contingency	20	18								
Stn.57	8.3.3	Storefront System - Maintenance	10	8			\$53,935					
Stn.57	8.5.2	Aluminum Framed Windows - Replace	45	16								
Stn.57	9.8.5	Front Entry Steel Framed Structure - Paint	10	2								
Stn.57	10.4.2	Exterior Signage - Refurbish	15	10								
Stn.57	11.4.3	Kitchen Equipment - Contingency	5	6		\$35,633						
Stn.57	11.6.4	Laundry Equipment - Contingency	5	3			\$9,237					
Stn.57	11.6.5	Station Extractor - Bunker Gear Washer	12	5				\$25,645				
Stn.57	11.8.2	Air Compressor - Replace	12	11								
Stn.57	12.3.1	Interior Concrete Floor - Refurbish	25	24								
Stn.57	12.3.2	Apparatus Bay - Refurbish	10	10					\$40,942			
Stn.57	12.3.3	Hallway & Stairwell Walls & Ceiling - Paint	25	10								
Stn.57	12.3.4	Front Reception Desk & Office - Remodel	10	11								
Stn.57	12.3.5	Kitchen - Remodel	10	10					\$30,298			
Stn.57	12.3.6	Day / Dining Room - Remodel	15	10								
Stn.57	12.3.7	Duty Crew Sleep Rooms - Refurbish	20	8			\$14,020					
Stn.57	12.3.8	Exercise Room - Refurbish	15	14				\$87,426				
Stn.57	12.3.9	Locker & Restroom - Refurbish	15	5								
Stn.57	12.3.10	Laundry & Utility Room - Refurbish	10	8			\$28,012					
Stn.57	15.2.3	Plumbing System - Contingency	10	4								
Stn.57	15.3.3	Irrigation System - Contingency	5	2		\$6,740						
Stn.57	15.4.3	Fire Detection System - Maintenance	15	5								
Stn.57	15.4.4	Wet & Dry Fire Sprinkler System - Contingency	10	8			\$15,422					
Stn.57	15.5.2	Water Heater - Replace	15	2								
Stn.57	15.6.7	HVAC Units - Replace	15	6								
Stn.57	15.6.8	Furnace - Replace	10	4								
Stn.57	15.6.9	Infrared Overhead Heaters - Replace	10	8			\$14,020					
Stn.57	15.7.2	Exhaust Fans - Contingency	5	3			\$12,205					
Stn.57	16.3.2	Electrical System - Contingency	20	8			\$18,501					
Stn.57	16.5.3	Emergency Generator - Contingency	20	18								
Stn.57	16.6.2	Exterior Light Fixtures - Replace	15	1								
Stn.57	16.8.2	Fire Control Panel - Replace	20	8			\$10,776					
Stn.57	18.1.2	Security / Surveillance System - Upgrade	10	1								
TOTAL ANTICIPATED ANNUAL RESERVE EXPENSES						\$66,158	\$55,957	\$581,931	\$1,621,690	\$167,693		
ACCUMULATED CREDITS						\$2,726,169	\$3,209,250	\$3,728,252	\$3,725,037	\$2,692,931		
ACCUMULATED DEBITS						\$66,158	\$55,957	\$581,931	\$1,621,690	\$167,693		
YEAR-END BALANCE						\$2,660,011	\$3,153,293	\$3,146,321	\$2,103,347	\$2,525,238		
YEARS					1	2-10	11-30	26 (2047)	27 (2048)	28 (2049)	29 (2050)	30 (2051)
CONTRIBUTION INFLATION					0%	3%	4%	4%	4%	4%	4%	4%
COMPONENT COMPOUND INFLATION					4%	3%	4%	254%	264%	275%	286%	297%
INTEREST RATE MULTIPLIER					0.5%	2%	3%	3%	3%	3%	3%	3%

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APPENDIX B

NORTHSHORE FIRE DEPARTMENT

COMPONENT SUMMARY

FUTURE MAINTENANCE WITH INFLATED ESTIMATES

16-Nov-21

Stn.51 2.4.1 Concrete - Paving Repairs

Site

Maintenance Cycle: 10 years

Next Maintenance: Year 3 (2024)

Quantity: 65,610 Square Feet

Unit Cost: \$8.56 / SF

Estimate: 65,610 SF X 3% X \$8.56/SF = \$16,849 + tax = \$18,550

2021 Notes: The Station feels the pavers are not yet in need of repairs and predicts this will be needed in 2024.

FUTURE MAINTENANCE

YEAR	COST
3 (2024)	\$20,467
13 (2034)	\$28,315
23 (2044)	\$41,913

Previous Notes: There is a large paved area adjacent to Station 51 providing public parking, secured access parking, entry to the Apparatus Bay and a significant paved area around the training tower. Due to the brittle nature of concrete, periodic repairs will be necessary. Funds are budgeted in conjunction with repainting since the same contractor can often complete both projects. It was reported that there are a few areas of concern that will likely be addressed in the near future.

Stn.51 2.4.2 Concrete - Repaint Stalls & Curbs

Site

Maintenance Cycle: 10 years

Next Maintenance: Year 1 (2022)

Quantity: 76 Each

Unit Cost: \$20.32 / EA

Estimate: 76 EA X 100% X \$20.32/EA = \$1,544 + tax = \$1,700

2021 Notes: The Station requests the maintenance cycle be moved to 2022.

FUTURE MAINTENANCE

YEAR	COST
1 (2022)	\$1,768
11 (2032)	\$2,399
21 (2042)	\$3,551

Previous Notes: Periodic deep cleaning and restriping of the stalls and curbs will be necessary as the concrete is exposed to the elements. We understand that the Station power washes the concrete as needed. The striping in the parking area is coming to the end of its useful life.

Stn.51 2.7.1 Prefinished Metal Fence - Replace

Site

Maintenance Cycle: 30 years

Next Maintenance: Year 19 (2040)

Quantity: 885 Linear Feet

Unit Cost: \$76.38 / LF

Estimate: 885 LF X 100% X \$76.38/LF = \$67,596 + tax = \$74,420

2021 Notes: No new updates were reported.

FUTURE MAINTENANCE

YEAR	COST
19 (2040)	\$143,734

Previous Notes: The fencing is factory finished metal and should require minimal maintenance. The budget provides funds to replace the fencing, three walk through gates and one swing gate at the end of its anticipated useful life. The fence and gates were in good condition overall.

Stn.51 2.7.2 Prefinished Metal Fence & Gates - Maintenance

Site

Maintenance Cycle: 10 years

Next Maintenance: Year 3 (2024)

Quantity: 885 Linear Feet

Unit Cost: \$76.36 / LF

Estimate: 885 LF X 10% X \$76.36/LF = \$6,758 + tax = \$7,440

2021 Notes: No new updates were reported.

FUTURE MAINTENANCE

YEAR	COST
3 (2024)	\$8,209
13 (2034)	\$11,356
23 (2044)	\$16,810

Previous Notes: This component budgets funds for periodic repairs to the fencing and gates, including touch up painting, as needed. No areas of concern were noted.



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COMPONENT SUMMARY

FUTURE MAINTENANCE WITH INFLATED ESTIMATES

16-Nov-21

Stn.51 2.7.3 Gate Operator - Maintenance

Site

Maintenance Cycle: 3 years

Quantity: 1 Each

Estimate: 1 EA X 100% X \$1,525.89/EA = \$1,526 + tax = \$1,680

Next Maintenance: Year 1 (2022)

Unit Cost: \$1,525.89 / EA

2021 Notes: No new updates were reported.

Previous Notes: A hydraulic swing gate with photo eyes controls access to the upper section of the parking lot. It was reported that the in-ground sensors had approximately \$1,500 worth of work completed in the recent past. The photo eyes were out of service at the time of our site visit. The budget is intended to fund periodic repairs to the various components of the gate operator. The next maintenance is budgeted in three years since it is assumed that the sensors will be fixed this year.

FUTURE MAINTENANCE	
YEAR	COST
1 (2022)	\$1,747
4 (2025)	\$1,909
7 (2028)	\$2,086
10 (2031)	\$2,280
13 (2034)	\$2,564
Repeat Every 3 Years	

Stn.51 2.8.1 Wood Benches - Maintenance

Site

Maintenance Cycle: 10 years

Quantity: 4 Each

Estimate: 4 EA X 100% X \$508.63/EA = \$2,035 + tax = \$2,240

Next Maintenance: Year 3 (2024)

Unit Cost: \$508.63 / EA

2021 Notes: No new updates were reported.

Previous Notes: Wood benches are built into the cast in place concrete and will require periodic maintenance. The benches were weathering well and were in use while we were on site.

FUTURE MAINTENANCE	
YEAR	COST
3 (2024)	\$2,471
13 (2034)	\$3,419
23 (2044)	\$5,061

Stn.51 2.9.1 Landscaping - Maintenance

Site

Maintenance Cycle: 8 years

Quantity: 1 Lump Sum

Estimate: \$15,290

Next Maintenance: Year 6 (2027)

Unit Cost: \$15,290.00 / LS

2021 Notes: No new updates were reported.

Previous Notes: Approximately \$11,000 was spent in 2019 on landscaping. The landscaping budget provides funds for major updates to the landscaping as plants mature, outgrow their beds and/or for tree maintenance.

FUTURE MAINTENANCE	
YEAR	COST
6 (2027)	\$18,434
14 (2035)	\$24,272
22 (2043)	\$33,218
30 (2051)	\$45,461

Stn.51 3.3.1 Concrete Walkways - Repair

Concrete

Maintenance Cycle: 6 years

Quantity: 5,700 Square Feet

Estimate: 5,700 SF X 10% X \$8.86/SF = \$5,050 + tax = \$5,560

Next Maintenance: Year 1 (2022)

Unit Cost: \$8.86 / SF

2021 Notes: No new updates were reported.

Previous Notes: While the City of Kenmore owns the sidewalks, the responsibility for repairing sidewalks typically rests on the property owner. No trip hazards were noted while on site. We budget to repair up to 3% of the concrete walkways, curbs and pavement each repair cycle. We recommend grinding or cutting the concrete to resolve trip hazards where possible. Cracks, spalling and/or damaged areas that cannot be corrected by grinding are intended to be covered by this budget.

FUTURE MAINTENANCE	
YEAR	COST
1 (2022)	\$5,782
7 (2028)	\$6,904
13 (2034)	\$8,487
19 (2040)	\$10,738
25 (2046)	\$13,588



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NORTHSHORE FIRE DEPARTMENT

COMPONENT SUMMARY

FUTURE MAINTENANCE WITH INFLATED ESTIMATES

16-Nov-21

Stn.51 3.3.2 Cast Concrete Retaining Walls - Repair

Concrete

Maintenance Cycle: 15 years

Quantity: 740 Linear Feet

Estimate: 740 LF X 5% X \$397.18/LF = \$14,696 + tax = \$16,180

Next Maintenance: Year 4 (2025)

Unit Cost: \$397.18 / LF

2021 Notes: No new updates were reported.

Previous Notes: We do not anticipate that the concrete retaining walls will need to be replaced within the next 30 years. This component budgets funds for inspections and repairs to ensure the integrity of the walls flanking the perimeter of the parking lot. The walls appeared to be performing well.

FUTURE MAINTENANCE

YEAR	COST
4 (2025)	\$18,388
19 (2040)	\$31,250

Stn.51 6.1.1 Garbage Bin Enclosure - Repair

Ext Envelope

Maintenance Cycle: 15 years

Quantity: 1 Lump Sum

Estimate: \$2,550

Next Maintenance: Year 4 (2025)

Unit Cost: \$2,550.00 / LS

2021 Notes: No new updates were reported.

Previous Notes: The garbage bin enclosure is constructed of cast in place concrete walls with steel framed gates with wood infill. Periodic repairs will be necessary, as will maintenance to the wood to keep the gates in optimal condition. The gates appeared to be serviceable and weathering well.

FUTURE MAINTENANCE

YEAR	COST
4 (2025)	\$2,898
19 (2040)	\$4,925

Stn.51 6.2.1 Pedestal Paver - Maintenance

Ext Envelope

Maintenance Cycle: 30 years

Quantity: 180 Square Feet

Estimate: 180 SF X 25% X \$37.74/SF = \$1,698 + tax = \$1,870

Next Maintenance: Year 19 (2040)

Unit Cost: \$37.74 / SF

2021 Notes: No new updates were reported.

Previous Notes: The 2nd floor outdoor patio has concrete pavers on pedestals which will need to be removed to replace the waterproofing membrane underneath. This component provides funds to replace up to 25% of the pavers if needed. The pavers appeared to be wearing well, with no obvious cracks or staining noted.

FUTURE MAINTENANCE

YEAR	COST
19 (2040)	\$3,612

Stn.51 6.2.2 PVC Thermoplastic Membrane - Replace

Ext Envelope

Maintenance Cycle: 30 years

Quantity: 180 Square Feet

Estimate: 180 SF X 100% X \$20.39/SF = \$3,670 + tax = \$4,040

Next Maintenance: Year 19 (2040)

Unit Cost: \$20.39 / SF

2021 Notes: No new updates were reported.

Previous Notes: A PVC thermoplastic membrane was specified as the waterproofing membrane under the patio pedestal pavers. The membrane will need to be periodically replaced as the material degrades to ensure it keeps out moisture as designed. The Station is likely to realize savings if the deck's membrane is replaced in conjunction with the roofing membrane to save on contractor mobilization fees. We were not able to observe the membrane during the site visit, but understand that there are no outstanding issues.

FUTURE MAINTENANCE

YEAR	COST
19 (2040)	\$7,803



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COMPONENT SUMMARY

FUTURE MAINTENANCE WITH INFLATED ESTIMATES

16-Nov-21

Stn.51 6.4.1 Brick Siding - Maintenance

Ext Envelope

Maintenance Cycle: 20 years

Next Maintenance: Year 9 (2030)

Quantity: 7,010 Square Feet

Unit Cost: \$25.47 / SF

Estimate: 7,010 SF X 5% X \$25.47/SF = \$8,927 + tax = \$9,830

2021 Notes: No new updates were reported.

Previous Notes: Two types of brick provide texture to the exterior of the building. We do not anticipate that the brick will need replacement over the next 30 years. This component budgets funds for periodic tuck pointing and/or steam cleaning to keep the building in optimal condition. At this time there is not a budget for sealing the brick and do not recommend doing so unless a specific water intrusion issue arises.

FUTURE MAINTENANCE	
YEAR	COST
9 (2030)	\$12,950
29 (2050)	\$28,103

Stn.51 6.4.2 CMU Wall - Tuck Point

Ext Envelope

Maintenance Cycle: 20 years

Next Maintenance: Year 9 (2030)

Quantity: 6,515 Square Feet

Unit Cost: \$7.64 / SF

Estimate: 6,515 SF X 100% X \$7.64/SF = \$49,775 + tax = \$54,800

2021 Notes: No new updates were reported.

Previous Notes: The training tower is constructed of split face and smooth face CMU. We anticipate that the CMU will not need to be replaced within the next 30 years. Periodic tuck pointing of the mortar joints may be needed in the future, which this component is intended to fund.

FUTURE MAINTENANCE	
YEAR	COST
9 (2030)	\$72,196
29 (2050)	\$156,669

Stn.51 6.4.3 Fiber Cement Board Siding - Repair

Ext Envelope

Maintenance Cycle: 10 years

Next Maintenance: Year 1 (2022)

Quantity: 6,420 Square Feet

Unit Cost: \$29.52 / SF

Estimate: 6,420 SF X 3% X \$29.52/SF = \$5,686 + tax = \$6,260

2021 Notes: The Station requests the next maintenance cycle be moved to 2022.

Previous Notes: Some areas of Station 51 have fiber cement board, which appears to be weathering well overall. A few cracked boards were noted in the HVAC well area, which we recommend be replaced with the next repainting.

FUTURE MAINTENANCE	
YEAR	COST
1 (2022)	\$6,510
11 (2032)	\$8,834
21 (2042)	\$13,077

Stn.51 6.4.4 Metal Siding - Replace

Ext Envelope

Maintenance Cycle: 35 years

Next Maintenance: Year 24 (2045)

Quantity: 2,340 Square Feet

Unit Cost: \$16.29 / SF

Estimate: 2,340 SF X 100% X \$16.29/SF = \$38,119 + tax = \$41,970

2021 Notes: No new updates were reported.

Previous Notes: The metal siding is located along the apparatus bay exterior and above some windows. The factory finished panels are weathering as expected and are expected to require minimal maintenance. This component budgets for replacement of the panels at the end of their anticipated useful life.

FUTURE MAINTENANCE	
YEAR	COST
24 (2045)	\$98,622



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COMPONENT SUMMARY

FUTURE MAINTENANCE WITH INFLATED ESTIMATES

16-Nov-21

Stn.51 7.1.1 Sealant Joints - Replace

Ext Envelope

Maintenance Cycle: 15 years

Next Maintenance: Year 4 (2025)

Quantity: 1,700 Linear Feet

Unit Cost: \$12.22 / LF

Estimate: 1,700 LF X 100% X \$12.22/LF = \$20,774 + tax = \$22,870

2021 Notes: No new updates were reported.

Previous Notes: Sealant joints will need to be periodically inspected and replaced. Areas that are failing should be removed and recaulked to maintain an effective barrier against moisture. As the building ages, it is likely that not all of the sealant will need to be replaced at once; areas with the most weather exposure will have the shortest useful life. The budgets reflects total replacement until the pattern of wear is determined. This component focuses on sealant joints in areas with masonry, specifically around doors and windows. Sealant joints in the areas with fiber cement board should be addressed with each paint cycle.

FUTURE MAINTENANCE	
YEAR	COST
4 (2025)	\$25,990
19 (2040)	\$44,171

Stn.51 7.3.1 Scuppers, Gutters & Downspouts - Replace

Ext Envelope

Maintenance Cycle: 30 years

Next Maintenance: Year 19 (2040)

Quantity: 560 Linear Feet

Unit Cost: \$5.90 / LF

Estimate: 560 LF X 100% X \$5.90/LF = \$3,304 + tax = \$3,640

2021 Notes: No new updates were reported.

Previous Notes: The building has a combination of scuppers, downspouts and gutters. All appeared to be functioning as expected and attached appropriately. We budget for replacing these components in conjunction with the roof replacement since the two systems are integrated.

FUTURE MAINTENANCE	
YEAR	COST
19 (2040)	\$7,030

Stn.51 7.4.1 Low Sloped Ribbed Roof - Replace

Ext Envelope

Maintenance Cycle: 30 years

Next Maintenance: Year 19 (2040)

Quantity: 101 Roofing Squares

Unit Cost: \$1,731.35 / SQ

Estimate: 101 SQ X 100% X \$1,731.35/SQ = \$175,386 + tax = \$193,100

2021 Notes: No new updates were reported.

Previous Notes: Visible sections of the roof have a Sika Sarnafil Décor membrane system, giving the roof the appearance of a standing metal seam roof. The system is a thermoplastic PVC membrane. No issues were reported and the roof was clean with no concerns noted.

FUTURE MAINTENANCE	
YEAR	COST
19 (2040)	\$372,950

Stn.51 7.4.2 Low Sloped Smooth Roof - Replace

Ext Envelope

Maintenance Cycle: 30 years

Next Maintenance: Year 19 (2040)

Quantity: 95 Roofing Squares

Unit Cost: \$1,222.16 / SQ

Estimate: 95 SQ X 100% X \$1,222.16/SQ = \$115,567 + tax = \$127,240

2021 Notes: No new updates were reported.

Previous Notes: Sections of the roof that are not visible from the ground have a smooth Sika Sarnafil thermoplastic PVC membrane system. The roof has good slope and no concerns were noted while on site. The HVAC well area had some water ponding, which is to be expected in an area with little slope. This area in particular should be monitored for issues with the membrane, especially after severe weather events.

FUTURE MAINTENANCE	
YEAR	COST
19 (2040)	\$245,749



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FUTURE MAINTENANCE WITH INFLATED ESTIMATES

16-Nov-21

Stn.51 7.4.3 Tower Composition Shingles - Replace

Ext Envelope

Maintenance Cycle: 30 years

Quantity: 2 Roofing Squares

Estimate: 2 SQ X 100% X \$558.58/SQ = \$1,117 + tax = \$1,230

Next Maintenance: Year 19 (2040)

Unit Cost: \$558.58 / SQ

2021 Notes: No new updates were reported.

Previous Notes: The Tower has a small section of roofing with asphalt composition shingles. Since the shingles are not over occupied space, the useful life is longer than normally budgeted. The shingles appeared to be wearing as anticipated.

FUTURE MAINTENANCE

YEAR	COST
19 (2040)	\$2,376

Stn.51 7.4.4 Tower Metal Roof - Replace

Ext Envelope

Maintenance Cycle: 50 years

Quantity: 6 Roofing Squares

Estimate: 6 SQ X 100% X \$794.73/SQ = \$4,768 + tax = \$5,250

Next Maintenance: Year 39 (2060)

Unit Cost: \$794.73 / SQ

2021 Notes: No new updates were reported.

Previous Notes: The tallest roof on the Tower is metal standing seam. We were not able to observe the top of the roof directly, but since it is not located over occupied space the anticipated useful life has been extended. From the ground the roof appeared to be functioning as expected.

FUTURE MAINTENANCE

YEAR	COST
------	------

Stn.51 7.4.5 Apparatus Bay Metal Roof - Replace

Ext Envelope

Maintenance Cycle: 40 years

Quantity: 19 Roofing Squares

Estimate: 19 SQ X 100% X \$794.49/SQ = \$15,095 + tax = \$16,620

Next Maintenance: Year 29 (2050)

Unit Cost: \$794.49 / SQ

2021 Notes: No new updates were reported.

Previous Notes: The support areas adjacent to the Apparatus Bay have a standing metal seam roof. The roof was clean and was weathering as expected. This component budgets for replacing the roof at the end of its typical useful life.

FUTURE MAINTENANCE

YEAR	COST
29 (2050)	\$47,515

Stn.51 7.4.6 Roof Inspection & Minor Repair

Ext Envelope

Maintenance Cycle: 5 years

Quantity: 223 Roofing Squares

Estimate: 223 SQ X 5% X \$509.44/SQ = \$5,677 + tax = \$6,250

Next Maintenance: Year 3 (2024)

Unit Cost: \$509.44 / SQ

2021 Notes: No new updates were reported.

Previous Notes: We have allocated up to 5% cost of replacing the PVC roof to for repairs to any of the roofs and associated components, such as flashing. Due to the considerable damage potential a leaking roof can cause, we recommend regular cleanings and inspections to maintain the integrity of the weatherproof membrane, flashing and joints.

FUTURE MAINTENANCE

YEAR	COST
3 (2024)	\$6,896
8 (2029)	\$7,994
13 (2034)	\$9,540
18 (2039)	\$11,607
23 (2044)	\$14,122
Repeat Every 5 Years	



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NORTHSHORE FIRE DEPARTMENT

COMPONENT SUMMARY

FUTURE MAINTENANCE WITH INFLATED ESTIMATES

16-Nov-21

Stn.51 8.2.1 Folding Bay Doors & Hardware - Maintenance

Ext Envelope

Maintenance Cycle: 5 years

Quantity: 5 Each

Estimate: 5 EA X 10% X \$10,190.74/EA = \$5,095 + tax = \$5,610

Next Maintenance: Year 2 (2023)

Unit Cost: \$10,190.74 / EA

2021 Notes: No new updates were reported.

Previous Notes: The folding bay doors facing 73rd Ave NE have integrated opening hardware and are reportedly operating well. We have budgeted a contingency for maintenance since we do not anticipate that the doors will need total replacement within the next 30 years.

FUTURE MAINTENANCE	
YEAR	COST
2 (2023)	\$6,009
7 (2028)	\$6,967
12 (2033)	\$8,234
17 (2038)	\$10,018
22 (2043)	\$12,188
Repeat Every 5 Years	

Stn.51 8.2.2 Overhead Bay Doors & Hardware - Replace

Ext Envelope

Maintenance Cycle: 30 years

Quantity: 4 Each

Estimate: 4 EA X 100% X \$5,601.73/EA = \$22,407 + tax = \$24,670

Next Maintenance: Year 19 (2040)

Unit Cost: \$5,601.73 / EA

2021 Notes: No new updates were reported.

Previous Notes: The Apparatus Bay sectional overhead doors facing the parking area have a metal exterior face and fiberglass interior with glass insets. We budget for periodic replacement of the doors to ensure they are operational at all times. We anticipate that funds for regular maintenance, such as spring replacement, will be paid for out of the operating budget.

FUTURE MAINTENANCE	
YEAR	COST
19 (2040)	\$47,647

Stn.51 8.2.3 Overhead Bay Door Operator - Contingency

Ext Envelope

Maintenance Cycle: 5 years

Quantity: 4 Each

Estimate: 4 EA X 100% X \$2,954.13/EA = \$11,817 + tax = \$13,010

Next Maintenance: Year 2 (2023)

Unit Cost: \$2,954.13 / EA

2021 Notes: No new updates were reported.

Previous Notes: The sectional overhead Apparatus Bay doors facing the parking area each have gearhead trolley-style operators. A regular maintenance budget has been set to address issues that may arise, or replace the units as needed. We understand that there have been some issues with the operators, which is not uncommon for these devices.

FUTURE MAINTENANCE	
YEAR	COST
2 (2023)	\$13,936
7 (2028)	\$16,156
12 (2033)	\$19,095
17 (2038)	\$23,232
22 (2043)	\$28,265
Repeat Every 5 Years	

Stn.51 8.2.4 Coiling Door - Maintenance

Ext Envelope

Maintenance Cycle: 30 years

Quantity: 2 Each

Estimate: 2 EA X 100% X \$4,582.20/EA = \$9,164 + tax = \$10,090

Next Maintenance: Year 19 (2040)

Unit Cost: \$4,582.20 / EA

2021 Notes: No new updates were reported.

Previous Notes: Overhead coiling doors are located at the Tower and on the north end of the Apparatus Bay. We did not see the doors in use, but no problems were reported. We budget for total replacement at the end of their anticipated life span.

FUTURE MAINTENANCE	
YEAR	COST
19 (2040)	\$19,488



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FUTURE MAINTENANCE WITH INFLATED ESTIMATES

16-Nov-21

Stn.51 8.2.5 Doors & Hardware - Maintenance

Ext Envelope

Maintenance Cycle: 5 years

Quantity: 5 Each

Estimate: 5 EA X 100% X \$663.03/EA = \$3,315 + tax = \$3,650

Next Maintenance: Year 1 (2022)

Unit Cost: \$663.03 / EA

2021 Notes: No new updates were reported.

Previous Notes: We do not anticipate that all of the doors will need to be replaced at once. Instead, the budget provides a contingency to address up to five doors and hardware sets at Station 51 and the Tower every five years. The doors leading to the exterior are steel, while the interior doors are wood. Aluminum storefront doors are addressed in a separate component.

FUTURE MAINTENANCE	
YEAR	COST
1 (2022)	\$3,796
6 (2027)	\$4,401
11 (2032)	\$5,151
16 (2037)	\$6,267
21 (2042)	\$7,625
Repeat Every 5 Years	

Stn.51 8.3.1 Storefront System - Maintenance

Ext Envelope

Maintenance Cycle: 15 years

Quantity: 420 Square Feet

Estimate: 420 SF X 20% X \$84.56/SF = \$7,103 + tax = \$7,820

Next Maintenance: Year 4 (2025)

Unit Cost: \$84.56 / SF

2021 Notes: No new updates were reported.

Previous Notes: An aluminum storefront system is found at the entries to the Station. Depending on the frequency of use, major maintenance will periodically be required. This component budgets up to 20% of the replacement cost for periodic repairs to the doors, gaskets and glazing within the system.

FUTURE MAINTENANCE	
YEAR	COST
4 (2025)	\$8,887
19 (2040)	\$15,103

Stn.51 8.3.2 Storefront System - Replace

Ext Envelope

Maintenance Cycle: 60 years

Quantity: 420 Square Feet

Estimate: 420 SF X 100% X \$84.53/SF = \$35,503 + tax = \$39,090

Next Maintenance: Year 50 (2071)

Unit Cost: \$84.53 / SF

2021 Notes: No new updates were reported.

Previous Notes: Depending on the frequency of use, the cost for replacing the aluminum storefront system at the entries of the Station will outweigh the cost for repairs and/or the finish on the system may deteriorate to the point of needing replacement. This component budgets for total replacement of the storefront system.

FUTURE MAINTENANCE	
YEAR	COST

Stn.51 8.5.1 Aluminum Windows - Replace

Ext Envelope

Maintenance Cycle: 40 years

Quantity: 2,620 Square Feet

Estimate: 2,620 SF X 100% X \$61.11/SF = \$160,108 + tax = \$176,280

Next Maintenance: Year 29 (2050)

Unit Cost: \$61.11 / SF

2021 Notes: No new updates were reported.

Previous Notes: The windows on the exterior of the building are aluminum frame, which should require little maintenance. Windows are typically replaced because they are not operating properly, to update their appearance and/or to capture better energy efficiency. We expect that failed insulated glazing units will be replaced as needed with funds from the operating budget.

FUTURE MAINTENANCE	
YEAR	COST
29 (2050)	\$503,970



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COMPONENT SUMMARY

FUTURE MAINTENANCE WITH INFLATED ESTIMATES

16-Nov-21

Stn.51 9.8.1 Cedar Wood Siding - Maintenance

Ext Envelope

Maintenance Cycle: 6 years

Next Maintenance: Year 1 (2022)

Quantity: 1,530 Square Feet

Unit Cost: \$13.24 / SF

Estimate: 1,530 SF X 100% X \$13.24/SF = \$20,257 + tax = \$22,300

2021 Notes: No new updates were reported.

Previous Notes: It was reported that the exterior cedar wood siding was refinished in 2017 for approximately \$5,000. We recommend a penetrating stain for maximum results. The finish was weathering well at the time of our site visit. We budget for future maintenance cycles.

FUTURE MAINTENANCE	
YEAR	COST
1 (2022)	\$23,192
7 (2028)	\$27,692
13 (2034)	\$34,039
19 (2040)	\$43,070
25 (2046)	\$54,497

Stn.51 9.8.2 Concrete Siding - Maintenance

Ext Envelope

Maintenance Cycle: 12 years

Next Maintenance: Year 1 (2022)

Quantity: 920 Square Feet

Unit Cost: \$5.09 / SF

Estimate: 920 SF X 100% X \$5.09/SF = \$4,683 + tax = \$5,160

2021 Notes: No new updates were reported.

Previous Notes: Low concrete walls are located around the base of the building, as are cast in place concrete planting beds. The durable surface should require minimal maintenance. Funds are budgeted for periodic professional cleaning. We do not recommend painting the surfaces due to the future maintenance requirements.

FUTURE MAINTENANCE	
YEAR	COST
1 (2022)	\$5,366
13 (2034)	\$7,876
25 (2046)	\$12,610

Stn.51 9.8.3 Exterior Steel - Maintenance

Ext Envelope

Maintenance Cycle: 6 years

Next Maintenance: Year 4 (2025)

Quantity: 1 Lump Sum

Unit Cost: \$8,160.00 / LS

Estimate: \$8,160

2021 Notes: No new updates were reported.

Previous Notes: This component budgets funds to paint the steel components found on the exterior of the facility, including the stairs on the Tower, handrails along the walkways, exterior doors, canopies and steel members on the Station building. Maintaining a regular paint cycle will help protect the steel from moisture, which could lead to corrosion, shortening the useful life of these components. The paint overall was weathering as expected with no areas of corrosion noted.

FUTURE MAINTENANCE	
YEAR	COST
4 (2025)	\$9,273
10 (2031)	\$11,073
16 (2037)	\$14,011
22 (2043)	\$17,728
28 (2049)	\$22,432

Stn.51 9.8.4 Fiber Cement Board Siding - Caulk & Paint

Ext Envelope

Maintenance Cycle: 8 years

Next Maintenance: Year 1 (2022)

Quantity: 6,420 Square Feet

Unit Cost: \$3.06 / SF

Estimate: 6,420 SF X 100% X \$3.06/SF = \$19,645 + tax = \$21,630

2021 Notes: This work was not completed as planned in 2020 and is now slated for 2022.

Previous Notes: The paint on the fiber cement board around the HVAC well is coming to the end of its useful life. Verify that all exposed (cut) ends of the boards have adequate paint coverage to achieve a full useful life of the fiber cement board. The estimated cost includes funds for caulking with each paint cycle.

FUTURE MAINTENANCE	
YEAR	COST
1 (2022)	\$22,495
9 (2030)	\$28,496
17 (2038)	\$38,624
25 (2046)	\$52,860



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Stn.51 10.4.1 Exterior Signage - Refurbish

Specialties

Maintenance Cycle: 10 years

Quantity: 1 Lump Sum

Estimate: \$2,550

Next Maintenance: Year 2 (2023)

Unit Cost: \$2,550.00 / LS

2021 Notes: The Station did not feel the exterior signage required refurbishment and requests the next maintenance cycle be moved to 2023.

Previous Notes: Exterior signage is located on the low concrete walls along NE 181st Street and 73rd Ave NE. A large "51" is adjacent to the Apparatus Bay doors along 73rd Ave NE with back lighting. The signage is constructed from durable materials and will not likely need replacement within the next 30 years. This budget provides funds from periodic repairs, including to the lighting elements, to keep the high visibility signage in optimal condition.

FUTURE MAINTENANCE	
YEAR	COST
2 (2023)	\$2,732
12 (2033)	\$3,743
22 (2043)	\$5,540

Stn.51 10.5.1 Exterior Mail Pedestal Unit - Replace

Specialties

Maintenance Cycle: 25 years

Quantity: 1 Each

Estimate: 1 EA X 100% X \$2,034.51/EA = \$2,035 + tax = \$2,240

Next Maintenance: Year 14 (2035)

Unit Cost: \$2,034.51 / EA

2021 Notes: No new updates were reported.

Previous Notes: An exterior mail pedestal unit is located along NE 181st Street. No issues were reported. This budget provides funds for replacing the unit at the approximate end of useful life.

FUTURE MAINTENANCE	
YEAR	COST
14 (2035)	\$3,556

Stn.51 11.1.1 Propane Forklift - Replace

Equipment

Maintenance Cycle: 20 years

Quantity: 1 Each

Estimate: 1 EA X 100% X \$20,372.39/EA = \$20,372 + tax = \$22,430

Next Maintenance: Year 8 (2029)

Unit Cost: \$20,372.39 / EA

2021 Notes: No new updates were reported.

Previous Notes: A used propane forklift was donated to the Station in 2017. The forklift is a useful piece of equipment, so we have budgeted for replacement with a used model in approximately 10 years.

FUTURE MAINTENANCE	
YEAR	COST
8 (2029)	\$28,690
28 (2049)	\$61,659

Stn.51 11.4.1 Admin Kitchen Equipment - Contingency

Equipment

Maintenance Cycle: 10 years

Quantity: 1 Lump Sum

Estimate: \$5,100

Next Maintenance: Year 6 (2027)

Unit Cost: \$5,100.00 / LS

2021 Notes: No new updates were reported.

Previous Notes: The Admin Kitchen is located on the first floor and receives moderate use. Equipment includes a 30" gas range, vent hood, microwave, dishwasher, and refrigerator. It is unlikely that all of the equipment will need to be replaced at once, so we budget a repair contingency to periodically replace equipment as needed.

FUTURE MAINTENANCE	
YEAR	COST
6 (2027)	\$6,149
16 (2037)	\$8,757
26 (2047)	\$12,962



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Stn.51 11.4.2 Duty Crew Kitchen Equipment - Contingency

Equipment

Maintenance Cycle: 5 years

Quantity: 1 Lump Sum

Estimate: \$15,290

Next Maintenance: Year 3 (2024)

Unit Cost: \$15,290.00 / LS

2021 Notes: No new updates were reported.

Previous Notes: The Duty Crew Kitchen is located on the second floor and is heavily used. Equipment includes a 60" Wolf gas range with six burners, 66" vent hood with a 1500 CFM hood ventilator, Kitchenaid counter top microwave, Bosch undercounter dishwasher, and four Kitchenaid stainless steel refrigerators. It is unlikely that all of the equipment will need to be replaced at once, so we budget a repair contingency to periodically replace equipment as needed. Since the Duty Crew Kitchen is larger and used more frequently, the budget is larger and the maintenance cycle is more frequent than the Admin Kitchen's budget.

FUTURE MAINTENANCE	
YEAR	COST
3 (2024)	\$16,870
8 (2029)	\$19,557
13 (2034)	\$23,339
18 (2039)	\$28,395
23 (2044)	\$34,547
Repeat Every 5 Years	

Stn.51 11.6.1 Laundry Equipment - Contingency

Equipment

Maintenance Cycle: 5 years

Quantity: 4 Each

Estimate: 4 EA X 100% X \$865.12/EA = \$3,460 + tax = \$3,810

Next Maintenance: Year 3 (2024)

Unit Cost: \$865.12 / EA

2021 Notes: No new updates were reported.

Previous Notes: The Duty Crew Laundry room has a Whirlpool Front Load Washer & Dryer and a Maytag Front Load washer & dryer which reportedly are constantly used. We have provided a frequent replacement cycle based on the number of loads, rather than the number of years in service. All machines were operational at the time of our site visit.

FUTURE MAINTENANCE	
YEAR	COST
3 (2024)	\$4,204
8 (2029)	\$4,873
13 (2034)	\$5,816
18 (2039)	\$7,076
23 (2044)	\$8,608
Repeat Every 5 Years	

Stn.51 11.6.2 Unimac Gear Extractor - Replace

Equipment

Maintenance Cycle: 12 years

Quantity: 1 Each

Estimate: 1 EA X 100% X \$8,147.14/EA = \$8,147 + tax = \$8,970

Next Maintenance: Year 1 (2022)

Unit Cost: \$8,147.14 / EA

2021 Notes: No new updates were reported.

Previous Notes: The Unimac commercial washer is located near the Apparatus Bay to wash gear and reportedly receives constant use. We budget for periodic replacement or major repairs of the unit, which was functioning well at the time of our site visit.

FUTURE MAINTENANCE	
YEAR	COST
1 (2022)	\$9,329
13 (2034)	\$13,692
25 (2046)	\$21,921

Stn.51 11.6.3 Ramair Gear Dryer - Replace

Equipment

Maintenance Cycle: 12 years

Quantity: 1 Each

Estimate: 1 EA X 100% X \$10,181.65/EA = \$10,182 + tax = \$11,210

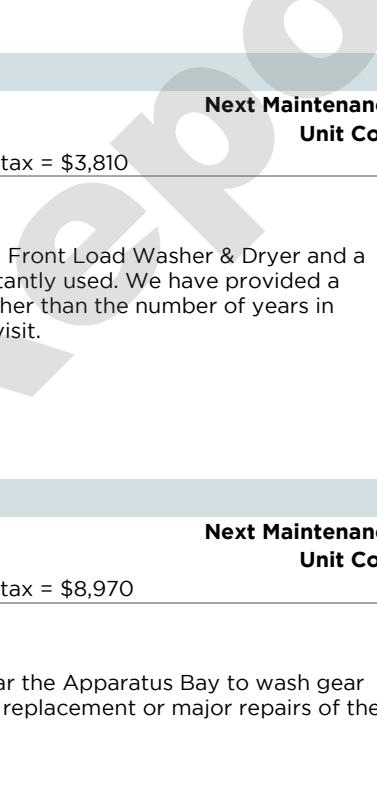
Next Maintenance: Year 1 (2022)

Unit Cost: \$10,181.65 / EA

2021 Notes: No new updates were reported.

Previous Notes: A heavy duty gear dryer is located near the Apparatus Bay. We understand that it was in good working order. We budget for periodic replacement of the unit which receives consistent use.

FUTURE MAINTENANCE	
YEAR	COST
1 (2022)	\$11,658
13 (2034)	\$17,111
25 (2046)	\$27,395





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Estimate: 1 EA X 100% X \$8,147.14/EA = \$8,147 + tax = \$8,970

2021 Notes: No new updates were reported.

Previous Notes: An industrial air compressor system is utilized to maintain the fire equipment. We understand that it was functioning as expected. The budget provides funds for replacement at the end of its typical useful life.

FUTURE MAINTENANCE	
YEAR	COST
4 (2025)	\$10,194
19 (2040)	\$17,325

Stn.51 12.1.1 Apparatus Bay - Refurbish

Finishes/Furnishings

Maintenance Cycle: 25 years

Next Maintenance: Year 14 (2035)

Quantity: 12,525 Square Feet

Unit Cost: \$5.09 / SF

Estimate: 12,525 SF X 100% X \$5.09/SF = \$63,752 + tax = \$70,190

2021 Notes: No new updates were reported.

Previous Notes: This component budgets funds to refurbish the approximately 7,380 sf Apparatus Bay and adjoining Comp Room, Disaster Storage, Equip Decon, Hose/Equip Stor, SCBA Maint, and Shop. Funds will most likely be focused on replacing ceiling tiles, updating the FRP wall panels, and resealing concrete flooring. This component is discretionary and should be updated in terms of timing and budget to meet the needs of the Station.

FUTURE MAINTENANCE	
YEAR	COST
14 (2035)	\$111,424

Stn.51 12.1.2 Admin Common Areas - Repaint

Finishes/Furnishings

Maintenance Cycle: 16 years

Next Maintenance: Year 5 (2026)

Quantity: 12,115 Square Feet

Unit Cost: \$1.32 / SF

Estimate: 12,115 SF X 100% X \$1.32/SF = \$15,992 + tax = \$17,610

2021 Notes: No new updates were reported.

Previous Notes: For the sake of the report, we refer to common areas on the first level as the EMS Exam & Storage, Hallways, Admin Kitchen, Storage, and Stairways since these areas will most likely be painted at the same time. The paint was in good overall condition.

FUTURE MAINTENANCE	
YEAR	COST
5 (2026)	\$20,613
21 (2042)	\$36,787

Stn.51 12.1.3 Exercise Room - Refurbish

Finishes/Furnishings

Maintenance Cycle: 20 years

Next Maintenance: Year 9 (2030)

Quantity: 1 Lump Sum

Unit Cost: \$3,060.00 / LS

Estimate: \$3,060

2021 Notes: No new updates were reported.

Previous Notes: This budget provides funds to periodically refurbish the exercise room finishes, including painting, mirrors, television monitors and rubberized flooring. We understand that equipment is maintained and purchased with funds from the maintenance budget. The 1300 sf room was clean and in good condition at the time of our site visit.

FUTURE MAINTENANCE	
YEAR	COST
9 (2030)	\$4,031
29 (2050)	\$8,748

Stn.51 12.1.4 Bunk Gear Storage - Refurbish

Finishes/Furnishings

Maintenance Cycle: 10 years

Next Maintenance: Year 3 (2024)

Quantity: 1 Lump Sum

Unit Cost: \$8,160.00 / LS

RESERVE CONSULTANTS LLC

2021 Notes: No new updates were reported.

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Previous Notes: The Bunk Gear Storage room is just off the Apparatus Bay and receives frequent traffic, but is well maintained. This component budgets funds to update finishes, storage furnishings, and to update the configuration of the 645 sf Bunk Gear Storage and Dry Closet area as needed.

YEAR	COST
3 (2024)	\$9,003
13 (2034)	\$12,455
23 (2044)	\$18,437

Stn.51 12.1.5 Admin Offices - Refurbish

Finishes/Furnishings

Maintenance Cycle: 16 years
Quantity: 1 Lump Sum
Estimate: \$25,480

Next Maintenance: Year 5 (2026)
Unit Cost: \$25,480.00 / LS

2021 Notes: No new updates were reported.

Previous Notes: For the purposes of this report, the 10,330 sf of administrative spaces on the first floor are referred to as the Admin Offices, including the Comp Systems, Conference Room, FP Conference, FP Workroom, 9 Offices, Reception, Records, Uniform Storage and the Workroom. This component budgets funds for repainting the trim and walls and for updating the furnishings.

FUTURE MAINTENANCE	
YEAR	COST
5 (2026)	\$29,825
21 (2042)	\$53,227

Stn.51 12.1.6 Lobby - Refurbish

Finishes/Furnishings

Maintenance Cycle: 15 years
Quantity: 1 Lump Sum
Estimate: \$20,390

Next Maintenance: Year 6 (2027)
Unit Cost: \$20,390.00 / LS

2021 Notes: No new updates were reported.

Previous Notes: This component budgets funds for updating finishes and furnishings in the Lobby, including the adjacent hallways and Vending Room, a total of approximately 3,595 sf. Funds are for refinishing the interior wood surfaces, updating the reception millwork facing the Lobby, painting the walls, as well as updating the art and furniture.

FUTURE MAINTENANCE	
YEAR	COST
6 (2027)	\$24,583
21 (2042)	\$42,594

Stn.51 12.1.7 Public Meeting Room - Refurbish

Finishes/Furnishings

Maintenance Cycle: 12 years
Quantity: 1 Lump Sum
Estimate: \$15,290

Next Maintenance: Year 1 (2022)
Unit Cost: \$15,290.00 / LS

2021 Notes: No new updates were reported.

Previous Notes: A large public meeting room includes room partitioning doors which allows the space to be divided into two. This component budgets funds for periodic updates to the kitchenettes, paint and furniture. Also included is maintenance to the partition doors, which we do not anticipate will need to be replaced in the next 30 years. The funds are not specifically allocated so that they may be applied to the greatest need. The room was in serviceable condition, though we understand that there have been some issues with furniture in the recent past. Updating the AV equipment is funded in a separate component, are the flooring updates.

FUTURE MAINTENANCE	
YEAR	COST
1 (2022)	\$15,902
13 (2034)	\$23,339
25 (2046)	\$37,366

Stn.51 12.1.8 Public & Admin Restrooms - Refurbish

Finishes/Furnishings

Maintenance Cycle: 20 years
Quantity: 7 Each
Estimate: 7 EA X 100% X \$2,545.74/EA = \$17,820 + tax = \$19,620

Next Maintenance: Year 9 (2030)
Unit Cost: \$2,545.74 / EA

2021 Notes: No new updates were reported.

RESERVE CONSULTANTS LLC restrooms are located on the first floor and receive moderate use. The restrooms were clean and well maintained. This budget provides funds for replacing fixtures, updating finishes and making major repairs. The flooring updates are budgeted in

FUTURE MAINTENANCE	
YEAR	COST
9 (2030)	\$25,848
29 (2050)	\$56,092



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a separate component.

Stn.51 12.2.1 Duty Crew Common Areas - Full Repaint

Finishes/Furnishings

Maintenance Cycle: 16 years

Next Maintenance: Year 7 (2028)

Quantity: 9,630 Square Feet

Unit Cost: \$1.32 / SF

Estimate: 9,630 SF X 100% X \$1.32/SF = \$12,712 + tax = \$14,000

2021 Notes: No new updates were reported.

Previous Notes: The common areas on the second floor include the hallways, Storage, Workroom, Stair and Quiet Area. All areas were in good condition overall. This component budgets for full repainting of these areas.

FUTURE MAINTENANCE	
YEAR	COST
7 (2028)	\$17,385
23 (2044)	\$31,632

Stn.51 12.2.2 Duty Crew Common Areas - Touchup Paint

Finishes/Furnishings

Maintenance Cycle: 16 years

Next Maintenance: Year 15 (2036)

Quantity: 9,630 Square Feet

Unit Cost: \$1.32 / SF

Estimate: 9,630 SF X 100% X \$1.32/SF = \$12,712 + tax = \$14,000

2021 Notes: No new updates were reported.

Previous Notes: The common areas on the second floor include the hallways, Storage, Workroom, Stair and Quiet Area. All areas were in good condition overall. Due to the heavy use in the Duty Crew areas, this component provides funds for touch up painting in these areas.

FUTURE MAINTENANCE	
YEAR	COST
15 (2036)	\$23,113

Stn.51 12.2.3 Duty Crew Sleep Room Interiors - Refurbish

Finishes/Furnishings

Maintenance Cycle: 10 years

Next Maintenance: Year 3 (2024)

Quantity: 9 Each

Unit Cost: \$2,546.17 / EA

Estimate: 9 EA X 100% X \$2,546.17/EA = \$22,916 + tax = \$25,230

2021 Notes: No new updates were reported.

Previous Notes: Nine sleep rooms are available for the Duty Crews' use. The rooms are simply furnished and were in good condition overall. This component budgets funds to repaint the walls and update the furnishings. The flooring replacement is budgeted in a separate component.

FUTURE MAINTENANCE	
YEAR	COST
3 (2024)	\$27,837
13 (2034)	\$38,511
23 (2044)	\$57,006

Stn.51 12.2.4 Duty Crew Kitchen Interiors - Refurbish

Finishes/Furnishings

Maintenance Cycle: 10 years

Next Maintenance: Year 9 (2030)

Quantity: 1 Lump Sum

Unit Cost: \$10,190.00 / LS

Estimate: \$10,190

2021 Notes: Refurbishing was completed in 2020 at a cost of \$10,000. More improvements totaling \$1500 are expected for 2022.

Previous Notes: This component provides funds to periodically update the walls, furniture, counters and cabinets in the Duty Crew kitchen, which we understand gets heavy use. The 980 sf area was clean and well maintained. Replacement of kitchen equipment is budgeted in a separate

FUTURE MAINTENANCE	
YEAR	COST
9 (2030)	\$13,425
19 (2040)	\$19,681
29 (2050)	\$29,132



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Stn.51 12.2.5 Duty Crew Laundry Interiors - Refurbish

Finishes/Furnishings

Maintenance Cycle: 10 years
Quantity: 1 Lump Sum
Estimate: \$2,040

Next Maintenance: Year 2 (2023)
Unit Cost: \$2,040.00 / LS

2021 Notes: Per the Station, the refurbishing planned for 2020 will be moved to 2023.

Previous Notes: A 345 sf laundry area is available on the second floor in the Duty Crew area. The budget is intended for replacing utility sinks, counters and cabinets, as well as painting wall surfaces. A separate component budgets funds for replacing the washing and drying equipment.

FUTURE MAINTENANCE	
YEAR	COST
2 (2023)	\$2,185
12 (2033)	\$2,994
22 (2043)	\$4,432

Stn.51 12.2.6 Duty Crew Office/Training Areas - Refurbish

Finishes/Furnishings

Maintenance Cycle: 15 years
Quantity: 1 Lump Sum
Estimate: \$6,120

Next Maintenance: Year 4 (2025)
Unit Cost: \$6,120.00 / LS

2021 Notes: No new updates were reported.

Previous Notes: The second floor has Duty Crew office and training area which will need periodic refurbishment of the wall paint and furniture. The areas are about 2,620 sf total.

FUTURE MAINTENANCE	
YEAR	COST
4 (2025)	\$6,955
19 (2040)	\$11,820

Stn.51 12.2.7 Duty Crew Restrooms - Refurbish

Finishes/Furnishings

Maintenance Cycle: 10 years
Quantity: 6 Each
Estimate: 6 EA X 100% X \$2,546.17/EA = \$15,277 + tax = \$16,820

Next Maintenance: Year 2 (2023)
Unit Cost: \$2,546.17 / EA

2021 Notes: Per the Station, next maintenance will be moved from 2020 to 2023.

Previous Notes: The second floor has two single occupant restrooms and a four stall shower/toilet adjacent to a double sink Lavatory Area. Similar to the first floor, the restrooms were found to be clean and well maintained. This budget provides funds for replacing fixtures, updating finishes and making major repairs. The flooring updates are budgeted in a separate component.

FUTURE MAINTENANCE	
YEAR	COST
2 (2023)	\$18,018
12 (2033)	\$24,687
22 (2043)	\$36,542

Stn.51 12.4.1 1st Floor Interior Carpet Flooring - Replace

Finishes/Furnishings

Maintenance Cycle: 24 years
Quantity: 704 Square Yards
Estimate: 704 SY X 100% X \$44.81/SY = \$31,551 + tax = \$34,740

Next Maintenance: Year 13 (2034)
Unit Cost: \$44.81 / SY

2021 Notes: No new updates were reported.

Previous Notes: There are twenty four rooms with carpet on the first floor of Station 51. We budget for replacement of the carpeting on a less frequent cycle than the Duty Crew areas due to less wear and tear these areas experience. Timing of the next replacement should be adjusted to meet the needs of the Station and tolerance to wear.

FUTURE MAINTENANCE	
YEAR	COST
13 (2034)	\$53,027

Stn.51 12.4.2 2nd Floor Interior Carpet Flooring - Replace

Finishes/Furnishings



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Maintenance Cycle: 16 years

Quantity: 507 Square Yards

Estimate: 507 SY X 100% X \$44.81/SY = \$22,724 + tax = \$25,020

Next Maintenance: Year 5 (2026)

Unit Cost: \$44.81 / SY

2021 Notes: No new updates were reported.

Previous Notes: A total of nineteen rooms have carpet on the 2nd floor, including hallways, workrooms, the classroom, sleep rooms and support areas. We budget to replace all of the carpet at once on the second floor for continuity of appearance.

FUTURE MAINTENANCE	
YEAR	COST
5 (2026)	\$29,287
21 (2042)	\$52,266

Stn.51 12.4.3 1st Floor Resilient Flooring - Replace

Finishes/Furnishings

Maintenance Cycle: 20 years

Quantity: 655 Square Feet

Estimate: 655 SF X 100% X \$3.26/SF = \$2,135 + tax = \$2,350

Next Maintenance: Year 9 (2030)

Unit Cost: \$3.26 / SF

2021 Notes: No new updates were reported.

Previous Notes: The restrooms closest to the Public Meeting room have resilient flooring. The flooring was wearing well; this component budgets funds for replacing the flooring at the end of its typical useful life.

FUTURE MAINTENANCE	
YEAR	COST
9 (2030)	\$3,096
29 (2050)	\$6,718

Stn.51 12.4.4 2nd Floor Resilient Flooring - Replace

Maintenance Cycle: 15 years

Quantity: 770 Square Feet

Estimate: 770 SF X 100% X \$3.26/SF = \$2,510 + tax = \$2,760

Next Maintenance: Year 4 (2025)

Unit Cost: \$3.26 / SF

2021 Notes: No new updates were reported.

Previous Notes: The restrooms, shower area and laundry room on the second floor have resilient flooring. We have budgeted for replacement on a shorter maintenance cycle than the restrooms on the first floor due to the higher use in the Duty Crew areas. The flooring in these areas appeared to be regularly maintained, with no issues reported.

FUTURE MAINTENANCE	
YEAR	COST
4 (2025)	\$3,137
19 (2040)	\$5,331

Stn.51 12.4.5 1st Floor Sheet Flooring - Replace

Finishes/Furnishings

Maintenance Cycle: 20 years

Quantity: 1,950 Square Feet

Estimate: 1,950 SF X 100% X \$15.28/SF = \$29,796 + tax = \$32,810

Next Maintenance: Year 9 (2030)

Unit Cost: \$15.28 / SF

2021 Notes: No new updates were reported.

Previous Notes: Welded seam rubber sheet flooring was specified in eleven rooms on the first level, including the EMS Exam room, workroom and support areas. Rubber treads are located on the stairwell treads. This component budgets funds for periodic replacement of these surfaces, which were in good condition.

FUTURE MAINTENANCE	
YEAR	COST
9 (2030)	\$43,225
29 (2050)	\$93,801

Stn.51 12.4.6 2nd Floor Sheet Flooring - Replace

Finishes/Furnishings

Maintenance Cycle: 15 years

Quantity: 2,510 Square Feet

Estimate: 2,510 SF X 100% X \$15.28/SF = \$38,353 + tax = \$42,230

Next Maintenance: Year 4 (2025)

Unit Cost: \$15.28 / SF



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2021 Notes: No new updates were reported.

Previous Notes: Welded seam rubber sheet flooring was specified in eight rooms on the second level, including the Kitchen, hallways, and support areas. Rubber treads are located on the stairwell treads. This component budgets funds for periodic replacement of these surfaces more frequently than areas with the same type of flooring on the first floor because they are more heavily trafficked. The areas observed appeared to be regularly maintained.

FUTURE MAINTENANCE	
YEAR	COST
4 (2025)	\$47,992
19 (2040)	\$81,562

Stn.51 12.4.7 1st Floor Stained Concrete - Refurbish

Finishes/Furnishings

Maintenance Cycle: 12 years

Next Maintenance: Year 1 (2022)

Quantity: 510 Square Feet

Unit Cost: \$27.50 / SF

Estimate: 510 SF X 100% X \$27.50/SF = \$14,025 + tax = \$15,440

2021 Notes: No new updates were reported.

Previous Notes: Stained concrete surfaces are located in the Lobby, some hallways and in front of the kitchenettes in the Public Meeting Room. This component provides funds to refurbish the flooring surface to keep these high use areas in optimal condition. They were wearing well, with no issues reported.

FUTURE MAINTENANCE	
YEAR	COST
1 (2022)	\$16,058
13 (2034)	\$23,568
25 (2046)	\$37,733

Stn.51 12.6.1 Elevator Cab Interior - Remodel

Finishes/Furnishings

Maintenance Cycle: 40 years

Next Maintenance: Year 29 (2050)

Quantity: 1 Lump Sum

Unit Cost: \$6,120.00 / LS

Estimate: \$6,120

2021 Notes: No new updates were reported.

Previous Notes: Remodeling the elevator cab is reportedly a low priority for the Station. We budget funds for updating the cab interiors in conjunction with major elevator maintenance. The finishes inside the cab are wearing well.

FUTURE MAINTENANCE	
YEAR	COST
29 (2050)	\$17,497

Stn.51 14.1.1 Elevator - Major Upgrades

Elevator

Maintenance Cycle: 40 years

Next Maintenance: Year 29 (2050)

Quantity: 1 Lump Sum

Unit Cost: \$127,420.00 / LS

Estimate: \$127,420

2021 Notes: No new updates were reported.

Previous Notes: The elevator is on a full service contract that keeps it operational at all times. The allowance is intended to cover the cost of major repairs and replacements not covered under a typical full service contract, such as control replacement, pump replacement and hydraulic cylinder replacement. During our visit the elevator's mechanical equipment was in proper working order with no problems being noted. We recommend that the Station discuss future maintenance needs with the elevator service provider to better understand the timing and cost of future major maintenance that is outside the regular maintenance contract.

FUTURE MAINTENANCE	
YEAR	COST
29 (2050)	\$364,283

Stn.51 14.1.2 Elevators - 5 Year Load Test

Elevator

Maintenance Cycle: 5 years

Next Maintenance: Year 5 (2026)

Quantity: 1 Lump Sum

Unit Cost: \$5,610.00 / LS

Estimate: \$5,610

2021 Notes: The work was completed in 2021.

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Previous Notes: This component budgets for the Five-Year Safety Test for elevators mandated by the Washington State Department of Labor and Industries. The test evaluates the overspeed

FUTURE MAINTENANCE	
YEAR	COST
5 (2026)	\$6,567



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rupture valve and the plunger gripper per code requirements. This test is not typically covered under maintenance contracts and has an average cost of about \$5,000 per elevator cab to complete.

10 (2031)	\$7,613
15 (2036)	\$9,262
20 (2041)	\$11,268
25 (2046)	\$13,710

Repeat Every 5 Years

Stn.51 15.2.1 Plumbing System - Contingency

Life Safety

Maintenance Cycle: 5 years

Quantity: 1 Lump Sum

Estimate: \$5,100

Next Maintenance: Year 3 (2024)

Unit Cost: \$5,100.00 / LS

2021 Notes: No new updates were reported.

Previous Notes: The supply plumbing is copper; its useful life should exceed the scope of this report. The Station has experienced some issues with pin hole leaks, which is not uncommon with copper plumbing. We carry a contingency to deal with periodic plumbing supply and drain line issues as they arise.

FUTURE MAINTENANCE

YEAR	COST
3 (2024)	\$5,627
8 (2029)	\$6,523
13 (2034)	\$7,785
18 (2039)	\$9,471
23 (2044)	\$11,523

Repeat Every 5 Years

Stn.51 15.2.2 Plumbing Supply Lines - Replace

Life Safety

Maintenance Cycle: 60 years

Quantity: 1 Lump Sum

Estimate: \$61,160

Next Maintenance: Year 49 (2070)

Unit Cost: \$61,160.00 / LS

2021 Notes: No new updates were reported.

Previous Notes: It was reported that some pin hole leaks have been experienced by the Station since construction was completed in 2011. It is our understanding that the quality of contemporary copper supply lines is not as high as that of copper used in the past. In addition, the circulating hot water system could promote a shorter useful life of the supply system. Therefore, a budget to replace the supply lines with PEX, or its equivalent, is budgeted once the system has been in service for 60 years. The cost will vary greatly on what supply lines are used at the time of replacement, accessibility to the lines, etc. This component is intended to help financially prepare the Station for the future expense, with the intention that the pricing will be refined as replacement is in a 5 - 10 year frame.

FUTURE MAINTENANCE

YEAR	COST

Stn.51 15.3.1 Irrigation System - Contingency

Life Safety

Maintenance Cycle: 10 years

Quantity: 12 Zones

Estimate: 12 ZN X 100% X \$794.73/ZN = \$9,537 + tax = \$10,500

Next Maintenance: Year 8 (2029)

Unit Cost: \$794.73 / ZN

2021 Notes: No new updates were reported.

Previous Notes: There are approximately twelve zones associated with the drip system. In 2019 one controller was replaced. This component allocates funds for major maintenance of the irrigation system, beyond what is handled by the landscaping maintenance crew and/or from funds from the operating budget, such as selective repairs to sections of plumbing, replacing controllers or timers. The estimated costs would not be sufficient to replace the entire system.

FUTURE MAINTENANCE

YEAR	COST
8 (2029)	\$13,430
18 (2039)	\$19,500
28 (2049)	\$28,864

Stn.51 15.3.2 Storm Water System - Contingency

Maintenance Cycle: 3 years

Quantity: 1 Lump Sum

Estimate: \$5,100

Next Maintenance: Year 1 (2022)

Unit Cost: \$5,100.00 / LS

2021 Notes: No new updates were reported.

Previous Notes: It was reported that there are nine organic filters that need periodic replacement. This budget covers the cost to replace the filters and complete other maintenance to the
 RESERVE CONSULTANTS LLC tions to site drainage and upkeep of the detention as needed.

FUTURE MAINTENANCE

YEAR	COST
1 (2022)	\$5,304
4 (2025)	\$5,796
7 (2028)	\$6,333
10 (2031)	\$6,921



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13 (2034) | \$7,785
Repeat Every 3 Years

Stn.51 15.4.1 Fire Detection System - Maintenance

Life Safety

Maintenance Cycle: 5 years

Quantity: 1 Lump Sum

Estimate: \$2,550

Next Maintenance: Year 3 (2024)

Unit Cost: \$2,550.00 / LS

2021 Notes: No new updates were reported.

Previous Notes: The fire detection system repair allowance is intended to financially prepare the Station to maintain the fire detection and related systems, including smoke and CO sensors, alarms, exit signage and emergency egress fixtures.

FUTURE MAINTENANCE	
YEAR	COST
3 (2024)	\$2,814
8 (2029)	\$3,262
13 (2034)	\$3,892
18 (2039)	\$4,736
23 (2044)	\$5,762
Repeat Every 5 Years	

Stn.51 15.4.2 Fire Sprinkler System - Maintenance

Life Safety

Maintenance Cycle: 15 years

Quantity: 1 Lump Sum

Estimate: \$8,160

Next Maintenance: Year 4 (2025)

Unit Cost: \$8,160.00 / LS

2021 Notes: No new updates were reported.

Previous Notes: The building has a wet sprinkler system throughout the occupied building. The system will occasionally need piping and sprinkler head repairs. This component provides a maintenance contingency for such repairs, though no issues were reported at the time of our site visit.

FUTURE MAINTENANCE	
YEAR	COST
4 (2025)	\$9,273
19 (2040)	\$15,760

Stn.51 15.5.1 Water Heater - Contingency

Life Safety

Maintenance Cycle: 20 years

Quantity: 2 Each

Estimate: 2 EA X 100% X \$7,538.60/EA = \$15,077 + tax = \$16,600

Next Maintenance: Year 9 (2030)

Unit Cost: \$7,538.60 / EA

2021 Notes: No new updates were reported.

Previous Notes: The Station has two Phoenix 80 gallon direct vent ultra-high efficiency gas hot water heaters on a circulating water system to provide hot water on demand. We anticipate that necessary repairs to the circulating pumps will be infrequent and inexpensive enough to handle through the operating budget. It was reported that the circulating pumps were replaced in 2019. This component provides funds for periodic replacement of the hot water heaters and associated expansion tanks.

FUTURE MAINTENANCE	
YEAR	COST
9 (2030)	\$21,870
29 (2050)	\$47,458

Stn.51 15.6.1 Heat Recovery Unit - Replace

Life Safety

Maintenance Cycle: 25 years

Quantity: 1 Each

Estimate: 1 EA X 100% X \$12,225.25/EA = \$12,225 + tax = \$13,460

Next Maintenance: Year 14 (2035)

Unit Cost: \$12,225.25 / EA

2021 Notes: No new updates were reported.

Previous Notes: A gas Aeon Bunker Gear heat recovery rooftop unit was specified for Station 51. Since the unit is located on the rooftop, replacement of the unit will require extra effort, with the possibility that a crane may be necessary to remove and replace the equipment. We budget for total replacement of the unit at the end of its typical useful life, when major repairs are no longer feasible.

FUTURE MAINTENANCE	
YEAR	COST
14 (2035)	\$21,367



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Stn.51 15.6.2 Indirect Makeup AHU - Replace

Life Safety

Maintenance Cycle: 20 years

Quantity: 1 Each

Estimate: 1 EA X 100% X \$9,164.40/EA = \$9,164 + tax = \$10,090

Next Maintenance: Year 9 (2030)

Unit Cost: \$9,164.40 / EA

2021 Notes: No new updates were reported.

Previous Notes: Aeon RN-016 indirect makeup air handling unit is located in the rooftop HVAC well. Since the unit is located on the rooftop, replacement of the unit will require extra effort, with the possibility that a crane may be necessary to remove and replace the equipment. We budget for total replacement of the unit at the end of its typical useful life, when major repairs are no longer feasible.

FUTURE MAINTENANCE

YEAR	COST
9 (2030)	\$13,293
29 (2050)	\$28,846

Stn.51 15.6.3 Furnace - Replace

Life Safety

Maintenance Cycle: 20 years

Quantity: 1 Each

Estimate: 1 EA X 100% X \$2,034.51/EA = \$2,035 + tax = \$2,240

Next Maintenance: Year 9 (2030)

Unit Cost: \$2,034.51 / EA

2021 Notes: No new updates were reported.

Previous Notes: A Reznor SDH-100 furnace was specified for the Station. The system was operational at the time of our visit. We budget for major repairs or replacement of the system at the end of its anticipated useful life.

FUTURE MAINTENANCE

YEAR	COST
9 (2030)	\$2,951
29 (2050)	\$6,404

Stn.51 15.6.4 VRF Heat Pump - Contingency

Life Safety

Maintenance Cycle: 6 years

Quantity: 40 Each

Estimate: 40 EA X 33% X \$1,355.52/EA = \$17,893 + tax = \$19,700

Next Maintenance: Year 4 (2025)

Unit Cost: \$1,355.52 / EA

2021 Notes: No new updates were reported.

Previous Notes: A Mitsubishi VRF heat pump split system with 35 interior units and five exterior units was specified for the Station. It was reported that the system has not been functioning as expected, though a solution was not known at the time of the report. Three motherboards have been replaced; approximately \$3,500 has been spent in 2019 on miscellaneous repairs. This component budgets funds to replace up to 33% of the units each maintenance cycle since it is unlikely that all of the units will be replaced at once.

FUTURE MAINTENANCE

YEAR	COST
4 (2025)	\$22,388
10 (2031)	\$26,732
16 (2037)	\$33,825
22 (2043)	\$42,799
28 (2049)	\$54,155

Stn.51 15.6.5 HVAC System - Contingency

Life Safety

Maintenance Cycle: 5 years

Quantity: 1 Lump Sum

Estimate: \$5,100

Next Maintenance: Year 3 (2024)

Unit Cost: \$5,100.00 / LS

2021 Notes: No new updates were reported.

Previous Notes: This component provides a contingency for HVAC components not specifically listed, such as the Markel H3483 ceiling electric heater, five branch circuit controllers, eight electric duct heaters, and two Markle P-125 Radiant ceiling heat panels in the EMS storage room that were specified for the Station. It was reported that the HVAC system has not been performing as expected, and that two blowers were replaced in 2019 at a cost of \$1,200.

FUTURE MAINTENANCE

YEAR	COST
3 (2024)	\$5,627
8 (2029)	\$6,523
13 (2034)	\$7,785
18 (2039)	\$9,471
23 (2044)	\$11,523

Repeat Every 5 Years



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Estimate: 6 EA X 100% X \$2,341.81/EA = \$14,051 + tax = \$15,470

2021 Notes: No new updates were reported.

Previous Notes: There are six Roberts Gordon Vantage II infrared heaters in the Apparatus Bay. No issues were reported; the budget provides funds for total replacement at the end of their typical useful life.

FUTURE MAINTENANCE	
YEAR	COST
9 (2030)	\$20,381
29 (2050)	\$44,227

Stn.51 15.7.1 Exhaust Fans - Contingency

Life Safety

Maintenance Cycle: 5 years

Next Maintenance: Year 3 (2024)

Quantity: 14 Each

Unit Cost: \$1,527.54 / EA

Estimate: 14 EA X 33% X \$1,527.54/EA = \$7,057 + tax = \$7,770

2021 Notes: No new updates were reported.

Previous Notes: There are thirteen exhaust fans located throughout Station 51 and a specialized exhaust removal system is in the Apparatus Bay. This budget establishes a repair contingency to ensure that the system has funding to keep it in optimal condition. The budget reflects anticipated costs to repair up to 33% of the system each maintenance cycle, including vent hoods on the exterior of the building. Typically, exhaust systems are maintained, rather than removed and replaced within a 30 year timeframe.

FUTURE MAINTENANCE	
YEAR	COST
3 (2024)	\$8,573
8 (2029)	\$9,938
13 (2034)	\$11,860
18 (2039)	\$14,430
23 (2044)	\$17,556
Repeat Every 5 Years	

Stn.51 16.3.1 Electrical System - Contingency

Life Safety

Maintenance Cycle: 10 years

Next Maintenance: Year 8 (2029)

Quantity: 1 Lump Sum

Unit Cost: \$5,100.00 / LS

Estimate: \$5,100

2021 Notes: No new updates were reported.

Previous Notes: Once the electrical system has been in service 20 years we typically recommend an electrical preventative maintenance inspection and service on all panels every three years. This component provides a contingency to address future preventative maintenance inspections, and any other electrical system issue that may arise. The electrical meter bases are housed on the interior of the building, so we do not anticipate that they will need to be replaced in the next 30 years.

FUTURE MAINTENANCE	
YEAR	COST
8 (2029)	\$6,523
18 (2039)	\$9,471
28 (2049)	\$14,020

Stn.51 16.5.1 Emergency Generator - Replace

Life Safety

Maintenance Cycle: 30 years

Next Maintenance: Year 19 (2040)

Quantity: 1 Each

Unit Cost: \$18,328.79 / EA

Estimate: 1 EA X 100% X \$18,328.79/EA = \$18,329 + tax = \$20,180

2021 Notes: No new updates were reported.

Previous Notes: A Detroit diesel generator with a 1,000 gallon fuel tank provides the Station with power in the event of a power failure. The system is reportedly tested regularly and has engaged during power outages in the past. Since the generator provides power to a critical emergency service, we budget for replacement once the generator has been in service 30 years. The system may remain serviceable longer with regular maintenance and intermittent use.

FUTURE MAINTENANCE	
YEAR	COST
19 (2040)	\$38,975

Stn.51 16.5.2 Generator Fuel Tank - Replace

Life Safety

Maintenance Cycle: 30 years

Next Maintenance: Year 19 (2040)

Quantity: 1 Each

Unit Cost: \$8,147.14 / EA

Estimate: 1 EA X 100% X \$8,147.14/EA = \$8,147 + tax = \$8,970

2021 Notes: No new updates were reported.



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Previous Notes: The fuel tank for the generator is located in the elements and will periodically need to be replaced. Since it is a critical component of the emergency generator system, we have budgeted for its replacement when it has been in service 30 years.

YEAR	COST
19 (2040)	\$17,325

Stn.51 16.6.1 Exterior Light Fixtures - Replace

Life Safety

Maintenance Cycle: 10 years
Quantity: 1 Lump Sum
Estimate: \$10,190

Next Maintenance: Year 9 (2030)
Unit Cost: \$10,190.00 / LS

2021 Notes: The exterior light fixtures were replaced in 2020, including an upgrade, totaling \$32,000. Future replacements will likely not include this same upgrade and therefore, the cost will remain unchanged for future planning.

FUTURE MAINTENANCE	
YEAR	COST
9 (2030)	\$13,425
19 (2040)	\$19,681
29 (2050)	\$29,132

Previous Notes: There are a variety of exterior light fixtures associated with Station 51, including light bollards, stair lighting (which we understand is not currently functioning), building mounted fixtures and pole mounted fixtures in the parking area. It was reported that some of the lamps needed for some of the building mounted fixtures are no longer available; these fixtures will need to be replaced within the next year or so. Since all of the fixtures will not be replaced at once, we budget a lump sum each repair cycle to address the lighting fixtures that need to be updated or replaced. There are approximately 40 exterior light fixtures total.

Stn.51 16.8.1 Fire Control Panel - Replace

Life Safety

Maintenance Cycle: 20 years
Quantity: 1 Each
Estimate: 1 EA X 100% X \$3,460.49/EA = \$3,460 + tax = \$3,810

Next Maintenance: Year 9 (2030)
Unit Cost: \$3,460.49 / EA

2021 Notes: No new updates were reported.

FUTURE MAINTENANCE	
YEAR	COST
9 (2030)	\$5,019
29 (2050)	\$10,892

Previous Notes: The Station has one EST fire alarm control panel that is regularly inspected. We do not anticipate that any major maintenance will be required. The budget is for replacement of the panel at the end of its useful life.

Stn.51 16.9.1 Audio/Visual Equipment - Upgrades

Life Safety

Maintenance Cycle: 15 years
Quantity: 1 Lump Sum
Estimate: \$78,490

Next Maintenance: Year 4 (2025)
Unit Cost: \$78,490.00 / LS

2021 Notes: No new updates were reported.

FUTURE MAINTENANCE	
YEAR	COST
4 (2025)	\$89,199
19 (2040)	\$151,594

Previous Notes: An estimate was provided for upgrades to the current system, which is not up to current standards. The bid includes costs for "Head End" equipment at \$42,641.37 and projection system replacement at \$18,329.07, with an additional \$16,000 needed to upgrade the upstairs training room. We understand that this work will likely be completed by the end of 2020.

Stn.51 17.1.1 Fireblast 451 - Maintenance

Life Safety

Maintenance Cycle: 10 years
Quantity: 1 Lump Sum
Estimate: \$10,190

Next Maintenance: Year 9 (2030)
Unit Cost: \$10,190.00 / LS

2021 Notes: This was completed in 2020.

FUTURE MAINTENANCE	
YEAR	COST
9 (2030)	\$13,425
19 (2040)	\$19,681

RESERVE CONSULTANTS LLC live fire burn prop that utilizes a propane tank for training drills. This component provides funds for major repairs and periodic upgrades as needed.



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29 (2050) | \$29,132

Stn.51 18.1.1 Security / Surveillance System - Replace

Security

Maintenance Cycle: 10 years

Next Maintenance: Year 1 (2022)

Quantity: 1 Lump Sum

Unit Cost: \$16,310.00 / LS

Estimate: \$16,310

2021 Notes: At the request of the station, the next maintenance will be planned for 2022.

Previous Notes: This year or next there are plans to install one additional keypad and 7 cameras, as well as upgrades to the software and hardware. There are currently six keypads on site. We maintain a budget for future upgrades to the system as components wear out and/or become obsolete.

FUTURE MAINTENANCE	
YEAR	COST
1 (2022)	\$16,962
11 (2032)	\$23,017
21 (2042)	\$34,071

Stn.57 2.6.1 Asphalt Paving - Repair

Site

Maintenance Cycle: 6 years

Next Maintenance: Year 1 (2022)

Quantity: 9,180 Square Feet

Unit Cost: \$8.15 / SF

Estimate: 9,180 SF X 5% X \$8.15/SF = \$3,741 + tax = \$4,120

2021 Notes: At the request of the station, the next maintenance will be planned for 2022.

Previous Notes: The asphalt pavement of the parking areas and driveway appeared to be in good condition overall, with no broken or sunken areas of asphalt noted. The asphalt walkway along Brookside Blvd NE seemed even with no visible root intrusion damage causing trip hazards. The budget provides funds to repair up to 5% of the total asphalt pavement. Considering the current condition of the asphalt pavement we do not include a budget for asphalt overlay.

FUTURE MAINTENANCE	
YEAR	COST
1 (2022)	\$4,285
7 (2028)	\$5,116
13 (2034)	\$6,289
19 (2040)	\$7,957
25 (2046)	\$10,069

Stn.57 2.6.2 Asphalt Pavement- Seal Coat & Restripe

Site

Maintenance Cycle: 6 years

Next Maintenance: Year 1 (2022)

Quantity: 9,180 Square Feet

Unit Cost: \$0.51 / SF

Estimate: 9,180 SF X 100% X \$0.51/SF = \$4,682 + tax = \$5,150

2021 Notes: At the request of the station, the next maintenance will be planned for 2022.

Previous Notes: Last seal coated and restriped in 2012, the seal coat seemed to be performing well and the striping was clearly visible. We recommend that the Station regularly repair and seal coat the asphalt to help prevent water intrusion, which could degrade the subgrade. Over a period of time water intrusion can lead to "alligatoring" and delamination of the asphalt surface. The budget provides funds to seal coat and restripe the asphalt pavement every six years in conjunction with asphalt paving repairs.

FUTURE MAINTENANCE	
YEAR	COST
1 (2022)	\$5,356
7 (2028)	\$6,395
13 (2034)	\$7,861
19 (2040)	\$9,947
25 (2046)	\$12,586

Stn.57 2.7.4 Privacy Wood Fence - Replace

Site

Maintenance Cycle: 15 years

Next Maintenance: Year 8 (2029)

Quantity: 120 Linear Feet

Unit Cost: \$46.85 / LF

Estimate: 120 LF X 100% X \$46.85/LF = \$5,622 + tax = \$6,190

2021 Notes: No new updates were reported.

Previous Notes: The privacy wood fence sits atop a concrete retaining wall located at the north side of the property. Another wood fence section creates a privacy screen around the back-patio area. Both fences appeared to be stable and in good condition. The budget maintains funds to replace the wood fence sections when they have reached the approximate end of their useful life. We do not have a budget for the wood fence sections that will need to be replaced within the next 30 years.

FUTURE MAINTENANCE	
YEAR	COST
8 (2029)	\$7,917
23 (2044)	\$13,986



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Stn.57 2.7.5 Chain-link Fence - Repair

Site

Maintenance Cycle: 40 years

Next Maintenance: Year 18 (2039)

Quantity: 205 Linear Feet

Unit Cost: \$19.32 / LF

Estimate: 205 LF X 100% X \$19.32/LF = \$3,961 + tax = \$4,360

2021 Notes: No new updates were reported.

Previous Notes: A vinyl coated six foot chain-link fence secures the Lyon Creek wetland area located at the northeast side of the property. The fence appeared to be stable and in good condition. The budget saves for replacing the chain-link fence when it has reached the approximate end of its useful life. Repairs should be paid with funds from the operating budget.

FUTURE MAINTENANCE

YEAR	COST
18 (2039)	\$8,097

Stn.57 2.9.2 Landscaping - Maintenance

Site

Maintenance Cycle: 8 years

Next Maintenance: Year 6 (2027)

Quantity: 1 Lump Sum

Unit Cost: \$5,100.00 / LS

Estimate: \$5,100

2021 Notes: No new updates were reported.

Previous Notes: This component provides funds for periodic large landscaping projects, such as removing and replacing overgrown plants or large tree pruning. Regular landscaping maintenance is paid for with funds from the operating budget. The budget saves a lump sum amount to be drawn from as needed.

FUTURE MAINTENANCE

YEAR	COST
6 (2027)	\$6,149
14 (2035)	\$8,096
22 (2043)	\$11,080
30 (2051)	\$15,164

Stn.57 2.9.3 Wetland - Maintenance

Site

Maintenance Cycle: 15 years

Next Maintenance: Year 13 (2034)

Quantity: 1 Lump Sum

Unit Cost: \$10,190.00 / LS

Estimate: \$10,190

2021 Notes: No new updates were reported.

Previous Notes: Wetlands are protected environments that require specialized maintenance. Qualified professionals are required to inspect and repair critical structural features such as embankments, outlets, pipes and risers. Other considerations include removing accumulated sediment, removal of trash and invasive plants. This component budgets funds for periodic inspections, permits and maintenance of the wetland area adjacent to Station 57.

FUTURE MAINTENANCE

YEAR	COST
13 (2034)	\$15,554
28 (2049)	\$28,012

Stn.57 3.3.3 Exterior Concrete Paving - Repair

Concrete

Maintenance Cycle: 6 years

Next Maintenance: Year 2 (2023)

Quantity: 1,730 Square Feet

Unit Cost: \$8.56 / SF

Estimate: 1,730 SF X 20% X \$8.56/SF = \$2,962 + tax = \$3,260

2021 Notes: No new updates were reported.

Previous Notes: The concrete pavement of the walkways and patio seemed to be in good condition. In 2017 concrete sections were slab jacked to remove trip hazards. We budget to repair up to 20% of the concrete walkways and curbs each repair cycle. We recommend grinding or cutting the concrete to resolve trip hazards where possible. Cracks, spalling and/or damaged areas that cannot be corrected by grinding are intended to be covered by this component.

FUTURE MAINTENANCE

YEAR	COST
2 (2023)	\$3,492
8 (2029)	\$4,170
14 (2035)	\$5,175
20 (2041)	\$6,548
26 (2047)	\$8,286

Stn.57 6.1.2 Garbage Bin Enclosure - Contingency

Ext Envelope



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Maintenance Cycle: 20 years
Quantity: 1 Lump Sum
Estimate: \$1,530

Next Maintenance: Year 18 (2039)
Unit Cost: \$1,530.00 / LS

2021 Notes: No new updates were reported.

Previous Notes: The dumpster enclosure has three six-foot brick walls with a front-closing wood gate. The budget allocates funds to replace the wood gate only. Brick repairs of the dumpster walls may be addressed as needed in conjunction with the brick siding maintenance.

FUTURE MAINTENANCE	
YEAR	COST
18 (2039)	\$2,841

Stn.57 6.4.5 Brick Siding - Maintenance

Ext Envelope

Maintenance Cycle: 20 years
Quantity: 4,860 Square Feet
Estimate: 4,860 SF X 10% X \$24.44/SF = \$11,878 + tax = \$13,080

Next Maintenance: Year 8 (2029)
Unit Cost: \$24.44 / SF

2021 Notes: No new updates were reported.

Previous Notes: The brick siding of the station building appeared to be in good condition, with no visible staining, efflorescence or cracking noted. The reserve allowance is intended for periodic repairs and tuck-pointing of the brick façades with a budget to address up to 10% of the maintenance each repair cycle.

FUTURE MAINTENANCE	
YEAR	COST
8 (2029)	\$16,730
28 (2049)	\$35,956

Stn.57 7.3.2 Gutters & Downspouts - Replace

Ext Envelope

Maintenance Cycle: 20 years
Quantity: 511 Linear Feet
Estimate: 511 LF X 100% X \$5.72/LF = \$2,923 + tax = \$3,220

Next Maintenance: Year 11 (2032)
Unit Cost: \$5.72 / LF

2021 Notes: No new updates were reported.

Previous Notes: The component saves for replacing the gutters and downspouts when they have reached the approximate end of their useful life. The facility representative indicated the gutters are covered by screens.

FUTURE MAINTENANCE	
YEAR	COST
11 (2032)	\$4,544

Stn.57 7.4.7 Metal Roof - Replace

Ext Envelope

Maintenance Cycle: 40 years
Quantity: 70 Roofing Squares
Estimate: 70 SQ X 100% X \$794.34/SQ = \$55,604 + tax = \$61,220

Next Maintenance: Year 11 (2032)
Unit Cost: \$794.34 / SQ

2021 Notes: No new updates were reported.

Previous Notes: The metal roof appeared to be clean and in good condition overall. The roof is original to the building with an install date of 1992. We budget for a complete roof replacement. As the roof nears the end of its useful life the year for replacement may be adjusted according to how well the roof is performing

FUTURE MAINTENANCE	
YEAR	COST
11 (2032)	\$86,396

Stn.57 7.4.8 Roof Inspection & Minor Repair

Ext Envelope

Maintenance Cycle: 5 years
Quantity: 70 Roofing Squares
Estimate: 70 SQ X 5% X \$794.08/SQ = \$2,779 + tax = \$3,060

Next Maintenance: Year 5 (2026)
Unit Cost: \$794.08 / SQ



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2021 Notes: This work was completed as planned in 2021.

Previous Notes: We include a budget for regular roof inspections and repairs as needed with a budget equal to 5% of the total replacement. Due to the considerable damage potential a leaking roof can cause, we recommend regular cleanings and inspections to maintain the integrity of the weatherproof membrane, flashing and joints.

FUTURE MAINTENANCE	
YEAR	COST
5 (2026)	\$3,582
10 (2031)	\$4,152
15 (2036)	\$5,052
20 (2041)	\$6,146
25 (2046)	\$7,478

Stn.57 8.2.8 Common Doors & Hardware - Maintenance

Ext Envelope

Maintenance Cycle: 10 years

Quantity: 31 Each

Estimate: 31 EA X 15% X \$660.20/EA = \$3,070 + tax = \$3,380

Next Maintenance: Year 10 (2031)

Unit Cost: \$660.20 / EA

2021 Notes: The Station feels the common doors and hardware are in good working order and therefore maintenance will be moved from 2024 to 2031.

Previous Notes: Since is it unlikely that the station will need to replace all of the common doors and hardware at once, we budget a maintenance contingency to replace about four doors and hardware sets every maintenance cycle. We anticipate that the funds will be used as needed to keep the doors secure and operational at all times.

FUTURE MAINTENANCE	
YEAR	COST
10 (2031)	\$4,587
20 (2041)	\$6,789
30 (2051)	\$10,050

Stn.57 8.2.6 Overhead Bay Door - Replace

Ext Envelope

Maintenance Cycle: 20 years

Quantity: 5 Each

Estimate: 5 EA X 100% X \$1,055.40/EA = \$5,277 + tax = \$5,810

Next Maintenance: Year 8 (2029)

Unit Cost: \$1,055.40 / EA

2021 Notes: No new updates were reported.

Previous Notes: The Apparatus Bay is secured by five 14-foot tall sectional overhead bay doors with pane windows. The budget provides funds to replace the doors when they have reached the approximate end of their useful life. Funds may be drawn from as needed to keep the doors and associated hardware, such as springs, functional at all times.

FUTURE MAINTENANCE	
YEAR	COST
8 (2029)	\$7,431
28 (2049)	\$15,971

Stn.57 8.2.7 Bay Door Operator - Contingency

Ext Envelope

Maintenance Cycle: 20 years

Quantity: 5 Each

Estimate: 5 EA X 100% X \$10,185.29/EA = \$50,926 + tax = \$56,070

Next Maintenance: Year 18 (2039)

Unit Cost: \$10,185.29 / EA

2021 Notes: No new updates were reported.

Previous Notes: The Apparatus Bay sectional overhead doors are operated by gearhead trolley-style operators. The operators were reported to be functioning properly. The budget provides funds to replace five bay door operators.

FUTURE MAINTENANCE	
YEAR	COST
18 (2039)	\$104,128

Stn.57 8.3.3 Storefront System - Maintenance

Ext Envelope

Maintenance Cycle: 10 years

Quantity: 5 Each

Estimate: 5 EA X 100% X \$3,564.03/EA = \$17,820 + tax = \$19,620

Next Maintenance: Year 8 (2029)

Unit Cost: \$3,564.03 / EA

2021 Notes: No new updates were reported.

Previous Notes: The aluminum framed glass entry door and windows seemed to be sturdy and in good condition. No issues with functionality were reported. The budget provides funds to repair or

FUTURE MAINTENANCE	
YEAR	COST
8 (2029)	\$25,095



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replace sections of the system and replace door hardware as needed.

18 (2039)	\$36,436
28 (2049)	\$53,935

Stn.57 8.5.2 Aluminum Framed Windows - Replace

Ext Envelope

Maintenance Cycle: 45 years

Quantity: 1 Lump Sum

Estimate: \$30,580

Next Maintenance: Year 16 (2037)

Unit Cost: \$30,580.00 / LS

2021 Notes: No new updates were reported.

Previous Notes: The component provides funds for window glazing and frame replacement once the fifteen windows on the building have been in service approximately 45 years. The Station has about five windows that are over eight feet wide. We have allocated additional funds for the replacement of the oversized windows. Windows are typically replaced because they are not operating properly, to update their appearance and/or to capture better energy efficiency. We expect that failed insulated glazing units will be replaced as needed with funds from the operating budget.

FUTURE MAINTENANCE	
YEAR	COST
16 (2037)	\$52,506

Stn.57 9.8.5 Front Entry Steel Framed Structure - Paint

Ext Envelope

Maintenance Cycle: 10 years

Quantity: 128 Linear Feet

Estimate: 128 LF X 100% X \$16.25/LF = \$2,080 + tax = \$2,290

Next Maintenance: Year 2 (2023)

Unit Cost: \$16.25 / LF

2021 Notes: No new updates were reported.

Previous Notes: The paint of the front entry steel framed structure seemed to be in good condition. The budget allows for painting the exterior metal periodically. We recommend maintaining a regular paint cycle to protect the exterior metal from moisture damage, which should help the structure achieve its expected useful life. The glazing panes at the top of the structure should be maintained with funds from the operating budget.

FUTURE MAINTENANCE	
YEAR	COST
2 (2023)	\$2,453
12 (2033)	\$3,361
22 (2043)	\$4,975

Stn.57 10.4.2 Exterior Signage - Refurbish

Specialties

Maintenance Cycle: 15 years

Quantity: 1 Lump Sum

Estimate: \$2,550

Next Maintenance: Year 10 (2031)

Unit Cost: \$2,550.00 / LS

2021 Notes: No new updates were reported.

Previous Notes: The large metal station number signage was installed in 2016. The budget provides funds to clean and repaint the numbers and lettering periodically.

FUTURE MAINTENANCE	
YEAR	COST
10 (2031)	\$3,460
25 (2046)	\$6,232

Stn.57 11.4.3 Kitchen Equipment - Contingency

Equipment

Maintenance Cycle: 5 years

Quantity: 5 Each

Estimate: 5 EA X 50% X \$5,093.55/EA = \$12,734 + tax = \$14,020

Next Maintenance: Year 6 (2027)

Unit Cost: \$5,093.55 / EA

2021 Notes: No new updates were reported.

Previous Notes: The Station kitchen equipment includes a Viking four burner gas range, an undercounter dishwasher, and three refrigerators. The budget allows for the purchase of up to two units. The budget also allows for the replacement of equipment reported to be functioning properly at the time of

FUTURE MAINTENANCE	
YEAR	COST
6 (2027)	\$16,903
11 (2032)	\$19,786
16 (2037)	\$24,072
21 (2042)	\$29,288



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26 (2047) | \$35,633

Stn.57 11.6.4 Laundry Equipment - Contingency

Equipment

Maintenance Cycle: 5 years

Quantity: 2 Each

Estimate: 2 EA X 100% X \$1,525.89/EA = \$3,052 + tax = \$3,360

Next Maintenance: Year 3 (2024)

Unit Cost: \$1,525.89 / EA

2021 Notes: No new updates were reported.

Previous Notes: The Laundry Room provides a super capacity top load washer and a super capacity front load dryer. Funds are allocated to replace the washer and dryer set with a similar quality appliance each maintenance cycle.

FUTURE MAINTENANCE	
YEAR	COST
3 (2024)	\$3,707
8 (2029)	\$4,298
13 (2034)	\$5,129
18 (2039)	\$6,240
23 (2044)	\$7,592

Stn.57 11.6.5 Station Extractor - Bunker Gear Washer

Equipment

Maintenance Cycle: 12 years

Quantity: 1 Each

Estimate: 1 EA X 100% X \$8,147.14/EA = \$8,147 + tax = \$8,970

Next Maintenance: Year 5 (2026)

Unit Cost: \$8,147.14 / EA

2021 Notes: No new updates were reported.

Previous Notes: A Unimac washer extractor that is responsible for cleaning the firemen's gear is located in the Shop Room next to the Apparatus Bay. After the remodel project in 2020 the shop area will be converted to a Locker Room. The budget provides funds to replace the washer extractor with a similar high-performance industrial washer extractor.

FUTURE MAINTENANCE	
YEAR	COST
5 (2026)	\$10,500
17 (2038)	\$16,017
29 (2050)	\$25,645

Stn.57 11.8.2 Air Compressor - Replace

Equipment

Maintenance Cycle: 12 years

Quantity: 3,640 Square Feet

Estimate: 3,640 SF X 100% X \$10.19/SF = \$37,092 + tax = \$40,840

Next Maintenance: Year 11 (2032)

Unit Cost: \$10.19 / SF

2021 Notes: No new updates were reported.

Previous Notes: The component maintains funds to replace the fire station utility air compressor. The equipment was reported as functional at the time of our site visit, with no issues noted.

FUTURE MAINTENANCE	
YEAR	COST
11 (2032)	\$57,635
23 (2044)	\$92,276

Stn.57 12.3.1 Interior Concrete Floor - Refurbish

Finishes/Furnishings

Maintenance Cycle: 25 years

Quantity: 5,748 Square Feet

Estimate: 5,748 SF X 25% X \$5.09/SF = \$7,314 + tax = \$8,050

Next Maintenance: Year 24 (2045)

Unit Cost: \$5.09 / SF

2021 Notes: No new updates were reported.

Previous Notes: The Station remodel project planned for 2020 includes removing the interior flooring and replacing it with polished concrete flooring throughout the Station. This component provides funds to refurbish the concrete flooring regularly to keep the surface in optimal condition.

FUTURE MAINTENANCE	
YEAR	COST
24 (2045)	\$18,916



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Stn.57 12.3.2 Apparatus Bay - Refurbish

Finishes/Furnishings

Maintenance Cycle: 10 years

Next Maintenance: Year 10 (2031)

Quantity: 5,844 Square Feet

Unit Cost: \$2.14 / SF

Estimate: 5,844 SF X 100% X \$2.14/SF = \$12,506 + tax = \$13,770

2021 Notes: The Station has requested the next maintenance to be moved from 2024 to 2031.

Previous Notes: The bid drawings indicate the Apparatus Bay fiberglass reinforced plastic (FRP) wall panels and ceiling tiles will be replaced. This component maintains funds to refurbish the apparatus bay FRP panels, and ceiling tile 25 year after the new materials have been installed.

FUTURE MAINTENANCE	
YEAR	COST
10 (2031)	\$18,685
20 (2041)	\$27,659
30 (2051)	\$40,942

Stn.57 12.3.3 Hallway & Stairwell Walls & Ceiling - Paint

Finishes/Furnishings

Maintenance Cycle: 25 years

Next Maintenance: Year 10 (2031)

Quantity: 1 Lump Sum

Unit Cost: \$7,140.00 / LS

Estimate: \$7,140

2021 Notes: The Station has requested the next maintenance to be moved from 2024 to 2031.

Previous Notes: The hallways and stairwell leading to the mezzanine level seem to be in good condition. These areas are not being updated during the remodel project planned for 2020. The budget provides funds to paint the walls and ceiling of the hallways and stairwell.

FUTURE MAINTENANCE	
YEAR	COST
10 (2031)	\$9,689

Stn.57 12.3.4 Front Reception Desk & Office - Remodel

Finishes/Furnishings

Maintenance Cycle: 10 years

Next Maintenance: Year 11 (2032)

Quantity: 1 Lump Sum

Unit Cost: \$25,480.00 / LS

Estimate: \$25,480

2021 Notes: The Station has requested the next maintenance to be moved from 2022 to 2032.

Previous Notes: Remodeling the front reception desk and offices is an aesthetic consideration and may be updated at the discretion of the management to fit the needs of the Station.

FUTURE MAINTENANCE	
YEAR	COST
11 (2032)	\$35,958
21 (2042)	\$53,227

Stn.57 12.3.5 Kitchen - Remodel

Finishes/Furnishings

Maintenance Cycle: 10 years

Next Maintenance: Year 10 (2031)

Quantity: 1 Lump Sum

Unit Cost: \$10,190.00 / LS

Estimate: \$10,190

2021 Notes: The Station has requested the next maintenance to be moved from 2024 to 2031.

Previous Notes: The Kitchen walls, furniture, counters and cabinets seemed to be in good condition. The kitchen area is not included in the 2020 remodel project. The budget provides fund to update the kitchen area within the next five years. This component is also a discretionary expense and may be adjusted as needed. Replacement of kitchen equipment is budgeted in a separate component.

FUTURE MAINTENANCE	
YEAR	COST
10 (2031)	\$13,827
20 (2041)	\$20,468
30 (2051)	\$30,298



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16-Nov-21

Estimate: \$15,290

2021 Notes: The Station has requested the next maintenance to be moved from 2024 to 2031.

Previous Notes: The budget provides funds to update the Day Room and Dining Area. The areas appeared to be in good condition overall. The budget amount and timing may be adjusted to better fit the needs of the Station.

FUTURE MAINTENANCE	
YEAR	COST
10 (2031)	\$20,748
25 (2046)	\$37,366

Stn.57 12.3.7 Duty Crew Sleep Rooms - Refurbish

Finishes/Furnishings

Maintenance Cycle: 20 years
Quantity: 1 Lump Sum
Estimate: \$5,100

Next Maintenance: Year 8 (2029)
Unit Cost: \$5,100.00 / LS

2021 Notes: No new updates were reported.

Previous Notes: We include a budget a contingency for refurbishing the six sleep rooms in the Station. Funds may be drawn from as needed to paint wall surfaces and replace furnishings.

FUTURE MAINTENANCE	
YEAR	COST
8 (2029)	\$6,523
28 (2049)	\$14,020

Stn.57 12.3.8 Exercise Room - Refurbish

Finishes/Furnishings

Maintenance Cycle: 15 years
Quantity: 1 Lump Sum
Estimate: \$30,580

Next Maintenance: Year 14 (2035)
Unit Cost: \$30,580.00 / LS

2021 Notes: No new updates were reported.

Previous Notes: The exercise room seemed to be in good condition. The lump sum budget provides funds to replace the rubberized flooring, mirrors, and paint walls. Replacing exercise equipment is funded through the operating budget.

FUTURE MAINTENANCE	
YEAR	COST
14 (2035)	\$48,544
29 (2050)	\$87,426

Stn.57 12.3.9 Locker & Restroom - Refurbish

Finishes/Furnishings

Maintenance Cycle: 15 years
Quantity: 1 Lump Sum
Estimate: \$2,040

Next Maintenance: Year 5 (2026)
Unit Cost: \$2,040.00 / LS

2021 Notes: No new updates were reported.

Previous Notes: The Station plans to remodel the restrooms and create a Locker Room in 2020. This component maintains funds to refurbish the restrooms and Locker Room fifteen years after the rooms have been in service.

FUTURE MAINTENANCE	
YEAR	COST
5 (2026)	\$2,388
20 (2041)	\$4,098

Stn.57 12.3.10 Laundry & Utility Room - Refurbish

Finishes/Furnishings

Maintenance Cycle: 10 years
Quantity: 1 Lump Sum
Estimate: \$10,190

Next Maintenance: Year 8 (2029)
Unit Cost: \$10,190.00 / LS

2021 Notes: No new updates were reported.

FUTURE MAINTENANCE	
YEAR	COST
8 (2029)	\$10,190
18 (2039)	\$10,190



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Previous Notes: The Laundry and Utility rooms appeared to be in good condition. The budget is intended for replacing utility sinks, counters and cabinets, as well as painting wall surfaces. A separate component budgets funds for replacing the washing and drying equipment.

YEAR	COST
8 (2029)	\$13,034
18 (2039)	\$18,924
28 (2049)	\$28,012

Stn.57 15.2.3 Plumbing System - Contingency

Life Safety

Maintenance Cycle: 10 years
Quantity: 1 Lump Sum
Estimate: \$5,100

Next Maintenance: Year 4 (2025)
Unit Cost: \$5,100.00 / LS

2021 Notes: No new updates were reported.

Previous Notes: The plumbing repair allowance is intended to help financially prepare the Station for any unforeseen problems with the common supply and drain plumbing lines, typically the sections running from the utility connection to the buildings. The allowance may be drawn from as needed. We have identified most supply lines to be copper with additional PEX lines.

FUTURE MAINTENANCE	
YEAR	COST
4 (2025)	\$5,796
14 (2035)	\$8,096
24 (2045)	\$11,984

Stn.57 15.3.3 Irrigation System - Contingency

Life Safety

Maintenance Cycle: 5 years
Quantity: 1 Lump Sum
Estimate: \$2,550

Next Maintenance: Year 2 (2023)
Unit Cost: \$2,550.00 / LS

2021 Notes: the Station has requested the next maintenance to be moved from 2024 to 2023.

Previous Notes: The irrigation system was reported to be in working condition. The number of zones operating the system was unknown at the time of our site visit. The component provides a lump sum amount to repair or replace as needed sections of irrigation piping, controllers, sprinkler heads, and valves.

FUTURE MAINTENANCE	
YEAR	COST
2 (2023)	\$2,732
7 (2028)	\$3,167
12 (2033)	\$3,743
17 (2038)	\$4,553
22 (2043)	\$5,540

Stn.57 15.4.3 Fire Detection System - Maintenance

Life Safety

Maintenance Cycle: 15 years
Quantity: 1 Lump Sum
Estimate: \$5,100

Next Maintenance: Year 5 (2026)
Unit Cost: \$5,100.00 / LS

2021 Notes: No new updates were reported.

Previous Notes: The fire detection system repair allowance is intended to financially prepare the Station to maintain the fire detection and related systems, including smoke and CO sensors, alarms, exit signage and emergency egress fixtures.

FUTURE MAINTENANCE	
YEAR	COST
5 (2026)	\$5,970
20 (2041)	\$10,244

Stn.57 15.4.4 Wet & Dry Fire Sprinkler System - Contingency

Life Safety

Maintenance Cycle: 10 years
Quantity: 1 Lump Sum
Estimate: \$5,610

Next Maintenance: Year 8 (2029)
Unit Cost: \$5,610.00 / LS

2021 Notes: No new updates were reported.

RESERVE CONSULTANTS LLC regularly with no issues noted. The budget provides funds to maintain components of the wet and dry fire suppression system including replacing the compressor, piping, sensor and valves.

FUTURE MAINTENANCE	
YEAR	COST
8 (2029)	\$7,176
18 (2039)	\$10,418



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28 (2049) | \$15,422

Stn.57 15.5.2 Water Heater - Replace

Life Safety

Maintenance Cycle: 15 years

Quantity: 3 Each

Estimate: 3 EA X 100% X \$2,443.23/EA = \$7,330 + tax = \$8,070

Next Maintenance: Year 2 (2023)

Unit Cost: \$2,443.23 / EA

2021 Notes: No new updates were reported.

Previous Notes: The 100 gallon water heater has an expected 10-year useful life. The budget allows for replacing the heater with a product of the same kind.

FUTURE MAINTENANCE	
YEAR	COST
2 (2023)	\$8,645
17 (2038)	\$14,410

Repeat Every Years

Stn.57 15.6.7 HVAC Units - Replace

Life Safety

Maintenance Cycle: 15 years

Quantity: 1 Each

Estimate: 1 EA X 100% X \$10,181.65/EA = \$10,182 + tax = \$11,210

Next Maintenance: Year 6 (2027)

Unit Cost: \$10,181.65 / EA

2021 Notes: No new updates were reported.

Previous Notes: The three Lennox HVAC units located outside are original to the facility. The units were reported to be functional with no further issues noted. We allocate reserve funds for major repairs or replacement of three HVAC units.

FUTURE MAINTENANCE	
YEAR	COST
6 (2027)	\$13,515
21 (2042)	\$23,418

Stn.57 15.6.8 Furnace - Replace

Life Safety

Maintenance Cycle: 10 years

Quantity: 5 Each

Estimate: 5 EA X 100% X \$2,546.78/EA = \$12,734 + tax = \$14,020

Next Maintenance: Year 4 (2025)

Unit Cost: \$2,546.78 / EA

2021 Notes: No new updates were reported.

Previous Notes: The Carrier brand furnace located in the equipment room on the second floor was replaced about 5-7 years ago. The unit was reported to be functional at the time of the site visit. We budget for replacing the unit when it has reached the approximate end of its useful life.

FUTURE MAINTENANCE	
YEAR	COST
4 (2025)	\$15,933
14 (2035)	\$22,256
24 (2045)	\$32,945

Stn.57 15.6.9 Infrared Overhead Heaters - Replace

Life Safety

Maintenance Cycle: 10 years

Quantity: 1 Lump Sum

Estimate: \$5,100

Next Maintenance: Year 8 (2029)

Unit Cost: \$5,100.00 / LS

2021 Notes: No new updates were reported.

Previous Notes: The reserve contingency saves for replacing the five Reznor infrared overhead heaters located in the apparatus bay. No issues were noted.

FUTURE MAINTENANCE	
YEAR	COST
8 (2029)	\$6,523
18 (2039)	\$9,471
28 (2049)	\$14,020



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Repeat Every Years

Stn.57 15.7.2 Exhaust Fans - Contingency

Life Safety

Maintenance Cycle: 5 years

Quantity: 8 Each

Estimate: 8 EA X 33% X \$1,527.54/EA = \$4,033 + tax = \$4,440

Next Maintenance: Year 3 (2024)

Unit Cost: \$1,527.54 / EA

2021 Notes: No new updates were reported.

Previous Notes: There are exhaust fans for the kitchen and restrooms, as well as a specialized exhaust removal system in the Apparatus Bay at Station 57. This budget establishes a repair contingency to ensure that the system has funding to keep it in optimal condition. The exact number of exhausts was not provided; we estimate that there are approximately eight for the facility. The budget reflects anticipated costs to repair up to 33% of the system each maintenance cycle, including vent hoods on the exterior of the building. Typically, exhaust systems are maintained, rather than removed and replaced within a 30 year timeframe.

FUTURE MAINTENANCE	
YEAR	COST
3 (2024)	\$4,899
8 (2029)	\$5,679
13 (2034)	\$6,777
18 (2039)	\$8,246
23 (2044)	\$10,032
Repeat Every Years	

Stn.57 16.3.2 Electrical System - Contingency

Life Safety

Maintenance Cycle: 20 years

Quantity: 1 Each

Estimate: 1 EA X 100% X \$6,112.62/EA = \$6,113 + tax = \$6,730

Next Maintenance: Year 8 (2029)

Unit Cost: \$6,112.62 / EA

2021 Notes: No new updates were reported.

Previous Notes: We budget for preventative maintenance of the Station's interior electrical equipment. This budget is not intended to replace large scale electrical equipment. Since the electrical system is located inside the Station and is well protected from the elements, we expect the equipment to outlast the 30-year timeframe of this study.

FUTURE MAINTENANCE	
YEAR	COST
8 (2029)	\$8,608
28 (2049)	\$18,501

Stn.57 16.5.3 Emergency Generator - Contingency

Life Safety

Maintenance Cycle: 20 years

Quantity: 1 Each

Estimate: 1 EA X 100% X \$8,147.14/EA = \$8,147 + tax = \$8,970

Next Maintenance: Year 18 (2039)

Unit Cost: \$8,147.14 / EA

2021 Notes: No new updates were reported.

Previous Notes: The emergency generator is tested frequently and reported to be functional. The budget provides funds to complete major repairs as needed to keep the equipment functional at all times.

FUTURE MAINTENANCE	
YEAR	COST
18 (2039)	\$16,658

Stn.57 16.6.2 Exterior Light Fixtures - Replace

Life Safety

Maintenance Cycle: 15 years

Quantity: 5 Each

Estimate: 5 EA X 100% X \$508.63/EA = \$2,543 + tax = \$2,800

Next Maintenance: Year 1 (2022)

Unit Cost: \$508.63 / EA

2021 Notes: Replacement of the light fixtures is planned for 2022.

Previous Notes: The exterior light fixtures were reported to be functional. The timing system controlling the building security lights was not working properly and may need repair to restore the system. The budget provides funds to replace four exterior bollard light fixtures and four building security light fixtures.

FUTURE MAINTENANCE	
YEAR	COST
1 (2022)	\$2,912
16 (2037)	\$4,808

Stn.57 16.8.2 Fire Control Panel - Replace

Life Safety



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Maintenance Cycle: 20 years

Quantity: 1 Each

Estimate: 1 EA X 100% X \$3,560.40/EA = \$3,560 + tax = \$3,920

Next Maintenance: Year 8 (2029)

Unit Cost: \$3,560.40 / EA

2021 Notes: No new updates were reported.

Previous Notes: The installation date of the current fire alarm control panel is not known, so we have assumed that it is half way through its typical life cycle. No issues were reported. The budget allows for future replacement of the fire control panel.

FUTURE MAINTENANCE	
YEAR	COST
8 (2029)	\$5,014
28 (2049)	\$10,776

Stn.57 18.1.2 Security / Surveillance System - Upgrade

Security

Maintenance Cycle: 10 years

Quantity: 1 Lump Sum

Estimate: \$15,290

Next Maintenance: Year 1 (2022)

Unit Cost: \$15,290.00 / LS

2021 Notes: This component did not require an upgrade in 2020 and is now planned for 2022.

Previous Notes: The Station's security system is reportedly outdated and the Department was obtaining bids at the time of our site visit to upgrade the system within the next year. The budget provides funds to upgrade the existing security system and surveillance system in 2020 in conjunction with Station 51.

FUTURE MAINTENANCE	
YEAR	COST
1 (2022)	\$15,902
11 (2032)	\$21,578
21 (2042)	\$31,941



KING COUNTY FIRE PROTECTION DISTRICT NO.16

7220 NE 181st Street
KENMORE, WA 98028

BUSINESS: 425-354-1780 FAX: 425-354-1781

RESOLUTION NO. 20-10

SUPERSEDING RESOLUTION 17-02 RESOLUTION DEFINING FUND POLICIES

WHEREAS, on June 6, 2017, the Board of Fire Commissioners (“Board”) of King County Fire Protection District No. 16 (the “District”) approved Resolution 17-02 Defining Fund Policies; and

WHEREAS, the Board desires to redefine the District’s fund policies by approving this Resolution 20-10 which shall supersede Resolution 17-02; and

WHEREAS, the financial affairs of the District are managed by the Board; and

WHEREAS, pursuant to RCW 52.14.100 the Board has the power to adopt reasonable rules to govern the District and to generally perform all such acts as may be necessary to carry out the objects of the creation of the District; and

WHEREAS, an integral part of financial planning is establishing General Expense and Reserve Funds to cover the costs of general operating expenses, facility maintenance and improvements, apparatus and equipment financing, employee benefits, and insurance obligations; and

NOW, THEREFORE, BE IT RESOLVED by the Board of Fire Commissioners of King County Fire Protection District No. 16 that a General Expense and Reserve Fund Plan is established as follows:

I. GENERAL EXPENSE FUND

The General Expense Fund balance at year end shall be a minimum of four months of expenses excluding reserve fund contributions. This shall be calculated by determining the average monthly expense for as many full months available of the current year and multiplying that number by four. For example: In November, there are ten full months of the year and expenses total \$8,150,000. The average monthly expense is \$815,000. The minimum amount required in the General Expense Fund at the end of the year is \$3,260,000 (\$815,000 x 4 months). This balance in the General Expense Fund is meant to pay expenses incurred by the District during the first four to five months of the following year before the first revenue is received in late April/early May.

II. RESERVE FUND

A. Reserve Fund Categories, Purpose, and Funding Levels

The Reserve Fund shall be organized into six main sub-categories to facilitate clear intent and accurate accounting. The level of funding of each category shall be no less than a minimum of the values stated below. Utilization of reserve funding shall be consistent with the associated purpose statements provided for each category.

1. Natural Disaster

Purpose: To provide funding for overtime costs, casual labor, temporary facilities, food and equipment for extended emergency operations lasting a minimum of 14 days.

Fund Level: \$250,000

2. Insurance Contingency

Purpose: To provide funding for losses normally covered by insurance but exceeding coverage, such as: deductibles, non-insured loss, loss greater than insurance coverage, fines or uninsured litigation costs, labor relations litigation costs, unplanned attorney or consultant fees, court costs, penalties, judgments, and unemployment claims.

Fund Level: \$200,000

3. Loss of Revenue

Purpose: To provide funding to allow for the continuation of services in the event of an unanticipated and immediate loss of revenue.

Fund Level: Three months of expenses based on the most recent available calculation of average monthly expenses.

4. Employee Benefit

Purpose:

- A. To provide funding for LEOFF 1 medical insurance premiums, long-term healthcare premiums, and other approved medical and dental expenses.

- B. To provide funding for post-employment benefits such as sick leave and vacation payouts. Replenishment of this fund may be spread out over several years or pre-funded if a significant number of retirements were known in advance.

Fund Level:

- A. Funded at 100 percent of the GASB recommendation for LEOFF 1 retirees.
- B. Funded at 50 percent of the maximum potential sick leave and vacation payouts as determined annually on the District's financial statement.

5. Apparatus and Equipment Replacement

Purpose: To provide funding for the replacement of apparatus, vehicles, and equipment that are designated for replacement at specific intervals and have a calculated replacement cost that would be difficult to fund through the annual budgeting process.

Fund Level: Funded at 100 percent of the recommended amount shown in the capital asset replacement plan for vehicles, apparatus, and equipment.

6. Facilities Improvement

Purpose: To provide funding for the maintenance and improvement of District facilities. This fund would be used for capital improvement items such as roof repairs, HVAC replacement, etc. and not a substitution for annual budgeting of normal facility maintenance.

Fund Level: Funded at 100 percent of the recommended annual contributions shown in the facility reserve study conducted in 2019 by Reserve Consultants LLC.

- B. Transactions expensed from the General Expense and Reserve Funds shall comply with the accounting principles established by King County Finance and Business Operations, the Washington State Auditor, and the RCW.
- C. The Fire Chief shall provide quarterly reports reflecting Reserve Fund activity in the BARS format as required by the Washington State Auditor and the RCW.

- D. The Fire Chief shall submit Reserve Fund allocation recommendations to the Board of Fire Commissioners each year as required to maintain funding levels as established by this Resolution.

BE IT FURTHER RESOLVED, that Resolution 17-02 is hereby repealed.

ADOPTED at a regular meeting of the Board of Fire Commissioners of King County Fire Protection District No. 16 on this 3rd day of November 2020.

BOARD OF FIRE COMMISSIONERS

DAVID MAEHREN, Chair

RICK VERLINDA, Member

JOSH PRATT, Member

DON ELLIS, Member

RICK WEBSTER, Vice-Chair

ATTEST:

DAWN KILLION, Interim Secretary
Board of Fire Commissioners

From: [Dave Maehren](#)
To: [Dawn Killion](#)
Subject: RE: Electronic Signatures - Documents Approved 11/3/2020
Date: Wednesday, November 4, 2020 1:08:43 PM
Attachments: [image005.png](#)
[image006.png](#)
[image007.png](#)
[image008.png](#)
[image009.png](#)

The following documents are Approved and Electronically Signed this 4th day of November, 2020, by Commissioner David C. Maehren.

- AP_NOSHRFIR_APSUPINV_20201103161040 RES Fund
- AP_NOSHRFIR_APSUPINV_20201103161359 GEN Fund
- Resolution 20-10 Defining Fund Policies
- Resolution 20-08 Benefit Charge Resolution
- Resolution 20-09 Annual Property Tax Levy
- Resolution 20-07 Limit Factor Increase
- Minutes 2020-10-20
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- HRA Funds Transfer Approval Document
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- September Commissioner Payroll Approval Document
- September Commissioner Payroll Taxes Approval Document

David Maehren
Fire Commissioer – Board Chair
Northshore Fire Department
Business Office 425.354.1780
Cell 206 604-3683



Proudly Serving the Citizens of Kenmore and Lake Forest Park

Electronic Privacy Notice. This e-mail, and any attachments, contains information that is, or may be, covered by electronic communications privacy laws, and is also confidential and proprietary in nature. If you are not the intended recipient, please be advised that you are legally prohibited from retaining, using, copying, distributing, or otherwise disclosing this information in any manner. Instead, please reply to the sender that you have received this communication in error, and then immediately delete it. Thank you in advance for your cooperation.

From: Dawn Killion
Sent: Wednesday, November 4, 2020 9:06 AM
To: Commissioners <e-mailcommissioners@northshorefire.com>
Subject: Electronic Signatures - Documents Approved 11/3/2020

Good morning Commissioners,

Attached please find the documents approved at last night's regular meeting. Also included are payroll approval documents (regular October monthly, September Commissioner Compensation Claims approved @ 10/6 meeting) and a couple of transfers done (Term Payout to HRA and Facility Reserve Monies Transfer).

At your earliest availability today, please respond with your electronic signature using the following verbiage:

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Thank you,

Dawn Killion

Finance Specialist / Interim Board Secretary

Public Records Officer

Northshore Fire Department

7220 NE 181st ST, Kenmore, WA 98028

DIRECT: 425.354.1778

FAX: 425.354.1781

MAIN: 425.354.1780

www.northshorefire.com

dkillion@northshorefire.com



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From: [Rick Verlinda](#)
To: [Dawn Killion](#)
Subject: RE: Electronic Signatures - Documents Approved 11/3/2020
Date: Wednesday, November 4, 2020 11:10:18 AM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)

The following documents are Approved and Electronically Signed this 4th day of November, 2020, by Commissioner Verlinda.

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Rick Verlinda

From: Dawn Killion <dkillion@northshorefire.com>
Sent: Wednesday, November 4, 2020 9:06 AM
To: Commissioners <e-mailcommissioners@northshorefire.com>
Subject: Electronic Signatures - Documents Approved 11/3/2020

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From: [Josh Pratt](#)
To: [Dawn Killion](#)
Subject: RE: Electronic Signatures - Documents Approved 11/3/2020
Date: Wednesday, November 4, 2020 6:27:05 PM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)

The following documents are Approved and Electronically Signed this 4th day of November, 2020, by Commissioner Josh Pratt.

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From: [Richard Webster](#)
To: [Dawn Killion](#)
Subject: RE: Electronic Signatures - Documents Approved 11/3/2020
Date: Thursday, November 5, 2020 12:43:04 PM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)

The following documents are Approved and Electronically Signed this 5th day of November, 2020, by Commissioner Rick Webster.

- AP_NOSHRFIR_APSUPINV_20201103161040 RES Fund
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From: Dawn Killion <dkillion@northshorefire.com>
Sent: Wednesday, November 4, 2020 9:06 AM
To: Commissioners <e-mailcommissioners@northshorefire.com>
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	NSDF 2022 Budget	Eastside Proposal	Difference	Notes
Labor & Benefits (w/o admin labor) (a)	8,586,987	6,933,218	1,653,769	Exhibit 2 - Personnel Costs - Includes \$255,432.27 in est overtime
Operating Costs (b)	1,211,977	1,046,946	165,031	Exhibit 1 - Operational Costs
Administration (c)	1,034,121	783,016	251,105	10% of labor and operating costs Less \$15,000 facility credit
Commissioners & non-departmental expenses	190,945		190,945	
Capital Facilities Maintenance Charge		50,000	(50,000)	Payment for Services 4.1(C)
Equipment Replacement Charge		135,189	(135,189)	Payment for Services 4.1 (d)
Less insurance billing for transport		(750,000)		Per Eastside response to proposal #6
Total annual expense	11,024,031	8,198,369	2,075,662	
Start up Costs (one time expense)		412,936		100% vacation, 25% sick plus retirement eligible employee replacement cost

Comments re Eastside Proposal

- (a) Labor and benefits will be adjusted to actual. The difference will be assessed by February of the following year
- (b) Operating costs is subject to annual 3% inflationary adjustment
- (c) Administration costs are based on 10% of the annual budget of labor & benefits and operating costs less \$15,000 facility credit
- (d) Equipment replacement charge is subject to annual adjustments - 2023 expense is \$139,244 a 3% increase

	NSFD 2022 Budget	Shoreline Proposal	Difference	Notes
Labor & Benefits	8,586,987	6,647,634	1,939,353	Appendix B Labor (\$7,066,831) less admin less 10% of inspector less \$174,721 per Shoreline responses 3a, add \$596,009 in overtime less transport revenue \$245,178 (see SFD proposal page 26)
Operating Costs	1,211,977	852,981	358,996	Appendix C costs (\$1,137,309) less administration expenses (\$276,047 * 1.03) - Includes NEMCO \$38,173
Administration	1,034,121	1,247,110	(212,989)	Appendix B - NFD portion of Shoreline Admin (606,102) plus NFD admin (\$356,680) plus admin costs (\$276,047*1.03) (appendix C)
Commissioners & non-departmental expenses	190,945		190,945	Continuing expenses to be paid by NSFD
Capital Apparatus	-		-	Exhibit B in contract agreement - Reserve for apparatus, aid cars, support vehicles \$220,000 deleted per SFD response Reserves 2d
Capital Equipment		56,231		Items such as hose, SCBA, radios , etc - see capital equipment per SFD response questions
Total annual expense	11,024,031	8,803,957	2,276,305	
Employee Benefit Transfer		631,545		Transfer from reserves - Page 29 of SFD proposal

Comments re Shoreline Proposal

- (1) - Payments will be made in quarterly installments - expenses will be reviewed quarterly, reforecasted and payment adjusted quarterly
- (2) - SFD has implemented a Post-Employment Medical Benefits (PEMB). SFD estimates the additional cost of this program is offset by lower labor cost due to retirement
- (3) - SFD contract says NFD shall pay SFD \$8,925,377 in quarterly installments. Should be changed to \$8,925,377 annual cost payable in 4 quarterly installments of \$2,231,344
- (4) SFD proposal mentions additional funding from GEMT. There is no credit included in the proposal for GEMT funding.

Contract Options (bracketed = benefit, no brackets = additional expense)	Eastside Proposal	Shoreline Proposal	
Reduce number of Battalion Chiefs	(460,089.81)	(432,500.00)	Per SFD response 3c. To be comparable I project the savings for 2 BC's based on 2022 salary cost
Reduce Aid 151 to 12 hour Response	(673,734.76)		
Add Dedicated Technical Rescue to Engine 151	116,486.00	18,503.00	
Add dedicated Hazardous Material Cap to 157	116,486.00		
Cost of administrating LEOFF1 Expenditures		3,979.00	Per SFD response #2
No transfer of Admin Personnel		(578,005.00)	Per SFD response 3b. Amount should only be \$356,680 as SFD is picking up a portion in the proposal
Not staffing peak-hour Aid 157 overtime reduction		(284,700.00)	Per SFD response 3d.
Not billing for Transport		292,742.00	Per SFD response 3d. Amount per Appendix B is \$245,178.18
Delete Division/District Chief for 2022		(223,197.00)	Per SFD response 3e. Included in "no transfer of Admin Personnel"

WARRANT/CHECK REGISTER

Northshore Fire Department

Time: 12:41:52 Date: 11/15/2021

11/22/2021 To: 11/22/2021

Page: 1

Trans	Date	Type	Acct #	War #	Claimant	Amount	Memo
1837	11/22/2021	Claims	1	0	ARAMARK UNIFORM SERVICES	16.52	Lobby Mats
1839	11/22/2021	Claims	1	0	CDW GOVERNMENT	4,572.67	New CISCO Firewall
1840	11/22/2021	Claims	1	0	CDW GOVERNMENT	131.30	Docking Station Parts
1841	11/22/2021	Claims	1	0	CENTURY LINK	64.10	Phones - St 57
1842	11/22/2021	Claims	1	0	CFO SELECTIONS LLC	660.00	Q3 Reconciliation
1843	11/22/2021	Claims	1	0	CITY OF BOTHELL FIRE AND EMS	6,930.33	Fire Marshal Services - October
1844	11/22/2021	Claims	1	0	CITY OF BOTHELL FIRE AND EMS	756.07	Reimbursement - Burn Prop Training
1845	11/22/2021	Claims	1	0	EASTSIDE FIRE & RESCUE	756.07	Reimbursement for WFR - Burn Prop Training
1846	11/22/2021	Claims	1	0	EASTSIDE PUBLIC SAFETY COMM. AGENCY	1,061.55	Nov 2021 - Radio Access Fees
1847	11/22/2021	Claims	1	0	EASTSIDE PUBLIC SAFETY COMM. AGENCY	489.44	Nov 2021 - Maintenance Agreement
1848	11/22/2021	Claims	1	0	ECMS ENSEMBLE CARE MAINTENANCE SERVICE	615.30	PPE Repair - Bracket & Pritchett
1849	11/22/2021	Claims	1	0	ELEVATOR PROGRAM	140.90	Elevator Annual Operating Certificate
1850	11/22/2021	Claims	1	0	FIRE DEPT SAFETY OFFICERS ASSOC	525.00	Health & Safety Office Certification - Heilman
1851	11/22/2021	Claims	1	0	JAYMARC - AV	330.30	Audio Fix in Bay
1838	11/22/2021	Claims	1	0	JOHN A BURROW	464.37	Per Diem & Travel - Training Workshop Idaho
1852	11/22/2021	Claims	1	0	KING COUNTY FINANCE DIVISION	1,867.00	I-Net October
1853	11/22/2021	Claims	1	0	LIFE ASSIST	275.25	COVID Supplies - St 51
1854	11/22/2021	Claims	1	0	LIFE ASSIST	275.25	COVID Supplies - St 57
1855	11/22/2021	Claims	1	0	LIFE ASSIST	261.89	EMS Supplies
1856	11/22/2021	Claims	1	0	LIFE ASSIST	275.25	COVID Supplies - St 57
1857	11/22/2021	Claims	1	0	LINDE GAS & EQUIPMENT INC.	35.51	Oxygen
1858	11/22/2021	Claims	1	0	NATURAL CONCEPT LANDSCAPE	515.63	Landscaping - St 51
1859	11/22/2021	Claims	1	0	NATURAL CONCEPT LANDSCAPE	137.63	Irrigation Winterization - St 51
1860	11/22/2021	Claims	1	0	NORCOM	7,413.08	IT Services - October
1861	11/22/2021	Claims	1	0	NORTH LAKE MARINA	50.57	Fuel
1862	11/22/2021	Claims	1	0	NORTHSHORE UTILITY DISTRICT (NUD)	3,724.68	Fuel & Maintenance - October
1863	11/22/2021	Claims	1	0	O'REILLY AUTO PARTS	146.29	Mixed Gas/Fuel & Fluids
1864	11/22/2021	Claims	1	0	REPUBLIC SERVICES #172	414.96	Garbage/Recycle - St 51
1865	11/22/2021	Claims	1	0	REPUBLIC SERVICES #172	155.71	Garbage - St 57
1866	11/22/2021	Claims	1	0	SHORELINE FIRE DEPARTMENT	756.07	Reimbursement - Burn Prop Training
1867	11/22/2021	Claims	1	0	SOFTWARE ONE	24,430.28	Office Licensing Renewals
1868	11/22/2021	Claims	1	0	UNIVERSITY OF WASHINGTON - CLST	3,500.00	Leadership Academy - Burrow
1869	11/22/2021	Claims	1	0	US BANK	5,249.16	Charges for cards ending 4689, 5507 & 6729
1870	11/22/2021	Claims	1	0	VERIZON BUSINESS	720.59	VOIP - St 51
1871	11/22/2021	Claims	1	0	VERIZON BUSINESS	744.41	VOIP - St 51
1872	11/22/2021	Claims	1	0	WALTER E NELSON CO OF WESTERN WA	39.81	Janitorial Supplies
1873	11/22/2021	Claims	1	0	WESTLAKE HARDWARE	8.80	Fasteners

001 General Fund 10-016-0010

68,511.74

Claims: 68,511.74
 68,511.74

WARRANT/CHECK REGISTER

Northshore Fire Department

Time: 12:41:52 Date: 11/15/2021

11/22/2021 To: 11/22/2021

Page: 2

Trans	Date	Type	Acct #	War #	Claimant	Amount	Memo
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WARRANT/CHECK REGISTER

Northshore Fire Department

Time: 12:41:00 Date: 11/15/2021

11/22/2021 To: 11/22/2021

Page: 1

Trans	Date	Type	Acct #	War #	Claimant	Amount	Memo
1835	11/22/2021	Claims	4	0	GARY PEDERSEN	653.60	LEOFF I
1836	11/22/2021	Claims	4	0	RP ADVANCED MOBILE SYSTEMS	42,241.00	Half down for 2 new watercraft
004 Reserve Fund 10-016-6010						42,894.60	
						<hr/>	Claims: 42,894.60
						42,894.60	



KING COUNTY FIRE PROTECTION DISTRICT NO.16

7220 NE 181st Street
KENMORE, WA 98028

BUSINESS: 425-354-1780 FAX: 425-354-1781

MINUTES

November 2, 2021

REGULAR MEETING BOARD OF COMMISSIONERS at Northshore Fire Department's Headquarters Station 51 Virtual Meeting via Zoom

- I. OPEN REGULAR NORTHSHORE MEETING**
- 1.1 Roll Call
- Chair Rick Webster called the meeting to order at 5:00 PM.
- Persons in attendance were Commissioners Eric Adman, Milton Curtis, Rick Webster, and Dave Maehren. Also present was Chief McDonald, Legal Counsel Matt Paxton, Board Secretary Amy Oakley, and 15 members of the public. Commissioner Pratt was absent.
- II. PUBLIC COMMENT**
- 2.1 No public comments.
- III. APPROVAL OF THE AGENDA**
- 3.1 *Commissioner Maehren moved to add Item 4.8 Discussion of Fire Chief Performance Review.*
- 3.2 *Commissioner Maehren moved to adopt the agenda as amended. Commissioner Curtis seconded. The motion passed unanimously.*
- IV. BOARD DISCUSSION AND POSSIBLE ACTION ITEMS**
- 4.1 Conversation with IAFF, Local 2459
- o President, Jeremiah Ingersoll, had no comments for the Board.
- 4.2 Continuation of Public Hearing on 2022 Proposed Budget
- Commissioner Webster moved to open the public hearing to review and establish the District's benefit charge to be imposed in 2022; and, the public hearing to review and establish the District's 2022 budget.*
- 4.2.1 2022 Budget Update Report
- o Chief McDonald presented an overview of the updated proposed 2022 budget.
 - o The Board discussed the levy limit worksheet, time schedule, HVAC system at Station 57, and facility reserve fund.
- 4.2.2 Public Comment

Commissioner Webster moved to open the public testimony portion of the public hearing to review and establish the District's benefit charge to be imposed in 2022; and, the public hearing to review and establish the District's 2022 budget.

- The Board of Commissioners heard public comment from Lake Forest Park resident, Mike Dee.

4.2.3 Close Public Comment

Commissioner Webster moved to close the public testimony portion of the public hearing to review and establish the District's benefit charge to be imposed in 2022; and, the public hearing to review and establish the District's 2022 budget. Commissioner Maehren seconded. The motion passed unanimously.

4.2.4 Board Discussion

- Commissioner Maehren suggested revisiting Resolution 20-10 at a future special meeting.

4.2.5 Board Direction to Staff for 2022 Budget

Commissioner Maehren moved to accept the expense, revenue, and reserve budgets as presented. Commissioner Curtis seconded. The motion passed unanimously.

4.3 RCL Reserve Funding Study- Revisit Resolution 20-10

- The study was not available.

4.4 Updated Policy 1400- Board Meetings

- Commissioner Maehren presented changes to the updated version of Policy 1400.

Commissioner Maehren moved to adopt Policy 1400 as presented. Commissioner Webster seconded. The Board discussed. The motion passed unanimously.

- The Board welcomed Advisory members candidates Lisa Wollum and Nate Herzog.

4.5 Review Policy 2733- Optional Time Off

- Chief McDonald presented changes proposed to Policy 2733.

Commissioner Curtis moved to adopt Policy 2733 as presented. Commissioner Adman seconded. The motion passed unanimously.

4.6 Contract for Services Update

- The Board reviewed the memos sent to Chief Clark and Chief Cowan.
- The Board reviewed and discussed clarifying questions with Chief Cowan.

4.7 Discussion of Potential Future Special Meetings

- The Board discussed having a special meeting on November 9th to discuss Reserve Fund Resolution 20-10, Reserve Funding Study, extension the NORCOM agreement, extension of Bothell Fire Marshall services, Chief's review process, Contract for Services update

Commissioner Maehren moved to have a special meeting Tuesday November 9th at 5pm. Commissioner Webster seconded. The Board Discussed. Commissioner amended the motion to start meeting at 4pm. The motion passed unanimously.

4.8 Discussion of Fire Chief Performance Review

- The Board discussed the process for Fire Chief's performance review.

V. BOARD RESOLUTIONS

5.1 Resolution 21-04, 2022 Fund Allocation for NORCOM

Commissioner Maehren moved to accept the Resolution 21-04 as presented. Commissioner Curtis seconded. The motion passed unanimously.

5.2 Resolution 21-05, 2022 Fire Benefit Charge

Commissioner Maehren moved to accept the Resolution 21-05 as presented. Commissioner Adman seconded. The motion passed unanimously.

5.3 Resolution 21-06, 2022 Property Tax Levy

Commissioner Maehren moved to accept the Resolution 21-06 as presented. Commissioner Adman seconded. The motion passed unanimously.

VI. CONSENT AGENDA

6.1 Vouchers

- The General Fund Vouchers totaled \$134,061.64
- The Reserve Fund Vouchers totaled \$2,399.45

6.2 Commissioner Compensation

6.3 Meeting Minutes: 10/19/2021

Commissioner Curtis moved to accept the consent agenda as presented. Commissioner Webster seconded. The Board discussed. The motion passed unanimously.

VII. REPORTS

7.1 Fire Chief Report

- Chief McDonald updated the Board regarding and upcoming insurance onsite review to interview Chief McDonald.
- Chief McDonald updated the Board on the pilot procedure for masking and testing at Station 51 to accommodate non-vaccinated members at the North King County Training Consortium.

7.2 Commissioner Reports

- Commissioner Webster will invite the commissioner candidates and City Councils to participate in non-voting Advisory Board.
- The Board Secretary will include Advisory members in emails for the board meetings.

7.3 Legal Counsel Reports

- Legal Counsel Paxton updated the Board on the Washington State Fire Commissioners Annual Conference.

VIII. UPCOMING BOARD AGENDAS

8.1 Setting of Future Meeting Agenda(s)

- Special meeting Nov. 9th to discuss Reserve Fund Resolution 20-10, Reserve Funding Study, extension the NORCOM agreement, extension of Bothell Fire Marshall services, Chief's review process, Contract for Services update.

- November 16th- IT update, update reimbursement mileage policy, meeting times, Commissioner Curtis parting thoughts. FD16 Operations discussion, Fire Chief Performance Review process.

ADJOURNMENT

The meeting adjourned at 6:55PM

NEXT MEETING DATE

The next Board of Commissioners meeting is scheduled for November 19, 2021.

Attachments: Agenda, 2022 Budget, 2022 King County Assessor Levy Form, Resolution 20-10, Policy 1400, Policy 2733, Contract Clarification letters to ESF&R and Shoreline, Resolution 21-04, Resolution 21-05, Resolution 21-06, Vouchers, Commissioner Compensation, Meeting Minutes 10/19, Chief's Report, Pilot Program for non-vaccinated.

BOARD OF COMMISSIONERS

ERIC ADMAN, Member

JOSH PRATT, Member

MILTON CURTIS M.D., Member

RICK WEBSTER, Member

DAVID MAEHREN, Member

ATTEST

Amy Oakley, Secretary

King County Fire Protection District No. 16

Adopted at a Regular Meeting of the Board of Commissioners on November 16th, 2021



KING COUNTY FIRE PROTECTION DISTRICT NO.16

7220 NE 181st Street
KENMORE, WA 98028

BUSINESS: 425-354-1780 FAX: 425-354-1781

MINUTES

November 9, 2021

SPECIAL MEETING BOARD OF COMMISSIONERS at Northshore Fire Department's Headquarters Station 51 Virtual Meeting via Zoom

I. OPEN SPECIAL NORTHSHORE MEETING

1.1 Roll Call

Chair Rick Webster called the meeting to order at 4:00 PM.

Persons in attendance were Commissioners Eric Adman, Josh Pratt, Milton Curtis, Rick Webster, and Dave Maehren. Also present was Chief McDonald, Legal Counsel Matt Paxton, Advisory Board member Nate Herzog, and Board Secretary Amy Oakley, and 11 members of the public.

II. PUBLIC COMMENT

2.1 No public comments.

III. APPROVAL OF THE AGENDA

3.1 *Commissioner Adman moved to adopt the agenda as presented. Commissioner Pratt seconded. The motion passed unanimously.*

IV. BOARD DISCUSSION AND POSSIBLE ACTION ITEMS

4.1 Conversation with IAFF, Local 2459

- o Vice President, Brian Ford, had no comments for the Board.

4.2 RCL Capital Reserve Funding Study

- o The updated study was not available. The study is expected to be completed in the next couple of weeks.
- o The Board will continue to discuss this item at the next meeting.

4.3 Revisit Reserve Funding Resolution 20-10

- o The Board will carry this item forward to the next meeting.
- o Chief McDonald provided an update on the amount of reserve dedicated to facilities in the 2022 budget.
- o The Board will continue to discuss this item at the next meeting.

4.4 Fire Marshall and IT ILA Agreements

- o Chief McDonald updated the Board on the progress of an addendum to extend the NORCOM IT contract through the first quarter of 2022.

- Chief McDonald provided an update that the City of Bothell will not extend their ILA to provide Fire Marshall services after December 31, 2021.
- The Board discussed options for covering Fire Marshall duties in the first quarter of 2022.
- The Board will continue to discuss this item at the next meeting.

4.5 Contract for Services Update

- Chair Webster updated the Board that consultant Tom Broetje will review the materials and provide a briefing at the next meeting.
- The Board will continue to discuss this item at the next meeting.

EXECUTIVE SESSION

The Board moved into Executive Session at 4:27PM until 4:42PM to discuss with legal counsel representing the agency matters relating to litigation or potential litigation pursuant to RCW 42.30.110(1)(i), and to discuss the performance of an employee pursuant to RCW 42.30.110(1)(g). The Board extended the session by five minutes. The Board moved back into open session at 4:50PM.

4.6 Fire Chief Performance Review Discussion

- The Board will prepare a draft performance review for Chief McDonald and will discuss further at a future meeting.

V. UPCOMING BOARD AGENDAS

- 5.1 In addition to the standard items, the November 16th meeting agenda will include RCL Reserve Funding Study, Reserve Funding Resolution 20-10, Fire Marshall ILA Agreements, NSFD operations discussion, Fire Chief Performance Review process, report out from Tom Broetje on the Contract for Services Proposals, and Water Rescue Program overview.

ADJOURNMENT

The meeting adjourned at 4:55PM

NEXT MEETING DATE

The next Board of Commissioners meeting is scheduled for November 16, 2021.

Attachments: Agenda, NSFD 2019 Capital Reserve Study, Resolution 20-10, Fire Marshall ILA, Contract Clarification and Responses from Eastside Fire & Rescue and Shoreline Fire Department.

BOARD OF COMMISSIONERS

ERIC ADMAN, Member

JOSH PRATT, Member

MILTON CURTIS M.D., Member

RICK WEBSTER, Member

DAVID MAEHREN, Member

ATTEST

Amy Oakley, Secretary

King County Fire Protection District No. 16

Adopted at a Regular Meeting of the Board of Commissioners on November 16th, 2021



KING COUNTY FIRE PROTECTION DISTRICT NO.16

7220 NE 181st Street
KENMORE, WA 98028

BUSINESS: 425-354-1780 FAX: 425-354-1781

MEMORANDUM

DATE: November 12, 2021

TO: Board of Fire Commissioners

FROM: Doug McDonald, Interim Fire Chief

RE: Chief's Report

Please see the Chief's report submitted for November 16, 2021.

1. Captain John Burrow will continue as the NSFD Training Captain in 2022. This will be year 3 of his appointment. He is doing an outstanding job and we are excited to see what 2022 will bring with his continued leadership in that position.
2. Our recruit is progressing, they completed week 11 of the academy on October 29th. Currently there are 22 recruits progressing through the academy. They had a state Hazmat Operations exam this last week we are awaiting the results.
3. Along with Kirkland Fire, NSFD has ordered our (2) new watercraft for our water rescue program. Anticipated arrival date will be March 2022. The vendor required 50% down. This was accomplished through funds from the apparatus reserve that will be replenished upon receipt of 2022 budget dollars.
4. All NSFD apparatus is operational. In collaboration with Zone 1 Tech Rescue and UASI Rescue 151 is being equipped with state of art structural collapse equipment identical to the other ladder trucks in the zone. Big thanks to Anders Hansson, Brian Ford, and FF Randy Hart from the Bellevue Fire Department for making this happen. We have also placed battery powered nail guns and circular saws in service on Rescue 151. This will assist in noise reduction due to the need for an air compressor or generator and assist in remote location use without a air hose or extension power cord.
5. We currently have 3 Operations members off on disability, FMLA. Overtime expenses are anticipated to be well over current budgeted amounts. Consideration to utilize disaster funds to help offset overage.
6. We are scheduling monthly Labor/Management meetings to ensure we address any issues at the lowest level. At our most recent L/M meeting, we signed a MOU regarding the BC list 1

year extension and have a policy update on time off that will be coming to the board for approval.

7. The NKCTC will be conducting two academies in 2022. This involves the use of Station 51's facility for most of the year by recruits/instructors and associated staff. We anticipate have recruits in both along with an instructor from the NSFD.
8. NSFD was contacted by the Washington Survey Rating Bureau on September 30. They advised us that we will be up for a review in 2022. Our current WSRB rating is a Class 3. We moved from a 4 to a 3 in December of 2017. We have 4 members participating in an online webinar to help prepare us for the upcoming evaluation. Chief McDonald and Inspector Booth both attended a online webinar on how to properly prepare for a WSRB review on November 3, 2021.
9. The district received a memo from DC/FM Noble on November 3, 2021, stating that he will not be able to extend his duties as our Fire Marshal past December 31, 2021. Administration has begun to look at other options including looking at retired FM/Plans reviewers to fill in or contracting out until a determination is made as to a contract for service.
10. Chief McDonald has contacted NORCOM, and they are willing to extend the IT contract through the 1st qtr. of 2022.
11. The districts insurance company VFIS will be onsite with Chief McDonald on November 18th to conduct an in-person review of the districts insurance needs and evaluate our driving, training, and other risk related items. Chief McDonald has met via phone with the VFIS, and we have all compiled records required ready to go for this visit.
12. The district is currently gathering information on 4 Public Records Request, plus preparing for a 5th Public Records Request. The district is following the recommendation of legal, and we believe all timelines have been met as of October 1,2021. We are also in the process of hiring a temporary administrative person to deal specifically with the PRR. I will provide you an update as we progress.

HR Manager and members of our staff conducted rapid interviews (10) minutes long and 3 different panels to determine candidates that will move forward to the full oral board. Our team interviewed 61 candidates and have approx. 21 candidates moving forward to the oral board. The district had over 1000 people apply for NSFD through National Testing Network. Big thank you to HR Manager Moore, Kathy Walsh, BC Hochstein, Lt. Pritchett, ALT Ross, FF Wilkinson for their work during these long days.

13. Electrical work at 51 is complete, lighting around the drill ground, parking lot and station has been upgraded based on the request from facility program manager BC Morris.
14. DC/FM Noble reported that previous Northshore Fire Commissioner Ron Gehrke passed away over the weekend. We have his family in our thoughts.

HR Report/Hiring Update

- FF Hiring Update: Applicants were reviewed and top candidates were invited to participate in rapid assessment interviews with three groups of District personnel. Candidates have been chosen from the participants and invited to interview with our oral board panel

and complete a cognitive skills assessment the week of November 15. Selected candidates will move forward to a Chief interview.

- AS Kunkel passed her Inspector 1 exam.
- AS Kunkel is preparing information for Fire Benefit Charge deadlines.
- 2022 shift assignments were distributed to members.
- Open enrollment has begun. Communications have been sent out, with required annual notices following soon.
- Performance evaluation season continues. HRM Moore continues to work with supervisors to complete. AS Kunkel and HRM Moore continue to support staff with any technical support needed.
- HRM Moore created and distributed monthly newsletter.
- HRM Moore has begun review of job descriptions to ensure up-to-date.
- HRM Moore continues work with neighboring agencies to support the recruitment efforts to fill the NEMCo Emergency Manager vacancy.

TRAINING UPDATE

- NKCTC Training Officer's assisted the NKCTC Academy with Live Fire training at North Bend Washington State Patrol Fire Academy.
- NKCTC Training Officer's assisted the NKCTC Academy with Live Fire at Renton Station 14.
- NKCTC Training Officer's delivered tactical training to crews with the area of focus on: Initial Radio Reports, Follow-up Radio Reports, and creating Divisions and Groups.
- NKCTC Training Officer's finalized the curriculum for the fourth quarter Tactical Training
- The NKCTC Academy 21-1 is currently in Week 12 (week of November 15).

FIRE PREVENTION/PIO/PUBLIC OUTREACH

FM issued 6 single family resident fire sprinkler permits

FM assessed 2 short plat reviews for the City of Kenmore

Inspector Booth conducted 19 code enforcement inspections

Inspector Booth conducted 4 sprinkler/fire alarm inspections

Inspector Booth issued 1 tank permit

Inspector Booth followed up on several outstanding permits

Inspector Booth worked with a local business on a fire alarm issue and establishing a Fire Watch

Inspector Booth worked with the Northshore School District and City of Kenmore on new security fencing around schools

Inspector Booth worked with 3 businesses to update keys in knoxboxes

Inspector Booth attended a workshop webinar for WSRB

Inspector Booth continued work with Sybatech (CodePAL inspection software company) to resolve an issue on the Surface Tablet

Inspector Booth is working on CodePAL (inspection program) to clear corrected violations from the database

Inspector Booth working with LFPPD/NEMCo Steering Committee on a CERT Final on 11/20

Inspector Booth continuing to work through an ongoing TCE (The Compliance Engine) database issue– managing deficiencies in fire and life safety systems in district

Inspector Booth pushed out power outage & fall back (change your clock/change your smoke alarm batteries) information on Facebook.

Reaction time 51 90% Fractile	Reaction Time 57 90% Fractile	Response Time Avg Call received to O/S	Response Time 90% Call received to O/S
A shift 1:45	A shift 2:27	5:32	9:03
B shift 1:51	B shift 2:20		
C shift 2:42	C shift 2:02		
D shift 2:10	D shift 1:45		
11/12	11/12		

Call Types of	Number of Calls -Nov 3-Nov 12, 2021
Rescue	1
Structure Fire	0
Natural Vegetation	0
EMS	73
Odor Smoke	0
Electrical wiring	2
Flammable Liquid spill	2
Public Service	6
Dispatched and cancelled	10
Water problem	1
False alarm/system malfunction	4
Other	0
Total calls	99

COVID-19 Update as of 10/25/2021

1. 165164 total cases all (King County)
2. 8471 total hospitalizations all (King County)
3. 2012 total fatalities all (King County)
4. Kenmore – 1159 total cases,74 hospitalizations and 19 fatalities,
5. LFP – 554 total cases, 22 hospitalizations and 5 fatalities
6. King County Vaccination rate – 83% completely vaccinated
7. NSFD will be participating in a pilot program authorized by Dr. Rea. Document is attached. NO positive cases identified
8. Boosters are now approved for all three vaccines for folks over 65, under 65 if high risk and health care workers
9. Reminder that the proof of vaccination is now required in King County – KC Public Health is monitoring compliance

Auto Aid IN to Assist NSFD (All Call Types)

Kirkland	0	11-3-11-12
Bothell	1	
Shoreline	4	

Auto Aid OUT of District (All Call Types)

Kirkland	6	11-2-11-12
Bothell	4	
Shoreline	4	