

Client: 22568A North Shore Terrace

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**Comp #:** 100 Sidewalks, Patios, Curb - Repair

Quantity: Extensive square feet

Location: Sidewalks, walkways, patios, curb, etc.

Evaluation: We noted generally stable condition with no significant damage/deterioration observed. Some minor local cracking and displacement. There was no record of large scale expenses (>\$2.500) noted within association expense history.

As routine maintenance, inspect regularly, pressure wash for appearance and repair promptly as needed to prevent water penetrating into the base and causing further damage. Repair any trip and fall hazards (1/2" or more displacement) immediately to ensure safety.

Larger repair/replacement expenses may emerge as the community ages, but are difficult to predict (timing, cost and scope) at this time. We suggest treating as a general maintenance expense - evaluating each year and allocating repair needs within the operating budget. If regular patterns of significant repair emerge in future, or need for a large renovation project becomes apparent, funding can be included within a future reserve study update. No reserve funding suggested at this time.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source:

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Client: 22568A North Shore Terrace

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**Comp #:** 110 **Site Stairs - Repair/Replace**

Quantity: (1) wood stair set

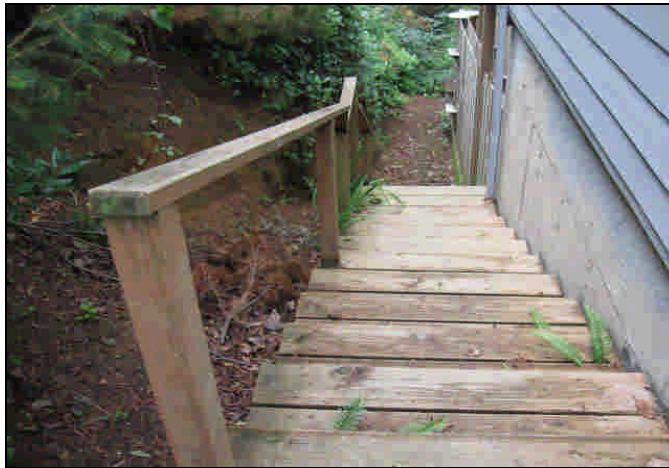
Location: Side of building 96 A-D

Evaluation: Generally stable condition - no rot, damage or other advanced wear observed.

As routine maintenance, inspect regularly and perform any needed local repairs promptly as general maintenance expense to ensure that tread and rail connections are tight, secure and slip resistant. With ordinary care and maintenance, plan to replace at roughly the 25 year mark of life. Use quality treated, cedar, composite or similar with appropriate hardware for this coastal location (grade 316 stainless steel best).

Useful Life:  
25 years

Remaining Life:  
7 years



Best Case: \$2,000.00

Worst Case: \$2,500.00

Lower allowance to replace stairs & rail

Higher allowance; upgraded

Cost Source: ARI Cost Database: Similar Project Cost History

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Client: 22568A North Shore Terrace

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**Comp #:** 120 Asphalt - Resurface

Quantity: Approx 30,100 GSF

Location: Roadway, parking areas of association

Evaluation: Overall fair condition. Some local alligator cracking, settling / waviness noted. Majority is stable.

We recommend having surface sealed and repaired as directed in component #121; regular cycles of seal coating are recommended for maximum design life. As routine maintenance, keep roadway clean, free of debris and well drained; fill/seal cracks to prevent water from penetrating into the sub-base and accelerating damage. Even with ordinary care and maintenance, plan for eventual large scale resurface (overlay) at roughly the time frame below. As timing draws nearer, consult with asphalt vendor/consultant for recommendations and complete scope.



Useful Life:  
35 years

Remaining Life:  
18 years

Best Case: \$39,130.00

\$1.30/Sq Ft, Lower estimate to resurface (overlay)

Worst Case: \$51,170.00

\$1.70/Sq Ft, Higher estimate

Cost Source: Research with Local Vendor/Contractor

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Client: 22568A North Shore Terrace

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**Comp #:** 121 Asphalt - Seal/Repair/Stripe

Quantity: Approx 30,100 GSF

Location: Roadway, parking areas of association

Evaluation: Fair surface seal condition noted. Reportedly sealed in 2009 - areas of cracking were not sealed / repaired. We recommend seven year cycles to seal coat.

Regular cycles of seal coating (along with any needed repair) has proven to be the best program in our opinion for the long term care of lower traffic asphalt areas such as these. The State of Oregon, Department of Transportation recommends regular cycles of seal coating (they use the term bituminous surface treatment, BST) for the long-term care of asphalt paving with low traffic and low speed. The primary reason to seal coat asphalt pavement is to protect the pavement from the deteriorating effects of sun and water. When asphalt pavement is exposed, the asphalt oxidizes, or hardens which causes the pavement to become more brittle. As a result, the pavement will be more likely to crack, because it is unable to bend and flex when subjected to traffic and temperature changes. A seal coat combats this situation by providing a waterproof membrane, which not only slows down the oxidation process but also helps the pavement to shed water, preventing it from entering the base material. Seal coat also provides uniform appearance, concealing the inevitable patching and repairs which accumulate over time. Seal coat ultimately extends useful life of asphalt, postponing the asphalt resurfacing, which can be one of the larger cost items in the reserve study (see component #120 for asphalt resurfacing costs). Repair asphalt before seal coating. Surface preparation and dry weather, during and following application, is key to lasting performance. The ideal conditions are a warm, sunny day with low humidity; rain can cause major problems when seal coating and should never be done when showers are threatening. Apply two coats of flood application of quality asphalt emulsion. Incorporate any striping and curb repair into this project. Fill cracks and clean oil stains promptly in between cycles as routine maintenance.

Useful Life:  
7 years

Remaining Life:  
4 years



Best Case: \$6,020.00

\$0.20/Sq Ft, Lower estimate to clean/seal/stripe

Worst Case: \$9,030.00

\$0.30/Sq Ft, Higher estimate, more repairs, etc.

Cost Source: Client Cost History

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Client: 22568A North Shore Terrace

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**Comp #:** 140 Bldg 66 Wood Fence - Replace

Quantity: ~ (330) linear feet

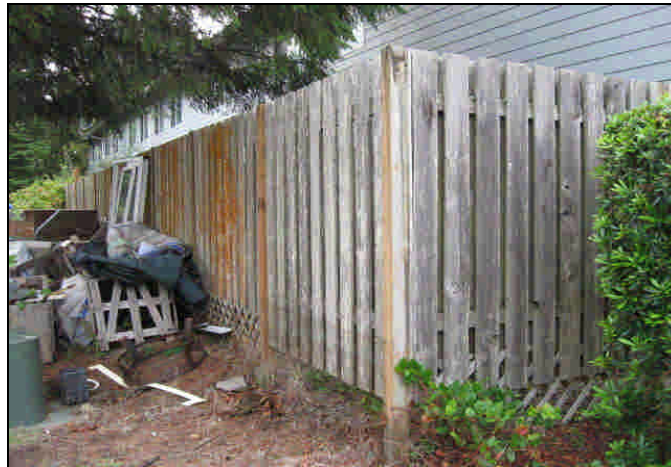
Location: Rear of building, entry porch privacy

Evaluation: Poor condition with advanced wear throughout. Assumed to have been originally installed in 1992. Twenty year service life is upper end of range in our experience. No firm bids for replacement at this time - see below for typical cost range to remove and replace with quality treated / cedar fence.

As routine maintenance, inspect regularly for any damage, repair as needed and avoid contact with ground, surrounding vegetation and sprinkler patterns. Plan to replace soon; funding included here for similar wood replacement. Association might want to consider replacing with more sturdy, lesser maintenance products like composite, vinyl, fiber-cement, etc; typical costs at installation are about 30% higher, but requires less maintenance and will have longer life.

Useful Life:  
20 years

Remaining Life:  
0 years



Best Case: \$6,600.00

\$20/LF, Lower estimate to replace

Worst Case: \$9,900.00

\$30/LF, Higher estimate

Cost Source: ARI Cost Database: Similar Project Cost History

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Client: 22568A North Shore Terrace

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**Comp #:** 140 Bldg 76 Wood Fence - Replace

Quantity: ~ (220) linear feet

Location: Rear of building, entry porch privacy

Evaluation: Poor condition with advanced wear throughout. Assumed to have been originally installed in 1993. Twenty year service life is upper end of range in our experience. No firm bids for replacement at this time - see below for typical cost range to remove and replace with quality treated / cedar fence.

As routine maintenance, inspect regularly for any damage, repair as needed and avoid contact with ground, surrounding vegetation and sprinkler patterns. Plan to replace soon; funding included here for similar wood replacement. Association might want to consider replacing with more sturdy, lesser maintenance products like composite, vinyl, fiber-cement, etc; typical costs at installation are about 30% higher, but requires less maintenance and will have longer life.



Useful Life:  
20 years

Remaining Life:  
0 years

Best Case: \$4,400.00

\$20/LF, Lower estimate to replace

Worst Case: \$6,600.00

\$30/LF, Higher estimate

Cost Source: ARI Cost Database: Similar Project Cost History

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Client: 22568A North Shore Terrace

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**Comp #:** 140 Bldg 85 Wood Fence - Replace

Quantity: ~(165) linear feet

Location: Rear of building

Evaluation: Stable condition - some local repair observed. Assumed new at time of building construction in 1997.

As routine maintenance, inspect regularly for any damage, repair as needed and avoid contact with ground, surrounding vegetation and sprinkler patterns. Plan to replace at roughly the time frame below; funding included here for similar wood replacement. At next replacement, association might want to consider replacing with more sturdy, lesser maintenance products like composite, vinyl, etc; typical costs at installation are about 30% higher, but requires less maintenance and will have longer life.



Useful Life:  
20 years

Remaining Life:  
5 years

Best Case: \$3,300.00

\$20/LF, Lower estimate to replace

Worst Case: \$4,950.00

\$30/LF, Higher estimate

Cost Source: ARI Cost Database: Similar Project Cost History

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Client: 22568A North Shore Terrace

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**Comp #:** 140 Bldg 86 Wood Fence - Replace

Quantity: ~ (340) linear feet

Location: Rear of building, entry courtyard

Evaluation: Poor condition with advanced wear throughout. Assumed to have been originally installed in 1992. Twenty year service life is upper end of range in our experience.

As routine maintenance, inspect regularly for any damage, repair as needed and avoid contact with ground, surrounding vegetation and sprinkler patterns. Funding included here for similar wood replacement. Association might want to consider replacing with more sturdy, lesser maintenance products like composite, vinyl, fiber-cement, etc; typical costs at installation are about 30% higher, but requires less maintenance and will have longer life.

Note: unit 86 A is reportedly newer and not included in total above.



Useful Life:  
20 years

Remaining Life:  
1 years

Best Case: \$6,800.00  
\$20/LF, Lower estimate to replace

Worst Case: \$10,200.00  
\$30/LF, Higher estimate

Cost Source: ARI Cost Database: Similar Project Cost History

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Client: 22568A North Shore Terrace

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**Comp #:** 140 Bldg 96 A-D Wood Fence - Replace

Quantity: ~(160) linear feet

Location: Rear of building

Evaluation: Fair condition - stable, less wear than 66,76 and 86. Assumed to have been originally installed in 1994. Twenty year service life is upper end of range in our experience. Plan to replace within the next few years (2014 scheduled below).

As routine maintenance, inspect regularly for any damage, repair as needed and avoid contact with ground, surrounding vegetation and sprinkler patterns. Funding included here for similar wood replacement. Association might want to consider replacing with more sturdy, lesser maintenance products like composite, vinyl, fiber-cement, etc; typical costs at installation are about 30% higher, but requires less maintenance and will have longer life.

Note: unit 96 D is newer and not included in total above.



Useful Life:

20 years

Remaining Life:

2 years

Best Case: \$3,200.00

\$20/LF, Lower estimate to replace

Worst Case: \$4,800.00

\$30/LF, Higher estimate

Cost Source: ARI Cost Database: Similar Project Cost History

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Client: 22568A North Shore Terrace

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**Comp #:** 140 Bldg 96 E-H Wood Fence - Replace

Quantity: ~(140) linear feet

Location: Rear of building, entry courtyard

Evaluation: Stable, but mildewed and worn in appearance. Assumed to have been originally installed in 1996. Twenty year service life is upper end of range in our experience. Plan to replace around the time frame indicated below.

As routine maintenance, inspect regularly for any damage, repair as needed and avoid contact with ground, surrounding vegetation and sprinkler patterns. Funding included here for similar wood replacement as other buildings.

Useful Life:  
20 years

Remaining Life:  
4 years



Best Case: \$2,800.00

\$20/LF, Lower estimate to replace

Worst Case: \$4,200.00

\$30/LF, Higher estimate

Cost Source: ARI Cost Database: Similar Project Cost History

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Client: 22568A North Shore Terrace

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**Comp #:** 141 Wood Fence - Clean/Stain

Quantity: ~ (1355) linear feet

Location: Rear of buildings, entry areas

Evaluation: Existing wood fence has not been stained. We assume this policy will continue, with fence left to naturally weather / gray. Therefore, no basis for reserve funding. As routine maintenance, fence should be cleaned, any contact with ground or vegetation removed and any local repair performed as general maintenance expense. For information purposes, typical clean and stain with quality product is in the \$3.00 to \$4.00 per linear foot range.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source:

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Client: 22568A North Shore Terrace

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**Comp #:** 157 Retention Walls - Repair/Replace

Quantity: ~(160) square feet

Location: Common area between 86 and 96

Evaluation: Fair, stable condition noted with no obvious wood deterioration or other problems observed. Treated wood material. Assumed to have been properly designed and installed with adequate base and surrounding drainage. Inspect regularly, repair as needed from operating budget. If shifting, cracking, etc. are observed, consult with appropriate professional for repair scope. At this time, no predictable expectation of large scale repairs or replacement; no reserve funding recommended.



Useful Life:

Remaining Life:

Best Case:

Worst Case:

Cost Source:

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Client: 22568A North Shore Terrace

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**Comp #:** 160 Pole Lights - Replace

Quantity: (9) plastic pole lts

Location: Throughout association common area along roads/parking areas

Evaluation: Fair to poor condition noted. Generally stable, but globes show local damage, fading and wear. Observed during daylight hours; assumed to be in functional operating condition.

As routine maintenance, inspect, repair/change bulbs as needed. Best to plan for large scale replacement at roughly the time frame below for cost efficiency and consistent quality/appearance throughout association.



Useful Life:  
25 years

Remaining Life:  
7 years

Best Case: \$3,600.00

\$400/each, Lower allowance to replace; installed

Worst Case: \$5,400.00

\$600/ea, Higher allowance; upgraded

Cost Source: ARI Cost Database: Similar Project Cost History

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Client: 22568A North Shore Terrace

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**Comp #:** 170 Landscape - Refurbish

Quantity: Moderate areas

Location: Common area open space tracts throughout community

Evaluation: Common area landscaping is adequate. Plantings are older and generally simple, native species.

No specific problems observed or identified by association contact. Although typically funded as ongoing maintenance item, this component may be utilized for setting aside funds for larger expenses that do not occur on an annual basis, such as: large scale plantings, bark/mulch replenishment every few years, etc. Often times these type of projects can be handled within the annual operating budget as a separate line item from the landscape maintenance contract. 2011 landscape budget is reportedly \$4,800 for maintenance activities.

At this time no specific additional projects anticipated and no desire by community for larger scale refurbishing at this time. Monitor and include funding in reserve study updates if needed / desired.

Note: bark mulch was touching siding in places - this should be removed as soon as possible.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source:

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Client: 22568A North Shore Terrace

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**Comp #:** 182 Drainage/Stormwater Sys - Maintain

Quantity: Basins, grates, piping

Location: Common areas of property

Evaluation: Our reserve study includes only a visual review, and majority of the drainage system is out of view. The (6) catch basins viewed all had standing water and debris.

As routine maintenance, inspect regularly, keep drains and grates free of debris and free flowing to ensure water drains as designed. Pipes can be 'scoped' to allow visual review of the interior of pipes. Repair as needed, including pumping out sediment, if needed, utilizing mobile evacuator service. Fund from operating and maintenance budget. No predictable expectation of large-scale repairs/replacement at this time. Therefore, no basis for reserve funding at this time.



Useful Life:

Remaining Life:

Best Case:

Worst Case:

Cost Source:

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Client: 22568A North Shore Terrace

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**Comp #:** 190 Trees - Trim/Remove

Quantity: Moderate, assorted

Location: Common areas

Evaluation: Property is not heavily treed - those present are generally mature, some near buildings. This component may be utilized for larger tree removal/trimming projects which do not occur on an annual basis. If the community has not already done so, consult with a qualified arborist for a long term plan for the care and management of the trees within the community, balancing aesthetics with protection of association assets. No predictable large scale expenses forming the basis for reserve funding at this time. Include in future reserve study updates if necessary.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source:

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**Comp #:** 201 Signage - Refurbish

Quantity: Building, unit lettering

Location: Building exterior locations

Evaluation: There is no entry monument sign. Lettering / numbering is in legible condition with no significant damage/deterioration noted. As routine maintenance, inspect regularly, clean/touch up for appearance and repair from operating budget. Too small of a component to merit reserve funding.

Useful Life:

Remaining Life:



Best Case:

Worst Case:

Cost Source:

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Client: 22568A North Shore Terrace

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**Comp #:** 205 Mailboxes - Replace

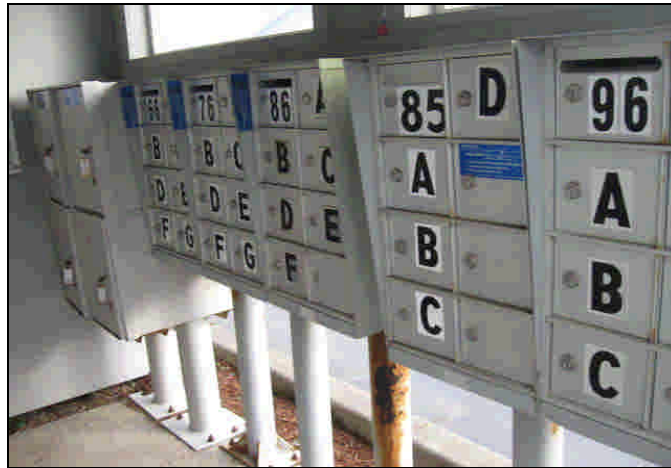
Quantity: (7) stands

Location: Central common area of community

Evaluation: (4) 8 unit cluster boxes (1) 12 unit (2) vinyl parcel lockers. Fair to poor condition of metal cluster stands/boxes with rust throughout base and hardware. No functional problems reported. Inspect regularly, clean by wiping down for appearance, change lock cylinders, lubricate hinges and paint bases with rust inhibitor, repair as needed from operating budget. Best to plan for total replacement at roughly the time frame below due to constant exposure, usage and wear over time. Note: USPS has a limited budget for replacement and should not be relied upon for purposes of long term planning.

Useful Life:  
20 years

Remaining Life:  
4 years



Best Case: \$7,700.00

Worst Case: \$9,800.00

\$1,100/each (avg), Lower estimate to remove and replace

\$1,400/each (avg), Higher estimate; upgrades

Cost Source: ARI Cost Database: Similar Project Cost History

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Client: 22568A North Shore Terrace

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**Comp #:** 324 Exterior Lights - Replace

Quantity: Assorted fixtures

Location: Building exterior locations

Evaluation: Varying condition of lights; no damage or unusual wear noted. Observed during daylight hours and assumed to be in functional operating condition. As routine maintenance, inspect, repair/change bulbs as needed. Because the ages vary throughout and each buildings exterior lighting can generally be replaced for less than \$1,500 we suggest it is not appropriate for reserve funding. We suggest individual fixtures be replaced as needed, or included in the operating budget, best timed to coincide with exterior paint cycles. No reserve funding suggested at this time.



Useful Life:

Remaining Life:

Best Case:

Worst Case:

Cost Source:

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Client: 22568A North Shore Terrace

**Comp #:** 500 Bldg 66 Roof - Replace

Quantity: Approx 14,640 square feet

Location: Rooftop of building and garages

Evaluation: Roofing is three tab shingles, reportedly replaced last in 2006 with Malarkey Rubberized spec. Ventilation (the lack of which can greatly reduce useful life) was observed at both eave and ridge. Eave venting consisted of circular holes in blocking between rafters. Ridge venting appeared to be provided by continuous ridge vents. Visible portions of roof flashing were observed at the rake, headwall, and sidewall conditions. Kick out flashings were observed. Gutters blocked the view of eaves, so eave flashing was not confirmed. Some local debris and moss observed.

This type of roofing typically has a 15 to 18 year service life assuming it was properly installed and is properly maintained. As routine maintenance, many manufacturers recommend inspections at least twice annually (once in the fall, before the rainy season, and again in the spring) and after large storm events. Promptly replace any damaged/missing sections or any other repair needed to ensure waterproof integrity of roof. Keep roof surface, gutters and downspouts clear and free of moss or debris. Moss growth can decrease the life of the roofing shingles and should be removed sooner than later. Liquid applied fungicide (moss killer) is recommended instead of power washing the living moss off the shingles. Moss roots grow into the shingles. Killing the moss in-place, with a fungicide, allows the roots to gradually release from the shingles. After roots have died and released, then the moss can be removed (with broom or low pressure water) taking care to not damage the shingles. Do not use high-pressure water to remove moss as the high-pressure can loosen granular surface of shingles, erode the shingle surface, reducing the remaining useful life.

There is a wealth of information available through Roofing Organizations such as the Western States Roofing Contractors Association (WSRCA) <http://www.wsrca.com/> Roof Consultant Institute <http://www.rci-online.org/> and the National Roofing Contractors Association (NRCA) <http://www.nrca.net/>. NRCA has some very good information for homeowners. They have an entire section dedicated to "consumer" with valuable information including this page for getting your monies worth out of your new roof.

<http://www.nrca.net/consumer/fyi.aspx?homeowners>

Their page on maintenance is here: <http://www.nrca.net/consumer/maintenance.aspx>

Plan for replacement at roughly the time frame indicated below. Costs below include replacing with a similar shingle to what is currently in place. We suggest that the best value (life cycle cost) might be to spend about \$2 - \$3/square foot more and install a 50-year shingle.

At time of re-roof we recommend that you hire a professional roof consultant such as Architect, Engineer, or building envelope consultant; to evaluate, design, specify, help bid the project, select best bidder, and observe construction to ensure proper installation. We recommend all Associations seek advice from a qualified consultant whenever they are considering having work performed on any building envelope components (roof, walls, windows, decks, exterior painting and caulking/sealant).

Useful Life:  
25 years

Remaining Life:  
19 years



Best Case: \$29,280.00

\$2.00/Sq Ft, lower estimate to remove and replace roof

Worst Case: \$36,600.00

\$2.50/Sq Ft, higher estimate; upgrades, underlying repair needs, metal work, etc...

Client: 22568A North Shore Terrace

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Cost Source: ARI Cost Database: Similar Project Cost History

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Client: 22568A North Shore Terrace

**Comp #:** 500 Bldg 76 Roof - Replace

Quantity: Approx 11,475 square feet

Location: Rooftop of building and garages

Evaluation: Roofing is three tab shingles, reportedly replaced last in 2005 with Malarkey Rubberized spec. Some local minor edge curling, but no missing shingles or obvious damage. Ventilation (the lack of which can greatly reduce useful life) was observed at both eave and ridge. Eave venting consisted of circular holes in blocking between rafters. Ridge venting appeared to be provided by continuous ridge vents. Visible portions of roof flashing were observed at the rake, headwall, and sidewall conditions. Kick out flashings were observed. Gutters blocked the view of eaves, so eave flashing was not confirmed. Some local debris and moss observed.

This type of roofing typically has a 15 to 18 year service life assuming it was properly installed and is properly maintained. As routine maintenance, many manufacturers recommend inspections at least twice annually (once in the fall, before the rainy season, and again in the spring) and after large storm events. Promptly replace any damaged/missing sections or any other repair needed to ensure waterproof integrity of roof. Keep roof surface, gutters and downspouts clear and free of moss or debris. Moss growth can decrease the life of the roofing shingles and should be removed sooner than later. Liquid applied fungicide (moss killer) is recommended instead of power washing the living moss off the shingles. Moss roots grow into the shingles. Killing the moss in-place, with a fungicide, allows the roots to gradually release from the shingles. After roots have died and released, then the moss can be removed (with broom or low pressure water) taking care to not damage the shingles. Do not use high-pressure water to remove moss as the high-pressure can loosen granular surface of shingles, erode the shingle surface, reducing the remaining useful life.

There is a wealth of information available through Roofing Organizations such as the Western States Roofing Contractors Association (WSRCA) <http://www.wsrca.com/> Roof Consultant Institute <http://www.rci-online.org/> and the National Roofing Contractors Association (NRCA) <http://www.nrca.net/>. NRCA has some very good information for homeowners. They have an entire section dedicated to "consumer" with valuable information including this page for getting your monies worth out of your new roof.

<http://www.nrca.net/consumer/fyi.aspx?homeowners>

Their page on maintenance is here: <http://www.nrca.net/consumer/maintenance.aspx>

Plan for replacement at roughly the time frame indicated below. Costs below include replacing with a similar shingle to what is currently in place. We suggest that the best value (life cycle cost) might be to spend about \$2 - \$3/square foot more and install a 50-year shingle.

At time of re-roof we recommend that you hire a professional roof consultant such as Architect, Engineer, or building envelope consultant; to evaluate, design, specify, help bid the project, select best bidder, and observe construction to ensure proper installation. We recommend all Associations seek advice from a qualified consultant whenever they are considering having work performed on any building envelope components (roof, walls, windows, decks, exterior painting and caulking/sealant).

Useful Life:  
25 years

Remaining Life:  
18 years



Best Case: \$29,280.00

\$2.00/Sq Ft, lower estimate to remove and replace roof

Worst Case: \$36,600.00

\$2.50/Sq Ft, higher estimate; upgrades, underlying repair needs, metal work, etc...

Client: 22568A North Shore Terrace

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Cost Source: ARI Cost Database: Similar Project Cost History

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Client: 22568A North Shore Terrace

**Comp #:** 500 Bldg 85 Roof - Replace

Quantity: Approx 4,600 square feet

Location: Rooftop of building and garages

Evaluation: Roofing is three tab shingles; original, installed in 1997. No reported leaks, no missing shingles or obvious damage. Ventilation (the lack of which can greatly reduce useful life) was observed at the eave; ridge was difficult to observe due to height. Eave venting consisted of circular holes in blocking between rafters. Visible portions of roof flashing were observed at the rake, headwall, and sidewall conditions. Gutters blocked the view of eaves, so eave flashing was not confirmed.

This type of roofing typically has a 15 to 18 year service life assuming it was properly installed and is properly maintained. As routine maintenance, many manufacturers recommend inspections at least twice annually (once in the fall, before the rainy season, and again in the spring) and after large storm events. Promptly replace any damaged/missing sections or any other repair needed to ensure waterproof integrity of roof. Keep roof surface, gutters and downspouts clear and free of moss or debris. Moss growth can decrease the life of the roofing shingles and should be removed sooner than later. Liquid applied fungicide (moss killer) is recommended instead of power washing the living moss off the shingles. Moss roots grow into the shingles. Killing the moss in-place, with a fungicide, allows the roots to gradually release from the shingles. After roots have died and released, then the moss can be removed (with broom or low pressure water) taking care to not damage the shingles. Do not use high-pressure water to remove moss as the high-pressure can loosen granular surface of shingles, erode the shingle surface, reducing the remaining useful life.

There is a wealth of information available through Roofing Organizations such as the Western States Roofing Contractors Association (WSRCA) <http://www.wsrca.com/> Roof Consultant Institute <http://www.rci-online.org/> and the National Roofing Contractors Association (NRCA) <http://www.nrca.net/>. NRCA has some very good information for homeowners. They have an entire section dedicated to "consumer" with valuable information including this page for getting your monies worth out of your new roof. <http://www.nrca.net/consumer/fyi.aspx?homeowners>  
Their page on maintenance is here: <http://www.nrca.net/consumer/maintenance.aspx>

Plan for replacement at roughly the time frame indicated below. Costs below include replacing with a similar shingle to what is currently in place. We suggest that the best value (life cycle cost) might be to spend about \$2 - \$3/square foot more and install a 50-year shingle.

At time of re-roof we recommend that you hire a professional roof consultant such as Architect, Engineer, or building envelope consultant; to evaluate, design, specify, help bid the project, select best bidder, and observe construction to ensure proper installation. We recommend all Associations seek advice from a qualified consultant whenever they are considering having work performed on any building envelope components (roof, walls, windows, decks, exterior painting and caulking/sealant).

Useful Life:  
25 years

Remaining Life:  
10 years



Best Case: \$9,200.00

\$2.00/Sq Ft, lower estimate to remove and replace roof

Worst Case: \$11,500.00

\$2.50/Sq Ft, higher estimate; upgrades, underlying repair needs, metal work, etc...

Client: 22568A North Shore Terrace

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Cost Source: ARI Cost Database: Similar Project Cost History

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Client: 22568A North Shore Terrace

**Comp #:** 500 Bldg 86 Roof - Replace

Quantity: Approx 11,470 square feet

Location: Rooftop of building and garages

Evaluation: Roofing is three tab shingles; reportedly replaced in 2005 with Malarkey Rubberized spec. No reported leaks, no missing shingles or obvious damage. Ventilation (the lack of which can greatly reduce useful life) was observed at the eave and ridge. Visible portions of roof flashing were observed at the rake, headwall, and sidewall conditions. Gutters blocked the view of eaves, so eave flashing was not confirmed.

This type of roofing typically has a 15 to 18 year service life assuming it was properly installed and is properly maintained. As routine maintenance, many manufacturers recommend inspections at least twice annually (once in the fall, before the rainy season, and again in the spring) and after large storm events. Promptly replace any damaged/missing sections or any other repair needed to ensure waterproof integrity of roof. Keep roof surface, gutters and downspouts clear and free of moss or debris. Moss growth can decrease the life of the roofing shingles and should be removed sooner than later. Liquid applied fungicide (moss killer) is recommended instead of power washing the living moss off the shingles. Moss roots grow into the shingles. Killing the moss in-place, with a fungicide, allows the roots to gradually release from the shingles. After roots have died and released, then the moss can be removed (with broom or low pressure water) taking care to not damage the shingles. Do not use high-pressure water to remove moss as the high-pressure can loosen granular surface of shingles, erode the shingle surface, reducing the remaining useful life.

There is a wealth of information available through Roofing Organizations such as the Western States Roofing Contractors Association (WSRCA) <http://www.wsrca.com/> Roof Consultant Institute <http://www.rci-online.org/> and the National Roofing Contractors Association (NRCA) <http://www.nrca.net/>. NCRA has some very good information for homeowners. They have an entire section dedicated to "consumer" with valuable information including this page for getting your monies worth out of your new roof. <http://www.nrca.net/consumer/fyi.aspx?homeowners>  
Their page on maintenance is here: <http://www.nrca.net/consumer/maintenance.aspx>

Plan for replacement at roughly the time frame indicated below. Costs below include replacing with a similar shingle to what is currently in place. We suggest that the best value (life cycle cost) might be to spend about \$2 - \$3/square foot more and install a 50-year shingle.

At time of re-roof we recommend that you hire a professional roof consultant such as Architect, Engineer, or building envelope consultant; to evaluate, design, specify, help bid the project, select best bidder, and observe construction to ensure proper installation. We recommend all Associations seek advice from a qualified consultant whenever they are considering having work performed on any building envelope components (roof, walls, windows, decks, exterior painting and caulking/sealant).

Useful Life:  
25 years

Remaining Life:  
18 years



Best Case: \$22,940.00

\$2.00/Sq Ft, lower estimate to remove and replace roof

Worst Case: \$28,680.00

\$2.50/Sq Ft, higher estimate; upgrades, underlying repair needs, metal work, etc...

Cost Source: ARI Cost Database: Similar Project Cost History

Client: 22568A North Shore Terrace

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Client: 22568A North Shore Terrace

Comp #: 500 Bldg 96 A-D Roof - Replace

Quantity: Approx 5,650 square feet

Location: Rooftop of building and garages

Evaluation: Roofing is three tab shingles; original, installed in 1994. No reported leaks, no missing shingles or obvious damage. Ventilation (the lack of which can greatly reduce useful life) was observed at the eave; ridge was difficult to observe due to height. Eave venting consisted of circular holes in blocking between rafters. Visible portions of roof flashing were observed at the rake, headwall, and sidewall conditions. Gutters blocked the view of eaves, so eave flashing was not confirmed.

This type of roofing typically has a 15 to 18 year service life assuming it was properly installed and is properly maintained. No current leaks reported - due to cash flow needs, replacement deferred below until 2013. As routine maintenance, many manufacturers recommend inspections at least twice annually (once in the fall, before the rainy season, and again in the spring) and after large storm events. Promptly replace any damaged/missing sections or any other repair needed to ensure waterproof integrity of roof. Keep roof surface, gutters and downspouts clear and free of moss or debris. Moss growth can decrease the life of the roofing shingles and should be removed sooner than later. Liquid applied fungicide (moss killer) is recommended instead of power washing the living moss off the shingles. Moss roots grow into the shingles. Killing the moss in-place, with a fungicide, allows the roots to gradually release from the shingles. After roots have died and released, then the moss can be removed (with broom or low pressure water) taking care to not damage the shingles. Do not use high-pressure water to remove moss as the high-pressure can loosen granular surface of shingles, erode the shingle surface, reducing the remaining useful life.

There is a wealth of information available through Roofing Organizations such as the Western States Roofing Contractors Association (WSRCA) <http://www.wsrca.com/> Roof Consultant Institute <http://www.rci-online.org/> and the National Roofing Contractors Association (NRCA) <http://www.nrca.net/>. NRCA has some very good information for homeowners. They have an entire section dedicated to "consumer" with valuable information including this page for getting your monies worth out of your new roof.

<http://www.nrca.net/consumer/fyi.aspx?homeowners>

Their page on maintenance is here: <http://www.nrca.net/consumer/maintenance.aspx>

Plan for replacement at roughly the time frame indicated below. Costs below include replacing with a similar shingle to what is currently in place. We suggest that the best value (life cycle cost) might be to spend about \$2 - \$3/square foot more and install a 50-year shingle.

At time of re-roof we recommend that you hire a professional roof consultant such as Architect, Engineer, or building envelope consultant; to evaluate, design, specify, help bid the project, select best bidder, and observe construction to ensure proper installation. We recommend all Associations seek advice from a qualified consultant whenever they are considering having work performed on any building envelope components (roof, walls, windows, decks, exterior painting and caulking/sealant).

Useful Life:  
25 years

Remaining Life:  
8 years



Best Case: \$11,300.00

\$2.00/Sq Ft, lower estimate to remove and replace roof

Worst Case: \$14,130.00

\$2.50/Sq Ft, higher estimate; upgrades, underlying repair needs, metal work, etc...

Client: 22568A North Shore Terrace

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Cost Source: ARI Cost Database: Similar Project Cost History

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Client: 22568A North Shore Terrace

**Comp #:** 500 Bldg 96 E-H Roof - Replace

Quantity: Approx 8,945 square feet

Location: Rooftop of building and garages

Evaluation: Roofing is three tab shingles; original, installed in 1996. No reported leaks, no missing shingles or obvious damage. Ventilation (the lack of which can greatly reduce useful life) was observed at the eave; ridge was difficult to observe due to height. Eave venting consisted of circular holes in blocking between rafters. Visible portions of roof flashing were observed at the rake, headwall, and sidewall conditions. Gutters blocked the view of eaves, so eave flashing was not confirmed.

This type of roofing typically has a 15 to 18 year service life assuming it was properly installed and is properly maintained. As routine maintenance, many manufacturers recommend inspections at least twice annually (once in the fall, before the rainy season, and again in the spring) and after large storm events. Promptly replace any damaged/missing sections or any other repair needed to ensure waterproof integrity of roof. Keep roof surface, gutters and downspouts clear and free of moss or debris. Moss growth can decrease the life of the roofing shingles and should be removed sooner than later. Liquid applied fungicide (moss killer) is recommended instead of power washing the living moss off the shingles. Moss roots grow into the shingles. Killing the moss in place, with a fungicide, allows the roots to gradually release from the shingles. After roots have died and released, then the moss can be removed (with broom or low pressure water) taking care to not damage the shingles. Do not use high-pressure water to remove moss as the high-pressure can loosen granular surface of shingles, erode the shingle surface, reducing the remaining useful life.

There is a wealth of information available through Roofing Organizations such as the Western States Roofing Contractors Association (WSRCA) <http://www.wsrca.com/> Roof Consultant Institute <http://www.rci-online.org/> and the National Roofing Contractors Association (NRCA) <http://www.nrca.net/>. NRCA has some very good information for homeowners. They have an entire section dedicated to "consumer" with valuable information including this page for getting your monies worth out of your new roof. <http://www.nrca.net/consumer/fyi.aspx?homeowners>  
Their page on maintenance is here: <http://www.nrca.net/consumer/maintenance.aspx>

Plan for replacement at roughly the time frame indicated below. Costs below include replacing with a similar shingle to what is currently in place. We suggest that the best value (life cycle cost) might be to spend about \$2 - \$3/square foot more and install a 50-year shingle.

At time of re-roof we recommend that you hire a professional roof consultant such as Architect, Engineer, or building envelope consultant; to evaluate, design, specify, help bid the project, select best bidder, and observe construction to ensure proper installation. We recommend all Associations seek advice from a qualified consultant whenever they are considering having work performed on any building envelope components (roof, walls, windows, decks, exterior painting and caulking/sealant).

Useful Life:  
25 years

Remaining Life:  
10 years



Best Case: \$17,890.00

\$2.00/Sq Ft, lower estimate to remove and replace roof

Worst Case: \$22,360.00

\$2.50/Sq Ft, higher estimate; upgrades, underlying repair needs, metal work, etc...

Client: 22568A North Shore Terrace

Cost Source: ARI Cost Database: Similar Project Cost History

**Comp #:** 508 Bldg 66 Skylights - Replace

Quantity: Approx (7) skylights

Location: Rooftop of building

Evaluation: Up close observation of skylights was not possible due to limited access and location of skylights. In viewing from ground, stainless flashing was noted with rust on fasteners. Skylights are reportedly original plastic and near the end of their useful life.

Inspect skylights during roof inspection and repair as needed to maintain waterproof integrity. Typical quality skylight useful life is in the 30 year range.

Useful Life:  
30 years

Remaining Life:  
0 years



Best Case: \$2,100.00

\$300/ea, lower allowance to replace skylight and flashing kit with better quality

Worst Case: \$3,500.00

\$500/ea, higher allowance; upgrades, additional scope

Cost Source: ARI Cost Database: Similar Project Cost History

Client: 22568A North Shore Terrace

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**Comp #:** 508 Bldg 76 Skylights - Replace

Quantity: Approx (7) skylights

Location: Rooftop of building

Evaluation: Up close observation of skylights was not possible due to limited access and location of skylights. In viewing from ground, stainless flashing was noted with rust on fasteners. Skylights are reportedly original plastic and near the end of their useful life.

Inspect skylights during roof inspection and repair as needed to maintain waterproof integrity. Typical quality skylight useful life is in the 30 year range.



Useful Life:  
30 years

Remaining Life:  
0 years

Best Case: \$2,100.00  
\$300/ea, lower allowance to replace

Worst Case: \$3,500.00  
\$500/ea, higher allowance; upgrades, additional scope

Cost Source: ARI Cost Database: Similar Project Cost History

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Client: 22568A North Shore Terrace

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**Comp #:** 508 Bldg 85 Skylights - Replace

Quantity: Approx (12) skylights

Location: Rooftop of building

Evaluation: Up close observation of skylights was not possible due to limited access and location of skylights. Reportedly plastic dome style.

Ideally, skylights should be replaced at time of roofing for best waterproofing, flashing integration with roof shingles and underlayment. We have roofing scheduled for replacement in 2015 - therefore we have skylights below at that time as well. At that time, the original skylights will be 18 years old. Assume replacement with better quality specification such as Velux.

Useful Life:  
30 years

Remaining Life:  
3 years



Best Case: \$3,600.00

\$300/ea, lower allowance to replace

Worst Case: \$6,000.00

\$500/ea, higher allowance; upgrades, additional scope

Cost Source: ARI Cost Database: Similar Project Cost History

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Client: 22568A North Shore Terrace

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**Comp #:** 508 Bldg 86 Skylights - Replace

Quantity: \*Approx (36) skylights

Location: Rooftop of building

Evaluation: Up close observation of skylights was not possible due to limited access and location of skylights. Original from 1992. We suggest replacement in 2013, the year after buildings 66 & 76.

Inspect skylights during roof inspection and repair as needed to maintain waterproof integrity. Typical quality skylight useful life is 30 years. \* Quantity from internal spreadsheet of association.

Useful Life:  
30 years

Remaining Life:  
1 years



Best Case: \$10,800.00

\$300/ea, (avg) lower allowance to replace

Worst Case: \$18,000.00

\$500/ea, higher allowance; upgrades, additional scope

Cost Source: ARI Cost Database: Similar Project Cost History

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Client: 22568A North Shore Terrace

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**Comp #:** 508 Bldg 96 A-D Skylights - Replace

Quantity: Approx (26) skylights

Location: Rooftop of building

Evaluation: Up close observation of skylights was not possible due to limited access and location of skylights. A couple have been reportedly replaced with original plastic type. We suggest replacement in 2013.

Inspect skylights during roof inspection and repair as needed to maintain waterproof integrity. Typical quality skylight useful life is 30 years. \* Quantity from internal spreadsheet of association.

Useful Life:  
30 years

Remaining Life:  
1 years



Best Case: \$7,800.00

\$300/ea, (avg) lower allowance to replace

Worst Case: \$13,000.00

\$500/ea, higher allowance; upgrades, additional scope

Cost Source: ARI Cost Database: Similar Project Cost History

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Client: 22568A North Shore Terrace

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**Comp #:** 508 Bldg 96 E-H Skylights - Replace

Quantity: Approx (28) skylights

Location: Rooftop of building

Evaluation: Up close observation of skylights was not possible due to limited access and location of skylights. We suggest replacement in 2013.

Inspect skylights during roof inspection and repair as needed to maintain waterproof integrity. Typical quality skylight useful life is 30 years. \* Quantity from internal spreadsheet of association.

Useful Life:  
30 years

Remaining Life:  
1 years



Best Case: \$8,400.00

\$300/ea, (avg) lower allowance to replace

Worst Case: \$14,000.00

\$500/ea, higher allowance; upgrades, additional scope

Cost Source: ARI Cost Database: Similar Project Cost History

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Client: 22568A North Shore Terrace

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**Comp #:** 510 Bldg 66 Gutters/Dwnspts - Replace

Quantity: Approx 710 linear feet

Location: Perimeter of building

Evaluation: Generally the aluminum gutters and downspouts appeared in fair condition. Some local dents and dings were noted. Terminated into a drainage system - we assume adequate.

As routine maintenance, inspect regularly, keep gutters and downspouts free of debris. National Roofing Contractor Association (NRCA) roofing standard includes installing eave flashings at the gutters. We suggest to plan for total replacement of gutter and downspouts at roughly the time frame below, best timed with roofing.



Useful Life:  
36 years

Remaining Life:  
12 years

Best Case: \$3,550.00

\$5.00/LF, lower estimate to replace

Worst Case: \$4,870.00

\$7.00/LF, higher estimate to replace

Cost Source: ARI Cost Database: Similar Project Cost History

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Client: 22568A North Shore Terrace

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**Comp #:** 510 Bldg 76 Gutters/Dwnspts - Replace

Quantity: Approx 710 linear feet

Location: Perimeter of building

Evaluation: Generally the aluminum gutters and downspouts appeared in fair condition. Some local dents and dings were noted. Terminated into a drainage system - we assume adequate.

As routine maintenance, inspect regularly, keep gutters and downspouts free of debris. National Roofing Contractor Association (NRCA) roofing standard includes installing eave flashings at the gutters. We suggest to plan for total replacement of gutter and downspouts at roughly the time frame below, best timed with roofing.



Useful Life:  
36 years

Remaining Life:  
13 years

Best Case: \$3,550.00

\$5.00/LF, lower estimate to replace

Worst Case: \$4,870.00

\$7.00/LF, higher estimate to replace

Cost Source: ARI Cost Database: Similar Project Cost History

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Client: 22568A North Shore Terrace

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**Comp #:** 510 Bldg 85 Gutters/Dwnspts - Replace

Quantity: Approx 600 linear feet

Location: Perimeter of building

Evaluation: Generally the aluminum gutters and downspouts appeared in fair to good condition. Terminated into a drainage system - we assume adequate.

As routine maintenance, inspect regularly, keep gutters and downspouts free of debris. National Roofing Contractor Association (NRCA) roofing standard includes installing eave flashings at the gutters. We suggest to plan for total replacement of gutter and downspouts at roughly the time frame below, best timed with roofing.



Useful Life:  
36 years

Remaining Life:  
21 years

Best Case: \$3,000.00

\$5.00/LF, lower estimate to replace

Worst Case: \$4,200.00

\$7.00/LF, higher estimate to replace

Cost Source: ARI Cost Database: Similar Project Cost History

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