Community Reserve Study, Calendar Year 2025
Mosby Mountain Community Association
FINAL

This reserve study covers the calendar year 2025, because the Mosby Mountain Community Association, Inc., (MMCA) manages its finances on a calendar year basis. It is the understanding of the MMCA board that this study fulfills the requirements of "Guidelines for the Development of Reserve Studies for Capital Components," adopted by the Common Interest Community Board of the Virginia Department of Professional and Occupational Regulation (dated September 5. 2019). The Board will review the reserve study annually and update at least every 5 years, per Virginia law.

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I. Description of the Mosby Mountain community.

The Mosby Mountain subdivision is located in Albemarle County, Virginia, approximately four miles southwest of the city of Charlottesville. The community, developed between 2005 and 2007, covers 113 acres and comprises 119 single-family homes on one-half to one acre lots. Its seven streets are maintained by the Virginia Department of Transportation. The community maintains a substantially wooded common area that features several walking trails. The community does not offer amenities such as clubhouse, swimming pool, playground, athletic courts, or picnic shelters.

The community is surrounded to the north, west, and southwest by other residential subdivisions. To the east, across Old Lynchburg Road, is a mixed-use residential and commercial subdivision currently in the process of development. A to-be-developed state park lies to the southeast.

In its initial reserve study, the Mosby Mountain Community Association (MMCA) estimated that a reserve fund of $30,000 would be sufficient to cover the cost of maintaining and rebuilding its capital assets. Modest interest earnings on the principal are added to the fund.

II. Tabular listing of component inventory, quantity, useful life, remaining useful life, and current replacement cost.

<u>Determination of component inventory.</u> In its initial reserve study, MMCA had identified the following as components applicable for future repair or restoration: five stormwater management ponds, two entrance signs, and a wooden fence along Old Lynchburg Road. The Association projected that the community would have to fund approximately $30,000 in repairs/replacements every ten years and set the size of the reserve fund at $30,000.

The 2022 physical analysis determined the following changes to the component inventory:

- Old Lynchburg Road fence. The board considered its current benefit to the community and decided to remove it at such time as its useful life has come to an end. It has been excluded from consideration in this study.
- Stormwater management ponds. The original reserve study gave the incorrect number of ponds, probably because the individuals involved examined the community plat and counting the number of areas marked “stormwater management easement” rather than via a physical inventory. Of the stormwater management easements on the plat two represent natural or rip rap drainage. Thus, only three stormwater management ponds exist in the current inventory: one west of Ridgetop to the north of Ambrose commons, one north of Ambrose Commons below the water pumping station, and one at the north corner of the intersection of Old Lynchburg Road and Singleton Lane.
- Six trail bridges were not included in the original reserve study: four on the Ambrose Commons loop trail, one on the Singleton-Ridgetop trail, and one on the Hubbard-Ambrose trail.

The 2025 physical analysis determined the following changes to the component inventory (see Table 1 for current list):

- Small community entrance sign. The small wooden sign at the corner of Singleton and Old Lynchburg road no longer represents the neighborhood branding. The board decided to remove it at such time as its useful life has come to an end. It has been excluded from consideration in this study.

TABLE 1: Listing of Mosby Mountain Inventory, September 2025

Component	Material	Built	Useful (yrs)	Left (yrs)	Replace	Pro Cost*	DIY cost*
Ambrose trail, bridge #1	Pressure-treated lumber, no concrete footings	2005	25	3	2030	5,238	490
Bridge nearest trail entry on Ambrose Commons							
Ambrose trail, bridge #2	Pressure-treated lumber, no concrete footings	2005	25	3	2030	5,238	523
Next bridge down Ambrose trail							
Ambrose trail, bridge #4	Pressure-treated lumber, no concrete footings	2005	25	3	2030	5,238	583
Bridge nearest to Albemarle County pump house							
Hubbard trail bridge	Pressure-treated lumber, no concrete footings	2005	25	3	2030	5,238	583
Located between Hubbard and OLR							
Singleton-Ridgetop Bridge	Pressure-treated lumber, concrete footings	2010	30	10	2040	6,548	729
Across rip rap adjacent to Singleton Lane							
Stormwater management pond, Ridgetop	Soil/rock walls	2004	50	29	2054	6,700	
One-acre basin (approx.)							
Stormwater management pond, Ambrose	Soil/rock walls	2004	50	29	2054	6,700	
One-acre basin (approx.)							
Stormwater management pond, Singleton and OLR	Soil/rock walls	2004	50	29	2054	6,700	
One-acre basin (approx.)							
Ambrose trail, bridge #3	Pressure-treated lumber on concrete footings	2005	50	30	2055	15,714	
Arched bridge, third on Ambrose trail							
Large community entry sign #1	Masonry retaining wall, metal supports and plastic sign	2017	50	42	2067	13,500	
North entrance, located on Old Lynchburg Road							
Large community entry sign #2	Masonry retaining wall, metal supports and plastic sign	2017	50	42	2067	4,500	
South entrance, located on Singleton Lane							
Sources for current-dollar replacement costs:							
Contractor estimates (Ambrose, Hubbard, and Singleton-Ridgetop trail bridges)							
DIY costs for replacement of small bridges calculated from Lowe's web site (www.lowes.com)							
Recent replacement cost for community signage							
For drainage sumps: 2022 Unit Price Schedule, Bonds and Agreements Center, Fairfax County Land Development Services							

Determination of component useful life and documentation of maintenance assumptions.
Trail bridges. The MMCA vice-president is knowledgeable in the area of construction and maintenance of pressure-treated structures such as our trail bridges, based on decades of experience in this field. Relying on this experience, we were able to determine the useful life of bridges and signage.

Stormwater management ponds. To determine the useful life of the community's stormwater management ponds, we consulted "Average expected useful life of new publicly owned stormwater assets, Infrastructure Canada" (https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3410021601), which gives an average useful lifespan of 56.2 years. We use a slightly more conservative 50 years.

Entry signs. The community signs were assumed to have useful lives of 50 years, based on the type of construction and the materials employed. The verticals in the ground are constructed of non-corroding metal and the sign itself is made of molded plastic. Both are surrounded by small concrete retaining walls that will last a similar length of time.

Furthermore, this report assumes that pressure-treated wood structures will be examined annually by the MMCA Common Areas Committee, which will report to the board any required maintenance. The officers will determine the cost of that maintenance and whether the source of funds would be general operating expenses or the reserve fund. It is expected that such costs would be low (small numbers of pressure-treated boards and fasteners each year), which could be handled from the operating budget.

Assessment of remaining life; determine replacement year.
The *installation date* for all of the components was determined from historical documents: five trail bridges and the stormwater management ponds were installed in 2004 by the developer of the community; the sixth bridge was built and installed by a community resident in 2010; and in 2017 the community replaced the two large community signs.

The *replacement year* was calculated as the installation year plus the useful life. The *remaining life* was calculated as the replacement year minus 2022.

This allowed us to develop a timeline for the next 30 years (see Table 2), that serves as a rough schedule for expected replacement of components. Specifically, in the next 30 years, it is anticipated that four smaller trail bridges will require replacement around 2030, and the Singleton trail bridge will require replacement around 2040.

Determination of cost of replacement.

- For the three bridges on the Ambrose Commons loop trail and the one bridge on the Hubbard-Ambrose trail that were not constructed on concrete footings, we solicited replacement quotes from two local companies. The quotes were $3742 and $6734 and we estimate the replacement cost by a contractor as their average, i.e., $5238 per bridge. We also calculated the cost of replacing these structures by community volunteers, by enumerating the individual boards and hardware that had been used in their construction and calculating their purchase cost at the websites of local home improvement scores. Because the cost of hiring contractors to replace these bridges is approximately ten times the cost of a community-built replacement, the board decided that residents should construct replacements or conduct maintenance on these bridges as needed. Therefore, the cost given herein for replacing these bridges is materials-only, as of September 2025. Note: in determining the remaining life for pressure-treated lumber bridges, it was assumed that the community would provide a reasonable level of continued preventative maintenance (e.g., individual board replacements as they are worn out by walkers).
- The Singleton-Ridgetop trail bridge is structurally more substantial than the four smaller bridges described above and probably was over-constructed; if it were replaced it would not require its current bulk. The bridge sits on concrete footings, increasing its lifespan. Because of the current complexity of the structure, we have used a liberal estimate for a "DIY" replacement of the bridge that is 25% higher than that of the other bridges, i.e., $729

in 2025 dollars, though if it were replaced with a less substantial, though adequate, bridge that would be an overestimate.

- The arched bridge on the Ambrose Commons loop trail is set on concrete footings, which will substantially reduce its rate of deterioration. Therefore, we expect it to have a lifespan of 50 years from its construction in 2005. Until then, minor maintenance (replacement of single tread or handrail boards may be required; these costs will be taken out of the HOA's normal operating budget. Because of the intricate design of the bridge, replacement would have to be performed by a contractor. We have estimated the replacement cost as three times the cost estimates for other contractor-installed bridges in the community.
- The two large community signs, on Ambrose Commons and Singleton, respectively, were recently replaced. We used those replacement costs (i.e., $13,500 and $4500) here as our basis for 2025.
- The community stormwater management ponds are estimated not to exceed one acre. The current replacement cost for each was obtained from "2022 Unit Price Schedule, Bonds and Agreements Center, Fairfax County Land Development Services" (https://www.fairfaxcounty.gov/landdevelopment/sites/landdevelopment/files/Assets/documents/PDF/publications/unit-price-schedule.pdf), which gives a replacement cost of $3669 for a one-acre pond. We believe this to be an underestimate, and have increased the estimated cost for each pond in this analysis (i.e., $6700 currently).

III. Reserve fund: starting balance, projected reserve expenses and contributions, and the projected ending reserve fund balance; methods and objectives utilized in developing the funding plan

The current reserve balance is approximately $38,058.45, more than the $37,745 balance recommended for this year in the 2022 reserve study. These funds reside in a money market account that accrues interest at a variable rate but for the sake of this analysis we have used a conservative growth rate of 2.5%. Over time the balance will only change substantially if the community uses it for maintenance/replacement or budgets contributions to the account. ***The Association's aim over the coming 30 years is to utilize a threshold funding model and grow the reserve balance in order to outpace anticipated inflation and the anticipated cost of repairing/replacing its component inventory.***

Throughout this report, we have assumed a federal inflation rate of 3% per year. (The board acknowledges that the current rate of inflation is substantially higher, but believes that the Federal Reserve Board will be able to reduce it to its historical 3% target.)

Table 2 describes the anticipated replacement costs during this 30-year period, specifically several trail bridges in 2030 and an additional trail bridge in 2040. These replacement costs are given in then-current dollars, including intervening inflation. Neither of these replacement activities will expend a large portion of the reserve balance or create a major financial burden on homeowners in replenishing the community's reserves.

In order to maintain sufficient financial reserves, the board considered replenishing the reserve account via annual contributions from the operating budget and transfers as available and approved by the Board when a surplus in the operating budget allows. We estimated proposed contributions to the annual fund, interest and regular maintenance of the components will provide the community with a sufficient financial cushion to pay for the anticipated replacement costs on its component inventory, adjusting for inflation.

V. References (accessed September 2025)

1. "Average expected useful life of new publicly owned stormwater assets, Infrastructure Canada" (https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3410021601)
2. "2025 Unit Price Schedule, Bonds and Agreements Center, Fairfax County Land Development Services" (https://www.fairfaxcounty.gov/landdevelopment/sites/landdevelopment/files/Assets/documents/PDF/publications/unit-price-schedule.pdf)

Table 2: 30 Year Balance and Expense (adjusted for inflation)

Year	Start Balance	Contribution	Interest	Expenses	End Balance	Notes
2024	$34,236.00	$ -	$950.00	0	$38,950.00	
2025	$35,948.00	$ -	$973.75	0	$39,923.75	
2026	$38,058.00	$500.00	$1,010.59	0	$39,568.59	
2027	$39,568.59	$500.00	$1,048.36	0	$41,116.95	
2028	$41,116.95	$500.00	$1,087.07	0	$42,704.02	
2029	$42,704.02	$500.00	$1,126.74	0	$44,330.76	
2030	$44,330.76	$750.00	$1,173.66	2601.84	$43,652.58	Main Bridges
2031	$43,652.58	$750.00	$1,156.71	0	$45,559.29	
2032	$45,559.29	$750.00	$1,204.38	0	$47,513.67	
2033	$47,513.67	$750.00	$1,253.24	0	$49,516.91	
2034	$49,516.91	$750.00	$1,303.32	0	$51,570.23	
2035	$51,570.23	$1,000.00	$1,360.90	0	$53,931.13	
2036	$53,931.13	$1,000.00	$1,419.92	0	$56,351.05	
2037	$56,351.05	$1,000.00	$1,480.42	0	$58,831.47	
2038	$58,831.47	$1,000.00	$1,542.43	0	$61,373.90	
2039	$61,373.90	$1,000.00	$1,605.99	0	$63,979.89	
2040	$63,979.89	$1,250.00	$1,677.39	1169.83	$65,737.45	Singleton Bridge
2041	$65,737.45	$1,250.00	$1,721.33	0	$68,708.78	
2042	$68,708.78	$1,250.00	$1,795.61	0	$71,754.39	
2043	$71,754.39	$1,250.00	$1,871.75	0	$74,876.14	
2044	$74,876.14	$1,250.00	$1,949.80	0	$78,075.94	
2045	$78,075.94	$1,500.00	$2,036.04	0	$81,611.98	
2046	$81,611.98	$1,500.00	$2,124.44	0	$85,236.42	
2047	$85,236.42	$1,500.00	$2,215.05	0	$88,951.47	
2048	$88,951.47	$1,500.00	$2,307.93	0	$92,759.40	
2049	$92,759.40	$1,500.00	$2,403.13	0	$96,662.53	
2050	$96,662.53	$2,000.00	$2,513.21	4699.21	$96,476.53	Main Bridges
2051	$96,476.53	$2,000.00	$2,508.56	0	$100,985.09	
2052	$100,985.09	$2,000.00	$2,621.27	0	$105,606.36	
2053	$105,606.36	$2,000.00	$2,736.80	0	$110,343.16	
2054	$110,343.16	$2,000.00	$2,855.22	48787.98	$66,410.40	Retention Ponds
2055	$66,410.40	$2,250.00	$1,763.15	39286.26	$31,137.29	Ambrose Bridge

Full expense table