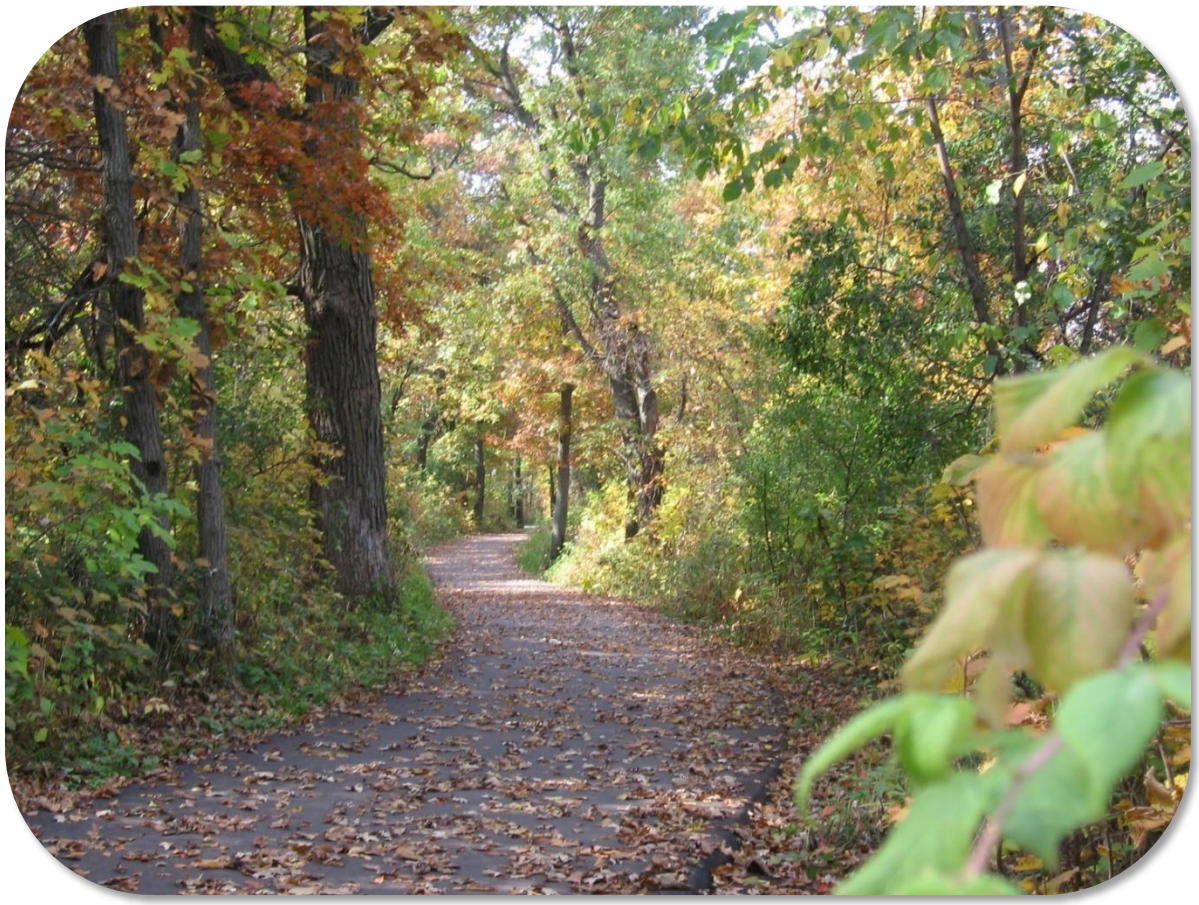

TRAIL MAINTENANCE POLICY

City of Ramsey, Minnesota

Adopted: x/x/2025

Final DRAFT

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SECTION 1. INTRODUCTION.

This policy is written and prepared primarily for internal city use, and is not intended to replace plans and specifications, be a technical resource, nor be a primary communication piece for the public.

This Trail Maintenance Policy sets forth the means and methods to maintain safe trail conditions, produce quality of trail user experiences, and protect the community's investment in the infrastructure over time.

SECTION 2. GENERAL POLICY STATEMENT.

The goal of this policy is to develop and sustain maintenance practices that keep trail conditions in a good to average pavement rating status or better. Safety shall be the primary focus and the city should continue to budget a consistent amount each year, such that staff can build a trail maintenance program around this amount that can be planned for on an annual basis.

SECTION 3. GENERAL MAINTENANCE GOALS AND INTENT.

Now that the city is wholly within the second decade of an informal maintenance plan, this new Trail Maintenance Policy should lead the city to evaluating past practices and funding, to align more so to with on-the-ground bituminous maintenance that addresses 5% to 8% of the system each year, versus the historical average of about 1.5% or less—this, because it does not appear existing funding levels are keeping pace with the aging pavement conditions and demand for resurfacing trails.

SECTION 4. BITUMINOUS TRAIL MAINTENANCE PRACTICES

There are several different categories of bituminous trail maintenance techniques, summarized as:

~ Crack filling
~ Seal-coating or Slurry-sealing
~ Chip sealing
~ **Patching**
~ **Overlay**
~ Reconstruction

Each of these pavement maintenance practices have been employed for Ramsey's trails—with 1.5" overlay's determined to be the most cost effective and frequent annual maintenance activity, with patching occurring in isolated locations as needed each year. The table below from ACI Asphalt & Concrete of Maple Grove, MN provides a typical life cycle for bituminous trail maintenance (aciasphalt.com).

'Asphalt trail pavements, like most infrastructure, has a life cycle. They start out new, they age, and eventually they decline to the point where they need to be replaced. How long pavement lasts depends on a variety of factors, including how well they are constructed initially, the weather, shade and standing water, the amount of use and—most importantly—how well they are maintained. A well-constructed trail can last 20 years or more'.

A trail overlay at Ramsey's Trail Maintenance Policy goal of generally around the 15-20 year interval may extend the useful life of the trail to 40 years or more before needing a complete reconstruct.

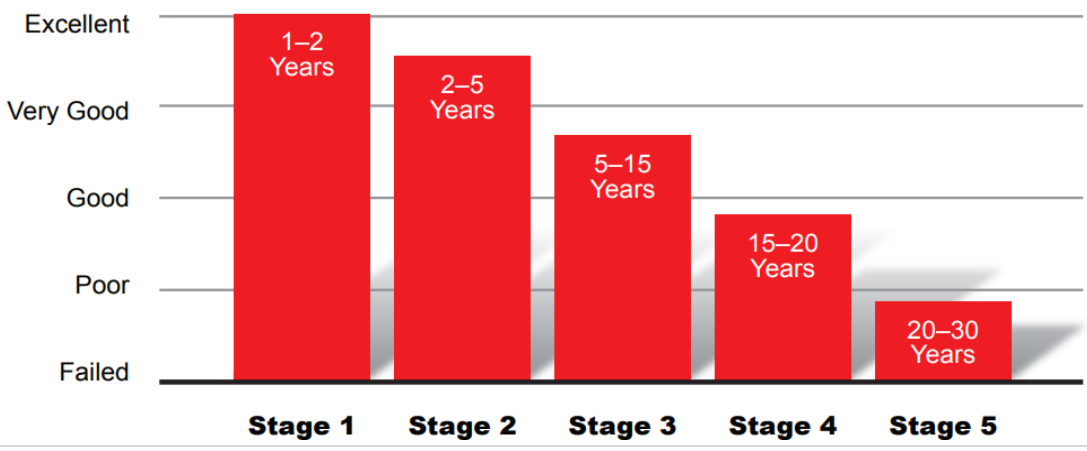
Stage 1: New Pavement (0–1 Years)
- Little or no maintenance required, sealcoating, crack sealing

Stage 2: Initial Preventive Maintenance Phase (2–5 Years)
Typical maintenance procedures:
- Sealcoating, crack sealing, patching

Stage 3: Minor Repairs and Continued Preventive Maintenance (5–15 Years)
Typical maintenance procedures:
- Patch repairs, crack sealing, sealcoating

Stage 4: Major Repairs (15–20 Years)
Typical maintenance procedures:
- Extensive patching repairs, asphalt overlay

Stage 5: Extensive Repairs or Complete Reconstruction (20-30 Years)
Typical maintenance procedures:
- Major repairs throughout the property or complete removal and replacement of the asphalt



The annual asphalt trail surface work described occurs by contractors, with routine patching performed by Public Works staff. As part of the course of travel around the park and trail system and providing work direction and inspections, supervisory staff are in and around trail corridors on a regular basis. This builds an awareness of the need and locations for patching, as well as more intensive annualized maintenance by contractors. This same familiarity with conditions guides other trail maintenance activity—for instance, after windstorms, staff are dispatched to areas known to have high probability for downed limbs or trees in wooded trail corridors. Other reoccurring work includes sweeping, mowing and brush management, as well as litter and refuse control, which are highlighted as follows:

Sweeping

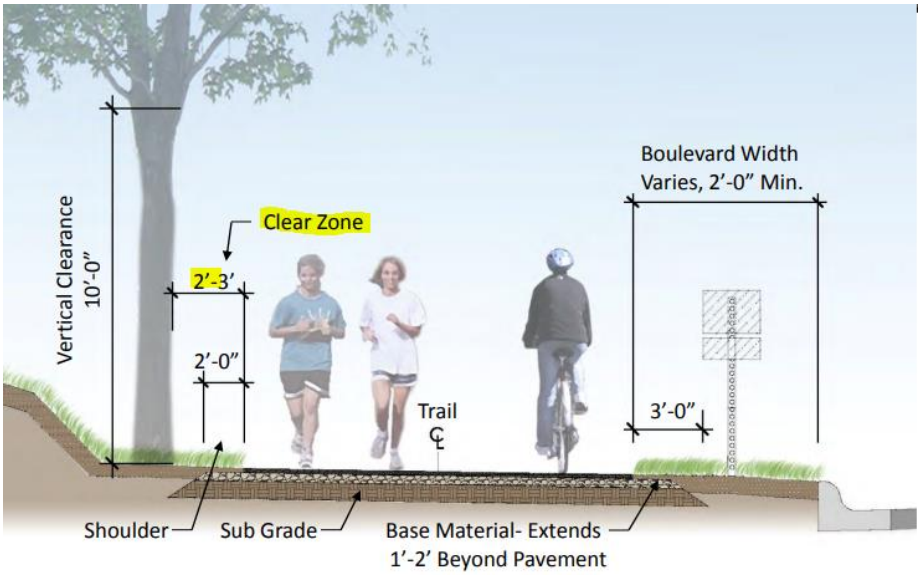
Trails are swept as needed, which is most often associated with aforementioned storm and wind events. Fall sweeping is performed if leaves and acorns accumulate on trail surfaces—however, in some years, and early snowfall can be beneficial in that trails can be plowed, and the wet snow 'lifts' leaves from the trail as part of the snow plowing process. In addition to a PTO driven rotary broom, the city can use a turbine debris blower, also operated by PTO as an attachment to a multi-use maintenance machine. The debris blower can also be employed for light, dry snowfalls which would be useful for situations where there are mostly dry leaves on the trail at the same time.

Mowing

Trailside mowing is performed as needed, which is often every few weeks during the Spring and early Summer, for a total of 7 to 10 times per year. Generally, a three-foot or more swath is cut alongside the trail to minimize long grass and brush hanging over the trail. This practice also provides for improved airflow over a bituminous trail, which reduces periods of standing water, which can lead to premature payment deterioration. Sweeping after mowing is not necessary, as mowers are dispatched to mow one side, then the other—then usually run down the center of the path with mower deck engaged to blow clippings off the trail surface.

Brushing and tree trimming

'Brushing' refers to the practice of cutting weeds, woody plants and small trees that encroach into the 2'+ foot clear zone referenced above. Some work is done by hand, but most is performed with specialized brush mowers, mounted to light equipment. Due to the size and velocity of debris thrown from the machine, 'Trail Closed' and other signage is deployed to separate trail users from this maintenance activity.



Another related activity that occurs at least twice per year, is pruning and trimming trees along and over trailways. Branches are cleared to a minimum of 9' feet overhead and limbs projecting out into the trailside 'clear zone' are also removed. Trees that are demonstrably in jeopardy of falling onto the trail may be identified and removed at this same time. Dead and downed trees that are away from the trail are considered valuable wildlife habitat and are not removed.

As for clear zone maintenance activity along sidewalks, most of the adjacent areas are maintained by homeowners. Pruning of these boulevard trees is nonetheless critical to maintain clear passage as well as sight-lines for both pedestrians and motorists. Pruning should be done during the tree's dormant period of late Fall, Winter and sometimes early Spring. Homeowners are asked to prune their trees for the above reasons, but Public Works staff trained in proper tree care, do travel throughout the sidewalk system before and during the snow removal season to provide these safety pruning services. This pruning includes properly pruning low limbs back to the tree's trunk, so as to not create hazardous 'stub–cuts' or branches that are cut off and jut out towards the clear zone.

Litter and refuse management
Litter and general garbage and debris is picked up as needed and also as part of the reoccurring mowing. After the snowmelt each Winter, staff are sent out onto all trails for a concerted litter recovery—before the Spring 'green-up' begins to conceal trash in wooded trail corridors.

Some longer off-roadway trails have trash receptacles placed periodically along trails near intersections with maintenance accesses or trail heads—these are emptied as part of the weekly park system trash disposal system.

SECTION 5. BOARDWALK AND OTHER TRAIL MAINTENANCE

Trails other than bituminous
Most of the city's trail system consists of 8' and 10' foot bituminous trails, with only short segments of crushed and compacted aggregate—with the latter not needing formal, planned-for maintenance.

Boardwalks
Wood boardwalks however, require regular inspection for maintenance activity, usually consisting of a single plank needing replacement due to breaking or warping. Often these conditions are reported by trail users, with staff dispatched to address the deck board replacement right away—or to place a traffic cone at the broken board to alert trail users of the condition if the repair cannot be made immediately.

Some of the inherent appeal of boardwalks is their location in natural environments, and their rustic 'feel'—which means they are not assured to be pristine in all dimensions—as long as they are safe to use.

The city has found that the life cycle of boardwalks to be about 20-30 years before replacing individual boards becomes impracticable. At this time, the most feasible approach has been to 'over-deck' the boardwalk, with new decking fastened to the existing surface after re-leveling.

Trail Bridges
The city presently has three, Cor-10 steel arched bridges withing the bituminous trail system that are load-rated and designed for maintenance vehicles. These bridges have not required any maintenance except for the occasional replacement of a steel band placed on the wooden deck to provide for a surface for the snow plow cutting edge to slide upon.

A fourth bridge spans Trott Brook as part of the 1,200' foot Lake Itasca Boardwalk. The construction consists of deck boards bolted onto galvanized steel trusses, and has not needed any maintenance since its construction by city staff in 2014.

Signage

The city has maintained a policy of not signing trails, except for unique and temporary conditions that require them, such as 'Trail Closed' or 'Work Ahead'. The city does not sign for conditions that a trail user should expect, and ride safely for if on a bicycle, like a curve, slope or driveway ahead.

SECTION 6. SIDEWALKS

Concrete sidewalks function much the same as trails, though primarily are within the ROW of roadways in the areas served my municipal sewer and water. Of the 40 miles of sidewalk, most are 60" in width, though in the city's downtown are wider. Maintenance of sidewalks is infrequent and is generally limited to replacing cracked panels due to construction impacts, or replacement of 'lifted' sections due to tree root expansion. In instances where only one edge of a concrete panel is higher than the adjoining panel, the high side can be beveled with a concrete grinder.

SECTION 7. WINTER TRAIL MAINTENANCE

Snow removal occurs on trails and sidewalks whenever a snowfall triggers a 'full plow' for the city. Generally, sidewalks and trail plowing commences two hours after street plowing begins, and starts in the city's downtown and moves outward with an emphasis on snow removal along arterial streets and trail and sidewalk routes to schools.

Unlike streets, no ice control is performed on any trails or sidewalks—although private retailers may perform ice control on sidewalks adjoining their business, at their discretion and expense.

SECTION 8. FUNDING

Trail maintenance is performed by Public Works staff and also by contracted work as described in Section 4., with the funding of both accounted for within the annual General Fund parks operations budget. For 2024, the trail maintenance allocation is $120,000. This line item within the General Fund has increased $5,000 to $15,000+ each year as part of an informal yet active trail maintenance plan—yielding one to three miles of trail overlaid or the subject of a reconstruct in a few instances. While the annual increases have risen 5-10% in many years, the miles of trail receiving maintenance treatments have not increased due to ordinary annual inflation associated with contracted services. As indicated, the 2024 funding for contracted bituminous maintenance is $120,000—this amount should be increased each year by at least $10,000, until annual bituminous resurfacing reaches about 5% to 8% of the city's trail system.

Additionally, for some trail maintenance and especially if in the same vicinity of planned street maintenance, consideration should be given to bid the work as an Add Alternate as part of the Street Maintenance program for best value, and to consolidate administration and staff bidding time.

Section 9 Appendix

TRAIL MAINTENANCE POLICY								
	Optimal Frequency							
Maintenance Activity	Bi-Weekly	Monthly	Quarterly	Annually	Spring/Fall	After Storm	Other	Notes
General								
1 Safety Inspection	X							
2 General debris and litter pickup	X							
3 Vandalism inspection	X							
4 Encroachments				X				
Pavements								
1 Pavement survey (Phaser rating)							X	
2 Crack sealing								
3 Patching								
4 Fog seal								
5 Sealcoat								
6 Micro surfacing/slurry seal								
7 Overlay								
8 Reconstruct								
9 Inspect boardwalk interface		X						
10 Inspect utility infrasturcture for snow removal (high iron)				Fall				
Vegetation								
1 Mowing - clear zones, trailhead areas		X						
2 Brush trimming/overhead trimming								
3 Clear zone weed control (Sandbar Willow)								
4 Sight line trimming at intersections								
5 Tree removal						X		
6 Rain garden maintenance								
7 Trail sweeping/blowing					X			
8 Seeding								
9 Root cutting								
Drainage								
1 Erosion repair								
2 Culvert/catch basin clearing								
3 Ditch maintenance (clear debris, trash, branches)								
4 Standing water repair								
5 Rodent damage repair				X				