

# LAKE LINKS ROUTE

## Technical Goals and Standards

### July 13, 2017

These standards and practices are intended to establish consistency and brand identity of the Lake Links Route. Although the concurrence of all jurisdictions and agencies is sought, no jurisdiction or agency is bound by these standards, which are for guidance and consistency only.

1. **WIDTH:** The Lake Links trail route standard width is 10' plus any required spacing from adjacent pavement. If right of way limitations, or available ground require a reduction, 8' is acceptable. Width may vary from place to place due to ground conditions or a desire to save larger trees.
2. **SURFACE:** The standard surface for the Lake Links route is bituminous material. Decomposed granite or other material may be acceptable if compliant with ADA requirements and may be used in environmentally sensitive areas as needed for limited disruption in installation. Permeable asphalt on a Class 5 base is also acceptable if required for permeability.
3. **ON-ROAD ROUTING:** Where lack of right of way precludes a separate or dedicated trail, the Lake Links Route may be on the roadway in areas where AADT is lower than 1,000, and speed limit is 25 mph or less.
4. **SEPARATION:** Where needed, more than one path may be provided in an area, segregated by travel direction or travel mode. In such a case the width of a pedestrian segment should ideally be 5', but, in all events should comply with ADA requirements including turning and passing areas if needed. A one way bicycle lane should be 5'.
5. **BICYCLE SPEED:** Bicycles shall not exceed 12 mph on the designated Lake Links Route if pedestrians are present. Pedestrians are entitled to the right of way. This limit does not apply where the route is located on traffic lanes.
6. **USE OF PUBLIC LAND:** Where the Lake Links Route travels immediately adjacent to a street or highway and diverts away, route design must provide for adequate visibility of both drivers and trail users when the route returns to proximity to the roadway.
7. **DISCONTINUITY:** Where right of way limits preclude meeting these standards, the Lake Links Route may incorporate existing road shoulders, but these elements of discontinuity should not exceed a reasonable length, and there should be room for stopping or moving over at each end of any such discontinuity.
8. **GRADES:** Grades shall be consistent with ADA requirements.
9. **INTERIM ROUTING:** Interim routes may be provided until physical improvements meeting these standards are in place. Interim routes shall carry Lake Links identification while so designated.
10. **ANCILLARY ROUTES:** Ancillary routes may be established to permit access to scenic or historic attractions, or local businesses. These are to be specially identified to avoid route confusion.
11. **SIGNAGE:** Consistent signage is important to avoid confusion. Individual communities have a right to be sure that signs are not unreasonably intrusive. The manner and type of signage for the permanent Lake Links Route is not yet determined, and is subject to the approval of

each of the five communities surrounding the lake and, of course, to road owners for signs in the road right of way.

12. ROAD CROSSINGS: Where the road must cross a busy road, crosswalks, preferably with pedestrian operated warning lights, should be installed and traffic calming measures instituted.
13. ALL AGES – ALL ABILITIES: All Age and All Ability standards are to be part of design.
14. YEAR ROUND: The Lake Links route is intended to be year-round. Provisions for maintenance responsibility and expense must be part of facility design and implementation.
15. LIGHTING: Where the Lake Links route is not visible from nearby roadways, lighting should be provided. Provision for the cost of operating lighting must be part of facility design and implementation.
16. TRAFFIC SPEEDS: Speed limits and actual traffic speeds pose hazards at some locations. It is the intention of Lake Links to advocate lower speed limits, driver notification and other traffic calming techniques at such locations.

Note to Item 1: Standards. AASHTO calls for a minimum of 10' for a two-way multi-use trail. Minnesota Regulations require 8' with a 2' clearance from the pavement of a street, and "desire" 10'. For a one-way bike trail, 5' is required. Lake Avenue and Streetcar Trail are both 10'

Note to Item 2: Standards. Bituminous is the normal surface. Some designers, with the concurrence of local ADA authorities, have deemed decomposed granite, properly compacted, to be acceptable. There may be a distinction here between pathways in parks and trails.

Note to Item 3: The amount and speed of traffic along the Lake Links route varies widely. In general, shared pavement areas with pedestrians and bikes and cars incorporate lower speed limits. The following standard is believed to be consistent with Wildwood Avenue in Birchwood.

Note to Item 4: At some locations, it may be advantageous to separate all traffic by direction, possibly on both sides of a road, or to keep bicycle and pedestrian traffic separate. This might occur, for example, in the north end of Mahtomedi where right of way is limited.

Note to Item 5: Concern has been expressed about the presence of bicycles and pedestrians on the same path. A speed limit is appropriate. The Rails to Trails Conservancy says that 15 mph is common. Minneapolis replaced a "reasonable" standard with a 10 mph limit. The space available on Lake Links is limited.

Note to Item 6. At many places along the route, land adjacent to the route is owned by public bodies and may be used to provide additional separation from traffic or even a free-standing trail. This is desirable of course, but transitions matter.

Note to Item 7. Right of way limitations may simply preclude doing any more than routing traffic on existing shoulders at some locations. It is important that the route be continuous and the following language is intended to accommodate what are hoped to be temporary departures from these standards.

Note to Item 9. Lake Links Association began with the intention of identifying the safest routes currently available, to be used until physical improvements can be completed. That purpose remains.

