

IDENTIFICATION OF TRAILWAY TYPES

Overland Trailway

This term is synonymous with “shared use path” which is defined as a bikeway physically separated from motorized vehicular traffic by an open space or barrier, most often within an independent right-of-way such as a utility easement, a conservation easement, or linear park. This type of trail is, in essence, a bicycle path which is designed and intended to be used by pedestrians, skaters, joggers, and other non-motorized users.

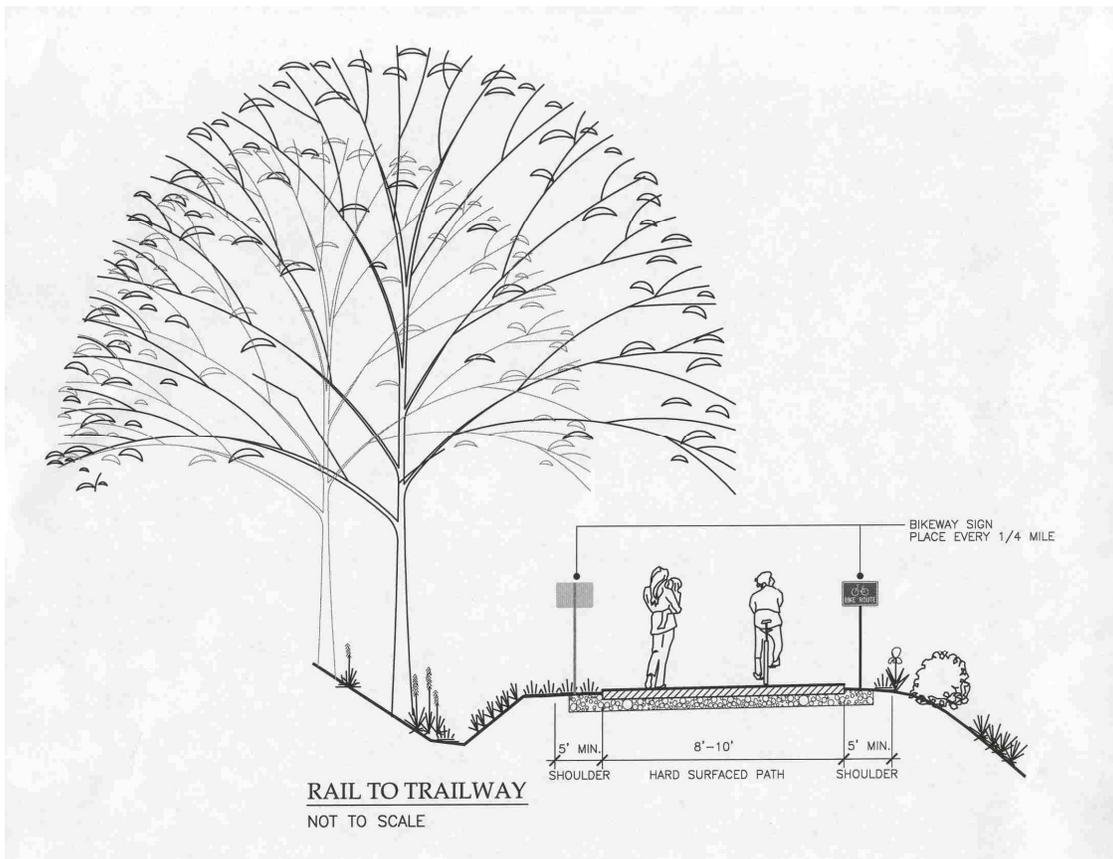
For the purpose of this master plan, “Overland Trailways” are paths which are to be constructed on virgin ground, with no preceding use such as a former railroad grade. As such, the cost of developing in these areas is typically higher than rails-to-trails projects or on road bicycling improvements, because of the clearing, grading, subbase preparation, construction staging, and other measures required to build in these environments.



Rails-to-Trails

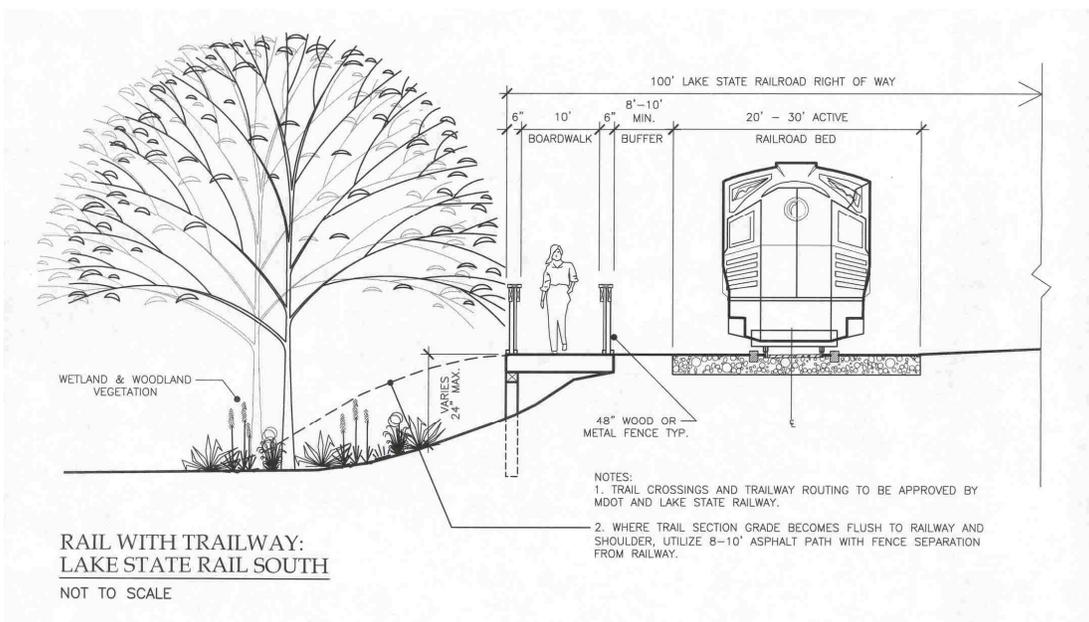
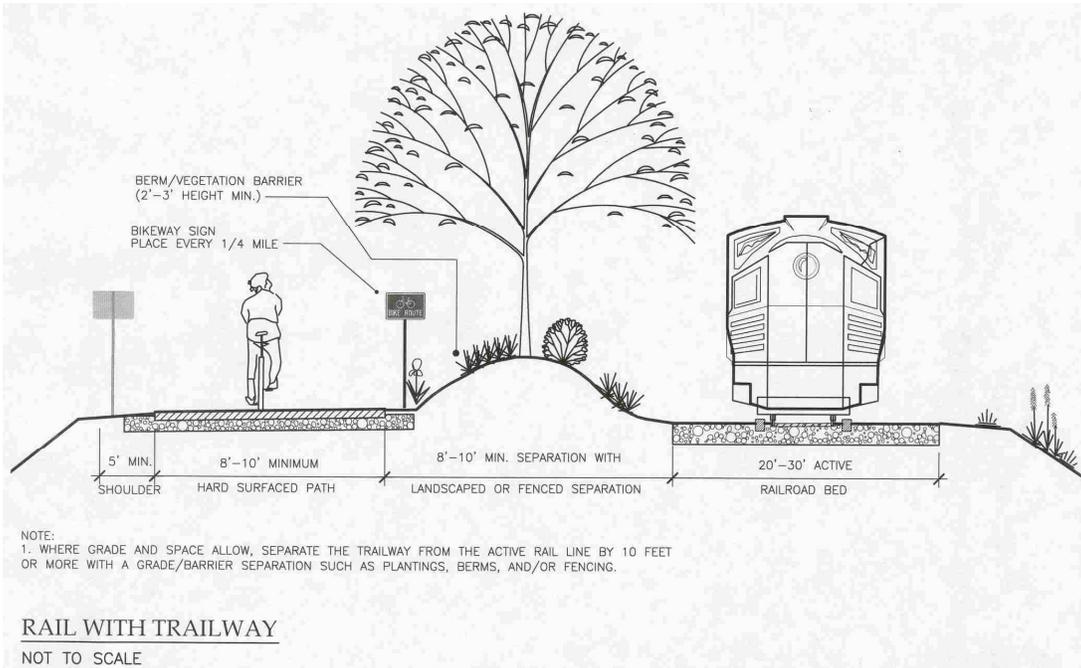
This trail type is a shared use path that utilizes the right-of-way of an abandoned railroad corridor. Once the tracks and ties are removed, there is usually approximately 15'-20' width of ballast (the rocky substructure that supports the trains) remaining on which to construct the multi-use path. The remaining width of the right-of-way accommodates changes in grade for cut or fill sections, which allowed the railroad to follow a maximum five percent grade. With this wide right-of-way and the existing subbase, it is usually very straightforward and relatively inexpensive to construct trails within abandoned rail corridors.

It is recommended that the existing railroad grades be converted to hard surface trails in the form of asphalt paving. Crushed slag or limestone screening may be used on rural sections that will experience lower levels of use, especially by pedestrians, wheelchair users, and in-line skaters, those users required a smoother and harder surface.



Rail-with-Trail

A rail-with-trail multi-use path is built within the right-of-way of an existing and active railroad. When such trails are located adjacent to branch lines or industrial spurs, the separation between trails and tracks are typically more than 30 feet, with some as close as 8 feet. Frequently, minimal barriers are constructed between the trail and the tracks in the form of either vegetation or a change in grade elevation.



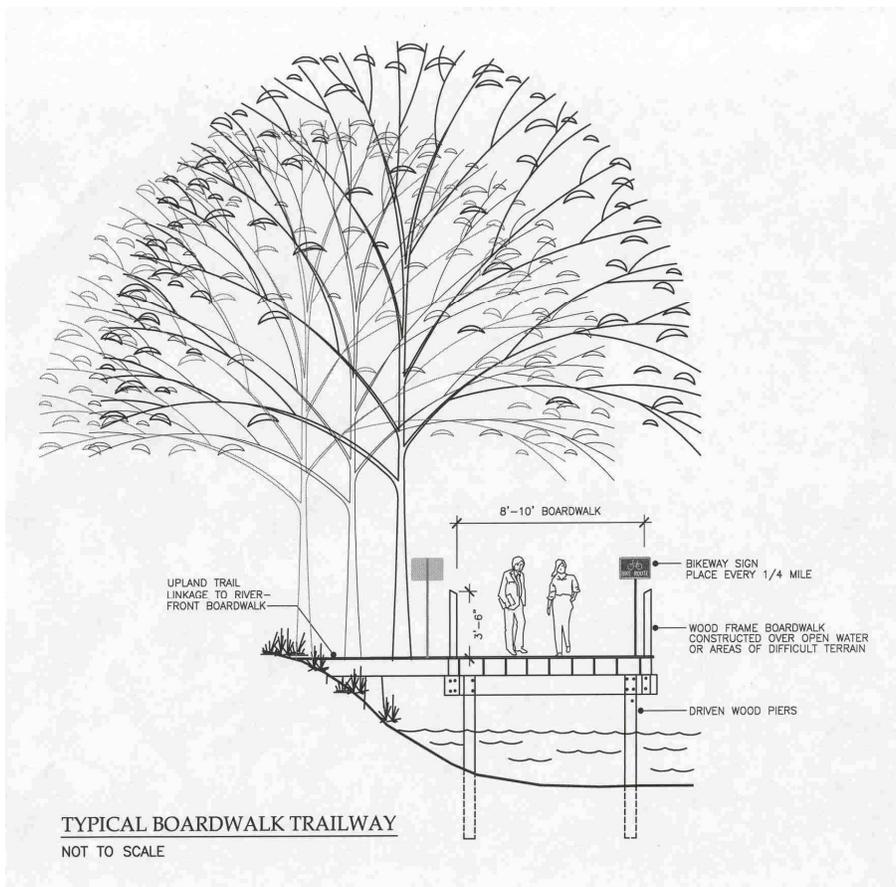
Water's Edge Trail

When overland trailways are to be constructed adjacent to waterways such as the Rifle River, special design treatments should be considered due to the sensitive natural environment, poor soils, and potential for flooding. A buffer of existing vegetation must be preserved to stabilize the riverbanks and minimize soil erosion into the river system.

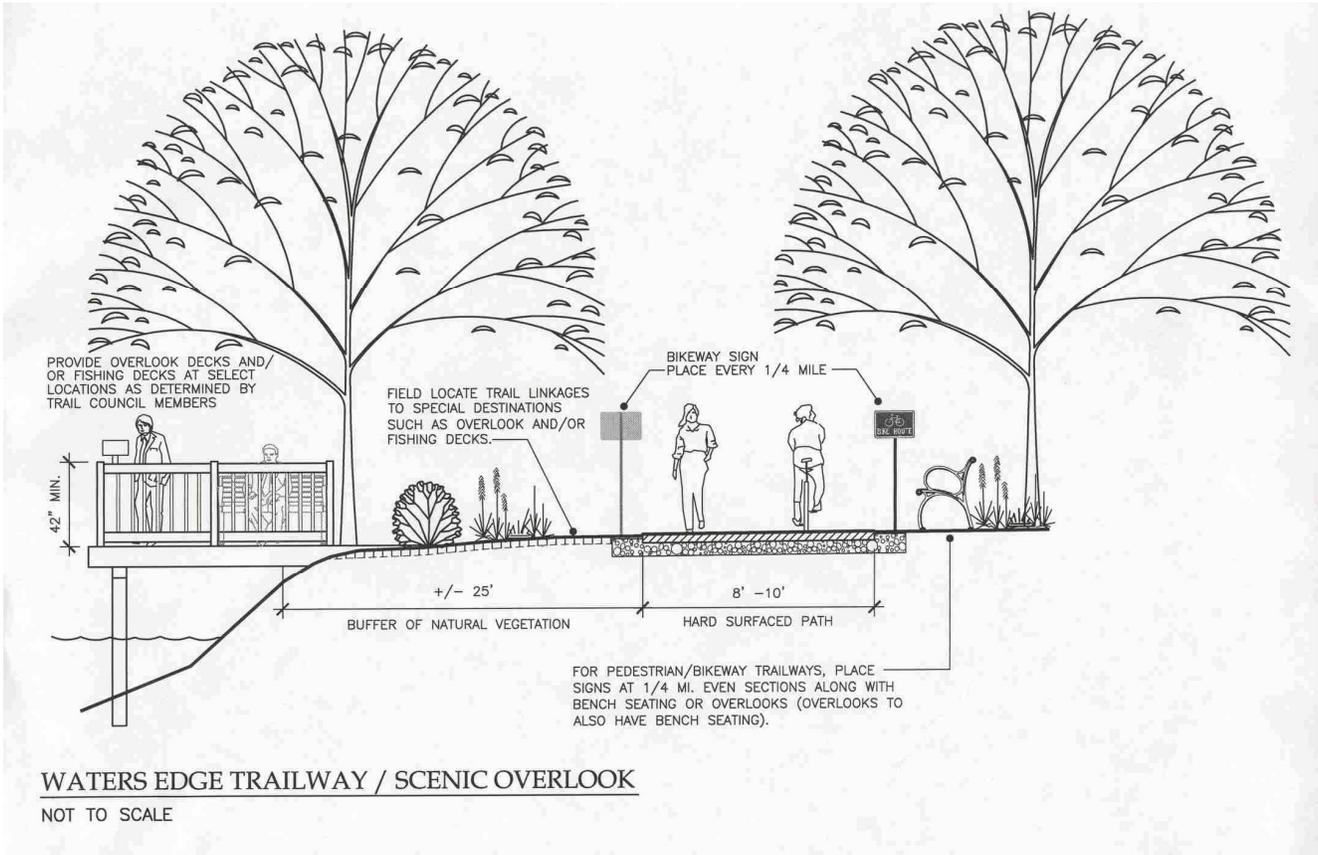
For views of the waterway, it is recommended overlook points be provided, rather than remove vegetation and construct trails to the waters edge. Where vegetation clearing is needed within the trail corridor, hand clearing is often recommended to minimize erosion and disruption of areas beyond the corridor.

Water's edge trails must be designed with maintenance considerations in mind. The path surface is often constructed of concrete to resist root damage and to withstand flooding. Often traversing areas with poor soil characteristics, these trails need to be provided with a supportive subbase. The use of geotextile fabric is typically required for additional stability and increased load bearing capacity. Maintaining cross drainage is important both across the trail's surface, as well as under the trail.

Trails along waterways are very popular with users who enjoy the opportunity to have access to pristine natural environments, and thus provide an excellent opportunity to educate trail users about sensitive ecosystems.



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Sidepaths

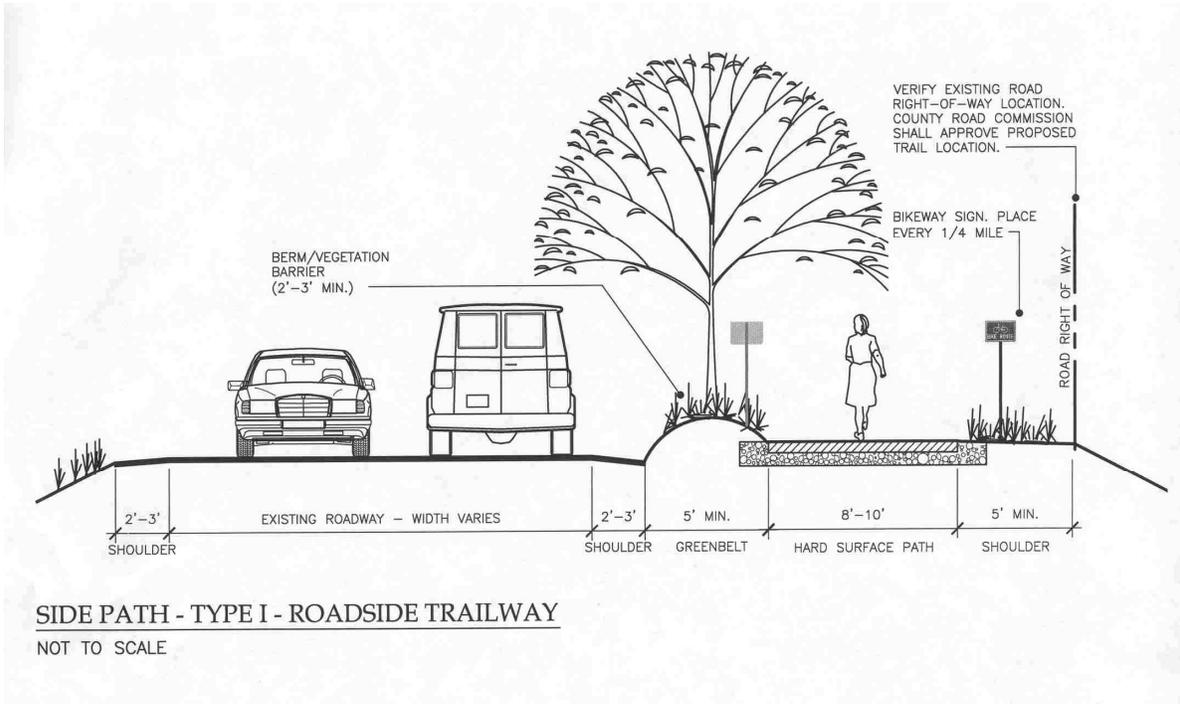
Sidepaths are two-way shared use paths located adjacent to a roadway, like an extra wide sidewalk. This facility type is not recommended in some urban environments due to space limitations, operational problems, and safety hazards at intersections. Sidepaths can be useful facilities along waterways, linear parks or in roadway corridors with limited adjacent development. Some of the design criteria which should be evaluated when considering the development of sidepaths include:

Available Right-of-Way – To accommodate a 10' wide path, there should be 15-20' of available right-of-way. This is necessary to provide for a 3' clear zone from obstructions, a 10' wide trail and a 5' buffer/open space to separate the path from the road (per AASHTO standard, if there is less than a 5' buffer width, a 4.5' high physical barrier should be constructed.)

Number of Street and Driveway Intersections – As the number of interactions between the bicyclist and vehicular traffic increases, the chances of a collision and serious injuries also increases. For this reason, sidepaths should not be considered when there are more than 12 residential driveways, 6 commercial drivers/minor streets, or 3 major street intersections per mile (Chicagoland Bicycle Federation "Tech Sheet #1: Sidepath Bicycle Facilities" 1997). Should more bicycle/vehicle interactions occur a cyclist would face more than 1 interaction every 30 seconds. As a result the safety and utility of the path deteriorates dramatically.

Final Design Consideration – The above criteria is very important to assess feasibility during the planning stages of this project. However, when the trailway moves into the design and construction stage, additional problems will need to be resolved. These problems consist of providing access to destinations located on the opposite side of the street from the sidepath, modifying signal timing to permit non-motorized users to move though an intersection without being hit by turning traffic, removing obstructions from the sight triangle, locating crosswalks and proper distance from the parallel roadway, and providing appropriate curb cuts and transition areas so that bicyclists may access the path from both the parallel intersecting streets.

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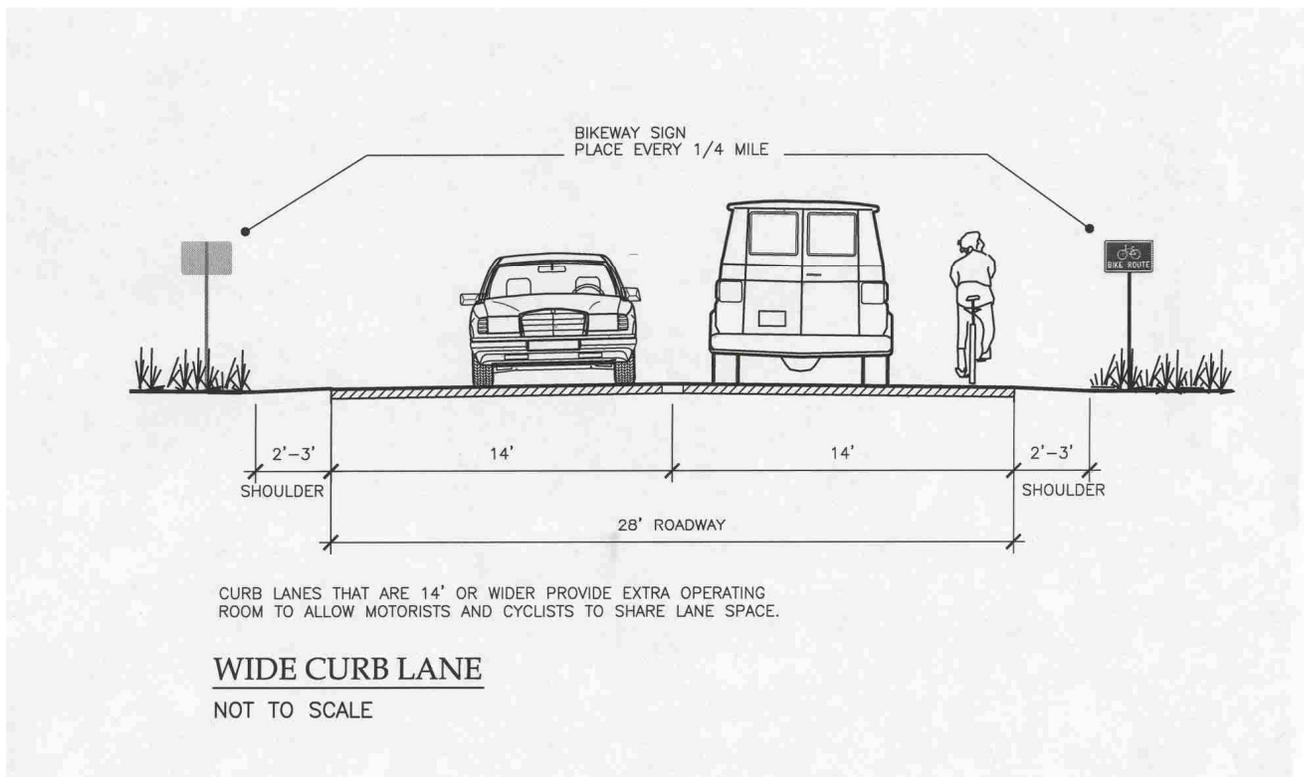
Bicycle Route

Designated Shared Roadway

A shared roadway that had been designated by signs as a preferred route for bicycle use. Low speed/low volume streets and roadways are the best choice for bicycle route signage. Under such circumstances, cars and bicycles can effectively share an 10' or 12' wide travel land, with no special accommodations for bicycle travel, such as wide curb lanes or striped bicycle lanes, needed.

All hazards to non-motorized travel such as unsafe drainage grates and wide, lateral pavements seams, must be removed for the cyclists safety. A commitment to maintenance of the roadway, particularly the right hand edge, should also be made before a street is designated as a bike route and/or part of the trailway system.

Wide Curb Lane – Wide Curb Lanes are outside or curbside travel lanes of sufficient width (14') for bicyclists and motorists to share the land with a comfortable degree of separation. The bicycle space is not striped, and generally the total width is less than a road with paved shoulder or bike lane treatment. Streets with wide curb lands may be signed as bicycle routes when traffic volumes and speeds are moderate to low.

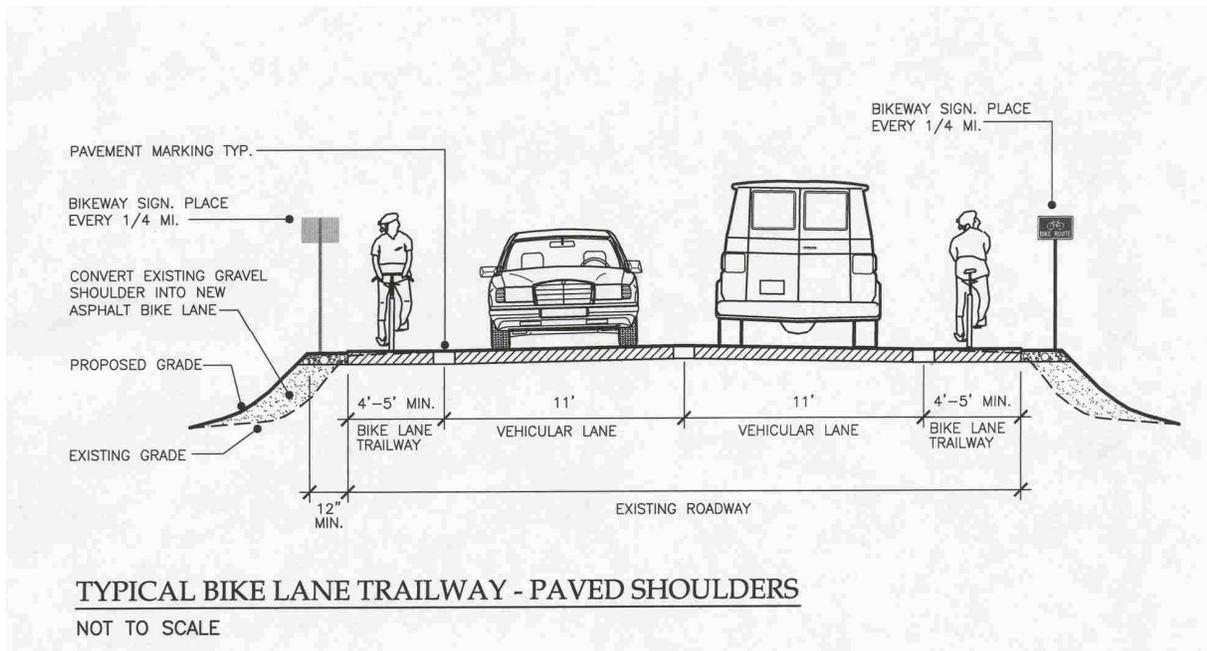


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Bicycle Lane – Bicycle lanes are a portion of the roadway, generally not less than 4' wide, that has been designated by striping, signs, and pavement markings, for the preferential or exclusive use of bicyclists. Bicycle lanes are generally always implemented as one-way facilities located on either side of the street, with arrows and pavement markings indicating the proper direction of travel.

When on-street parking is present, the bicycle lane must always be placed between the parking lane and the travel lane, not next to the curb. Since bicycle lanes are highly visible they are often referred to as “host facilities.” And as such invite people to consider riding their bikes as an alternative to driving.

Bicycle lanes are most appropriate on streets with moderate to high volumes of traffic, where most cyclists would not feel comfortable sharing a lane of traffic without the additional operating space. When implementing these types of facilities, it is important to pay attention to the lane striping treatment at intersections to help ensure that vehicles and bicycles are aware of each other when turning and merging.



Paved Shoulders

Traditionally, shoulders are designed to provide structural support for a roadway and offer a breakdown and recovery area for motor vehicles. When paved, maintained, and of sufficient width, shoulders provide space for bicycle and pedestrian travel lanes by striping, and may be designated as a bike lane through the addition of signing and pavement markings, preferably when speeds are posted 45 mph or lower.

Paved shoulders that are intended for bicycle use should continue through intersections and should not be routinely used as right-turn lanes for vehicular traffic. For both bicycle lanes and shoulder treatments, it is important to try to meet the minimum national standard for a 4' width. To be consistent with local design standards where space is limited and/or cost is a consideration, the pavement striping should be placed to create 11' wide motor vehicle travel lanes, rather than shoulders that are 3' or narrower.

Structures

Structures include special trail surfaces that are needed to cross natural barriers such as wetlands and waterways. Structures often become focal points along the trailway route where users may stop and rest or take in the natural beauties of Village of Homer.

Structures are traditionally the most expensive element of trail construction, thus their use should be limited to keep the overall cost of trail development realistic. On new structures, the minimum clear width should be the same as the approach trail width. The desirable clear width should include an additional 2-foot wide area on either side, but this may not be possible due to cost considerations.

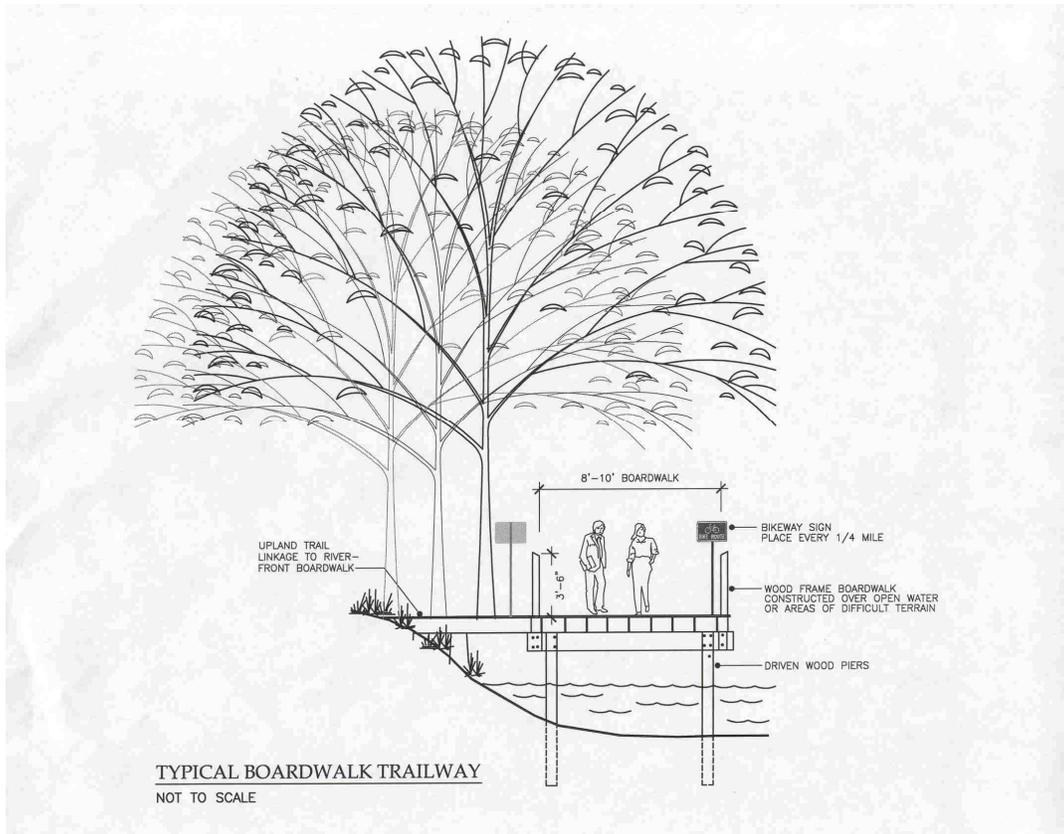
Boardwalks – Most often used to traverse poor soils and/or wetland habitats. Three different types of boardwalks are available for use in the development of the Village of Homer Trail System:

Elevated – A combination of wooden decking and wooden piles or support piers with a wooden decking trail surface and railings. Railings should meet AASHTO specifications for bicycle safety and be constructed to a height of 4'-6" tall with rails and supports over 3'-6" rubbed smooth. Decking should be laid out at a 45 degree angle to reduce vibrations for wheeled uses. All local and state building codes should be followed.

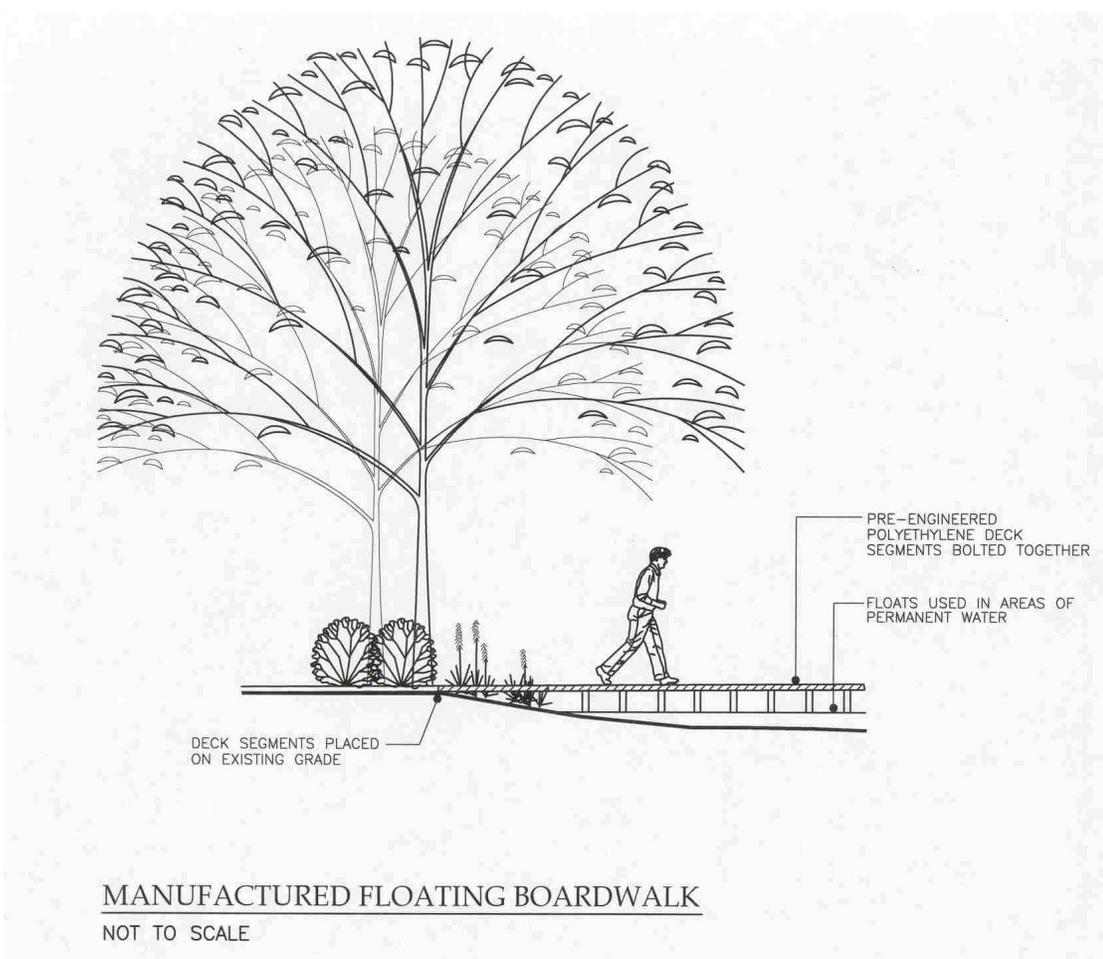
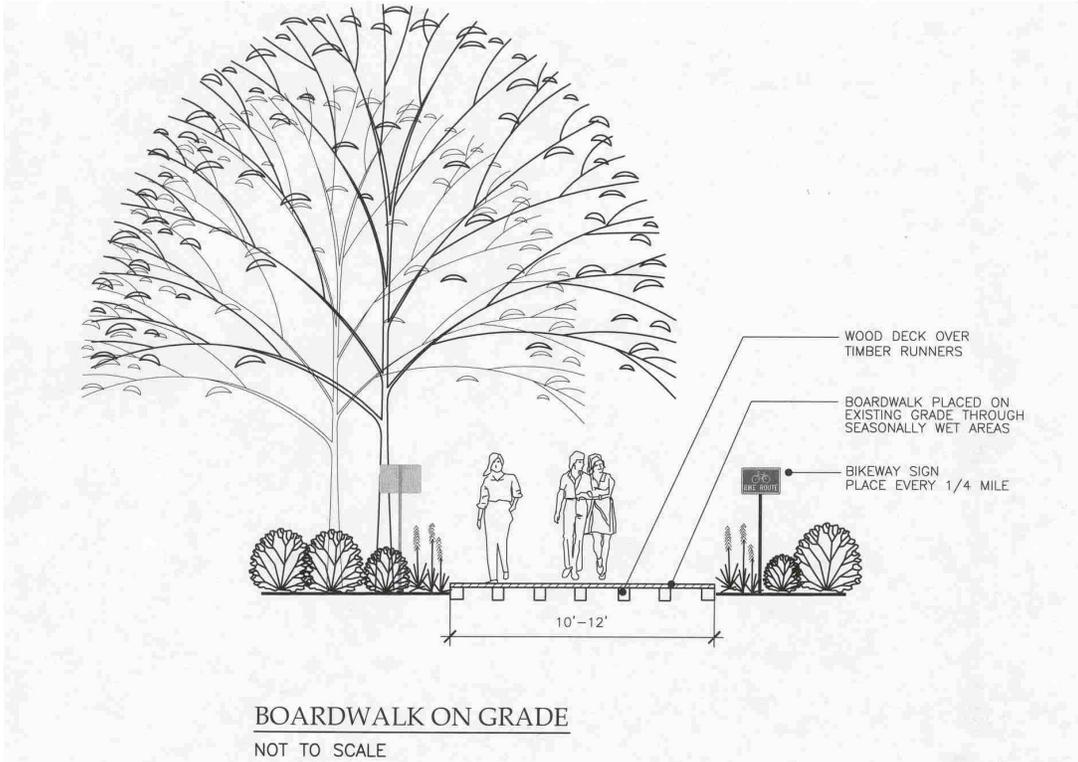
Boardwalk on Grade – In marginally wet areas where boardwalks can be constructed on grade, railings are not required. Such boardwalks are most often recommended for pedestrian-only applications. Decking should be laid out at a 45 degree angle to reduce vibrations for wheeled uses. Additional width is recommended for bicycle use.

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Pre-Manufactured Floating Boardwalk – Pre-fabricated units that come assembled from the manufacturer may be connected together to form a “floating” boardwalk in areas of permanent water. Recommended without rails only when traversing shallow water and in areas designed for pedestrian use only.



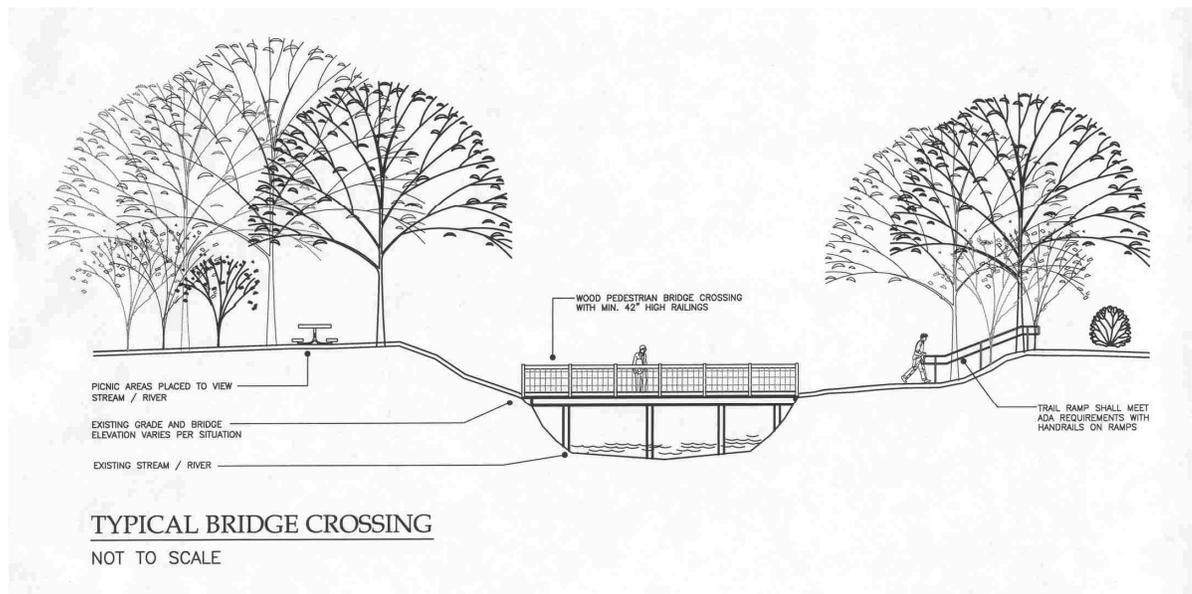
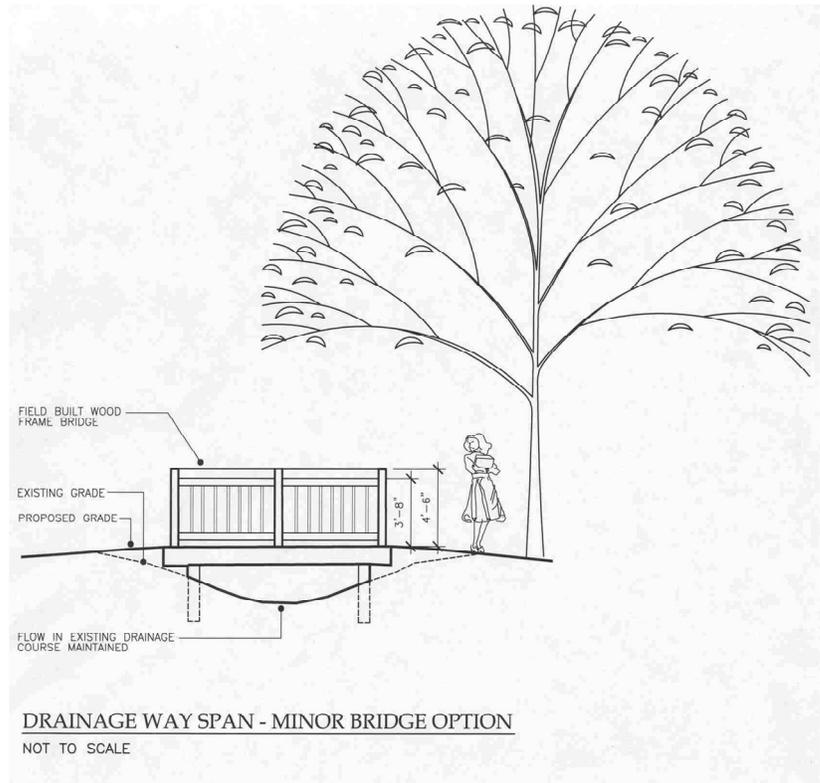
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Bridges – For larger bodies of water, ravines or other areas where fill is not permitted, a bridge will be a solution. All bridges will need to be structurally and hydrologically engineered to permit appropriate water flows, withstand major floods, and uphold loading requirements for passage of emergency and trailway maintenance vehicles.

The type and design of the bridge use to traverse bodies of water varies based upon the size and the velocity of the water.

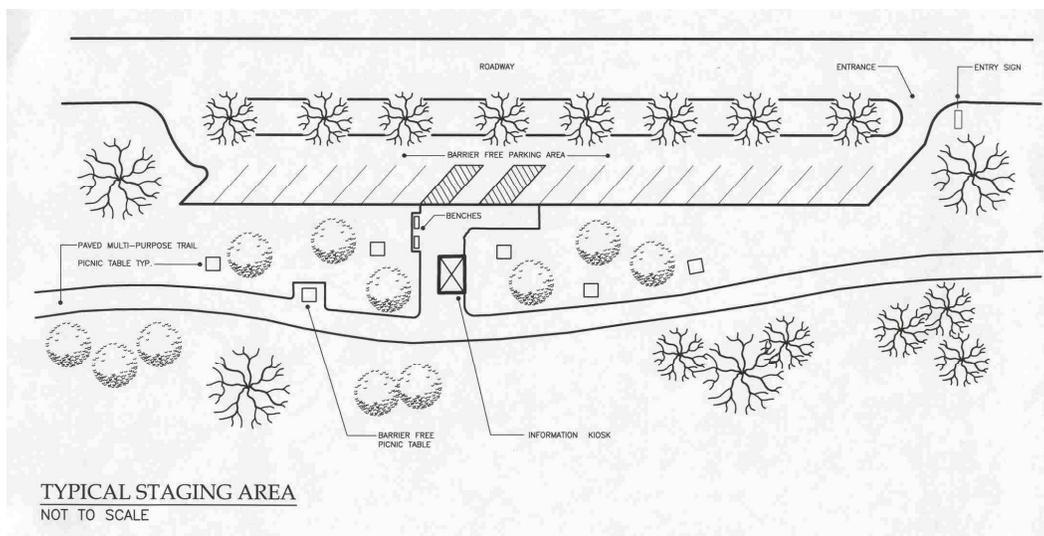


Trail Amenities

The creation of a Trails Master Plan requires more than just locating and constructing linear pathways throughout the Village. To make a trails system useable and enjoyable a variety of amenities should be included. The trail segments illustrated on the trails maps identify the general location of amenities such as seating areas with benches & trash receptacles, a variety of required and interpretive educational signage and information kiosks.

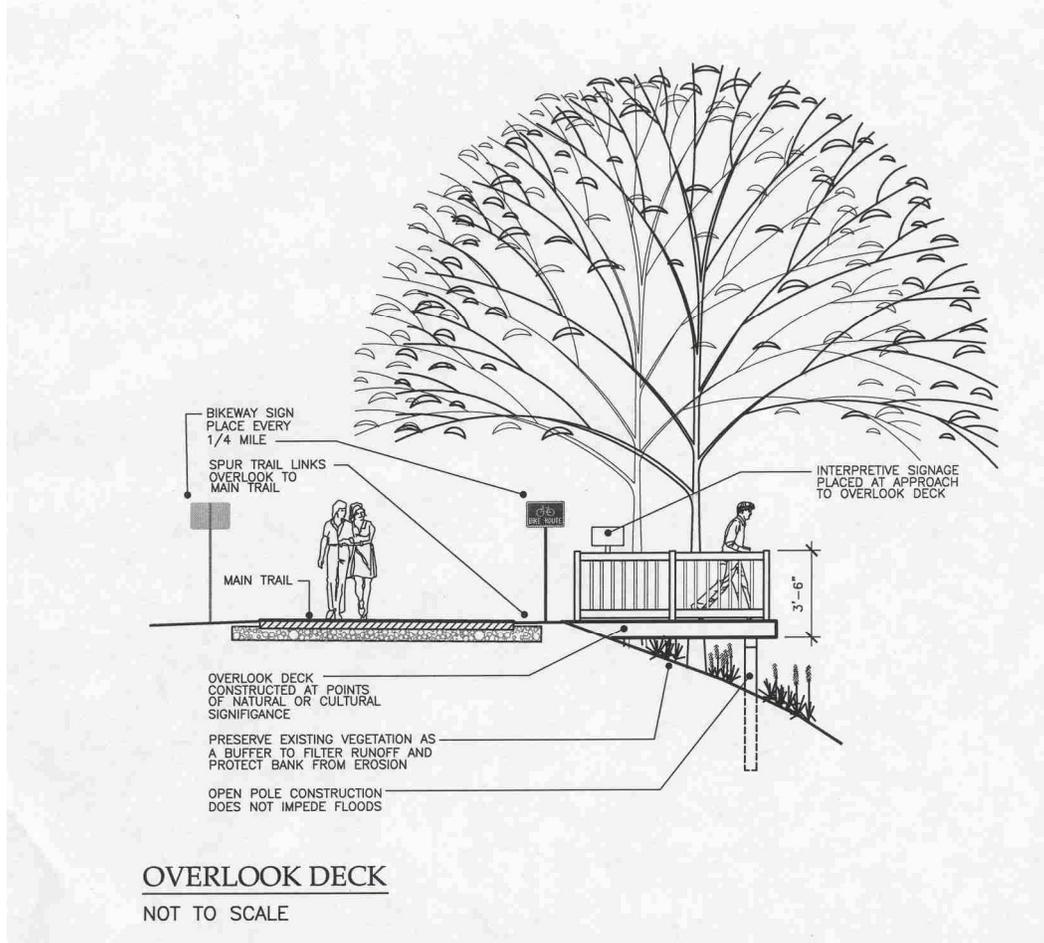
As a result of the scope of this project and the intent to create a Village trails system covering more than 15 miles, the amenities are located on the Master Plan Maps based upon the trail council meetings. However, the budget identified for each trail segment includes an allowance to allow for amenities to be installed once the trails have been constructed and more site specific locations are determined. The selection of the style, color and placement of all amenities is part of the detailed work which will be involved in preparation of construction documents, which will be required for each segment of the trail as it moves into the implementation phase of the project.

Staging Area – A staging area is commonly referred to as a trailhead. Elements commonly found in staging areas include parking lot for vehicles, trail information kiosks, picnic area, restrooms and drinking fountains. Staging areas are almost always located where there are existing facilities to be built upon, such as within a park adjacent to the trailway or other already established areas. Staging areas for the Village include the parks such as the Grist Mill Park, Webster Park, and the Lake Front Park. The R.K. Curry Athletic Facility also serves as a strong trail staging area for trail users adjacent to the Homer Area High / Middle School.



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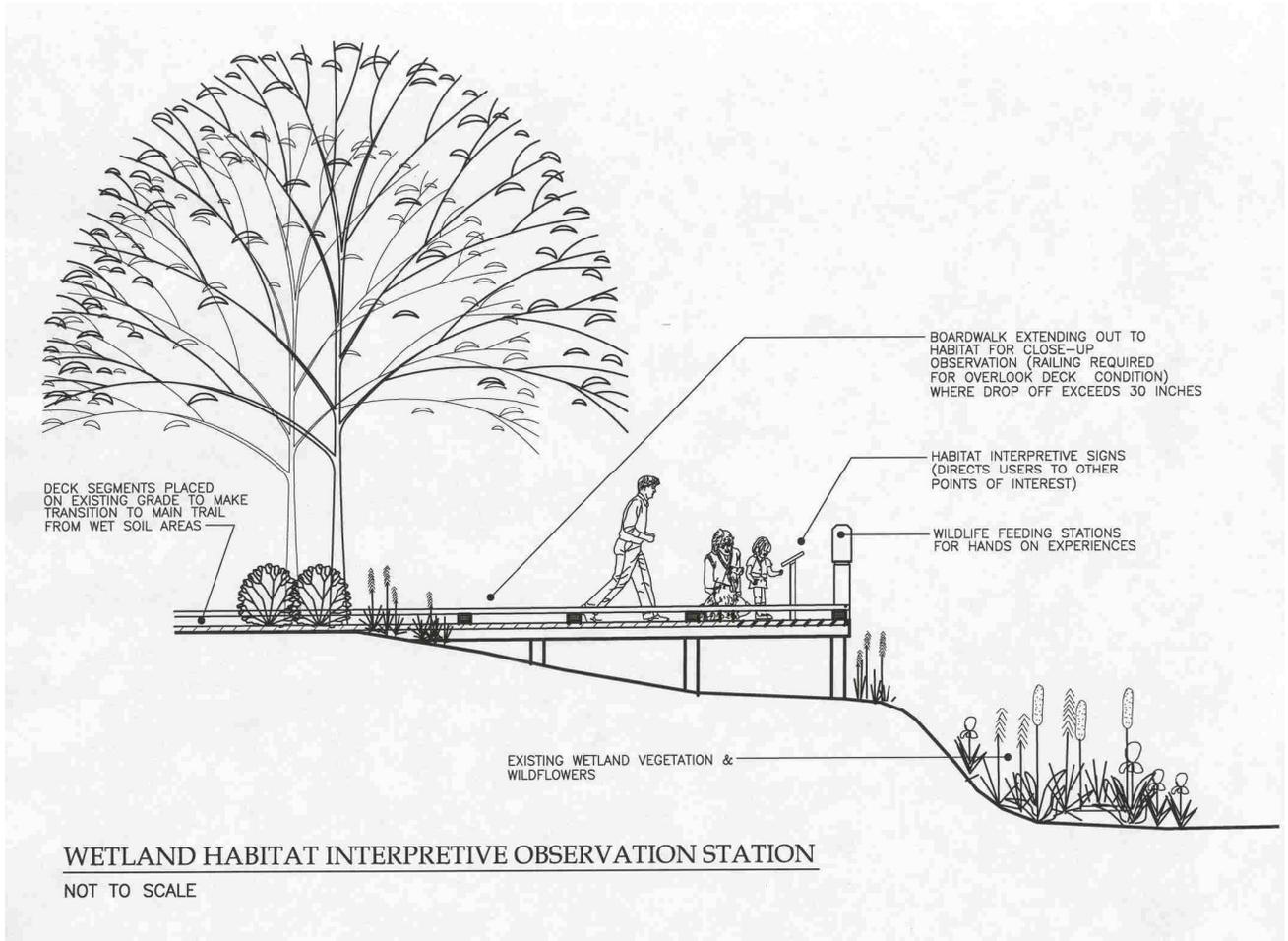
Major Overlooks – Similar to the boardwalks, these decks are proposed to be built in key locations that offer extraordinary views of the countryside, rivers, wetland, or other natural habitats. The major overlooks can include interpretative signage and



benches.

Minor Overlooks – Once the Trails Council has determined which trail segments will be developed it will be their responsibility to determine the location of the minor overlooks or resting points that should be made. These minor overlooks can include interpretative signage, fencing and trail furniture. The location of the minor overlooks should occur in areas where only minor vegetative clearing is required

Village of Homer Non-Motorized Trails Master Plan





APPENDIX A
POTENTIAL FUNDING SOURCES

The Transportation Equity Act for the 21st Century (TEA-21)

Congress passed TEA-21, the ISTEA reauthorization bill, on May 22, 1998. TEA-21, the Transportation Equity Act for the 21st Century, is the largest public works bill in America's history and significantly increases funding for every type of transportation activity including the development of trails and greenways.

TEA-21 includes several sections that can be used for the creation of trails and greenways. The following information provides an overview of these funding opportunities. However, please note that details about specific program funding levels vary from year to year based on Federal funding appropriations.

The Michigan Department of Transportation is responsible for administering the funds.

Anyone can sponsor a project, but they must apply through an eligible applicant. Eligible applicants include all governmental entities that receive fuel tax revenues. These include city and village road agencies, all county road commissions, public transit agencies, the Michigan Department of Transportation, and the Michigan Department of Natural Resources for rail/bike path projects.

The average match in Michigan has been more than 30 percent. Project amounts have ranged from a few thousand dollars to one million dollars.

For further information contact:

Bureau of Transportation Planning, Michigan Department of Transportation
425 West Ottawa, P.O. Box 30050, Lansing, MI 48909
Phone: 517-335-2622 Fax: 517-373-9255

National Recreational Trails Funding Program

The Recreational Trails Program provides funds for both motorized and non-motorized trail development. The Act provides for the transfer from the Highway Trust Fund of federal gasoline taxes paid on non-highway recreation fuel for off-road vehicles and camping equipment.

States can grant these funds to private individuals, organizations, city and county governments, and other government entities. Grant recipient are required to provide 20% of the total project cost. In Michigan, the Department of Natural Resources (MDNR) administers the program. There is no open application process and most of the money is used on DNR projects, a DNR Division can sponsor local projects.

For further information contact:

Forest Management Division, Michigan Department of Natural Resources
P.O. Box 30452, Lansing, MI 48909
Phone: 517-373-9483 Fax: 517-373-2443

Land and Water Conservation Fund (LWCF)

This federal program, administered in Michigan by MDNR, funds the planning, acquisition and development of land for outdoor recreation.

LWCF funds can generally be used to acquire land, build or repair recreation or park facilities, provide riding and hiking trails, enhance recreational access, and provide wildlife and hunting areas. The LWCF state grant program matches up to 50 percent of the cost of the project, with the balance of project funds paid by states or localities. Fund recipients are limited to state agencies or municipalities.

For further information contact:

MDNR
Grants Administrations
P.O. Box 30425, Lansing, MI 48909
Phone: 517-241-2480

Michigan Natural Resources Trust Fund

This program, administered by the Budget and Program Support Division of the Michigan Department of Natural Resources, makes some \$20 million (\$25 million in 1997) per year available for acquisition and development of lands and facilities for outdoor recreation and environmental protection. Money for the Fund is dependent on revenue and interest accruing to the Trust Fund in part from oil and gas exploration and sales from state land.

Applications are evaluated on established criteria such as resource protection, water access, and community recreation. At least a 25 percent match on either acquisition or development projects is required from local applicants. Any unit of government, including school districts, or any combination of units in which authority is legally constituted to provide recreation is eligible to apply for funding.

For further information contact:

Recreation Grants Section, Budget and Program Support Division
Michigan Department of Natural Resources
P.O. Box 30425, Lansing, MI 48909
Phone: 517-241-3100 Fax": 517-335-6813

Recreation Improvement Fund

This program, administered by the Forest Management Division of the Michigan Department of Natural Resources, makes fund available for the operation, maintenance and development of recreation trails, restoration of lands damaged by off-road vehicles, and inland lake cleanup.

For further information contact:

Forest Management Division, Michigan Department of Natural Resources
P.O. Box 30452, Lansing, MI 48909
Phone: 517-373-9483 Fax: 517-373-2443



APPENDIX B
PRIVATE FUNDING SOURCES

American Greenways Dupont Awards Program

Administered by the Conservation Fund, in partnership with Dupont, and the National Geographic Society, this program provides grants of \$500 to \$2,500 to local greenways projects.

For further information contact:

The Conservation Fund
1800 North Kent Street, Suite 1120, Arlington, VA 22209
Phone: 703-525-6300 Fax: 703-525-4610

DALMAC Fund

Established in 1975 to promote bicycling in Michigan, the DALMAC Fund is administered by the Tri-County Bicycle Association. The Fund has supported safety and education programs, bicycle trail development, statewide bicycle organizations and route mapping projects. Since its inception, the Fund has provided over \$240,000 to 17 organizations.

For further information contact:

DALMAC Fund Committee
P.O. Box 22146, Lansing, MI 48900-2146
Phone: 517-485-7818

MICHIGANDER / Rails-to-Trails Conservancy Fund

The Michigan Field Office of Rails-to-Trails Conservancy has initiated a small grants program based on revenue from the Detroit Free Press MICHIGANDER Fat-Tire-Tour. The purpose of this new program is to aid the development of a connected trail initiative throughout the State of Michigan.

For further information contact:

Rails-to-Trails Conservancy, Michigan Field Office
913 W. Holmes, Suite 145,
Lansing, MI 48910
Phone: 517-393-6022 Fax: 517-393-1960

Recreational Equipment Incorporated (REI) Environmental Grants

REI awards these grants to organizations for protection and enhancement of natural resources for use in outdoor recreation. Grants are offered to accomplish any of the following:

- preservation of wildlands and open space;
- advocacy-oriented education for the general public about conservation issues;
- building a membership base of a conservation organization;
- direct citizen action (lobbying) campaigns on public land and water recreation issues; and
- projects working to organize a trail constituency or to enhance the effectiveness of a trail organization's work as a trail advocate at the state or local level.

For further information contact:

Recreational Equipment, Inc.
6750 S. 228th Street, Kent, WA 98032
Phone: 253-395-5928

Land Trusts

National, state, regional, county, and local private land trusts (or conservancies) can purchase land for resale to public agencies, buy options to protect land temporarily, receive land donations, put together land deals, and provide technical assistance. As private entities, land trusts can often act more quickly than public agencies.

Businesses

Most towns have companies that can be considered as public-spirited. These firms have a history of helping worthy projects by providing a meeting room in a company building, given small grants, donating copying or printing services on company equipment, or giving free or reduced-fee use of the company's special services. For example, a law firm might provide "pro bono" (free) legal advice or an accounting firm might donate staff time to assist in developing a simple bookkeeping system.

Friends Groups

We all need friends, and this holds true for greenway and non-motorized projects as well. In fact, the long-term success of a project can well depend on the formation of an ongoing, private "Friends of the Trail" organization. Friends groups can provide a number of services including; physical labor as through "Adopt-a-Trail" maintenance or construction activities, fundraising, user education, promotion, and actual surveillance of the facility. These groups are important in all project phases: planning, acquisition, development, and operation.

Other Organizations

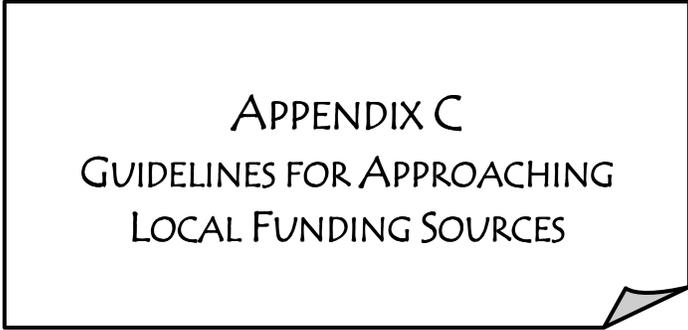
Civic groups and school groups can play an important role in support of a greenway project. They might help with trail development and maintenance, funding, promotion, and through the hosting of events. These activities can be separate from, or in conjunction with a friends group.

Individuals

Willing individuals can donate money, land, easements and services. The vast majority of money donated in this country comes from individuals. In numerous cases across the country, the financial contribution of a single individual has meant the success of a trail or greenway project.

Foundations

Private Foundations are non-governmental, nonprofit organizations have a principal fund of its own managed by its own trustees and directors, and established to maintain or aid charitable, educational, religious, or other activities serving the public good, primarily by making grants to other nonprofit organizations. The overwhelming majority of foundation grants are awarded to nonprofit organizations that qualify for "public charity" status under Section 501(c)(3) of the Internal Revenue Code.



APPENDIX C
GUIDELINES FOR APPROACHING
LOCAL FUNDING SOURCES

Guidelines for Approaching Local Funding Sources

Often, the success in securing funding for projects depends just as much on how a potential funder is approached as the type of project to be funded. Foundations, corporations, nonprofit groups, and individual and family donors are owed, and expect, professionalism and courtesy from those seeking financial assistance. In all cases:

- Address all letters individually. Be short and clear. Send pictures of graphics. Include a return envelope.
- Thank you is a must.
- Extend invitations to events celebrating ground breaking, final construction, and special programs. These are important ways of expressing public appreciation and urging increased use of facilities.

Foundations

Many foundations, large and small, may be interested in supporting non-motorized projects.

Approaching funders should always be done carefully. Steps to consider:

- Research the actual Foundation giving patterns. A preliminary, well-prepared phone call to the contact person will provide an indication of whether the foundation will consider this plan or aspects of it within their mission and giving pattern. Contacts will also indicate how they want to be approached, applications format and time frame.
- A well-designed initial letter and single page description of the goals, benefits, costs, budget, and partnerships of the plan may be submitted.
- Linking the Plan funding request to larger community, neighborhood, economic, environmental, beautification and youth and healthcare benefits is important.
- A full grant application may be requested.
- Interviews or meetings to discuss the project face to face are important when requested by the funder.
- Large foundations may have more complicated procedures than the smaller foundations. Know the foundation.
- Follow-up calls and thank you letters are welcomed and appropriate.
- Most foundations want to see that other foundations, businesses and individuals are contributing. Be prepared with other contributors' lists towards the total amount of the request.

Corporations and Businesses

Identify which are likely to be interested in non-motorized projects in this area. Some will be interested in community improvement, or economic benefits, or neighborhood revitalization. Use the same approach as for foundations, but incorporate ways the plan improvements will contribute to their business. Be prepared with a match or contributions from others.

Nonprofit Organizations

Many nonprofits have a genuine interest in non-motorized transportation. Larger nonprofits, like the hospitals and government units, will often contribute if they see direct benefits to healthcare, community improvement or bringing people to their facilities. Emphasize these important aspects.

Utilize the same strategies as for foundations and corporations, but address broader community values the nonprofit embraces through their mission and program. Provide match and/or other contribution list from others.

Guidelines for Approaching Local Funding Sources

Individual/Family Donors

Research those individual/family donors who are community contributors. Approach them through someone who knows them and can speak with you about the Plan and funding need.

Develop clarity about the size and purpose of each individual/family request before any approach is taken. Individual/family approaches can be taken through:

- Personal phone calls and meetings.
- Fund Raising letters to the public and/or through a targeted list developed for fund raising for this project.