City of Bloomington

Jackson Creek Trail Master Plan

Bloomington, Indiana

prepared by

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CONSULTING ENGINEERS

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LAND PLANNING + URBAN DESIGN + LANDSCAPE ARCHITECTURE

10 September 2003

LETTER OF INTRODUCTION

Butler Fairman & Seufert, Inc. and Rundell Ernstberger Associates, LLC are pleased to present the Jackson Creek Trail Master Plan to the City of Bloomington and the citizens of Bloomington. This report is the result of a planning process which involved city staff, the Jackson Creek Trail Steering Committee, and members of the community working together to play their part in the shaping of a project that is sure to have a lasting influence on the recreation and transportation of the city's future generations.

The recommendations put forth within this report, developed by the project team in response to community input, aim to establish a clear direction for the future development of the Jackson Creek Trail. Contained herein are the summaries of the planning efforts, site inventory, site analysis, trail master plan, project design standards and cost analysis.

We appreciate the opportunity to assist Bloomington Parks & Recreation and Planning Departments in the creation of this far reaching plan and look forward to the future implementation of these recommendations.

Respectfully submitted,

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Thank you to Penny Howard Myers for administering the billings, and Laura Haley for providing GIS map data.

City of Bloomington Funding Sources
Alternative Transportation and Greenways System Plan

Project Consultants
Butler Fairman & Seufert, Inc.
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C O N T E N T S

PROJECT*background*

In response to continuing public interest and requests for the development of trails, the City of Bloomington has determined the need for a master plan to guide the planning and design of the Jackson Creek corridor on the City's southeast side. The Jackson Creek Trail Master Plan is a chapter of the *Alternative Transportation and Greenways System Plan*, which is the guiding document for trail development in the City of Bloomington.

The development of the Master Plan is a collaborative effort between the City of Bloomington Departments of Planning, Parks and Recreation, and Public Works. Each of these departments have different jurisdictional roles regarding trail development: Parks and Recreation oversees greenways and multi-use trails; Public Works oversees trails and alternative transportation facilities in the street right-of-way, such as sidepaths and sidewalks; and Planning oversees the development and implementation of the greenways plan and the facilities required within planned developments.

The intent of the Jackson Creek Trail Master Plan is to develop a conceptual vision and implementation strategy for a universally-accessible, multi-use trail system that will connect parks, trails, schools, neighborhoods, and community resources. The Master Plan is the first phase of the design process that identifies the preferred trail layout, facility requirements, and design standards.

The Jackson Creek corridor is approximately 12 miles in length and is proposed to be constructed within property deeded to the City of Bloomington between 1995 and 1997, existing street right-of-way, existing sewer easements, City parks, and properties identified as likely to be developed. The proposed trail will connect the Clear Creek Trailhead at Church Lane northeast to the College Mall Road improvements as well as State Road 446.

The design process involved an inventory of existing conditions along the corridor, an analysis of potential routes and facility needs, a recommended master plan of the preferred route, design guidelines for the trail facilities, and an implementation plan that identifies phasing and probable construction costs of the project.

In addition, a public involvement process was conducted to solicit and receive input at each step of the design process. This involvement included meetings with the Jackson Creek Trail Steering Committee, neighborhood groups, City and County officials, special interest groups, and the general public.

The resulting master plan recommends a development of over twelve miles of trail in seven phases. The phases of implementation are based upon logical segments of construction and the availability of publicly owned land. Trail cost opinions are based upon projected construction costs necessary to complete the trail facility to the quality and standards established in the plan.

1992

- *Bloomington Parks and Recreation Master Plan* recommended ***development of greenways*** in Bloomington.

1994

- Prior to installing two large sewer interceptors southeast and southwest of Bloomington, the City of Bloomington Utilities Department approached Bloomington Parks and Recreation to explore the possibility of sharing the cost of land acquisition along the interceptor routes for the purpose of ***constructing trails***. The idea was received enthusiastically by the Parks Department.

1995

- Bloomington Parks and Recreation submitted a funding request ($890,000) to the Indiana Department of Transportation (INDOT) to begin construction of the trails on top of the sewer interceptors, which were installed along Clear Creek and Jackson Creek.

1996

- The Parks Department was authorized to spend half of the requested funds from INDOT ($441,000) and the decision was made to begin construction of the Clear Creek Trail.
- A public opinion survey, done in conjunction with the *City of Bloomington Comprehensive Parks and Recreation Open Space Plan*, indicated that ***trails were highly desired by the Bloomington community.***

2000

- Phase I of the Clear Creek Trail was completed.
- Bloomington Parks and Recreation's request to INDOT for construction of Phase II of the Clear Creek Trail was approved ($652,000).
- Bloomington/Monroe County Metropolitan Planning Organization's Year 2025 Transportation Plan is adopted. This document lists the construction of the Jackson Creek Trail and the East Branch Jackson Creek Trail as a Priority Bicycle Capital Improvement Project for the City of Bloomington
- City Council established an annual $500,000 fund in the City of Bloomington's budget dedicated to bicycle and pedestrian facilities.

2001

- Bloomington Parks and Recreation submitted a request to INDOT for construction of the Jackson Creek Trail ($791,500).
- The City of Bloomington *Alternative Transportation and Greenways System Plan* was adopted by the City Council. The Plan placed ***a high priority on development of the Jackson Creek Trail.***

2002

- INDOT approved funding ($500,000) to begin construction of the Jackson Creek Trail.
- *City of Bloomington Comprehensive Parks and Recreation Open Space Plan* opinion survey indicated that trail construction should be the ***top development priority of the Parks Department.***

2003

- *Jackson Creek Master Plan* completed.
- Construction of Phase II of the Clear Creek Trail began (completion expected in October, 2003.)

PUBLIC*involvement process*

Summary of Meetings:
Several meetings were held with interested citizens, neighborhood groups, public officials, and special interest groups throughout the planning for the Jackson Creek Trail. Meetings were also held with the Jackson Creek Trail Steering Committee, who provided direction and recommendations for ideas and information to be presented to the public.

Date	***Description***
February 4, 2003	Project kick-off meeting
February 11	Board of Public Works Meeting - Notice to Proceed
March 4	Walk through of Jackson Creek routes Monroe County Highway Engineer Meeting
March 10	Inventory Phase completed and reviewed
March 25	Analysis Phase completed and reviewed *Stakeholder Meetings* - Environmental Commission, Bicycle and Pedestrian Commission, other bike/ ped. interests
April 1	*Stakeholder Meetings* - Monroe County Commissioners Public Meeting at Sherwood Oaks Church
May 14	Synthesis/Conceptual Plan/Design Standards Phase completed *Public Open Houses* held at City Hall and Childs School
June 5	*Steering Committee Meeting* - Review of route alternatives and plan elements *Public Meeting* at City Hall
June 13	Survey of City-owned property along Jackson Creek, south of the Sycamore Knolls neighborhood
June 30	Draft Master Plan completed
July 17	*Steering Committee Meeting* - review of Draft Plan
August 29	Jackson Creek Trail Master Plan completed
September 23 *(scheduled)*	*Parks Board Meeting* - Presentation of the Master Plan
October 6 *(scheduled)*	*Plan Commission Meeting* - Presentation of the Master Plan

PROJECT*inventory*

A Site Inventory of the proposed Jackson Creek Trail Corridor was performed in order to gain an understanding of its physical characteristics and how they will impact the development of the trail system. The Inventory documents both man-made and natural conditions of the corridor, such as parks, schools, proposed developments, land ownership, riparian areas, steep slopes, and floodplain. The Inventory was developed from information provided by the City and County, as well as field observation.

Natural Conditions:
With appropriate design and construction practices, sensitive natural areas and wildlife habitat can be protected and preserved by the establishment of a greenway. The project team documented the following natural conditions along the corridor in order to establish a foundation for environmentally-sound trail planning and design decision making.

- ***Vegetation -*** The vegetation along the Jackson Creek corridor includes a variety of native tree species including maples, oaks, willows, ash and elms. The riparian zone is also characterized by herbaceous vegetation including grasses, forbs, and a variety of native wildflowers. The highest quality vegetated areas are targeted for preservation and/or subjected to sensitive construction and design standards.

- ***Slopes -*** Many areas along the corridor have very steep slopes, which poses a challenge to trail construction, due to erosion concerns and the desire to make the trail universally accessible. For this reason, the Inventory documents slopes of 2:1 or steeper.

- ***Floodplain -*** The Jackson Creek floodplain was documented on the inventory maps in order to understand which areas are subject to seasonal flooding and will require approval from regulatory agencies should the trail be constructed within these areas.

- ***Wetlands -*** According to the National Wetland Inventory (NWI) map, Jackson Creek has areas of a palestine, forested, broad-leaved deciduous, periodically flooded wetland located along Jackson Creek near the Bloomington Speedway. A field visit verified the existence of the wetland. The proposed trail will be constructed to minimize impacts to any wetlands and provide necessary remediation.

Man- Made Features:
The project team also documented the man made features along the corridor in order to understand the existing infrastructure and community resources that would need to be considered in the planning of the greenway.

- ***Existing Streets -*** Several existing streets either cross or parallel the Jackson Creek corridor. Each of these streets poses a unique set of challenges for trail development. The project team documented the existing street infrastructure in order to determine the potential for trail development within existing street right-of-way and safe crossing points.

- ***Bridges -*** Existing vehicular and pedestrian bridges that cross Jackson Creek corridor were documented in order to evaluate their impact to trail development. In many cases, these bridges occur directly adjacent to potential street crossings; in other cases, existing bridges could potentially carry the trail over the stream, in addition to the roadway. It was important to document the locations of these bridges and examine their condition in the field in order to understand the possibilities for trail development.

- ***Parks, Schools, Trails, Neighborhoods -*** The connection of community resources is one of the primary purposes for the development of a trail system. The project team documented the type and location of a variety of resources within and adjacent to the Jackson Creek corridor in order to understand the linkages that should be made.

- ***Land Ownership-*** The Jackson Creek corridor includes both City of Bloomington Parks and Recreation owned properties and private land ownership. Understanding this land ownership is very important to the development of a linear greenway system. The project team identified publicly-owned land, such as street right-of-way, parks; easements, such as utility, pedestrian, or bicycle which allow for use of private land for a specific public purpose; and privately owned land, which would require some form of acquisition before a trail could be constructed. In addition, potential developments which may contribute either land and/or construction of a segment of the trail were identified.

The following maps illustrate the Site Inventory elements described above and provide a basis upon which to begin the next phase of the planning process - Site Analysis.

PROJECT*analysis*

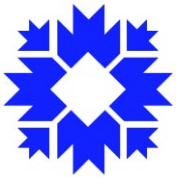
The Site Analysis of the Jackson Creek corridor was performed in order to identify the opportunities and constraints to the proposed trail development and to evaluate various alternatives for the proposed trail route. The Site Analysis utilized the information collected during the Site Inventory phase as a basis upon which to examine all of the possibilities for trail development, as well as the constraints imposed by various natural and man made features to trail development. The examination of these possibilities led to the development and evaluation of alternate routes that would connect the various community resources that had been identified.

Opportunities and Constraints:
The analysis revealed a number of existing *opportunities for* and *constraints to* the proposed trail development. For example, existing open spaces and publicly-owned corridors along Jackson Creek serve as opportunities to locate the trail, while minimizing the amount of clearing required. Neighborhoods, schools, parks, trails, and other community resources also present opportunities for trailheads and linkage of destination points. Conversely, private property ownership, stream crossings, riparian disturbance, heavily-vegetated areas , steep topography, and street crossings present challenges or constraints to trail construction.

Alternatives:
The examination of opportunities and constraints led to the development of alternative trail routes, particularly in the areas south of the Bloomington Speedway and surrounding Childs School. The project team prepared several alternatives in these areas, which were suggested by City staff, neighborhood groups, members of the general public, and key interest groups at various meetings throughout the planning process.

Each of these alternatives was evaluated based on the criteria of CONNECTIVITY (does it provide connections to parks, schools, and other community resources?), PEDESTRIAN SAFETY (does it provide for separation of pedestrian and vehicular circulation, and provide a safe distance from steep slopes and flooded streams?), ENVIRONMENTAL IMPACT (does it minimize stream crossings, clearing of vegetation, riparian disturbance, and impacts to highly erodible slopes?), ECONOMICS (does it minimize construction cost and land acquisition?), and TRAIL CHARACTER (does it provide for an inviting, comfortable and distinctive greenway experience?).

The following Site Analysis maps illustrate the various opportunities and constraints to trail development within the Jackson Creek corridor, as well as the alternative routes evaluated by the project team. The recommended trail routes on the site analysis maps have been indicated.



TRAIL*master plan*

The development of the final master plan for the Jackson Creek Trail involved several consecutive steps, each of which provide the planning and design basis for the next. The primary goal of the Master Plan phase was to determine the *recommended* trail route based on the evaluation of the alternatives developed during the Site Analysis phase. Once the recommended route was identified, the location and quantity of the various trail amenities and support facilities was determined.

Project Phasing:
Due to the length and scope of the proposed master plan, it will be necessary to construct the trail in phases. The design team and the City of Bloomington have identified a total of seven phases based upon logical segments of construction and the projected cost of each segment.

Although the phases are in no particular order of development, it seems logical to construct the first phase on property currently owned by the City. It is also assumed that each phase of construction will connect to and build upon a previously completed phase. The actual limits of construction identified for each phase is a suggested plan of development. Flexibility in these limits and the order of development must be assumed, as future funding has yet to be determined (*see following Master Plan Maps).*

Design Guidelines:
Design Guidelines were prepared in order to establish a consistency of design, appearance, and quality for trail features such as trail surfacing, street crossings, bridges, trailheads, furnishings, and signage *(see pages 9-17).*

Preliminary Cost Opinions:
Preliminary cost opinions for the construction of the trail and its amenities and features were prepared based on the recommended trail route and design guidelines. The final step in the Master Plan process was to determine an implementation strategy that outlines phases of development and associated costs *(see pages 18-32).*

The following Master Plan maps illustrate the recommended primary trail route, linkages and connections, trailheads, street crossings, and pedestrian bridges. The maps are organized into the recommended project phases.

TRAIL*design guidelines*

When considering the development of a long range project in several phases, it is important to establish design guidelines in order to ensure consistency in each phase of development.

The project team has prepared these recommendations to establish the quality standards for trail materials and the development standards for the trail facility to be followed in all future phases. In addition, the guidelines provide a basis for cost estimating.

Guidelines have been prepared for trail surface and width, trailheads and access points, trail bridges, trail and street intersections, signage, site furnishings, and landscaping.

Project Design Objectives:
When formulating design recommendations for the Jackson Creek Trail Master Plan, it was necessary to follow certain objectives in order to achieve consistency of thought and design throughout the planning process:

The creation of the Jackson Creek Trail Master Plan affirms a commitment to...

Developing links to parks, greenways, schools, cultural sites, and wildlife habitats along a linear greenway, increasing the community's opportunity to experience these significant recreational resources.

Promoting and protecting the significant environmental resources along the corridor through responsible development and ecologically-sound design.

Providing universal access to all visitors and residents of Bloomington and Monroe County that allows for experiencing the recreational opportunities available along the greenway.

Determining a development strategy that assures quality and continuity of design along the entire greenway.

Multi-Use Path -
Fall Creek Trail, Indianapolis

TRAIL TYPE

The Jackson Creek Trail is recommended to be a universally accessible *multi-use path.* The American Association of State Highway and Transportation Officials' (AASHTO) *Guide for the Development of Bicycle Facilities (1999)* defines *multi*-use paths as an off-road, two-way facility designed for use by bicyclists, in-line skaters, wheelchair users, and pedestrians on exclusive right-of-way with minimal cross flow by motor vehicles. The entire Jackson Creek Trail system will be comprised primarily of a multi-use path, supplemented by sidepaths (multi-use paths built alongside city streets), and connector paths.

TRAIL WIDTH

AASHTO recommends a width of 10 feet for shared-use paths, with 2-foot wide graded shoulders to either side of the trail. When a higher number of users are anticipated, a 12-foot wide trail with shoulders should be considered. The City of Bloomington's Department of Parks and Recreation has adopted a standard of 12 feet for trail width, as was constructed for the Clear Creek Trail. This width will accommodate increased trail traffic as development surrounding the trail corridor grows.

Multi-Use Path -
Fall Creek Trail, Indianapolis

For this reason, the design team recommends a width of 12 feet for the Jackson Creek Trail, with 2-foot wide shoulders where possible. In sensitive areas the trail width may vary in width.

TRAIL SURFACE

Throughout the public involvement process, the trail surfaces discussed most often were asphalt paving and compacted crushed stone. The trail system is to be a multi-use trail that accommodates ADA requirements. Crushed stone is less expensive to construct and is more forgiving for runners and walkers than asphalt; however it cannot accommodate all trail users, such as in-line skaters. Asphalt can accommodate all types of users and, although initial costs are greater, lasts longer and requires less maintenance than crushed stone. Maintenance and emergency vehicles can be supported by asphalt without damaging or altering the trail surface.

Multi-Use Path -
White Lick Creek Trail, Plainfield

Surfacing for trail shoulders was also considered. Shoulders should provide the safety and stability of supporting the load of users who step or ride off the paved portion of the trail, as well as vehicular traffic that may need extra width. A turf shoulder underlain with compacted stone provides the stability necessary to support user loads as well as a more natural appearance (as opposed to gravel) within the greenway.

Therefore, it is recommended that the majority of the Jackson Creek Trail surface be asphalt with stabilized turf shoulders, planted with a low maintenance seed mixture.

DNR PERMITTING PROCESS

The Jackson Creek trail routing and design may be affected by DNR permitting and regulations. Any proposed trail or bridge structure within the floodway of a river, stream or creek, that has a drainage area larger than one square mile, requires a DNR construction in a floodway permit. Due to the drainage area of Jackson Creek, all proposed work in the floodway would require a DNR permit. A trail section and multiple bridges can be constructed under one permit; however each phase will require a separate permit.

A construction in a floodway permit typically takes 5-6 months to obtain and requires a $200 permit fee. Hydraulic modeling will be required to identify the impacts on the floodway. Boardwalk sections would also be covered under this permitting process. DNR would consider the foundation spacing, the amount of fill required and the overall impacts to the floodway in analyzing the permit application.

Potential alternative materials that accommodate ADA requirements and multi-use paths should be evaluated for use in sensitive environmental areas. Environmentally sensitive construction techniques should be considered for use in riparian zone and floodplain areas well known to be periodically inundated by water and/or contain high quality vegetation. These techniques may include the use of small, light-weight equipment as well as increased erosion and sediment control measures.

Major Trailhead Example - Clear Creek Trail at West Tapp Road

TRAIL SUPPORT FACILITIES:

In order to accommodate the needs of trail users, certain facilities are needed along the trail to provide amenities that support the trail's use. Support facilities for the Jackson Creek Trail have been divided into three categories: *major trailheads, shared use trail heads, minor trailheads, and community access points.*

Major Trailheads:

Major trailheads provide the greatest amount of amenities to trail users and recognizable points of access for the trail. They are essentially mini-parks alongside the trail that may include parking areas, shelters, restrooms, drinking fountains, benches, trash receptacles, picnic tables, bicycle racks, trail signage, trail access, and landscaping.

Due to the extent of their provisions, the space requirements for major trailheads are not easily found within the narrow constraints of the Jackson Creek corridor. In many cases, it is necessary to find parcels of land adjacent to the corridor for their development. Such parcels could be either City-owned, such as parks or street right-of-way, or privately owned, created and operated with the owner's cooperation.

Major Trailhead Example - White Lick Creek Trail in Plainfield, Indiana

Potential ***Major Trailheads*****:**

1) Parks Property at Jackson Creek Middle School
2) Southeast Park
3) Olcott Park

Shared Use Trailheads:

Shared use trailheads are similar to major trailheads in that they provide parking and amenities to serve trail users, but they share the use of parking with schools. Therefore shared use trailheads are restricted during school hours and are permitted in visible areas only.

Major Trailhead Example - Clear Creek Trail at West That Road

Potential ***Shared Use Trailheads:***

1) Childs School
2) Jackson Creek Middle School

Minor Trailhead example - Indiana School for the Blind on the Monon Rail Trail in Indianapolis.

Community Access Point example - Pumpkinvine Trail in Goshen, Indiana.

Community Access Point example - Monon Rail - Trail.

Minor Trailheads:

Minor trailheads are similar to major trailheads in that they provide amenities to serve trail users, but on a smaller scale, allowing them to occur more frequently. Minor trailheads may provide benches, trash receptacles, bicycle racks, landscaping, and signage. However they will not provide parking areas. Minor trailheads typically are located within the trail right-of-way between major trailheads and at certain trail intersections.

Potential ***Minor Trailheads:***

1) Schmalz Park
2) Sherwood Oaks Park

Community Access Points:

The last type of trail support facility is the Community Access Point, which provides a minimal amount of amenities (perhaps a trail directory sign and a connector path) but likely would occur most frequently along the trail. Providing a place where residents of adjacent communities can access the trail, they provide a simple, informal, and direct connection between greenway and community, similar to the way a driveway connects to the street.

They are important in fostering a community's adoption of the trail, in respecting the rights of private property by establishing designated points of access and egress, and in providing a connection to community amenities served by the trail.

Locations of community access points should be determined in consultation with adjacent landowners and through the selection of logical places to enter the right-of-way from surrounding communities.

Potential ***Community Access Points:***

1) Two Creeks Subdivision- Cardinal Glen
2) Canada Station Development
3) Cascio Development
4) Young Development
5) Ramsey Development
6) Regency Place Development
7) Huntington Property
8) Hyde Park Condos
9) Sycamore Knolls
10) Spicewood
11) The Stands
12) Church of the Good Shephard

Example of a ***Gateway Bridge*** on Clear Creek Trail.

Example of a ***Standard Bridge*** on Clear Creek Trail.

Example of street crossing - Monon Rail Trail in Carmel, Indiana.

BRIDGE DESIGN STANDARDS

All of the bridges located along the Jackson Creek Trail are to be designed for bicycle and pedestrian traffic. The bridges will also occasionally be used by light vehicular traffic, such as passenger cars and light trucks, for maintenance and emergency purposes. Therefore, the structural design loading is based on a five-ton vehicle.

The width of the paved deck surface on each bridge will be 10 feet, if possible, with a 8-foot minimum width. The bridge deck should be a structural concrete slab spanning between superstructure members on standard bridges and wood deck for renovated historic bridges.

All bridge railing should consist of tubular metal shapes, finished in the appropriate color. Railings should be parallel with the trail centerline and 42 inches in height as recommended by AASHTO. The railing should be side mounted to the concrete bridge deck or to the existing structure as dictated by each bridge's configuration. Where bridges cross roadways, an enclosure or high fence should be considered to prevent objects falling onto the roadway below.

An approach barrier railing should be included at each end of each bridge. The approach barrier railing may consist of additional metal railing, wood railing, or stonewalls.

The approach pavement at the ends of the bridges should be a continuation of the trail pavement, with some variation based on each bridge configuration. Concrete approach slabs should be utilized where new construction dictates that the approaches are located on new fill material.

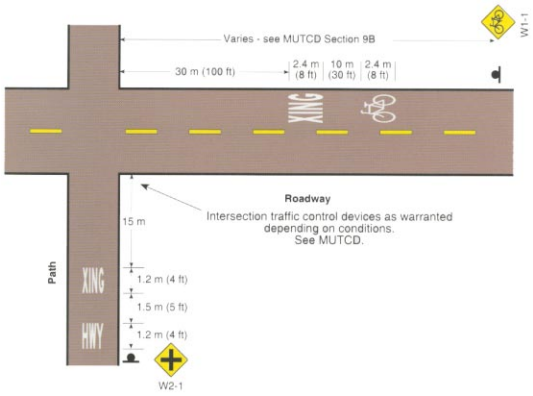
Adaptive reuse of historic bridge structures should be considered wherever possible. The reuse of these structures presents opportunities for historic and cultural interpretation and provides an opportunity for a signature ***gateway bridge***. One such opportunity is the railroad crossing over South Walnut.

TRAIL/STREET INTERSECTION DESIGN

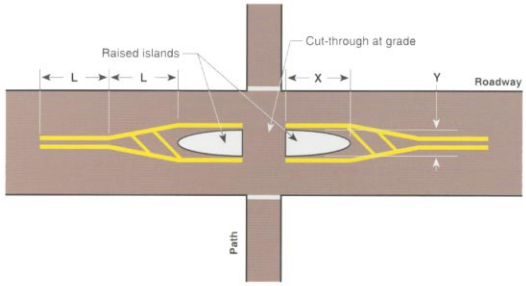
Each trail/street intersection should be examined individually as each has unique characteristics. Uniformity in the use of traffic control devices is critical to encourage proper and predictable behavior at intersections. The *Manual on Uniform Traffic Control Devices (MUTCD)* will be followed for size, shape, color and placement of signs on both the trail and the street. In addition, coordination with the City of Bloomington and Monroe County should ensure the proper design and layout of traffic control devices necessary to warn users of public streets of trail crossings.

All street crossings will occur at grade, except for the Gateway Bridge over Walnut Street (*refer to Master Plan map A*). Where the trail crosses a public street, the street traffic will have the right-of-way; trail users will stop and yield to traffic on the public street. Signals will be provided that are either integrated into existing signalization or are activated by a trail user based on traffic studies conducted at trail street intersections. However, in most cases, overhead flashing yellow signals will be used to facilitate a safe crossing.

Example of street crossing -
Vandalia Rail Trail in Plainfield, Indiana.



Example of Midblock Crossing -
'Guide for the Development of Bicycle Facilities' - AASHTO 1999.



Example of Median Refuge Area -
'Guide for the Development of Bicycle Facilities' - AASHTO 1999.

The physical improvements to be considered for designing safe crossings where the Jackson Creek Trail crosses public streets fall into two broad categories: *improvements to the streets* and *improvements to the trail.*

Trail Improvements:
Consistency in design of the trail as it approaches an intersection is important to establish proper and safe use. The following improvements may be appropriate to alert trail users to be aware and concentrate on safely negotiating each street intersection:

- Warning signs of upcoming intersections should be placed approximately 400 feet before the intersection.
- Cross rails forcing trail users to come to a complete stop before crossing the street.
- Stop sign along trail placed approximately 10 feet from the edge of the street.

Street Improvements:
Although improvements to streets at trail crossings will vary according to the particular characteristics of the intersection, certain features will remain consistent:

- Advance warning signs placed approximately 500 ft . before the crossing and trail crossing or identification signs at crossing point.
- Crosswalk pavement markings at crossing point.
- "Trail Xing" markings on the roadway.
- No Motor Vehicles signs placed facing the street at all trail intersections.
- Overhead flashing yellow warning signal.
- Median refuge areas to allow trail users to cross one direction of traffic at a time *(additional street right-of-way may be required).*

Street crossings which will require these types of improvements may include: Rogers St., South Fairfax Rd., Rhorer Rd., Sare Rd., Rogers Rd., Smith Rd., Moores Pike.

TRAIL SIGNAGE

There are many different issues to consider in the design of signs for a trail. Signs along the Jackson Creek Trail will need to serve a variety of purposes, including provide traffic control along the trail, alert users to potential hazards, identify trail access points, provide historic information, indicate trail distance, and provide orientation on the trail and to surrounding communities.

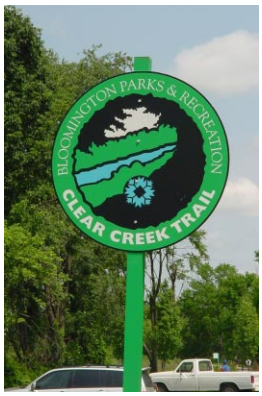
Signs will need to be located so as to be legible to trail users and must be constructed in methods and materials that are somewhat vandal resistant and easy to maintain.

The need for different types of signs must be balanced with the idea of creating a visually pleasing landscape in which to use the trail. The Jackson Creek Trail will feature a system of signage to clearly communicate a variety of messages in a graphically consistent manner. The signage system can be divided into the following categories: *Trail Traffic Signs, Trail Identity Signs, Trail Interpretive & Directory Signs, and Mile Markers.*

Trail Traffic Signs:

The Jackson Creek Trail will be a transportation corridor and, therefore, must have recognizable transportation signs that follow *MUTCD* guidelines. The trail traffic signs will include regulatory and warning signs, such as *(stop)*, *(yield)*, *(trail narrows)* signs.

The design of the trail traffic signs should be consistent with those of the Clear Creek Trail system and feature 2-foot square aluminum panels mounted like a flag to one side of an aluminum post. Signs can have graphic information on one or both sides, (which reduces the overall number of signs needed). The panels should be sized to accept a variety of traffic symbols and messages, and are easily replaced. Traffic signs should be placed 3 feet from trail's edge and mounted at a height of 4 feet.



Trail Identity Signs:

Because the Jackson Creek Trail will have numerous points of entry due to its linear nature; it is important that these points of entry be identified for the public in an appropriate and consistent manner. The trail identity sign is intended to serve those two functions: identify the main entry points to the trail and establish a consistent and lasting identity for the project to the public. As the trail takes its name from Jackson Creek, it is important that these signs incorporate a logo unique to Jackson Creek. The Bloomington Parks and Recreation logo should also be incorporated. The signs should be visible by the public at trail and street intersections and at other significant access points.

Trail Interpretive & Directory Signs:
Along the trail, there should be directory signs that give general guidance information to trail users, such as nearby points of interest, trail support facilities, or " you are here" orientation.

These signs should also serve an interpretive role, conveying the historical, cultural, or ecological significance of certain points along the trail. Examples could include the importance of protecting floodplains, geologic formations unique to the area, or the railroad's role in supplying Indiana limestone to the world.

With all these functions, the design of these types of sign must be flexible enough to incorporate a variety of graphic information and, yet, be consistent in its appearance and presentation.

Mile Markers:
Mile markers serve many functions: orientation for trail users and emergency personnel and traveled distance for trail users. Distance along the trail should be marked in quarter-mile intervals by a mileage marker sign placed off the side of the trail. Information included on the makers should be distance in miles and the Jackson Creek Trail logo.

SITE FURNISHINGS
In addition to signage, the design of the Jackson Creek Trail will include site furnishings to accommodate the need of the trail users along the length of the entire trail. Amenities such as benches, informal seating areas, trash receptacles, and bicycle racks will be clustered together at major and minor trailheads as well as placed alongside the trail at regular intervals.

Along with trail signage, site furniture will be among the most frequently utilized element along the trail, setting the tone for the overall image of the trail system in the minds of the users. It is important that design standards for the trail's site furnishings be established to ensure overall consistency of design and trail image.

TRAIL LANDSCAPING

For a majority of it length, Jackson Creek Trail corridor is characterized by a significant amount of vegetation on either side of the creek. The presence of this mature vegetative cover not only adds to the natural beauty of the trail experience, but more pragmatically, minimizes the amount of new landscaping necessary to improve the appearance of the Jackson Creek corridor and screening of the trail from undesirable views and adverse adjacent trail conditions.

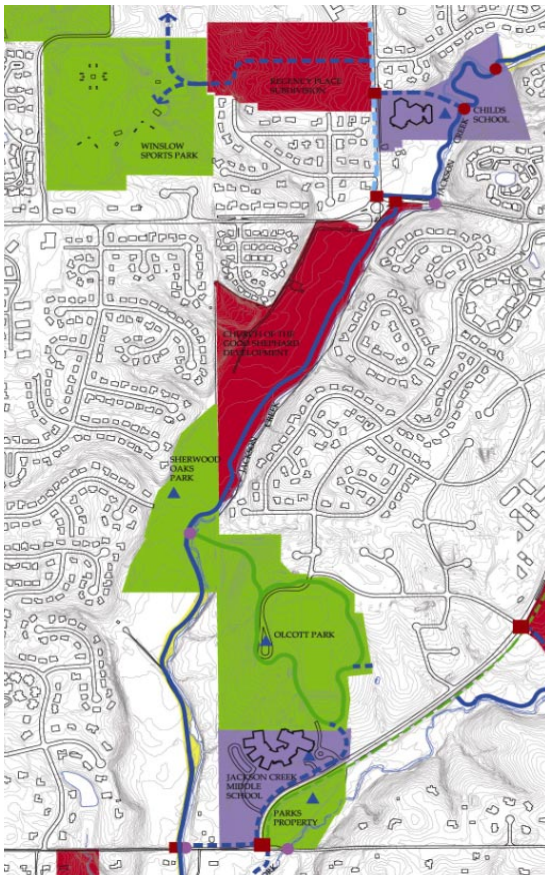
In areas where the appearance of the Jackson Creek corridor warrants improvement and no existing vegetation is present, plantings of trees, shrubs, and ground cover should be installed to create a linear park effect alongside the trail. New plantings should also be used to identify and improve "entrances" to this park (trail access points).

In addition, plantings should be used to screen certain land uses adjacent to the corridor (such as business service areas) and to separate the trail from other improvements within the right-of-way (such as parking lots). Native plant material, such as native grasses and wildflowers, should where possible in an effort to keep landscape maintenance to a minimum and to maximize the ecological benefits of the plantings.

TRAIL LIGHTING

The Jackson Creek Trail is intended for use during daylight hours only; therefore, it is not anticipated that the trail will be lighted. However the installation of security lighting at trailheads, road crossings, bridges, and other activity areas should be considered if conditions warrant.

TRAIL*construction phasing costs*



PHASE ONE*description*:

Phase One begins at the north side of Rhorer Road on property owned by Bloomington Parks and Recreation, heads north on the west side of Jackson Creek, connecting to the existing pedestrian bridge at Sherwood Oaks Park, continues north across Parks property, through the Church of the Good Shepherd property, to the roundabout at Winslow Road, High Street, and Rogers Road, where the trail makes a connection to Childs Elementary School property. A sidepath would be constructed from the trail corridor property at Rhorer Road east to Sare Road terminating on Jackson Creek Middle School property.

PHASE ONE*cost opinion*

1.1 Multi-Use Trail & Sidepath:

12 ft. wide asphalt trail with 2 ft. wide stabilized turf shoulders
2.42 miles @ $225,000 per mile $544,500.00
8 ft. wide asphalt sidepath
0.28 miles @ $150,000 per mile $42,000.00

1.2 Street Intersection Improvements:

includes pavement markings, regulatory signs & warning signage, overhead flashing yellow
Rogers Road: 2 @ $ 20,000/each .....$ 40,000.00
High Street: 2 @ $ 20,000/each .....$ 40,000.00

1.3 Bridge:

(1) prefabricated bridge approximately 75 ft. long x 10 ft. wide, with abutments
ALLOWANCE $112,500.00

1.4 Trail Signage System:

(1) Regulatory, Warning & Guidance Signs:
includes STOP, YIELD, NO MOTOR VEHICLES, hazard warnings, route identification, intersection identification, and directional signage; pole mounted; MUTCD specifications
12 @ $500/each.....$ 6,000.00

(2) Trail Identification Signage:
includes signs that identify the Jackson Creek Trail and Bloomington Parks Department at various points of access.
6 @ $1,000/each .....$ 6,000.00

PHASE ONE*cost opinion (continued)*

(3) Interpretive Signage:
includes signs that illustrate historical, natural, and cultural significance of certain features along the trail.
4 @ $2,500/each .....$ 10,000.00

(4) Directory Signage:
includes a trail directory for orientation.
6 @ $2,500/each .....$ 15,000.00

(5) Mileage Markers:
includes distance markers at quarter mile intervals
11 @ $500/each.....$5,500.00

1.5 Trailhead
Trailhead at Sherwood Oaks Park modified to include drinking fountains, benches, trash receptacles, bicycle racks, and trail signage.
ALLOWANCE .....$ 40,000.00

1.6 General Trail Landscape Work:
(1) Seeding:
includes seeding of open areas of right of way with native grass and wildflower mixtures; seeding of disturbed areas with low maintenance, drought tolerant grass species.
ALLOWANCE $60,000.00

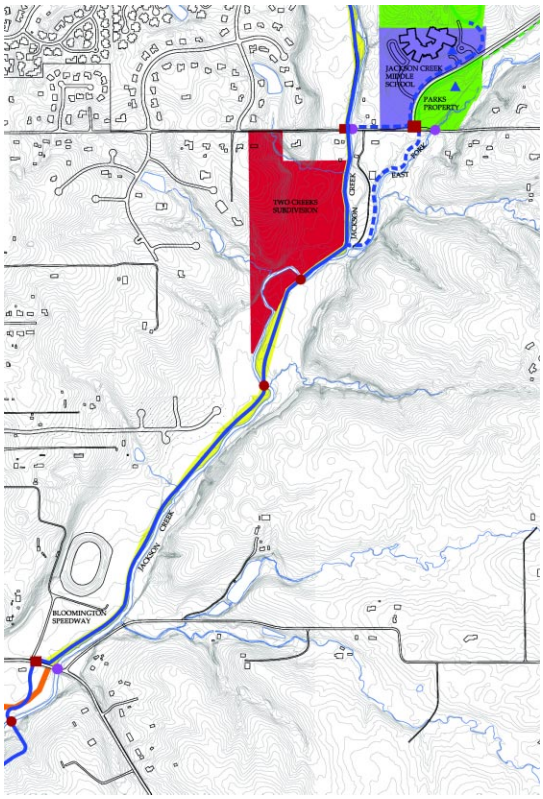
(2) Miscellaneous Landscaping:
includes minimal tree, shrub, and groundcover plantings as needed, at access points and on "barren" land; screening of undesirable views and adverse adjacent trail conditions.
ALLOWANCE $50,000.00

1.7 Miscellaneous Construction Activities:
includes miscellaneous grading operations, erosion protection, miscellaneous salvage & demolition, miscellaneous walk & street repair, drainage considerations, traffic maintenance, miscellaneous clearing, mobilization and demobilization, etc.
ALLOWANCE .....$ 100,000.00

1.8 Contingency (20%) .....$ 214,300.00

CONSTRUCTION COST .....$ 1,285,800.00

**Cost opinion does not include cost for survey, design, land acquisition, and inspection.*



PHASE TWO*description*:

Phase Two begins at the north side of Rhorer Road on property owned by Bloomington Parks and Recreation and heads south on the west side of Jackson Creek, continuing south along the Bloomington Speedway to its termination on the north side of Fairfax Road.

PHASE TWO*cost opinion:*

1.1 Multi-Use Trail & Sidepath:

12 ft. wide asphalt trail with 2 ft. wide crushed stone shoulders

1.54 miles @ $225,000 per mile $36,590.40

1.2 Street Intersection Improvements:

includes pavement markings, regulatory signs & warning signage, overhead flashing yellow

Rhorer Road: 2 @ $ 20,000/each .....$ 40,000.00

Fairfax Road: 1 @ $ 20,000/each .....$ 20,000.00

1.3 Bridge:

(2) prefabricated bridge approximately 100ft. long x 10 ft. wide, with abutments

ALLOWANCE $300,000.00

1.4 Trail Signage System:

(1) Regulatory, Warning & Guidance Signs:
includes STOP, YIELD, NO MOTOR VEHICLES, hazard warnings, route identification, intersection identification, and directional signage; pole mounted; MUTCD specifications

12 @ $500/each.....$ 6,000.00

(2) Trail Identification Signage:
includes signs that identify the Jackson Creek Trail and Bloomington Parks Department at various points of access.

6 @ $1,000/each .....$ 6,000.00

(3) Interpretive Signage:
includes signs that illustrate historical, natural, and cultural significance of certain features along the trail.

4 @ $2,500/each .....$ 10,000.00

(4) Directory Signage:
includes a trail directory for orientation.

6 @ $2,500/each $15,000.00

PHASE TWO*cost opinion (continued)*

(5) Mileage Markers:
includes distance markers at quarter mile intervals
6 @ $500/each $3,000.00

1.5 General Trail Landscape Work:

(1) Seeding:
includes seeding of open areas of right of way with native grass and wildflower mixtures; seeding of disturbed areas with low maintenance, drought tolerant grass species.
ALLOWANCE $60,000.00

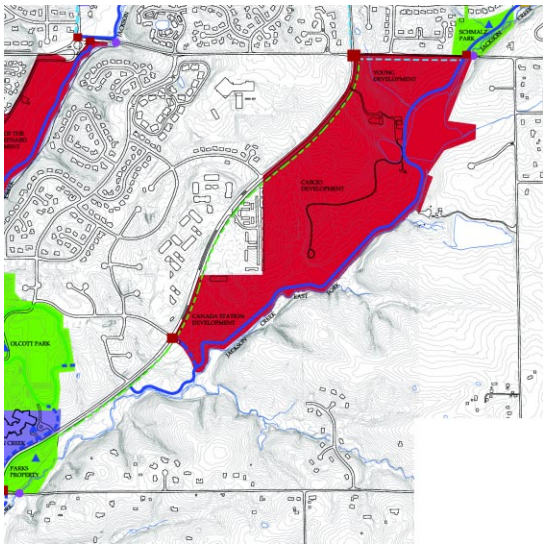
(2) Miscellaneous Landscaping:
includes minimal tree, shrub, and groundcover plantings as needed, at access points and on "barren" land; screening of undesirable views and adverse adjacent trail conditions.
ALLOWANCE $50,000.00

1.6 Miscellaneous Construction Activities:
includes miscellaneous grading operations, erosion protection, miscellaneous salvage & demolition, miscellaneous walk & street repair, drainage considerations, traffic maintenance, miscellaneous clearing, mobilization and demobilization, etc.
ALLOWANCE $100,000.00

1.7 Contingency (20%) $191,300.00

CONSTRUCTION COST $1,147,800.00

**Cost opinion does not include cost for survey, design, land acquisition, and inspection.*



PHASE THREE*description*:

Phase Three begins at the north side of Rhorer Road on property owned by Bloomington Parks and Recreation and heads northeast along the east branch of Jackson Creek, continuing through several new developments, across Rogers Road, and ending in Schmalz Park.

PHASE THREE*cost opinion*

1.1 Multi-Use Trail & Sidepath:

12 ft. wide asphalt trail with 2 ft. wide crushed stone shoulders
1.33 miles @ $225,000 per mile.....$299,250.00
8 ft. wide asphalt sidepath
0.25 miles @ $150,000 per mile.....$37,500.00

1.2 Street Intersection Improvements:

includes pavement markings, regulatory signs & warning signage, overhead flashing yellow
Rogers Road: 1 @ $ 20,000/each .....$ 20,000.00

1.3 Bridge:

(1) prefabricated bridge approximately 50 ft. long x 10 ft. wide, with abutments
ALLOWANCE $75,000.00

1.4 Trail Signage System:

(1) Regulatory, Warning & Guidance Signs:
includes STOP, YIELD, NO MOTOR VEHICLES, hazard warnings, route identification, intersection identification, and directional signage; pole mounted; MUTCD specifications
12 @ $500/each.....$ 6,000.00

(2) Trail Identification Signage:
includes signs that identify the Jackson Creek Trail and Bloomington Parks Department at various points of access.
6 @ $1,000/each .....$ 6,000.00

(3) Interpretive Signage:
includes signs that illustrate historical, natural, and cultural significance of certain features along the trail.
4 @ $2,500/each .....$ 10,000.00

PHASE THREE*cost opinion (continued)*

(4) Directory Signage:
includes a trail directory for orientation.
6 @ $2,500/each .....$ 15,000.00

(5) Mileage Markers:
includes distance markers at quarter mile intervals
6 @ $500/each.....$3,000.00

1.5 Trailhead
Trailhead at Parks property at Sare Road and Rhorer Road modified to include Parking facilities, drinking fountains, benches, trash receptacles, bicycle racks, and trail signage.
ALLOWANCE $100,000.00

1.6 General Trail Landscape Work:
(1) Seeding:
includes seeding of open areas of right of way withnative grass and wildflower mixtures; seeding of disturbed areas with low maintenance, drought tolerant grass species.
ALLOWANCE $50,000.00

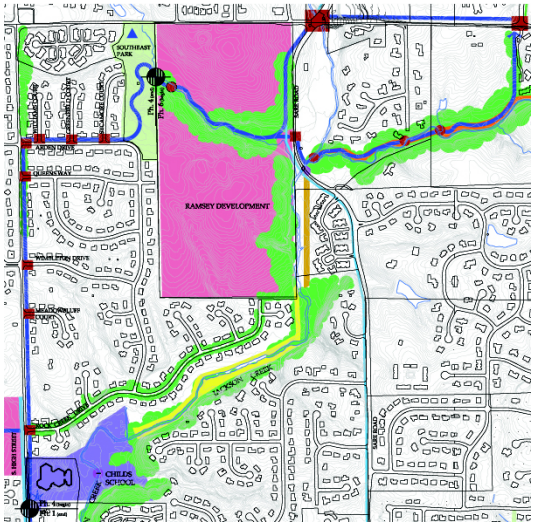
(2) Miscellaneous Landscaping:
includes minimal tree, shrub, and groundcover plantings as needed, at access points and on "barren" land; screening of undesirable views and adverse adjacent trail conditions.
ALLOWANCE $45,000.00

1.7 Miscellaneous Construction Activities:
includes miscellaneous grading operations, erosion protection, miscellaneous salvage & demolition, miscellaneous walk & street repair, drainage considerations, traffic maintenance, miscellaneous clearing, mobilization and demobilization, etc.
ALLOWANCE $100,000.00

1.8 Contingency (20%) $153,350.00

CONSTRUCTION COST $920,100.00

**Cost opinion does not include cost for survey, design, land acquisition, and inspection.*



PHASE FOUR*description*:

Phase Four begins at the north side of Child's School property, continues north along High Street to Arden Drive along Arden Drive to Southeast Park.

PHASE FOUR*cost opinion*

1.1 Multi-Use Trail & Sidepath:

12 ft. wide asphalt trail with 2 ft. wide crushed stone shoulders

1 mile @ $225,000 per mile $225,000.00

1.2 Street Intersection Improvements:

includes pavement markings, regulatory signs & warning signage, overhead flashing yellow

High Street: 5 @ $ 20,000/each .....$ 100,000.00

Arden Drive: 3 @ $ 15,000/each .....$ 45,000.00

1.2 Trail Signage System:

(1) Regulatory, Warning & Guidance Signs:
includes STOP, YIELD, NO MOTOR VEHICLES, hazard warnings, route identification, intersection identification, and directional signage; pole mounted; MUTCD specifications

(1) 12 @ $500/each.....$ 6,000.00

(2) Trail Identification Signage:
includes signs that identify the Jackson Creek Trail and Bloomington Parks department at various points of access.

6 @ $1,000/each .....$ 6,000.00

(3) Interpretive Signage:
includes signs that illustrate historical, natural, and cultural significance of certain features along the trail.

4 @ $2,500/each .....$ 10,000.00

(4) Directory Signage:
includes a trail directory for orientation.

6 @ $2,500/each .....$ 15,000.00

(5) Mileage Markers:
includes distance markers at quarter mile intervals

4 @ $500/each.....$2,000.00

PHASE FOUR*cost opinion (continued)*

1.3 General Trail Landscape Work:

(1) Seeding:
includes seeding of open areas of right of way withnative grass and wildflower mixtures; seeding of disturbed areas with low maintenance, drought tolerant grass species.
ALLOWANCE $60,000.00

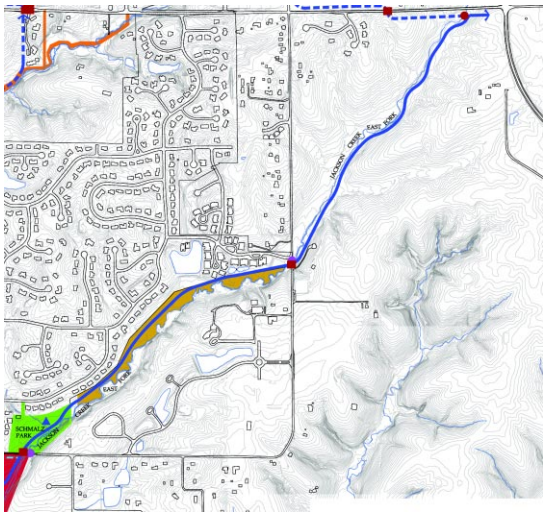
(2) Miscellaneous Landscaping:
includes minimal tree, shrub, and groundcover plant ings as needed, at access points and on "barren" land; screening of undesirable views and adverse adjacent trail conditions.
ALLOWANCE $50,000.00

1.6 Miscellaneous Construction Activities:
includes miscellaneous grading operations, erosionpro tection, miscellaneous salvage & demolition, miscellaneous walk & street repair, drainage considerations, traffic maintenance, miscellaneous clearing, mobilization and demobilization, etc.
ALLOWANCE $100,000.00

1.7 Contingency (20%) $123,800.00

CONSTRUCTION COST $742,800.00

**Cost opinion does not include cost for survey, design, land acquisition, and inspection.*



PHASE FIVE*description*:

Phase Five beginsin Schmalz Park and continues north along the East Fork of Jackson Creek passing through an existing bike and pedestrian easement to Smith Road, then follows the East Fork of Jackson Creek to the intersection of S.R. 446 and Moores Pike.

PHASE FIVE*cost opinion*

1.1 Multi-Use Trail & Sidepath:
12 ft. wide asphalt trail with 2 ft. wide crushed stone shoulders
1.63 miles @ $225,000.00 .....$366,750.00

1.2 Street Intersection Improvements:
includes pavement markings, regulatory signs & warning signage, overhead flashing yellow
Smith Road: 1 @ $ 20,000/each .....$ 20,000.00

1.3 Bridge:
(1) prefabricated bridge aproximately 75 ft. long x 10 ft. wide, with abutments
ALLOWANCE $112,500.00

1.4 Trail Signage System:
(1) Regulatory, Warning & Guidance Signs:
includes STOP, YIELD, NO MOTOR VEHICLES, hazard warnings, route identification, intersection identification, and directional signage; pole mounted; MUTCD specifications
12 @ $500/each.....$ 6,000.00

(2) Trail Identification Signage:
includes signs that identify the Jackson Creek Trail and Bloomington Parks Department at various points of access.
6 @ $1,000/each .....$ 6,000.00

(3) Interpretive Signage:
includes signs that illustrate historical, natural, and cultural significance of certain features along the trail.
4 @ $2,500/each .....$ 10,000.00

PHASE FIVE*cost opinion (continued)*

(4) Directory Signage:
includes a trail directory for orientation.
6 @ $2,500/each .....$ 15,000.00
(5) Mileage Markers:
includes distance markers at quarter mile intervals
7 @ $500/each.....$3,500.00

1.5 Trailhead
Trailhead at SchmaltzPark modified to include drinking fountains, benches, trash receptacles, bicycle racks, and trail signage.
ALLOWANCE .....$ 40,000.00

1.6 General Trail Landscape Work:
(1) Seeding:
includes seeding of open areas of right of way with native grass and wildflower mixtures; seeding of disturbed areas with low maintenance, drought tolerant grass species.
ALLOWANCE $60,000.00

(2) Miscellaneous Landscaping:
includes minimal tree, shrub, and groundcover plantings as needed, at access points and on "barren" land; screening of undesirable views and adverse adjacent trail conditions.
ALLOWANCE $50,000.00

1.7 Miscellaneous Construction Activities:
includes miscellaneous grading operations, erosion protection, miscellaneous salvage & demolition, miscellaneous walk & street repair, drainage considerations, traffic maintenance, miscellaneous clearing, mobilization and demobilization, etc.
ALLOWANCE $105,000.00

1.8 Contingency (20%) $158,950.00

CONSTRUCTION COST .....$ 953,700.00

**Cost opinion does not include cost for survey, design, land acquisition, and inspection.*

PHASE SIX*description*:

Phase Six begins at Sare Road south of Moores Pike, and follows the tributary northeast along the existing sewer easement, then north to Clarizz Boulevard. The trail continues along the north side of Moores Pike to Smith Road and ends at S.R. 446 and Moores Pike.

PHASE SIX*cost opinion*

1.1 Multi-Use Trail & Sidepath:

12 ft. wide asphalt trail with 2 ft. wide crushed stone shoulders

1.69 miles @ $225,000 per mile.....$380,250.00

1.2 Street Intersection Improvements:

includes pavement markings, regulatory signs & warning signage, overhead flashing yellow

Clarizz Blvd: 1 @ $ 20,000/each .....$ 20,000.00
Sare Road: 1 @ $ 20,000/each .....$ 20,000.00
Moore' Pike: 1 @ $ 20,000/each .....$ 20,000.00

1.3 Bridge:

(2) prefabricated bridge approximately 100 ft. long x10ft. wide, with abutments

ALLOWANCE $300,000.00

(2) prefabricated bridge approximately 75ft. long x 10 ft. wide, with abutments

ALLOWANCE $225,000.00

1.4 Trail Signage System:

(1) Regulatory, Warning & Guidance Signs:
includes STOP, YIELD, NO MOTOR VEHICLES, hazard warnings, route identification, intersection identification, and directional signage; pole mounted; MUTCD specifications

12 @ $500/each.....$ 6,000.00

(2) Trail Identification Signage:
includes signs that identify the Jackson Creek Trail and Bloomington Parks Department at various points of access.

6 @ $1,000/each .....$ 6,000.00

PHASE SIX*cost opinion (continued)*

3) Interpretive Signage:
includes signs that illustrate historical, natural, and cultural significance of certain features along the trail.
4 @ $2,500/each .....$ 10,000.00

(4) Directory Signage:
includes a trail directory for orientation.
6 @ $2,500/each .....$ 15,000.00

(5) Mileage Markers:
includes distance markers at quarter mile intervals
7 @ $500/each.....$3,500.00

1.5 General Trail Landscape Work:

(1) Seeding:
includes seeding of open areas of right of way with native grass and wildflower mixtures; seeding of disturbed areas with low maintenance, drought tolerant grass species.
ALLOWANCE $60,000.00

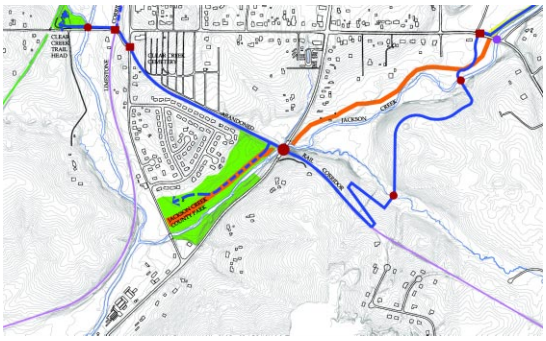
(2) Miscellaneous Landscaping:
includes minimal tree, shrub, and groundcover plantings as needed, at access points and on "barren" land; screening of undesirable views and adverse adjacent trail conditions.
ALLOWANCE $50,000.00

1.6 Miscellaneous Construction Activities:
includes miscellaneous grading operations, erosion protection, miscellaneous salvage & demolition, miscellaneous walk & street repair, drainage considerations, traffic maintenance, miscellaneous clearing, mobilization and demobilization, etc.
ALLOWANCE $105,000.00

1.7 Contingency (20%) $252,150.00

CONSTRUCTION COST .....$ 1,512,900.00

**Cost opinion does not include cost for survey, design, land acquisition, and inspection.*



PHASE SEVEN*description*:

Phase Seven begins at the north side of Fairfax Road, continues southwest along Jackson Creek to the abandoned rail corridor, crosses over South Walnut Street, continue west to Rogers Street, then follows Clear Creek Road to the existing Clear Creek Trailhead.

PHASE SEVEN*cost opinion*

1.1 Multi-Use Trail & Sidepath:

12 ft. wide asphalt trail with 2 ft. wide crushed stone shoulders
1.91 miles @ $225,000 per mile $429,750.00

1.2 Street Intersection Improvements:

includes pavement markings, regulatory signs & warning signage, overhead flashing yellow
Rogers Street: 2 @ $ 20,000/each .....$ 40,000.00
Fairfax Road: 1 @ $ 20,000/each .....$ 20,000.00

1.3 Bridge:

(1) Historic bridge approximately 150ft. long
ALLOWANCE $400,000.00

(3) prefabricated bridge aproximately 150 ft. long x 10 ft. wide, with abutments
ALLOWANCE $675,000.00

1.4 Trail Signage System:

(1) Regulatory, Warning & Guidance Signs:
includes STOP, YIELD, NO MOTOR VEHICLES, hazard warnings, route identification, intersection identification, and directional signage; pole mounted; MUTCD specifications
12 @ $500/each.....$ 6,000.00

(2) Trail Identification Signage:
includes signs that identify the Jackson Creek Trail and Bloomington Parks Department at various points of access.
6 @ $1,000/each .....$ 6,000.00

PHASE SEVEN*cost opinion (continued)*

(3) Interpretive Signage:
includes signs that illustrate historical, natural, and cultural significance of certain features along the trail.
4 @ $2,500/each $10,000.00

(4) Directory Signage:
includes a trail directory for orientation.
6 @ $2,500/each $15,000.00

(5) Mileage Markers:
includes distance markers at quarter mile intervals
8 @ $500/each.....$4,000.00

1.5 General Trail Landscape Work:

(1) Seeding:
includes seeding of open areas of right of way with native grass and wildflower mixtures; seeding of disturbed areas with low maintenance, drought tolerant grass species.
ALLOWANCE $45,000.00

(2) Miscellaneous Landscaping:
includes minimal tree, shrub, and groundcover plantings as needed, at access points and on "barren" land; screening of undesirable views and adverse adjacent trail conditions.
ALLOWANCE $45,000.00

1.6 Miscellaneous Construction Activities:
includes miscellaneous grading operations, erosion protection, miscellaneous salvage & demolition, miscellaneous walk & street repair, drainage considerations, traffic maintenance, miscellaneous clearing, mobilization and demobilization, etc.
ALLOWANCE $100,000.00

1.7 Contingency (20%) $359,150.00

CONSTRUCTION COST $2,154,900.00

**Cost opinion does not include cost for survey, design, land acquisition, and inspection.*

PHASE ONE*cost opinion*
Construction Cost: *$1,285,800.00*

PHASE TWO*cost opinion*
Construction Cost: *$1,147,800.00*

PHASE THREE*cost opinion*
Construction Cost: *$920,100.00*

PHASE FOUR*cost opinion*
Construction Cost: *$742,800.00*

PHASE FIVE*cost opinion*
Construction Cost: *$953,700.00*

PHASE SIX*cost opinion*
Construction Cost: *$1,512,900.00*

PHASE SEVEN*cost opinion*
Construction Cost: *$2,154,900.00*

TOTAL*cost opinion*
Construction Cost: ***$8,718,000.00***

**Cost opinion does not include cost for survey, design, land acquisition, and inspection.*

Funding Sources

There are various sources of funding available for the design, development and construction of trails and greenways. The following is a summary of some of the most often utilized sources.

Transportation Enhancement (TE) Funds:

These funds are part of the federally-funded Transportation Equity Act for the 21st Century (TEA-21) highway bill. The funds are administered through the Indiana Department of Transportation (INDOT). There are twelve categories of projects that are funded by TE. Generally, trails and greenways may fall under the categories of Facilities for Pedestrians and Bicycles, and Preservation of Abandoned Railway Corridors. If historic buildings, facilities, or landmarks lie along a proposed route, it is possible that a trail or greenway may also qualify for funding under Historic Preservation and Rehabilitation of Historic Transportation Buildings, Structures, or Facilities.

It should be noted that the allocation of TEA-21 funds is not guaranteed and that all of the submitted applications are evaluated and funds distributed through INDOT. The uncertainty of TE funds will have an impact on project phasing and timing of completion.

TE funds provide 80% of the costs for preliminary engineering (survey, design, construction documents), right-of-way (engineering, management, acquisition), construction, and construction supervision, with the local agency providing the matching 20%. In some instances, the TE funds may actually provide greater than 80% of the total, dependent upon the timing and process used by the local agency to obtain Preliminary Engineering and Right-of-way Services. The local match for TE funds can be obtained from various sources, such as budget appropriations, cash donations, right-of-way donations, and other grant sources (such as Hometown Indiana and Build Indiana), provided the other grant programs allow their funds to be used as match for a TEA-21 grant.

In recent years, the grants awarded for individual projects ranged from $20,000 to a maximum of $1 million. It is anticipated that $16 million to $20 million in TE funds will be available annually in Indiana.

In the past, applications for TE funds have been due for submittal to INDOT's Division of Multi-Modal Transportation by mid to late December of each year, with the announcement of awards being made in the following spring or summer. It should be noted that, while applications for the 2003 awards are being accepted up to December 13, 2002, TEA-21 expires in 2003. The future availability of TE funds is dependent upon the reauthorization of TEA-21 and its provisions.

Contact for TE funds:

Transportation Enhancement Program Manager: Mr. Gerald Nieman
Indiana Department of Transportation
Division of Multi-Modal Transportation
100 North Senate Ave., Room 901
Indianapolis, IN 46204
Phone: 317-232-5224 FAX: 317-232-1499

Hometown Indiana Program:

This program is a state matching financial assistance program administered through the Indiana Department of Natural Resources (IDNR). It provides grants for 50% of the cost of land acquisition and/or development of recreation sites and facilities. Eligible projects include land acquisition and/or facility construction or renovation. Both indoor and outdoor recreation facilities are eligible for funding assistance. Funding for individual projects has ranged from $10,000 to $200,000. In order to be eligible for participation in the park and recreation component of the Hometown Indiana program, the application must be a municipal corporation and have an approved 5-year park and recreation master plan. Due to current budget constraints, there is no submission date for this program; however it will be reinstated when the budget permits.

For grant information contact:

IDNR Division of Outdoor Recreation
State & Community Outdoor Recreation Planning Section
402 W. Washington Street, Room W271
Indianapolis, IN 46204
Phone: 317-232-4070
Or visit: www.state.in.us/dnr/outdoor

Recreational Trails Program (RTP):

This program is a federal financial assistance program administered through IDNR. It provides grants for 80% of the cost of land acquisition and/or development of multi-use recreational trail projects. Both motorized and non-motorized projects are eligible. Funds for this program are made available to Indiana from the Transportation Equity Act for the 21st Century (TEA-21). The program is administered at the federal level by the Federal Highways Administration (FHWA), but is operated at the state level by the DNR. Previously provided funds for individual projects have ranged from $10,000 to $150,000. All units of government and not-for-profit organizations with 401(c)(3) tax exempt status are eligible to participate. For grant information, see previous IDNR reference.

Land and Water Conservation Fund (LWCF):

This fund is a federal financial assistance program administered through IDNR. It provides matching grants for 50% of the cost of land acquisition and/or development of outdoor recreation sites and facilities. Funds for this program come primarily from federal off-shore oil lease receipts. The program is administered at the federal level by the National Park Service (NPS), but is operated at the state level by the DNR. Individual projects typically receive $10,000 to $200,000 in funds. Only legally established park boards with an approved 5-year park and recreation master plan are eligible to participate. For grant information, see previous IDNR reference.

Private Foundations:

There are a number of foundations and trust funds that support the planning and development of trails and greenways, in the interest of conservation, preservation and outdoor recreation. Although many of them fund only nonprofit organizations, some will assist local public agencies. A few of these organizations include the Kodak American Greenways Awards through the Conservation Fund (www.conservationfund.org/?article=2106), the Nina Mason Pulliam Charitable Trust (www.ninapulliamtrust.org/html/), and the Robert Wood Johnson Foundation's Active Living by Design program (www.activelivingbydesign.org).