
Michigan City Parks & Recreation
TRAILS AND GREENWAYS
NIPSCO GREENWAY
SOUTH SHORE TRAIL
PEANUT TRAIL
MONON TRAIL
TRAIL CREEK GREENWAY
MICHIGAN CITY LAPORTE TRAIL
TRAILS AND GREENWAYS

MICHIGAN CITY REGIONAL AND INTERCITY TRAIL SYSTEMS ON THE HORIZON

The developing of designated bike trail use in Michigan City and connecting to existing trials is currently being researched and investigated in a Master Plan of Bike Trails. The Vision expands the bikeway concept to separated-path routes that will appeal to the widest possible range of participants such as walkers, joggers, runners, roller-bladders, baby strollers and wheelchairs. This trails "Vision" if realized over the next 25 years will help provide the recreational and non-motorized transportation infrastructures that will make the city more attractive as a place to work, live, and visit.

Michigan City plans for intercity bike trails connecting to area parks and schools, along with other public sites such as the South Shore Station, Friendship Gardens, the Library, and the YMCA.

This system would blend into the regional corridors and could highlight waterways, greenspace, and other attractions making connections to Porter County, St. Joseph County, City of LaPorte and South Bend, along with the connection to the State of Michigan.

Our goal is to provide as many non-motorized trails as possible by utilizing the right of ways from the railroad and NIPSCO properties for crossings at thoroughfares, railroads and waterways. Trails can promote family unity as well as strengthen friendships and neighbor relations. With the possibility of many different activities, trails can offer something for everyone.

Many of the benefits of trails are economic development, transportation linkage, social, civic, recreational, health, environmental and education.

Quality of life issues are a high priority in people's lives today. According to the Surgeon's Report on Physical Activity and Health, 60% of American is not regularly active and 25% are not active at all. A 1999 survey indicated that homebuyers would be willing to pay a 10% premium in selecting a home near recreational trails. Some buyers indicated a willingness to pay up to a $10,000 premium.

The National Park Service has a Challenge Cost Share Program which could potentially provide money and advice on preparing brochures once we are ready to "ride".

MICHIGAN CITY PARKS AND RECREATION VISION STATEMENT FOR TRAILS AND GREENWAYS

Good judgment must be used on selection of roads and paths. They must enhance safety for everyone. Proposed routes go near local restaurants, convenience stores for snacks and places where restrooms could be used. It would be nice to get our local business' to become bike friendly as well.

This is an opportunity for Michigan City Residents to tell planners and public officials what improvements to pedestrian and bicycle travel they would like to see over the next 10-20 years.

Laura New

Ms. Laura New,
Michigan City Trails and Greenways Director

LETTER OF INTRODUCTION

Butler Fairman & Seufert, Inc. (BF&S) is pleased to present the Michigan City Greenways Master Plan to the citizens and administrators of the City of Michigan City. This report is the product of a collaborative effort by city staff, BF&S design professionals, Northern Indiana Public Service Company (NIPSCO) staff, local railroad staff, and members of the community. It is intended to serve as a guide for future alternative transportation and recreational development within the community of Michigan City.

Each trail's route was thoroughly researched and alternative routes were considered. Decisions were based on a process that consisted of site inventory, site analysis, design synthesis, cost analysis, and design standards before ultimately reaching the master plan stage. The recommendations made here within are the best solutions to initiating a city wide trails system at this time. As the city grows and other opportunities present themselves, the master plan may need to be updated periodically. However, the initial master plan will serve as a long lasting foundation for future trail development.

BF&S is very appreciative to have been able to assist the Michigan City Parks & Recreation Department in this planning effort and looks forward to the implementation of these recommendations.

Respectfully submitted on this month of February 2005,

Butler, Fairman, & Seufert, Inc.

Alan L. Hamersly, P.E.

Jason G. Griffin, Graduate Landscape Architect

ACKNOWLEDGEMENTS

City of Michigan City Mayor
Charles Oberlie

City of Michigan City Trails & Greenways Director
Laura New

City of Michigan City Park Board
Robert McKee, President
Phillip Latchford, Vice-President
Tom Milcarek, Secretary
Phil Freese, Member

City of Michigan City Common Council
Evelyn Baker
Patricia Boy
Joseph Doyle
Phillip Jankowski
Charles Lungren
Virginia Martin
Ron Meer
Willie Milsap
Paul Przybylinski

City of Michigan City Key Staff
Parks and Recreation Department
Darrell Garbacik, Superintendant
Laura New, Office Manager
Jeremy, Kinitz, Recreation Director
Darren Westphal, Maintenance Director
Shannon Igelski, Secretary
Debbie Studtman, Secretary

City Engineer
Boyd W. Phelps, P.E.

Planning Department
John Pugh, Director
Joe Siegel, Zoning Administrator
Kevin Kieft, Neighborhood Planner
Chris Bohnert
Debbie Wilson

Project Consultants
Butler, Fairman, & Seufert, Inc

C O N T E N T S

C O N T E N T S

C O N T E N T S

PROJECT*background*

OVERVIEW

In 2003 The Northwestern Indiana Regional Planning Commission (NIRPC) released a plan outlining priority regional trails and corridors for Northwestern Indiana (see appendix A). Among these priority trails, two high priority and two medium priority trails are shown to pass through the corporate city limits of Michigan City, Indiana. Furthermore, a large portion of the high priority corridor running along the Lake Michigan shore has been developed in other areas, with the notable exception being Michigan City's lake front. Feeling the need to be a part of this movement to create alternative transportation corridors for its citizens, the City of Michigan City has decided to take an active role in becoming a part of this regional connection.

This growing need for alternative transportation has risen for several reasons. Personal economics, a movement to become a healthier society, and safety are all driving this trend. The high costs of owning, operating, and maintaining automobiles have the public searching for less expensive means of commuting and reaching everyday destinations. People are beginning to realize the need to exercise for their own physical and mental health. People want safe corridors for their children and themselves that are separated from automobile traffic. It is due to these reasons that Michigan City has determined a need for a comprehensive plan to guide the planning and design of trail corridors throughout the city.

Based upon NIRPC's 2003 Priority Regional Trails and Corridors Plan, NIRPC's economic justice zones, and the needs of its citizens, the City of Michigan City identified seven corridors for development. These seven corridors, SINGING SANDS LIGHTHOUSE (referred to as the SINGING SANDS), SOUTH SHORE, NIPSCO, MONON, PEANUT, TRAIL CREEK, and MICHIGAN CITY/ LAPORTE, became the primary focus of the master plan (see next page). In all, these corridors measure 26.3 miles of potential multi-use trail.

The Michigan City Greenways Master Plan is the first phase in the design process. Its intent is to identify the feasibility, preferred trail layout, facility requirements, and design standards for each trail corridor. The master plan will help to lay the foundation for a universally accessible, multi-use trail system that connects parks, trails, schools, neighborhoods, and community resources (i.e. retail areas, post offices, libraries, and train stations) to one another.

Besides connecting local community destinations the master plan will help to establish connections to existing and future regional trail systems. The entire greenway system will connect throughout the community to existing bike routes known as The LaPorte County Shared Bikeways (see Appendix A) and The Michigan City Inner City Bike Loop (see Appendix A). The Singing Sands Trail will connect to the already existing Calumet Trail and to a future trail leading to the state of Michigan. The South Shore Trail will begin a regional connection to the City of South Bend. The Michigan City/ LaPorte trail (through the cooperation of LaPorte County) could establish a link between Michigan City and the City of LaPorte. The Monon corridor would begin a push from the north to hopefully someday connect with the already developed Monon Trail in the cities of Indianapolis, Indiana and Carmel, Indiana.

Prior to the development of a final Master Plan for each trail, each corridor was systematically examined through a planning process that included Site Inventory, Site Analysis, and Design Synthesis. In addition, public involvement was conducted at each stage to solicit and receive input. Public Involvement included meetings with city officials, NIPSCO staff, local and federal railroad officials, special interest groups, and the general public. This information was incorporated into the study to establish the best route possible for each trail.

SITE INVENTORY

The Site Inventory consists of a survey of the corridors' physical characteristics. These characteristics can be either man-made or natural conditions observed in the field. Aerial photography as well as walking each corridor was employed to document their unique attributes.

Natural Conditions:
Naturally occurring amenities in the landscape are something to be both preserved and protected. Greenways are a unique opportunity to implement this, but care must be taken in the decision making process. Natural areas and wildlife habitat should always be treated sensitively. The project team observed the following natural conditions along the trail corridors.

- ***Wetlands*** - The Michigan City West, Indiana and the Michigan City East, Indiana National Wetlands Inventory maps indicated the presence of various wetlands along each corridor. Several areas were verified and noted. Each trail will be constructed to minimize impacts to any existing wetlands and provide the necessary remediation.

- ***Floodplain*** - Trail Creek is a riverine, lower perennial, open water/unknown bottom, permanently flooded, excavated wetland. Its watershed is approximately 54.1 square miles. Minimal disturbance is expected and approval will be required from the appropriate regulatory agencies.

- ***Slopes*** - Several areas were observed along the corridors having slopes steeper than 2:1. Many of these areas occur around large sand dunes. Necessary steps will have to be taken to preserve these unique land forms from wind and water erosion during and after construction. Any steep slopes will pose a challenge to trail construction. Areas with slopes steeper than 2:1 are documented in the inventory.

- ***Vegetation*** - Much of the area studied has already been cleared to create existing utility and transportation corridors. The existing vegetation in many cases occurs only along an edge of the corridor and every effort will have to be made to preserve this.

Man- Made Features:

The project team documented the man-made features along the corridors in order to understand the existing infrastructure and community resources that need to be considered.

- ***Existing Streets*** - There are many city streets and highways crossed by each corridor. Each crossing poses a challenge to maintaining a safe trail experience for users and care will have to be taken during the design process to accomplish this.

- ***Existing Railroads*** - Michigan City contains several active and abandoned railroad corridors. As is the case with streets, active railroads present crossing issues for trails. Some of the proposed trails will be parallel with and adjacent to active railroads, which will present design challenges. Abandoned rail corridors can be an excellent place for trail development.

- ***Bridges*** - Several bridges were documented in the field in an effort to determine their impact on trail development. Crossing Trail Creek near Lake Michigan will be a difficult task due to the vertical clearance requirements of existing boat traffic. For this reason the location of existing bridges will be important. In other cases railroad bridges may cause constraints to placing new pedestrian bridges for the trails.

- ***Parks, Schools, Libraries, Trails, Neighborhoods, Retail Areas, Train Stations, Malls*** - The connection of community resources through the means of alternative transportation is one of the primary reasons for trail development. The project team documented the type and location of each community resource located within the corridors and those within close proximity.

- ***Utilities*** - Due to NIPSCO's power supply plant being located in Michigan City, several large corridors have already been established for gas and power lines. The project team walked these corridors to document their size and location.

- ***Land Ownership*** – Due to the number of corridors studied, there are many different types of land ownership located within and around them. The project team documented publicly owned, privately owned residential, privately owned industrial, railroad ownership, and utility owned land throughout the project areas. All privately owned, railroad owned, and utility owned land will require some sort of acquisition. Land acquisition can either be through purchase, easement or lease.

Site Inventory maps for each corridor are located in each trail's planning section of this report.

SITE ANALYSIS

Site Analysis involved taking those elements that were documented during Site Inventory and reviewing them with regard to trail development. The characteristics of each corridor were evaluated based upon five categories:

CONNECTIVITY - The possibility of links to community resources, such as parks, schools, and other points of interest.

PEDESTRIAN SAFETY AND SECURITY – The ability to create appropriate separation from trains, automobiles, and steep slopes. Consideration was also given to the security of trail users and the properties through which the trail passes.

ENVIRONMENTAL IMPACT – The effect that trail development will have on streams, vegetation, wetlands, and riparian areas.

ECONOMICS – The relative costs of trail development, including construction costs and land acquisition.

TRAIL CHARACTER - The nature of the trail within its environment with regard to providing a pleasant and inviting experience.

Opportunity and Constraints

The analysis presented several opportunities for and constraints to the development of trails within the corridors. An example of an opportunity for a trail is its ability to link a neighborhood to a park, school, library, retail area, or other destination point. Another example would be an open corridor, such as the NIPSCO utility corridor or abandoned Monon railroad, which would provide an excellent location for the trail while limiting the amount of clearing required.

Examples of constraints would be 4-lane highway crossings, steep topography, heavily vegetated areas, and private property. These all act as deterrents to possible trail placement.

Site Analysis maps for each corridor are located in each trail's planning section of this report

DESIGN SYNTHESIS

Design synthesis involved using the analyzed data and actually plotting a tentative trail route. Decisions were made as to the best location based upon trying to take advantage of as many opportunities as possible and avoiding as many constraints as possible. This resulted in a conceptual plan that could be discussed during the public involvement process.

PUBLIC*involvement process*

PUBLIC INVOLVEMENT PROCESS

Summary of Meetings:
Several meetings were held with interested citizens, public officials, NIPSCO staff, railroad staff, and special interest groups throughout the planning stages. Valuable information was gained during each meeting that helped guide the final master plan.
See meeting minutes in Appendix B.

Description	***Date***
Project Kick-off Meeting & Site Inventory (Walk individual corridors)	*July 16-July 17, 2003*
Inventory Phase complete	*September 30, 2003*
NIPSCO Coordination Meeting	*October 23, 2003*
Analysis Phase complete, review Inventory and Analysis Phases with Parks Department	*October 23, 2003*
Northern District IPRA Meeting (Presentation of conceptual plan)	*November 12, 2003*
Synthesis/Conceptual Plan complete, (Review with Parks Department)	*November 12, 2003*
Stakeholders Meeting (1:00pm) (Public presentation of conceptual plan)	*November 19, 2003*
Stakeholders Meeting (6:00pm) (Public presentation of conceptual plan)	*November 19, 2003*
NIPSCO Coordination Meeting	*November 20, 2003*
Public Meeting / Parks Board Meeting (Presentation of conceptual plan)	*December 4, 2003*
Draft Master Plan Completed	*January 26, 2004*
Draft Master Plan Review Meeting (With Parks Department)	*February 5, 2004*
Final Master Plan Complete	*February 2005*
Parks Board / Stake Holders/ Public Presentation of the Master Plan	*February 17, 2005*

SINGING SANDS*corridor planning*

- **Study Area**
- **Site Inventory**
- **Site Analysis**

SOUTH SHORE*corridor planning*

- **Study Area**
- **Site Inventory**
- **Site Analysis**

NIPSCO*corridor planning*

- **Study Area**
- **Site Inventory**
- **Site Analysis**

MONON*corridor planning*

- **Study Area**
- **Site Inventory**
- **Site Analysis**

MICHIGAN CITY / LaPORTE (Route A)*corridor planning*

- **Study Area**
- **Site Inventory**
- **Site Analysis**

TRAIL CREEK *corridor planning*

- **Study Area**
- **Site Inventory**
- **Site Analysis**

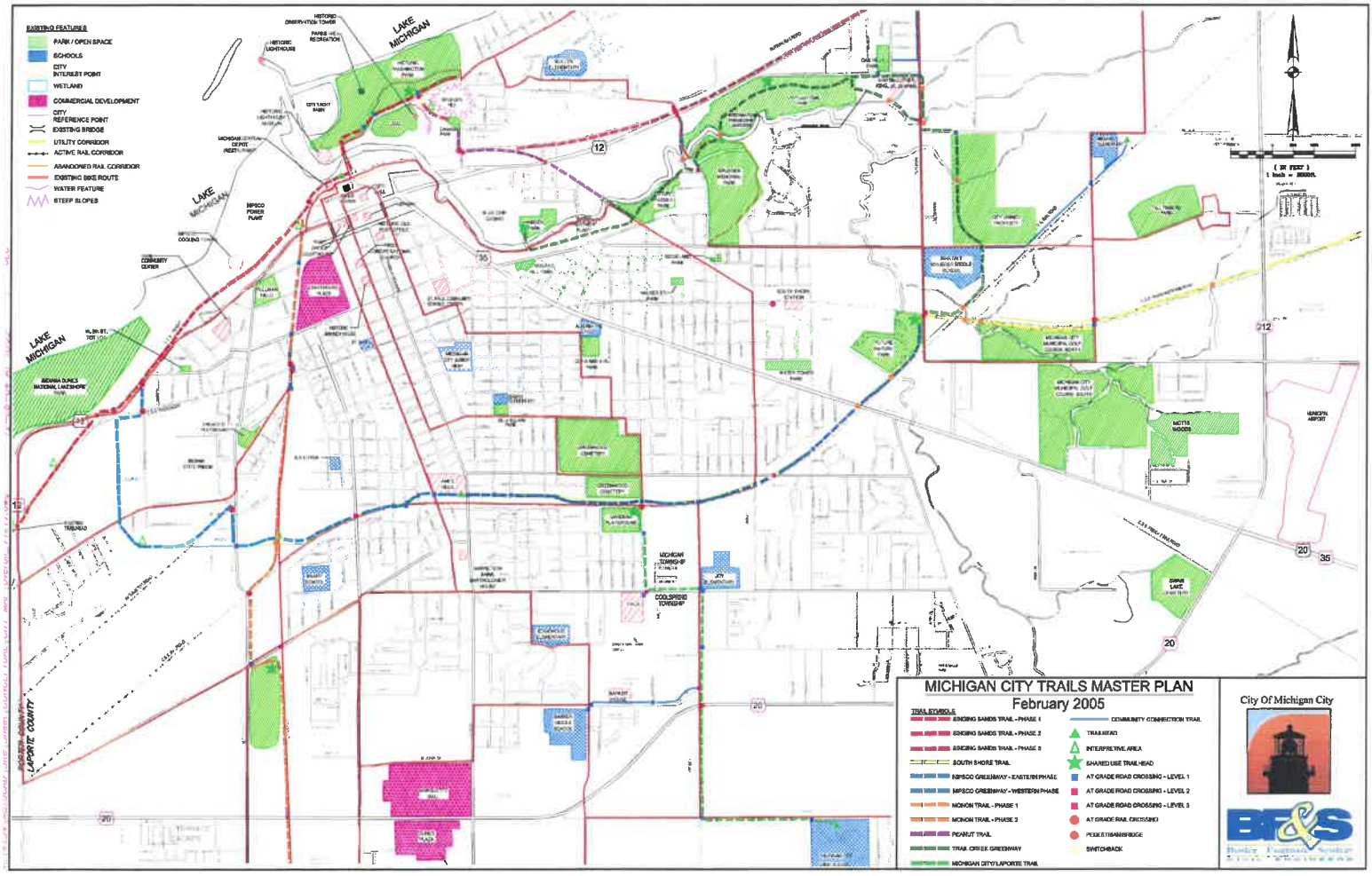
MICHIGAN CITY/ LaPORTE(Route B)*corridor planning*

- **Study Area**
- **Site Inventory**
- **Site Analysis**

PROJECT*master plan*

The resulting product of the seven-corridor study is a comprehensive master plan for seven multi-use trails. The overall system completes a loop trail around the city connecting many neighborhoods to everyday destination points. Five spur trails radiate out from the core helping to connect Michigan City into existing and future regional trails. This will allow citizens to travel to other cities by alternative transportation, and will also help draw people from other communities to Michigan City.

The following map is an overall view of all seven trails and the final master plan.


EXISTING FEATURES
PARK / OPEN SPACE
SCHOOLS
CITY INTEREST POINT
WETLAND
COMMERCIAL DEVELOPMENT
CITY REFERENCE POINT
EXISTING BRIDGE
UTILITY CORRIDOR
ACTIVE RAIL CORRIDOR
ABANDONED RAIL CORRIDOR
EXISTING BIKE ROUTE
WATER FEATURE
STEEP SLOPES
LAKE MICHIGAN
MICHIGAN CITY TRAILS MASTER PLAN
February 2005
TRAIL SYMBOLS
SINGING SANDS TRAIL - PHASE 1
SINGING SANDS TRAIL - PHASE 2
SINGING SANDS TRAIL - PHASE 3
SOUTH SHORE TRAIL
NIPSCO GREENWAY - EASTERN PHASE
NIPSCO GREENWAY - WESTERN PHASE
MONON TRAIL - PHASE 1
MONON TRAIL - PHASE 2
PEANUT TRAIL
TRAIL CREEK GREENWAY
MICHIGAN CITY/LAPORTE TRAIL
COMMUNITY CONNECTION TRAIL
TRAILHEAD
INTERPRETIVE AREA
SHARED USE TRAILHEAD
AT GRADE ROAD CROSSING - LEVEL 1
AT GRADE ROAD CROSSING - LEVEL 2
AT GRADE ROAD CROSSING - LEVEL 3
AT GRADE RAIL CROSSING
PEDESTRIAN BRIDGE
SWITCHBACK
City Of Michigan City
BF&S

SINGING SANDS LIGHTHOUSE TRAIL

The proposed Singing Sands-Lighthouse Trail will be approximately 8 miles in length and will begin at the Porter/ La Porte County line, west of Michigan City, at the existing Calumet Trailhead and end at the eastern corporate boundary of Michigan City. The trail was selected for development in order to continue the Calumet Trail (NIRPC high priority corridor) into the city and connect with Washington Park. The trail will also help connect the city to other northwestern Indiana communities and to the state of Michigan.

The route utilizes existing utility and railroad corridors in an effort to minimize the amount of land needed from individual property owners. Consideration was also given to minimizing the number of new railroad crossings and thereby increasing pedestrian safety. The Singing Sands Lighthouse Trail will be completed in three phases due to funding constraints.

Phase One will begin on the west side of US 12, the western corporate boundary of Michigan City, cross US 12, and proceed northeast within the Northern Indiana Public Service Company (NIPSCO) utility easement to a second intersection with US 12. The proposed trail will cross US 12 and follow along the south side of the Chicago South Shore (C.S.S.) Freight Rail Line in a northeasterly direction until just before it reaches the Amtrak Railroad. At this point the trail would cross to the north side of the C.S.S. Freight line and utilize the DNR access road and parking lot to reach Franklin Street. This route was chosen in order to stay away from the NIPSCO rail spur lines that provide access from the main line rail to the power plant. NIPSCO management has indicated that coal cars move in and out of the plant infrequently, but are often unmanned. It was also chosen in an effort to minimize conflict with Amtrak's high speed rail line.

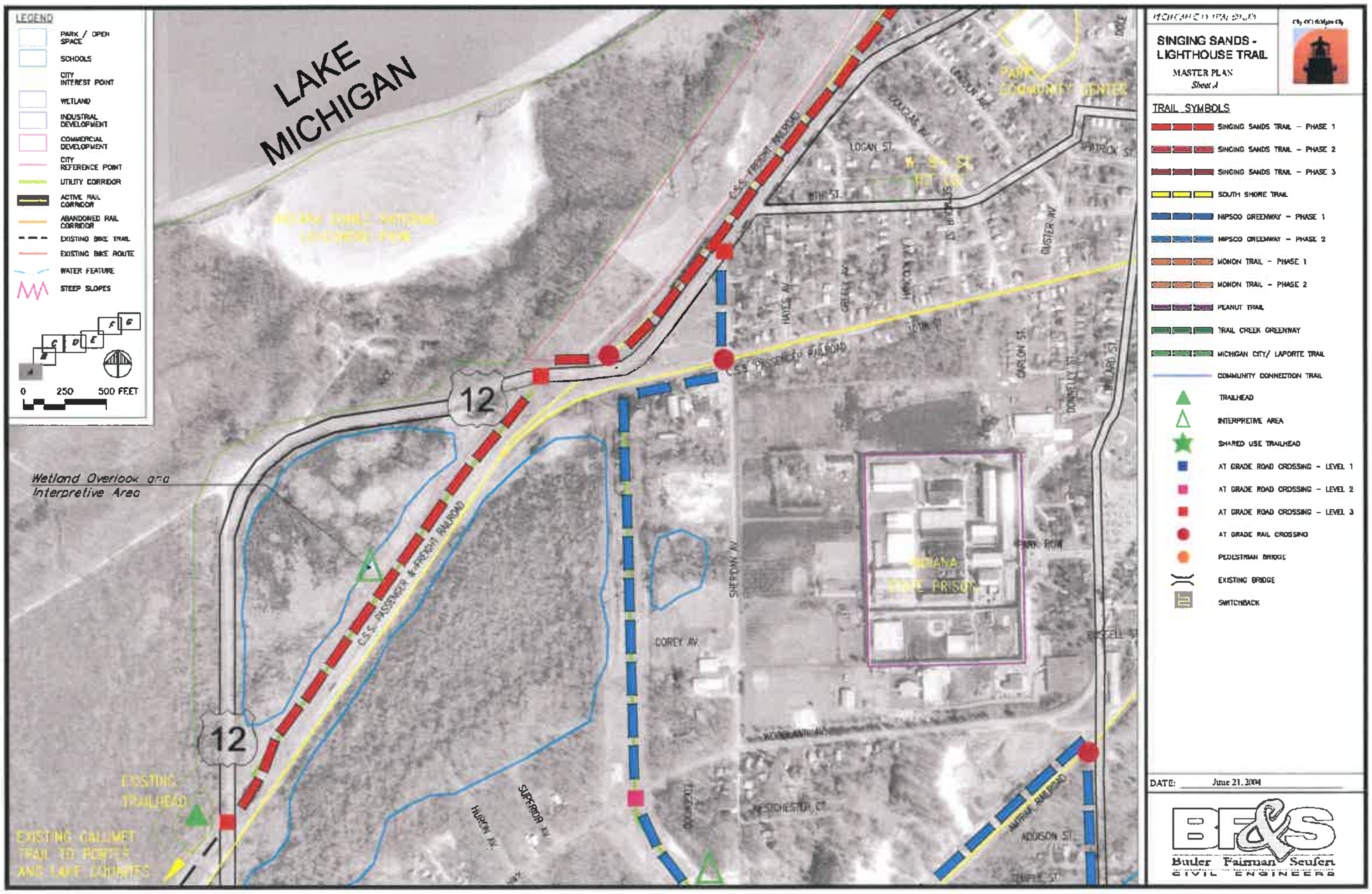
The trail would then cross to the east side of Franklin Street. From here, it will proceed northwest across the Franklin Street bridge, utilizing existing sidewalks, to the intersection with Lake Shore Drive, where it will then cross Lakeshore Drive and enter into Washington Park. The proposed trail will then proceed northeasterly along Lakeshore Drive, utilizing existing sidewalks, to its endpoint at the intersection of Lakeshore Drive and Center Street. This will allow residents living in the neighborhood immediately east of Washington Park to have access to the trail.

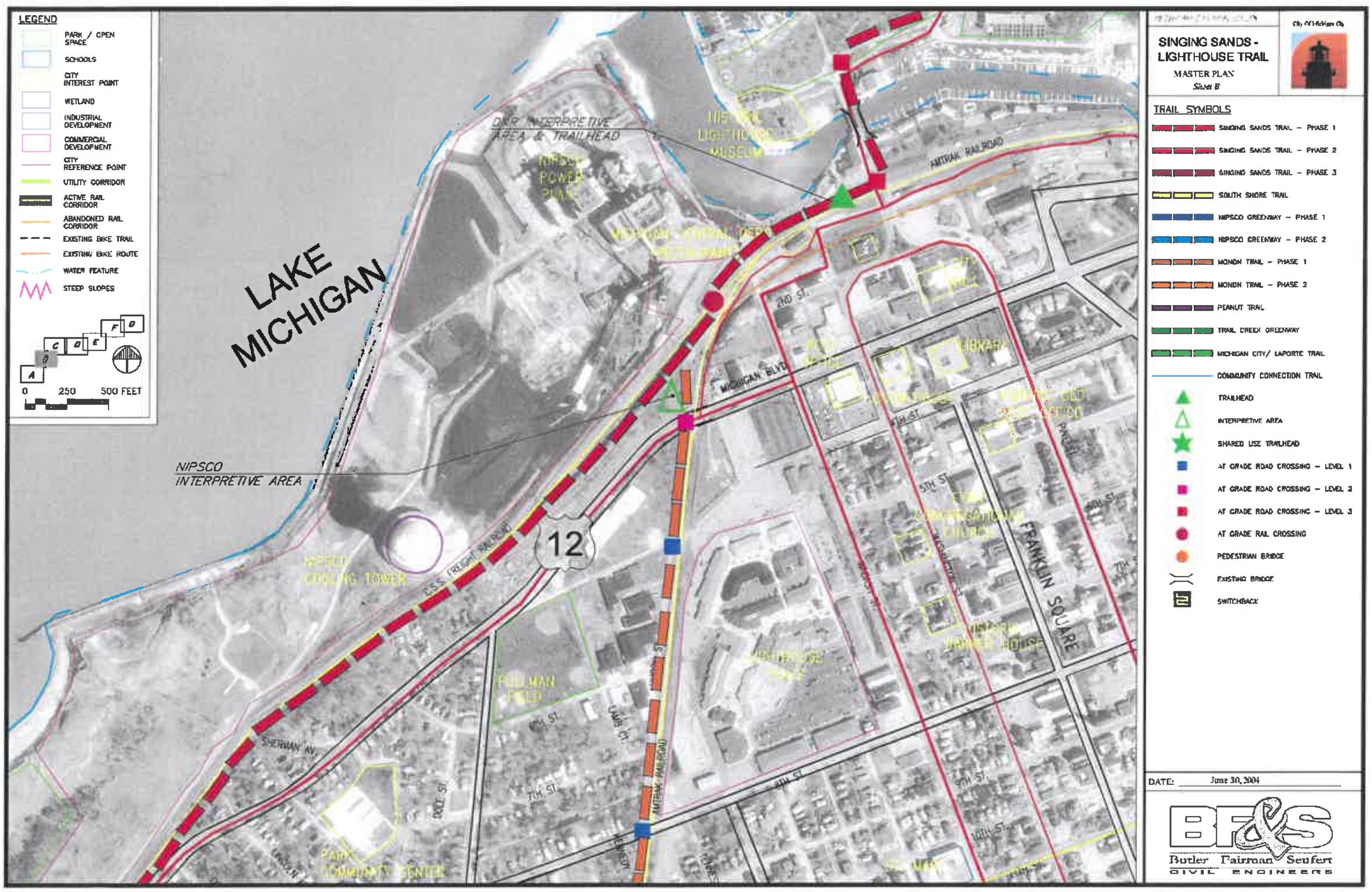
Phase Two will begin within Washington Park, at a point approximately 0.14 mile west of the termination of Phase One. From this location, Phase Two will cross Lake Shore Drive and proceed southeast along the eastern border of the zoo utilizing the existing sand dune. A second route around the dune was also considered, but due to wall construction, steep slopes, and greater disturbance to the dune, the original route was chosen instead. Some boardwalk will be required due to slopes, but it will require fewer disturbances than going around the dune. Once over the dune, the trail will continue on through Canada Park to Center Street. The trail will then head south following along the west side of Center Street to its intersection with the Amtrak Railroad which lies parallel with the north side of U.S. 12. From here, Phase Two

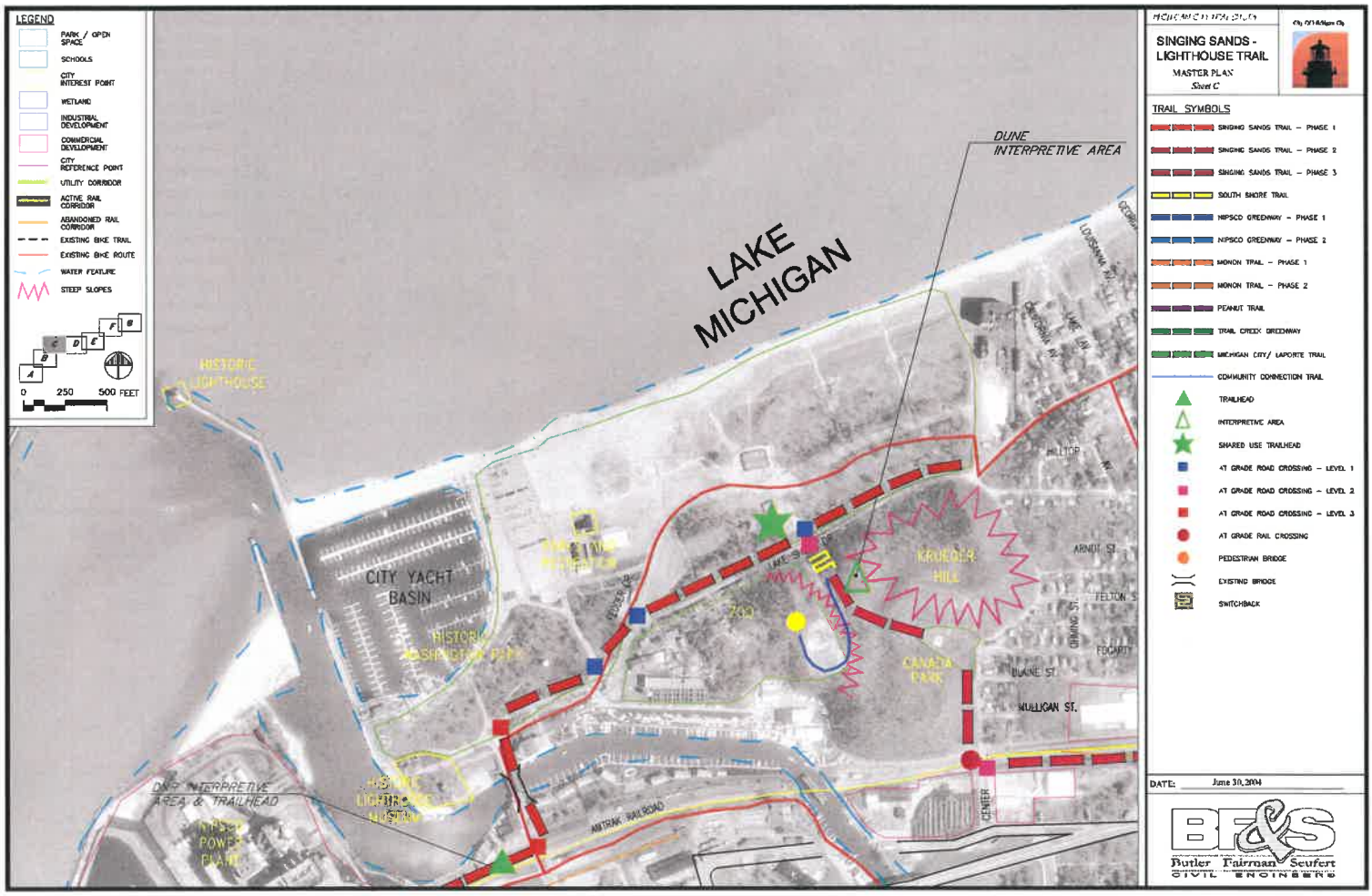
will cross the Amtrak Railroad and follow along the south side of the Amtrak Railroad to Liberty Trail. The South side was chosen due to conflicts with railroad operations occurring on the north side.

Phase Three will begin where Phase Two ends. It will follow along the south side of the Amtrak Railroad from Liberty Trail to its endpoint at the eastern corporate boundary of Michigan City (Meer Road).

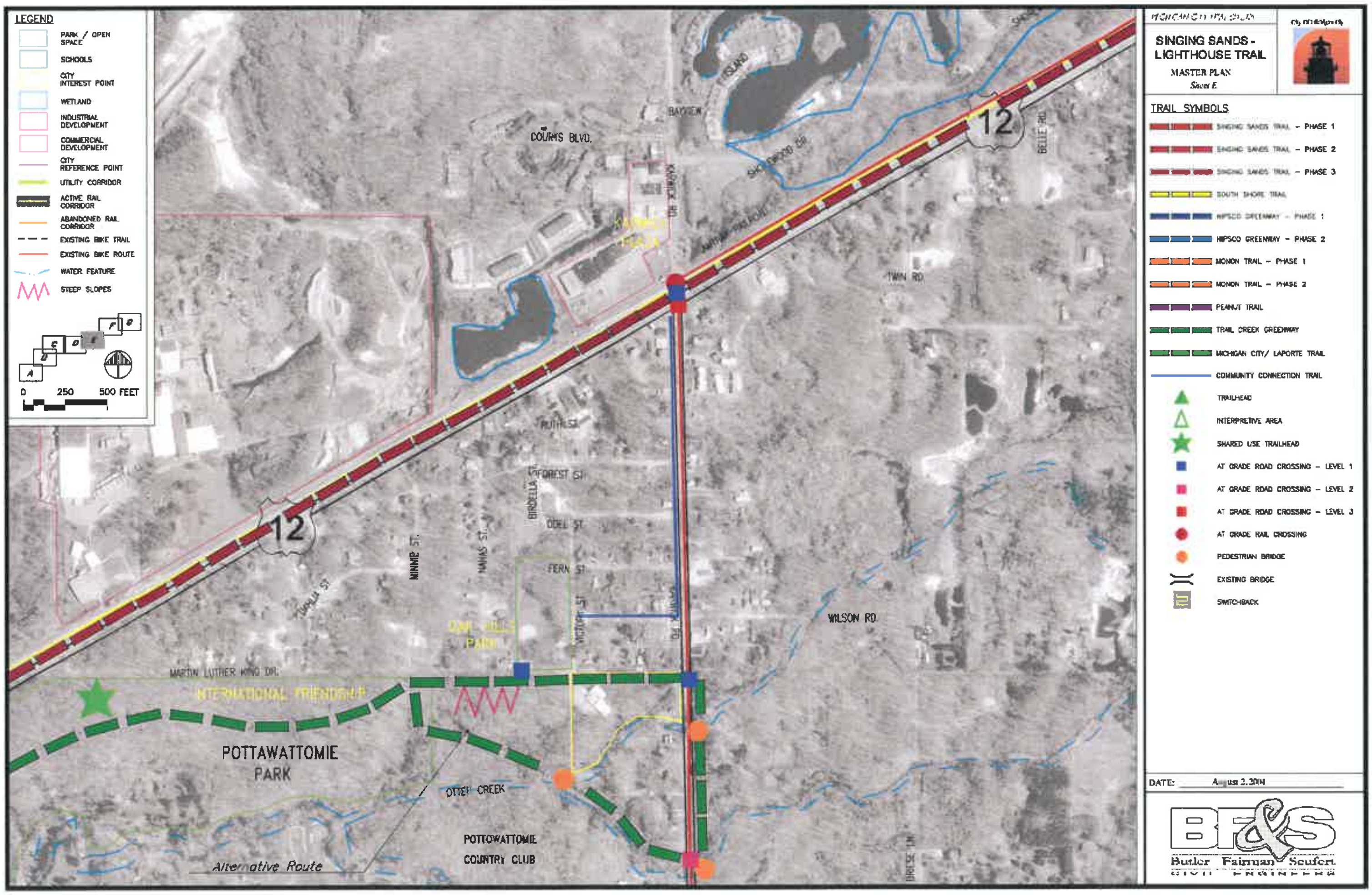
The following maps illustrate the proposed route for the Singing Sands Trail.


SINGING SANDS - LIGHTHOUSE TRAIL
MASTER PLAN
Sheet A
TRAIL SYMBOLS
SINGING SANDS TRAIL – PHASE 1
SINGING SANDS TRAIL – PHASE 2
SINGING SANDS TRAIL – PHASE 3
SOUTH SHORE TRAIL
NIPSCO GREENWAY – PHASE 1
NIPSCO GREENWAY – PHASE 2
MONON TRAIL – PHASE 1
MONON TRAIL – PHASE 2
PEANUT TRAIL
TRAIL CREEK GREENWAY
MICHIGAN CITY/ LAPORTE TRAIL
COMMUNITY CONNECTION TRAIL
TRAILHEAD
INTERPRETIVE AREA
SHARED USE TRAILHEAD
AT GRADE ROAD CROSSING – LEVEL 1
AT GRADE ROAD CROSSING – LEVEL 2
AT GRADE ROAD CROSSING – LEVEL 3
AT GRADE RAIL CROSSING
PEDESTRIAN BRIDGE
EXISTING BRIDGE
SWITCHBACK
DATE: June 21, 2004
BF&S
Butler Fairman Seufert
CIVIL ENGINEERS
LEGEND
PARK / OPEN SPACE
SCHOOLS
CITY INTEREST POINT
WETLAND
INDUSTRIAL DEVELOPMENT
COMMERCIAL DEVELOPMENT
CITY REFERENCE POINT
UTILITY CORRIDOR
ACTIVE RAIL CORRIDOR
ABANDONED RAIL CORRIDOR
EXISTING BIKE TRAIL
EXISTING BIKE ROUTE
WATER FEATURE
STEEP SLOPES
0 250 500 FEET
LAKE MICHIGAN
12
Wetland Overlook and Interpretive Area
EXISTING TRAILHEAD
EXISTING CALUMET TRAIL TO PORTER AND LAKE COUNTIES
C.S.S. PASSENGER & FREIGHT RAILROAD
C.S.S. FREIGHT RAILROAD
C.S.S. PASSENGER RAILROAD
PARK COMMUNITY CENTER
LOGAN ST.
DOUGLAS AV.
LONDON AV.
PATRICK ST.
CUSTER AV.
HAYES AV.
CARLON ST.
SHERIDAN AV.
COREY AV.
INDIANA STATE PRISON
HURON AV.
SUPERIOR AV.
WESTCHESTER CT.
ADDISON ST.
AMTRAK RAILROAD

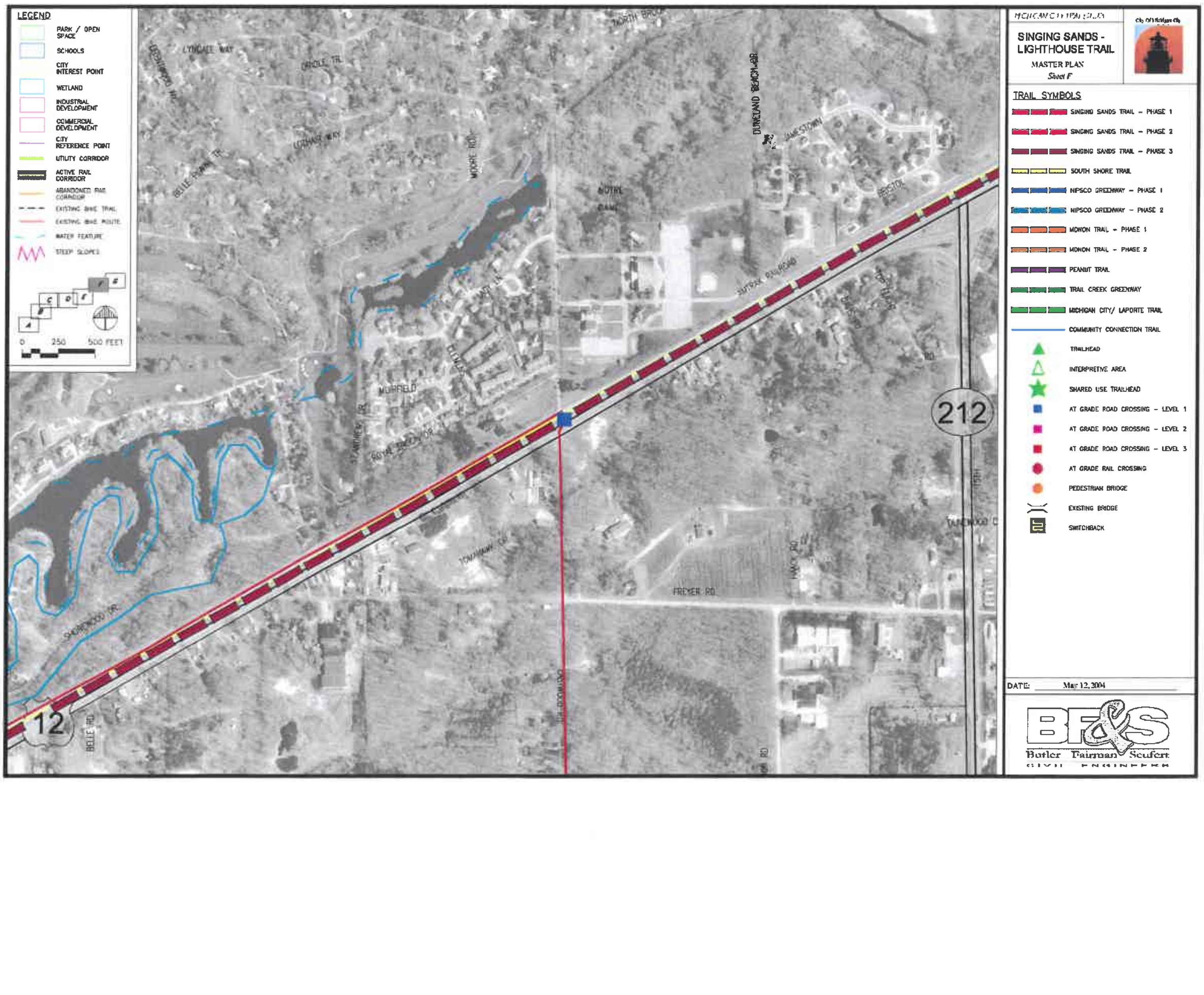

LEGEND
PARK / OPEN SPACE
SCHOOLS
CITY INTEREST POINT
WETLAND
INDUSTRIAL DEVELOPMENT
COMMERCIAL DEVELOPMENT
CITY REFERENCE POINT
UTILITY CORRIDOR
ACTIVE RAIL CORRIDOR
ABANDONED RAIL CORRIDOR
EXISTING BIKE TRAIL
EXISTING BIKE ROUTE
WATER FEATURE
STEEP SLOPES
0 250 500 FEET
LAKE MICHIGAN
DNR INTERPRETIVE AREA & TRAILHEAD
NIPSCO POWER PLANT
MICHIGAN CENTRAL DEPOT RESTAURANT
AMTRAK RAILROAD
MICHIGAN BLVD
2ND ST.
LIBRARY
NIPSCO INTERPRETIVE AREA
NIPSCO COOLING TOWER
C.S.S. FREIGHT RAILROAD
12
FRANKLIN SQUARE
PULLMAN FIELD
SHERMAN AV
PARK COMMUNITY CENTER
SINGING SANDS - LIGHTHOUSE TRAIL
MASTER PLAN
Sheet B
TRAIL SYMBOLS
SINGING SANDS TRAIL – PHASE 1
SINGING SANDS TRAIL – PHASE 2
SINGING SANDS TRAIL – PHASE 3
SOUTH SHORE TRAIL
NIPSCO GREENWAY – PHASE 1
NIPSCO GREENWAY – PHASE 2
MONON TRAIL – PHASE 1
MONON TRAIL – PHASE 2
PEANUT TRAIL
TRAIL CREEK GREENWAY
MICHIGAN CITY/ LAPORTE TRAIL
COMMUNITY CONNECTION TRAIL
TRAILHEAD
INTERPRETIVE AREA
SHARED USE TRAILHEAD
AT GRADE ROAD CROSSING – LEVEL 1
AT GRADE ROAD CROSSING – LEVEL 2
AT GRADE ROAD CROSSING – LEVEL 3
AT GRADE RAIL CROSSING
PEDESTRIAN BRIDGE
EXISTING BRIDGE
SWITCHBACK
DATE: June 30, 2004
Butler Fairman Seufert
CIVIL ENGINEERS

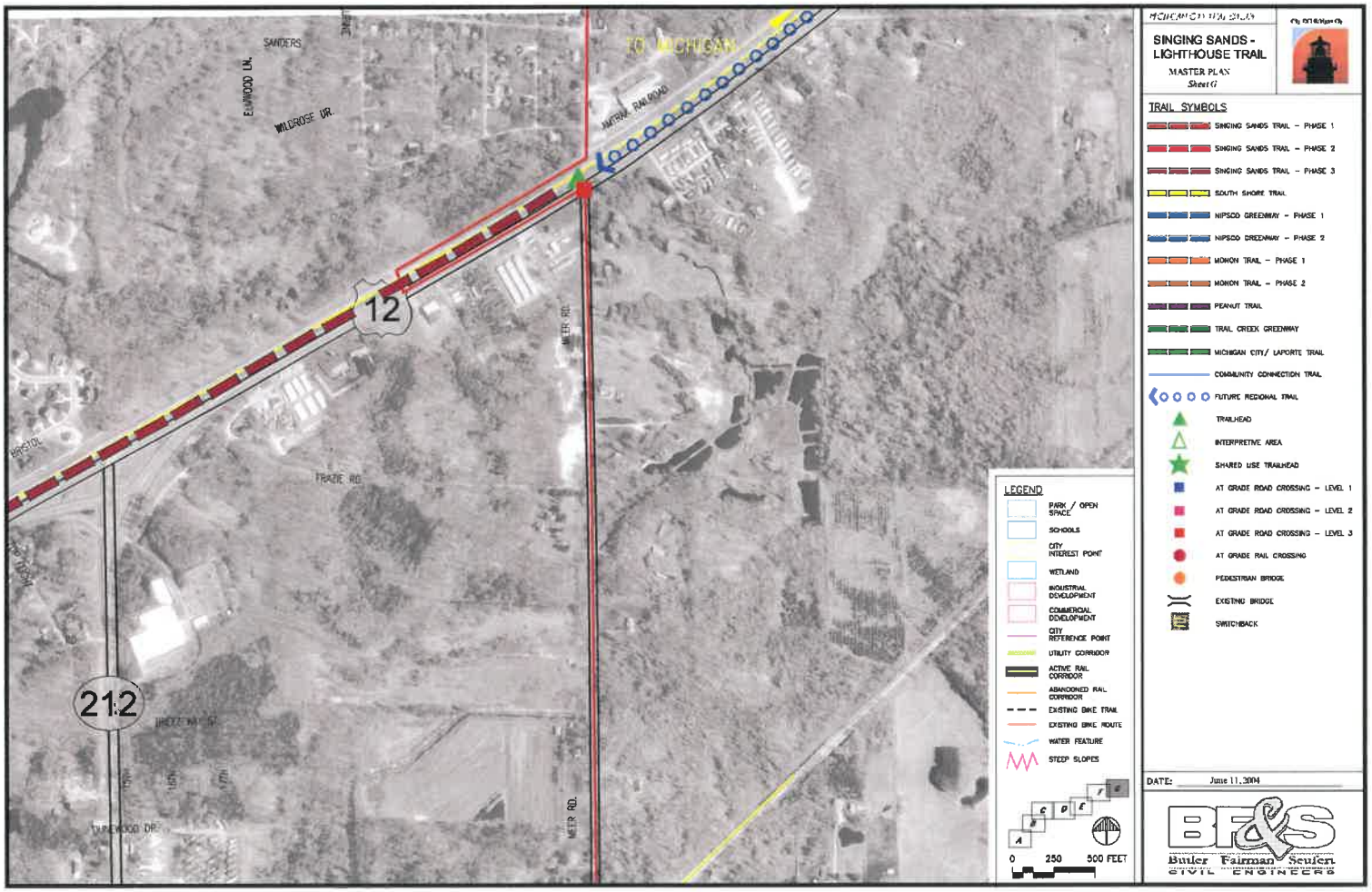

LEGEND
PARK / OPEN SPACE
SCHOOLS
CITY INTEREST POINT
WETLAND
INDUSTRIAL DEVELOPMENT
COMMERCIAL DEVELOPMENT
CITY REFERENCE POINT
UTILITY CORRIDOR
ACTIVE RAIL CORRIDOR
ABANDONED RAIL CORRIDOR
EXISTING BIKE TRAIL
EXISTING BIKE ROUTE
WATER FEATURE
STEEP SLOPES
0 250 500 FEET
LAKE MICHIGAN
DUNE INTERPRETIVE AREA
HISTORIC LIGHTHOUSE
CITY YACHT BASIN
KRUEGER HILL
CANADA PARK
DUNE INTERPRETIVE AREA & TRAILHEAD
NIPSCO POWER PLANT
AMTRAK RAILROAD
BLAINE ST.
MULLIGAN ST.
ARNDT ST.
FELTON ST.
FOGARTY
HILLTOP
CENTER
SINGING SANDS - LIGHTHOUSE TRAIL
MASTER PLAN
Sheet C
TRAIL SYMBOLS
SINGING SANDS TRAIL – PHASE 1
SINGING SANDS TRAIL – PHASE 2
SINGING SANDS TRAIL – PHASE 3
SOUTH SHORE TRAIL
NIPSCO GREENWAY – PHASE 1
NIPSCO GREENWAY – PHASE 2
MONON TRAIL – PHASE 1
MONON TRAIL – PHASE 2
PEANUT TRAIL
TRAIL CREEK GREENWAY
MICHIGAN CITY/ LAPORTE TRAIL
COMMUNITY CONNECTION TRAIL
TRAILHEAD
INTERPRETIVE AREA
SHARED USE TRAILHEAD
AT GRADE ROAD CROSSING – LEVEL 1
AT GRADE ROAD CROSSING – LEVEL 2
AT GRADE ROAD CROSSING – LEVEL 3
AT GRADE RAIL CROSSING
PEDESTRIAN BRIDGE
EXISTING BRIDGE
SWITCHBACK
DATE: June 30, 2004
BF&S
Butler Fairman Seufert
CIVIL ENGINEERS


LEGEND
PARK / OPEN SPACE
SCHOOLS
CITY INTEREST POINT
WETLAND
INDUSTRIAL DEVELOPMENT
COMMERCIAL DEVELOPMENT
CITY REFERENCE POINT
UTILITY CORRIDOR
ACTIVE RAIL CORRIDOR
ABANDONED RAIL CORRIDOR
EXISTING BIKE TRAIL
EXISTING BIKE ROUTE
WATER FEATURE
STEEP SLOPES
0 250 500 FEET
SHERIDAN BEACH
MULLEN ELEMENTARY
POWER LN
MOSS PKWY
AUSTIN LN
THOMAS BLVD.
LAKE HILLS RD
WASHINGTON PARK BLVD.
CHESTER
FREY CT
FELTON ST.
FOGARTY ST.
AMTRAK RAILROAD
12
INTERNATIONAL FRIENDSHIP GARDENS
KRUEGER MEMORIAL PARK
C&S FREIGHT RAILROAD
SINGING SANDS - LIGHTHOUSE TRAIL
MASTER PLAN
Sheet D
TRAIL SYMBOLS
SINGING SANDS TRAIL – PHASE 1
SINGING SANDS TRAIL – PHASE 2
SINGING SANDS TRAIL – PHASE 3
SOUTH SHORE TRAIL
NIPSCO GREENWAY – PHASE 1
NIPSCO GREENWAY – PHASE 2
COMMUNITY CONNECTION TRAIL
TRAILHEAD
INTERPRETIVE AREA
SHARED USE TRAILHEAD
AT GRADE ROAD CROSSING – LEVEL 1
AT GRADE ROAD CROSSING – LEVEL 2
AT GRADE ROAD CROSSING – LEVEL 3
AT GRADE RAIL CROSSING
PEDESTRIAN BRIDGE
EXISTING BRIDGE
SWITCHBACK
DATE: June 30, 2004
BF&S
Butler Fairman Seufert
CIVIL ENGINEERS



LEGEND
PARK / OPEN SPACE
SCHOOLS
CITY INTEREST POINT
WETLAND
INDUSTRIAL DEVELOPMENT
COMMERCIAL DEVELOPMENT
CITY REFERENCE POINT
UTILITY CORRIDOR
ACTIVE RAIL CORRIDOR
ABANDONED RAIL CORRIDOR
EXISTING BIKE TRAIL
EXISTING BIKE ROUTE
WATER FEATURE
STEEP SLOPES
0 250 500 FEET
SINGING SANDS - LIGHTHOUSE TRAIL
MASTER PLAN
Sheet E
TRAIL SYMBOLS
SINGING SANDS TRAIL - PHASE 1
SINGING SANDS TRAIL - PHASE 2
SINGING SANDS TRAIL - PHASE 3
SOUTH SHORE TRAIL
NIPSCO GREENWAY - PHASE 1
NIPSCO GREENWAY - PHASE 2
MONON TRAIL - PHASE 1
MONON TRAIL - PHASE 2
PEANUT TRAIL
TRAIL CREEK GREENWAY
MICHIGAN CITY/ LAPORTE TRAIL
COMMUNITY CONNECTION TRAIL
TRAILHEAD
INTERPRETIVE AREA
SHARED USE TRAILHEAD
AT GRADE ROAD CROSSING - LEVEL 1
AT GRADE ROAD CROSSING - LEVEL 2
AT GRADE ROAD CROSSING - LEVEL 3
AT GRADE RAIL CROSSING
PEDESTRIAN BRIDGE
EXISTING BRIDGE
SWITCHBACK
DATE: August 2, 2004
Butler Fairman Seufert
12
COURTS BLVD.
BAYVIEW
TWIN RD.
RUTH ST.
FOREST ST.
ODELL ST.
FERN ST.
MINNIE ST.
WILSON RD.
MARTIN LUTHER KING DR.
INTERNATIONAL FRIENDSHIP
POTTAWATTOMIE PARK
OTTER CREEK
POTTOWATTOMIE COUNTRY CLUB
Alternative Route


LEGEND
PARK / OPEN SPACE
SCHOOLS
CITY INTEREST POINT
WETLAND
INDUSTRIAL DEVELOPMENT
COMMERCIAL DEVELOPMENT
CITY REFERENCE POINT
UTILITY CORRIDOR
ACTIVE RAIL CORRIDOR
ABANDONED RAIL CORRIDOR
EXISTING BIKE TRAIL
EXISTING BIKE ROUTE
WATER FEATURE
STEEP SLOPES
0 250 500 FEET
SINGING SANDS - LIGHTHOUSE TRAIL
MASTER PLAN
Sheet F
TRAIL SYMBOLS
SINGING SANDS TRAIL - PHASE 1
SINGING SANDS TRAIL - PHASE 2
SINGING SANDS TRAIL - PHASE 3
SOUTH SHORE TRAIL
NIPSCO GREENWAY - PHASE 1
NIPSCO GREENWAY - PHASE 2
MONON TRAIL - PHASE 1
MONON TRAIL - PHASE 2
PEANUT TRAIL
TRAIL CREEK GREENWAY
MICHIGAN CITY/ LAPORTE TRAIL
COMMUNITY CONNECTION TRAIL
TRAILHEAD
INTERPRETIVE AREA
SHARED USE TRAILHEAD
AT GRADE ROAD CROSSING - LEVEL 1
AT GRADE ROAD CROSSING - LEVEL 2
AT GRADE ROAD CROSSING - LEVEL 3
AT GRADE RAIL CROSSING
PEDESTRIAN BRIDGE
EXISTING BRIDGE
SWITCHBACK
DATE: May 12, 2004
Butler Fairman Seufert
LYNDALE WAY
MOORE RD
JAMESTOWN
MUIRFIELD
FREYER RD
212
12
BELLE RD

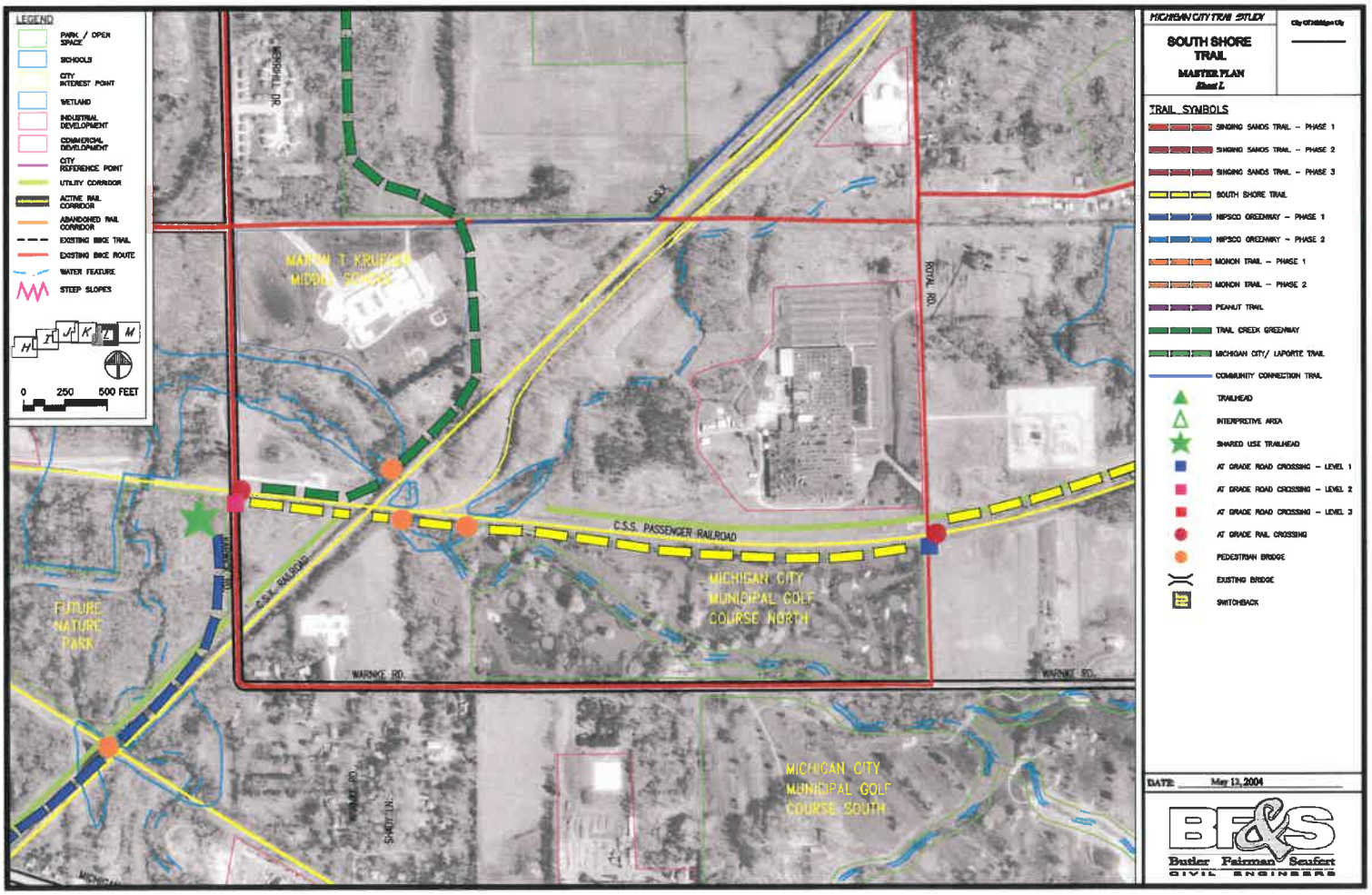

SINGING SANDS - LIGHTHOUSE TRAIL
MASTER PLAN
Sheet G
TRAIL SYMBOLS
SINGING SANDS TRAIL - PHASE 1
SINGING SANDS TRAIL - PHASE 2
SINGING SANDS TRAIL - PHASE 3
SOUTH SHORE TRAIL
NIPSCO GREENWAY - PHASE 1
NIPSCO GREENWAY - PHASE 2
MONON TRAIL - PHASE 1
MONON TRAIL - PHASE 2
PEANUT TRAIL
TRAIL CREEK GREENWAY
MICHIGAN CITY/ LAPORTE TRAIL
COMMUNITY CONNECTION TRAIL
FUTURE REGIONAL TRAIL
TRAILHEAD
INTERPRETIVE AREA
SHARED USE TRAILHEAD
AT GRADE ROAD CROSSING - LEVEL 1
AT GRADE ROAD CROSSING - LEVEL 2
AT GRADE ROAD CROSSING - LEVEL 3
AT GRADE RAIL CROSSING
PEDESTRIAN BRIDGE
EXISTING BRIDGE
SWITCHBACK
LEGEND
PARK / OPEN SPACE
SCHOOLS
CITY INTEREST POINT
WETLAND
INDUSTRIAL DEVELOPMENT
COMMERCIAL DEVELOPMENT
CITY REFERENCE POINT
UTILITY CORRIDOR
ACTIVE RAIL CORRIDOR
ABANDONED RAIL CORRIDOR
EXISTING BIKE TRAIL
EXISTING BIKE ROUTE
WATER FEATURE
STEEP SLOPES
0 250 500 FEET
DATE: June 11, 2004
Butler Fairman Seufert
CIVIL ENGINEERS
TO MICHIGAN
SANDERS
ELMWOOD LN.
WILDROSE DR.
AMTRAK RAILROAD
12
212
MEER RD.
FRAZIE RD.
DUNEWOOD DR.

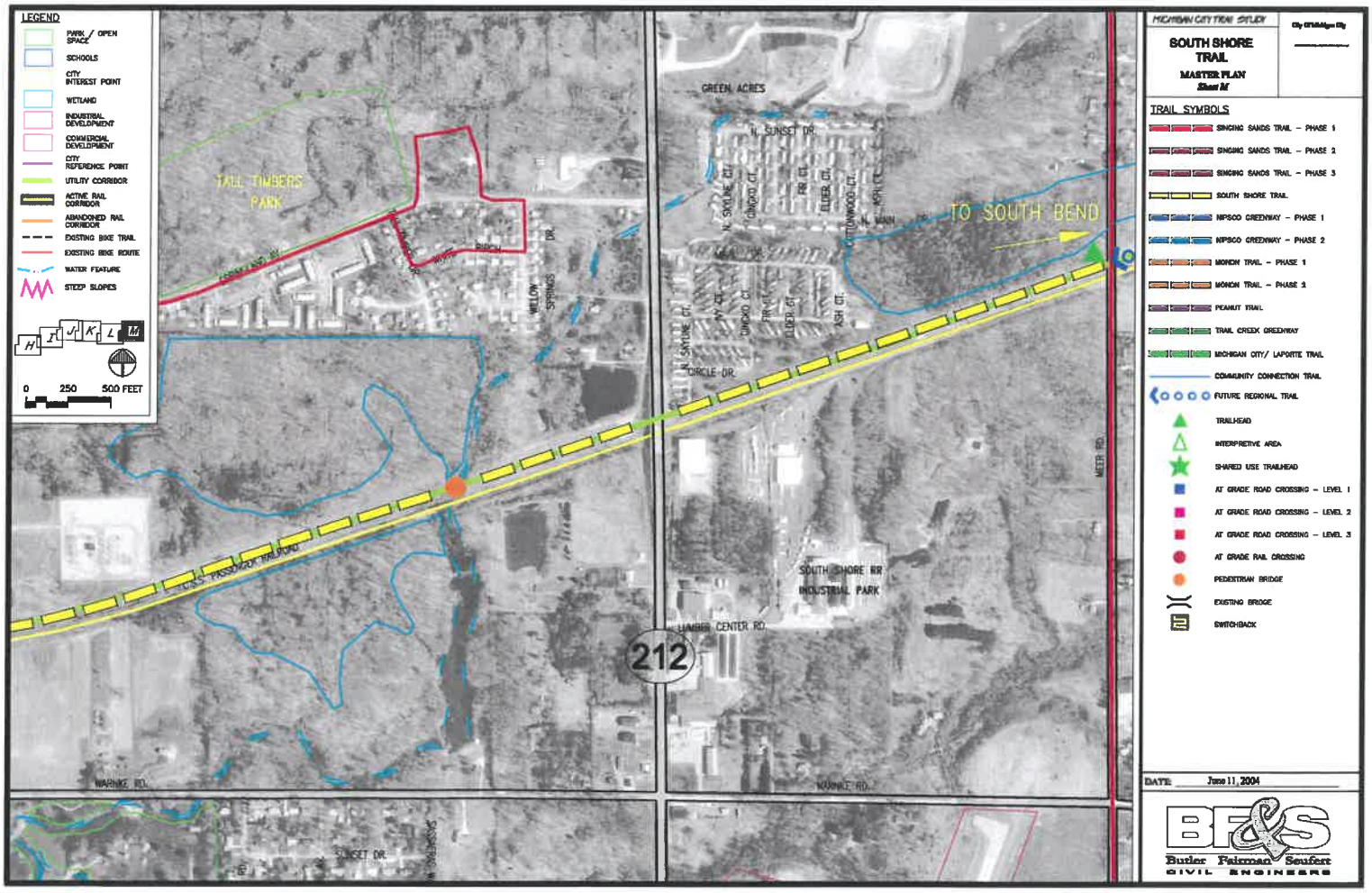
SOUTH SHORE TRAIL

The South Shore Trail will be approximately 2.2 miles long. This route was chosen to make a connection between Michigan City and South Bend (NIRPC high priority corridor). It will begin at the future nature park, at the end of the proposed NIPSCO Greenway (Phase 1) and precede easterly along the south side of the Chicago South Shore Passenger Railroad. The proposed trail will then cross the CSS Passenger Railroad at Royal Road and enter the NIPSCO utility corridor. It will then proceed eastward terminating at the eastern corporate boundary of Michigan City (Meer Road.)

A longer route was investigated starting at Sheridan Ave. (the west side of Michigan City) and then preceding through the city utilizing 10th and 11th Streets. The hope was to provide a route through the "heart" of Michigan City. However, due to conflicts with vehicular traffic, on-street parking, and the C.S.S. Passenger Railroad running along the middle of these streets, the route was shortened.

The following maps illustrate the proposed route for the South Shore Trail.


LEGEND
PARK / OPEN SPACE
SCHOOLS
CITY INTEREST POINT
WETLAND
INDUSTRIAL DEVELOPMENT
COMMERCIAL DEVELOPMENT
CITY REFERENCE POINT
UTILITY CORRIDOR
ACTIVE RAIL CORRIDOR
ABANDONED RAIL CORRIDOR
EXISTING BIKE TRAIL
EXISTING BIKE ROUTE
WATER FEATURE
STEEP SLOPES
0 250 500 FEET
MARTIN T. KRUEGER MIDDLE SCHOOL
C.S.S.
C.S.S. PASSENGER RAILROAD
C.S.S. FREIGHT
FUTURE NATURE PARK
MICHIGAN CITY MUNICIPAL GOLF COURSE NORTH
MICHIGAN CITY MUNICIPAL GOLF COURSE SOUTH
WARNKE RD.
ROTAL RD.
SHOT DR.
MICHIGAN CITY TRAIL STUDY
SOUTH SHORE TRAIL
MASTER PLAN
Sheet 1
TRAIL SYMBOLS
SINGING SANDS TRAIL – PHASE 1
SINGING SANDS TRAIL – PHASE 2
SINGING SANDS TRAIL – PHASE 3
SOUTH SHORE TRAIL
NIPSCO GREENWAY – PHASE 1
NIPSCO GREENWAY – PHASE 2
MONON TRAIL – PHASE 1
MONON TRAIL – PHASE 2
PEANUT TRAIL
TRAIL CREEK GREENWAY
MICHIGAN CITY/ LAPORTE TRAIL
COMMUNITY CONNECTION TRAIL
TRAILHEAD
INTERPRETIVE AREA
SHARED USE TRAILHEAD
AT GRADE ROAD CROSSING – LEVEL 1
AT GRADE ROAD CROSSING – LEVEL 2
AT GRADE ROAD CROSSING – LEVEL 3
AT GRADE RAIL CROSSING
PEDESTRIAN BRIDGE
EXISTING BRIDGE
SWITCHBACK
DATE: May 13, 2004
BF&S
Butler Fairman Seufert
CIVIL ENGINEERS


LEGEND
PARK / OPEN SPACE
SCHOOLS
CITY INTEREST POINT
WETLAND
INDUSTRIAL DEVELOPMENT
COMMERCIAL DEVELOPMENT
CITY REFERENCE POINT
UTILITY CORRIDOR
ACTIVE RAIL CORRIDOR
ABANDONED RAIL CORRIDOR
EXISTING BIKE TRAIL
EXISTING BIKE ROUTE
WATER FEATURE
STEEP SLOPES
0 250 500 FEET
TALL TIMBERS PARK
GREEN ACRES
N. SUNSET DR.
TO SOUTH BEND
WILLOW SPRINGS DR.
CIRCLE DR.
SOUTH SHORE RR INDUSTRIAL PARK
LUMBER CENTER RD.
212
WARNKE RD.
METRA RD.
MICHIGAN CITY TRAIL STUDY
SOUTH SHORE TRAIL
MASTER PLAN
Sheet M
TRAIL SYMBOLS
SINGING SANDS TRAIL – PHASE 1
SINGING SANDS TRAIL – PHASE 2
SINGING SANDS TRAIL – PHASE 3
SOUTH SHORE TRAIL
NIPSCO GREENWAY – PHASE 1
NIPSCO GREENWAY – PHASE 2
MONON TRAIL – PHASE 1
MONON TRAIL – PHASE 2
PEANUT TRAIL
TRAIL CREEK GREENWAY
MICHIGAN CITY/ LAPORTE TRAIL
COMMUNITY CONNECTION TRAIL
FUTURE REGIONAL TRAIL
TRAILHEAD
INTERPRETIVE AREA
SHARED USE TRAILHEAD
AT GRADE ROAD CROSSING – LEVEL 1
AT GRADE ROAD CROSSING – LEVEL 2
AT GRADE ROAD CROSSING – LEVEL 3
AT GRADE RAIL CROSSING
PEDESTRIAN BRIDGE
EXISTING BRIDGE
SWITCHBACK
DATE: June 11, 2004
BF&S
Butler Fairman Seufert
CIVIL ENGINEERS

NIPSCO GREENWAY

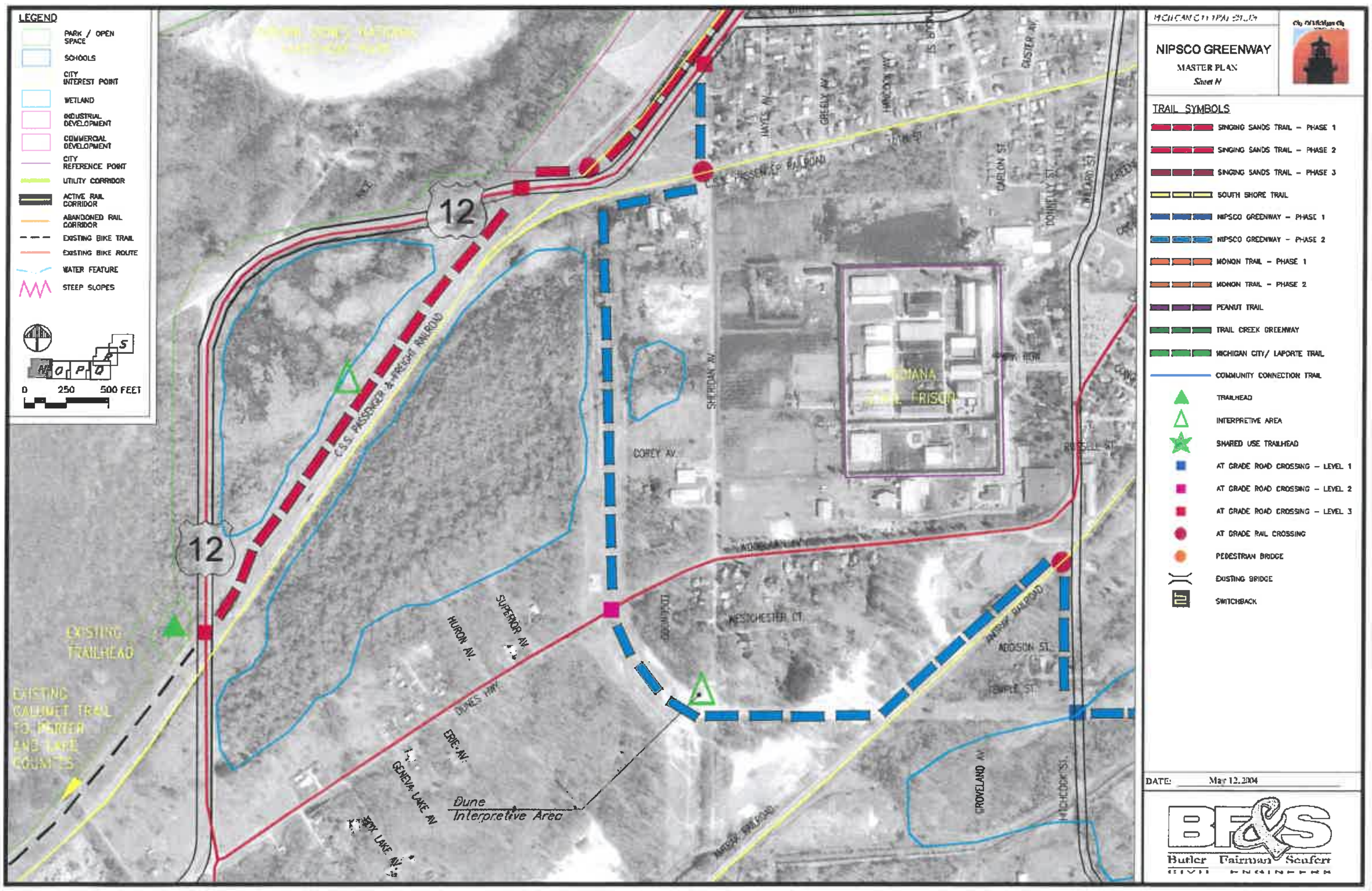
The proposed Northern Indiana Public Service Company (NIPSCO) Trail will be approximately 5.4 miles long. The route was selected in order to replace the connection lost by not being able to develop the entire South Shore Trail through the city. It will help to connect western neighborhoods with eastern neighborhoods along the southern edge of Michigan City. The greenway begins at the intersection of US 12 and Sheridan Ave. (on the west side of Michigan City) and will terminate within the future nature park located at the intersection of South Karwick Road and Warnke Road. Due to construction costs the proposed NIPSCO Greenway will be completed in two phases.

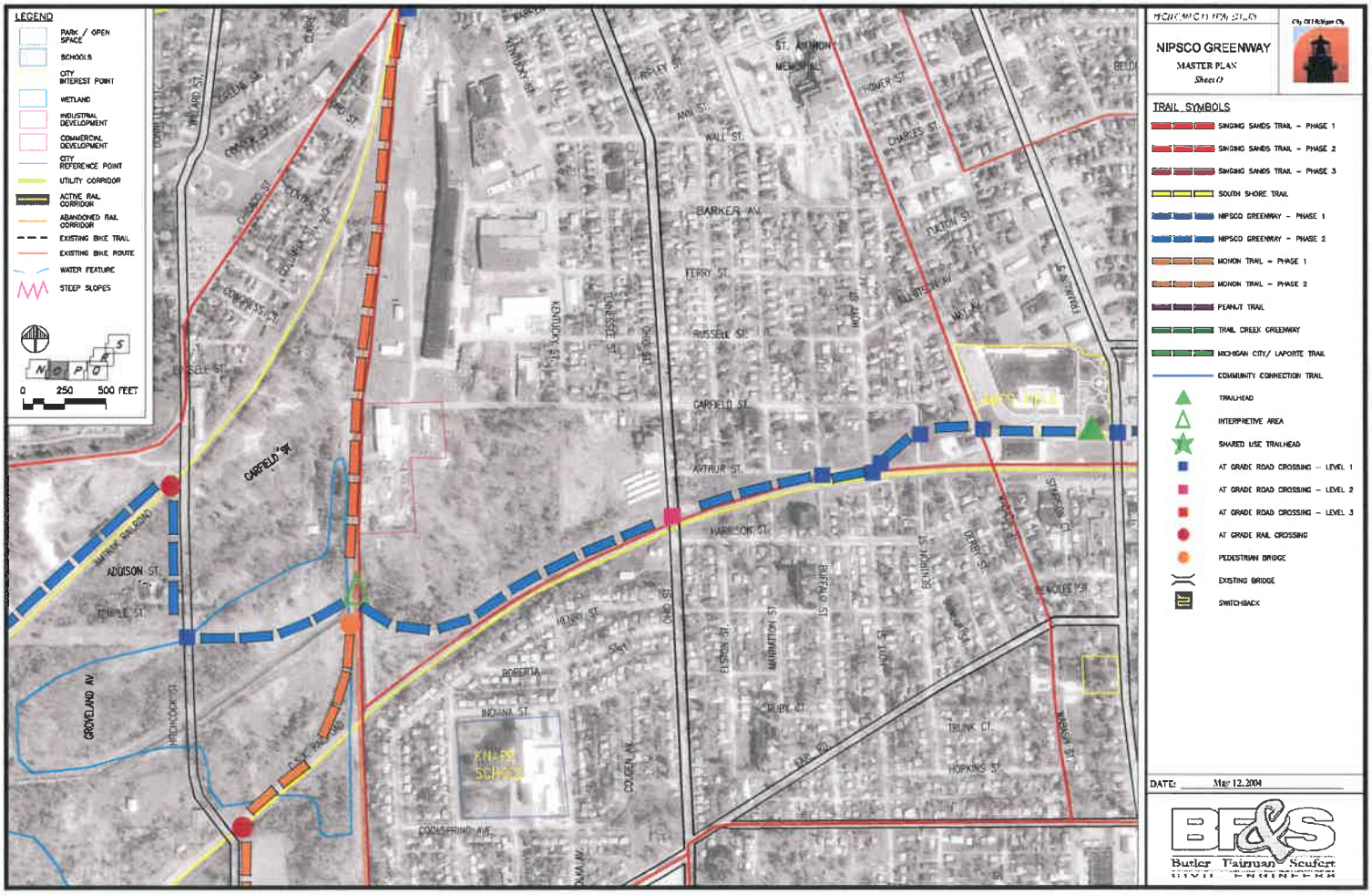
Phase One of the NIPSCO Greenway will begin at Ames Field located at the intersection of Franklin Street (US 421) and Pytynia Parkway. From Ames Field, the proposed greenway will proceed eastward within the NIPSCO utility corridor, north of the CSX Railroad. The greenway will require bridges to cross over Michigan Boulevard (U.S. 35) and the C.S.S. Freight Railroad at Trail Creek. At the intersection of the CSX Railroad and South Karwick Road, the proposed greenway will turn north to follow along the west side of South Karwick Road to its endpoint within the northeast corner of the future nature park. This phase was chosen to be developed first in order to get people from the center of Michigan City to the proposed nature park utilizing alternative means of transportation.

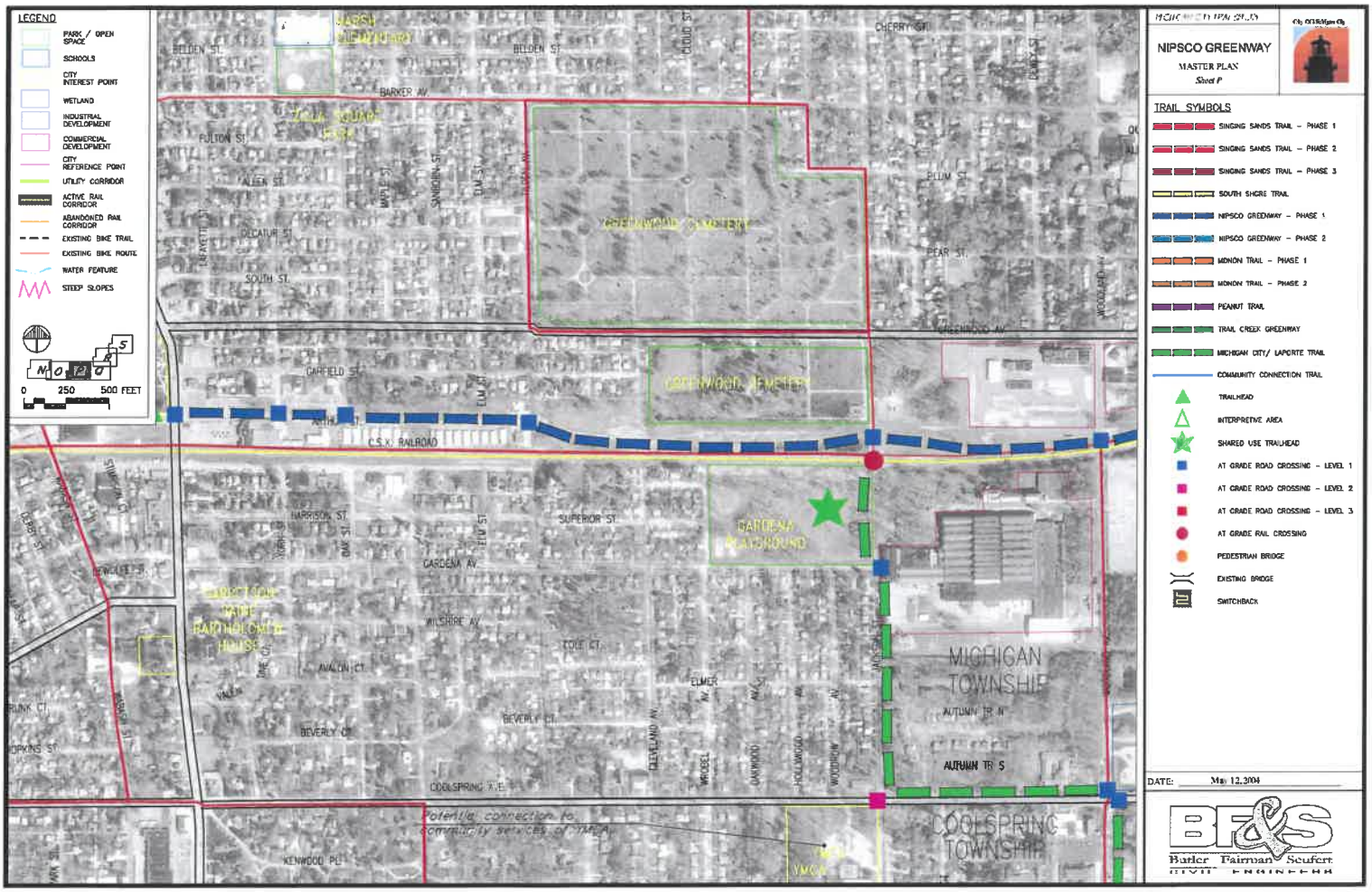
Phase Two of the NIPSCO Greenway will begin at the intersection of US 12 and Sheridan Ave., on the west side of Michigan City. The proposed greenway proceeds south on the west side of Sheridan Ave., then heads west along the south side of the C.S.S. Passenger Railroad until it reaches the NIPSCO utility corridor. It follows the utility corridor south and east, until it reaches the Amtrak Railroad. At this point the greenway will turn north and travel along the western edge of the Amtrak Railroad, until it reaches Hitchcock Street. The proposed greenway will then cross the Amtrak Railroad and proceed south along the western right-of way of Hitchcock Street. A more direct route of crossing the Amtrak Railroad and staying in the NIPSCO easement was investigated, but Amtrak is not allowing new at–grade crossings at this time. A bridge and retaining wall were also considered to traverse the tracks, but due to steep grades and clearance issues, this option was thought to be too expensive.

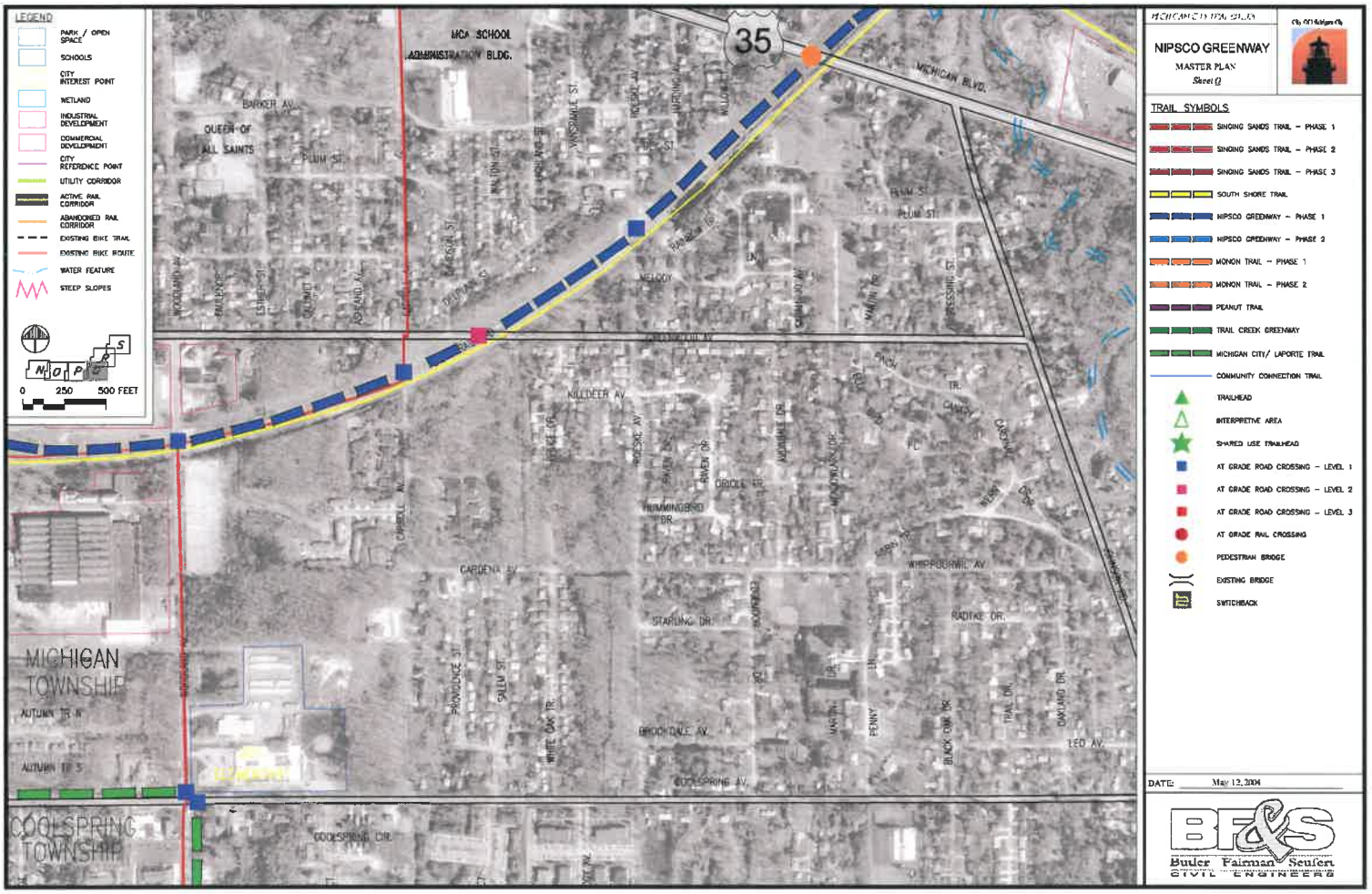
The proposed greenway will continue south in the right-of way of Hitchcock Street, until it reaches the NIPSO utility corridor. The greenway will then cross Hitchcock and once again follow the NIPSCO corridor east, terminating at its junction with Phase One adjacent to Ames Field.

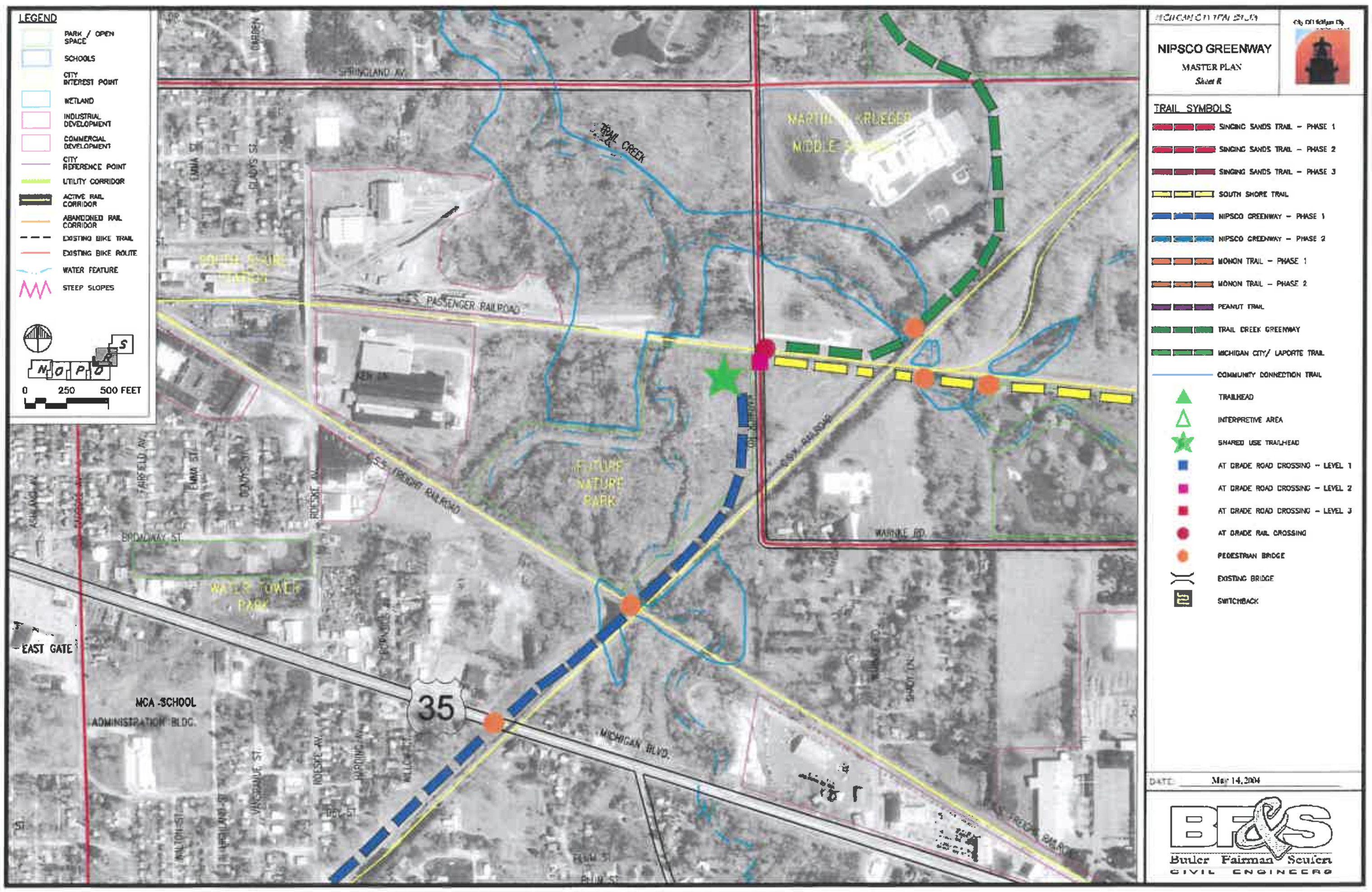
The following maps illustrate the proposed route for the NIPSCO Greenway.

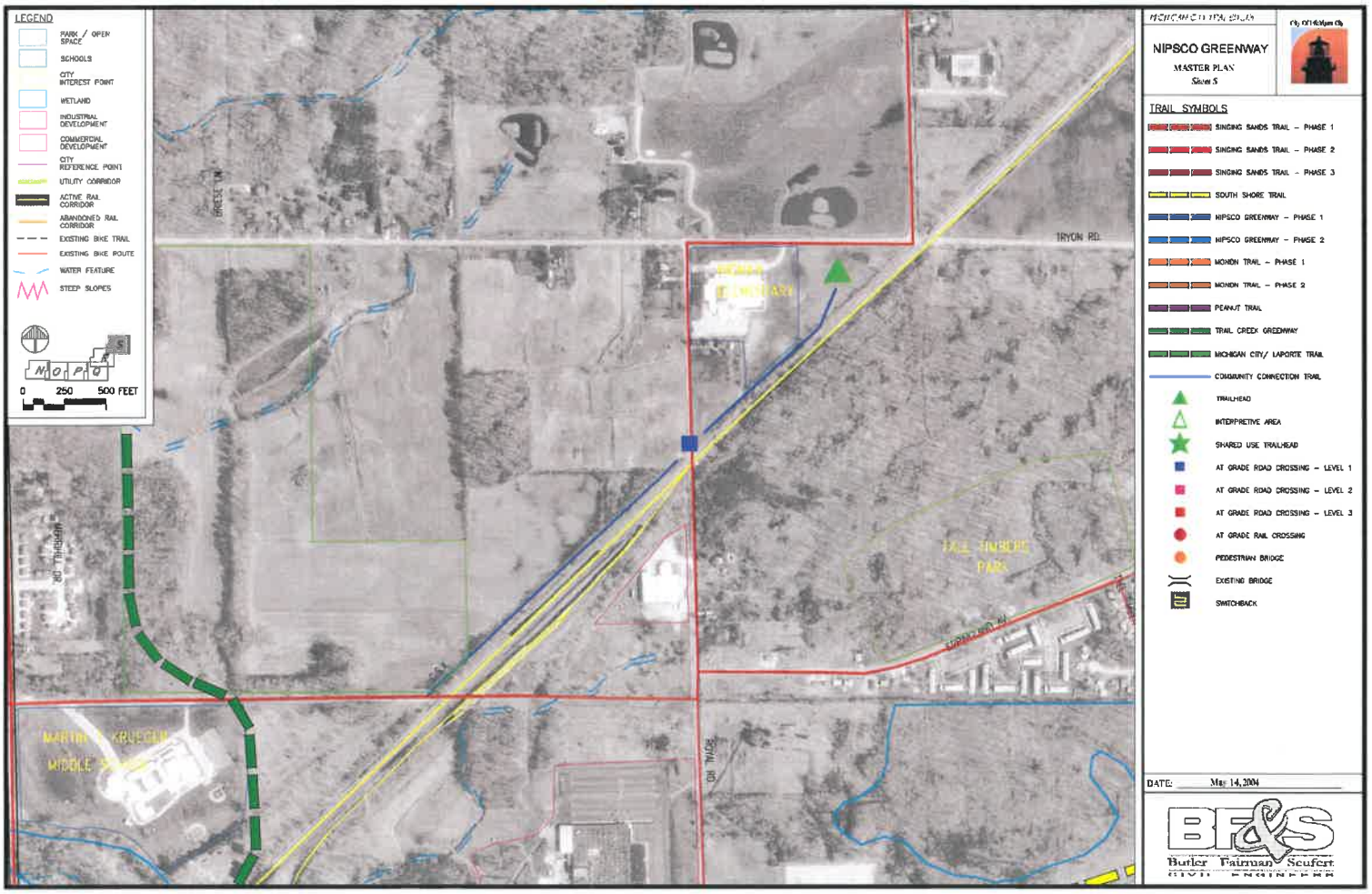

LEGEND
PARK / OPEN SPACE
SCHOOLS
CITY INTEREST POINT
WETLAND
INDUSTRIAL DEVELOPMENT
COMMERCIAL DEVELOPMENT
CITY REFERENCE POINT
UTILITY CORRIDOR
ACTIVE RAIL CORRIDOR
ABANDONED RAIL CORRIDOR
EXISTING BIKE TRAIL
EXISTING BIKE ROUTE
WATER FEATURE
STEEP SLOPES
0 250 500 FEET
NIPSCO GREENWAY
MASTER PLAN
Sheet N
TRAIL SYMBOLS
SINGING SANDS TRAIL – PHASE 1
SINGING SANDS TRAIL – PHASE 2
SINGING SANDS TRAIL – PHASE 3
SOUTH SHORE TRAIL
NIPSCO GREENWAY – PHASE 1
NIPSCO GREENWAY – PHASE 2
MONON TRAIL – PHASE 1
MONON TRAIL – PHASE 2
PEANUT TRAIL
TRAIL CREEK GREENWAY
MICHIGAN CITY/ LAPORTE TRAIL
COMMUNITY CONNECTION TRAIL
TRAILHEAD
INTERPRETIVE AREA
SHARED USE TRAILHEAD
AT GRADE ROAD CROSSING – LEVEL 1
AT GRADE ROAD CROSSING – LEVEL 2
AT GRADE ROAD CROSSING – LEVEL 3
AT GRADE RAIL CROSSING
PEDESTRIAN BRIDGE
EXISTING BRIDGE
SWITCHBACK
DATE: May 12, 2004
BF&S
Butler Fairman Seufert
12
12
C.S.S. PASSENGER & FREIGHT RAILROAD
EXISTING TRAILHEAD
SHERIDAN AV.
COREY AV.
INDIANA STATE PRISON
DUNES HWY
HURON AV.
SUPERIOR AV.
ERIE AV.
GENEVA LAKE AV
WESTCHESTER CT.
ADDISON ST.
TEMPLE ST.
CROVELAND AV
HITCHCOCK ST.
Dune Interpretive Area


LEGEND
PARK / OPEN SPACE
SCHOOLS
CITY INTEREST POINT
WETLAND
INDUSTRIAL DEVELOPMENT
COMMERCIAL DEVELOPMENT
CITY REFERENCE POINT
UTILITY CORRIDOR
ACTIVE RAIL CORRIDOR
ABANDONED RAIL CORRIDOR
EXISTING BIKE TRAIL
EXISTING BIKE ROUTE
WATER FEATURE
STEEP SLOPES
N E P I S
0 250 500 FEET
NIPSCO GREENWAY
MASTER PLAN
Sheet O
TRAIL SYMBOLS
SINGING SANDS TRAIL - PHASE 1
SINGING SANDS TRAIL - PHASE 2
SINGING SANDS TRAIL - PHASE 3
SOUTH SHORE TRAIL
NIPSCO GREENWAY - PHASE 1
NIPSCO GREENWAY - PHASE 2
MONON TRAIL - PHASE 1
MONON TRAIL - PHASE 2
PEANUT TRAIL
TRAIL CREEK GREENWAY
MICHIGAN CITY/ LAPORTE TRAIL
COMMUNITY CONNECTION TRAIL
TRAILHEAD
INTERPRETIVE AREA
SHARED USE TRAILHEAD
AT GRADE ROAD CROSSING - LEVEL 1
AT GRADE ROAD CROSSING - LEVEL 2
AT GRADE ROAD CROSSING - LEVEL 3
AT GRADE RAIL CROSSING
PEDESTRIAN BRIDGE
EXISTING BRIDGE
SWITCHBACK
DATE: May 12, 2004
BF&S
Butler Fairman Seufert
GARFIELD ST
ADDISON ST
GROVELAND AV
BARKER AV
FERRY ST
RUSSELL ST
CARFIELD ST
ARTHUR ST
HARRISON ST
WALL ST
ANN ST
HOMER ST
CHARLES ST
FULTON ST
INDIANA ST
ROBERTA
TRUNK CT
HOPKINS ST
COOLSPRING AV
ST. ANTHONY MEMORIAL


LEGEND
PARK / OPEN SPACE
SCHOOLS
CITY INTEREST POINT
WETLAND
INDUSTRIAL DEVELOPMENT
COMMERCIAL DEVELOPMENT
CITY REFERENCE POINT
UTILITY CORRIDOR
ACTIVE RAIL CORRIDOR
ABANDONED RAIL CORRIDOR
EXISTING BIKE TRAIL
EXISTING BIKE ROUTE
WATER FEATURE
STEEP SLOPES
0 250 500 FEET
NIPSCO GREENWAY
MASTER PLAN
Sheet P
TRAIL SYMBOLS
SINGING SANDS TRAIL - PHASE 1
SINGING SANDS TRAIL - PHASE 2
SINGING SANDS TRAIL - PHASE 3
SOUTH SHORE TRAIL
NIPSCO GREENWAY - PHASE 1
NIPSCO GREENWAY - PHASE 2
MONON TRAIL - PHASE 1
MONON TRAIL - PHASE 2
PEANUT TRAIL
TRAIL CREEK GREENWAY
MICHIGAN CITY/ LAPORTE TRAIL
COMMUNITY CONNECTION TRAIL
TRAILHEAD
INTERPRETIVE AREA
SHARED USE TRAILHEAD
AT GRADE ROAD CROSSING - LEVEL 1
AT GRADE ROAD CROSSING - LEVEL 2
AT GRADE ROAD CROSSING - LEVEL 3
AT GRADE RAIL CROSSING
PEDESTRIAN BRIDGE
EXISTING BRIDGE
SWITCHBACK
DATE: May 12, 2004
Barker Pairman Seufert
CIVIL ENGINEERS
BELDEN ST.
CHERRY ST.
BARKER AV.
FULTON ST.
ELDEN ST.
PLUM ST.
DECATUR ST.
SOUTH ST.
PEAR ST.
GREENWOOD AV.
GARFIELD ST.
GREENWOOD CEMETERY
C.S.X.I. RAILROAD
SUPERIOR ST.
GARDENA PLAYGROUND
GARDENA AV.
WILSHIRE AV.
COLE CT.
AVALON CT.
BEVERLY CT.
COOLSPRING A.E.
MICHIGAN TOWNSHIP
AUTUMN TR N
AUTUMN TR S
COOLSPRING TOWNSHIP
KENWOOD PL.
Potential connection to community services of YMCA


LEGEND
PARK / OPEN SPACE
SCHOOLS
CITY INTEREST POINT
WETLAND
INDUSTRIAL DEVELOPMENT
COMMERCIAL DEVELOPMENT
CITY REFERENCE POINT
UTILITY CORRIDOR
ACTIVE RAIL CORRIDOR
ABANDONED RAIL CORRIDOR
EXISTING BIKE TRAIL
EXISTING BIKE ROUTE
WATER FEATURE
STEEP SLOPES
0 250 500 FEET
MCA SCHOOL ADMINISTRATION BLDG.
QUEEN OF ALL SAINTS
BARKER AV.
PLUM ST.
MICHIGAN BLVD.
35
KILLDEER AV.
CARDENA AV.
STARLING DR.
BROOKDALE AV.
COOLSPRING AV.
COOLSPRING CIR.
MICHIGAN TOWNSHIP
COOLSPRING TOWNSHIP
AUTUMN TR. N
AUTUMN TR. S
NIPSCO GREENWAY
MASTER PLAN
Sheet 8
TRAIL SYMBOLS
SINGING SANDS TRAIL - PHASE 1
SINGING SANDS TRAIL - PHASE 2
SINGING SANDS TRAIL - PHASE 3
SOUTH SHORE TRAIL
NIPSCO GREENWAY - PHASE 1
NIPSCO GREENWAY - PHASE 2
MONON TRAIL - PHASE 1
MONON TRAIL - PHASE 2
PEANUT TRAIL
TRAIL CREEK GREENWAY
MICHIGAN CITY/ LAPORTE TRAIL
COMMUNITY CONNECTION TRAIL
TRAILHEAD
INTERPRETIVE AREA
SHARED USE TRAILHEAD
AT GRADE ROAD CROSSING - LEVEL 1
AT GRADE ROAD CROSSING - LEVEL 2
AT GRADE ROAD CROSSING - LEVEL 3
AT GRADE RAIL CROSSING
PEDESTRIAN BRIDGE
EXISTING BRIDGE
SWITCHBACK
DATE: May 12, 2004
BF&S
Butler Fairman Seufert
CIVIL ENGINEERS


LEGEND
PARK / OPEN SPACE
SCHOOLS
CITY INTEREST POINT
WETLAND
INDUSTRIAL DEVELOPMENT
COMMERCIAL DEVELOPMENT
CITY REFERENCE POINT
UTILITY CORRIDOR
ACTIVE RAIL CORRIDOR
ABANDONED RAIL CORRIDOR
EXISTING BIKE TRAIL
EXISTING BIKE ROUTE
WATER FEATURE
STEEP SLOPES
N O P Q R S
0 250 500 FEET
SPRINGLAND AV.
TRAIL CREEK
MARTIN T. KRUEGER MIDDLE SCHOOL
PASSENGER RAILROAD
FUTURE NATURE PARK
FREIGHT RAILROAD
BROADWAY ST.
WATER TOWER PARK
EAST GATE
MCA SCHOOL ADMINISTRATION BLDG.
35
MICHIGAN BLVD.
WARNKE RD.
NIPSCO GREENWAY
MASTER PLAN
Sheet R
TRAIL SYMBOLS
SINGING SANDS TRAIL – PHASE 1
SINGING SANDS TRAIL – PHASE 2
SINGING SANDS TRAIL – PHASE 3
SOUTH SHORE TRAIL
NIPSCO GREENWAY – PHASE 1
NIPSCO GREENWAY – PHASE 2
MONON TRAIL – PHASE 1
MONON TRAIL – PHASE 2
PEANUT TRAIL
TRAIL CREEK GREENWAY
MICHIGAN CITY/ LAPORTE TRAIL
COMMUNITY CONNECTION TRAIL
TRAILHEAD
INTERPRETIVE AREA
SHARED USE TRAILHEAD
AT GRADE ROAD CROSSING – LEVEL 1
AT GRADE ROAD CROSSING – LEVEL 2
AT GRADE ROAD CROSSING – LEVEL 3
AT GRADE RAIL CROSSING
PEDESTRIAN BRIDGE
EXISTING BRIDGE
SWITCHBACK
DATE: May 14, 2004
BF&S
Butler Fairman Seufert
CIVIL ENGINEERS


LEGEND
PARK / OPEN SPACE
SCHOOLS
CITY INTEREST POINT
WETLAND
INDUSTRIAL DEVELOPMENT
COMMERCIAL DEVELOPMENT
CITY REFERENCE POINT
UTILITY CORRIDOR
ACTIVE RAIL CORRIDOR
ABANDONED RAIL CORRIDOR
EXISTING BIKE TRAIL
EXISTING BIKE ROUTE
WATER FEATURE
STEEP SLOPES
0 250 500 FEET
NIPSCO GREENWAY
MASTER PLAN
Sheet 5
TRAIL SYMBOLS
SINGING SANDS TRAIL – PHASE 1
SINGING SANDS TRAIL – PHASE 2
SINGING SANDS TRAIL – PHASE 3
SOUTH SHORE TRAIL
NIPSCO GREENWAY – PHASE 1
NIPSCO GREENWAY – PHASE 2
MONON TRAIL – PHASE 1
MONON TRAIL – PHASE 2
PEANUT TRAIL
TRAIL CREEK GREENWAY
MICHIGAN CITY/ LAPORTE TRAIL
COMMUNITY CONNECTION TRAIL
TRAILHEAD
INTERPRETIVE AREA
SHARED USE TRAILHEAD
AT GRADE ROAD CROSSING – LEVEL 1
AT GRADE ROAD CROSSING – LEVEL 2
AT GRADE ROAD CROSSING – LEVEL 3
AT GRADE RAIL CROSSING
PEDESTRIAN BRIDGE
EXISTING BRIDGE
SWITCHBACK
DATE: May 14, 2004
BF&S
Butler Fairman Seufert
CIVIL ENGINEERS
TRYON RD.
ROYAL RD.

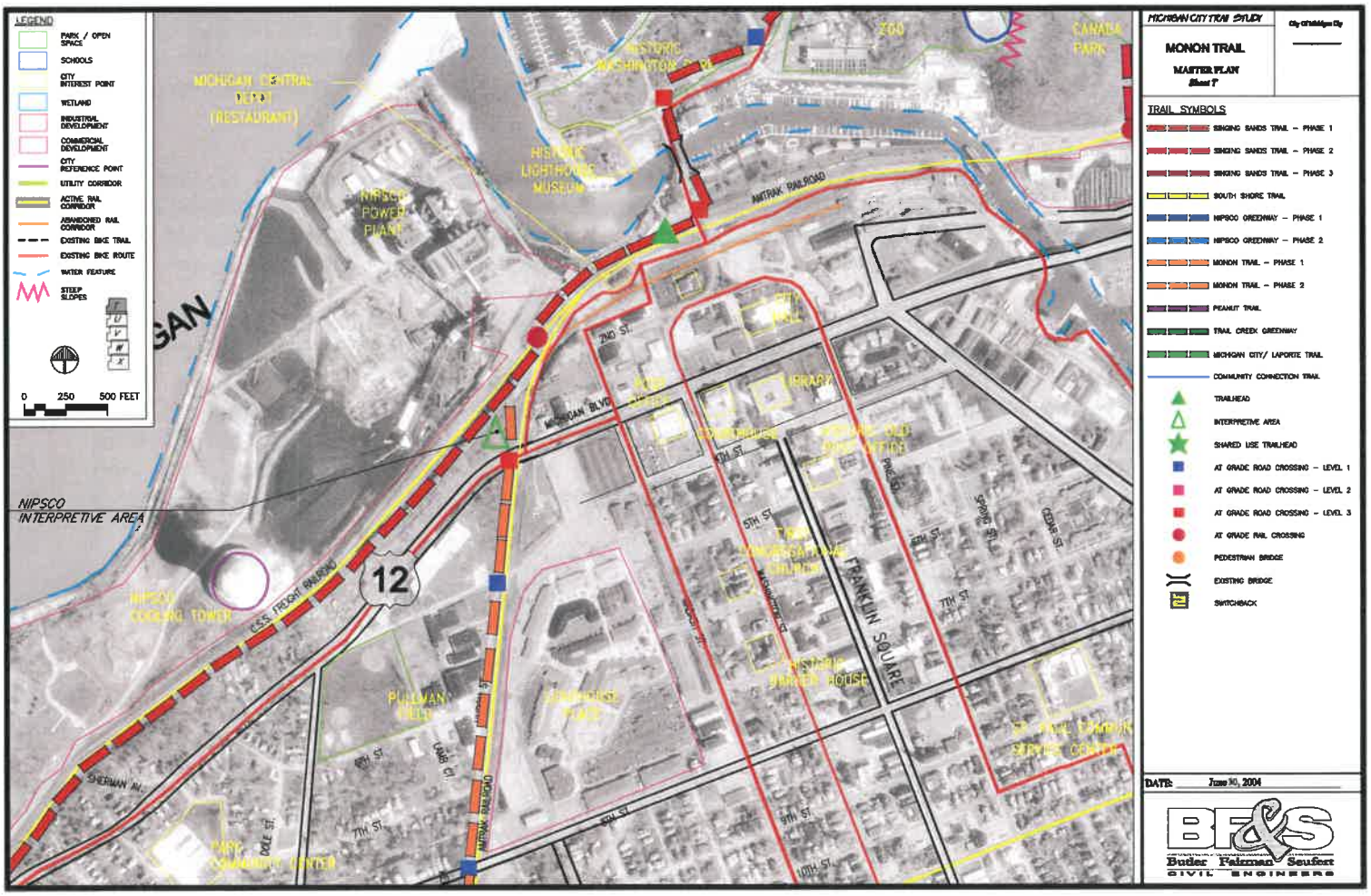
MONON TRAIL

The Monon Rail Trail will be approximately 3.7 miles long. It will begin at Michigan Boulevard (US 12) and its intersection with the Amtrak railroad. It will head southward paralleling Amtrak on the west side and eventually crossover to the abandoned Monon Railroad corridor. It will then follow the Monon corridor south to the southern corporate boundary of Michigan City (Kieffer Road). This route was chosen due to the railroad corridor already being abandoned. It will help connect the citizens of Michigan City to the Lighthouse Place Mall, Marquette Mall, the future Hitchcock Street Retention Pond and Recreational Area, and to Southern LaPorte County.

Phase One will begin at the Singing Sands Trail and Michigan Boulevard (US 12) and head south along the west side of the Amtrak railroad. It will parallel the Amtrak Railroad until it reaches 10th street where it will cross to the east side. It will then proceed southward in the abandoned railroad corridor until it reaches the intersection of the NIPSCO Greenway.

Phase Two will begin at the intersection of the abandoned Monon Railroad and the NIPSCO Greenway where phase one left off. It will continue southward along the abandoned Monon Railroad until it reaches the CSX railroad. It will then head west to Hitchcock Street. Once reaching Hitchcock it will utilize its eastern right-of-way to head south. The trail will cross Earl Road and enter the Future Retention Pond and Recreational Area. The trail will utilize this city owned property to cut back over to the abandoned Monon corridor. It will then follow the Monon corridor south to the southern corporate boundary of Michigan City (Kieffer Road).

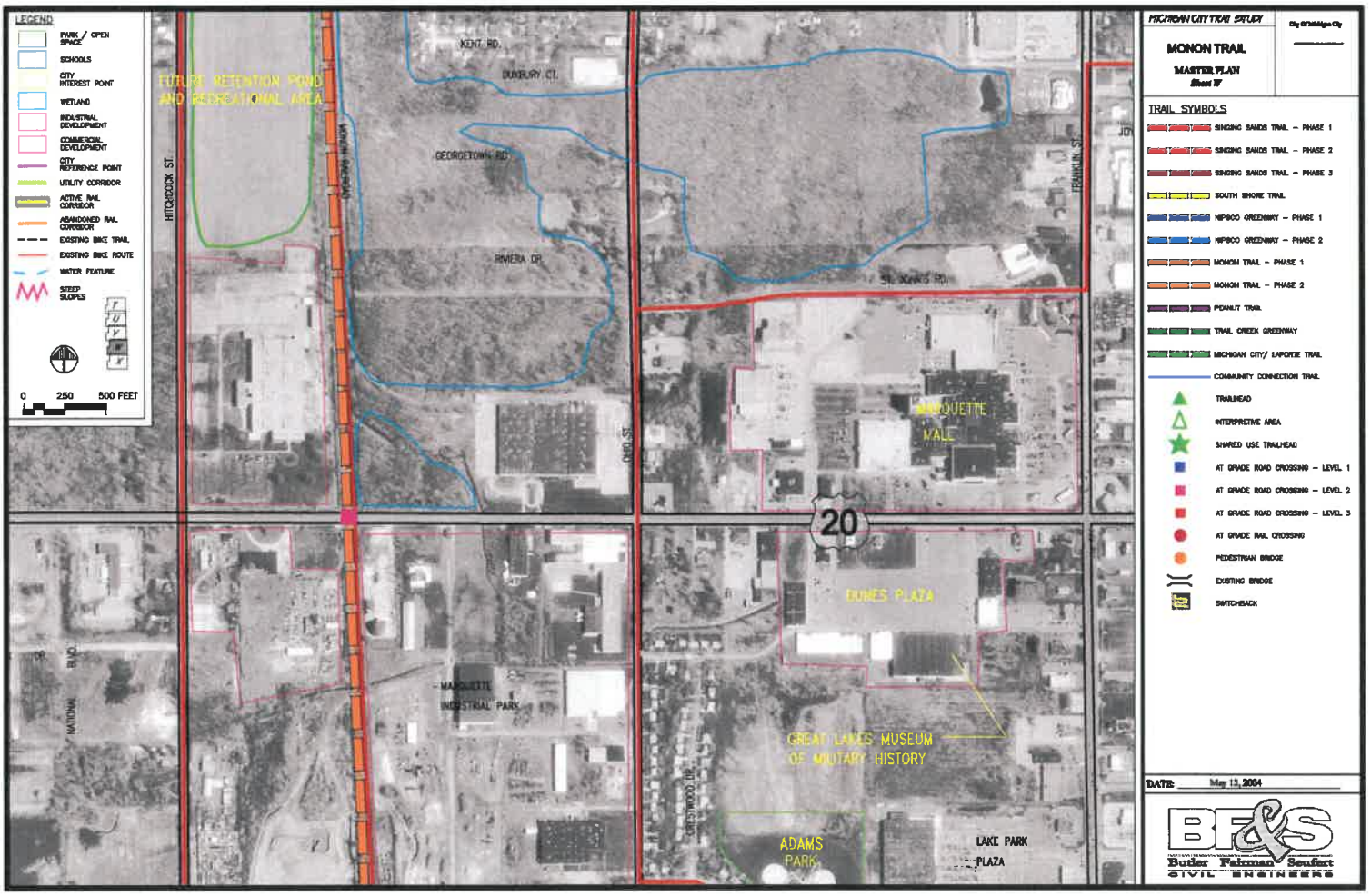
The following maps illustrate the proposed route for the Monon Trail.

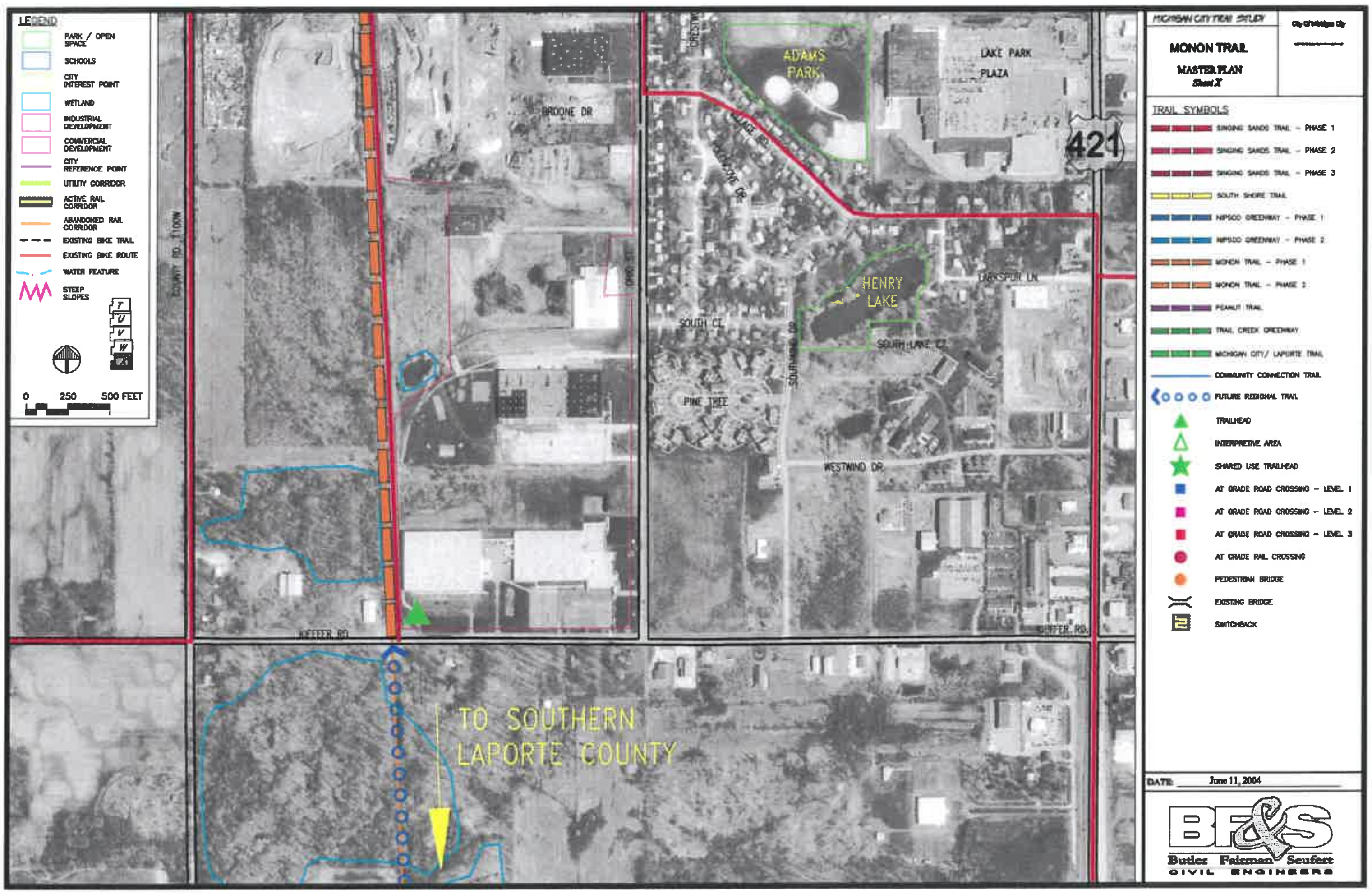

LEGEND
PARK / OPEN SPACE
SCHOOLS
CITY INTEREST POINT
WETLAND
INDUSTRIAL DEVELOPMENT
COMMERCIAL DEVELOPMENT
CITY REFERENCE POINT
UTILITY CORRIDOR
ACTIVE RAIL CORRIDOR
ABANDONED RAIL CORRIDOR
EXISTING BIKE TRAIL
EXISTING BIKE ROUTE
WATER FEATURE
STEEP SLOPES
0 250 500 FEET
MICHIGAN CITY TRAIL STUDY
MONON TRAIL
MASTER PLAN
Sheet 7
TRAIL SYMBOLS
SINGING SANDS TRAIL – PHASE 1
SINGING SANDS TRAIL – PHASE 2
SINGING SANDS TRAIL – PHASE 3
SOUTH SHORE TRAIL
NIPSCO GREENWAY – PHASE 1
NIPSCO GREENWAY – PHASE 2
MONON TRAIL – PHASE 1
MONON TRAIL – PHASE 2
PEANUT TRAIL
TRAIL CREEK GREENWAY
MICHIGAN CITY/ LAPORTE TRAIL
COMMUNITY CONNECTION TRAIL
TRAILHEAD
INTERPRETIVE AREA
SHARED USE TRAILHEAD
AT GRADE ROAD CROSSING – LEVEL 1
AT GRADE ROAD CROSSING – LEVEL 2
AT GRADE ROAD CROSSING – LEVEL 3
AT GRADE RAIL CROSSING
PEDESTRIAN BRIDGE
EXISTING BRIDGE
SWITCHBACK
DATE: June 30, 2004
BF&S
Bader Fetzner Seufert
CIVIL ENGINEERS
MICHIGAN CENTRAL DEPOT (RESTAURANT)
HISTORIC WASHINGTON PARK
ZOO
CANADA PARK
HISTORIC LIGHTHOUSE MUSEUM
NIPSCO POWER PLANT
AMTRAK RAILROAD
2ND ST.
MICHIGAN BLVD.
5TH ST.
NIPSCO INTERPRETIVE AREA
NIPSCO COOLING TOWER
C.S.S. FREIGHT RAILROAD
12
PULLMAN FIELD
FRANKLIN SQUARE
HISTORIC BARKER HOUSE
SHERMAN AV.
7TH ST.
9TH ST.
10TH ST.
PARK COMMUNITY CENTER


MONON TRAIL
MASTER PLAN
LEGEND
PARK / OPEN SPACE
SCHOOLS
CITY INTEREST POINT
WETLAND
INDUSTRIAL DEVELOPMENT
COMMERCIAL DEVELOPMENT
CITY REFERENCE POINT
UTILITY CORRIDOR
ACTIVE RAIL CORRIDOR
ABANDONED RAIL CORRIDOR
EXISTING BIKE TRAIL
EXISTING BIKE ROUTE
WATER FEATURE
STEEP SLOPES
0 250 500 FEET
TRAIL SYMBOLS
SINGING SANDS TRAIL – PHASE 1
SINGING SANDS TRAIL – PHASE 2
SINGING SANDS TRAIL – PHASE 3
SOUTH SHORE TRAIL
NIPSCO GREENWAY – PHASE 1
NIPSCO GREENWAY – PHASE 2
MONON TRAIL – PHASE 1
MONON TRAIL – PHASE 2
PEANUT TRAIL
TRAIL CREEK GREENWAY
MICHIGAN CITY/ LAPORTE TRAIL
COMMUNITY CONNECTION TRAIL
TRAILHEAD
INTERPRETIVE AREA
SHARED USE TRAILHEAD
AT GRADE ROAD CROSSING – LEVEL 1
AT GRADE ROAD CROSSING – LEVEL 2
AT GRADE ROAD CROSSING – LEVEL 3
AT GRADE RAIL CROSSING
PEDESTRIAN BRIDGE
EXISTING BRIDGE
SWITCHBACK
DATE: May 14, 2004
BF&S
Butler Fairman Seufert
CIVIL ENGINEERS
AMTRAK RAILROAD
C.S.S. PASSENGER RAILROAD
ST. ANTHONY MEMORIAL
ST. STANISLAUS
MARQUETTE HIGH
BARKER AV.
FERRY ST.
RUSSELL ST.
GARFIELD ST.
ARTHUR ST.
WALL ST.
9TH ST.
10TH ST.
PATRICK ST.


LEGEND
PARK / OPEN SPACE
SCHOOLS
CITY INTEREST POINT
WETLAND
INDUSTRIAL DEVELOPMENT
COMMERCIAL DEVELOPMENT
CITY REFERENCE POINT
UTILITY CORRIDOR
ACTIVE RAIL CORRIDOR
ABANDONED RAIL CORRIDOR
EXISTING BIKE TRAIL
EXISTING BIKE ROUTE
WATER FEATURE
STEEP SLOPES
0 250 500 FEET
MICHIGAN CITY TRAIL SYSTEM
MONON TRAIL
MASTER PLAN
Sheet 7
TRAIL SYMBOLS
SINGING SANDS TRAIL - PHASE 1
SINGING SANDS TRAIL - PHASE 2
SINGING SANDS TRAIL - PHASE 3
SOUTH SHORE TRAIL
NIPSCO GREENWAY - PHASE 1
NIPSCO GREENWAY - PHASE 2
MONON TRAIL - PHASE 1
MONON TRAIL - PHASE 2
PEANUT TRAIL
TRAIL CREEK GREENWAY
MICHIGAN CITY/ LAPORTE TRAIL
COMMUNITY CONNECTION TRAIL
TRAILHEAD
INTERPRETIVE AREA
SHARED USE TRAILHEAD
AT GRADE ROAD CROSSING - LEVEL 1
AT GRADE ROAD CROSSING - LEVEL 2
AT GRADE ROAD CROSSING - LEVEL 3
AT GRADE RAIL CROSSING
PEDESTRIAN BRIDGE
EXISTING BRIDGE
SWITCHBACK
DATE: May 12, 2004
BF&S
Butler Fairman Seufert
CIVIL ENGINEERS
ARTHUR ST.
HARRISON ST.
HENRY ST.
ROBERTA
INDIANA ST.
KNAPP SCHOOL
COOLSPRING AVE.
EARL RD.
TRUNK CT.
HOPKINS ST.
BRINKMANN AV.
BEECH ST.
CHESTNUT ST.
HICKORY ST.
WALNUT ST.
SOUTHWOOD DR.
HAWTHORN DR.
OGDEN AV.
KENT RD.
DUXBURY CT.
BROADBROOK LN.
FUTURE RETENTION POND AND RECREATIONAL AREA


LEGEND
PARK / OPEN SPACE
SCHOOLS
CITY INTEREST POINT
WETLAND
INDUSTRIAL DEVELOPMENT
COMMERCIAL DEVELOPMENT
CITY REFERENCE POINT
UTILITY CORRIDOR
ACTIVE RAIL CORRIDOR
ABANDONED RAIL CORRIDOR
EXISTING BIKE TRAIL
EXISTING BIKE ROUTE
WATER FEATURE
STEEP SLOPES
0 250 500 FEET
MICHIGAN CITY TRAIL STUDY
MONON TRAIL
MASTER PLAN
Sheet 7
TRAIL SYMBOLS
SINGING SANDS TRAIL - PHASE 1
SINGING SANDS TRAIL - PHASE 2
SINGING SANDS TRAIL - PHASE 3
SOUTH SHORE TRAIL
NIPSCO GREENWAY - PHASE 1
NIPSCO GREENWAY - PHASE 2
MONON TRAIL - PHASE 1
MONON TRAIL - PHASE 2
PEANUT TRAIL
TRAIL CREEK GREENWAY
MICHIGAN CITY/ LAPORTE TRAIL
COMMUNITY CONNECTION TRAIL
TRAILHEAD
INTERPRETIVE AREA
SHARED USE TRAILHEAD
AT GRADE ROAD CROSSING - LEVEL 1
AT GRADE ROAD CROSSING - LEVEL 2
AT GRADE ROAD CROSSING - LEVEL 3
AT GRADE RAIL CROSSING
PEDESTRIAN BRIDGE
EXISTING BRIDGE
SWITCHBACK
DATE: May 13, 2004
Butler Fairman Seufert
CIVIL ENGINEERS
ARTHUR ST.
HARRISON ST.
HENRY ST.
ROBERTA
INDIANA ST.
KNAPP SCHOOL
COOLSPRING AVE.
TRUNK CT.
HOPKINS ST.
BRINKMANN AV.
BEECH ST.
CHESTNUT ST.
HICKORY ST.
WALNUT ST.
SOUTHWOOD DR.
HAWTHORN DR.
OGDEN AV.
KENT RD.
DUXBURY CT.
BROADBROOK LN.
ESSEX LN.
FUTURE RETENTION POND AND RECREATIONAL AREA


LEGEND
PARK / OPEN SPACE
SCHOOLS
CITY INTEREST POINT
WETLAND
INDUSTRIAL DEVELOPMENT
COMMERCIAL DEVELOPMENT
CITY REFERENCE POINT
UTILITY CORRIDOR
ACTIVE RAIL CORRIDOR
ABANDONED RAIL CORRIDOR
EXISTING BIKE TRAIL
EXISTING BIKE ROUTE
WATER FEATURE
STEEP SLOPES
0 250 500 FEET
FUTURE RETENTION POND AND RECREATIONAL AREA
KENT RD.
DUNBURY CT.
GEORGETOWN RD.
RIVIERA DR.
HITCHCOCK ST.
FRANKLIN ST.
MARQUETTE MALL
20
DUNES PLAZA
MARQUETTE INDUSTRIAL PARK
GREAT LAKES MUSEUM OF MILITARY HISTORY
ADAMS PARK
LAKE PARK PLAZA
MICHIGAN CITY TRAIL STUDY
MONON TRAIL
MASTER PLAN
Sheet 17
TRAIL SYMBOLS
SINGING SANDS TRAIL – PHASE 1
SINGING SANDS TRAIL – PHASE 2
SINGING SANDS TRAIL – PHASE 3
SOUTH SHORE TRAIL
NIPSCO GREENWAY – PHASE 1
NIPSCO GREENWAY – PHASE 2
MONON TRAIL – PHASE 1
MONON TRAIL – PHASE 2
PEANUT TRAIL
TRAIL CREEK GREENWAY
MICHIGAN CITY/ LAPORTE TRAIL
COMMUNITY CONNECTION TRAIL
TRAILHEAD
INTERPRETIVE AREA
SHARED USE TRAILHEAD
AT GRADE ROAD CROSSING – LEVEL 1
AT GRADE ROAD CROSSING – LEVEL 2
AT GRADE ROAD CROSSING – LEVEL 3
AT GRADE RAIL CROSSING
PEDESTRIAN BRIDGE
EXISTING BRIDGE
SWITCHBACK
DATE: May 13, 2004
BF&S
Butler Fairman Seufert
CIVIL ENGINEERS

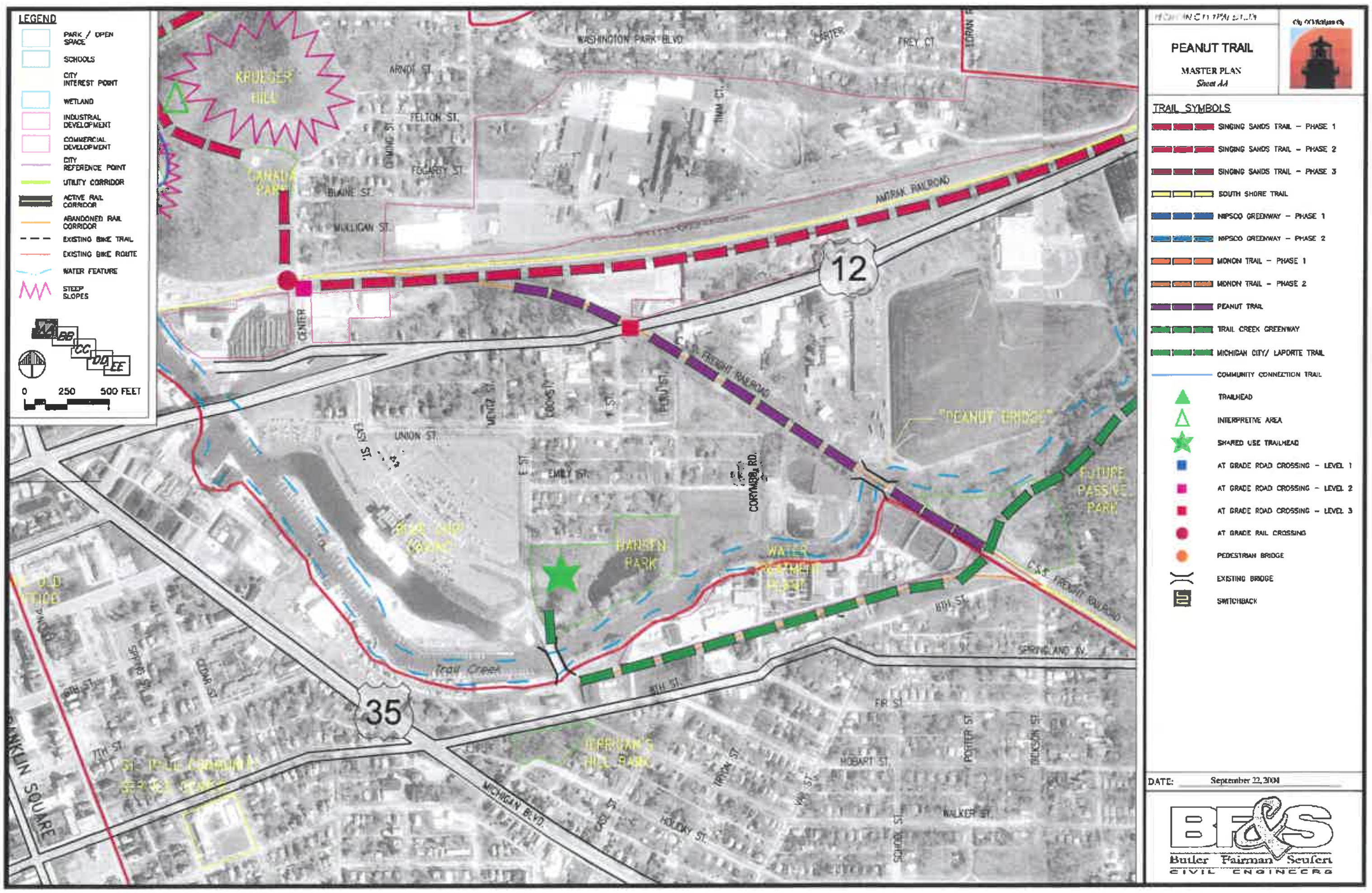

LEGEND
PARK / OPEN SPACE
SCHOOLS
CITY INTEREST POINT
WETLAND
INDUSTRIAL DEVELOPMENT
COMMERCIAL DEVELOPMENT
CITY REFERENCE POINT
UTILITY CORRIDOR
ACTIVE RAIL CORRIDOR
ABANDONED RAIL CORRIDOR
EXISTING BIKE TRAIL
EXISTING BIKE ROUTE
WATER FEATURE
STEEP SLOPES
T
U
V
W
0 250 500 FEET
COUNTY RD. 1100N
BROONE DR
OHIO ST
ADAMS PARK
LAKE PARK PLAZA
421
HENRY LAKE
LARKSPUR LN.
SOUTH CT.
SOUTH LAKE CT.
PINE TREE
WESTWIND DR.
KIEFFER RD.
TO SOUTHERN LAPORTE COUNTY
MICHIGAN CITY TRAIL STUDY
MONON TRAIL
MASTER PLAN
Sheet X
TRAIL SYMBOLS
SINGING SANDS TRAIL – PHASE 1
SINGING SANDS TRAIL – PHASE 2
SINGING SANDS TRAIL – PHASE 3
SOUTH SHORE TRAIL
NIPSCO GREENWAY – PHASE 1
NIPSCO GREENWAY – PHASE 2
MONON TRAIL – PHASE 1
MONON TRAIL – PHASE 2
PEANUT TRAIL
TRAIL CREEK GREENWAY
MICHIGAN CITY/ LAPORTE TRAIL
COMMUNITY CONNECTION TRAIL
FUTURE REGIONAL TRAIL
TRAILHEAD
INTERPRETIVE AREA
SHARED USE TRAILHEAD
AT GRADE ROAD CROSSING – LEVEL 1
AT GRADE ROAD CROSSING – LEVEL 2
AT GRADE ROAD CROSSING – LEVEL 3
AT GRADE RAIL CROSSING
PEDESTRIAN BRIDGE
EXISTING BRIDGE
SWITCHBACK
DATE: June 11, 2004
BF&S
Butler Fairman Seufert
CIVIL ENGINEERS

PEANUT TRAIL

The Peanut Trail was originally known as the Michigan City/ LaPorte Trail. This was the start of a route to connect Michigan City to the City of LaPorte. However due to conflicts with Chicago South Shore and South Bend Freight Railroad's operations, the route was shortened. The Peanut Trail will be approximately 0.70 miles in length. It will begin at the intersection of Center Street and the Amtrak Railroad and tie into the Singing-Sands Trail. From here it will follow the abandoned CSS Freight Railroad corridor in a southeasterly direction, ending at the intersection with the Trail Creek Greenway at the future passive park.

This route was chosen in an effort to make a connection from Canada Park to the Peanut Bridge and Future Gifford Park. Once phase two of the Singing Sands Trail and Trail Creek Greenway are developed a connection linking Hansen Park to the future passive park to Canada Park and finally Washington Park will be established.

The following maps illustrate the proposed route for the Peanut Trail.


PEANUT TRAIL
MASTER PLAN
Sheet AA
LEGEND
PARK / OPEN SPACE
SCHOOLS
CITY INTEREST POINT
WETLAND
INDUSTRIAL DEVELOPMENT
COMMERCIAL DEVELOPMENT
CITY REFERENCE POINT
UTILITY CORRIDOR
ACTIVE RAIL CORRIDOR
ABANDONED RAIL CORRIDOR
EXISTING BIKE TRAIL
EXISTING BIKE ROUTE
WATER FEATURE
STEEP SLOPES
0 250 500 FEET
TRAIL SYMBOLS
SINGING SANDS TRAIL – PHASE 1
SINGING SANDS TRAIL – PHASE 2
SINGING SANDS TRAIL – PHASE 3
SOUTH SHORE TRAIL
NIPSCO GREENWAY – PHASE 1
NIPSCO GREENWAY – PHASE 2
MONON TRAIL – PHASE 1
MONON TRAIL – PHASE 2
PEANUT TRAIL
TRAIL CREEK GREENWAY
MICHIGAN CITY/ LAPORTE TRAIL
COMMUNITY CONNECTION TRAIL
TRAILHEAD
INTERPRETIVE AREA
SHARED USE TRAILHEAD
AT GRADE ROAD CROSSING – LEVEL 1
AT GRADE ROAD CROSSING – LEVEL 2
AT GRADE ROAD CROSSING – LEVEL 3
AT GRADE RAIL CROSSING
PEDESTRIAN BRIDGE
EXISTING BRIDGE
SWITCHBACK
DATE: September 22, 2004
BF&S
Butler Fairman Seufert
CIVIL ENGINEERS
KRUEGER HILL
CANADA PARK
WASHINGTON PARK BLVD.
ARNDT ST.
FELTON ST.
FOGARTY ST.
BLAINE ST.
MULLIGAN ST.
AMTRAK RAILROAD
12
35
"PEANUT BRIDGE"
FUTURE PASSIVE PARK
HANSEN PARK
WATER TREATMENT PLANT
UNION ST.
EMILY ST.
CORYMBO RD.
Trail Creek
SPRINGLAND AV.
MICHIGAN BLVD.
FRANKLIN SQUARE
HOBART ST.
WALKER ST.
PORTER ST.
DICKSON ST.
SCHOOL ST.
FREIGHT RAILROAD

TRAIL CREEK GREENWAY

Trail Creek Greenway will be approximately 3.8 miles in length. This route was chosen due to its naturalistic character and in an effort to re-establish a loop trail around the city. This loop was lost when the original Michigan City LaPorte Trail was found to be unfeasible. The trail will also help to create a link to many community sites. It will connect to Hansen Park, a future passive park, the Robert Peo DNR fishing site, Krueger Memorial Park, International Friendship Gardens, the Martin Luther King, Jr. Center, Martin T. Krueger Middle School, and future Nature Park.

The Greenway will begin at Hansen Park and then use the existing bridge on E Street to cross Trail Creek. It will then travel eastward using the abandoned Nickel Plate railroad to reach the Peanut Trail and a future passive park. It will continue to travel eastward paralleling Trail Creek until it reaches Liberty Trail and the existing Robert Peo DNR fishing access. The greenway will then cross Liberty Trail before following along an existing gravel road owned by the city to reach the International Friendship Garden's reclaimed retention pond site. A new pedestrian bridge will be constructed to cross Trail Creek and reach Friendship Garden's Property.

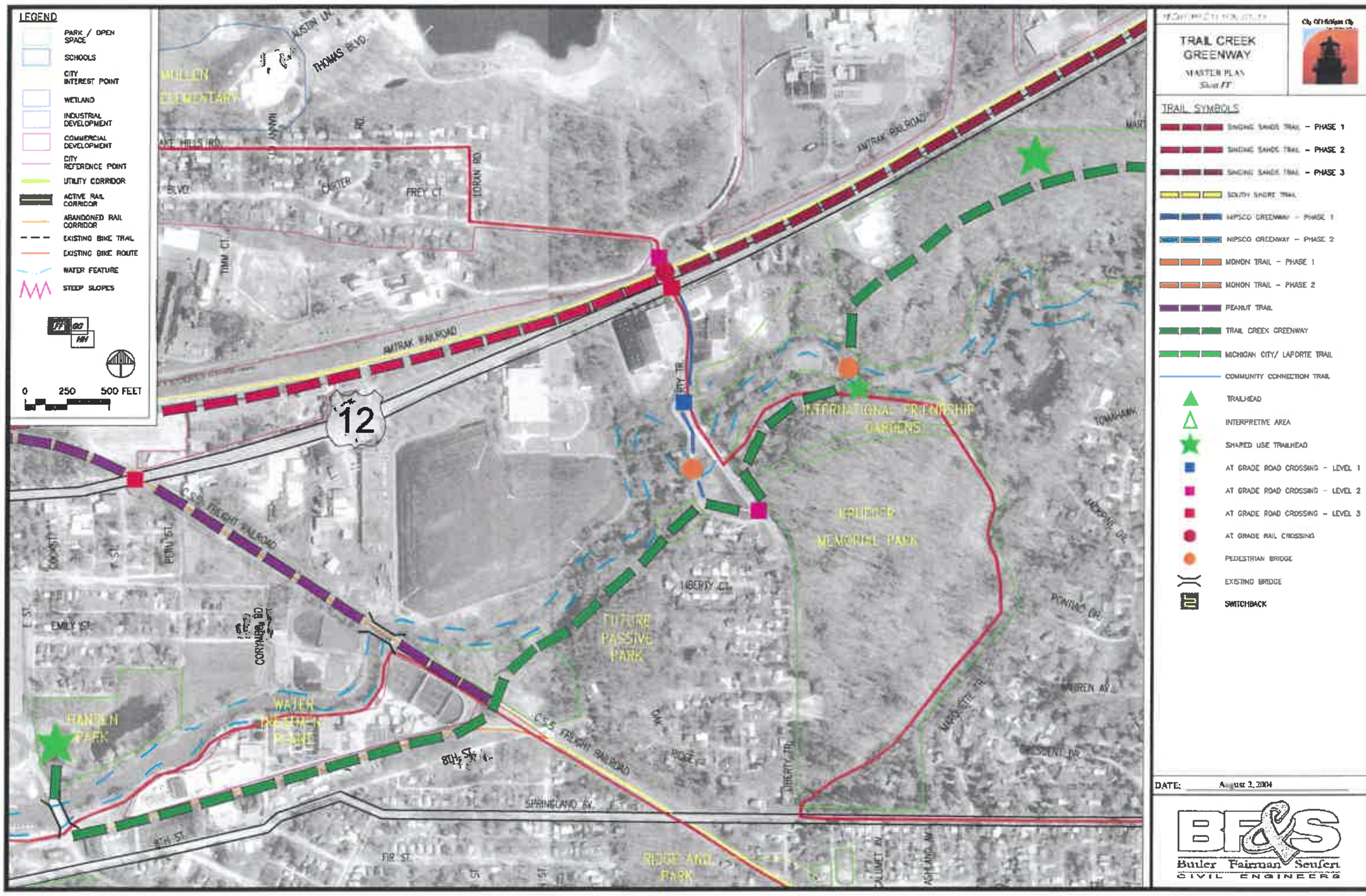
Once on International Friendship Garden's Property, Trail Creek Greenway will follow the Wilderness Trail north for a very short distance to reach the Old Indian Trail. It will then proceed north and then eventually east along the Old Indian trail to the north east corner of International Friendship Garden's Property.

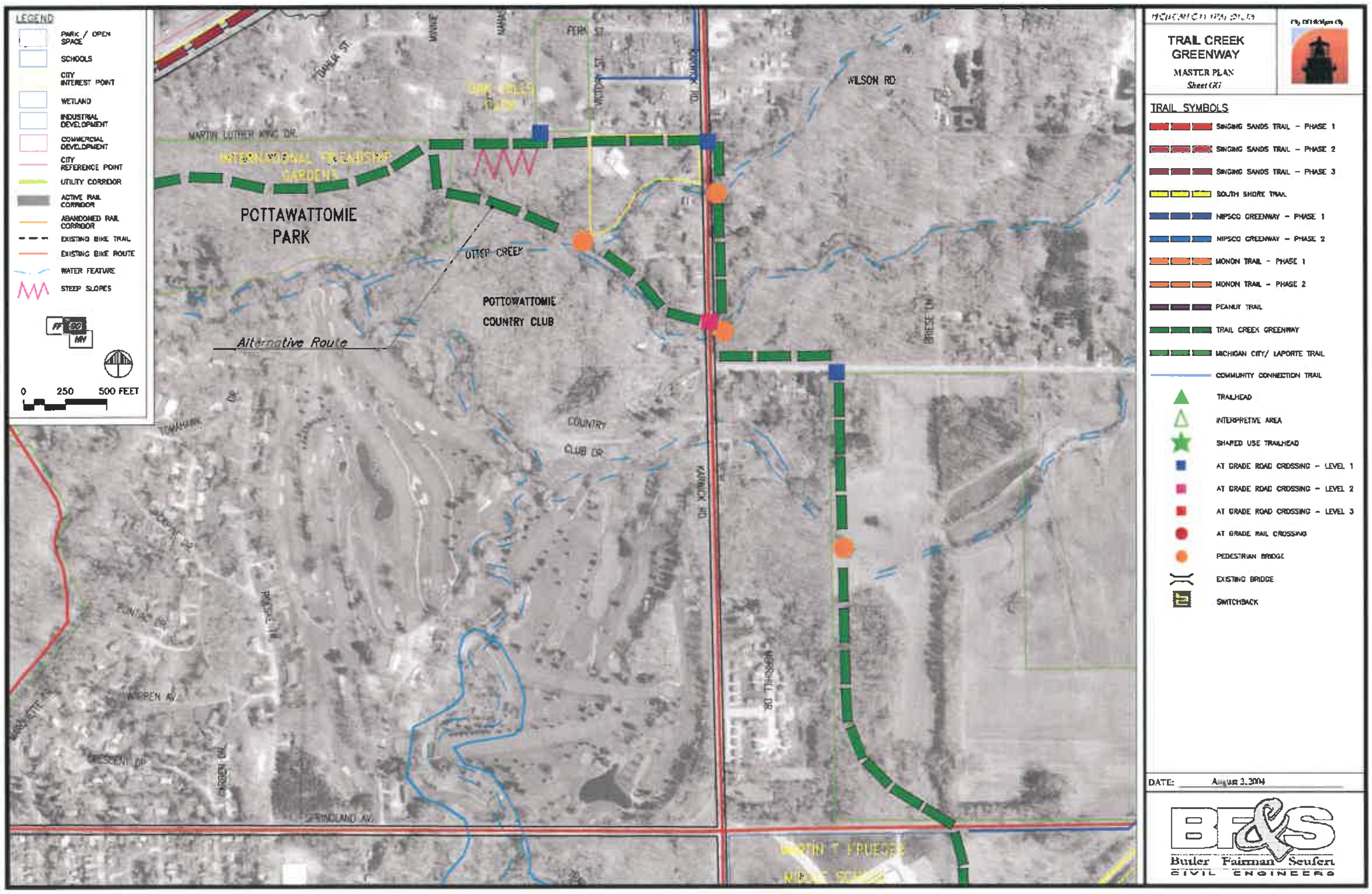
Trail Creek Greenway will then proceed east in the south right-of way of Martin Luther King Drive to reach Karwick Road. The Greenway will then cross Karwick road to use the existing right-of way on the east side to proceed southward towards Tryon Road. This route would make connections to Oak Hills Park and the Martin Luther King Community Center both located along Martin Luther King Drive. A disadvantage to this route is placing the greenway right along the road and some retaining wall construction along Martin Luther King Drive.

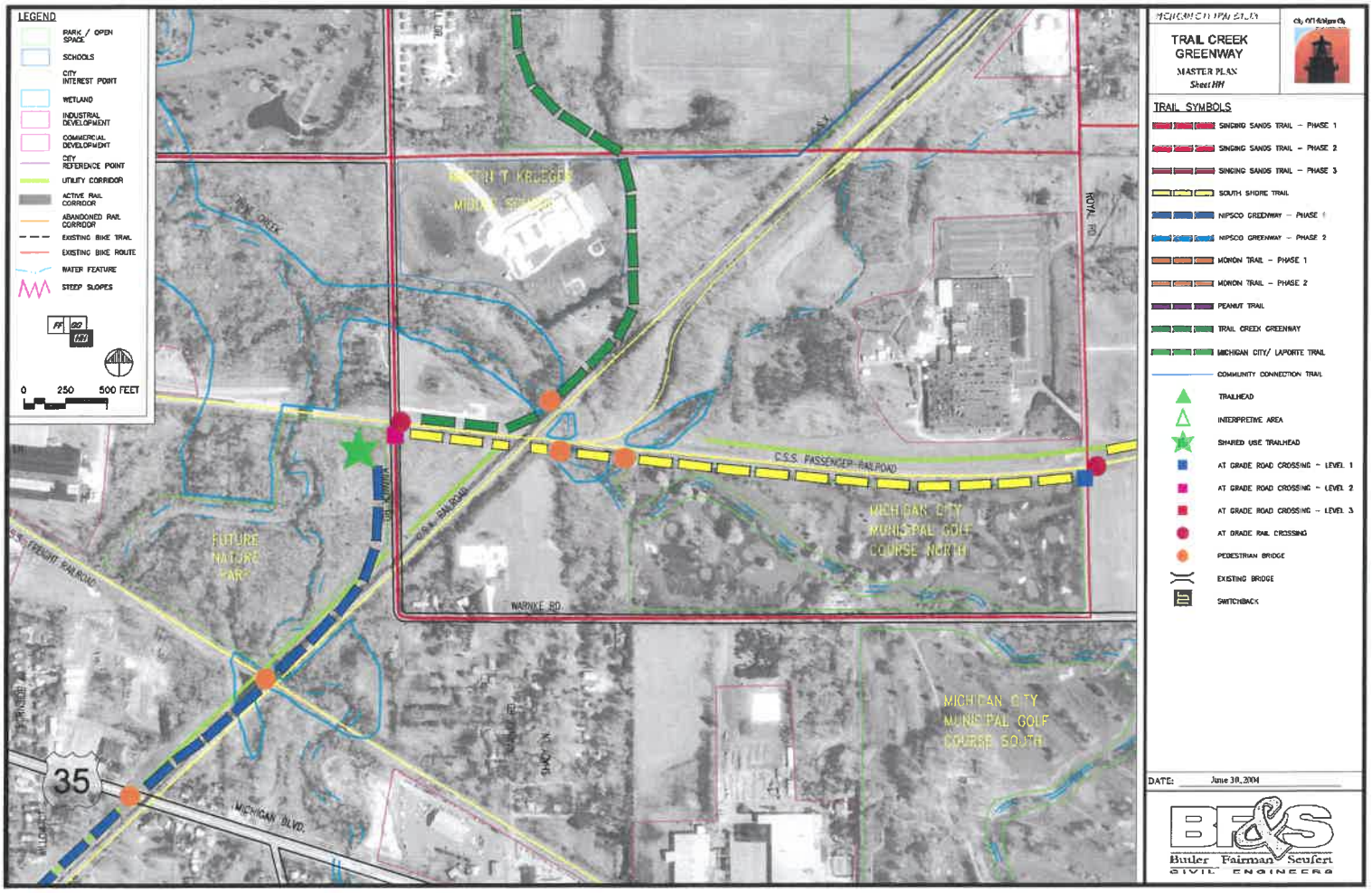
An alternative to this route would be to stay on International Friendship Garden's Property and head south along their Otter Creek Trail for a short distance. The Greenway would then proceed east along an existing informal trail to reach Otter Creek. A creek crossing would have to be constructed and then the greenway would use the Werner property to reach Karwick Road. The Greenway would cross Karwick Road and head south for a very short distance to Tryon Road. The advantage to this route would be staying in a very natural setting. The disadvantages would be wetland construction and land acquisition.

At Tryon Road the greenway will head east for a short stretch and then head south again along the west property line of the city owned cemetery site. It will then make a slight shift to the east property line of Martin T. Krueger Middle school before heading back southwest along the C.S.S Passenger Railroad line. The Trail Creek Greenway will cross the C.S.S Passenger Railroad at Karwick Road and then terminate at the future Nature Park Site.

The following maps illustrate the proposed route for the Trail Creek Greenway.


LEGEND
PARK / OPEN SPACE
SCHOOLS
CITY INTEREST POINT
WETLAND
INDUSTRIAL DEVELOPMENT
COMMERCIAL DEVELOPMENT
CITY REFERENCE POINT
UTILITY CORRIDOR
ACTIVE RAIL CORRIDOR
ABANDONED RAIL CORRIDOR
EXISTING BIKE TRAIL
EXISTING BIKE ROUTE
WATER FEATURE
STEEP SLOPES
FF
GG
HH
0
250
500 FEET
MULLEN ELEMENTARY
THOMAS BLVD.
AUSTIN LN.
OAK HILLS RD.
CARTER
FREY CT.
LORAN RD.
AMTRAK RAILROAD
12
C.S.S. FREIGHT RAILROAD
INTERNATIONAL FRIENDSHIP GARDENS
KRUEGER MEMORIAL PARK
LIBERTY CT.
FUTURE PASSIVE PARK
CORYMBUS RD
EMILY ST.
FERN ST.
WATER TREATMENT PLANT
HANSEN PARK
8TH ST.
SPRINGLAND AV.
FIR ST.
RIDGE AND PARK
TOMAHAWK
PONTIAC DR.
MARQUETTE TR.
WARREN AV.
CRESCENT DR.
LIBERTY TR.
TRAIL CREEK GREENWAY
MASTER PLAN
Sheet FF
City Of Michigan City
TRAIL SYMBOLS
SINGING SANDS TRAIL - PHASE 1
SINGING SANDS TRAIL - PHASE 2
SINGING SANDS TRAIL - PHASE 3
SOUTH SHORE TRAIL
NIPSCO GREENWAY - PHASE 1
NIPSCO GREENWAY - PHASE 2
MONON TRAIL - PHASE 1
MONON TRAIL - PHASE 2
PEANUT TRAIL
TRAIL CREEK GREENWAY
MICHIGAN CITY/ LAPORTE TRAIL
COMMUNITY CONNECTION TRAIL
TRAILHEAD
INTERPRETIVE AREA
SHARED USE TRAILHEAD
AT GRADE ROAD CROSSING - LEVEL 1
AT GRADE ROAD CROSSING - LEVEL 2
AT GRADE ROAD CROSSING - LEVEL 3
AT GRADE RAIL CROSSING
PEDESTRIAN BRIDGE
EXISTING BRIDGE
SWITCHBACK
DATE: August 2, 2004
BF&S
Butler Fairman Seufert
CIVIL ENGINEERS


LEGEND
PARK / OPEN SPACE
SCHOOLS
CITY INTEREST POINT
WETLAND
INDUSTRIAL DEVELOPMENT
COMMERCIAL DEVELOPMENT
CITY REFERENCE POINT
UTILITY CORRIDOR
ACTIVE RAIL CORRIDOR
ABANDONED RAIL CORRIDOR
EXISTING BIKE TRAIL
EXISTING BIKE ROUTE
WATER FEATURE
STEEP SLOPES
0 250 500 FEET
MARTIN LUTHER KING DR.
INTERNATIONAL FRIENDSHIP GARDENS
POTTAWATTOMIE PARK
OTTER CREEK
POTTAWATTOMIE COUNTRY CLUB
Alternative Route
FERN ST.
WILSON RD
COUNTRY CLUB DR.
KARWICK RD
SPRINGLAND AV.
WARREN AV.
CRESCENT DR.
TRAIL CREEK GREENWAY
MASTER PLAN
TRAIL SYMBOLS
SINGING SANDS TRAIL - PHASE 1
SINGING SANDS TRAIL - PHASE 2
SINGING SANDS TRAIL - PHASE 3
SOUTH SHORE TRAIL
NIPSCO GREENWAY - PHASE 1
NIPSCO GREENWAY - PHASE 2
MONON TRAIL - PHASE 1
MONON TRAIL - PHASE 2
PEANUT TRAIL
TRAIL CREEK GREENWAY
MICHIGAN CITY/ LAPORTE TRAIL
COMMUNITY CONNECTION TRAIL
TRAILHEAD
INTERPRETIVE AREA
SHARED USE TRAILHEAD
AT GRADE ROAD CROSSING - LEVEL 1
AT GRADE ROAD CROSSING - LEVEL 2
AT GRADE ROAD CROSSING - LEVEL 3
AT GRADE RAIL CROSSING
PEDESTRIAN BRIDGE
EXISTING BRIDGE
SWITCHBACK
DATE: August 3, 2004
BF&S
Butler Fairman Seufert
CIVIL ENGINEERS

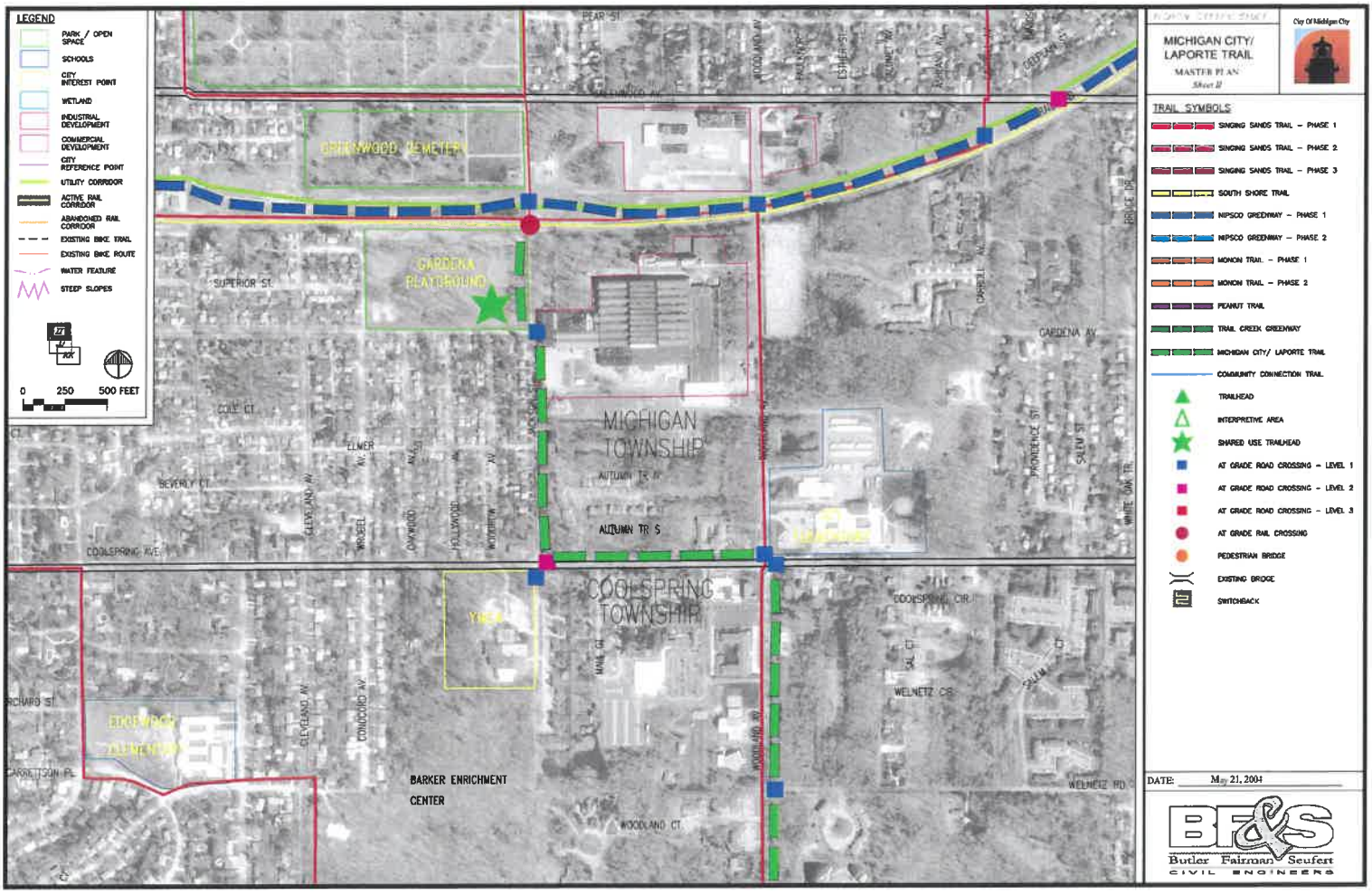

LEGEND
PARK / OPEN SPACE
SCHOOLS
CITY INTEREST POINT
WETLAND
INDUSTRIAL DEVELOPMENT
COMMERCIAL DEVELOPMENT
CITY REFERENCE POINT
UTILITY CORRIDOR
ACTIVE RAIL CORRIDOR
ABANDONED RAIL CORRIDOR
EXISTING BIKE TRAIL
EXISTING BIKE ROUTE
WATER FEATURE
STEEP SLOPES
0 250 500 FEET
MARTIN T KRUEGER MIDDLE SCHOOL
TRAIL CREEK
ROYAL RD
C.S.S. PASSENGER RAILROAD
C.S.S. RAILROAD
C.S.S. FREIGHT RAILROAD
FUTURE NATURE PARK
MICHIGAN CITY MUNICIPAL GOLF COURSE NORTH
MICHIGAN CITY MUNICIPAL GOLF COURSE SOUTH
WARNKE RD
MICHIGAN BLVD.
35
MICHIGAN CITY PLAN
TRAIL CREEK GREENWAY
MASTER PLAN
Sheet HH
TRAIL SYMBOLS
SINGING SANDS TRAIL – PHASE 1
SINGING SANDS TRAIL – PHASE 2
SINGING SANDS TRAIL – PHASE 3
SOUTH SHORE TRAIL
NIPSCO GREENWAY – PHASE 1
NIPSCO GREENWAY – PHASE 2
MORON TRAIL – PHASE 1
MORON TRAIL – PHASE 2
PEANUT TRAIL
TRAIL CREEK GREENWAY
MICHIGAN CITY/ LAPORTE TRAIL
COMMUNITY CONNECTION TRAIL
TRAILHEAD
INTERPRETIVE AREA
SHARED USE TRAILHEAD
AT GRADE ROAD CROSSING – LEVEL 1
AT GRADE ROAD CROSSING – LEVEL 2
AT GRADE ROAD CROSSING – LEVEL 3
AT GRADE RAIL CROSSING
PEDESTRIAN BRIDGE
EXISTING BRIDGE
SWITCHBACK
DATE: June 30, 2004
BF&S
Butler Fairman Seufert
CIVIL ENGINEERS

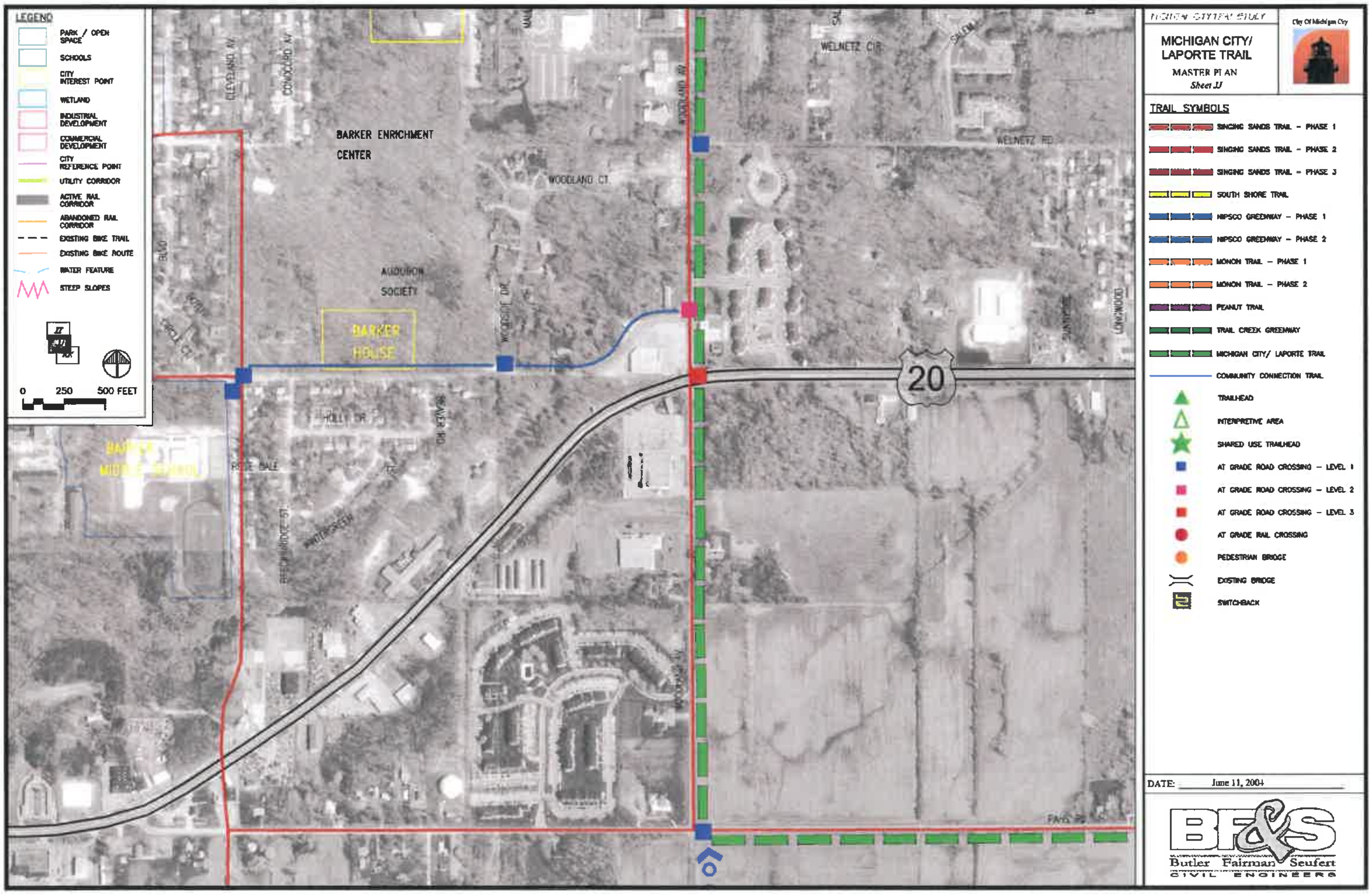
MICHIGAN CITY/ LAPORTE TRAIL

The original Michigan City / LaPorte route studied was deemed to be no longer feasible due to future railroad operations. This meant that a new route had to be found to accomplish the same goals. This route represents that new trail. It will be approximately 2.3 miles in length. It will begin at the NIPSCO Greenway's intersection with Jackson St. It will then proceed southward in the western right-of-way of Jackson St. until it reaches Gardena playground. It will then utilize the park property to head south before reaching Gardena Ave. and then cross Jackson St. to be in the eastern right-of-way. The trail will proceed south on Jackson St. until it reaches Coolspring Ave. Here it will head east along the north right-of-way of Coolsrping Ave. and then cross Woodland Ave. After crossing Woodland Avenue the trail will follow it south along its eastern right-of-way to Pahs Road. Once reaching Pahs Road, the trail will head east along the southern right-of-way. The trail will terminate at the Michigan City High School.

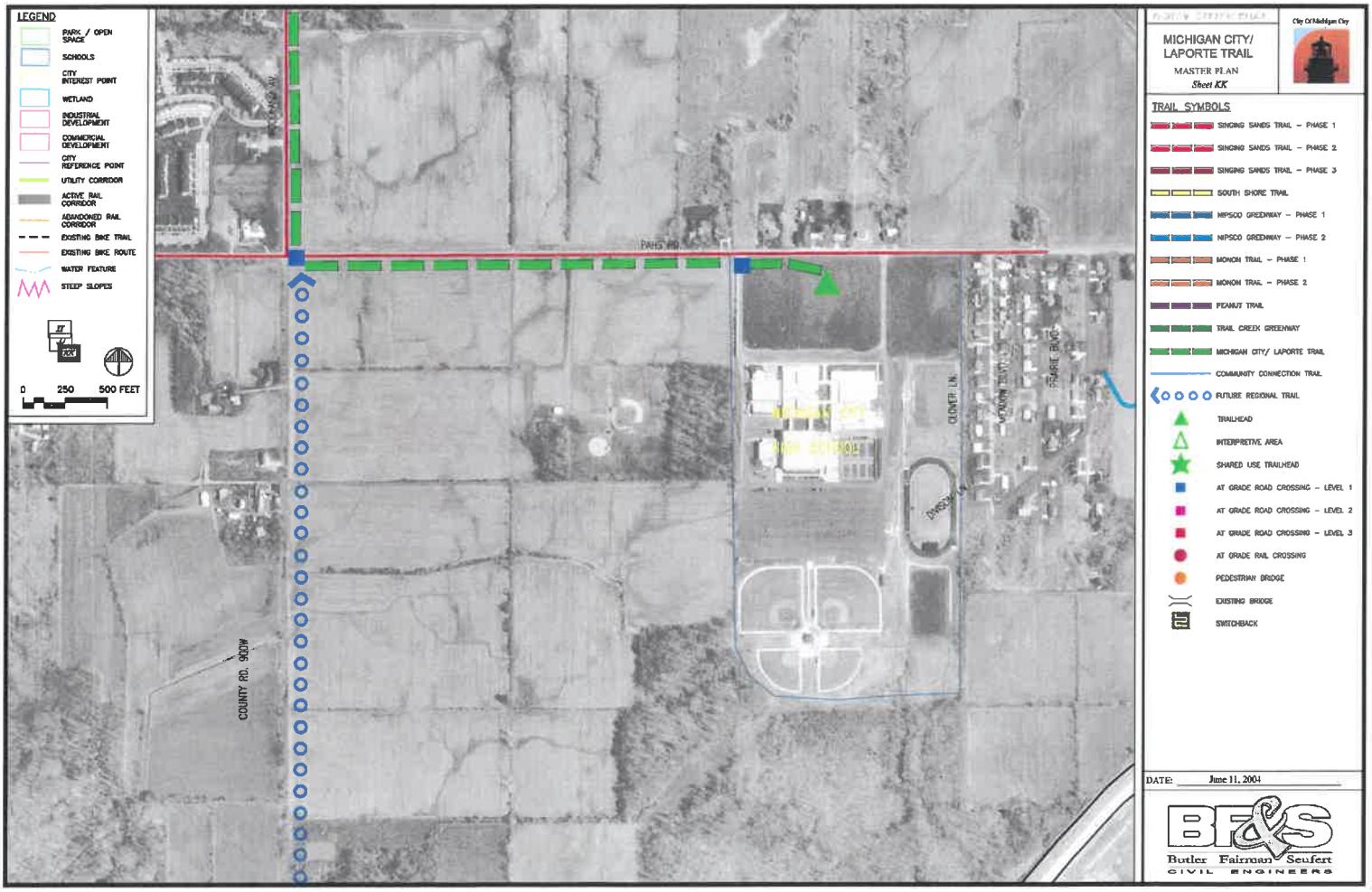
This route was chosen to establish a link to Southeastern LaPorte County and the Michigan City High School. It will make connections to the NIPSCO Greenway, Gardena Playground, Historic Barker House, Barker Middle School, Joy Elementary, Michigan City High School, and several neighborhoods.

The following maps illustrate the proposed route for the Michigan City/ LaPorte Trail.


LEGEND
PARK / OPEN SPACE
SCHOOLS
CITY INTEREST POINT
WETLAND
INDUSTRIAL DEVELOPMENT
COMMERCIAL DEVELOPMENT
CITY REFERENCE POINT
UTILITY CORRIDOR
ACTIVE RAIL CORRIDOR
ABANDONED RAIL CORRIDOR
EXISTING BIKE TRAIL
EXISTING BIKE ROUTE
WATER FEATURE
STEEP SLOPES
0 250 500 FEET
MICHIGAN CITY/ LAPORTE TRAIL
MASTER PLAN
Sheet II
City Of Michigan City
TRAIL SYMBOLS
SINGING SANDS TRAIL - PHASE 1
SINGING SANDS TRAIL - PHASE 2
SINGING SANDS TRAIL - PHASE 3
SOUTH SHORE TRAIL
NIPSCO GREENWAY - PHASE 1
NIPSCO GREENWAY - PHASE 2
MONON TRAIL - PHASE 1
MONON TRAIL - PHASE 2
PEANUT TRAIL
TRAIL CREEK GREENWAY
MICHIGAN CITY/ LAPORTE TRAIL
COMMUNITY CONNECTION TRAIL
TRAILHEAD
INTERPRETIVE AREA
SHARED USE TRAILHEAD
AT GRADE ROAD CROSSING - LEVEL 1
AT GRADE ROAD CROSSING - LEVEL 2
AT GRADE ROAD CROSSING - LEVEL 3
AT GRADE RAIL CROSSING
PEDESTRIAN BRIDGE
EXISTING BRIDGE
SWITCHBACK
DATE: May 21, 2004
BF&S
Butler Fairman Seufert
CIVIL ENGINEERS
PEAR ST
GREENWOOD CEMETERY
GARDENA PLAYGROUND
SUPERIOR ST
GARDENA AV
MICHIGAN TOWNSHIP
AUTUMN TR N
AUTUMN TR S
COLE CT
ELMER AV
BEVERLY CT
COOLSPRING AVE
COOLSPRING TOWNSHIP
YMCA
COOLSPRING CIR
WELNETZ CS
WELNETZ RD
RICHARD ST
BIRCHWOOD CEMETERY
CARRETTSON PL
BARKER ENRICHMENT CENTER
WOODLAND CT
CLEVELAND AV
CONCORD AV
WOODLAND AV
PROVIDENCE ST
SALEM ST
WHITE OAK TR



LEGEND
PARK / OPEN SPACE
SCHOOLS
CITY INTEREST POINT
WETLAND
INDUSTRIAL DEVELOPMENT
COMMERCIAL DEVELOPMENT
CITY REFERENCE POINT
UTILITY CORRIDOR
ACTIVE RAIL CORRIDOR
ABANDONED RAIL CORRIDOR
EXISTING BIKE TRAIL
EXISTING BIKE ROUTE
WATER FEATURE
STEEP SLOPES
0
250
500 FEET
BARKER ENRICHMENT CENTER
AUDUBON SOCIETY
BARKER HOUSE
WOODLAND CT
WELNETZ CIR
WELNETZ RD
20
MICHIGAN CITY/ LAPORTE TRAIL
MASTER PLAN
Sheet JJ
City Of Michigan City
TRAIL SYMBOLS
SINGING SANDS TRAIL - PHASE 1
SINGING SANDS TRAIL - PHASE 2
SINGING SANDS TRAIL - PHASE 3
SOUTH SHORE TRAIL
NIPSCO GREENWAY - PHASE 1
NIPSCO GREENWAY - PHASE 2
MONON TRAIL - PHASE 1
MONON TRAIL - PHASE 2
PEANUT TRAIL
TRAIL CREEK GREENWAY
MICHIGAN CITY/ LAPORTE TRAIL
COMMUNITY CONNECTION TRAIL
TRAILHEAD
INTERPRETIVE AREA
SHARED USE TRAILHEAD
AT GRADE ROAD CROSSING - LEVEL 1
AT GRADE ROAD CROSSING - LEVEL 2
AT GRADE ROAD CROSSING - LEVEL 3
AT GRADE RAIL CROSSING
PEDESTRIAN BRIDGE
EXISTING BRIDGE
SWITCHBACK
DATE: June 11, 2004
BF&S
Butler Fairman Seufert
CIVIL ENGINEERS


LEGEND
PARK / OPEN SPACE
SCHOOLS
CITY INTEREST POINT
WETLAND
INDUSTRIAL DEVELOPMENT
COMMERCIAL DEVELOPMENT
CITY REFERENCE POINT
UTILITY CORRIDOR
ACTIVE RAIL CORRIDOR
ABANDONED RAIL CORRIDOR
EXISTING BIKE TRAIL
EXISTING BIKE ROUTE
WATER FEATURE
STEEP SLOPES
0 250 500 FEET
PARIS RD
COUNTY RD. 900W
CLOVER LN.
PRAIRIE BLVD
MICHIGAN CITY/ LAPORTE TRAIL
MASTER PLAN
Sheet K/K
City Of Michigan City
TRAIL SYMBOLS
SINGING SANDS TRAIL – PHASE 1
SINGING SANDS TRAIL – PHASE 2
SINGING SANDS TRAIL – PHASE 3
SOUTH SHORE TRAIL
NIPSCO GREENWAY – PHASE 1
NIPSCO GREENWAY – PHASE 2
MONON TRAIL – PHASE 1
MONON TRAIL – PHASE 2
PEANUT TRAIL
TRAIL CREEK GREENWAY
MICHIGAN CITY/ LAPORTE TRAIL
COMMUNITY CONNECTION TRAIL
FUTURE REGIONAL TRAIL
TRAILHEAD
INTERPRETIVE AREA
SHARED USE TRAILHEAD
AT GRADE ROAD CROSSING – LEVEL 1
AT GRADE ROAD CROSSING – LEVEL 2
AT GRADE ROAD CROSSING – LEVEL 3
AT GRADE RAIL CROSSING
PEDESTRIAN BRIDGE
EXISTING BRIDGE
SWITCHBACK
DATE: June 11, 2004
B&S
Butler Fairman Seufert
CIVIL ENGINEERS

PROJECT*design guidelines*

Due to the scope, overall size, and cost associated with the trails addressed in the Michigan City Greenways Master Plan, it may take several years to complete each trail. Completion of all of the trails will likely take 10 to 15 years, or more. Therefore, it is important to establish a set of guidelines that will help maintain consistency throughout development.

The following recommended guidelines will help to establish quality standards for trail materials and trail facilities. Guidelines have been established for trail surface and width, separation from railroads, trailheads and access points, trail bridges, trail and street intersections, trail and railroad intersections, signage, site furnishings, and landscaping.

Project Design Objectives:
In order to maintain consistency of focus during the planning process, it was important to establish a set of goals and objectives for the implementation of each trail and the development of design guidelines. The Project Design Objectives for the Michigan City Greenways Master Plan are:

Link community neighborhoods to parks, schools, libraries, existing regional trails, city interest points, and natural areas, thereby increasing citizens' opportunities to experience these resources.

Preserve environmental resources along the corridor through responsible development and ecologically sound design.

Provide universal access to recreational opportunities for all visitors and residents of Michigan City.

Provide trail users with a pleasant and safe experience.

Promote and educate citizens about unique features and resources in their community.

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

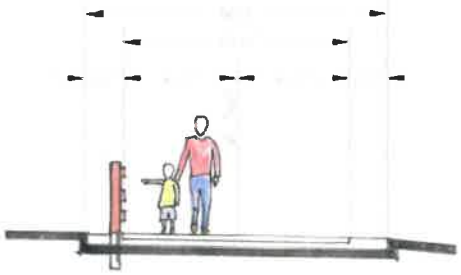
A multi-use trail will provide a safe way for people to enjoy the attractions of the community, get outdoors, enjoy greenspaces, and think about promoting stewardship of the environment.

This will not only increase bicycling safety and encourage fitness, but also improve the overall quality of life. The development of the Michigan City Greenways shows that the city is committed to offering alternative transportation as well as promoting fitness and increasing recreation opportunities. The Greenways will enhance the communities, make them more attractive, improve property values, and increase the tax base.

Multi-use Trail
Clear Creek Trail, Bloomington

TRAIL TYPE

It is recommended that each trail 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 a multi-use path 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. This means that the trails will have to be wide enough to accommodate two way travel of each use. In order to allow accessibility to each use, the trail surface must be adequate and slopes must follow the Americans with Disabilities Act (ADA).



Typical Trail Section

TRAIL WIDTH

AASHTO recommends a width of 10 feet for shared used-paths, with 2-foot wide graded shoulders on either side of the trail. However, when a higher number of users are anticipated, a 12-foot wide trail with shoulders should be employed. This allows for two 6-foot wide lanes that will accommodate several different types of users.

Therefore the design team recommends using a 12-foot wide trail with 2-foot shoulders wherever possible. The minimum trail width allowed is 8-foot with 1-foot shoulder. This should only be used under very special circumstances.

Multi-Use Trail
West Lafayette, IN.

TRAIL SURFACE

The biggest concern with trail surfacing is accommodating a variety of trail users. While crushed stone is less expensive to construct and is more forgiving for runners and walkers, it does not accommodate all trail users. It is non-traversable for in-line skaters and can be difficult for people in wheel chairs. Asphalt, on the other hand, can accommodate all types of users, and even though initial construction costs are higher, it lasts longer and requires less maintenance.

Surfacing for trail shoulders was also considered. Shoulders should help to provide safety and stability to those users who step or ride off the paved portion of the trail. It also provides extra width for emergency and maintenance vehicles. A crushed stone shoulder provides the stability necessary while helping to define a clear edge to the corridor.

Therefore, it is recommended that the majority of trails in Michigan City be asphalt with crushed stone shoulders.

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 floodway 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.

DNR PERMITTING PROCESS

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. A trail section and multiple bridges can be constructed under one permit provided they all occur within the same tributary. Also, each additional phase will require a separate permit even if construction occurs along the same tributary.

Trail routing and design may be affected by DNR permitting and regulations in the following locations:

Singing Sands Lighthouse Trail:
- 1) Phase 1……..NA
- 2) Phase 2……..NA
- 3) Phase 3……..1 Permit

South Shore Trail:
- 1)……..2 Permits

NIPSCO Greenway:
- 1) Phase 1……..3 Permits
- 2) Phase 2……..1 Permit

MONON Trail:
- 1) Phase 1……...NA
- 2) Phase 2……1 Permit

Peanut Trail:
- 1)……..NA

Trail Creek Greenway:
- 1)……..3 Permits

Michigan City / LaPorteTrail:
- 1)……..NA

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 the 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.


Major Trailhead Example - Erie Lackawanna Trail
in Griffith, Indiana


Major Trailhead Example – Clear Creek
In Bloomington, Indiana


Major Trailhead Example – Monon Trail
In Carmel, Indiana

TRAIL SUPPORT FACILITIES:

Providing accessibility to all users at key locations throughout the city is important to the success of each trail. Along with accessibility, users require that the trail have certain facilities to meet the needs of its use. These support facilities can be broken down into four categories: *major trailheads, shared use trail heads, minor trail heads, and community access points.*

Major Trailheads:

Major trailheads provide the greatest amount of amenities to trail users and are recognizable points of access. They are like 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 scope and type of facilities normally required for a major trailhead, it is difficult to locate them within the narrow constraints of a trail corridor. Typically it is necessary to find parcels of land adjacent to the corridor for development. These can be city-owned, such as parks or street right of-way, or privately-owned properties that are created and operated with the owner's cooperation. These usually require the development of all new amenities for trail users' needs.

Potential *Singing Sands Major Trailheads:*
1) NA

Potential *South Shore Major Trailheads*:
1) Meer Road

Potential *NIPSCO Major Trailheads:*
1) Ames Field
2) Tryon Road (Nieman Elementary)

Potential *Monon Major Trailheads:*
1) Kiefer Road

Potential Peanut *Major Trailheads:*
1) NA

Potential Trail Creek *Major Trailheads:*
1) NA

Potential Michigan City/ LaPorte *Major Trailheads:*
1) Michigan City High School

Shared Use Trailhead Example - Twigg Rest Park
In Terre Haute, Indiana

Shared Use Trailhead Example – Friendship Gardens
In Plainfield, Indiana

Minor Trailhead Example –
Whitelick Creek in Plainfield, Indiana

Shared Use Trailheads:
Shared use trailheads are similar to major trailheads except they share amenities with other existing or potential uses. They are usually city owned and in many cases need only to have their amenities slightly upgraded in order to meet trail users' needs.

Potential *Singing Sands Shared Use Trailheads:*
1) Washington Park

Potential *South Shore Shared Use Trailheads*:
1) Future Nature Park

Potential *NIPSCO Shared Use Trailheads:*
1) Future Nature Park

Potential *Monon Shared Use Trailheads:*
1) Future Retention Pond and Recreation Area (Hitchcock St. and Earl Rd.)

Potential *Peanut Shared Use Trailheads:*
1) NA

Potential *Trail Creek Shared Use Trailheads:*
1) Hansen Park
2) Future Nature Park
3) Oak Hills Park

Potential *Michigan City/ LaPorte Shared Use Trailheads:*
1) Gardena Playground

Minor Trailheads:

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

Minor Trailhead Example – Clear Creek in Bloomington, Indiana

Potential *Singing Sands Minor Trailheads:*

1) NIPSCO Interpretive Area (U.S. 12 and Amtrak intersection)
2) Depot Interpretive Area
3) Dune Interpretive Area (Krueger Hill)
4) Meer Rd. (End of Phase 3)

Potential *South Shore Minor Trailheads*:

1) None

Potential *NIPSCO Minor Trailheads:*

1) Dune Interpretive Area
2) Monon Trail Intersection (Interpretive Area)

Potential *Monon Minor Trailheads:*

1) NIPSCO Greenway Intersection (Interpretive Area)

Potential *Peanut Minor Trailheads:*

1) Trail Creek Greenway Intersection (Future Passive Park and the Peanut Bridge)

Potential *Trail Creek Minor Trailheads:*

1) Peanut Trail intersection (Future Passive Park and the Peanut Bridge)

Potential *Michigan City/ LaPorte Minor Trailheads:*

1) None

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). It is the most frequently occurring type of support facility and provides citizens of adjacent neighborhoods access to the trail. Community Access Points simply provide an informal and direct access between community and trail much like the driveway connects to the street.

They are important in fostering a community's adoption of the trail and getting trail users to respect the rights of private property owners by establishing designated points of access.

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 *Singing Sands Community Access Points:*

1) NIPSCO Greenway Intersection
2) Lake Shore Drive and Center Street (End of Phase 1)
3) Liberty Trail Intersection (Krueger Memorial Park Connection Trail)
4) Karwick Plaza (Oak Hills Park Connection Trail)

Potential *South Shore Community Access Points:*

1) State Road 212

Potential *NIPSCO Community Access Points:*

1) Martin T. Krueger Middle School (Community Connection Trail)

Potential *Monon Community Access Points:*

1) U.S. 20 (Marquette Mall Connection Point)
2) North side of Earl Road (Knapp School and Neighborhood Connection Point)
3) Lighthouse Place Mall

Potential *Peanut Community Access Points:*

1) Future Passive Park Access

Potential *Trail Creek Community Access Points:*

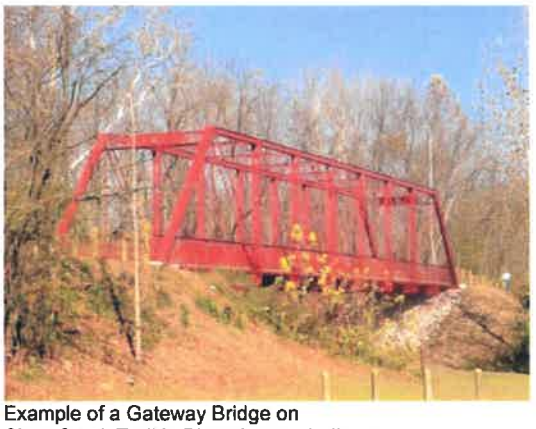
1) Future Passive Park Access
2) Martin T. Krueger Middle School (Community Connection Trail)
3) Liberty Trail Community Connection Trail

Potential *Michigan City/ LaPorte Community Access Points:*

1) Barker Rd. (Community Connection Trail)
2) YMCA

Example of a Standard Bridge on the Monon Trail in Indianapolis, Indiana

Example of a Standard Bridge on the Monon Trail in Indianapolis, Indiana



Example of a Gateway Bridge on Clear Creek Trail in Bloomington, Indiana

BRIDGE DESIGN STANDARDS

All bridges will be designed for bicycle and pedestrian traffic. Due to maintenance and emergency needs the bridges will occasionally need to be used by light vehicular traffic, such as passenger vehicles and light trucks. Therefore, the structural design will be based on a five-ton vehicular loading.

The width of the finished deck surface will be 10 feet, if possible. Eight feet shall be the minimum width allowed for each bridge. The deck should be a structural concrete slab or timber decking spanning between superstructure members on all standard bridges. Timber decks are generally appropriate 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 the existing structure as indicated by each bridge's configuration. Where bridges cross roadways, an enclosure or high fence should be considered to prevent objects from 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

Example of a Gateway Bridge,
Dunn's Bridge, Porter County

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 crossing over Michigan Blvd.

Example of a Street Crossing-
Monon Trail in Carmel, Indiana.

STREET INTERSECTION DESIGN

Each 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 by trail users. 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 Michigan City and LaPorte County should ensure the proper design and layout of traffic control devices necessary to warn vehicular traffic on public streets of trail crossings.

Most street crossings will occur at-grade except for a Gateway Bridge over Michigan Blvd. At all street crossings the street traffic will have the right-of-way and trail users will have to stop and yield.

The team devised three different types of street crossing treatments to deal with the various at-grade crossings throughout Michigan City.

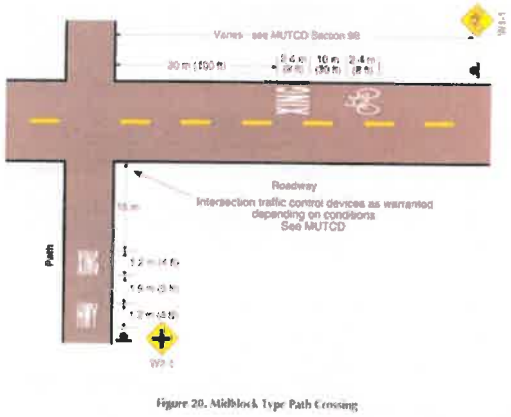


Figure 20. Midblock Type Path Crossing

Example of an at-grade Crossing Level 1 -
'Guide for the Development of Bicycle Facilities' – AASHTO 1999

At-Grade Road Crossing - Level 1:

- Used on local roads with a maximum of two lanes. Speed limit should be under 40mph.
- Warning Signs of an upcoming intersection will be placed on the trail approximately 400 feet before the intersection.
- Cross rails forcing trail users to come to a complete stop before crossing the street.
- Stop sign along the trail placed approximately 10 feet from the edge of the street.
- Advance warning signs placed along the street approximately 500 ft. before the trail crossing.

- Crosswalk pavement markings at crossing point.
- "Trail Xing" markings on the roadway
- No Motor Vehicles signs placed facing the street at all trail intersections

Example of an at-grade Crossing Level 2- Monon Trail in Carmel, Indiana

At-Grade Road Crossing - Level 2:

- Used on all roads with a maximum of two lanes and speed limit is over 40mph.
- All treatments of a Level 1 Road Crossing Apply
- Overhead flashing yellow warning signal

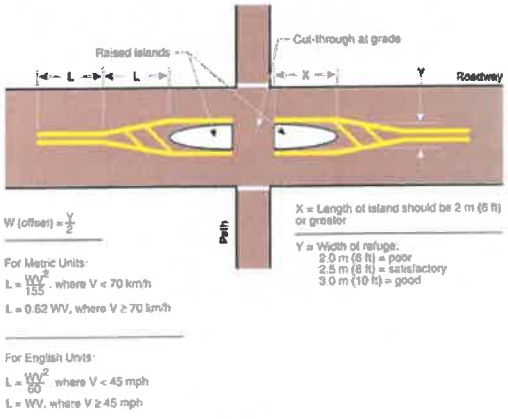


Figure 23. Specification for a Created Refuge Area

Example of a Midblock Crossing Level 3 – 'Guide for the Development of Bicycle Facilities' – AASHTO 1999

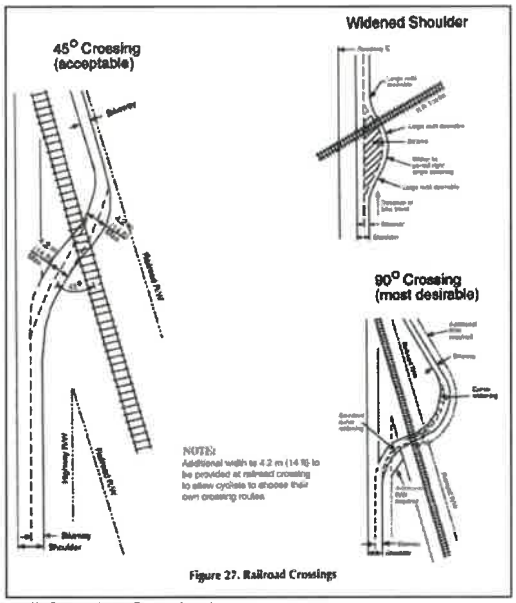
At Grade Road Crossing - Level 3:

- Used on all roads where there are more than two lanes of travel and a speed limit above 40mph.
- All treatments of a Level 2 Crossing apply
- Median refuge areas allow trail users to cross one direction of traffic at a time (additional street right-of-way may be required)

Existing Rubber Panel, Rail Crossing - Amtrak Rail Line in Michigan City, Indiana

RAILROAD INTERSECTION DESIGN

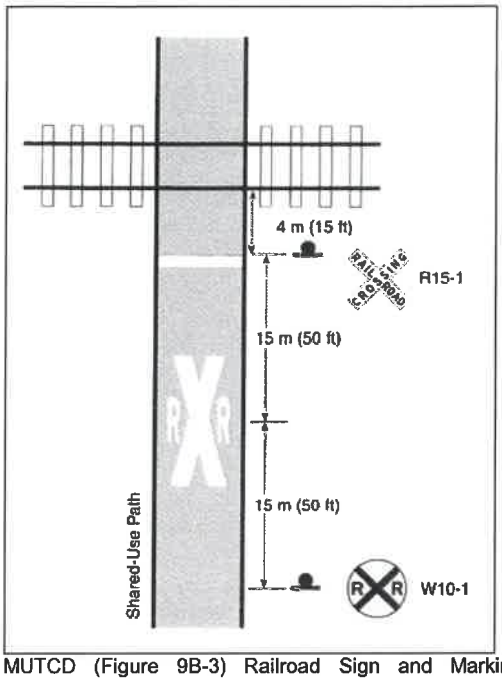
Due to the speed of train travel, sight distance needed to stop a train, and regulatory stipulations, it is recommended that wherever possible rail crossings occur at already existing road crossings. If an existing road crossing is not available then a bridge or tunnel may have to be utilized. Railroad crossings will follow the guidelines established in the Federal Highway Administration's 'Railroad-Highway Grade Crossing Handbook – 2nd Edition FHWA-TS-86-215', AASHTO, the MUTCD, and the requirements and specifications of the individual railroad companies.



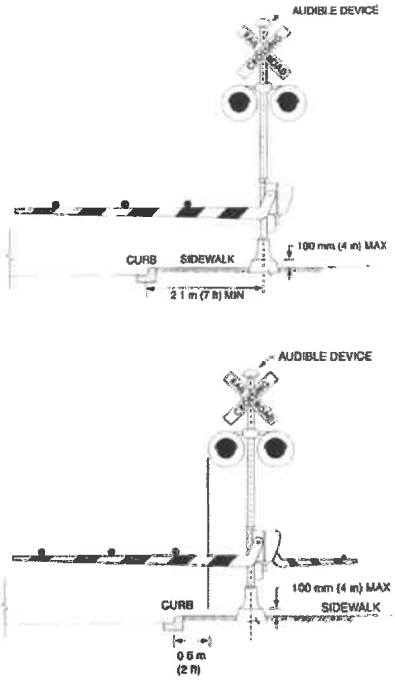
Rail Crossing Standards
'Guide for the Development of Bicycle Facilities' – AASHTO 1999

The team advises the following treatments as a minimum for railroad crossings:

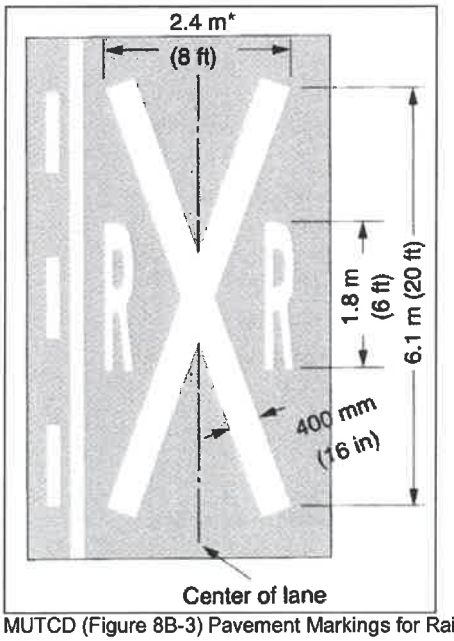
- A rubber panel crossing will be used with an asphalt approach.
- A rail warning sign shall be placed a minimum of 115ft from the nearest rail
- A Crossbuck sign will be placed 15ft from the nearest rail and shall have a sign denoting number of track crossings.
- Where existing gate arms exist a new pedestrian gate shall be placed if the path must go outside the post.
- A 24" stop bar will be placed approximately 15ft. from the nearest rail.
- The trail will have a minimum 45 degree skew from the center line of the rail with 90 degrees being desirable.
- The trail pavement width will be widened from 12 ft. to 14ft.
- Railroad pavement markings will be placed adjacent to the rail warning sign.



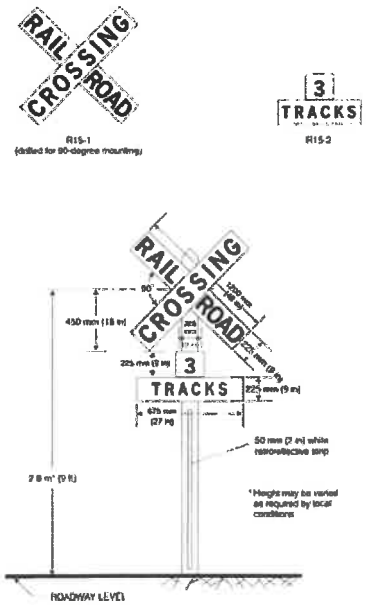
MUTCD (Figure 9B-3) Railroad Sign and Markings Locations for Shared-Use Paths



MUTCD (Figures 10D-3 and 10D-4) Typical Gate Arm Placement in Relation To Paths



MUTCD (Figure 8B-3) Pavement Markings for Rail Grade Crossings



MUTCD (FIGURE 8B-1) Rail Grade Crossing Crossbuck

RAILROAD & TRAIL SPACING

Railroad corridors, because of their linear nature and existing use as a transportation corridor provide opportunities for trail placement. Abandoned rail corridors have already been successfully used for trail development in the past, but active rail corridors could also be used for this same activity provided proper design and spacing.

The U.S. Federal Railroad Administration's report, 'Rails-with-Trails: Lessons Learned', states that eight technical factors should be considered when determining trail design with regards to active railroad corridors. These eight design factors are:

1) The type of train using the corridor
2) Frequency of trains through the corridor
3) Speed of each train
4) Separation Technique
5) The topography adjacent to the rail line
6) Sight distance
7) Maintenance requirements (need for railroad personnel to access the property)
8) Historical problems (history of trespassing on the railroad property)

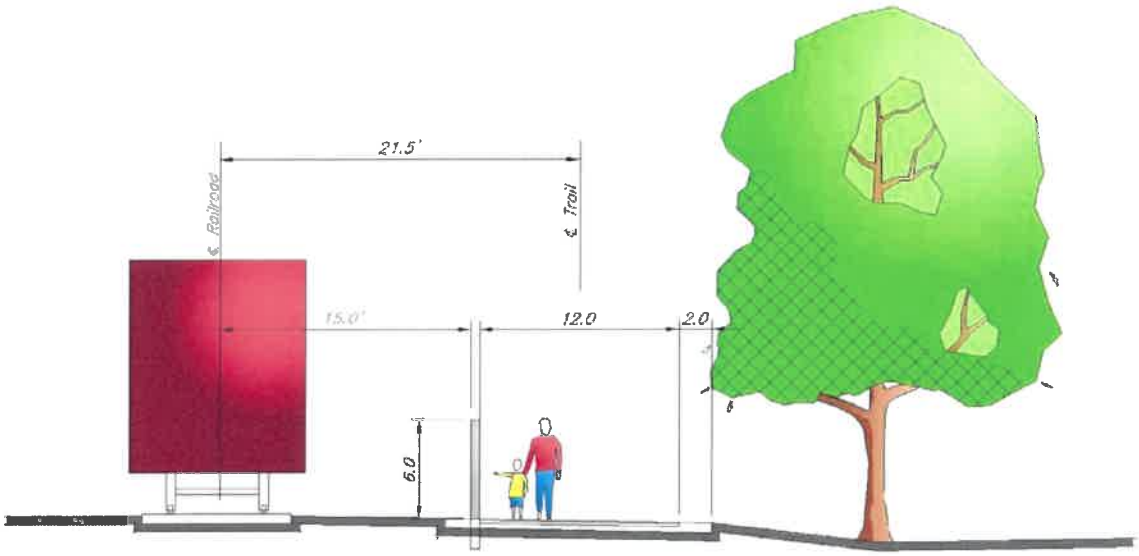
The following table should serve as a guideline for determining minimum trail separation based on these factors.

- High Density/ High Speed Lines (11 or more trains per day; maximum speed over 45 mph)	- Recommended: 25ft or more, with fence or other separation technique
- In constrained areas (e.g. cut/fill, bridges, trestles)	- Minimum: 15ft, with adequate separation technique
- Medium Density / Medium Speed Lines (less than 11 trains per day; maximum speed 45mph)	- Recommended: 25ft or more - Minimum: 15ft, with adequate separation technique
- In constrained areas (e.g. cut/fill, bridges, trestles)	- Minimum: 10ft, with fence or other separation technique
- Extensive history of trespassing (>100 persons per day)	- Minimum: 10ft, with fence or other separation technique
- Low Density/ Low Speed Branchlines (less than one train per day; maximum speed 35 mph)	- Recommended: 20ft or more - Minimum: 10ft, (trail to serve as maintenance access)
- In constrained areas (e.g. cut/fill, bridges, trestles)	- Minimum: 10ft, with fence or other separation technique

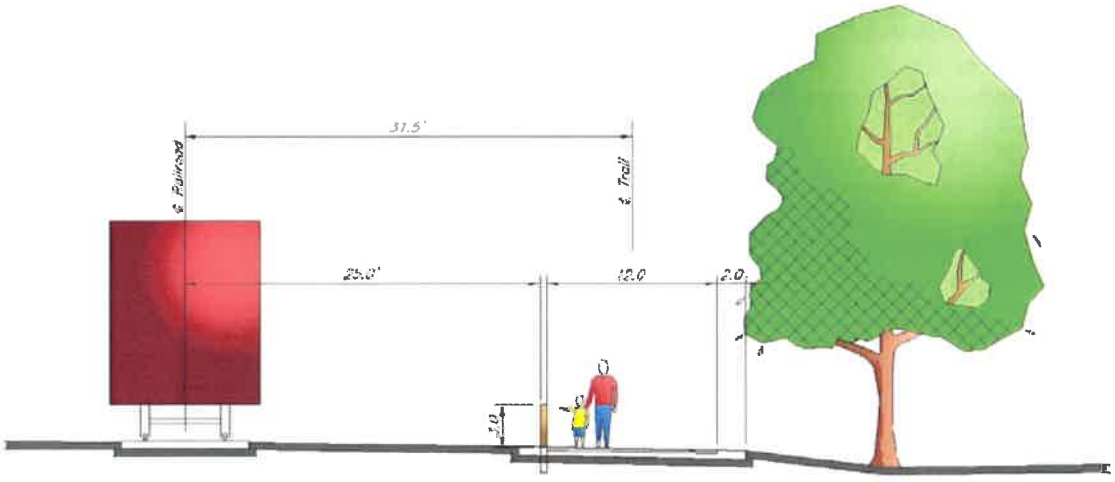
Based upon the guidelines just presented and discussions with each railroad the following standards are recommended by the design team for each railroad corridor.

Singing Sands Lighthouse Trail:

Chicago South Shore Freight Railroad:
This is a low density/ low speed line. There is usually only one train per day and the speed is 10mph. The design team recommends 15 feet of separation from the center line of the nearest tracks to the nearest obstruction (see illustration below). It may be possible to reduce this separation in certain areas down to 10 feet. In addition the railroad has asked for a non-scaleable fence. The design team recommends that this fence be 6 feet tall and aesthetically pleasing. In order to reduce illegal activity, the fence should allow for visual access.



Amtrak Railroad:
This is a high density / high speed rail line. There are usually 11 trains per day and the speed is 50mph in town and 79mph outside of Michigan City. The railroad has requested 25 feet of separation from the center line of the tracks to the nearest obstruction. A separation fence is also required. The team recommends a 36" tall wooden rail fence be placed in the shoulder of the trail (see illustration below).



South Shore Trail:

Chicago South Shore Passenger Railroad:
This is a high density/ high speed rail line. There are usually 20 trains per day and the speed is 50mph. The design team recommends 25 feet of separation from the center line of the tracks to the nearest obstruction. It may be possible to reduce this separation in certain areas down to 15 feet. To reduce trespassing on the railroad property a 36" tall wooden rail fence should be placed in the shoulder of the trail.

NIPSCO TRAIL:

Chicago South Shore Passenger Railroad:
This is a high density/ high speed rail line. There are usually 28 trains per day and the speed is 50mph. The design team recommends 25 feet of separation from the center line of the tracks to the nearest obstruction (see illustration). It may be possible to reduce this separation in certain areas down to 15 feet. To reduce trespassing on the railroad property a 36" tall wooden rail fence should be placed in the shoulder of the trail.

CSX Railroad:
This is a high density / high speed rail line. There are usually 18 trains per day and the speed is 50mph. The design team recommends 25 feet of separation from the center line of the tracks to the nearest obstruction. It may be possible to reduce this separation in certain areas down to 15 feet. To reduce trespassing on the railroad property a 36" tall wooden rail fence should be placed in the shoulder of the trail.

MONON TRAIL:

Amtrak Railroad:
This is a high density / high speed rail line. There are usually 11 trains per day and the speed is 50mph in town and 79mph outside of Michigan City. The railroad has requested 25 feet of separation from the center line of the tracks to the nearest obstruction. A separation fence is also required. The team recommends a 36" tall wooden rail fence be placed in the shoulder of the trail.

CSX Railroad:
This is a high density / high speed rail line. There are usually 18 trains per day and the speed is 50mph. The design team recommends 25 feet of separation from the center line of the tracks to the nearest obstruction. It may be possible to reduce this separation in certain areas down to 15 feet. To reduce trespassing on the railroad property a 36" tall wooden rail fence should be placed in the shoulder of the trail.

TRAIL SIGNAGE

There are many different issues to consider in the design of signs for a trail. Signs along the Michigan City trail system will need to serve a variety of purposes, including: providing traffic control along the trail, alerting users to potential hazards, identifying trail access points, providing historic information, providing educational information, indicating trail distance, and providing 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 Michigan City trails will feature a system of signage to clearly communicate a variety of messages in a graphically consistent manner. The signage system is divided into the following categories: *Trail Traffic Signs, Trail Identity Signs, Trail Interpretive and Directory Signs, and Mile Markers.*

Trail Traffic Signs:

The trail system 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, and TRAIL NARROWS signs.

The design of the trail traffic signs should be consistent from trail to trail and will 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 be easily replaceable. Traffic signs should be placed 3 feet from the trail's edge and be mounted at a height of 4 feet.

Trail Identity Signs:

The Michigan City Greenway system will have numerous points of access; 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 for the public a consistent and lasting identity for the trail. Another function can be served by having a unique identity sign for each trail, public orientation. By selecting a consistent treatment for each trail it will help the trail user to know which trail they are currently on. Each sign should be designed to incorporate a unique feature of each trail. The Michigan City Logo, should be incorporated and each trails identity signs should have a different color scheme than the other. 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 would include the importance of protecting wetlands or sand dunes, geological formations unique to the area, or NIPSCO's role in supplying power to Northern Indiana.

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

Mile Markers:
Mile markers provide 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 markers should be distance in miles and each trails logo.

SITE FURNISHINGS
In addition to signage, the design of the trail system will include site furnishings to accommodate the needs 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 elements 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 trails' site furnishings be established to ensure overall consistency of design and trail image.

TRAIL LANDSCAPING

The Michigan City Greenway system due to its overall length and diverse scenery may require more landscaping in urban areas and less in rural areas. Areas such as the Monon corridor, NIPSCO corridor, and portions of the Singing Sands Trail are characterized by a significant amount of vegetation. The presence of mature vegetative cover not only adds to the natural beauty of the trail experience, but also minimizes the amount of new landscaping necessary to improve the appearance of the trail system and screening of the trail from undesirable views and adverse adjacent trail conditions.

In areas along the trail where the appearance 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 be used where possible in an effort to keep landscape maintenance to a minimum and to maximize the ecological benefits of the plantings.

TRAIL LIGHTING

The Michigan City Greenways system 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*

SINGING SANDS-LIGHTHOUSE TRAIL

The proposed Singing Sands-Lighthouse Trail will be approximately 8 miles in length and will begin at the Porter/La Porte County line, west of Michigan City, at the existing Calumet Trailhead and end at the eastern corporate boundary of Michigan City. The Singing Sands-Lighthouse Trail will be completed in three phases, which are as follows:

Phase One Description

Phase One begins on the west side of US 12, the western corporate boundary of Michigan City, and proceeds northeast within the Northern Indiana Public Service Company (NIPSCO) utility easement to the intersection with US 12. The proposed trail will cross US 12 and follow along the south side of the Chicago South Shore (C.S.S.) Freight Rail Line in a northeasterly direction until just before it reaches the Amtrak Railroad. At this point the trail would cross to the north side of the C.S.S. Freight line and utilize the DNR access road and parking lot to reach Franklin Street. The proposed trail will cross Franklin Street and proceed northwest across the bridge, utilizing existing sidewalks, to the intersection with Lake Shore Drive, where it will then cross Lakeshore Drive and enter into Washington Park. From here, the proposed trail will proceed northeasterly along Lakeshore Drive, utilizing existing sidewalks, to its endpoint at the intersection of Lakeshore Drive and Center Street.

Phase One Cost Opinion

1.1 Multi-use Trail:
12ft. wide asphalt trail with 2ft. wide gravel shoulder
2.9 miles @ $200,000 per mile.....$580,000.00

1.2 Street Intersection Improvements:
(1) Level 1 (includes pavement markings, regulatory signs & warning signage)
Wabash Street: 1 @ $5000.00.....$5000.00
Washington Park Entrances: 3 @ $5000.00.....$15,000.00
(2) Level 3 (includes pavement markings, regulatory signs & warning signage, overhead flashing yellow signal, median, and right-of-way)
US 12 (Calumet Trailhead): 1 @ $30,000 each.....$30,000.00
US 12 (NIPSCO Entrance): 1 @ $30,000 each.....$30,000.00
Franklin Street: 1 @ $20,000.....$20,000.00
Lakeshore Drive: 1 @ $20,000.....$20,000.00

1.3 Railroad Crossing:
C.S.S Freight Line: 1 @ $80,000.....$80,000.00
C.S.S Freight Line: 1 @ $40,000.....$40,000.00
NIPSCO Spur Line: 1 @ $40,000.....$40,000.00

SINGING SANDS-LIGHTHOUSE TRAIL (cont.)

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
32 @ $400/each..... $12,800.00
16 @ $100/each.....$1600.00

(2) Trail Identification Signage:
includes signs that identify the Singing Sands-Lighthouse Trail and Michigan City Parks Department at various points of access
6 @ $1000.00/each.....$6000.00

(3) Interpretive Signage:
includes signs that illustrate historical, natural, and cultural significance of certain features along the trail
3 @ $2000/each.....$6000.00

(4)Directory Signage:
includes a trail directory for orientation
3 @ $2000/each.....$6000.00

(5)Mileage Markers:
includes distance markers at quarter mile intervals
12 @ $400/each.....$4800.00

1.5 Trailhead:
includes drinking fountain, shelter, picnic tables, benches, trash receptacles, bicycle racks, and trail signage
ALLOWANCE.....$55,000.00

1.6 NIPSCO Interpretive Area
ALLOWANCE.....$10,000.00

1.7 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.....$20,000.00

SINGING SANDS-LIGHTHOUSE TRAIL (cont.)

(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.....$40,000.00

(3) 6 Foot Barrier Fence
7000 LFT. @ $35.....$245,000.00

1.8 DNR Access Road Improvements:
(1) Curbing
230 LFT @ $15.....$3450.00

(2) Storm Sewer
Inlets: 2 @ $500/each.....$1000.00
18" RCP: 230 LFT @ $30.....$6900.00

(3) Retaining Wall
1150 SQFT @ $50.....$57,500.00

1.9 Miscellaneous Construction Activities:
includes miscellaneous grading operations, erosion protection, miscellaneous salvage & demolition, miscellaneous walk & street repair, drainage considerations, traffic maintenance, miscellaneous clearing, and miscellaneous mobilization and demobilization,
ALLOWANCE.....$70,000.00

Contingency (10%).....$140,605.00

Construction Cost.....$1,546,655.00

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

Phase Two Description

Phase two begins within Washington Park, at a point approximately 0.14 mile west of the termination of Phase One. From this location, Phase Two will cross Lake Shore and proceed southeast along the eastern border of the zoo and through Canada Park to Center Street. The trail will then head south following along the west side of Center Street to its intersection with the Amtrak Railroad. From here, Phase Two will cross the Amtrak railroad and then Center Street. It will follow along the south side of the Amtrak Railroad to Liberty Trail.

Phase Two Cost Opinion

2.1 Multi-use Trail:

12ft. wide asphalt trail with 2ft. wide gravel shoulder
1.4 miles @ $250,000 per mile.....$350,000.00

2.2 Street Intersection Improvements:

(1) Level 2 (includes pavement markings, regulatory signs & warning signage, overhead flashing yellow signal)
Lakeshore Drive: 1 @ $20,000.....$20,000.00
Center Street: 1 @ $20,000.....$20,000.00

2.3 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
8 @ $400/each..... ...$3200.00
4 @ $100/each.....$400.00

(2) Trail Identification Signage:
includes signs that identify the Singing Sands-Lighthouse Trail and Michigan City Parks Department at various points of access
2 @ $1000.00/each.....$2000.00

(3) Interpretive Signage:
includes signs that illustrate historical, natural, and cultural significance of certain features along the trail
1 @ $2000/each.....$2000.00

(4)Directory Signage:
includes a trail directory for orientation
1 @ $2000/each.....$2000.00

(5)Mileage Markers:
includes distance markers at quarter mile intervals
6 @ $400/each.....$2400.00

2.4 Dune Interpretive Area
ALLOWANCE.....$10,000.00

2.5 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.....$40,000.00

(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.....$60,000.00

(3) Wood Railing
5300 LFT. @ $30.....$159,000.00

(4) Boardwalk
3360 SFT. @ $30.00.....$100,800.00

(5) Benches
2 @ $1000.....$2000.00

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

Contingency (10%).....$87,380.00

Construction Cost.....$961,180.00

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

Phase Three Description

Phase Three will begin where Phase Two left off. It will follow along the north side of the Amtrak Railroad from Liberty Trail to its endpoint at the eastern corporate boundary of Michigan City (Meer Road).

Phase Three Cost Opinion

3.1 Multi-use Trail:
12ft. wide asphalt trail with 2ft. wide gravel shoulder
3.7 miles @ $200,000 per mile.....$740,000.00

3.2 Street Intersection Improvements:
(1) Level 1 (includes pavement markings, regulatory signs & warning signage)
Karwick Road: 1 @ $5000.....$5000.00
Eastwood Road: 1 @ $5000.....$5000.00

(2) Level 2 (includes pavement markings, regulatory signs & warning signage, overhead flashing yellow signal)
Washington Park Blvd.: 1 @ $20,000.....$20,000.00

3.3 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 @ $400/each..... ...$4800.00
6 @ $100/each.....$600.00

(2) Trail Identification Signage:
includes signs that identify the Singing Sands-Lighthouse Trail and Michigan City Parks Department at various points of access
3 @ $1000.00/each.....$3000.00

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

(4)Directory Signage:
includes a trail directory for orientation
1 @ $2000/each.....$2000.00

(5)Mileage Markers:
includes distance markers at quarter mile intervals
15@ $400/each.....$6000.00

SINGING SANDS-LIGHTHOUSE TRAIL (cont.)

3.4 Trailhead
includes drinking fountain, shelter, picnic tables, benches, trash receptacles, bicycle racks, and trail signage
ALLOWANCE.....$55,000.00

3.5 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.....$20,000.00

(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.....$40,000.00

(3) Wood Railing
19,536 LFT. @ $30.....$586,080.00

(4) Benches
2 @ $1000.....$2000.00

(5)Trash Receptacle
2 @ $1000.....$2000.00

3.6 Miscellaneous Construction Activities:
includes miscellaneous grading operations, erosion protection, miscellaneous salvage & demolition, miscellaneous walk & street repair, drainage considerations, traffic maintenance, miscellaneous clearing, and miscellaneous mobilization and demobilization,
ALLOWANCE.....$60,000.00

Contingency (10%).....$155,148.00

Construction Cost.....$1,706,628.00

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

SOUTH SHORE TRAIL

The South Shore Trail will begin at the future nature park, at the end of the proposed NIPSCO Trail (Phase 1), and proceed easterly along the south side of the Chicago South Shore Passenger Railroad. The proposed trail will then cross the CSS Passenger Railroad at Royal Road and enter the NIPSCO utility corridor. It will then proceed eastward terminating at the eastern corporate boundary of Michigan City (Meer Road).

Cost Opinion

1.1 Multi-use Trail:
12ft. wide asphalt trail with 2ft. wide gravel shoulder
2.2 miles @ $200,000 per mile.....$440,000.00

1.2 Street Intersection Improvements:
(1) Level 1 (includes pavement markings, regulatory signs & warning signage)
Royal Road: 1 @ $5000.....$5000.00

(2) Level 2 (includes pavement markings, regulatory signs & warning signage, overhead flashing yellow signal)
Karwick Road: 1 @ $20,000.....$20,000.00

1.3 Railroad Crossing
Royal Road:1 @ $80,000.....$80,000.00

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
8 @ $400/each..... ...$3200.00
4 @ $100/each.....$400.00

(2) Trail Identification Signage:
includes signs that identify the South Shore Trail and Michigan City Parks Department at various points of access
3 @ $1000.00/each.....$3000.00

(4)Directory Signage:
includes a trail directory for orientation
1 @ $2000/each.....$2000.00

(5)Mileage Markers:
includes distance markers at quarter mile intervals
9 @ $400/each.....$3600.00

SOUTH SHORE TRAIL (cont.)

1.5 Trailhead
includes drinking fountain, shelter, picnic tables, benches, trash receptacles, bicycle racks, and trail signage
ALLOWANCE.....$50,000.00

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.....$20,000.00

(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.....$40,000.00

(3) Wood Railing
4300 LFT. @ $30.....$129,000.00

1.7 Miscellaneous Construction Activities:
includes miscellaneous grading operations, erosion protection, miscellaneous salvage & demolition, miscellaneous walk & street repair, drainage considerations, traffic maintenance, miscellaneous clearing, and miscellaneous mobilization and demobilization,
ALLOWANCE.....$50,000.00

1.8 Bridges:
Trail Creek Tributary: 1200 SFT. Bridge @ $120.....$144,000.00
Trail Creek Tributary: 1000 SFT. Bridge @ $120.....$120,000.00
Trail Creek Tributary: 1000 SFT. Bridge @ $120.....$120,000.00

Contingency (10%).....$123,020.00

Construction Cost.....$1,353,220.00

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

NIPSCO TRAIL

TRAIL CONSTRUCTION PHASING & COSTS

The proposed Northern Indiana Public Service Company (NIPSCO) Trail will begin at the intersection of US 12 and Sheridan Ave. (on the west side of Michigan City) and terminate within the future nature park located at the intersection of South Karwick Road and Warnke Road. The proposed NIPSCO Trail will be completed in two phases.

Phase One Description

Phase One of the NIPSCO Trail will begin at Ames Field located at the intersection of Franklin Street (US 421) and Pytynia Parkway. From Ames Field, the proposed trail will proceed eastward within the NIPSCO utility corridor, north of the CSX Railroad. The trail will require bridges to cross over Michigan Boulevard (U.S. 35) and the C.S.S. Freight Railroad at Trail Creek. At the intersection of the CSX Railroad and South Karwick Road, the proposed trail will turn north to follow along the west side of South Karwick Road to its endpoint within the northeast corner of the future nature park.

Phase One Cost Opinion

1.1 Multi-use Trail:

12ft. wide asphalt trail with 2ft. wide gravel shoulder
2.7 miles @ $200,000 per mile.....$540,000.00

1.2 Street Intersection Improvements:

(1) Level 1 (includes pavement markings, regulatory signs & warning signage)
Franklin Street: 1 @ $5000.....$5000.00
York Street: 1 @ $5000.....$5000.00
Oak Street: 1 @ $5000.....$5000.00
Tilden Avenue: 1 @ $5000.....$5000.00
Jackson Street: 1 @ $5000.....$5000.00
Woodland Avenue: 1 @ $5000.....$5000.00
Carroll Avenue: 1 @ $5000.....$5000.00
Roeske Avenue: 1 @ $5000.....$5000.00

(2) Level 2 (includes pavement markings, regulatory signs & warning signage, overhead flashing yellow signal)
Greenwood Avenue: 1 @ $20,000.....$20,000.00

1.3 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
36 @ $400/each.....$14,400.00
18 @ $100/each.....$1800.00

NIPSCO TRAIL (cont.)

(2) Trail Identification Signage:

includes signs that identify the NIPSCO Trail and Michigan City Parks Department at various points of access
5 @ $1000.00/each.....$5000.00

(3) Interpretive Signage:
includes signs that illustrate historical, natural, and cultural significance of certain features along the trail
2 @ $2000.00.....$4000.00

(4)Directory Signage:
includes a trail directory for orientation
3 @ $2000/each.....$6000.00

(5)Mileage Markers:
includes distance markers at quarter mile intervals
11 @ $400/each.....$4400.00

1.4 Trailheads:
includes drinking fountains, picnic tables, benches, trash receptacles, bicycle racks, and trail signage
ALLOWANCE..... .$80,000.00

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.....$20,000.00

(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

(3) Wood Railing
2000 LFT. @ $30.....$60,000.00

(4) Retaining Wall 5,500 SFT. @ $25.00.....$137,500.00

NIPSCO TRAIL (cont.)

1.6 Miscellaneous Construction Activities:

includes miscellaneous grading operations, erosion protection, miscellaneous salvage & demolition, miscellaneous walk & street repair, drainage considerations, traffic maintenance, miscellaneous clearing, and miscellaneous mobilization and demobilization,
ALLOWANCE.....$50,000.00

1.7 Bridges:
Michigan Blvd. Gateway Bridge $180,000.00
CSX/ Trail Creek Bridge: 1200 SFT. Bridge @ $120.....$144,000.00

Contingency (10%).....$135,710.00

Construction Cost.....$1,492,810.00

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

Phase Two Description

Phase Two of the NIPSCO Trail will begin at the intersection of US 12 and Sheridan Ave., on the west side of Michigan City. The proposed trail proceeds south on the west side of Sheridan Ave., then heads west along the south side of the C.S.S. Passenger Railroad until it reaches the NIPSCO utility corridor. It follows the utility corridor south and east, until its intersection with the Amtrak Railroad. At this point the greenway will turn north and travel along the western edge of the Amtrak Railroad, until it reaches Hitchcock Street. The proposed greenway will then cross the Amtrak Railroad and proceed south along the western right-of way of Hitchcock Street to the NIPSCO corridor. Phase Two will continue to follow the NIPSCO corridor east, terminating at its junction with Phase One adjacent to Ames Field.

Phase Two Cost Opinion

2.1 Multi-use Trail:
12ft. wide asphalt trail with 2ft. wide gravel shoulder
2.3 miles @ $200,000 per mile.....$460,000.00
0.4 miles @ $250,000 per mile.....$100,000.00

2.2 Street Intersection Improvements:
(1) Level 1 (includes pavement markings, regulatory signs & warning signage)
Buffalo Street: 1 @ $5000.....$5000.00
Hoyt Street: 1 @ $5000.....$5000.00
Bentron Street: 1 @ $5000.....$5000.00
Wabash Street: 1 @ $5000.....$5000.00
Arthur Street: 1 @ $5000.00.....$5000.00

NIPSCO TRAIL (cont.)

(2) Level 2 (includes pavement markings, regulatory signs & warning signage, overhead flashing yellow signal)
Woodlawn Avenue: 1 @ $20,000.....$20,000.00
Hitchcock Street: 1 @ $20,000.....$20,000.00
Ohio Street: 1 @ $20,000.....$20,000.00

(3) Level 3 (includes pavement markings, regulatory signs & warning signage, overhead flashing yellow signal, median, and right-of-way)
US 12: 1 @ $30,000.....$30,000.00

2.3 Railroad Crossing
CSS Passenger: 1 @ $80,000.....$80,000.00
Amtrak: 1 @ $80,000.....$80,000.00

2.4 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
36 @ $400/each.....$14,400.00
18 @ $100/each.....$1800.00

(2) Trail Identification Signage:
includes signs that identify the NIPSCO Trail and Michigan City Parks Department at various points of access
5 @ $1000.00/each.....$5000.00

(3) Interpretive Signage:
includes signs that illustrate historical, natural, and cultural significance of certain features along the trail
3 @ $2000.00.....$6000.00

(4)Directory Signage:
includes a trail directory for orientation
1 @ $2000/each.....$2000.00

(5)Mileage Markers:
includes distance markers at quarter mile intervals
12 @ $400/each.....$4000.00

2.5 Trailheads
includes drinking fountains, shelters, picnic tables, benches, trash receptacles, bicycle racks, and trail signage
ALLOWANCE..... .$55,000.00

NIPSCO TRAIL (cont.)

2.6 Interpretive Area

(1) Dune Restoration
ALLOWANCE.....$10,000.00

(2) Monon Railroad
ALLOWANCE.....$10,000.00

2.7 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.....$20,000.00

(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

(3) Wood Railing
2470 LFT. @ $30.....$74,100.00

(4) Boardwalk
ALLOWANCE.....$240,000.00

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

Contingency (10%).....$142,820.00

Construction Cost.....$1,571,020.00

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

MONON TRAIL

The Monon Rail Trail will begin at Michigan Boulevard (US 12) and follow the abandoned Monon Railroad corridor south to the southern corporate boundary of Michigan City (Kieffer Road).

Phase 1 Description

Phase One will begin at the Singing Sands Trail and Michigan Boulevard (US 12) and follow the abandoned Monon Railroad corridor south. It will parallel the Amtrak Railroad for most of the way and then terminate where the abandoned Monon Railroad intersects the NIPSCO Trail.

Phase 1 Cost Opinion

1.1 Multi-use Trail:
12ft. wide asphalt trail with 2ft. wide gravel shoulder
1.4 miles @ $200,000 per mile.....$280,000.00

1.2 Street Intersection Improvements:
(1) Level 1 (includes pavement markings, regulatory signs & warning signage)
Greene Street: 1 @ $5000.....$5000.00
Chicago Street: 1 @ $5000.....$5000.00
10th Street: 1 @ $5000.....$5000.00
9th Street: 1 @ $5000.....$5000.00
8th Street: 1 @ $5000.....$5000.00

(2) Level 3 (includes pavement markings, regulatory signs & warning signage, overhead flashing yellow signal, median, and right-of-way)
US 12: 1 @ $30,000.....$30,000.00

1.3 Railroad Crossing
CSS Passenger Railroad: 1 @ $80,000.....$80,000.00

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
24 @ $400/each.....$9600.00
12 @ $100/each.....$1200.00

(2) Trail Identification Signage:
includes signs that identify the Monon Trail and Michigan City Parks Department at various points of access
3 @ $1000.00/each.....$3000.00

MONON TRAIL (cont.)

(3) Interpretive Signage:
includes signs that illustrate historical, natural, and cultural significance of certain features along the trail
1 @ $2000.00.....$2000.00

(4)Directory Signage:
includes a trail directory for orientation
1 @ $2000/each.....$3000.00

(5)Mileage Markers:
includes distance markers at quarter mile intervals
6 @ $400/each.....$2400.00

1.5 Trailheads:
includes drinking fountains, shelters, picnic tables, benches, trash receptacles, bicycle racks, and trail signage
ALLOWANCE..... .$20,000.00

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.....$8,000.00

(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.....$20,000.00

1.7 Miscellaneous Construction Activities:
includes miscellaneous grading operations, erosion protection, miscellaneous salvage & demolition, miscellaneous walk & street repair, drainage considerations, traffic maintenance, miscellaneous clearing, and miscellaneous mobilization and demobilization,
ALLOWANCE.....$30,000.00

Contingency (10%).....$51,420.00

Construction Cost.....$565,620.00

MONON TRAIL (cont.)

Phase 2 Description

Phase Two will begin at the intersection of the abandoned Monon Railroad and the NIPSCO Trail where phase one left off. It will continue southward along the abandoned Monon Railroad to its intersection with the CSX railroad and then head southwest along the CSX railroad to Hitchcock Street. Once reaching Hitchcock it will utilize its eastern right-of-way to head south. The trail will cross Earl Road and enter the Future Retention Pond and Recreational Area. The trail will utilize this city owned property to cut back over to the abandoned Monon corridor. The trail will then follow the Monon Corridor south to the southern corporate boundary of Michigan City (Kieffer Road).

Phase 2 Cost Opinion

2.1 Multi-use Trail:

12ft. wide asphalt trail with 2ft. wide gravel shoulder
2.3 miles @ $200,000 per mile.....$460,000.00

2.2 Street Intersection Improvements:

(1) Level 2 (includes pavement markings, regulatory signs & warning signage, overhead flashing yellow signal)
US 20: 1 @ $20,000.....$20,000.00
Earl Road: 1 @ $20,000.....$20,000.00

2.3 Railroad Crossing:

CSX Railroad: See Bridges Section

2.4 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
10 @ $400/each.....$4,000.00
5 @ $100/each.....$500.00

(2) Trail Identification Signage:
includes signs that identify the Monon Trail and Michigan City Parks Department at various points of access
3 @ $1000.00/each.....$3000.00

(3)Directory Signage:
includes a trail directory for orientation
2 @ $2000/each.....$4000.00

(4)Mileage Markers:
includes distance markers at quarter mile intervals
10 @ $400/each.....$4000.00

MONON TRAIL (cont.)

2.5 Trailheads

includes drinking fountains, shelters, picnic tables, benches, trash receptacles, bicycle racks, and trail signage
ALLOWANCE..... .$50,000.00

2.7 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.....$12,000.00

(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.....$30,000.00

2.8 Miscellaneous Construction Activities:
includes miscellaneous grading operations, erosion protection, miscellaneous salvage & demolition, miscellaneous walk & street repair, drainage considerations, traffic maintenance, miscellaneous clearing, and miscellaneous mobilization and demobilization,
ALLOWANCE.....$40,000.00

2.9 Bridges:
CSX Crossing: 2000 SFT. Bridge @ $120... .....$240,000.00
Over Ditch near CSX: 1000 SFT. Bridge @ $120.....$120,000.00

Contingency (10%).....$100,750.00

Construction Cost.....$1,108,250.00

PEANUT TRAIL

The Peanut Trail will begin at the intersection of Center Street and the Amtrak Railroad and tie into the Singing-Sands Trail. From here it will follow the CSS Freight Railroad in a southeasterly direction, ending at the intersection with the Trail Creek Greenway.

Cost Opinion

1.1 Multi-use Trail:
12ft. wide asphalt trail with 2ft. wide gravel shoulder
0.7 miles @ $200,000 per mile.....$140,000.00

1.2 Street Intersection Improvements:
(1) Level 3 (includes pavement markings, regulatory signs & warning signage, overhead flashing yellow signal, median, and right-of-way)
US 12: 1 @ $30,000.....$30,000.00

1.3 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
6 @ $400/each.....$2400.00
2 @ $100/each.....$200.00

(2) Trail Identification Signage:
includes signs that identify the Michigan City/ LaPorte Trail and Michigan City Parks Department at various points of access
3 @ $1000.00/each.....$3000.00

(3) Interpretive Signage:
includes signs that illustrate historical, natural, and cultural significance of certain features along the trail
1 @ $2000.....$2000.00

(4)Directory Signage:
includes a trail directory for orientation
2 @ $2000/each.....$4000.00

(5)Mileage Markers:
includes distance markers at quarter mile intervals
2 @ $400/each.....$400.00

PEANUT TRAIL (cont.)

1.4 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.....$15,000.00

(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.....$15,000.00

(3) Benches
2 @ $1000.....$2000.00

(5)Trash Receptacle
2 @ $1000.....$2000.00

1.5 Miscellaneous Construction Activities:
includes miscellaneous grading operations, erosion protection, miscellaneous salvage & demolition, miscellaneous walk & street repair, drainage considerations, traffic maintenance, miscellaneous clearing, and miscellaneous mobilization and demobilization,
ALLOWANCE.....$30,000.00

Contingency (10%).....$23,100.00

Construction Cost.....$254,100.00

TRAIL CREEK GREENWAY

The Trail Creek Greenway will begin at Hansen Park and follow Trail Creek eastward to the International Friendship Gardens. It will then cut east via Martin Luther King Blvd. to Karwick Road. It will follow it southward to Tryon Road. Once it reaches Tryon Road it will head east for a short stretch and then head south again along the west property line of a city owned property. It will then make a slight shift to the east property line of Martin T. Krueger Middle school before heading back southwest along the C.S.S Passenger Railroad line. The Trail Creek Greenway will cross the C.S.S Passenger Railroad at Karwick Road and then terminate at the future Nature Park Site.

Cost Opinion

2.1 Multi-use Trail:
12ft. wide asphalt trail with 2ft. wide gravel shoulder
**3.1 miles @ $200,000 per mile.....$620,000.00

2.2 Street Intersection Improvements:
(1) Level 1 (includes pavement markings, regulatory signs & warning signage)
Liberty Trail: 1 @ $5000.....$5000.00
Martin Luther King Drive: 1 @ $5000.....$5000.00
Tryon Road: 1 @ $5000.....$5000.00

(2) Level 2 (includes pavement markings, regulatory signs & warning signage, overhead flashing yellow signal)
Karwick Road: 1 @ $20,000.....$20,000.00

2.3 Railroad Crossing
CSS Passenger: 1 @ $80,000.....$80,000.00

2.4 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
22 @ $400/each.....$8,800.00
8 @ $100/each.....$800.00

(2) Trail Identification Signage:
includes signs that identify the NIPSCO Trail and Michigan City Parks Department at various points of access
7 @ $1000.00/each.....$7000.00

(4)Directory Signage:
5 @ $2000/each.....$10,000.00

(5)Mileage Markers:
includes distance markers at quarter mile intervals
15 @ $400/each.....$6000.00

2.5 Trailheads
includes drinking fountains, shelters, picnic tables, benches, trash receptacles, bicycle racks, and trail signage
**ALLOWANCE.....$80,000.00

2.6 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.....$30,000.00

(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

(3) Wood Railing
1000 LFT. @ $30.....$30,000.00

(4) Boardwalk
***3500 SQFT. @ $40.....$140,000.00

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

2.8 Bridges:
Friendship Gardens: 1800 SFT. Bridge @ $120... .....$216,000.00
Karwick, Ditch Crossing: 700 SFT. Bridge @ $60... .....$42,000.00
Karwick, Ditch Crossing: 700 SFT. Bridge @ $60.....$42,000.00
Ditch Crossing: 1000 SFT. Bridge @ $60..... .....$60,000.00
Krueger, Ditch Crossing: 1500 SFT. Bridge @ $120.....$180,000.00

Contingency (10%).....$173,760.00

Construction Cost.....$1,911,360.00

**Cost opinion does not include cost for survey, design, land acquisition, and inspection.*
***Trailhead at Hansen Park and 0.6 miles of trail funded by an LWCF grant are not included.*
****Retaining wall would add $220,500.00 to the cost (4200 SQFT. @ $50 + railing)*

MICHIGAN CITY/ LaPORTE TRAIL

The Michigan City/ LaPorte Trail will begin at the Crossing of the NIPSCO Trail and Jackson Street. It will then head South along the west side of Jackson Street through Gardena Playground, and then cross Jackson Street at Gardena Avenue. The trail will proceed south on Jackson St. until it reaches Coolspring Ave. Here it will head east along the north right-of-way of Coolsrping Ave. and then cross Woodland Ave. After crossing Woodland Avenue the trail will follow it south along its eastern right-of-way to Pahs Road. Once reaching Pahs Road, the trail will head east along the southern right-of-way. The trail will terminate at the Michigan City High School.

Cost Opinion

2.1 Multi-use Trail:
12ft. wide asphalt trail with 2ft. wide gravel shoulder
2.3 miles @ $200,000 per mile.....$460,000.00

2.2 Street Intersection Improvements:
(1) Level 1 (includes pavement markings, regulatory signs & warning signage)
Jackson Street: 1 @ $5000.....$5000.00
Jackson Street (YMCA): 1 @ $5000.....$5000.00
Woodland Avenue: 1 @ $5000.....$5000.00
Coolspring Avenue: 1 @ $5000.....$5000.00
Welnetz Road: 1 @ $5000.....$5000.00
Pahs Road: 1 @ $5000.....$5000.00

(2) Level 2 (includes pavement markings, regulatory signs & warning signage, overhead flashing yellow signal)
Coolspring Avenue (YMCA): 1 @ $20,000.....$20,000.00

(2) Level 3 (includes pavement markings, regulatory signs & warning signage, overhead flashing yellow signal, median, and right-of-way)
U.S. 20: 1 @ $30,000.....$30,000.00

2.3 Railroad Crossing
CSX: 1 @ $80,000.....$80,000.00

2.4 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
42 @ $400/each.....$16,800.00
14 @ $100/each.....$1400.00

MICHIGAN CITY/ LAPORTE TRAIL (cont.)

(2) Trail Identification Signage:
includes signs that identify the NIPSCO Trail and Michigan City Parks Department at various points of access
4 @ $1000.00/each.....$7000.00

(4)Directory Signage:
includes a trail directory for orientation
2 @ $2000/each.....$4000.00

(5)Mileage Markers:
includes distance markers at quarter mile intervals
9 @ $400/each.....$3600.00

2.5 Trailheads
includes drinking fountains, shelters, picnic tables, benches, trash receptacles, bicycle racks, and trail signage
ALLOWANCE.....$35,000.00

2.6 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.....$20,000.00

(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.....$40,000.00

2.7 Miscellaneous Construction Activities:
includes miscellaneous grading operations, erosion protection, miscellaneous salvage & demolition, miscellaneous walk & street repair, drainage considerations, traffic maintenance, miscellaneous clearing, and miscellaneous mobilization and demobilization,
ALLOWANCE.....$50,000.00

Contingency (10%).....$79,780.00

Construction Cost.....$877,580.00

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

TRAIL CONSTRUCTION PHASING & COSTS

SINGING SANDS – LIGHTHOUSE TRAIL	
Phase 1 Construction Cost	$1,546,655.00
Phase 2 Construction Cost	$ 961,180.00
Phase 3 Construction Cost	$1,706,628.00
SOUTH SHORE TRAIL	
Construction Cost	$1,353,220.00
NIPSCO TRAIL	
Phase 1 Construction Cost	$1,492,810.00
Phase 2 Construction Cost	$1,571,020.00
MONON TRAIL	
Phase 1 Construction Cost	$ 565,620.00
Phase 2 Construction Cost	$1,108,250.00
PEANUT TRAIL	
Construction Cost	$254,100.00
TRAIL CREEK GREENWAY	
Construction Cost	$1,911,360.00
MICHIGAN CITY/ LaPORTE	
Construction Cost	$877,580.00
TOTAL*cost opinion*	
Construction Cost	**$13,348,423.00**

*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 could 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, and construction documents), right-of-way (engineering, management, acquisition), construction, and construction supervision. The local agency is required to provide 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 a 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.

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 Hometown Indiana program, the applicant 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 IDNR. 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 Parks 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.

Congestion Mitigation and Air Quality Improvement Program (CMAQ):

This fund is a federal financial assistance program administered through the U.S. Department of Transportation (DOT) in consultation with the Environmental Protection Agency (EPA). The funds are set aside for projects that encourage the reduction of smog-producing emissions in communities that fall below the EPA minimum standard for air quality. The state of Indiana receives approximately $18.5 million per year for such projects. The Indiana Department of Transportation (INDOT) will use $9.2 million to select eligible projects and $9.2 million will be given to the individual Metropolitan Planning Organizations (MPO) to select projects. In April of 2004 the EPA did a reevaluation of communities in Northwestern area of Indiana, and LaPorte County was found to have areas that fell below acceptable standards. In April of 2005 LaPorte County will officially be eligible to receive CMAQ funding (declared an area of non-attainment). It is anticipated that at that time INDOT will set aside funds that are available and NIPRC, Northwest Indiana's MPO, will begin developing an application process for communities in LaPorte County. The first funds awarded may not be available to use until the year of 2006.

For grant information contact:

Northwestern Indiana Regional Planning Commission (NIRPC)
6100 Southport Road
Portage, Indiana 46368
Phone: (219)763-6060
Email: nirpc@nirpc.org

Private Foundations:

There 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).

Funding Sources Summary Table

GRANT PROGRAM	TRANSPORTATION ENHANCEMENT (TE)	LAND & WATER CONSERVATION FUND (LWCF)	RECREATIONAL TRAILS PROGRAM (RTP)	CONGESTION MITIGATION & AIR QUALITY PROGRAM (CMAQ)	HOMETOWN INDIANA
USAGE OF FUNDS	Applications may include land acquisition and/ or development of multi-use trails.	Application may consist of land acquisition and/or outdoor recreation facility construction or renovation.	Applications may include land acquisition and/ or development, maintenance, and ethics education of multi-use trails.	Applications may consist of development of multi-use trails that help to reduce emissions.	Applications may include land acquisition and/ or facility construction and renovation. Indoor and outdoor facilities are eligible for assistance.
FUNDING SOURCE	Federal	Federal	Federal	Federal	State Legislature
% MATCH	80/20	50/50	80/20	80/20	50/50
GRANT ROUNDS	Applications typically due to NIRPC by September and to INDOT by December.	Applications due by June 1	Applications due by May 1	To Be Determined	To Be Determined
ELIGIBILITY	Units of Governments and 501(c)(3) not-for-profits	Park Board & 5-Year Park and Recreation Master Plan	Units of Governments and 501(c)(3) not-for-profits	EPA Designated Non-attainment Areas	Municipal Corporation & 5 Year Park and Recreation Plan
FUNDS AVAILABLE	Federal Appropriation undetermined. Estimated $18 million	Federal Appropriation undetermined. Estimated $1.4 million	Approx. $800,000	Federal Appropriation undetermined. Estimated $9.2 million	$0.00