

SANDUSKY COUNTY, OHIO

Development Plan for Active Transportation



MARCH 2017

Prepared by: Poggemeyer Design Group, Inc. (3184-009)

Funded by: Ohio Development Services Agency
Local Government Innovation Fund

ACKNOWLEDGEMENTS

The Development Plan for Active Transportation for Sandusky County was a collaboration between the Sandusky County Park District, City of Fremont, Sandusky County Engineer, Sandusky County Regional Planning Commission, Terra State Community College, Sandusky County Health Department, Downtown Fremont, Inc., the Hayes Presidential Library and Museums, Sandusky Township, Ballville Township, and Christy Farm Nature Preserve. These Collaborative Partners were represented by the following individuals who contributed their time and knowledge to the development of this plan:

Collaborative Partners

Name/Title	Representing
Andrew Brown, Director	Sandusky County Park District
Ken Myers, Safety Service Director	City of Fremont
Tucker Fredericksen, P.E., City Engineer	City of Fremont
James Moyer, P.E., County Engineer	Sandusky County Engineer's Office
Elizabeth Royster, P.E., Engineer	Sandusky County Engineer's Office
John Willey, Director	Sandusky County Regional Planning Commission
Cory Stine, Ph.D, Vice President	Terra State Community College
Joan Gamble, M.A., Coordinator	Terra State Community College
Lonnie Shuey, Administrative Coordinator	Terra State Community College
Allison Thomas, MPH, Health Educator	Sandusky County Health Department
Kristie A. Bilger, Executive Director	Downtown Fremont, Inc.
Thomas Kern	Downtown Fremont, Inc.
Christie Weininger, Director	Hayes Presidential Library and Museums
Jim Willey	Citizen Advocate
Joe Albrechta, Committee Member	Sandusky Township Park Committee
Aly Rumer, Executive Director	Christy Farm Nature Preserve
Sue Babione, Ph.D.	Ballville Township
Bill Hotz, LEED AP	Citizen Advocate

TABLE OF CONTENTS

Executive Summary

Chapter 1: Introduction

- 1.1 Vision
- 1.2 Background
- 1.3 Strategies and Policies
 - 1.3.1 Sandusky County Park District Strategic Plan 2016-2026
 - 1.3.2 The Sandusky County Comprehensive Plan – Update 2013
 - 1.3.3 2016 Creating Healthy Communities Program Work Plan
 - 1.3.4 2017 Creating Healthy Communities Program Work Plan
 - 1.3.5 Access Ohio 2040 – Ohio Department of Transportation
 - 1.3.6 2013 Ohio Statewide Comprehensive Outdoor Recreation Plan (SCORP)
 - 1.3.7 Trails for Ohioans Plan – Ohio Department of Natural Resources
 - 1.3.8 Fremont City Schools STP – Safe Routes to School Travel Plan (February 2014)

Chapter 2: Existing Conditions

- 2.1 Existing Conditions and Facilities
- 2.2 Types of Facilities
 - 2.2.1 Separated Facilities
 - 2.2.1.1 Shared Use Path
 - 2.2.1.2 Sidepath
 - 2.2.1.3 Rail-Trails
 - 2.2.2 On-Road Bicycle Facilities
 - 2.2.2.1 Shared Lanes
 - 2.2.2.2 Marked Shared Lanes
 - 2.2.2.3 Paved Shoulders
 - 2.2.2.4 Bike Lanes
 - 2.2.2.5 Bicycle Boulevards
- 2.3 Barriers to Bicycle Travel
 - 2.3.1 Ways to Address Barriers
- 2.4 Safety
 - 2.4.1 Pedestrian Safety Data
 - 2.4.2 Bicycle Safety Data
 - 2.4.3 Improving Safety

Chapter 3: Development

- 3.1 Meetings & Development of Ideas
- 3.2 Public Outreach & Input
 - 3.2.1 Creating Healthy Communities – 2015 North Coast Inland Trail Survey
 - 3.2.2 Public Meeting
 - 3.2.3 Stakeholder Open House
- 3.3 Professional Development Bike Ride: An Active Effort to Gain Understanding
- 3.4 Perspective of the Cycling Public
- 3.5 Identification of Improvements
 - 3.5.1 Focus Areas/Destinations
 - 3.5.2 Proposed Routes
 - 3.5.2.1 Western Sandusky County Route (17.0 miles)
 - 3.5.2.2 Pemberville – Woodville Route (5.2 miles)
 - 3.5.2.3 Norfolk & Western – Fremont to Burgoon (6.5 miles)
 - 3.5.2.4 Ballville Extension – Conner Park (2.7 miles)
 - 3.5.2.5 Ballville/Tiffin Route – Ohio Power Easement (4.5 miles)
 - 3.5.2.6 Ballville Extension – Hayes to Wolf Creek Park (6.5 miles)
 - 3.5.2.7 Northern Sandusky County Route (3.4 miles)
 - 3.5.2.8 Penn Central – Green Springs to Castalia (12.0 miles)
 - 3.5.2.9 Norfolk & Western – Fremont to Castalia (11.0 miles)
 - 3.5.2.10 Blue Heron Extension (2.1 miles)
 - 3.5.2.11 Sandusky Township/Christy Farm Route
 - 3.5.2.12 TSCC Campus Access Route
 - 3.5.2.13 City of Fremont Routes
 - 3.5.2.14 U.S. Bicycle Route Signing
 - 3.5.3 Trail Amenities and Support Facilities
 - 3.5.3.1 Wayfinding
 - 3.5.3.2 Trailheads
 - 3.5.3.3 Bicycle Parking
 - 3.5.3.4 Trail Hubs
 - 3.5.3.5 Mapping and Promotion of Active Transportation Facilities
 - 3.5.4 Trail Planning and Design Considerations
 - 3.5.4.1 Emergency Access and Trail Safety
 - 3.5.4.2 Enforcement
 - 3.5.4.3 Trail Maintenance

- 3.6 Local Support Programs
 - 3.6.1 Safety
 - 3.6.2 Law Enforcement
 - 3.6.3 Education
 - 3.6.4 Maintenance/Improvements
 - 3.6.4 Promotion
 - 3.6.5 Safe Routes to School

Chapter 4: Implementation

- 4.1 Roles & Responsibilities: Interagency & Interjurisdictional Coordination
- 4.2 Potential Funding Sources
- 4.3 Engineering
- 4.4 Implementation Strategies
 - 4.4.1 Strategy 1: Strategically Pursue Infrastructure Projects
 - 4.4.2 Strategy 2: Continual Review & Evaluation of Existing Infrastructure for All Users
 - 4.4.3 Strategy 3: Grow Public Awareness and Bicycle Safety
 - 4.4.4 Strategy 4: Update the Bicycle Development Plan
 - 4.4.5 Strategy 5: Seek Ongoing Public Input
 - 4.4.6 Strategy 6: Collaborate with ODOT
 - 4.4.7 Strategy 7: Document Success
 - 4.4.8 Strategy 8: Establish Measures of Effectiveness
- 4.5 Plan Support

Appendices

Appendix A	1991 Sandusky County Bike Plan
Appendix B	Map of Proposed Trail Locations Identified in 1991 Bike Plan
Appendix C	Pedestrian Crash Data
Appendix D	Bicycle Crash Data
Appendix E	Creating Healthy Communities: 2015 North Coast Inland Trail Survey Results
Appendix F	2016 Public Meeting Survey Results
Appendix G	Maps of Surrounding Counties – Existing and Planned Shared-Use Trails & Bicycle Facilities
Appendix H	Resolutions and Letters of Support

List of Tables

Table 3.1	Existing Bicycle Facilities
Table 3.2	Recommended Bikeway Improvements
Table 4.1	Potential Funding Sources
Table 4.2	Measures of Effectiveness

List of Figures

Figure 1.1	National Corridor Plan (AASHTO)
Figure 1.2	US Bike Routes in Sandusky County (TIMS)
Figure 2.1	Map of Buckeye Trail in Ohio
Figure 2.2	Bicycle Accident Data Map
Figure 3.1	Development Plan for Active Transportation – Sandusky County
Figure 3.2	Development Plan for Active Transportation – City of Fremont

EXECUTIVE SUMMARY

Introduction

In 1991, Sandusky County created its first bicycle plan laying the groundwork for the start of bicycle trail development in the area and the development of the North Coast Inland Trail through northern Ohio. Since that time, nearly 22 miles of shared use paths have been constructed as part of the efforts by Sandusky County and a growing desire exists to expand the trail system within the County and to make regional connections to other destinations.

Vision & Goals

In the time since the development of the original plan, an interest has grown in active transportation and building communities that don't require the use of motorized transportation, benefiting the health of the community, the environment and adding economic benefit as well. The vision of this plan is to expand the existing trail system within the County and create an environment where walking and bicycling are a safe, convenient, viable transportation or recreation option for residents of all ages and skill levels. The desire also exists to expand this effort by providing connections to neighboring counties and encourage active transportation beyond Sandusky County.

Existing Conditions

There are currently nearly eight miles of on-road bicycle facilities, and 22 miles of separated bicycle facilities within Sandusky County. Twenty miles of paved shared use path within the county is part of the North Coast Inland Trail, which is currently a 67.5 mile bicycle route from Elmore, Ohio to Elyria, Ohio. The trail will eventually connect Indiana and Pennsylvania for a total of 270 miles when complete.

Bikeway Network and Infrastructure Improvements

The bikeway network and mapping includes both existing trails and proposed improvements, and as seen on the mapping, there is an emphasis on routes. The recommended facilities shown on the maps include on-road facilities (signed bike routes, shared lanes, marked shared lanes, paved shoulders, and bike lanes) and separated facilities (shared use paths, sidepaths, rail-trails) with a need for bicycle/pedestrian bridges, intersection improvements, trail access improvements and other accommodations that will create a safe environment and serve the needs of the pedestrians and bicyclists throughout the County.

Non-Infrastructure Recommendations

The plan includes recommendations to consider as part of the planning and design process of the trail system such as trail amenities (wayfinding, bicycle parking along the network, and trail hubs), the consideration of

emergency access and trail safety, enforcement and facility maintenance. In addition, a large component to aid in public involvement with active transportation is education. Educating the public, both drivers and cyclists, on bicycle laws, bicycle safety and the proper way to ride on the road, is a critical step in the implementation of this plan.

Implementation

The implementation of the plan will require the continued involvement of the Strategic Partners as lead agencies, funding applicants, and partners that work to educate the public, maintain the trail system and update the plan. As indicated, the plan provides an unprioritized list of routes or potential projects to be matched with available funding sources. A summary of these funding sources is included in Table 4.1.

A list of strategies essential to the implementation of this plan is included in Chapter 4 and is intended to guide the Collaborative Partners beyond the acceptance of the plan to ensure the development of the active transportation network within Sandusky County. In addition, the partners developed Measures of Effectiveness, outlined in Table 4.2, that will help to quantify the successes during the development and aid in determining areas of strength and areas requiring improvement.

CHAPTER 1: INTRODUCTION

1.1 Vision

The vision of the Sandusky County Development Plan for Active Transportation is to expand on the existing trail system within the County and create a region where walking and bicycling are safe, convenient, and viable transportation or recreation options for residents of all ages and skill levels. In addition, due to the routing of several regionally and nationally significant trails and routes through the County, the Collaborative Partners recognize an opportunity to enhance the economic viability of the area by expanding the trails and on-road facilities to points of interest as well as providing connections to neighboring counties in an effort to encourage the development of active transportation beyond Sandusky County.

Sandusky County has the potential to draw people to the region and its many destinations by expanding the shared use trails throughout the County and providing connectivity to destinations such as Hayes Presidential Library and Museums, Creek Bend Farm, Christy Farm Nature Preserve and White Star Park. In addition, non-motorized transportation methods such as walking and biking are on the rise nationwide, driving the need to plan for and accommodate safe bicycle and pedestrian facilities into existing street systems where separated facilities are infeasible. Bicycling and walking can connect residents to destinations such as schools, parks, shopping

Active transportation programs represent a smart financial investment. Biking and walking account for less than 2% of the entire federal surface transportation budget yet account for 12% of all trips taken in America. In rural communities, that number stands between 6.9 and 9.6%, depending on the size and geography of the community, according to the National Household Travel Survey (NHTS).

And these numbers are growing fast. Bicycle commuting across the United States rose 40% in the past decade, according to the American Community Survey.

Active Transportation Beyond Urban Centers – Walking and Bicycling in Small Towns and Rural America (Rails-to-Trails Conservancy)

centers, restaurants and places of employment when safe routes are developed within more populated areas. “Active transportation” is a relatively new term encompassing walking, bicycling, and access to transit that emphasizes these forms of transportation for utilitarian purposes and not solely recreational purposes. There is also an emphasis on health, environmental and other benefits to communities and their residents. In addition, there is evidence and growing recognition that shared-use trails serve as transportation facilities as well as recreational facilities.

1.2 Background

In 1991, seeing the need for alternative means of transportation and recreation opportunities, Sandusky County developed its first bicycle plan to address the evolving needs of the residents. The Sandusky County Bicycle Plan (included as Appendix A) was approved by the Board of County Commissioners on November 5, 1991 and identified eight (8) proposed trails in Sandusky County.

- North Coast Inland Trail (NCIT) was a proposed 47 mile path connecting Norwalk in Huron County with Millbury in Wood County.
- NCIT Fremont City Route, as proposed, would use available railroad right-of-way at Christy Road west of Fremont and Park Avenue near downtown Fremont to link the NCIT termini at each end of the City.
- NCIT Ballville Extension would traverse from the railroad right-of-way at Park Avenue in Fremont approximately 6.5 miles to provide access to Conner Park and Tindle Bridge.
- Western Sandusky County Route was proposed to traverse west from the Fremont City Route at Terra State Community College (former Terra Technical College) on Napoleon Road to Gibsonburg/White Star Park and then proceed to Woodville and Elmore.
- Norfolk and Western, Fremont to Castalia Path would utilize the abandoned railroad corridor from Countryside Park at north US Route 6 from the Fremont Bypass to Castalia through Erlin and Vickery. The path would extend north to the Blue Heron Reserve.
- Norfolk and Western, Fremont to Burgoon Path was proposed to utilize the abandoned Norfolk and Western rail corridor from south Fremont to Burgoon.

Appendix B includes an updated map of the 1991 Sandusky County Bicycle Plan indicating the planned routes and those completed, to date. Twenty-five years have passed since the original plan was approved and 30 miles of trails/facilities have been developed through the Sandusky County Park District and the City of Fremont as a result. While the plan was heavily utilized and has been partially fulfilled, the need to update it is apparent.

Although there may have been resistance from nearby residents to trails being constructed early on in the process, it is safe to say that an overwhelming majority of county residents fully support the further development of trails to expand the number of places they have access to on foot and bicycle. This support and community feedback is the driving force behind the efforts to update the bicycle plan.

In May of 2016, the Collaborative Partners received a \$50,000 LGIF grant and have leveraged \$25,241.79 of local in-kind funds for a total project cost of \$75,241.79 to develop this plan. These funds are being used to prepare this development plan to connect the existing trail system operated and maintained by the Sandusky County Park District and the City of Fremont to various sectors of the City of Fremont, including the downtown,

Hayes Presidential Library and Museums, and Terra State Community College along with countywide destinations.

Subsequent to receipt of the grant, the Sandusky Township Trustees voted to allocate \$3,500 to the development of the plan for shared-use recreation trails in Sandusky County. Sandusky Township is home to the Christy Farm Nature Preserve, a popular destination for visitors and residents. The Township Park Committee and Township Trustees also have plans to pursue the development of township-owned land for a park, potentially serving as a rest stop along one of the developed routes.

The proposed Development Plan for Active Transportation should address safe connections to the Hayes Presidential Library and Museums and Terra State Community College. Both of these entities are important economic drivers in the community. Trail connections should emphasize historic landmarks, hospitality-related businesses and other services using a regional approach to develop consistent branding and a uniform wayfinding system that will help existing businesses and encourage new investment in the County.

In 2015, the Fixing America's Surface Transportation (FAST) Act was signed into law allocating \$835 million per year in FYs 2016 and 2017 and \$850 million in FYs 2018-2020 for Transportation Alternatives funding nationwide to aid transportation projects such as pedestrian and bicycle facilities, recreational trails, safe routes to schools and various other projects. In response to the needs of its residents, current transportation trends, and in order to position itself to compete for funding, Sandusky County has developed this active transportation plan identifying existing gaps and barriers, key destinations and routes, pedestrian and bicycle safety, and includes the following elements to aid in the execution of this plan:

- ✓ The roles and responsibilities of the strategic partners
- ✓ A list of potential funding sources for implementation
- ✓ Planning and design standards for proposed facilities
- ✓ A list of strategies to aid the County in implementation of the plan
- ✓ A list of performance measures to track project progress over time

1.3 Strategies and Policies

The following is a summary of strategies and policies from existing plans in place for Ohio and Sandusky County and how they relate to and support this plan. In addition to the plans listed, the City of Fremont is currently engaged in preliminary discussions regarding the implementation of a Complete Streets policy.

1.3.1 Sandusky County Park District Strategic Plan 2016-2026

The plan identifies seven goal areas, with *Goal Area #2: Trail and Bike Path Preservation and Enhancement* the most relevant to this plan. In addition, four Target Areas were identified under this goal area:

- ✓ *Assess all trails and pathways for safety and the needs of the community (include ADA accessibility)*
- ✓ *Develop an ownership/partnership initiative for trails and bike paths*
- ✓ *Add mile markers and maps to all trails and bike paths*
- ✓ *Develop ways to educate the public on the importance of maintaining trails and bike paths for safety reasons and habitat management purposes, i.e. signage, press releases, videos, etc.*

1.3.2 The Sandusky County Comprehensive Plan – Update 2013

This plan replaces the **2003 Sandusky County Comprehensive Plan** (referenced for historical content) that cited the **1991 Sandusky County Bike Plan** and indicated that “*continued development of bikeways is viewed as a high priority over the next few years.*” The plan included “*recommendations for further development*” listing the completion of the trail system, including rails to trails, as its highest priority.

In the **2013 Update**, The Transportation Goal indicated in the Transportation section of **The Sandusky County Comprehensive Plan** is:

To facilitate the safe, efficient, and expeditious movement of people and goods throughout Sandusky County, by addressing the following objectives:

- 1.) *Utilize access management techniques to accommodate traffic flows and ensure safe pedestrian usage.*
- 2.) *Encourage the usage of safe and “walkable” streetscape design and signage standards within municipalities and across the County.*
- 3.) *Promote alternative means of transportation that meets the above Transportation Goal, such as aviation, railroads and bicycle transportation.*

To address these objectives, the following strategies and recommendations are included in the plan (with relevant support information included as excerpts from the plan as well).

- 10.1 ***Encourage the development of streets and roadways conforming to the characteristics of Traditional Neighborhood Design.*** *This network serves to slow and disperse vehicular traffic and provide a pedestrian friendly atmosphere. The overall function, comfort and safety of a multipurpose or “shared” street are more important than its vehicular efficiency alone.*

- 10.3 **Promote bicycle, pedestrian, and other alternative modes of transportation.** *Across the country, bicycle and pedestrian tourists are making significant contributions to local economies. In some areas, the contribution made by these non-motorized tourists can be as much as tourists using motor vehicles. Studies show that where bicycle and pedestrian tourism is fostered and promoted, and where investments are made in bicycle and pedestrian facilities, the economic impact may be even greater. A thriving tourist industry, in turn, can attract and revitalize businesses, create jobs, and increase public revenue. Sandusky County has witnessed this impact to a significant degree with the completion of the County's portion of the North Coast Inland Trail.*

Section 10.3 continues discussing the benefits to the local economies that developing pedestrian and bicycle facilities can have on local communities and includes a list of examples of how local zoning ordinances can be amended to address the needs of pedestrians and bicyclists.

1.3.3 2016 Creating Healthy Communities Program Work Plan

This plan was created by Sandusky County's Creating Healthy Communities Coalition in an effort to increase the number of local policies and practices that include language supporting environmental changes to enhance places for physical activity, emphasizing walking and bicycling as evidenced by an increase in their **Share the Road** safety campaign. The plan includes measures to assess the educational and infrastructure needs of the community, create plans to determine routes for bicycle signage and pavement markings and educate community members on bicycle safety, implement the plans, and finally conduct an evaluation to determine changes in bicycle safety, knowledge and behavior.

1.3.4 2017 Creating Healthy Communities Program Work Plan

This plan was created by the Sandusky County's Creating Healthy Communities Coalition in an effort to increase the number of residents meeting the Physical Activity Guidelines for Americans developed by the Department of Health and Human Services. Objectives #3, 4 and 5 in the plan seek to expand opportunities for physical activity (walking and bicycling) by developing policies and practices that support the development of facilities in Sandusky County, the City of Fremont and the Village of Gibsonburg, respectively. Within Sandusky County, the identified process includes the development and implementation of a master plan for bicycle and pedestrian facilities. Within Fremont, the identified process to expand opportunities for physical activity includes the development and implementation of an **Open Streets** initiative. Finally, in Gibsonburg, the objective will be met by providing enhancements/equipment at a local park to promote physical activity.

1.3.5 Access Ohio 2040 – Ohio Department of Transportation

Due to the steady growth of interest in active transportation, ODOT's long-range transportation plan includes strategies to identify a national and a statewide bicycle route network. It will be the first statewide bicycle network developed for Ohio. The first step in this process is adopting the **National Corridor Plan** developed by AASHTO (American Association of State Highway and Transportation Officials) that identifies U.S bicycle routes (USBR) connecting states throughout the country. Five of these USBR corridors pass through Ohio with two of them currently routed through Sandusky County. The State Bike Routes developed will supplement the USBRs providing connections to the 17 metropolitan centers across the state. ODOT will work with MPOs, RPOs and local governments to complete the designation of the remaining USBRs in Ohio by 2020 and by 2040, all SBRs will be designated. See the **National Corridor Plan** on page 14 and the TIMS mapping of Sandusky County on page 15 indicating these route locations.

1.3.6 2013 Ohio Statewide Comprehensive Outdoor Recreation Plan (SCORP)

For Northwest Ohio, walking and biking were identified as two of the activities that are on the increase, and Trail Use Activities questions on the statewide survey used to gauge public interest were the most responded to of all of the forms of recreation options presented. In addition, the development of shared use paths for bicycling and walking is identified as a major concern by the focus group participants, including more improved trails and connectivity among trails.

The recommendations made in the plan regarding the issue of Trail Corridors and new trail development include:

- ✓ *Considering the overwhelming popularity and importance of trails to the public, recreation providers should continue to form regional coalitions to review their trail offerings and explore opportunities for creating trail connectors.*
- ✓ *Any new trail development projects should focus on connectivity to existing trail systems in the area, if feasible.*
- ✓ *Trail development projects should also include conveniences for users, including restrooms, drinking water, adequate parking and security lighting.*



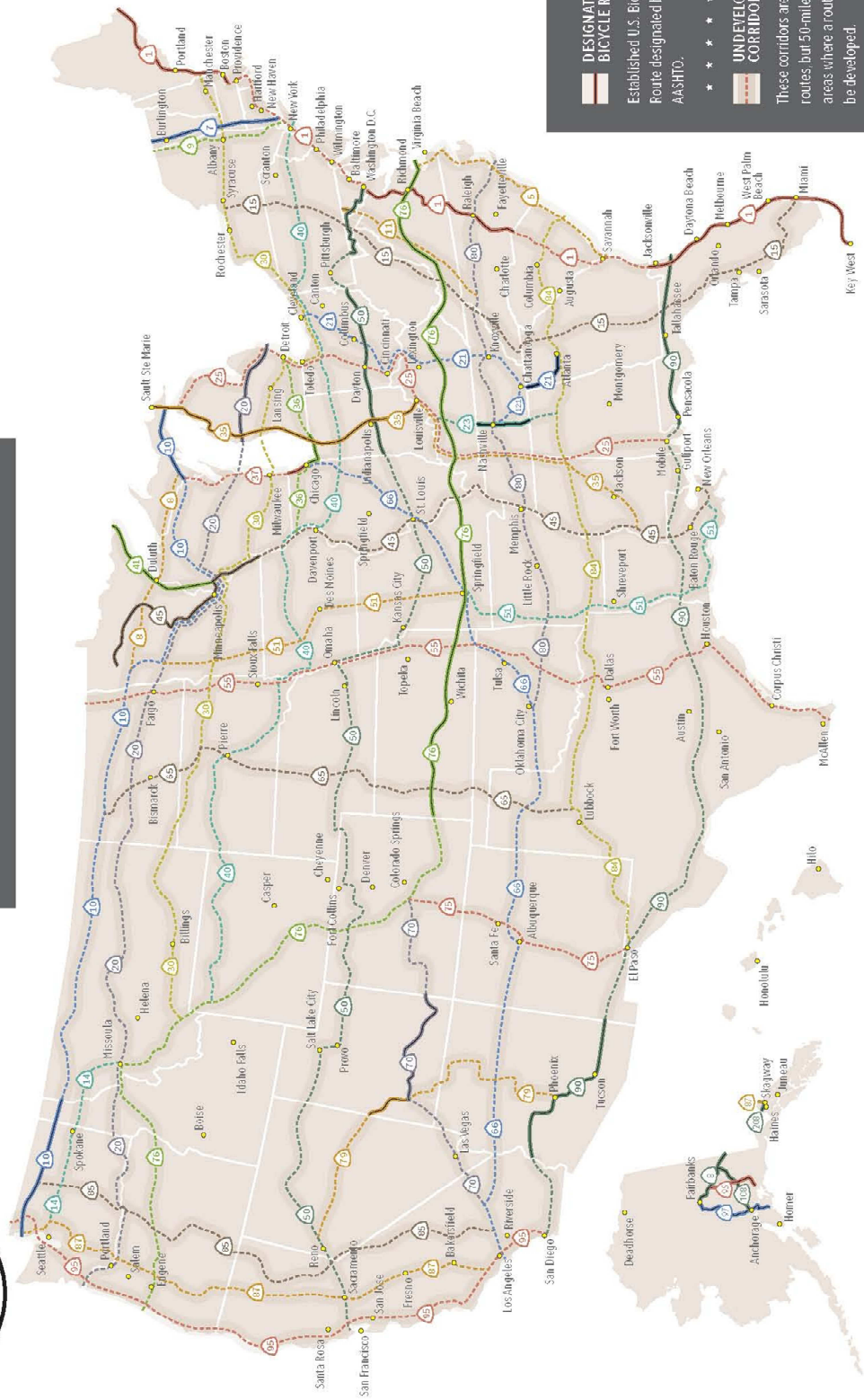
The goal of The United States Bicycle Route System is to connect America through a network of numbered interstate bicycle routes.

NATIONAL CORRIDOR PLAN

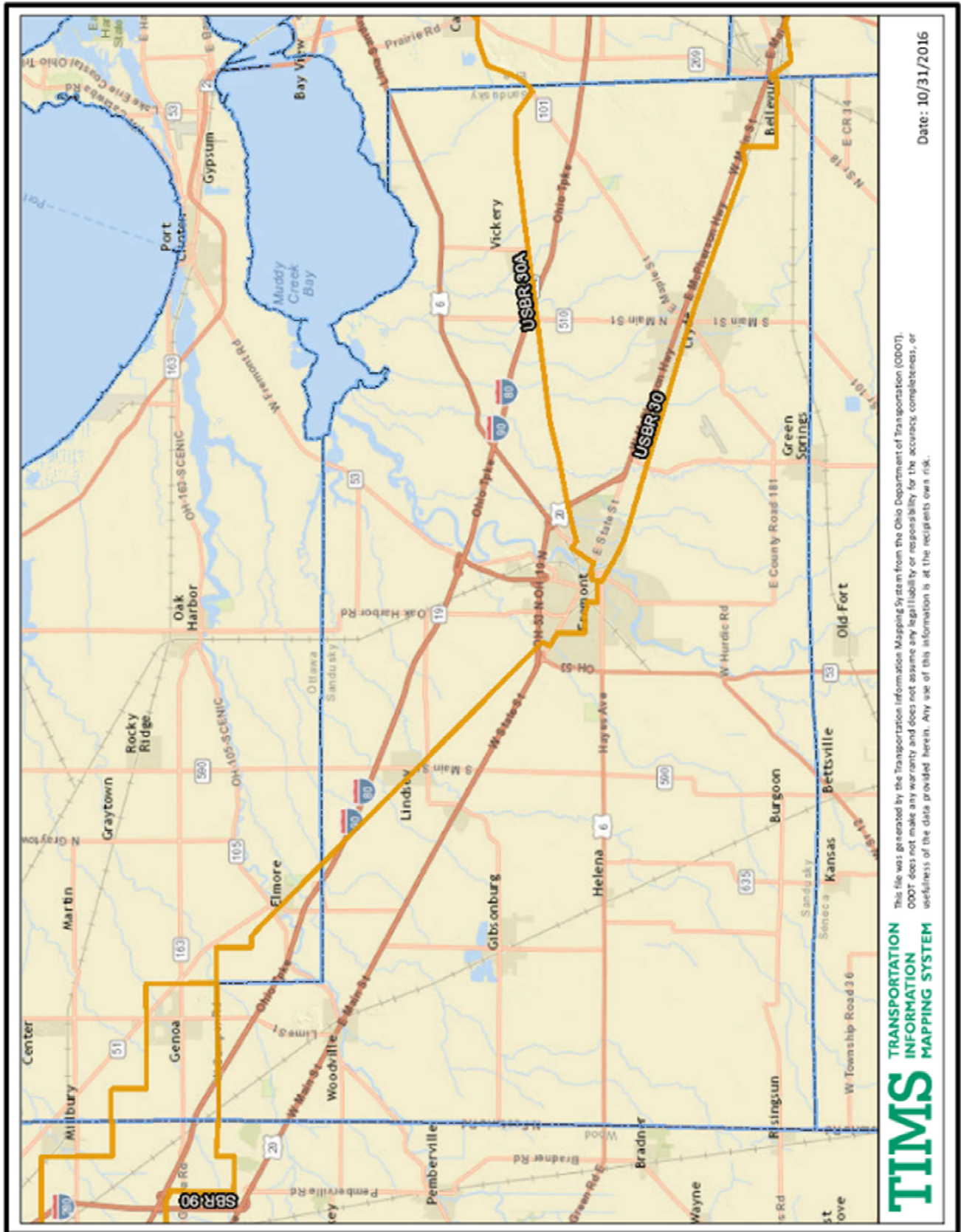
December 2016

Adventure Cycling Association
America's bicycle travel experts

AMERICAN ASSOCIATION OF
TRANSPORTATION OFFICIALS
AASHTO
THE VOICE OF TRANSPORTATION



ADVENTURECYCLING.ORG/USBRs



1.3.7 Trails for Ohioans Plan – Ohio Department of Natural Resources

The plan identifies potential trail corridors such as railroad rights-of-way, utility corridors, street/road rights-of-way, riparian corridors and easements that are also identified in this plan for the purpose of bicycle facility development. In addition, several sections of the plan in **Chapter 4 – Helping Our Trails** are relevant to this plan and the development of active transportation facilities in Sandusky County. First, the goal of **Connecting Trails** identifies the following implementation strategy relevant to this plan:

- ✓ *Trail advocates should actively pursue and participate in local, regional, and statewide planning efforts to help facilitate the development of inter-connected trail systems using a hubs and spokes approach. Hubs include parks, recreation areas, and historic and cultural sites. Spokes connect corridors like trails, greenways, waterways and natural corridors. Planning efforts should generate maps of critical linkages and connections.*

Trails as Transportation Alternatives identifies the following implementation strategy to provide “opportunities for utilizing trails for human powered transportation alternatives and commuter access” in Ohio:

- ✓ *Transportation planners should give greater emphasis to non-motorized and multi-modal approaches to meeting congestion and air quality issues while at the same time increasing alternate transportation and recreation opportunities.*

Trail Support Facilities identifies the following implementation strategies to maximize recreation and transportation opportunities of trail users:

- ✓ *Strategically located access points, trailheads, or staging areas are particularly important considerations when planning and developing trails. Facilities available at a trailhead can provide the user with a critical first impression before trail use. Where feasible, trailheads should be fully accessible to trail users with disabilities.*
- ✓ *A greater emphasis should be placed on the design and planning of staging areas that offer access to more than one type of recreational activity or participant. The integration of amenities at dual-purpose staging areas would allow participants to secure recreational equipment, thus enhancing the quality of the recreational experience.*

Trails Funding identifies the following implementation strategy, acknowledging that funding for trails is inadequate and the administration of existing grant programs needs to be improved:

- ✓ *Trail managers should pursue private sources of funds for trail projects such as corporations, non-profit organizations and foundations. Establishing user fees for trails should also be explored. Trail managers should consider using non-traditional sources of funds, e.g., transportation, tourism, and community development funds, to finance trail projects.*

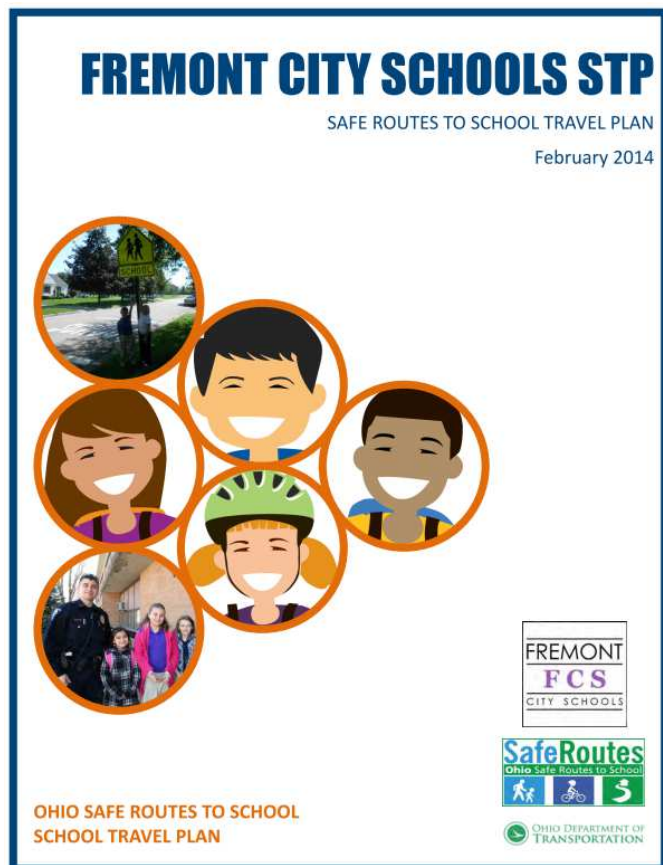
Trails Accessible to All identifies the following strategies to ensure that trails are designed and constructed to be accessible to those with disabilities, to the maximum extent possible:

- ✓ *Trail providers should develop their facilities and implement their programs in compliance with federal and state statutes on accessibility.*
- ✓ *Trail providers should expand accessible trail opportunities and continue to distribute information on these trail opportunities.*

1.3.8 Fremont City Schools STP – Safe Routes to School Travel Plan (February 2014)

From page 4 of the plan: “The goal of the Fremont Safe Routes to School program is to create ways for children to travel safely to and from their schools. Additionally, the program aims to increase the physical activity of its children, thus improving the overall wellness of students as well as staff and community members.”

To meet this goal, the plan identifies infrastructure and non-infrastructure countermeasures that are recommended. Non-infrastructure countermeasures identified included various education programs, promotion/encouragement programs, enforcement programs and evaluation programs used to track progress. Infrastructure improvements recommended include restriping crosswalks, adding signage, installing walks and ADA compliant curb ramps, installing pedestrian signal heads with countdown timers, adding bicycle racks at specific schools, and installing pedestrian activated flashing beacons to enhance signage. The total cost for infrastructure improvements identified in the plan was \$530,000.



CHAPTER 2: EXISTING CONDITIONS

2.1 Existing Conditions and Facilities

In 1997, 6.5 miles of the North Coast Inland Trail opened in Sandusky County between the Cities of Fremont and Clyde along abandoned railroad corridor making up the first phase of the shared use path constructed from the 1991 Sandusky County Bike Plan. The next segment opened in 2008 beginning in Elmore (Ottawa County) and extending through Lindsey, 10.5 miles to the northwest corner of the City of Fremont, again, along abandoned railroad corridor. The final phase of the NCIT in Sandusky County opened in 2012. This 4.75 mile segment of the trail begins in Clyde and extends to County Road 177 west of Bellevue. Signed bicycle routes have been developed through the Cities of Fremont and Bellevue to complete the Sandusky County portion of the North Coast Inland Trail and provide a continuous 67.5 mile bicycle route from Elmore, Ohio to Elyria, Ohio. The Trail will eventually span Ohio for a total of 270 miles when complete.

Maintenance on the existing trails have been performed in the form of cutting back vegetation overgrowth on a regular basis and resurfacing the existing trails on an as needed basis. 2009 and 2011 saw the resurfacing of the



Figure 2.1 - Map of Buckeye Trail in Ohio

Fremont to Clyde section in two phases, and in the fall of 2016, the NCIT underwent a resurfacing from Muddy Creek in Lindsey to Walter Avenue in Fremont. The trails are regularly maintained and patrolled by the Park District.

As mentioned earlier, the NCIT has been identified by AASHTO as US Bike Route 30 (spanning from Maine to Montana). In addition, State Route 412 in Sandusky County has been identified as US Bike Route 30A. See the National Corridor Plan map on page 14 and the map of Sandusky County on page 15 showing these routes locally. Both routes are currently

identified as “undeveloped corridors” but the State of Ohio and local officials are working towards achieving “Designated U.S. Bicycle Route” status for these routes.

A portion of the NCIT (Elmore to Fremont) is also part of the larger Buckeye Trail, a 1,444 mile hiking trail that loops around the state of Ohio using roads, paved shared use paths and wooded trails. All of these trail/route designations have the potential to grow bicycle and hiking tourism in the area and benefit local economies.

2.2 Types of Facilities

This report refers to the standard bicycle facility definitions identified by AASHTO in Section 1.4 of the *Guide for the Development of Bicycle Facilities (2012, Fourth Edition)*. There are two main types of bicycle facilities that can be provided: separated facilities and on-road facilities. Both types of facilities currently exist within Sandusky County, and the Development Plan includes both types of facilities for future improvements. Descriptions of each are included below.

2.2.1 Separated Facilities

Separated facilities are typically comprised of shared use paths and sidepaths, and as indicated by the name, they are separated from motor vehicle traffic. In addition, they may be used by pedestrians, skaters, wheelchair users, joggers, and other non-motorized users.



2.2.1.1 Shared Use Path

A bikeway physically separated from motor vehicle traffic by an open space or barrier and either within the highway right-of-way or within an independent right-of-way.

2.2.1.2 Sidepath

A shared use path located immediately adjacent and parallel to a roadway.

2.2.1.3 Rail-Trails

Abandoned railroad corridor can be an ideal location for shared use paths. These are a type of shared use path called **Rail-Trails**, whether paved or unpaved. The existing North Coast Inland Trail through Sandusky County was placed on abandoned railroad corridor and is an example of a rail-trail. These corridors can be ideal for cross-county paths providing connections to other counties, cities and towns.

2.2.2 On-Road Bicycle Facilities

Separated facilities cannot always be provided and aren't desirable for all users. On-road bicycle facilities tend to be more feasible in built environments. The following is a listing of the various on-road facilities with their respective definitions.

2.2.2.1 Shared Lanes

A lane of a traveled way that is open to both bicycle and motor vehicle travel, but doesn't necessarily have pavement markings or signage.

2.2.2.2 Marked Shared Lanes

A lane of a traveled way that is open to both bicycle and motor vehicle travel. The lane includes pavement markings to indicate appropriate bicycle positioning.



Marked Shared Lane (saferoutesinfo.org)

2.2.2.3 Paved Shoulders

The roadway shoulder is the portion of the roadway contiguous with the traveled way that accommodates stopped vehicles and emergency use. Shoulders, where paved, are often used by bicyclists.



Paved Shoulders (www.fhwa.dot.gov)

2.2.2.4 Bike Lanes

A portion of the roadway that has been designated for preferential or exclusive use by bicyclists using pavement markings and signs. It is intended for one-way travel, usually in the same direction as the adjacent traffic lane, unless designated as a contra-flow lane.



Bike Lanes on Front Street in Downtown Fremont (Toledo Blade)

2.2.2.5 Bicycle Boulevards

A street segment, or series of contiguous street segments, that has been modified to accommodate through bicycle traffic and minimize through motor traffic.



Bicycle Boulevard (www.NACTO.org)

2.3 Barriers to Bicycle and Pedestrian Travel

What are the barriers to bicycle and pedestrian travel? Why aren't more people bicycling and walking? The most common reasons, echoed in the survey results, are typically concerns about safety, a lack of facilities and routes, weather concerns and walking/riding long distances. The existence of physical barriers or connectivity gaps only adds to this. Below is a list of identified significant physical barriers in Sandusky County:

- ✓ The US 20/6 Bypass around Fremont
- ✓ SR 53
- ✓ State Street
- ✓ Sandusky River
- ✓ Muskegon Creek
- ✓ Railroad Corridors

As seen in recent survey results, concerns were voiced over the existing signed bike route through Fremont, specifically the section along State Street from Brush Street to Walter Avenue. Large arterial roads can create barriers to bicycling because they are both difficult to cross and difficult to travel along.

Creeks and rivers limit opportunities for crossing and, from a planning and implementation standpoint, can significantly add to the cost of a project. Railroad corridors, as we see within the City of Fremont, can create gaps in shared use paths where active lines are still present. They can also limit crossing opportunities.



2.3.1 Ways to Address Barriers

The following are ways to address common physical barriers to building bicycle and pedestrian facilities:

- ✓ Provide grade-separated bicycle and pedestrian crossings (bridges or tunnels) of highways, streams or rivers
- ✓ Provide bicycle and pedestrian facilities through interchanges
- ✓ Improve at-grade crossings of major arterials that are not limited access

2.4 Safety

Since studies indicate an increase in bicycling and walking in recent years, it would be expected that this increase would result in an increase in motor vehicle collisions involving bicyclists and pedestrians, but the opposite is actually true. When bikes and pedestrians are commonplace, motorists expect them and take precautions. By providing infrastructure for bikes and pedestrians, motorists are given visual reminders to anticipate others along the route. In addition, they know where to expect them.

The most common causes of bicycle and pedestrian accidents are distraction (both driver and pedestrian), time of day, drug and alcohol use, and speed. Pedestrians are most often killed in the evening or late at night when visibility is reduced.

2.4.1 Pedestrian Safety Data

Pedestrian accident data was retrieved for a five year period from 2011 to 2016 within Sandusky County. The data was gathered from ODOT's GIS Crash Analysis Tool (GCAT) and indicated a total of 58 accidents during this time period, four of which were fatalities. This database contains only collisions as reported to and collected by local police departments and other law enforcement agencies in the state. Figure 2.2 on page 26 shows the mapped results of this database search.

A portion of these accidents are on facilities with no accommodations for pedestrians and where pedestrians are actually prohibited. Five accidents occurred on the Ohio Turnpike (Interstate 80/90) and six accidents occurred on US Route 20. A number of these accidents may be attributed to motorists becoming unintended pedestrians by a disabled vehicle or other event to cause a driver to exit a vehicle.

Approximately half of the pedestrian accidents within Sandusky County during this time period occurred in the City of Fremont with seven occurring along State Street. State Street is a four lane road with a speed limit of 40 mph. There are no other areas within the county with multiple accidents indicated. The majority of the pedestrian accidents reported were due to a failure to yield (unknown if motorist or pedestrian), improper crossing or other inappropriate action. See Appendix C for the graphical analysis of the pedestrian accident data collected.

2.4.2 Bicycle Safety Data

Data on collisions involving bicyclists can help planners and decision-makers identify areas in which to make improvements. Bicyclist safety is impacted by a number of variables including the design of facilities for biking, the speed of motor vehicle traffic, enforcement and education efforts. In addition, bicyclist safety tends to increase as the number of cyclists increase along a route.

Bicycle accident data was retrieved for a six year period in Sandusky County from 2011 to 2016. The data was gathered from ODOT's GIS Crash Analysis Tool (GCAT) and indicated a total of 38 accidents during this time period with no fatalities. This database contains only collisions as reported to and collected by local police departments and other law enforcement agencies in the state. The reported incidents included are more likely to be serious, since minor collisions are less likely to be reported to law enforcement.

Seventy-six percent of the accidents have been injury accidents and the remaining twenty four percent have resulted in property damage. Forty percent of the accidents have occurred within the City of Fremont with approximately twenty-six percent of the total number in the County having occurred along State Street in Fremont. Figure 2.3 on page 27 shows the locations of all of the traffic collisions involving bicyclists in Sandusky County during this time frame. See Appendix D for the graphical analysis of the bicycle accident data collected.

2.4.3 Improving Safety

One of the goals of this plan is to improve the safety of pedestrians and bicyclists. This can be accomplished through design, education and enforcement.

Accident data for both pedestrian and bicycle accidents indicated a concentration of accidents along State Street in Fremont. Although there are no gaps in pedestrian facilities along this route, it can still be evaluated to determine if intersection improvements can be made to enhance the safety of pedestrians. In addition, by expanding bicycle facilities on nearby streets in Fremont to encourage use of lower traffic routes, the City hopes to reduce the likelihood of bicycle accidents along this route.

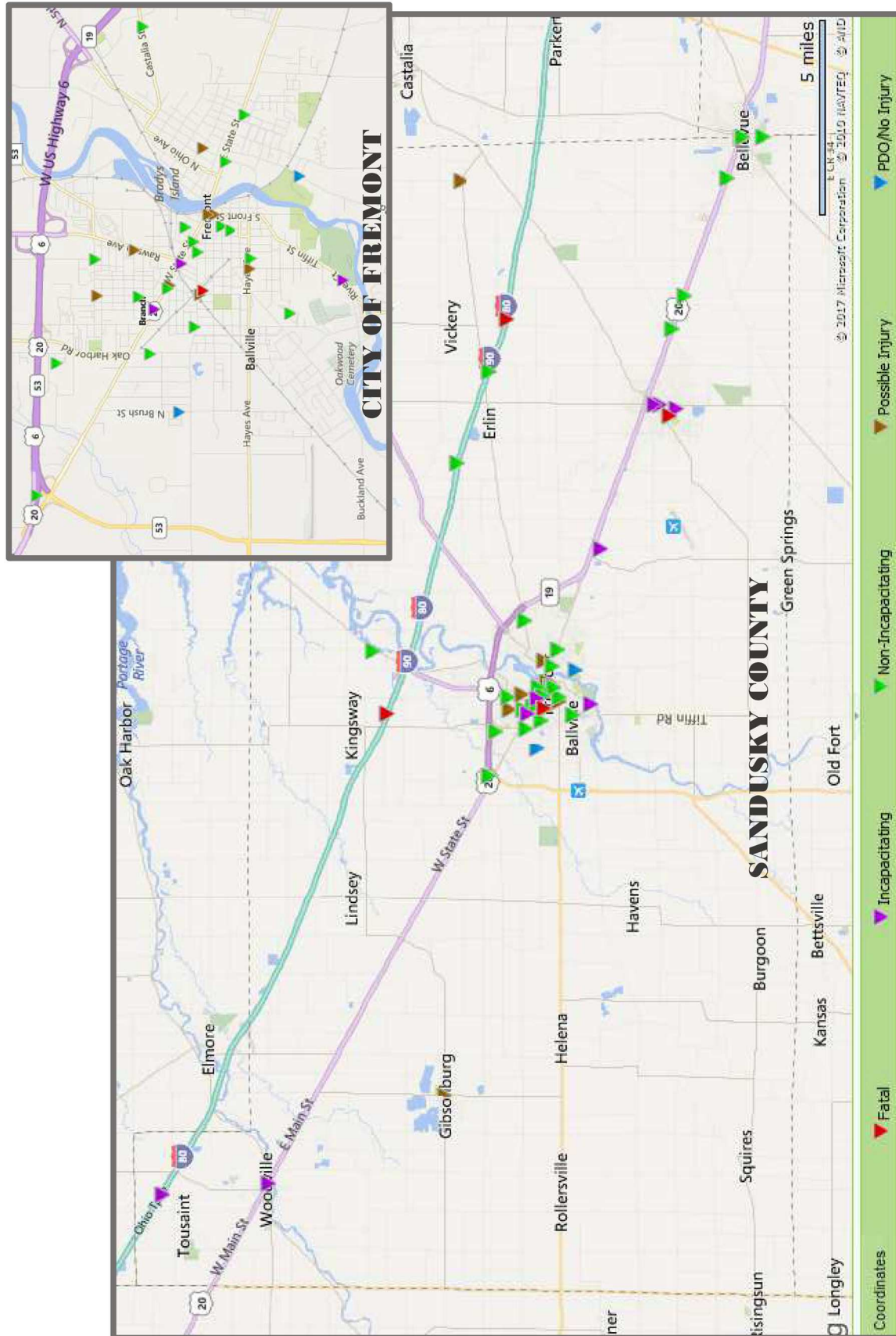
All roadway projects should be evaluated to determine if the needs of bicyclists and pedestrians are being met in addition to motorists. This approach to roadway design is known as Complete Streets. ***Complete Streets is a transportation policy and design approach that requires streets to be planned, designed, operated, and maintained to enable safe, convenient and comfortable travel and access for users of all ages and abilities regardless of their mode of transportation*** (National Complete Streets Coalition). This approach not only applies to new design or reconstruction, but also resurfacing projects. Existing traffic counts and patterns can be reevaluated prior to a resurfacing to determine if the existing conditions still warrant current lane configurations and widths. In some

instances, the number of or width of vehicle lanes can be reduced in order to accommodate bike lanes. A reduction in lane width has also been shown to reduce vehicle speeds, further enhancing safety along a corridor.



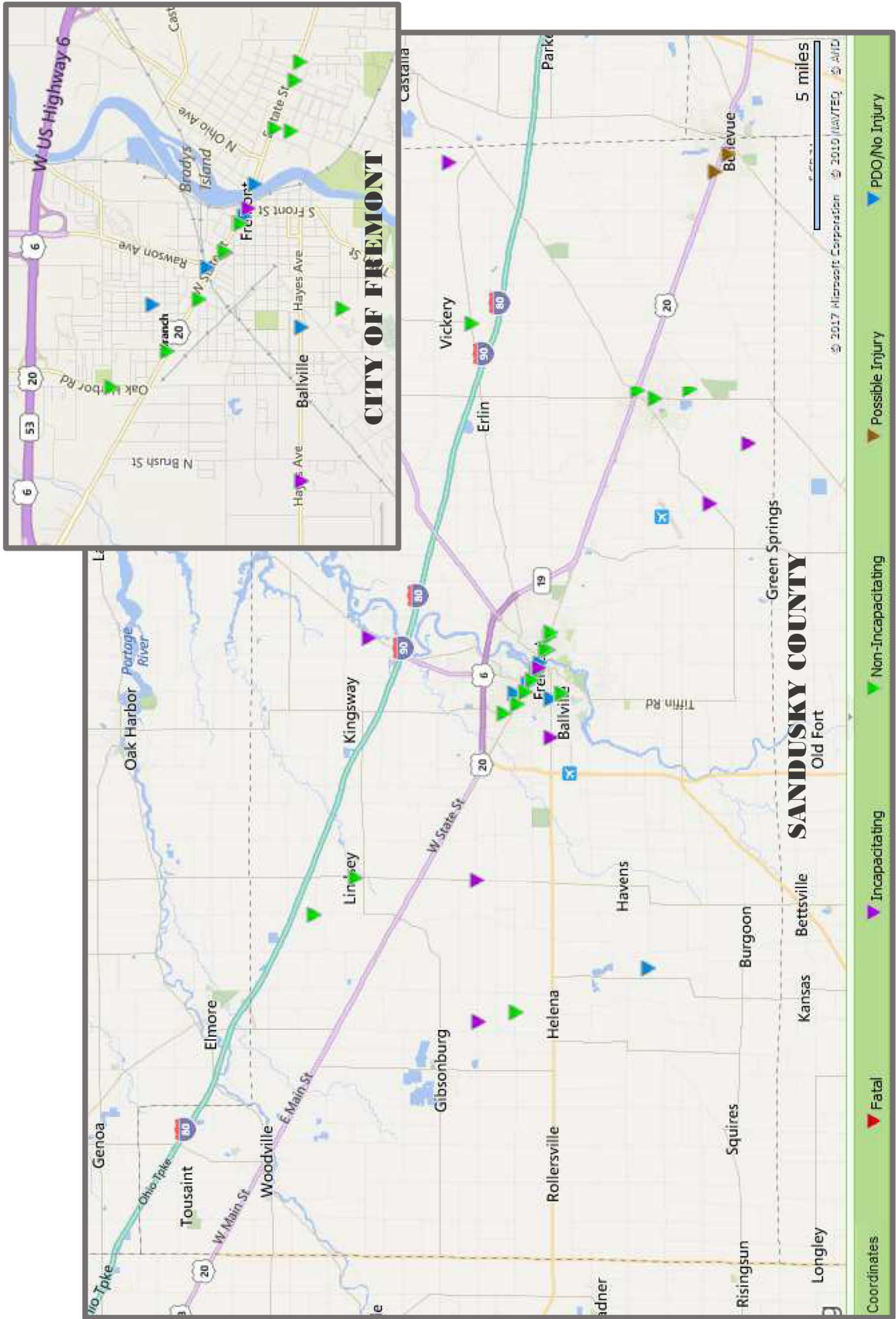
Closing gaps in pedestrian facilities and addressing inadequate facilities will also enhance safety. These issues can be addressed as standalone projects, but should also be evaluated and improved as roadway projects are designed and constructed. There is a separate on-going effort through Sandusky County Health Department to identify specific gaps in pedestrian facilities within the County. There is inter-agency collaboration and sharing of information to utilize these findings in an effort to enhance pedestrian safety and close the gaps that exist in the facilities that serve pedestrians.

Safe Routes to Schools (SRTS) programs have been instrumental in making changes in communities by involving parents, schools, community leaders, and local, state and federal government to promote healthy living, safe infrastructure, and physical activity starting with bicycling and walking to school. The programs examine existing conditions around schools and conduct projects and activities that work to improve safety and accessibility by not only funding infrastructure improvements, but also safety education for kids. The Fremont City Schools have implemented many components of the SRTS program following the development of a Safe Travel Plan with a SRTS Coordinator overseeing the program locally.



Sandusky County – Accidents Involving Pedestrians (2011 to 2016)

Figure 2.2 – Pedestrian Safety Data (ODOT GCAT)



Sandusky County – Accidents Involving Bicycles (2011 to 2016)

Figure 2.3 – Bicycle Safety Data (ODOT GCAT)

CHAPTER 3: DEVELOPMENT

3.1 Meetings and Development of Ideas

In December of 2015, a committee was formed to discuss facilitating bicycle and pedestrian connections within the City of Fremont to locations like Terra State Community College and Hayes Presidential Library and Museums. From there, word spread, interest grew and the group expanded. In May of 2016, word was received that the Sandusky County Park District had received a \$50,000 Local Government Innovation Fund (LGIF) grant from the Ohio Development Services Agency to help fund a Development Plan for Active Transportation Facilities. Since that time, the Collaborative Partners have met monthly, sought public input through a public meeting and eventually a stakeholder open house, participated in bicycle education, and worked to develop the ideas and input into a development plan to provide Sandusky County the background, direction and tools needed to increase active transportation opportunities throughout Sandusky County, while improving the safety and health of the community.

3.2 Public Outreach and Input

3.2.1 Creating Healthy Communities – 2015 North Coast Inland Trail Survey

In 2015, the Sandusky County Park District worked with Sandusky County Creating Healthy Communities (CHC) and the City of Fremont Parks Department to seek input from residents via an online questionnaire through Survey Monkey to assess needs of trail users along the North Coast Inland Trail. Questions for the survey were developed to determine characteristics of trail users, the sections of the trail used most frequently, and to gain an understanding of desired amenities, trail safety/security and why Sandusky County residents do or do not use the trail.

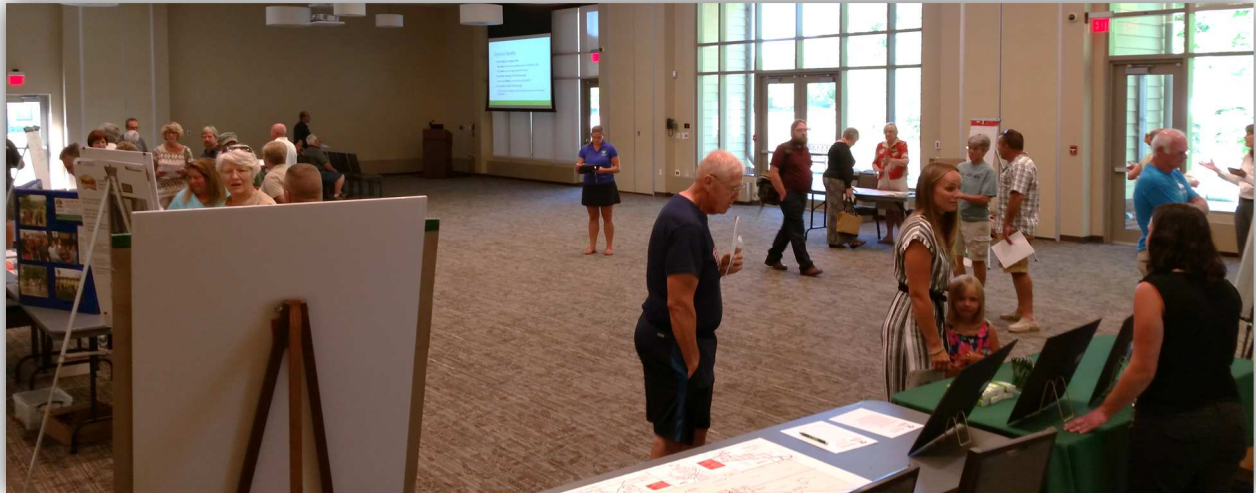
Input was received from 214 citizens and provided beneficial feedback to the City and County. The two most common reasons provided for not using the trail were not having nearby trail access and concerns about safety and crime. Trail users see the greatest needs along the trail to be restrooms, parking, trash cans, water fountains, traffic signs and destination/trail etiquette signs. The vast majority of trail users expressed feeling safe using the trail with all types of users, but did not feel safe sharing the road with motorists on the street route through town. Respondents agreed that the absence of bike lanes prevented them from riding the route at all. The full results from the survey are included in Appendix E.

A number of trail needs identified through this survey have already been addressed by Sandusky County CHC. Destination signs, trail etiquette signs and trash cans have been purchased and installed at each of the 12 trailhead locations, Park Ranger contact information has been posted along the trail to inform trail users of who to contact in a non-emergency situation, and CHC has implemented a ***Share the Road*** campaign and ***Open***

Streets initiative. CHC has also shared the survey data with local transportation agencies in hopes of adding bicycle infrastructure improvements along the signed street route through the City of Fremont.

3.2.2 Public Meeting

On July 26, 2016, the committee held a public forum at Terra State Community College to receive input about desired destinations, ideas for future expansion and other needs of trail users in Sandusky County. Attendance at the meeting was approximately 80 persons. The total number of participants in the survey is 26; however, the number of participants for each question may vary due to incomplete surveys.



Participants weighed in to identify desired destinations:

- ✓ Terra State Community College
- ✓ Hayes Presidential Library and Museums
- ✓ Shopping Centers (Potter Village and SR 53/Walmart area)
- ✓ Parks
 - Creek Bend Farm
 - Christy Farm Nature Preserve
 - White Star Park
 - Conner Park
- ✓ Schools
- ✓ Better signed route through Fremont

Complete survey results are provided in Appendix F.

Since the construction of the NCIT, the interest in cycling among the citizenry in the area has grown exponentially along with the desire to expand the trail system within the County. There is great public support for this Plan and future trails. As seen from public meeting feedback, there is little to no voiced opposition.

3.2.3 Stakeholder Open House

On December 6, 2016, a Stakeholder Open House was held to review a draft of this plan. The Collaborative Partners reached out to the County Commissioners, local municipalities and parks, law enforcement, schools and universities, local Safe Routes to Schools Coordinators, TRIPS transit authority, Chambers of Commerce, downtown organizations, low income housing community, mobility impaired community, Department of Job & Family Services, retirement homes & senior centers, daycares, bicycle advocacy groups, the health department, local hospitals, community work programs, local veterans service officers and local bike shop owners, among others.

A draft of the Development Plan for Active Transportation, a hardcopy of the PowerPoint presentation and the Sandusky County and Fremont maps of the Development Plan were handed out to all attendees. The plan was presented and reviewed by Andrew Brown, Sandusky County Park District Director, and the Collaborative Partners were all given an opportunity to share their roles and perspectives regarding the development of the plan draft. The discussion was then opened to all of the stakeholders in attendance for questions, comments and suggestions regarding the content of the plan, the destinations and the routes identified on the maps.

Feedback from the stakeholders included the following discussion items:

- Downtown Fremont should be identified as a destination/trail hub in the plan
- Concern was shared for identifying a more direct route from the east side of Fremont near the Rec Center to the SR 53 corridor to Walmart and the shopping centers north of Fremont.
- The group discussed the large number of pedestrians and bicyclists that currently use the busy SR 53 corridor north of US Route 20 to get to work. There were safety concerns voiced about this route.
- Discussed providing better routes through the City of Fremont beyond the existing signed route through town.
- Steve Gruner, former Sandusky County Park District Director, shared the history of the regional approach that was taken in the development of the 30 miles of existing trails within Sandusky County and the collaboration with other counties and park districts needed for the development of the North Coast Inland Trail. He emphasized the need to re-establish these connections and relationships and develop new ones to strengthen the plan and enhance opportunities to fund the improvements.

- A resident of the City of Tiffin shared an interest in the development of a trail between Tiffin and the North Coast Inland Trail to provide Tiffin residents access to the Trail. He stated that Seneca County is interested in collaborating to develop this connection.

The meeting ended with a plea to the stakeholders to review the information presented and provide input to the Partners by December 23, 2016 for incorporation into the final Development Plan for Active Transportation.

3.3 Professional Development Bike Ride: An Active Effort to Gain Understanding

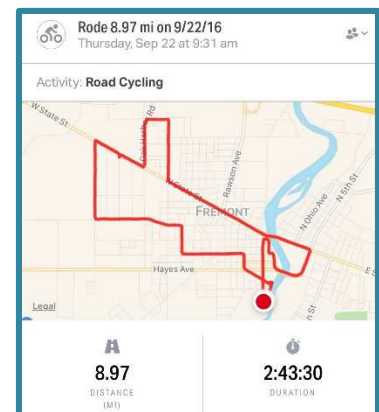
On September 22 and September 27 of 2016, 8 members of the Development Plan Collaborative Partners



participated in a Professional

Development Bike Ride hosted by a bicycle advocacy group out of Columbus, Ohio called **Yay Bikes!** Yay Bikes! partners with the Ohio Department of Transportation to provide these rides to engineers, planners, law enforcement, elected officials, municipal decision makers and other professionals to expand their understanding of how to effectively accommodate cyclists riding for transportation.

The 3-hour experience was customized for a ride through the City of Fremont to feature as many types of infrastructure as possible within a nine mile ride, including a four-lane highway. The ride included various stops along the route providing opportunities to discuss the experience of riding the different streets, traffic law and how it pertains to best cycling practices, design and routing of bicycle facilities, and finally a review of the funding programs available to assist communities in making improvements to the existing infrastructure in order to accommodate bicycles. The ride was an invaluable experience that gave this team unique insight into the importance of not only providing proper facilities for cyclists, but also the importance of educating the community, both cyclists and drivers, about the laws concerning bicycles and how to ride to reduce conflicts between cyclists and motorists.



The two participating groups considered their respective rides a success and Sandusky County is moving forward with plans to participate in a two and a half day training program designed to provide them with the skills to design and lead ***How We Roll and Ride*** buddy-style rides for interested community members within Sandusky County. This gives them a unique opportunity to take what they've learned back into their communities and educate others on how to safely ride the roads in their everyday travels.



3.4 Perspective of the Cycling Public

A main goal of this plan is to accommodate as many users as possible. Riders are typically classified by three main characteristics: comfort level, physical ability, and trip purpose. These classifications can be helpful in identifying rider level of comfort on different facility types, although we know that not all riders will feel comfortable riding on all facility types.



To address the needs of all cyclists, regardless of physical ability and comfort level, this plan recommends improvements to both arterial and collector roadways to accommodate bicyclists as well as providing separated facilities where feasible. It is understood that regardless of the safety of an available route, if it is indirect and out of the way, the route will not be used by all bicyclists. While neither on-road bicycle facilities nor separated paths will appeal to all types of bicyclists all of the time, they act to serve all bicyclists all of the time.

In order to encourage the use of on-road facilities, the facilities must be placed where (1) there is demand for bicycle travel, and (2) where bicyclists are within their comfort level. There are several roadway and traffic conditions that affect a bicyclist's level of comfort:

- ✓ Effective travel width for bicyclists
- ✓ On-street parking encroachments
- ✓ Volume of motor vehicles
- ✓ Speed of Traffic
- ✓ Heavy vehicles
- ✓ Pavement surface conditions

These factors have been considered in the determination of the on-road facilities included in the Development Plan and will continue to be evaluated through implementation as traffic and road conditions may change.

3.5 Identification of Improvements

Based on input from the public meeting, study committee focus areas, and the existing transportation planning documents for Sandusky County and the State of Ohio, a list of destinations have been identified to develop a plan for an updated bicycle network in Sandusky County. Connections to existing and proposed trails to locations outside of the County have been considered as well as providing the opportunity for growth of the trail system beyond Sandusky County where trail locations have not yet been identified. The following maps are included to show the recommended improvements identified as part of this plan: ***Development Plan for Active Transportation – Sandusky County*** and ***Development Plan for Active Transportation – City of Fremont***.

Included in Appendix G are available maps showing planned improvements for the counties surrounding Sandusky County, including Wood, Lucas, Erie and Ottawa Counties.

[Note: Mapping not available for Seneca and Huron Counties]



3.5.1 Focus Areas/Destinations

The following focus areas and destinations have been identified by the stakeholders and are addressed in the proposed routes included in the Development Plan:

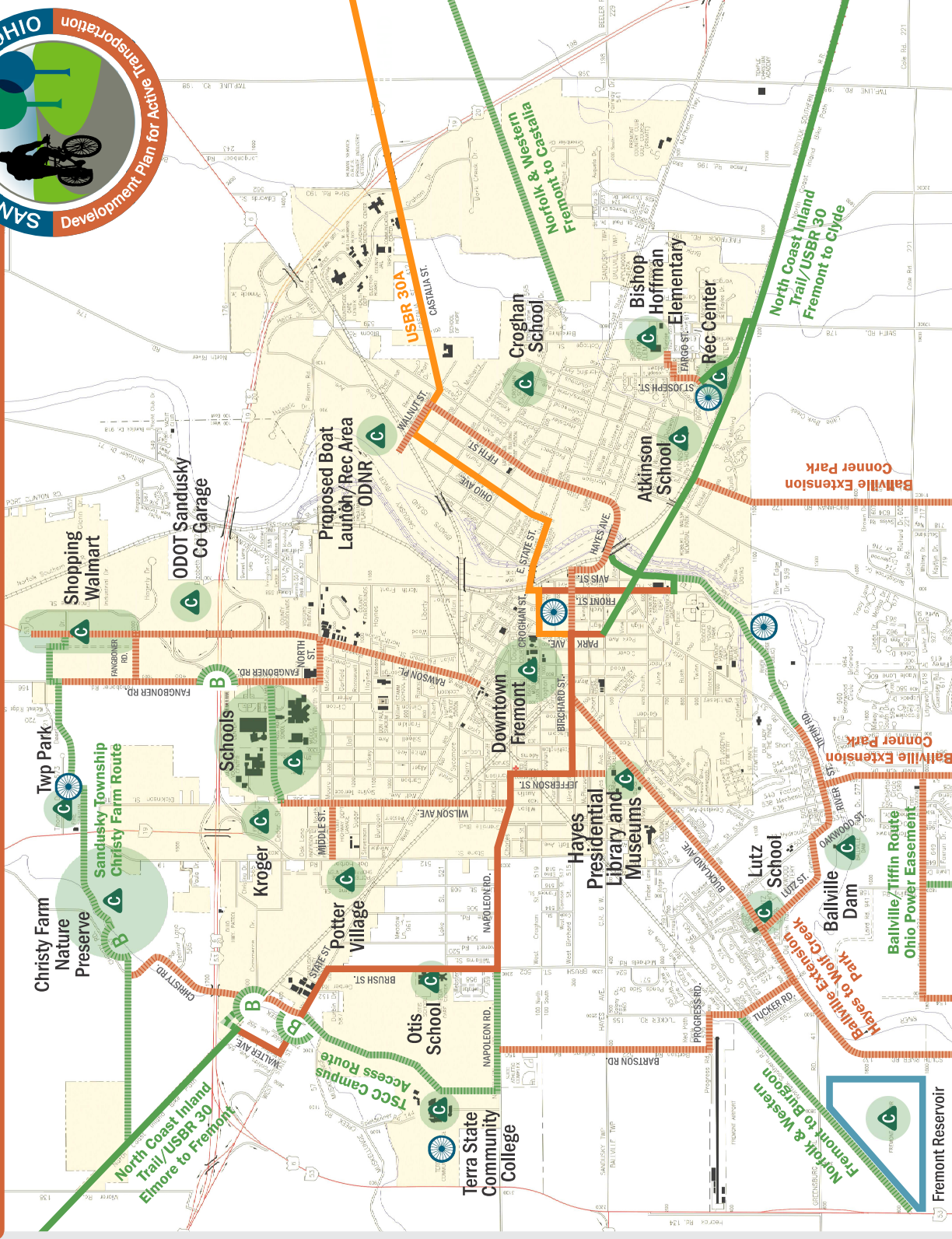
- ✓ Revise signed route through the City of Fremont
- ✓ Terra State Community College
- ✓ SR53 Shopping Center/Walmart
- ✓ Christy Farm Nature Preserve
- ✓ Hayes Presidential Library and Museums
- ✓ Downtown Fremont
- ✓ Ballville Township
 - Conner Park
 - Wolf Creek Park
 - Fremont Reservoir
 - Chudzinski-Johannsen Park & Tindall Bridge
 - Portage Trail Park
 - Ballville Dam
- ✓ Fremont Schools
- ✓ Potter Village
- ✓ Sandusky County Fairgrounds
- ✓ Creek Bend Farm, Lindsey
- ✓ White Star Park, Gibsonburg



Development Plan for Active Transportation



Development Plan for Active Transportation



LEGEND

- Community Identified Destinations
- Proposed Bike Pedestrian Bridge
- Potential Trail Hub
- Existing NCT/US Bike Route 30
- Existing On-Road Facilities
- Existing Unpaved Trails/Proposed Paved Trail
- Proposed Shared Use Paths
- Proposed On-Road Facilities
- Alternate Proposed Shared Use Paths
- Alternate Proposed On-Road Facilities
- US Bike Route 30A

Types of On-Road Facilities

- Shared Lanes
- Striped Paved Shoulders
- Bicycle Lanes
- Buffered Bicycle Lanes
- Bicycle Boulevards
- Shared Roadways

3.5.2 Proposed Routes

3.5.2.1 *Western Sandusky County Route (17.0 miles)*

Access to Gibsonburg and Woodville have been indicated via the Western Sandusky County Route. Gibsonburg has been identified as a key destination for future facilities and as routed, will be accessible from Sandusky Township near Fremont and the Village of Elmore as originally indicated in the **1991 Sandusky County Bike Plan** and the **2003 Sandusky County Comprehensive Plan**, maximizing the potential to attract nearby visitors to White Star Park and the wide range of recreational opportunities provided. Facilities/activities at the park include play equipment, volleyball courts, a playfield, nature trails, mountain bike trails, boating (boat ramp), fishing, SCUBA diving, camping, picnicking and riding on nearby equestrian trails.

3.5.2.2 *Pemberville – Woodville Route (5.2 miles)*

An extension of Western Sandusky County Route has been included from Woodville, west along Findlay Road to the Sandusky County/Wood County line. TMACOG has indicated Elmore Road as a Bike Network Street on their **2035 Plan Proposed Bike Projects Map**. Elmore Road leads to US 23 and Findlay Road. This extension will provide a needed connection to neighboring Wood County.

Trail Marker Park in the Village of Woodville is home to the community swimming pool, tennis court and playground equipment. The trail will provide access to this park as well as downtown Woodville. There are several schools and churches within a half mile radius of the park in addition to the public library.

3.5.2.3 *Norfolk & Western – Fremont to Burgoon (6.5 miles)*

This abandoned railroad corridor was identified in the **1991 Plan** and is still considered a desirable route for a shared-use path to provide a needed connection from the City of Fremont to Seneca County and the City of Fostoria. Since Fremont is the apparent hub for a majority of the trails, it provides access to all surrounding counties and connection points.

3.5.2.4 *Ballville Extension – Conner Park (2.7 miles)*

This route provides access to Conner Park in Ballville Township, home to several sports fields, including baseball, soccer, volleyball, basketball and tennis. Conner Park holds practices and games for many local team sports and is the prime destination on this route that would begin at the terminus of the North Coast Inland Trail at Rodger Young Park. One route would begin with a shared use trail through the golf course and connect to Tiffin Road where it would continue as an on-street route extending to Conner Park. Branching off Tiffin Road, the route extends to the west to Lutz Street and meets with Buckland Avenue and the *Ballville Extension – Hayes to Wolf Creek Park* route. Destinations along this segment of the route include Lutz School and the Ballville Dam. Another highly used route for existing bicycle traffic has been Buchanan and Stahl Roads, also leading to Conner Park. This has been included as an on-street route as well. Connections are shown from Conner Park to

Chudzinski-Johannsen Park, one as an on-street route along Cole Road and Baker Road and an alternate route that would run north of Conner Park to connect Tiffin Road to Baker Road with a shared use path.

3.5.2.5 Ballville/Tiffin Route - Ohio Power Easement (4.5 miles)

An Ohio Power easement exists from West Cole Road in Ballville Township to Old County Road 35 on the Sandusky/Seneca County line through existing farmland. This easement has an existing 15' wide stone drive paralleling power poles and has the potential to provide an ideal location for a shared use path.

3.5.2.6 Ballville Extension – Hayes to Wolf Creek Park (6.5 miles)

Beginning at Hayes Presidential Library and Museums in the City of Fremont and extending to Wolf Creek Park in Ballville Township, this route will begin on Buckland Avenue to South River Road likely as an on-road facility and potentially take the form of a shared use path along the Sandusky River on an abandoned drive extending to Wolf Creek Park. Wolf Creek Park provides picnic areas, a canoe launch, camping, fishing, nature trails and restroom facilities and is a stop along the Buckeye Trail which runs through the park. Along the route is the Fremont Reservoir, with walking trails, fishing and boating, the Portage Trail Park with walking trails along the river, Chudzinski-Johannsen Park, with a future dog park, community center, bike trails and walking paths, and Tindall Bridge. In addition to providing access to township, county and state recreational facilities, this route provides additional access from south of Fremont to Hayes Presidential Library and Museums which, in addition to attracting visitors to the library, home and museum, hosts year round special events, clubs, clinics, activities and workshops for all ages.

This route can also be extended approximately 1.3 miles from Wolf Creek Park to provide access to the Mull Covered Bridge, the last covered bridge in Sandusky County, now on the National Register of Historic Places and part of Sandusky County's park system.

3.5.2.7 Northern Sandusky County Route (3.4 miles)

This route would begin at Creek Bend Farm just south of Lindsey and follow SR 590 north to the county line. Creek Bend Farm, listed on the National Register of Historic Places, is just south of Lindsey and is home to the Wilson Nature Center. The farm has three miles of walking trails and hosts educational events and activities for school aged children.

As the trail is extended north to the county line, it will provide access to Magee Marsh Wildlife Area, Turtle Creek, Crane Creek State Park, Ottawa National Wildlife Refuge and Metzger Marsh Wildlife Area, all in Ottawa County. These parks provide hunting, fishing, bird watching from observation decks/platforms, camping, fishing, swimming, boating and picnicking. In addition, the nearby facilities at Maumee Bay State Park include a resort, cabins, golf course, nature center and beach. This route would provide access to these parks and wildlife areas

which make up a large part of the Western Lake Erie Marshes Loop on the Lake Erie Birding Trail. Birders visiting the Lake Erie birding hotspots along this trail have contributed over \$26 million to local economies.

In addition, there is a need to provide bicycle access to the Lake Erie Islands and waterfront in Ottawa County. There are currently existing bike lanes along a portion of SR 53 leading to the lake in Catawba Island, Ottawa County as well as bike lanes on South Bass Island.

3.5.2.8 Penn Central – Green Springs to Castalia (12.0 miles)

This route utilizes the abandoned Penn Central right-of-way from Green Springs to Clyde and continues northeast to Castalia. It crosses the existing NCIT in the Village of Clyde providing additional connectivity and adding to the destinations accessible by travelling the NCIT.

3.5.2.9 Norfolk & Western – Fremont to Castalia (11.0 miles)

This route utilizes the abandoned Norfolk & Western right-of-way from Fremont to Castalia beginning at Countryside Park in Fremont and extending through Vickery to the Sandusky/Erie County line.

3.5.2.10 Blue Heron Extension (2.1 miles)

The Blue Heron Extension provides a route from the *Norfolk & Western – Fremont to Castalia* route to the Blue Heron Reserve and Pickerel Creek Wildlife Area. Both are stops on the Lake Erie Birding Trail providing hiking trails. Pickerel Creek provides opportunities for hunting and fishing as well.

3.5.2.11 Sandusky Township/Christy Farm Route

North of Fremont, Christy Farm Nature Preserve (CFNP) is identified as a plan destination with walking trails, campsites, and hunting as well as being a host to youth groups and scout troops. CFNP is comprised of 147 acres of former farmland, pasture and over one mile in length of the winding Muskellunge Creek. The land is part of a conservation easement to the Black Swamp Conservancy. Christy Road is shown as an on-road bicycle facility leading to the nature preserve with shared use paths shown from the NCIT (1) along the existing railroad corridor and crossing Muskellunge Creek to Christy Road and (2) across existing farmland crossing Christy Road to connect directly to Christy Farm Nature Preserve.

Across SR 19 from the Nature Preserve is the Sandusky Township House and Park with picnic shelters and playground equipment. The Township Park has been identified as a potential trail hub due to its proximity to Christy Farm Nature Preserve and the accommodations and amenities available there to potential hiking and biking tourists. After leaving Christy Farm, the proposed shared use path will connect SR 19 and the Township property to Fangboner Road and SR 53, providing additional connections to the shopping centers on SR 53 identified as a desired destination for residents.

The Township Parks Committee and Township Trustees have plans to pursue the development of additional township owned land for a park in this vicinity, but have delayed these improvements to participate in and contribute to the efforts of this plan.

3.5.2.12 TSCC Campus Access Route

This route begins at the intersection of Brush Street and Napoleon Road along the existing signed bike route through Fremont and continues west to the Terra State Community College campus. North of campus, the route emerges onto Muskegon Creek Road to again meet the existing signed bike route on State Street in Fremont. Terra State Community College is a commuter college located in Fremont with an enrollment of nearly 3,000 students and there is a great need to provide local students a safe route to campus. Students currently walk and bike along Napoleon Road in unsafe conditions due to the speed differential and rural setting.

3.5.2.13 City of Fremont Routes

In town routes have been identified on the Development Plan for the City of Fremont and include routes to identified destinations such as the local schools, Hayes Presidential Library and Museums, Downtown Fremont, Potter Village, Kroger, the SR 53 shopping centers, the Sandusky County Fairgrounds, and the proposed ODNR Boat Launch on the Sandusky River.

One of the desired improvements identified by members of the community was the revision of the signed bicycle route through the City connecting the two ends of the NCIT. In addition, there is currently a large number of pedestrians and bicyclists using the Rawson Avenue/SR 53 corridor north to the shopping centers causing safety concerns due to vehicular speeds, traffic counts and lack of facilities provided for non-vehicular traffic. A route for on-road facilities has been indicated on the mapping along this corridor with a parallel, lower traffic route along Fangboner Road. Ideally, all pedestrian and bicycle traffic would be routed along this route with lower traffic counts and lower vehicular speeds, but anecdotal evidence indicates that non-motorized traffic would continue along the SR 53 corridor for the users that view it as a more direct route. Therefore, improvements are recommended along this route as well to accommodate these users.

3.5.2.14 U.S. Bicycle Route Signing

The development of the US Bicycle Route system and the National Corridor Plan has been an ongoing effort to identify bicycle routes on a statewide and national basis. As indicated earlier, two routes are currently identified as “undeveloped corridors” passing through Sandusky County, with the goal of reaching the “Designated U.S. Bicycle Route” status. The goal for these routes, whether separated facilities or on-road facilities, is to sign the routes with uniform and recognizable bike route signs to help cyclists navigate the routes and give the network an identity.

Table 3.1 – Existing Bicycle Facilities

	On-Road Facilities			Separated Facilities		
	Designated US Bike Routes	Signed Routes	Bike Lanes/Paved Shoulders	Side Path	Unpaved Shared Use Path	Paved Shared Use Path
Existing Facilities (as of 2017)	length (miles)			length (miles)		
North Coast Inland Trail (US Bike Route 30)	20.2					20.2
State Route 412 (US Bike Route 30A)	12.4					
Walnut Street (US Bike Route 30A)	0.2					
Ohio Avenue (US Bike Route 30A)	0.8					
East State Street (US Bike Route 30A)	0.4					
Front Street (US Bike Route 30A)	0.1					
Croghan Street (US Bike Route 30A)	0.2					
Park Avenue (US Bike Route 30A)	0.2					
Birchard Avenue (US Bike Route 30)	0.6	0.6				
Jefferson Street (US Bike Route 30)	0.3	0.3				
Napoleon Road (US Bike Route 30)	0.1	0.1				
Brush Street (US Bike Route 30)	0.8	0.8				
State Street (US Bike Route 30)	0.3	0.3				
Walter Avenue (US Bike Route 30)	0.2	0.2				
South Front Street	0.6		0.7			
Fremont Reservoir					1.8	
Total:	25.0	2.3	0.7	0	1.8	20.2

Table 3.2 – Recommended Bikeway Improvements

	On-Road Facilities			Separated Facilities			Spot Improvements		
	Designated US Bike Routes	Signed Routes	Bike Lanes/Paved Shoulders	Side Path	Unpaved Shared Use Path	Paved Shared Use Path	Intersection Improvements	New Trail Bridge over Stream (Minor)	New Grade Separation (Major)
Recommended Bikeway Improvements	length (miles)			length (miles)			each		
<i>Western Sandusky County Route</i>			23.6						
<i>Pemberville/Wood County Extension</i>			5.2						
<i>Norfolk & Western - Fremont to Burgoon</i>						6.5			
<i>Ballville Extension - Conner Park</i>			2.7						
<i>Ballville/Tiffin Route - Ohio Power Easement</i>						4.5			
<i>Ballville Extension - Hayes to Wolf Creek Park</i>			3.4			3.1			
<i>Northern Sandusky County Route</i>			2.8	0.6				1	
<i>Penn Central - Green Springs to Castalia</i>						12.0			
<i>Norfolk & Western - Fremont to Castalia</i>						11.0			
<i>Blue Heron Extension</i>			2.1						
<i>Sandusky Township/Christy Farm Route</i>						2.6	2	2	
<i>TSCC Campus Access Route</i>				0.5		1.2	1	2	
<i>State St./Muskellunge Creek Rd./Christy Rd.</i>									1
<i>Muskellunge Creek Road</i>		0.1							
<i>Christy Road</i>		0.8							
<i>Fangboner Road</i>		1.2							1
<i>Rawson Avenue</i>			0.8						
<i>State Route 53</i>			2.6				6		
<i>North Street</i>			0.2						
<i>Moore Street</i>			0.3						
<i>Dickinson Street</i>			0.8						
<i>Wilson Avenue</i>			0.5						
<i>Jefferson Street</i>			0.2						
<i>Bartson Road</i>			1.0						
<i>Progress Road</i>			0.2						
<i>Tucker Road</i>			0.4						
<i>Buckland Avenue</i>			1.9						
Subtotal This Sheet:	0.0	2.1	48.7	1.1	0.0	40.9	9	5	2

Table 3.2 – Recommended Bikeway Improvements (cont.)

	On-Road Facilities			Separated Facilities			Spot Improvements		
	Designated US Bike Routes	Signed Routes	Bike Lanes/Paved Shoulders	Side Path	Unpaved Shared Use Path	Paved Shared Use Path	Intersection Improvements	New Trail Bridge over Stream (Minor)	New Grade Separation (Major)
Recommended Bikeway Improvements	length (miles)			length (miles)			each		
Lutz Street			0.4						
Oakwood Street			0.1						
River Street			0.2						
Tiffin Street			0.1						
Roger Young Park/River Cliff Golf Course						0.9			
Tiffin Road			1.1						
Buchanan Road			1.6						
Stahl Road			1.2						
Morrison Road			0.1						
Birchard Avenue			0.3						
Avis Street			0.2						
Hayes Avenue			0.4						
Fifth Street			0.9						
Walnut Street			0.2						
St. Joseph Street			0.3						
Fargo Street			0.1						
Oaklawn Avenue			0.1						
Stone Street			0.1						
Conner Park to Baker Road						1.0			
W. Cole Road			1.0						
Baker Road			0.8						
Rice Road			0.6						
Subtotal This Sheet:	0.0	0.0	9.8	0.0	0.0	1.9	0	0	0
Subtotal Previous Sheet:	0.0	2.1	48.7	1.1	0.0	40.9	9	5	2
Total:	0.0	2.1	58.5	1.1	0.0	42.8	9	3	1

3.5.3 Trail Amenities and Support Facilities

Trail amenities and support facilities are essential elements of trail design, as they enhance safety and convenience for bicycle riders. With these facilities in place, people are more likely to use the facilities and be drawn to the facilities for long distance rides and/or hikes. Exact locations for these have not been identified in the plan for each route, but should be evaluated as implementation of the plan progresses.



3.5.3.1 Wayfinding

Trail users may not always be locals using the trail for recreation or transportation and they may be unfamiliar with the surrounding area. Wayfinding signs can be used to direct bicyclists and pedestrians to connections such as shopping centers, cities and towns, and other relevant destinations. At trailheads and other key locations, a schematic diagram of the trail is helpful to new users unfamiliar with the trail routes.

3.5.3.2 Trailheads

Trailheads are the beginning of a trail and should provide wayfinding and parking facilities at a minimum and even restrooms and water fountains where practicable. Parks are ideal locations for a trailhead since they typically already have these amenities.

3.5.3.3 Bicycle Parking

Bicyclists need secure and well-located bicycle parking at visible, convenient locations. If bicycle parking is not available, bicyclists will make do with what they can find – trees, street signs, street furniture, etc. These alternatives can impede pedestrian traffic and be substantially less secure.

3.5.3.4 Trail Hubs

Trail Hubs are stops along trails that, due to their location and the amenities available nearby and on-site, offer an opportunity for long distance hikers and



bikers to rest, refresh, restock supplies, and communicate with others through mail or recharged personal devices.

On-site amenities at bike hubs can include:

- ✓ Trail information such as signage and paper maps
- ✓ Public water facilities
- ✓ Restrooms and showers
- ✓ Bicycle repair stand with tools
- ✓ Seating and tables
- ✓ Charging station for electronic devices
- ✓ Public Wi-Fi
- ✓ Parking, both bicycle and motor vehicle



Amenities located nearby can include:

- ✓ Campgrounds or lodging
- ✓ Laundromat
- ✓ Post office
- ✓ Grocery store/ convenience store



By planning trail facilities with long distance travelers in mind, these facilities will attract hikers and bikers that can plan a route with the necessary stops and resources. An important piece in the planning and implementation of trail hubs will be to communicate these locations and the resources made available to those we are hoping to attract.

With the nearby amenities in mind, the following locations have been identified as potential Trail Hubs in Sandusky County:

- | | |
|--|---|
| ✓ White Star Park, Gibsonburg | ✓ Village of Clyde |
| ✓ Sandusky Township Park | ✓ Downtown Fremont (Birchard Public Library, City Hall) |
| ✓ Rec Center on the east side of Fremont | ✓ Roger Young Park |
| ✓ Terra State Community College | ✓ Conner Park, Ballville Township |
| ✓ Creek Bend Farm, Lindsey | |

3.5.3.5 Mapping and Promotion of Active Transportation Facilities

Mapping provides opportunities for individuals, groups, businesses and websites to promote the use of trails for recreation and transportation purposes. Identifying the systems of trails, the recreational resources available, and towns supporting their users by providing informational maps, both online and hardcopy, enhances tourism, benefits local businesses and economies, and raises awareness of the trails, the destinations along the trails, and nearby tourist destinations, both locally and nationally. Federal funding is available for mapping bicycle and pedestrian facilities.

3.5.4 Trail Planning and Design Considerations

3.5.4.1 Emergency Access and Trail Safety



One shared concern for trail users common to any location is trail safety and security. Providing trail users information about what to do in case of an emergency, ensuring emergency access to all trail locations, and providing adequate patrols are all keys to addressing this concern. Providing a location to the 911 operator is paramount in getting timely help.

With constant advances in technology, the Development Plan will not address the specifics of how this will be implemented on each project; however, providing emergency access shall be a consideration in the design of all trail sections and assisting trail users to identify their location in the event of an emergency shall be addressed during the planning and implementation of each trail section. In addition, first responders must be made aware of access points on new trails, any vehicle restrictions in accessing specific locations, and any obstructions, such as bollards, that may need to be removed or collapsed in order to gain access to trail sections.

3.5.4.2 Enforcement

The Sandusky County Park District park rangers and local law enforcement are responsible for patrolling the existing North Coast Inland Trail with help from local community members working through the Park District's Volunteer Patrol. Patrols will take place on future trails through a collaborative effort between the Park District, local jurisdictions and the Volunteer Patrol, expanded as necessary to meet the needs on the facilities provided.

On-road facilities will be patrolled by jurisdiction to enforce the legal and respectful use of the transportation network. Anecdotal evidence supports a lack of understanding of traffic law and principles relating to bicycles, by both motorists and cyclists. Enforcement of current traffic laws are essential for the safety and protection of both pedestrians and bicyclists, however, educating the public will help to create a safer environment as well.

3.5.4.3 Trail Maintenance

Maintenance on the developing trail system in Sandusky County is an essential practice to ensure the longevity and continued use of the trails. Existing trail maintenance is performed by the Sandusky County Park District and is funded through a combination of Park District income and grants available through ODNR. Agreements on trail maintenance responsibilities for future trail sections will be developed project by project with either the Park District or the Strategic Partner/owner responsible for trail maintenance.



3.6 Local Support Programs

Typically, the main objective to bicycle planning is infrastructure improvements; however, support programs are also important because they increase the safety and the use of the facilities. The following is a summary of active transportation support programs and the jurisdiction tasked with providing or sponsoring the program. Planned programs for future implementation are indicated with **(NEW)**.

3.6.1 Safety

- ✓ Bicycle safety education – Sandusky County Health Department
- ✓ Share the Road safety campaign – Sandusky County Health Department
- ✓ **Bikes May Use Full Lane** signage placed on bike routes – Sandusky County Health Department
- ✓ Bicycle helmet distribution – Sandusky County Health Department
- ✓ The Every Move You Make, Make It Safe Initiative – Fremont City Schools SRTS

3.6.2 Law Enforcement

- ✓ Volunteer Patrol Program (VTP) – Sandusky County Park District
- ✓ Equipment & uniforms for VTP – Grant through Sandusky County Communities Foundation
- ✓ Traffic and law enforcement – Local jurisdictions, County Sherriff's Department

3.6.3 Education

- ✓ Bicycle safety education – Sandusky County Health Department
- ✓ Bicycle safety program at local elementary schools – Fremont & Elmore Cycle & Fitness
- ✓ Distribution of educational materials – Sandusky County Health Department
- ✓ Educate public through safety campaigns – Sandusky County Health Department
- ✓ Safety Town – Fremont City Schools SRTS, Bellevue Police Department
- ✓ Safety Village – Clyde Elementary School & Clyde Police Department
- ✓ Complete Streets training – Sandusky County Health Department (**NEW**)
- ✓ Hike for the Health of It – Sandusky County Park District
- ✓ The Family Fitness Challenge – Fremont City Schools SRTS
- ✓ The Memorial Health Fest – Fremont City Schools SRTS
- ✓ Ride Buddy (adult bicycle safety education) – Sandusky County Health Department (**NEW**)
- ✓ Girls in Gear (**POTENTIAL NEW**)

"The bike trail has provided my family with a safe place to enjoy the outdoors and get exercise on a regular basis. I started running on the bike trail after having my first baby. Eventually, it became our routine to run to the park, spend a few hours playing, then run home again. When she started preschool, I would use the bike trail to take her by bike to and from the daycare center. We saved gas, got fresh air, and I got my exercise in for the day.

Since that time, I've become more involved with the Fremont running community and have helped host dozens of events which use the trail. Night runs, relay races, group fun runs, and 5k races held on the trail increases safety for our runners and walkers. It would be great to see the trail connecting to other parts of town, and other communities. The increase in distracted driving has made roads less safe for even the most cautious runner, walker, and biking. A safe path to local attractions for those traveling by foot or bike would be great for the health of the community!"

Krista Hernandez, Fremont Elite Runners Club

3.6.4 Maintenance/Improvements

- ✓ Adopt-a-Trail Program – Sandusky County Park District
- ✓ Trail Improvement /Enhancements (purchase of destination signage, trail etiquette signs, trash cans & bike racks) – Sandusky County Health Department
- ✓ People for Parks – Sandusky County Park District



3.6.5 Promotion

- ✓ Street Play Saturday – Sandusky County Creating Healthy Communities
- ✓ Promote parks through educational programs – Sandusky County Park District
- ✓ Bike maps for NCIT – Sandusky County Park District
- ✓ Slow Roll – Fremont Flatlanders
- ✓ Fundraising & Events – Fremont Cycle & Fitness
- ✓ North Coast Inland Trail Relay – Fremont Elite Runners Club
- ✓ Camelback 5k & 10k – Fremont Elite Runner's Club
- ✓ Bench Sponsorship Program – Sandusky County Park District
- ✓ Bring a Friend Ride (10/20/50 mile bike rides) – Fremont & Elmore Cycle & Fitness
- ✓ Walk to School Day Program – Fremont City Schools SRTS
- ✓ Bike to School Week – Fremont City Schools SRTS
- ✓ Bike Sandusky County – Collaborative effort through Strategic Partners **(NEW)**
- ✓ Bike Friendly Business – Collaborative effort through Strategic Partners **(NEW)**
- ✓ Buckeye Trail Town – City of Fremont, Downtown Fremont, Inc., Village of Lindsey, Village of Woodville **(NEW)**

CHAPTER FOUR: IMPLEMENTATION

4.1 Roles and Responsibilities: Interagency and Interjurisdictional Coordination

Transitioning from planning to implementation requires the coordination of many stakeholders and processes. While the Sandusky County Park District was the lead agency in creating this plan and will lead the way with the further countywide development of shared use trails, there are many different owners and managers of the public road system within the County. There are also other involved partners that will work to inform, educate, and protect bicyclists and the community. This will require different agencies to act as the lead agency and funding applicant on different projects. To implement this plan, coordination and collaboration with other agencies, neighboring governments, and entities will be essential.

The following is a list of Strategic Partners that will play a role in the implementation of this Development Plan:

<i>Sandusky County Park District</i>	<i>Green Creek Township</i>
<i>Sandusky County Engineer's Office</i>	<i>Jackson Township</i>
<i>Sandusky County Regional Planning Commission</i>	<i>Madison Township</i>
<i>Sandusky County Health Department</i>	<i>Rice Township</i>
<i>Sandusky County Commissioners</i>	<i>Riley Township</i>
<i>City of Bellevue</i>	<i>Sandusky Township</i>
<i>City of Clyde</i>	<i>Scott Township</i>
<i>City of Fremont</i>	<i>Townsend Township</i>
<i>Village of Burgoon</i>	<i>Washington Township</i>
<i>Village of Gibsonburg</i>	<i>Woodville Township</i>
<i>Village of Green Springs</i>	<i>York Township</i>
<i>Village of Helena</i>	<i>Terra State Community College</i>
<i>Village of Lindsey</i>	<i>Christy Farm Nature Preserve</i>
<i>Village of Woodville</i>	<i>Downtown Fremont, Inc.</i>
<i>Vickery</i>	<i>Sandusky County Convention & Visitors Bureau</i>
<i>Ballville Township</i>	<i>Sandusky County Economic Development Corp.</i>

4.2 Potential Funding Sources

In recent years, the Sandusky County Park District has used a variety of funding sources to support bikeway capital improvement projects. Park District income is derived from a 1 mill property tax levy that was renewed in November of 2016. The 10 year levy brings in approximately \$1,000,000 annually with additional income generated by user fees and donations. Implementation of this plan will require maximizing the use of available funding sources. Table 4.1 summarizes funding sources and programs available along with the eligible projects and applicants.

Table 4.1 – Potential Funding Sources

Program	Local Minimum Match	Eligible Projects	Eligible Applicants
ODOT Transportation Alternative Program (TAP)	20%	Multi-use paths that connect destinations	Local government, park district
ODOT Safety Program	10-20%	Bike/pedestrian facilities in high crash areas Environment and safety education programs	State and local governments
ODOT Surface Transportation Program (STP)	20%	Bicycle lanes on roadway	State and local governments
CDBG Allocation & CDBG Critical Infrastructure (through County)	Varies	Barrier removal for handicap accessibility, public facilities	Over 51% LMI or targeted population
OPWC Local Capital Improvement Program	10%	Bike and pedestrian facilities that are appurtenances to roadway project	Local government, sanitary districts, regional water and sewer districts
ODNR NatureWorks (allocations by County every two years)	25%	Recreation/Park projects: acquisition, development & rehabilitation	Local government, park district
ODNR Clean Ohio Trails Fund (COTF)	25% (Can use as local match for ODOT funding)	Urban trail linkages, maintenance of existing trails, restoration of trail areas, improving access, acquisition	Local government, special districts, state and federal agencies, and nonprofit organizations
ODNR Recreational Trails Fund (RTF)	20%	Land acquisition, trail development, trailside and trailhead facilities, engineering & design, trail safety education	Local government, special districts, state and federal agencies, and nonprofit organizations
ODNR Coastal Management Assistance Grant Program (CMAG)	50%	Grants for water related planning projects. 50/50 grant and local match.	Local government, regional planning agencies, colleges, school districts, park districts, conservancy districts, port authorities, and nonprofit organizations
State of Ohio Capital Budget Appropriation (bi-annum)	Varies	Projects with political support and no other funding sources	Local government, districts, nonprofit organizations
Ohio Local Government Innovation Fund (LGIF) - Loan	Varies	0%, 10 year loan for projects that have feasibility study	Local government, special districts
ODOT/ODOH Active Transportation Funding	No local match required	Education/Low-cost infrastructure/Active Transportation Plan or Policy Development/Data Collection	Health agencies, law enforcement agencies, local jurisdiction, non-profit, school system, other

4.3 Engineering

Additional concepts for bicycle and pedestrian facilities have been promoted and implemented throughout the United States; however, for federally funded projects, ODOT currently requires conformance to the standards in the following manuals:

Location and Design Manual, Volumes I, II & III – Ohio Department of Transportation (ODOT)

The Ohio Manual on Uniform Traffic Control Devices – Ohio Department of Transportation (ODOT)

Guide for the Development of Bicycle Facilities, 2012 – American Association of State Highway Transportation Officials (AASHTO)

Guide for the Planning, Design, and Operation of Pedestrian Facilities – American Association of State Highway Transportation Officials (AASHTO)

In addition, the Federal Highway Administration supports taking a flexible approach to bicycle and pedestrian facility design, recognizing that the AASHTO bicycle and pedestrian guides are the primary resources for planning and designing bicycle and pedestrian facilities. For non-motorized transportation networks, primarily in urban areas, FHWA supports the use of the following publications:

Urban Bikeway Design Guide – National Association of City Transportation Officials (NACTO)

Designing Urban Walkable Thoroughfares – Institute of Transportation Engineers (ITE)

Design guidance and standards are constantly evolving, now more than ever. All federally funded projects will adhere to current ODOT requirements should they evolve from the current list above.

4.4 Implementation Strategies

The Development Plan for Active Transportation provides the long-term vision for the expansion of the countywide active transportation network to be used by all residents for all types of trips. The following strategies are provided to aid the Strategic Partners in the implementation of this plan.

4.4.1 Strategy 1: Strategically Pursue Infrastructure Projects

Maximize opportunities to make improvements by encouraging Strategic Partners to pursue funding for projects within their jurisdictions. If available funding or construction of an improvement in conjunction with another roadway project make the construction of a lower priority project possible, then the Strategic Partner may advance that project, regardless of priority.

4.4.2 Strategy 2: Continual Review and Evaluation of Existing Infrastructure for All Users

The Strategic Partners will evaluate existing road facilities with excess vehicular capacity within their jurisdictions to determine feasibility of lane diets and road diets ahead of roadway/resurfacing projects in an effort to reconfigure lanes or reduce lane widths allowing a reallocation of pavement width to accommodate all users, regardless of their mode of transportation (Complete Streets design approach).

4.4.3 Strategy 3: Grow Public Awareness and Bicycle Safety

Provide, support and fund educational programming to promote public awareness and bicycle safety. In addition, support and encourage active transportation within the county.

4.4.4 Strategy 4: Update the Bicycle Development Plan

Routes have been identified and included in the plan based on safety, public input, transportation benefit, feasibility and cost. It is recommended that the routes be reviewed every fiscal year, with completed projects removed, new projects added and priorities revised as conditions change.

4.4.5 Strategy 5: Seek Ongoing Public Input

In conjunction with the review of the Development Plan every fiscal year, input should be sought from the public and the stakeholders regarding projects completed and evolving needs of the county and communities.

4.4.6 Strategy 6: Collaborate with ODOT

Since ODOT is the coordinating agency in the establishment and development of the State Bike Route System and the US Bike Route System that are both in the process of being developed, the Strategic Partners acknowledge the benefit of communicating, collaborating and coordinating with this agency to receive input into routes/route modifications and recommendations on prioritizing projects.

4.4.7 Strategy 7: Document Success

Document every policy change, educational opportunity provided, brochure produced, bike rack added, newly signed bike route, mile of shared use path constructed, or pedestrian facility installed. Take before and after pictures for every project. Collaborative Partners and Strategic Partners should meet on an annual basis for information sharing between agencies and to document progress.

4.4.8 Strategy 8: Establish Measures of Effectiveness

The primary goal of the Development Plan for Active Transportation is to develop a connected physical network of existing on-road and separated facilities that will serve all bicyclists and pedestrians for all trip types.

Developing the facility network will reduce gaps and eliminate barriers, two of the main problems that prevent people from bicycling more often. Creation of both on-road and separated facilities with appropriate markings and signage will create an environment appropriate for non-motorized traffic, increasing pedestrian and bicyclist safety.

Measures of Effectiveness are used as a quantitative way to measure the progress towards implementing the Development Plan for Active Transportation and will track progress toward meeting an agreed-upon goal within an established timeframe. Eight categories have been identified for describing active transportation performance measures:

1. **Health:** *individual activity levels*
Safety: *number of collisions, crime rate*
2. **Multimodal Performance:** *User counts*
3. **Equity:** *ADA access*
4. **Education:** *number of available active transportation programs, participation in the programs, level of staff training, shifting modes of transportation to walking & biking*
5. **Access:** *trail connections & gap closures*
6. **Infrastructure:** *bicycle & pedestrian enhancements on the street network, quantify shared use paths installed, quality of enhancements measured through user comfort, number of bicycle racks, level of investment*
7. **Economic Development:** *evaluate through sales records, property values*
8. **Placemaking:** *number of community events, presence of wayfinding*

Specific Measures of Effectiveness have been identified in Table 4.2 with the category that it addresses identified by a number in parenthesis. These measures have been chosen because they are feasible ways to analyze and evaluate the improvements and growth as this plan is implemented. As noted in the table, a yearly evaluation should be established to adequately measure progress or setbacks as well as identify stagnant areas. These measures will also serve as a means to keep the public informed of plan progress.

Table 4.2 – Measures of Effectiveness

Measure	Benchmark	Target
Bicycle Counts	Currently have bike counts in one location. Expand number of locations where counts are tracked. Walter Ave.: 150 bikes in one week	Begin documenting bike counts at baseline locations to document ridership volumes. Increase volumes by 5% per year over baseline counts.
Improve public attitudes about bicycling within the community	Have performed bike surveys documenting current attitudes	Perform surveys on a yearly basis to determine attitude shifts, positive or negative
Education programs on bicycle safety	Educated 727 children in 2015 Educated 765 children and 30 adults in 2016 (aside from Safety Town Program)	Increase the number of adults and children educated on bicycle safety by 10% every two years
Bicycle facility improvements	Currently have 23.2 miles of bicycle facilities	Increase bicycle facilities by 5 miles per year
Economic Impact	Funds received from bed tax in 2016 was \$309,200 from 640 beds	Increase funds received from bed tax by 5% per year (without tax rate increase)
Establish “Bike Friendly Business” Program countywide	Currently there is no program established in Sandusky County	Establish criteria for program and add 2 “Bike Friendly Businesses” each year
Trail Towns	There are currently no Buckeye Trail Towns in Sandusky County with 3 that are eligible	Establish Fremont, Lindsey and Woodville as Buckeye Trail Towns within five years
Complete Streets Policies	Currently there are no Complete Streets policies in place within Sandusky County	Adopt one Complete Streets policy within the County every 2 years
Complete Streets Education	Currently there are 2 community leaders trained in Complete Streets	Train one additional community leader every year
Stakeholders Meetings	Stakeholders Meetings are currently being held monthly	Continue to meet on a quarterly basis to ensure plan implementation
Destinations	The plan identifies 25 community identified destinations within the County	Provide connection to two destinations per year with the development of bicycle facilities

4.4 Plan Support

The Development Plan for Active Transportation provides a structure of all of the elements necessary for success in implementing the plan; however, the success, in the end, comes down to people willing to work to take these vital steps to accomplish the goals set forth in this plan. Eleven of the Strategic Partners identified have indicated their support for this plan by passing a resolution or issuing a letter of support, all included in Appendix H. They are as follows:

Sandusky County Park District

Sandusky County Engineer's Office

Sandusky County Regional Planning Commission

Sandusky County Health Department

Sandusky County Commissioners

City of Fremont

Ballville Township

Sandusky Township

Terra State Community College

Downtown Fremont, Inc.

Fremont Runners Club