# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INTRODUCTION</strong></td>
<td>PG 1</td>
</tr>
<tr>
<td><strong>BENEFITS OF A BIKABLE / WALKABLE COMMUNITY</strong></td>
<td>PG 3</td>
</tr>
<tr>
<td><strong>EXISTING CONDITIONS &amp; ANALYSIS</strong></td>
<td>PG 5</td>
</tr>
<tr>
<td><strong>CURRENT TRANSPORTATION SYSTEM</strong></td>
<td>PG 5</td>
</tr>
<tr>
<td><strong>POLICIES, PLANS, &amp; DEVELOPMENTS</strong></td>
<td>PG 10</td>
</tr>
<tr>
<td><strong>VISION, GOALS, &amp; OBJECTIVES</strong></td>
<td>PG 13</td>
</tr>
<tr>
<td><strong>RECOMMENDATIONS: EDUCATION</strong></td>
<td>PG 15</td>
</tr>
<tr>
<td><strong>RECOMMENDATIONS: ENFORCEMENT</strong></td>
<td>PG 17</td>
</tr>
<tr>
<td><strong>RECOMMENDATIONS: ENCOURAGEMENT</strong></td>
<td>PG 19</td>
</tr>
<tr>
<td><strong>RECOMMENDATIONS: ENGINEERING</strong></td>
<td>PG 21</td>
</tr>
<tr>
<td><strong>ADA</strong></td>
<td>PG 21</td>
</tr>
<tr>
<td><strong>BIKE PARKING</strong></td>
<td>PG 23</td>
</tr>
<tr>
<td><strong>DUNKLIN TRAILS</strong></td>
<td>PG 25</td>
</tr>
<tr>
<td><strong>HISTORICAL SIGNS</strong></td>
<td>PG 29</td>
</tr>
<tr>
<td><strong>DESIGN GUIDELINES</strong></td>
<td>PG 31</td>
</tr>
<tr>
<td><strong>RECOMMENDED ROUTES</strong></td>
<td>PG 39</td>
</tr>
</tbody>
</table>
INTRODUCTION

In 2010, Herculaneum adopted a Complete Streets ordinance. The City has built several biking and walking projects, in addition to several parks. In 2012, the City of Herculaneum started working with Trailnet to create a 20 year plan for these biking and walking improvements. The Herculaneum Bikeable Walkable Community Plan prioritizes and coordinates these projects, as well as:

- Prioritizes investments in walking and biking based on cost, use, and overall network
- Encourages routine maintenance and upgrades as opportunities to improve the biking and walking network
- Strengthens applications for state and federal funding
- Identifies opportunities for encouragement, education, enforcement, and evaluation

The planning process was initiated in the winter of 2012 and finished in the summer of 2013. The plan encompasses the City of Herculaneum. Connections to planned routes in Crystal City and on private land within the City of Herculaneum were considered in route planning.

The plan is based on the vision and desires of the residents of Herculaneum. The outreach process included two public meetings at the Herculaneum Fire House, and a survey available online and on paper. A summary of each meeting and a copy of the survey questions can be found in the appendices. The needs identified in the outreach process are integrated throughout the plan, including the Vision, Goals, and Objectives, and the prioritization of projects.

The Planning Advisory Committee was involved throughout the planning process, with representation from community stakeholder groups including the City staff, emergency responders, the Doe Run Company, and recreational walkers, runners, and cyclists. The Planning Advisory Committee met twice to review the plan and was invited to give input on the draft plan. A summary of the Planning Advisory Committee meetings can be found in the Appendices (beginning page 66).
Figure 1: The public outreach process

**Public Outreach**
- Stakeholder interviews
- Community Survey
- Open House #1
- Planning Advisory Committee
- Open House #2
- City Council

**Data collection and analysis**
- Existing infrastructure
- Current plans and policies
- Base mapping
- Needs assessment

**Plan drafting and compilation**
- Infrastructure map
- Prioritization
- Cost estimates
- Funding sources
- Education, encouragement, and enforcement opportunities

**Existing Conditions report**

**Vision, Goals, and Objectives**

**Draft Bikeable Walkable Community Plan**

**Final Plan and City Council Presentation**

**Implementation**
BENEFITS OF A BIKABLE / WALKABLE COMMUNITY

Bikeable and walkable infrastructure attracts investment, increases property values, reduces congestion, and costs less to build and maintain than traditional roads. A few examples include:

- Homes within a half-mile of Indiana’s Monon Trail sell for an average of 11% more than identical homes farther away.\(^1\)

- In Memphis, a commercial district reported a **50% increase in commercial rents** after striping bike lanes.\(^2\)

- When San Francisco improved biking and walking access on Valencia Street, **two-thirds of merchants said the increased levels of bicycling and walking improved business.**\(^3\)

- In 2008, Portland estimated its **entire bicycle network cost the same as one mile of urban freeway**, approximately $60 million.\(^4\)

By increasing the opportunities to bike and walk, Herculaneum can increase home values, provide options for residents, and attract regional tourists to its parks, trails, and historic sites.

DEMOGRAPHICS

Since incorporation in 1972, Herculaneum has experienced population growth. In 2010, the Census reported 3468 residents, a 24% increase from the 2000 Census. Between 2010 and 2012, Herculaneum grew by 6.34%, the highest growth rate of any municipality in Jefferson County. The steady growth in Herculaneum will increase the demand for travel within and near the City. Local trends indicate the demand for travel will encompass walking, biking, carsharing, and driving.

Between 2007 and 2011, the number of vehicle miles traveled (VMT) decreased 8.2% in Jefferson County, almost three times the national decline of 2.8%.\(^5\) The decline in driving is likely the result of a combination of factors. Higher unemployment and rising gas prices are obvious factors, but do not account for the drop in driving. Larger social trends, such as the Baby Boom generation retiring and younger people preferring to spend money on electronic devices rather than driving is also causing a drop in VMT.\(^6\)

Demographic trends in Herculaneum underscore the importance of a transportation system that allows residents to bike, walk and drive safely. In 2011, the American Community Survey found that 8.9% of Herculaneum households did not have access to a car. The 21.6% of the population that is under 16 is reliant on being driven, walking, or biking to destinations. As people age, the ability to drive safely and comfortably is reduced, and the 9.2% of people over 75 in Herculaneum may be aging out of driving.

By 2030, 20.6% of the population in Jefferson County is expected
The travel needs of these retirees will focus more on visiting family, shops, friends, houses of worship, and parks and recreational destinations. Many of these trips could be shorter distances, where using a car is neither necessary nor desired.

**TRANSPORTATION COSTS**

Traditionally, an area is considered affordable if housing costs are 30% of income or less. The Housing and Transportation Index includes the cost of transportation - an area where combined housing and transportation is less than 45% of income is considered affordable. Including transportation, most of Herculaneum is unaffordable for a household earning $49,028, the median income in Herculaneum.  

Currently, over one quarter of Herculaneum households spend over 35% of their income on housing costs. Transportation costs will further add to their burden. For these households, reducing the amount of money spent on gas can make a real difference. Streets that are safe to walk and bike on allow families to choose lower-cost modes for local destinations such as parks, schools, houses of worship, and work.

**HEALTH**

Locally, and nationally, health care costs have increased while the quality of health care outcomes have decreased. Jefferson County is currently ranked 44 out of 115 counties in Missouri for health rankings. Biking and walking infrastructure could help increase the health, and the ranking, of Jefferson County.

Biking and walking are excellent, low-impact physical activities that are easy and enjoyable for a large percentage of the population. Throughout the planning process, residents of Herculaneum reported they would walk and bike more, if there were more opportunities to bike and walk in safe and pleasant places. In Jefferson County 31% of adults report no leisure time physical activity, compared to a national rate of 21%.
EXISTING CONDITIONS AND ANALYSIS

CURRENT TRANSPORTATION SYSTEM

LAND USE AND TRANSPORTATION NETWORK

The oldest parts of Herculaneum reflect its past as a compact, walkable, company town. The schools, civics buildings, churches, and parks in Herculaneum are within walking distance of older Herculaneum neighborhoods. Newer commercial and industrial development has focused along Highway 61/67. Both the newer subdivisions and the older residential neighborhoods have quiet, low traffic streets with discontinuous sidewalks, some of which are in ill-repair. The newer neighborhoods are farther from walkable destinations, and the western side of town is separated by I-55.

Industrial and commercial uses are found on both sides of town. The Doe Run Company’s Smelting and Refining Facilities are a central part of the older part of town, surrounded by residential, civic, and religious land uses. On the west side, light industrial and commercial uses are more clearly delineated from residential. The west side of town has several commercial businesses, some of which focus on selling cars and car parts. As Herculaneum grows, and the west side develops, increased commercial and light industrial activity in this area can be expected.

The I-55 interchange is the most recent locus of development in Herculaneum, with commercial use that serves both residents and highway travelers. The restaurants and convenience stores lack safe biking and walking access. McNutt Road becomes Riverview Drive, and passes the largest commercial destination in Herculaneum, Buchheit general store. It is the only connection between the east and west sides of town within the City limits, but there is no safe way to walk or bike on the underpass, or along McNutt Road.

GETTING TO WORK

Less than one fifth of all trips in the US are trips to or from work. The 2011 American Community Survey found that 52.6% of people over 16 in Herculaneum were employed. For those working, 87.4% drove alone, 11.5% carpooled, .7% walked, and .5% worked at home. As the mean travel time was 26 minutes, most of the Herculaneum workforce is not working in the city. The most promising way to shift to biking and walking trips in Herculaneum is to focus on short trips that are not work related, including trips to schools, parks, stores, and local institutions.

The current work on redevelopment in the Doe Run site is expected to increase employment in the area. Maintaining and increasing bike/walk connections to the redevelopment site can encourage Herculaneum residents to travel to work on foot or on bike.

Recently installed sidewalks in Herculaneum.
GETTING TO SCHOOL
Biking and walking are important for children, who are otherwise reliant on parents and school buses for all of their transportation needs. All statistics are taken from the American Community Survey, 2011.

- Over one third of households in Herculaneum have children under 18.
- Walking and biking can increase memory and performance at school.¹
- Safe routes for walking and biking ‘trains’ to school can decrease burdens placed on working parents. For families with children between 6 and 18, 91% of households had all parents in the workforce.
- Walking and biking to school and after school activities can help save gas money for families. One fifth of families with children under 18 live below the poverty line in Herculaneum. For single mothers in Herculaneum, three fifths are living below the poverty line.

When students attend schools within their own communities, they have a greater chance to bike or walk to school. The school district in Herculaneum, Dunklin R – V, attracts residents, and non-residents, who are brought in from neighboring towns. At the same time, some areas of Herculaneum are in school districts in neighboring towns. The 2006 Herculaneum Master Plan recommends moving towards a more unified school district.

SENN THOMAS MIDDLE SCHOOL
Biking and walking accessibility: The school is located off Main Street on the northern edge of Herculaneum, within walking and biking distance for almost all students on the east side of town. Sidewalks have been recently installed on parts of Main Street. One bike rack is available for students.

Biking and walking barriers: For Herculaneum students on the east side of the freeway, the most significant barriers to walking and biking are discontinuous sidewalks in the neighborhoods and lack of bike parking. There is a large residential area just north of Herculaneum’s city limits, on the west side of Highway 61/67. At the Open House and in the Survey, parents from the neighborhood expressed concern that there is no crossing accommodation to allow children to cross safely. The potential crossing is not within the city boundaries of Herculaneum.

HERCULANEUM HIGH SCHOOL
Biking and walking accessibility: The High School is centrally located in the older core of Herculaneum, within walking and biking distance for almost all Herculaneum students on the east side of town. Joachim Avenue has a newly installed sidewalk and Share The Road signs.

Biking and walking barriers: The High School lacks bicycle parking. The parking lot has wide entrances along Joachim Avenue, with wide curb radii that can encourage speeding. The wide entrances also increase pedestrian exposure to traffic, increasing the risk of a crash and decreasing pedestrian comfort. The main barriers for students in the nearby residential

neighbou{} Neighborhoods are discontinuous sidewalks and crossing Highway 61/67. High school students from the west side could bike to school but there is no safe bicycle access for students living on the west side of I-55.

**GETTING TO THE PARK**

Herculaneum has an ever-expanding network of parks on the east side of town, including Bates Memorial Park, Dunklin’s Grave, and the All Bark Village Dog Park. The parks have unique advantages, such as scenic views of the Mississippi River, and a soon to be completed accessible playground, Kade’s Playground. There is potential for more trail development in the donated 13 acres between Dunklin Drive and Senn Thomas Middle School. Additionally, there are preliminary plans for developing trails through portions of the Doe Run Company’s current land.

Residents of Herculaneum expressed a strong desire to walk and bike to the parks at the First Open House and through the survey. Dunklin’s Grave Site and Dunklin-Fletcher Park are one of the few opportunities to see the river in the region, and could be significant regional attractions.

**Accessibility:** Bates Memorial Park is on the east side of town, off of Joachim Avenue, within easy walking distance of older residential areas. Herculaneum City Park boasts the Joachim Loop Trail, which travels through wetland areas and a forest. Additional and planned parks are within ½ mile walking distance, including Haggard Memorial Park and Dunklin Fletcher Park. Sidewalks and ramps compliant with the Americans with Disabilities Act (ADA) will be in greater demand when Kade’s Playground opens.

**Barriers:** The parks do not have safe bicycle parking for those residents arriving by bike. On the east side of town the most significant barriers to increased walkability are discontinuous sidewalks and lack of safe crossings on Highway 61/67. For residents of the west side of town, I-55 and McNutt Road block safe biking and walking access to parks.

**GETTING TO STORES, RESTAURANTS, AND COMMUNITY INSTITUTIONS**

As the 2006 Master Plan indicates, it is a challenge to “shop Herculaneum.” With the recent renovation of the I-55 interchange, commercial development is expanding along McNutt road. Most of Herculaneum’s commercial activity is along McNutt Road or Riverview Drive, which lack safe biking and walking access.
Herculaneum has eight churches. These community institutions are found on the east side of town, in the walkable town core, along with City Hall, the library, the parks and the schools. In the survey some residents expressed concern that the voluntary buy-out area was a deterrent to walking, as it is largely unoccupied.

Redevelopment along the river is expected to make changes to the street grid in the core of Herculaneum. If City Hall were to relocate, the new location should consider easy access by biking and walking for residents of all ages. A central location on relatively flat land would enhance access for the people working and living in Herculaneum, and ensure that City Hall is a vital part of the community.

**GETTING SOME EXERCISE**

The community survey suggests that Herculaneum residents would like to walk and bike more. Of 132 respondents, 76 expressed a desire to bike more and 78 wanted to walk more.

- The newer subdivisions on the West side of town have some sidewalks and low speed streets with low traffic volumes. However, without safe walking access beneath I-55, it is difficult for residents to reach destinations on the east side of town, such as Joachim Loop Trail.

- In the survey and the open house, many residents reported the difficulties in crossing major streets or traveling along major streets as a barrier to biking and walking.

**GETTING EVERYWHERE:**

Some 8.9% of Herculaneum households do not have access to a car. There is no regular transit service. Better biking and walking facilities could greatly increase their quality of life, by giving households safer access to jobs, schools, services, and stores.
SUMMARY OF BIKING CONDITIONS

Current facilities:
- Every road in Herculaneum outside of I-55 can be counted as a bicycle facility, as bicycles are vehicles under Missouri law.
- Highway 61/67 is part of the Mississippi River Trail, and has signs designating it as a bike route, in addition to Share The Road signs.
- Joachim Avenue has Share The Road signs.
- Residents expressed concern about traveling on high-speed and high-volume roads in the area, specifically McNutt Road and Highway 61/67.
- More experienced cyclists in the area are comfortable with most of the roads, but residents who are interested in biking, or who bike with children, expressed concern over the lack of dedicated space for biking.

Opportunities:
- Highway 61/67 has low traffic and is a designated regional bike route.
- Low traffic throughout the residential streets.

Challenges:
- Hilly
- Limited right-of-way for shared space
- Lack of bike parking
- Truck traffic from the port site and I-55

SUMMARY OF WALKING CONDITIONS:

Current facilities:
- New sidewalks on Main Street
- Newer sidewalk on Joachim Avenue
- Discontinuous sidewalks, some in poor repair, throughout the old part of town
- Older sidewalks lack ADA compliant curb cuts
- Shoulders on Highway 61/67 (not present on bridge)
- Joachim Loop Trail
- Unofficial walking trails on Doe Run land
- Newer areas lack sidewalks, though not all residents feel they are needed

Opportunities:
- Attractive destinations, including parks and views of the river
- Potential to develop Doe Run Trails

Challenges:
- Limited right of way for new sidewalks
- Discontinuous sidewalks in older part of town
- Limited sidewalks in newer areas
- Lack of safe crossings on major streets, including Highway 61/67
PLANS, POLICIES & DEVELOPMENTS

The Herculaneum Bikeable Walkable Community Plan is intended as a supplement to existing planning and zoning efforts. The following plans and codes were reviewed for their role in supporting improvements in biking and walking in Herculaneum.

HERCULANEUM COMPLETE STREETS POLICY

Herculaneum passed a Complete Streets Policy in 2010. The ordinance does not contain required designs, but instead allows the City Engineer and decision-makers to review each project for the appropriate Complete Streets elements. The design guidelines and routes in this plan should not prevent every street project from being considered for Complete Streets elements under this ordinance.

HERCULANEUM TRAFFIC CODE

The Herculaneum Traffic Code follows the State of Missouri Model Traffic Code. There is nothing unusually onerous for people biking and walking in the traffic code. Of particular interest to the plan are the following provisions:

- The City Engineer may designate a Play Street, as defined in Sections 315.120 and 315.130. Please see page 34 for more information about Play Street recommendations.
- Speed limits are 20 mph in school zones as designated in Schedule IX Ordinance 98. Section 320.020
- Drivers must pass bicyclists at a safe distance, though the distance is not defined. Section 340.112.
- Drivers required to exercise highest degree of care to avoid colliding with any pedestrian upon the roadway (Section 345.080).

These sections of the law support safe biking and walking infrastructure in Herculaneum, but are not well known. See pages 15-17 for more information on education and enforcement to increase awareness of the law.

HERCULANEUM ZONING & SUBDIVISION

The Herculaneum Zoning Ordinance is primarily focused on land use. The following sections are opportunities to be more supportive of bicycling and walking:

- **Purposes** (Section 405.010): The first purpose listed for the zoning ordinance is to lessen congestion in the streets. When congestion is considered foremost, other values, such as biking and walking safely or preserving historic character, may be overlooked. The section also includes “to facilitate the adequate provision of transportation… and other public requirements.” Clarifying the purposes to include non-motorized transportation, and to emphasize community over congestion, could help the Planning and Zoning Commission to support bicycling and walking. The Complete Streets Policy requires the Planning and Zoning Commission to consider complete street elements in appropriate circumstances.

- **Subdivisions Design Standards** (Section 445.370 F.5) The section permits the Planning Commission to require sidewalks on any street, however it does not set out explicit standards. This section also permits sidewalks on only one side of collector streets. The section could be revised to allow sidewalks on both sides of a street.
Amendments to these sections can be made through the board of Aldermen (Section 445.380).

**HERCULANEUM MASTER PLAN (2006)**
The Infrastructure, Quality of Life, and Land Use sections of the Master Plan are the most pertinent to this plan. The Master Plan makes a number of recommendations that support a more bikeable and walkable Herculaneum, including clarification on resident contributions to sidewalks. Sidewalks are mentioned several times in the recommendations, as a way of enhancing quality of life and improving the identity and small-town feel of Herculaneum. Storm water and drainage issues are one of the most important infrastructure issues, listed as a priority over sidewalks. The use of permeable pavement and rain gardens could address both stormwater and pedestrian concerns.

**JEFFERSON COUNTY MASTER PLAN**
The Jefferson County Master Plan addresses the balance between growth and preservation. The plan identifies the area surrounding Herculaneum as a primary growth area. The plan recommends maintaining and expanding transportation options, including biking, walking, and transit. The plan was recently updated to clarify that the County has no oversight over municipalities.

**EAST WEST GATEWAY ONESTL REGIONAL PLAN**
The region-wide OneSTL planning process is coming to a close in 2013. Herculaneum participated in the Pevely-Herculaneum-Crystal City Focus Area, one of eight in the metropolitan area. Public meetings in the focus area found that residents supported more bikeable and walkable connections. The plan includes best practices to increase biking and walking.
VISION: Herculaneum is a delightful place for people of all ages and abilities to walk and bike safely.

The vision, goals, and objectives are based on input from the Planning Advisory Committee, the public meetings, and the survey. The vision articulates a common theme throughout the process—residents want to walk and bike more, but do not feel comfortable or safe doing so. This plan and the following goals, objectives, and recommendations are meant for all residents of Herculaneum, including those who currently do not bike or walk. The goals were chosen in response to the issues that were most frequently mentioned during public outreach. The residents of Herculaneum consistently identified the desire to walk and bike more, especially to local parks. Residents cited barriers such as high-speed intersections, the I-55 interchange, and lack of infrastructure as their main reasons for not walking and biking more often. The objectives are specific and measurable, to support evaluation and monitoring of the plan.

GOAL 1: Safely connect neighborhoods on the east and west sides of I-55

OBJECTIVES FOR MEASURING GOALS:
1.A At least one safe, low-stress walking facility connects the two sides of town.
1.B All crossings surrounding the interchange are safe and comfortable for all ages and designed to manage speeds for in-town speeds.
1.C At least one safe, low-stress biking facility connects the two sides of town.
1.D Wayfinding signage on both sides of town directs residents and visitors to the biking and walking facilities.

GOAL 2: All residents can walk and bike safely to the parks and trails in Herculaneum

OBJECTIVES FOR MEASURING GOALS:
2.A A clear, well-signed, safe walking route of well-maintained walking facilities connects each school in Herculaneum to the nearest park.
2.B A clear, well-signed safe walking route of well-maintained walking facilities connects each residential area to the nearest park, including the neighborhoods west of I-55.
2.C A clear, well-signed, safe biking route of low-stress biking facilities connects each schools to the nearest park.
2.D A clear, well-signed safe biking route of low-stress biking facilities connects each residential areas to the nearest park, including the neighborhoods west of I-55.
2.E All major street intersections along these routes have comfortable and safe crossings for people on foot and bike.
2.F Wayfinding signage along the biking and walking routes directs residents and visitors to the parks.
GOAL 3: Tourists from the St. Louis region and beyond visit Herculaneum’s rich offerings of historic sites, scenic views, and active recreation

OBJECTIVES FOR MEASURING GOALS:
3.A Low-stress biking and walking routes, prominent wayfinding, and signs pointing to opportunities to see the river make the Mississippi River Trail in Herculaneum a true multi-modal corridor.
3.B Prominent wayfinding signs inform visitors of the biking and walking options and local points of interest, such as Dunklin’s grave and the Shot Tower Memorial.
3.C The Mississippi River Trail website highlights the low-stress biking conditions in Herculaneum.

GOAL 4: Biking and walking become part of doing business in Herculaneum

OBJECTIVES FOR MEASURING GOALS:
4.A Annual planning budget includes maintenance and construction funds for all modes of transportation, including biking and walking.
4.B At least two family-friendly biking and walking events takes place per year.
4.C All major street design and maintenance plans and implementation account for biking and walking, in addition to motor vehicles and freight.
4.D Safe biking and walking education is easily accessible in the community.

GOAL 5: Herculaneum features a network of safe and comfortable biking and walking facilities

OBJECTIVES FOR MEASURING GOALS:
5.A All major roads include context sensitive facilities for biking and walking
5.B A Play Street program offers at least one neighborhood support to create a seasonal Play Street.
5.C All major streets include safe, comfortable pedestrian and bicycle crossings at regular intervals. Minor streets have high-visibility crosswalks as needed.
5.D U-Racks for bicycle parking are available at all schools, parks, and City Hall. Local stores install at least one U-Rack.
RECOMMENDATIONS: EDUCATION

Learning about traffic law and safety for biking and walking helps residents of all ages to share the road, whether they are biking, walking, or driving. For people who bike, learning how to change a flat and shift their bikes efficiently can be empowering.

EDUCATION IN SCHOOLS

**Purpose:** Encourage children to walk and bike to school safely and educate parents and school district staff on the benefits of walking and bicycling to school.

**Description:** In Herculaneum, many children live within walking and bicycling distance to school. Biking and walking education in schools is the most effective way to teach children how to use the roads safely. Lessons that are incorporated into the classroom will reach all students, while events outside of school will not reach all children.

The Safe Routes to School program is a major resource for biking and walking programming in schools. It was founded to educate children on safety and to encourage families to incorporate physical activity into their daily routines. Programs that help children to walk and bike safely include Walking School Buses, Bike Trains, Bicycle Rodeos, National Walk to School Day, and Safe Routes to School walking maps.

One or more staff members must take responsibility for bicycle and pedestrian education in a local school, in order to ensure continuity of the program. Several model curricula are available online through the Safe Routes to School National Partnership (http://www.saferoutespartnership.org/state/bestpractices/curriculum).

ONLINE RESOURCES

**Trailnet's Safe Routes to School Program:**
http://trailnet.org/programs/safe-routes-to-school

**Safe Routes to School National Partnership:**
http://www.saferoutespartnership.org/

**National Center for Safe Routes to School:**
http://www.saferoutesinfo.org/

**FHWA Safe Routes to School:**
http://safety.fhwa.dot.gov/saferroutes/

ADULT EDUCATION

**Purpose:** Encourage safe and confident cycling by providing education to Herculaneum residents.

**Description:** Though most adults know how to drive a car, they have never learned the rules of the road in terms of cycling. The proper knowledge and skills make bike commuting safer, more relaxed, and more enjoyable. Many bicycle education courses also cover basic maintenance and clothing and gear.

Bicycle education courses can be organized through the City or through community organizations such as churches. In addition to the fee for hiring an instructor, a bicycle education course typically requires meeting space for 3 hours, and access to an empty parking lot for 3 hours. There is at least one certified cycling instructor in the City of Herculaneum. Trailnet offers a 3-hour hands-on class on how to ride as visibly, predictably, and safely as possible.
ONLINE RESOURCES
CyclingSavvy:
http://cyclingsavvy.org/category/midwest-region/st-louis/

Trailnet's Bikesmart:
http://trailnet.org/events/bike-smart

SAFETY LITERATURE

Purpose: In order to share the roads safely, cyclists and drivers must understand the laws and statutes regarding bicycles at the local and state level.

Description: As not all drivers and cyclists will be able to participate in education classes literature that reaches cyclists and drivers must be available. Safety literature should be easy to read, concise, and visually appealing in order to reach the widest audience possible. Literature should be made available in City Hall and at City events. In Missouri, both Trailnet and Missouri Bicycle Federation distribute copies of the Missouri Bicycle Statutes.

The City can also increase awareness of bicycle safety by sharing online education, such as the League of Illinois Bicyclist’s Bike Safety Quiz (http://www.bikesafetyquiz.com/).

ONLINE RESOURCES
Missouri Bicycle Federation:
http://mobikefed.org/content/missouris-bicycle-and-pedestrian-laws

Trailnet:
http://trailnet.org/advocacy
RECOMMENDATIONS: ENFORCEMENT

Enforcement programs foster safe and lawful behaviors of all roadway users. Enforcement programs often focus on reducing crashes and conflicts between motorists and cyclists and/or pedestrians. Speed limit enforcement programs, distribution of local and state bicycle and pedestrian laws, and raising awareness of the rights and responsibilities of all road users are common themes of enforcement programs.

A strong partnership with law enforcement is important. Law enforcement officers are the only ones who can enforce laws for bicyclists, pedestrians, and motorists to improve safety. They also come in contact with all roadway users on a daily basis. This puts law enforcement officers in a unique position to assist with and add credibility to community efforts to encourage bicycling and walking and improve safety.

Enforcement programs can be very effective in changing roadway behaviors, but are often times seen as unpopular with the public. Efforts to educate motorists, pedestrians, and bicyclists on the rules of the road should be a part of any enforcement program or campaign.

RECOMMENDED PROGRAMS

TARGETED ENFORCEMENT

Targeted enforcement allows police officers to monitor vehicle speed limits on streets where pedestrians and bicyclists are present. Research shows, the higher the speed, the more severe an accident will be when a vehicle collides with a pedestrian or bicycle. Many streets in Herculaneum have a posted speed of 20 MPH. A targeted enforcement would tickets speeding motorists on these streets. Over time, vehicles tend to stop speeding, creating a safer environment for all roadway users.

LAW OFFICER TRAINING

It is important for law enforcement officers to be trained on pedestrian and bicycle laws and rules in order to properly enforce the laws. Officers play a critical role in assuring all roadway users obey laws. This will prevent crashes and create safer roadways for all users.

State of Missouri Statues, including traffic rules for motorists, bicyclists, and pedestrians can be found at: http://www.moga.mo.gov/statutes/C300.HTM. All Missouri law enforcement officers should be familiar with the rules as to enforce them lawfully.

There are several resources for training law officers. The National Highway Traffic Safety Administration offers free on-line resources including videos for officer training on pedestrian and bicycle laws.


Encouragement allows residents to share in the joy of biking and walking. Creating a safe and positive environment for residents to try out active transportation is a powerful tool in becoming more bikeable and walkable. And frankly, it is the most fun part of the plan. The following programs are recommendations for increasing interest in biking and walking in Herculaneum, though there are many other possibilities.

COMMUNITY WALKS AND RIDES

**Purpose:** To encourage residents to be active and get to know each other in a friendly and supportive environment.

**Description:** Community rides or walks help residents to discover the joy of being active and help strengthen community. Events have designated routes, typically loops, that end at the starting place. The pace should be accessible for all participants. In July 2013, volunteers hosted a community ride with the help of the Jefferson County Health Department, the City of Herculaneum, and Crystal City Cyclery. The ride had a two mile loop and six mile loop for participants. The ride was a success and sets a great model for future events in Herculaneum.

**ONLINE RESOURCES:**

Get Fit Festus has several examples of successful events:
http://www.getfitfestus.com/2013/05/herculaneum-twilight-community-bike-ride.html

Walking Info has several ideas for promoting walking, including examples of successful programs:
http://www.walkinginfo.org/promote/strategies.cfm

WALKING AND BICYCLING CLUBS

**Purpose:** Encourage residents to exercise regularly for health and socialization

**Description:** Walking and/or bicycling clubs generally have regular meetings on a weekly basis for low-key walks or rides around the neighborhood. Exercising with partners encourages people to stick with their routines and to form social bonds with their neighbors. Walking and bicycling groups are relatively easy projects for volunteers to take on.

**ONLINE RESOURCES:**

A guide for starting a walking group:
http://www.everybodywalk.org/start-your-own-walking-group

NATIONAL BIKE MONTH ACTIVITIES

**Purpose:** Encourage residents of all ages to bike in and around Herculaneum for transportation and recreational purposes during National Bike Month.

**Description:** During the month of May, cities across the country host events to encourage residents to bicycle for both transportation and recreation. Some common events include family group rides, adult and children cycling classes, bike-to-school days, and other exciting events to get people out on their bikes. The City of Herculaneum should host events during the month of May to encourage residents to get out and ride. The League of American Bicyclists has a number of valuable online resources to help make local efforts in Herculaneum successful, including an event organizing handbook, a calendar linking to local...
events and activities, and tips for people interested in commuting to work.

ONLINE RESOURCES
League of American Bicyclists:
http://bikeleague.org/content/plan-bike-month-event

Children and adults bicycle in Herculaneum for fun and transportation, though bicycle parking can be hard to find.
RECOMMENDATIONS: ENGINEERING

The US Department of Transportation recommends walking and bicycling be considered as equals with driving in street design. The full range of abilities and ages must be taken into account in order for streets to feel welcoming to all modes. Details are essential; for example, a family with a stroller cannot travel safely or easily if just a few intersections in their trip lack sidewalk ramps. Likewise, adults may choose not to bicycle when their neighborhood is separated from their destination by a dangerous intersection. Thoughtful design creates inclusive streets that allow the whole community to enjoy biking and walking. The US Department of Transportation echoes these reasons in recommending that biking and walking infrastructure be designed beyond minimum standards. This section is an overview of engineering principles and is not intended to take the place of the project specific detailed engineering studies.

THE AMERICAN WITH DISABILITIES ACT (ADA)

In 1990, Congress passed the American with Disabilities Act, which prohibits discrimination and ensures equal opportunities for people with disabilities. This includes planning in the public rights of way and assuring accessibility for all roadway users. Title II of the American with Disabilities Act requires all public rights of way and facilities be accessible for all users.

According to the survey conducted in the early stages of this planning process, 11% of respondents in Herculaneum use a walking device or aid, including a cane or wheelchair. It is important to assure all pedestrian facilities accommodate people with disabilities. Herculaneum is also in the process of developing Kade’s Playground, a park that will be accessible to all users, including people in wheelchairs. Access to the park should also be ADA accessible from neighborhoods in Herculaneum.

The United States Access Board develops guidelines for public rights of way for various users including people with visual impairments and people in wheelchairs. These guidelines cover pedestrian access to streets and sidewalks (crossings, curb ramps, etc.), roadway designs, constraints such as slopes, and placement of street amenities (benches, signs, bus stops, etc.). Below is a list of common pedestrian facilities and minimum ADA standards and design guidelines. It is important to note that these are only minimums. To achieve an optimal pedestrian environment, sidewalks, for instance, should actually be wider.

- **Sidewalks** – Minimum width for the pedestrian access route of a sidewalk is four feet. This means that the clear zone should be four feet. If planning to add amenities (street furniture, etc.) in the right of way, then sidewalks should be much wider. To accommodate for passing, sidewalks should

Ramps and detectable warning surfaces make sidewalks safe and enjoyable for all users.
be a minimum of five feet, otherwise sidewalks should include intervals of passing space every 200 feet. Sidewalk grade and pedestrian access routes should be no greater than five percent grade.

- **Curb ramps** – The minimum dimension of the turning space of a curb ramp shall be four feet by five feet, while the running slope shall be five percent minimum but no great than 8.3 percent.

- **Detectable warning surfaces** – Delineate the boundary between the pedestrian access route and vehicular routes. All curb ramps shall consist of truncated domes aligned in a square or radial grid pattern. Detectable warning surfaces shall also contrast with adjacent surfaces, either light on dark or dark in light. Bright yellow is a popular color for truncated domes.

- **Pedestrian Signals** – All pedestrian signal phase timing shall comply with the Manual on Uniform Traffic Control Devices (MUTCD). Accessible pedestrian signals provide information in non-visual formats. Accessible signals can be integrated into the pushbutton, as to activate a sound when the WALK signal activates. Signal standards and designs must follow MUTCD guidelines, which can be found here: [http://mutcd.fhwa.dot.gov/htm/2009/part4/part4e.htm](http://mutcd.fhwa.dot.gov/htm/2009/part4/part4e.htm).

There are many resources available to ensure pedestrian facilities are complying with ADA guidelines and regulations. All federally funded projects including new and altered facilities must comply with ADA guidelines.

### ONLINE RESOURCES

**United States Access Board: Proposed Guidelines for Pedestrian Facilities in the Public Right-of-Way:**

**Federal Highway Administration: Americans with Disabilities Act/ Section 504 of the Rehabilitation Act of 1973 (504):**

**Federal Highway Administration: Designing Sidewalks and Trails for Access:**
BICYCLE PARKING GUIDELINES

Secure bicycle parking is essential for people who use their bicycles for any kind of trip.

DESIGN

Bicycle racks must support the bicycle frame and allow the user to lock both their frame and their front wheel to the rack simultaneously (two-point locking). Many bicycles feature “quick-release” tires that can be removed within seconds, so many cyclists insist on two-point locking.

The safest, easiest, and most cost-effective design is the u-rack, shaped like an inverted U. One rack can support two bicycles, and costs approximately $100. Creative racks typically cost far more money, and do not provide the safety or capacity of a standard u-rack. Wave racks, schoolyard racks, and comb racks do not support the frame, and can bend the tires on bicycles.

PLACEMENT

Destinations that should offer bicycle parking:
- Civic buildings
- Parks
- Schools
- Trailheads
- Stores
- Apartment buildings
Racks should be placed at least 24” from the nearest building and 30” from the nearest rack.

Racks should be placed near the entrances of buildings or other destinations to increase convenience for cyclists, without blocking doorways or presenting trip hazards to pedestrians.

Racks should be placed in conspicuous, well-lit areas to discourage theft.

When possible, racks should be placed under roof overhangs or shelters to protect bicycles.

**COST**

For private development, the City can require developers to provide bicycle parking, just as it does with car parking. Basic u-racks are approximately $100 each. The installation is estimated at $200 for labor.

More information on site design and rack placement can be found in the Association of Pedestrian and Bicycle Professionals’ “Bicycle Parking Guidelines.” [c.ymcdn.com/sites/www.apbp.org/resource/resmgr/publications/bicycle_parking_guidelines.pdf]
Herculaneum has a unique opportunity to create a wonderful educational wilderness experience for residents and visitors. The 13 acres of land along Bluff Estates combined with the open space owned by the School District can create an oasis of natural trails and an interpretive experience for all to enjoy. A connection to Governor Dunklin’s State Historic Site will create a destination allowing for an experience of the river view combined with nature hiking.

Trails in this patch of forest should be created for the enjoyment, recreation, and education of all people in the surrounding neighborhoods and visitors.

Page 28 shows a conceptual level plan for improvements and opportunities to allow exploration of this open space and natural environment. Given the location next to the Sean Thomas Middle School, educational interpretive signage should be included in the plan.

**TRAIL DESIGN**

This plan offers a very conceptual design of the trails. The area is very thick with vegetation and trees. Trails developed within this area should be low impact to preserve the natural area. It is recommended to use either crushed rock surface trails or natural trails. Crushed rock trails could be four to five foot wide and designed with minimal impact. Crushed rock/gravel trails are lower in cost than other options such as asphalt and concrete. Trails could also be developed using a more natural approach, 3 feet of mulch over existing surface. Trail areas would need to be cleared of all debris and roots before mulching. Trail areas would also need to have an 8 feet overhead clearance.

An engineering analysis may be needed to further develop an integrated trails plan. Another option is to use a local landscape architect to further define the trails. Trails can also be developed using volunteers and trail design guidelines. Trail guidelines can be found here: [http://www.americantrails.org/resources/trailbuilding/Basic-trail-layout-design-TN.html](http://www.americantrails.org/resources/trailbuilding/Basic-trail-layout-design-TN.html). Other design options may be needed depending on water crossings, steepness, and other terrain considerations. Natural timber steps or low-maintenance wood bridges may need to be considered, which would significantly increase the cost of trail development. The cost of new trail construction is difficult to generalize because of the many variables that are involved including trail surface, width, location, and topography. In general, crushed rock and natural trails are the least expensive to build.
SIGNAGE

It is recommended that at a minimum, wayfinding and rule signs be installed at trailheads. A minimum of two trailheads would be needed, one near Senn-Thomas Middle School and one off of Bluff Estates Road. Wayfinding signs orient trail users on where to go and where to connect with internal trails. Rule signs give trail users information needed for ways to best enjoy the trails. Rules generally include hours that trails are open, prohibited users (bicyclists, ATV's, etc.), and if dogs are allowed, information about picking up after dogs.

Interpretive signage is also recommended at either the trailheads or along a portion of the trail. Interpretive signage educates children and adults on nature and natural elements found within the trail system including wildlife species and vegetation. Interpretive signs are a great medium that can reach a wide audience with minimal effort.

FUNDING

A variety of funding options are available to assist in trail building and maintenance. Federal and state grants are an option as well as private grants and donations, and volunteer labor.

The State of Missouri administers two federal grant programs that could help fund trail development.

LAND AND WATER CONSERVATION FUND (LWCF)

The LWCF is a federally funded grant through the U.S. Department of the Interior, National Park Service and is administered by the State Inter-Agency Council for Outdoor Recreation (SIACOR) and the Department of Natural Resources.

Land and Water Conservation Fund grants are available to cities, counties and school districts to be used for outdoor recreation projects. Projects require a 55 percent match. All funded project sites are taken under perpetuity by the National Park Service and must only be used for outdoor recreational purposes. Development and renovation projects must be maintained for a period of 25 years or the life of the manufactured goods. Additional information can be found at: http://www.mostateparks.com/page/55065/outdoor-recreation-grants.

RECREATIONAL TRAILS PROGRAM (RTP) GRANTS

Recreational Trails Program grants are available to local, state and federal governments, school districts, for-profit and non-profit organizations, businesses and Indian tribes. Eligible project categories include constructing new recreational trails, maintaining or renovating existing trails, developing or renovating trailheads or trail amenities, acquiring land for recreational trails, purchasing or leasing trail maintenance equipment or trail-related education programs (limited 5 percent of RTP apportionment for education). The grant maximum is $100,000 per project. Project sponsors must contribute a minimum match of 20 percent of the total cost of the project. Additional information can be found at: http://www.mostateparks.com/page/55065/outdoor-recreation-grants.

PRIVATE GRANTS AND DONATIONS

A number of national organizations and foundations award grants every year to community and non-profit groups to develop trails.
Below is a list of possible grant funding that could be pursued:

- **National Trail Funds**: a privately funded grant program dedicated to helping build and maintain foot trail in the nation. [http://www.americanhiking.org/national-trails-fund/](http://www.americanhiking.org/national-trails-fund/)

- **North Face Company**: [http://www.explorefund.org/](http://www.explorefund.org/)

- **National Environmental Education Foundation**: [http://www.neefusa.org/grants/every_day_grants.htm](http://www.neefusa.org/grants/every_day_grants.htm)


- **The Walmart Corporation**: [http://foundation.walmart.com/apply-for-grants](http://foundation.walmart.com/apply-for-grants)

- **Buchheit Building Company**: offers donations of materials through its website. According to its website, Buchheit is committed to partnering with the community. [http://www.buchheitonline.com/Community%20Involvement%20Form.aspx](http://www.buchheitonline.com/Community%20Involvement%20Form.aspx)

**VOLUNTEERS**

Crushed rock gravel trails and natural, wood chipped trails could be developed using volunteer labor and equipment. A “Friends of” group could be established to assist the City in trail development. A “Friends of” group can be established by local residents and nearby landowners that express an interest in helping build and maintain a trail system. American Trails is an on-line resource to assist in all aspects of trail building and can be of assistance in identifying ways to start a “Friends of” and potential other volunteer groups: [http://www.americantrails.org/](http://www.americantrails.org/). The first step could be to create a Facebook page and allow residents to join the group. Here you can post status updates, meeting times/location, volunteer activities, and progress.

Organizations such as the Missouri Community Service Commission could offer support to the City through the use of Americorps volunteers or VISTAS to help with trail building. Each year, Americorps volunteers assist Missouri communities with a number of local project. Information can be found here: [http://www.movolunteers.org/](http://www.movolunteers.org/). The local school district, local service organizations (Boy scouts, Lions Club, etc) and church groups could also be good resources for volunteers.
RECOMMENDATIONS: ENGINEERING (cont.)

**Historical Signs**

The Mississippi River Trail (MRT) traverses 3,000 miles from Minnesota to the Gulf of Mexico. The trail offers on-road bikeways and pedestrian and bicycle pathways. The trail travels through Herculaneum along Highway 61/67.

Herculaneum is unique in that it is one of a few places along the Mississippi River Trail in Jefferson County where visitors can get picturesque views of the Mississippi River. Proper signage along Highway 61/67 would alert visitors of opportunities to view the river. Signage along Highway 61/67 should be simple, using arrows that read “View of Mississippi River.”

Once at the river site, interpretive signage could offer visitors a glimpse into the history of Herculaneum. Currently the parks have benches or tables available. Providing additional amenities including restrooms and water fountains give visitors a pleasant experience of Herculaneum.

The wayfinding/directional signs (see examples) should lead visitors to the Dunklin-Fletcher Memorial Park and to the Governor Daniel Dunklin’s Grave Historic Site. For visitors on bike, information on distance is very helpful. For example, signs could read “View of Mississippi River, .5 miles.”

Once the signs are posted, information about Herculaneum should also be submitted to the Mississippi River Trail official tourism website so travelers know they can enjoy river views along the MRT.
An example of wayfinding signage showing local attractions.
**RECOMMENDATIONS: ENGINEERING (cont.)**

**DESIGN GUIDELINES**

**ADVISORY BICYCLE LANES**

**What:** Dashed white lines painted 5’ to 6’ from the edge of the roadway create space for cyclists, and invite drivers to share the space safely and courteously. Like standard bicycle lanes, they should be continuous along a route.

**Why:** Advisory bicycle lanes improve safety and alert motorists to the presence of cyclists.

**When:** Advisory bicycle lanes can be used on streets that are too narrow to accommodate traditional bicycle lanes. They should be placed on low volume and low speed streets.

**How:** Dotted edge lines are placed 5’ from the right edge of the roadway. The dotted lines should continue through driveways and intersections. Bicycle symbols with arrows should be painted every 200’ in the lanes, and after major intersections. The center line should be removed.

**Using the Street:** Motorists should use a normal lane position. They must yield to cyclists. They may pass on the left when there is no oncoming traffic, giving at least 3 feet of distance. **Cyclists** should use a safe lane position, similar to normal bicycle lanes. Motorists are allowed to drive in the advisory bicycle lanes, so cyclists should exercise caution.

Advisory bicycle lanes are used to increase safety for cyclists on roads with limited right of way (Photo: Greg Raisman)
BICYCLE LANES

What: Bicycle lanes are defined by solid white lines 5’ or more from the edge of the roadway. Painted bicycle symbols show the lanes are reserved for the exclusive use of cyclists.

Why: Bicycle lanes improve safety for cyclists. Bicycle lanes allow less experienced cyclists to feel comfortable navigating busier roads.

When: Bicycle lanes are most useful on streets with volumes over 3,000 ADT and speed limits under 35 mph. They should not be placed right of right turn lanes.

How: Bicycle lanes should be 5’ or wider. They are defined by solid white lines with bicycle markings and arrows placed in the lanes. When on-street parking is present, bicycle lanes should be wide enough that cyclists are not at risk of getting hit by drivers opening car doors. Bike lanes can be continued through intersections using dotted lines. They should not be placed to the right of right turn only lanes.

Using the street: Motorists may not drive in the bicycle lanes. Motorists should check for cyclists when turning left or right. Cyclists should be aware of motor vehicles turning at intersections. Cyclists are not required to ride in the bicycle lanes.
BIKES MAY USE FULL LANE SIGNS

What: Cyclists should position themselves over the shared lane markings to increase safety, visibility, and predictability

Why: Bicycles May Use Full Lane signs inform all road users of the law, and encourage cyclists to take the lane, a more visible place for them to be.

When: Bicycles May Use Full Lane (BMUFL) signs should be used on streets that are often used by cyclists where there are no bicycle lanes or other infrastructure. BMUFL signs may accompany shared lane markings.

How: Bicycles May Use Full Lane should comply with specifications in the MUTCD (R4-11)

INTERSECTIONS: CURB EXTENSIONS AND HIGH VISIBILITY CROSSWALKS

What: High visibility crosswalks have multiple wide white lines across the crosswalk to increase visibility for approaching motorists. They can also be accompanied by diamond shaped, yellow pedestrian crossing signs.

Sidewalks and curbs can be extended into intersections with wide curb radii or excess width in order to provide a shorter crossing distance for pedestrians without impeding the travel of cars.

Why: Curb extensions increase safety by reducing pedestrian exposure to car traffic. At signalized intersections, curb extensions allow more efficient signal timing by reducing the pedestrian phase. High visibility crosswalks are easy for drivers to see as they approach the intersection.

How: Crosswalks should be a minimum of 6 ft wide and direct pedestrians between the curb ramps. For crosswalks, longitudinal lines
Curb extensions should be 12 to 24 inches wide and separated by gaps of 12 to 60 inches. The design of the lines and gaps should avoid the wheel paths if possible, and the gap between the lines should not exceed 2.5 times the width of the diagonal or longitudinal lines. (MUTCD 3B.15)

Curb extensions should be designed on a case by case basis in order to ensure proper drainage and turning radii at the intersection.
RECOMMENDATIONS: ENGINEERING (cont.)

MULTI USE PATH

**What:** Multi-use paths adjacent to a roadway, or sidepaths, are generally made of asphalt and well separated from the road. These two-way paths are elevated to show separation.

**Why:** Multi-use paths create dedicated space for pedestrians and cyclists.

**When:** Raised multi-use paths can be used on busier roads that do not have the ROW for both sidewalks and cycle tracks. They should be used only where bicycle and pedestrian traffic is expected to be infrequent. As bicycle and pedestrian traffic increases, the roadway design should be considered to add additional space to accommodate people biking and walking.

**How:** The path should be elevated from the roadway and separated by a curb. The path should remain elevated through driveways and be marked with high-visibility crosswalk when crossing a roadway. The asphalt path should have a yellow dashed center line to separate traffic. Trail crossing signs (MUTCD W11-15 and W11-15p) should be used in advance of all intersections. These recommendations are conceptual in nature. A detailed engineering and design process with all agencies involved should precede any implementation.

**Using the street:** Motorists must watch for through traffic coming from the left and right when making turns. Pedestrians have the right of way, but should be aware of cyclists. They must be careful when crossing streets and driveways. Cyclists must yield to pedestrians and give audible signal when passing. They must be careful when crossing streets and driveways.
PLAY STREETS

What: Play streets allow neighborhoods to give space to people walking, children playing, and people riding bicycles by slowing car traffic and restricting traffic to local trips.

Why: Play streets allow people walking, biking, and driving to share space safely, by designing for very slow speeds. Typically, multiple traffic calming techniques and devices are used to ensure safety and a pleasant place for all residents. This can include narrow streets, well placed planters, benches, and even on-street parking. Play streets do not have separate areas for biking and walking. They should be marked clearly with signs.

When: Play streets can be implemented on narrow, low-traffic streets. Residents should be involved in every step of the process to ensure buy-in.

How: Play streets should have a design speed of 10 mph or less. Traffic calming devices and techniques are site specific and should be evaluated on an individual basis. The illustrations are general guidelines rather than a prescription.

Using the street: The space is designed for pedestrians, but motorists and cyclists may share it. Pedestrians are allowed to walk in the road, but they should be aware and careful of other users. Cyclists may use the space but must yield due to pedestrians and exercise caution. Recommended speed is 5 mph. Only motorists with local business should drive on play streets. Motorists must exercise caution and yield to all other users. Recommended speed is 5 mph.
**ROAD DIET**

**Why:** A road diet allows for easier left turns for people driving, reduces the number of motor vehicles exceeding the speed limit, increases safety for all modes, and makes room for people walking and biking.

**What:** Four lanes of traffic are restriped to create two through lanes of traffic, with a median left turn lane. This creates space for 6’ bicycle lanes. The shoulder is used to build sidewalks to create safe and comfortable space for people walking.

**When:** On four-lane roads with less than 20,000 ADT, a three lane road diet can improve traffic flow through the center turn lane, while giving room to people biking and walking.

**How:** The 42’ pavement can be restriped into 2 10’ through lanes, a 9’ center turn lane, and 2 6’ bicycle lanes. The 5’ shoulders can be used for sidewalks on both sides. See bicycle lanes section for further details.

Road diets can increase safety without increasing congestion (Photo: pedbikeimages.org_Dan Burden)
**SHARED LANE MARKINGS**

**What:** A white bicycle and two chevron arrows are painted in the middle of the traffic lane. The shared lane markings are applied along the entire bicycle route to help guide cyclists.

**Why:** Shared lane markings alert drivers to the presence of cyclists. The markings indicate proper lane position to cyclists and to drivers.

**When:** Shared lane markings should be used on roads with speeds under 30 mph and with less than 3,000 ADT.

**How:** Shared Lane Markings should be placed in the center of the travel lane, or at least 4 feet from the curb (no parking).

**Using the road:** Motorists should give cyclists room to operate safely. If there is no opposing traffic, they may pass on the left, giving cyclists at least 3 feet of passing distance.

Cyclists should position themselves over the shared lane markings to increase safety, visibility, and predictability.

Sharrows guide people biking to the proper lane placement (Photo: Eric Gilliland)

---

**HERCULANEUM bikeable & walkable community plan**

Page 38
RECOMMENDATIONS: ENGINEERING (cont.)

Recommended Routes

[Map of Herculaneum Bike-Walk Plan DRAFT]
Pre-engineering Opinions of Cost

The following information provides a general opinion of probable construction costs for the recommended facilities in the Herculaneum Bikeable Walkable Community Plan. Costs are based on conceptual design evaluation of the facilities and pre-engineering design development. The unit cost numbers are based on available information obtained by the planning team during the planning phases and reflect the year 2013 construction market. They are subject to traditional market place fluctuations.

All estimates are courtesy of Horner & Shifrin, Inc. Engineers and Bernardin, Lochmueller & Associates, Inc.

SIDEWALKS

<table>
<thead>
<tr>
<th>Project</th>
<th>Length (mi.)</th>
<th>Project Limits</th>
<th>Cost / linear ft.</th>
<th>Projected Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial Blvd/61/67</td>
<td>2.3</td>
<td>City Limit, City Limit</td>
<td>$77.00</td>
<td>$914,914.00</td>
</tr>
<tr>
<td>Riverview Plaza</td>
<td>0.7</td>
<td>Commercial Blvd. to Church St.</td>
<td>$77.00</td>
<td>$301,301.00</td>
</tr>
<tr>
<td>Scenic/Francios/Meadow/Scenic Dr.</td>
<td>1.8</td>
<td>City Limit to Joachim Ave.</td>
<td>$39.00</td>
<td>$369,447.00</td>
</tr>
<tr>
<td>Wall St.</td>
<td>0.3</td>
<td>61/67 to Hill St.</td>
<td>$77.00</td>
<td>$128,590.00</td>
</tr>
<tr>
<td>Mott St./ Curved St./ Cross St.</td>
<td>0.4</td>
<td>Joachim Ave. to Station St.</td>
<td>$77.00</td>
<td>$186,417.00</td>
</tr>
<tr>
<td>Broadway</td>
<td>0.3</td>
<td>Mott St. to Main St.</td>
<td>$77.00</td>
<td>$128,590.00</td>
</tr>
<tr>
<td>Brown Rd. / Brown St.</td>
<td>0.4</td>
<td>Joachim Ave. to Station St.</td>
<td>$77.00</td>
<td>$165,165.00</td>
</tr>
<tr>
<td>McNutt South Rd.</td>
<td>0.7</td>
<td>Providence Way to McNutt School Rd.</td>
<td>$77.00</td>
<td>$301,301.00</td>
</tr>
<tr>
<td>Senn Thomas Dr.</td>
<td>0.2</td>
<td>Main St., Start of existing sidewalk</td>
<td>$77.00</td>
<td>$100,408.00</td>
</tr>
<tr>
<td>Herculaneum Industrial Dr.</td>
<td>1.0</td>
<td>McNutt School Rd., McNutt St. (full loop)</td>
<td>$77.00</td>
<td>$386,540.00</td>
</tr>
<tr>
<td>St. Joseph St.</td>
<td>0.3</td>
<td>61/67 to Joachim Ave.</td>
<td>$77.00</td>
<td>$128,590.00</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>****</td>
<td>****</td>
<td><strong>$3,627,896.60</strong></td>
<td>****</td>
</tr>
</tbody>
</table>
# RECOMMENDATIONS: ENGINEERING (cont.)

**SHARED LANE MARKINGS AND BIKES MAY USE FULL LANE SIGNS**

<table>
<thead>
<tr>
<th>Project</th>
<th>Length (mi.)</th>
<th>Project Limits</th>
<th>Cost / linear ft.</th>
<th>Projected Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parkwood Ct.</td>
<td>0.1</td>
<td>Mott St. to Main St.</td>
<td>$0.80</td>
<td>$536.00</td>
</tr>
<tr>
<td>Church St.</td>
<td>0.2</td>
<td>Station St. to Riverview Plaza</td>
<td>$0.80</td>
<td>$809.60</td>
</tr>
<tr>
<td>Riverview Dr. N / Golf Course Dr.</td>
<td>0.4</td>
<td>Riverview / Crystal City Herky Rd. Scenic Dr.</td>
<td>$0.80</td>
<td>$1,742.40</td>
</tr>
<tr>
<td>Setz St. / Crane St.</td>
<td>0.2</td>
<td>Hill St., Joachim Ave.</td>
<td>$0.80</td>
<td>$1,033.60</td>
</tr>
<tr>
<td>Wall St.</td>
<td>0.1</td>
<td>Commercial Blvd., Hill St.</td>
<td>$0.80</td>
<td>$575.20</td>
</tr>
<tr>
<td>Hill St.</td>
<td>0.3</td>
<td>Wall St., Joachim Ave.</td>
<td>$0.80</td>
<td>$1,253.60</td>
</tr>
<tr>
<td>St. Joseph St.</td>
<td>0.3</td>
<td>Commercial Blvd., Joachim Ave.</td>
<td>$0.80</td>
<td>$1,472.80</td>
</tr>
<tr>
<td>Dunklin Dr.</td>
<td>0.6</td>
<td>Main St., City Limits</td>
<td>$0.80</td>
<td>$2,620.00</td>
</tr>
<tr>
<td>Lake Dr.</td>
<td>0.4</td>
<td>Commercial Blvd. N., Meadow Ln.</td>
<td>$0.80</td>
<td>$1,567.20</td>
</tr>
<tr>
<td>McNutt School Rd.</td>
<td>1.0</td>
<td>McNutt St., City Limits</td>
<td>$0.80</td>
<td>$4,196.00</td>
</tr>
<tr>
<td>Main St.</td>
<td>0.9</td>
<td>Commercial Blvd., Joachim Ave.</td>
<td>$0.80</td>
<td>$3,883.20</td>
</tr>
<tr>
<td>Joachim Ave.</td>
<td>1.5</td>
<td>Commercial Blvd., Commercial Blvd.</td>
<td>$0.80</td>
<td>$6,532.80</td>
</tr>
<tr>
<td>Senn Thomas Dr.</td>
<td>0.2</td>
<td>Main St., Start of existing sidewalk</td>
<td>$0.80</td>
<td>$1,043.20</td>
</tr>
<tr>
<td>Riverview Plaza</td>
<td>0.7</td>
<td>Commercial Blvd to Church St.</td>
<td>$0.80</td>
<td>$3,130.40</td>
</tr>
<tr>
<td>Herculaneum Industrial Dr.</td>
<td>1.0</td>
<td>McNutt School Rd., McNutt St.</td>
<td>$0.80</td>
<td>$4,016.00</td>
</tr>
<tr>
<td>Mott St/ Curved St. / Cross St.</td>
<td>0.4</td>
<td>Joachim Ave. to Station St.</td>
<td>$0.80</td>
<td>$1,936.80</td>
</tr>
<tr>
<td>Brown Rd. / Brown St.</td>
<td>0.4</td>
<td>Joachim Ave. to Station St.</td>
<td>$0.80</td>
<td>$1,716.00</td>
</tr>
<tr>
<td>Broadway</td>
<td>0.3</td>
<td>Mott St. to Main St.</td>
<td>$0.80</td>
<td>$1,336.00</td>
</tr>
<tr>
<td><strong>TOTAL:</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>$39,400.80</strong></td>
</tr>
</tbody>
</table>
### ADVISORY BIKE LAYES

<table>
<thead>
<tr>
<th>Project</th>
<th>Length (mi.)</th>
<th>Project Limits</th>
<th>Cost / linear ft.</th>
<th>Projected Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>McNutt S.</td>
<td>0.7</td>
<td>McNutt School Rd., Providence Way</td>
<td>$6.00</td>
<td>$22,542.00</td>
</tr>
<tr>
<td>Riverview Dr. S.</td>
<td>0.5</td>
<td>Riverview Dr., City Limits</td>
<td>$6.00</td>
<td>$14,472.00</td>
</tr>
<tr>
<td>Scenic Connector</td>
<td>1.8</td>
<td>City Limit to Joachim Ave.</td>
<td>$6.00</td>
<td>$56,838.00</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>$93,852.00</strong></td>
</tr>
</tbody>
</table>

### BICYCLE LAYES AND ROAD DIETS

<table>
<thead>
<tr>
<th>Project</th>
<th>Length (mi.)</th>
<th>Project Limits</th>
<th>Cost / linear ft.</th>
<th>Projected Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial Blvd. / 61 / 67</td>
<td>2.3</td>
<td>City Limit, City Limit</td>
<td>$6.00</td>
<td>$71,292.00</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>$71,292.00</strong></td>
</tr>
</tbody>
</table>

### MULTI-USE PATHS

<table>
<thead>
<tr>
<th>Project</th>
<th>Length (mi.)</th>
<th>Project Limits</th>
<th>Cost / linear ft.</th>
<th>Projected Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>McNutt St.</td>
<td>0.6</td>
<td>Commercial Blvd., Providence Way</td>
<td>$68.00</td>
<td>$219,232.00</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>$219,232.00</strong></td>
</tr>
</tbody>
</table>

**Project phasing and prioritization**

Prioritization is used to guide implementation of the plan in a thoughtful way, given the constraints of funding. The prioritization system balances connectivity, feasibility, and access to destinations in order to determine which projects should be given the highest priority.

The City of Herculaneum predicts that some streets will be changed in the voluntary buy-out area. The routes that are planned in the area represent the desire for a route in the area, rather than a precise location. A similar route that provides connectivity should be considered at the same level of priority.
Bicycle and pedestrian prioritization were considered separately due to the large difference in cost. Each proposed project was evaluated in three categories: proximity to attractors/destinations, connectivity, and feasibility. The categories are explained in further detail in Appendix D.

**ROUTE PHASING**

Based on the prioritization matrix, the proposed routes were grouped into short, medium, and long-term prioritization. An additional category covers the recommendations for Commercial Boulevard, which was highly prioritized, but depends on inter-agency cooperation. The phasing recommendations are meant as a guide to prioritizing routes, but should not take precedence over new opportunities to build out the infrastructure. If routine maintenance occurs on a planned route, the opportunity should be used to build the recommendations, regardless of the order in the prioritization matrix.

**SIDEWALK PRIORITIZATION**

<table>
<thead>
<tr>
<th>Project</th>
<th>Project Type</th>
<th>Prioritization Score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Short Term Priority Projects</strong></td>
<td>McNutt St.</td>
<td>Multi use path on north side of street (9 ft.)</td>
</tr>
<tr>
<td>Riverview Plaza</td>
<td>Sidewalks</td>
<td></td>
</tr>
<tr>
<td><strong>Medium Term Priority Projects</strong></td>
<td>Scenic St. / Francois St. / Meadow St. / Scenic Dr.</td>
<td>Sidewalks</td>
</tr>
<tr>
<td>Wall St.</td>
<td>Sidewalks</td>
<td></td>
</tr>
<tr>
<td>Broadway</td>
<td>Sidewalks</td>
<td></td>
</tr>
<tr>
<td>Mott St. / Curved St. / Cross St.</td>
<td>Sidewalks</td>
<td></td>
</tr>
<tr>
<td><strong>Long Term Priority Projects</strong></td>
<td>Brown Rd. / Brown St.</td>
<td>Sidewalks</td>
</tr>
<tr>
<td>McNutt South Rd.</td>
<td>Sidewalks</td>
<td></td>
</tr>
<tr>
<td>Senn Thomas Dr.</td>
<td>Sidewalks</td>
<td></td>
</tr>
<tr>
<td>Herculaneum Industrial Dr.</td>
<td>Sidewalks</td>
<td></td>
</tr>
<tr>
<td>St. Joseph St.</td>
<td>Sidewalks</td>
<td></td>
</tr>
<tr>
<td><strong>Prioritization determined by multiple agencies</strong></td>
<td>Commercial Blvd. / 61 /67</td>
<td>Road diet, bike lanes, sidewalks</td>
</tr>
</tbody>
</table>
Pedestrian Route Prioritization

LEGEND
Priority of Proposed Pedestrian Facilities
- Short Term
- Medium Term
- Long Term
- To be determined by multiple agencies
RECOMMENDATIONS: ENGINEERING (cont.)

**Sidewalk Prioritization - Short Term**

[Map showing sidewalk prioritization with legend]

- **Legend**
  - Existing Sidewalk
  - Proposed Sidewalk
  - Proposed Multi-Use Path
Sidewalk Prioritization - To Be Determined

LEGEND
- Existing Sidewalk
- Proposed Sidewalk
- Proposed Multi-Use Path
## RECOMMENDATIONS: ENGINEERING (cont.)

### BICYCLE ROUTE PRIORITIZATION

<table>
<thead>
<tr>
<th>Project Type</th>
<th>Project</th>
<th>Prioritization Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short Term Priority Projects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Joachim Ave.</td>
<td>Sharrows, BMUFL, signs</td>
<td>295</td>
</tr>
<tr>
<td>Main St.</td>
<td>Sharrows, BMUFL, signs</td>
<td>235</td>
</tr>
<tr>
<td>McNutt St.</td>
<td>Multi Use Path on north side of street (9 ft.)</td>
<td>230</td>
</tr>
<tr>
<td>Medium Term Priority Projects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hill St.</td>
<td>Sharrows, BMUFL, signs</td>
<td>190</td>
</tr>
<tr>
<td>Setz St. / Crane St.</td>
<td>Sharrows, BMUFL, signs</td>
<td>190</td>
</tr>
<tr>
<td>Wall St.</td>
<td>Sharrows, BMUFL, signs</td>
<td>190</td>
</tr>
<tr>
<td>Dunklin Dr.</td>
<td>Sharrows, BMUFL, signs</td>
<td>185</td>
</tr>
<tr>
<td>Parkwood Crt.</td>
<td>Sharrows, BMUFL, signs</td>
<td>185</td>
</tr>
<tr>
<td>Riverview Plaza</td>
<td>Sharrows</td>
<td>180</td>
</tr>
<tr>
<td>Church St.</td>
<td>Sharrows, BMUFL</td>
<td>175</td>
</tr>
<tr>
<td>Riverview Dr. N. / Golf Course Dr.</td>
<td>Sharrows, BMUFL, signs</td>
<td>175</td>
</tr>
<tr>
<td>Long Term Priority Projects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lake Dr.</td>
<td>Sharrows, BMUFL, signs</td>
<td>165</td>
</tr>
<tr>
<td>Scenic / Francois / Meadow / Scenic Dr.</td>
<td>Advisory Bike Lanes</td>
<td>165</td>
</tr>
<tr>
<td>McNutt School Rd.</td>
<td>Sharrows, BMUFL, signs</td>
<td>160</td>
</tr>
<tr>
<td>Riverview Dr. S.</td>
<td>Advisory Bike Lanes</td>
<td>160</td>
</tr>
<tr>
<td>Boradway</td>
<td>Sharrows</td>
<td>155</td>
</tr>
<tr>
<td>McNutt S.</td>
<td>Advisory Bike Lanes</td>
<td>155</td>
</tr>
<tr>
<td>Mott St. / Curved St. / Cross St.</td>
<td>Sharrows</td>
<td>155</td>
</tr>
<tr>
<td>St. Joseph St.</td>
<td>Sharrows, BMUFL, signs</td>
<td>145</td>
</tr>
<tr>
<td>Brown Rd. / Brown St.</td>
<td>Sharrows</td>
<td>140</td>
</tr>
<tr>
<td>Senn Thomas Dr.</td>
<td>Sharrows</td>
<td>135</td>
</tr>
<tr>
<td>Herculaneum Industrial Dr.</td>
<td>Sharrows</td>
<td>100</td>
</tr>
<tr>
<td>Prioritization (multiple agencies)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commercial Blvd. / 61 /67</td>
<td>Road diet and bike lanes</td>
<td>265</td>
</tr>
</tbody>
</table>
Bicycle Route Prioritization

LEGEND
Priority of Proposed Bike Routes
- Green: Short Term
- Yellow: Medium Term
- Red: Long Term
- Orange: To be decided by multiple agencies
RECOMMENDATIONS: ENGINEERING (cont.)

Bicycle Prioritization - Short Term
RECOMMENDATIONS: ENGINEERING (cont.)

Bicycle Prioritization - Long Term

LEGEND
- Bike Lane
- Shared Lane
- Advisory Bike Lanes
- Multi-Use Path
Bicycle Prioritization - To Be Determined

LEGEND
- Bike Lane
- Shared Lane
- Advisory Bike Lanes
- Multi-Use Path

HERCULANEUM bikeable & walkable community plan
FUNDING SOURCES
Bicycle and pedestrian improvements can be funded through a variety of federal and local sources. The City of Herculaneum has been steadily expanding its sidewalks through federal funding. Federal funds are well-suited to higher cost infrastructure projects, such as sidewalks or the proposed road diet on 61/67. The proposed bicycle treatments in Herculaneum are paint only. They could be implemented through routine maintenance, set-aside funds, or grouped as one federal funding application. Maintenance funding is rare. Herculaneum should plan for the cost of ongoing maintenance through revenue sources.

FEDERAL FUNDING SOURCES
In July 2012, a new transportation bill was authorized, Moving Ahead for Progress in the 21st Century, MAP-21. There are several programs within Map-21 that are available to fund bicycle and pedestrian projects and improvements. In addition to funding sources through Map-21, there are other federal funding options. Federal funding sources are described below in more detail, including contact information for each source.

Surface Transportation Program (STP)
The Surface Transportation Program provides flexible funding that may be used by States and localities for projects to preserve or improve conditions and performance on any Federal-aid highway, bridge projects on any public road, facilities for nonmotorized transportation, transit capital projects and public bus terminals and facilities. STP funds are administered through the Missouri Department of Transportation. Fifty percent of a State’s STP funds are to be distributed to areas based on population (suballocated), with the remainder to be used in any area of the State.

Highway Safety Improvement Program (HSIP)
The HSIP emphasizes a data-driven, strategic approach to improving highway safety on all public roads that focuses on performance. Eligible projects include safety improvements for all roadway users.

Congestion Mitigation and Air Quality Improvement Program (CMAQ)
The CMAQ Program is a flexible funding source to State and local governments for transportation projects and programs to help meet the requirements of the Clean Air Act. The CMAQ has new performance-based features.

Transportation Alternatives Program (TAP)
The Transportation Alternatives Program is a new funding program under MAP-21. TAP provides for a variety of alternative transportation projects that were previously eligible activities under separately federally funded programs. This program is funded at a level equal to two percent of the total of all MAP-21 authorized Federal-aid highway and highway research funds, with the amount for each State set aside from the State’s formula apportionments. Pedestrian, bicycle, trails, and safe routes to school programs are eligible for TAP funding. Specifically,
• Construction, planning, and design of on-road and off-road trail facilities for pedestrians, bicyclists, and other nonmotorized forms of transportation.

• Construction, planning, and design of infrastructure-related projects and systems that will provide safe routes for non-drivers, including children, older adults, and individuals with disabilities to access daily needs.

TAP is administered by the Missouri Department of Transportation.  
http://www.fhwa.dot.gov/map21/tap.cfm

National Highway Performance Program (NHPP)

Also a program of MAP-21, the NHPP provides funding for projects including bicycle transportation and pedestrian walkways on principle arterials and on the Interstate Highway System.  
http://www.fhwa.dot.gov/map21/nhpp.cfm

Recreational Trails Program (RTP)

The RTP is a program incorporated into the MAP-21, Transportation Alternatives Program. However, funding for this program is administered by the Missouri Department of Natural Resources, a division of the State Parks. Grants are available for trail development and renovation. Projects require a minimum of a 20% local match.  
http://www.fhwa.dot.gov/environment/recreational_trails/  
http://www.mostateparks.com/page/55065/outdoor-recreation-grants

Safe Routes to School Program (SRTS)

SRTS is a program incorporated into the MAP-21, Transportation Alternatives Program. Funds are administered through the Missouri Department of Transportation.  
http://www.fhwa.dot.gov/map21/tap.cfm  
http://www.modot.org/safety/SafeRoutestoSchool.htm

State and Community Highway Safety Grant Program (Section 402)

Section 402 are used to support State and community programs to reduce deaths and injuries. Pedestrian safety has been identified as a national priority. Section 402 funds can be used for a variety of safety initiatives including conducting data analyses, developing safety education programs, and conducting community-wide pedestrian safety campaigns.  
http://safety.fhwa.dot.gov/policy/section402/
LOCAL FUNDING SOURCES
Local funding for bicycle and pedestrian projects and programs is an important component when considering developing new facilities. Many federal programs require a local match, the below funding sources can be used to fund projects in full or can be used as a local match when using federal funds.

Local Option Economic Development Sales Taxes

Cities in the State of Missouri have the option to impose a local sales tax of not more than one half per cent to be used to fund projects including pedestrian improvements related to stormwater management (sidewalks, curbs, gutters, etc.)

Capital Improvement Budget Set-Aside

Herculaneum could make a policy decision to set-aside a percentage of capital improvement budget to fund bicycle and pedestrian projects. These projects could be incorporated into other road work being done (complete streets) or stand-alone projects. These funds can be leveraged as a local match to secure federal funds.

Other Local Options

Other local funding options include the creation of a Community Improvement or Neighborhood Improvement District, or assessing development fees fund improvements. Information on these funding options can be found at: http://www.missouridevelopment.org/community%20services/Local%20Finance%20Initiatives.html

PRIVATE FUNDING SOURCES

Several national and state foundations provide grants for pedestrian and bicycle projects. These grants can play a significant role in funding projects and providing match for federal funds.

Bikes Belong Grant Program

Bikes Belong is a national organization dedicated to putting more people on bikes. The organization funds multi-use trails with a strong desire to leverage federal funding. http://www.bikesbelong.org/grants/

Missouri Foundation for Health’s (MFH) Healthy and Active Communities Program

MFH is the state’s largest healthcare foundation working to improve health in the communities it serves. Through the Healthy and Active Communities Program, MFH funds projects to combat obesity, including bike-to-school programs, increasing access to multi-use trails, and other innovative programs and infrastructure improvements to increase physical activity. http://www.mffh.org/

Robert Wood Johnson Foundation (RWJF)

The RWJF offers a wide range of funding opportunities to promote healthy and active living. The website offers details on various grants and calls for proposals. http://www.rwjf.org/applications/solicited/cfplist.jsp
Indicates potentially applicable pedestrian and bicycle projects under federal highway programs

<table>
<thead>
<tr>
<th>Project</th>
<th>TAP</th>
<th>CMAQ</th>
<th>STP</th>
<th>HSIP</th>
<th>RTP</th>
<th>NHPP</th>
<th>Section 402</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bicycle lane</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Shared Lane Markings (Sharrows)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Signed bike route</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shared use path</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sidewalks</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crosswalks</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Signals</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Trails</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Curb cuts and ramps</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traffic calming (Road diet, Play street, etc.)</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bike racks</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Educational safety brochure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Training</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Technical Assistance</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PROGRAMS**

TAP = Transportation Alternative Program  
CMAQ = Congestion Mitigation and Air Quality Improvement  
STP = Surface Transportation Program  
HSIP = Highway Safety Improvement Program  
RTP = Recreational Trails Program  
NHPP = National Highway Performance Program  
Section 402 = State and Community Highway Safety Grant Program
RECOMMENDATIONS: EVALUATION & IMPLEMENTATION

Evaluation, monitoring, and clearly designating responsibilities are the most important parts of realizing the plan. Recommended actions include:

DESIGNATE A BICYCLE AND PEDESTRIAN COORDINATOR ON CITY STAFF

**Purpose:** To make sure there is a single go-to person for coordinating implementation of the plan and information about biking and walking in Herculaneum.

**Description:** The bicycle and pedestrian coordinator would serve as the central point for coordinating information about bicycling and walking efforts in Herculaneum, especially in regards to implementation of the plan. Coordination duties for a plan of this size are estimated to take approximately 10 hours per month, which would not justify additional staff. The coordinator will be responsible for convening the Bicycle and Pedestrian Advisory Committee (see below).

**Resources:** Why Communities and States need Bicycle and Pedestrian Staff (League of American Bicyclists):

ESTABLISH A BICYCLE AND PEDESTRIAN ADVISORY COMMITTEE (BPAC)

**Purpose:** To engage community interests and resources in implementing the plan

**Description:** A Bicycle and Pedestrian Advisory Committee consists of residents, community leaders, City staff and business owners interested in improving biking and walking. The BPAC coordinates the various interests and efforts surrounding implementation of the plan. The BPAC typically meets quarterly (or monthly) and helps to establish a yearly action plan and implement the action plan, specifically the education and encouragement aspects.

**Resources:** Making Bicycling and Walking a Norm for Transportation Agencies: Best Practices for Bicycle and Pedestrian Advisory Committees (League of American Bicyclists):
http://www.advocacyadvance.org/site_images/content/bpac_best_practices(web).pdf

YEARLY ACTION PLANS AND REPORT CARDS

**Purpose:** To set achievable goals for implementation and track progress

**Description:** Upon adoption of the plan, City staff and community members should determine an annual plan for what facets of the plan will be achieved within the year, and who will be responsible for the projects. The objectives of the plan are written to be measurable and discrete, in order to serve as the basis for the annual plan. At the end of the year, the Bicycle Coordinator should issue a report card, summarizing the goals that were reached and those that continue to be worked on. The report card should be brief, and focus on evaluating progress towards goals that were set the previous year.

**Resources:** Sample annual report card (Great Rivers Greenway):
YEARLY BIKE WALK COUNTS

**Purpose:** To establish how many people are biking and walking in Herculaneum and to track progress over time

**Description:** Biking and walking counts are an annual inventory of how many people are using active transportation in Herculaneum. The national American Community Survey contains some data on transportation, but it is infrequent and the margin of error is large in smaller communities. The National Project for Bicycle and Pedestrian Documentation coordinates an annual nation wide count. The methodology has been designed to be easy for volunteers to use. The basic steps are as follows:

- Determine dates and times. The annual national count takes place in the second week of September on a Tuesday, Wednesday, or Thursday. Afternoon counts in Herculaneum (4 - 6 pm or 5 - 7 pm) could capture commuting and recreational travel.

- Determine locations. At least four sites in Herculaneum should be chosen based on expected activity and based on future infrastructure projects.

- Recruit volunteers and count. One volunteer will be needed for each site. Volunteers will need a clipboard, instructions, and a data entry sheet.

- Collect data and enter it into a spreadsheet. The data can be uploaded to the national project for a free summary report. The counts can be shared with the community to generate support for biking and walking in the community.

**Resources:** The National Project for Bicycle and Pedestrian Documentation has information on all aspects of setting up a count program, including data entry sheet, training materials for volunteers, and information on site selection: http://bikepeddocumentation.org/
Early in the planning process, Trailnet conducted a transportation survey with city residents. A total of 132 respondents completed the Herculaneum Bike Walk survey about their current and desired methods of transportation. While the vast majority of respondents (99%) drive a few times a week or more, 68% of respondents walk and 26% of respondents bike the same frequency. When asked about their future transportation desires, over half of respondents identified that they would like to walk (58%) and bike (57%) more. It is important to note that 11% of walkers use a mobility device or walking accessory (e.g., cane, stroller, wheelchair, etc.).

Respondents were asked why they currently walk or bike, 58% walk and 44% bike for fun/fitness and 40% walk and 29% bike to spend time with friends/family. However, when respondents were asked for what reasons they would like to walk or bike, not only were the same reasons highly cited, but so was the desire to go to parks, community centers, libraries, and local stores (see Table 1). As follows, over half of respondents would like to see more bicycle racks at parks and 30% of respondents would like them installed by stores and community centers.

While the desire exists to walk and bike more, respondents identified several barriers that prevent them from using active transportation. The top two reasons for not walking or biking more were a lack of supportive infrastructure (i.e., sidewalks or bike lanes) and having to cross busy roads. See Table 2 for more information. When asked what changes could be made to help people walk/bike, respondents identified similar desires for more infrastructure and signage (see Table 3). Additionally, over 40% of respondents favored the following community events related to walking/biking: (1) community walks, fun runs, and bike rides, (2) programs encouraging walking/biking for children to school and adults to local businesses, and (3) neighborhood walking groups.

Respondents were also asked to rate the walking/biking experience in Herculaneum on how easy, safe, and pleasant it is to travel those modes. For walking, 54% of respondents identified that it was not easy to do so, while respondents were split on if it was safe or pleasant. Respondents identified McNutt Street (30%) and Scenic Drive (20%) as the streets that most need walking improvements. For biking, the majority of respondents identified that it is not easy, safe, or pleasant to bike in Herculaneum. Respondents identified McNutt Street (31%), Scenic Drive (19%), and 61/67 (16%) as the streets that most need biking improvements.

Overall, when asked if Herculaneum should consider walking and biking a priority, 72% of respondents believed that the city should, while only 4% said they should not consider it a priority. This indicates strong support to improve walking and biking conditions in Herculaneum.
Table 1. Reasons for why respondents would like to walk and bike

<table>
<thead>
<tr>
<th>Reason</th>
<th>Walk</th>
<th>Bike</th>
</tr>
</thead>
<tbody>
<tr>
<td>Go to parks, community centers, library</td>
<td>37%</td>
<td>33%</td>
</tr>
<tr>
<td>Go to local stores</td>
<td>29%</td>
<td>24%</td>
</tr>
<tr>
<td>Spend time with friends/family</td>
<td>26%</td>
<td>24%</td>
</tr>
<tr>
<td>For fun and/or fitness</td>
<td>24%</td>
<td>26%</td>
</tr>
<tr>
<td>To exercise pets</td>
<td>19%</td>
<td>--</td>
</tr>
<tr>
<td>Go to school (or take my children to school)</td>
<td>13%</td>
<td>7%</td>
</tr>
<tr>
<td>Go to work</td>
<td>10%</td>
<td>12%</td>
</tr>
</tbody>
</table>

Table 2. Characteristics of Herculaneum that prevent respondents from walking or biking

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Walk</th>
<th>Bike</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of sidewalks/bike lanes</td>
<td>68%</td>
<td>38%</td>
</tr>
<tr>
<td>Crossing busy roads</td>
<td>45%</td>
<td>36%</td>
</tr>
<tr>
<td>Lack of time</td>
<td>32%</td>
<td>25%</td>
</tr>
<tr>
<td>Uneven/poorly maintained sidewalks/pavement</td>
<td>31%</td>
<td>21%</td>
</tr>
<tr>
<td>Fast Cars</td>
<td>26%</td>
<td>21%</td>
</tr>
<tr>
<td>Weather</td>
<td>23%</td>
<td>17%</td>
</tr>
<tr>
<td>Not enough street lighting</td>
<td>20%</td>
<td>4%</td>
</tr>
<tr>
<td>Rude drivers</td>
<td>17%</td>
<td>22%</td>
</tr>
<tr>
<td>Hills</td>
<td>7%</td>
<td>12%</td>
</tr>
<tr>
<td>Physical activity</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>Lack of ramps</td>
<td>5%</td>
<td>4%</td>
</tr>
<tr>
<td>Trash/debris on the sidewalk/pavement/shoulder</td>
<td>4%</td>
<td>5%</td>
</tr>
<tr>
<td>Crime</td>
<td>0%</td>
<td>1%</td>
</tr>
</tbody>
</table>

Table 3. Changes that would encourage respondents to walk or bike

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Walk</th>
<th>Bike</th>
</tr>
</thead>
<tbody>
<tr>
<td>More sidewalks/bike lanes</td>
<td>68%</td>
<td>45%</td>
</tr>
<tr>
<td>More biking and walking paths</td>
<td>68%</td>
<td>57%</td>
</tr>
<tr>
<td>More signs marking walking/biking routes and destinations</td>
<td>39%</td>
<td>38%</td>
</tr>
<tr>
<td>More direct routes and pedestrian/cyclist cut throughs</td>
<td>38%</td>
<td>39%</td>
</tr>
<tr>
<td>Safer ways to cross the street</td>
<td>36%</td>
<td>34%</td>
</tr>
<tr>
<td>Sidewalks in better condition</td>
<td>31%</td>
<td>--</td>
</tr>
<tr>
<td>More signs that show people on bikes can use the street</td>
<td>--</td>
<td>30%</td>
</tr>
<tr>
<td>Slower traffic</td>
<td>13%</td>
<td>9%</td>
</tr>
<tr>
<td>More sidewalk ramps</td>
<td>8%</td>
<td>--</td>
</tr>
</tbody>
</table>
Herculaneum Biking and Walking Survey

Trailnet and the City of Herculaneum are partnering to develop a plan to improve conditions for walking and bicycling in and around the city. If you want to walk and bike more in Herculaneum, now is your chance to get involved!

You can share your thoughts and ideas through this anonymous 5 to 10 minute survey. Your answers will help Trailnet and Herculaneum understand what Herculaneum needs in its Bikeable Walkable Community Plan.

In this survey, “walking” refers to any kind of traveling that is usually done on a sidewalk, including using a walker, a wheelchair, or any mobility device. “Biking” refers to using a bicycle, handcycle, tricycle, or recumbent cycle. You will have a chance to tell us more about what “walking” and “biking” mean to you.

Transportation choices

1. Please answer each question to let us know how you currently travel in and around Herculaneum.

2. Is there anything you would like to change about how you usually get around?

3. How do you feel about the following statements?

4. Why do you walk now? Why would you like to walk in the future? Check any reasons that apply to you.

5. When you are walking, do you use any accessories or mobility devices, such as a stroller, a cane, a wheeled cart, a walker, a wheelchair, or an electric mobility cart?

6. Please tell us what kind of accessories you use, and whether you use them everyday, or just sometimes.

7. If you use an accessory or mobility device, how do you feel about the following statements?

8. If you use multiple walking accessories or mobility devices, please tell us about your experience in Herculaneum.
9. What prevents you from walking more?
- Lack of time
- Hills
- Weather
- Crossing busy roads
- Uneven and poorly maintained sidewalks
- Trash and debris on the sidewalk and shoulder
- Rude drivers
- Other (please specify):
  _________________________________

10. What changes would help you to walk more often?
- More sidewalks
- More sidewalk ramps
- Slower traffic
- More signs marking walking routes and destinations
- Other (please specify):
  _________________________________

11. What three streets are the most in need of walking improvements in Herculaneum?
1. 
2. 
3. 

12. Are there any places or intersections in Herculaneum that are especially bad for walking? Where are they, and what makes them so bad?

Bicycling

13. When it comes to biking, how would you describe yourself?
- Strong and fearless -- I feel comfortable riding my bike on ANY road, even in heavy traffic.
- Enthused and confident -- I feel comfortable riding my bike in most situations, but I avoid roads with lots of fast cars.
- Interested but concerned -- If I ride, it is mostly on trails or very quiet streets. I would like to ride more, but it feels dangerous.
- No way, no how -- I have no interest in riding a bike. (If so, please skip ahead to Question 22).

14. How do you feel about the following statements?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Slightly disagree</th>
<th>Neutral</th>
<th>Slightly agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is easy to ride a bike in Herculaneum.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>It is safe to ride a bike in Herculaneum.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>It is pleasant to ride a bike in Herculaneum.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

15. What kinds of bicycles do you and your family ride?
- Adult bicycles
- Child bicycles or tricycles
- Recumbents or handcycles
- Adult tricycles
- Other (please specify):
  _________________________________

16. Why do you bike now? Why would you like to bike? Skip any reasons that don’t apply to you.

<table>
<thead>
<tr>
<th>Currently, I bike for this reason</th>
<th>I would like to be able to bike for this reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>To go to work</td>
<td>☐ ☐</td>
</tr>
<tr>
<td>To go to school (or to take my children to school)</td>
<td>☐ ☐</td>
</tr>
<tr>
<td>To go to local stores</td>
<td>☐ ☐</td>
</tr>
<tr>
<td>To go to parks, community centers, and libraries</td>
<td>☐ ☐</td>
</tr>
<tr>
<td>For fun and/or fitness</td>
<td>☐ ☐</td>
</tr>
<tr>
<td>To spend time with friends or family</td>
<td>☐ ☐</td>
</tr>
</tbody>
</table>

17. What prevents you from biking more?
- Lack of time
- Hills
- Weather
- Crossing busy roads
- Uneven and poorly maintained pavement
- Trash and debris on the sidewalk and shoulder
- Rude drivers
- Other (please specify):
  _________________________________

18. What changes would help you to bike more often?
- More bike lanes
- More biking and walking paths
- More signs that show people on bikes can use the street
- More signs showing bike routes and destinations
- Other (please specify):
  _________________________________
19. What three streets are the most in need of biking improvements in Herculaneum?
   1. 
   2. 
   3. 

20. Are there any places or intersections in Herculaneum that are especially bad for biking? Where are they, and what makes them so bad?

21. Where would you like to see more bicycle racks? Check all that apply.
   - Schools
   - Community centers
   - Stores
   - Parks
   - Transit stops
   - Other (please specify): 

22. Which biking and walking events would you like to see in your community?
   - Programs that encourage children to walk and bike to school
   - Programs that encourage people to bike and walk to local businesses
   - Bicycle classes for adults
   - Community walks and fun runs
   - Bicycle classes for children
   - Neighborhood walking groups
   - Greater police enforcement of transportation laws
   - Community bike rides

23. When it comes to transportation, do you think Herculaneum should consider biking and walking a priority?
   - Yes
   - No
   - I don’t know

24. What is your age?
   - Under 18
   - 19 - 34
   - 35 - 49
   - 50 - 64
   - 65 and older

25. What is your gender? ____________________

If you would like to receive updates about the Bike/Walk planning process, including upcoming events and activities, please provide your contact information below. All survey answers will be confidential.

Name: ________________________________________________________________________
Street address: ________________________________________________________________
City, State and Zip: ____________________________________________________________
Phone number: ________________________________________________________________
Email: ________________________ ________________________________________________

Are you interested in receiving Trailnet's monthly newsletter about upcoming events and activities in the region?
   - Yes
   - No
Attendees:
Bill Haggard, Mayor
Chris Baker, Alderman
Mark Johnson, Public Works
Mary Ruth and Tony Casey, Citizens
Jay Doty, Doe Run
Sarah Vogt, Heartlands
Cindy Mense, Trailnet
Marielle Brown, Trailnet

NOTES:
Marielle summarized the planning process, including the purpose and scope of the plan. The communication diagram, scope diagram, and schedule were distributed.

The community involvement process was reviewed. The Leader will run an article on the open house. Flyers have been mailed to all of the churches in town. Information has been posted on the City website. Mayor Haggard and Mary Ruth Casey took more flyers to distribute.

The Herculaneum Bike/Walk Plan Survey is now online, and Marielle gave Mayor Haggard around 50 hardcopies to distribute in Herculaneum. The survey will be advertised on the Herculaneum City website as well. The goal is to get at least 100 answers. The survey will continue through the second open house.

The Planning Advisory Committee helped to create a map of existing conditions, including places where it is great to walk, and places where it feels dangerous. The map was updated to include new roads, planned sidewalk, and planned trails. Several key issues emerged:

Questions:
- How to connect the two sides of Herculaneum for people walking and biking?
- How to connect to Crystal City?
- How to create biking and walking friendly streets on narrow right-of-way?
- How to connect to West City Park?

Opportunities:
- New dog park and other parks
- Future sidewalks
- Potential trails
- 13 acres of city owned land near the grave site
- Great river views from public land
Following the mapping exercise, the committee completed a SWOT analysis for the City of Herculaneum:

**STRENGTHS**
- Trail potential
- New Sidewalks
- Street lighting
- Low traffic streets
- Topography
- River views- park (Dunklin Fletcher) and Dunklin’s Grave
- History

**WEAKNESSES**
- Divided by highways
- Privately owned open spaces and roads (ex: Dunklin Drive has no public ROW)
  - Privately owned land creates challenges for connecting trails and for connecting bridges in the road network
- Poor walking and biking access on bridges
- Barriers to other cities and destinations including privately owned land, natural features, and high speed roads

**OPPORTUNITIES**
- Easements for trails
- Sidewalks
- All Bark Village Dog Park
- Accessible Playground
- Mississippi River Trail
- Bike racks- two ribbon racks are in storage
- Benches at parks
- Potential Port Project (a new street will open)

**THREATS**
- Potential Port Project (will open and close some roads, might draw truck traffic)
- Flooding of trails

The meeting concluded with a discussion of next steps for getting the word out about the survey and open house. All members of the committee will be given a chance to review the Draft Existing Conditions after the Open House.
PAC MEMBERSHIP MEETING SUMMARIES (cont.)

CITY OF HERCULANEUM BIKEABLE WALKABLE COMMUNITY PLAN

PLANNING ADVISORY COMMITTEE MEETING #2
MAY 12, 2013

Attendees:
Bill Haggard, Mayor
Chris Baker, Alderman
Mark Johnson, Public Works
Elmo Blum, Citizen
Debby Campbell, Get Healthy DeSoto
Barb Stotler, Citizen
Charlie Ervin, Cyclist, Jefferson County Growth and Development Group
Jay Doty, Doe Run
Sarah Vogt, Heartlands
Cindy Mense, Trailnet
Marielle Brown, Trailnet

NOTES:
Marielle updated the committee on the planning process and what has been completed. She summarized the existing conditions report and preliminary survey results. The outreach process so far has shown remarkable consensus on issues in Herculaneum, and the PAC agreed with the results of the outreach.

Vision, Goals, and Objectives were reviewed. Access to the river near the railroad tracks was discussed. Walking along the train tracks used to be a popular pastime in Herculaneum. Biking and walking routes cannot be built within the railroad ROW. Current landowners may not be willing to grant easements for a path. When Overlook Park is remediated, it will provide views of the river and the barges queuing.

The PAC examined the proposed routes. The proposed Main Street route will be changed, as the street will probably be closed. The plan will contain design guidelines for connections, but the final route for the connection will be dependent upon land development in the buyout area.

Proposed infrastructure was discussed, including sharrows, sidewalks, advisory bike lanes, play streets, curb bumpouts, and rapid flash beacons. The final plan will recommend either one or two multi-use paths under the underpass, depending on feasibility when working with MoDOT.

The meeting concluded with a discussion of next steps for getting the word out about the survey and open house. All members of the committee will be given a chance to review the Draft Existing Conditions after the Open House.

The PAC reviewed the evaluation tool. Historical context was added, along with a refinement of multipliers.

Finally, there was a brief overview of the upcoming open house and publicity for it. The PAC will be asked to review the Draft Plan, but there will not be a third meeting.
OPEN HOUSE SUMMARIES

Date: February 26, 2013
Attendees: 14 names on the Sign In sheet
Survey: All but one attendee had previously taken the survey, or took it on site

Maps: People who live and work in Herculaneum mapped out their biking and walking routes, the areas they felt were dangerous, and their desired routes. Mayor Haggard helped sketch the school district boundaries. The conversation around the maps emphasized three priorities that were echoed in the discussions around the posters:

1. Safe and comfortable walking and biking to parks
2. Safe biking and walking on McNutt in order to connect the two sides of Herculaneum
3. Improving biking and walking safety for people traveling on or crossing 61/67

Other comments that we heard from several people were:

- Connecting both sides of Herculaneum. The East and the West have walkable, low traffic neighborhoods, but there is no easy way to walk or bike between them.

- Walking routes to parks- Herculaneum is further developing its parks, and people from both sides of town want to be able to walk to the parks.

- Herculaneum’s river views are a great asset.

- Connections to Crystal City, Festus, and Pevely are highly desired.

- Drivers seem confused on McNutt, making the road feel unsafe.

- Some streets lack sidewalks- but in low traffic areas, several residents feels safe walking without them.

- Crossing 61/67 on foot is difficult. For children living north of the school, this is especially dangerous.

- Some of the roads connecting to Festus are pretty but feel dangerous.

Posters: When they arrived everyone was given 6 dots to mark their highest priorities on posters showcasing the “5 E’s,” walking improvements, and biking improvements. Overall, 74 dots were placed on the posters as below, along with requested locations that attendees wrote on the posters:

5 E’s
Engineering: 13 dots
Encouragement: 11 dots
Education: 5 dots
Enforcement: 3 dots
Evaluation & Planning: 0 dots

Building Blocks of a Walkable Community
Connectivity: 10 dots
Wider Sidewalks: 5 dots
Accessibility: 4 dots

Requested locations: Dunklin- sidewalks, Broadway, Barclay, Joachim Main, Resevoir
Shorter Crossing Distances: 2 dots
Traffic Calming: 2 dots
    Requested locations: St. Joseph St.
Mid-Block Crossings: 1 dot
    Requested locations: School area on Joachim Ave

Building Blocks of a Bikeable Community
Separated Path: 11 dots
Cycle Track: 3 dots
Buffered Bicycle Lane: 2 dots
Requested locations: Highway 61/67
Advisory Bicycle Lane: 1 dot
    Requested locations: Joachim, Dunklin
Shared Lane: 1 dot

The posters had additional opportunities for people to check off where they would like to walk, and what kind of cyclist they consider themselves. The answers were:

Where would you like to walk to?
Parks: 8 checks
Schools: 5 checks
Stores: 4 checks
Houses of Worship: 2 checks
Work: 2 checks

What type of cyclist are you?
Enthused and Confident: 5 checks
Interested but Concerned: 1 check
No Way No How: 0 checks
Strong and fearless: 0 checks

Date: May 21, 2013
Survey: All attendees had previously taken the survey

Presentation: The planning team summarized the planning process to date and presented the proposed routes and facility types for Herculaneum. The public was invited to ask questions during and after the presentation. Discussion centered on intergovernmental cooperation, especially for alternate routes under I-55. There was also interest in Play Streets as an alternative to sidewalks on narrow roads.

Posters and Maps: After the presentation, the public was invited to look more closely at the proposed facility types, with posters of the proposed design guidelines, along with maps of the proposed routes. There was a high level of interest in the routes and design guidelines, as many people at the meeting already bicycled and/or walked. One attendee was concerned that not all local bicycle shops had been contacted during the planning efforts.

Edits were made to the maps based on local knowledge and upcoming development proposals. A few attendees expressed skepticism of the proposed bicycle routes, as the roads are already comfortable for bicycling. Other attendees endorsed the proposed facilities, as they would feel more comfortable with more designated space for cyclists.

Overall, there was general support and enthusiasm for the walking infrastructure and the increased attention to biking and walking as a priority in Herculaneum.
APPENDICES (cont.)

PRIORITIZATION MATRIX

The prioritization matrix considered proximity to destinations, connectivity and feasibility. The categories were broken into parts, each with their own multiplier, as below:

PROXIMITY TO ATTRACTORS/DESTINATIONS

Routes that serve a high number of destinations were the most highly prioritized to make sure the routes have value as both transportation and recreation. Throughout the public engagement process, Herculaneum residents expressed that parks and schools are their most desired bicycle and pedestrian destinations. Along with these destinations, businesses, public facilities such as City Hall, and the commuter lot were also included in the calculations. Schools and public facilities were counted if they were within ¼ mile of a route to reflect the importance of a network of routes for these neighborhood destinations.

CONNECTIVITY

Connectivity captures how a route serves the overall network. Higher priority is placed on routes that allow users to connect into the entire network easily, by counting the number of planned and existing routes the proposed route would serve. Crossing a major barrier was heavily weighted, as residents consistently expressed concern with I-55 as a barrier to biking and walking trips. If the route was along a designated regional or national route was considered as well. The national Mississippi River Trail runs through Herculaneum, and the prioritization was designed to include the importance of regional ties through the MRT route. Finally, change in level of stress was included, as a connection that feels comfortable only to the most experienced cyclists will not feel like a true connection to many residents. The score was based on the criteria established in the Mineta Transportation Institute's research report Low-Stress Bicycling and Network Connectivity.

FEASIBILITY

Feasibility balances prioritization between easy to accomplish projects and highly desirable, but costly, projects. Cost and feedback from the public, the City and MoDOT were taken into account. The lower the cost of a project, the more points it was awarded. Projects that were not strongly supported received a 2 on the feedback scale, while those that were strongly supported received 4 points, and those that were strongly opposed received 0 points.

The prioritization matrix with weights is on the following page.
<table>
<thead>
<tr>
<th>Criteria</th>
<th>Number</th>
<th>Multiplier</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Proximity to attractors/destinations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1 Number of Public and Private Schools (k-12) within 1/2 mile from route</td>
<td></td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>1.2 Direct access to a commuter lot (yes=1; no=0)</td>
<td></td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>1.3 Direct access to commercial destinations (yes=1; no=0)</td>
<td></td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>1.4 Number of public facilities (city hall, library, etc.) within 1/4 mile from route</td>
<td></td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>1.5 Number of parks with direct access</td>
<td></td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>2 Connectivity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1 Number of existing or planned routes connected by the proposed bicycle route</td>
<td></td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>2.2 Identified as a regional or national route (yes (national)= 2; yes(regional)=1; no=0)</td>
<td></td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>2.3 Crosses major barrier (yes=1; no=0)</td>
<td></td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>2.4 Change in level of stress (Mineta Institute Levels of Stress)</td>
<td></td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>3 Feasibility</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.1 Recommended by community feedback (4=maximum support; 0=little to no support)</td>
<td></td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>3.2 Cost ($0-5,000=4; $5,000-10,000=3; $10,000-20,000=2; $20,000-50,000=1; &gt;$50,000=0)</td>
<td></td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>3.3 Recommended by agency feedback (4 = maximum support; 0= little to no support)</td>
<td></td>
<td>15</td>
<td></td>
</tr>
</tbody>
</table>

Grand Total