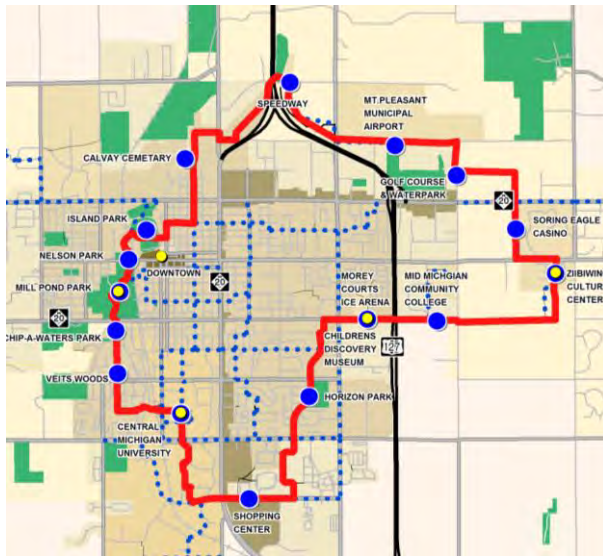


# The Greater Mt. Pleasant Area Primary Non-Motorized Connectors

APPLICATION FOR THE TIGER III DISCRETIONARY GRANT



SUBMITTED BY:  
Charter Township of Union  
2010 S Lincoln Road  
Union Township, MI 48858  
(989) 722-4600

# Application at a Glance

<b>Proposal Title:</b>	The Greater Mt. Pleasant Area Primary Non-Motorized Connectors
<b>Type of Project:</b>	Bicycle and Pedestrian
<b>Prime Applicant:</b>	Charter Township of Union
<b>DUNS Number:</b>	05-228-1656
<b>Contact Person:</b>	Brian Smith, Township Manager Charter Township of Union 2010 S Lincoln Road Mount Pleasant, Michigan 48858 Telephone: (989) 772-4600 ex. 224. Email: bsmith@uniontownshipmi.com
<b>Project Partners:</b>	Charter Township of Union City of Mt. Pleasant Isabella County Saginaw Chippewa Indian Tribe Central Michigan University
<b>Location of the Project:</b>	The project will be constructed in Isabella County Michigan in the communities of the Charter Township of Union, Chippewa Township and the City of Mt. Pleasant. All communities are in Michigan's 4 <sup>th</sup> Congressional District.
<b>Project Classification:</b>	Rural
<b>Funding Request:</b>	\$7,106,411
<b>Economically Distressed:</b>	Consistent with the Economically Distressed Area criteria published by FHWA on August 5 <sup>th</sup> , 2011 Isabella County and on February 12, 2011 The City of Mt. Pleasant both qualify as federally designated economically distressed areas
<b>Supporting Documentation:</b>	<a href="http://www.greenwaycollab.com/Projects/Mt_Pleasant_Tiger_IIIMTPTIGER.html">http://www.greenwaycollab.com/Projects/Mt_Pleasant_Tiger_IIIMTPTIGER.html</a>

# Contents

<b>I. Project Description</b> .....	1
<b>II. Project Partners</b> .....	10
<b>III. Grant Funds</b> .....	11
<b>IV. Selection Criteria</b> .....	12
A. Long-term Criteria .....	12
i. State of Good Repair.....	12
ii. Economic Competitiveness .....	13
iii. Livability.....	14
iv. Sustainability .....	16
v. Safety .....	27
B. Job Creation & Near-term Economics.....	28
C. Innovation .....	20
D. Partnership.....	21
<b>V. Project Readiness and NEPA</b> .....	22
<b>VI. Federal Wage Rate Certificate</b> .....	24
<b>VII. Material Changes to Pre-application</b> .....	25

# I. Project Description

## A.1 Project Summary:

The Greater Mt. Pleasant Area Primary Non-Motorized Connectors will provide the core infrastructure necessary to provide for safe and convenient pedestrian and bicycle travel between the key destinations within the City of Mt. Pleasant, the Charter Township of Union, Chippewa Township, the Saginaw Chippewa Indian Tribe and Central Michigan University. By doing so, this project will establish the critical mass of non-motorized facilities necessary to instigate substantial mode shift from driving to walking and bicycling.

The project may be viewed as having three elements that work in concert:

1. **A new multi-modal bridge over US-127** – The freeway currently bisects a rapidly developing area with numerous employment, housing, recreational, educational and cultural centers. The proposed bridge will reconnect Remus Road that was severed when the freeway was constructed and provide a direct link between these resources. Currently only one of the three roads that cross US-127 in this area provides any non-motorized facilities and these are sidewalks that transverse a busy freeway interchange. The interchange route is also impractical for most non-motorized trips as it would require many miles of out-of-direction travel and is not designed for bicycle use.
2. **A 15 Mile Regional Connector Loop** – The loop links 16 major destinations and funnels non-motorized traffic across the freeway at the proposed multi-modal bridge discussed in the first element. This loop is an urban greenway comprised of both on and off-road facilities designed such that the majority of residents would feel comfortable riding a bicycle on or walking along this route. The route includes extensive wayfinding and five active transportation hubs.
3. **Neighborhood Connector Routes** – These routes increase the utility of the Regional Connector Loop by providing links from secondary destinations to the loop.

The project outlined in this grant has a strong foundation and existed as a project prior to this grant opportunity. The following page describes the basis for this proposal.



**Based on a Comprehensive Plan** – The Greater Mt. Pleasant Area Non-motorized Plan was developed in 2010 and 2011 and includes: detailed recommendations for a non-motorized network; an implementation plan; planning and zoning recommendations; proposed policies and programs; education and marking; and design guidelines. The project is drawn directly from highest priority projects in Implementation Section. The report may be downloaded from:  
[http://www.greenwaycollab.com/Projects/Mt\\_Pleasant\\_Tiger\\_III\MTPTIGER.html](http://www.greenwaycollab.com/Projects/Mt_Pleasant_Tiger_III\MTPTIGER.html)

**Extensive Community Engagement** – 548 people completed a web survey was conducted as part of the non-motorized plan. 60 people participated in the two public workshops for the plan and numerous meetings were conducted with key individuals. Throughout the process, public engagement techniques were used that obtained input from all participants, documented the input and employed consensus reaching techniques.

**Broad Partnerships** – The non-motorized project's steering committee included representatives from the Michigan Department of Transportation, Isabella County Road Commission, Saginaw Chippewa Indian Tribe, Central Michigan University, Mid-Michigan Community College, Isabella County Parks and Recreation, Union Township and the City of Mt. Pleasant.

**Integrates Long-standing Community Plans** – Plans for the multi-modal bridge over US-127 precede the Non-motorized plan by a number of years and a number of public meetings have taken place specifically for this project. The Saginaw Chippewa Indian Tribe developed plans for a Shared-Use Trail to link key destinations on their land that also preceded the Non-motorized plan. The Non-motorized plan integrated these two preceding efforts into the proposed non-motorized network.

**Builds on Existing Resources** – The Regional Connector Loop is an extension of a riverfront trail system that has been developed over a number of years. The loop in conjunction with the Neighborhood Connector Routes will improve access to these existing trails and the parks they go through.

**Has the Key Elements for Success** – The Mt. Pleasant area has all of the key ingredients to make this project a success: a major university, a downtown, high density housing, employment centers and a population that already has a significant number of pedestrian commuters. The project addresses the community's weak points and builds on its strengths.

**High Benefit to Cost Ratio** – Even with the limited benefits that could be reliably monetized and using conservative figures the project has an over 2 to 1 to nearly 4 to 1 benefit to cost ratio.

**Short Payback Period and Long Lasting Benefits** – The project's payback period is within four years. Most of the project benefits are long-term and will continue to pay dividends indefinitely.

## **Project Location**

The project is located in Isabella County, Michigan. The project will provide non-motorized connections to key destinations in the City of Mt Pleasant, Union Township, Chippewa Township, Saginaw Chippewa Indian Tribe and Central Michigan University.

## **Economically Distressed Area**

The project is located in an economically distressed area. The following statistics are drawn from the 2010 Census and the 2005-2009 American Community Survey.

- Mt. Pleasant had a population of 26,016 with a Median Household Income of \$25,033 and 15% of families below the poverty level.
- Union Township has a population of 12,927 with a Median Household Income of \$26,794 and 13% of the families under poverty level.
- Chippewa Township has a population of 4,654 with a Median Household Income of \$37,238 and 20% of the families are below poverty level.

## **Project Goals**

As part of the non-motorized plan four goals were developed based on public input:

1. Provide better non-motorized connectivity
2. Advance community health
3. Improve pedestrian and bicycle safety
4. Institute change that lead to a pedestrian and bicycle friendly community

If this project is funded, these goals will be realized very quickly. Educators at Central Michigan University are committed to documenting the economic impact.

If selected for the grant, The Greater Mt. Pleasant Area Primary Non-motorized Connectors will provide the following benefits:

- More active transportation choices
- Improve non-motorized connectivity
- Improve safety for bicyclists, pedestrians, motorists and transit users along and across the roads
- Encourage healthy and active lifestyles by increasing the number of people walking and bicycling, especially for daily transportation trips
- Reduces automobile dependency
- Improve air quality and reduce greenhouse gas emissions
- Encourage tourists who come to the area for to visit one attraction to stay in the community an extra day or two.
- Help position the area for the new economy by creating an attractive environment for knowledge workers.

## Planning Process:

As indicated previously, this project is the result of a comprehensive non-motorized transportation plan that based on a broad partnership. The plan initiated from a Regional Planning Charrette that was held on February 5, 2008. After that meeting, a working group was formed. The working group resulted in a successful \$50,000 grant application to the Saginaw Chippewa Indian Tribe. The proceeds from the grant were used to hire a consultant to prepare a non-motorized plan for the Greater Mt. Pleasant Area and Isabella County.

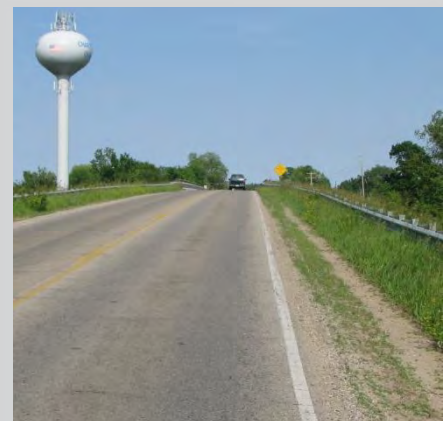
### Non-motorized Transportation Plan Purpose & Community Vision

*“Identify the non-motorized network and the support systems necessary for safe and convenient non-motorized travel throughout the Greater Mt. Pleasant Area and Isabella County. As a network and systems are implemented, it is envisioned that this will result in more people freely choosing to walk and bicycle...it is further envisioned that this will in turn lead to a healthier and more socially engaged community where walking and bicycling is a natural choice because there are easy and convenient ways to get from one destination to another.”*

To view the complete non-motorized transportation plan, please visit the following website: [http://www.greenwaycollab.com/Projects/Mt\\_Pleasant/MPMNMP.htm](http://www.greenwaycollab.com/Projects/Mt_Pleasant/MPMNMP.htm)

## Current Challenges

- **High health risks tied to physical inactivity** – In Isabella County 4.4% of the residents have diabetes, 22% have high blood pressure and 21.5% are obese. All of these diseases are related to physical inactivity. One in five residents report getting no exercise and an additional 13% get minimal or no exercise.
- **US – 127 presents a major barrier** – the freeway separates the Saginaw Chippewa Indian lands and Mid Michigan Community College on the east side from the City of Mt. Pleasant, Central Michigan University and high density student housing to the west.
- **Isolated off campus housing** – while within easy walking and bicycling distance to campus, job centers and shopping centers many of these high density off-campus housing complexes do not have any bicycle or pedestrian links to their surroundings.
- **Key community resources inaccessible by pedestrians and bicycle** – even though these resources are easy walking and bicycling distance from residential areas and each other, they are only accessible via motorized travel.
- **Busy roadways act as a barrier to travel** – Many direct connections from neighborhoods to schools, commercial areas and other neighborhoods are impeded by the need to cross busy roadways without the aid of any designated facilities.

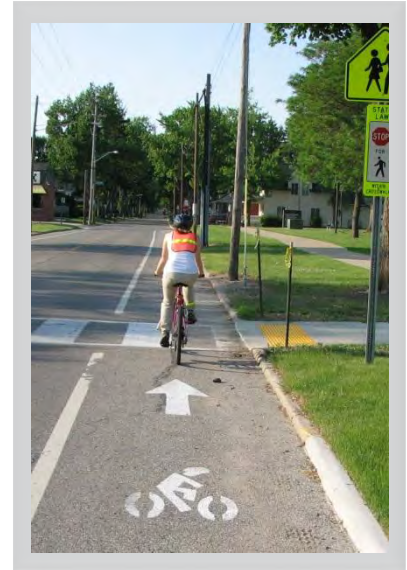


Existing overpasses to the north and south of Remus Road have narrow bridge decks with no bicycle or pedestrian facilities

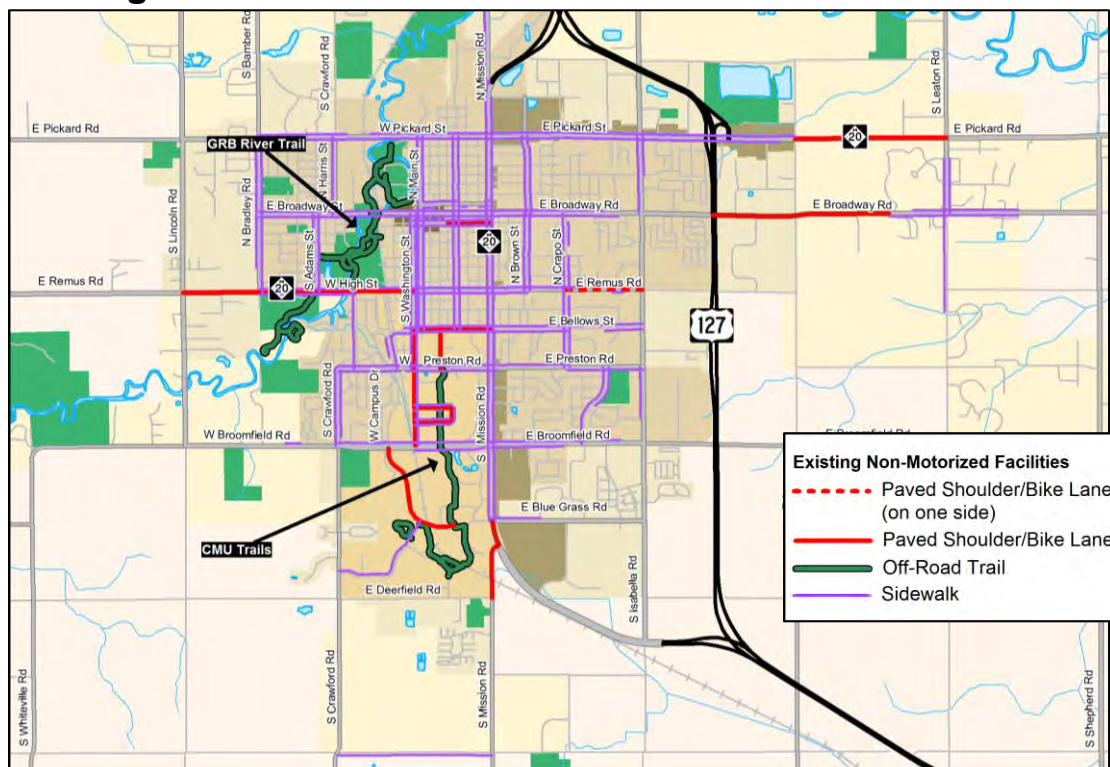
## Current Opportunities

Although there are many transportation challenges to address in the area there are also many existing opportunities and resources to build upon and help support the non-motorized system.

- 3 miles of the Riverwalk that follows the Chippewa River.
- 2.25 miles of Central Michigan University Off-road Trails.
- 6.8 Miles of Bike Lanes and Paved Shoulders in the community.
- Isabella County Transit Commission Bus
- Based on the non-motorized plan web survey 44.3% of respondents said that they would ride their bicycle for transportation if a system of sidewalks, pathways, crosswalks and bike lanes were provided.
- Nearly Complete Sidewalk system in the downtown and surrounding populated areas.
- A diverse group of representatives from different municipalities and organizations dedicated to working together to help establish a non-motorized system in the Greater Mt. Pleasant area.



## Existing Facilities





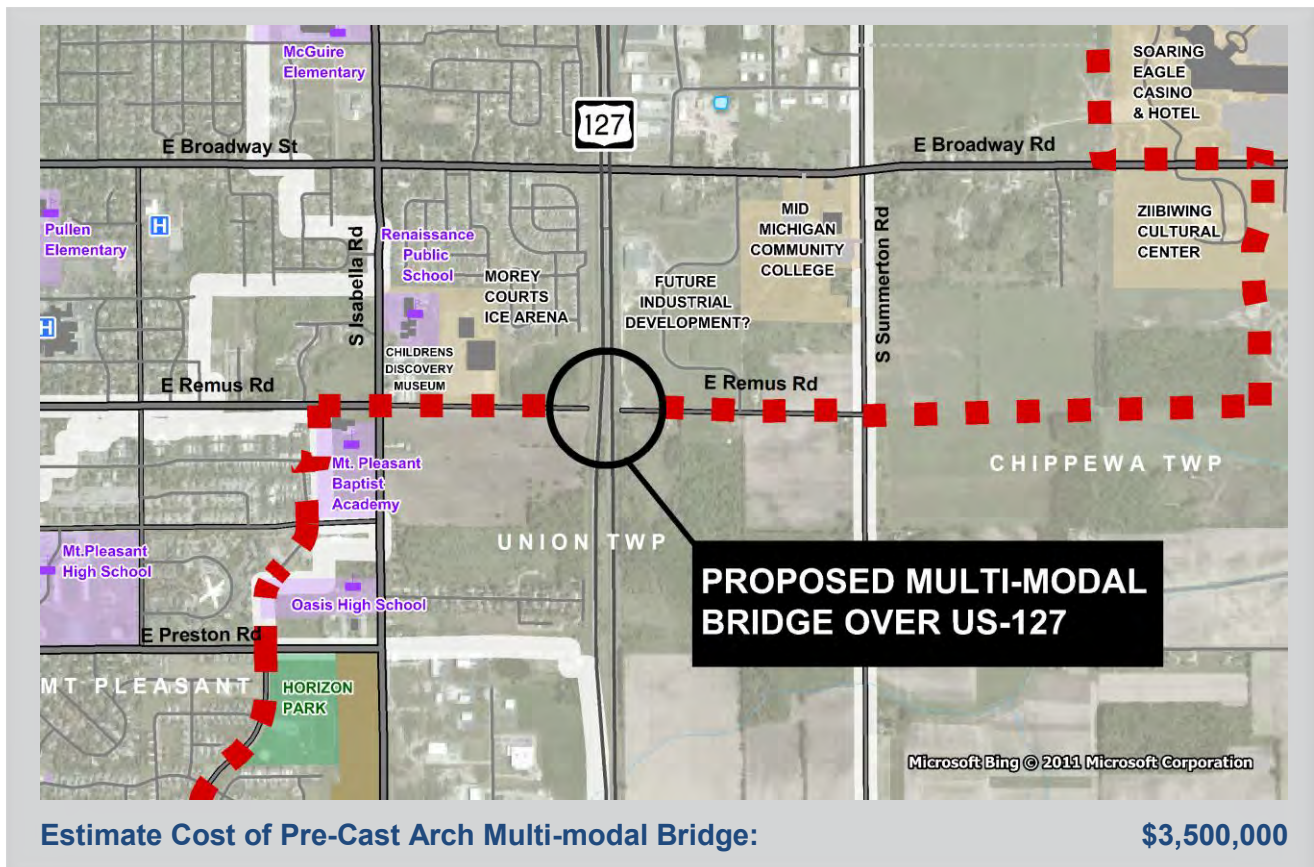
### Project Elements – New Multi-Modal Bridge:

US-127 is a major barrier in the community, especially for those traveling by bicycle or foot. Currently only one of the three roads that cross US-127 in this area provides any non-motorized facilities and these are sidewalks that transverse a busy freeway interchange. The interchange route is also impractical for most non-motorized trips as it would require many miles of out-of-direction travel and is not designed for bicycle use.

The new bridge will include sidewalks, bike lanes and motor vehicle lanes. Although this bridge will not have as big an impact on motor vehicles as it does bicycles and pedestrians, it provides benefits to motor vehicles travel as well. Currently, a majority of the land on the east side of US-127 is under development or undeveloped. The bridge would provide a connection for future development in the area. Recently, the Mid Michigan Community College relocated here and there are plans for a business park as well. The bridge will also provide an alternative motor vehicle route when there are accidents or construction on the near-by bridges and interchanges.

Transportation benefits of the Multi-modal Bridge include:

- Providing a critical non-motorized connection across US-127
- Provide alternative route for motor vehicles
- Provide connection for future development in the area



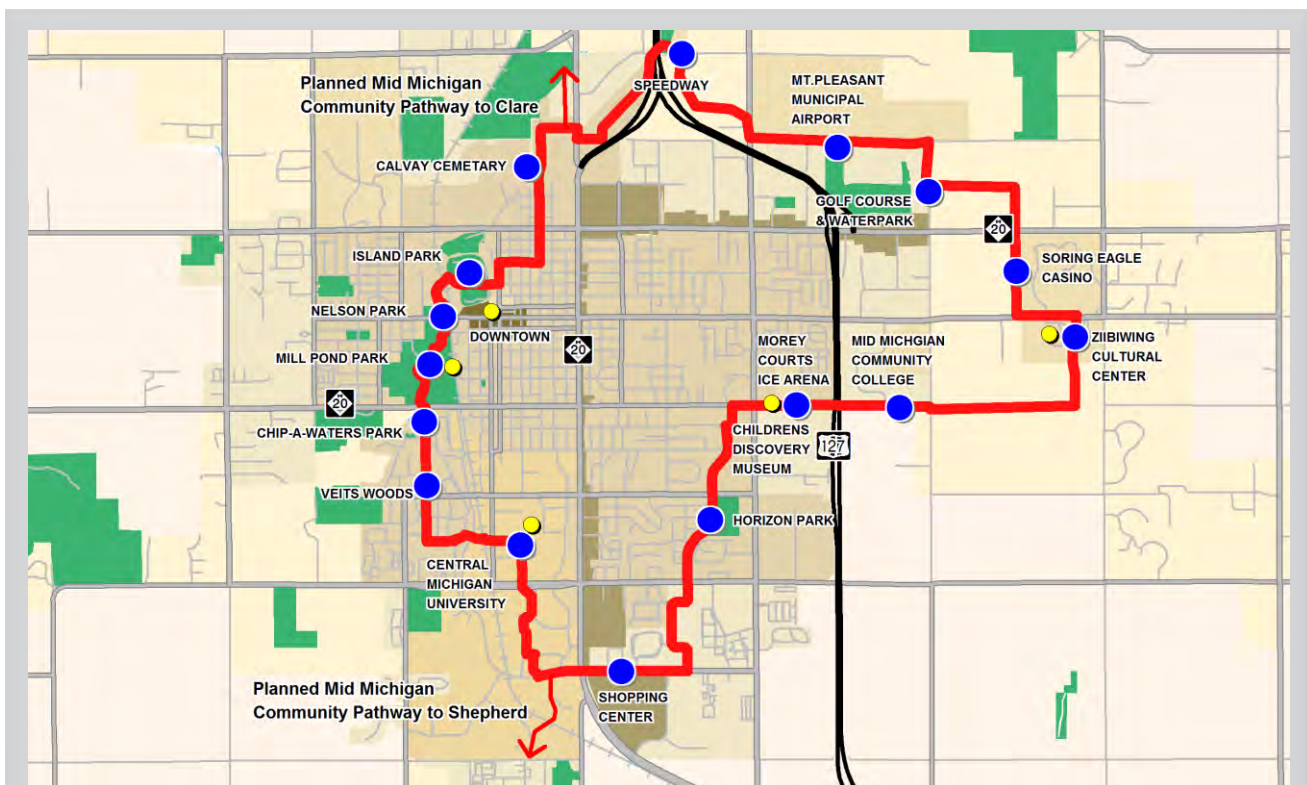
## Project Elements – Regional Connector Loop

While the bridge is most critical to solving the dilemma of getting bicyclists or pedestrian across US-127, the majority of people are only going to use it if they have a safe and comfortable way to get to the bridge and to the destinations on the other side.

The Regional Connector Loop connects major destinations in the Greater Mt. Pleasant Area and is part of a planned regional trail that will stretch north/south across Isabella County. The Tour is a combination of on and off-road non-motorized facilities with minimal interaction with high speed, high volume motor vehicle traffic. Overall this loop is about 15 miles long with 2.4 miles of existing Off-Road Trails, 5.3 miles of proposed neighborhood connector routes, 2.2 miles of proposed primary road modifications (bike lanes and sidewalks) and 4.7 miles of proposed off-road trails.

Transportation benefits of the Regional Connector Loop include:

- Providing non-motorized connections to major destinations in the community
- Linking the City, Townships, Major University, Local College, and Tribe
- Part of Planned Regional Trail across Isabella County



### Estimated Cost of Regional Connector Loop (not including Bridge)

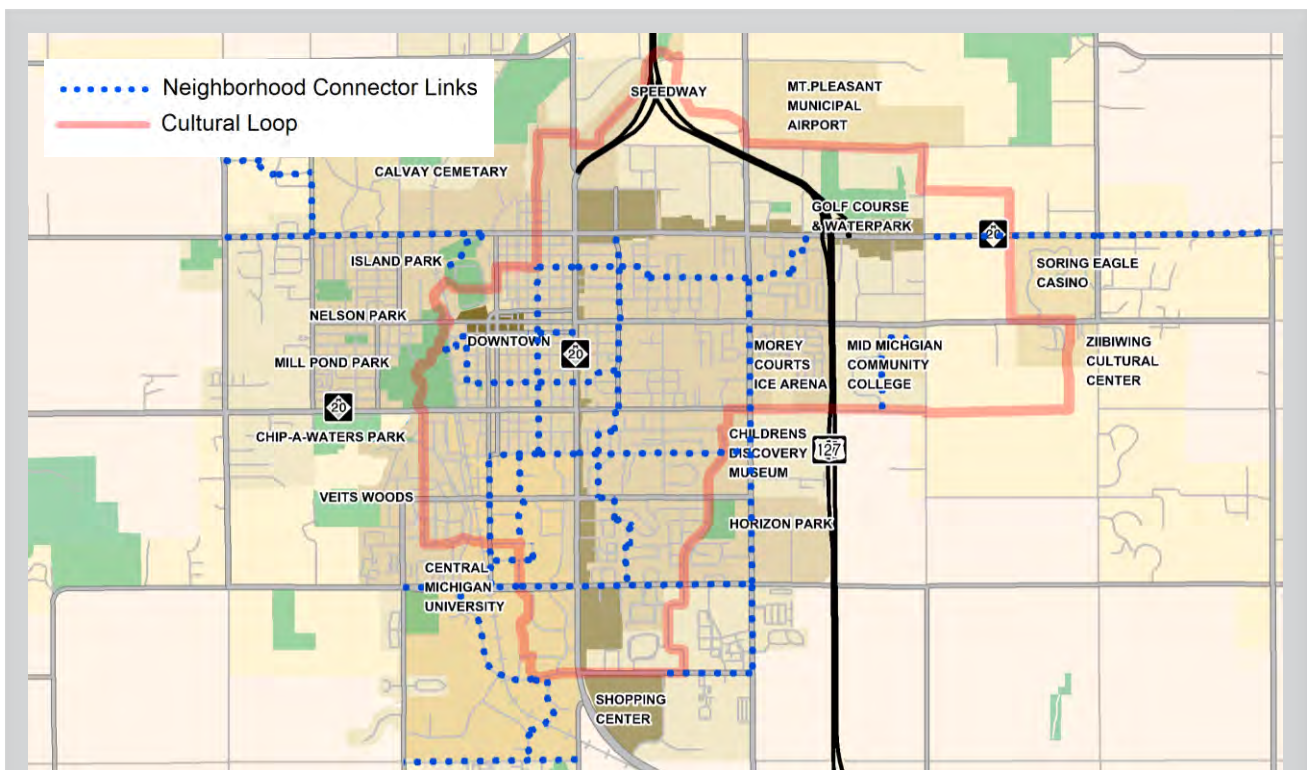
	<b>\$3,614,618.15</b>
• Traffic Calming Improvements	\$319,152.15
• Bike Lanes	\$26,219.00
• Off-Road Trails and Pathways	\$2,870,472.15
• Road Crossing Improvements	\$266,000.00
• Active Transportation Hubs	\$147,775.00
• Wayfinding Signage	\$25,000

## Project Elements – Neighborhood Connector Links:

The neighborhood connector links help to connect all areas of the community to the non-motorized network. Neighborhood connector links provide key connections across the community that solidifies the backbone to the non-motorized system. The connections incorporate the existing pathways, employ near-term bike lanes, and provide alternative routes to busy high speed roadways along the local neighborhood roads. Most importantly the neighborhood connectors provide safe road crossing when the route intersects a major roadway. Many of these improvements make daily walking and bicycle trips to work or to the store a safe and convenient option.

Transportation benefits of the Neighborhood Connector Links include:

- Make daily walking and bicycling trips to work or to the store a safe and convenient alternative
- Provide opportunities for Safe Routes to School
- Potential to increase non-motorized commutes to work
- Reduce crashes by providing safe road crossings

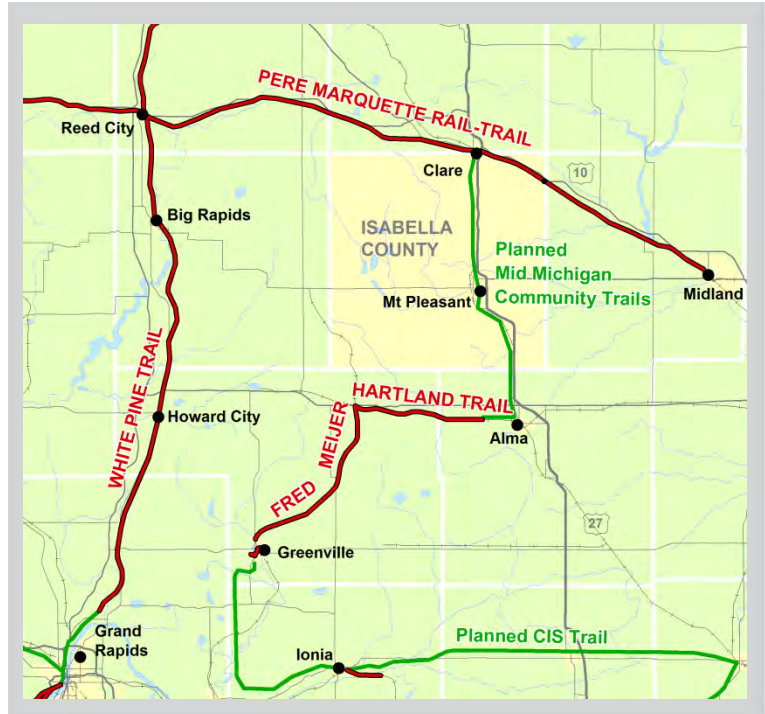


### Estimated Cost of Connector Links

	<b>\$3,134,108.21</b>
• Bike Lanes	\$44,721.17
• Traffic Calming and Wayfinding	\$733,088.00
• Off-Road Trails and Pathways	\$221,035.60
• Road Crossing Improvements	\$383,500.00
• Sidewalk Gap Improvements	\$1,739,158.44
• Intersection Improvements	\$12,605

## Regional Connections

There is a concurrent effort to develop off-road trails to the north and south of the Greater Mt Pleasant Area called the Mid Michigan Community Pathways. The trail to the north includes a connection to the City of Clare and the Pere Marquette Rail-Trail. The trail to the south includes a connection to the Village of Shepherd and the Fred Meijer Hartland Trail. If funded, the Regional Connector Loop would provide a link between the two trails through the most populated segment of the route in the Greater Mt Pleasant area.



## Community Benefits

Completion of the project will have a major impact on the Greater Mt Pleasant Area's quality of life. It will move the community towards becoming a healthier place and greatly reduce energy use by providing alternatives to motorized transportation.

Childhood and adult obesity are serious problems in the community and providing active transportation could help change the culture and how residents think about getting from one place to another. Currently, it is a challenge for families who want their children to walk to bicycle to school. Joggers and walkers take their lives in their hands when they try to use some streets that have no shoulders or sidewalks and in many situations only the most avid bicyclists can get around the community.

If this grant is funded all of that would change. It would have a transformative impact on the Greater Mt Pleasant Area and provide jobs and have a highly positive economic impact on the region over the two years of construction. The long term benefits include making the community a very attractive place for visitors as well as businesses and residents.

Overall, the proposed improvements will help establish a physical and cultural environment that supports and encourages safe, comfortable and convenient ways for pedestrians and bicyclists to travel through the city and surrounding communities. It is anticipated that the physical and cultural changes will result in a greater number of individuals choosing walking and bicycling as their preferred mode of transportation for many trips. These choices will in turn lead to healthier lifestyles, improved air quality, and a more energy efficient and sustainable transportation system.

## II. Project Partners

Project Partners	Letter of Support	Implementing Agency	Other Roles
Chippewa Township	Yes		
Isabella County Road Commission	Yes	Yes	
Charter Township of Union	Applicant	Yes	Education and Marketing
Central Michigan University	Yes	Yes	
Central Michigan Community Hospital	Yes		Education and Marketing
Central Michigan District Health Department	Yes		Education and Marketing
Isabella County Board of Commisioners	Yes		
Isabella County Parks and Recreation	Yes		Education and Marketing
Isabella County Commission on Aging	Yes		Education and Marketing
Isabella County Drain Commission	Yes		
Isabella County Parks and Recreation	Yes		Advocacy
Saginaw Chippewa Indian Tribe of Michigan	Yes	Yes	Education and Marketing
State of Michigan House of Representatives, 99th District	Yes		
United States Senate			
Michigan State Senate, 33rd District			
Michigan Department of Transportation	*	Yes	Bridge Engineering and permitting
*MDOT is unable to support any TIGER III Grant applications as they are submitting there own, however they support the project and are willing to add it to the STIP as soon as funding is available			

### III. Grant Funding

The Charter Township of Union and its project partners request \$ 7,206,411 in TIGER III funding for The Greater Mt. Pleasant Area Primary Non-Motorized Connectors. The total project cost is estimated to be \$10,248,726. Committed funds of \$3,142,315 comprise of 31% of the project for committed non-TIGER III match for this rural project.

<b>Funding Source</b>	<b>Amount</b>	<b>Percent Share</b>
<b>Requested TIGER III Funds</b>	<b>\$7,106,411</b>	<b>69%</b>
<b>Committed Non-TIGER Funds</b>	<b>\$3,142,315</b>	<b>31%</b>
Saginaw Chippewa Indian Tribe	\$2,000,000	
Charter Township of Union DDA	\$1,039,340	
City of Mount Pleasant	\$102,975	
<b>Total Project Cost:</b>	<b>\$10,248,726</b>	<b>100%</b>

<b>Description</b>	<b>Amount</b>	<b>Percent Share</b>
Multi-Modal Bridge	\$3,500,000	35%
Regional Connector Loop	\$3,614,618	35%
Neighborhood Connector Links	\$3,134,108	30%
<b>Total Project Cost:</b>	<b>\$10,248,726</b>	<b>100%</b>

## IV. Selection Criteria

### A. Long-term Outcomes:

#### i. State of Good Repair

The success of a non-motorized transportation system ultimately depends on thorough and timely maintenance of all its facilities. This project will be adding new facilities and as part of the plan a maintenance schedule will be put in place to keep the facilities in good shape.

In order to keep the system functioning to its full potential a regimented maintenance plan has been established for the non-motorized facilities. The plan includes the following key elements:

- Development of a citywide inspection program to identify any city hazardous sidewalks
- Asset management system to track conditions and repairs
- Tree and brush trimming program at least twice a year
- Weekly sweeping of bike lanes
- Annual restriping program for updating signs and refreshing pavement markings on trails and bike routes to maintain high contrast
- Resealing of asphalt on trails
- Enforcement of snow removal

For more information on project maintenance please see Page 144, Section 7.5 Maintenance of Non-motorized Facilities in the Greater Mt. Pleasant Area Non-motorized Plan<sup>1</sup>.

The involved communities have committed to appropriate funds necessary for maintenance and operations into their own budgets should funding be successful.

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<sup>1</sup> Greater Mt. Pleasant Area Non-motorized Plan, 2011. Section 7.5 Maintenance of Non-motorized Facilities, p.144—147. [http://www.greenwaycollab.com/Projects/Mt\\_Pleasant/MPMNMP.htm](http://www.greenwaycollab.com/Projects/Mt_Pleasant/MPMNMP.htm)

## ii. **Economic Competitiveness**

Consistent with the Economically Distressed Area criteria published by FHWA, Isabella County and the City of Mt. Pleasant both qualify as federally designated economically distressed areas<sup>1</sup>. If funded, this project will provide improvements that allow for growth in the private and public sectors of the Greater Mt. Pleasant Area.

When implemented, the non-motorized facilities will be directly adjacent to 36 parcels of Commercial property and within 1/8 mile of 76 commercial properties. Many of these commercial areas have little or no existing non-motorized facilities to get people to the destinations, When complete, an increase in non-motorized trips to commercial centers is expected. Although this may not compute to a direct growth in production, it allows better access to the commercial centers.

According to a web survey, that was completed as part of the Greater Mt. Pleasant Non-motorized Plan, if a complete and safe non-motorized network was established the shopping centers would see the most growth by non-motorized users.<sup>3</sup>

Major Private Sector businesses that will be affected by the project:

- Soaring Eagle Inn and Water Park – A new tourist attraction to the Mt. Pleasant Area, the Soaring Eagle Inn and Water Park is the largest indoor water park in Michigan. The loop will have a direct connection to this destination, providing an additional amenity to vacationers who visit the water park.
- New Business Park planned near Remus Road and US-127 – The multi-modal bridge will provide better automobile access to the planned business park as well as non-motorized links.

An increase in non-motorized trips also leads to an increase in the purchase equipment, such as bicycles, reflective clothing, walking shoes, umbrellas, and jackets. According to the League of American Bicyclists operating a bicycle costs around \$120 a year<sup>2</sup>. Thus if there is a 10% increase in the number of bicyclists in the Greater Mt. Pleasant Area that translates into over a half million dollars annually in purchases.

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<sup>1</sup> Consistent with the Economically Distressed Area criteria published by FHWA on August 5<sup>th</sup>, 2011 Isabella County and on February 12, 2011 The City of Mt. Pleasant both qualify as federally designated economically distressed areas. [http://hepgis.fhwa.dot.gov/hepgis\\_v2/GeneralInfo/Map.aspx](http://hepgis.fhwa.dot.gov/hepgis_v2/GeneralInfo/Map.aspx)

<sup>2</sup> League of American Bicyclists. <http://www.bikeleague.org/>

<sup>3</sup> Greater Mt. Pleasant Area Non-motorized Plan, 2011. Section 10.1 Web Survey Results. p.253-314. [http://www.greenwaycollab.com/Projects/Mt\\_Pleasant/MPMNMP.htm](http://www.greenwaycollab.com/Projects/Mt_Pleasant/MPMNMP.htm)



### iii. Livability

This project is the result of the Greater Mt. Pleasant Area non-motorized Plan that was a coordinated effort between the City of Mt. Pleasant, Charter Township of Union, Central Michigan University and the Saginaw Chippewa Indian Tribe. This plan included an intensive public input process which included a web survey and two public workshops. Based on public input and analysis, this plan addresses how these communities may transform their streets into outstanding attractive public spaces that are friendly to bicyclists, pedestrians and transit users while continuing to serve the needs of motorized traffic. Visit the following website to see the Greater Mt Pleasant Area Non-motorized Plan:

[http://www.greenwaycollab.com/Projects/Mt\\_Pleasant/MPMNMP.htm](http://www.greenwaycollab.com/Projects/Mt_Pleasant/MPMNMP.htm) .

This project will significantly contribute to broader traveler mobility through intermodal connections. 42.45 miles of new bicycle and pedestrian facilities are proposed to help provide a non-motorized connection between residential, commercial, recreation and educational areas.

New Bicycle and Pedestrian Facilities	Miles
On Road Designated Bicycle Facilities (Bike Lanes/Edge Stripe/Shared Lane Markings)	8.45
Neighborhood Connector Routes and Sidewalk Gaps	15.4
Off-Road Trails	5.2
<b>Total :</b>	<b>42.45</b>

With approximately 12% of households without vehicles<sup>1</sup>, 7% of the population above the age of 65<sup>2</sup>, and a large student population of over 20,000 students at Central Michigan University<sup>3</sup>, there is a high demand for alternative transportation services.

In the web survey conducted as part of the Greater Mt. Pleasant Area Non-motorized Plan, approximately 38% of respondents said they currently walk and about 24% said they bike daily or weekly for transportation. When asked if they would walk or bike for transportation if facilities were available, about 55% of participants said they would walk daily or weekly and 56% of participants said they would bike daily or weekly<sup>4</sup>.

<sup>1</sup> The 2000 US Census shows 12.7% of the households without vehicles with a +/- 2.6% margin of error, the 2010 US Census, show 14% of households without vehicles with +/- 4% margin of error. <http://www.census.gov/>

<sup>2</sup> 2010 US Census. <http://www.census.gov/>

<sup>3</sup> Central Michigan University, Fall Semester Enrollment Statistics. [http://www.cmich.edu/documents/OIR/enrollment/fall\\_2010\\_misc\\_stats.pdf](http://www.cmich.edu/documents/OIR/enrollment/fall_2010_misc_stats.pdf)

<sup>4</sup> Greater Mt. Pleasant Area Non-motorized Plan, 2011. Section 10.1 Web Survey Results. p.253-314. [http://www.greenwaycollab.com/Projects/Mt\\_Pleasant/MPMNMP.htm](http://www.greenwaycollab.com/Projects/Mt_Pleasant/MPMNMP.htm)

It is estimated that about 40% of all trips are estimated to be less than two miles which is an easy distance for walking or bicycling, provided appropriate facilities are available. In practice, automobiles are used for 76% of all trips under one mile and 91% of all trips between one and two miles. By providing alternate transportation facilities it is anticipated that a portion of trips will be undertaken by non-motorized means<sup>1</sup>.

	Current Commuter Mode Split			Expected Commuter Mode Split
	Mt. Pleasant	Peer City	National	Mt. Pleasant
Bicycle Trips	1.50%	0.30%	0.50%	4%
Pedestrian Trips	15.90%	3.40%	2.80%	18%

**See Section C.1 of the Cost Benefit Analysis for more details**

When the non-motorized primary connectors are complete, we anticipate that the Greater Mt. Pleasant Area will see a 2.5% increase in bicycle and pedestrian trips. Based on the Cost-Benefit Analysis we expect to see the following benefits for Livability:

- A total increase of \$4,839,161 in property value
- An health cost savings benefit of \$11,739,136 a year in direct medical benefits
- A savings of \$2,324,159 a year from the reduction of vehicle miles traveled

<sup>1</sup> Chicago Department of Transportation

#### **iv. Environmental Sustainability**

The Primary Non-motorized Connectors Plan specifically focuses on increasing non-motorized use by providing 42.45 miles of non-motorized routes.

When complete it is estimated that the Mt. Pleasant area could expect daily to replace over 13,000 miles of automobile trips with bicycle or pedestrian trips. This would require on average for each person in the City to replace about 1/3 of a mile trip that currently done by automobile with a trip by bicycling or walking. The trip could be of any sort – a trip to work, the store, to visit with friends, for recreation or to school.

This would result in 34 fewer barrels of oil being used and 77.85 metric tons less of CO<sub>2</sub> being released into the environment each day – that translates into about 13,566 barrels of oil and 2,501 tons of CO<sub>2</sub> per year.

<b>Reduction in Vehicle Miles Traveled</b>	15,090	Miles Per Day
	3.4%	Total Reduction in VMT
	0.35	Miles Per Person/Per Day
	5,507,850	Total Reduction in VMT Per Year

#### **Projected CO<sub>2</sub> Reductions**

CO <sub>2</sub> Emission Factor	454	Grams Per Mile
Daily CO <sub>2</sub> Reduction	6,850,860	Grams (based on 454 grams per mile)
Daily CO <sub>2</sub> Reduction	6.85	Metric Tons
Yearly CO <sub>2</sub> Reduction	2,501	Metric Tons
20 Year CO <sub>2</sub> Reduction	50,011	Metric Tons

#### **Projected Fuel Savings**

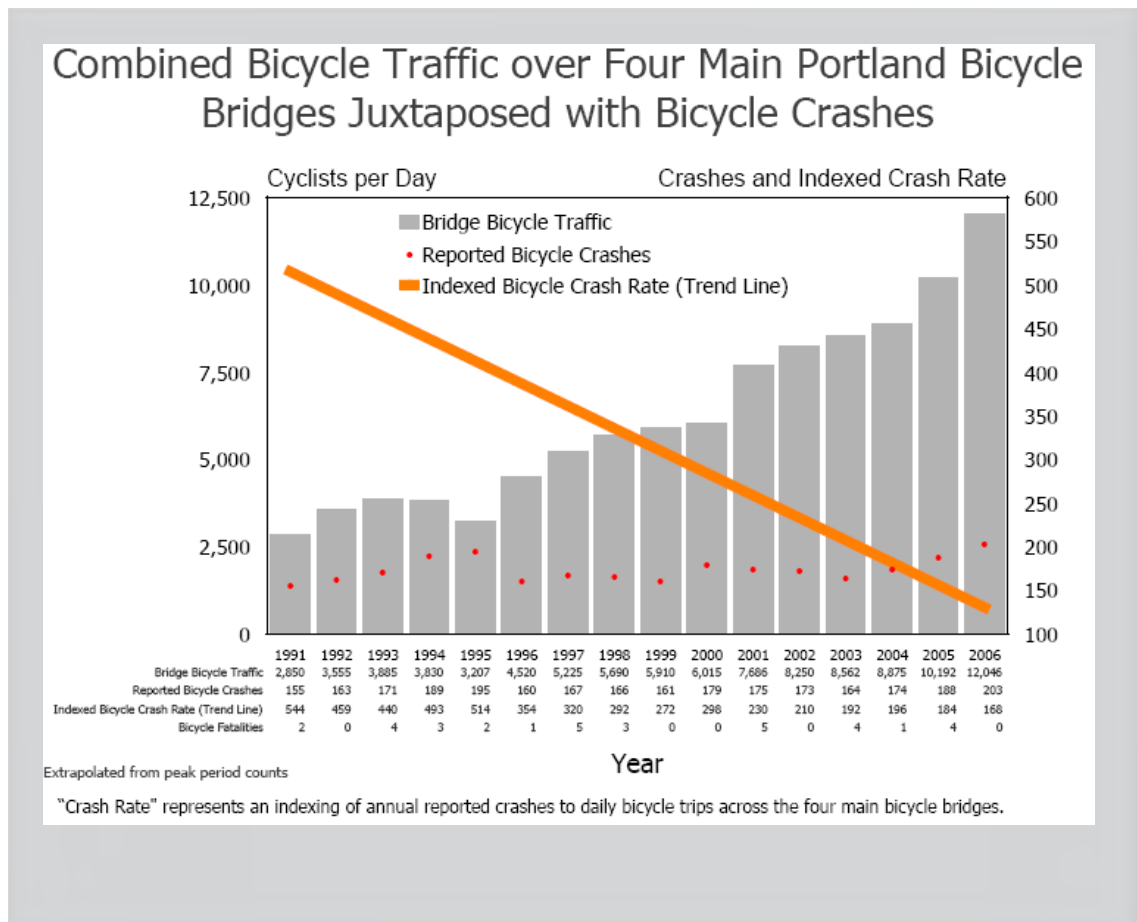
Daily motor gasoline savings	743	Gallons of Gasoline (based on avg. of 20.3 mi. / gal.)
Daily Oil Savings	37	Barrels of Oil (based on 20 gallons of gas per barrel)
Yearly Oil Savings	13,566	Barrels of Oil

v. **Safety**

The current non-motorized facilities contain many gaps and unconnected segments that force bicycle and pedestrians into and across the roadway at dangerous locations. In a five year period from 2004 – 2009 for the Greater Mt. Pleasant Area, there were 64 pedestrian crashes and 95 bicycle crashes.

The proposed non-motorized network is based on current best-practices for safety and accommodation. The network has been designed so that it meets the needs of a wide-range of bicyclist and pedestrian types and attracts people who may not currently bicycle or walk.

Studies have shown that the most effective way to increase the safety of pedestrians and bicyclists is to increase the numbers of pedestrians and bicyclists as they become an expected roadway user. Pedestrian and bicycle safety is often a biggest concern where there is sporadic bicycle and pedestrians traffic. In these cases high viability facilities are proposed to highlight the potential of encountering a pedestrian or bicyclist.



<sup>1</sup> Portland Bicycle Count Report, 2009.

<http://bikeportland.org/wp-content/uploads/2010/01/bikecount2009reportfinal.pdf>

## B. Job Creation and Economic Stimulus:

This project will bring a much needed economic boost to the Greater Mt. Pleasant Area. Michigan is one of the hardest hit states during the recent economic downturn; the average unemployment rate in 2010 was 10.2% for Union Township, 8.8 % for Chippewa Township and 8.6% for the City of Mt. Pleasant<sup>1</sup>. If awarded the grant, this project will begin quickly providing a prompt increase of dollars into the local economy.

Studies have shown that in general, non-motorized projects tend to create more jobs than motorized transportation projects. A study done by Heidi Garrett-Peltier found that for each \$1 Million spent on cycling projects create a total of 11.4 jobs, and pedestrian projects create 10 jobs and multi-use trails create nearly 9.6 jobs per million. Road-only projects were found to create a total of 7.8 jobs per \$1 Million spent<sup>2</sup>.

Based on values from the study noted above regarding the employment impacts of bicycles and pedestrians, it is estimated that approximately 86 jobs will be created based on expenditures. As the bridge construction is not a non-motorized expenditure, estimates of job creation from the American Recovery and Reinvestment Act were used of \$92,000 in government spending created 1 job-year.

### Projected Job Creation

Employment per Expenditures	Expenditures	Direct Jobs	Indirect Jobs	Induced Jobs	Total
Pedestrian Projects	\$ 2,212,038.44	\$ 11.46	\$ 5.15	\$ 5.31	21.92
Bike Lanes (on street)	\$ 65,760.49	\$ 0.39	\$ 0.16	\$ 0.20	0.75
Neighborhood Connectors	\$ 4,185,600.00	\$ 17.58	\$ 9.21	\$ 8.45	35.24
Road Repairs and Upgrades (Crossing Improvement)	\$ 640,105.00	\$ 2.60	\$ 1.19	\$ 1.17	4.96
Bridge Construction	\$ 3,500,000.00	\$ -	\$ -	\$ -	0.00
Off Road Trails	\$ 2,420,988.45	\$ 12.32	\$ 5.35	\$ 5.50	23.17
<b>Projected Job Creation</b>					<b>86.04</b>

<sup>1</sup> 2011 US Census

<sup>2</sup> Heidi Garrett-Peltier. Pedestrian and Bicycle Infrastructure: A National Study of Employment Impacts: Political Economy Research Institute, University of Massachusetts. 2011

### **Construction Administration**

As this is a multi-jurisdictional project, involving a number of government agencies, there will be a number of bidding processes employed. Union Township will be acting as the fiscal agency and as such will require all of the participating agencies to meet the following best practices:

- Including disadvantaged business enterprises in its procurement process
- Assure hiring of contractors/subcontractors with proven performance on labor practices and compliance with federal laws regarding safety and fairness
- Adhere to project practices that are consistent with the America's civil rights and equal opportunity laws.
- Provide federal rate wage certification

The jurisdictions involved are all public agencies that have well established public bidding process. The multi-modal bridge will be a Michigan Department of Transportation project; therefore the bridge will be bid through the Michigan Department of Management and Budget bidding procedures. All trail projects on tribal lands will be handled through the Saginaw Chippewa Indian Tribe standard bidding process. The remaining project parts will be handled by the City of Mt. Pleasant, Charter Township of Union and the Isabella Road Commission and will be bid through their bidding procedures.

See Section V. Project Readiness and NEPA for additional information

### C. Innovation:

Being an economically distressed community it will take 20 years if not more to achieve what is proposed within this project. Even then, the ability to undertake both the multi-modal bridge and the non-motorized network is doubtful. At this point the Michigan Department of Transportation Enhancement Program and the Michigan Department of Natural Resources Trust Fund are focused on regional trails that link into the statewide trail system. The Mt. Pleasant area is not adjacent to any of the statewide trail systems; there is though a complementary effort to this project that would link this system to the state wide trail system.

As part of the last transportation bill, the Federal Highway Administration initiated the Non-motorized Transportation Pilot Program (SAFEATEA-LU Section 1807) that provided 25 million dollars each to four communities to demonstrate the extent to which bicycling and walking can carry a significant part of the transportation load and represent a major portion of the transportation solution.

Following the model of the demonstration projects, the purpose of this project is to achieve the same goal. This project has all of the elements to make it a success – university town, economically distressed area, high percentage of non-motorized commuter's commutes and an active downtown area. We believe that by investing in a large portion of the system upfront, it will provide enough of a framework to attract the critical mass needed to support the infrastructure and make a substantial difference in transportation mode shift.

The project also makes use of two newer ideas: Neighborhood Connectors – also known as bicycle and pedestrian boulevards. These have proven extremely popular where they have been employed in other Cities.

An innovative element of this plan is the Active Transportation Hub. Active Transportation Hubs serve as orientation and resource centers for non-motorized trips. They would also contain amenities such as an air pump, bike parking and vending machines that dispense basic bicycle supplies such as tubes and repair kits.

The organizing element of the active transportation hubs is to grab the attention of people in the area and provide a resource to introduce them to the non-motorized opportunities in the area.



<sup>1</sup> Non-motorized Transportation Pilot Program. <http://www.fhwa.dot.gov/environment/bikeped/ntpp/update2011.htm>

## **D. Partnership**

This project includes numerous partners ranging from community organizations to regional agencies. The participation of these partners varies from providing support and assistance to providing funding.

Approximately 31% of the Project Cost will be paid for by non-federal funds. The following partners are providing financial commitments to the project:

- Saginaw Chippewa Indian Tribe – Contributing \$2,00,000 investments towards the construction of the off-road trail and multi-modal bridge
- Charter Township of Union DDA – Contributing \$1,039,340 investments towards improvements of the non-motorized system on the east side of Union Township
- City of Mount Pleasant – Contributing \$102,975 investments towards improving the non-motorized system within the city

The following non-transportation agencies are in support of and pursuing similar objectives to this project:

- Central Michigan Community Hospital – Improving overall health in the Greater Mt. Pleasant Area.
- Central Michigan University – CMU has strong community support alternatives to automobile transportation. Additionally CMU is working on research with the Great Lakes Institute for Sustainable Systems on the potential impact of expanding non-motorized access to the southern retail district of Mt. Pleasant.
- Commission on Aging – Improving the lives of local citizens.
- Central Michigan District Health Department – Achieve the TWC Health Improvement Council goal of improving walkability and bikeability of our streets and promoting the use of non-motorized transportation options.
- Isabella County Parks and Recreation – By improving non-motorized facilities it will further enhancing the quality of life for our community and visitors to the Greater Mt. Pleasant Area.

The requested TIGER funds would complete the overall financing package that is necessary to implement this project. This project could not be completed in the near-future without the federal assistance of the TIGER III Discretionary Grant.

Letters of support from the agencies listed above are available in section III of the Appendix.



# V. Project Readiness and NEPA

## New multi-modal bridge over US-127

MDOT is currently in the early preliminary engineering phase for the bridge. A scoping review document has been prepared. This document may be found in the Appendix. The document did not find any agricultural, endangered species, historic or archaeological concerns. It was noted that official consultation with the Saginaw Chippewa Indian Tribe will be required. It was also noted that a visit by MDOT's Historian will be necessary as there are a few properties east of US-127 that cannot be seen in existing project documentation.

Surveys are currently being prepared for the bridge area. As the bridge is currently envisioned, additional ROW will not be necessary.

## Regional Connector Loop and Neighborhood Connectors

The regional connector loop and neighborhood connectors will all be built within existing road ROW or across publicly held land. A preliminary assessment has determined that the route will not be traversing any wetlands, significant natural features or impacting any historic structures. Upon a more formal assessment, we anticipate to be a Finding of No Significant Impact

The regional connector loop and neighborhood connectors will be divided into two phases. The first phase to be constructed in 2012 will focus on the off-road trails on the Saginaw Chippewa Indian lands as well as a few pathways within the City of Mt. Pleasant and the Charter Township of Union. The second phase to be constructed in 2013 will focus on the road modifications.

### i. Project Schedule

A project schedule is included that demonstrates how quickly construction can begin upon receipt of a TIGER grant. Funds will be spent steadily and expeditiously once construction starts.

Task	2011	2012				2013			
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>Bridge</b>									
Preliminary Design	■								
Permitting		■							
Construction Documents			■						
Bidding & Contracting				■					
Construction					■	■	■	■	■
<b>Phase 1: Loop and Neighborhood Connectors</b>									
Preliminary Design		■							
Permitting			■						
Construction Documents			■						
Bidding & Contracting				■					
Construction					■				
<b>Phase 2: Loop and Neighborhood Connectors</b>									
Preliminary Design				■					
Permitting					■				
Construction Documents						■			
Bidding & Contracting							■		
Construction								■	■

ii. **Legislative Approvals**

The following state and local elected officials support this project. Letters of support can be found in the Appendix.

- Kevin Cotter, Michigan State Representative, 99<sup>th</sup> District
- Debbie Stabenow, U.S. Senator
- Judy K. Emmons, Michigan State Senator, 33<sup>rd</sup> District
- Robert Smith, Supervisor, Chippewa Township
- George E. Ross, President, Central Michigan University
- David A. Ling, Chair, Isabella County Board of Commissioners

As a matter of statewide policy, Michigan Department of Transportation cannot support any projects that are applying for the TIGER III Grant as the department is applying for grants themselves. However, MDOT has indicated that if this project is approved for a TIGER III Grant, the project could be on the STIP within about 2 months after the approval. MDOT is currently working with the Saginaw Chippewa Indian Tribe on the early preliminary engineering of the bridge.

iii. **State and Local Planning**

This project is the result of the Greater Mt. Pleasant Area Non-motorized Transportation Plan. Since this project was developed by numerous partners (City of Mt Pleasant, Union Township, Isabella County, Central Michigan University and the Saginaw Chippewa Indian Tribe) each agency adopts the plan individually. The communities are all in the process right now of adopting the plan.

The multi-modal bridge will be MDOT responsibility and as soon as this project receives funding they could include the bridge in their STIP within about 2 months after approval. For more information on the project planning documentation please visit, [http://www.greenwaycollab.com/Projects/Mt\\_Pleasant/MPMNMP.htm](http://www.greenwaycollab.com/Projects/Mt_Pleasant/MPMNMP.htm).

iv. **Technical Feasibility**

The proposed project is straight forward road and trail construction.

v. **Financial Feasibility**

The funding request considers all construction, preliminary engineering, construction engineering, and construction contingencies to completely finish the proposed project. Union Township will be the recipient of the grant and has a history of effectively managing funds and programs. Union Township will oversee and manage the funds and implementation of the project among the project partners.

The Saginaw Chippewa Indian Tribe has indicated their intent to commitment 2 million dollars towards this project. The DDA's commitment of \$1,039,340 is shown on their plan amendment that is close to being approved. The City of Mt. Pleasant's commitment of \$102,975 is already in their Capital Improvement Plan.

# VI. Federal Wage Rate Certification

## Federal Wage Rate Requirement Certification

In accordance with ARRA, §1606, the Charter Township of Union, Isabella County Michigan, assures that it and its contractor(s) and subcontractor(s) shall fully comply with said section in that, notwithstanding any other provision of law and in a manner consistent with other provisions of ARRA, all laborers and mechanics employed by vendors, contractors and subcontractors on projects funded directly by or assisted in whole or in part by and through the federal government, pursuant to ARRA, shall be paid wages at rates not less than those prevailing on projects of a similar character in the locality, as determined by the Secretary of Labor in accordance with subchapter IV of chapter 31 of title 40, United States Code (Davis-Bacon Act). It is understood that the Secretary of Labor has the authority and functions set forth in Reorganization Plan Numbered 14 of 1950 (64 Stat. 1267; 5 U.S.C. App.) and section 3145 of title 40, United States Code.

  
\_\_\_\_\_  
Brian Smith

10-31-11  
\_\_\_\_\_  
Date

Township Manager,  
Charter Township of Union, Isabella County, Michigan

## VII. Material Changes to Pre-Application

Since the admittance of the pre-application, the total project cost has been reduced to \$10,248,726. This was due to a misinterpretation of which elements from the master plan were being proposed for TIGER funding when the pre-application was being completed. Additional non-federal funds have also been committed to the project since the pre-application bringing the non-federal funds to \$3,142,315 or 31% of the total project budget. The result of the two previous changes resulted in the amount of TIGER funds requested being lowered to \$7,106,411.