

2011

Topinabee Green Corridor

TIGER III Application

Mullett Township
Topinabee, Michigan
October 31, 2011



This page left intentionally blank

Table of Contents

1.0	Introduction	5
2.0	Topinabee Green Corridor Project Description	5
2.1	<u>Mullett Township Master Plan</u>	6
2.2	<u>Project Segment Description</u>	7
2.3	<u>Historical Significance</u>	9
2.4	<u>The Village of Topinabee Today</u>	10
3.0	Primary Selection Criteria	11
3.1	<u>Benefit and Cost Analysis</u>	12
3.2	<u>Performance Management</u>	13
3.2.1	<i>Project Objectives</i>	13
3.2.2	<i>Public Outreach</i>	14
3.3	Traffic and Bicycle Counts	14
3.4	<u>Non-statistical Estimates of Impact: Direct and Indirect Job Creation</u>	15
4.0	Secondary Selection Criteria	15
4.1	<u>Partnerships</u>	15
4.1.1	<i>Community Cohesion</i>	16
4.1.2	<i>State and Local Endorsements</i>	16
5.0	Environmental Review	18
6.0	Logistical Considerations	19
6.1	<u>Context Sensitive Solutions</u>	20
6.2	<u>Contracting Incentives</u>	20
6.3	<u>Legal Counsel</u>	20
6.4	<u>Value Engineering: Constructability and Bidability Review</u>	20
6.5	<u>Wade-Trim Engineering</u>	21
6.6	<u>Project Management Plan</u>	21
6.7	<u>Operation and Maintenance</u>	22
6.7.1	<i>Fixed and Variable Costs</i>	22
6.7.2	<i>Life Cycle Costs</i>	22
6.7.3	<i>Capital Improvements</i>	23
6.8	<u>Supporting Economic Growth</u>	23
7.0	Multidisciplinary Team	24
8.0	Conclusion	26

Summary of Revised Application Items	
Budget	The budget of \$2,840,172 from the 2010 Mullett Township TIGER II application has been reduced to \$1,592,926 in the 2011 TIGER III application, reflecting the project segment, completes the transportation infrastructure improvements within the Topinabee community. In addition, Mullett Township has increased the match commitment from \$100,000 in 2010 to \$318,585 (20%) in 2011.
Engineering Cost Estimates	Cost-estimates have been revised to reflect the proposed project segment and the current market value.
Benefit/Cost Analysis	Mullett Township will hire HDR to complete a benefit/cost analysis of the project based on Sustained Return on Investment (SROI) to demonstrate the benefits of the project segment pursuant to the primary criteria outlined in the NOFA.
Environmental Review	It has been determined that the independent utility of the project segment of the project qualifies as a Categorical Exclusion pursuant to Under 23 CFR 771.117 and CEQ Section 1508.4 C and D criteria.

1.0 Introduction

Over the past couple of decades, the Village of Topinabee has experienced a downturn in economic activity. Where a busy Shell service station (Figure 1) once served tourists and local residents alike there now stands a vacant building. Where a real estate office and thriving restaurant once stood there is now a deteriorated edifice. A landlord, who once enjoyed long term occupancy in a mixed use structure, has had a "For Rent" sign hanging in the vacant store front window for several years.



Figure 1

The problems that exist today are due to the poor condition of the public infrastructure surrounding the buildings in the Topinabee central business district. If something is not done to improve and enhance the overall aesthetics and safety of the downtown area, it is expected that as existing business owners continue to retire and relocate, the Topinabee community will eventually become nothing more than a gas station along the state trunk-line. A case in point exists with the current hardware store owner who has owned a prominently located building in the community for many years and will most likely retire in the near future due to failing health. It is unlikely, given the thoroughfare conditions surrounding the building that anyone would be interested in purchasing the property or be willing to continue operating the business or even establish a new business. Consequently, the once thriving Village of Topinabee that attracted tourist and industry during the first half of the twentieth century will continue to deteriorate; leading to higher levels of unemployment, more blight and decreasing tax revenues for various governmental entities.

2.0 Topinabee Green Corridor Project Description

In most rural communities, public transportation choices are often limited or unavailable. It is well documented that alternative transportation options, safer places to walk and bicycle paths all have positive health benefits due to increased physical activity, decreased fatalities and injuries and decreased pollution, thus improving overall quality of life. The proposed Topinabee Green Corridor (TGC) project represents an integrative systematic mechanism to provide for the

long term transportation needs of residents, businesses and visitors including a livable and safe community, improved passenger and freight mobility, intermodal connectivity and economic development.

2.1 Mullett Township Master Plan

Many rural towns and villages developed around a main street, which in most cases, was part of the through highway providing access to communities, businesses, public buildings, and institutions, as well as many homes. Since World War II, vehicle and freight traffic has increased and now dominates the main street. As a result, a single-function main street has emerged with street design and driver behavior creating a barrier between vehicle traffic and the community.

The Mullett Township Board is committed to an aggressive Master Plan based on a long-term systematic approach to ensure the economic and social connections of the Topinabee community. This plan is in collaboration with local, regional, state, and national priorities and is guided by the professional expertise of Wade-Trim, the Michigan Department of Transportation (MDOT) and the Department of Natural Resources and Environment (DNRE). Table 1 provides a summary of projects approved, in process and completed as of October 2011.

Infrastructure Project	Completed	Cost
Topinabee Green Corridor (TGC) <i>Grant Application Pending: US DOT TIGER III (20% Match)</i>		
Beach Park Plan <i>Grant Application Pending: DNR Trust Fund (30% Match)</i>	2012	(410,000)
Public Restroom at Boy Scout Park : Primitive DNR Approved	2012	10,000
Public Parking at Boy Scout Park : Engineering	2012	7,000
Public Parking (Block 5): Trailhead bicyclist and snowmobiles	2012	110,000
Fire Station Rehabilitation Project: Interior and Exterior Paint	2011	15,800
Boy Scout Park : tables and bench replacement	2011	3,300
Annual Flower Contribution	2011	500
Acquisition of Boy Scout Park from Cheboygan County contingent upon Mullett Township assuming fiscal responsibility for the complete renovation and operational maintenance of Boy Scout Park	2010	1
Upgrade of village area street layout (engineering conceptual plans)	2010	5,200
Renovation of the Topinabee School House: Architectural Drawings	2010	1,500
Renovation of the Mullett Township Hall: Architectural Drawings	2010	2,500
Topinabee School House: Architectural Drawings for that project are done at a cost 1,500.00	2010	1,500
East Mullett Township Fire Station Roof Replacement	2010	13,000
Public Dock Replacement: Topinabee and Boy Scout Park	2009	18,200
Pavilion at Boy Scout Park , East Side of Mullett Lake	2008	34,000
Topinabee Park** Pavilion	2008	44,000
Topinabee Park** Restroom	2008	75,000
Renovation of the Topinabee Public Library: multi-year project (heating and air geothermal, exterior doors, interior and exterior paint back to historical/ original colors, replacement windows)	2007-2011	44,300
	TOTAL	385,501

Table 1 *Boy Scout Park is on the east side of Mullett Lake **Topinabee Park is on the west side of Mullett Lake

The quality of life and economy in rural America depends on an efficient, effective, comprehensive, and coordinated multimodal transportation system that provides choices for the movement of people and goods. The Topinabee Green Corridor (TGC) project is part of a broad plan by Mullett Township and Cheboygan County to improve the local and regional transportation infrastructure. The proposed derived demand project will complete the restoration and revitalization of the Topinabee community and facilitate economic activity, which will enable residents to earn a living through businesses and tourism, enjoy leisure activities, and consume goods and services.

2.2 Project Segment Description

The multimodal TGC project meets the eligibility requirements pursuant to title 23, U.S.C., and public transportation project eligible under chapter 53 of title 49, U.S.C.

Complete Project Budget:

[http://www.otsego.org/gbc/rural_mentoring/topinabee/Topinabee%20Tiger%20III%20Budget%20\(Final\).xlsx](http://www.otsego.org/gbc/rural_mentoring/topinabee/Topinabee%20Tiger%20III%20Budget%20(Final).xlsx)

As an *economically depressed rural* project site, Mullett Township is requesting discretionary TIGER III funding in the amount of \$1,592,926 to complete the main segment of the TGC with a 20% match in the amount of \$318,585.

Project Segment Capital Cost Estimate:

http://www.otsego.org/gbc/rural_mentoring/topinabee/Opinion%20of%20Probable%20Cost%20102811.pdf

Project Schedule:

http://www.otsego.org/gbc/rural_mentoring/topinabee/Topinabee%20Project%20Schedule.pdf

The Project Schedule takes into account the environment, seasonal traffic volume, surrounding/adjacent residents, businesses, public spaces/facilities and the shorter construction season in Northern Lower Michigan.

Conceptual Engineering Design Plans:

http://www.otsego.org/gbc/rural_mentoring/topinabee/Alternative%20C%20REVISED3.pdf

Pre-construction Project Photos:

[http://www.otsego.org/gbc/rural_mentoring/topinabee/Topinabee%20Project%20Photos%20\(PDF\).pdf](http://www.otsego.org/gbc/rural_mentoring/topinabee/Topinabee%20Project%20Photos%20(PDF).pdf)

The TGC project will address the state of good repair through access management, geometric design, engineering and reconstruction of approximately .23 miles of the M-27 north-south state trunk-line that transects the Village of Topinabee. In addition, the proposed project will include approximately 20,000 square feet of new sidewalks, 2,700 linear feet of concrete curb and gutter, 34,000 square feet of roadway and intersection paving, replacement of existing storm sewer and catch basins, new underground water filtration vortexes and bio-swales to improve the quality of storm water run-off flowing from the roadway and businesses into Mullett Lake. The TGC project will also incorporate a green space with innovative architectural landscaping

design, park benches, trash receptacles, street lighting, bicycle racks, and fencing along the right of way.



The TGC project will enhance capacity, operation and safety to motorists and non-motorists; especially the children coming from beach and park areas and crossing the M-27 to gain access to the gas station to purchase snacks and beverages (Figure 2). The TGC project will also improve livability by creating an aesthetically pleasing, pedestrian friendly and environmentally conscious community that will attract new businesses and tourists to the area, thus creating jobs and greater tax revenues for local, state and federal governments.

The goals of the TGC project are to:

- Improve driver behavior to be more considerate of pedestrians and other road users
- Increase the level of respect for non-motorized road users
- Create a feeling of safety
- Improve safety and convenience for road users, including residents, motorists, bicyclists, pedestrians, transit riders, and people with disabilities
- Reduce the number and/or severity of MVC
- Reduce noise and air pollution
- Provide space for non-traffic activities (e.g., shopping, rest, and play)
- Enhance street appearance and reduce the number of traffic signs
- Reduce speeds of motor vehicles where incompatible with adjacent land use
- Reduce the need for police enforcement
- Reduce short-cut motor vehicle traffic
- Achieve an overall improvement in quality of life

The TGC project meets the requirements set forth by the Michigan Department of Transportation Complete Streets Advisory Council.

Bicycling and walking are becoming increasingly important modes of transportation as alternative methods to get to and from work, school and for recreation. Unlike the urban areas, rural communities do not have extensive sidewalks or designated bicycling paths; thus residents may avoid such forms of transportation. Pursuant to the US DOT policy and in an effort to meet the needs and expectations of the local population, Mullett Township advocates for the development of safe and convenient walking and bicycling facilities as part of the TGC project. The goal will be to encourage physical activity and pedestrian safety, but also to increase access to jobs, shopping and other services, thus improving the overall health and quality of life in the community.

Geographically situated halfway between Gaylord and Mackinaw City; Topinabee has been designated as a trail-head along the 62 mile DNRE trail. Consequently the volume of tourists accessing the trail in the Village of Topinabee has caused increases in congestion and hazardous safety conditions for motorist, non-motorists and freight traffic delivering goods throughout the region (Figure 3). Therefore, the TGC project will also address the long standing need for passenger and service vehicle parking as well as tourist driving motor-homes or car-trailer combinations. These parking areas will be linked to the DNRE trail for easy and safe access by snowmobilers, bicyclists, cross country skiers, hikers and walkers. The construction of additional parking will also be convenient to tourist and resident traffic wishing to reach retail businesses in the community, thereby stimulating positive economic activity.



Figure 3

A problem that is unique to the Village of Topinabee is a result of the topography on the west side of M-27. Throughout this area, extreme elevations extend from the west side of M-27 to the shoreline. Homes and farms connected to M-27 through a mix of roadways, become cascading torrents during periods of heavy rain and snow. Run-off containing persistent bio-accumulative toxics (PBT"s) from yards and farm areas wash down to roadway and ultimately drain unfiltered directly into Mullett Lake, which is part of the Inland Waterway route flowing into the Great Lakes. The TGC Project will address this environmental issue through the construction of a protective barrier to reduce erosion. Permanent soil erosion control devices, underground storm water retention and sedimentation basins will treat collected water allowing the sediment and other particulates carried to settle into an underground basin prior to discharge into Mullett Lake.

2.3 Historical Significance

The recorded history of Topinabee dates back to 1881, when Henry H. Pike began construction of a hotel (Figure 4) along the shores of Mullett Lake to house workers during the lumber era. Some of the land purchased by Pike was platted into lots, which attracted businesses and residential development to the area. The naming of the community was out of respect that Pike had for the Potawatomi Chief



Figure 4

Topenebee. Pike also knew the unusual name would attract attention. The Indian translation of Topinabee is Great Bear Heart. Topinabee became a popular spot for travelers. There seemed to be no end to the words of praise used to describe Topinabee.

A roving news reporter wrote to the editor of the Owosso Press in July 1884 that the shoreline and bluff sites were “as handsome as ordinary mortals could or should desire”. By 1887, water and rail transportation delivered lumber for the construction of homes and businesses (Figure 5). The Michigan Central Railroad (Figure 6) was an integral part of the landscape carrying passengers along with iron ore, grain and other products from Michigan, Minnesota and the Plains of the American and Canadian Mid-West.



By the mid 1900s the Topinabee Hotel as it was known, was still a prosperous enterprise catering to summer visitors from Detroit, Grand Rapids and all points south. Two grocery stores, two gas stations, a bakery, two restaurants, a marina and hardware store served the needs of locals and visitors alike.

The last half of the 20th century saw the inevitable continuation of change, the most dramatic being the loss of the Topinabee Hotel replaced by residential homes and the loss of the railroad replaced by the Gaylord to Mackinaw City trail-way. While the grocery store has expanded and added gasoline service and the Breakers Bar has been modernized, many other businesses have declined or closed.

2.4 The Village of Topinabee Today

Like every cell in the human body is part of the greater whole; a single community is the essence of a state and in turn the nation. Hence, the Village of Topinabee, situated at the intersection of Northern Lower Michigan is where residents and visitors meet and where unspoiled nature and authentic character revive the spirit. Please click on the link below to view the newly released video of Cheboygan County and the reinvented Village of Topinabee: <http://youtu.be/UVANSCvJlCg>

The population was 1,284 during the 2010 census and grew slightly to 1,312 as indicated by the 2011 census. Topinabee is an unincorporated community about 13 miles southwest from Cheboygan on the southwest shore of Mullett Lake. According to the United States Census Bureau, the township has a total area of 35.7 square miles (92.5 km²), of which, 19.0 square miles (49.3 km²) of it is land and 16.7 square miles (43.1 km²) of it (46.67%) is water (Figure 7). The M-27 north-south state trunk-line, a scenic route to Mackinac and the Upper Peninsula of Michigan traverses the Village of Topinabee. M-27 is the last State designated portion of “Old 27”, which originally extended from the City of Cheboygan, Michigan down to Miami, Florida. M-27 is to the “North”, what the legendary Route 66 is to the “West”. (<http://www.topinabee.org>).



Figure 7

The village acts as a gateway to a 42 mile long Inland Waterway Route that includes Mullett Lake, the Cheboygan River corridor and the City of Cheboygan (Figure 8). The village center has been carefully and authentically maintained to preserve a historic train depot that was originally built in 1882 and currently serves as the public library with plans to convert it to a historic museum. There is pure artesian water freely flowing from springs throughout the village and is purported to be some of the finest in the country dating back to the railroad days when it was sold as “Sanitas Springs” water to passengers. The Michigan Central Railroad made Topinabee a destination at the turn of the century bringing passengers to Mullett Lake and the local resorts. The railroad grade now serves as a Department of Natural Resources and Environment (DNRE) trail with the Village of Topinabee as the trailhead used by snowmobilers during the winter and hikers and bicyclists during the summer. The Village of Topinabee (Mullett Township) is located within Cheboygan County



Figure 8

Google Map:
<http://maps.google.com/maps?q=topinabee+michigan&hl=en&gl=us&sqi=2&t=m&vpsrc=0&z=14&iwloc=A>

3.0 Primary Selection Criteria

The primary selection criteria for the TGC project including state of good repair, economic competitiveness, livability, environmental sustainability, safety, and job creation are integral

components of the TGC project and will be assessed through implementation of the Sustained Return on Investment (SROI) model.

3.1 Benefit/Cost Analysis

In the event an award is made by the USDOT to Mullett Township, HDR will be retained as a consultant to conduct a rigorous benefit-cost analysis of the TGC project. HDR's proprietary Sustainable Return on Investment (SROI) process will assess the project benefits and present a strong green business case and compared to a no build scenario. The SROI includes four phases:

- I. Development of a structured and logical plan (assessment of "how" all variables and assumptions interact to determine the impact of a project)
- II. Quantifying the input data and assumptions (statistical probability/uncertainty analysis of the project elements)
- III. Risk assessment session with stakeholders (discussion of step 2 elements)
- IV. Model Simulation and forecasting results (data modeling of various project scenarios and statistically based probability distributions)

The SROI model promotes transparency, accountability, and efficient use of all social resources necessary to maximize the "triple bottom line" of economic, social and environmental value (Figure 9).

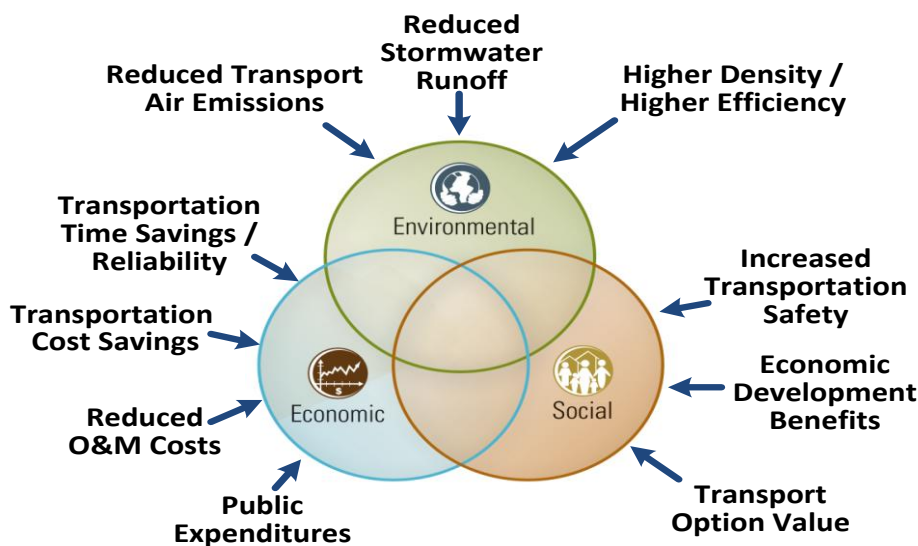
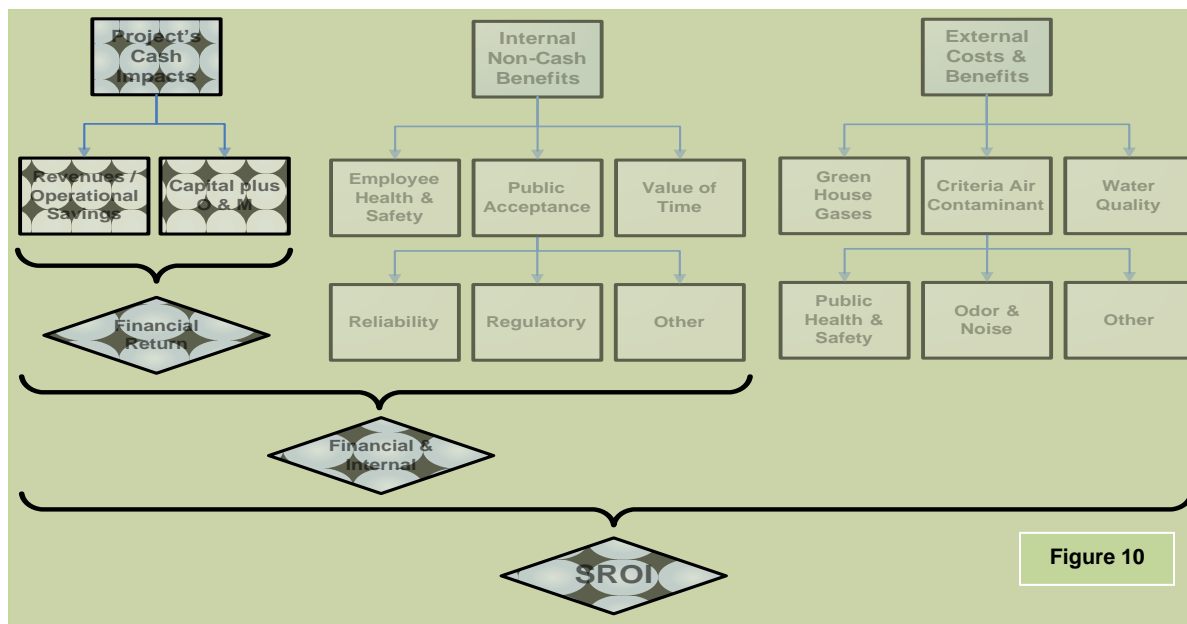


Figure 9

The SROI methodology builds on best practices in Cost-Benefit Analysis and Financial Analysis methodologies, complemented by state-of-the-art Risk Analysis and Stakeholder Elicitation techniques. The SROI process will identify the significant impacts of the TGC project capital investment and credibly value these impacts in monetary terms, while accounting for non-monetary benefits and external costs and benefits (Figure 10). The goal is to optimize the total project value through a distribution of benefits.



Results will be presented in innovative ways to assist the Mullett Township Board and other project stakeholders understand the trade-offs involved with project completion and identify any associated risk. Figure 4 provides a graphical layout the SROI process and the main variables to be assessed with project specific variable included in the overall analysis.

3.2 Performance Management

All stakeholders expect performance and accountability. Therefore, in conjunction with the SROI model performed by HDR, and as part of a strategic management approach to ensure quantifiable performance metrics, the Balanced Score Card will be used to evaluate the TGC project. This performance metric tool will be used in the planning and management of the project to align business activities to objectives, improve internal and external communications, and monitor performance, evaluate effectiveness over time, keep stakeholders informed and ensure that the budgetary expenditures are in line with the proposed objectives.

http://www.otsego.org/gbc/administration/Copy%20of%20Project_Management.xls

3.2.1 Project Objectives

The TGC multimodal project will be based on a process approach to sustainability with a primary obligation is to protect and preserve the environment through sound business practices and appropriate resource allocation. This goal will be accomplished by evaluating the following objectives:

- Social: The TGC project will improve the state of good repair of the current transportation infrastructure, improve safety and livability for residents and visitors.
- Environmental Value: A new underground water filtration system including vortexes and bio-swales will improve the quality of stormwater run-off flowing from the roadway, farms, private residents and businesses into Mullett Lake.
- Economic: The reinvented Village of Topinabee will attractive new businesses and visitors; those who use the DNRE trailhead or driving on the north-south M-27 state

trunk-line, designated as a scenic route to Northern Lower Michigan; creating jobs and long term sustainability of the community.

3.2.2 Public Outreach

Protecting the public's interest is the foundation of a successful transportation infrastructure project. Mullett Township assumes the position that the public is best served through effective interpersonal communication and educational outreach activities that fully delineate the economic, sociopolitical and environmental impacts of the proposed TGB project.

The key to a successful outreach plan is to begin early. The TGC staff has established contact with stakeholders and responded immediately to questions and concerns. In the interest of full disclosure, quarterly construction and progress reports will be published in the local newspapers and read or presented on the local radio station. In addition, presentations with a question and answer session will be scheduled at the publically held township board meetings. Outreach activities will include, but not be limited to:

- **Publicity** – In the interest of full disclosure, the TGC team will work to raise awareness of the public constituency through radio and quarterly construction reports in conjunction with developing a close working relationship with local media to ensure that the correct information is being disseminated to the public in an effort to maintain trust, confidence and credibility of the project.
- **News Releases** – News releases will be used as an opportunity to frame the TGC project in a positive, proactive manner. Well-written press releases will be used to stimulate media coverage to inform and involve the public.
- **Collateral Materials** – A project brochure and fact sheet will be developed to get the project message of sustainability communicated to residents, businesses, and policymakers.

3.3 Vehicle and Bicycle Data

Traffic counts were conducted by MDOT for the .6 mile segment of M-27 that transects the Village of Topinabee in Cheboygan (Figure 11). These time period represent weekday seasonal volumes and may not be indicative of the extreme congestion experienced during a typical weekend. Please note that data was not available for 2009 or 2011. The data for 2010 demonstrates the seasonal trends of the region. These high volumes passing through the village demonstrate justify the need for calming affects and infrastructure rehabilitation.

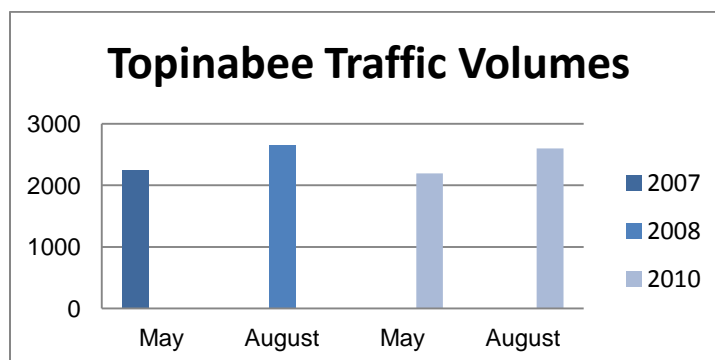


Figure 11

The Annual Dick Allen Lansing to Mackinaw Bicycle Tour using the M-27 trunk-line had up to 500 riders in 2010, while the Michigander Bicycle Tour on the DNRE trail reported 768 bicycle riders in July 2010. Both of these bike tours pass through the Village of Topinabee to use the restroom and purchase refreshments. It is the vision of Mullett Township to be designated as a preferred stop on these bicycle tours and attract other tours (i.e. snowmobile and cross-country skiing) and events in the future in an attempt to spur economic revitalization to the local community and the region.

These data do not account for the high volume of pedestrian traffic within the community.

3.4 Non-Statistical Estimate of Impact: Direct and Indirect Job Creation

The economic benefits of the completed TGC project have been assessed in terms of importance to the local economy as described below. A formal analysis will be conducted by HDR as part of the SROI.

- Village of Topinabee - Improving the viability of the village center business area is essential to maintaining the viability of the surrounding economy. Creating a pedestrian oriented downtown area will enhance the marketability of vacant retail spaces by increasing the volume of retail traffic. Many businesses are owner operated and sole proprietorship-type artisan and retail businesses. It is anticipated that this business sector will expand post-construction
- Increases in local and regional tourism as a result of improved roadway alignment, increased public parking and an innovative architecturally designed green space facilitating access to the state trailhead.
- Increase in the number of public events that draw visitors and residents to actively engage in community sustainability.
- It is estimated that in 2010 the DRNE trailhead in Topinabee served a total of 768 bicyclist from the Michigander and approximately 500 from the Dick Allen Lansing to Mackinaw Bicycle Tour. These riders stopped and pass through Topinabee to use the newly constructed restroom and purchase goods from the local businesses. It is anticipated that the TGC project will help to facilitate interest in event promoters to include Topinabee as a preferred destination.

4.0 Secondary Selection Criteria

4.1 Partnerships

The TGC project would not exist if it were not for the commitment and sense of passion of the Mullett Township Board or the Topinabee Development Association. This local governmental entity and citizen group has come together to learn from each other and pull their resources in an attempt to reinvent the Village of Topinabee. It is this sense of community that ensures the success and long term sustainability of not only a people but a nation.

4.1.1 *Community Cohesion*

The Township of Mullett is a political body created by and operates under the Michigan Constitution of 1963, the statues of the State of Michigan (Figure 12). It is a municipal entity charged with the assessment and regulation of taxes. The Township also provides fire, operates 3 parks and facilitates local transportation infrastructure projects.

The Topinabee Development Association (TDA) has helped facilitate economic development in the community of Topinabee (Figure 13). It has worked with local landlords to identify artisans and other craftsmen who might become tenants in their buildings and are interested in establishing businesses in Topinabee but do not possess the requisite business skills and experience to do so on their own.



Figure 12



Figure 13

4.1.2 *State and Local Endorsements*

The TGC is all about community partnerships and full disclosure of all project activities. As a result resolutions and letters of support have been received from most of the local divisions of government, state representatives, township boards and several public and private agencies. The enthusiasm for the TGC project is reflective of a community that cares about preserving the historic nature of the village, the safety of residents and visitors, but also about the long-term economic sustainability of the region.

- US Representative Dan Benischeck
http://www.otsego.org/gbc/rural_mentoring/topinabee/Congressman%20Dan%20Benish%20ek.PDF
- US Senator Carl Levin
http://www.otsego.org/gbc/rural_mentoring/topinabee/Senator%20Carl%20Levin.PDF
- Stat Representative Greg MacMaster
http://www.otsego.org/gbc/rural_mentoring/topinabee/State%20Representative%20Greg%20MacMaster.PDF
- US Senator Debbie Stabenow
http://www.otsego.org/gbc/rural_mentoring/topinabee/Senator%20Debbie%20Stabenow.PDF

- State Senator Howard Walker
http://www.otsego.org/gbc/rural_mentoring/topinabee/State%20Senator%20Howard%20Walker.PDF
- Berean Bible Church
http://www.otsego.org/gbc/rural_mentoring/topinabee/Berean%20Bible%20Church--Tiger%20001.jpg
- Cheboygan County Board of Commissioners
http://www.otsego.org/gbc/rural_mentoring/topinabee/Cheboygan%20Commission-Tiger.tif
- Cheboygan County Community Development Department
http://www.otsego.org/gbc/rural_mentoring/topinabee/Cheboygan%20Community%20Development-Tiger%20001.tif
- Cheboygan County Road Commission
http://www.otsego.org/gbc/rural_mentoring/topinabee/T17%20-%20Full%20page%20photo%20-%20Road%20Comission.pdf
- Mullett Township Board http://www.otsego.org/gbc/rural_mentoring/topinabee/T7%20-%20Full%20page%20photo%20-%20Mulliett%20Twn.pdf
- Cheboygan Daily Tribune
http://www.otsego.org/gbc/rural_mentoring/topinabee/T14%20-%20Full%20page%20photo%20-%20Cheboygan%20Tribune.pdf
- Cheboygan, Otsego, Presque Isle Educational Service District
http://www.otsego.org/gbc/rural_mentoring/topinabee/C.O.P.Educational%20Service%20District--Tiger%20001.jpg
- Dave Langhorst, MDOT http://www.otsego.org/gbc/rural_mentoring/topinabee/T11%20-%20Full%20page%20photo%20-%20MDOT.pdf
- Grand Hotel, Mackinac Island
http://www.otsego.org/gbc/rural_mentoring/topinabee/T12%20-%20Full%20page%20photo%20-%20Grand%20Hotel.pdf
- Inland Lakes School http://www.otsego.org/gbc/rural_mentoring/topinabee/T9%20-%20Full%20page%20photo%20-%20Inland%20Lakes%20Schools.pdf
- Indian River Chamber of Commerce
http://www.otsego.org/gbc/rural_mentoring/topinabee/T13%20-%20Full%20page%20photo%20-%20IR%20Chamber.pdf
- Indian River Snowmobile Club
http://www.otsego.org/gbc/rural_mentoring/topinabee/T8%20-%20Full%20page%20photo%20-%20IR%20Snowmobile.pdf
- Little Traverse Conservancy
http://www.otsego.org/gbc/rural_mentoring/topinabee/T10%20-%20Full%20page%20photo%20-%20LT%20Conservancy.pdf
- Michigan Environmental Council
http://www.otsego.org/gbc/rural_mentoring/topinabee/T5%20-%20Full%20page%20photo%20-%20Env%20Council.pdf

- Mullett Area Preservation Society (MAPS)
http://www.otsego.org/gbc/rural_mentoring/topinabee/T6%20-%20Full%20page%20photo%20-%20MAPS.pdf
- Paralyzed Veterans of America
http://www.otsego.org/gbc/rural_mentoring/topinabee/T2%20-Full%20page%20photo%20-%20PV.pdf
- Steve Schnell, Cheboygan County Community Development Director
http://www.otsego.org/gbc/rural_mentoring/topinabee/T3%20-%20Full%20page%20photo%20-%20Schnell.pdf
- Tip of the Mitt Snowmobile Club
http://www.otsego.org/gbc/rural_mentoring/topinabee/T4%20-%20Full%20page%20photo-%20TOM%20Snowmobile.pdf
- Tipp of the Mitt Watershed Council
[http://www.otsego.org/gbc/rural_mentoring/topinabee/Tip_of_the_Mitt_Watershed Council--Tiger_001.pdf](http://www.otsego.org/gbc/rural_mentoring/topinabee/Tip_of_the_Mitt_Watershed_Council--Tiger_001.pdf)
- Topinabee Athletic Club
[http://www.otsego.org/gbc/rural_mentoring/topinabee/Topinabee Athletic Club--Tiger_001.pdf](http://www.otsego.org/gbc/rural_mentoring/topinabee/Topinabee_Athletic_Club--Tiger_001.pdf)
- Topinabee Community Church
[http://www.otsego.org/gbc/rural_mentoring/topinabee/Topinabee Community Church--Tiger_001.pdf](http://www.otsego.org/gbc/rural_mentoring/topinabee/Topinabee_Community_Church--Tiger_001.pdf)
- Topinabee Friends of the Library
http://www.otsego.org/gbc/rural_mentoring/topinabee/T1%20-%20Full%20page%20photo%20-%20FOL.pdf

5.0 Environmental Assessment

The TGC project has been assessed and determined not to have an individual or cumulative significant effect on the environment and thereby qualifies as a Categorical Exclusion (CE). Under 23 CFR 771.117 and CEQ Section 1508.4, pursuant to the FHWA list of actions the TGC project does not:

- Induce significant impacts to planned growth or land use for the area;
- Require the relocation of significant numbers of people;
- Have a significant impact on any natural, cultural, recreational, historic or other resource;
- Involve significant air, noise, or water quality impacts;
- Have significant impacts on travel patterns; and
- Otherwise, either individually or cumulatively, have any significant environmental impacts.

“C” List CEs 23 CFR 771.117(c) list 20 actions that are non-construction or limited construction activities. These actions meet the criteria for a CE determination in the CEQ regulation (Section 1508.4) and do not require any further NEPA approvals, although documentation will be completed and retained. The TGC project includes the following specific actions:

- 2) Approval of utility installations along or across a transportation facility;
- 3) Construction of bicycle and pedestrian lanes, paths, and facilities;
- 4) Activities included in the State's "highway safety plan" under 23 U.S.C. 402;

- 5) Transfer of Federal lands pursuant to 23 U.S.C. 317 when the subsequent action is not an FHWA action;
- 7) Landscaping;
- 8) Installation of fencing, signs, pavement markings, small passenger shelters, traffic signals, and railroad warning devices where no substantial land acquisition or traffic disruption will occur;
- 10) Acquisition of scenic easements;
- 15) Alterations to facilities or vehicles in order to make them accessible for elderly and handicapped persons;

"D" List CEs The second category of CEs, as defined in 23 CFR 771.117(d), are those actions with a higher but still minor potential for environmental impacts.

- 1) Modernization of a highway by resurfacing, restoration, rehabilitation, reconstruction, adding shoulders, or adding auxiliary lanes (e.g., parking, weaving, turning, climbing);
- 2) Highway safety or traffic operations improvement projects including the installation of ramp metering control devices and lighting;
- 4) Transportation corridor fringe parking facilities;
- 7) Approvals for changes in access control;

Mullett Township will submit to FHWA documentation that demonstrates that the specific conditions or criteria for these CEs are satisfied and that significant environmental effects will not result. Where adverse environmental impacts are likely to occur as a result of the project, the level of analysis will be conducted to define the extent of the impact, identify appropriate mitigation measures and address known and foreseeable agency and public concerns.

At a minimum, the CE documentation would include the following:

- Description of the existing conditions, including the immediate surrounding area
- Description of the proposed action, and if possible the approximate length of the proposed improvement;
- Discussion of any specific areas of concern, such as wetlands, relocations or Section 4(f);
- A list of other Federal actions required for the proposal; and
- Any concurrence letters from the State Historic Preservation Officer or SHPO (for archaeological and/or historic architectural resources) and US Fish and Wildlife Service (for endangered species).

6.0 Logistical Considerations

Best practices and lessons learned have been assembled into an innovative approach that will ensure the successful completion of the TGC project as described. The Mullett Township Board anticipates a minimum start up time due to the extensive experience of the team in transportation, strategic and financial management. The facilities, equipment and organizational support are outstanding. The intellectual interaction within the multidisciplinary group is well

established. In summary, we are confident of the plausibility of the TGC project and the feasibility of our proposal. The time and resources requested are realistic for the successful completion of the TGC project.

6.1 Context Sensitive Solution

Context Sensitive Solutions (CSS) has been the basis of decision-making and engineering design to ensure that community input, land use, safety and mobility are taken into account during the all phases of the TGC project. Prior to submission of this application, public outreach presentations were conducted to describe the proposed project. Emphasis was placed on collaboration and partnerships between residents, businesses and local organizations. Feedback was obtained and used to address any concerns. As a result, the project will include several innovative techniques related to the development of media outreach activities intended to ensure full disclosure to the public prior to, during and after construction.

6.2 Contracting Incentives

Construction contracts will be developed to include contractor initiated savings and an early completion incentive structure. The goal is to facilitate financial and time savings. The early completion incentive would be calculated similar to the standard liquidated damage amounts by paying the contractor a dollar amount per day for every day in advance of the scheduled completion date.

6.3 Legal Counsel

The most common constraint identified on public infrastructure projects is contractor initiated claims for *extras* that are beyond what would be considered normal in a construction project. These claims can result in delays, unforeseen costs due to litigation or claim settlements that push the project over budget. To preempt this from happening, Mullett Township will retain legal counsel to provide a thorough review of all contract documents prior to accepting a bid and provide immediate guidance and response related to claims that go beyond what is expected for a project. The goal will be to make a contractor aware prior to execution of the contract that such claims will be aggressively challenged.

6.4 Value Engineering: Constructability & Bidability Reviews

The purpose of the Constructability and Bidability review process is to identify potential problems that can or will cause increased project duration and cost when the project is being constructed. This process also provides opportunity for experienced construction personnel to provide suggestions to improve the finished construction product. Items to be reviewed and evaluated include:

- ***Right-of-way Requirements*** – Right-of-way at intersections will be checked to make sure there is sufficient room for sidewalks, drainage structure connections and lighting fixtures. Right-of-way widths will be reviewed to ensure that adequate area is provided for ditch slopes, transitions to driveways and drainage structures and that sufficient area for trenching storm sewers and other utilities is provided.

- **Utilities** – Plans will be reviewed to identify utilities that should be relocated prior to construction. Potential conflicts between utilities and light or signal foundations and drainage structures will be identified.
- **Drainage** – Construction phasing will be reviewed to ensure that provisions for positive drainage are included during each phase of construction.
- **Pay Quantities** – A review of the preliminary quantities will be performed to ensure that all items are included.

The bidability review will be used to establish whether a contractor can submit a competitive bid based on what is shown in the plans and specifications. The bidability review will identify any missing or incorrect quantities. This review will concentrate on quantities for each item of work. What is the material used for? How much is required? Where does it go on the project? Are the quantities correct and reasonable?

6.5 Wade Trim Engineering

Wade Trim will be hired as the General Engineering Consultant (GEC) for the project. It will be imperative to maintain consistency and implement tight project management controls to ensure the success of the project. Wade Trim offers access to professional engineers specializing in transportation, municipal engineering, water resources, and construction engineering disciplines as well as planning, land development and landscape architecture services. Wade Trim's Transportation market segment will maintain the project traffic flow by integrating local concerns into the overall solutions to deliver context-sensitive designs, including highway design, traffic signal design, traffic and safety operations studies, comprehensive transportation planning, and coordination between municipal agencies, utility owners, and the public. Wade Trim will also provide surveying, design and construction engineering services. Wade Trim has strong working relationships with the Michigan Department of Transportation (MDOT) and the Federal Highway Administration (FHWA):

- Wade Trim is directly involved with the FHWA standards and guidelines that impact local projects such as implementation of ADA requirements for non-motorized facilities, work zone safety and mobility policies, and context-sensitive solution. Wade Trim continues to work with the FHWA on emerging technologies to improve safety and traffic operations.
- Wade Trim has been working with MDOT since 1988; pre-qualifications date back to when MDOT first implemented the process in 1995. The Wade Trim Team knows how to move projects through the MDOT Local Agency Program (LAP) approval process and how to perform construction engineering tasks that meet MDOT standards. Wade Trim has designed numerous projects directly for MDOT and for various communities that bid through the Local Agency Program (LAP) process. The Wade Trim approach utilizes a number of steps to achieve the goals of the community while meeting the MDOT requirements.

6.6 Program Management Plan

Wade Trim will serve as the General Engineering Consultant (GEC) to ensure project consistency, effective communication and regulatory compliance. In the event an award is made, a Project Management Plan (PMP) will be written and submitted to the US DOT as part of the first quarterly report. The PMP will clearly define the roles, responsibilities, control

processes and activities by and between Mullett Township and the US DOT. The PMP will ensure that the project is:

- On time (pursuant to the project schedule)
- Within budget
- Meets and/or exceeds all US DOT quality standards
- Conducted in a safe manner for workers and the public
- Creates minimal impact to the environment, traffic, and the surrounding/adjacent residents, businesses, and public spaces/facilities

The PMP will include a process evaluation that includes ongoing data collection and information used to modify the project, if necessary, in an effort to improve efficiencies and productivity. All modifications will be appropriately documented, submitted for approval and archived.

6.7 Operation and Maintenance

Although operation and maintenance (O&M) is not included in the TIGER III line-item budget, the TGC project will incorporate MDOTs O&M requirements as well as best practices. The O&M requirements will be included in the performance measures. A comprehensive O&M approach will be included in the Topinabee Master Plan to cover future planning, design and construction, maintenance and repair, replacement, alterations, normal operations and disposal. The estimated expense of operations and maintenance (O&M), life cycle and capital costs of the TGC project will be outlined in the final report submitted to the USDOT. Supporting data and information used to develop the TGC O&M will be collected from similar project across the state of Michigan. The essential framework will be based on a review of publically available financial statements, published budget reports, accepted industry practices, professional experience, and engineering judgment.

6.7.1 Fixed and Variable Costs

Both fixed and variable O&M costs include salaries and fringe benefit burden, divided into administration, facility maintenance, and any traffic coordination. Maintenance activities do not prolong the useful life of a facility or increase the facility's value, but are meant to preserve a facility over time as intended during its initial design. Maintenance of a facility is typically based upon the characteristics of service such as hours of use, square feet of space, and miles driven. Provided that the facility is utilized in the manner for which it was originally designed, maintenance is typically intermittent over the design life.

6.7.2 Life Cycle Costs

Maintenance and repair (M&R) activities are often referred to as lifecycle costs. These activities are considered necessary to ensure the useful life of a facility over time and are required to provide continuous uninterrupted service attributed to failure. Repairs are continuous over the life cycle of the facility due to poor craftsmanship, misuse, age and normal wear. Regardless of the reason, the need for repair is expected and therefore included in the budget as:

- Preventative
- Programmed

- Predictive testing and inspection
- Routine repairs
- Rehabilitation and renovation

6.7.3 *Capital Improvements*

Capital improvements of public infrastructure are typically categorized into expansion or replacement as a result of becoming structurally deficient or functionally obsolete. This does not include the rehabilitation or renovation of a facility even if the activities are required to upgrade or achieve applicable regulatory standards. Capital improvements include:

- The replacement of a facility that no longer has the ability to perform the functions for which it was originally designed
- The redesign or expansion of an existing facility to accommodate changes in functionality or demand use

The two most important metrics used in forecasting capital improvement budgets are the design life and the forecasted demand use. As with most facilities that are expected to experience operational growth, full capacity is achieved by mid-life of the design cycle. Therefore, accounting for an average life cycle of 50 years, expansion is considered as necessary until the useful life of the facility has been attained. Vehicle and related maintenance are also included as a capital cost. However, any depreciation and or salvage are accounted for separately.

6.8 Supporting Economic Growth

The unemployment rate in Cheboygan County as of October 2011 was 17.2% as compared to the National average of 9.2%, with job growth at -5.25%. Future job growth over the next ten years is predicted to be 12.30%. The income per capita is \$17,612, which includes all adults and children. The median household income is \$29,469 thus defining the region as *economically distressed*.

- The Topinabee Development Association (TDA) will promote and assist all new business development initiatives within the project area. The TDA will work closely with local and state employment services agency, as well as Michigan Rehabilitation Services, the state agency responsible for assisting employers to hire physically challenged workers. All potential employers will be made aware of and encouraged to use the services of these agencies in their hiring process.
- Potential contractors will be subject to a formal background verification process to determine federal debarment by name and company prior to a bid award.
- Contract documents will contain Executive Order 112246 and Section 3 Claus requiring adherence to federal equal opportunity provisions and rules.
- The Mullett Township Board and the GEC will procure its construction contracts through a competitive bidding process with most materials such as sand, gravel, concrete and asphalt purchased directly from local suppliers.

7.0 Multidisciplinary Team

The TGC project is composed of a dedicated multidisciplinary team considered experts in their respective fields. The TGC Team culture will be based on two-way mutual communication and a culture of shared leadership. Below is a professional summary for each TGC Team member with a corresponding link to their current resume.

Stephen Mayer, PhD, PE

Dr. Stephen Mayer will serve as an outside expert to the TGC project. Dr. Mayer is a registered Professional Engineer in New York, Maryland, and Virginia. He has worked in the transportation and infrastructure industry for over 33 years, including 17 years of experience with funding, design, construction, and operating toll-financed projects, as well as installing and operating intelligent transportation system technologies. Over the last five years, Dr. Mayer has served as a Market Development Manager with the Parsons Corporation, leading the Parsons' initiatives in Public-Private Partnerships (P3) of toll-financed transportation infrastructure. His expertise includes technical project management, operational oversight, regulatory compliance, change facilitation, organizational leadership, profit and loss management, quality control, strategic planning, and marketing. In addition, Dr. Mayer consults with a wide array of public and private organizations regarding the utilization of P3s to solve funding shortfalls and address urban transportation congestion and traffic management issues. He works with strategic partners to arrange funding and provide technological, design-build, and organizational solutions for both new transportation infrastructure and upgrades of existing transportation facilities.
http://www.otsego.org/gbc/advisory_board/RESUME%20MAYER%20BIE.pdf

General Engineering Consultant (GEC)

Paul Repasky, PE, has over 18 years of experience as a Design Engineer and Project Manager with Wade Trim. He has been involved with all phases of engineering projects from schematic design, design development, preparation of technical specifications, contract documents, bidding, construction administration and start-up. Mr. Repasky has experience with various civil engineering projects and has served as the project manager on several municipal infrastructure projects including water supply, distribution and computer modeling, waste water collection, pumping and treatment, storm water control, retention and sewer design, streetscapes, recreational trails and parks. In addition, he has provided direct supervision for surveying, inspection and materials testing. Mr. Repasky also has experience as a road and bridge designer and as a construction engineer for numerous county road commissions and has worked directly for the Michigan Department of Transportation (MDOT).
[http://www.otsego.org/gbc/core_staffing/resumes/Paul%20Repasky%20\(Resume%202010\).pdf](http://www.otsego.org/gbc/core_staffing/resumes/Paul%20Repasky%20(Resume%202010).pdf)

Environmental Review

Lisa Fought has over 14 years of experience as the primary author for State and National Environmental Policy Act (SEPA/NEPA) documents including environmental assessments, reviews, reports and checklists and managed the development of supporting documentation including Section 4(f) analyses, Section 106 compliance for major public works projects. Her responsibilities on the TGC project will include facilitating the process for impact analyses and

identifying mitigation measures, reviewing technical discipline reports and preparing the draft and final EIS documents of the TGC project.

[http://www.otsego.org/gbc/core_staffing/resumes/Lisa%20Fought%20\(Resume%202010\).pdf](http://www.otsego.org/gbc/core_staffing/resumes/Lisa%20Fought%20(Resume%202010).pdf)

Construction Contracting Attorney

Michael Edwards has 14 years of experience practicing law and in construction contracting, acquiring real property for government entities under the Uniform Act and administering private consultant right-of-way acquisition, and relocation suit/condemnation contracts. He will function as the project manager responsible for interviewing, contracting and all legal activities associated with TGC project.

http://www.otsego.org/gbc/core_staffing/resumes/CURRICULUM%20VITAE%20of%20MICHAEL%20T.pdf

Fiscal Management

Matthew Rooyakkar, CPA, is the managing member and co-founder of Rooyakkar & Sitz, PLLC in Gaylord, Michigan. He has 12 of experience in public accounting with expertise in services related to assurance, accounting and taxation. He has significant experience serving clients in the construction, gas and oil, manufacturing and hospitality industries. Mr. Rooyakkar will be responsible for fiscal accountability of the TGC project pursuant to the applicable Code of Federal (CFR) regulations and preparation of the annual fiscal report.

http://www.otsego.org/gbc/core_staffing/resumes/Resume%20-%20Matthew%20Rooyakker.pdf

Grant Oversight and Regulatory Compliance

Karyn M. Warsaw is a doctoral candidate at the Johns Hopkins Bloomberg School of Public Health in the department of Health Policy Management and Leadership. Ms. Warsaw has over 20 years of experience in conducting federally funded research according to applicable regulatory guidelines with expertise in grant writing and main authorship, program development, strategic management, monitoring and evaluation (impact analysis) and regulatory compliance. She will be responsible for the general administrative oversight of all TGC TIGER grant activities, regulatory compliance reporting and will be assisting HDR with the economic analysis.

[http://www.otsego.org/gbc/rural_mentoring/topinabee/Transportation%20Resume%20\(Warsow\).pdf](http://www.otsego.org/gbc/rural_mentoring/topinabee/Transportation%20Resume%20(Warsow).pdf)

Media and Educational Outreach Specialist

Robert O. Felt, Jr. has over 20 years of experience implementing various communications strategies and methodologies. Mr. Felt is an award-winning creative consultant that has received high marks for his writing abilities, effective community and media relations, and, creative campaigns as recognized by AASHTO's sub-committee on Public Affairs via the National Transportation Public Affairs Workshop skills awards. He will handle all TIGER II external communication components of the grant, advising and training partner agency personnel and connecting with local, regional, and statewide media outlets, and the general public. Mr. Felt currently works as a safety outreach/communications specialist for the Michigan Department of Transportation's (MDOT) Executive Division in the Office of Communications.

8.0 Conclusion

So what? Why should the US DOT fund the TGC project? We could once again restate the primary and secondary selection criteria to emphasis the importance of our project. We could admit that to some, rural transportation just is not that sexy. We could also point out that rural America has always had to 'do more with less'. We could even tell you that the essence of long-term sustainability for any transportation project is based on a quantifiable benefit/cost analysis or a proven business model. But what we really want you to know is that where the US DOT will find the answers to the nation's transportation problems will be found in the resourcefulness of rural communities where innovation is a necessity...and this is very sexy!

It has been a pleasure to have had the opportunity to submit the TGC project proposal to the USDOT TIGER III Team for consideration. The Mullett Township Board would like to thank the US DOT for making the TIGER III grant opportunity available to local governments as an alternative to funding important transportation infrastructure projects. We invite you to Northern Lower Michigan to experience the natural beauty and hospitality of the region.

