JENNIFER M. GRANHOLM
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF TRANSPORTATION
LANSING

KIRK T. STEUDLE
DIRECTOR

January 13, 2010

Mr. John D. Niemela
Director
County Road Association of Michigan
P.O. Box 12067
Lansing, Michigan 48901-2067

Mr. Christopher Hackbarth
Transportation Environmental Affairs
Michigan Municipal League
320 N. Washington Sq., Ste. 100
Lansing, Michigan 48933-1288

Dear Mr. Niemela and Mr. Hackbarth:

Fiscal Year 2012 Federal Local Safety Program

The Michigan Department of Transportation (MDOT) is pleased to announce the solicitation of new candidate project applications for fiscal year (FY) 2012 Local Safety Program. Federal funds for the Local Safety Program are to be used for highway safety improvements on the local roadway system. The FY 2012 budget for this program is estimated at $15,625,000 ($12,500,000 federal and $3,125,000 local match) for each year. This amount may be subject to revisions based on approval of the future federal highway bill. We are asking the County Road Association of Michigan and the Michigan Municipal League to distribute this notice to their member agencies.

MDOT will be programming projects for FY 2012 with the current call for projects. Local agencies are allowed to submit more than one project for consideration. Agencies submitting multiple projects should submit a prioritized list for consideration. FY 2012 projects will need to be developed and obligated between October 1, 2011 and August 31, 2012.

Program administrative procedures for fiscal year 2012:

1. The construction phase only is eligible for federal aid, except as specified in items #5 - #8 below. Any costs related to right of way, design and construction engineering, or work on state owned roadways are not eligible for local safety program funds. Projects are federally funded at 80 percent with a 20 percent local match. Federal funds shall not exceed $400,000 per project. Projects will also be capped at the lesser of the original estimate plus $20,000 or the original estimate plus 20 percent. Projects may, at MDOT's discretion, be funded by a "Pro-Rata" or "Lump Sum" method.

   Please see http://www.michigan.gov/mdot/0,1607,7-151-9625_25885_27578---,00.html to review information on the "Pro-Rata" or "Lump Sum" funding methods. The projects are to be let by MDOT, or performed by local force account, as approved by our office. Force account work shall follow the local agency guidelines for "Construction by Non-Competitive Bid Contract" which can be viewed on the MDOT/Local Agency website at: http://www.michigan.gov/mdot/0,1607,7-151-9625_25885_40414---,00.html.

Any locally controlled roadway, regardless of National Functional Classification, is Eligible for the Local Safety Program.

2. Eligible projects must meet current standards and warrants and current ADA requirements. Project types may include replacement, installation or elimination of guardrail, removal of fixed objects from clear zones, traffic and pedestrian signal optimization, installation, and upgrades, access management, horizontal and vertical curve modifications, sight distance and drainage improvements, bridge railing replacement or retrofit, roadway intersection improvements to improve safety, mid-block pedestrian crossings, improvements to school zones, shoulder and center line rumble strips, and improved permanent signing and pavement markings. This list is not all inclusive and other types of safety improvement projects can be submitted for consideration. Examples of low cost projects can be found at www.atssa.com.

3. All project candidates must be postmarked no later than **Friday, April 16, 2010**. Projects postmarked after April 16, 2010, at MDOT's discretion, may or may not be reviewed for funding based on the strength of other submitted projects and the availability of funds. It is recommended that your application be submitted by certified mail or other trackable delivery service. Projects are reviewed and approved by committee and selected based on criteria which includes:

   A. Submit crash history with supporting UD-10s for all "K", "A" and "B" crashes and for any other lesser severity of injuries that supports the scope of work for the area, within the most current 5 year period of available data (2004-present).
   B. Roadway classification, traffic crash analysis, ADT, collision diagrams, crash concentration, etc.
   C. Existing condition and character of proposed work.
   D. Metropolitan Planning Organization (MPO) or Rural Task Force (RTF) endorsement and priority ratings.
   E. Overall safety benefits of the proposed work, American Association of State Highway and Transportation Officials (AASHTO) guidelines, and Michigan Manual of Uniform Traffic Control Devices (MMUTCD) warrants.
   F. Completion of Time of Return or Benefit/cost analysis with supporting documentation and calculations supplied to MDOT.
   G. Project coordination with other construction projects.
   H. Ability to deliver a complete construction package for letting within the fiscal year.
   I. Statewide and historical funding distribution.
   J. Past history of delivering safety projects in the year the project was selected.
   K. Completion of the enclosed MDOT Form #1627 (10/08) for every project submitted. This form can also be found on the MDOT/Local Agency web site at http://mdotwas1.mdot.state.mi.us/public/webforms/.

   At a minimum, the suggested format for project funding consideration is an engineering report that clearly identifies the route, location (township(s)/municipalities), project termini and length, existing and proposed cross sections, estimated project cost and each of the criteria listed above. The calculations and supporting documentation must be

submitted for the time of return analysis, and/or the benefit to cost ratio. A map must be included with the report which clearly identifies the location of the proposed project. Pictures, graphics, preliminary plans, etc., included in the engineering report can also be used as supporting evidence and are encouraged.

Enclosed is a sheet listing MDOT accepted crash reduction factors for commonly submitted scopes of work and injury costs. Also listed are acceptable reference sources for obtaining crash reduction factors for projects with scopes of work that are not provided. This enclosure is posted on the MDOT/Local Agency web site, under the Safety/HRRR tab, which can be located at http://www.michigan.gov/mdot/0,1607,7-151-9625_25885_40552---,00.html.

For TOR and/or B/C analysis calculations, MDOT will be using the 2007 National Safety Council average economic costs for motor vehicle injuries. The following injuries will be counted separately: "K," "A," and "B" type injuries, while "C" and "PDO" type injuries will be counted as a 'PDO' type injury. This information can be found at http://www.nsc.org/news_resources/injury_and_death_staticstics/Pages/EstimatingtheCostsofUnintentionalInjuries.aspx MDOT has an Excel spreadsheet available for calculating Time of Returns and Benefit/Cost analysis. If you have any questions or would like to obtain a copy of MDOT's Excel spreadsheet for calculating Time of Returns and Benefit/Cost analysis, please contact Jim D'Lamater at (517) 335-2224 or email at dlamaterj@michigan.gov.

4. If there are any social, economic and environmental impacts within the project limits, all impacts must be mitigated before federal funds can be appropriated and obligated. Project applications which are expected to have significant public controversy and/or require an environmental assessment will not be considered until these outstanding issues have been resolved.

5. The FY 2012 Safety Program is establishing financial goals that will be used to fund specific types of projects. The project type and financial goals are listed below.

Project Type	Total Program
Road Safety Audits (RSA)	$50,000
Non-motorized facility/Pedestrian improvements	$100,000
Traffic signal optimization (all red phase)	$150,000
Centerline and Shoulder Rumble Strip	$200,000
Guardrail Upgrades and Clear Zone Improvements	$1,000,000
Projects with scopes that directly correct areas with a concentration of Types "A" and "K" crashes	$9,750,000

To aid local agencies to identify areas of roadways that have types “K” and “A” crashes, MDOT will post region maps with the location of the crashes in the Safety area of the MDOT/Roads and Travel website http://www.michigan.gov/mdot/0,1607,7-151-9615_11261---,00.html

The category Traffic Signal Optimization has been set up so traffic signal optimization studies can be completed and implemented. Preliminary Engineering will be considered as a participating cost (80% Federal / 20% Local) for the analysis and adjusting of timing of signal controllers. As part of the traffic signal optimization study and adjustment, signals should be studied to allow for a minimum one second all red phase and the yellow change interval phase evaluated to meet current guidelines. A maximum of $5,000.00 total cost will be allowed per signal location, for the analysis and adjustment of signal controllers. Safety funds will not be allowed to be used for signal component upgrades under this category. It is anticipated this work would be done via Force Account work by the local agency

6. A Federal Highway Administration website contains reports provided by the states in response to a federal requirement to describe at least 5 percent of the locations in each state currently exhibiting the most severe highway safety needs, in accordance with Sections 148(c)(1)(D) and 148(g)(3)(A), of Title 23, *United States Code*. This website (go to http://safety.fhwa.dot.gov/hsip/fivepercent/ and then select “Michigan”) currently has the 2006 - 2009 5 Percent Reports. In addition to funding the construction project in the areas listed on the 2006 - 2009 5 Percent Reports, MDOT will also consider funding preliminary engineering up to 10 percent of the estimated eligible construction costs to be participating costs (80% Federal / 20% Local). Projects that are on the 5 Percent Report must be clearly identified and the estimated preliminary engineering costs listed in the application if the agency desires to have the preliminary engineering costs funded.

7. MDOT will consider funding 50 percent of the preliminary engineering costs eligible for federal funding, for projects that have been reviewed and identified by the MDOT – Local Safety Initiative (LSI) program. The maximum amount of preliminary engineering that MDOT will consider as eligible for participation shall not exceed 10 percent of the estimated eligible construction costs. Eligible projects must be on the MDOT LSI written suggestion list and shall have a copy of this list included with the project application.

8. Road Safety Audits (RSA) will be eligible for funding for proposed and selected safety projects. If a local agency desires to use these funds, the RSA must be conducted no later than the design plans being 50% complete, in order for adequate time for the RSA findings to be incorporated into the project plans. RSA's must be coordinated through the Safety program administrator so they are aware of the RSA taking place. A synopsis of the RSA findings shall also be submitted to the Safety program administrator so reimbursement of costs can be processed.

Once projects are selected, local agencies within MPO areas must coordinate with their MPO to ensure inclusion of their project in the area's Transportation Improvement Program (TIP) for the fiscal year which the project was selected for. Those agencies that are part of a rural task force should notify their members that they are applying for these funds. Rural task force approval is not necessary. Local Agency Programs will coordinate with MDOT Planning to ensure these projects are included in the State Transportation Improvement Program (STIP). Each application is evaluated based on the criteria listed above on a project by project basis and funding availability.

Please send all eligible projects and supporting information by **April 16, 2010**, to the following:

Mr. Jim D'Lamater, P.E., Safety Engineer
Design Division, Local Agency Programs Unit
425 W. Ottawa Street, P.O. Box 30050
Lansing, Michigan 48909-7550

Depending upon funding availability, project selection and announcements are made as soon as possible with notifications and project programming instructions sent through each of the coordinating agencies. Our goal is to maintain a fiscally constrained program while maximizing the use of available federal funds.

If you have any questions, please feel free to contact Jim D'Lamater at (517) 335-2224 or at dlamaterj@michigan.gov.

Sincerely,

Rudolph S. Cadena, P.E.
Local Agency Programs Engineer
Local Agency Programs

for Bradley C. Wieferich
Engineer of Design

Enclosures

cc: Dave Morena, FHWA
Brad Weiferich, MDOT
Dale R. Lighthizer, MDOT
Jim Culp, MDOT
Jim D'Lamater, MDOT
Marsha Small, MDOT
MDOT Region Engineers
MDOT TSC Managers
Metropolitan Planning Organizations
Rural Task Forces
LAP ListServ Members

Michigan Department of Transportation
1627 (10/08)

LOCAL AGENCY PROGRAMS SAFETY PROJECT SUBMITTAL FORM

Clear Form

FUNDING TEMPLATE: FISCAL YEAR:

LOCAL AGENCY		LOCAL AGENCY CONTACT	
PHONE NO.	FAX NO.	EMAIL ADDRESS	
ALTERNATIVE CONTACT		PHONE NO.	FAX NO.
EMAIL ADDRESS		HOUSE DISTRICT	SENATE DISTRICT

PROPOSED PROJECT LOCATION, LIMITS AND PROJECT DESCRIPTION

PROPOSED COST	TIME OF RETURN (YEARS)	IMPROVEMENT CATEGORY (CHECK THE CATEGORY THAT APPLIES)
BENEFIT TO COST RATIO	TOWNSHIP/CITY	☐ Intersection Improvements ☐ Roadway and Structure Improvements ☐ Roadside Improvements ☐ Pedestrian and Bicycle Improvements ☐ Other _____
PLEASE LIST THE CRASH REDUCTION FACTORS USED:		
DOES A PROJECT IMPACT A SCHOOL OR OTHER SENSITIVE ORGANIZATION? PLEASE DESCRIBE:		

ROADWAY DATA		**CROSS ROAD DATA (If an intersection improvement)**	
PRIMARY ROUTE NAME		ROUTE NAME	
ADT		ADT	
PERCENT COMMERCIAL	*NO. OF CRASHES	PERCENT COMMERCIAL	*NO. OF CRASHES
* NO. OF FATAL CRASHES	*NO. OF "A" TYPE CRASHES	*NO. OF FATAL CRASHES	*NO. OF "A" TYPE CRASHES
*PERIOD OF CRASH DATA	FUNCTIONAL CLASSIFICATION	*PERIOD OF CRASH DATA	FUNCTIONAL CLASSIFICATION

*Please attach Crash Summary and UD-10's to your project submittal with the most recent 5 years of available data.

EXPLANATION OF HOW THE PROPOSED IMPROVEMENT WILL IMPROVE SAFETY AND REDUCE CRASHES

HAS YOUR LOCAL AGENCY RECEIVED APPROVAL OF A SAFETY PROJECT OR HRRR PROJECT THROUGH MDOT'S LAP UNIT IN THE PAST 5 YEARS?

☐ YES ☐ NO ☐ SAFETY PROJECT ☐ HRRR PROJECT

IF YES, HAVE ALL PROJECTS BEEN COMPLETED?

☐ YES ☐ NO

IF NO, PLEASE EXPLAIN WHY

OTHER PROJECT CONSIDERATIONS

INTERSECTION CRASH REDUCTION FACTORS		
Proposed Improvement	**% Reduction**	**Associated Crash Types**
Signal Timing / Hardware Enhancements		
All-Red Clearance Interval - *Add per ITE reccomendations*	10%	All Crash Types
Rural Box Span Signal - *Upgrade from Stop Control*	75%	Angle
	40%	All other Crashes
Urban Box Span Signal - *Upgrade from Stop Control*	65%	Angle
	20%	All other Crashes
Box Span Signal - *Upgrade from Diagonal Span*	10%	All Crashes
Left-Turn Signal Phase - *Add*	30%	Left-Turn
Signal Head Size - *Increase to 12 "*	10%	All Crash Types
Signal Optimization & Timing Updates	10%	All Crash Types
Yellow-Change Interval - *Increase*	10%	All Crash Types
Pedestrian / Bicycle Enhancements		
Bump Out / Curb Extension - *Remove Parking / Install*	30%	All Crashes
Bicycle Lanes - Install per standards	25%	Bicycle Crashes
Intersection Lighting - *Install*	30%	Pedestrian Fatal and A-Injuries
	20%	Other Crashes
Ped. Countdown Signals - *Install w/o existing signal*	30%	Pedestrian, Bicycle
Ped. Countdown Signals - *Upgrade from existing signal*	25%	Pedestrian, Bicycle
Sidewalk for Pedestrians - *Construct*	85%	Pedestrian Crashes
Intersection Geometric Enhancements		
Bump Out / Curb Extension - *Remove Parking / Install*	30%	All Crashes
Center Left-Turn Lane - *Construct*	80%	Rear-End, Left-Turn
	50%	Head-On Left-Turn
	20%	Head-On, Angle, Other
	15%	Non Left-Turn Rear-End
Intersection Improvements (Realignment, Sight-Distance Improvements, Radii Improvements, Etc.)	30%	Angle
	15%	Rear-End
	10%	Head-On, Sideswipe, Pedestrian, Bicycle, Left-Turn Related
Offset Left-Turn Lanes	10%	Head-On Crashes
Right-Turn Lane - *Construct*	65%	Rear-End Right-Turn
	20%	Non Right-Turn Rear-End, Sideswipe Same Direction
Roundabout - *Refer to Roundabout TOR*	76% K&A	Contact Jim D'Lamater (517) 335-2224 for Roundabout TOR
	39% Minor Crh	form
General Intersection Enhancements		
All-Way Stop Control Operation at Intersection - *Provide*	60%	All Crash Types
Flashing Traffic Signals - *Install/Upgrade*	20%	All Crash Types
Intersection Lighting - *Install*	30%	Pedestrian Fatal and A-Injuries
	20%	Other Crashes
Reflective Sheeting on Sign Posts *(lollipops)*	15%	All Crashes
Ground Mounted Flashing Beacons (Red)- *Install***	30%	All Crashes On Install Approach
Ground Mounted Flashing Beacons(Amber) - *Install***	20%	All Crashes On Install Approach
Signing and Pavement Markings - *Improve/Upgrade*	30%	Angle, Rear-End
	10%	Head-On, Pedestrian

* "Other" includes and other crash which might be mitigate by the addition of a center left-turn lane in the judgment of the crash analyst

** applies with overhead flashing beacon removal

REFERENCES:

The references listed below are the sources recognized by MDOT for obtaining crash reduction factors. If you have a situation that none of these sources can provide a crash reduction factor for, please contact Jim D'Lamater 517.335.2224.

1) MDOT Safety Programs Unit - Crash Reduction Factors (As recommended by K. Kunde. P.E.); October, 1986
2) *Selection Process for Local High Safety Projects,* - Transportation Research Record 847: 1982
3) UKTRP - 85-6, University of Kentucky; March, 1985
4) *Desktop Reference for Crash Reduction Factor* , Federal Highway Administration. 2007
5) NCHRP Report 617: *Accident Modification Factors for Traffic Engineering and ITS Improvements* , TRB 2008
6) Crash Modification Factor Clearinghouse, http://www.cmfclearinghouse.org/index.cfm , 2008

SEGMENT CRASH REDUCTION FACTORS		
Proposed Improvement	**% Reduction**	**Associated Crash Types**
Geometric Enhancements		
Center Left-Turn Lane - *Construct*	80%	Rear-End, Left-Turn
	50%	Head-On Left-Turn
	20%	Head-On, Angle, Other
	15%	Non Left-Turn Rear-End
Horizontal Curve Flattening	30%	Head-On, Fixed-Object, Overturn
Increase Lane Width - *Per foot*	10%	All Crash Types
Shoulders - *Widen to Standard Width*	5% per ft. **	All Crash Types
Superelevation Modification	20%	Head-On, Fixed-Object, Overturn
Vertical Curve Modification	20%	Head-On, Sideswipe
	10%	Fixed-Object, Overturn
Operational Enhancements		
Access Management - *Improve*	15%	Drive-way Related
Centerline Rumble Strips - *Install*	55%	Sideswipe Opposite, Head-On, Run-Off the Road Left Crashes
Lighting - *Install on segment*	20%	Night Crashes
Pavement Surface - *Improve*	20%	Wet Crashes
Pedestrian Refuge - *Install*	50%	Pedestrian Crashes
Should Rumble Strips	20%	Run-Off the Road Right Crashes
Signing/Delineation on Horizontal Curves - *Install*	20%	Head-On, Sideswipe, Fixed-Object, Overturn
Roadside Enhancements		
Fixed Objects From Clearzone (Trees, Culverts, Etc.) - *Remove*	75%	Fixed-Object
Guardrail - *Install*	55%	Fatalities and "A" Injuries
Sidewalk for Pedestrians - *Construct*	85%	Pedestrian Crashes
Slope Flattening	15%	Fixed-Object, Overturn

* "Other" includes and other crash which might be mitigate by the addition of a center left-turn lane in the judgment of the crash analyst

** 5% per foot widened each side (i.e. 3 foot shoulder on each side = 15% reduction)

REFERENCES:

The references listed below are the sources recognized by MDOT for obtaining crash reduction factors. If you have a situation that none of these sources can provide a crash reduction factor for, please contact Jim D'Lamater 517.335.2224.

1) MDOT Safety Programs Unit - Crash Reduction Factors (As recommended by K. Kunde. P.E.); October, 1986
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12/9/2009