

VAN BUREN TOWNSHIP SS4A GRANT APPLICATION

ADDENDUM #2

OMB Number: 4040-0004
Expiration Date: 12/31/2022

Application for Federal Assistance SF-424

* 1. Type of Submission:

- ☐ Preapplication
☒ Application
☐ Changed/Corrected Application

* 2. Type of Application:

- ☒ New
☐ Continuation
☐ Revision

* If Revision, select appropriate letter(s):

* Other (Specify):

* 3. Date Received:

Completed by Grants.gov upon submission.

4. Applicant Identifier:

5a. Federal Entity Identifier:

5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:

7. State Application Identifier:

8. APPLICANT INFORMATION:

* a. Legal Name:

Van Buren Charter Township

* b. Employer/Taxpayer Identification Number (EIN/TIN):

38-6007135

* c. UEI:

DMCXSZFNVJS5

d. Address:

* Street1:

46425 Tyler Road

Street2:

* City:

Van Buren Township

County/Parish:

* State:

MI: Michigan

Province:

* Country:

USA: UNITED STATES

* Zip / Postal Code:

48111-5217

e. Organizational Unit:

Department Name:

Van Buren Charter Township

Division Name:

f. Name and contact information of person to be contacted on matters involving this application:

Prefix:

Mr.

* First Name:

Kevin

Middle Name:

* Last Name:

McNamara

Suffix:

Title:

Township Supervisor

Organizational Affiliation:

* Telephone Number:

734-699-8910

Fax Number:

734-699-8952

* Email:

kmcnamara@vanburen-mi.org

Application for Federal Assistance SF-424

* 9. Type of Applicant 1: Select Applicant Type:

C: City or Township Government

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

* Other (specify):

* 10. Name of Federal Agency:

69A345 Office of the Under Secretary for Policy

11. Catalog of Federal Domestic Assistance Number:

CFDA Title:

* 12. Funding Opportunity Number:

DOT-SS4A-FY22-01

* Title:

Safe Streets and Roads for All Discretionary Grant Program

13. Competition Identification Number:

0001

Title:

Action Plan Grant Applications

14. Areas Affected by Project (Cities, Counties, States, etc.):

Add Attachment

Delete Attachment

View Attachment

* 15. Descriptive Title of Applicant's Project:

SafeVB Roads and Streets Action Plan

Attach supporting documents as specified in agency instructions.

Add Attachments

Delete Attachments

View Attachments

Application for Federal Assistance SF-424

16. Congressional Districts Of:

* a. Applicant

* b. Program/Project

Attach an additional list of Program/Project Congressional Districts if needed.

Add Attachment

Delete Attachment

View Attachment

17. Proposed Project:

* a. Start Date:

* b. End Date:

18. Estimated Funding (\$):

* a. Federal	<input type="text" value="384,900.00"/>
* b. Applicant	<input type="text" value="97,000.00"/>
* c. State	<input type="text" value="0.00"/>
* d. Local	<input type="text" value="0.00"/>
* e. Other	<input type="text" value="0.00"/>
* f. Program Income	<input type="text" value="0.00"/>
* g. TOTAL	<input type="text" value="481,900.00"/>

* 19. Is Application Subject to Review By State Under Executive Order 12372 Process?

- ☐ a. This application was made available to the State under the Executive Order 12372 Process for review on .
- ☒ b. Program is subject to E.O. 12372 but has not been selected by the State for review.
- ☐ c. Program is not covered by E.O. 12372.

* 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)

☐ Yes ☒ No

If "Yes", provide explanation and attach

Add Attachment

Delete Attachment

View Attachment

21. *By signing this application, I certify (1) to the statements contained in the list of certifications** and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 18, Section 1001)

☒ ** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix: * First Name:
Middle Name:
* Last Name:
Suffix:

* Title:

* Telephone Number: Fax Number:

* Email:

* Signature of Authorized Representative: * Date Signed:

BUDGET INFORMATION - Non-Construction Programs

OMB Number: 4040-0006
Expiration Date: 02/28/2025

SECTION A - BUDGET SUMMARY

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. SS4A Action Plan - Van Buren Charter Township, Michigan	20.939	\$	\$	\$ 384,900.00	\$ 97,000.00	\$ 481,900.00
2.						
3.						
4.						
5. Totals		\$	\$	\$ 384,900.00	\$ 97,000.00	\$ 481,900.00

SECTION B - BUDGET CATEGORIES

6. Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY				Total (5)
	(1)	(2)	(3)	(4)	
	SS4A Action Plan - Van Buren Charter Township, Michigan				
a. Personnel	\$ 5,544.00	\$	\$	\$	\$ 5,544.00
b. Fringe Benefits	1,656.00				1,656.00
c. Travel					
d. Equipment					
e. Supplies					
f. Contractual	474,700.00				474,700.00
g. Construction					
h. Other					
i. Total Direct Charges (sum of 6a-6h)	481,900.00				\$ 481,900.00
j. Indirect Charges					\$
k. TOTALS (sum of 6i and 6j)	\$ 481,900.00	\$	\$	\$	\$ 481,900.00
7. Program Income	\$	\$	\$	\$	\$

Authorized for Local Reproduction

Standard Form 424A (Rev. 7- 97)
Prescribed by OMB (Circular A -102) Page 1A

SECTION C - NON-FEDERAL RESOURCES					
(a) Grant Program		(b) Applicant	(c) State	(d) Other Sources	(e) TOTALS
8.	SS4A Action Plan - Van Buren Charter Township, Michigan	\$ 97,000.00	\$	\$	\$ 97,000.00
9.					
10.					
11.					
12. TOTAL (sum of lines 8-11)		\$ 97,000.00	\$	\$	\$ 97,000.00

SECTION D - FORECASTED CASH NEEDS					
	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal	\$ 384,900.00	\$ 96,225.00	\$ 96,225.00	\$ 96,225.00	\$ 96,225.00
14. Non-Federal	\$ 97,000.00	7,700.00	21,500.00	21,500.00	46,300.00
15. TOTAL (sum of lines 13 and 14)	\$ 481,900.00	\$ 103,925.00	\$ 117,725.00	\$ 117,725.00	\$ 142,525.00

SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT					
(a) Grant Program		FUTURE FUNDING PERIODS (YEARS)			
		(b) First	(c) Second	(d) Third	(e) Fourth
16.	SS4A Action Plan - Van Buren Charter Township, Michigan	\$ 384,900.00	\$	\$	\$
17.					
18.					
19.					
20. TOTAL (sum of lines 16 - 19)		\$ 384,900.00	\$	\$	\$

SECTION F - OTHER BUDGET INFORMATION	
21. Direct Charges: 481900	22. Indirect Charges:
23. Remarks:	

DISCLOSURE OF LOBBYING ACTIVITIES

Complete this form to disclose lobbying activities pursuant to 31 U.S.C.1352

OMB Number: 4040-0013

Expiration Date: 02/28/2025

1. * Type of Federal Action: <input type="checkbox"/> a. contract <input checked="" type="checkbox"/> b. grant <input type="checkbox"/> c. cooperative agreement <input type="checkbox"/> d. loan <input type="checkbox"/> e. loan guarantee <input type="checkbox"/> f. loan insurance	2. * Status of Federal Action: <input type="checkbox"/> a. bid/offer/application <input checked="" type="checkbox"/> b. initial award <input type="checkbox"/> c. post-award	3. * Report Type: <input checked="" type="checkbox"/> a. initial filing <input type="checkbox"/> b. material change
4. Name and Address of Reporting Entity: <input checked="" type="checkbox"/> Prime <input type="checkbox"/> SubAwardee * Name: <input type="text" value="Van Buren Charter Township"/> * Street 1: <input type="text" value="46425 Tyler Road"/> Street 2: <input type="text"/> * City: <input type="text" value="Van Buren Township"/> State: <input type="text" value="MI: Michigan"/> Zip: <input type="text" value="48111"/> Congressional District, if known: <input type="text" value="MI - 006"/>		
5. If Reporting Entity in No.4 is Subawardee, Enter Name and Address of Prime: 		
6. * Federal Department/Agency: <input type="text" value="Department of Transportation"/>		7. * Federal Program Name/Description: <input type="text"/> CFDA Number, if applicable: <input type="text"/>
8. Federal Action Number, if known: <input type="text" value="DOT-SS4A-FY22-01 - PKG00274330"/>		9. Award Amount, if known: \$ <input type="text" value="363,836.00"/>
10. a. Name and Address of Lobbying Registrant: Prefix <input type="text"/> * First Name <input type="text" value="N/A"/> Middle Name <input type="text"/> * Last Name <input type="text" value="N/A"/> Suffix <input type="text"/> * Street 1: <input type="text"/> Street 2: <input type="text"/> * City: <input type="text"/> State: <input type="text"/> Zip: <input type="text"/>		
b. Individual Performing Services (including address if different from No. 10a) Prefix <input type="text"/> * First Name <input type="text" value="N/A"/> Middle Name <input type="text"/> * Last Name <input type="text" value="N/A"/> Suffix <input type="text"/> * Street 1: <input type="text"/> Street 2: <input type="text"/> * City: <input type="text"/> State: <input type="text"/> Zip: <input type="text"/>		
11. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when the transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure. * Signature: <input type="text" value="Completed on submission to Grants.gov"/> * Name: Prefix <input type="text" value="Mr."/> * First Name <input type="text" value="Kevin"/> Middle Name <input type="text"/> * Last Name <input type="text" value="McNamara"/> Suffix <input type="text"/> Title: <input type="text" value="Township Supervisor"/> Telephone No.: <input type="text" value="734-699-8910"/> Date: <input type="text" value="Completed on submission to Grants.gov"/>		
Federal Use Only:		Authorized for Local Reproduction Standard Form - LLL (Rev. 7-97)

SafeVB Roads and Streets Action Plan



KEY INFORMATION TABLE

Lead Applicant	Van Buren Charter Township, MI
If Multijurisdictional, additional eligible entities jointly applying	n/a
Total jurisdiction population	30,375 (2019 ACS data)
Count of motor-vehicle-involved roadway fatalities - 2016 to 2020	26 (FARS data, 2016-2020)
Fatality rate per 100,000 persons ¹	13.83
Action Plan Type	New Action Plan
Population in Underserved Communities	2,365 (7.8%)
States(s) in which projects and strategies are located	Michigan
Costs by State (if project spans more than one State)	n/a

NARRATIVE (300 WORDS)

The Van Buren Township Supervisor has set a goal of achieving zero roadway fatalities by the year 2028 and a 50% reduction in crashes resulting in injury along arterial and collector roads throughout the Township. In partnership with the Township's Downtown Development Authority, a steering committee representing residents, law enforcement, and Department of Public Services will oversee a full safety analysis of Township arterials, collectors, and neighborhood streets as part of the SafeVB Roads and Streets Action Plan.

The Action Plan will include significant public engagement to increase the awareness of traffic safety issues and create communications that address the behavioral causes of observed crashes and injuries. The engagement process will provide specific focus on the northwestern portion of the Township, an underserved community that is home to Willow Run Airport and two State highways. This area also features an environmental effects score in the 98th percentile and sensitive populations score in the 82nd percentile². Several public meetings will be held within this area to accommodate the unique needs of residents and stakeholders.

¹ Data from SEMCOG Crash Location Count Map, 2017-2021 (<https://maps.semcoq.org/CrashLocations/>). FARS Data is not available at the Township Level.

² Office of the Environmental Justice Public Advocate, Michigan Department of Environment, Great Lakes, and Energy MIEJScreen Tool (<https://egle.maps.arcgis.com/apps/webappviewer/index.html>)

The scope of the plan will encompass the entire Township, with emphasis areas identified through detailed crash analysis and public engagement. Focus will be placed on the Belleville Road Corridor, the primary north-south artery in the Township, featuring traffic volumes reaching 35,000 vehicles per day. Solutions and countermeasures will be developed to include, but not be limited to, geometric and operational improvements, nonmotorized accommodations, access management, and enforcement strategies that result in a comprehensive plan to achieve safety objectives. Progress will be reported to the public via printed and digital means and incorporated into an on-going safety awareness program based on the recommendations within the Action Plan.

BUDGET SUMMARY

The project budget is \$481,900, with this grant request totaling \$384,900. This will be matched with a commitment of \$97,000. The budget has been developed to achieve an Action Plan that appropriately engages the community and stakeholders to identify issues and highlight safety challenges throughout Van Buren Township, with specific deliverables to identify solutions and countermeasures as shown below. In addition to developing the Action Plan, this budget includes funding for Post-Plan reporting and communications with the public to ensure transparency regarding Action Plan goals and performance.

TASK	Local \$	Federal \$	COST
Traffic Counts	\$7,700		\$7,700
Traffic Crash Data and Analysis		\$53,900	\$53,900
Belleville Road Traffic Modeling and Corridor Study		\$128,900	\$128,900
Identify Priorities and Strategies		\$22,000	\$22,000
Prepare Recommendations		\$18,200	\$18,200
Stakeholder Engagement		\$55,200	\$55,200
Prepare Draft Safety Plan		\$60,700	\$60,700
Prepare Funding Plan		\$9,000	\$9,000
Prepare Final Safety Plan		\$37,000	\$37,000
Project Management	\$16,000		\$16,000
Meetings	\$27,000		\$27,000
Post-Plan Reporting/Communications	\$25,000		\$25,000
Final Plan Assembly/Publishing	\$8,500		\$8,500
Quality Control	\$5,600		\$5,600
Township Administration*	\$7,200		\$7,200
TOTAL			\$481,900

*In-Kind

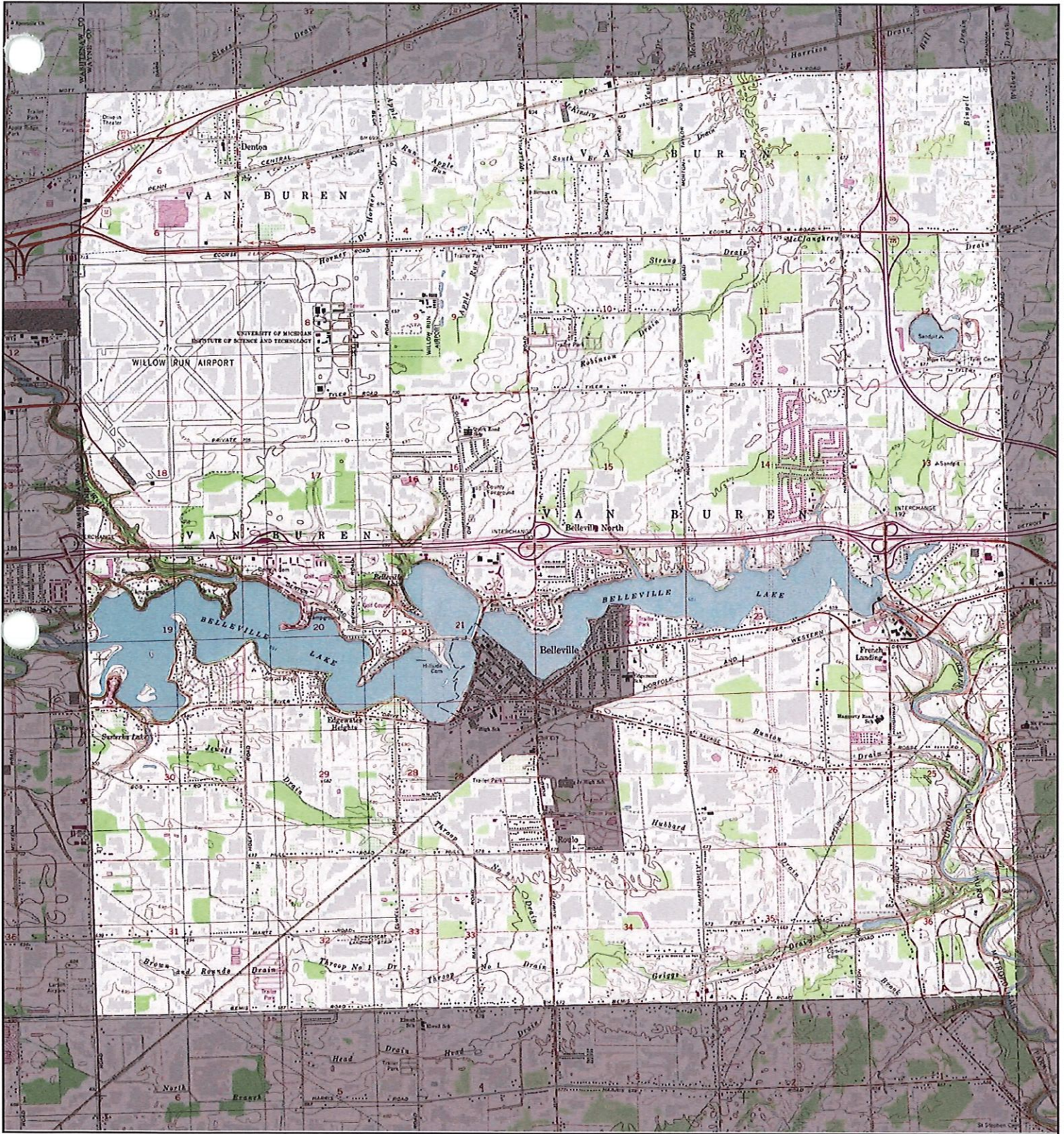


VAN BUREN TOWNSHIP, MICHIGAN

LOCATION

SAFE STREETS AND ROADS FOR ALL ACTION PLAN GRANT APPLICATION



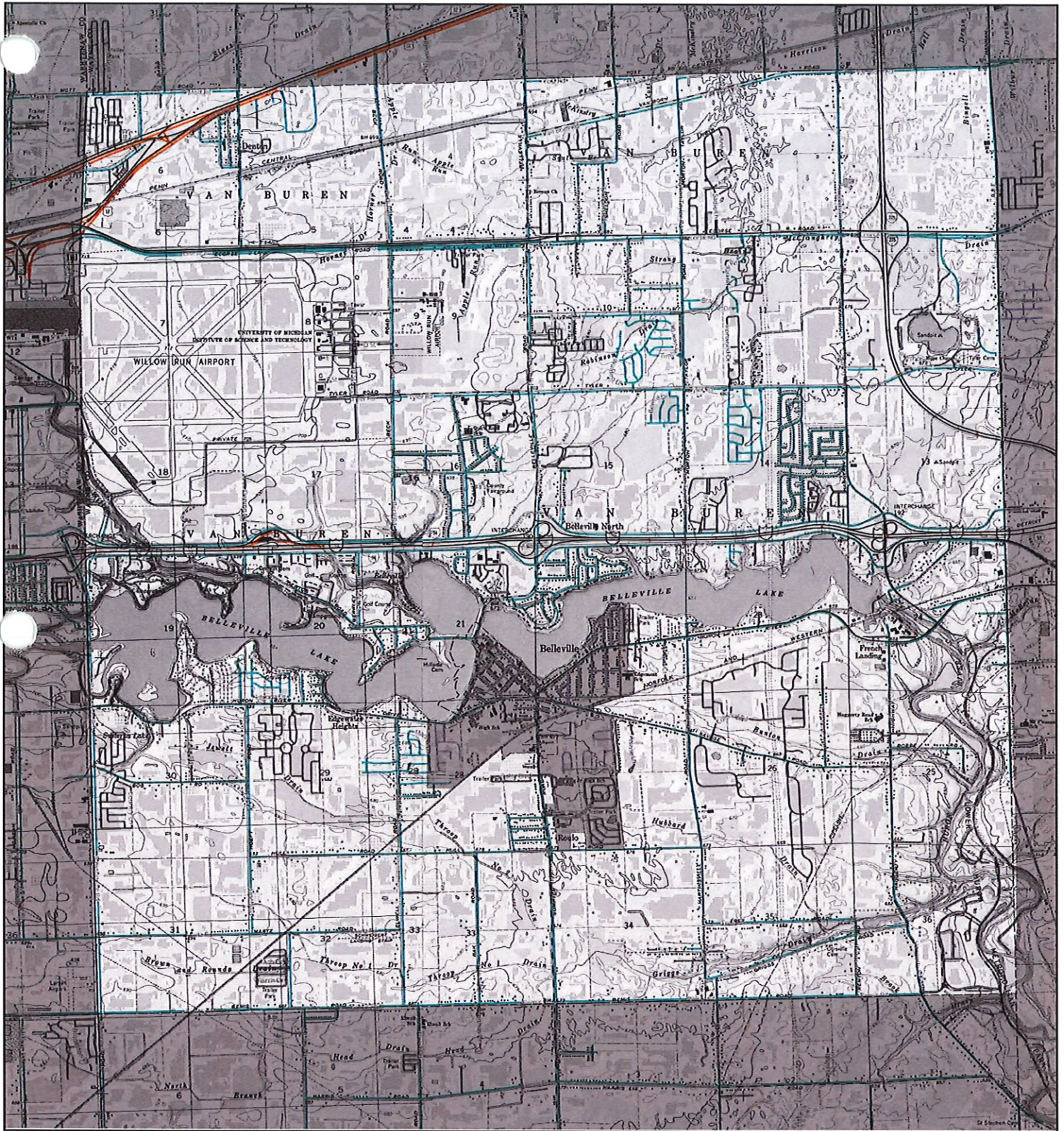


VAN BUREN TOWNSHIP, MICHIGAN

MUNICIPAL BOUNDARIES

SAFE STREETS AND ROADS FOR ALL ACTION PLAN GRANT APPLICATION





VAN BUREN TOWNSHIP, MICHIGAN

ARTERIALS, COLLECTORS, AND LOCAL ROADS

SAFE STREETS AND ROADS FOR ALL ACTION PLAN GRANT APPLICATION



SCOPE OF WORK

Work Statement

Wade Trim will utilize the methodology as identified by the Federal Highway Administration (FHWA) Local Road Safety Plans approach to develop a safety plan for the Van Buren Township. The approach, outlined in this proposal will lead to agency coordination, strategy, and specific recommendations for safety solutions, for use by governmental officials and planners to result in an ongoing developmental review and evaluation process. By building relationships among the local agencies and stakeholders, we have found that consensus can be reached among those participating which will result in techniques that can be implemented by the transportation network planning and governmental officials.

Project Tasks

Use Safety Data and Determine Emphasis Areas

Crash data and other information gathered in this task will be obtained from Traffic Improvement Association Traffic Crash Analysis Tool (TCAT), previous consultant studies, etc. This information will quantify the existing state of the township corridors and become the basis for analysis of existing problems, and the development of improvement options. It also forms the basis from which to determine the impact of future changes in the corridors and provides the material for presentation and discussion at the program coordination meetings.

This effort will be accomplished through the tasks described below.

Crash Data – The crash data will be obtained from the TCAT TIA website and will be used to identify specific operational and safety concerns in the township, some of which will require further analysis. The methodology for identifying the operational and safety problems will include comparison of crash statistics with regional peer data. Conflicts that are related to land use patterns in the corridor will be specifically noted and addressed.

Crash data will be obtained for the entire Van Buren Township, including minor streets to major corridors and the intersecting roads for the area of influence of the intersections. Crash data for the most recent five-year period will be obtained. When specific issues must be examined in further detail, UD-10 accident reports will be obtained from TCAT for severe crashes including Type A Incapacitating and Fatal crashes. Use of actual UD-10 reports will allow us to analyze the crashes without concern about the location miscoding and other errors present in the State and other crash databases. The crash data will be grouped by segments of the corridor with similar geometric and land use features to help identify the impacts these features may have on the crash patterns. We also plan to conduct an initial office review of the information, follow up with a field review of high-priority safety locations, and coordinate with the local program team. Other information such as as-built drawings or previous study reports will be obtained where applicable and reviewed in the field to identify the safety problem and select appropriate corrective treatments for each identified safety problem. Observations of driver and non-motorized behaviors will be made to provide supporting evidence of the safety problem. As part of the field review, photographs, rough measurements, etc. and notes will be made of the findings and site deficiencies.

The goal of the Van Buren Township safety study is to identify traffic and safety deficiencies and evaluate road improvements to improve safety while accommodating growth already occurring in the area for existing and future 20-year horizon conditions. Township-wide crash analyses can be used to identify safety issues that can be addressed through mitigation, and assist in developing plans to allocate funds for implementing safety improvements, traffic safety programs and applying for grants. In comparing township traffic safety statistics to other peer locations, it is helpful to determine where high-priority areas are located. A comprehensive analysis of crash data for the township will be developed, with an evaluation of collisions by intersections and corridors, crash density, and other crash elements and statistics.

Belleville Road Corridor Emphasis Area

One emphasis corridor has already been identified by the Van Buren Township – Belleville Road from Ecorse Road to the Belleville Lake bridge, and a detailed safety and operational analysis will be included in the scope of the project for this segment of roadway. The section of Belleville Road between the I-94 ramps has been identified as a SEMCOG high-priority location, as shown in the following figure.



Traffic volumes are a key factor in evaluating recommendations for potential improvements. As part of the study, vehicle, pedestrian and bicycle counts will be taken when school is in session at for the morning peak of 7:00 a.m. to 9:00 a.m., midday peak of 11:00 a.m. to 1:00 p.m., and afternoon peak of 2:00 p.m. to 6:00 p.m. at the following locations:

- WB Ecorse Rd
- EB Ecorse Rd
- Tyler Rd
- Menards driveway
- Westlake Cir
- N I-94 Service Dr
- WB I-94 exit ramp
- EB I-94 ramps
- S I-94 Service Dr

In the preparation of this proposal, a preliminary crash analysis was conducted to identify major safety and geometric design deficiencies. Collision data for road segments and intersections was obtained from the Traffic Improvement Association TCAT website for the five-year period of 2017 through 2021. This period was used to account for the unprecedented impacts to traffic due to the COVID-19 Pandemic. During the five-year period, 732 crashes were recorded on Belleville Road from Ecorse Road to the Belleville Lake bridge. Shown in the table below, 157 crashes (21.4 percent) involved personal injury to one or more persons involved. Five fatal crashes were reported over the five-year period. The most predominant collision types were rear end crashes (42.1 percent), angle crashes (30.1 percent) and sideswipe – same direction crashes (13.9 percent).

Crash Type	No.	Percent
Rear End	308	42.1
Angle	220	30.1
Sideswipe Same	102	13.9
Single Vehicle	29	4.0
Head On Left Turn	29	4.0
Backing	12	1.6
Sideswipe Opposite	10	1.4

Head On	9	1.2
Deer	5	0.7
Pedestrian	4	0.6
Bicycle	3	0.4
Other	1	0.1
Total Crashes	732	
Crash Severity	No.	Percent
Injury	157	21.4
Fatal	5	0.7
Lighting/Weather		
Dark-Ltd/Dark-Unltd	157	21.4
Wet, Snowy or Icy	58	7.9

Most of the crashes along the corridor occurred at the signalized and unsignalized intersections south of Tyler Road, where ADT was 21,600 vehicles per day in 2021. The section of Belleville Road between the westbound I-94 ramps and the North Service Drive experienced the highest frequency, with 34 crashes per year. The section of Belleville Road between the eastbound I-94 ramps and the South Service Drive experienced 18.4 crashes per year. Further investigation into the causal factors of the higher frequency of crashes will be performed as part of the design as peer group averages taken from the MDOT Michigan Intersection Guide, July 2008, indicate that most peer group number of crashes per year and percentages at these intersections, and the signalized intersection at Westlake Circle have greater crash frequencies when compared to similar peer group intersections.

An important area of concern is the number of fatal crashes. Of the five fatal crashes reported, two of the crashes were related to speeding, and another was due to an angle crash during a left-turn movement. The other two crashes were reported as head on collisions. The frequency of rear end crashes throughout the project may indicate a need to provide a right-turn lane to separate slow moving right-turn vehicles from the higher speed through vehicles.

Another area of concern regarding safety on the corridor is with the pedestrian- and bicycle-related crashes. Although representing a smaller portion of the crashes, these collisions are of particular concern due to the vulnerability of pedestrians/cyclists. The addition of simple improvements to provide for the safety of pedestrians can be achieved by reducing vehicle and pedestrian interactions.

Identify Stakeholders

The Van Buren Township Safe Streets for All Plan requires a project approach that is inclusive and based upon collaboration, which involves discovering different views and perspectives, sharing goals, building new shared understandings, and creating collective values. A safety champion and working group will need to be identified to advocate for success of the project. In collaboration, there is a need for open dialogue in which people construct a shared understanding of the challenges, their root causes, available remedies, and actions to take. This approach helps participants to outline their fears regarding change and address them head-on.

The goal of the program coordination is to disseminate information about this project to achieve the following:

- Attract a high level of public participation from all affected groups
- Generate a consistent, high level of awareness and understanding among all
- Bring the widest array of opinions and ideas to the table
- Assure public officials that their constituents have had an opportunity to contribute
- Assure the success of all formal approvals

To accomplish these objectives, the Project Team will develop communications tools to reach:

- Members of the Steering Committees
- Township council and Township Board members and professional staff (e.g. township manager, council)

- Planning Commissioners and professional staff
- County Commissioners and professional staff
- Road Commission
- Property owners
- Business owners
- Commuters and passers-by
- Citizens
- News media

Choose Proven Solutions

Geometric and Operational Analyses – A capacity analysis will be conducted to examine existing and future capacity of the roadway and guidance on intersection alternatives. Traffic modeling will be performed for the Belleville Road study to determine existing capacity Level of Service and control delay estimates, as well as quantify traffic performance measures (travel time, delay, fuel consumed, vehicle emissions, etc.) for existing and future conditions, with and without safety improvements. This task will include development of the Synchro models for the existing conditions including AM, off peak, and PM peak periods to be utilized in the capacity and geometric analysis on the Belleville Road study corridor. After preparing Synchro models for the existing conditions at AM, off peak, and PM peak periods, the models will be used to analyze capacity along the roadway and evaluate other traffic engineering features as described below.

Wade Trim will obtain current signal, geometric, and volume data to develop the existing models to examine traffic operations of current year 2022 and future year 2042. The results of the capacity analysis, in addition to a crash analysis using the Highway Safety Manual, will be utilized to determine design features needed to address geometric deficiencies contributing to safety issues that should be corrected. Wade Trim will generate a technical report describing existing conditions, possible alternatives, and recommended solutions.

A major component of this analysis will include an in-depth analysis of roadway geometric and capacity operations for the corridor and study intersections. Specifically, intersection studies at the high-priority safety area of Belleville Road and I-94 freeway ramps will be conducted. Alternatives will be evaluated including but not limited to traffic calming including lane reductions, medians with pedestrian refuge islands, existing intersection control and turn lanes, signal timing adjustments and pedestrian crossing safety enhancements. An analysis of the existing nonmotorized travel is of importance in this area where school-age children walk and bike to school. Pedestrian safety is critical as the school is situated along Belleville Road where speeding has been observed, coupled with limited opportunity for pedestrians to cross at controlled locations across Belleville Road. MDOT guidelines, as well as NCHRP Report 562 Improving Pedestrian Safety at Unsignalized Crossings will be used for determining safe routes and enhancements, such as high visibility markings and signing, or active treatments such as Rectangular Rapid Flashing Beacons (RRFB) and HAWK signals.

Nonmotorized Accommodations Study – Wade Trim will conduct a review of the existing nonmotorized travel conditions at intersections and crossings on the corridor. A review of sidewalk connectivity and ADA accessibility along Belleville Road, as well as impacts due to preferred alternative recommendations at study intersections will be studied within the project limits. Field reviews and pedestrian counts will be taken at all study intersections. Guidelines including the NCHRP Report 562 Improving Pedestrian Safety at Unsignalized Crossings worksheet, Guidance for Installation of Pedestrian Crosswalks on Michigan State Trunkline Highways, and MDOT's Safety Effects of Marked Vs. Unmarked Crosswalks at Uncontrolled Locations will be used for determining safe paths for crossing major and minor streets, and intersections crossing treatments. These may include enhancements such as high visibility markings and signing, or active treatments such as Rectangular Rapid Flashing Beacons (RRFB) and HAWK signals. The findings will be summarized in the report, along with recommendations for implementation, either as part of future projects, or for incorporation into local ordinances.

Access Management Review – Access management is an important safety element that will be evaluated as part of the safety plan, as access points are a primary source of crashes and congestion. The spacing of driveways and streets is an important element in the planning, design, and operation of roadways. Their location and spacing directly impact the safety and functional integrity of streets and highways. Too many closely spaced street and

driveway intersections have been found to increase conflict points along the roadway and the potential for crashes. Wade Trim's standard design practice is to identify and implement access management opportunities. Land use in the corridor is primarily commercial south of Tyler Road, and there is likely opportunity for managing access. We will examine driveways and either recommend retaining the driveway, closure, consolidation, change the directional flow, or other treatment as deemed appropriate for specific conditions. Wade Trim will provide these access management opportunities along with recommendations for implementation. We will provide a list of access points that need to be discussed with property owners and provide supporting information including alternative access designs to improve safety and operations. Wade Trim's design practice also involves the identification of proposed and ongoing land use changes to ensure that the design meets planned traffic needs of adjacent developments.

Benefit-Cost Evaluation and Road Improvement Plan – Benefit/cost analysis will be conducted and the MDOT Time of Return (TOR) will be used for economic analysis of the alternatives.

Stakeholder Meetings – The project scope includes two stakeholder meetings. The first stakeholder meeting will be conducted at the beginning of the project with limited stakeholders including the Township, Wayne County Roads representatives to give updates on any changes in development. A larger stakeholder meeting (potentially public - to be determined later) will likely be conducted near the final stages of the project with additional interested parties, including the corridor committee.

Develop and Review Illustrative Alternatives - Scoping level conceptual figures and roadway cross sections will be developed for the road improvement plan and stakeholder meetings. Figures will provide enough geometric information to determine whether road improvements are feasible. Collection of survey is not included in the scope for this project.

Perform Safety Analysis - Wade Trim will conduct the crash and safety analysis for the Belleville Road corridor. This work will include analysis of crash history for the corridor along with crash summaries of selected features including signalized intersections, minor intersections, driveways, crash summaries for pedestrian, bicycle collisions, etc. Wade Trim will conduct conflict observations at areas of high crash rates, prepare collision diagrams at select intersections, summarize existing conditions and provide a report of countermeasures and recommendations. We will also prepare any crash analysis as required for design exceptions under this task.

Recommended Safety Improvement Plan – Based on the results of the traffic and safety analyses for existing and future conditions, safety strategies and recommended systemic treatments will be identified and detailed in the safety plan.